DRAFT

2017-18

Comprehensive Annual Financial Report

Fiscal Year Ended June 30, 2018

California Public Employees' Retirement System
A Component Unit of the State of California

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COMPREHENSIVE ANNUAL FINANCIAL REPORT

Fiscal Year Ended June 30, 2018

Prepared through the joint efforts of CalPERS' team members.

Available online at www.calpers.ca.gov

CalPERS

California Public Employees' Retirement System
A Component Unit of the State of California

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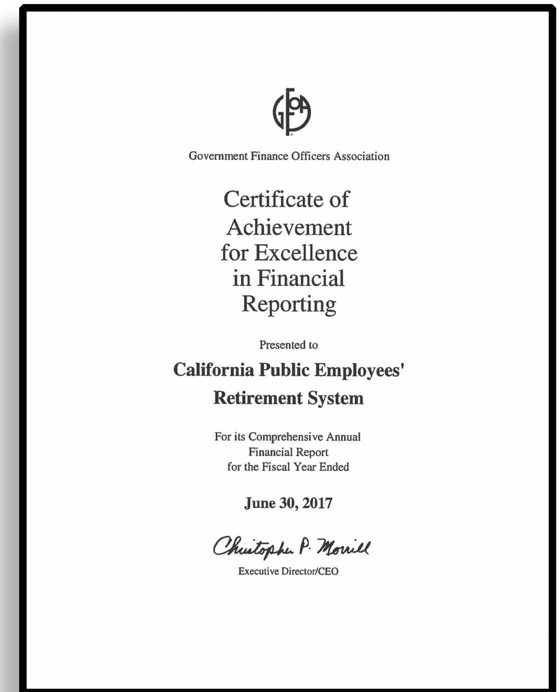
Introductory Section

Introductory Section

PROFESSIONAL AWARDS

CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

The Government Finance Officers Association of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to CalPERS for our Comprehensive Annual Financial Report for the fiscal year ended June 30, 2017. This was the 22nd year that CalPERS 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 that satisfies both generally accepted accounting principles and applicable legal requirements. We believe our current Comprehensive Annual Financial Report continues to meet the Certificate of Achievement Program's requirements.



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

California Public Employees' Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill
Executive Director/CEO

PUBLIC PENSION STANDARDS AWARD

The Public Pension Coordinating Council awarded a Public Pension Standards Award for Funding and Administration to CalPERS for the fiscal year ended June 30, 2018. This is the 16th consecutive year that CalPERS has achieved this prestigious award. In order to be awarded a Public Pension Standards Award, a public pension program must meet professional standards for plan design and administration as set forth in the Public Pension Standards. A Public Pension Standards Award is valid for a period of one year.

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2018

Presented to

California Public Employees' Retirement System

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

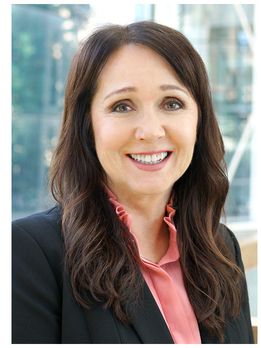
Presented by the Public Pension Coordinating Council, a confederation of

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

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL

CalPERS



Marcie Frost
Chief Executive Officer

DRAFT

November 30, 2018

Members of the CalPERS Board of Administration:

I am pleased to present the California Public Employees' Retirement System (CalPERS or the System) Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018.

This past fiscal year marks multiple accomplishments achieved under the first year of the new five-year *2017-22 Strategic Plan*, which lays the foundation for meeting our investment, retirement, and health benefit needs for the years ahead.

Beginning with our investment returns, I am pleased to report our earnings are above our 7 percent goal with an 8.6 percent net return on investments. Solid returns came from the private equity program, which generated a 16.1 percent net return, followed by public equity with a net return of 11.5 percent. Real assets returned 8.0 percent.

To continue our work in strengthening our investment performance, in May we unveiled a proposed private equity investment model, CalPERS Direct. Since private equity is our highest returning asset class, averaging 10.5 percent over the past 20 years, we need a program that helps us achieve our 7 percent return target and hit our goal of investing 8 percent of our fund into private equity. We believe this proposed new model will help drive higher returns and allow us to take advantage of new investment opportunities. The CalPERS Board (the Board) has yet to approve this new approach and will continue to evaluate it during the next fiscal year.

Another accomplishment from this fiscal year was the completion of our Asset Liability Management (ALM) review process. Every four years we review our assets and liabilities with input from our investment, actuarial, and finance teams.

Based on that work, the CalPERS Board in December 2017 approved a new asset allocation mix for our investments. While a key decision of the ALM was lowering the discount rate in 2016, in Fiscal Year 2017-18 we also shortened the amortization period and adopted new actuarial assumptions. As a result, our cash flow has improved significantly. These decisions were necessary and prudent, and are consistent with our fiduciary obligations.

In the financial markets, we continued to see strong market growth that boosted our assets and strengthened the net position of the Public Employees' Retirement Fund (PERF). Our net position increased by nearly $28 billion and stood at nearly $354 billion as of June 30, 2018, compared with $326 billion as of June 30, 2017.

As our assets increased, our objective to operate more efficiently was still a critical driver, since the amount we pay in retirement benefits continued to increase over the previous fiscal year. As of June 30, 2018, CalPERS paid out $22.9 billion in benefits to more than 694,000 retirees and beneficiaries, a $1.5 billion increase from the previous fiscal year. This increase was primarily due to the rise in the number of retirees and beneficiaries.

Our core mission is to pay benefits for generations and investing in California helps us fulfill that commitment. In Fiscal Year 2016-17, the *CalPERS for California* report showed that 266,200 estimated jobs were supported as a result of CalPERS' private market investments in the state economy, and the number of California jobs represented by the California-based public companies in which CalPERS invests is estimated at over one million.

In health care, our overall average Medicare and Basic (non-Medicare) rate increase was the lowest in two decades.

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

The changes approved by the Board in June 2018 will increase 2019 rates by an average of 1.16 percent overall.

Other notable changes in healthcare for 2019 show that 800,000 Health Maintenance Organization (HMO) Basic members are expected to see their premiums decline, while seven HMO plans will have rates lower than the 2018 premiums. Also, the PERS Select Basic Preferred Provider Organization (PPO) plan adopted a new value-based insurance design that will take effect in the 2019 plan year. This new approach aims to improve quality and lower costs associated with health care by emphasizing primary care and introducing cost incentives to lower deductibles.

Additionally, the net position of the California Employers' Retiree Benefit Trust Fund grew by $1.5 billion along with the number of contracted employers, from 524 to 542 since last fiscal year. This optional program pre-funds retiree health, dental, and other non-pension post-employment obligations.

While we had many accomplishments this past fiscal year, we will continue to embark on our new goals in our *2017-22 Strategic Plan*: strengthening fund sustainability, improving health care affordability, reducing complexity and risk, and promoting a high-performing and diverse workforce.

Funding

The funded status of the PERF is 70.1 percent for Fiscal Year 2016-17 and uses the phased-in lower discount rate of 7.375 percent for schools and 7.25 percent for state and public agencies.

The estimate for Fiscal Year 2017-18 is nearly one percentage point higher at 71.0 percent. This estimate uses the 7 percent discount rate for all employers.

While our bottom line is getting stronger and the cash flow projections are rising, our goal is to continue to take steps to run the system as efficiently as possible and fairly funded with an acceptable level of risk.

The PERF is the main trust fund from which nearly all CalPERS retirement benefits are paid. The Actuarial Section contains a summary of CalPERS' unfunded actuarial accrued liabilities.

Looking Forward

As we close the fiscal year and continue toward accomplishing our goals and objectives that we have established in our strategic plan, we are mindful that to be successful we will need to harness innovation and collaborate with our stakeholders.

Our work with our stakeholders has been imperative as we focus on boosting our total returns, since 59 cents (as of June 30, 2018) of every dollar we pay in pension benefits comes from investments.

While stakeholders have been clear about the financial issues they are facing as contribution costs increase, we are committed to being a reliable partner and achieving the shared goal of retirement security for those who serve California.

As we begin the second year of the *2017-22 Strategic Plan*, together we can be proud to look back at the many accomplishments that helped us deliver benefits to our more than 694,000 retirees and beneficiaries and serve nearly 2 million public service employees and their families.

Management Responsibility for Financial Reporting

CalPERS' management prepared the financial statements in this CAFR for Fiscal Year 2017-18. Management is responsible for the integrity and fairness of the information presented, including data that, out of necessity, is based on estimates and judgments. The accounting policies used to prepare these financial statements conform to accounting principles generally accepted in the United States. Financial information presented throughout this annual report is consistent with these accounting principles.

CalPERS maintains a system of internal controls designed to provide reasonable assurance that assets are properly safeguarded, transactions are properly executed, and financial statements are reliable. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. In addition, our audit personnel provide a continuing review of the internal controls and operations of CalPERS, and the Chief of the Office of Audit Services regularly reports to the CalPERS Board of Administration's Risk and Audit Committee. The Committee reviews the audit findings and recommendations for improvements in internal control and operational efficiency, and it reviews the actions of management to implement such recommendations.

Our independent external auditor has conducted an audit of the Basic Financial Statements in accordance with auditing standards generally accepted in the United States and Government Auditing Standards, performing such tests and other procedures as they deem necessary to express opinions on the Basic Financial Statements in their report to the Board. The external auditor also has full and unrestricted access to the Board to discuss their audit and related findings as to the integrity of the financial reporting and the adequacy of internal control systems.

Accounting System and Reports

Management is responsible for establishing and maintaining an internal control structure designed to ensure that CalPERS'

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

assets are protected from loss, theft, or misuse, and that income is appropriately distributed. CalPERS is responsible to ensure the Basic Financial Statements have been prepared in accordance with accounting principles generally accepted in the United States. The Basic Financial Statements are presented in accordance with the applicable requirements of the Governmental Accounting Standards Board (GASB).

GASB Statement No. 34, Basic Financial Statements–and Management's Discussion and Analysis–for State and Local Governments (GASB 34) requires that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of a 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 CalPERS MD&A can be found immediately following the report of the independent auditors.

Marcie Frost
Chief Executive Officer

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ABOUT CalPERS

The California Public Employees' Retirement System (CalPERS or the System) is the nation's largest defined benefit public pension fund with total fiduciary net position in the Public Employees' Retirement Fund (PERF) of $354 billion as of June 30, 2018.

Headquartered in Sacramento, CalPERS provides retirement benefit services to nearly 2.0 million members and health benefit services to nearly 1.5 million covered lives for state, school, and public employers. The System also operates eight Regional Offices located in Fresno, Glendale, Orange, Sacramento, San Diego, San Bernardino, San Jose, and Walnut Creek.

Led by a 13-member Board of Administration consisting of member-elected, appointed, and ex officio members, CalPERS membership consists of 1,265,054 active and inactive members and 696,890 retirees, beneficiaries, and survivors.

Established by legislation in 1931, the System became operational in 1932 to provide a secure retirement to state employees. In 1939, new legislation allowed public agency and classified school employees to join CalPERS for retirement benefits. CalPERS began administering health benefits for state employees in 1962, and five years later, public agencies were able to join the health program on a contract basis.

Today CalPERS offers additional programs, including long-term care coverage and deferred compensation retirement savings plans.

VISION

A respected partner, providing a sustainable retirement system and health care program for those who serve California.

MISSION

Deliver retirement and health care benefits to members and their beneficiaries.

2017-22 STRATEGIC PLAN GOALS AND OBJECTIVES

Fund Sustainability – Strengthen the Long-Term Sustainability of the Pension Fund

- Fund the System through an integrated view of pension assets and liabilities.
- Mitigate the risk of significant investment loss.
- Deliver target risk-adjusted investment returns.
- Educate employers, members, and stakeholders on system risks and mitigation strategies.
- Integrate environmental, social, and governance (ESG) considerations into investment decision making.

Health Care Affordability – Transform Health Care Purchasing and Delivery to Achieve Affordability

- Restructure benefit design to promote high-value health care.
- Improve the health status of our employees, members, and their families, and the communities where they live.
- Reduce the overuse of ineffective or unnecessary medical care.

Reduce Complexity – Reduce Complexity Across the Enterprise

- Simplify programs to improve service and/or reduce cost.
- Streamline operations to gain efficiencies, improve productivity, and reduce costs.

Risk Management – Cultivate a Risk-Intelligent Organization

- Enhance compliance and risk functions throughout the enterprise.
- Continue to evolve cyber security program.

Talent Management – Promote a High-Performing and Diverse Workforce

- Recruit and empower a broad range of talents to meet organizational priorities.
- Cultivate leadership competencies and develop succession plans throughout the enterprise.

ABOUT CalPERS (CONTINUED)

PENSION BELIEFS

In May 2014, the CalPERS Board of Administration adopted a set of 11 Pension Beliefs that articulate the pension fund's views on public pension design, funding, and administration.

Pension Belief 1

A retirement system must meet the needs of members and employers to be successful.

Pension Belief 2

Plan design should ensure that lifetime retirement benefits reflect each employee's years of service, age, and earnings and are adequate for full-career employees.

Pension Belief 3

Inadequate financial preparation for retirement is a growing national concern; therefore, all employees should have effective means to pursue retirement security.

Pension Belief 4

A retirement plan should include a defined benefit component, have professionally managed funds with a long-term horizon, and incorporate pooled investments and pooled risks.

Pension Belief 5

Funding policies should be applied in a fair, consistent manner, accommodate investment return fluctuations, and support rate stability.

Pension Belief 6

Pension benefits are deferred compensation and the responsibility for appropriate funding should be shared between employers and employees.

Pension Belief 7

Retirement system decisions must give precedence to the fiduciary duty owed to members, but should also consider the interests of other stakeholders.

Pension Belief 8

Trustees, administrators and all other fiduciaries are accountable for their actions, and must transparently perform their duties to the highest ethical standards.

Pension Belief 9

Sound understanding and deployment of enterprise-wide risk management is essential to the ongoing success of a retirement system.

Pension Belief 10

A retirement system should offer innovative and flexible financial education that meets the needs of members and employers.

Pension Belief 11

As a leader, CalPERS should advocate for retirement security for America's workers and for the value of defined benefit plans.

ABOUT CalPERS (CONTINUED)

INVESTMENT BELIEFS

In September 2013, the CalPERS Board of Administration adopted a set of 10 Investment Beliefs intended to provide a basis for strategic management of the investment portfolio, and to inform organizational priorities.

Investment Belief 1

Liabilities must influence the asset structure.

Investment Belief 2

A long time investment horizon is a responsibility and an advantage.

Investment Belief 3

CalPERS investment decisions may reflect wider stakeholder views, provided they are consistent with its fiduciary duty to members and beneficiaries.

Investment Belief 4

Long-term value creation requires effective management of three forms of capital: financial, physical, and human.

Investment Belief 5

CalPERS must articulate its investment goals and performance measures and ensure clear accountability for their execution.

Investment Belief 6

Strategic asset allocation is the dominant determinant of portfolio risk and return.

Investment Belief 7

CalPERS will take risk only where we have a strong belief we will be rewarded for it.

Investment Belief 8

Costs matter and need to be effectively managed.

Investment Belief 9

Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error.

Investment Belief 10

Strong processes and teamwork and deep resources are needed to achieve CalPERS goals and objectives.

HEALTH BELIEFS

In April 2018, the CalPERS Board of Administration adopted a set of six Health Themes and Beliefs that provide a basis for strategic management of the health benefits program to achieve long-term objectives.

Health Program Sustainability

The sustainability of the Health Program is the foremost consideration when reviewing proposed changes to benefits, coverage areas, and costs.

High Quality Care

Health benefit plan designs should improve member health outcomes, maximize quality, and reduce unwarranted care.

Affordability

Health premiums and out-of-pocket costs must be affordable and sustainable for members and employers.

Comprehensive Care

Health plans shall encourage healthy life choices and provide access to essential health care and evidence-based health services.

Competitive Plan Choice

CalPERS shall manage competition among health plans to help drive cost containment and give members access to options among health plans, benefits, and providers.

Quality Program Administration

CalPERS shall meet the needs of its many stakeholders with responsiveness, accuracy, and respectful service.

BOARD OF ADMINISTRATION

Priya Mathur, President
Public Agency Member Representative
Principal Financial Analyst
Bay Area Rapid Transit
Term Ends: January 15, 2019

Richard Costigan
Ex Officio Member
State Personnel Board Representative

Rob Feckner, Vice President
School Member Representative
Glazing Specialist
Napa Valley Unified School District
Term Ends: January 15, 2019

Richard Gillihan
Ex Officio Member
Director
California Department of Human Resources

Margaret Brown
All Member Representative
Director of Facilities
Garden Grove Unified School District
Term Ends: January 15, 2022

Dana Hollinger
Governor Appointee
Insurance Industry Representative
Principal, Dana Hollinger Group

John Chiang
Ex Officio Member
California State Treasurer

Henry Jones
Retired Member Representative
Retired, Chief Financial Officer
Los Angeles Unified School District
Term Ends: January 15, 2020

BOARD OF ADMINISTRATION (CONTINUED)

David Miller
All Member Representative
Senior Environmental Scientist
California Department of Toxic Substances Control
Term Ends: January 15, 2022

Theresa Taylor
State Member Representative
Principal Compliance Representative
Franchise Tax Board
Term Ends: January 15, 2019

Ramon Rubalcava
Appointed Jointly by the Senate Rules Committee and the Speaker of the Assembly
Public Representative

Betty Yee
Ex Officio Member
California State Controller

Bill Slaton
Governor Appointee
Local Government Elected Official
Elected Board Member of
Sacramento Municipal Utility District

ORGANIZATIONAL CHART – EXECUTIVE STAFF

Marcie Frost
Chief Executive Officer

Marlene Timberlake D'Adamo
Interim Chief Financial Officer
Financial Office
Chief Compliance Officer
Enterprise Compliance Branch

Ted Eliopoulos
Chief Investment Officer
Investment Office

Matthew G. Jacobs
General Counsel
General Counsel Office

Scott Terando
Chief Actuary
Actuarial Office

Douglas Hoffner
Deputy Executive Officer
Operations & Technology

Donna Lum
Deputy Executive Officer
Customer Services & Support

Christian Farland
Chief Information Officer
Information Technology

Liana Bailey-Crimmins
Chief Health Director
Health Policy & Benefits

Brad W. Pacheco
Deputy Executive Officer
Communications &
Stakeholder Relations

CONSULTANT & PROFESSIONAL SERVICES

Individual or Firm[1]
314e Corporation
Anthem Blue Cross
ATV Video Center, Inc.
Avenue Solutions
Bedrosian & Associates
Belmonte Enterprises, LLC
Blue Shield of California
Capio Group
Carahsoft Technology Corp.
Cheiron, Inc.
CoachSource, LLC
Conduent HR Consulting, LLC
Cooperative Personnel Services, Inc.
Cornerstone Fitness, Inc.
CVS Caremark
Delegata Corporation
Department of Human Resources
Department of Justice
DLT Solutions
Domain Experts Corporation
Drinker Biddle & Reath, LLP
DSS Research
Eaton Interpreting Services, Inc.
Elynview Corporation
Enterprise Networking Solutions, Inc.
Enterprise Services, LLC
Equanim Technologies
Ernst & Young, LLP
Esoft Infosystems, Inc.
Eterasys Consulting, Inc.
First Data Merchant Services Corporation
Gartner, Inc.
Government Operations Agency
Grant Thornton, LLP
H&B Joint Venture
Health Net of California
Heidrick & Struggles
HSB Solutions, Inc.
Indecomm Holdings, Inc.
Innovative Software Technologies, Inc.
IVS/Everyone Counts, Inc.
J & K Court Reporting, LLC
JLynn Consulting, Inc.
K & L Gates, LLP
KearnFord Application Systems Design
King & Spalding, LLP
Knowledge Structures, Inc.
Kong Consulting, Inc.
Kronick, Moskovitz, Tiedemann & Girard
Leadership Strategies, Inc.
Long-Term Care Group, Inc.
Lussier Group
Macias Gini & O'Connell LLP

Individual or Firm[1]
Mara Consulting, Inc.
Matrix Software Services
Maximus Federal Services, Inc.
Mellon Bank
Mercer
Merrill Communications, LLC
Michael Scales Consulting, LLC
Milliman, Inc.
Mindstorm Creative, Inc.
NetCentric Technologies, Inc.
Nexus IS, Inc.
Northeast Retirement Services
Nossaman, LLP
OnCore Consulting, LLC
Ope Technology, LLC
OptumRx
Orrick Herrington & Sutcliffe, LLP
Pasanna Consulting Group, LLC
Performance Technology Partners, LLC
Planet Technologies, Inc.
President and Fellows of Harvard College
Princeton Solutions Group, Inc.
Providence Technology Group, Inc.
Qualapps, Inc.
Recon Distribution, Inc.
Reed Smith, LLP
Root9B Technologies, Inc.
RVK, Inc.
Saba Software, Inc.
Shah & Associates, A Professional Law
Sharp Health Plan
Shooting Star Solutions, LLC
Sign Language Interpreting Service Agency
Softsol Technologies, Inc.
Sophus Consulting
SRI Infotech, Inc.
State Controller's Office
State Personnel Board
State Treasurer's Office
Steptoe & Johnson, LLP
T5 Consulting
Take 1 Productions
Technology Crest Corporation
Teranomic
The Ballard Group, Inc.
The Regents of the University of California
The Taylor Feldman Group, LLC
Trinity Technology Group, Inc.
United Health Actuarial Services, Inc.
United Healthcare
Unleashing Leaders, Inc.
Vantage Consulting Group, Inc.
VanWrite Writing Consultants, LLC

Individual or Firm[1]
Vasquez Benisek & Lindgren, LLP
Viaspire
Visionary Integration Professionals, LLC (VIP)
Voya
VPI Strategies
Western Health Advantage
Worktank Enterprises, LLC

(1) Additional information regarding investment professionals who provide services to the System can be found in the Financial Section: Other Supplementary Information. The Schedule of Commissions & Fees listed by broker, and Private Equity Management Fees – PERF listed by fund, can be found in the Investment Section on pages 100-106.

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Financial Section
Independent Auditor's Report/MD&A

Management's Discussion & Analysis (Unaudited)

INTRODUCTION

This section presents Management's Discussion & Analysis of the California Public Employees' Retirement System's (CalPERS or the System) financial performance during the fiscal year ended June 30, 2018. It is a narrative overview and analysis that we present in conjunction with the Chief Executive Officer's Letter of Transmittal included in the Introductory Section of this Comprehensive Annual Financial Report (CAFR). It should also be read in conjunction with the Basic Financial Statements of CalPERS as presented in this report.

In addition to historical information, the Management's Discussion & Analysis includes certain forward-looking statements, which involve currently known facts and certain risks and uncertainties. CalPERS' actual results, performance, and achievements may differ from the results, performance, and achievements expressed or implied in such forward-looking statements due to a wide range of factors, including changes in interest rates, changes in the securities markets, general economic conditions, legislative changes, and other factors.

CalPERS is primarily responsible for administering retirement and health benefits. CalPERS also administers long-term care benefits, a post-employment benefit fund for retiree health, and supplemental retirement savings plans.

MANAGEMENT DISCUSSION

Strategic Planning

CalPERS prepared the *2017-22 Strategic Plan*, which succeeded the *2012-17 Strategic Plan*. This new plan is a blueprint that will guide the enterprise to meet the investment, retirement, and health benefit needs of our members and their families for the coming five years.

The *2017-22 Strategic Plan* was developed over the course of a year-long effort by CalPERS Board members, senior leaders, and team members, with contributions from multiple stakeholders including employer associations, labor groups, retiree associations, federal representatives, health and investment business partners, and state government officials.

This new strategic plan took effect on July 1, 2017, and has five overarching goals:

- Strengthen long-term sustainability of the pension fund
- Transform health care purchasing and delivery to achieve affordability
- Reduce complexity across the enterprise
- Cultivate a risk-intelligent organization
- Promote a high-performing and diverse workforce

Also commencing on July 1, 2017, was the 2017-18 Business Plan Initiatives, which will allow the organization to set priorities and assist in the allocation of resources as well as align to the 2017-18 budget cycle. Each business plan initiative provides the means and major inputs to accomplish the goals and objectives of the strategic plan. CalPERS identified 37 initiatives to begin the work needed to support the overall strategic direction of the organization.

Key Initiatives

CalPERS continued to enhance its operations as follows:

- CalPERS continues the Asset Liability Management (ALM) process to expand its review of assets and liabilities to ensure financial risks to the System are better understood, communicated, and mitigated. To establish appropriate levels of risk, ALM is focused on investment and actuarial policies. These policies include key decision factors and are intended to drive optimum asset allocations, while stabilizing employer contribution rates and the volatility of those rates from year to year. Additionally, in order to better manage risks arising from terminating agencies, CalPERS has enhanced its oversight of contracting public agencies' financial health through its development of a standardized review criteria. These improvements include streamlining the collection and termination process to reduce the timeframe, accelerating notifications to the Board and members, and adopting a risk oversight process to improve early detection of financial hardship issues. In Fiscal Year 2017-18, CalPERS adopted a new four-year asset allocation of the Fund's investment portfolio to align with a phased lowering of the discount rate to 7.0 percent; CalPERS also adopted new actuarial assumptions and approved modifications to the amortization policy, shortening the period over which actuarial gains and losses are amortized from 30 to 20 years.

- CalPERS' 5-year sustainable investment strategy (2017-22) takes an enterprise-wide view on improving the sustainability of long-term pension benefits and actively managing business risks. CalPERS has associated key performance indicators (KPIs) with this strategy, and includes a strategic focus on:
    - Data and Corporate Reporting Standards
    - Climate Action 100+ Engagement (formerly UN PRI Montreal Pledge)
    - Diversity and Inclusion
    - Manager Expectations
    - Research
    - Private Equity Fee and Profit Sharing Transparency

Core work areas are integration of environmental, social and governance (ESG) factors into investment process, Financial Markets Advocacy, Shareowner Campaigns, Corporate & Manager Engagement, Proxy Voting, Responsible Contractor Program, Carbon Footprinting, and Ad Hoc Media and Stakeholder Requests.

OVERVIEW OF THE FINANCIAL STATEMENTS AND ACCOMPANYING INFORMATION

Management's Discussion & Analysis provides an introduction to and overview of the financial position, which comprises the following components: Basic Financial Statements, Notes to the Basic Financial Statements, Required Supplementary Information, and Other Supplementary Information. Collectively, this information presents the combined net position restricted for pension benefits, other post-employment benefits (OPEB), deferred compensation, replacement benefits, and the unrestricted net position of the proprietary funds administered by CalPERS as of June 30, 2018. It also summarizes the combined changes in fiduciary net position restricted for pension, other post-employment, and replacement benefits; the changes in unrestricted net position; and the cash flows of the proprietary funds for the year then-ended, along with disclosures about the net pension liabilities of the single-employer and cost-sharing multiple-employer defined benefit pension plans.

FINANCIAL HIGHLIGHTS

Major events and initiatives impacting the current fiscal year's financial statements include:

- The Public Employees' Retirement Fund (PERF) realized a money-weighted rate of return (MWRR) of 8.4 percent in Fiscal Year 2017-18 resulting from positive performance across most globally diversified asset classes. Drivers of the PERF's investment return include strong performances from public equity, private equity, and real assets investments. Additionally, fixed income and liquidity asset classes outperformed their respective benchmarks.

- During the first of a three-year plan to lower the discount rate for the PERF, the rate was lowered from 7.5 percent to 7.375 percent. Lowering the discount rate, also known as the assumed rate of return, is one step in ensuring the long-term stability of the Fund. An incremental approach over three years will give employers more time to prepare for the changes in contribution costs. Lowered funding discount rates for the Legislators' Retirement Fund (LRF), Judges' Retirement Fund (JRF), and Judges' Retirement Fund II (JRF II) are also in effect.

- The Board approved a two-year value-based insurance design (VBID) pilot for the PERS Select Basic Preferred Provider Organization (PPO) plan in March 2018. The VBID approach allows members to choose a personal care physician to coordinate their health care to ensure they are obtaining needed care. In addition, it provides incentives to members to become more involved in their health decisions and earn credits to reduce their annual deductible costs.

- In June 2018, the Board adopted "buy down" proposals for the PERSCare Basic PPO plan and all Medicare PPO plans. Using funds from PPO plan reserves, the Board adopted lower rates for these plans compared to what they would have been had the reserve funds not been used. While the buy-down lessens rate increases, PERSCare Basic PPO plan members will still see a 19.8 percent increase in 2019 premiums.

- In May 2016, the CalPERS Board approved the Blue Shield of California (Blue Shield) request to terminate its NetValue Health Maintenance Organization (HMO) health plan. In accordance with the BlueShield NetValue contract, CalPERS and Blue Shield agreed to settle all amounts for administrative services fees, capitation, outstanding fees for service claims, and other expenses. In May 2018, Blue Shield accepted a final settlement agreement and the CalPERS Health Team successfully unwound the Blue Shield NetValue Health Plan contract.

- In Fiscal Year 2017-18 CalPERS reported its proportionate share of post-employment liabilities and restated the beginning net position for all funds, excluding the Replacement Benefit Fund (RBF).

BASIC FINANCIAL STATEMENTS

The June 30, 2018, financial statements separate the funds administered by CalPERS into two categories: fiduciary funds and proprietary funds. While CalPERS' role as a trustee and its monitoring of financial position occur in both categories, a primary focus of fiduciary funds is CalPERS' duty with respect to the payment of benefits, whereas a core function for proprietary funds is the payment of services.

Fiduciary Funds – include the PERF (split into PERF A, PERF B, and PERF C); LRF; JRF; JRF II; Public Employees' Deferred Compensation Fund (DCF); Supplemental Contributions Program Fund (SCPF); Annuitants' Health Care Coverage Fund, also known as California Employers' Retiree Benefit Trust Fund (CERBTF); and RBF. Fiduciary funds are used to account for resources held for the benefit of CalPERS participants.

A Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position are presented for the fiduciary funds as of and for the fiscal year ended June 30, 2018, along with comparative total information as of and for fiscal year ended June 30, 2017. These financial statements reflect the resources available to pay benefits to retirees and other beneficiaries as of year-end, and the changes in those resources during the year.

Proprietary Funds – include the Health Care Fund (HCF), Contingency Reserve Fund (CRF), and the Public Employees' Long-Term Care Fund (LTCF). A Statement of Net Position, a Statement of Revenues, Expenses, and Changes in Net Position, and a Statement of Cash Flows are presented for the proprietary funds as of and for fiscal year ended June 30, 2018, along with comparative total information as of and for fiscal year ended June 30, 2017. These financial statements reflect the net position, changes in net position, and cash flows resulting from CalPERS business-type activities.

NOTES TO THE BASIC FINANCIAL STATEMENTS

The Notes to the Basic Financial Statements provide additional information that is essential to a full understanding of the information provided in the fund financial statements. Information available in the Notes to the Basic Financial Statements is described below:

Note 1 – provides general information on CalPERS, each of the funds administered, employer and member participation in the pension plans, and other post-employment benefit plans administered by CalPERS.

