Boise | Coeur d'Alene | Pocatello

PERSI

PUBLIC EMPLOYEE RETIREMENT SYSTEM of IDAHO

A Component Unit of the State of Idaho

2018 Comprehensive Annual Financial Report

as of and for

FISCAL YEAR 2018

Ended June 30, 2018

Helping Idaho Public Employees Build a Secure Retirement

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, 2018

This Comprehensive Annual Financial Report was prepared by:

Financial: Alex Simpson, Financial Executive Officer
Kelly Rowlands, Financial Specialist SR
Cecile McMonigle, Financial Specialist PR
Brenda Cronin, Financial Specialist SR, CPA

Investments: Robert M. Maynard, Chief Investment Officer
Richelle Sugiyama, Investment Officer

Administration: Jenny Flint, Public Information Officer

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INTRODUCTORY

SECTION

INTRODUCTORY SECTION

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.

INTRODUCTORY SECTION

C.L. “Butch” Otter, Governor, State of Idaho

RETIREMENT BOARD

Jeff Cilek, Chairman
Term expires July 1, 2020

Celia Gould
Term expires July 1, 2023

Joy Fisher
Term expires July 1, 2019

J. Kirk Sullivan
Term expires July 1, 2021

Park Price
Term expires July 1, 2022

PERSI EXECUTIVE ADMINISTRATIVE STAFF

Donald D. Drum, Executive Director
Michael L. Hampton, Deputy Director
Kelly Cross, Program Manager
Cheryl George, Deputy Attorney General
Robert M. Maynard, Chief Investment Officer
Alex Simpson, Financial Executive Officer
Diane Kaiser, Defined Contribution Plan Prg SP
Larry Sweat, IT Info SVCS Manager
Lisa Conn, Quality Assurance Manager
Casey Hartwig, Member Services Manager

INTRODUCTORY SECTION

PROFESSIONAL CONSULTANTS

Actuary: Milliman, Inc., Seattle, WA

Auditor: Eide Bailly, LLP, Boise, ID

Medical: Managed Medical Review Organization, Novi, MI

Investment:
AEW Capital Management, L.P. Boston, MA
Alban Row Investments, LLC, Mt. Pleasant, SC
Berkadia Commercial Mortgage LLC, Irvine, CA
Callan Associates, LLC, San Francisco, CA
Chartwell Consulting, LLC, Sunapee, NH
Garrett A. Walls, New York, NY
Hamilton Lane Advisors, LLC, Philadelphia, PA
John R. Jenks, Sebastopol, CA
Robert Storer, Juneau, AK

Legal:
Foster Pepper, PLLC, Seattle, WA
Ice Miller, LLP, Indianapolis, IN
Whiteford, Taylor & Preston, LLP, Baltimore, MD

Other:
BCA Publications, Montreal
Bloomberg, New York, New York
Capital Economics LTD, London
CT Corporation, Carol Stream, IL
Empower Retirement, Denver, CO
Yardeni Research Inc, Glen Head, NY

Investment Custodians:
Bank of New York Mellon Asset Servicing, Pittsburgh, PA
Wells Fargo Bank of Idaho, Boise, ID

Investment Managers:
Adelante Capital Management LLC, Oakland, CA
Advent International Corp, Boston, MA
Alliance Bernstein, LP New York, NY
Ascribe Capital, LLC, New York, NY
Apollo Management, LP, New York, NY
BNY Mellon Asset Management N. A., San Francisco, CA
Blackstone Group, LP, New York, NY
BLS Capital, Copenhagen
Brandes Investment Partners, LP, San Diego, CA
Bridgepoint Capital LTD, London
Cascade Affordable Housing, LLC Seattle, WA
Cerberus Capital Management, LP, New York, NY
Clearwater Advisors LLC, Boise, ID
CVC Capital Partners Advisory Co. LTD, Luxembourg
D.B. Fitzpatrick & Co., Inc., Boise, ID
Donald Smith & Co., Inc., New York, NY
Endeavour Capital Partners, LP, Portland, OR
Enhanced Equity Partners, LLC, New York, NY
Epic Ventures, LLC, Salt Lake City, UT
Fiera Capital, Montreal
First Reserve Corporation, Greenwich, CT
Frazier Technology Ventures, LP, Seattle, WA
Galen Management, LLC, Stamford, CT
Genesis Asset Managers, LTD, Channel Islands
Goense Bounds & Partners, LP, Highland Park, IL
Hamilton Lane Advisors, LLC, Santa Clara, CA
Hamilton Lane, GP, Baja Cynwyd, PA
Highway 12 Capital Partners, LLC, Boise, ID
Ida-West Operating Services, Inc., Boise, ID
Income Research Management, Boston, MA
JH Whitney & Co., New Canaan, CT
Kohlberg Kravis Roberts & Co., LP, New York, NY
Kohlberg & Co., Mt Kisco, NY
Leonard Green & Partners, LP, Los Angeles, CA
Lindsay Goldberg, LLC, New York, NY
Longview Partners, LP, Channel Islands
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, New York, NY
Silver Lake Partners V., Menlo Park, CA
State Street Global Advisors, Boston, MA
TPG Capital, LP, San Francisco, CA
The Gores Group, LLC, Beverly Hills, CA
Veritas Capital, LP New York, NY
Walter Scott & Partners LTD, Edinburgh
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 80-81 in the Investment Section of this report. Fees and commissions are found on page 85-86.

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, 2017

Christopher P. Morrill

Executive Director/CEO

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2018

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

INTRODUCTORY SECTION

ORGANIZATIONAL CHART (As of June 30, 2018)

Retirement Board

Donald D. Drum
Executive Director

Michael L. Hampton
Deputy Director

Kathy Adams
Administrative Assistant

Cheryl George
Deputy Attorney General

Vacant
Purchasing Agent

Lena Rupp
Management Assistant

Robert M. Maynard
Chief Investment Officer

Richelle Sugiyama
Investment Officer

Rose Marie Sawicki
Administrative Assistant

Investment Managers
See Investment Section for a list (pages 82-83)

Kelly Cross
Program Manager

Diane Kaiser
Defined Contribution Plan Prg SP

Maria Quitugua
Training Specialist

Jenny Flint
Public Information Officer

Brian Hattingh
Training Specialist

Kody Krigbaum
Training Specialist

Kelsey White
Training Specialist

Alex Simpson
Financial Executive Officer

Eric Carpenter
Financial Specialist PR

Brenda Cronin
Financial Specialist SR

Timothy Davis
Financial Technician

Tess Myers
Administrative Assistant

Cecile McMonigle
Financial Specialist PR

Barbara Sargent
Financial Technician

Bev Ross
Financial Technician

Kelly Rowlands
Financial Specialist SR

Barbara Weirick
Financial Techician

Sharon Simon
Financial Support Tech.

Adel Stacy
Financial Specialist SR

Ellise Fowler
Financial Technician

Mei Liu
Financial Techician

Lisa Conn
Quality Assurance Manager

Catherine Atchison
Business Analyst

Vacant
Retirement Specialist

Brett Harper
Retirement Specialist

Dusty Schild
Retirement Specialist

Lynette Headings
Retirement Specialist

Larry Sweat
IT Info SVCS Manager

Branden Kennah
IT Resource Manager

Kurtis Leatham
IT Sys Integr. Analyst

Stacy Parr
Web Master

Jason Smith
IT Sys Integr. Analyst, Assoc.

Andrea Fonnesbeck
Project Manager

Kris Colt
IT Info System Tech.

Darren Trumbull
IT Sys Integr. Analyst, SR

Timothy Wolfrum
Technical Writer

Casey Hartwig
Member Services Manager

Shasta Wardle
Office Services Supervisor

Andrea Colglazier
Customer Service Rep.

Debera Anderson
Technical Records Specialist

Teresa Froehlke
Customer Service Rep.

Sherry Slocum
Technical Records Specialist

Janet Cole
Office Specialist

Jess Simonds
Office Services Supervisor

Bonnie Chaffin
Customer Service Rep.

April Bias-Fourstar
Retirement Specialist

Karen Oster
Customer Service Rep.

Tina Duran
Technical Records Specialist

Sheila Summers
Retirement Specialist

Wayne Millar
Technical Records Specialist

Stephen Mytrysak
Technical Records Specialist

Mary Holleron
Technical Records Specialist

Cathy Anderews
Technical Records Specialist

Linda Parker
Retirement Specialist

Cathy Miles
Retirement Specialist

Sheena Olszewski
Technical Records Specialist

Eliza Storms
Technical Records Specialist

Ginger Bradburn
Customer Service Rep. (temp)

INTRODUCTORY SECTION

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 2018 (FY 2018), these costs totaled $9,304,635 including $1,510,528 depreciation and amortization, which are not cash expenditures and, therefore, not appropriated.

The majority of the System's 68 staff works in the headquarters office located at 607 North 8th Street, Boise, Idaho. There are two staff members in the Coeur d'Alene office, and two 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, 2018, 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, 2018.

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, 2018, 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, 2018: for each year of service, the monthly minimum benefit allowance was $25.90 ($31.08) to a maximum of the member's accrued benefit. Effective March 1, 2018 the monthly minimum benefit allowance was $26.39 ($31.68).

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.
3. 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 FY18 was 11.03% from January 1 through June 30, 2018 (1.29% from July 1 through December 31, 2017) 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 45th 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, 2018 was up to 1.9%.

INTRODUCTORY SECTION

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INTRODUCTORY SECTION

HELPING YOU BUILD A SECURE RETIREMENT

Governor
C. L. "Butch" Otter

Retirement Board
Jeff Cilek, Chairman
J. Kirk Sullivan
Joy Fisher
Celia R. Gould
Park Price

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 8th 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

November 21, 2018

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, 2018 (FY 2018). 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, 2017. This was the 27th 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 16th 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.

INTRODUCTORY SECTION

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 "13th 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 PERSI Choice 401(k) 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 53rd 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 2018, the number of active PERSI members increased from 70,073 to 71,112. The number of retired members or annuitants receiving monthly allowances increased from 45,468 to 46,907. The number of inactive members who have not been paid a separation benefit increased from 34,151 to 37,588. Of these inactive members, 13,133 have achieved vested eligibility. Total membership in PERSI increased from 149,692 to 155,607 during the fiscal year. There are currently 797 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, 2018, 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 2018 adequately safeguard the assets and provide reasonable assurance regarding the proper recording of financial transactions.

INTRODUCTORY SECTION

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 $2,160,839,022 for all pension funds during the fiscal year ended June 30, 2018.

ADDITIONS:	
Contributions	$ 706,688,978
Transfers/Rollovers In	14,179,305
INVESTMENT INCOME:	
Net Appreciation (Depreciation) in Fair Value of Investments	1,106,003,154
Interest, Dividends and Other Investment Income	383,654,597
Less: Investment Expenses	(49,736,557)
Net Investment Income	1,439,921,194
OTHER INCOME	49,545
Total Additions	$ 2,160,839,022

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 2018 are as follows:

DEDUCTIONS:	
Benefits and Refunds	$ 994,117,104
Administrative Expenses	9,304,635
Total Deductions	$ 1,003,421,739

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, 2018. Significant actuarial assumptions used include: a gross investment return rate of present and future assets of 7.05% compounded annually, (7.0% plus 0.05% 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, 2018, the unfunded actuarial liability (UAAL) for the PERSI Base Plan, on a current contribution basis, was $1.6 billion with an amortization period of 16.6 years, which is less than the 25 year maximum allowed by statute. The UAAL differs from the Net Pension Liability (NPL) in that the long-term expected rate of return for the UAAL was 7.0%, 7.05% net of 0.05% 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 7.05%.

	PERSI Base Plan 2018	FRF 2018	JRF 2018
Total pension liability	$ 17,749,847,910	$ 281,878,396	$ 106,756,695
Plan fiduciary net position	16,274,830,459	395,048,552	88071493
Employers' net pension liability (asset)	$ 1,475,017,451	$ (113,170,156)	$ 18,685,202
Plan fiduciary net position as a percentage of total pension liability	91.69%	140.15%	82.50%

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 2018 was 8.79% gross, 8.47% net of investment expenses, and 8.41% 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 Idaho Code and the Idaho Uniform Prudent Investor Act, in Sections 68-501 through 68-514 of the Idaho Code 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 8.5% net of all expenses for Fiscal Year 2018. 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 2018 was 58% domestic and global equity, 15% 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, 2018, the PERSI Base Plan had an amortization period of 16.6 years and a funding ratio of 91.2% of the present value of the projected benefits earned by employees. The closed Firefighters' Retirement Fund is fully funded as of the July 1, 2017 valuation. The Judges' Retirement Fund had a funding ratio of 82.12% and amortization period of 11.0 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 2018, an independent research firm (CEM) rated PERSI's business practices against nine similar public retirement systems. Our administrative cost per member was $82. This was $36 below the peer average of $119. This data reflects PERSI's commitment and dedication to providing personalized customer service while controlling costs. Our attention to customer service has always been one of our cornerstones, and PERSI leadership continues to believe personalized customer service is key to all generations of members. We cannot afford to have any generation ignore and/or be uninformed about the benefits of PERSI.

Communication between PERSI and our employers, members, and retirees remains a significant focal point. We continue to see great success from our new pension administration system which is currently the largest project ever undertaken by PERSI. Arrivos has greatly reduced inconsistencies in payroll reporting and improved the quality of member data used by PERSI. Every employer uses Arrivos to report payroll information to PERSI. Our Employer Service Center works closely with employers, to assist in answering matters with the new system.

PERSI's educational outreach remains 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 workshops explaining the value of the PERSI benefit. We are committed to providing on-location workshops for members in every county of Idaho in 2018, and meeting that goal. Technology has enhanced our outreach, but will not replace our in-person efforts that have proven to be very successful. We continue to evaluate our methods but only utilize automation if we believe it provides increased value.

We are very pleased PERSI broke through the $18 billion ceiling for the first time earlier this year, but by the end of June, the fund was below this historic marker. We are working hard to maintain and address challenges as they emerge. We are sincerely grateful to the Idaho Legislature for their wisdom during times of modest market returns. Idaho statute has measures in place that keep required

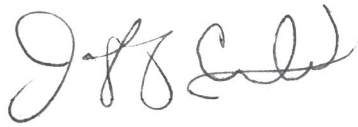
contributions to the fund set at a rate that will sustain the fund during less than stellar market years. Due to this statute, in October 2017, PERSI's Board voted and recommended a 1% total contribution rate increase becoming effective July 1, 2019. During this past October (2018) the Board had the choice to postpone or implement this rate increase. The Board chose to implement the contribution rate increase due to market volatility. This decision will provide continued stability and strengthen the fund.

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,



Jeff Cilek, Chairman

Donald D. Drum, Executive Director

Alex Simpson, Financial Executive Officer

INTRODUCTORY SECTION

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FINANCIAL SECTION

FINANCIAL SECTION

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 statements of fiduciary net position as of June 30, 2018, and the related statements of changes in fiduciary net position, for the year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2018, and the changes in fiduciary net position of the Plan 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, 2017 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated October 10, 2017. In our opinion, the summarized comparative information presented herein as of and for the year ended June 30, 2017 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 20-27 and 59-71 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 an opinion 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 additional 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 10, 2018, 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 solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

Eide Bailly LLP

Boise, Idaho
October 10, 2018

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

MANAGEMENT'S DISCUSSION AND ANALYSIS
YEAR ENDED JUNE 30, 2018

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, 2018. The June 30, 2017 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 increased $1.2 billion during Fiscal Year 2018 and increased $1.6 billion during the Fiscal Year 2017. The change in the defined benefit plans reflects the total of contributions received and an investment return less benefits paid and administrative expenses. Changes in net position for the years ended June 30, 2018 and 2017 were as follows:

	2018	2017
PERSI Base Plan	$ 979,954,603	$ 1,415,239,322
FRF	19,870,669	29,608,734
JRF	5,135,464	7,487,390
PERSI Choice Plan 414(k)	499,423	2,317,049
PERSI Choice Plan 401(k)	102,303,623	112,936,999
Sick leave - state	19,762,637	23,600,175
Sick leave - schools	29,890,864	34,538,302
Total increase (decrease) in plan net position	$ 1,157,417,283	$ 1,625,727,971

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, 2018 and 2017, 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.

	2018	2017
PERSI Defined Benefit Plans	8.5%	12.3%
Sick Leave Insurance Reserve Fund	9.4%	13.3%

- All of the plans experienced investment gains in Fiscal Year 2018 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, 2018 and 2017, was $1.4 billion and $1.9 billion, respectively.

	2018	2017
PERSI Base Plan	$ 1,285,462,023	$ 1,695,891,750
FRF	31,124,311	41,488,825
JRF	6,930,224	9,152,903
PERSI Choice Plan 414(k)	3,720,701	6,091,087
PERSI Choice Plan 401(k)	68,824,086	83,229,064
Sick leave - state	17,315,690	21,515,574
Sick leave - schools	26,544,159	32,991,024
Total increase in net investment income	$ 1,439,921,194	$ 1,890,360,227

- As of June 30, 2018 and 2017, the net pension liability (asset) was as follows:

	PERSI Base Plan 2018	**FRF 2018**	**JRF 2018**
Total pension liability	$ 17,749,847,910	$ 281,878,396	$ 106,756,695
Plan fiduciary net position	16,274,830,459	395,048,552	88,071,493
Employers' net pension liability (asset)	$ 1,475,017,451	$ (113,170,156)	$ 18,685,202
Plan fiduciary net position as a percentage of total pension liability	91.69%	140.15%	82.50%

	PERSI Base Plan 2017	**FRF 2017**	**JRF 2017**
Total pension liability	$ 16,868,510,591	$ 289,382,253	$ 103,556,547
Plan fiduciary net position	15,296,682,365	375,177,883	82,936,029
Employers' net pension liability (asset)	$ 1,571,828,226	$ (85,795,630)	$ 20,620,518
Plan fiduciary net position as a percentage of total pension liability	90.68%	129.65%	80.09%

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.

SICK LEAVE INSURANCE RESERVE FUND

State Members - OPEB

	2018	2017
Total OPEB liability	$ 91,490,186	$ 91,367,986
Plan fiduciary net position	$ 206,260,247	$ 186,497,610
Employers' net OPEB liability (asset)	$ (114,770,061)	$ (95,129,624)
Plan fiduciary net position as a percentage of total OPEB liability (asset)	225.4%	204.1%

School Members - OPEB

	2018	2017
Total OPEB liability	$ 232,418,359	$ 208,709,518
Plan fiduciary net position	$ 315,363,310	$ 285,472,446
Employers' net OPEB liability (asset)	$ (82,944,951)	$ (76,762,928)
Plan fiduciary net position as a percentage of total OPEB liability (asset)	135.7%	136.8%

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 fiduciary net position as of June 30, 2018 and 2017 indicates the fiduciary net position available to pay future benefits and gives a snapshot at a particular point in time. The statements of changes in fiduciary net position for the years ended June 30, 2018 and 2017 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 statements 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 32-58 of this report.

Required Supplementary Information — The required supplementary information consists of the Schedule of Net Pension Liability (Asset), Schedule of Changes in Net Pension Liability (Asset), Schedule of Contributions, Schedule of Investment Returns and related notes concerning the methods and assumptions used in calculations of actuarially determined contributions. In addition, required supplementary information includes Schedule of Changes in Net Other Post Employment Benefit (OPEB) Liability (Asset), Schedule of Net OPEB Liability (Asset), Schedule of Contributions – OPEB, Schedule of Investment Returns – Sick Leave Insurance Reserve Fund as well as related notes concerning the methods and assumptions used in the calculation of the OPEB Liability (Asset).

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 the 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, 2018	As of June 30, 2017	$ Change	% Change
Assets:				
Cash and cash equivalents	$ 8,777,194	$ 3,028,145	$ 5,749,049	189.9%
Investments sold receivable	73,538,992	73,087,813	451,179	0.6%
Other receivables	59,737,983	52,042,118	7,695,865	14.8%
Investments - at fair value	16,763,789,221	15,713,578,491	1,050,210,730	6.7%
Prepaid retiree benefits	72,871,636	68,432,153	4,439,483	6.5%
Capital assets - net of accumulative depreciation	11,493,186	11,981,951	(488,765)	-4.1%
Due from other plans	16,264	14,465	1,799	12.4%
Total assets	16,990,224,476	15,922,165,136	1,068,059,340	6.7%
Liabilities:				
Investment purchased payable	176,757,520	114,075,579	62,681,941	54.9%
Benefits and refunds payable	528,872	385,133	143,739	37.3%
Other liabilities	13,917,573	13,644,649	272,924	2.0%
Total liabilities	191,203,965	128,105,361	63,098,604	49.3%
Net Position:				
Net investment in capital assets	11,493,186	11,981,951	(488,765)	-4.1%
Amounts held in trust	16,787,527,325	15,782,077,824	1,005,449,501	6.4%
Net Position	$ 16,799,020,511	$ 15,794,059,775	$ 1,004,960,736	6.4%

The fair value of investments increased due to the combination of contributions received and an investment return of 8.47% (net of investment expenses) exceeding 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 statements 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

Investment income for the Fiscal Year 2018 was $1.3 billion as a result of the gross investment return of 8.79%. Contributions and other additions totaled $626.0 million. Total additions including investment income and contributions totaled $2.0 billion. Additions were more than benefits and administrative expenses paid of $944.0 million by $1.0 billion for 2018. Investment income for the Fiscal Year 2017 was $1.7 billion; the gross investment return was 12.67%. Contributions and other additions totaled $605 million resulting in total additions of $2.3 billion. The benefits and administrative expenses paid of $900 million were more than additions by $1.4 billion for 2017.

For Fiscal Year 2018, 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 2018 was 1.9% based on date of retirement compared to 2017 which was 1.1% based on date of retirement.

	As of June 30, 2018	As of June 30, 2017	$ Change	% Change
Additions:				
Member contributions	$ 244,669,826	$ 237,667,445	$ 7,002,381	2.9%
Employer contributions	381,124,335	367,766,975	13,357,360	3.6%
Investment income	1,323,516,558	1,746,533,478	(423,016,920)	-24.2%
Other additions	46,327	34,312	12,015	35.0%
Total additions	1,949,357,046	2,352,002,210	(402,645,164)	-17.1%
Deductions:				
Benefits and refunds paid	935,339,193	890,739,571	44,599,622	5.0%
Adminsitrative expenses	9,057,117	8,927,193	129,924	1.5%
Total deductions	944,396,310	899,666,764	44,729,546	5.0%
Changes in net position	$ 1,004,960,736	$ 1,452,335,446	$ (447,374,710)	-30.8%

Defined Contribution Pension Trust Funds

During Fiscal Year 2018, 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 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

	As of June 30, 2018	As of June 30, 2017	$ Change	% Change
Assets:				
Cash	$ 834,387	$ 462,604	$ 371,783	80.4%
Short-term investments	1,752,508	1,405,735	346,773	24.7%
Investments-at fair value	932,511,016	831,098,684	101,412,332	12.2%
Receivables	3,485,546	2,813,457	672,089	23.9%
Total assets	938,583,457	835,780,480	102,802,977	12.3%
Liabilities				
Other liabilities	231,941	232,010	(69)	0.0%
Net Position	$ 938,351,516	$ 835,548,470	$ 102,803,046	12.3%

Net position increased from Fiscal Year 2017 to Fiscal Year 2018. 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, administrative expenses payable and stale dated checks payable.

Defined Contribution Pension Trust Funds Changes in Net Position

	As of June 30, 2018	As of June 30, 2017	$ Change	% Change
Additions:				
Member contributions	$ 52,141,131	$ 48,333,290	$ 3,807,841	7.9%
Employer contributions	5,993,209	5,475,485	517,724	9.5%
Transfers and rollovers in	14,179,305	14,836,646	(657,341)	-4.4%
Investment income	72,544,787	89,320,151	(16,775,364)	-18.8%
Total additions	144,858,432	157,965,572	(13,107,140)	-8.3%
Deductions:				
Benefits and refunds paid	41,919,856	42,585,245	(665,389)	-1.6%
Administrative expenses	135,530	126,279	9,251	7.3%
Total deductions	42,055,386	42,711,524	(656,138)	-1.5%
Change in net position	$ 102,803,046	$ 115,254,048	$ (12,451,002)	-10.8%

The change in net position was impacted for the year by an investment return that was less than the previous fiscal year. Member contributions increased due to an increase in salary deferrals. Transfers and rollovers 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.

Other Trust Funds

During Fiscal Year 2018, the System administered two Sick Leave Insurance Reserve Fund trusts. The PERSI Sick Leave Insurance Retirement Fund 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

	As of June 30, 2018	As of June 30, 2017	$ Change	% Change
Assets:				
Cash	$ 75,468	$ 53,684	$ 21,784	40.6%
Investments-at fair value	518,178,512	468,487,335	49,691,177	10.6%
Prepaid insurance premium	1,244,321	1,350,318	(105,997)	-7.8%
Due from other funds	2,173,560	2,123,036	50,524	2.4%
Total assets	521,671,861	472,014,373	49,657,488	10.5%
Liabilities:				
Other liabilities	48,305	44,317	3,988	9.0%
Net Position	$ 521,623,556	$ 471,970,056	$ 49,653,500	10.5%

The net position increased in Fiscal Year 2018 from Fiscal Year 2017 because of positive investment returns and contributions exceeding benefits paid.

Sick Leave Insurance Reserve Funds Changes in Net Position

	As of June 30, 2018	As of June 30, 2017	$ Change	% Change
Additions:				
Employer contributions	$ 22,760,477	$ 21,900,016	$ 860,461	3.9%
Investment income	43,859,849	54,506,598	(10,646,749)	-19.5%
Other additions	3,218	2,217	1,001	45.2%
Total additions	66,623,544	76,408,831	(9,785,287)	-12.8%
Deductions:				
Benefits and refunds paid	16,858,055	18,166,014	(1,307,959)	-7.2%
Administrative expenses	111,988	104,340	7,648	7.3%
Total deductions	16,970,043	18,270,354	(1,300,311)	-7.1%
Change in net position	$ 49,653,501	$ 58,138,477	$ (8,484,976)	-14.6%

The changes in net position reflect a net investment return of 9.4% resulting in $44 million in investment income, compared to $54 million for Fiscal Year 2017. The increase in other additions was due to an 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 as of June 30, 2018 and 2017.

Base Plan	2018	2017
Active participants	71,112	70,073
Vested - Base Plan	42,537	42,347
Non-vested - Base Plan	28,575	27,729
Retirees and beneficiaries	46,907	45,468
Terminated and vested	13,133	12,669

Choice Plan		
Participants	2018	2017
Actively contributing	39,554	39,035
Periodic installment payments	15,359	15,397
	2,319	1,946

Retirees and Beneficiaries (Base Plan)

While the above table reflects changes in active participants, the following table demonstrates the changes in Base Plan retirees and beneficiaries for the Fiscal Year 2018 and 2017.

	2018	2017
Beginning - July 1	45,468	44,181
New Retirements	2,634	2,708
Death of Beneficiary	(1,195)	(1,421)
Ending - June 30	46,907	45,468

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, 2018, PERSI's Base Plan had a net pension liability of $1.5 billion, a decrease over the July 1, 2017 liability of $1.6 billion. The investment return net of all expenses for 2018 was 8.4% compared to the assumed return of 7.0%. The change in net pension liability is due in large part to an improvement 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 Fiscal Year 2018 is 13.9 years which is less than the 25 year maximum allowed by statute.