Note 2 – provides a summary of significant accounting policies, including the basis of accounting for each of the fund types, target asset allocation, management's use of estimates, and other significant accounting policies.

Note 3 – provides cash and cash equivalents information.

Note 4 – provides detail on the fair value of investments, and information on money-weighted rate of return.

Note 5 – provides information about investment risk categorizations.

Note 6 – provides information about securities lending.

Note 7 – provides information about derivatives.

Note 8 – provides information about the net pension liabilities/(asset) and actuarial assumptions for cost-sharing and single-employer plans.

Note 9 – provides information about the CERBTF, including plan members, participating employers, and contributions.

Note 10 – provides information about the RBF, as well as applicable internal revenue and government codes.

Note 11 – provides detailed information about the HCF and the estimated claims liability of the HCF.

Note 12 – provides additional information about participating agencies and insurance premiums paid by the CRF.

Note 13 – provides information about the LTCF actuarial valuation and the estimated liability for future policy benefits.

Note 14 – provides information on potential contingencies of CalPERS.

Note 15 – provides information about future accounting pronouncements.

REQUIRED SUPPLEMENTARY INFORMATION

The Required Supplementary Information schedules include information about the changes in the net pension liability, employer contributions, actuarial assumptions used to calculate the actuarially determined contributions, historical trends, and other required supplementary information related to the System's cost-sharing multiple-employer and single-employer defined benefit pension plans as required by GASB Statement No. 67, *Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25* (GASB 67).

The MWRR expresses investment performance, net of investment expense, and is disclosed per the requirements of GASB 67 and GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (GASB 74).

The Schedule of Claims Development Information for the HCF provides earned revenues and expenses over the past 10 years.

OTHER SUPPLEMENTARY INFORMATION

Other schedules include detailed information on administrative expenses incurred by CalPERS-administered funds, investment expenses, and other professional services expenses incurred.

FINANCIAL ANALYSIS

PUBLIC EMPLOYEES' RETIREMENT FUND (PERF)

The PERF is a trust fund established under section 20170 of the Public Employees' Retirement Law (PERL). The PERF provides retirement benefits to State of California, schools, and other California public agency employees. The PERF benefits are funded by member and employer contributions and by earnings on investments.

For financial reporting purposes only, the PERF is comprised of and reported as three separate entities. PERF A is comprised of agent multiple-employer plans, which includes the State of California and most public agency rate plans with more than 100 active members. PERF B is a cost-sharing multiple-employer plan of school employers consisting of non-teaching and non-certified employees. PERF C is a cost-sharing multiple-employer plan of public agencies with generally fewer than 100 active members. Under applicable law, the CalPERS Board may terminate or a public agency may terminate that agency's plan under either PERF A or PERF C. The terminated agency is liable to the system for all costs to fund all benefits under the agency's contract. An unpaid deficit in funding will result in a commensurate reduction in benefits provided under that agency's contract.

Movements of member account asset balances occur between PERF A, PERF B, and PERF C when employer rate plans have fewer than 100 members, or when there are other member accounting adjustments. These plan-to-plan resource movements are reported as a separate line item within the additions and deductions sections, respectively, of each plan's Statement of Changes in Fiduciary Net Position.

The PERF net position increased by $28.5 billion or 8.8 percent from the restated beginning balance of $325.5 billion to $354.0 billion as of June 30, 2018, primarily due to continued market growth. Receivables increased $6.0 billion or 83.1 percent due to higher investment balance for unitized investments presented from a security level perspective as opposed to net asset value (NAV). Investment balances increased by $31.6 billion from $326.4 billion as of June 30, 2017, to $358.0 billion as of June 30, 2018. Securities lending collateral increased $1.2 billion or 26.1 percent and securities lending obligations increased $1.2 billion or 26.0 percent as a result of an overall increase in demand to borrow securities at year-end. Similar to receivables, retirement benefits, investment settlement, net pension and OPEB obligations, and other liabilities increased $10.1 billion or 111.7 percent due to higher outstanding investment trades, and the accrual of post-employment obligations at year-end.

Additions to the PERF net position include member contributions, employer contributions, and investment income. Despite a decrease in total active member count, member contributions increased $0.2 billion or 4.8 percent, primarily due to an increase in the number of Public Employees' Pension Reform Act (PEPRA) members who contribute at a higher rate. Employer contribution rates increased between 0.7 percent and 4.1 percent for state, 1.6 percent for schools, and between 1.1 percent and 1.7 percent on average for public agency miscellaneous and safety plans. The increase in additional unfunded liability payments, employer contribution rates, and active members who contribute resulted in an increase in employer contributions of $7.6 billion or 61.6 percent.

Net investment income is comprised of interest income, dividend income, and net appreciation or depreciation in fair value of investments, and is net of investment expenses.

Net investment income was $27.4 billion in Fiscal Year 2017-18, compared to $33.0 billion in Fiscal Year 2016-17. The current year returns were helped by strong absolute performance in CalPERS' private equity and public equity portfolios. Additionally, the PERF recognized a MWRR of 8.4 percent for Fiscal Year 2017-18 compared with 11.2 percent for Fiscal Year 2016-17.

Deductions from the PERF are comprised of benefit payments, refunds of contributions to members and beneficiaries, and costs of administering the PERF. Benefit payments are the primary expense of a retirement system. For Fiscal Year 2017-18, retirement, death, and survivor benefits increased $1.4 billion or 6.8 percent, primarily due to a rise in the number of retirees and beneficiaries from 668,059 as of June 30, 2017, to 694,570 as of June 30, 2018. Administrative expenses increased $64.2 million or 14.6 percent, primarily due to implementation of and GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75) in Fiscal Year 2017-18, resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

Management's Discussion & Analysis (Unaudited) (continued)

Fiduciary Net Position – PERF (Dollars in Thousands)

	PERF A Agent	PERF B Cost-Sharing Schools	PERF C Cost-Sharing Public Agencies	2018 PERF Total	2017 PERF Total	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	$965,945	$240,215	$109,079	$1,315,239	$1,319,053	($3,814)
Receivables	9,807,228	2,425,042	993,211	13,225,481	7,227,566	5,997,915
Investments	262,742,748	65,507,596	29,739,267	357,989,611	326,406,112	31,583,499
Securities Lending Collateral	4,405,604	1,098,844	498,973	6,003,421	4,761,792	1,241,629
Capital Assets, Net & Other Assets	368,600	91,936	41,747	502,283	599,225	(96,942)
Total Assets	**$278,290,125**	**$69,363,633**	**$31,382,277**	**$379,036,035**	**$340,313,748**	**$38,722,287**
Deferred Outflows of Resources	$95,702	$23,870	$10,839	$130,411	$0	$130,411
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	**$278,385,827**	**$69,387,503**	**$31,393,116**	**$379,166,446**	**$340,313,748**	**$38,852,698**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement Benefits, Investment Settlement & Other	$13,223,221	$3,276,469	$1,487,446	$17,987,136	$9,059,331	$8,927,805
Net Pension & OPEB Obligation	870,218	217,049	98,560	1,185,827	—	1,185,827
Securities Lending Obligations	4,397,897	1,096,922	498,100	5,992,919	4,755,419	1,237,500
Total Liabilities	**$18,491,336**	**$4,590,440**	**$2,084,106**	**$25,165,882**	**$13,814,750**	**$11,351,132**
Deferred Inflows of Resources	$3,715	$927	$421	$5,063	$0	$5,063
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	**$18,495,051**	**$4,591,367**	**$2,084,527**	**$25,170,945**	**$13,814,750**	**$11,356,195**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$259,890,776**	**$64,796,136**	**$29,308,589**	**$353,995,501**	**$326,498,998**	**$27,496,503**

Changes in Fiduciary Net Position – PERF (Dollars in Thousands)

	PERF A Agent	PERF B Cost-Sharing Schools	PERF C Cost-Sharing Public Agencies	2018 PERF Total	2017 PERF Total	Increase/ (Decrease)
ADDITIONS						
Member Contributions	$3,128,010	$952,979	$334,140	$4,415,129	$4,214,578	$200,551
Employer Contributions	16,664,278	2,070,832	1,182,686	19,917,796	12,329,837	7,587,959
Net Investment Income	20,076,739	5,072,864	2,298,495	27,448,098	32,977,020	(5,528,922)
Securities Lending & Other Income	89,310	22,200	10,063	121,573	153,008	(31,435)
Plan to Plan Resource Movement	—	2	116,550	116,552	134,661	(18,109)
Total Additions	**$39,958,337**	**$8,118,877**	**$3,941,934**	**$52,019,148**	**$49,809,104**	**$2,210,044**
DEDUCTIONS						
Retirement, Death & Survivor Benefits	$16,971,812	$3,952,123	$1,730,509	$22,654,444	$21,215,889	$1,438,555
Refund of Contributions	160,752	100,996	25,231	286,979	222,275	64,704
Administrative Expenses	371,085	92,448	41,980	505,513	441,283	64,230
Plan to Plan Resource Movement	116,552	—	—	116,552	134,661	(18,109)
Total Deductions	**$17,620,201**	**$4,145,567**	**$1,797,720**	**$23,563,488**	**$22,014,108**	**$1,549,380**
INCREASE IN NET POSITION	**$22,338,136**	**$3,973,310**	**$2,144,214**	**$28,455,660**	**$27,794,996**	**$660,664**
NET POSITION						
Beginning of Year	$238,256,516	$60,998,387	$27,244,095	$326,498,998	$298,704,002	$27,794,996
Adjustments, See Note 2	($703,876)	($175,561)	($79,720)	($959,157)	$0	($959,157)
Beginning of Year (as adjusted)	**$237,552,640**	**$60,822,826**	**$27,164,375**	**$325,539,841**	**$298,704,002**	**$26,835,839**
End of Year	**$259,890,776**	**$64,796,136**	**$29,308,589**	**$353,995,501**	**$326,498,998**	**$27,496,503**

OTHER DEFINED BENEFIT PLANS

LEGISLATORS' RETIREMENT FUND (LRF)

The LRF provides retirement benefits to California Legislators elected to office before November 7, 1990, and to constitutional, legislative, and statutory officers elected or appointed prior to January 1, 2013. The number of LRF members has been declining as eligible incumbent Legislators leave office and are replaced by others who are ineligible to participate in the LRF. Actuarially determined contributions will continue to be made by the State of California to supplement the existing assets until all benefit obligations have been fulfilled.

As the LRF is closed to new members and income is primarily limited to investment returns and contributions based on a declining number of active members, CalPERS expects the net position of the fund to steadily decrease over time.

Fiscal Year 2017-18 net position of the LRF decreased by $1.6 million or 1.4 percent from the restated beginning balance of $115.4 million to $113.9 million. Receivables decreased by $3.2 million or 96.4 percent due to reduced outstanding investment trades as of year end. Investments at fair value decreased $5.5 million or 4.6 percent. As the number of active members continues to decline, LRF investments are sold to assist in paying benefits. Securities lending cash collateral and securities lending obligations decreased as a result of a decrease in demand to borrow securities versus cash collateral at year end. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased $5.0 million or 68.4 percent primarily due to reduced outstanding investment trades as of year-end.

Additions to the LRF's net position primarily came from net investment income of $5.5 million in Fiscal Year 2017-18. This was an increase of $0.5 million or 9.0 percent and was primarily due to improved performance in investment markets. The LRF recognized a MWRR of 4.8 percent for Fiscal Year 2017-18 compared with 4.3 percent for Fiscal Year 2016-17. Partially offsetting this increase was a decrease in combined member and employer contributions.

Deductions from the LRF are primarily comprised of benefit payments, refunds, and administrative expenses. Total deductions decreased by $0.2 million or 3.0 percent due primarily to decreases of $0.3 million or 4.6 percent in benefit payments and refunds of contributions. Partially offsetting this, administrative expenses increased $0.1 million or 16.7 percent primarily due to implementation of GASB 75 in Fiscal Year 2017-18 resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

JUDGES' RETIREMENT FUND (JRF)

The JRF provides retirement benefits to California Supreme and Appellate Court justices and Superior Court judges appointed or elected before November 9, 1994. The State of California does not pre-fund the benefits for this fund and the benefits are funded on a pay-as-you-go basis.

Fiscal Year 2017-18 net position decreased $4.2 million or 9.7 percent from the restated beginning balance of $43.9 million to $39.6 million primarily due to lower contributions from the State General Fund. Liabilities increased $5.4 million, primarily due to post-employment obligations due at the current year-end.

Additions to the JRF come primarily from employer, member, and state “balancing contributions,” from the General Fund, which decreased as a whole $5.6 million or 2.7 percent, primarily due to a decrease in the State General Fund contributions. General Fund contributions to pay participant benefits were reduced in Fiscal Year 2017-18 because of a surplus cash balance.

Deductions from the JRF include benefit payments, which increased $7.4 million or 3.7 percent due in part to an increase in the amount of Extended Service Incentive benefits paid. Administrative expenses increased $0.3 million or 18.9 percent, primarily due to implementation of GASB 75 in Fiscal Year 2017-18 resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

JUDGES' RETIREMENT FUND II (JRF II)

The JRF II provides retirement benefits to California Supreme and Appellate Court Justices and Superior Court Judges first appointed or elected on or after November 9, 1994.

The net position of the JRF II increased by $174.9 million or 12.9 percent from the restated beginning balance of $1.4 billion to $1.5 billion. Receivables decreased by $32.4 million or 81.1 percent, primarily due to reduced outstanding investment trades as of year-end. JRF II investment balances increased by $146.8 million or 10.7 percent, primarily due to continued positive investment returns. Securities lending cash collateral and securities lending obligations decreased as a result of a decrease in demand to borrow securities versus cash collateral at year-end. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased $67.7 million or 81.6 percent, primarily due to reduced outstanding investment trades as of year-end.

Additions to the JRF II net position include member contributions, employer contributions, and investment income. Member and employer contributions in the JRF II increased, primarily due to an increase in the number of active members from 1,508 as of June 30, 2017, to 1,543 as of June 30, 2018. Member contributions increased $2.4 million or 9.7 percent, while employer contributions increased $12.6 million or 18.8 percent. The fund had a decrease in net investment income of $13.1 million from $114.3 million in Fiscal Year 2016-17, to $101.2 million in Fiscal Year 2017-18. This decrease resulted from lower performance gains in investment markets. Additionally, the JRF II recognized a MWRR of 7.4 percent for Fiscal Year 2017-18 compared with 9.6 percent for Fiscal Year 2016-17.

Deductions from the JRF II are comprised of benefit payments, refund of contributions to members and beneficiaries, and costs of administering the JRF II. Current year benefit payments increased $9.4 million or 42.2 percent due to an increase in benefit recipients from 170 in Fiscal Year 2016-17 to 231 in Fiscal Year 2017-18. Administrative expenses increased $0.7 million or 40.8 percent primarily due to implementation of GASB 75 in Fiscal Year 2017-18, resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

Management's Discussion & Analysis (Unaudited) (continued)

Fiduciary Net Position – Other Defined Benefit Plan Funds (Dollars in Thousands)

	LRF			JRF			JRF II		
	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES									
Cash & Cash Equivalents	$1,207	$350	$857	$6	$5	$1	$80	$4,122	($4,042)
Receivables	121	3,356	(3,235)	2,629	2,464	165	7,543	39,919	(32,376)
Investments	114,225	119,724	(5,499)	42,033	46,048	(4,015)	1,523,927	1,377,120	146,807
Securities Lending Collateral	444	766	(322)	—	—	—	8,555	17,979	(9,424)
Total Assets	**$115,997**	**$124,196**	**($8,199)**	**$44,668**	**$48,517**	**($3,849)**	**$1,540,105**	**$1,439,140**	**$100,965**
Deferred Outflows of Resources	$198	$0	$198	$598	$0	$598	$741	$0	$741
Total Assets and Deferred Outflows of Resources	**$116,195**	**$124,196**	**($8,001)**	**$45,266**	**$48,517**	**($3,251)**	**$1,540,846**	**$1,439,140**	**$101,706**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES									
Retirement Benefits, Investment Settlement & Other	$70	$6,547	($6,477)	$177	$242	($65)	$23	$65,086	($65,063)
Net Pension & OPEB Obligation	1,798	—	1,798	5,435	—	5,435	6,740	—	6,740
Securities Lending Obligations	443	765	(322)	—	—	—	8,540	17,955	(9,415)
Total Liabilities	**$2,311**	**$7,312**	**($5,001)**	**$5,612**	**$242**	**$5,370**	**$15,303**	**$83,041**	**($67,738)**
Deferred Inflows of Resources	$8	$0	$8	$23	$0	$23	$29	$0	$29
Total Liabilities and Deferred Inflows of Resources	**$2,319**	**$7,312**	**($4,993)**	**$5,635**	**$242**	**$5,393**	**$15,332**	**$83,041**	**($67,709)**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$113,876**	**$116,884**	**($3,008)**	**$39,631**	**$48,275**	**($8,644)**	**$1,525,514**	**$1,356,099**	**$169,415**

Changes in Fiduciary Net Position – Other Defined Benefit Plan Funds (Dollars in Thousands)

	LRF			JRF			JRF II		
	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)
ADDITIONS									
Member Contributions	$82	$94	($12)	$3,062	$3,398	($336)	$27,513	$25,076	$2,437
Employer Contributions	467	516	(49)	199,241	204,475	(5,234)	79,699	67,102	12,597
Net Investment Income	5,458	5,006	452	845	424	421	101,244	114,331	(13,087)
Securities Lending & Other Income	28	42	(14)	2,533	2,395	138	576	726	(150)
Total Additions	**$6,035**	**$5,658**	**$377**	**$205,681**	**$210,692**	**($5,011)**	**$209,032**	**$207,235**	**$1,797**
DEDUCTIONS									
Retirement, Death & Survivor Benefits	$6,918	$6,960	($42)	$207,815	$200,440	$7,375	$31,745	$22,326	$9,419
Refund of Contributions	—	289	(289)	8	—	8	50	80	(30)
Administrative Expenses	671	575	96	2,106	1,771	335	2,370	1,683	687
Total Deductions	**$7,589**	**$7,824**	**($235)**	**$209,929**	**$202,211**	**$7,718**	**$34,165**	**$24,089**	**$10,076**
INCREASE (DECREASE) IN NET POSITION	**($1,554)**	**($2,166)**	**$612**	**($4,248)**	**$8,481**	**($12,729)**	**$174,867**	**$183,146**	**($8,279)**
NET POSITION									
Beginning of Year	$116,884	$119,050	($2,166)	$48,275	$39,794	$8,481	$1,356,099	$1,172,953	$183,146
Adjustments, See Note 2	(1,454)	—	(1,454)	(4,396)	—	(4,396)	(5,452)	—	(5,452)
Beginning of Year (as adjusted)	**$115,430**	**$119,050**	**($3,620)**	**$43,879**	**$39,794**	**$4,085**	**$1,350,647**	**$1,172,953**	**$177,694**
End of Year	**$113,876**	**$116,884**	**($3,008)**	**$39,631**	**$48,275**	**($8,644)**	**$1,525,514**	**$1,356,099**	**$169,415**

ASSET LIABILITY MANAGEMENT – DEFINED BENEFIT PLANS

The Asset Liability Management (ALM) process is an integrated review of pension assets and liabilities to inform decisions designed to achieve a sound and sustainable fund. CalPERS continues to expand its review of assets and liabilities so that financial risks to the System can be better understood, communicated, and managed.

To establish appropriate levels of risk, ALM is focused on investment and actuarial policies and key decision factors that are intended to drive an optimum asset allocation while stabilizing employer rates and the volatility of those rates from year to year. ALM is designed to improve the sustainability and soundness of the PERF, and the goal is to achieve 100 percent funding at an acceptable level of risk. Reducing the risk in the funding of the System will involve tradeoffs between short-term and long-term priorities.

The allocation of investment assets in order to maintain focus on long-term returns is an important factor in the sustainability of the PERF. In September 2016, the CalPERS Board adopted an interim asset allocation for the PERF through July 2018 that lowered investment risk but largely kept investment strategy unchanged. The new interim strategy established target thresholds that shifted the allocation of some assets out of growth strategies and primarily into inflation, liquidity, and real assets strategies.

In December 2017, the CalPERS Board voted on the asset allocation of the PERF's investment portfolio for the next four years. The Board examined four potential portfolios and their impact on the PERF. Each portfolio represented different distributions of assets based on varying rates of expected return and risk of volatility. The Board selected the portfolio with expected volatility of 11.4 percent and a return of 7.0 percent, which aligns with the December 2016 decision to lower the discount rate to 7.0 percent over three years.

Also in December 2017, the CalPERS Board voted to adopt the new actuarial assumptions that were presented in the December 2017 CalPERS Experience Study report, to be effective with the June 30, 2017 actuarial valuations (June 30, 2018 for the schools plan). With these changes, contribution rates for the State will be impacted in Fiscal Year 2018-19, and contribution rates for schools and public agencies will result in Fiscal Year 2019-20.

Additionally, in February 2018 the Board approved modifications to the amortization policy shortening the period over which actuarial gains and losses are amortized from 30 to 20 years. Amortization payments for all unfunded accrued liability bases will be computed to remain a level dollar amount throughout the amortization period. The five-year ramps (up and down) were removed for non-investment gains and losses. The five-year ramp down was removed for investment gains and losses. These changes will have an effective date of June 30, 2019. These changes will not apply to unfunded accrued liability bases created before June 30, 2019.

In order to better manage risks arising from terminating agencies, CalPERS has enhanced its oversight of contracting public agencies' financial health through its development of a standardized review criteria. These improvements include streamlining the collection and termination process to reduce the timeframe, accelerating notifications to the Board and members, and adopting a risk oversight process to improve early detection of financial hardship issues. These process and monitoring improvements support Fund Sustainability and Risk Management Goals of the CalPERS *2017-22 Strategic Plan*, which aims to strengthen the long-term sustainability of the pension funds.

FUNDING ANALYSIS – DEFINED BENEFIT PLANS

The CalPERS Board has made several important decisions in the recent past, which impact the current funding of pension benefits at CalPERS. In December 2016, the CalPERS board voted to lower the discount rate from 7.5 percent to 7.0 percent. In December 2017, the CalPERS Board adopted a new asset allocation which supports the 7.0 percent discount rate and adopted new actuarial assumptions. Also, in February 2018 the CalPERS Board voted to shorten the period over which actuarial gains and losses are amortized from 30 to 20 years. Over time, these policies are designed to improve funding levels and help reduce overall funding level risk.

The JRF is funded on a “pay-as-you-go” basis, where short-term investments, contributions received during the year, and a State General Fund augmentation are used to provide funding for benefit payments. This funding method is generally more expensive in the long term, as the plan does not have investment returns generated by a funded plan. Without the State General Fund augmentation, the JRF will not be able to pay the accumulated benefit payments due in Fiscal Year 2018-19.

As of June 30, 2017, the funded status of the PERF was 70.1 percent. The funded status as of June 30, 2018, is estimated to be approximately 71.0 percent. PERF funded status values were calculated using a 7.00 percent discount rate. As of June 30, 2017, the funded status of the JRF II was 99.3 percent. The funded status as of June 30, 2018, is estimated to increase to approximately 100.1 percent, mostly as a result of investment returns in Fiscal Year 2017-18. Both JRF II funded status values were calculated using a 6.5 percent discount rate. As of June 30, 2017, the funded status of the LRF was 115.9 percent. The funded status as of June 30, 2018, is estimated to increase to approximately

116.7 percent. Both LRF funded status values were calculated using a 5.0 percent discount rate. All these funded statuses were calculated based on the market value of assets used in actuarial valuations that set funding requirements for employers.

Over the course of a three-year phase-in, and beginning with the June 30, 2016 valuation (June 30, 2017 valuation for the schools plan), the funding discount rates for PERF employers decreased from 7.50 percent to 7.00 percent. The final scheduled decrease to 7.00 percent will occur with the June 30, 2018 valuation (June 30, 2019 valuation for the schools plan).

Under GASB 67, there is a difference between the assumptions and components used to determine the net pension liabilities that must be reported in financial statements and the actuarial accrued liabilities and actuarial value of assets used to determine pension contributions established as part of funding valuations. The Actuarial Section included in this report provides actuarial information that was derived for purposes of establishing the funding requirements of employers for which CalPERS administers retirement benefits.

The GASB 67 financial reporting discount rate for the PERF remained at 7.15 percent. Assets used for GASB 67 financial reporting purposes are slightly greater than assets used for funding requirements as they include amounts for deficiency reserves and fiduciary self-insurance, which creates differences in plan assets reported in the funding actuarial valuation report. CalPERS is required to report Plan Fiduciary Net Position as a percentage of Total Pension Liability for the cost-sharing multiple employer plans (PERF B and PERF C) and for the single-employer pension plans (LRF, JRF, and JRF II). The discount rates used for financial reporting for the PERF B, PERF C, LRF, and JRF II are adjusted for administrative expenses as compared with the rates used for funding, which are net of administrative expenses. The funding discount rate in the JRF differs from the financial reporting discount rate. The JRF uses yields on 20-year tax-exempt General Obligation Municipal Bonds.

In April 2017, the CalPERS Board voted to also lower the funding discount rates for the LRF, JRF, and JRF II, which impacted employer rates beginning in Fiscal Year 2017-18. These funding rates were used in the June 30, 2017, actuarial valuation reports for the LRF, JRF, and JRF II. The LRF funding discount rate was 5.00 percent, JRF was 3.00 percent, and JRF II was 6.50 percent. The financial reporting discount rate used in the JRF was not impacted as its benefit obligations are funded by the State using the pay-as-you-go method.

The following table displays the difference between discount rates for the LRF, JRF, and JRF II that were effective as of June 30, 2018:

Fund	Funding Discount Rate	Financial Reporting Discount Rate
LRF	5.00%	5.25%
JRF	3.00%	3.62%
JRF II	6.50%	6.65%

DEFINED CONTRIBUTION PLANS

PUBLIC EMPLOYEES' DEFERRED COMPENSATION FUND (DCF)

The DCF is available to public agencies and school districts within the State of California that have elected to contract for a deferred compensation plan.

The net position of the DCF increased by $55.3 million or 3.8 percent from the restated beginning balance of $1.4 billion to $1.5 billion. Investment balances increased by $54.5 million from Fiscal Year 2016-17 to Fiscal Year 2017-18 due to favorable market conditions. Member contributions in the fund increased $2.3 million or 2.1 percent compared with prior year.

Total additions decreased $20.4 million primarily due to less favorable investment returns in Fiscal Year 2017-18 compared with Fiscal Year 2016-17.

Overall total deductions in the DCF increased by $78.4 million or 82.7 percent. This was primarily due to an increase in participant withdrawals from the plan of $77.7 million from $90.3 million in Fiscal Year 2016-17 to $168.0 million in Fiscal Year 2017-18. Administrative expenses increased $0.7 million or 15.7 percent, primarily due to implementation of GASB 75 in Fiscal Year 2017-18 resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

SUPPLEMENTAL CONTRIBUTIONS PROGRAM FUND (SCPF)

The SCPF was established effective January 1, 2000, to provide supplemental retirement benefits to State of California employees who are members of CalPERS and is entirely member-funded.

The net position of the SCPF decreased $4.2 million or 3.5 percent from the restated beginning balance of $120.3 million to $116.1 million. While positive returns were achieved in both current and prior years, Fiscal Year 2017-18 was slightly less favorable. Net investment income decreased by $2.5 million, from $6.9 million in Fiscal Year 2016-17 to $4.4 million in Fiscal Year 2017-18.

Total additions decreased $2.5 million primarily due to less favorable investment returns in Fiscal Year 2017-18 compared with Fiscal Year 2016-17.

The primary deductions in the SCPF reflect withdrawals made by participants. Participant withdrawals decreased $2.0 million, from $11.0 million as of Fiscal Year 2016-17 to $9.0 million as of Fiscal Year 2017-18. Administrative expenses increased $25.0 thousand or 6.7 percent, primarily due to implementation of GASB 75 in Fiscal Year 2017-18, resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

Management's Discussion & Analysis (Unaudited) (continued)

Fiduciary Net Position – Defined Contribution Plan Funds (Dollars in Thousands)

	DCF			SCPF		
	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	$0	$2	($2)	$1	$1	$0
Receivables	17,369	16,147	1,222	714	838	(124)
Investments	1,485,771	1,431,283	54,488	116,679	120,818	(4,139)
Total Assets	**$1,503,140**	**$1,447,432**	**$55,708**	**$117,394**	**$121,657**	**($4,263)**
Deferred Outflows of Resources	$569	$0	$569	$48	$0	$48
Total Assets and Deferred Outflows of Resources	**$1,503,709**	**$1,447,432**	**$56,277**	**$117,442**	**$121,657**	**($4,215)**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement Benefits, Investment Settlement & Other	$2,761	$2,826	($65)	$863	$953	($90)
Net Pension & OPEB Obligation	5,180	—	5,180	442	—	442
Total Liabilities	**$7,941**	**$2,826**	**$5,115**	**$1,305**	**$953**	**$352**
Deferred Inflows of Resources	$22	$0	$22	$2	$0	$2
Total Liabilities and Deferred Inflows of Resources	**$7,963**	**$2,826**	**$5,137**	**$1,307**	**$953**	**$354**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$1,495,746**	**$1,444,606**	**$51,140**	**$116,135**	**$120,704**	**($4,569)**

Changes in Fiduciary Net Position – Defined Contribution Plan Funds (Dollars in Thousands)

	DCF			SCPF		
	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)
ADDITIONS						
Member Contributions	$112,586	$110,258	$2,328	$252	$246	$6
Employer Contributions	977	962	15	—	—	—
Net Investment Income	108,821	132,305	(23,484)	4,362	6,890	(2,528)
Other Income	6,306	5,583	723	619	628	(9)
Total Additions	**$228,690**	**$249,108**	**($20,418)**	**$5,233**	**$7,764**	**($2,531)**
DEDUCTIONS						
Administrative Expenses	$5,296	$4,576	$720	$398	$373	$25
Participant Withdrawals	168,064	90,333	77,731	9,046	11,041	(1,995)
Total Deductions	**$173,360**	**$94,909**	**$78,451**	**$9,444**	**$11,414**	**($1,970)**
INCREASE (DECREASE) IN NET POSITION	**$55,330**	**$154,199**	**($98,869)**	**($4,211)**	**($3,650)**	**($561)**
NET POSITION						
Beginning of Year	$1,444,606	$1,290,407	$154,199	$120,704	$124,354	($3,650)
Adjustments, See Note 2	(4,190)	—	(4,190)	(358)	—	(358)
Beginning of Year (as adjusted)	**$1,440,416**	**$1,290,407**	**$150,009**	**$120,346**	**$124,354**	**($4,008)**
End of Year	**$1,495,746**	**$1,444,606**	**$51,140**	**$116,135**	**$120,704**	**($4,569)**

OTHER POST-EMPLOYMENT BENEFIT TRUST FUND

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST FUND (CERBTF)

The CERBTF is a trust for employers to pre-fund health, dental, and other non-pension post-employment benefits.

Net position restricted for OPEB benefits on June 30, 2018, increased $1.5 billion or 22.3 percent from the restated beginning balance of $6.8 billion to $8.3 billion, primarily due to continued employer contributions in Fiscal Year 2017-18, combined with continued positive investment returns. Receivables decreased $108.0 million or 73.8 percent, primarily due to reduced outstanding investment trades as of year end. Investments at fair value increased $1.4 billion or 19.9 percent due to continued favorable market conditions and assets under management growing from employer contributions. Securities lending cash collateral and securities lending obligations increased as a result of a larger allocation to assets which participated in the securities lending program the past fiscal year.

Similar to receivables, other post-employment benefits, investment settlement, and other liabilities decreased $228.2 million or 72.8 percent, primarily due to reduced outstanding investment trades as of year-end.

Additions to the CERBTF net position restricted for OPEB benefits are primarily made up of employer contributions (directly to the Trust and outside the Trust) and net investment income. Employer contributions increased $161.3 million or 4.3 percent, primarily due to higher contributions from existing participating employers. During Fiscal Year 2017-18, the fund experienced net investment income of $530.2 million, a decrease of $29.8 million from a net investment return of $560.0 million in Fiscal Year 2016-17. The decrease resulted from lower performance gains in investment markets. Additionally, the CERBTF recognized a MWRR of 7.3 percent in Fiscal Year 2017-18, compared with 10.0 percent in Fiscal Year 2016-17.

Deductions from the CERBTF net position restricted for OPEB benefits were primarily made up of employer reimbursements (directly from the Trust and outside the Trust), which increased $259.7 million or 9.8 percent, due to increased volume of reimbursement requests among existing participating employers. The amounts reported for contributions and reimbursements made directly by employers to healthcare providers outside the trust amounted to $2.9 billion for Fiscal Year 2017-18 compared with $2.6 billion in Fiscal Year 2016-17. Administrative expenses increased $0.8 million or 28.1 percent primarily due to implementation of GASB 75 in Fiscal Year 2017-18, resulting in additional post-employment expense allocations to the fund—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

Fiduciary Net Position – Other Post-Employment Benefit Trust Fund (Dollars in Thousands)

	CERBTF		
	2018	2017	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Cash & Cash Equivalents	$1	$12,590	($12,589)
Receivables	38,364	146,309	(107,945)
Investments	8,327,899	6,944,685	1,383,214
Securities Lending Collateral	11,891	1,069	10,822
Total Assets	**$8,378,155**	**$7,104,653**	**$1,273,502**
Deferred Outflows of Resources	$1,222	$0	$1,222
Total Assets and Deferred Outflows of Resources	**$8,379,377**	**$7,104,653**	**$1,274,724**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES			
Other Post-Employment Benefits, Investment Settlement & Other	$62,179	$312,296	($250,117)
Net Pension & OPEB Obligation	11,109	—	11,109
Securities Lending Obligations	11,870	1,068	10,802
Total Liabilities	**$85,158**	**$313,364**	**($228,206)**
Deferred Inflows of Resources	$47	$0	$47
Total Liabilities and Deferred Inflows of Resources	**$85,205**	**$313,364**	**($228,159)**
TOTAL NET POSITION RESTRICTED FOR OPEB	**$8,294,172**	**$6,791,289**	**$1,502,883**

Changes in Fiduciary Net Position – Other Post-Employment Benefit Trust Fund (Dollars in Thousands)

	CERBTF		
	2018	2017	Increase/ (Decrease)
ADDITIONS			
Employer Contributions	$3,915,969	$3,754,709	$161,260
Net Investment Income	530,189	559,967	(29,778)
Securities Lending & Other Income	6,985	5,599	1,386
Total Additions	**$4,453,143**	**$4,320,275**	**$132,868**
DEDUCTIONS			
Administrative Expenses	$3,862	$3,014	$848
Employer Withdrawals	30,193	680	29,513
OPEB Reimbursements	2,907,220	2,647,480	259,740
Total Deductions	**$2,941,275**	**$2,651,174**	**$290,101**
INCREASE (DECREASE) IN NET POSITION	**$1,511,868**	**$1,669,101**	**($157,233)**
NET POSITION			
Beginning of Year	$6,791,289	$5,122,188	$1,669,101
Adjustments, See Note 2	(8,985)	—	(8,985)
Beginning of Year (as adjusted)	**$6,782,304**	**$5,122,188**	**$1,660,116**
End of Year	**$8,294,172**	**$6,791,289**	**$1,502,883**

CUSTODIAL FUND

REPLACEMENT BENEFIT FUND (RBF)

The RBF is a qualified excess benefit arrangement pursuant to IRC section 415(m), and provides for the replacement of the portion of retirement allowance that exceeds Internal Revenue Code (IRC) section 415(b) dollar limits. Employers are invoiced by CalPERS for amounts payable to their former employees, and CalPERS subsequently pays the replacement benefit to retirees. Participants of the RBF cover the administrative costs to maintain the fund.

The net position of the RBF increased by $157 thousand or 93.0 percent, primarily due to an increase in administrative fee revenues received and the number of retirees receiving benefits in Fiscal Year 2017-18 compared to prior year.

Deductions from the RBF include benefit payments, which increased $1.9 million or 9.0 percent due to an increase in the number of retirees receiving benefits from 978 as of June 30, 2017, to 1,167 as of June 30, 2018. Administrative expense increased by $211 thousand or 88.0 percent, primarily due to a full cost recovery to administer the plan.

Fiduciary Net Position – Custodial Fund (Dollars in Thousands)

	RBF		
	2018	2017	Increase/ (Decrease)
ASSETS			
Cash & Cash Equivalents	$1	$0	$1
Receivables	224	374	(150)
Investments	13,329	11,633	1,696
Total Assets	**$13,554**	**$12,007**	**$1,547**
LIABILITIES			
Unearned Replacement Benefits & Other	$13,229	$11,839	$1,390
Total Liabilities	**$13,229**	**$11,839**	**$1,390**
TOTAL NET POSITION RESTRICTED FOR REPLACEMENT BENEFITS	**$325**	**$168**	**$157**

Changes in Fiduciary Net Position – Custodial Fund (Dollars in Thousands)

	RBF		
	2018	2017	Increase/ (Decrease)
ADDITIONS			
Replacement Benefits	$22,487	$20,573	$1,914
Investment Income	163	168	(5)
Other Income	444	239	205
Total Additions	**$23,094**	**$20,980**	**$2,114**
DEDUCTIONS			
Replacement Benefit Payments	$22,487	$20,573	$1,914
Administrative Expenses	450	239	211
Total Deductions	**$22,937**	**$20,812**	**$2,125**
INCREASE (DECREASE) IN NET POSITION	**$157**	**$168**	**($11)**
NET POSITION			
Beginning of Year[1]	**$168**	**$0**	**$168**
End of Year	**$325**	**$168**	**$157**

(1) The Fiscal Year 2016-17 Beginning of Year Net Position balance was restated due to the implementation of GASB 84.

ENTERPRISE FUNDS

PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF)

The HCF accounts for the activities of the CalPERS self-funded health plans, PERS Choice, PERSCare, and PERS Select, and Flex-funded health plans, Anthem Blue Cross, Blue Shield of California, Health Net, Sharp, UnitedHealthcare, and Western Health Advantage.

In June 2018, in order to offset the financial impact of changes in patient utilization and other medical cost increases, the Board adopted two "buy-down" efforts to smooth PERSCare plan premium increases for 2019. Using funds from its health reserve, CalPERS opted to buy down the premiums for its PERSCare PPO plan, and Medicare PPO plans. While the buy-down efforts lessen the impact, PERSCare members will still see a 19.8 percent increase in 2019 premiums.

The net position of the HCF at the end of the year was $485.6 million, an increase of $100.4 million or 26.1 percent from the restated beginning net position of $385.2 million.

Revenues include premiums collected from members and employers, federal subsidies, and investment income (non-operating revenues). Premiums collected increased $119.7 million or 3.1 percent, primarily due to an increase in health care rates. Net investment income increased $13.9 million or 463.8 percent due to an increase in the short-term interest rate.

Expenses are comprised of claims, investment fees, and costs incurred to oversee the plans. Claim expenses and estimated liabilities increased $207.5 million, or 6.2 percent, primarily due to an increase in medical claims. Costs incurred to administer the plans decreased by $8.5 million or 2.7 percent due to a decrease in Affordable Care Act taxes and fees. This was partially offset by the required reporting of GASB 75 in Fiscal Year 2017-18—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

The CRF was established to fund administrative costs related to the CalPERS health care programs and to provide a contingency reserve for potential increase in future health care premiums rates and health care benefit costs.

The net position of the CRF at the end of year was negative $57.8 million, a decrease of $1.4 million or 2.6 percent from the restated beginning net position of negative $56.3 million.

Revenues include administrative fees collected and investment income. Administrative fees are determined as a percentage of total active and retired health premiums. These fees increased $2.6 million or 9.6 percent because of an increase of administrative fee rate from 0.31 percent in Fiscal Year 2016-17 to 0.33 percent in Fiscal Year 2017-18. Investment income increased $1.1 million or 56.3 percent due to an increase in the short-term interest rate.

Expenses are comprised of investment fees and costs incurred to administer the CRF. Administrative expenses increased $7.5 million or 27.6 percent, primarily due to the required reporting of GASB 75 in Fiscal Year 2017-18—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

PUBLIC EMPLOYEES' LONG-TERM CARE FUND (LTCF)

The LTCF helps to provide financial protection to participants from the high cost of eligible covered services caused by chronic illness, injury, or old age. Long-term care products reimburse the cost for covered personal care services (activities of daily living) such as bathing, dressing, toileting, transferring, continence, and eating, which are not typically covered by traditional health insurance or Medicare.

Long-term care participation is voluntary, and benefits are funded by member premiums and the LTCF investment income. The LTCF is continuously appropriated under the exclusive control of the Board for the exclusive benefit of participants in the program.

The long-term care program launched an integrated marketing campaign to promote and grow application activity. The Long-Term Care Group (LTCG) Preferred Provider Network continued to gain additional contracted providers, which may provide discounts from 5 percent to 20 percent on services for participants and have total annual savings of approximately $1.2 million. The third-party administrator has continued its efforts to enroll more providers and educate participants on the benefits of utilizing a preferred provider.

Unrestricted net position of the LTCF decreased by $166.4 million or 185.6 percent, primarily due to an increase in the estimated liability for future policy benefits resulting from a discount rate change from 5.75 percent to 5.25 percent, which was approved by the Board in February 2018, and lower than expected investment returns. Receivables increased $2.8 billion or 24.8 percent primarily due to higher investment balance for unitized investments presented from a security level perspective as opposed to net asset value (NAV). Cash and cash equivalents also increased by $2.5 million or 33.4 percent due to the reserve established and held at the bank to manage potential funding risk if a stress event were to occur.

The LTCF revenues include premiums collected from participants and investment income. Participation in the plan decreased by 3.0 percent mainly due to participant deaths, coverage cancellations, non-payment of premiums, and exhaustion of benefits. This resulted in the decrease of premium revenue of $10.0 million or 3.3 percent. Non-operating revenues are comprised of net appreciation or depreciation in fair value of investments and interest, dividend, and other investment income. The investment income for Fiscal Year 2017-18 was $177.6 million, an increase of $108.6 million or 157.4 percent from the prior year due to higher investment returns and more favorable market conditions for equity securities.

Total expenses are comprised of claims, changes in estimated liabilities for future policy benefits, administrative costs to the program, and investment expenses. The overall increase in total expenses is primarily attributable to the increase in the estimated future policy liabilities. Refer to Note 13 for additional information regarding the calculation of the estimated liabilities for future policy benefits. Administrative expenses increased $1.5 million or 5.8 percent primarily due to the required reporting of GASB 75 in Fiscal Year 2017-18—refer to Note 2 in the Notes to the Basic Financial Statements, subheading Adoption of New Accounting Standard and Immaterial Correction.

Management's Discussion & Analysis (Unaudited) (continued)

Net Position – Enterprise Funds (Dollars in Thousands)

	HCF			CRF			LTCF		
	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES									
Cash & Cash Equivalents	$583,293	$225,971	$357,322	$658,268	$597,371	$60,897	$10,059	$7,540	$2,519
Receivables	469,770	606,339	(136,569)	24,702	32,775	(8,073)	14,195	11,371	2,824
Investments	443,242	444,679	(1,437)	—	—	—	4,514,213	4,374,447	139,766
Total Assets	**$1,496,305**	**$1,276,989**	**$219,316**	**$682,970**	**$630,146**	**$52,824**	**$4,538,467**	**$4,393,358**	**$145,109**
Deferred Outflows of Resources	$13,828	$0	$13,828	$9,333	$0	$9,333	$1,341	$0	$1,341
Total Assets and Deferred Outflows of Resources	**$1,510,133**	**$1,276,989**	**$233,144**	**$692,303**	**$630,146**	**$62,157**	**$4,539,808**	**$4,393,358**	**$146,450**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES									
Claims Payable, Unearned Premiums, Estimated Insurance Claims Due & Due to Carriers	$857,259	$735,146	$122,113	$347,897	$220,536	$127,361	$35,226	$35,471	($245)
Due to Employers	—	84	(84)	13,488	18,348	(4,860)	—	—	—
Other Liabilities	40,962	54,832	(13,870)	303,483	378,964	(75,481)	20,990	15,285	5,705
Estimated Liability for Future Policy Benefits	—	—	—	—	—	—	4,548,100	4,252,959	295,141
Net Pension & OPEB Obligation	125,739	—	125,739	84,860	—	84,860	12,195	—	12,195
Total Liabilities	**$1,023,960**	**$790,062**	**$233,898**	**$749,728**	**$617,848**	**$131,880**	**$4,616,511**	**$4,303,715**	**$312,796**
Deferred Inflows of Resources	$537	$0	$537	$362	$0	$362	$52	$0	$52
Total Liabilities and Deferred Inflows of Resources	**$1,024,497**	**$790,062**	**$234,435**	**$750,090**	**$617,848**	**$132,242**	**$4,616,563**	**$4,303,715**	**$312,848**
TOTAL UNRESTRICTED NET POSITION (DEFICIT)	**$485,636**	**$486,927**	**($1,291)**	**($57,787)**	**$12,298**	**($70,085)**	**($76,755)**	**$89,643**	**($166,398)**

Changes in Net Position – Enterprise Funds (Dollars in Thousands)

	HCF			CRF			LTCF		
	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)	2018	2017	Increase/ (Decrease)
REVENUES									
Premiums	$3,945,826	$3,826,107	$119,719	$0	$0	$0	$296,323	$306,303	($9,980)
Federal Government Subsidies	22,720	29,534	(6,814)	—	—	—	—	—	—
Non-Operating Revenues	16,847	2,988	13,859	3,165	2,025	1,140	177,562	68,986	108,576
Administrative Fees & Other	—	—	—	30,152	27,487	2,665	—	—	—
Total Revenues	**$3,985,393**	**$3,858,629**	**$126,764**	**$33,317**	**$29,512**	**$3,805**	**$473,885**	**$375,289**	**$98,596**
EXPENSES									
Claims Expense	$3,543,962	$3,387,753	$156,209	$0	$0	$0	$306,879	$293,693	$13,186
Increase (Decrease) in Estimated Liabilities	36,609	(14,701)	51,310	—	—	—	295,142	213,048	82,094
Non-Operating Expenses	89	92	(3)	—	—	—	1,853	1,816	37
Administrative Expenses	304,319	312,832	(8,513)	34,763	27,239	7,524	26,545	25,082	1,463
Total Expenses	**$3,884,979**	**$3,685,976**	**$199,003**	**$34,763**	**$27,239**	**$7,524**	**$630,419**	**$533,639**	**$96,780**
INCREASE (DECREASE) IN UNRESTRICTED NET POSITION	**$100,414**	**$172,653**	**($72,239)**	**($1,446)**	**$2,273**	**($3,719)**	**($156,534)**	**($158,350)**	**$1,816**
UNRESTRICTED NET POSITION									
Beginning of Year	$486,927	$314,274	$172,653	$12,298	$10,025	$2,273	$89,643	$247,993	($158,350)
Adjustments, See Note 2	(101,705)	—	(101,705)	(68,639)	—	(68,639)	(9,864)	—	(9,864)
Beginning of Year (as adjusted)	**$385,222**	**$314,274**	**$70,948**	**($56,341)**	**$10,025**	**($66,366)**	**$79,779**	**$247,993**	**($168,214)**
End of Year	**$485,636**	**$486,927**	**($1,291)**	**($57,787)**	**$12,298**	**($70,085)**	**($76,755)**	**$89,643**	**($166,398)**

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of CalPERS' finances. Address questions concerning any of the information provided in this report or requests for additional financial information to the CalPERS Financial Office, P.O. Box 942703, Sacramento, CA, 94229-2703, or call 888 CalPERS (or 888-225-7377).

Financial Section
Basic Financial Statements

Basic Financial Statements

STATEMENT OF FIDUCIARY NET POSITION – FIDUCIARY FUNDS

As of June 30, 2018, with Comparative Totals as of June 30, 2017 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	**$965,945**	**$240,215**	**$109,079**	**$1,207**	**$6**	**$80**
Receivables						
Members	$544,750	$113,427	$49,859	$38	$1,411	$695
Employers	942,625	236,486	1,047	47	975	6,628
Investment Sales & Other	8,065,272	2,011,637	913,462	5	—	79
Interest & Dividends	196,013	48,884	22,209	1	140	54
Due from Other Funds	915	228	104	19	69	71
Note Receivable	—	—	—	—	—	—
Other Program	57,653	14,380	6,530	11	34	16
Total Receivables	**$9,807,228**	**$2,425,042**	**$993,211**	**$121**	**$2,629**	**$7,543**
Investments, at Fair Value						
Short-Term Investments	$15,660,201	$3,904,436	$1,772,543	$228	$42,033	$2,617
Global Equity Securities	119,640,765	29,829,097	13,541,872	40,063	—	920,718
Global Debt Securities	79,588,195	19,843,102	9,008,411	73,934	—	600,592
Real Assets	27,895,607	6,954,994	3,157,442	—	—	—
Private Equity	19,957,980	4,975,967	2,258,999	—	—	—
Total Investments	**$262,742,748**	**$65,507,596**	**$29,739,267**	**$114,225**	**$42,033**	**$1,523,927**
Securities Lending Collateral	$4,405,604	$1,098,844	$498,973	$444	$0	$8,555
Capital Assets, Net & Other Assets	368,600	91,936	41,747	—	—	—
TOTAL ASSETS	**$278,290,125**	**$69,363,633**	**$31,382,277**	**$115,997**	**$44,668**	**$1,540,105**
Deferred Outflows of Resources	$95,702	$23,870	$10,839	$198	$598	$741
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	**$278,385,827**	**$69,387,503**	**$31,393,116**	**$116,195**	**$45,266**	**$1,540,846**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement & Other Benefits	$79,090	$18,432	$8,071	$49	$0	$0
Investment Purchases & Other	13,029,952	3,249,925	1,475,755	1	—	18
Due to Members & Employers	6,319	—	—	11	27	3
Net Pension & OPEB Obligation	870,218	217,049	98,560	1,798	5,435	6,740
Securities Lending Obligations	4,397,897	1,096,922	498,100	443	—	8,540
Due to Other Funds	3,227	805	366	—	—	—
Management & Third-Party Administrator Fees	—	—	—	—	—	—
Unearned Replacement Benefits	—	—	—	—	—	—
Other Program	104,633	7,307	3,254	9	150	2
TOTAL LIABILITIES	**$18,491,336**	**$4,590,440**	**$2,084,106**	**$2,311**	**$5,612**	**$15,303**
Deferred Inflows of Resources	$3,715	$927	$421	$8	$23	$29
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	**$18,495,051**	**$4,591,367**	**$2,084,527**	**$2,319**	**$5,635**	**$15,332**
NET POSITION – RESTRICTED FOR PENSION, OTHER POST-EMPLOYMENT, AND REPLACEMENT BENEFITS	**$259,890,776**	**$64,796,136**	**$29,308,589**	**$113,876**	**$39,631**	**$1,525,514**

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

Basic Financial Statements (continued)

Pension Trust Funds		Other Post-Employment Benefit Trust Fund	Custodial Fund	Totals	
DCF	SCPF	CERBTF	RBF	2018	2017
$0	**$1**	**$1**	**$1**	**$1,316,535**	**$1,336,123**
$4,168	$703	$0	$55	$715,106	$758,341
—	—	37,936	102	1,225,846	1,181,373
—	—	50	—	10,990,505	4,840,414
10	11	119	67	267,508	276,265
—	—	259	—	1,665	2,380
—	—	—	—	—	291,963
13,191	—	—	—	91,815	86,237
$17,369	**$714**	**$38,364**	**$224**	**$13,292,445**	**$7,436,973**
$236,889	$32,319	$148,088	$13,329	$21,812,683	$28,824,235
927,298	41,355	5,281,173	—	170,222,341	150,976,586
321,584	43,005	2,898,638	—	112,377,461	95,211,931
—	—	—	—	38,008,043	35,436,160
—	—	—	—	27,192,946	26,008,511
$1,485,771	**$116,679**	**$8,327,899**	**$13,329**	**$369,613,474**	**$336,457,423**
$0	$0	$11,891	$0	$6,024,311	$4,781,606
—	—	—	—	502,283	599,225
$1,503,140	**$117,394**	**$8,378,155**	**$13,554**	**$390,749,048**	**$350,611,350**
$569	$48	$1,222	$0	$133,787	$0
1,503,709	**117,442**	**8,379,377**	**13,554**	**390,882,835**	**$350,611,350**
$431	$0	$61,386	$0	$167,459	$139,530
—	—	—	—	17,755,651	9,174,430
654	740	—	—	7,754	7,619
5,180	442	11,109	—	1,216,531	—
—	—	11,870	—	6,013,772	4,775,207
570	49	—	37	5,054	2,060
1,101	74	793	—	1,968	1,919
—	—	—	13,192	13,192	11,613
5	—	—	—	115,360	121,949
$7,941	**$1,305**	**$85,158**	**$13,229**	**$25,296,741**	**$14,234,327**
$22	$2	$47	$0	$5,194	$0
7,963	**1,307**	**85,205**	**13,229**	**25,301,935**	**$14,234,327**
$1,495,746	**$116,135**	**$8,294,172**	**$325**	**$365,580,900**	**$336,377,023**

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – FIDUCIARY FUNDS

For the Fiscal Year Ended June 30, 2018, with Comparative Totals for the Fiscal Year Ended June 30, 2017 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
ADDITIONS						
Retirement and OPEB Contributions						
Members	$3,128,010	$952,979	$334,140	$82	$3,062	$27,513
Employers	16,664,278	2,070,832	1,182,686	467	5,039	79,699
Replacement Benefits	—	—	—	—	—	—
State of California General Fund	—	—	—	—	194,202	—
Employer Contributions Direct – OPEB	—	—	—	—	—	—
Employer Contributions Outside of Trust – OPEB	—	—	—	—	—	—
Total Retirement and OPEB Contribution	**$19,792,288**	**$3,023,811**	**$1,516,826**	**$549**	**$202,303**	**$107,212**
Investment Income						
Net Appreciation/(Depreciation) in Fair Value of Investments	$18,211,721	$4,607,691	$2,087,266	$5,492	$0	$101,529
Interest & Amortization	1,363,039	339,969	154,376	4	848	136
Dividends	1,190,596	296,958	134,845	—	—	—
Other Investment Income	3,279	818	371	—	—	—
Less Investment Expenses:						
Management & Performance Fees	(520,970)	(129,940)	(59,004)	—	—	—
Other	(170,926)	(42,632)	(19,359)	(38)	(3)	(421)
Net Investment Income	**$20,076,739**	**$5,072,864**	**$2,298,495**	**$5,458**	**$845**	**$101,244**
Securities Lending Income	$173,563	$43,290	$19,657	$62	$0	$1,203
Securities Lending Expense	(90,239)	(22,508)	(10,220)	(34)	—	(627)
Net Securities Lending	**$83,324**	**$20,782**	**$9,437**	**$28**	**$0**	**$576**
Other Income	$5,986	$1,418	$626	$0	$2,533	$0
Plan to Plan Resource Movement	—	2	116,550	—	—	—
TOTAL ADDITIONS	**$39,958,337**	**$8,118,877**	**$3,941,934**	**$6,035**	**$205,681**	**$209,032**
DEDUCTIONS						
Retirement, Death & Survivor Benefits	$16,971,812	$3,952,123	$1,730,509	$6,918	$207,815	$31,745
Replacement Benefit Payments	—	—	—	—	—	—
Refund of Contributions	160,752	100,996	25,231	—	8	50
Administrative Expenses	371,085	92,448	41,980	671	2,106	2,370
Plan to Plan Resource Movement	116,552	—	—	—	—	—
Participant & Employer Withdrawals	—	—	—	—	—	—
OPEB Reimbursements Direct	—	—	—	—	—	—
OPEB Reimbursements – Outside Trust	—	—	—	—	—	—
TOTAL DEDUCTIONS	**$17,620,201**	**$4,145,567**	**$1,797,720**	**$7,589**	**$209,929**	**$34,165**
INCREASE (DECREASE) IN NET POSITION	**$22,338,136**	**$3,973,310**	**$2,144,214**	**($1,554)**	**($4,248)**	**$174,867**
NET POSITION						
Beginning of Year	**$238,256,516**	**$60,998,387**	**$27,244,095**	**$116,884**	**$48,275**	**$1,356,099**
Adjustments, See Note 2	($703,876)	($175,561)	($79,720)	($1,454)	($4,396)	($5,452)
Beginning of Year (as adjusted)	**$237,552,640**	**$60,822,826**	**$27,164,375**	**$115,430**	**$43,879**	**$1,350,647**
End of year	**$259,890,776**	**$64,796,136**	**$29,308,589**	**$113,876**	**$39,631**	**$1,525,514**

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

Basic Financial Statements (continued)

Pension Trust Funds		Other Post-Employment Benefit Trust Fund	Custodial Fund	Totals	
DCF	SCPF	CERBTF	RBF	2018	2017
$112,586	$252	$0	$0	$4,558,624	$4,353,650
977	—	—	—	20,003,978	12,403,590
—	—	—	22,487	22,487	20,573
—	—	—	—	194,202	199,302
—	—	1,112,934	—	1,112,934	1,203,175
—	—	2,803,035	—	2,803,035	2,551,534
$113,563	**$252**	**$3,915,969**	**$22,487**	**$28,695,260**	**$20,731,824**
$107,093	$4,271	$532,134	$0	$25,657,197	$32,128,368
2,209	115	446	163	1,861,305	1,030,077
—	—	—	—	1,622,399	1,412,532
108	19	103	—	4,698	45,125
(503)	(36)	(1,373)	—	(711,826)	(597,172)
(86)	(7)	(1,121)	—	(234,593)	(222,819)
$108,821	**$4,362**	**$530,189**	**$163**	**$28,199,180**	**$33,796,111**
$0	$0	$1,304	$0	$239,079	$230,526
—	—	(841)	—	(124,469)	(88,960)
$0	**$0**	**$463**	**$0**	**$114,610**	**$141,566**
$6,306	$619	$6,522	$444	$24,454	$26,654
—	—	—	—	116,552	134,661
$228,690	**$5,233**	**$4,453,143**	**$23,094**	**$57,150,056**	**$54,830,816**
$0	$0	$0	$0	$22,900,922	$21,445,615
—	—	—	22,487	22,487	20,573
—	—	—	—	287,037	222,644
5,296	398	3,862	450	520,666	453,514
—	—	—	—	116,552	134,661
168,064	9,046	30,193	—	207,303	102,054
—	—	104,185	—	104,185	95,946
—	—	2,803,035	—	2,803,035	2,551,534
$173,360	**$9,444**	**$2,941,275**	**$22,937**	**$26,962,187**	**$25,026,541**
$55,330	**($4,211)**	**$1,511,868**	**$157**	**$30,187,869**	**$29,804,275**
$1,444,606	**$120,704**	**$6,791,289**	**$168**	**$336,377,023**	**$306,572,748**
($4,190)	($358)	($8,985)	$0	($983,992)	$0
$1,440,416	**$120,346**	**$6,782,304**	**$168**	**$335,393,031**	**$306,572,748**
$1,495,746	**$116,135**	**$8,294,172**	**$325**	**$365,580,900**	**$336,377,023**

STATEMENT OF NET POSITION – PROPRIETARY FUNDS

As of June 30, 2018, with Comparative Totals as of June 30, 2017 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2018	2017
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES					
Current Assets					
Cash & Cash Equivalents	$0	$0	$9,611	$9,611	$7,445
Short-Term Investments	583,293	658,268	448	1,242,009	823,437
Receivables					
Members & Employers	$0	$16,097	$480	$16,577	$20,129
Health Carriers & Pharmacy Benefit Managers	164,792	3,489	—	168,281	226,679
Interest & Dividends	2,718	2,681	—	5,399	2,051
Due from Other Funds	302,249	2,435	—	304,684	390,669
Investment Sales and Other	—	—	13,715	13,715	10,946
Short-Term Loan	—	—	—	—	—
Other Receivables	11	—	—	11	11
Total Receivables	**$469,770**	**$24,702**	**$14,195**	**$508,667**	**$650,485**
Subtotal Current Assets	**$1,053,063**	**$682,970**	**$24,254**	**$1,760,287**	**$1,481,367**
Noncurrent Assets					
Investments, at Fair Value					
Global Equity Securities	$0	$0	$1,605,144	$1,605,144	$1,457,101
Global Debt Securities	443,242	—	2,909,069	3,352,311	3,362,025
Total Investments	**$443,242**	**$0**	**$4,514,213**	**$4,957,455**	**$4,819,126**
Subtotal Noncurrent Assets	**$443,242**	**$0**	**$4,514,213**	**$4,957,455**	**$4,819,126**
TOTAL ASSETS	**$1,496,305**	**$682,970**	**$4,538,467**	**$6,717,742**	**$6,300,493**
Deferred Outflows of Resources	$13,828	$9,333	$1,341	$24,502	$0
Total Assets and Deferred Outflows of Resources	**$1,510,133**	**$692,303**	**$4,539,808**	**$6,742,244**	**$6,300,493**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES					
Current Liabilities					
Claims Payable	$318,737	$0	$22,906	$341,643	$250,315
Unearned Premiums	93,193	—	12,320	105,513	111,582
Due to Employers	—	13,488	—	13,488	18,432
Estimated Insurance Claims Due	445,329	—	—	445,329	408,720
Estimated Future Policy Liability Short-Term	—	—	82,018	82,018	326,728
Due to Carriers	—	347,897	—	347,897	220,536
Due to Other Funds	422	300,283	590	301,295	390,989
Investment Purchases & Other	—	—	13,699	13,699	9,904
Management & Third-Party Administrator Fees	40,540	—	2,559	43,099	30,009
Other	—	3,200	4,142	7,342	18,179
Total Current Liabilities	**$898,221**	**$664,868**	**$138,234**	**$1,701,323**	**$1,785,394**
Long-Term Liabilities					
Estimated Liability for Future Policy Benefits	$0	$0	$4,466,082	$4,466,082	$3,926,231
Net Pension & OPEB Obligation	125,739	84,860	12,195	222,794	—
Total Long-Term Liabilities	**$125,739**	**$84,860**	**$4,478,277**	**$4,688,876**	**$3,926,231**
TOTAL LIABILITIES	**$1,023,960**	**$749,728**	**$4,616,511**	**$6,390,199**	**$5,711,625**
Deferred Inflows of Resources	$537	$362	$52	$951	$0
Total Liabilities and Deferred Inflows of Resources	**$1,024,497**	**$750,090**	**$4,616,563**	**$6,391,150**	**$5,711,625**
TOTAL UNRESTRICTED NET POSITION (DEFICIT)	**$485,636**	**($57,787)**	**($76,755)**	**$351,094**	**$588,868**