Since inception, the cumulative funding of the Plan is 60% investment income, 25% employer contributions and 15% 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 Board.

The Board 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.

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

STATEMENTS OF FIDUCIARY NET POSITION
JUNE 30, 2018 WITH COMPARATIVE FINANCIAL INFORMATION FOR JUNE 30, 2017

	Pension Trust Funds				
	PERSI Base Plan	Firefighters' Retirement Fund	Judges' Retirement Fund	PERSI Choice Plan 414(k)	PERSI Choice Plan 401(k)
ASSETS					
Cash and cash equivalents	$ 8,044,423	$ 195,665	$ 537,106	$ 64,545	$ 769,842
Investments—at fair value					
Fixed income investments					
Domestic	3,641,512,553	88,572,856	19,647,320	-	-
International	10,207,720	248,283	55,074	-	-
Idaho commercial mortgages	659,220,203	16,034,276	3,556,739	-	-
Short-term investments	251,238,767	6,110,904	1,355,527	-	1,752,508
Real estate equities	647,331,778	15,745,112	3,492,597	-	-
Equity securities					
Domestic	6,730,472,782	163,705,929	36,313,413	-	-
International	3,350,859,211	81,503,267	18,079,136	-	-
Private equity	989,130,336	24,058,711	5,336,727	-	-
Mutual, collective, unitized funds	-	-	-	58,002,850	874,508,166
Total investments	16,279,973,350	395,979,338	87,836,533	58,002,850	876,260,674
Receivables					
Investments sold	71,424,309	1,729,364	385,319	-	-
Administrative Fee	-	-	-	11,954	146,938
Contributions	3,352,328	62,280	-	-	751,061
Interest and dividends	54,703,743	1,324,517	295,115	147,241	2,428,352
Total receivables	129,480,380	3,116,161	680,434	159,195	3,326,351
Assets used in plan operations - net	11,493,186	-	-	-	-
Due from other plans	16,264	-	-	-	-
Prepaid retiree benefits	72,871,636	-	-	-	-
Total assets	16,501,879,239	399,291,164	89,054,073	58,226,590	880,356,867
LIABILITIES					
Accrued liabilities	11,684,349	3,233	56,431	8,704	206,972
Benefits and refunds payable	516,314	12,558	-	-	-
Due to other plans	2,121,948	51,612	-	1,224	15,041
Investments purchased	171,656,162	4,175,209	926,149	-	-
Total liabilities	185,978,773	4,242,612	982,580	9,928	222,013
NET POSITION					
Net position restricted for OPEB	-	-	-	-	-
Net position restricted for pensions	16,315,900,466	395,048,552	88,071,493	58,216,662	880,134,854
Total net position	$ 16,315,900,466	$ 395,048,552	$ 88,071,493	$ 58,216,662	$ 880,134,854

Continued

See notes to Financial Statements

Other Trust Funds			
Sick Leave Insurance Reserve Fund		Totals	
State	Schools	2018	2017
$ 29,692	$ 45,776	$ 9,687,049	$ 3,544,433
65,156,419	87,336,606	3,902,225,754	3,952,937,724
-	-	10,511,077	10,766,004
-	-	678,811,218	664,997,866
-	-	260,457,706	228,081,552
-	-	666,569,487	625,210,633
111,253,936	180,105,689	7,221,851,749	6,472,578,704
28,648,132	45,677,730	3,524,767,476	3,296,003,620
-	-	1,018,525,774	932,895,458
-	-	932,511,016	831,098,684
205,058,487	313,120,025	18,216,231,257	17,014,570,245
-	-	73,538,992	73,087,813
-	-	158,892	158,475
-	-	4,165,669	4,135,539
-	-	58,898,968	50,561,561
-	-	136,762,521	127,943,388
-	-	11,493,186	11,981,951
844,792	1,328,768	2,189,824	2,137,501
346,339	897,982	74,115,957	69,782,471
206,279,311	315,392,551	18,450,479,795	17,229,959,989
19,064	29,241	12,007,994	11,783,475
-	-	528,872	385,133
-	-	2,189,825	2,137,501
-	-	176,757,520	114,075,579
19,064	29,241	191,484,211	128,381,688
206,260,247	315,363,310	521,623,557	471,970,056
-	-	17,737,372,027	16,629,608,245
$ 206,260,247	$ 315,363,310	$ 18,258,995,584	$ 17,101,578,301

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
YEAR ENDED JUNE 30, 2018 WITH COMPARATIVE FINANCIAL INFORMATION
FOR JUNE 30, 2017

	Pension Trust Funds				
	PERSI Base Plan	Firefighters' Retirement Fund	Judges' Retirement Fund	PERSI Choice Plan 414(k)	PERSI Choice Plan 401(k)
ADDITIONS					
Contributions					
Members	$ 243,950,654	$ 4,368	$ 714,804	$ -	$ 52,141,131
Employers	369,139,113	7,706,226	4,278,996	-	5,993,209
Transfers and rollovers in	-	-	-	-	14,179,305
Total contributions	613,089,767	7,710,594	4,993,800	-	72,313,645
Investment income					
Net appreciation in fair value of investments	976,147,101	23,635,009	5,261,917	3,627,429	53,200,084
Interest, dividends and other investment income	355,328,882	8,603,417	1,910,137	105,637	17,706,524
Less investment expenses	(46,013,960)	(1,114,115)	(241,830)	(12,365)	(2,082,522)
Total investment income - net	1,285,462,023	31,124,311	6,930,224	3,720,701	68,824,086
Other- net	38,380	-	7,947	-	-
Total additions	1,898,590,170	38,834,905	11,931,971	3,720,701	141,137,731
DEDUCTIONS					
Benefits and refunds paid to members and beneficiaries	909,713,232	18,934,403	6,691,558	3,211,082	38,708,774
Administrative expenses	8,922,335	29,833	104,949	10,196	125,334
Total deductions	918,635,567	18,964,236	6,796,507	3,221,278	38,834,108
INCREASE/(DECREASE) IN NET POSITION	979,954,603	19,870,669	5,135,464	499,423	102,303,623
NET POSITION					
Beginning of year	15,335,945,863	375,177,883	82,936,029	57,717,239	777,831,231
End of year	$ 16,315,900,466	$ 395,048,552	$ 88,071,493	$ 58,216,662	$ 880,134,854

Continued

See notes to Financial Statements

Other Trust Funds			
Sick Leave Insurance Reserve Fund		Totals	
State	Schools	2018	2017
$ -	$ -	$ 296,810,957	$ 286,000,735
7,161,239	15,599,238	409,878,021	395,142,476
-	-	14,179,305	14,836,646
7,161,239	15,599,238	720,868,283	695,979,857
17,434,385	26,697,229	1,106,003,154	1,583,820,421
-	-	383,654,597	355,346,980
(118,695)	(153,070)	(49,736,557)	(48,807,174)
17,315,690	26,544,159	1,439,921,194	1,890,360,227
1,270	1,948	49,545	36,529
24,478,199	42,145,345	2,160,839,022	2,586,376,613
4,671,380	12,186,675	994,117,104	951,490,830
44,182	67,806	9,304,635	9,157,812
4,715,562	12,254,481	1,003,421,739	960,648,642
19,762,637	29,890,864	1,157,417,283	1,625,727,971
186,497,610	285,472,446	17,101,578,301	15,475,850,330
$ 206,260,247	$ 315,363,310	$ 18,258,995,584	$ 17,101,578,301

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

NOTES TO FINANCIAL STATEMENTS
YEAR ENDED JUNE 30, 2018

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, which qualify as other postemployment benefits plans (OPEB), 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 Idaho Code. Statutes governing FRF are Title 72, Chapter 14 of the Idaho Code.

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, 2018 and 2017, and the number of participating employer units in the PERSI Base Plan was:

	2018	2017
Cities	155	154
School districts	168	166
Highway and water districts	133	132
State subdivisions	100	98
Counties	44	44
Other	197	189
Total	797	783

As of June 30, 2018 and 2017, the number of benefit recipients and members in the PERSI Base Plan consisted of the following:

	2018	2017
Members:		
Active	71,112	70,073
Terminated and vested	13,133	12,669
Retirees and beneficiaries	46,907	45,468
Total	131,152	128,210

FRF has 22 participating employer units all consisting of fire departments that also participate in PERSI. As of June 30, 2018, there was 1 active member and 506 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, 2018 had 52 active members and 102 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 $3,200,396,203 and $6,178,081, respectively for the year ended June 30, 2018.

Net pension liability asset 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 $146,487.

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, 2018, 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, 2018, was 25.31% which includes the employer excess rate of 13.65% plus the PERSI class 2 firefighter's 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, 2018, 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 11.03% from January 1, 2018 through June 30, 2018 (1.29% from July 1, 2017 through December 31, 2017) compounded monthly per annum, and 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 Idaho Code 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 TRF is a unitized fund comprised of investment accounts of the PERSI Base Plan.

As of June 30, 2018, there were 39,554 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, 2018, there were 21,286 participants with both Choice Plan 401(k) and 414(k) plans. There were 18,268 participants with only Choice Plan 401(k), and 10,142 participants with only Choice Plan 414(k).

Optional Retirement Plan – Certain community colleges and university employees participate in an optional retirement plan (ORP) in accordance with the provisions of Idaho Code 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 community colleges were paid in full as of June 30, 2011.

Sick Leave Insurance Reserve Trust Funds (OPEB) - PERSI administers the Sick Leave Insurance Reserve Fund cost sharing, multiple-employer defined benefit OPEB plans that 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 Sick Leave Insurance Retirement Fund 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 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans.

The Sick Leave Insurance Retirement Fund 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 Sick Leave Insurance Retirement Fund are Idaho Code, Sections 67-5333, 33-1216, 59-1365, and 33-1228.

The Sick Leave Insurance Retirement Fund is a fund that exists for the payment of unused sick leave benefits in the form of insurance premiums for state 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 OPEB liability, respectively, through contribution rate adjustments.

Membership in the Sick Leave Insurance Fund as of June 30, 2018 valuation.

	State	School
Members:		
Active	21,995	32,276
Retirees and beneficiaries	4,467	6,186
Total	26,462	38,462

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, 2018.

Contribution percentages are based on the number of days of paid sick leave earned during the contract year. 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,*
- GASB Statement No. 72, *Fair Value Measurement and Application,*
- GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,*

- GASB Statement No. 76, *The Hierarchy of Generally Accepted Accounting Principles for State and Local Government,*
- GASB Statement No. 82, *Pension Issues,*
- GASB Statement No. 85, *Omnibus 2017*

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 6.2% of total investments. PERSI's real estate and commercial mortgage investments are 4.0% and 4.1%, respectively of total investments.

Investment expenses presented within the statements 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 Statements of Plan Net Position and the Statements 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 2017) as of June 30, 2018:

Asset Class	
Fixed Income	30%
US/Global Equity	55%
International Equity	15%
Cash	0%
Total	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, 2017, from which the summarized information was derived.

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 Idaho Code 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	$	8,585,815
FDIC insured/collateralized		1,101,234
Uninsured and uncollateralized		-
Total	$	9,687,049

B. Investments

Investments of the pension trust funds are reported at fair value. See Note 2 for more details. The Board 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 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 Sick Leave Insurance Retirement Fund or other non-TRF Choice Plan options. Based on the assets that are being excluded, they do not apply to these disclosures thus is appropriate to exclude.

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

Investments at fair value as of June 30, 2018, are as follows:

Domestic fixed income	$	3,749,732,729
Co-mingled domestic fixed income (Sick Leave Insurance Reserve Fund)		152,493,025
International fixed income		10,511,077
Idaho commercial mortgages		678,811,218
Short-term investments		260,457,706
Real estate		666,569,487
Domestic equities		6,930,492,124
Co-mingled domestic equity (Sick Leave Insurance Reserve Fund)		291,359,625
International equities		3,450,441,614
Co-mingled international equity (Sick Leave Insurance Reserve Fund)		74,325,862
Private equity		1,018,525,774
Mutual, collective, and unitized funds		932,511,016
Total Investments	$	18,216,231,257

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 position.

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 investment 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, 2018, the System had futures contracts with a fair value of $793,819.28 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, 2018, the System had the following net futures contracts exposure:

FUTURES	Exposure covered by contract
Cash and Cash Equivalents	
90 Day Eurodollar	$ 197,402,150
Australian Dollar Foreign Currency	(1,035,720)
British Pound Foreign Currency	(1,158,150)
Canadian Dollar Foreign Currency	3,655,680
Euro Foreign Currency	5,721,544
Fed Fund 30d	(202,306,183)
Japanese Yen Foreign Currency	2,040,188
Mexican Peso Foreign Currency	7,605,630
Total Cash and Cash Equivalents	11,925,138
Fixed Income	
US 5yr Treasury Note	206,669,665
Australian 10yr Bond	(191,158)
Euro BOBL	462,945
Euro-BTP	12,776,079
Euro-Bund	(50,103,307)
Euro-BUXL 30yr Bond	(1,037,368)
Euro-Oat	(360,866)
Japan 10yr Bond	(6,809,010)
US 10yr Treasury Note	(117,783,750)
US 10yr Ultra	(14,362,250)
US 2yr Treasury Note	45,119,391
US Long Bond	2,900,000
US Ultra Bond	26,487,375
Total Fixed Income	103,767,746
Net Futures Exposure	**$ 115,692,884**

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, 2018, the Base Plan, TRF, JRF, and FRF had option contracts payable with a fair value of $242,288, which is included in Domestic Fixed Income and $(202,884) which is included in Investments Purchased.

At June 30, 2018, the System had the following net options exposure:

OPTIONS	Exposure covered by contract
Fixed Income	
Cash/Cash Equivalents-Purchased Call Options	$ 81,272
Cash/Cash Equivalents-Purchased Put Options	98,401
Fixed Income-Purchased Call Options	34,796
Fixed Income-Purchased Put Options	27,819
Total Fixed Income	242,288
Investments Purchased	
Cash/Cash Equivalents-Written Call Options	(4,938)
Cash/Cash Equivalents-Written Put Options	(50,829)
Fixed Income-Written Call Options	(142,350)
Fixed Income-Written Put Options	(4,767)
Total Investments Purchased	(202,884)
Net Option Exposure	$ 39,404

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, 2018, the System had entered into forward currency contracts to sell foreign currencies with a fair value of $51,741,034 and had entered into forward currency contracts to buy foreign currencies with a fair value of $51,890,181. Forward currency contracts are receivables or payables reported as investments sold or investments purchased. A net unrealized loss of $149,147 at June 30, 2018 was recorded, which represent the loss 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, 2018, the System had invested in TIPS with a fair value of $1,554,441,597.

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, 2018, the System's fixed income assets that are not government guaranteed represented 48.4% 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	**PERSI/FRF Base Plans**		**JRF**		**Total Return Fund**		
S&P Rating Level	**Domestic**	**International**	**Domestic**	**International**	**Domestic**	**International**	**Total**
Short Term							
A-1+	$ 1,174,878	$ -	$ 6,188	$ -	$ 52,037	$ -	$ 1,233,103
A-1	42,400,465	-	223,334	-	1,877,975	-	44,501,774
A-2	22,718,882	-	119,666	-	1,006,251	-	23,844,799
Long Term							
AAA	89,980,999	-	473,953	-	3,985,382	-	94,440,334
AA*	313,737,211	-	1,652,535	-	13,895,853	-	329,285,599
A	385,568,462	3,315,128	2,030,888	17,462	17,077,358	146,831	408,156,129
BBB	452,748,669	2,274,612	2,384,744	11,981	20,052,862	100,746	477,573,614
BB	10,726,993	2,065,883	56,502	10,882	475,113	91,501	13,426,874
B	4,120,444	-	21,703	-	182,500	-	4,324,647
CCC	3,055,883	-	16,096	-	135,349	-	3,207,328
CC	2,056,780	-	10,834	-	91,098	-	2,158,712
C	94,694	-	499	-	4,194	-	99,387
D	1,024,651	-	5,397	-	45,383	-	1,075,431
Not rated	153,954,232	2,800,381	810,917	14,750	6,818,845	124,033	164,523,158
Total Credit Risk fixed income securities	1,483,363,243	10,456,004	7,813,256	55,075	65,700,200	463,111	1,567,850,889
U.S. Government	2,472,861,129	-	13,025,196	-	109,526,422	-	2,595,412,747
Pooled Investments-(unrated)	6,616,141	-	34,849	-	293,038	-	6,944,028
Pooled Investments-SLIRF (unrated)	-	-	-	-	-	-	152,493,026
Idaho Mortgages	675,254,479	-	3,556,739	-	29,907,950	-	708,719,168
Total	$ 4,638,094,992	$ 10,456,004	$ 24,430,040	$ 55,075	$205,427,610	$ 463,111	$ 5,031,419,858

*Includes US Government Agencies implicitly guaranteed by US Government:
FHLB $14,966,815; FHLMC $51,539,147; FNMA $75,909,181

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 93.6%, in short-term instruments held at the custodian bank. Of the remaining cash and deposits at June 30, 2018, approximately 3.0% or, $7,358,818, was held by various counterparties not in the System's name. The remainder, approximately 3.4%, 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:

Investment	Effective Duration in Years	Fair Value allocations PERSI/FRF DB Plans	Judges' Plan	Total Return Fund	Total
Domestic					
Asset-backed Securities	2.03	$ 26,019,358	$ 137,051	$ 1,152,433	$ 27,308,842
Asset-backed Securities	N/A	-	-	-	-
Mortgages	3.62	29,800,204	156,965	1,319,892	31,277,061
Mortgages	N/A	8,543	45	378	8,966
Commercial Paper	0.21	69,186,261	364,422	3,064,355	72,615,038
Commercial Paper	N/A	142,917	753	6,330	150,000
Corporate Bonds	7.34	998,740,816	5,260,624	44,235,605	1,048,237,045
Corporate Bonds	N/A	-	-	-	-
Fixed Income Derivatives	1.44	1,031,536	5,433	45,688	1,082,657
Fixed Income Derivatives	N/A	9,755	51	432	10,238
Government Agencies	8.72	63,303,585	333,436	2,803,803	66,440,824
Government Agencies	N/A	-	-	-	-
Government Bonds	7.13	992,184,257	5,226,090	43,945,206	1,041,355,553
Government Mortgage-backed Securities	5.22	189,320,103	997,198	8,385,248	198,702,549
Government Mortgage-backed Securities	N/A	-	-	-	-
Pooled Investments	0.00	6,795,294	35,793	300,973	7,132,059
Pooled Investments-SLIRF Domestic Fixed Income	N/A	-	-	-	152,493,026
Private Placements	4.38	91,053,986	479,605	4,032,906	95,566,497
Private Placements	N/A	14,200,774	74,799	628,972	14,904,545
TIPS	7.34	1,481,043,124	7,801,035	65,597,438	1,554,441,597
Idaho Mortgages	N/A	675,254,479	3,556,739	29,907,950	708,719,168
Total		$ 4,638,094,992	$ 24,430,039	$ 205,427,609	$ 5,020,445,668

Effective duration of international fixed income assets by security type:

	Effective Duration in Years	Fair Value allocations PERSI/FRF DB Plans	Judges' Plan	Total Return Fund	Total
International					
Fixed Income Derivatives	N/A	$ 27,302	$ 144	$ 1,209	$ 28,655
Government Bonds	6.11	10,204,555	53,750	451,974	10,710,279
Government Bonds	N/A	224,147	1,181	9,928	235,256
Total		$ 10,456,004	$ 55,075	$ 463,111	$ 10,974,190

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, 2018, 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	Short-term Investments	Equity	Fixed Income	Total USD Equivalent Fair Value
ARGENTINA PESO	$ 327,704	$ -	$ 271,820	$ 599,524
AUSTRALIAN DOLLAR	(819,927)	71,408,781	(2,138)	70,586,716
BRAZIL REAL	1,967,193	95,709,383	2,169,061	99,845,637
CANADIAN DOLLAR	1,814,703	12,608,792	-	14,423,495
CHILEAN PESO	797	7,849,555	-	7,850,352
CHINESE R YUAN HK	(571,884)	-	-	(571,884)
CHINESE YUAN RENMINBI	(2,835,042)	10,060	549,871	(2,275,111)
COLOMBIAN PESO	35,652	3,171,445	-	3,207,097
CZECH KORUNA	7,772	1,274,762	-	1,282,534
DANISH KRONE	(1,486,822)	115,537,329	-	114,050,507
EGYPTIAN POUND	18,575	2,909,876	-	2,928,451
EURO CURRENCY UNIT	(862,634)	768,005,078	(293,723)	766,848,721
HONG KONG DOLLAR	1,322,224	504,590,467	-	505,912,691
HUNGARIAN FORINT	4,716	5,914,518	-	5,919,234
INDIAN RUPEE	1,462,819	-	-	1,462,819
INDONESIAN RUPIAH	1,495,117	20,269,016	-	21,764,133
ISRAELI SHEKEL	11,954	2,096,059	-	2,108,013
JAPANESE YEN	503,371	390,224,666	1,006,051	391,734,088
KENYAN SHILLING	13	2,642,908	-	2,642,921
MALAYSIAN RINGGIT	26,461	16,374,232	-	16,400,693
MEXICAN PESO	(3,033,904)	40,624,147	4,110,000	41,700,243
MOROCCAN DIRHAM	21,494	2,019,821	-	2,041,315
NEW TAIWAN DOLLAR	(474,569)	125,917,356	-	125,442,787
NEW ZEALAND DOLLAR	1,651	1,442,926	-	1,444,577
NORWEGIAN KRONE	70,927	5,167,211	-	5,238,138
PHILIPPINES PESO	(2,020,483)	10,661,722	-	8,641,239
POLISH ZLOTY	8,880	11,726,134	-	11,735,014
POUND STERLING	2,398,325	556,213,151	359,766	558,971,242
ROMANIAN LEU	81	1,963,650	-	1,963,731
RUSSIAN RUBLE (NEW)	775,694	20,587,097	2,410,699	23,773,490
S AFRICAN COMM RAND	58,940	99,002,124	-	99,061,064
SINGAPORE DOLLAR	42,695	35,069,642	-	35,112,337
SOUTH KOREAN WON	168,147	261,647,292	-	261,815,439
SRI LANKA RUPEE	-	-	-	-
SWEDISH KRONA	91,540	47,206,504	-	47,298,044
SWISS FRANC	4,168,553	215,048,721	-	219,217,274
THAILAND BAHT	12,626	30,546,132	-	30,558,758
TURKISH LIRA	45,640	33,208,100	-	33,253,740
Total value of investments to foreign currency risk	$ 4,758,999	$ 3,518,648,657	$ 10,581,407	$ 3,533,989,063

H. Rate of Return

For the years ended June 30, 2018 and 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.51 percent and 12.38 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, 2018:

		Fair Value Measurements Using		
	6/30/2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Instruments by fair value level				
Short Term Securities	**$ 105,079,337**	$ 25,072,267	$ 80,007,071	$ -
Fixed Income Securities:				
U.S. Government	**$ 2,593,155,041**	2,572,837,089	20,317,952	-
Asset backed-Securitized	**408,337,022**	-	407,784,499	552,523
Corporate	**921,721,442**	-	921,721,442	-
Idaho Mortgages	**708,719,169**	-	708,719,169	-
Non-U.S. Government	**128,594,242**	-	128,594,242	-
Total Fixed Income Securities	**4,760,526,915**	**2,572,837,089**	**2,187,137,303**	**552,523**
Equities:				
Domestic	**6,482,872,592**	6,482,665,509	**-**	207,083
Developed Markets	**2,843,148,665**	2,841,404,354	**-**	1,744,311
Emerging Markets	**1,408,980,295**	1,398,082,309	**-**	10,897,986
Total Equities	**10,735,001,551**	**10,722,152,172**	**-**	**12,849,379**
Preferred Securities	**101,356,403**	87,230,714	2,745,373	11,380,316
Convertible or Exchangeable Securities	**150,880**	-	150,880	-
Futures	**723,249**	723,249	-	-
Mutual Funds-Defined Contribution investment options	**78,401,568**	78,401,568	**-**	**-**
Total investments by fair value level*	**$ 15,781,239,905**	**$ 13,486,417,059**	**$ 2,270,040,627**	**$ 24,782,219**

* The Total Return Fund and Short Term Investment Portfolio are unitized Defined Contribution investment options included with the Equity and Fixed Income totals above AND Private Equity Partnerships and Private Real totals below.

Investments measured at the net asset value (NAV)	Fair Value	Unfunded commitments	Redemption Frequency	Redemption Notice
Private Equity Partnerships:				
Growth Equity	$ 12,708,139	$ 1,482,185	N/A	N/A
Corporate Finance/Buyout	810,555,031	438,354,006	N/A	N/A
Distressed Debt	25,117,226	25,145,302	N/A	N/A
Co/Direct Investment	66,070,082	52,455,090	N/A	N/A
Secondaries	32,253,565	46,543,949	N/A	N/A
Venture Capital	116,697,268	16,147,501	N/A	N/A
Private Real Estate:				
Open Ended Co-mingled Insurance Company separate account	64,767,432	N/A	N/A	N/A
Affordable Housing	9,643,680	N/A	N/A	N/A
Multifamily properties (Olympic)	67,119,041	N/A	N/A	N/A
Value added apartments	178,052,848	N/A	N/A	N/A
Value added offices	26,366,893	N/A	N/A	N/A
Value added retail	42,941,345	N/A	N/A	N/A
Office/Industrial properties	183,228,826	N/A	N/A	N/A
Core Office	36,826,327	N/A	N/A	N/A
Industrial	43,240,510	N/A	N/A	N/A
Development properties	53,394,853	N/A	N/A	N/A
Collective Funds:				
REIT Index	2,701,057	N/A	Daily	4pm EST
TIPS Index	968,105	N/A	Daily	4pm EST
US Broad Equity Market Index	12,168,990	N/A	Daily	4pm EST
Emerging Equity Market Index Fund	2,203,035	N/A	Daily	4pm EST
US Large Cap Equity Market Index	30,138,963	N/A	Daily	4pm EST
US Bond Market Index	11,795,693	N/A	Daily	4pm EST
International Equity Index	8,124,988	N/A	Daily	4pm EST
US Small/Midcap Equity Index	19,469,848	N/A	Daily	None
Sick Leave Insurance Reserve Trust Fund				
Russell 3000 Index Co-Mingled Fund	291,359,625	N/A	Daily	Trade date less 2 days by 7:30 PM ET
Government Credit Bond Index Co-Mingled Fund	152,493,026	N/A	Daily	Trade date less 2 days by 7:30 PM ET
MSCI ACWI Ex-US Strategy Co-mingled Fund	74,325,862	N/A	Thrice-Monthly	Trade date less 2 days by 12 PM ET
Total investments measured at the NAV	**2,374,732,258**			
Total investments measured at fair value	**$ 18,155,972,163**			

Investment derivative instruments	
Foreign Exchange Contracts-Receivable	$ 51,741,034
Foreign Exchange Contracts-Payable	(51,890,181)
Swap Collateral	150,000
Total Investment derivative instruments	**$ 853**

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 can include Level 1 Treasury Bills, but typically 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.

Mutual Funds: 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.

Private Equity Partnerships: These 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 at the NAV. 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.

Collective Trust Funds: 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.

Co-Mingled Funds: 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.

Derivatives: Foreign Currency Forward Contracts use a market approach with foreign exchange rates.

NOTE 5. NET PENSION LIABILITY (ASSET)

The components of the net pension liability of the participating employers as of June 30, 2018 and 2017 are as follows:

	PERSI Base Plan 2018	FRF 2018	JRF 2018
Total pension liability	$ 17,749,847,910	$ 281,878,396	$ 106,756,695
Plan fiduciary net position	16,274,830,459	395,048,552	88,071,493
Employers' net pension liability (asset)	$ 1,475,017,451	$ (113,170,156)	$ 18,685,202
Plan fiduciary net position as a percentage of total pension liability	91.69%	140.15%	82.50%

	PERSI Base Plan 2017	FRF 2017	JRF 2017
Total pension liability	$ 16,868,510,591	$ 289,382,253	$ 103,556,547
Plan fiduciary net position	15,296,682,365	375,177,883	82,936,029
Employers' net pension liability (asset)	$ 1,571,828,226	$ (85,795,630)	$ 20,620,518
Plan fiduciary net position as a percentage of total pension liability	90.68%	129.65%	80.09%

The net pension liability is calculated using a discount rate of 7.05%, 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, 2018, 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 2011 through 2017 for the PERSI Base Plan; for the period 2011 through 2017 for the FRF; and 2009 through 2013 for the JRF. These studies reviewed demographic assumptions other than mortality. Mortality and all economic assumptions were studied in 2018 for the period from July 1, 2013 through June 30, 2017 for the Base Plan and FRF.

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	3.00 percent	3.00 percent	3.00 percent
Salary increases ***	3.75 percent	3.75 percent	3.75 percent
Salary inflation	3.75 percent	3.75 percent	3.75 percent
Investment rate of return *	7.05 percent	7.05 percent	7.05 percent
Cost of Living (COLA) adjustments	1.00 percent	3.75 percent	**

*net of pension plan investment expense

**3.75 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

***there is an additional component of assumed salary grown (on top of the 3.75%) that varies for each individual member based on years of service

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, the System relies 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.

Asset Class	Target Allocation	Long-Term Expected Nominal Rate of Return (Arithmetic)	Long-Term Expected Real Rate of Return (Arithmetic)
Core Fixed Income	30.00%	3.05%	0.80%
Broad US Equities	55.00%	8.30%	6.05%
Developed Foreign Equities	15.00%	8.45%	6.20%
Assumed Inflation - Mean		2.25%	2.25%
Assumed Inflation - Standard Deviation		1.50%	1.50%
Portfolio Arithmetic Mean Return		6.75%	4.50%
Portfolio Standard Deviation		12.54%	12.54%
Portfolio Long-Term (Geometric) Expected Rate of Return		6.13%	3.77%
Assumed Investment Expenses		0.40%	0.40%
Portfolio Long-Term (Geometric) Expected Rate of Return, Net of Investment Expenses		5.73%	3.37%

Portfolio Long-Term Expected Real Rate of Return, Net of Investment Expenses	4.19%
Portfolio Standard Deviation	14.16%
Valuation Assumptions Chosen by PERSI Board	
Long-Term Expected Real Rate of Return, Net of Investment Expenses	4.05%
Assumed Inflation	3.00%
Long-Term Expected Geometric Rate of Return, Net of Investment Expenses	**7.05%**

Discount rate – The discount rate used to measure the total pension liability was 7.05%. 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 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 7.05% 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 6.05%	Current Discount Rate 7.05%	1% Increase 8.05%
Employers' net pension liability (asset) - PERSI	$ 3,692,302,406	$ 1,475,017,451	$ (360,985,422)
Employers' net pension (asset) - FRF	(83,953,452)	(113,170,156)	(138,034,913)
Employers' net pension liability - JRF	29,315,219	18,685,202	9,571,050

NOTE 6. NET OPEB ASSET

The components of the net OPEB asset associated with the Sick Leave Insurance Reserve Fund of the participating employers as of June 30, 2018 is as follows.

State Members - OPEB

	2018	2017
Total OPEB liability	$ 91,490,186	$ 91,367,986
Plan fiduciary net position	$ 206,260,247	$ 186,497,610
Employers' net OPEB liability (asset)	$ (114,770,061)	$ (95,129,624)
Plan fiduciary net position as a percentage of total OPEB liability (asset)	225.4%	204.1%

School Members - OPEB

	2018	2017
Total OPEB liability	$ 232,418,359	$ 208,709,518
Plan fiduciary net position	$ 315,363,310	$ 285,472,446
Employers' net OPEB liability (asset)	$ (82,944,951)	$ (76,762,928)
Plan fiduciary net position as a percentage of total OPEB liability (asset)	135.7%	136.8%

The OPEB asset is calculated using a discount rate of 7.05% which is the expected rate of return on investments reduced by investment expenses. The net OPEB asset was determined by an actuarial valuation as of July 1, 2017, rolled forward to July 1, 2018. 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 OPEB asset are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The Board's adopted asset allocation policy for the Sick Leave Insurance Retirement Fund as of June 30, 2018 was 30% Fixed income, 55% US/Global equity, and 15% International equity.

Actuarial Assumptions	**Sick Leave Insurance Reserve Fund**
Inflation	3.00 percent
Salary increases	3.75 percent
Salary inflation	3.75 percent
Investment rate of return *	7.00 percent

*net of pension plan investment and administrative expenses

The long-term expected rate of return on OPEB 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.
Capital market assumptions as defined in Note 5 apply here.

Portfolio Long-Term Expected Real Rate of Return, Net of Investment Expenses	4.19%
Portfolio Standard Deviation	14.16%
Valuation Assumptions Chosen by PERSI Board	
Long-Term Expected Real Rate of Return, Net of Investment Expenses	4.05%
Assumed Inflation	3.00%
Long-Term Expected Geometric Rate of Return, Net of Investment Expenses	**7.05%**

Discount rate – The discount rate used to measure the total OPEB liability was 7.05%. 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 OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability. The long-term expected rate of return was determined net of OPEB plan investment expense but without reduction for OPEB plan administrative expense.

Sensitivity of the net OPEB liability (asset) to changes in the discount rate – The following presents the net OPEB liability (asset) calculated using the discount rate of 7.05% 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:

State & School Members	1% Decrease 6.05%	Discount Rate 7.05%	1% Increase 8.05%
State Members-Net OPEB Liability/(Asset)	$ (110,883,766)	$ (114,770,061)	$ (118,457,449)
School Members-Net OPEB Liability/(Asset)	$ (73,237,748)	$ (82,944,951)	$ (92,061,459)

NOTE 7. ASSETS USED IN PLAN OPERATIONS

Assets used in plan operations at June 30, 2018, consist of the following:

	2018	2017
Buildings and improvements	$ 6,679,911	$ 5,733,863
Less accumulated depreciation	(4,664,678)	(4,433,938)
Total buildings and improvements	2,015,233	1,299,925
Equipment	729,690	653,976
Less accumulated depreciation	(556,065)	(516,050)
Total equipment	173,625	137,926
Computer software development - Arrivos	11,968,297	11,968,297
Less accumulated amortization	(2,664,937)	(1,468,314)
Total computer software development - Arrivos	9,303,360	10,499,983
Equipment - Arrivos	254,114	254,114
Less accumulated depreciation	(253,146)	(209,997)
Total equipment	968	44,117
Total assets used in plan operations	$ 11,493,186	$ 11,981,951

Depreciation expense is a component of administrative expense. For the year ended June 30, 2018, depreciation expense on the buildings and improvements was $230,740. The equipment had a total depreciation expense of $83,165 for 2018. In January 2012 development began on ARRIVOS, a new retirement database system. Costs of the ARRIVOS system are being capitalized and are amortized as each phase is implemented. Beginning May 2013, the Employer Reporting component of ARRIVOS began being amortized over 10 years. As the software is fully implemented, all components of ARRIVOS are being amortized as of September 2016. Amortization for 2018 was $1,196,623. Equipment purchased for ARRIVOS began being depreciated in May 2013 over 5 years.

NOTE 8. 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 www.sco.idaho.gov.

NOTE 9. COMMITMENTS

The System had unfunded private equity commitments as of June 30, 2018 of $513,578,276 and €22,205,080.

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

REQUIRED SUPPLEMENTARY INFORMATION
JUNE 30, 2018

PUBLIC EMPLOYEE RETIREMENT FUND, FIREFIGHTERS' RETIREMENT FUND AND PERSI BASE PLAN

SCHEDULE OF CHANGES IN NET PENSION LIABILITY (ASSET)
FISCAL YEARS ENDING JUNE 30

PERSI Base Plan

	2018	2017	2016	2015	2014
Total pension liability changes for the year					
Service cost	$ 437,257,407	$ 406,910,895	$ 397,283,921	$ 384,419,252	376,800,000
Interest	1,202,947,872	1,129,286,928	1,088,670,726	1,045,505,462	992,942,358
Effect of plan changes	84,200,000	12,200,000	67,800,000	150,400,000	(1,300,000)
Effect of economic/demographic gains or losses	(38,113,799)	273,580,592	(104,512,779)	(105,531,304)	(111,248,209)
Effect of assumptions changes or inputs	104,724,103	-	13,100,000	-	74,600,000
Benefit payments, including refunds of member contributions	(909,678,264)	(864,785,159)	(824,524,533)	(770,593,410)	(729,094,149)
Net change in total pension liabilities	881,337,319	957,193,256	637,817,335	704,200,000	602,700,000
Total pension liability - beginning	16,868,510,591	15,911,317,335	15,273,500,000	14,569,300,000	13,966,600,000
Total pension liability - ending	17,749,847,910	16,868,510,591	15,911,317,335	15,273,500,000	14,567,300,000
Plan net position					
Contributions - employer	369,139,113	356,367,389	335,610,100	321,240,628	310,986,283
Contributions - employee	243,950,654	237,032,668	220,866,936	211,468,780	203,890,954
Net investment income	1,283,658,926	1,692,713,855	202,329,942	367,820,877	2,000,619,926
Other			25,283	16,767	-
Benefit payments, including refunds of member contributions	(909,678,264)	(864,785,159)	(824,524,533)	(770,593,410)	(729,094,149)
Administrative expense	(8,922,335)	(8,810,136)	(6,806,655)	(6,434,462)	(6,787,811)
Net change in plan net position	978,148,094	1,412,518,617	(72,498,927)	123,519,180	1,779,615,203
Plan net position - beginning	15,296,682,365	13,884,163,748	13,956,662,675	13,833,143,496	12,053,528,293
Plan net position - ending	16,274,830,459	15,296,682,365	13,884,163,748	13,956,662,675	13,833,143,496
Plan net pension liability - ending	$ 1,475,017,451	$ 1,571,828,226	$ 2,027,153,587	$ 1,316,837,325	$736,156,504

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

See Notes to Required Supplementary Information

Continued

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

SCHEDULE OF CHANGES IN NET PENSION LIABILITY (ASSET)
FISCAL YEARS ENDING JUNE 30

Firefighers' Retirement Fund

	2018	2017	2016	2015	2014
Total pension liability changes for the year					
Service cost	$ -	$ -	$ -	$ -	$ -
Interest	19,841,800	20,041,184	20,496,009	21,479,861	21,888,712
Effect of plan changes	(615,405)	(68,748)	(557,863)	(2,100,000)	-
Effect of economic/demographic gains or losses	(9,182,411)	(3,116,488)	(7,446,350)	(15,100,408)	(5,629,912)
Effect of assumptions changes or inputs	1,386,562	-	-	-	-
Benefit payments, including refunds of member contributions	(18,934,403)	(19,294,441)	(19,476,228)	(19,874,275)	(19,958,800)
Net change in total pension liabilities	(7,503,857)	(2,438,493)	(6,984,432)	(15,594,822)	(3,700,000)
Total pension liability - beginning	289,382,253	291,820,746	298,805,178	314,400,000	318,100,000
Total pension liability - ending	281,878,396	289,382,253	291,820,746	298,805,178	314,400,000
Plan net position					
Contributions - employer	7,706,226	7,452,987	7,198,597	11,305,473	14,200,323
Contributions - employee	4,368	4,385	6,329	6,168	9,095
Net investment income	31,124,311	41,488,825	5,083,454	9,357,909	50,966,862
Benefit payments, including refunds of member contributions	(18,934,403)	(19,294,441)	(19,476,228)	(19,874,275)	(19,958,800)
Administrative expense	(29,833)	(43,022)	(58,873)	(153,719)	-
Net change in plan net position	19,870,669	29,608,734	(7,246,721)	641,556	45,217,480
Plan net position - beginning	375,177,883	345,569,149	352,815,870	352,174,314	306,956,837
Plan net position - ending	395,048,552	375,177,883	345,569,149	352,815,870	352,174,314
Plan net pension liability (asset) - ending	$ (113,170,156)	$ (85,795,630)	$ (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.

See Notes to Required Supplementary Information

Continued

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

SCHEDULES OF CHANGES IN NET PENSION LIABILITY (ASSET)
FISCAL YEARS ENDING JUNE 30

Judges' Retirement Fund

	2018	2017	2016	2015
Total pension liability changes for the year				
Transfer in from JRF	$ -	$ -	$ -	$ 92,302,982
Service cost	2,962,939	3,179,411	3,110,818	3,251,679
Interest	7,329,407	7,055,599	6,888,876	6,589,779
Effect of ecomonic/demographic gains or losses	(400,640)	265,945	(1,647,589)	284,788
Benefit payments, including refunds of member contributions	(6,691,558)	(6,173,415)	(5,974,937)	(5,577,389)
Net change in total pension liabilities	3,200,148	4,327,540	2,377,168	96,851,839
Total pension liability - beginning	103,556,547	99,229,007	96,851,839	-
Total pension liability - ending	106,756,695	103,556,547	99,229,007	96,851,839
Plan net position				
Contributions - employer	4,278,996	3,946,599	3,370,587	3,595,417
Contributions - employee	714,804	630,392	623,754	629,077
Net investment income	6,938,171	9,157,849	1,092,130	2,049,895
Transfer in			-	75,864,300
Other			2,571	2,063
Benefit payments, including refunds of member contributions	(6,691,558)	(6,173,415)	(5,974,937)	(5,577,389)
Administrative expense	(104,949)	(74,035)	(133,096)	(95,733)
Net change in plan net position	5,135,464	7,487,390	(1,018,991)	76,467,630
Plan net position - beginning	82,936,029	75,448,639	76,467,630	-
Plan net position - ending	88,071,493	82,936,029	75,448,639	76,467,630
Plan net pension liability - ending	$ 18,685,202	$ 20,620,518	$ 23,780,368	$ 20,384,209

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

See Notes to Required Supplementary Information

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

SCHEDULE OF NET PENSION LIABILITY (ASSET)
FISCAL YEARS ENDING JUNE 30

PERSI Base Plan	2018	2017	2016	2015	2014
Total Pension Liability	$ 17,749,847,910	$ 16,868,510,591	$ 15,911,317,335	$ 15,273,500,000	$ 14,569,300,000
Plan net position	16,274,830,459	15,296,682,365	13,884,163,748	13,956,662,675	13,833,143,496
Net pension liability (asset)	$ 1,475,017,451	$ 1,571,828,226	$ 2,027,153,587	$ 1,316,837,325	$ 736,156,504
Plan net position as a percentage of total pension liability	91.69%	90.68%	87.26%	91.38%	94.95%
Covered payroll	$ 3,200,396,203	$ 3,089,555,264	$ 2,895,430,105	$ 2,791,109,393	$ 2,702,945,352
Net pension liability as a percentage of covered employee payroll	46.09%	50.88%	70.01%	47.18%	27.24%

Firefighters' Retirement Fund	2018	2017	2016	2015	2014
Total Pension Liability	$ 281,878,396	$ 289,382,253	$ 291,820,746	$ 298,805,178	$ 314,400,000
Plan net position	395,048,552	375,177,883	345,569,149	352,815,870	352,174,314
Net pension liability (asset)	$ (113,170,156)	$ (85,795,630)	$ (53,748,403)	$ (54,010,692)	$ (37,774,314)
Plan net position as a percentage of total pension liability	140.15%	129.65%	118.42%	118.08%	112.01%
Covered payroll	$ 74,848,287	$ 70,568,501	$ 68,017,833	$ 63,780,545	$ 63,017,405
Net pension liability (asset) as a percentage of covered employee payroll	-151.20%	-121.58%	-79.02%	-84.68%	-59.94%

Judges' Retirement Fund	2018	2017	2016	2015	2014
Total Pension Liability	$ 106,756,695	$ 103,556,547	$ 99,229,007	$ 96,851,839	$ -
Plan net position	88,071,493	82,936,029	75,448,639	76,467,630	-
Net pension liability (asset)	$ 18,685,202	$ 20,620,518	$ 23,780,368	$ 20,384,209	$ -
Plan net position as a percentage of total pension liability	82.50%	80.09%	76.03%	78.95%	0.00%
Covered payroll	$ 6,178,081	$ 6,162,190	$ 6,097,302	$ 6,149,339	$ -
Net pension liability as a percentage of covered employee payroll	302.44%	334.63%	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

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

SCHEDULE OF CONTRIBUTIONS
FISCAL YEARS 2009-2018

PERSI BASE PLAN

Fiscal Year	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
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	335,610,100	(8,508,142)	2,791,109,393	12.02%
2016	297,262,331	334,034,293	(36,771,962)	2,895,430,105	11.54%
2017	337,212,145	356,367,389	(19,155,244)	3,089,555,264	11.53%
2018	388,341,490	369,139,113	19,202,377	3,200,396,203	11.53%

Firefighters' Retirement Fund

Fiscal Year	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
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%
2017	-	7,452,987	(7,452,987)	70,568,501	10.56%
2018	-	7,706,226	(7,706,226)	74,848,287	10.30%

Judges' Retirement Fund

Fiscal Year	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of 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%
2017	3,604,265	3,946,599	(342,334)	6,162,190	64.05%
2018	327,314	4,278,996	(1,005,849)	6,178,081	69.26%

See Notes to Required Supplementary Information

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

SCHEDULE OF INVESTMENT RETURNS
YEAR ENDED JUNE 30, 2018

Investment Returns

	2018	2017	2016	2015	2014	2013
Annual money weighted rate of return, net of investment expenses	8.5%	12.4%	1.5%	2.7%	16.9%	8.8%

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

See Notes to Required Supplementary Information

PUBLIC EMPLOYEE RETIREMENT SICK LEAVE INSURANCE RESERVE FUND

SCHEDULE OF CHANGES IN NET OPEB LIABILITY (ASSET)
YEAR ENDED JUNE 30, 2018

	Sick Leave Insurance Reserve Fund - State	
	2018	2017
Total OPEB liability changes for the year		
Service cost	$ 4,170,390	$ 4,043,479
Interest	6,207,620	6,223,171
Effect of plan changes	(5,771,416)	-
Effect of ecomonic/demographic gains or losses	-	-
Effect of assumptions changes or inputs	186,986	-
Benefit payments, including refunds of member contributions	(4,671,380)	(5,010,974)
Net change in total OPEB liabilities	$ 122,200	$ 5,255,676
Net OPEB liability - beginning	$ 91,367,986	$ 86,112,310
Total OPEB liability - ending	$ 91,490,186	$ 91,367,986
Plan net position		
Contributions - employer	$ 7,161,239	$ 7,136,693
Net investment income	17,316,960	12,294,424
Other	-	-
Benefit payments, including refunds of member contributions	(4,671,380)	(5,010,974)
Administrative expense	(44,182)	(41,148)
Net change in plan net position	$ 19,762,637	$ 14,378,995
Plan net position - beginning	$ 186,497,610	$ 172,118,615
Plan net position - ending	$ 206,260,247	$ 186,497,610

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

	Sick Leave Insurance Reserve Fund - School	
	2018	2017
Total OPEB liability changes for the year		
Service cost	$ 8,778,843	$ 7,692,471
Interest	15,779,480	14,272,064
Effect of plan changes	-	-
Effect of ecomonic/demographic gains or losses	10,851,176	-
Effect of assumptions changes or inputs	486,017	-
Benefit payments, including refunds of member contributions	(12,186,675)	(13,155,040)
Net change in total OPEB liabilities	$ 23,708,841	$ 8,809,495
Net OPEB liability - beginning	$ 208,709,518	$ 200
Total OPEB liability - ending	$ 232,418,359	$ 8,809,695
Plan net position		
Contributions - employer	$ 15,599,238	$ 14,763,323
Net investment income	26,546,106	18,873,664
Other		
Benefit payments, including refunds of member contributions	(12,186,675)	(13,155,040)
Administrative expense	(67,805)	(63,192)
Net change in plan net position	$ 29,890,864	$ 20,418,755
Plan net position - beginning	$ 285,472,446	$ 265,053,691
Plan net position - ending	$ 315,363,310	$ 285,472,446

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

See Notes to Required Supplementary Information

PUBLIC EMPLOYEE RETIREMENT SICK LEAVE INSURANCE RESERVE FUND

SCHEDULE OF NET OPEB LIABILITY (ASSET)
YEAR ENDED JUNE 30, 2018

State Members - OPEB

	2018	2017
Total OPEB liability	$ 91,490,186	$ 91,367,986
Plan fiduciary net position	$ 206,260,247	$ 186,497,610
Employers' net OPEB liability (asset)	$ (114,770,061)	$ (95,129,624)
Plan fiduciary net position as a percentage of total OPEB liability (asset)	225.4%	204.1%

School Members - OPEB

	2018	2017
Total OPEB liability	$ 232,418,359	$ 208,709,518
Plan fiduciary net position	$ 315,363,310	$ 285,472,446
Employers' net OPEB liability (asset)	$ (82,944,951)	$ (76,762,928)
Plan fiduciary net position as a percentage of total OPEB liability (asset)	135.7%	136.8%

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

See Notes to Required Supplementary Information

PUBLIC EMPLOYEE RETIREMENT SICK LEAVE INSURANCE RESERVE FUND

SCHEDULE OF CONTRIBUTIONS - OPEB
YEAR ENDED JUNE 30, 2018

Sick Leave Insurance Reserve Fund - State

Fiscal Year	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2017	$ 4,282,016	$ 7,136,693	$ (2,854,677)	$ 1,097,952,769	0.65%
2018	4,186,570	7,161,239	(2,974,669)	1,101,729,077	0.65%

Sick Leave Insurance Reserve Fund - School

Fiscal Year	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2017	$ 8,064,000	$ 14,763,323	$ (6,699,323)	$ 1,240,615,378	1.19%
2018	8,913,850	15,599,238	(6,685,388)	1,310,860,336	1.19%

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

See Notes to Required Supplementary Information

PUBLIC EMPLOYEE RETIREMENT SICK LEAVE INSURANCE RESERVE FUND

SCHEDULE OF INVESTMENT RETURNS – SICK LEAVE INSURANCE RETIREMENT FUND YEAR ENDED JUNE 30, 2018

	2018	2017
Annual money weighted rate of return, net of investment expenses	9.4%	13.3%

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

See Notes to Required Supplementary Information

PUBLIC EMPLOYEE RETIREMENT FUND, FIREFIGHTERS' RETIREMENT FUND, JUDGES' RETIREMENT FUND, AND SICK LEAVE INSURANCE RESERVE FUND

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION
YEAR ENDED JUNE 30, 2018

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, 2018 for PERSI, as of June 30, 2018 for FRF and as of June 30, 2018 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, 2018	July 1, 2018	July 1, 2018
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 amortization period	16.6 years	N/A	11.1 years
Asset valuation method	Market Value	3-yr smoothing	Market Value
Actuarial assumptions:			
Investment Rate of Return *	7.00%	7.00%	7.00%
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	3.00%	3.00%	3.00%
Discount Rate - Actuarial Accrued Liability	7.00%	7.00%	7.00%

*net of pension plan investment and administrative expenses

The valuation date for the Sick Leave Insurance Reserve Fund is as of June 30, 2017 rolled forward to June 30, 2018.

Actuarial Assumptions	Sick Leave Insurance Reserve Fund
Inflation	3.00 percent
Salary increases	3.75 percent
Salary inflation	3.75 percent
Investment rate of return *	7.00 percent

*net of pension plan investment and administrative expenses

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

ADDITIONAL SUPPLEMENTARY SCHEDULES
JUNE 30, 2018

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

SCHEDULE OF INVESTMENT EXPENSES
YEAR ENDED JUNE 30, 2018

INVESTMENT AND RELATED SERVICES:		
Adelante Capital	$	2,395,700
AEW Capital Management		5,971,833
BCA Publication, Inc.		7,875
Bernstein, Sanford C.		5,240,805
Bloomberg, LP		66,696
BLS Capital		3,136,006
BNY Mellon Trust		3,204,211
BNY Mellon Asset Mgmt N America Corp(formerly BNY Mellon Capital Management)		2,199,577
Brandes Investment Partners, LP		1,745,424
Capital Economics (N.A.) Ltd		10,815
Clearwater Advisors, LLC		741,025
D.B. Fitzpatrick & Co., Inc.		2,906,114
Donald Smith & Company		2,585,950
Fiera Capital		2,493,449
Genesis Asset Managers, Ltd.		2,549,364
Hamilton Lane		95,310
IR+M (Income Research & Management)		404,937
Longview Partners		2,618,328
Mondrian Investment Partners		1,579,081
Mountain Pacific Investment Advisors, Inc.		1,717,390
Peregrine Capital Management		2,096,793
Prudential Investments		303,683
State Street Global Advisors		951,395
Walter Scott & Partners LTD		2,460,489
Wells Fargo Bank		79,610
Western Asset		480,242
Yardarni Research		7,500
TOTAL INVESTMENT AND RELATED SERVICES		48,049,602
CONSULTING AND OTHER SERVICES:		
Alban Row		78,983
Callan Associates		414,531
Chartwell Consulting		75,941
CT Corporation		7,021
Eide Bailly LLP		71,480
Foster, Pepper		286,675
Garret A. Walls		1,310
Hamilton Lane Advisors, Inc.		230,000
Ice Miller LLP		2,459
John Jenks		39,719
Milliman, Inc.		439,077
Robert Storer		39,759
TOTAL CONSULTING AND OTHER SERVICES		1,686,955
TOTAL	$	49,736,557

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO

SCHEDULE OF ADMINISTRATIVE EXPENSES
YEAR ENDED JUNE 30, 2018

PORTFOLIO-RELATED EXPENSES:	
Personnel expenses	$ 759,290
Operating expenses	217,569
	976,859
OTHER ADMINISTRATIVE EXPENSES:	
Personnel expenses	3,889,200
Operating expenses	2,575,581
Building depreciation expense	230,740
Equipment depreciation expense	83,165
Software amortization expense	1,196,623
	7,975,309
SICK LEAVE FUND EXPENSES — Administrative expenses	111,988
JUDGES' FUND EXPENSES -- Administrative expenses	104,949
DEFINED CONTRIBUTION FUND - Administrative expenses	135,530
Total	$ 9,304,635

EideBailly

CPAs & BUSINESS ADVISORS

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 or PERSI), as of and for the year ended June 30, 2018, 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 10, 2018.