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

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION – PROPRIETARY FUNDS

For the Fiscal Year Ended June 30, 2018, with Comparative Totals for the Fiscal Year Ended June 30, 2017 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2018	2017
Operating Revenues					
Premiums	$3,945,826	$0	$296,323	$4,242,149	$4,132,410
Federal Government Subsidies	22,720	—	—	22,720	29,534
Administrative Fees Earned	—	30,093	—	30,093	27,448
Other	—	59	—	59	39
Total Operating Revenues	**$3,968,546**	**$30,152**	**$296,323**	**$4,295,021**	**$4,189,431**
Operating Expenses					
Claims Expense	$3,543,962	$0	$306,879	$3,850,841	$3,681,446
Increase (Decrease) in Estimated Liabilities	36,609	—	295,142	331,751	198,347
Administrative Expenses	304,319	34,763	26,545	365,627	365,153
Total Operating Expenses	**$3,884,890**	**$34,763**	**$628,566**	**$4,548,219**	**$4,244,946**
OPERATING INCOME (LOSS)	**$83,656**	**($4,611)**	**($332,243)**	**($253,198)**	**($55,515)**
Non-Operating Revenues					
Net Appreciation/(Depreciation) in Fair Value of Investments	($1,737)	$0	$176,224	$174,487	$66,313
Interest, Dividends & Other Investment Income	18,584	3,165	1,338	23,087	7,686
Total Non-Operating Revenues	**$16,847**	**$3,165**	**$177,562**	**$197,574**	**$73,999**
Non-Operating Expenses					
Management Fees	$62	$0	$1,587	$1,649	$1,623
Other Investment Expenses	27	—	266	293	285
Total Non-Operating Expenses	**$89**	**$0**	**$1,853**	**$1,942**	**$1,908**
NON-OPERATING INCOME (LOSS)	**$16,758**	**$3,165**	**$175,709**	**$195,632**	**$72,091**
CHANGE IN UNRESTRICTED NET POSITION	**$100,414**	**($1,446)**	**($156,534)**	**($57,566)**	**$16,576**
TOTAL UNRESTRICTED NET POSITION					
Beginning of Year	**$486,927**	**$12,298**	**$89,643**	**$588,868**	**$572,292**
Adjustments, See Note 2	($101,705)	($68,639)	($9,864)	($180,208)	$0
Beginning of Year (as adjusted)	**385,222**	**(56,341)**	**79,779**	**408,660**	**572,292**
End of Year	**$485,636**	**($57,787)**	**($76,755)**	**$351,094**	**$588,868**

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

STATEMENT OF CASH FLOWS – PROPRIETARY FUNDS

For the Fiscal Year Ended June 30, 2018, with Comparative Totals for the Fiscal Year Ended June 30, 2017 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2018	2017
Cash Flows From Operating Activities					
Premiums Collected	$4,007,687	$0	$296,159	$4,303,846	$4,212,984
Federal Government Subsidies	22,720	—	—	22,720	29,534
Claims Paid	(3,452,499)	—	(307,014)	(3,759,513)	(3,758,745)
Other (Payments) Receipts, Net	(236,626)	58,910	(23,996)	(201,712)	(374,570)
Net Cash Provided by (Used for) Operating Activities	**$341,282**	**$58,910**	**($34,851)**	**$365,341**	**$109,203**
Cash Flows From Investing Activities					
Net Sales (Purchases) of Investments	($300)	$0	$37,485	$37,185	$6,860
Net Change in Short-Term Investments	(357,323)	(60,897)	(353)	(418,573)	(118,972)
Interest, Amortization & Dividends Received	8,110	1,987	315	10,412	6,308
Other Investment (Payments) Receipts, Net	8,230	—	(429)	7,801	(660)
Net Cash Provided by (Used for) Investing Activities	**($341,283)**	**($58,910)**	**$37,018**	**($363,175)**	**($106,464)**
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	**($1)**	**$0**	**$2,167**	**$2,166**	**$2,739**
Cash & Cash Equivalents, Beginning of Year	**$1**	**$0**	**$7,444**	**$7,445**	**$4,706**
Cash & Cash Equivalents, End of Year	**$0**	**$0**	**$9,611**	**$9,611**	**$7,445**
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used for) Operating Activities					
Operating Income (Loss)	$83,656	($4,611)	($332,243)	($253,198)	($55,515)
Changes in Assets and Liabilities:					
Receivables:					
Members & Employers	8,138	(4,531)	(55)	3,552	885
Health Carriers & Pharmacy Benefit Managers	59,682	(1,284)	—	58,398	76,906
Due from Other Funds	70,919	15,066	—	85,985	(133,949)
Loans	—	—	—	—	4,500
Other	—	—	—	—	2
Claims Payable	91,463	—	(135)	91,328	(77,299)
Unearned Premiums	(5,959)	—	(110)	(6,069)	4,858
Due to Employers	(84)	(4,860)	—	(4,944)	(5,302)
Estimated Insurance Claims Due	36,609	—	—	36,609	(14,701)
Net Pension & OPEB Liability	10,743	7,250	1,042	19,035	—
Estimated Liability for Future Policy Benefits Short-Term	—	—	(244,710)	(244,710)	18,204
Estimated Liability for Future Policy Benefits Long-Term	—	—	539,852	539,852	194,844
Due to Carriers	—	127,361	—	127,361	45,597
Due to Other Funds	(16,206)	(72,698)	(790)	(89,694)	135,063
Management & Third-Party Administrator Fees Payable	10,907	—	1,766	12,673	(21,004)
Other	(8,586)	(2,783)	532	(10,837)	(63,886)
Net Cash Provided by (Used for) Operating Activities	**$341,282**	**$58,910**	**($34,851)**	**$365,341**	**$109,203**
Noncash Investing, Capital & Financing Activities					
Noncash Increase/(Decrease) in Fair Value of Investments	**($1,737)**	**$0**	**$144,341**	**$142,604**	**$41,602**

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

Notes to the Basic Financial Statements

1. DESCRIPTION OF CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

ORGANIZATION

The California Public Employees' Retirement System (CalPERS or the System) was established by legislation in 1931 for the purpose of providing a secure retirement to employees of the State of California (State). In 1939, new legislation allowed public agency and classified school employees to join CalPERS for retirement benefits. CalPERS began administering health benefits for state employees in 1962, and five years later, offered health benefits to public agencies on a contract basis.

CalPERS is governed by the Board of Administration (the Board), which consists of 13 members: two elected by CalPERS members, one elected by active state members, one elected by active CalPERS school members, one elected by active CalPERS public agency members, one elected by retired members of CalPERS, two appointed by the Governor, one public representative appointed jointly by the Speaker of the Assembly and Senate Rules Committee, and four ex officio members: State Treasurer, State Controller, Director of California Department of Human Resources, and Designee of the State Personnel Board. The Board is responsible for the management and control of CalPERS, including the exclusive control of the administration and investment of the System.

CalPERS acts as the common investment and administrative agency for the following plans:

CalPERS Plans

Plan Name	Type of Plan
Defined Benefit Pension Plans:	
Public Employees' Retirement Fund A	Agent multiple-employer
Public Employees' Retirement Fund B	Cost-sharing multiple-employer
Public Employees' Retirement Fund C	Cost-sharing multiple-employer
Legislators' Retirement Fund	Single-employer
Judges' Retirement Fund	Single-employer
Judges' Retirement Fund II	Single-employer
Defined Contribution Plans:	
Public Employees' Deferred Compensation Fund	Multiple-employer (457 & 401K plans)
Supplemental Contributions Program Fund	Single-employer
Defined Benefit Other Post-Employment Benefit Plan:	
California Employers' Retiree Benefit Trust Fund	Agent multiple-employer

DEFINED BENEFIT PENSION PLANS

Below are summary descriptions of each defined benefit pension plan administered by CalPERS:

Public Employees' Retirement Fund (PERF) – The PERF was established by Chapter 700 of the 1931 Statutes and provides retirement, death and disability benefits to members of its participating employers, which include the State of California, non-teaching, non-certified employees in schools, and various other public agencies. The benefit provisions for the state and school employees are established by statute. The benefits options for the public agencies are established by statute and voluntarily selected by contract with the System in accordance with the provisions of the Public Employees' Retirement Law.

For financial reporting purposes only, the PERF is comprised of and reported as three separate entities. PERF A is an agent multiple-employer plan, which includes the State of California and most public agencies' rate plans with more than 100 active members. PERF B is a cost-sharing multiple-employer plan of school employers consisting of non-teaching and non-certified employees. PERF C is a cost-sharing multiple-employer plan of public agencies with generally fewer than 100 active members. Under applicable law, the CalPERS Board may terminate or a public agency may terminate that agency's plan under either PERF A or PERF C. The terminated agency is liable to the system for all costs to fund all benefits under the agency's contract. An unpaid deficit in funding will result in a commensurate reduction in benefits provided under that agency's contract.

As of June 30, 2018, the PERF had the following participating employers:

Employers for PERF

PERF Employers	2018
PERF A	
State	1
Public Agencies[1]	310
Total	**311**
PERF B	
School Districts and Charter Schools	1,313
PERF C	
Public Agencies[1]	1,308
Total Employers	**2,932**

1) Each public agency employer may be counted in both PERF A and PERF C due to active contracts under both plans.

Legislators' Retirement Fund (LRF) – The LRF was established by Chapter 879 of the 1947 Statutes and provides retirement, death, and disability benefits to State Legislators, Constitutional Officers, and Legislative Statutory Officers. The benefits for the LRF are established in accordance with the provisions of the Legislators' Retirement Law. In November 1990, Article IV, section 4.5 was added to the State Constitution, pursuant to the adoption of Proposition 140. This section effectively prohibited future legislators from earning state retirement benefits for service in the Legislature on or after November 7, 1990, though it recognized vested pension benefits that had accrued before that date. Due to the effects of Proposition 140, there is one legislator eligible to participate in the Legislators' Retirement Fund. The only active members in the fund are Constitutional Officers (including the Insurance Commissioner and members of the Board of Equalization) and Legislative Statutory Officers. The Public Employees' Pension Reform Act of 2013 (PEPRA) closed the Legislators' Retirement System to new participants effective January 1, 2013.

Judges' Retirement Fund (JRF) – The JRF was established by Chapter 206 of the 1953 Statutes and provides retirement, death, and disability benefits to judges working in the California Supreme Court, the Courts of Appeal, and the Superior Courts, who were appointed or elected before November 9, 1994. Benefits for the JRF are established in accordance with the provisions of the Judges' Retirement Law.

The JRF is funded on a "pay-as-you-go" basis, where short-term investments, contributions received during the year, and a State General Fund augmentation are used to provide funding for benefit payments. This funding method is generally more expensive in the long term, as the plan does not have investment returns generated by a funded plan. Without the State General Fund augmentation, the JRF will not be able to pay the accumulated benefit payments due in Fiscal Year 2018-19.

Judges' Retirement Fund II (JRF II) – The JRF II was established by Chapter 879 of the 1994 Statutes and provides retirement, death, and disability benefits to judges working in the California Supreme Court, the Courts of Appeal, and the Superior Courts, who were appointed or elected on or after November 9, 1994. Benefits for the JRF II are established in accordance with the provisions of the Judges' Retirement System II Law.

Plan Membership

All employees in a covered class of employment who work on a half-time basis or more are eligible to participate in the retirement plans. The underlying data included in the following table reflects current categorizations of members and beneficiaries in the defined benefit pension plans.

As of June 30, 2018, membership in the defined benefit pension plans consisted of the following:

Benefit Recipients and Members in the PERF A, PERF B, PERF C, LRF, JRF, and JRF II

			Members		
Plan	Retirees	Survivors & Beneficiaries	Active	Inactive or Deferred	Total
PERF A					
Agent	370,096	62,207	480,621	195,236	1,108,160
PERF B					
Schools Cost-Sharing	190,244	31,245	332,659	183,031	737,179
PERF C					
Public Agency Cost-Sharing	35,677	5,101	47,607	24,173	112,558
Total PERF	**596,017**	**98,553**	**860,887**	**402,440**	**1,957,897**
LRF	121	106	7	7	241
JRF	1,312	550	168	2	2,032
JRF II	207	24	1,543	—	1,774
Total	**597,657**	**99,233**	**862,605**	**402,449**	**1,961,944**

Plan Benefits

The benefits for the defined benefit plans are based on members' years of service, age, final compensation, and benefit formula. Benefits are provided for disability, death, and survivors of eligible members or beneficiaries. Members become vested in their retirement benefits earned to date, to the extent funded, after five years (10 years for state Second Tier members) of credited service. All non-state Second Tier members are eligible to receive cost-of-living adjustments (COLA) up to a maximum of 2 percent compounded annually (up to 5 percent maximum as a contract option for retired members of local agencies). State Second Tier members are eligible for a COLA of 3 percent fixed compounded annually.

Notes to the Basic Financial Statements (continued)

Contributions

The benefits for the defined benefit pension plans are funded by contributions from members and employers, and earnings from investments. Member and employer contributions are a percentage of applicable member compensation. Member contribution rates are defined by law and depend on the respective employer's benefit formulas. In some circumstances, contributions are made by the employer to satisfy member contribution requirements. Member and employer contribution rates are determined by periodic actuarial valuations or by state statute. Actuarial valuations are based on the benefit formulas and employee groups of each employer.

The required contribution rates of most active plan members are based on a percentage of salary in excess of a base compensation amount ranging from zero dollars to $863 monthly.

PEPRA, which took effect in January 2013, changes the way CalPERS retirement benefits are applied, and places compensation limits on members with the most impact felt by new CalPERS members. Under PEPRA, new members include:

(1) Members first joining on or after January 1, 2013, with no prior membership in another California public retirement system.
(2) Members first joining before January 1, 2013, who are hired by a different CalPERS employer after January 1, 2013, and have a break in service greater than six months.
(3) Members first joining on or after January 1, 2013, who are ineligible for reciprocity with another California public retirement system.

All members that do not fall into the definitions above will generally be considered classic members.

Required contribution rates for active plan members and employers as a percentage of payroll for the fiscal year ended June 30, 2018, were as follows:

Required Contribution Rates

	Employee Contribution Rates		Employer - Required Contribution Rates
	Classic	PEPRA	
PERF A – Agent			
State:			
Miscellaneous – First Tier	5% to 11%	6% to 11%	28.33%
Miscellaneous – Second Tier	3.75%	3.75%	28.33%
Industrial - First Tier	5% to 11%	6% to 11%	19.53%
Industrial - Second Tier	3.75%	3.75%	19.53%
Safety	11%	11%	19.40%
Peace Officers and Firefighters	8% to 13%	11% to 13%	42.60%
California Highway Patrol	11.50%	11.50%	52.79%
Public Agency:			
Miscellaneous	5% to 8%	5.25% to 8.25%	7.63% to 52.79%
Safety	7% to 9%	8.25% to 13.75%	25.86% to 71.67%
PERF B – Schools Cost-Sharing			
Classified School	7%	6.50%	15.53%
PERF C – Public Agency Cost-Sharing			
Public Agency:			
Miscellaneous	2% to 8%	4% to 7.25%	4.18% to 637.93%
Safety	7% to 10.10%	9.5% to 15.25%	9.33% to 1092.77%
LRF	4% or 8%	N/A	41.696%[1]
JRF	8%	N/A	8%[2]
JRF II	8%	16.75%	26.41%[1]

(1) This is the minimum PEPRA employer contribution rate, which is the greater of the actuarially determined employer contribution or the employer normal cost.
(2) The employee and employer contribution rates for the JRF are set by state statute and are equal to 8% of payroll. The JRF is currently funded using a pay-as-you-go approach as contributions made by both the State and members are not adequate to meet current benefit payouts.

DEFINED CONTRIBUTION PLANS

CalPERS currently administers a defined contribution plan and a deferred compensation plan to certain members. These funds are further described below:

Public Employees' Deferred Compensation Fund (DCF) – The DCF was established by Chapter 1659 of the 1990 Statutes, granting the maximum tax-preferred retirement saving opportunities. The DCF is available to public agencies and school districts in the State of California on a voluntary basis. Participants may contribute up to the limit established under the Internal Revenue Code (IRC), and may access their funds upon retirement, separation from employment, or other distributable events as allowed under the IRC.

Supplemental Contributions Program Fund (SCPF) – The SCPF was established Chapter 307 of the 1999 Statutes. The SCPF is qualified under section 401(a) of Title 26 of the United States Code. The SCPF is currently available to State of California employees who are members of CalPERS, and participation is voluntary. Participant contributions are made on an after-tax basis and are made voluntarily in addition to defined benefit contributions. Participants may contribute to a deferred compensation plan in conjunction with the SCPF, subject to IRC section 415(c) limits. Distributions are allowed only at retirement or permanent separation from employment.

As of June 30, 2018, membership in the defined contribution plans consisted of the following:

Members in DCF and SCPF

Plan	Employers	Members
DCF	794	27,264
SCPF	1	7,254

OTHER ADMINISTRATIVE ACTIVITIES

CalPERS administers other activities as follows:

The California Employers' Retiree Benefit Trust Fund (CERBTF) – The Annuitants' Health Care Coverage Fund, also known as CERBTF, was established by Chapter 331 of the 1988 Statutes, and employers elect to participate in the CERBTF to save funds to pay future retiree and survivors health care and other post-employment benefits (OPEB). Currently, the CERBTF has 542 participating employers. Of the 542 participating employers, 531 employers have contributed assets in the CERBTF as of June 30, 2018. The CERBTF is more fully described in Note 9 to the financial statements.

Old Age & Survivors' Insurance Revolving Fund (OASI) – The OASI was established to consolidate the collection and payment from California public agencies for employee and employer contributions under the provisions of the Federal Social Security regulations.

Federal legislation was enacted on October 21, 1986, which required direct remittance of Social Security contributions by individual public agencies to the Internal Revenue Service (IRS), and eliminated the intermediary collection and remittance of such contributions by individual public agencies to CalPERS. As such, effective January 1, 1987, the OASI stopped receiving contributions from public agencies. Since then, the OASI fund has been used to reimburse the PERF for OASI contract management and related services, as provided in Government Code section 22601. The residual balances are now being reported in the PERF A for accounting and financial reporting purposes.

Public Employees' Health Care Fund (HCF) – The HCF was established by Chapter 1129 of the 1987 Statutes under the Public Employees' Medical and Hospital Care Act (PEMHCA), providing health insurance coverage to CalPERS members through a pooled risk plan. The HCF is more fully described in Note 11 to the financial statements.

Public Employees' Contingency Reserve Fund (CRF) – The CRF was established by Chapter 1236 of the 1961 Statutes with the passage of PEMHCA, and provides a contingency reserve for items such as future rates or future benefits. The CRF is more fully described in Note 12 to the financial statements.

Public Employees' Long-Term Care Fund (LTCF) – The LTCF was established by Chapter 1154 of the 1992 Statutes as part of the Public Employees Long-Term Care Act to administer the long-term care insurance plans available to eligible participants. The LTCF is described in more depth in Note 13 to the financial statements.

Replacement Benefit Fund (RBF) – The RBF was established by Chapter 798 of the 1990 Statutes, providing replacement benefits to members of the defined benefit pension plans. The RBF is more fully described in Note 10 to the financial statements.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

REPORTING ENTITY

The accompanying financial statements include all activities and funds administered by CalPERS. CalPERS is a component unit of the State of California for financial reporting purposes. CalPERS' financial statements are included in fiduciary and proprietary funds in the State of California Comprehensive Annual Financial Report (CAFR).

MEASUREMENT FOCUS, BASIS OF ACCOUNTING & BASIS OF PRESENTATION

The accompanying financial statements were prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. In doing so, CalPERS adheres to the reporting requirements established by the Governmental Accounting Standards Board (GASB).

The accounts of CalPERS are organized and operated on the basis of funds. The Board has a fiduciary responsibility for the investments within both the fiduciary and proprietary funds. CalPERS has the following fund types as of June 30, 2018:

Fiduciary Funds – include pension trusts (PERF A, PERF B, PERF C, LRF, JRF, JRF II, DCF, SCPF), an other post-employment trust (CERBTF), and a custodial fund (RBF), which account for assets held by the government in a trustee capacity or as a custodian on behalf of others. The pension trust funds include defined benefit plans and defined contribution plans, which are accounted for on the flow of economic resources measurement focus and the accrual basis of accounting. Contributions to the defined benefit pension plans are recognized in the period in which the contributions are due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan. Contributions to the defined contribution plans and the other post-employment benefit plan are recognized as received. The RBF is a custodial fund and is fiduciary in nature, accounted for on the flow of economic resources measurement focus and the accrual basis of accounting.

Proprietary Funds – include the HCF, CRF and the LTCF. These funds are accounted for on the flow of economic resources measurement focus and use the accrual basis of accounting. Operating revenues and expenses are distinguished from non-operating items and generally result from providing services in connection with ongoing operations. The principal operating revenues of the HCF and CRF are derived from premiums, Federal Employer Group Waiver Plan (EGWP) subsidies, and administrative service fees. The principal operating revenue for the LTCF is premiums. Operating expenses include the cost of claims and related administrative expenses. All revenues and expenses not meeting these definitions are reported as non-operating.

TARGET ASSET ALLOCATION

State statutes and Board policies allow investments in government, domestic and international debt, domestic and international equities, mutual funds, private equity, real assets, and other investments. In March 2018, CalPERS adopted an interim asset allocation strategy to carry through July 2018.

The following table shows the Board-adopted target asset allocation policy for the defined benefit pension plans, which was in effect as of June 30, 2018:

Target Asset Allocation

Asset Class	PERF A	PERF B	PERF C	LRF	JRF	JRF II
Global Equity	49%	49%	49%	24%	—%	50%
Private Equity	8%	8%	8%	—	—	—
Global Debt Securities	22%	22%	22%	39%	—	34%
Real Assets	12%	12%	12%	—	—	—
Liquidity	3%	3%	3%	—	100%	—
Inflation	6%	6%	6%	26%	—	5%
REITs	—	—	—	8%	—	8%
Commodities	—	—	—	3%	—	3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The California Employers' Retiree Benefit Trust (CERBT) Fund allows employers to pre-fund non-pension, post-employment benefits. Three diversified policy portfolios (Strategy 1, 2, and 3) are available for employers to select depending on employer preferences for return and risk (volatility) expectations. By comparison, Strategy 1 has the highest long-term expected rate of return and return volatility, Strategy 2 has a moderate long-term expected rate of return and return volatility, and Strategy 3 has the lowest long-term expected rate of return and return volatility. The following table shows the Board-adopted target asset allocation policy for the three CERBTF strategies:

CERBTF Target Asset Allocation

Asset Class	CERBTF Strategy 1	CERBTF Strategy 2	CERBTF Strategy 3
Global Equity	57%	40%	24%
Global Debt Securities	27%	39%	39%
Inflation Assets	5%	10%	26%
REITs	8%	8%	8%
Commodities	3%	3%	3%
Total	**100%**	**100%**	**100%**

CAPITAL ASSETS

Capital assets are defined as assets with an initial individual cost of $5,000 or more, or $1 million or more for intangible assets, and an estimated useful life in excess of one year. Capital assets consist of buildings, furniture, equipment, and intangible assets recorded at cost or, if donated, at their acquisition value. Capital assets are depreciated over their estimated useful lives, ranging from three to five years for furniture and equipment, and 40 years for buildings, and determined on an asset-by-asset basis for intangible assets, using the straight-line method of depreciation.

INVESTMENT EXPENSES

Investment expenses presented within the accompanying financial statements consist of management and performance fees and other investment-related fees. Management and performance fees include all fees paid to external managers for public and private markets. Other investment-related fees include expenses for fund administration, internal investment staff salaries, dividend tax withholding, certain trading fees, consultants, data, analytics, certain other taxes, custody, appraisals, legal services, technology, trading and portfolio management systems, audits, and tax advisory services. These other investment-related fees are reported in the Other Investment Expenses within the Statement of Changes in Fiduciary Net Position and detailed in the Investment Expenses Schedule in the Other Supplementary Information section.

The investment expenses do not include the commissions and fees paid to transact public securities and private equity profit sharing realized by the PERF. These are reported in the Net Appreciation in Fair Value of Investments line in the Statement of Changes in Fiduciary Net Position. For additional detail, refer to the Schedule of Commissions & Fees table and the Private Equity Management Fees & Profit Sharing table within the Investment Section.

USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

RISKS AND UNCERTAINTIES

CalPERS invests in securities that are exposed to a variety of risks, including interest rate, market, credit risk, and foreign currency risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the value of investment securities will occur in the near term and such changes could materially affect the amounts reported in the accompanying financial statements.

The total pension liabilities and net pension liabilities disclosed in Note 8 to the Basic Financial Statements for the cost-sharing multiple-employer and single-employer defined benefit pension plans are measured based on certain assumptions, including the long-term rate of return on pension investments, inflation rates, and employee demographics, all of which are subject to change.

The estimated liability for future policy benefits in the Long-Term Care Fund is based on the present value of future benefits and expenses less the present value of future premiums. This liability is reported in the Statement of Net Position, and is measured based on certain assumptions including a discount rate of 5.25 percent, morbidity lapse rates, voluntary termination, mortality, and plan expenses.

Due to uncertainties inherent in the estimations and assumptions described in this section, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

RECLASSIFICATIONS

Certain reclassifications have been made to the comparative totals as of and for the fiscal year ended June 30, 2017, to conform to the presentation as of and for the fiscal year ended June 30, 2018.

COMPARATIVE TOTALS

The Basic Financial Statements include certain prior year summarized comparative information in total but not at the level of detail required for a presentation in conformity with U.S. generally accepted accounting principles. Accordingly, such information should be read in conjunction with CalPERS' financial statements for the fiscal year ended June 30, 2017, from which the summarized information was derived.

TERMINATION OF PENSION PLANS

Public agency participation in the System may be terminated either due to a transfer of a public agency's plan to another qualified system as permitted by law, a public agency terminating its plan, or an involuntary termination by the Board. In the event that a public agency elects to transfer its plan, the assets of the plan and the related liability for benefits accrued are transferred to the other system. In the event that a public agency elects to terminate its plan or there is an involuntary termination of a plan by the Board, sufficient assets to cover the related liability for benefits accrued are retained by the PERF. Excess assets above those required, if any, are returned to the employer, while the employer is billed for any deficiency in required assets.

ADOPTION OF NEW ACCOUNTING STANDARD AND IMMATERIAL CORRECTION

During Fiscal Year 2017-18, as a result of Governmental Accounting Standards Board Statement (GASB) No. 75, *Accounting and Financial Reporting for Postemployment Benefit Plans Other than Pensions* (GASB 75), CalPERS reported its proportionate share of activity related to post-employment benefits for its participation in the State of California's agent OPEB plan. Accordingly, CalPERS adjusted its previously reported fiduciary net position as a result of the adoption of GASB 75.

CalPERS' employees also participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded an immaterial correction to its previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions* (GASB 68).

The table below presents the effect on CalPERS' previously reported net position as a result of the adoption of GASB 75 and the immaterial correction related to GASB 68.

Adoption of Accounting Standards (Dollars in Thousands)

Fund	2017 Net Position as Previously Reported	Adoption of GASB Statement No. 75	Immaterial Correction	2017 Net Position as Restated
PERF A	$238,256,516	(420,370)	(283,506)	$237,552,640
PERF B	60,998,387	(104,849)	(70,712)	60,822,826
PERF C	27,244,095	(47,611)	(32,109)	27,164,375
LRF	116,884	(868)	(586)	115,430
JRF	48,275	(2,625)	(1,771)	43,879
JRF II	1,356,099	(3,256)	(2,196)	1,350,647
DCF	1,444,606	(2,502)	(1,688)	1,440,416
SCPF	120,704	(214)	(144)	120,346
CERBTF	6,791,289	(5,366)	(3,619)	6,782,304
RBF	168	—	—	168
Subtotal Fiduciary Funds	**$336,377,023**	**($587,661)**	**($396,331)**	**$335,393,031**
HCF	$486,927	($60,740)	($40,965)	$385,222
CRF	12,298	(40,993)	(27,646)	(56,341)
LTCF	89,643	(5,891)	(3,973)	79,779
Subtotal Proprietary Funds	**$588,868**	**($107,624)**	**($72,584)**	**$408,660**
Total	**$336,965,891**	**($695,285)**	**($468,915)**	**$335,801,691**

EMPLOYER SHARE OF POSTEMPLOYMENT BENEFITS

As of June 30, 2018, CalPERS has recorded its proportionate share of the State's net pension and OPEB liabilities totaling approximately $656 million and $783 million. CalPERS has recorded these post-employment liabilities along with the corresponding amount of deferred inflow and outflows of resources and related post-employment benefit expense for all affected funds. CalPERS is not providing additional disclosures as it has concluded that presenting such employer related post-employment obligations disclosures would be misleading to the users of CalPERS financial statements where the focus is on plans, not individual employer post-employment obligations.

3. CASH AND CASH EQUIVALENTS

Cash and cash equivalents of approximately $1.3 billion at June 30, 2018, represent amounts held in the CalPERS general operating accounts with the State Treasury and the master custodian, State Street Bank and Trust. The underlying investments at the State Treasurer's Office are not individually identifiable by fund, as CalPERS monies are pooled with the monies of other state agencies and invested.

4. INVESTMENTS

SHORT-TERM INVESTMENTS

Short-term investments consist of U.S. Treasury and government-sponsored securities, money market funds, commercial paper, certificates of deposit, repurchase agreements, asset-backed securities, notes, and bonds issued by U.S. corporations, and other allowable instruments that meet short-term maturity or average life, diversification, and credit quality restrictions. Note that short-term investments are excluded from the Investments at Fair Value table.