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 over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting 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.

Eide Bailly LLP

Boise, Idaho
October 10, 2018

FINANCIAL SECTION

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INVESTMENT SECTION

INVESTMENT SECTION

OVERVIEW OF FISCAL YEAR 2018

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.

FY 2018 was interesting: a great year that turned into a good year. The fund ended FY 2018 with a gross return of +8.7%, a net return of +8.4%, at $17.453 billion dollars, a funding ratio of 91.2% and an amortization period of 14 years.

For a while it was a great year, but the collapse of the international developed and emerging markets in the final quarter made the end of the year more exciting than was desirable. At the start of calendar year 2018, the economic and capital market worlds looked positively "Goldilocksean". The world and particularly the US economy looked healthy with a string of almost uniformly positive economic surprises. Labor markets were strong, with low unemployment and high job openings. Interest rates worldwide were at historic lows with only moderate increases expected and were accompanied by generally accommodative financial conditions. Inflation was benign and inflation expectations were well under control. Corporate profits were high and, with major tax cuts in the US, were expected to be even higher in the near future. World growth was synchronized, the dollar was strong, commodities were reasonable, and all risk measures were low and trending down.

As a result, on January 26th (of 2018), the fund was up +11.7% for the fiscal year to date, was 95.9% funded (estimated), and reached $18.134 billion. Emerging markets were then up +25.2% and EAFE was up +17.3%, compared to the R3000 return then of 17.9%.

Since then, "Volmaggedon" (the volatility spike from the collapse of short volatility strategies), trade war rhetoric and actions, a rising dollar with rising US interest rates, weakening economies (particularly in China) as well as a return of European crises (this time led by Italy with Brexit always in the background) all conspired to devastate international equity markets. While US bond markets dropped around -1% and the US equity market dropped around -2%, the emerging markets dropped -20% and developed markets retreated around -10%. As a result, the fund lost -3.0% from its highs, but still managed to materially outperform our net discount rate of +7.0%. The sick leave fund ended the year up +9.4% at $518 million.

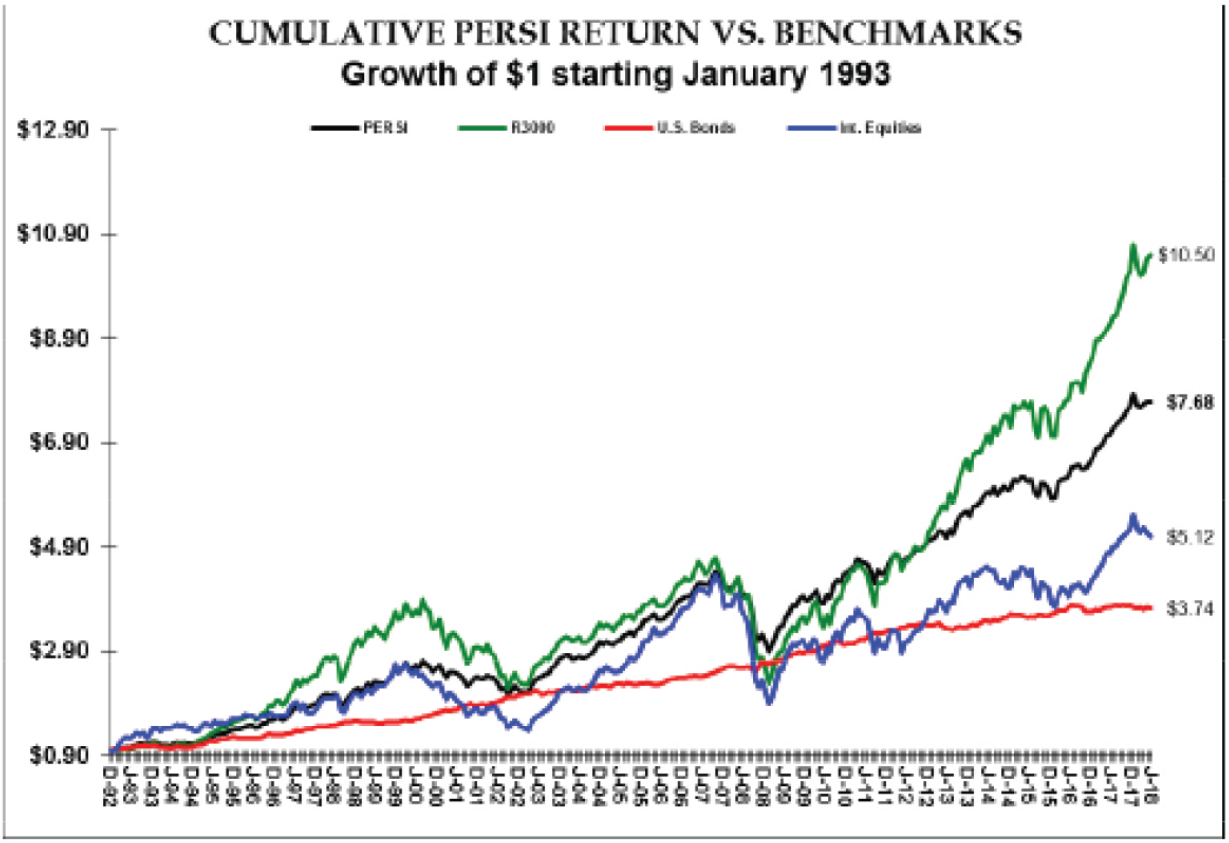
For the fiscal year US equities rose +14.8%, international developed markets were up +7.2% , global equities were up +11.6%, bonds have dropped -0.4%. Emerging markets finished +8.6%, REITS staggered to +4.2% (after being negative for much of the fiscal year), and TIPS managed a +2.1% for the fiscal year. Private real estate rose +13.3% while private equity led the fund by being up +18.4% for the fiscal year. Growth smashed value both in the US and overseas, leading to the almost disappearance of a long-term value premium.

BLS had the best relative performance with a return of +21.3% being +9.7% above their World benchmark while Peregrine had the best absolute performance at +28.7%. The Mellon REIT index had the worst equity performance at +3.4%, the State Street Gov/Credit had the worst account performance at -0.7%, while Donald Smith had the poorest relative performance at +8.3%, which was -7.9% behind their benchmark. The fund as a whole ended the year behind of the 55% US equity, 15% EAFE, and 30% US Bond reference benchmark by -0.3%, primarily due to the lagging performance of REITs, private real estate, and global equities compared to the Russell 3000.

It was a very good fiscal year for global and international equities. US equities returned +14.8%, World equities returned +11.6% (with PERSI's global managers handily outperforming at +12.8%), EAFE returned +7.2% and Emerging Markets returned +8.6%. Fixed income ended the year, as expected when the year started (and as the year before), slightly negative at -0.4%. Private equity (+18.4%) and Private Real Estate (+13.3%) had great years and substantially outperformed their benchmarks. After a number of years of leading the pack, REITs had another terrible year, at least relative to private real estate and public equities, up only +4.2% (although Adelante once again outperformed and was up +4.9% for the year).

The individual star of the year, however, was once again Peregrine, with the best absolute return of +28.7%. BLS had the best relative return by outpacing their World benchmark by +9.7% with a return of +21.3%. Donald Smith had the poorest relative returns to benchmark with a return of +8.3% being –7.9% behind their benchmark). The fund ended the fiscal year behind the 55% US equity, 15% EAFE, and 30% US Bond reference benchmark by -0.3%, due to the inability of private markets to keep up with the surging US equity market since mid-November and the poor performance of REITs.

Since 1993, $1 invested in the PERSI fund has returned over seven-fold, despite the worst market since the great depression, various crises around the world, and the "tech wreck" at the start of the new millennium:



PERSI's institutional peer returns for the fiscal year were good: handily above the median institutional and public fund. Long term returns (15 to 20 years) also continue to be significantly above average:

RANKINGS IN CALLAN PUBLIC FUND
AND MELLON MASTER TRUST UNIVERSES
June 30, 2018
Percentile Rankings over Period
(1 is highest, 100 is lowest)

	1Q	1Yr	3Yrs	5Yrs	10Y	15Y	20Y
PERSI Return (%)	**1.2**	**8.7**	**7.7**	**8.6**	**6.6**	**8.1**	**6.7**
Callan Median Public	0.9	8.2	7.0	7.9	6.6	7.3	6.4
Mellon Median Trust	0.6	7.7	6.7	7.8	6.4		
PERSI Rank (Percentile)							
Callan Public Funds	33	33	21	28	48	15	29
Mellon Master Trust	29	30	20	29	41		

PERSI's annualized return over the last 20 years has been 6.7% while the 55-15-30 reference benchmark return has returned 6.2%.

PERSI'S simple, transparent, focused, and patient approach following conventional investment principles once again produced strong results, not only in absolute returns, but also in comparison to all other professionally managed institutional investors. It is a path we intend to travel for the foreseeable future.

ROBERT M. MAYNARD
Chief Investment Officer

INVESTMENT SECTION

Investment Summary for the Year Ended June 30, 2018

Types of Investment	Fair Value		Percent of Total Fair Value	
Short-term Investments		$ 260,457,706		1.5%
Fixed Income				
Domestic	$ 3,749,732,728		22.4%	
International	10,511,077		0.1%	
Commercial Mortgages	678,811,218		4.0%	
Total Fixed Income		4,439,055,023		26.5%
Equity				
Domestic Equity	6,930,492,124		41.3%	
International Equity	3,450,441,614		20.6%	
Total Equity		10,380,933,738		61.9%
Private Equity		1,018,525,774		6.1%
Real Estate		666,569,487		4.0%
Total Base Plan Investments		$ 16,765,541,728		100.0%
Other Funds:				
Sick Leave Insurance Reserve Fund		518,178,513		
Choice Plan 414(k)		58,002,850		
Choice Plan 401(k)		874,508,166		
Total Investments in All Funds		$ 18,216,231,257		

Schedule of Investments by Account (including interest and dividends receivable) as of June 30, 2018

PERSI Base Plan, Firefighters' Retirement Fund, and Judges' Plan

Adelante Capital Management	$	512,073,897
Advent International, LP		62,157,725
Apollo Management, LP		51,405,957
Ascribe Capital LLC		16,947,495
Baring Asset Management-Global Equity		128,276
Bernstein-Emerging Markets		343,078,334
Bernstein-Global Equity		428,397,711
Blackstone Capital Partners, LP		106,975,760
BLS Capital		510,527,460
BNY Mellon Asset Management N.A.-International Stock Index		705,375,650
BNY Mellon Asset Management N.A.-Mid Cap Completion		294,520,710
BNY Mellon Asset Management N.A.-R2000 Small Cap		222,780,986
BNY Mellon Asset Management N.A.-S&P 500 Large Cap		2,366,187,047
BNY Mellon Asset Management N.A.-REIT Index		263,110,047
BNY Mellon Asset Management N.A.-Emerging Market Index		689,259,944
Brandes Investment Partners		429,938,164
Bridgepoint Cap LTD		44,890,551
Capital Guardian		386,673
Cascade		9,236,717
Cerberus Investment Partners		7,109,784
Chisholm Management, LP		841,281
Clearwater Advisors, LLC-TBAs		193,060,581
CVC European Equity		30,341,145
D.B. Fitzpatrick & Co.-Fixed Income		85,489,712
D.B. Fitzpatrick & Co.-Idaho Mortgages		681,092,983
Donald Smith & Co.		443,629,032
Endeavour Capital		44,909,101
Enhanced Equity, LP		2,929,432
Epic Venture Fund		11,888,923
Fiera Capital		462,985,322
First Reserve Fund XI		8,535,794
Frazier Technology Ventures II, LP		25,227,900
Galen Associates, LP		16,913,685
Genesis Asset Managers		357,502,534
Goense Bounds & Partners, LP		13,322
Gores Capital Partners, LLP		10,719,439
Green Equity Investors IV, LP		23,686,117
Hamilton Lane Co - Investment Fund, LP		60,145,130
Hamilton Lane Secondary Fund, LP		30,661,579
Highway 12 Ventures, LP		69,039,183
Ida-West		3,136,795
IR + M		192,594,832
JH Whitney & Co, LLC		2,542,482
KKR 2006 Fund, LP		51,353,547
Kohlberg & Co.		47,099,317
Koll Partners, LLP		540,248,623
Lindsay Goldberg & Bessemer		35,103,205
Longview Partners		447,254,017
MTMS Transition		309,534
Mondrian Investment Partners		455,439,002
Mountain Pacific Investment Advisors		548,113,465

continued on next page

Newbridge Asia, LP	874,808	
Olympic IDA Fund II, LLC	64,286,617	
Peregrine Capital Management	556,700,082	
PERSI Cash in Short-Term Investment Pool	36,520,659	
Providence Equity Partners, LLP	60,597,093	
Prudential Investments	62,034,246	
Silverlake Partners	3,101,780	
State Street Global Advisors-Fixed Income	1,610,241,884	
State Street Global Advisors-TIPS	1,490,636,646	
T3 Partners, LP	132,433,796	
Veritas Capital Partners, LP	56,712,764	
W. Capital Partners, LP	230,885	
Walter Scott LTD	470,504,432	
Western Asset Management	208,512,941	
Zesiger Capital Group-Private Equity	16,209,533	
Total Base Plan and Firefighters' Retirement Fund		$ 16,716,894,068
Choice Plan		
BNY Mellon Asset Mgmt. N.A. U.S. Bond Market Index Fund	11,795,693	
BNY Mellon Asset Mgmt. N.A. U.S. Small/Mid Cap Equity Index Fund	19,469,848	
BNY Mellon Asset Mgmt. N.A. U.S. Broad Market Equity Equity Index Fund	12,168,990	
BNY Mellon Asset Mgmt. N.A. Equity Index Fund	8,124,988	
BNY Mellon Asset Mgmt. N.A. U.S. Large Cap Equity Index Fund	30,138,963	
BNY Mellon Asset Mgmt. N.A. Emerging Market Equity Index Fund	2,203,035	
BNY Mellon Asset Mgmt. N.A. U.S. Treasury Inflation-Protected Securities (TIP	968,105	
BNY Mellon Asset Mgmt. N.A. U.S. REIT Index Fund	2,701,057	
Brandes International Equity Fund	7,336,605	
Calvert SI Balance Fund	2,071,355	
Dodge and Cox Income Fund	13,349,028	
PERSI Choice Plan Contribution Holding Account	1,752,508	
PERSI Choice Plan Loan Fund	9,703,477	
T Rowe Price Small Cap Fund	26,528,715	
Total Return Fund	736,534,723	
Vanguard Growth & Income Fund	29,115,866	
PERSI Short Term Investment Portfolio	22,876,161	
Total Choice Plan		936,839,117
Sick Leave Insurance Reserve Fund		
State Street Global Advisors-Domestic Equity	291,359,625	
State Street Global Advisors-International Equity	74,325,862	
State Street Global Advisors-Fixed Income	152,493,025	
Total Sick Leave Insurance Reserve Fund		518,178,512
Total Fair Value, Including Investment Receivables and Payables		18,171,911,697
Add: Investments Purchased Payable		176,757,520
Less: Investments Sold Receivable		(73,538,992)
Less: Interest and Dividends Receivable		(58,898,968)
Total Fair Value, Net of Investment Receivables and Payables		**$ 18,216,231,257**

(Concluded)

INVESTMENT SECTION

Investment Results for the Year Ended June 30, 2018

MANAGERS	TOTAL FAIR VAL (MILLIONS)	% OF TOTAL FUND	Investment Performance for Periods Ending FISCAL	1 YR.	3 YRS. *	5 YRS. *	10YRS. *
U.S. EQUITY							
BNY ASSET MANAGEMENT N.A. MID CAP	307.5	1.7%	15.9	15.9	9.9	12.8	10.5
BNY ASSET MANAGEMENT N.A. R2000 SMALL CAP	232.6	1.3%	17.4	17.4	11.1	12.5	10.6
BNY ASSET MANAGEMENT N.A. S&P 500 LC	2,470.4	14.2%	14.3	14.3	11.9	13.4	10.1
MOUNTAIN PACIFIC	572.3	3.3%	10.5	10.5	12.3	14.5	12.4
DONALD SMITH & CO.	463.2	2.7%	8.3	8.3	10.0	9.8	11.1
PEREGRINE	581.2	3.3%	28.7	28.7	21.2	20.7	14.0
TOTAL U.S. PUBLICLY TRADED EQUITY	4,627.2	26.5%	15.1	15.1	12.6	13.8	11.2
BENCHMARK - Russell 3000			14.8	14.8	11.6	13.3	10.2
PRIVATE EQUITY							
IDA-WEST	3.3	0.0%	20.6	20.6	6.4	5.5	13.6
GALEN III	17.7	0.1%	7.6	7.6	1.8	2.1	0.8
PROVIDENCE EQ PARTNERS	63.3	0.4%	21.0	21.0	17.8	14.2	9.0
CHISOLM PARTNERS	0.9	0.0%	(19.5)	(19.5)	(9.4)	1.0	15.1
GOENSE BOUNDS	-	0.0%	(19.1)	(19.1)	6.2	(7.7)	(11.0)
HWY 12 FD VENTURE LP	72.1	0.4%	82.4	82.4	27.8	18.7	10.6
T3 PARTNERS II L.P.	138.3	0.8%	5.1	5.1	10.1	15.6	9.2
APOLLO MGMT LP	53.7	0.3%	12.0	12.0	5.8	10.4	10.7
GREEN EQUITY IV L.P.	24.7	0.1%	21.9	21.9	17.1	17.6	16.9
GORES CAPITAL AD LLC	11.2	0.1%	(3.8)	(3.8)	5.8	1.5	5.3
W CAPITAL PARTNERS	0.2	0.0%	(40.2)	(40.2)	(40.6)	(32.4)	(21.4)
FRAZIER TECH VENTURES II	26.3	0.2%	45.8	45.8	19.0	26.2	11.6
KOHLBERG & CO.	49.2	0.3%	22.5	22.5	16.3	14.6	12.0
HAMILTON SECONDARY	32.0	0.2%	15.9	15.9	9.5	11.0	9.1
CVC EUROPEAN EQUITY	31.7	0.2%	18.6	18.6	23.0	18.0	12.3
HAMILTON LANE CO-INVESTMENT FUND	62.8	0.3%	9.5	9.5	5.5	11.0	5.8
BRIDGEPOINT EUROPE III	46.9	0.3%	14.5	14.5	9.7	6.9	2.4
NEWBRIDGE ASIA LP	0.9	0.0%	51.2	51.2	(1.3)	(0.9)	11.5
JH WHITNEY EQUITY PARTNERS IV	2.7	0.0%	5.0	5.0	(11.0)	(7.5)	(2.1)
BLACKSTONE CAPITAL PARTNERS	111.7	0.6%	11.9	11.9	9.4	13.7	8.3
ENHANCED EQUITY FUND LP	3.0	0.0%	35.0	35.0	0.0	0.0	0.0
LINDSEY, GOLDBERG, BESSEMER	36.6	0.2%	34.9	34.9	14.4	11.7	10.7
KKR 2006 FUND	53.6	0.3%	21.1	21.1	16.5	15.9	12.5
FIRST RESERVE FUND XI	8.9	0.1%	(6.6)	(6.6)	(26.1)	(23.7)	(11.5)
CERBERUS INST PARTNERS	7.4	0.0%	60.7	60.7	33.4	23.2	15.6
EPIC VENTURE FUND	12.4	0.1%	27.5	27.5	6.7	11.2	9.5
ADVENT INTERNATIONAL	64.9	0.4%	14.5	14.5	16.9	18.5	11.9
ASCRIBE CAPITAL LLC	17.7	0.1%	(3.3)	(3.3)	10.6	10.2	
VERITAS CAPITAL PARTNERS	59.2	0.3%	27.4	27.4	16.8	17.7	
ENDEAVOUR CAPITAL PARTNERS	46.9	0.3%	19.0	19.0	7.9	10.2	
SILVER LAKE PARTNERS**	3.2	0.0%	0.0	0.0			
ZESIGER CAPITAL GROUP	16.9	0.1%	(13.7)	(13.7)	(10.1)	(4.7)	(3.8)
TOTAL PRIVATE EQUITY	1,080.3	6.2%	18.3	18.3	10.0	10.5	8.3
REAL ESTATE							
KOLL PARTNERS	564.1	3.1%	10.3	10.3	13.8	10.6	(3.5)
OLYMPIC IDA FUND II	67.1	0.4%	44.5	44.5	23.2	20.7	8.8
CASCADE	9.6	0.1%	5.3	5.3	8.6	13.8	1.7
ADELANTE - PUBLIC R/E	534.6	3.1%	5.3	5.3	9.1	10.8	8.5
BNY ASSET MANAGEMENT N.A. REIT INDEX	274.7	1.6%	4.0	4.0	7.3	8.0	
PRUDENTIAL	64.8	0.4%	7.9	7.9	9.9	11.6	4.6
TOTAL R/E MANAGERS	1,514.9	8.7%	8.0	8.0	10.7	11.3	3.9
BENCHMARK - NCREIF			7.1	7.1	8.7	10.0	6.1
TOTAL U.S. EQUITY	**7,222.4**	**41.4%**	14.0	14.0	11.8	12.7	9.2
BENCHMARK - Russell 3000			14.8	14.8	11.6	13.3	10.2
GLOBAL EQUITY							
BARING ASSET MANAGEMENT[1]	0.1	0.0%	74.5	74.5	39.2	28.1	15.1
BRANDES INVST PARTNERS	448.9	2.6%	7.6	7.6	6.2	8.5	5.3
CAPITAL GUARDIAN[1]	0.4	0.0%	16.7	16.7	24.8	19.8	11.0
BERNSTEIN GLOBAL	447.3	2.6%	6.1	6.1	5.6	10.0	3.4
LONGVIEW PARTNERS	467.0	2.7%	11.2	11.2	9.5	13.5	
BLS CAPITAL	533.1	3.0%	21.3	21.3			
FIERA CAPITAL	483.4	2.7%	14.2	14.2			
WALTER SCOTT	491.2	2.8%	16.2	16.2			
TOTAL GLOBAL EQUITY	**2,871.4**	**16.4%**	12.8	12.8	9.3	10.9	6.3
TOTAL U.S./GLOBAL EQUITY	**10,093.8**	**57.8%**	13.6	13.6	11.1	12.2	8.1
BENCHMARK - Russell 3000			14.8	14.8	11.6	13.3	10.2

INVESTMENT SECTION

Investment Results for the Year Ended June 30, 2018

MANAGERS	TOTAL FAIR VAL (MILLIONS)	% OF TOTAL FUND	Investment Performance for Periods Ending FISCAL	1 YR.	3 YRS. *	5 YRS. *	10YRS. *
INTERNATIONAL EQUITY							
GENESIS INVESTMENTS	373.3	2.1%	8.7	8.7	6.7	4.6	4.6
BNY ASSET MANAGEMENT N.A. INTL STK INDX	736.4	4.3%	7.2	7.2	5.3	6.8	3.2
MONDRIAN	475.5	2.7%	5.3	5.3	4.5	6.8	3.7
BERNSTEIN EMERGING	358.2	2.1%	2.1	2.1	3.2	5.1	0.5
BNY ASSET MANAGEMENT N.A. EMERGING STK IND	719.6	4.1%	8.2	8.2	5.5	5.0	
TOTAL INTERNATIONAL EQUITY	**2,663.0**	**15.3%**	6.6	6.6	5.1	5.9	3.3
EAFE INDEX NET			6.8	6.8	4.9	6.4	2.8
TOTAL EQUITY	**12,756.8**	**73.1%**	12.1	12.1	9.9	10.9	7.3
BENCHMARK - Russell 3000			14.8	14.8	11.6	13.3	10.2
FIXED INCOME							
DBF & CO FIXED	89.3	0.5%	0.0	0.0	1.2	2.0	3.3
DBF & CO-IDAHO MTGS	711.1	4.1%	0.7	0.7	2.9	3.4	5.2
STATE ST ADV-FX	1,681.1	9.6%	(0.7)	(0.7)	1.9	2.4	4.0
SSGA-TIPS	1,556.3	8.9%	2.3	2.3	2.0	1.8	4.2
CLEARWATER-TBA	201.6	1.2%	(0.3)	(0.3)	2.0	2.6	3.5
WESTERN ASSET	217.7	1.2%	0.8	0.8	4.1	4.3	6.3
IR+M	201.1	1.2%	(0.2)	(0.2)			
TOTAL FIXED INCOME	**4,658.2**	**26.7%**	0.6	0.6	2.1	2.3	4.1
BENCHMARK - Bloomberg Barclays Aggregate Bonds			(0.4)	(0.4)	1.7	2.3	3.7
OTHER							
UNALLOCATED CASH	38.1	0.2%	1.5	1.5	4.1	3.3	3.6
MTMS TRANSITION [1]	0.3	0.0%	(9.4)	(9.4)	(5.2)		
TOTAL OTHER	**38.4**	**0.2%**					
COMBINED TOTAL	**17,453.4**	**100.0%**	8.8	8.8	7.7	8.6	6.7
BENCHMARK - 55% Russell 3000 30% BB Aggregate Bonds 15% MSCI EAFE Index			8.9	8.9	7.7	9.0	7.4

Add: Other PERSI DC Choice Plan Investments[2]	200.3
Sick Leave Fixed Income Investments	152.4
Sick Leave Equity Securities	365.7
Investments Purchased	176.8
Less:Interest and Dividends Receivable	(58.9)
Investments Sold	(73.5)
Total Pension Fund Investments Net of Receivables	**18,216.2**

*Rates of Return are annualized

**Accounts opened less than one year

[1]Large inflows/outflows/dividends receivable in this account results in widely variable results

[2]Total Return Fund/Judges' Retirement Fund included in investment results

Performance is gross of fees

Prepared using a time weighted rate of return per
BNY Mellon Global Risk Solutions, a division of BNY Mellon Asset Servicing

INVESTMENT SECTION

Schedule of Investment Income for the Last Six Years

Year	Interest	Dividends	Gains & Losses *	Total
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	(65,219,864)	265,791,601
2017	119,967,098	220,630,874	1,538,645,824	1,879,243,796
2018	127,684,540	235,997,226	1,081,844,372	1,445,526,137

*Includes realized and unrealized gains and losses and other investment income.

Largest Stock Holdings (by Fair Value) June 30, 2018

	Shares	Stock		Fair Value
1	75,981	AMAZON.COM INC	$	129,152,504
2	570,227	MASTERCARD INC		112,061,010
3	990,898	MICROSOFT CORP		97,712,452
4	523,643	APPLE INC		96,931,556
5	75,349	ALPHABET INC-CL C		84,063,112
6	1,843,475	SAMSUNG ELECTRONICS CO LTD		77,162,921
7	389,315	FACEBOOK INC		75,651,691
8	1,121,166	CITIGROUP INC		75,028,429
9	436,847	SIMON PROPERTY GROUP INC		74,346,991
10	868,784	NIKE INC		69,224,709

A complete list of portfolio holdings is available upon request.

Largest Bond Holdings (by Fair Value) June 30, 2018

	Par	Bonds	Description		Fair Value
1	64,935,638	US TREASURY INFLATION INDEX SECURITY	0.125% 04/15/2019 DD 04/15/14	$	63,856,661
2	57,677,674	US TREASURY INFLATION INDEX SECURITY	0.125% 04/15/2020 DD 04/15/15		56,149,368
3	57,298,767	US TREASURY INFLATION INDEX SECURITY	0.125% 04/15/2021 DD 04/15/16		56,050,893
4	56,148,092	US TREASURY INFLATION INDEX SECURITY	0.125% 01/15/2022 DD 01/15/12		54,444,549
5	56,383,654	US TREASURY INFLATION INDEX SECURITY	0.625% 01/15/2026 DD 01/15/16		53,905,714
6	53,717,417	US TREASURY INFLATION INDEX SECURITY	1.125% 01/15/2021 DD 01/15/11		52,764,715
7	55,121,733	US TREASURY INFLATION INDEX SECURITY	0.125% 07/15/2022 DD 07/15/12		52,715,792
8	52,737,370	US TREASURY INFLATION INDEX SECURITY	0.125% 01/15/2023 DD 01/15/13		52,491,560
9	54,194,167	US TREASURY INFLATION INDEX SECURITY	0.625% 01/15/2024 DD 01/15/14		52,210,668
10	55,459,264	US TREASURY INFLATION INDEX SECURITY	0.375% 07/15/2023 DD 07/15/13		51,277,150

A complete list of portfolio holdings is available upon request.

INVESTMENT SECTION

Schedule of Fees and Commissions for the Year Ended June 30, 2018

Broker Name	Base Commission	Total Shares	Commission per Share
BMO CAPITAL MARKETS CORP, NEW YORK	$ 48,349	1,227,636	$ 0.03938
CITIGROUP GBL MKTS INC, NEW YORK	55,249	2,159,462	0.02558
CITIGROUP GLOBAL MARKETS LTD, LONDON	40,810	6,728,371	0.00607
DEUTSCHE BK SECS INC, NY (NWSCUS33)	45,746	3,317,542	0.01379
GOLDMAN SACHS & CO, NY	87,923	22,440,764	0.00392
ICBC FINCL SVCS, NEW YORK	59,440	1,412,372	0.04209
ISI GROUP INC, NEW YORK	44,161	1,003,023	0.04403
J P MORGAN SECS LTD, LONDON	49,029	5,928,727	0.00827
J.P MORGAN SECURITIES INC, NEW YORK	109,393	5,185,056	0.02110
MERRILL LYNCH INTL LONDON EQUITIES	122,016	62,202,671	0.00196
MERRILL LYNCH PIERCE FENNER SMITH INC NY	67,499	2,924,725	0.02308
MORGAN STANLEY & CO INC, NY	71,339	41,363,636	0.00172
NATIONAL FINL SVCS CORP, NEW YORK	50,020	1,658,372	0.03016
RBC CAPITAL MARKETS LLC, NEW YORK	49,507	1,581,148	0.03131
UBS SECURITIES LLC, STAMFORD	135,946	5,243,353	0.02593
UBS WARBURG, LONDON	46,026	10,922,030	0.00421
WEEDEN & CO, NEW YORK	50,306	1,308,800	0.03844
WELLS FARGO SECURITIES, LLC, NEW YORK	38,677	977,435	0.03957
Other Brokers under $35,000	1,269,118	208,182,548	0.00610
TOTAL BROKER COMMISSIONS	**$ 2,440,553**	**385,767,671**	$ 0.00633

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, 2018

PRIVATE EQUITY COSTS BY ACCOUNT

*Ascribe Capital LLC	$ 426,222
Advent International GPE, L.P.	746,891
Apollo Investment Fund, L.P.	171,093
Blackstone Capital Partners, L.P.	1,729,912
Bridgepoint Capital LTD	850,970
CVC European Equity Partners, L.P.	404,738
Endeavour Capital Fund, L.P.	853,027
First Reserve, L.P.	72,718
Green Equity Investors, L.P.	(162,357)
Hamilton Lane Co-Investment Fund, L.P.	88,349
Hamilton Lane Secondary Funds, L.P.	515,266
J.H. Whitney, L.P.	(27,960)
KKR, L.P.	252,944
Kohlberg Investors, L.P.	(169,998)
Lindsay Goldberg, L.P.	888,131
Newbridge Asia IV, L.P.	(24,870)
Providence Equity Partners III, L.P.	471,601
TPG, L.P.	959,893
Veritas Capital Partners, LLC	804,499
TOTAL	**$ 8,851,070**

*formerly American Securities Opportunities

INVESTMENT SECTION

Schedule of Fees and Commissions for the Year Ended June 30, 2018

	Average Assets Under Management	Fees	Basis Points
Investment Fees			
Investment Manager Fees			
Equity Managers	$ 9,394,510,010	$ 32,913,663	35
Fixed Income Managers	4,522,389,095	5,211,948	12
Real Estate Managers	689,335,361	6,275,516	91
Total Average Assets	$ 14,606,234,466		
Total Investment Manager Fees		44,401,127	30
Other Investment Service Fees			
Custodian/Record Keeping Fees		3,283,824	
Investment Consultant Fees		980,150	
Legal Fees		289,134	
Actuary/Audit Service Fees		510,557	
Total Investment Service Fees		5,063,665	3
Total Defined Benefit Plans/Defined Contribution Plans' Fees		$49,464,792	33
Total Other Trust Funds' Fees		271,765	
Total Fees		**$49,736,557**	

Note: Broker Fees and Private Equity Costs are included on a separate schedule

INVESTMENT SECTION

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 non-strategic 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 mandate given the manager, 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.

STRATEGIC ASSET ALLOCATION

(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	6.58%	2.25%	4.33%	12.67%

** Expected arithmetic return net of fees and expenses*

Data provided by Callan Associates 2015

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.

ACTUARIAL

SECTION

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October 18, 2018

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, 2018. 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 2018, 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 July 1, 2016 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 2016, the Board approved a 1.0% contribution rate increase to take effect on July 1, 2018. In October 2017, the Board delayed this rate increase until July 1, 2019.

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.

		Weighted Total		Fire & Police		General/Teachers	
Year of Change	Total Rate	Member Rate	Employer Rate	Member Rate	Employer Rate	Member Rate	Employer 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
2019	19.42	7.43	11.99	8.81	12.28	7.16	11.94

Our July 1, 2018 actuarial valuation found that the System's current rates are sufficient to pay the System's normal cost rate of 14.94%. As of July 1, 2018, there is an unfunded actuarial liability of $1,580.1 million. The contribution rates as currently scheduled are sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) in 13.9 years, which is lower than the 25-year amortization period required by statute.

Funding Status

Based on the July 1, 2018 actuarial valuation, the unfunded actuarial accrued liability was decreased by $237.2 million due to an asset gain recognized as of July 1, 2018. Specifically, the System's assets earned a net return after expenses of 8.41%, which is 1.41% above the actuarial assumption of 7.00%. All other actuarial experience gains and losses decreased the actuarial accrued liability by $44.6 million. Thus, the total experience gain for the year was $281.8 million.

The UAAL increased by $85.6 million due to the March 1, 2018 Discretionary COLA of 0.90%, and decreased by $0.4 million due to the delay in the contribution rate increase (originally scheduled to take effect in 2018, delayed to 2019). In addition, the UAAL increased by $10.1 million because actual contributions plus assumed investment returns were less than the normal cost and the interest on the UAAL.

All of these items resulted in a total actuarial gain of $186.5 million and a change in funding status from an 89.6% funding ratio on July 1, 2017 to 91.2% on June 30, 2018. 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 7.05%, net of investment expenses. This figure includes 0.05% 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 7.05%. Results and further details on these items can be found in our GASB 67 Report.

Assumptions

Our July 1, 2018 actuarial valuation report presented summaries of the actuarial assumptions and methods used in the valuation. The last major experience study, completed in June 2018, covered the period July 1, 2011 through June 30, 2017. The next major experience study, to be completed in 2022, will cover the period July 1, 2017 through June 30, 2021.

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.

ACTUARIAL SECTION

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.

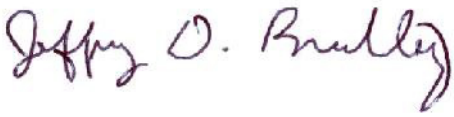
The enclosed Exhibits 1 through 9 provide further related information. Milliman is completely responsible for these exhibits. Specifically, they are:

- 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 Schedule of Contributions from the Employer Expressed as a Percentage of Payroll
- Exhibit 9 Provisions of Governing Law

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,

Robert L. Schmidt, 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

RLS/JDB/mji

Public Employee Retirement System of Idaho

EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2018

1. Investment Return (Adopted July 1, 2018)

The annual rate of investment return on the assets of the System, net of investment expenses, is assumed to be 7.05% (including 0.05% for administrative 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, 2017 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, 2017 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		Female	
Age	First Year Eligible	Thereafter	First Year Eligible	Thereafter	First Year 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			
	Male		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	*	*	*	*

** 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

** 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	.01%	.01%	.01%	.01%	.05%
35	.03	.03	.01	.02	.04
45	.10	.11	.10	.07	.07
55	.61	.32	.28	.20	.30

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. This cost method was adopted as of July 1, 2013 by the Board in order to be consistent with the cost method required by GASB Statements 67 and 68.

The normal cost rates used in this valuation were calculated based on all current active members as of July 1, 2018, for each sex and type of employee in the valuation. The normal costs and projected fiscal year 2018 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, 2018 in conjunction with the July 1, 2018 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 2018 for the period July 1, 2011 through June 30, 2017 and reviewed economic assumptions, mortality and all demographic assumptions. These assumptions will be studied in 2022 for the period from July 1, 2017 through June 30, 2021. Assumptions were adopted as noted.

16. Recent Changes

The 2018 valuation results reflect the March 1, 2018 Discretionary COLA of 0.90% as well as the contribution rate increase scheduled to go into effect on July 1, 2019.

Public Employee Retirement System of Idaho

EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date July 1	Number	Annual Salaries *		
		Annual Valuation Payroll	Average Annual Pay	% Increase in Average Annual Pay
2009	67,813	$2,644,665,000	$38,999	2.5%
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
2013	65,535	2,634,566,000	40,201	2.2
2014	66,223	2,676,344,000	40,414	0.5
2015	67,008	2,756,913,000	41,143	1.8
2016	68,517	2,833,369,000	41,353	0.5
2017	70,073	3,040,649,000	43,393	4.9
2018	71,112	3,188,316,000	44,835	3.3

* *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.*

Public Employee Retirement System of Idaho

EXHIBIT 3: SCHEDULE OF RETIREE AND BENEFICIARY VALUATION DATA [1]

Valuation Date July 1	Number			COLA Percentage Increases Granted Previous March 1
	Total	Added	Removed	
2009	32,197	2,235	950	1.0%
2010	33,625	2,335	907	-1.48% + 2.48% Partial Restoration
2011	35,334	2,652	943	1.0
2012	37,150	2,769	953	1.0
2013	38,947	2,815	1,018	1.0
2014	40,776	2,852	1,023	1.0
2015	42,657	2,889	1,008	1.70% + 2.30% Partial Restoration
2016	44,181	2,634	1,110	0.20% + 0.80% Partial Restoration
2017	45,468	2,746	1,459	1.1
2018	46,907	2,657	1,218	1.9

Valuation Date July 1	Annual Benefits				
	Total Rolls End of Year	Added to Rolls [2]	Removed from Rolls	Average	% Increase in Average
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
2017	836,201,000	60,924,000	18,000,000	18,391	2.4
2018	884,827,000	64,770,000	16,144,000	18,863	2.6

(1) Information regarding the number of retirees and beneficiaries added to, and removed from, the rolls was not used in the actuarial valuations.
(2) Includes postretirement increases.

Public Employee Retirement System of Idaho

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 (4)	UAAL as a Percentage of Covered Payroll
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
July 1, 2017	15,296.7	17,101.0	37.7	1,766.6	89.6	3,089.6	57.2
July 1, 2018	16,274.8	17,889.0	34.1	1,580.1	91.2	3,200.4	49.4

(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.

Public Employee Retirement System of Idaho

EXHIBIT 5: SOLVENCY TEST
(ALL DOLLAR AMOUNTS IN MILLIONS)

		Actuarial Accrued Liabilities For					
Actuarial Valuation Date	Actuarial Value of Assets	Active Member Contributions (A)	Retirees and Beneficiaries (B)	Active Members (Employer Financed Portion) (C)	Portion of Actuarial Accrued Liabilities Covered by Assets (A)	(B)	(C)
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
July 1, 2017	15,296.7	3,554.1	9,609.7	3,937.2	100.0	100.0	54.2
July 1, 2018	16,274.8	3,611.4	10,121.1	4,156.5	100.0	100.0	61.2

Public Employee Retirement System of Idaho

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

	Gain(Loss) for Period		
	2015-2016	**2016-2017**	**2017-2018**
Investment Income			
Investment income was greater (less) than expected.	$ (742.9)	$ 772.1	$ 237.2
Pay Increases			
Pay increases were less (greater) than expected.	165.5	(198.0)	113.5
Membership Growth & Return to Employment			
(Additional) liability for new members.	(24.9)	(29.1)	(33.2)
Death After Retirement			
Retirees died younger (lived longer) than expected.	11.8	17.6	37.6
Cost of Living Adjustment (COLA)			
Different Automatic COLA than expected.	NA	NA	NA
Other			
Miscellaneous gains (and losses) resulting from other causes. (2)	(44.0)	(68.3)	(73.3)
Total Gain (Loss) During the Period From Actuarial Experience	$ (634.5)	$ 494.3	$ 281.8
Contribution Income			
Actual contributions were greater (less) than the normal cost and interest on the Unfunded Actuarial Accrued Liability.	0.3	(42.5)	(10.1)
Non-Recurring Items			
Changes in actuarial assumptions caused a gain (loss) (3)	(13.2)	None	None
Changes in actuarial methods caused a gain (loss)	None	None	None
Changes in plan provisions caused a gain (loss) (4)	(68.5)	(9.0)	(85.6)
Changes to Contribution Rate Increase Schedule	None	(3.3)	0.4
Composite Gain (Loss) During the Period	$ (715.9)	$ 439.5	$ 186.5

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

(1) Reflects losses on active and inactive member experience.
(2) For 2015-2016, this reflects changes made to the demographic assumptions adopted according to the 2016 Experience Study
(3) For 2015-16 this reflects the 0.80% retroactive COLA, effective March 1, 2016. For 2016-17 this reflects the 0.10% discretionary COLA, effective March 1, 2017. For 2017-18 this reflects the 0.90% retroactive COLA, effective March 1, 2018.

Public Employee Retirement System of Idaho

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

Fiscal Year Ending	Covered Employee Payroll [1]	Actual PERSI Employer Contributions Dollar Amount [2]	Actual ORP Contributions Dollar Amount	Total Actual Employer Contributions	Actuarially Determined Contribution (ADC) [3]	Percentage of ADC Dollars Contributed
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	112
6/30/17	3,089.6	351.6	4.8	356.4	337.2	106
6/30/18	3,200.4	364.2	4.9	369.1	388.3 [4]	95

(1) 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.

(2) 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.

(3) 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.

(4) The ADC for the PERSI fiscal year ending June 30, 2018 is based on 11.98% of covered payroll as computed in the 2016 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.

Public Employee Retirement System of Idaho

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

Fiscal Year Ending	Actual PERSI Employer Contribution % (1)	Actuarially Determined Contribution (ADC) % (2)	Percentage of ADC Contributed
6/30/09	10.44%	8.483%	123%
6/30/10	10.44	9.523	109
6/30/11	10.44	12.243	85
6/30/12	10.44	12.375	84
6/30/13	10.44	10.813	97
6/30/14	11.36	11.880	96
6/30/15	11.36	11.570	98
6/30/16	11.38	10.110	113
6/30/17	11.38	10.760	106
6/30/18	11.38	11.980 (3)	95

(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, 2018 is based on 11.98% of covered payroll as computed in the 2016 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.

Public Employee Retirement System of Idaho

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, 2018. 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, 2018 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, 2018 is 6.79% (8.36%) of salary. As described in our July 1, 2018 Actuarial Valuation, there is a rate increase scheduled for July 1, 2019. The currently scheduled rate increase is reflected in this report.

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, 2018 Actuarial Valuation, there is a rate increase scheduled for July 1, 2019. The currently scheduled rate increase is 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).

Service Retirement Allowance (continued)

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

Eligibility
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 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. (Section 59-1355).

Gain Sharing

Beginning in 2000, under Section 59-1309, Idaho Code, 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 114% funded ratio are considered extraordinary gains. The Board has the authority to rescind the Gain Sharing up to the date of distribution.

ACTUARIAL SECTION

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October 18, 2018

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, 2018; the next is scheduled for July 1, 2019.

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%.

After the July 1, 2016 PERSI and FRF valuation reports were completed, the PERSI Board approved a contribution rate increase scheduled for July 1, 2018. This was adopted in October 2016 due to a drop in funded status because of low investment returns in the fiscal years 2015 and 2016. In 2017, the rate increase was delayed one year: from July 1, 2018 to July 1, 2019.

The contribution rate increase is currently scheduled to take effect on July 1, 2019. If implemented as scheduled, this will raise the member contribution for Class D Firefighters from 8.36% to 8.81%. It will also increase the PERSI Rate employer contribution from 11.66% to 12.28% for all firefighter groups.

Funding Status

Based on the July 1, 2018 actuarial valuation, there is currently no Unfunded Actuarial Accrued Liability (UAAL) to amortize. This is consistent with the results from the July 1, 2017 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 decreased by $1.8 million due to an asset gain partially recognized as of July 1, 2018. Specifically, the Fund's assets earned an annual average net return after expenses of 8.41% for the 2017-18 fiscal year which was more than the actuarial assumption of 7.00%. The UAAL was also reduced by $7.1 million due to the February 1, 2018 FRF COLA being 1.88%, 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 $11.7 million. The UAAL decreased by $13.2 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 126.6% funding ratio on July 1, 2017, to 136.2% on June 30, 2018. 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 7.05%, net of investment expenses. This figure includes 0.05% 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 7.05%.

For the July 1, 2018 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 fair 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, 2018 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 2022, will cover the period July 1, 2017 through June 30, 2021.

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.

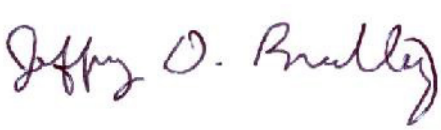
On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and Fellows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

Respectfully submitted,

Robert L. Schmidt, 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

RLS/JDB/mji

Idaho Firefighters' Retirement Fund

EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2018

1. Investment Return (Adopted July 1, 2012)

The annual rate of investment return on the assets, net of investment expenses, for the Fund is assumed to be 7.05% (including 0.05% for administrative 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; subsequent valuations have used 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)

The 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, 2018 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, 2018 valuation report.

6. Future Salaries (Adopted July 1, 2016)

This assumption is not applicable since all remaining actively employed members are assumed to retire at the valuation date. No future withdrawals, disabilities, or salary increases are anticipated.

7. Replacement of Terminated Members

The FRF 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, 2018, amounted to $3,962,841 or approximately 5.3% 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 3.00% 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, 2018.

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, 2018 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, 2017, and reviewed economic assumptions, mortality and all demographic assumptions. These assumptions will be studied in 2022 for the period from July 1, 2017, through June 30, 2021. 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 Base Plan Discretionary COLA of 0.90% which went into effect March 1, 2018.

Idaho Firefighters' Retirement Fund

EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date July 1	Number	Annual Salaries Total [1]	Annual Salaries Average	Annual Increase in Average
2006	13	$ 1,034,693	$ 79,592	(0.6)%
2007	10	791,125	79,113	5.2
2009	5	437,818	87,564	2.6
2011	4	(2)	(2)	(2)
2013	3	(2)	(2)	(2)
2014	2	(2)	(2)	(2)
2015	2	(2)	(2)	(2)
2016	2	(2)	(2)	(2)
2017	1	(2)	(2)	(2)
2018	1	(2)	(2)	(2)

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

(2) Salary information is not shown for years in which there are fewer than 5 active members.

Idaho Firefighters' Retirement Fund

EXHIBIT 3: SCHEDULE OF RETIREE AND BENEFICIARY VALUATION DATA [1]

Valuation Date July 1	Number			COLA Increases Granted Previous January 1
	Total	Added	Removed	
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
2017	517	2	9	2.85
2018	507	1	11	1.88

Valuation Date July 1	Annual Benefits				
	Total [2]	Added [3]	Removed	Average	Annual Increases in Average
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
2017	26,687,801	815,356	413,347	51,621	2.9
2018	26,650,120	515,311	552,992	52,564	1.8

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

(2) Combined annual benefits from FRF and PERSI. The FRF benefits comprised $19,276,612 of the 2018 total.

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

Idaho Firefighters' Retirement Fund

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
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)
2017	369.8	292.2	(77.6)	126.6	70.6	(109.9)
2018	385.7	283.2	(102.5)	136.2	74.8	(137.0)

(1) 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; subsequent valuations use a 3-year smoothing.

(2) 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.

(3) Actuarial accrued liabilities less actuarial value of assets.

(4) 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.

Idaho Firefighters' Retirement Fund

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

Actuarial Valuation Date July 1	Actuarial Value of Assets [2]	Actuarial Liabilities [1] for (A) Active Member Contributions	(B) Retirees and Beneficiaries	(C) Active Members (Employer Financed Portion)	Portion of Actuarial Liabilities Covered by Assets (A)	(B)	(C)
2006	$248.8	$0.0	$308.1	$4.2	100.0%	80.8%	0.0%
2007	291.5	0.0	312.0	2.8	100.0	93.4	0.0
2009	225.3	0.0	324.0	1.3	100.0	69.5	0.0
2011	290.4	0.0	310.7	0.8	100.0	93.5	0.0
2013	307.0	0.0	320.4	1.1	100.0	95.8	0.0
2014	352.2	0.0	314.9	0.7	100.0	100.0	100.0
2015	360.4	0.0	301.3	0.6	100.0	100.0	100.0
2016	363.4	0.0	294.0	0.7	100.0	100.0	100.0
2017	369.8	0.0	291.7	0.5	100.0	100.0	100.0
2018	385.7	0.0	282.7	0.5	100.0	100.0	100.0

(1) Computed based on funding policy methods and assumptions.

(2) 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; subsequent valuations use a 3-year smoothing.

Idaho Firefighters' Retirement Fund

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

	Gain (Loss) for Period		
	2014-2015	2015-2016	2017-2018
Investment Income			
Investment income was greater (less) than expected, net of asset smoothing, if applicable.	$ (3.9)	$ 5.9	$ 1.8
COLAs			
COLAs were less (greater) than expected.	7.8	3.2	7.1
Other			
Miscellaneous gains (and losses) resulting from other causes including retirees dying younger (living longer) than expected.	0.4	0.0	2.8
Total Gain (Loss) During the Period From Actuarial Experience	$ 4.3	$ 9.1	$ 11.7
Contribution Income			
Actual contributions plus assumed investment returns were greater (less) than the normal cost and interest on the UAAL.	5.9	(0.2)	13.2
Non-Recurring Items			
Effect of automatic PERSI COLA.	NA	NA	NA
Changes in actuarial assumptions and benefits caused a gain (loss).	NA	NA	NA
PERSI Restoration of Purchasing Power and Discretionary COLA.	NA	NA	NA
Composite Gain (Loss) During the Period	$ 10.2	$ 8.9	$ 24.9

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
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
2017	70,568,501	12,273	3,638,264	3,802,450	7,452,987	0	NA
2018	74,848,287	12,226	3,731,159	3,962,841	7,706,226	0	NA

(1) 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.

(2) 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.

(3) 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 [2]	PERSI Rate	Statutory FRF Rate	Additional Rate	Social Security	Hired Before 10/1/80 [3]	Hired After 9/30/80 [4]
Effective Date:	July 1	October 1	January 1	October 1	January 1	October 1	October 1
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 [5]	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
2017	5.20	11.66	8.65	5.00	7.65	25.31	24.31
2018	5.30	11.66	8.65	5.00	7.65	25.31	24.31

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

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

(3) PERSI rate plus Statutory FRF rate plus additional rate.

(4) PERSI rate plus additional rate plus Social Security.

(5) 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, 2018. 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

Exhibit 9 (continued)

July 1, 2018

	Public Employee Retirement System	Firefighters' Retirement Fund
Member Contribution Rate	8.36% of salary.	11.45% of salary.[1]
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 [1] 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.

(2) Completed years of service. No partial years of service are recognized.

Exhibit 9
(continued)

	Public Employee Retirement System	Firefighters' Retirement Fund
Non-Duty Disability Retirement Allowance		
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 [1] times years of service [2], 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 requirement, otherwise same as non-duty disability retirement.	No age or service requirements.
Amount of Annual Allowance	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		
Eligibility	Firefighters hired after October 1, 1980 and prior to July 1, 1993, with less than 10 years of service.	None.
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.

(2) Completed years of service. No partial years of service are recognized.

Exhibit 9 (continued)

	Public Employee Retirement System	Firefighters' Retirement Fund
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.

(2) Completed years of service. No partial years of service are recognized.

Exhibit 9
(continued)

	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 [(2)].
Withdrawal Benefit	Accumulated contributions with interest.	Accumulated contributions with interest.

(2) Completed years of service. No partial years of service are recognized.

Exhibit 9
(concluded)

	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 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.

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October 18, 2018

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, 2019.

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 74.10%: 62.53% employer contribution rate and 11.57% employee contribution rate. Based on the July 1, 2018 valuation assumptions and valuation results, this contribution rate will be sufficient to amortize the Unfunded Actuarial Accrued Liability (UAAL) over the required 25-year period ending July 1, 2043.

Funding Status

Based on the July 1, 2018 actuarial valuation, the UAAL was decreased by $1.195 million due to an asset gain recognized as of July 1, 2018. Specifically, the Fund's assets earned a net return after accounting for all expenses of 8.32%, which is 1.32% above the actuarial assumption of 7.00%. All other experience gains and losses decreased the actuarial liability by $0.889 million. Thus, the total experience gain for the year was $2.084 million.

Also, the UAAL decreased by $0.322 million because actual contributions plus assumed investment returns were more than the normal cost and the interest on the UAAL.

The current contribution rates are adequate to amortize the Normal Cost and UAAL balance over the required 25-year period.

The funding status increased from a 79.35% funding ratio on July 1, 2017, to 82.12% on July 1, 2018. 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 7.05%, net of investment expenses. This figure includes 0.05% 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 7.05%. Results and further details on these items can be found in our GASB 67 and 68 Report.

Assumptions

Our July 1, 2018 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 2018, covered the period July 1, 2011 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.

ACTUARIAL SECTION

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,

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BDL/JDB/rc

Judges' Retirement Fund of the State of Idaho

EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2018

1. Investment Return (Adopted July 1, 2014)

The annual rate of investment return on the assets, net of investment expenses, for the Fund is assumed to be 7.05% (including 0.05% for administrative 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:

Age	Rate of Retirement(1)
55	4%
60	12
65	50
70	75
71	100

(1) 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.

Exhibit 1 (continued)

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, 2017 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.

Exhibit 1
(continued)

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, 2017 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.