INVESTMENTS AT FAIR VALUE

GASB Statement No. 72, *Fair Value Measurement and Application* (GASB 72) requires investments measured at fair value to be categorized under a fair value hierarchy. CalPERS determines fair value of its investments based upon both observable and unobservable inputs. The System categorizes its fair value measurements within the fair value hierarchy as follows:

- Level 1 – quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.
- Level 2 – inputs (other than quoted prices included within Level 1) that are observable for an asset or liability, either directly or indirectly. These inputs can include quoted prices for similar assets or liabilities in active or inactive markets, or market-corroborated inputs.
- Level 3 – unobservable inputs for an asset or liability, which generally results in a government using the best information available and may include the government's own data.

The remaining investments not categorized under the fair value hierarchy are shown at net asset value (NAV). NAV is used as a practical expedient to estimate the fair value of CalPERS' interest therein, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. As of June 30, 2018, CalPERS had no specific plans or intentions to sell investments at amounts different from NAV.

Notes to the Basic Financial Statements (continued)

The following table presents a summary of CalPERS' investments by type as of June 30, 2018, at fair value:

CalPERS – Investments at Fair Value[1] (Dollars in Thousands)

	Fair Value June 30, 2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Global Equity				
Domestic Equity	$86,611,368	$86,611,368	$0	$0
International Equity	70,302,116	70,302,116	—	—
Total Global Equity	**$156,913,484**	**$156,913,484**	**$0**	**$0**
Global Debt				
Asset-Backed	$17,142,185	$0	$16,405,831	$736,354
Bank Loans	343,046	—	343,046	—
International Debt	2,275,510	—	2,275,510	—
Municipal/Public Bonds	6,412	—	6,412	—
Sovereign Debt	16,912,259	—	16,912,259	—
U.S. Corporate	15,954,760	—	15,954,760	—
U.S. Treasuries, STRIPS and TIPS	38,277,724	—	38,277,724	—
Total Global Debt	**$90,911,896**	**$0**	**$90,175,542**	**$736,354**
Derivatives				
Futures	$3,164	$3,164	$0	$0
Options	99,543	—	99,543	—
Rights & Warrants	6,044	—	6,044	—
Forward Contract Assets	285,122	—	285,122	—
Forward Contract (Liabilities)	(96,190)	—	(96,190)	—
Swap Assets	469,538	—	469,538	—
Swap (Liabilities)	(229,093)	—	(229,093)	—
Total Derivatives	**$538,128**	**$3,164**	**$534,964**	**$0**
Other				
Rule 144(a) Securities	$17,358,981	$0	$17,358,981	$0
Securitized Assets	700,689	—	—	700,689
Private Equity[2]	484,715	—	—	484,715
Total Other	**$18,544,385**	**$0**	**$17,358,981**	**$1,185,404**
Total Investments by Fair Value Level	**$266,907,893**	**$156,916,648**	**$108,069,487**	**$1,921,758**
Investments Measured at NAV				
Commingled/Pooled Funds	$16,283,567			
Real Assets	38,008,043			
Private Equity[2]	26,149,406			
Other Investments	6,059,112			
Total Investments Measured at NAV	**$86,500,128**			
Total Investments Measured at Fair Value	**$353,408,021**			

(1) Certain securities and derivatives disclosed in this table may be classified as short-term investments, global equity or debt securities, investment sales and other receivables, and investment purchases and other payables on the combined Statement of Fiduciary Net Position – Fiduciary Funds and the Statement of Net Position – Proprietary Funds. Accordingly, the totals presented in this table will not agree to the combined totals of investments presented in those statements.
(2) Private Equity is shown at NAV on the Statement of Fiduciary Net Position – Fiduciary Funds, while the direct holdings categorized in level 3 represent the fair value of the assets for each private equity investment for GASB 72 purposes. Remaining real assets are valued at NAV.

Global equity securities include both domestic and international securities, and are classified in Level 1 as fair value is obtained using a quoted price from active markets. The security price is generated by market transactions involving identical or similar assets, which is the market approach to measuring fair value. Inputs are observable in exchange markets, dealer markets, brokered markets, and principal-to-principal markets, for which prices are based on trades of identical securities.

Global debt securities consist primarily of asset-backed securities (securitized offerings backed by residential and commercial mortgages, credit cards, auto and student loans), bank loans, international debt securities, municipal/public bonds, sovereign debt, U.S. treasuries, and U.S. corporate securities. Debt securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing. This method uses quoted prices for securities with the same maturities and ratings rather than a fixed price for a designated security. Many debt securities are traded on a dealer market and much less frequently, which is consistent with a Level 2 classification as these investments are valued using observable inputs. Asset-backed securities not classified as Level 2 include collateralized mortgage obligations (CMO), which are mortgage-backed securities that contain a pool of mortgages bundled together and sold as an investment. These are classified in Level 3 of the fair value hierarchy, as assumptions are made by CalPERS to determine prepayment rates, probability of defaults, and loss severity, all of which are unobservable inputs.

Futures are actively traded on major exchanges with quoted prices, and are classified in Level 1 of the fair value hierarchy. Index, commodity, and fixed income futures are publicly traded on active markets, which is the market approach to valuing securities. All other derivatives are classified in Level 2 of the fair value hierarchy. For swaps, observable inputs may include yield curves or interest rates. Options, rights, warrants, and forward contracts are priced using the cost approach and/or are on a dealer market traded on lower frequencies. When these derivative securities are valued, they may not have similar or observable pricing inputs as securities that are valued using the market approach. Refer to Note 7 in the Notes to the Basic Financial Statements for further detail regarding other derivatives.

Other investments at fair value include securities subject to Rule 144(a) of the Securities and Exchange Commission, which modifies a two-year holding period requirement on privately placed securities to permit qualified institutional buyers to trade these positions among themselves. These securities are typically acquired through unregistered, private sales or constitute a control stake in an issuing company. Due to pricing inputs that are observable either directly or indirectly, which include quoted prices for similar securities in active or inactive markets, or market-corroborated inputs, these securities are classified as Level 2. Additionally, other investments include securitized investments, which contain pooled debt instruments, limited partnership investments, and various other investment structures. Many securitized assets are created by combining similar financial assets into a security, and are marketed to investors as a single investment. Typically, these assumptions are internally generated and cannot be observed in an active market. Due to the fact that these assumptions are unobservable for holdings categorized as other investments, these are also classified as Level 3. Lastly, private equities are investments in which CalPERS owns 100 percent of the assets. Private equity holdings are valued at the income, cost, or market approach depending on the type of holdings. All direct holdings are valued using unobservable inputs and are classified in Level 3 of the fair value hierarchy.

Investments Measured at NAV (Dollars in Thousands)

Asset class	Fair Value	Unfunded Commitments
Commingled/Pooled Funds	$16,283,567	$0
Real Assets	38,008,043	3,705,075
Private Equities	26,149,406	14,320,017
Other Investments	6,059,112	19,046
Total	**$86,500,128**	**$18,044,138**

A commingled fund/pooled investment vehicle is a fund with capital pooled from multiple investors that is deployed to a mutually agreed upon strategy. Commingled funds/pooled investment vehicles fair value is measured at NAV, where fair value is measured either based on the CalPERS' pro rata share of the total NAV or by multiplying the pool's share price by the number of shares held.

Real asset investments (real estate, infrastructure, and forestland) are held either in separate accounts, as a limited partner, or in a joint venture or commingled fund. These investments are illiquid and resold at varying rates, with distributions received over the life of the investments. They are typically not redeemed, nor do they have set redemption schedules.

Private equity holdings include direct and co-investments with existing CalPERS general partners, direct secondary investments, and fund of funds. By their very nature, these investments are illiquid and typically not resold or redeemed. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over an average of 10 years.

Other investments include funds that hold securities for varying investment strategies which include:

- Emerging Managers Program – objectives include:
    - Generating appropriate risk-adjusted returns by identifying early stage funds and managers with strong potential for success.
    - Accessing unique investment opportunities that may be otherwise overlooked.
    - Cultivating the next generation of external investment manager talent.
- Absolute Return Strategies – investments that focus on management of total risk, and on generation of returns independent of broad market movements.
- Multi-Asset Class Program – management of portfolios which attempt to outperform the CalPERS assumed rate of return with less risk than the PERF.
- Activist Funds – investments in public companies with the goal of influencing management to increase overall shareholder value.
- Venture Capital Funds – investments made to finance small, early-stage, emerging firms that are believed to have long-term growth potential.

These investments are reported at NAV as they are externally managed fund-structure investments in nongovernmental entities that do not have readily determinable fair values.

CalPERS invests with vehicles such as separate accounts, direct investments, and commingled funds. Separate accounts, with co-invested external managers, are the predominant vehicle and operate through an annual investment process where commitments are generally revocable and excluded from the unfunded commitment disclosure. Direct vehicles generally entail a contractual commitment to an operating company, not controlled by a general partner. With commingled funds, CalPERS commits to funding amounts at the partners' request and these are included in the unfunded commitment disclosure.

RATE OF RETURN

The money-weighted rate of return (MWRR) expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. Following is the annual MWRR, net of investment expense, for the fiscal year ended June 30, 2018:

Money-Weighted Rate of Return

Plan	Rate of Return
PERF A	
Agent	8.4%
PERF B	
Schools Cost-Sharing	8.4%
PERF C	
Public Agency Cost-Sharing	8.4%
LRF	4.8%
JRF	1.9%
JRF II	7.4%
CERBTF	7.3%

5. INVESTMENT RISK DISCLOSURES

DEPOSIT AND INVESTMENT RISK DISCLOSURES

In accordance with GASB Statement No. 40, *Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3* (GASB 40), CalPERS discloses investments of all CalPERS-managed funds that are subject to certain risks: custodial credit risk, concentration of credit risk, interest rate risk, credit risk, and foreign currency risk.

Custodial Credit Risk

Custodial credit risk is the risk that, in the event a depository institution or counterparty fails, the System would not be able to recover the value of its deposits, investments, or collateral securities. As of June 30, 2018, a portion of the System’s investments, other than posted collateral for futures and over-the-counter instruments, is held in the System’s name and is not exposed to custodial credit risk. Where CalPERS trusts invest in commingled funds, the assets within the fund are held in the name of the trustee of the fund and not in CalPERS’ name. There are no general policies relating to custodial credit risk.

Concentration of Risk

Other than U.S. Government Securities, which are not subject to the GASB 40 disclosure requirements, CalPERS does not have investments in any single issuer that represent 5 percent or more of fiduciary net position or total investments.

Interest Rate Risk

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 portfolios using the effective duration or

Notes to the Basic Financial Statements (continued)

option-adjusted methodology. Generally, CalPERS investment policies require the option-adjusted duration of the total fixed income portfolio to stay within negative 50 percent to 10 percent of the relevant benchmark. All individual portfolios are required to maintain a specified level of risk relative to their benchmark.

CalPERS invests in securities with contractual cash flows, such as asset-backed securities, collateralized mortgage obligations, and commercial mortgage-backed securities, including securities backed by residential and commercial mortgage loans. The value, liquidity, and related income of these securities are sensitive to changes in economic conditions, including real estate value, delinquencies or defaults, or both, and may be adversely affected by shifts in the market's perception of the issuers and changes in interest rates.

The following table presents the weighted average effective duration for CalPERS investments subject to interest rate risk as of June 30, 2018:

CalPERS – Debt Securities Subject to Interest Rate Risk
(Dollars in Thousands)

Debt Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2018	Percent of Debt Securities
U.S. Treasuries and Age			
U.S. Treasury Notes	6.95	$20,392,887	18.81%
U.S. Treasury Bonds	18.26	17,466,833	16.11%
U.S. Agencies	12.03	764,116	0.71%
U.S. Treasury Strips	11.60	44,383	0.04%
Corporate	9.71	21,396,094	19.74%
Foreign Government	8.19	17,732,937	16.36%
Mortgages	3.97	15,660,012	14.44%
Asset-Backed	0.34	14,234,109	13.13%
Municipals	10.07	6,412	0.01%
No Effective Duration:			
Commingled Fund	N/A	$498,608	0.46%
Foreign Government	N/A	242,546	0.22%
Asset-Backed	N/A	57,611	0.05%
Mortgages	N/A	12,932	0.01%
Corporate	N/A	361	—%
Swaps	N/A	(94,512)	(0.09%)
Total[1]		**$108,415,329**	**100.00 %**

(1) Certain securities disclosed in this table are classified as short-term investments in the financial statements. As such the total presented in this table will not agree to the total global debt securities on the financial statements.

CalPERS invests in the State Treasury pool and State Street Bank Global Advisors' (SSGA) short-term investment fund (STIF). These investments are included as part of the short-term investments in the financial statements. As of June 30, 2018, the pooled money investment account with the State Treasury totaled approximately $1.4 billion, and the SSGA STIF totaled approximately $6.1 billion. This value represents SSGA STIF investments in all portfolios. The short-term securities reported in the Statement of Fiduciary Net Position and the Statement of Proprietary Net Position are reported at fair value. As of June 30, 2018, the weighted average maturity was 193 days for the State Treasury pool and 30 days for the SSGA short-term investment fund. The SSGA short-term investment fund is rated as P1. The State Treasury pool is not rated.

The LRF, JRF II, CERBTF, SCPF, DCF, HCF, and LTCF invest in various SSGA funds, with weighted average maturities and credit ratings as of June 30, 2018:

CalPERS – SSGA Fund Weighted Average Maturity and Credit Risk (Dollars in Thousands)

SSGA Fund	Fair Value June 30, 2018	Credit Rating[1]	Weighted Average Maturity[2]
U.S. Aggregate Bond Index	$443,242	AA2	8.37
3-10 Year U.S. Agency Index	2,669	AA1	4.74
3-10 Year U.S. Credit Index	202,187	A3	6.11
3-10 Year U.S. Treasury Index	242,644	AAA	5.58
Long U.S. Agency Index	20,704	AA1	16.83
Long U.S. Credit Corporate Index	439,416	BAA1	23.61
Long U.S. Credit Non-Corporate Index	68,892	A3	24.21
Long U.S. Treasury Index	580,422	AAA	24.99
U.S. Asset-Backed/Commercial Mortgage Backed Index	63,519	AA1	5.12
U.S. High Yield Bond Index	95,296	B1	6.34
U.S. Inflation Protected Bond Index	6,757	AAA	8.38
U.S. Mortgage Backed Index	732,695	AAA	7.52
U.S. Short-Term Govt/Credit Bond Index	33,838	AA2	1.99
U.S. Bond Index	331,052	AA2	8.42
U.S. Tips Index	913,607	AAA	8.40
Bloomberg Barclays Long Liability Index	2,967,462	AA3	14.25
Total	**$7,144,402**		

(1) Credit rating reflects market value weight of all the rated securities held by the portfolio (excludes unrated securities) using the middle rating provided by either S&P, Moody's, and Fitch or lower if only two agency ratings are available.
(2) The weighted average maturity disclosed in this table is in days.

Notes to the Basic Financial Statements (continued)

The following table presents the weighted average duration for securities lending collateral subject to interest rate risk as of June 30, 2018:

CalPERS – Securities Lending Collateral Subject to Interest Rate Risk (Dollars in Thousands)

Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2018	Percent of Securities Lending Collateral
Asset-Backed Securities	0.04	$9,292	0.2%
No Effective Duration:			
Money Market Fund[1]	N/A	$55,297	1.3%
Short-Term Investment Fund[2]	N/A	4,209,722	98.5%
Total[3]		**$4,274,311**	**100.0%**

(1) Money Market Fund is invested in U.S. Treasury securities with a weighted average maturity (to final maturity) of 1 day.
(2) Short-Term Investment Fund has a weighted average maturity (to final maturity) of 1 day.
(3) This figure does not include $1,750,000 in repurchase agreements since those investments are not subject to GASB 40 disclosure. The fair value of the investments in the securities lending collateral portfolio is $6,024,311 for fiduciary funds.

As of June 30, 2018, CalPERS investments included securities highly sensitive to interest rate fluctuations in that they are subject to early payment in a period of declining interest rates (i.e., collateralized and mortgage pass-through, etc.). The resulting reduction in expected total cash flows affects the fair value of these securities.

For the fiscal year ended June 30, 2018, the collateral invested in CalPERS Internal Securities Lending had an aggregate weighted average maturity (to final maturity) of 37.59 days. eSecLending (eSec) has a weighted average maturity (to final maturity) of 32.19 days.

Credit Risk

Credit risk is defined as the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The System's investment policies establish both general and specific risk measures for the fixed income portfolio. From the most general perspective, 88 percent of the total fixed income portfolio must be invested in investment-grade securities.

Investment-grade securities have low default probabilities and are rated at a minimum of BBB- by independent agencies (Moody's, Standard & Poor's, or Fitch). Each portfolio is required to maintain a specified risk level.

The following table is a summary of the ratings of CalPERS fixed income securities as of June 30, 2018:

CalPERS – Debt Security Investments Subject to Credit Risk
(Dollars in Thousands)

Moody's Quality Rating	Fair Value June 30, 2018	Fair Value as a Percent of Debt Security Investments
Aaa	$51,271,014	47.29%
Aa1	1,074,808	0.99%
Aa2	5,287,870	4.88%
Aa3	1,350,940	1.25%
A1	2,388,060	2.20%
A2	1,724,819	1.59%
A3	3,761,773	3.47%
Baa1	3,027,394	2.79%
Baa2	4,167,953	3.85%
Baa3	2,235,614	2.06%
Ba1	1,447,964	1.34%
Ba2	1,046,968	0.97%
Ba3	1,081,961	1.00%
B1	933,932	0.86%
B2	658,057	0.61%
B3	943,743	0.87%
Caa1	477,882	0.44%
Caa2	129,981	0.12%
Caa3	34,617	0.03%
Caa	2,082	—%
Ca	22,744	0.02%
C	3,306	—%
NA[1]	857,310	0.79%
NR[2]	24,484,537	22.58%
Total[3]	**$108,415,329**	**100.00%**

(1) NA represents U.S. government securities that are not applicable to the GASB 40 disclosure requirements.
(2) NR represents those securities that are not rated.
(3) Certain securities disclosed in this table are classified as short-term investments in the financial statements. As such the total presented in this table will not agree to the total global debt securities on the financial statements.

The following table is a summary of the ratings of the securities lending collateral subject to credit risk:

CalPERS – Securities Lending Collateral Subject to Credit Risk (Dollars in Thousands)

Moody's Quality Rating	Fair Value	Fair Value as a Percent of Securities Lending Collateral
Aaa	$2,119,111	49.6%
NR[1,2]	2,155,200	50.4%
Total[3]	**$4,274,311**	**100.0%**

(1) NR represents those securities that are not rated.
(2) This figure includes $55,297 invested in a money market fund and $1,000,000 invested in short-term investments.
(3) This figure does not include $1,750,000 in repurchase agreements since they are not subject to GASB 40 disclosure. The fair value of the investments in the securities lending collateral portfolio is $6,024,311 for fiduciary funds.

Notes to the Basic Financial Statements (continued)

Foreign Currency Risk

Foreign currency risk is defined as any deposits or investments that are denominated in foreign currencies, which bear a potential risk of loss arising from changes in currency exchange rates. The System's asset allocation and investment policies allow for active and passive investments in international securities. The proportion of international stocks within the global equity portfolio is, at this time, roughly equal to their market capitalization weight in the global equity benchmark. For the global debt securities, investing includes exposure to non-dollar denominated issues. Real assets and private equity do not have a target allocation for international investments. Refer to the CalPERS International Investment Securities table for foreign currency risk disclosures.

CalPERS – International Investment Securities[1] – Fair Value at June 30, 2018 (U.S. Dollars in Thousands)

Currency	Cash	Equity	Debt Securities	Real Assets	Private Equity	Forward Contracts	Total
Australian Dollar	$3,202	$3,279,004	$509,864	$811,390	$0	$16,434	$4,619,894
Brazilian Real	3,352	966,638	252,297	807,253	—	7,975	2,037,515
British Pound	73,266	8,042,326	3,407,995	1,019,341	56,263	78,108	12,677,299
Canadian Dollar	27,331	4,430,720	781,496	444,285	142,117	5,866	5,831,815
Chilean Peso	533	175,545	115,960	8,200	—	100	300,338
Chinese Yuan Renminbi	5	—	—	1,100,032	—	(1,931)	1,098,106
Colombian Peso	103	68,501	3,577	—	—	(123)	72,058
Czech Koruna	207	43,140	21,839	—	—	(68)	65,118
Danish Krone	204	913,316	107,174	—	—	423	1,021,117
Egyptian Pound	635	14,761	—	—	—	—	15,396
Euro Currency	253,684	15,831,228	5,076,006	585,069	3,157,672	40,264	24,943,923
Guatemala Quetzal	—	—	—	94,109	—	—	94,109
Hong Kong Dollar	8,108	5,886,995	—	—	—	(5)	5,895,098
Hungarian Forint	978	104,560	4,380	—	—	(881)	109,037
Indian Rupee	5,378	1,531,221	—	830	—	(76)	1,537,353
Indonesian Rupiah	1,547	330,868	15,208	—	—	157	347,780
Israeli Shekel	451	278,124	856,571	—	—	14,509	1,149,655
Japanese Yen	74,461	13,475,484	2,292,192	77,770	18,009	25,951	15,963,867
Kazakhstani Tenge	—	—	—	—	—	(50)	(50)
Malaysian Ringgit	(1,853)	347,497	72,668	38	—	(71)	418,279
Mexican Peso	9,813	421,441	589,226	6,400	—	(1,291)	1,025,589
Moroccan Dirham	1	—	—	—	—	—	1
New Taiwan Dollar	20,465	2,292,466	—	—	—	1,024	2,313,955
New Zealand Dollar	585	146,429	142,867	—	—	9,578	299,459
Norwegian Krone	1,662	610,571	70,954	—	—	(435)	682,752
Pakistan Rupee	217	56,964	—	—	—	182	57,363
Peruvian Nuevo Sol	526	583	105,814	—	—	(15)	106,908
Philippine Peso	218	144,377	—	—	—	3,304	147,899
Polish Zloty	407	167,518	146,147	—	—	—	314,072
Qatari Riyal	136	86,043	—	—	—	—	86,179
Romanian Leu	197	—	27,640	—	—	(263)	27,574
Russian Ruble	25	—	429,827	353,715	—	544	784,111
Singapore Dollar	2,941	738,015	63,236	2,146	—	116	806,454
South African Rand	5,929	986,873	203,362	—	—	1,066	1,197,230
South Korean Won	1,959	2,708,088	—	23,882	—	39	2,733,968
Swedish Krona	27,978	1,465,883	166,076	—	—	(588)	1,659,349
Swiss Franc	2,337	3,716,508	101,571	—	—	(247)	3,820,169
Thailand Baht	314	667,778	92,040	—	—	(778)	759,354
Turkish Lira	4,708	321,154	376,106	—	—	(10,727)	691,241
UAE Dirham	155	84,988	—	—	—	14	85,157
Uruguayan Peso	—	—	489	—	—	—	489
Total	**$532,165**	**$70,335,607**	**$16,032,582**	**$5,334,460**	**$3,374,061**	**$188,105**	**$95,796,980**

(1) This table presents investment securities of all CalPERS managed funds, including derivative instruments that are subject to foreign currency risk; investment securities includes partnership level information for private assets.

6. SECURITIES LENDING

The State Constitution and the Board policies permit CalPERS to enter into securities lending transactions, which are collateralized loans of securities to broker-dealers and other entities with a simultaneous agreement to return collateral for the same securities in the future.

CalPERS has contracted with eSecLending, LLC (eSec) and State Street Bank & Trust (SSB) as third-party securities lending agents to loan domestic and international equity and debt securities. CalPERS receives both cash and noncash (i.e., securities) collateral. Domestic and international securities are collateralized at 102 percent and 105 percent, respectively, of the loaned securities' fair value. CalPERS cannot seize the collateral without borrower default; the collateral is therefore not reported in CalPERS’ financial statements in accordance with GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions (GASB 28). Management believes CalPERS has minimized credit risk exposure to borrowers by requiring the borrower to provide collateralization greater than 100 percent of the fair value of the securities loaned. The securities loaned are priced daily by third-party sources, and margins are delivered/received daily to maintain over-collateralized levels. Securities on loan can be recalled or returned by CalPERS or the borrower at any time. Since loans are terminable at will, loan durations do not generally match the duration of the investments made with the cash collateral. CalPERS may enter into term loan agreements, which are evaluated on an individual basis. On June 30, 2018, the fair value of the securities on loan was approximately $15.0 billion. The securities on loan remain on CalPERS’ Statement of Fiduciary Net Position in their respective investment categories. At June 30, 2018, cash collateral received totaling $6.0 billion is reported as securities lending obligation, and the fair value of reinvested cash collateral totaling $6.0 billion is reported as securities lending collateral on the Statement of Fiduciary Net Position. The changes in fair value of the reinvested cash collateral are reported as net appreciation/depreciation in fair value of investments on the Statement of Changes in Fiduciary Net Position.

Because the domestic and international debt and equity securities in the internally managed investment pools are also used in the securities lending program, in accordance with GASB 28, the securities lending collateral, obligation, and the related income and costs are allocated to the pool owners (respective reporting funds) based on the funds’ pro rata share of the pools’ investments.

CalPERS' securities lending reinvestment collateral guidelines prescribe that cash collateral received needs to be invested in short-term, high-credit-quality securities. Currently, SSB, eSecLending, and CalPERS manage the collateral.

CalPERS signed an agreement in December 2017 with Options Clearing Corporation (OCC) for CalPERS to provide OCC with on-demand liquidity by giving access to a line of credit in a segregated account over a one-year term. This account is controlled by CalPERS and invested in short-term securities when it is not in use. CalPERS earns commitment fee revenue and short-term interest yield from this agreement. Upon a draw on the line of credit, OCC will provide U.S. Treasury securities as collateral (for a maximum duration of 30 days) that will be bilateral, marked to market daily, and administered by eSecLending. No amounts were drawn nor outstanding at June 30, 2018.

7. DERIVATIVES

CalPERS holds investments in swaps, options, futures, rights, and warrants and enters into forward foreign currency exchange contracts. The fair value of futures is determined using the market approach based upon quoted market prices. The fair value of options, rights, warrants, and swaps is determined using the cost approach, as these are traded with lower frequencies. The fair value of derivative investments that are exchange-traded, such as options, rights, and warrants are priced using the exchange they are traded on. Non exchange-traded investments, such as swaps, are determined by an external pricing service using various proprietary methods. The fair value of international currency forwards represents the unrealized gain or loss on the related contracts, which is calculated as the difference between the contract exchange rate and the exchange rate at the end of the reporting period.

Futures contracts are marked to market at the end of each trading day, and the settlement of gains or losses occurs on the following business day through the movement of variation margins. Over-the-counter derivatives, such as swaps, generally reset monthly and the settlement of gains or losses occurs the following business day. Currency forward contracts roll quarterly, updating the contract exchange rate.

With all over-the-counter derivatives, such as swaps and currency forwards, CalPERS is exposed to counterparty risk. CalPERS investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, posting collateral exposure, and monitoring procedures, in addition to adherence to industry standard International Swaps and Derivatives Association and Credit Support Annex agreements with all counterparties.

At June 30, 2018, the aggregate fair value of investment derivatives in an asset position subject to counterparty credit risk was approximately $747.1 million. The aggregate amount of cash collateral held by CalPERS on behalf of over-the-counter derivatives was approximately $473.7 million.

Notes to the Basic Financial Statements (continued)

CalPERS – Derivative Instruments Summary (Dollars in Thousands)

Investment	Net Appreciation/ (Depreciation) in Fair Value for the Fiscal Year Ended June 30, 2018	Fair value at June 30, 2018		
Derivatives (by Type)	Amount	Classification	Amount	Notional (Dollars)
Commodity Futures Short	($26,674)	Equity Securities	($3,893)	($261,103)
Credit Default Swaps Bought	230	Debt Securities	(71)	46,800
Credit Default Swaps Written	(415)	Debt Securities	(1,873)	46,802
Currency Swaps	11,050	Debt Securities	(194)	13,500
Equity Options Bought	148,504	Equity Securities	98,315	1,938
Equity Options Written	23,261	Equity Securities	—	—
Fixed Income Futures Long	(59,016)	Equity Securities	28	68,097,441
Fixed Income Futures Short	15,469	Equity Securities	(2)	(26,946,657)
Fixed Income Options Bought	(42)	Equity Securities	—	—
Fixed Income Options Written	464	Equity Securities	(131)	(99,745)
Foreign Currency Options Bought	(48,069)	Equity Securities	4,237	1,056,021
Foreign Currency Options Written	25,622	Equity Securities	(2,244)	(1,050,085)
Futures Options Bought	(95,055)	Equity Securities	—	—
Futures Options Written	7,192	Equity Securities	(29)	(138)
FX Forwards	(53,623)	Investment Sales/ Purchases	188,932	17,994,549
Index Futures Long	737,680	Equity Securities	7,634	6,737,693
Index Futures Short	(40,040)	Equity Securities	(603)	(589,764)
Index Options Written	(943)	Debt Securities	(604)	(52)
Pay Fixed Interest Rate Swaps	4,424	Debt Securities	1,273	106,617
Receive Fixed Interest Rate Swaps	(1,333)	Debt Securities	(968)	253,048
Rights	1,692	Equity Securities	5,974	51,389
Total Return Swaps Bond	11,920	Debt Securities	236,375	11,867,237
Total Return Swaps Equity	5,484	Debt Securities	5,903	(352,231)
Warrants[1]	(5,551)	Equity Securities	69	4,214
Total	**$662,231**		**$538,128**	

(1) The notional amount of rights and warrants are expressed in units rather than dollars.