Exhibit 1 (continued)

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.

Judges' Retirement Fund of the State of Idaho

EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date July 1	Number	Annual Salaries Total [1]	Annual Salaries Average	Annual Increase in Average
2015	52	$ 6,543,000	$ 125,827	NA
2016	53	6,886,500	129,934	3.3%
2017	50	6,690,000	133,800	3.0%
2018	53	7,257,000	136,928	2.3%

(1) Annualized average salaries for covered members for the 12-month period commencing July 1 to June 30 of the current valuation period.

Judges' Retirement Fund of the State of Idaho

EXHIBIT 3: SCHEDULE OF RETIREE AND BENEFICIARY VALUATION DATA

Valuation Date July 1	Number			COLA Increases Granted Previous Year	
	Total	Added	Removed	JRF	PERSI
2015	92	8	2	0.0%	1.70%
2016	94	2	0	3.70%(1)	0.20%
2017	101	8	1	6.59%(1)	1.10%
2018	102	5	4	3.20%(1)	1.90%

Valuation Date July 1	Annual Benefits				
	Total	Added(2)	Removed	Average	Annual Increases in Average
2015	$5,873,186	$545,609	$121,376	$63,839	NA
2016	6,124,128	250,942	0	65,150	2.1%
2017	6,740,340	690,100	73,888	66,736	2.4%
2018	7,004,642	507,626	243,324	68,673	2.9%

(1) 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%. The raises effective July 1, 2017 ranged from 2.49% to 6.59%. The raises effective July 1, 2018 ranged from 2.63% to 3.20%.

(2) Includes postretirement increases for all retirees and beneficiaries.

Judges' Retirement Fund of the State of Idaho

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) (2)	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%
2017	82,936	104,521	21,585	79.3%	6,162	350.3%
2018	88,071	107,250	19,179	82.1%	6,178	310.4%

(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.

(3) 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.

Judges' Retirement Fund of the State of Idaho

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

Actuarial Valuation Date July 1	Actuarial Value of Assets	Actuarial Liabilities for (A) Active Member Contributions	(B) Retirees and Beneficiaries	(C) Active Members (Employer Financed Portion)	Portion of Actuarial Liabilities Covered by Assets (A)	(B)	(C)
2015	$76,468	$3,130	$70,487	$24,163	100.0%	100.0%	11.8%
2016	75,449	3,574	72,304	24,281	100.0%	99.4%	0.0%
2017	82,936	3,013	78,511	22,997	100.0%	100.0%	6.1%
2018	88,071	3,738	81,706	21,806	100.0%	100.0%	12.0%

Judges' Retirement Fund of the State of Idaho

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

	Gain (Loss) for Period		
	2015-2016	2016-2017	2017-2018
Investment Income			
Investment income was greater (less) than expected, net of asset smoothing, if applicable.	$(4,184)	$3,935	$1,195
Pay Increases			
Pay increases and COLAs were less (greater) than expected.	1,462	416	692
Other			
Miscellaneous gains (and losses) resulting from other causes, includes gains or losses due to retiree mortality experience.	207	(751)	197
Total Gain (Loss) During the Period From Actuarial Experience	$(2,515)	$3,600	$2,084
Contribution Income			
Actual contributions plus assumed investment returns were greater (less) than the normal cost and interest on the UAAL.	(883)	(475)	322
Non-Recurring Items			
Effect of automatic 0.2% PERSI COLA	NA	NA	NA
Changes in actuarial assumptions and benefits caused a gain (loss).	NA	NA	NA
PERSI Restoration of Purchasing Power and Discretionary COLA	NA	NA	NA
Composite Gain (Loss) During the Period	$(3,398)	$3,125	$2,406

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

Judges' Retirement Fund of the State of Idaho

EXHIBIT 7: SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER (Actual Dollar Amounts)

Fiscal Year Ending	Covered Employee Payroll[1]	Total Actual Employer Contributions[2]	Actuarially Determined Contribution (ADC)[3]	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%
6/30/17	6,162,190	3,946,599	3,604,265	109%
6/30/18	6,178,081	4,278,996	3,273,147	131%

(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.

Judges' Retirement Fund of the State of Idaho

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

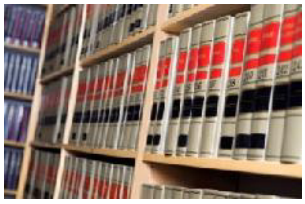
Fiscal Year Ending	Actual JRF Employer Contribution %(1)	Annual Determined Contribution (ADC) %(2)	Percentage of ADC Contributed
6/30/15	58.47%	56.80%	103%
6/30/16	55.28%	56.80%	97%
6/30/17	64.05%	58.49%	109%
6/30/18	69.26%	52.98%	131%

(1) 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.

(2) 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.

Judges' Retirement Fund of the State of Idaho

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, 2018. 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, 2018 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, 2018 is 11.57% of salary. 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, 2018, 62.53% of salary is contributed by the State, during the first 20 years of service (Section 1-2004A).

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).

Exhibit 9
(continued)

Service Retirement Allowance (continued)

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).

Exhibit 9
(continued)

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.

Postretirement Increases (continued)

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 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 (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.

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November 19, 2018

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 actuarial valuations for the Sick Leave of Idaho Retirement Fund (the Fund). The most recent valuation was performed as of July 1, 2017. It is anticipated that future actuarial valuations will be performed every other year with the next valuation to be as of July 1, 2019. The benefits provided by the fund are provided under Idaho Code Section 67-5333 for State employees and Section 33-1228 for School employees and administered by the Public Employee Retirement System of Idaho (PERSI).

Contribution Rates

The financing objective of the Fund is to establish contribution rates that will tend to remain level as percentages of payroll. From 1993 to 2018, the total contribution rate has been between 0.65% and 1.26%; year by year detail including employer and member rates is shown in the table on the following page.

At July 1, 1988, the contribution rates were 0.40% and 0.325% for State employers and School employers, respectively. Our July 1, 1988 valuation found that the contribution rates were not sufficient to amortize the unfunded actuarial accrued liability. Therefore, the Board approved contribution rate increases to take effect over the next few years. Effective July 1, 1993, the contribution rate for State employers was set at 0.65%. Contribution rates for School employers were also increased over this time period, settling at 1.15% as of July 1, 1996. Effective July 1, 2006, the contribution rate for School employers was increased again. The rates vary by school location between 1.16% and 1.26% according to the number of days of paid sick leave accruing during the contract year in accordance with Rule 552 of the Idaho Administrative Code.

The historical changes in contribution rates since 1992 are shown in the table on the following page.

	Actual Rates		Calculated Employer Rates					
			State			School		
Effective Date [1]	State	School	Normal Cost	Unfunded Actuarial Accrued Liability	Total	Normal Cost	Unfunded Actuarial Accrued Liability	Total
1992	0.800%	1.000%	0.30%	0.31%	0.61%	0.52%	0.57%	1.09%
1993	0.650	1.100	0.30	0.31	0.61	0.52	0.57	1.09
1994	0.650	1.100	0.30	0.31	0.61	0.52	0.57	1.09
1995	0.650	1.100	0.32	0.27	0.59	0.59	0.55	1.14
1996	0.650	1.150 [2]	0.32	0.27	0.59	0.59	0.55	1.14
1997	0.650	1.150	0.35	0.16	0.51	0.63	0.44	1.07
1999	0.650	1.150	0.42 [3]	0.10	0.52	0.60	0.22	0.82
2001	0.650	1.150	0.45 [3]	0.20	0.65	0.62	0.29	0.91
2004	0.650	1.150	0.40	0.23	0.63	0.73	0.68	1.41
2006	0.650	1.16/1.26 [4]	0.40	0.13	0.53	0.67	0.41	1.08
2008	0.650	1.16/1.26 [4]	0.39	0.16	0.55	0.66	0.48	1.14
2010	0.650	1.16/1.26 [4]	0.37	0.16	0.53	0.62	0.51	1.13
2012	0.650	1.16/1.26 [4]	0.37	NA	0.37	0.63	0.13	0.76
2015	0.650	1.16/1.26 [4]	0.35	NA	0.35	0.62	NA	0.62
2016	0.650	1.16/1.26 [4]	0.39	NA	0.39	0.65	NA	0.65
2017	0.650	1.16/1.26 [4]	0.38	NA	0.38	0.68	NA	0.68

(1) Contribution rates are effective July 1 of the indicated year for the State program, September 1 of the indicated year for the School program.

(2) Rates are effective October 1 of indicated year.

(3) Reflects changes in benefit provisions.

(4) Contribution rates for School participants vary by school location according to the number of days of paid sick leave accruing during the contract year in accordance with Rule 552 of the Idaho Administrative Code.

Our July 1, 2017 actuarial valuation found that the Fund's current rates are sufficient to pay the normal cost rate. As of July 1, 2017, there is no unfunded actuarial liability.

Funding Status

The most recent valuation was performed as July 1, 2017. Based on this valuation, there is currently no unfunded actuarial accrued liability to amortize. This is consistent with the July 1, 2016 actuarial valuation. As of July 1, 2017 there is a funding excess (assets exceed actuarial accrued liability) of $100.6 million for State employers and $65.0 million for School employers.

The Fund's assets earned a net return after expenses of 13.1% during Fiscal Year 2016-17, which is above the actuarial assumption of 7.00%. All other actuarial experience gains and losses decreased the actuarial accrued liability (AAL) by $5.8 million for State employers and increased AAL by $11.0 million for School employers.

In addition, actual contributions plus assumed investment returns were greater than the normal cost and the interest on the AAL. This resulted in an increase in the funding excess of $8.3 million for State employers and $10.6 million for School employers.

All of these items resulted in a change in funding status for State employers from a 188.3% funding ratio on July 1, 2016 to 217.1% on July 1, 2017. All of these items resulted in a change in funding status for School employers from a 125.0% funding ratio on July 1, 2016 to 129.5% on July 1, 2017. 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. 74 Liabilities

The long-term expected rate of return on investments is 7.05%, net of investment expenses. This figure includes 0.05% 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 OPEB Liability (TOL) and Net OPEB Liability (NOL) for purposes of GASB reporting. According to GASB Statement 74, the discount rate used to calculate TOL and NOL must be net of investment expenses but not administrative expenses. Therefore, TOL and NOL have been determined using a discount rate of 7.05%. Results and further details on these items can be found in our GASB 74/75 Report.

Assumptions

Our July 1, 2017 actuarial valuation report presented summaries of the actuarial assumptions and methods used in the valuation. The last major experience study for PERSI, completed in June 2018, covered the period July 1, 2011 through June 30, 2017. The next major experience study, to be completed in 2022, will cover the period July 1, 2017 through June 30, 2021.

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.

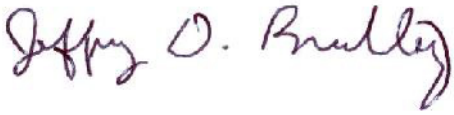
The enclosed Exhibits 1 through 9 provide further related information. Milliman is completely responsible for these exhibits. Specifically, they are:

- 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 and All Other Contributing Entities
- Exhibit 8 Schedule of Contributions from the Employer Expressed as a Percentage of Payroll
- Exhibit 9 Provisions of Governing Law

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

Respectfully submitted,

Robert L. Schmidt, 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

RLS/JDB/mji

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 1: SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS EFFECTIVE JULY 1, 2018

1. Investment Return (Adopted July 1, 2018)

The annual rate of investment return on the assets of the System, net of investment expenses, is assumed to be 7.05% (including 0.05% for administrative 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.

- **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, 2017 valuation report. The projection scale is applied from the year 2000 to the year in which the mortality assumption is being applied.

Exhibit 1
(continued)

- ***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, 2017 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:

	General Employees			
	Male		Female	
Age	First Year Eligible	Thereafter	First Year Eligible	Thereafter
55	22%	10%	26%	18%
60	26	17	26	18
65	33	50	37	52
70	18	20	18	21

Exhibit 1
(continued)

	Teachers			
	Male		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	*	*	*	*

** 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	Male	Female	Male	Female
50	*	*	*	*
55	3%	3%	6%	6%
60	5	6	14	12

* *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	General Employees		Teachers	
Service	Male	Female	Male	Female
5	8.8%	10.3%	5.5%	6.0%
10	5.5	6.4	3.1	3.1
15	3.5	4.0	1.9	1.8
20	2.4	2.9	1.3	1.3
25	1.7	2.5	1.2	1.2
30	1.5	2.5	1.2	1.2

Exhibit 1
(continued)

8. Disability Retirement (Adopted July 1, 2016)

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

	General Employees		Teachers	
Age	Male	Female	Male	Female
25	.01%	.01%	.01%	.05%
35	.03	.01	.02	.04
45	.11	.10	.07	.07
55	.32	.28	.20	.30

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	General Employees		Teachers	
Service	Male	Female	Male	Female
5	6.03%	6.45%	7.07%	7.17%
10	5.10	5.46	7.17	7.38
15	4.63	4.68	5.20	5.33
20	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.

	General Employees		Teachers	
Age	Male	Female	Male	Female
25	52%	61%	75%	84%
35	71	70	79	88
45	76	73	82	85
55	--	--	--	--

Exhibit 1
(continued)

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. Actuarial Cost Method

The individual entry age actuarial cost method is used. This cost method was adopted as of July 1, 2013 by the Board in order to be consistent with the cost method required by GASB Statements 67 and 68.

The normal cost rates used in the July 1, 2017 valuation were calculated based on all current active members as of July 1, 2017, for each sex and type of employee in the valuation. The normal costs and projected fiscal year 2017 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, 2017 in conjunction with the July 1, 2017 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.

13. Experience Studies

The last experience study was completed in 2018 for the period July 1, 2011 through June 30, 2017 and reviewed economic assumptions, mortality and all demographic assumptions. These assumptions will be studied in 2022 for the period from July 1, 2017 through June 30, 2021. Assumptions were adopted as noted.

Exhibit 1
(continued)

14. Assumed Rates of Accrual for Sick Leave Hours and Days

The sick leave hours and days assumptions were set based on a study of actual member sick leave hours and days, as of July 1, 2004. The member's current salary was compared against $40,000 for State participants, $50,000 for School participants. If the salary was larger than the indexed amount, his or her current sick leave hours were projected forward based on the higher accrual scale.

State Hours Assumptions

	Salary Under $40,000		Salary Over $40,000	
Service	Males	Females	Males	Females
2	118.5	50.0	100.5	130.0
3	156.2	75.8	148.7	163.6
4	193.7	101.6	196.8	197.2
5	231.2	127.4	245.0	230.8
6	268.7	153.2	293.1	264.4
7	306.2	179.0	341.3	298.0
8	343.6	204.8	389.4	331.6
9	381.1	230.6	437.6	365.2
10	418.6	256.4	485.7	398.8
11	456.1	282.2	533.9	432.4
12	493.6	308.0	582.0	466.0
13	531.1	333.8	630.2	499.6
14	568.6	359.6	678.4	533.2
15	606.1	385.4	726.5	566.8
16	643.6	411.2	774.7	600.4
17	681.0	437.0	822.8	634.0
18	718.5	462.8	871.0	667.6
19	756.0	488.7	919.1	701.2
20	793.5	514.5	967.3	734.8
21	831.0	540.3	1,015.4	768.4
22	868.5	566.1	1,063.6	802.0
23	906.0	591.9	1,111.7	835.6
24	943.5	617.7	1,159.9	869.2
25	980.9	643.5	1,208.0	902.8
26	1,018.4	669.3	1,256.2	936.4
27	1,055.9	695.1	1,304.4	970.0
28	1,093.4	720.9	1,352.5	1,003.6
29	1,130.9	746.7	1,400.7	1,037.2
30	1,168.4	772.5	1,448.8	1,070.8
31	1,206.1	798.3	1,496.9	1,104.4
32	1,243.7	824.1	1,545.1	1,138.0
33	1,281.4	849.9	1,593.2	1,171.6
34	1,319.0	875.7	1,641.4	1,205.2
35	1,356.7	901.5	1,689.5	1,238.8
36	1,394.4	927.3	1,737.6	1,272.4
37	1,432.0	953.1	1,785.8	1,306.0
38	1,469.7	978.9	1,833.9	1,339.6
39	1,507.3	1,004.7	1,882.1	1,373.2
40	1,545.0	1,030.5	1,930.2	1,406.8

Exhibit 1
(continued)

School Days Assumptions

	Salary Under $50,000		Salary Over $50,000	
Service	**Males**	**Females**	**Males**	**Females**
2	28.5	16.4	30.0	22.8
3	33.5	20.3	36.2	27.3
4	38.6	24.2	42.4	31.8
5	43.6	28.0	48.7	36.3
6	48.7	31.9	54.9	40.8
7	53.7	35.8	61.1	45.4
8	58.8	39.6	67.4	49.9
9	63.8	43.5	73.6	54.4
10	68.9	47.3	79.8	58.9
11	73.9	51.2	86.0	63.4
12	78.9	55.1	92.3	67.9
13	84.0	58.9	98.5	72.5
14	89.0	62.8	104.7	77.0
15	94.1	66.7	110.9	81.5
16	99.1	70.5	117.2	86.0
17	104.2	74.4	123.4	90.5
18	109.2	78.3	129.6	95.0
19	114.2	82.1	135.8	99.6
20	119.3	86.0	142.1	104.1
21	124.3	89.9	148.3	108.6
22	129.4	93.7	154.5	113.1
23	134.4	97.6	160.7	117.6
24	139.5	101.5	167.0	122.1
25	144.5	105.3	173.2	126.7
26	149.5	109.2	179.4	131.2
27	154.6	113.1	185.6	135.7
28	159.6	116.9	191.9	140.2
29	164.7	120.8	198.1	144.7
30	169.7	124.6	204.3	149.3
31	174.7	128.5	210.5	153.8
32	179.8	132.3	216.8	158.3
33	184.8	136.2	223.0	162.9
34	189.9	140.0	229.2	167.4
35	194.9	143.9	235.5	171.9
36	199.9	147.8	241.7	176.4
37	205.0	151.6	247.9	180.9
38	210.0	155.5	254.1	185.5
39	215.1	159.3	260.4	190.0
40	220.1	163.2	266.6	194.5

15. Recent Changes

There were no changes to actuarial assumptions or methods between the 2016 valuation and the 2017 valuation.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 2: SCHEDULE OF ACTIVE MEMBER VALUATION DATA

	State Coverage - ORP		State Coverage - Other		School Coverage		Total	
	Members	Annual Salaries In Thousands	Members	Annual Salaries In Thousands	Members	Annual Salaries In Thousands	Members	Annual Salaries In Thousands
July 1, 2004	(1)	(2)	18,881	$642,516	28,041	$933,726	46,922	$1,576,242
July 1, 2006	(1)	$206,061	18,854	$690,750	28,924	$997,211	47,778	$1,894,022
July 1, 2008	(1)	$241,822	18,954	$744,319	29,672	$1,083,264	48,626	$2,069,405
July 1, 2010	(1)	$263,868	18,100	$722,064	30,290	$1,134,279	48,390	$2,120,211
July 1, 2012	(1)	$276,912	17,856	$729,030	28,843	$1,051,824	46,699	$2,057,766
July 1, 2015	(1)	$310,128	18,159	$775,085	29,879	$1,121,478	48,038	$2,206,691
July 1, 2016	3,978	$242,292	18,291	$779,043	30,464	$1,150,959	52,733	$2,172,294
July 1, 2017	3,859	$257,426	16,863	$803,788	31,558	$1,238,143	52,280	$2,299,357

(1) Detailed individual data for ORP members was not provided before the 2016 valuation.

(2) Compensation data for ORP members was not provided before the 2006 valuation.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 3: SCHEDULE OF RETIREE VALUATION DATA

	State Coverage		School Coverage		Total	
Valuation Date	Retired Members	Remaining Entitlement Balance in Thousands	Retired Members	Remaining Entitlement Balance in Thousands	Retired Members	Remaining Entitlement Balance in Thousands
July 1, 2006	2,337	$9,369	3,506	$23,389	5,843	$32,758
July 1, 2008	2,504	$11,764	3,547	$28,039	6,051	$39,803
July 1, 2010	2,937	$13,308	4,045	$32,428	6,982	$45,736
July 1, 2012	3,384	$15,061	4,775	$38,652	8,159	$53,713
July 1, 2015	4,027	$16,946	5,724	$43,602	9,751	$60,548
July 1, 2016	4,145	$17,014	5,910	$44,031	10,055	$61,045
July 1, 2017	4,301	$17,635	5,946	$43,418	10,247	$61,053

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

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

State Sick Leave Program

Valuation Date	Actuarial Accrued Liability	Plan Assets	Unfunded Actuarial Accrued Liability	Funding Percentage	Covered Payroll	UAAL as a Percent of Cov. Payroll
July 1, 2006	$86.8	$75.2	$11.6	87%	$896.8	1%
July 1, 2008	94.1	79.3	14.8	84%	986.1	2%
July 1, 2010	97.1	82.8	14.3	85%	890.9	1%
July 1, 2012	100.1	108.3	(8.2)	108%	891.3	-1%
July 1, 2015	91.3	157.7	(66.4)	173%	976.6	-6%
July 1, 2016	86.5	162.9	(76.4)	188%	1,046.8	-7%
July 1, 2017	85.9	186.5	(100.6)	217%	1,098.0	-9%

School Sick Leave Program

Valuation Date	Actuarial Accrued Liability	Plan Assets	Unfunded Actuarial Accrued Liability	Funding Percentage	Covered Payroll	UAAL as a Percent of Cov. Payroll
July 1, 2006	$166.9	$123.9	$43.0	74%	$997.2	4%
July 1, 2008	183.4	131.2	52.2	72%	1,083.3	5%
July 1, 2010	193.7	137.8	55.9	71%	1,164.3	5%
July 1, 2012	194.1	175.2	18.9	90%	1,081.2	2%
July 1, 2015	194.6	246.6	(52.0)	127%	1,136.3	-5%
July 1, 2016	200.8	250.9	(50.1)	125%	1,174.7	-4%
July 1, 2017	220.5	285.5	(65.0)	129%	1,240.6	-5%

Notes:

Actuarial present value of benefits less actuarial present value of future normal costs based on entry age actuarial cost method.

Funded Ratio is the ratio of the actuarial value of assets over the actuarial accrued liabilities.

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.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 5: SOLVENCY TEST
(ALL DOLLAR AMOUNTS IN MILLIONS)

State Sick Leave Program

		Actuarial Accrued Liabilties for					
Valuation Date	Plan Assets	Active Member Contributions (A)	Retirees and Beneficiaries (B)	Active Members (Employer Financed) (C)	Portion Covered by Assets (A)	Portion Covered by Assets (B)	Portion Covered by Assets (C)
July 1, 2006	$75.2	$0.0	$9.4	$77.4	100%	100%	85%
July 1, 2008	79.3	0.0	11.8	82.3	100%	100%	82%
July 1, 2010	82.8	0.0	13.3	83.8	100%	100%	83%
July 1, 2012	108.3	0.0	15.1	85.0	100%	100%	100%
July 1, 2015	157.7	0.0	16.9	74.4	100%	100%	100%
July 1, 2016	162.9	0.0	17.0	69.5	100%	100%	100%
July 1, 2017	186.5	0.0	17.6	68.3	100%	100%	100%

School Sick Leave Program

		Actuarial Accrued Liabilties for					
Valuation Date	Plan Assets	Active Member Contributions (A)	Retirees and Beneficiaries (B)	Active Members (Employer Financed) (C)	Portion Covered by Assets (A)	Portion Covered by Assets (B)	Portion Covered by Assets (C)
July 1, 2006	$123.9	$0.0	$23.4	$143.5	100%	100%	70%
July 1, 2008	131.2	0.0	28.0	155.4	100%	100%	66%
July 1, 2010	137.8	0.0	32.4	161.3	100%	100%	65%
July 1, 2012	175.2	0.0	38.7	155.4	100%	100%	88%
July 1, 2015	246.6	0.0	43.6	151.0	100%	100%	100%
July 1, 2016	250.9	0.0	44.0	156.8	100%	100%	100%
July 1, 2017	285.5	0.0	43.4	177.1	100%	100%	100%

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

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

State Sick Leave Program

	2015-2016	2016-2017
Investment gain (or loss)	(7.6)	10.1
Miscellaneous gains (or losses) [1]	10.8	5.8
Subtotal: Actuarial Experience	3.2	15.9
Passage of Time	7.4	8.3
Assumption Changes [2]	(0.6)	0.0
Actuarial Method Changes	0.0	0.0
Changes in Plan Provisions	0.0	0.0
Total Gain (Loss) During the Period	10.0	24.2

School Sick Leave Program

	2015-2016	2016-2017
Investment gain (or loss)	(13.6)	15.3
Miscellaneous gains (or losses) [1]	2.5	(11.0)
Subtotal: Actuarial Experience	(11.1)	4.3
Passage of Time	10.2	10.6
Assumption Changes [2]	(1.0)	0.0
Actuarial Method Changes	0.0	0.0
Changes in Plan Provisions	0.0	0.0
Total Gain (Loss) During the Period	(1.9)	14.9

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

(1) Reflects losses on active and inactive member experience.
(2) For 2015-2016, this reflects changes made to the demographic assumptions adopted according to the 2016 Experience Study

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 7a: STATE EMPLOYERS

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

Fiscal Year Ending	Covered Employee Payroll (1)	Actual PERSI Employer Contributions Dollar Amount (2)	Actuarially Determined Contribution (ADC) (3)	Percentage of ADC Dollars Contributed
6/30/09	$906.0	$5.9	$5.0	118%
6/30/10	890.9	5.8	4.9	118
6/30/11	873.2	5.7	4.6	123
6/30/12	891.3	5.8	4.7	123
6/30/13	930.7	6.0	3.4	176
6/30/14	936.7	6.1	3.5	176
6/30/15	976.6	6.3	3.6	176
6/30/16	1,046.8	6.8	3.7	186
6/30/17	1,098.0	7.1	4.3	167
6/30/18	1,101.7	7.2	4.2	171

(1) 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.

(2) The actual Sick Leave 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.

(3) The ADC, formerly known as the Annual Required Contribution (ARC), is equal to the normal cost rate plus an amortization of any Unfunded Actuarial Accrued Liability over the remaining lifetime of the covered members. 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.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 7b: SCHOOL EMPLOYERS

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

Fiscal Year Ending	Covered Employee Payroll (1)	Actual PERSI Employer Contributions Dollar Amount (2)	Actuarially Determined Contribution (ADC) (3)	Percentage of ADC Dollars Contributed
6/30/09	$1,148.7	$13.7	$13.1	104%
6/30/10	1,164.3	13.9	13.3	104
6/30/11	1,118.3	13.3	12.6	105
6/30/12	1,081.2	12.9	12.2	105
6/30/13	1,124.4	13.4	8.5	157
6/30/14	1,114.7	13.3	8.5	157
6/30/15	1,136.3	13.5	8.6	157
6/30/16	1,174.7	14.0	7.3	192
6/30/17	1,240.6	14.8	8.1	183
6/30/18	1,310.9	15.6	8.9	175

(1) 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.

(2) The actual Sick Leave 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.