CalPERS – Derivative Instruments Subject to Interest Rate Risk (Dollars in Thousands)

		Investment Maturities (in years)			
Investment Type	Fair Value June 30, 2018	Under–1	1–5	6–10	10+
Credit Default Swaps Bought	($71)	$0	($279)	$208	$0
Credit Default Swaps Written	(1,873)	—	(1,795)	(78)	—
Currency Swaps	(194)	—	—	(194)	—
Fixed Income Options Written	(131)	(131)	—	—	—
Pay Fixed Interest Rate Swaps	1,273	—	659	264	350
Receive Fixed Interest Rate Swaps	(968)	—	(2,381)	279	1,134
Total Return Swaps Bond	236,375	236,375	—	—	—
Total Return Swaps Equity	5,903	5,903	—	—	—
Total	**$240,314**	**$242,147**	**($3,796)**	**$479**	**$1,484**

Notes to the Basic Financial Statements (continued)

CalPERS – Derivative Instruments Highly Sensitive to Interest Rate Changes (Dollars in Thousands)

Investment Type	Reference Rate	Fair Value at June 30, 2018	Notional
Interest Rate Swaps	Receive Fixed 0.500%, Pay Variable 6-month EURIB	$389	$42,849
Interest Rate Swaps	Receive Fixed 1.000%, Pay Variable 6-month LIBOR	8	181
Interest Rate Swaps	Receive Fixed 1.250%, Pay Variable 6-month EURIB	2,889	99,591
Interest Rate Swaps	Receive Fixed 1.500%, Pay Variable 6-month LIBOR	(31)	6,601
Interest Rate Swaps	Receive Fixed 1.750%, Pay Variable 3-month CDOR	(1,399)	7,450
Interest Rate Swaps	Receive Fixed 2.480%, Pay Variable 6-month THBSR	12	3,100
Interest Rate Swaps	Receive Fixed 2.550%, Pay Variable 6-month THBSR	107	9,671
Interest Rate Swaps	Receive Fixed 2.810%, Pay Variable 6-month THBSR	5	942
Interest Rate Swaps	Receive Fixed 3.795%, Pay Variable 3-month BKBM	126	2,167
Interest Rate Swaps	Receive Fixed 5.570%, Pay Variable 1-month TIIE	(652)	7,173
Interest Rate Swaps	Receive Fixed 6.000%, Pay Variable 1-month TIIE	(1,363)	20,350
Interest Rate Swaps	Receive Fixed 7.250%, Pay Variable 3-month JIBAR	(515)	22,647
Interest Rate Swaps	Receive Fixed 7.740%, Pay Variable 1-month TIIE	(272)	17,186
Interest Rate Swaps	Receive Fixed 7.750%, Pay Variable 3-month JIBAR	(329)	9,959
Interest Rate Swaps	Receive Fixed 8.250%, Pay Variable 3-month JIBAR	14	693
Interest Rate Swaps	Receive Fixed 8.500%, Pay Variable 3-month JIBAR	43	2,488
Interest Rate Swaps	Receive Variable 3 month LIBOR, Pay Fixed 2.00%	41	1,000
Interest Rate Swaps	Receive Variable 3 month LIBOR, Pay Fixed 2.50%	20	200
Interest Rate Swaps	Receive Variable 3 month PRIBOR, Pay Fixed 1.94%	3	359
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.694%	798	16,940
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.00%	11	1,100
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.157%	262	5,230
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.25%	35	600
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.75%	340	7,300
Interest Rate Swaps	Receive Variable 6 month EURIB, Pay Fixed 1.50%	(10)	1,401
Interest Rate Swaps	Receive Variable 6 month LIBOR, Pay Fixed 1.50%	(192)	56,507
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed .30%	(35)	15,980
Subtotal – Interest Rate Swaps		**$305**	**$359,665**
Total Return Bond Swaps	Receive Fixed .00%, Pay Fixed .00%	($18,332)	$24,846
Total Return Bond Swaps	Receive Fixed .00%, Pay Fixed .07%	150,150	2,878,628
Total Return Bond Swaps	Receive Fixed .00%, Pay Fixed .08%	188,835	3,620,279
Total Return Bond Swaps	Receive Fixed .00%, Pay Fixed .09%	83,716	1,604,970
Total Return Bond Swaps	Receive Fixed .00%, Pay Fixed .15%	9	184,290
Total Return Bond Swaps	Receive Fixed .00%, Pay Fixed .40%	—	64,822
Total Return Bond Swaps	Receive Fixed .07%, Pay Fixed .00%	(80,449)	1,542,338
Total Return Bond Swaps	Receive Fixed .08%, Pay Fixed .00%	(80,801)	1,569,095
Total Return Bond Swaps	Receive Fixed .09%, Pay Fixed .00%	(9,897)	269,750
Total Return Bond Swaps	Receive Fixed .09%, Pay Fixed .09%	—	23,085
Total Return Bond Swaps	Receive Fixed .3Y%, Pay Fixed .78%	(93)	23,085
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed .08%	3,237	62,049
Subtotal – Total Return Bond Swaps		**$236,375**	**$11,867,237**
TOTAL		**$236,680**	**$12,226,902**

Notes to the Basic Financial Statements (continued)

CalPERS – Derivative Instruments Subject to Counterparty Credit Risk

Counterparty	Percentage of Net Exposure	Moody's Ratings
Goldman Sachs Intl. London	19.99%	A3
JP Morgan	16.66%	A3
Bnp Paribas, S.A.	6.49%	Aa3
Citibank N.A.	5.10%	A1
Goldman Sachs + Co	5.01%	A3
Deutsche Bank Ag	4.71%	Baa2
Goldman Sachs International	4.44%	A1
Morgan Stanley Capital Services, Inc.	4.38%	A3
Societe Generale	4.01%	A1
Bank of America	3.92%	A3
HSBC Bank USA	3.71%	Aa3
JP Morgan Chase Bank	3.56%	Aa3
Barclays Bank Plc Wholesale	3.30%	A2
Bank of America, N.A.	2.81%	Aa3
BNP Paribas	2.73%	Aa3
Macquarie Securities Limited	2.47%	N/A
Morgan Stanley	1.99%	A3
UBS AG	1.50%	Aa3
Royal Bank Of Scotland Plc	1.28%	Baa2
Standard Chartered Bank	0.56%	A1
JP Morgan Chase Bank N.A., London	0.34%	Aa3
Bank Of New York	0.28%	A1
Credit Suisse International	0.19%	A1
State Street Bank and Trust Company	0.08%	Aa3
JP Morgan Securities Inc	0.08%	A3
Royal Bank Of Canada	0.06%	A1
Goldman Sachs Bank Usa	0.06%	A3
UBS AG London	0.05%	Aa3
Goldman Sachs Cme	0.05%	A3
Northern Trust Company, The	0.05%	A2
Morgan Stanley And Co. International	0.04%	A3
Australia And New Zealand Banking	0.03%	Aa3
Goldman Sachs Ice	0.03%	NR
HSBC	0.02%	A2
Credit Agricole Cib	0.01%	A1
Bank Of Montreal	0.01%	A1
TOTAL	**100.00%**	

8. EMPLOYERS' NET PENSION LIABILITY/(ASSET)

The components of the net pension liability of the PERF B, PERF C, LRF, JRF, and JRF II as of June 30, 2018, are reported below. PERF A is an agent multiple-employer plan and therefore not disclosed in the following tables, consistent with GASB Statement No. 67, *Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25* (GASB 67) reporting requirements.

Net Pension Liability/(Asset) (Dollars in Thousands)

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	$91,459,284	$64,796,136	$26,663,148	70.8%
PERF C				
Public Agencies Cost-Sharing	38,944,855	29,308,589	9,636,266	75.3%
LRF				
State of California	96,781	113,876	(17,095)	117.7%
JRF				
State of California	3,036,999	39,631	2,997,368	1.3%
JRF II				
State of California	1,498,155	1,525,514	(27,359)	101.8%

The total pension liability for each defined benefit plan was determined by actuarial valuations as of June 30, 2017, which were rolled forward to June 30, 2018, using the following actuarial assumptions:

Actuarial Assumptions Used to Measure the Total Pension Liability

	PERF B Schools Cost-Sharing	PERF C Public Agency Cost-Sharing	LRF	JRF	JRF II
Inflation Rate	2.50%	2.50%	2.50%	2.50%	2.50%
Salary Increases	Varies by Entry Age and Service	Varies by Entry Age and Service	2.75%	2.75%	2.75%
Mortality Rate Table[1]	Derived using CalPERS membership data for all funds				
The above actuarial assumptions were based upon the following experience study periods:	1997-2015	1997-2015	1997-2015	1997-2015	1997-2015
Post-Retirement Benefit Increase	2.00% until PPPA floor on purchasing power applies, 2.50% thereafter	Contract COLA up to 2.50% until PPPA floor on purchasing power applies, 2.50% thereafter	2.50%	2.50%	2.50%
Long-term rate of return assumption on plan investments used in discounting liabilities	7.15%	7.15%	5.25%	3.62%	6.65%

(1) The mortality table was developed based on CalPERS specific data. The table includes 15 years of mortality improvement using the Society of Actuaries 90 percent of scale MP 2016. For more details on this table, please refer to the December 2017 experience study report (based on CalPERS demographic data from 1997 to 2015) that can be found on the CalPERS website.

Notes to the Basic Financial Statements (continued)

The long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Using historical returns of all of the funds' asset classes, expected compound (geometric) returns were calculated over the short term (first 10 years) and the long term (11+ years) using a building-block approach. Using the expected nominal returns for both short term and long term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the rounded single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equal to the single equivalent rate calculated above and adjusted to account for assumed administrative expenses.

The tables to the right reflect long-term expected real rates of return by asset class. The rates of return were calculated using the capital market assumptions applied to determine the discount rate.

PERF B & PERF C – Long-Term Expected Real Rates of Return by Asset Class

Asset Class[1]	Assumed Asset Allocation	Real Return Years 1 - 10[2]	Real Return Years 11+[3]
Global Equity	50.0%	4.80%	5.98%
Fixed Income	28.0%	1.00%	2.62%
Inflation Assets	0.0%	0.77%	1.81%
Private Equity	8.0%	6.30%	7.23%
Real Assets	13.0%	3.75%	4.93%
Liquidity	1.0%	0.00%	(0.92%)

(1) In the Basic Financial Statements, Fixed Income is included in Global Debt Securities; Liquidity is included in Short-Term Investments; Inflation Assets are included in both Global Equity Securities and Global Debt Securities.
(2) An expected inflation of 2.00% used for this period.
(3) An expected inflation of 2.92% used for this period.

LRF – Long-Term Expected Real Rates of Return by Asset Class

Asset Class[1]	Assumed Asset Allocation	Real Return Years 1 - 10[2]	Real Return Years 11+[3]
Global Equity	22.0%	4.80%	5.98%
Fixed Income	49.0%	1.10%	2.62%
TIPs	16.0%	0.25%	1.46%
Commodities	5.0%	1.50%	2.87%
REITs	8.0%	3.50%	5.00%

(1) In the Basic Financial Statements, Commodities and REITS are included in Global Equity Securities; Fixed Income and TIPS are included in Global Debt Securities.
(2) An expected inflation of 2.00% used for this period.
(3) An expected inflation of 2.92% used for this period.

JRF II – Long-Term Expected Real Rates of Return by Asset Class

Asset Class[1]	Assumed Asset Allocation	Real Return Years 1 - 10[2]	Real Return Years 11+[3]
Global Equity	52.0%	4.80%	5.98%
Fixed Income	32.0%	1.10%	2.62%
TIPs	5.0%	0.25%	1.46%
Commodities	3.0%	1.50%	2.87%
REITs	8.0%	3.50%	5.00%

(1) In the Basic Financial Statements, Commodities and REITS are included in Global Equity Securities; Fixed Income and TIPS are included in Global Debt Securities.
(2) An expected inflation of 2.00% used for this period.
(3) An expected inflation of 2.92% used for this period.

DISCOUNT RATE

PERF B, PERF C, LRF, and JRF II

The discount rates used to measure the total pension liability as of June 30, 2018, for the PERF B, PERF C, LRF, and JRF II were 7.15 percent, 7.15 percent, 5.25 percent, and 6.65 percent, respectively. These discount rates are not adjusted for administrative expenses.

PERF B, PERF C, LRF and JRF II fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return for those pension plans' investments were applied to all periods of projected benefit payments to determine the total pension liability.

JRF

The discount rate used to measure the total pension liability as of June 30, 2018, was 3.62 percent, which differs from the discount rate used as of June 30, 2017, of 3.56 percent. The State funds the JRF benefit obligations using the pay-as-you-go method. Under the pay-as-you-go method, the pension plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments of current active and inactive employees. The discount rate is based on a 20-year tax-exempt General Obligation Municipal Bond with an average rating of AA (as reported in Fidelity Index's "20-Year Municipal GO AA Index") and was applied to all periods of projected benefit payments to measure the total pension liability.

Notes to the Basic Financial Statements (continued)

SENSITIVITY OF THE NET PENSION LIABILITY/(ASSET) TO CHANGES IN THE DISCOUNT RATE

The following presents the net pension liability/(asset) of the PERF B, PERF C, LRF, JRF, and JRF II calculated using the current discount rate, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (-100 basis points) or one percentage point higher (+100 basis points) than the current rate:

Sensitivity Analysis (Dollars in Thousands)

Discount Rate (assumed)

Plan	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/ (Asset)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	$91,459,284	$64,796,136	$26,663,148	70.8%
PERF C				
Public Agencies Cost-Sharing	38,944,855	29,308,589	9,636,266	75.3%
LRF				
State of California	96,781	113,876	(17,095)	117.7%
JRF				
State of California	3,036,999	39,631	2,997,368	1.3%
JRF II				
State of California	1,498,155	1,525,514	(27,359)	101.8%

Sensitivity Analysis (Dollars in Thousands)

Discount Rate -1%

Plan	Total Pension Liability (-1%)	Plan Fiduciary Net Position	Net Pension Liability/ (Asset) (-1%)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	$103,616,404	$64,796,136	$38,820,268	62.5%
PERF C				
Public Agencies Cost-Sharing	44,269,986	29,308,589	14,961,397	66.2%
LRF				
State of California	108,208	113,876	(5,668)	105.2%
JRF				
State of California	3,360,746	39,631	3,321,115	1.2%
JRF II				
State of California	1,686,916	1,525,514	161,402	90.4%

Sensitivity Analysis (Dollars in Thousands)

Discount Rate +1%

Plan	Total Pension Liability (+1%)	Plan Fiduciary Net Position	Net Pension Liability/ (Asset) (+1%)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	$81,373,212	$64,796,136	$16,577,076	79.6%
PERF C				
Public Agencies Cost-Sharing	34,567,784	29,308,589	5,259,195	84.8%
LRF				
State of California	87,439	113,876	(26,437)	130.2%
JRF				
State of California	2,761,600	39,631	2,721,969	1.4%
JRF II				
State of California	1,347,490	1,525,514	(178,024)	113.2%

9. OTHER POST-EMPLOYMENT BENEFIT TRUST FUND

The CERBTF was established by Chapter 331 of the 1988 Statutes and initially funded in 2007. At June 30, 2018, 542 employers had elected to participate in the fund. Of the 542 participating employers, 531 employers have contributed assets in the CERBTF as of June 30, 2018. The purpose of the fund is to receive contributions from participating employers and establish separate employer prefunding accounts to pay for health care or other post-employment benefits in accordance with the terms of the participating employers' plans. Contributions are voluntarily determined by the employer's own funding schedule, and there are no long-term contracts for contributions to the plan. As such, contributions to the CERBTF are elective and not required. The CERBTF is an agent multiple-employer plan as defined in GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (GASB 74), with pooled administrative and investment functions.

Participating employers may receive disbursements from the fund not to exceed the annual premium and other costs of eligible post-employment benefits. If the employer's participation in the fund terminates, all assets in the employer's prefunding account shall remain in the fund except as otherwise provided. Allowable termination disbursements are to a trustee or as a trustee transfer of assets upon satisfactorily demonstrating to the Board one of the following: 1) the transfer will satisfy applicable requirements of the Internal Revenue Code, other law and accounting standards, and the Board's fiduciary duties, or 2) the employer substantiates to the Board that in conformance with applicable requirements of the Internal Revenue Code, other laws and accounting standards, and the Board's fiduciary duties that all of the employer's obligations for the payment of post-employment benefits have been satisfied.

As of June 30, 2018, there were 485,552 active plan members, 290,644 inactive plan members currently receiving benefit payments, and 9,941 inactive plan members entitled to but not yet receiving benefit payments.

CalPERS' costs to administer the plan are determined through the Board-approved cost allocation fund, where actual direct and indirect administrative costs are assessed to each fund.

The total Fiscal Year 2017-18 actual OPEB employer contributions from 542 participating employers representing 558 OPEB plans was $3.9 billion. In compliance with GASB 74, this amount includes the $1.1 billion in contributions made to the CERBTF, plus an additional $2.8 billion in retiree health care premiums paid by employers directly to healthcare providers.

The CERBTF mirrors the investment policies of the System as a whole. These policies are adopted by the CalPERS Investment Committee, which sets forth the System's overarching investment beliefs, purposes, and objectives with respect to all investment programs. Additionally, the CERBTF has separate, Board-approved asset allocation policies in place for the three investment options offered by the fund. Each strategy seeks to offer employers investment alternatives dependent upon expected levels of return and volatility. Overall, the CERBTF recognized an annual money-weighted rate of return of 7.3 percent for Fiscal Year 2017-18.

10. REPLACEMENT BENEFIT FUND (RBF)

The RBF was established as a custodial fund by Chapter 938 of the 1995 Statutes. Initially established in 1998, it provides benefits to retirees of the PERF whose retirement allowance exceeds the IRC section 415(b) limits. IRC section 415(b) imposes a dollar limit on the annual retirement benefits an individual may receive from a qualified defined benefit pension plan.

The RBF is funded on a "pay-as-you-go" basis. That is, the employer is invoiced for amounts payable to its former employees on a calendar year basis and upon receipt of payment by the employers, CalPERS remits the replacement benefits to the retirees on a monthly basis. Employer contributions must be in amounts equivalent to the benefits not paid from the PERF as a result of the limitations of IRC section 415(b) plus, if applicable, employer Federal Insurance Contributions Act taxes. CalPERS is responsible for calculating the applicable dollar limit under IRC section 415(b) and notifying the employer. At June 30, 2018, there were 1,167 retirees receiving replacement benefits.

Government Code section 7522.43 provides that a public retirement system may only continue to administer a plan of replacement benefits for employees first hired prior to January 1, 2013. Section 7522.43 prohibits any employer from offering a plan of replacement benefits for employees hired on or after January 1, 2013.

11. PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF)

The HCF was established under the PEMHCA as of July 1, 1988. Health plan offerings include self-funded plans, PERS Choice, PERSCare, and PERS Select. Effective January 1, 2014, flex-funded plans, Anthem Blue Cross, Blue Shield of California, Health Net, Sharp, UnitedHealthcare and effective January 1, 2018, Western Health Advantage. Health plans are available to entities that contract for health insurance coverage under PEMHCA based on zip codes, as prescribed by state law. Having members in large risk pools spreads the catastrophic claims over a larger base and minimizes administrative expenses. The self-funded plans retain all risk of loss of allowable health claims while the flex-funded plans share a percentage of the risk of loss. Members are not subject to a supplemental assessment in the event of deficiencies. Health insurance premium rates are set by the Board based on a trend analysis of the historic cost, utilization, demographics, and administrative expenses of the HCF to provide for the claims incurred and the actuarially determined required level of reserves. The health plans rely on operating cash flows and investment income to fund health benefit payments. During Fiscal Year 2017-18, the Board approved aggregate increases in member premiums to continue to provide for benefits of the health plans.

Public agencies participating in the health plans are required to make monthly premium payments based on rates established annually by CalPERS. Employers' shares of premiums are determined by the public agency through benefit negotiations, subject to minimum share of premium levels established through PEMHCA. Public agency employee members pay the difference between the premium rate and the employers' share of premium.

The HCF establishes claim liabilities based on estimates of the ultimate costs of claims (including future claim adjustment expenses) that have been reported but not settled, and of claims that have been "Incurred But Not Reported" (IBNR). The estimated claims liability was calculated by health plan partners as of June 30, 2018, using a variety of actuarial and statistical techniques, and adjusted for actual experience to produce current estimates that reflect recent settlements, claim frequency, and other economic and social factors. Adjustments to claims liabilities are charged or credited to expense in the periods in which they are made. The estimated claims liability of $445.3 million is carried at its face amount, and no interest discount is assumed. The IBNR portion represents an estimate for claims that have been incurred prior to June 30, 2018, but have not been reported to the HCF. The total of the estimated claims liabilities at the end of the Fiscal Year 2017-18 also includes $318.7 million of known claims, which is reported as claims payable liability in the Statement of Net Position.

ANTICIPATED INVESTMENT INCOME AND REINSURANCE

Anticipated investment income is included in the annual premium requirement for HCF members. Also, the HCF has not entered into any reinsurance or excess insurance agreements. CalPERS has entered into agreements with flex-funded health plan partners that limit the HCF's risk to a maximum aggregate monthly cost per member.

The following schedule represents changes in the aggregate estimated claims liabilities for the fiscal years ended June 30, 2018, and June 30, 2017.

Changes in the Aggregate Estimate Claims Liabilities of the HCF (Dollars in Thousands)

Year Ended June 30	2018	2017
Total Estimated Claims at Beginning of Fiscal Year	**$635,994**	**$729,317**
Total Incurred Claims and Claim Adjustment Expenses	3,580,571	3,373,052
Total Payments	(3,452,499)	(3,466,375)
Total Estimated Claims at End of Fiscal Year	**$764,066**	**$635,994**

12. PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

The CRF was established in 1962, with the passage of PEMHCA, to fund administrative expenses related to the PEMHCA program, and as a contingency reserve for such items as increases in future rates or in future benefits. PEMHCA was expanded to include local public agency employees on a contract basis in 1967. The CRF is reimbursed by the State and contracting public agencies for expenses incurred for administering the program.

PEMHCA establishes eligibility rules for the following:

- Retirees and beneficiaries receiving health care benefits,
- Terminated plan members entitled to but not yet receiving benefits, and
- Active plan members.

The employer's contribution toward the CRF administrative expenses is determined as a percentage of gross health insurance premiums paid by the employer and employees. The percentage of the insurance premiums paid for the fiscal year ended June 30, 2018, was 0.33 percent. Administrative rates are reviewed annually and are adjusted, if needed, to cover budgeted administrative expenses.

Health insurance premiums are initially received in the CRF and then remitted to health insurance carriers, apart from premium dollars designated for self-funded and flex-funded health plans, which are transferred to the HCF. As of June 30, 2018, there were 1,162 public agencies and schools participating in health insurance coverage under PEMHCA.

13. PUBLIC EMPLOYEES' LONG-TERM CARE FUND (LTCF)

The LTCF began offering self-insured Long-Term Care (LTC) plans in 1995. The LTCF provides LTC coverage to enrolled participants under the Public Employees' Retirement Law (PERL), Chapter 15. The LTC program contracts with a third-party service provider to administer the program, normally for a period of five years. CalPERS conducted a procurement in 2017, which resulted in awarding a new five-year contract to Long-Term Care Group, Inc., the current third-party administrator of the LTC program.The LTC program is a voluntary member-paid program and is not funded or subsidized by the employers.

There are four LTC policy series:

- LTC 1: policies purchased from the program inception in 1995 through 2002.
- LTC 2: policies purchased from 2003 through 2004.
- LTC 3: policies purchased from 2005 through 2008.
- LTC 4: policies purchased effective December 2013 and forward through open application.

As of June 30, 2018, there are 124,472 active participants in the LTC 1, LTC 2, LTC 3, and LTC 4 policy series, of which 6,778 are receiving benefits.

The LTCF estimate of the funding level, to provide for the payment of future claim benefits, is projected based on actual enrolled participant levels.

The LTCF establishes the liability for future policy benefits based on the present value of future benefits and expenses less the present value of future premiums. The actuarial valuations are very sensitive to the underlying actuarial assumptions, including a discount rate of 5.25 percent, morbidity, lapse rates, voluntary termination, mortality, and plan expenses. In Fiscal Year 2017-18, the actual investment returns were approximately $177.5 million lower than expected. Economic assumptions are evaluated periodically in accordance with Board policy. An evaluation of assumptions used in the long-term care actuarial valuation is currently in progress. Any changes resulting from the experience study will be applied prospectively. The estimated liability for future policy benefits at June 30, 2018, has been rolled forward from the June 30, 2017, actuarial valuation using standard actuarial techniques, and all assumptions remained the same as the previous year.

Total LTCF investments as of June 30, 2018, were approximately $4.5 billion. For Fiscal Year 2017-18, the annual premium was $296.3 million and the total benefits paid out were $306.9 million. Since the program's inception in 1995 through June 30, 2018, the total benefits paid were approximately $2.5 billion.

14. CONTINGENCIES

CalPERS is a Defendant in litigation involving investments, individual pension, health benefit payments and participant eligibility issues arising from its normal activities. Generally, in the event of an adverse decision, any payments awarded by the courts would be recovered by CalPERS through prospective adjustments to the affected employer's contribution rate or rates and, where applicable, member premiums. During the fiscal year, specific pending cases were litigated and new ones arose that could potentially impact the future financial health of funds administered by CalPERS.

In the case of *Robert M. Mallano, et al. v. John Chiang*, the Controller of the State of California (SCO), the Judges' Retirement System (JRS), and the Judges' Retirement System II (JRS II) were sued as part of a class action by all active and retired jurists (and their beneficiaries) in the State of California. The judges' primary contention was that they were not paid salary required by applicable statutes over the prior five years, and that JRS and JRS II must in the future independently raise pension benefits to these retirees and beneficiaries based on the statutory salary mandates. JRS and JRS II in turn contended that they did not have statutory authority to increase benefits until the active judges have received an actual pay increase and JRS and JRS II have received a copy of an official Pay Letter from California Department of Human Resources to SCO authorizing an increase. JRS has been included in this suit because retired JRS judges receive increases to their retirement benefits when active judges receive salary increases. For JRS II, salary increases impact final compensation at retirement.

A Statement of Decision was issued on December 16, 2015, entering declaratory judgment in favor of the Plaintiff class and against JRS, JRS II, and SCO. The court found that, since Fiscal Year 2008-09, SCO, JRS, and JRS II had failed to pay constitutionally and statutorily mandated salary increases to active judges, as well as increased benefits to judicial retirees, as required by statute. The judges and their beneficiaries were awarded the unpaid salary increases and benefits payable to judicial retirees and their beneficiaries together with 10% per annum interest, owing from the dates on which such sums vested until such increases and benefits are paid. Final Judgment was issued on March 10, 2016.

JRS, JRS II, and SCO filed an appeal on May 5, 2016. On April 5, 2017, the Court of Appeal issued its unpublished Decision affirming the judgment of the Superior Court and the attorney fee award. Plaintiffs filed a Motion to Enforce Judgment in the Superior Court, which was heard on July 27, 2017. At that hearing, the Superior Court granted the motion and ordered that retroactive damages be paid by the Defendants in amounts consistent with the court's interpretation of the salary provisions in Government Code section 68203.

Defendants have already implemented the court's Order on a prospective basis. However, on September 19, 2017, Defendants filed a Notice of Appeal from Post-Remittitur Order Entered July 28, 2017. The appeal is taken from paragraph 1 of the Order, directing "Defendants pay to Plaintiff and the class members the difference between what Defendants actually paid Plaintiff and class members and the amounts that should have been paid, as specified in the judgment, together with the pre and post judgment interest at the rate of 10% per annum from the date on which the additional payment should have been paid to the actual date of payment." The grounds for this appeal are that the Order directs retroactive monetary relief to the Plaintiff class for past alleged wrongs, by ordering Defendants to pay prior salary increases. In so doing, Defendants argue that the trial court has disregarded the ruling of the Court of Appeal, which expressly held that, "the judgment includes no monetary damages award."

On June 21, 2018, oral argument was heard on this appeal. On June 26, 2018, an unpublished Decision was issued, denying the appeal in every respect, as follows: “The order enforcing the judgment, including the provision for ‘pre and post judgment interest thereon at the rate of 10% per annum from the date on which the additional payment should have been paid to the actual date of payment’ is affirmed.” On August 3, 2018, the Controller, JRS and JRS II (State Defendants) filed a Petition for Review in the California Supreme Court. Plaintiffs filed an Answer opposing the Petition on the bases that “Defendants’ affirmative defenses have already been waived or rejected” and “the interest award was affirmed on appeal.” Petitioners filed a Reply on September 5, 2018. On that same day, the Supreme Court requested a copy of the record, which was delivered to the court on September 10, 2018. The Supreme Court has not yet officially granted the Petition. Both JRS and JRS II funds could potentially be impacted, in an unknown amount, depending upon whether the Supreme Court accepts the Petition for Review, and if so, how it rules on the damages issues.

Sanchez, Elma, et al. v. CalPERS is a class action lawsuit by members of the CalPERS Long-Term Care Plan against CalPERS and eight individual CalPERS Board members. Plaintiffs claim that CalPERS breached its contract with the long-term care purchasers by allegedly promising that long-term care premiums would never increase during the lifetime of the purchaser, but then increased the premiums, and failed to continue the Inflation Prevention Benefit without an increase in premiums. Plaintiffs seek to recover all money paid for the long-term care coverage and rescission of the policies sold to the class members, as well as interest and attorneys’ fees.

The operative Complaint alleges a cause of action for breach of fiduciary duty against both CalPERS and the Board Defendants and four causes of action against CalPERS for breach of contract, breach of the implied covenant of good faith and fair dealing, rescission, and declaratory relief. Plaintiffs sought to certify a class consisting of California citizens who purchased LTC 1 and LTC 2 policies issued from 1995 to 2004 with lifetime coverage and built-in inflation protection, lifetime policies without inflation protection, as well as three-year and six-year policies with inflation protection from CalPERS.

CalPERS and the Board Defendants deny that CalPERS breached the contract by imposing the premium increase and that the policies were intentionally or negligently underpriced, and assert that the long-term care coverage was a new product with little actuarial data when the program started in 1995, making it difficult to accurately price. Premium increases were imposed across the entire long-term care industry as actuarial and claims data became available. CalPERS asserts that it timely informed policyholders about the need to impose premium increases and has managed the program and the Long-Term Care Trust Fund prudently and properly. CalPERS has also asserted other legal defenses.

On January 18, 2016, the court granted Plaintiffs’ Motion for Class Certification. Two claims were certified for class treatment against CalPERS: (1) the breach of contract claim; and (2) Plaintiffs’ breach of fiduciary duty claim, on the "duty of care" theory only. None of Plaintiffs’ claims against the individual Board members were certified for class treatment. The CalPERS Defendants filed a Motion for Summary Judgment/Adjudication that was argued on June 8, 2017. The court granted summary judgment as to the claims against the individual Board Defendants. The court also granted summary judgment for CalPERS as to the certified breach of fiduciary duty and rescission claims, but denied summary judgment as to the certified breach of contract claim and the uncertified declaratory relief claim. CalPERS filed a motion for decertification of the class on February 5, 2018. Opposition and Reply briefs were filed on February 26 and March 21, 2018, respectively. After oral argument at a hearing on May 10, 2018, the court issued a ruling denying CalPERS’ motion. On July 9, 2018, CalPERS filed a Verified Petition for Writ of Mandate, Prohibition, or Other Appropriate Relief, appealing the denial of its motion for decertification. On July 19, 2018, CalPERS filed its Reply in Support of the Petition. The Petition remains pending at this time. The expert discovery cut-off in Sanchez is, by agreement of the parties, January 31, 2019.

No further court activity has occurred. The previous tentatively set trial date of November 19, 2018 has been continued to May 13, 2019 because of the Court’s schedule, and the Court has indicated that it anticipates further continuing the matter for trial to June 10, 2019.