(3) The ADC, formerly known as the Annual Required Contribution (ARC), is equal to the normal cost rate plus an amortization of any Unfunded Actuarial Accrued Liability over the remaining lifetime of the covered members. 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.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 8a: STATE EMPLOYERS

SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER EXPRESSED AS A PERCENTAGE OF PAYROLL

Fiscal Year Ending	Actual PERSI Employer Contribution % (1)	Actuarially Determined Contribution (ADC) % (2)	Percentage of ADC Contributed
6/30/09	0.65%	0.55%	118%
6/30/10	0.65	0.55	118
6/30/11	0.65	0.53	123
6/30/12	0.65	0.53	123
6/30/13	0.65	0.37	176
6/30/14	0.65	0.37	176
6/30/15	0.65	0.37	176
6/30/16	0.65	0.35	186
6/30/17	0.65	0.39	167
6/30/18	0.65	0.38	171

(1) The actual Sick Leave 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.

(2) The ADC, formerly known as the Annual Required Contribution (ARC), is equal to the normal cost rate plus an amortization of any Unfunded Actuarial Accrued Liability over the remaining lifetime of the covered members. 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.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 8b: SCHOOL EMPLOYERS

SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER EXPRESSED AS A PERCENTAGE OF PAYROLL

Fiscal Year Ending	Actual PERSI Employer Contribution % (1)	Actuarially Determined Contribution (ADC) % (2)	Percentage of ADC Contributed
6/30/09	1.19%	1.14%	104%
6/30/10	1.19	1.14	104
6/30/11	1.19	1.13	105
6/30/12	1.19	1.13	105
6/30/13	1.19	0.76	157
6/30/14	1.19	0.76	157
6/30/15	1.19	0.76	157
6/30/16	1.19	0.62	192
6/30/17	1.19	0.65	183
6/30/18	1.19	0.68	175

(1) The actual Sick Leave 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.

(2) The ADC, formerly known as the Annual Required Contribution (ARC), is equal to the normal cost rate plus an amortization of any Unfunded Actuarial Accrued Liability over the remaining lifetime of the covered members. 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.

Sick Leave of Idaho Retirement Fund
Public Employee Retirement System of Idaho

EXHIBIT 9: PROVISIONS OF GOVERNING LAW

All actuarial calculations are based on our understanding of the statutes governing the use of unused sick leave benefits administered by the Public Employee Retirement System of Idaho, as contained in Section 67-5333 for State employees and Section 33-1228 for School employees of the Idaho Code. The benefit and contribution provisions of this law are summarized briefly below. The items in parentheses are the provisions applicable to school employees.

Benefits

Upon separation from State (public school) employment for retirement reasons, a member's unused sick leave earned subsequent to July 1, 1976, is determined and reported to PERSI. The monetary value of one-half of the unused sick leave is transferred from the sick leave account to the member's retirement account (the entitlement balance). The monetary value of the unused sick leave is based upon the rate of pay of the employee at the time of retirement.

Effective July 1, 2001, the maximum amount transferred shall be limited for State covered members only, based on the number of hours of credited State service as follows:

Years of State Service	Maximum Unused Sick Leave
Less than 5*	420 hours
5-10	480
10-15	540
16 or more	600

** All members who are eligible for retirement benefits have at least 5 years of service.*

The transferred monies to the member's retirement account are used for the payment of group health, accident, and life insurance premiums under programs maintained by the State (school district). Upon a retired covered member's death, any remaining entitlement balance reverts to the sick leave account.

Contributions

Each State government (public school) employer contributes a percentage of covered members' salaries to the sick leave account maintained by the System. The System's board determines the contribution rate.

ACTUARIAL SECTION

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STATISTICAL SECTION

STATISTICAL SECTION

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 2018, the number of active PERSI members increased from 70,073 to 71,112. The number of retired members or annuitants receiving monthly allowances increased from 45,468 to 46,907. The number of inactive members who have not been paid a separation benefit increased from 34,151 to 37,588. Of these inactive members, 13,133 have achieved vested eligibility. Total membership in PERSI increased from 149,692 to 155,607 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, 2018 there were 797 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

	Active Members			Inactive Members			Retirees	
	Vested	Non-vested	Total	Vested	Non-vested	Total		Total
Cities	4,556	2,989	7,545	1,858	1,702	3,560	4,296	15,401
Female	1,345	1,074	2,419	650	681	1,331	1,516	5,266
Male	3,211	1,915	5,126	1,858	1,021	2,229	2,780	10,135
Counties	5.012	3,737	8,749	1,215	2,182	3,397	3,951	16,097
Female	2,386	1,911	4,267	689	1,216	1,905	2,047	8,249
Male	2,626	1,826	4,452	526	966	1,492	1,904	7,848
Schools	19,491	12,710	32,201	4,887	10,820	15,707	20,727	68,635
Female	14,541	9,787	24,328	3,878	8,403	12,281	15,016	51,625
Male	4,950	2,923	7,873	1,009	2,417	3,426	5,711	17,010
State	10,186	7,103	17,289	4,029	7,930	11,959	14,089	43,337
Female	5,300	3,677	8,977	2,310	4,373	6,683	7,284	22,944
Male	4,886	3,426	8,312	1,719	3,557	5,276	6,805	20,393
All Others	3,292	2,036	5,328	1,144	1,821	2,965	3,844	12,137
Female	973	797	1,770	583	1,076	1,659	1,656	5,085
Male	2,319	1,239	3,558	561	745	1,306	2,188	7,052
Grand Total	42,537	28,575	71,112	13,133	24,455	37,588	46,907	155,607
Female	24,545	17,246	41,791	8,110	15,749	23,859	27,519	93,169
Male	17,992	11,329	29,321	5,023	8,706	13,729	19,388	62,438

Table 2

Changes in Membership – PERSI Base Plan

	Active Members			Retired Members		Inactive Members
Fiscal Year Ended	Number	Average Age	Average Years of Service	Number	Average Age	Number
2009	67,813	46.5	10.4	32,197	71.8	23,086
2010	67,020	46.7	10.6	33,625	71.3	24,119
2011	65,798	46.9	10.8	35,334	71.5	25,489
2012	65,270	46.9	10.8	37,150	71.6	26,682
2013	65,535	46.8	10.7	38,947	71.6	27,110
2014	66,223	46.6	10.5	40,776	71.7	28,273
2015	67,008	46.5	10.4	42,657	71.6	29,827
2016	68,517	46.8	10.1	44,181	71.8	31,862
2017	70,073	46.6	9.9	45,468	72.2	34,151
2018	71,112	46.0	9.9	46,907	72.4	37,588

Table 3a

Retired Members by Type of Benefit – PERSI Base Plan

		Type of Retirement			Option Selected	
Amount of Monthly Benefit	Total Number of Retirees	Normal	Disability	Beneficiary	Joint & Survivor[1]	Straight Life[2]
$0 - 250	5,279	4,633	4	642	1,444	3,835
251 - 500	6,337	5,744	44	549	1,590	4,747
501 - 750	5,132	4,560	149	423	1,347	3,785
751 - 1,000	4,084	3,588	144	352	1,153	2,931
1,001 - 1,250	3,581	3,131	151	299	1,108	2.473
1,251 - 1,500	2,984	2,576	186	222	882	2,102
1,501 - 1,750	2,578	2,252	162	164	836	1,742
1,751 - 2,000	2,341	2,056	156	129	803	1,538
Over 2,000	14,591	13,670	530	391	5,612	8,979
Totals	46,907	42,210	1,526	3,171	14,775	32,132

[1] *Joint & Survivor (also known as Contingent Annuitant)*

[2] *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

Amount of Monthly Benefit	Total Number of Retirees	Type of Retirement			Option Selected	
		Normal	Disability	Beneficiary	Joint & Survivor[1]	Straight Life[2]
$0 - 250	7	5		2	5	2
251 - 500	10	1		9	1	9
501 - 750	6	4		2	4	2
751 - 1,000	5	3		2	3	2
1,001 - 1,250	17	13		4	13	4
1,251 - 1,500	12	8	1	3	9	3
1,501 - 1,750	16	12	2	2	14	2
1,751 - 2,000	18	11	2	5	13	5
Over 2,000	416	275	23	118	298	118
Totals	507	332	28	147	360	147

[1]Joint & Survivor (also known as Contingent Annuitant)
[2]Single Life Options include Straight Life, Cash Refund, Social Security and all other FOPs.

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.
1) The benefit payable by the FRF plan is valued using a Straight Life option.
2) The total benefit is valued using a Spouse Reversionary option (spouse benefit payable upon the death of the retiree or disabled).
All FRF beneficiaries are valued using a Straight Life option.

Table 3c

Retired Members by Type of Benefit – Judges' Retirement Fund

Amount of Monthly Benefit	Total Number of Retirees	Type of Retirement			Option Selected	
		Normal	Disability	Beneficiary	Joint & Survivor[1]	Straight Life[2]
$0 – 2,000	6	1		5	1	5
2,001 – 2,500	3	1		2	1	2
2,501 -3,000	6	1		5	1	5
3,001 - 3,500	7	4		3	3	4
3,501 - 4,000	8	2		6	2	6
4,001 - 4,500	9	6		3	4	5
4,501 - 5,000	5	3		2	3	2
5,001 - 5,500	2	2			2	
Over 5,500	56	54		2	44	12
Totals	102	74		28	61	41

[1]Joint & Survivor (also known as Contingent Annuitant)
[2]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	96	53	23	20
251 - 500	88	72	1	15
501 - 750	45	33		12
751 - 1,000	26	19		7
1,001 - 1,250	12	8		4
1,251 - 1,500	4	3		1
1,501 - 1,750	5	2		3
1,751 - 2,000	4	1		3
Over 2,000	10	7		3
Totals	290	198	24	68

Table 4a

Average Benefit Payments – PERSI Base Plan

Retirement Effective Dates	Years Credited Service						
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/08 to 6/30/09							
Average monthly benefit	$320	$378	$667	$1,153	$1,526	$2,374	$3,323
Average final average salary	$1,002	$2,294	$2,606	$3,248	$3,654	$4,198	$4,790
Number of retired members	44	363	282	311	284	314	472
Period 7/1/09 to 6/30/10							
Average monthly benefit	$204	$397	$742	$1,086	$1,571	$2,411	$3,385
Average final average salary	$514	$2,335	$2,763	$3,136	$3,622	$4,275	$4,825
Number of retired members	42	342	330	334	307	324	482
Period 7/1/10 to 6/30/11							
Average monthly benefit	$112	$391	$704	$1,111	$1,568	$2,385	$3,488
Average final average salary	$887	$2,442	$2,744	$3,278	$3,697	$4,383	$4,900
Number of retired members	38	442	368	370	366	364	581
Period 7/1/11 to 6/30/12							
Average monthly benefit	$192	$394	$747	$1,138	$1,634	$2,426	$3,430
Average final average salary	$764	$2,386	$2,885	$3,242	$3,765	$4,302	$4,808
Number of retired members	57	504	395	383	400	374	521
Period 7/1/12 to 6/30/13							
Average monthly benefit	$206	$413	$762	$1,156	$1,651	$2,447	$3,497
Average final average salary	$1,788	$2,411	$2,916	$3,310	$3,714	$4,443	$4,976
Number of retired members	55	544	451	410	399	379	495
Period 7/1/13 to 6/30/14							
Average monthly benefit	$263	$403	$728	$1,144	$1,714	$2,355	$3,421
Average final average salary	$1,243	$2,552	$2,775	$3,306	$3,972	$4,333	$4,949
Number of retired members	49	519	469	427	490	420	522
Period 7/1/14 to 6/30/15							
Average monthly benefit	$221	$370	$745	$1,079	$1,580	$2,419	$3,396
Average final average salary	$1,586	$2,354	$3,034	$3,258	$3,725	$4,504	$4,983
Number of retired members	36	573	457	460	369	423	558
Period 7/1/15 to 6/30/16							
Average monthly benefit	$374	$402	$757	$1,168	$1,646	$2,463	$3,358
Average final average salary	$1,420	$2,484	$3,054	$3,526	$3,910	$4,552	$4,981
Number of retired members	35	463	410	376	413	423	521
Period 7/1/16 to 6/30/17							
Average monthly benefit	$640	$417	$753	$1,177	$1,688	$2,451	$3,509
Average final average salary	$1,815	$2,548	$3,202	$3,537	$3,863	$4,776	$5,261
Number of retired members	20	361	411	371	332	427	550
Period 7/1/17 to 6/30/18							
Average monthly benefit	$136	$410	$813	$1,177	$1,833	$2,490	$3,382
Average final average salary	$871	$2,882	$3,303	$3,386	$4,061	$4,455	$5,034
Number of retired members	23	382	367	389	359	454	482

Table 4b

Average Benefit Payments – Firefighters' Retirement Fund

Retirement Effective Dates	Years Credited Service						
	0-4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30+
Period 7/1/08 to 6/30/09							
Average monthly benefit							$315
Average Final Average Salary							$5,440
Number of retired members							2
Period 7/1/09 to 6/30/10		No	Valuation	Completed			
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	Completed			
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							$6,256
Average Final Average Salary							*
Number of retired members							1
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							
Period 7/1/16 to 6/30/17							
Average monthly benefit							
Average Final Average Salary							$5,637 *
Number of retired members							1
Period 7/1/17 to 6/30/18							
Average monthly benefit	$5,539						
Average Final Average Salary	$5,637						
Number of Retired Members	1						

*Average final average salary is not the basis for calculating benefits on the classes of firefighters in the group.

** No retirements for the fiscal year

Table 4c

Average Benefit Payments – Judges' Retirement Plan

Retirement Effective Dates	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	$1,895	$4,346	$5,482		$8,417		
Number of retired members	1	1	1		2		
Period 7/1/15 to 6/30/16							
Average monthly benefit			$8,084	$7,512	$8,794		
Number of retired members			1	1	1		
Period 7/1/16 to 6/30/17							
Average monthly benefit		$4,984	$5,793	$7,294		$4,171	$2,452
Number of retired members		2	2	2		1	1
Period 7/1/17 to 6/30/18							
Average monthly benefit	$2,391		$6,211		$8,377		
Number of retired members	1		3		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 7/1/08 to 6/30/09							
Average monthly benefit		$525		$452	$542	$817	$360
Number of retired members		3	0	8	7	3	10
Period 7/1/09 to 6/30/10							
Average monthly benefit	$445	$1,063	$285	$566	$729	$642	$529
Number of retired members	1	7	7	19	11	8	28
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
Period 7/1/16 to 6/30/17							
Average monthly benefit	$694	$844	$737	$670	$494	$776	$588
Number of retired members	21	26	44	41	30	46	60
Period 7/1/17 to 6/30/18							
Average monthly benefit	$679	$898	$534	$415	$476	$488	$485
Number of retired members	40	30	47	41	32	44	57

**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

Fiscal Year	Age & Service Benefits		Disabilities			Refunds		
			Retirants (1)					
	Retirants	Survivors (2)	Pre-NRA	Post-NRA	Survivors	Death	Separation	Total
PERSI BASE PLAN and FRF								
2013	602,758,058	29,847,798	19,229,642	10,737,466	1,385,697	11,562,936	32,266,986	707,788,583
2014	677,054,949	31,181,280	19,263,836	11,699,605	1,499,603	12,414,898	33,959,615	787,073,786
2015	685,057,604	32,850,337	18,982,851	12,714,575	1,769,618	11,212,116	28,354,914	790,942,015
2016	731,945,232	34,812,098	18,968,148	13,955,913	1,943,926	10,556,133	32,307,543	844,488,993
2017	769,911,801	35,034,939	18,218,550	15,307,442	3,661,761	13,559,082	28,872,581	884,566,156
2018	813,358,969	34,939,807	17,837,813	16,089,613	6,054,511	13,543,029	26,823,893	928,647,635
JUDGES' RETIREMENT PLAN								
2015	4,683,420	893,969						
2016	5,059,316	915,621						
2017	5,173,494	999,921						
2018	5,703,094	988,464						
PERSI CHOICE PLAN								
2015	15,662,811							
2016	41,363,965							
2017	37,358,429							
2018	41,919,856							
SICK LEAVE INSURANCE RESERVE TRUST FUND								
2013	16,687,698							
2014	17,373,642							
2015	17,853,009							
2016	18,438,911							
2017	18,166,014							
2018	16,858,055							

(1) The split between duty and non-duty disabilities is not available.

(2) Benefit amounts are not available. All survivors are included with the Age & Service Benefits survivors.

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.

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	
1986	3.2	1.0	3.2	2.2	(2)
1987	1.5	1.5	1.5	0.0	
1988	4.5	1.0	4.5	3.5	(2)
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	
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	
2003	1.8	1.0	1.8	0.8	(3)
2004	2.2	2.2	2.2	0.0	
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	
2018	1.9	1.9	1.9	0.0	

(1) 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.
(2) Retro-active COLAs were awarded effective March 1, 1999 to re-establish purchasing power for the years 1986, 1988, 1989.
(3) A retro-active COLA was awarded effective March 1, 2005 to re-establish purchasing power for 2003.
(4) 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%.
(5) 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.
(6) A retro-active COLA of up to .8% was awarded effective March 1, 2016 to re-establish purchasing power for the year 2011.

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Table 7a

Changes in Net Position - Base Plan
(last 10 fiscal years)

Continued

	2009	2010	2011
Additions:			
Employee Contributions	180,063,010	178,124,381	178,415,845
Employer Contributions	284,608,663	284,932,418	279,174,844
Investment Income [1]	221,899,829	200,479,456	231,745,111
Gains and Losses	(1,920,771,032)	833,597,303	1,697,095,152
Transfers/Rollovers In			
Other Income	84,268	12,261	37,716
Total additions to plan net position	**(1,234,115,262)**	**1,497,145,819**	**2,386,468,668**
Deductions			
Benefit Payments	483,128,952	517,046,719	558,619,602
Refunds	34,845,676	36,747,852	38,753,611
Administrative Expenses	6,232,678	6,471,359	5,973,540
Transfers/Rollovers Out			
Total deductions to plan net position	**524,207,306**	**560,265,930**	**603,346,753**
Change in net position	**(1,758,322,568)**	**936,879,889**	**1,783,121,915**

[1] Investment income is reported net of investment expense.

2012	2013	2014	2015	2016	2017	2018
179,168,074	184,652,290	203,890,954	211,468,780	220,866,936	237,032,668	243,950,654
277,143,887	285,440,860	310,986,283	321,240,628	335,610,100	356,367,389	369,139,113
240,033,473	247,522,779	279,876,227	273,500,316	277,666,987	284,543,243	309,314,922
(102,816,241)	726,899,521	1,719,909,543	97,579,801	(72,888,917)	1,411,348,507	976,147,101
24,089	16,311	12,690	16,767	25,283	29,366	38,380
593,553,282	**1,444,531,761**	**2,514,675,697**	**903,806,292**	**761,280,389**	**2,289,321,173**	**1,898,590,170**
599,848,356	654,141,410	694,765,148	742,712,826	792,705,222	835,774,004	885,355,285
40,830,899	33,845,755	34,828,507	28,354,914	32,307,543	29,497,711	24,357,947
6,231,431	6,308,487	6,787,811	6,434,462	6,806,655	8,810,136	8,922,335
646,910,686	**694,295,652**	**736,381,466**	**777,502,202**	**831,819,420**	**874,081,851**	**918,635,567**
(53,357,404)	**750,236,109**	**1,778,294,231**	**126,304,090**	**(70,539,031)**	**1,415,239,322**	**979,954,603**

Table 7b

Continued

Changes in Net Position - FRF Plan
(last 10 fiscal years)

	2009	2010	2011
Additions:			
Employee Contributions	18,753	16,185	13,746
Employer Contributions	13,434,204	13,542,331	13,313,715
Investment Income [1]	5,772,048	5,165,228	5,912,515
Gains and Losses	(49,963,011)	21,423,526	43,298,001
Transfers/Rollovers In			
Other Income			
Total additions to plan net position	**(30,738,006)**	**40,147,270**	**62,537,977**
Deductions			
Benefit Payments	17,945,071	18,372,312	19,238,671
Refunds			
Administrative Expenses			
Transfers/Rollovers Out			
Total deductions to plan net position	**17,945,071**	**18,372,312**	**19,238,671**
Change in net position	**(48,683,077)**	**21,774,958**	**43,299,306**

[1] Investment income is reported net of investment expense.

2012	2013	2014	2015	2016	2017	2018
11,100	11,136	9,095	6,168	6,329	4,385	4,368
13,486,309	14,227,313	14,200,323	11,305,473	7,198,597	7,452,987	7,706,226
6,096,564	6,289,701	8,078,269	6,896,831	6,892,864	6,961,648	7,489,302
(2,611,410)	18,470,947	49,642,989	2,461,078	(1,809,410)	34,527,177	23,635,009
16,982,563	**38,999,097**	**71,930,676**	**20,669,550**	**12,288,380**	**48,946,197**	**38,834,905**
19,637,373	19,801,418	19,958,800	19,874,275	19,476,228	19,294,441	18,934,403
			153,719	58,873	43,022	29,833
19,637,373	**19,801,418**	**19,958,800**	**20,027,994**	**19,535,101**	**19,337,463**	**18,964,236**
(2,654,810)	**19,197,679**	**51,971,876**	**641,556**	**(7,246,721)**	**29,608,734**	**19,870,669**

Table 7c

Continued

Changes in Net Position - Choice Plan 401(k) (last 10 fiscal years)

	2009	2010	2011
Additions:			
Employee Contributions	35,680,207	33,413,555	33,068,567
Employer Contributions	153,211	127,154	180,556
Investment Income [1]	6,144,038	6,144,609	7,441,583
Gains and Losses	(45,522,778)	20,858,277	51,079,923
Transfers/Rollovers In	6,057,764	4,867,768	7,469,551
Other Income			
Total additions to plan net position	**2,512,442**	**65,411,363**	**99,240,180**
Deductions			
Benefit Payments	4,951,776	6,013,245	7,771,465
Refunds			
Administrative Expenses			
Transfers/Rollovers Out	7,069,099	7,676,334	12,032,837
Total deductions to plan net position	**12,020,875**	**13,689,579**	**19,804,302**
Change in net position	**(9,508,433)**	**51,721,784**	**79,435,878**

[1] Investment income is reported net of investment expense.

2012	2013	2014	2015	2016	2017	2018
32,417,476	36,341,951	39,062,685	42,874,459	45,299,030	48,333,290	52,141,131
383,189	9,119,848	14,230,058	5,166,873	4,778,923	5,475,485	5,993,209
8,267,997	9,431,394	11,462,165	9,589,538	12,385,370	13,786,327	15,624,002
(1,861,880)	31,292,784	69,529,511	9,030,653	(3,529,621)	64,650,113	53,200,084
9,576,929	9,132,179	10,706,301	14,575,338	11,868,500	14,836,646	14,179,305
48,783,711	**95,318,156**	**144,990,720**	**81,236,861**	**70,802,202**	**147,081,861**	**141,137,731**
7,123,041	8,018,315	8,936,739	12,729,966	35,985,817	34,029,074	38,708,774
				1,069,543	115,788	125,334
13,323,865	15,382,348	18,901,443	23,364,173			
20,446,906	**23,400,663**	**27,838,182**	**36,094,139**	**37,055,360**	**34,144,862**	**38,834,108**
28,336,805	**71,917,493**	**117,152,538**	**45,142,722**	**33,746,842**	**112,936,999**	**102,303,623**

Table 7d

Continued

Changes in Net Position - Choice Plan 414(k) (last 10 fiscal years)

	2009	2010	2011
Additions:			
Employee Contributions			
Employer Contributions			
Investment Income [1]	1,365,004	1,168,118	1,244,977
Gains and Losses	(11,880,802)	4,877,123	9,321,922
Transfers/Rollovers In			
Other Income			
Total additions to plan net position	**(10,515,798)**	**6,045,241**	**10,566,899**
Deductions			
Benefit Payments	1,814,867	1,690,346	2,339,079
Refunds			
Administrative Expenses			
Transfers/Rollovers Out	1,056,981	1,208,031	1,627,984
Total deductions to plan net position	**2,871,848**	**2,898,377**	**3,967,063**
Change in net position	**(13,387,646)**	**3,146,864**	**6,599,836**

[1] Investment income is reported net of investment expense.

2012	2013	2014	2015	2016	2017	2018
1,190,148	1,198,833	1,293,253	901,407	227,137	(101,457)	93,272
(564,614)	3,732,343	8,177,394	776,244	639,034	5,758,352	3,627,429
625,534	**4,931,176**	**9,470,647**	**1,677,651**	**866,171**	**5,656,895**	**3,720,701**
2,341,735	2,233,004	2,210,950	2,932,845	5,378,148	3,329,355	3,211,082
				523,170	10,491	10,196
1,619,181	1,619,036	1,661,723	2,049,671			
3,960,916	**3,852,040**	**3,872,673**	**4,982,516**	**5,901,318**	**3,339,846**	**3,221,278**
(3,335,382)	**1,079,136**	**5,597,974**	**(3,304,865)**	**(5,035,147)**	**2,317,049**	**499,423**

Table 7e

Changes in Net Position – Sick Leave Insurance Reserve Fund – State (last 10 fiscal years)

	2009	2010	2011
Additions:			
Employer Contributions	5,889,260	5,790,947	5,675,940
Net appreciation (depreciation) [1]	(9,976,100)	9,814,139	19,114,477
Other Income	2,554	2,042	2,656
Total additions to plan net position	**(4,084,286)**	**15,607,128**	**24,793,073**
Deductions			
Benefit Payments	4,328,025	3,656,816	3,765,826
Administrative Expenses	35,486	39,080	39,148
Total deductions to plan net position	**4,363,511**	**3,695,896**	**3,804,974**
Change in net position	**(8,447,797)**	**11,911,232**	**20,988,099**

Table 7f

Changes in Net Position – Sick Leave Insurance Reserve Fund – School (last 10 fiscal years)

	2009	2010	2011
Additions:			
Employer Contributions	13,669,429	13,855,046	13,307,372
Net appreciation (depreciation) [1]	(16,505,489)	16,376,593	31,830,496
Other Income	6,054	2,877	2,064
Total additions to plan net position	**(2,830,006)**	**30,234,516**	**45,139,932**
Deductions			
Benefit Payments	10,011,758	10,647,446	11,502,027
Administrative Expenses	58,714	65,259	65,192
Total deductions to plan net position	**10,070,472**	**10,712,705**	**11,567,219**
Change in net position	**(12,900,478)**	**19,521,811**	**33,572,713**

[1] Reported net of investment expense.