Heinz, et al. v. CalPERS, Anthem et al. is a putative class action lawsuit filed against CalPERS in June 2017. The Complaint alleges breach of contract, breach of fiduciary duties, misrepresentation, and a variety of other claims. The class is described as "people who were enrolled in Preferred Provider Organization health insurance offered and/or administered by CalPERS and Anthem Blue Cross." The primary allegation is that CalPERS and Anthem engaged in a common policy of improperly and artificially reducing the "allowable amount" for "out-of-network" non-emergency medical services.

On May 7, 2018, the court issued a ruling that Plaintiff must proceed with his Petition for Writ of Administrative Mandamus, and that all other causes of action are stayed in their entirety pending the outcome of the writ. The parties are currently meeting and conferring in an attempt to put together the administrative record for the writ proceeding. A hearing on Plaintiff’s writ is currently scheduled for January 25, 2019.

A second lawsuit related to CalPERS’ administration of health benefits is *County of Monterey dba Natividad Medical Center v. CalPERS, Anthem et al.* CalPERS was served with this Complaint on August 10, 2017. The dispute in this case arises out of a "Facility Agreement" between Natividad Medical Center ("NMC") and Anthem effective August 1, 2012, pursuant to which NMC agreed to provide certain healthcare services to Anthem members for certain agreed-upon reimbursements. The Facility Agreement governs not only claims for Anthem insureds, but also services for and claims by members of "Other Payors" for whom Anthem provides claim processing services for its Managed Care Network, such as CalPERS. No reimbursement rates for "trauma services" were established in the 2012 Agreement because NMC was not yet providing such services and these rates were to be negotiated at a later date, when NMC had set up its trauma care services. However, the parties have been unable to agree upon trauma rates since 2012. As a result, the Complaint alleges that Anthem has been instructing its Other Payors, including CalPERS, to pay NMC’s trauma services claims at the "emergency services" rate. With regard to CalPERS’ plan members’ treatment for trauma, NMC alleges it has been underpaid by $2.8 million. CalPERS filed a demurrer to Natividad’s Second Amended Complaint, which was sustained without leave to amend, essentially dismissing the action against CalPERS. On or about June 26, 2018, Natividad filed a Notice of Appeal. To date, no actions have been taken on Natividad’s appeal of the Superior Court’s decision to dismiss the Second Amended Complaint.

The amount of potential loss or range of loss on these cases is not estimable at this time due to the many unknowns and complexities of litigation.

15. FUTURE ACCOUNTING PRONOUNCEMENT

The objective of GASB Statement No. 87, *Leases* (GASB 87), is to improve accounting and financial reporting for leases by governments. GASB 87 requires recognition of certain lease assets and liabilities for leases that were previously classified as operating leases and recognized as inflows or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The requirements of GASB 87 are effective for fiscal years beginning after December 15, 2019.

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Financial Section
Required Supplementary Information

Required Supplementary Information

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS

PERF B – Five-Year Review[1] (Dollars in Thousands)

	2018	2017	2016	2015	2014
Discount Rate Assumption	7.15%	7.15%	7.65%	7.65%	7.50%
Total Pension Liability:					
Service Cost	$2,172,696	$2,031,914	$1,716,677	$1,624,993	$1,576,667
Interest	6,165,715	5,719,835	5,441,918	5,152,519	4,820,116
Changes of Assumptions	450,064	4,649,299	—	(1,217,974)	—
Differences Between Expected and Actual Experience	1,852,902	531,862	400,103	1,119,011	—
Benefit Payments, Including Refunds of Member Contributions	(4,053,119)	(3,724,910)	(3,546,836)	(3,334,081)	(3,139,923)
Net Change in Total Pension Liability	**$6,588,258**	**$9,208,000**	**$4,011,862**	**$3,344,468**	**$3,256,860**
Total Pension Liability – Beginning	$84,871,026	$75,663,026	$71,651,164	$68,306,696	$65,049,836
Total Pension Liability – Ending (a)	**$91,459,284**	**$84,871,026**	**$75,663,026**	**$71,651,164**	**$68,306,696**
Plan Fiduciary Net Position:					
Contributions – Employer	$2,070,832	$1,783,736	$1,434,632	$1,323,090	$1,203,071
Contributions – Member	952,979	897,438	851,133	773,580	744,437
Total Net Investment Income	5,095,064	6,211,781	297,514	1,272,365	8,625,601
Benefit Payments, Including Refunds of Member Contributions	(4,053,119)	(3,724,910)	(3,546,836)	(3,334,081)	(3,139,923)
Net Plan to Plan Resource Movement	2	(134)	10	(71,460)	—
Administrative Expenses	(92,448)	(82,489)	(34,554)	(64,124)	(72,167)
Net Change in Plan Fiduciary Net Position	**$3,973,310**	**$5,085,422**	**($998,101)**	**($100,630)**	**$7,361,019**
Plan Fiduciary Net Position – Beginning	$60,998,387	$55,912,965	$56,911,066	$57,011,696	$49,650,677
Adjustments, See Note 2	(175,561)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	60,822,826	55,912,965	56,911,066	57,011,696	49,650,677
Plan Fiduciary Net Position – Ending (b)	64,796,136	60,998,387	55,912,965	56,911,066	57,011,696
Net Pension Liability (a) - (b)	**$26,663,148**	**$23,872,639**	**$19,750,061**	**$14,740,098**	**$11,295,000**
Plan Fiduciary Net Position as a Percentage of the Total Pension	**70.8%**	**71.9%**	**73.9%**	**79.4%**	**83.5%**
Covered Payroll	$13,252,995	$12,643,354	$11,747,602	$10,964,872	$10,120,248
Net Pension Liability as a Percentage of Covered Payroll	**201.2%**	**188.8%**	**168.1%**	**134.4%**	**111.6%**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In December 2017, the CalPERS Board of Administration (the Board) adopted new mortality assumptions for plans participating in the Public Employees' Retirement Fund (PERF). The new mortality table was developed from the December 2017 experience study and includes 15 years of projected ongoing mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. The inflation assumption is reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth are reduced from 3.00 percent to 2.75 percent. These changes will be implemented in two steps commencing in the June 30, 2018 funding valuation. However, for financial reporting purposes, these assumption changes are fully reflected in the results for Fiscal Year 2017-18.

In Fiscal Year 2016-17, the financial reporting discount rate for the PERF B was lowered from 7.65 percent to 7.15 percent. In December 2016, the CalPERS Board approved lowering the funding discount rate used in the PERF B from 7.50 percent to 7.00 percent, which is to be phased in over a three-year period (7.50 percent to 7.375 percent, 7.375 percent to 7.25 percent, and 7.25 percent to 7.00 percent) beginning with the June 30, 2017, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 7.50 percent to 7.65 percent resulting from eliminating the 15 basis-point reduction for administrative expenses. The funding discount rate remained at 7.50 percent during this period, and remained adjusted for administrative expenses.

Required Supplementary Information (continued)

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

PERF C – Five-Year Review[1] (Dollars in Thousands)

	2018	2017	2016	2015	2014
Discount Rate Assumption	7.15%	7.15%	7.65%	7.65%	7.50%
Total Pension Liability:					
Service Cost	$844,273	$820,583	$712,307	$698,416	$713,731
Interest	2,629,157	2,506,761	2,399,259	2,285,565	2,169,786
Changes of Benefit Terms	668	2,119	1,478	—	—
Changes of Assumptions	(248,318)	2,122,413	—	(543,686)	—
Differences Between Expected and Actual Experience	313,467	(18,554)	(6,333)	(5,678)	—
Benefit Payments, Including Refunds of Member Contributions	(1,755,740)	(1,630,602)	(1,519,301)	(1,423,756)	(1,335,871)
Net Change in Total Pension Liability	**$1,783,507**	**$3,802,720**	**$1,587,410**	**$1,010,861**	**$1,547,646**
Total Pension Liability – Beginning	$37,161,348	$33,358,628	$31,800,055	$30,789,194	$29,241,548
Adjustment to Beginning Amount	—	—	(28,837)	—	—
Total Adjusted Pension Liability – Beginning	**$37,161,348**	**$33,358,628**	**$31,771,218**	**$30,789,194**	**$29,241,548**
Total Pension Liability – Ending (a)	**$38,944,855**	**$37,161,348**	**$33,358,628**	**$31,800,055**	**$30,789,194**
Plan Fiduciary Net Position:					
Contributions – Employer	$1,182,686	$980,359	$882,991	$859,456	$747,694
Contributions – Member	334,140	317,024	300,135	278,529	291,772
Total Net Investment Income	2,308,558	2,774,321	127,043	548,097	3,770,935
Benefit Payments, Including Refunds of Member Contributions	(1,755,740)	(1,630,602)	(1,519,301)	(1,423,756)	(1,335,871)
Net Plan to Plan Resource Movement	116,550	134,513	22,621	(267,581)	—
Administrative Expenses	(41,980)	(37,052)	(15,263)	(27,967)	(31,550)
Net Change in Plan Fiduciary Net Position	**$2,144,214**	**$2,538,563**	**($201,774)**	**($33,222)**	**$3,442,980**
Plan Fiduciary Net Position – Beginning	$27,244,095	$24,705,532	$24,907,306	$24,940,528	$21,497,548
Adjustments, See Note 2	(79,720)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	27,164,375	24,705,532	24,907,306	24,940,528	21,497,548
Plan Fiduciary Net Position – Ending (b)	29,308,589	27,244,095	24,705,532	24,907,306	24,940,528
Net Pension Liability (a) - (b)	**$9,636,266**	**$9,917,253**	**$8,653,096**	**$6,892,749**	**$5,848,666**
Plan Fiduciary Net Position as a Percentage of the Total Pension	**75.3%**	**73.3%**	**74.1%**	**78.3%**	**81.0%**
Covered Payroll	$3,793,609	$3,631,919	$3,472,950	$3,356,312	$3,248,018
Net Pension Liability as a Percentage of Covered Payroll	**254.0%**	**273.1%**	**249.2%**	**205.4%**	**180.1%**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

Public agencies can make changes to their plan provisions, and such changes occur on an ongoing basis. A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In December 2017, the CalPERS Board adopted new mortality assumptions for plans participating in the PERF. The new mortality table was developed from the December 2017 experience study and includes 15 years of projected ongoing mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. The inflation assumption is reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth are reduced from 3.00 percent to 2.75 percent. These changes will be implemented in two steps commencing in the June 30, 2017 funding valuation. However, for financial reporting purposes, these assumption changes are fully reflected in the results for Fiscal Year 2017-18.

In Fiscal Year 2016-17, the financial reporting discount rate for the PERF C was lowered from 7.65 percent to 7.15 percent. In December 2016, the CalPERS Board approved lowering the funding discount rate used in the PERF C from 7.50 percent to 7.00 percent, which is to be phased in over a three-year period (7.50 percent to 7.375 percent, 7.375 percent to 7.25 percent, and 7.25 percent to 7.00 percent) beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 7.50 percent to 7.65 percent resulting from eliminating the 15 basis-point reduction for administrative expenses. The funding discount rate remained at 7.50 percent during this period, and remained adjusted for administrative expenses.

Required Supplementary Information (continued)

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

LRF – Five-Year Review[1] (Dollars in Thousands)

	2018	2017	2016	2015	2014
Discount Rate Assumption	5.25%	5.25%	6.00%	6.00%	5.75%
Total Pension Liability:					
Service Cost	$542	$639	$608	$769	$732
Interest	4,987	5,291	5,978	6,427	6,465
Changes of Assumptions	(2,529)	7,857	—	(2,655)	—
Differences Between Expected and Actual Experience	(2,061)	(5,998)	(3,530)	(4,246)	—
Benefit Payments, Including Refunds of Member Contributions	(6,918)	(7,249)	(7,407)	(9,086)	(7,482)
Net Change in Total Pension Liability	**($5,979)**	**$540**	**($4,351)**	**($8,791)**	**($285)**
Total Pension Liability – Beginning	$102,760	$102,220	$106,730	$115,521	$115,806
Adjustment to Beginning Amount	—	—	(159)	—	—
Total Adjusted Pension Liability – Beginning	**$102,760**	**$102,220**	**$106,571**	**$115,521**	**$115,806**
Total Pension Liability – Ending (a)	**$96,781**	**$102,760**	**$102,220**	**$106,730**	**$115,521**
Plan Fiduciary Net Position:					
Contributions – Employer	$467	$516	$549	$590	$565
Contributions – Member	82	94	97	105	113
Total Net Investment Income	5,486	5,048	4,545	(94)	15,372
Benefit Payments, Including Refunds of Member Contributions	(6,918)	(7,249)	(7,407)	(9,086)	(7,482)
Administrative Expenses	(671)	(575)	(203)	(400)	(362)
Net Change in Plan Fiduciary Net Position	**($1,554)**	**($2,166)**	**($2,419)**	**($8,885)**	**$8,206**
Plan Fiduciary Net Position – Beginning	$116,884	$119,050	$121,469	$130,354	$122,148
Adjustments, See Note 2	(1,454)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	115,430	119,050	121,469	130,354	122,148
Plan Fiduciary Net Position – Ending (b)	113,876	116,884	119,050	121,469	130,354
Net Pension Asset (a) - (b)	**($17,095)**	**($14,124)**	**($16,830)**	**($14,739)**	**($14,833)**
Plan Fiduciary Net Position as a Percentage of the Total Pension	**117.7%**	**113.7%**	**116.5%**	**113.8%**	**112.8%**
Covered Payroll	$1,242	$1,360	$1,313	$1,545	$1,470
Net Pension Asset as a Percentage of Covered Payroll	**(1,376.4%)**	**(1,038.5%)**	**(1,281.8%)**	**(954.0%)**	**(1,009.0%)**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In December 2017, the CalPERS Board adopted new mortality assumptions. The new mortality table was developed from the December 2017 experience study and includes 15 years of projected on-going mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. The inflation assumption is reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth are reduced from 3.00 percent to 2.75 percent.

In Fiscal Year 2016-17, the financial reporting discount rate for the Legislators' Retirement Fund (LRF) was lowered from 6.00 percent to 5.25 percent. In April 2017, the CalPERS Board approved lowering the funding discount rate used in the LRF from 5.75 percent to 5.00 percent beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 25 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 5.75 percent to 6.00 percent resulting from eliminating the 25 basis-point reduction for administrative expenses. The funding discount rate remained at 5.75 percent during this period, and remained adjusted for administrative expenses.

Required Supplementary Information (continued)

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

JRF – Five-Year Review[1] (Dollars in Thousands)

	2018	2017	2016	2015	2014
Discount Rate Assumption	3.62%	3.56%	2.85%	3.82%	4.25%
Total Pension Liability:					
Service Cost	$19,131	$22,733	$29,314	$25,372	$27,581
Interest	109,395	115,067	107,515	127,074	140,256
Changes of Assumptions	(20,879)	(107,670)	384,306	167,036	—
Differences Between Expected and Actual Experience	(121,259)	(366,200)	(59,421)	57,568	—
Benefit Payments, Including Refunds of Member Contributions	(207,823)	(200,440)	(199,349)	(201,868)	(193,935)
Net Change in Total Pension Liability	**($221,435)**	**($536,510)**	**$262,365**	**$175,182**	**($26,098)**
Total Pension Liability – Beginning	$3,258,434	$3,794,944	$3,532,394	$3,357,212	$3,383,310
Adjustment to Beginning Amount	—	—	185	—	—
Total Adjusted Pension Liability – Beginning	**$3,258,434**	**$3,794,944**	**$3,532,579**	**$3,357,212**	**$3,383,310**
Total Pension Liability – Ending (a)	**$3,036,999**	**$3,258,434**	**$3,794,944**	**$3,532,394**	**$3,357,212**
Plan Fiduciary Net Position:					
Contributions – Employer	$199,241	$204,475	$192,287	$180,910	$191,148
Contributions – Member	3,062	3,398	3,559	3,877	4,724
Total Net Investment Income	3,378	2,819	2,762	2,286	2,583
Benefit Payments, Including Refunds of Member Contributions	(207,823)	(200,440)	(199,349)	(201,868)	(193,935)
Administrative Expenses	(2,106)	(1,771)	(642)	(1,227)	(1,141)
Net Change in Plan Fiduciary Net Position	**($4,248)**	**$8,481**	**($1,383)**	**($16,022)**	**$3,379**
Plan Fiduciary Net Position – Beginning	$48,275	$39,794	$41,177	$57,199	$53,820
Adjustments, See Note 2	(4,396)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	43,879	39,794	41,177	57,199	53,820
Plan Fiduciary Net Position – Ending (b)	39,631	48,275	39,794	41,177	57,199
Net Pension Liability (a) - (b)	**$2,997,368**	**$3,210,159**	**$3,755,150**	**$3,491,217**	**$3,300,013**
Plan Fiduciary Net Position as a Percentage of the Total Pension	**1.3%**	**1.5%**	**1.0%**	**1.2%**	**1.7%**
Covered Payroll	$35,507	$39,413	$34,301	$41,378	$54,649
Net Pension Liability as a Percentage of Covered Payroll	**8,441.6%**	**8,144.9%**	**10,947.6%**	**8,437.4%**	**6,038.6%**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In December 2017, the CalPERS Board adopted new mortality assumptions. The new mortality table was developed from the December 2017 experience study and includes 15 years of projected on-going mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. In Fiscal Year 2017-2018, the discount rate used to measure the total pension liability was 3.62 percent. The State funds the Judges' Retirement Fund (JRF) benefit obligations using the pay-as-you-go method. Member contributions plus state contributions are designed to cover only benefit payments and expenses each year. Under the pay-as-you-go method, the pension plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments of current active and inactive employees. Therefore, a discount rate of 3.62 percent, which falls within a reasonable range of yields on 20-year tax-exempt General Obligation Municipal Bonds with an average rating of AA (as reported in Fidelity Index's "20-Year Municipal GO AA Index") as of June 30, 2018, was applied to all periods of projected benefit payments to measure the total pension liability. The inflation assumption is reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth are reduced from 3.00 percent to 2.75 percent. In Fiscal Year 2016-17, the discount rate used to measure the total pension liability was 3.56 percent.

For the JRF, the changes to actuarial methods include an increase in maximum benefit allowable for active members to 75 percent of pay from 65 percent of pay; the benefit payable for a termination changed from being equal to a retirement benefit to one equal to a percent (generally 3.75 percent) times years of service; and the allocated service for the non-member spouse for Qualified Domestic Relations Order changed to full service for the member in order to determine both eligibility and the benefit multiplier. These changes were reflected in the total pension liabilities starting June 30, 2015.

Assumption changes were made in the JRF June 30, 2016, valuation that are reflected in the total pension liability starting June 30, 2017. The assumption changes included a lowering of the rates of retirement to reflect that fewer actual retirements over the past six years than were assumed. In addition, pre-retirement termination and disability rates were removed due to low expected future terminations and disability retirements for this group.

Required Supplementary Information (continued)

SCHEDULES OF CHANGES IN NET PENSION LIABILITY/(ASSET) AND RELATED RATIOS (CONTINUED)

JRF II – Five-Year Review[1] (Dollars in Thousands)

	2018	2017	2016	2015	2014
Discount Rate Assumption	6.65 %	6.65%	7.15%	7.15%	7.00%
Total Pension Liability:					
Service Cost	$95,843	$97,678	$86,635	$81,679	$78,670
Interest	91,419	85,654	78,412	70,389	61,044
Changes of Assumptions	(41,763)	69,233	—	(14,883)	—
Differences Between Expected and Actual Experience	(26,876)	(26,382)	(4,546)	(17,319)	—
Benefit Payments, Including Refunds of Member Contributions	(31,795)	(22,406)	(21,704)	(14,040)	(8,950)
Net Change in Total Pension Liability	**$86,828**	**$203,777**	**$138,797**	**$105,826**	**$130,764**
Total Pension Liability – Beginning	$1,411,327	$1,207,550	$1,073,788	$967,962	$837,198
Adjustment to Beginning Amount	—	—	(5,035)	—	—
Total Adjusted Pension Liability – Beginning	**$1,411,327**	**$1,207,550**	**$1,068,753**	**$967,962**	**$837,198**
Total Pension Liability – Ending (a)	**$1,498,155**	**$1,411,327**	**$1,207,550**	**$1,073,788**	**$967,962**
Plan Fiduciary Net Position:					
Contributions – Employer	$79,699	$67,102	$65,839	$65,629	$57,027
Contributions – Member	27,513	25,076	24,598	22,242	20,413
Total Net Investment Income	101,820	115,057	20,810	(2,401)	150,168
Benefit Payments, Including Refunds of Member Contributions	(31,795)	(22,406)	(21,704)	(14,040)	(8,950)
Administrative Expenses	(2,370)	(1,683)	(732)	(1,127)	(785)
Net Change in Plan Fiduciary Net Position	**$174,867**	**$183,146**	**$88,811**	**$70,303**	**$217,873**
Plan Fiduciary Net Position – Beginning	$1,356,099	$1,172,953	$1,084,142	$1,013,839	$795,966
Adjustments, See Note 2	(5,452)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	1,350,647	1,172,953	1,084,142	1,013,839	795,966
Plan Fiduciary Net Position – Ending (b)	1,525,514	1,356,099	1,172,953	1,084,142	1,013,839
Net Pension Liability/(Asset) (a) - (b)	**($27,359)**	**$55,228**	**$34,597**	**($10,354)**	**($45,877)**
Plan Fiduciary Net Position as a Percentage of the Total Pension	**101.8 %**	**96.1%**	**97.1%**	**101.0 %**	**104.7 %**
Covered Payroll	$299,396	$291,097	$280,879	$259,133	$249,248
Net Pension Liability/(Asset) as a Percentage of Covered Payroll	**(9.1)%**	**19.0%**	**12.3%**	**(4.0%)**	**(18.4%)**

(1) Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

NOTES TO SCHEDULE

Changes in Benefit Terms

A summary of the plan provisions that were used for a specific plan can be found in the plan's annual valuation report.

Change of Assumptions and Methods

In December 2017, the CalPERS Board adopted new mortality assumptions. The new mortality table was developed from the December 2017 experience study and includes 15 years of projected on-going mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. The inflation assumption is reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth are reduced from 3.00 percent to 2.75 percent.

In Fiscal Year 2016-17, the financial reporting discount rate for the Judges' Retirement Fund II (JRF II) was lowered from 7.15 percent to 6.65 percent. In April 2017, the CalPERS Board approved lowering the funding discount rate used in the JRF II from 7.00 percent to 6.50 percent beginning with the June 30, 2016, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

In Fiscal Year 2014-15, the financial reporting discount rate was increased from 7.00 percent to 7.15 percent resulting from eliminating the 15 basis-point reduction for administrative expenses. The funding discount rate remained at 7.00 percent during this period, and remained adjusted for administrative expenses.

SCHEDULES OF PLAN CONTRIBUTIONS

Five-Year Review[1] (Dollars in Thousands)

	2018	2017	2016	2015	2014
PERF B:					
Actuarially Determined Contribution	$2,048,531	$1,767,813	$1,421,289	$1,303,162	$1,201,125
Contributions in Relation to the Actuarially Determined Contribution	2,048,531	1,767,813	1,421,289	1,303,162	1,201,125
Contribution Excess	**$0**	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$13,252,995	$12,643,354	$11,747,602	$10,964,872	$10,120,248
Contributions as a Percentage of Covered Payroll	15.5%	14.0%	12.1%	11.9%	11.8%
PERF C:					
Actuarially Determined Contribution	$1,182,686	$858,954	$789,103	$691,602	$732,142
Contributions in Relation to the Actuarially Determined Contribution	1,182,686	858,954	789,103	691,602	732,142
Contribution Excess	**$0**	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$3,793,609	$3,631,919	$3,472,950	$3,356,312	$3,248,018
Contributions as a Percentage of Covered Payroll	31.2%	23.7%	22.7%	20.6%	22.5%
LRF:					
Actuarially Determined Contribution	$20	$0	$141	$260	$33
Contributions in Relation to the Actuarially Determined Contribution[2]	467	516	549	590	565
Contribution Excess	**($447)**	**($516)**	**($408)**	**($330)**	**($532)**
Covered Payroll	$1,242	$1,360	$1,313	$1,545	$1,470
Contributions as a Percentage of Covered Payroll	37.6%	37.9%	41.8%	38.2%	38.4%
JRF:					
Actuarially Determined Contribution[3]	$438,156	$448,636	$463,073	$1,884,555	$1,569,630
Contributions in Relation to the Actuarially Determined Contribution[4]	199,241	204,475	192,287	180,910	191,148
Contribution Deficiency	**$238,915**	**$244,161**	**$270,786**	**$1,703,645**	**$1,378,482**
Covered Payroll	$35,507	$39,413	$34,301	$41,378	$54,649
Contributions as a Percentage of Covered Payroll	561.1%	518.8%	560.6%	437.2%	349.8%
JRF II:					
Actuarially Determined Contribution	$79,699	$67,102	$65,839	$63,193	$55,538
Contributions in Relation to the Actuarially Determined Contribution	79,699	67,102	65,839	63,193	55,538
Contribution Excess	**$0**	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$299,396	$291,097	$280,879	$259,133	$249,248
Contributions as a Percentage of Covered Payroll	26.6%	23.1%	23.4%	24.4%	22.3%

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

(2) Because of the provisions of the Public Employees' Pension Reform Act of 2013 (PEPRA), the required employer contribution is the greater of the actuarially determined employer contribution or the employer normal cost.

(3) The 2016 and 2017 actuarially determined contributions are based on a 10-year amortization period, while the 2015 and 2014 actuarially determined contributions are based on a two-year amortization period.

(4) Contributions to the JRF are made on the pay-as-you-go basis.

Required Supplementary Information (continued)

Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions – Five-Year Review

	2017-18	2016-17	2015-16	2014-15	2013-14
PERF B					
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	13-30 years	14-30 years	15-30 years	16-30 years	17-30 years
Asset Valuation Method	Market Value	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%	7.50%
PERF C					
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years
Asset Valuation Method	Market Value	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%	7.50%
LRF					
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	30 years	63 years	29-30 years	30 years	30 years
Asset Valuation Method	Market Value	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	5.00%	5.75%	5.75%	5.75%	5.75%
JRF					
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar
Remaining Amortization Periods	10 years	10 years	10 years	2 years	2 years
Asset Valuation Method	Market Value	Market Value	Market Value	Market Value	Market Value
Inflation	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	3.25%	4.25%	4.25%	4.25%	4.25%
JRF II					
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods[1]	20-30 years	30 years	30 years	16-30 years	17-30 years
Asset Valuation Method	Market Value	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	6.50%	7.00%	7.00%	7.00%	7.00%

(1) Remaining periods vary by portion of unfunded liability balance being amortized.

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense – Five-Year Review

Plan	2018 Rate of Return	2017 Rate of Return	2016 Rate of Return	2015 Rate of Return	2014 Rate of Return
PERF A[1]					
Agent	8.4%	11.2%	0.5%	2.2%	17.7%
PERF B[1]					
Schools Cost-Sharing	8.4%	11.2%	0.5%	2.2%	17.7%
PERF C[1]					
Public Agency Cost-Sharing	8.4%	11.2%	0.5%	2.2%	17.7%
LRF[1]	4.8%	4.3%	3.8%	(0.1%)	12.9%
JRF[1]	1.9%	1.0%	0.5%	0.2%	0.1%
JRF II[1]	7.4%	9.6%	1.9%	(0.2%)	18.3%
CERBTF[2]	7.3%	10.0%	1.6%	—	—

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2014. Additional years will be added to this schedule in future years until 10 years of data is presented.
(2) Early implementation of GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (GASB 74) results in prospective application of calculating the MWRR for the CERBTF. As such, MWRR data prior to 2016 is not available.

Required Supplementary Information (continued)

PUBLIC EMPLOYEES' HEALTH CARE FUND

Schedule of Claims Development Information (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
1) Net Earned Required Premium and Investment Revenues	$3,985,393	$3,829,095	$3,801,266	$3,642,206	$2,808,384	$1,948,531	$1,912,355	$1,775,005	$1,409,621	$1,608,738
2) Unallocated Expenses	$304,408	$312,924	$355,779	$371,916	$192,987	$105,154	$96,043	$88,392	$90,292	$85,511
3) Estimated Incurred Claims and Expenses, End of Policy Year	$3,576,081	$3,391,183	$3,424,147	$3,432,102	$2,748,821	$1,921,957	$1,816,245	$1,792,599	$1,654,214	$1,530,264
4) Paid (Cumulative) as of:										
End of Policy Year	$3,039,289	$3,061,085	$3,000,726	$3,378,857	$2,122,865	$1,640,709	$1,635,839	$1,550,306	$1,444,509	$1,313,680
One Year Later	—	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Two Years Later	—	—	3,406,016	3,406,016	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Three Years Later	—	—	—	3,406,016	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Four Years Later	—	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Five Years Later	—	—	—	—	—	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Six Years Later	—	—	—	—	—	—	1,788,135	1,698,615	1,589,771	1,448,134
Seven Years Later	—	—	—	—	—	—	—	1,698,615	1,589,771	1,448,134
Eight Years Later	—	—	—	—	—	—	—	—	1,589,771	1,448,134
Nine Years Later	—	—	—	—	—	—	—	—	—	1,448,134
5) Re-Estimated Incurred Claims Expenses:										
End of Policy Year	$3,576,081	$3,391,183	$3,424,147	$3,432,102	$2,748,821	$1,921,957	$1,816,245	$1,792,599	$1,654,214	$1,530,264
One Year Later	—	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Two Years Later	—	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Three Years Later	—	—	—	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Four Years Later	—	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Five Years Later	—	—	—	—	—	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134
Six Years Later	—	—	—	—	—	—	1,788,135	1,698,615	1,589,771	1,448,134
Seven Years Later	—	—	—	—	—	—	—	1,698,615	1,589,771	1,448,134
Eight Years Later	—	—	—	—	—	—	—	—	1,589,771	1,448,134
Nine Years Later	—	—	—	—	—	—	—	—	—	1,448,134
6) Decrease in Estimated Incurred Claims and Expenses From End of Policy Year	$0	$4,490	($18,131)	$370,175	($69,915)	($125,370)	($28,110)	($93,984)	($64,443)	($82,130)

Rows 1 through 6 contain the following information:

(1) This line shows the total earned premium revenues and investment revenues for each fiscal year.

(2) This line shows other HCF operating costs, including overhead and claims expense not allocable to individual claims, for each fiscal year.

(3) This line shows the HCF incurred claims and allocated claim adjustment expenses (both paid and accrued) as reported at the end of the policy year. The policy year is the first year in which the triggering event under the contract occurred.

(4) This section shows the cumulative amounts paid as of the end of each policy year and years succeeding the policy year.

(5) This section shows re-estimated incurred claims as of the end of each policy year and years succeeding the policy year. Re-estimates are based on new information on new claims not previously reported.

(6) This line compares the amount of the re-estimated incurred claims to the amount initially established (line 3), and shows whether the re-estimate is greater or less than projected. As data mature for individual policy years, the correlation between initial estimates and re-estimates is used to evaluate the accuracy of incurred claims currently recognized.