2012	2013	2014	2015	2016	2017	2018
5,793,204	6,049,837	6,088,489	6,347,903	6,804,354	7,136,693	7,161,239
2,298,334	15,142,268	23,097,449	5,722,685	3,356,390	21,515,574	17,315,690
3,690	1,290	1,079	600	889	30	1,270
8,095,228	**21,193,395**	**29,187,017**	**12,071,188**	**10,161,633**	**28,652,297**	**24,478,199**
3,463,901	4,049,618	4,366,900	4,510,989	4,980,235	5,010,974	4,671,380
39,346	39,876	40,181	40,375	40,752	41,148	44,182
3,503,247	**4,089,494**	**4,407,081**	**4,551,364**	**5,020,987**	**5,052,122**	**4,715,562**
4,591,981	**17,103,901**	**24,779,936**	**7,519,824**	**5,140,646**	**23,600,175**	**19,762,637**

2012	2013	2014	2015	2016	2017	2018
12,866,373	13,380,821	13,264,646	13,521,617	13,978,967	14,763,323	15,599,238
3,796,750	24,479,545	36,880,546	9,043,823	3,919,755	32,991,024	26,544,159
740	724	327	164	360	2,187	1,948
16,663,863	**37,861,090**	**50,145,519**	**22,565,604**	**17,899,082**	**47,756,534**	**42,145,345**
12,846,104	12,638,080	13,006,742	13,342,020	13,458,676	13,155,040	12,186,675
64,994	64,464	64,159	63,965	63,588	63,192	67,806
12,911,098	**12,702,544**	**13,070,901**	**13,405,985**	**13,522,264**	**13,218,232**	**12,254,481**
3,752,765	**25,158,546**	**37,074,618**	**9,159,619**	**4,376,818**	**34,538,302**	**29,890,864**

Table 7g
Changes in Net Position – JRF

	2015	2016	2017	2018
Additions:				
Employee Contributions	629,077	623,754	630,392	714,804
Employer Contributions	3,595,417	3,370,587	3,946,599	4,278,996
Investment Income[1]	1,523,041	1.505.550	1,540,236	1,668,307
Net appreciation (depreciation)	526,854	(413,420)	7,612,667	5,261,917
Other Income	2,063	2,571	4,946	7,947
Total additions to plan net position	**6,276,452**	**5,089,042**	**13,734,840**	**11,931,971**
Deductions				
Benefit Payments	5,577,389	5,974,937	6,173,415	6,691,558
Administrative Expenses	95,733	133,096	74,035	104,949
Total deductions to plan net position	**5,673,122**	**6,108,033**	**6,247,450**	**6,796,507**
Special Item – Transfer in of Judges' Retirement	**75,864,300**			
Change in net position	**76,467,630**	**(1,018,991)**	**7,487,390**	**5,135,464**

[1] Reported net of investment expense.

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

Table 8

Principal Participating Employers

2018

Participating Employers	Covered Employees	Rank	Percentage of Total System
State of Idaho	17,289	1	24%
West Ada School District (formerly Meridian School District)	3,640	2	5%
Boise Ind. School District	3,112	3	4%
Ada County	1,747	4	3%
City of Boise	1,410	5	2%
Nampa School District	1,365	6	2%
Pocatello School District	1,351	7	2%
Bonneville School District	1,266	8	2%
Coeur d'Alene School District	1,072	9	2%
Twin Falls School District	1,008	10	1%
All other	37,852		53%
Total (797 employers)	**71,112**		**100%**

2009

Participating Employers	Covered Employees	Rank	Percentage of Total System
State of Idaho	18,100	1	27%
Meridian School District	3,517	2	5%
Boise Ind School District	3,050	3	4%
Ada County	1,518	4	2%
Nampa School District	1,455	5	2%
City of Boise	1,255	6	2%
Pocatello School District	1,162	7	2%
Idaho Falls School District	1,038	8	2%
Coeur d'Alene School District	1,012	9	1%
Bonneville School District	951	10	1%
All other	34,755		52%
Total (724 employers)	**67,813**		**100%**

Table 9
Public Entities Participating in PERSI

State Agencies

Accountancy Board
Administration Dept
Agriculture Dept
Attorney General
Barley Commission
Bd of Veterinary Med
Bean Commission
Beef Council
Board of Education
Boise State Univ
Brand Inspector
Comm For The Blind
Comm On Hispanic Affairs
Commerce Dept
Commission On Aging
Commission On The Arts
Commission for Pardons and Paroles
Controller`s Office
Correction Dept
Correctional Indust
Dairy Council
Dentistry Board
Dept of Environmental Qlty
Div of Bldg Safety
Div of Financial Mgt
Div of Veteran Services
Division of Human Resources
E Idaho Tech College
Endowment Fund Investment Bd
Finance Dept
Fish & Game Dept
Forest Products Comm
Governor`s Office
Health & Welfare Dept
Health District 1
Health District 2
Health District 3
Health District 4
Health District 5
Health District 6
Health District 7
Historical Society
House of Reps
ID Public Television
ID Workforce
Idaho Career & Technical Education
Idaho Grape Growers & Wine Producers Commission
Idaho Oilseed Commission
Idaho Rangeland Resources Commission
Idaho State Police
Idaho State Univ
Independent Living Council
Industrial Commission
Info Tech Services
Insurance Dept
Insurance Fund
Judicial Branch
Juvenile Corrections
Labor Dept
Lands Dept
Lava Hot Springs Foundation
Legislative Services
Lewis-Clark State College
Library
Lieutenant Governor
Liquor Dispensary
Lottery
Medicine Board
Military Division
Multi-Agency Payroll
Nursing Board
Occupational License Bur
Office of Drug Policy
Office of Energy Resources
Office of Performance Evaluations
Office of Species Conservation
Outfitters & Guides
Parks & Recreation
Pharmacy Board
Potato Commission
Prof Eng & Surveyors
Public Defense Commission
Public Employee Retirement System
Public Util Comm
Racing Commission
Real Estate Comm
STEM Action Center
Secretary of State
Senate
Soil Conservation Comm
State Appellate Public Defender
State Bar
Supt Public Inst
Tax Appeals Board
Tax Commission
Transportation Dept
Treasurer
University of Idaho
Vocational Rehab
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
Washington County

Cities
City of Aberdeen
City of Albion
City of Amer Falls
City of Ammon
City of Arco
City of Ashton
City of Athol
City of Bancroft
City of Basalt
City of Bellevue
City of Blackfoot
City of Bliss
City of Bloomington
City of Boise
City of Bonners Ferry
City of Bovill
City of Buhl
City of Burley
City of Caldwell
City of Cambridge
City of Carey
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 Hayden Lake
City of Hazelton
City of Heyburn
City of Homedale
City of Hope
City of Horseshoe Bend
City of Idaho City
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 Ketchum
City of Kimberly
City of Kooskia
City of Kootenai
City of Kuna
City of Lapwai
City of Lava Hot Spr
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 Moyie Springs
City of Mtn Home
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 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 Stanley
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

Aberdeen-Springfield Canal Co
Ada Co Drainage Dist #2
Amer Falls Res Dist #1
Amer Falls Res Dist #2
Avondale Irr Dist
Big Lost River Irr
Big Wood Canal Co
Black Canyon Irrigation District
Boise Proj Bd Contrl
Boise-Kuna Irr Dist
Burley Irr Dist
Cabinet Mountains Water District
Caldwell Irrigation Lateral District
Canyon Hill Irr Dist
Cataldo Water Dist
Central Shoshone Co Water Dist
Dalton Gardens Irrigation District
E Greenacres Irr Dist
East Shoshone Co Water District
Falls Irrigation District
Fish Haven Area Recreational Sewer Dist
Fremont-Madison Irr
Grandview Mutual Canal Co
Granite Reeder Water & Sewer
Hayden Lake Recreational Water & Sewer District
Hayden Lk Irrigation Dist
Idaho Irr District
Kalispel Bay Water & Sewer Dist
King Hill Irr Dist
Kingston Water Dist
Kootenai-Ponderay Sewer Dist
Lake Irr District
Lewiston Orchard Irr Dist
Little Wood Riv Irr Dist
Milner Low Lift Irr District
Minidoka Irr Dist
Mtn Home Irr Dist
Nampa-Meridian Irr
New Sweden Irr Dist
New York Irr Dist
No Kootenai Water District
North Snake Ground Water District
Orofino Cr-Whiskey Cr Water & Sewer District
Outlet Bay Water & Sewer District
Owyhee Proj S Board of Control
Payette Lakes Water & Sewer District
Peoples Canal and Irrigation Co
Pinehurst Water Dist
Pioneer Irr District
Progressive Irr Dis
Riverside Indep Water & Sewer
Riverside Irr District
Riverside Irr Dist LTD
Roseberry Irr District
Ross Point Water Dis
Settlers Irr District
Snake River Valley Irr District
Southside Wtr & Swr Dist
Star Sewer & Water District
Sun Valley Water & Sewer
Twin Falls Canal Co
W Bonner Water & Sewer District
Water District #1
Water District #11
Water District #31
Water District #32-C
Water District #34
Water District #63
Water District 37
Water District 37N
Water District 67
Weiser Irr District
Wilder Irr District

Highway Districts

Ada County Hwy District
Atlanta Hwy District
Bliss Hwy District
Buhl Hwy District
Burley Hwy District
Canyon Hwy District #4
Central Hwy District
Clarkia Better Roads Hwy District
Clearwater Hwy District
Cottonwood Hwy District
Deer Creek Highway District
Dietrich Hwy Dist #5
Downey Swan Lake Hwy District
East Side Hwy District
Evergreen Hwy District
Fenn Hwy District
Ferdinand Hwy District
Filer Highway District
Gem Hwy District
Glenns Ferry Hwy District
Golden Gate Hwy District
Gooding Hwy District
Grangeville Hwy District
Greencreek Hwy District
Hagerman Hwy District
Highway District #1 (Fruitland)
Hillsdale Hwy District
Homedale Hwy District
Independent Hwy District
Jerome Hwy District
Kamiah Hwy District
Keuterville Hwy District
Kidder-Harris Hwy District
Kimama Highway District
Lakes Hwy District
Lost River Highway District
Minidoka Co Hwy District
Mtn Home Hwy District
N Latah Co Hwy District
Nampa Hwy District
North Hwy District
Notus-Parma Hwy District
Oakley Highway District
Plummer-Gateway Hwy District
Post Falls Hwy District
Prairie Hwy District Bd
Raft River Hwy District
Richfield Hwy District #3
S Latah County Hwy District #2
Shoshone Hwy District #2
Twin Falls Hwy District
Union Ind Hwy District
Weiser Valley Hwy District
Wendell Hwy District #6
West Point Hwy District
White Bird Highway District
Winona Hwy District
Worley Hwy District

Junior Colleges and Public School Districts

Aberdeen School District
Alturas International Academy
American Falls SD
American Heritage Charter School
Another Choice Virtual Charter School
Anser of Idaho Inc
Arbon School District
Avery School District
Basin School District
Bear Lake School District
Bingham Academy
Blackfoot Charter Comm Learning Ctr
Blackfoot School District
Blaine Co School District
Bliss School District
Boise Ind School District
Bonneville School District
Boundary County SD
Bruneau-Grandview SD
Buhl School District
Butte Co School District
Caldwell School District
Camas Co School District
Cambridge School District
Canyon-Owyhee SD (COSSA)
Cascade School District
Cassia Co SD
Castleford SD
Challis Jt SD
Chief Tahgee Elementary Academy
Clark Co School Dist
Clearwater/Orofino Jt SD
Coeur d`Alene Charter Academy
Coeur d`Alene SD
Compass Public Charter School
Cottonwood SD
Council Valley SD
Culdesac Jt SD
Dietrich School District
Emmett School District
Falconridge Charter School
Filer School District
Firth School District
Fruitland School District
Garden Valley SD
Gem Prep: Nampa, Inc.
Gem Prep: Pocatello Inc.
Genesee School District
Glenns Ferry Jt SD
Gooding Jt SD
Grace School District
Hagerman Jt SD
Hansen School District
Heritage Academy
Heritage Community Charter School
Highland Jt SD
Homedale School District
Horseshoe Bend SD
I Succeed Virtual High School
Id High Sch Activity Assn
Idaho Arts Charter School
Idaho College and Career Readiness Academy
Idaho Distance Education Academy
Idaho Falls SD
Idaho Science & Technology Charter School
Idaho Virtual Academy
Idaho Virtual Education Partners, Inc.
Inspire Virtual Charter School
Jerome School District
Kamiah Jt SD
Kellogg School District
Kendrick School District
Kimberly School District
Kootenai Bridge Academy
Kootenai School District
Kootenai Technical Education Campus
Kuna Jt SD
Lake Pend Oreille Sch District
Lakeland School District
Lapwai School District
Legacy Public Charter School
Lewiston Independ SD
Liberty Charter School Inc
Mackay School District
Madison School District
Marsh Valley Jt SD
Marsing School District
McCall Donnelly SD
Meadows Valley SD
Melba School District
Meridian Charter High School Inc
Meridian Medical Arts Charter School
Middleton SD
Midvale School District
Minidoka County SD
Monticello Montessori Charter School
Moscow Charter School
Moscow School District
Mountain Home SD
Mountain View School District
Mullan School District
Murtaugh School District
Nampa School District
New Plymouth SD
NezPerce Jt SD
North Gem SD
North Star Charter School
North Valley Academy Charter School
Notus School District
Oneida School District
Palouse Prairie Education Organization
Parma School District
Pathways in Education - Nampa, Inc.
Payette River Regional Technical Academy
Payette School District
Pleasant Valley SD
Plummer-Worley Jt SD
Pocatello Community Charter School
Pocatello School District
Post Falls School District
Potlatch School District
Prairie School District
Preston School District
Richard McKenna Charter High School
Richfield School District
Rigby School District
Ririe School District
Rockland School District
Rolling Hills Charter School
STEM Charter Academy
Sage International School of Boise
Salmon River Jt School District

Salmon School District
Sandpoint Charter School
Shelley Jt SD
Shoshone School District
Snake River SD
Soda Springs SD
South Lemhi SD
St Anthony SD(FremontCoSD)
St Maries School District
Sugar-Salem SD
Swan Valley SD
Syringa Mountain School
Taylors Crossing Public Charter School
Teton School District
The Academy, Inc.
The Village Charter School
Thomas Jefferson Charter School
Three Creek SD
Troy School District
Twin Falls SD
Upper Carmen Charter School
Valley School District
Vallivue School District
Victory Charter School
Vision Charter School
Wallace School District
Weiser School District
Wendell School District
West Ada School District
West Bonner Co Sch Dist
West Jefferson SD
West Side SD
White Pine Charter School
Whitepine Jt Sch Dist
Wilder School District
Xavier Charter School

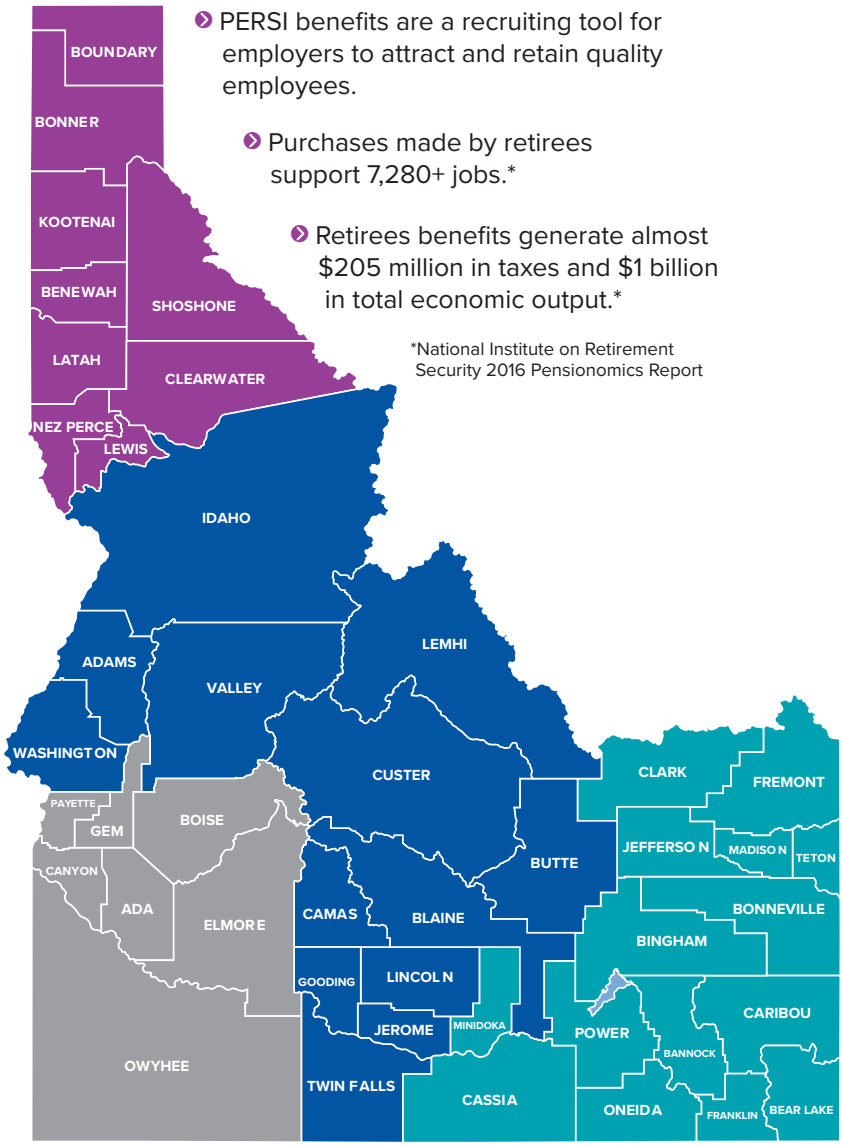
Other

Aberdeen District Library
Ada Co Free Library
Am Falls Housing Agn
Amer Falls Free Library
Assoc of Id Cities
Bannock Planning Organization
Bear Lake Co Library
Bear Lake County Fire District
Bear Lake Regional Comm
Bingham Co Senior Citizen Ctr
Blackfoot Fire Dept
Blaine Co Rec District
Boise City/Ada Co Housing Authority
Boise Fire Dept
Bonner Soil & Water Conservation District
Boundary Co Free Lib
Buhl Fire District
Buhl Housing Authority
Burley Fire Dept
Burley Library
Caldwell Fire Dept
Caldwell Housing Authority
Canyon Co Mosquito Abatement District
Canyon County Ambulance District
Capital City Dev Corp
Caribou Soil Conservation District
Cascade Medical Ctr
Cascade Rural Fire & EMS
Central Fire District
Central Orchards Sewer District
Clearwater-Potlatch Timber Prot Assn
Coeur d`Alene Fire Dept
College of So Idaho
College of Western Idaho
Comm Planning Assn-SW ID
Consolidated Free Library District
Coolin Sewer District
Cottonwood Rural FD
Council Valley Free Library District
Deary Rural Fire District
Donnelly Rural FPD
Dry Creek Cemetery Dist
Eagle Fire Protection District
Eagle Sewer District
East Bonner County Library District
Eastern Id Fair District
Eastern Idaho Reg Waste Water Authority
Edwards Mosquito Abatement District
Ellisport Bay Sewer District
Foster Grandparents of SE Idaho
Franklin Co Lib District
Franklin County Fire District
Fremont County Dist Lib
Garden Valley Fire Protection District
Gem Co Mosquito Abatement Dist
Gem Co Recreation
Gem County Fire Prot District 1
Gooding Cem Maint Dis
Gooding Soil Conservation District
Grangeville Cemetery Maint Dist
Greater Middleton Parks & Rec District
Greater Swan Valley Fire Prot Dist
Hagerman Cemetery Dist
Hagerman Fire Prot Dist
Hauser Lake Fire Protection District
Hayden Area Regional Sewer Bd
Hillcrest Cemetery Maintenance District
Homedale Rural Fire Prot Dist
Housg Auth Pocatello
Id Assn of Counties
Id Assn of School Administrators
ID Bureau of Education Svc for the Deaf and Blind
Id Co Risk Mgmt Prog
Id Crop Improvement Assoc
Id Falls Fire Dept
Id Public Emp Assn
Idaho Digital Learning Academy
Idaho Education Assn
Idaho Heritage Trust
Idaho School Boards Assn
Idaho School District Council
Iona Bonneville Sewer District
Jeff Free Library District

Jerome Fire Dept
Jerome Recreation District
Ketchum Fire Dept
Kingston-Cataldo Sewer District
Kootenai Co Emer MedSvc
Kootenai Co Fire & Rescue F
Kootenai Co Fire & Rescue P
Kootenai Metropolitan Planning Organization
Kuna Cemetery Maintenance District
Kuna Fire District
Kuna Library District
Kuna Rural Fire District
Latah County Lib District
Lemhi Co Fire Protection District
Lewiston Fire Dept
Lewiston-Nez Perce County Airport Authority
Lincoln Co Cemetery District
Lincoln County Emergency Services
Lincoln County Housing Authority
Local Hwy Tech Assistance Cncl
Madison Co Library District
M-A-R Cemetery District
Marsing-Homedale Cemetery District
McCall Fire Prot Dist
Meadows Valley Rural Fire District
Meadows Vly Pub Lib Dis
Meridian Cemetery Maint Dist
Meridian Library District
Metro Community Services, Inc.
Mica Kidd Island Fire Prot Dist
Middleton Rural Fire District
Minidoka County Fire Protection District
Minidoka Soil & Water Conservation District
Moscow Cemetery Dist
Moscow Fire Dept
Moscow Rural Fire District
Murtaugh Highway District
N Ada Co Fire/Rescue District
N Bingham Co Library District
N Fremont Cemetery District
Nampa Fire Dept
Nampa Housing Auth
Nez Perce Co Fair Board
No Lakes Fire Prot Dist
North Idaho College
North Idaho Fair
Northside Fire District
Oneida Co Library
Orofino Cemetery District
Paradise Valley Fire District
Paul Cemetery District
Payette County Recreation District
Payette Fire Dept
Plummer Gateway Fire Prot Dist
Pocatello-Chubbuck Auditorium District
Pocatello Fire Dept
Port of Lewiston
Portneuf Library District
Post Falls Urban Renewal Agency
Prairie-River Lib District
Priest Lake Public Library
Rexburg Cemetery Dist
Rexburg-Madison Fire
Rock Creek Fire Protection District
S Bannock Lib Dist
S Id Solid Waste District
S Id Timber Prot Assn
Sagle Fire District
Salmon Library District
Sandpoint Fire Dept
Schweitzer Fire District
Selkirks-Pend Oreille Transit Authority
Shelley Cemetery District
Shoshone City & Rural Fire Protection District
Shoshone Co Fd #1
Shoshone Co Fd #2
Shoshone Co FD#2
So Cent Region E911
S. Bingham Soil Conservation District
South Boundary Fire Protection District
South Fork Coeur d Alene River Sewer District
South Fremont Fire Protection District
Southern Valley County Rec Dist
Spirit Lk Fire Prot Dist
St Maries Fire Prot Dist
Stanley Community Library District
Star Joint Fpd
Targhee Regional Public Transit Authority
Teton Co Fire Pr Dis
Timberlake Fire Protection District
Twin Falls Co Pest Abatement District
Twin Falls County Fair
Twin Falls Fire Dept
Twin Falls Housing Auth
Valley of Tetons Library Bd
Valley Recreation District of Hazelton
Valley Regional Transit
Valley Soil & Water Conservation District
W Boise Sewer District
Weiser Ambulance District
Weiser Area Rural Fire District
Weiser Memorial Hospital
Wendell Rural FD
West Bonner Library District
West End Cemetery District
West End Fire Prot Dist
Westside Fire District
Whitney FPD
Whitney Fpd
Wilder Cemetery District
Wilder Housing Auth
Wilder Rural Fire Protection District
Wood River Fire & Rescue
Wood River Soil & Water Conservation District
Worley Fire Prot Dis
South Central Region E911
South Fremont Fire Protect. Dist.
So. Idaho Timber Protection Assn.
Spirit Lake Fire Protect. District
Star Joint Fire Protect. District

Teton County Fire Protect. Dist
Timberlake Fire Protect. Dist.
Twin Falls Fire Dept.
Weiser Ambulance District
Weiser Area Rural Fire Dist.
Wendell Rural Fire District
West End Fire Prot. District
Westside Fire District
Whitney Fire Protect. District
Wilder Rural Fire Protect. Dist.
Wood River Fire & Rescue
Worley Fire Protect. District

PERSI BENEFITS PAID IN FISCAL YEAR 2018 TO RETIREES LIVING IN IDAHO



- PERSI benefits are a recruiting tool for employers to attract and retain quality employees.
- Purchases made by retirees support 7,280+ jobs.*
- Retirees benefits generate almost $205 million in taxes and $1 billion in total economic output.*

*National Institute on Retirement Security 2016 Pensionomics Report

COUNTIES	2018 in millions	NUMBER OF RETIREES	AVERAGE MONTHLY BENEFIT
Boundary	4.1	304	$1,137.32
Bonner	13.6	914	$1,243.81
Kootenai	55.5	2,998	$1,544.03
Benewah	4.2	286	$1,251.79
Shoshone	7.8	496	$1,312.61
Latah	28.5	1,392	$1,709.92
Clearwater	6.4	425	$1,271.89
Nez Perce	25.2	1,215	$1,730.08
Lewis	3.0	205	$1,232.67
Idaho	7.0	503	$1,164.23
Adams	2.9	182	$1,349.96
Washington	6.4	391	$1,367.97
Valley	11.0	505	$1,815.99
Lemhi	4.6	300	$1,283.90
Custer	2.3	158	$1,262.98
Butte	1.0	90	$1,000.86
Camas	.87	56	$1,296.50
Blaine	7.9	368	$1,795.76
Gooding	7.3	487	$1,263.85
Lincoln	2.4	160	$1,287.37
Jerome	7.1	419	$1,424.59
Twin Falls	34.1	1,787	$1,592.67
Payette	7.8	459	$1,417.50
Gem	9.7	577	$1,405.09
Boise	4.0	227	$1,487.46
Canyon	70.6	3,981	$1,479.66
Ada	240.8	10,890	$1,842.79
Elmore	10.9	669	$1,361.08
Owyhee	3.3	255	$1,080.71
Minidoka	7.9	527	$1,250.95
Cassia	10.9	647	$1,414.94
Oneida	2.1	143	$1,241.71
Power	4.0	239	$1,424.13
Franklin	4.5	291	$1,306.19
Bear Lake	3.3	240	$1,172.80
Bannock	55.1	2,590	$1,775.92
Caribou	3.7	238	$1,329.69
Bingham	21.2	1,239	$1,430.81
Bonneville	46.8	2,282	$1,709.03
Teton	2.0	141	$1,210.08
Madison	9.8	560	$1,472.91
Jefferson	10.6	613	$1,450.81
Fremont	7.3	456	$1,343.84
Clark	.53	38	$1,167.92
TOTALS FOR IDAHO	782.2	40,943	

CONTACT US AT

PUBLIC EMPLOYEE RETIREMENT SYSTEM OF IDAHO
607 NORTH 8TH STREET | BOISE, IDAHO 83702
208.334.3365 or 1.800.451.8228
www.persi.idaho.gov

STATISTICAL SECTION

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 www.persi.idaho.gov.

PERSI Office Locations:

Boise

Office Location:
607 North 8th Street
Boise, ID 83702

Mailing Address:
P.O. Box 83720
Boise, ID 83720-0078

Coeur d'Alene

Office Location & Mailing Address:
2005 Ironwood Parkway
Suite 226
Coeur d'Alene, ID 83814

Pocatello

Office Location:
1246 Yellowstone Avenue
Suite A5
Pocatello, ID 83201

Mailing Address:
P.O. Box 1058
Pocatello, ID 83204

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

The costs associated with this publication are available from the Public Employee Retirement System of Idaho in accordance with Section 60-202, Idaho Code.