Financial Section
Other Supplementary Information

Other Supplementary Information

ADMINISTRATIVE EXPENSE – ALL FUNDS (DOLLARS IN THOUSANDS)

	2018
PERSONNEL SERVICES	
Salaries & Wages	$184,202
Employee Benefits	92,523
Accrued Pension & OPEB Expense	122,980
Total Personnel Services	**$399,705**
CONSULTANT & PROFESSIONAL SERVICES	
State of California Agencies	$3,876
External Consultants	46,422
Retiree Benefit Trust Management Fees	107
Deferred Compensation Management/Custody Fees	3,565
Health Plan Administrator Fees	252,866
Long-Term Care Administrator Fees	21,221
Total Consultant & Professional Services	**$328,057**
OPERATING EXPENSES & EQUIPMENT	
General Expense	$5,783
Software	1,136
Printing	2,012
Building	25,684
Postage	3,911
Communications	928
Data Processing Services	16,343
Travel	1,575
Training	1,044
Medical Examiners	1,371
Facilities Operation	4,328
Central Administrative Services	20,499
Administrative Hearings	1,395
Consolidated Data Center	84
CSUS Foundation - Students	52
Equipment	1,890
Total Operating Expenses & Equipment	**$88,035**
OTHER EXPENSES & ADJUSTMENTS	
Depreciation Expense	$18,782
Increase in Paid Absence Obligation	1,878
Amortization	65,593
Miscellaneous	(15,757)
Total Other Expenses & Adjustments	**$70,496**
TOTAL ADMINISTRATIVE EXPENSES — ALL FUNDS	**$886,293**

INVESTMENT EXPENSE – ALL FUNDS

Investment Management Fees[1,2] (Dollars in Thousands)

	Fees
Equity Managers	
Allianz Global Investors U.S., LLC	$6,232
Arrowstreet Capital, LP	14,775
Baillie Gifford Overseas, Ltd.	2,194
Cartica Corporate Governance Fund, LP	6,594
Epoch Investment Partners, Inc.	8,956
First Quadrant, LP	1,079
FIS Group, Inc.	1,897
Genesis Asset Managers, LLP	110
Hamilton Lane Advisors, LLC	1,302
Hermes European Equities Limited	2,879
Huber Capital Management, LLC	(213)
J.P. Morgan Investment Management, Inc.	1,075
Lazard Asset Management, LLC	5,144
Leading Edge Investment Advisors, LLC	3,135
Legato Capital Management Investments, LLC	6,103
Progress Investment Management Company	3,890
Pyramis Global Advisors Trust Company	2,445
Pzena Investment Management, LLC	2,011
State Street Global Advisors	3,561
Strategic Investment Management, LP	3,467
The Boston Company Asset Management, LLC	592
TOBAM SAS	852
Wellington Management Company, LLP	7,734
Total Equity Managers	**$85,814**
Fixed Income Managers	
Alliance Bernstein, LP	$410
Baring International Investment Limited	288
Bluebay Asset Management, LLP	397
Investec Asset Management North America	570
Neuberger Berman Investment Advisers, LLC	296
Pacific Investment Management Co. LLC	787
Total Fixed Income Managers	**$2,748**
Private Equity Managers[3]	
57 Stars Global Opportunities Fund 2 (CalPERS), LLC	$606
57 Stars Global Opportunities Fund, LLC	600
Aberdare Ventures IV, LP	259
Advent International GPE V-D, LP	81
Advent International GPE VI-A, LP	2,233
Advent International GPE VII-C, LP	4,373
Advent International GPE VIII-B Limited Partnership	7,455
Advent Latin America Private Equity Fund IV-D, LP	1,200
Advent Latin America Private Equity Fund V-H, LP	1,121
Advent Latin American Private Equity Fund III-D, LP	151
Affinity Asia Pacific Fund III, LP	774
Aisling Capital II, LP	(1)
Aisling Capital III, LP	518
Apollo Investment Fund VI, LP	788
Apollo Investment Fund VII, LP	1,144
Apollo Investment Fund VIII, LP	2,466

	Fees
Apollo Special Opportunities Managed Account, LP	$4,486
ArcLight Energy Partners Fund IV, LP	120
Ares Corporate Opportunities Fund III, LP	1,410
Ares Corporate Opportunities Fund V, LP	5,931
Asia Alternatives Capital Partners II, LP	230
Asia Alternatives Capital Partners, LP	77
Avenue Special Situations Fund VI (A), LP	84
Baring Vostok Private Equity Fund IV, LP	727
BDC III C, LP	2,555
Birch Hill Equity Partners (US) III, LP	13
Birch Hill Equity Partners (US) IV, LP	997
Blackstone / GSO Capital Solutions Fund, LP	550
Blackstone Capital Partners V, LP	78
Blackstone Capital Partners VI, LP	1,992
Blackstone Capital Partners VII, LP	6,250
Blackstone RL Co-Invest, LP	370
Blackstone Tactical Opportunities Fund - C, LP	5,154
Blackstone Tactical Opportunities Fund (KG Co-Invest), LP	481
Blackstone Tactical Opportunities Fund (T4U Co-Invest), LP	203
Blackstone Tactical Opportunities Fund II - C, LP	2,282
Bridgepoint Europe II 'A', LP	(10)
Bridgepoint Europe II 'C', LP	(3)
Bridgepoint Europe III 'C', LP	(6)
Bridgepoint Europe III 'D', LP	(35)
Bridgepoint Europe IV 'B', LP	661
Bridgepoint Europe IV 'D', LP	1,738
Bridgepoint Europe V	6,822
California Asia Investors, LP	303
California Emerging Ventures II, LLC	88
California Emerging Ventures III, LLC	200
California Emerging Ventures IV, LLC	562
California Mezzanine Investment Fund, LP	179
CalPERS Clean Energy & Technology Fund, LLC	568
Capital Link Fund I, LLC	477
Capital Link Fund II, LLC	380
Carlyle Asia Growth Partners III, LP	29
Carlyle Asia Growth Partners IV, LP	759
Carlyle Asia Partners II, LP	203
Carlyle Asia Partners III, LP	774
Carlyle Europe Partners III, LP	343
Carlyle Europe Technology Partners II, LP	384
Carlyle Global Financial Services Partners, LP	838
Carlyle Japan Partners II, LP	296
Carlyle Mexico Partners, LP	93
Carlyle Partners V, LP	709
Carlyle Partners VI, LP	3,486
Carlyle Strategic Partners II, LP	49
Carlyle Strategic Partners IV, LP	1,934
Carlyle U.S. Equity Opportunities II, LP	2,735
Carlyle U.S. Growth Fund III, LP	220
Carlyle/Riverstone Global Energy and Power Fund III, LP	395
CDH Fund V, LP	3,450

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Investment Management Fees[1,2] (Dollars in Thousands) (continued)

	Fees
Centerbridge Capital Partners III, LP	$1,555
Cerberus CAL II Partners, LP	166
Cerberus CP Partners, LP	1,043
Cerberus Institutional Partners V, LP	1,122
Clarus Lifesciences II, LP	1,041
Clayton, Dubilier & Rice Fund X, LP	1,412
Clearlake Capital Partners III, LP	(6)
Clearlake Capital Partners IV, LP	846
Clearlake Capital Partners V, LP	153
Clearlake Opportunities Partners (P), LP	691
Clearwater Capital Partners Fund III, LP	570
Coller International Partners V-A, LP	2,441
Craton Equity Investors I, LP	180
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	5,700
CVC Capital Partners VI, LP	6,371
CVC Capital Partners VII (A), LP	1,944
CVC Credit Strategic Investment A, LP	1,996
CVC European Equity Partners IV (D), LP	(3)
CVC European Equity Partners Tandem Fund (B), LP	(4)
CVC European Equity Partners V (B), LP	550
EM Alternatives Investments, LP	200
Essex Woodlands Health Ventures Fund VIII, LP	1,460
First Reserve Fund XII, LP	1,419
First Reserve Fund XIII, LP	4,653
Francisco Partners II, LP	170
Francisco Partners III, LP	881
GCM Grosvenor DEM II, LP	1,250
GCM Grosvenor DEM, LP	459
Golden State Investment Fund, LLC	224
Green Equity Investors IV, LP	(42)
Green Equity Investors V, LP	(136)
GSO Capital Opportunities Fund II, LP	1,345
GSO Capital Opportunities Fund, LP	36
GSO Capital Solutions Fund II, LP	2,982
GSO Energy Partners-C II, LP	1,167
GSO Energy Partners-C, LP	1,925
Hellman & Friedman Capital Partners VI	190
Hellman & Friedman Capital Partners VII	1,190
Hellman & Friedman Capital Partners VIII, LP	4,671
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	4,126
Insight Venture Partners IX, LP	1,810
Insight Venture Partners VI, LP	28
Insight Venture Partners X, LP	1,580
Ithaca, LP	—
Khosla Ventures III, LP	2,000
Khosla Ventures Seed, LP	837
KKR 2006 Fund, LP	365
KKR Asian Fund II, LP	1,475
KKR Asian Fund, LP	270
KKR European Fund II, LP	114
KKR European Fund III, LP	$856
KKR Millennium Fund, LP	1
Kline Hawkes Pacific, LP	(33)
KM Corporate Partners Fund II, LP	690
KPS Special Situations Fund III, LP	313
Lime Rock Partners IV, LP	179
Lime Rock Partners V, LP	513
Lindsay Goldberg IV, LP	4,684
Lion Capital Fund II, LP	528
Magnum Capital, LP	144
MHR Institutional Partners III, LP	1,453
Newbridge Asia IV, LP	187
Oak Hill Capital Partners II, LP	50
Oak Hill Capital Partners III, LP	1,432
Oaktree Opportunities Fund VIIIb, LP	1,988
Onex Partners IV, LP	4,684
PAG Asia I, LP	670
Palladium Equity Partners III, LP	(8)
Patria Brazilian Private Equity Fund V, LP	3,010
Permira Europe III	(1)
Permira IV, LP 2	(19)
Permira V, LP	2,842
Permira VI, LP 1	6,435
Polish Enterprise Fund VI, LP	444
Providence Equity Partners VI, LP	383
RFG Private Equity Limited Partnership No. 1A, 1B and 1C	59
Richardson Capital Private Equity Limited Partnership No.2A, 2B and 2C	17
Riverstone Global Energy and Power Fund V, LP	2,274
Riverstone Global Energy and Power Fund VI, LP	7,367
Riverstone/Carlyle Global Energy and Power Fund IV, LP	949
Riverstone/Carlyle Renewable & Alternative Energy Fund II, LP	1,195
Riverwood Capital Partners (Parallel - A), LP	335
Sacramento Private Equity Partners, LP	1,000
SAIF Partners III, LP	1,020
SAIF Partners IV, LP	1,899
Sankaty Managed Account (CalPERS), LP	4,232
Silver Lake Partners III, LP	1,013
Silver Lake Partners IV, LP	3,132
Silver Lake Partners V, LP	711
Siris Partners III, LP	861
SL SPV-1, LP	190
Tailwind Capital Partners (PP), LP	412
Tailwind Capital Partners II, LP	839
The Central Valley Fund II SBIC, LP	208
The Resolute Fund II, LP	687
The Rise Fund (A), LP	1,259
Thomas H. Lee Equity Fund VI, LP	120
TowerBrook Investors III, LP	606
TowerBrook Investors IV (Onshore), LP	6,750
Towerbrook Structured Opportunities Fund (Onshore), LP	1,754

Other Supplementary Information (continued)

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Investment Management Fees[1,2] (Dollars in Thousands) (continued)

	Fees
TPG Asia V, LP	$684
TPG Biotechnology Partners III, LP	185
TPG Growth IV, LP	662
TPG Partners V, LP	(62)
TPG Partners VI, LP	2,647
TPG STAR, LP	181
Trident VI	3,304
Trident VII, LP	3,803
Triton Fund IV, LP	1,465
T-VI Co-Invest-A, LP	(195)
Valor Equity Partners IV, LP	574
VantagePoint CleanTech Partners, LP	67
VantagePoint Venture Partners 2006 (Q), LP	769
Vicente Capital Partners Growth Equity Fund, LP	242
W Capital Partners II, LP	432
Welsh, Carson, Anderson & Stowe X, LP	28
Welsh, Carson, Anderson & Stowe XI, LP	396
Welsh, Carson, Anderson & Stowe XII, LP	4,882
Wigmore Street (BDC III), LP	3
Wigmore Street Co-investment No.1, LP	2
WLR Recovery Fund IV, LP	1,852
Yucaipa American Alliance Fund II, LP	3,035
Yucaipa Corporate Initiatives Fund II, LP	310
Total Private Equity Managers	**$246,376**
Real Asset Managers	
301 Capitol Mall, LP	$92
AGI Resmark Housing Fund, LLC	387
Alinda Infrastructure Fund I, LP	205
Alinda Infrastructure Fund II, LP	2,046
ARA Asia Dragon Fund II	525
ARA China Long Term Hold	6,023
Archmore International Infrastructure Fund II (B), LP	446
Archmore International Infrastructure Fund II (C), LP	947
Asia Pacific Property Fund SCSP	719
CalEast Canada Limited Partnership	19
CalEast Industrial Investors, LLC	197
CalEast Solstice - Base	10,784
CalEast Solstice - DT Land	2,304
CalEast Solstice - DT Other	2,912
CalWest - CalPERS	16
Canyon Catalyst Fund II, LLC	1,200
Canyon Catalyst Fund, LLC	521
Carlyle Infrastructure Partners, LP	169
CBRE Strategic Partners UK Fund II	59
CIM Fund III, LP	4,981
CIM Infrastructure Fund, LP	2,078
CIM Urban Real Estate Fund, LP	4,066
FSP - Base	21,003
FSP - DT 2012 and Beyond	6,154
Global Infrastructure Partners II, LP (GIP II)	2,697
Golden Reef Infrastructure Trust	2,133

	Fees
GRI - Base	$14,483
Harbert Gulf Pacific Power, LLC (HGPP)	3,680
Harbert Power Fund V, LP (HPF V)	1,070
HC Green Development Fund, LP	448
HC NOP Holdings, LP	118
HCB Interests II, LP	1,551
HCB LTH	4,121
HCC Interests, LP	227
HCR LTH, LLC	4,008
Hearthstone Housing Partners II, LLC	172
IHP Investment Fund I, LP	419
IHP Investment Fund III, LP	2,637
IMI - Base	24,328
IMP - Base	21,042
IMP - DT 2012 and Beyond	1,462
Institutional Core Multifamily Investors	3,814
Institutional Logistics Partners, LLC	3,567
KC 2011, LLC	2,448
KSC Affordable Housing Investment Fund, LLC	588
Land Management Company, LLC	2,482
Lincoln Timber, LP	4,693
North Haven Infrastructure Partners II, LP	1,799
ORA Multifamily Investments I, LLC	2,121
ORA Residential Investments I, LP	1,437
Pacific Multifamily Investors, LLC	4,264
PLA Retail Fund I, LP	20
Sacramento Venture - Base	93
Sacramento Venture - DT	102
Stockbridge Hollywood Park Co-Investors, LP	312
Stockbridge Real Estate Fund II -B, LP	114
Sylvanus, LLC	1,938
TechCore, LLC	8,335
Whitney Ranch Venture, LLC	1,184
Xander Co-Investment	55
Total Real Asset Managers	**$191,815**
Other Investment Management Fees	
AQR	$3,973
Brookside Capital Partners Fund, LP	27
Deephaven Market Neutral, LLC	2
Long Tail Alpha	1,577
OZ Domestic Partners II, LP	5
OZ Eureka Fund, LP	453
PWP Dynamic	292
Standard Life	4,761
Universa	9,884
Total Other Investment Management Fees	**$20,974**
Total Management Fees	**$547,727**

(1) Expenses and fees less than a thousand dollars are indicated by a dash.
(2) Negative management fees are due to adjusting entries.
(3) CalPERS makes a good faith attempt to account for fees that are not readily separable. These management fees are net of management fee offsets. For more detail, see the Private Equity Management Fees & Profit Sharing table in the Investment Section.

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Performance Fees[1] (Dollars in Thousands)

	Fees
Equity Managers	
Arrowstreet Capital, LP	$7,371
Baillie Gifford Overseas, Ltd.	15,591
J.P. Morgan Investment Management, Inc.	2,856
Pzena Investment Management, LLC	138
The Boston Company Asset Management, LLC	794
Total Equity Managers	**$26,750**
Fixed Income Managers	
Alliance Bernstein, LP	$759
Baring International Investment Limited	192
Pacific Investment Management Co. LLC	2,415
Total Fixed Income Managers	**$3,366**
Real Asset Managers	
AGI Resmark Housing Fund, LLC	$1,683
Blackstone Property Partners Europe, LP	1,625
CalEast Canada Limited Partnership	(20)
CalEast Solstice, LLC	(250)
Canyon Catalyst Fund II, LLC	410
Canyon Catalyst Fund, LLC	(540)
Canyon Johnson Urban Fund, III	201
CIM Fund III, LP	(7,482)
CIM Infrastructure Fund, LP	(514)
FSP - DT 2012 and Beyond	(10,420)
Global Infrastructure Partners II, LP (GIP II)	9,930
Golden Reef Infrastructure Trust	747
GRI - Base	10,196
Harbert Gulf Pacific Power, LLC (HGPP)	7,511
Harbert Power Fund V, LP (HPF V)	1,003
HCB Interests II, LP	(230)
IHP Investment Fund I, LP	3,600
IMI - Base	15,782
IMP - DT 2012 and Beyond	10,841
Institutional Core Multifamily Investors	439
Institutional Logistics Partners, LLC	2,808
Ivy Investment Vehicle LDC (SWPM)	52,482
LaSalle Japan Logistics Fund II, LP	117
ORA Multifamily Investments I, LLC	10,128
ORA Residential Investments I, LP	1,225
Pacific Multifamily Investors, LLC	6,138
Sacramento Venture - DT	91
TechCore, LLC	6,497
Total Real Asset Managers	**$123,998**

	Fees
Other Investment Managers	
AQR	$9,987
Brookside Capital Partners Fund, LP	76
OZ Domestic Partners II, LP	(28)
OZ Eureka Fund, LP	1,599
Total Other Investment Managers	**$11,634**
Total Performance Fees	**$165,748**
Total Management and Performance Fees	**$713,475**

(1) Negative performance fees are due to the reversal of accruals caused by the fluctuation in market values.

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,2] (Dollars in Thousands)

	Fees
Advisory Fees	
Alliance Bernstein, LP	$984
AXA Rosenberg Investment Management, LLC	78
FIS Group, Inc.	1,000
Goldman Sachs Asset Management, LP	903
Lazard Asset Management, LLC	748
Leading Edge Investment Advisors, LLC	1,000
Legato Capital Management, LLC	1,750
Progress Investment Management Company	1,000
QS Investors, LLC	910
Quantitative Management Associates, LLC	581
Research Affiliates, LLC	1,249
Strategic Investment Management, LP	1,000
TOBAM SAS	738
Total Advisory Fees	**$11,941**
Appraisal Fees	
Altus Group U.S. Inc.	($329)
RERC, LLC	6,088
Total Appraisal Fees	**$5,759**
Auditor Fees	
Cohn Reznick, LLP	$6
KPM & Associates, LLP	59
Total Auditor Fees	**$65**
Company Expense	
FIS Group, Inc.	$80
Leading Edge Investment Advisors, LLC	146
Legato Capital Management, LLC	272
Long Tail Alpha	64
Progress Investment Management Company	142
Strategic Investment Management, LP	19
Universa	131
Total Company Expense	**$854**
Fund Administration Fees	
State Street Bank and Trust Company	$2,680
Total Fund Administration Fees	**$2,680**
Investment Consultant Fees	
Adviser Compliance Associates, LLC	$40
Bard Consulting, LLC	617
BDO USA, LLP	25
Courtland Partners, Ltd	87
Crosswater Realty Advisors, LLC	351
Cutter Associates, LLC	154
Edhec Business School	—
Edhec Risk Consulting (ERC)	20

	Fees
Ernst & Young, LLP	$276
FTI Consulting, Inc.	—
Garland Associates, Inc.	246
Mercer Investment Consulting, LLC	234
Mosaic Investment Advisors, Inc.	219
MSys International, Inc.	135
Newport Board Group, LLC	86
Northfield Information Services, Inc.	38
Pacific Alternative Asset Mgmt Company	67
Pacific Community Ventures, Inc.	383
Pavilion Alternatives Group, LLC	91
Pension Consulting Alliance, LLC	(24)
Persell Design Group, LLC	18
Propoint Technology, Inc.	2,154
Pyramid Technical Consultants, Inc.	240
Qualapps, Inc.	(16)
RCLCO	81
RVK, Inc.	103
Ryedale, Inc.	534
SRI Infotech, Inc.	337
Technology Crest Corporation	184
The Spaulding Group	84
Trinity Technology Group, Inc.	164
University of California, Davis	23
Wilcox, Miller & Nelson	100
Total Investment Consultant Fees	**$7,051**
Legal Fees	
AlvaradoSmith, a Professional Corporation	$0
Berman Tabacco	201
Cox, Castle & Nicholson, LLP	35
Foster Pepper, PLLC	59
Hogan Lovells, US, LLP	144
Jackson Walker, LLP	102
K & L Gates, LLP	322
Katten Muchin Rosenman, LLP	15
Morgan Lewis & Bockius, LLP	369
Nixon Peabody, LLP	4
Orrick Herrington & Sutcliffe, LLP	184
Pillsbury Winthrop Shaw Pittman, LLP	709
Reed Smith, LLP	116
Steptoe & Johnson, LLP	69
Vasquez Benisek & Lindgren, LLP	4
Wilson Sonsini Goodrich & Rosati	183
Total Legal Fees	**$2,516**
Master Custodian Fees	
State Street Bank and Trust Company	$4,951
Total Master Custodian Fees	**$4,951**

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,2] (Dollars in Thousands) (continued)

	Fees
Tax Advisory Fees	
Ernst & Young, LLP	$1,001
Total Tax Advisory Fees	**$1,001**
Technology Expenses	
13D Research, Inc	$60
Acadiasoft, Inc.	10
Axioma, Inc.	230
Barclays Capital	81
Barra, Inc.	453
Barra, LLC	2,100
BCA Research	259
Blackrock Financial Management, Inc.	9,134
Bloomberg, LP	2,828
Cambridge Associates, LLC	50
Candeal, Inc.	17
Carahsoft Technology Corp.	130
Charles River Systems, Inc.	1,559
Convergence, Inc.	35
Cornerstone Macro, LP	120
Cost Effectiveness Measurement, Inc.	70
Costar Investment Analysis	160
Covenant Review, LLC	47
Credit Market Analysis Limited	24
Creditsights	103
Dow Jones & Company, Inc.	6
eFront Financial Solutions, Inc.	1,822
eMBS, Inc.	9
Empirical Research Partners, LLC	400
ePlus Technology, inc.	2
Equilar, Inc.	52
Esai Energy, LLC	13
Etrali North America, LLC	304
Eurasia Group	138
Euromoney Trading Limited	17
eVestment Alliance	43
Factset Research Systems, Inc.	2,625
Fitch Ratings, Inc.	55
Fitch, Inc.	226
Frank Russell Company	33
FTSE	700
FX Alliance, Inc.	1
Gartner, Inc.	134
GaveKal Capital Management Limited	45
Glass Lewis & Co., LLC	528
Global Investor Collaboration Svcs., LLC	5
Green Street Advisors	125
Heteronomics	8
IHS Global, Inc.	75
Institutional Shareholder Services, Inc.	190
Intex Solutions, Inc.	254
Investment Property Databank	52

	Fees
Ives Group, Inc.	$13
Kyriba Corporation	43
London Stock Exchange PLC	38
Macroeconomic Advisers, LLC	19
Markit Indices Limited	28
Markit North America, Inc.	49
Microsoft Services	4
Moody's Analytics, Inc.	484
Mountainview Analytics, LLC	5
MRB Partners, Inc.	50
MRI Software, LLC	282
MSCI, Inc.	563
MUFG Capital Analytics, LLC	5,288
NYSE Market, Inc.	11
Omgeo	93
Option Research & Technology Services, LLC	38
Options Price Reporting Authority	2
Preqin Limited	44
Quantal International, Inc.	45
Radianz Americas, Inc.	169
Real Capital Analytics, Inc.	143
Ryedale Europe Limited	690
S&P Global Market Intelligence, LLC	1,564
S&P Dow Jones Indices, LLC	66
SASB Foundation, The	4
Shareholder Value Advisors, Inc.	5
StepStone Group, LP	163
Stone & Kanto, LLC	9
Summit Financial Printing, LLC	8
Sustainalytics U.S., Inc.	30
The Depository Trust & Clearing Corp.	20
The Mathworks, Inc.	85
The Statestore, Inc.	5
The Yield Book, Inc.	185
Thomson Financial/Nelson	300
Trade Web	132
Trend Macrolytics, LLC	27
TRGRP, Inc.	196
TriOptima AB	38
TSX, Inc.	20
Viola Risk Advisors, LLC	2
William O'Neil & Company	30
Wood Mackenzie, Inc.	33
Yardeni Research, Inc.	19
Zeno Consulting Group, LLC	48
Total Technology Expenses	**$36,422**
Internal Investment Personnel and Administrative	
Internal Investment Personnel and Administrative Expenses	$76,148
Total Internal Investment Personnel and Administrative	**$76,148**

INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,2] (Dollars in Thousands) (continued)

	Fees
Miscellaneous Investment Expense Fees	
Miscellaneous Investment Expense Fees	$2,309
Transaction Fees	83,189
Total Miscellaneous Investment Expense Fees	**$85,498**
Total Other Investment Fees and Expenses	**$234,886**
Total Investment Expenses - All Funds	**$948,361**

(1) Expenses and fees less than a thousand dollars are indicated by a dash.
(2) Negative expenses are due to market fluctuations, adjusting entries, and reimbursements.

Other Supplementary Information (continued)

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS)

Individual or Firm	Fees	Nature of Services
314e Corporation	$206	Test Planning, Test Preparation, and Test Execution of the My|CalPERS and CalPERS Education Center Applications
Anthem Blue Cross	110,756	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention and Disease Management Services
ATV Video Center, Inc.	147	Video and Multimedia Production Services
Avenue Solutions	155	Management Analysis
Bedrosian & Associates	26	Succession and Workforce Planning
Belmonte Enterprises, LLC	1,140	Application Development, Information Services, Project Management Services
Blue Shield of California	63,806	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention and Disease Management Services
Capio Group	205	Application Development
Carahsoft Technology Corp.	100	Innovation and Development
Cheiron, Inc.	162	Audit Services
CoachSource, LLC	34	Organizational and Leadership Development
Conduent HR Consulting, LLC	1,178	Systems Analysis, Design, Implementation, Maintenance and Support
Cooperative Personnel Services, Inc.	102	Organizational and Leadership Development
Cornerstone Fitness, Inc.	77	Employee Training and Development
CVS Caremark	(680)	Pharmacy Claims Administration, Account Management, Eligibility, Retail & Other Reporting Services
Delegata Corporation	1,010	Application Development, Project Management Services, Business Intelligence and Reporting
Department of Human Resources	60	Election Forms for the Alternate Retirement Program (ARP) Processing Services
Department of Justice	173	Conduct & Provide External Investigative Services
DLT Solutions	229	Software Installation, Implementation and Configuration Services
Domain Experts Corporation	83	Recruiting and Placement
Drinker Biddle & Reath, LLP	27	Legal Services
DSS Research	148	Medical Consulting Services
Eaton Interpreting Services, Inc.	111	Interpreting Services
Elynview Corporation	197	Systems Analysis, Design, Implementation, Maintenance and Support, Data Base Administration
Enterprise Networking Solutions, Inc.	240	IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Enterprise Services, LLC	223	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Equanim Technologies	613	Business Process Re-engineering, Management Support Services, Project Management Services, Project Oversight Services, Technical Writing
Ernst & Young, LLP	132	Consulting Services for Enterprise Business Continuity
Esoft Infosystems, Inc.	619	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Eterasys Consulting, Inc.	356	Application Development, Data Base Administration
First Data Merchant Services Corporation	73	Banking Services
Gartner, Inc.	139	Management Support Services
Government Operations Agency	336	Operations and Strategic Business Planning
Grant Thornton, LLP	(27)	Project Management Services, Project Oversight Services, Release Management/Quality Assurance/Configuration Management, Business Transformation/Transition
H&B Joint Venture	685	Release Management/Quality Assurance/Configuration Management, Business Transformation/Transition
Health Net of California	16,857	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention and Disease Management Services
Heidrick & Struggles	109	Recruiting and Placement
HSB Solutions, Inc.	35	CA Privileged Access Management Technical Support Services
Indecomm Holdings, Inc.	58	Professional Services for the Installation, Configuration, and Usage of the AutomationNG Testing Solution
Innovative Software Technologies, Inc.	579	Specialized IT Support Services for Actuarial Systems/Business

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
IVS/Everyone Counts, Inc.	$2,952	Election services
J & K Court Reporting, LLC	97	Legal Services
JLynn Consulting, Inc.	899	Application Development, Information Services
K & L Gates, LLP	306	Legal Services
KearnFord Application Systems Design	3,021	Information Services, Management Support Services, Project Management Services, Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management
King & Spalding, LLP	301	Legal Services
Knowledge Structures, Inc.	45	Employee Training and Development
Kong Consulting, Inc.	511	Systems Analysis, Design, Implementation, Maintenance and Support
Kronick, Moskovitz, Tiedemann & Girard	22	Legal Services
Leadership Strategies, Inc.	26	Training for Meeting Facilitation
Long-Term Care Group, Inc.	20,794	Third-Party Member Record Keeper, Medical Claims Administration, Eligibility, Retail & Other Reporting Services, IT Services
Lussier Group	130	Management Analysis, Legal Services
Macias Gini & O'Connell LLP	3,058	Audit Services
Mara Consulting, Inc.	224	Data Analysis and Data Correction Services for the My|CalPERS Retirement Application
Matrix Software Services	191	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Maximus Federal Services, Inc.	27	Medical Consulting Services
Mellon Bank	335	Banking services
Mercer	515	Medical and Health Care Consulting Services
Merrill Communications, LLC	103	Health Open Enrollment Communication Dissemination
Michael Scales Consulting, LLC	265	Application Development
Milliman, Inc.	2,613	Project Management Services
Mindstorm Creative, Inc.	72	Video and Multimedia Production Services
NetCentric Technologies, Inc.	89	PDF Accessibility Remediation, Subscription to CommonLook Global Access
Nexus IS, Inc.	53	Systems Analysis, Design, Implementation, Maintenance and Support
Northeast Retirement Services	107	Third-Party Member Record Keeper
Nossaman, LLP	31	Legal Services
OnCore Consulting, LLC	8,951	Information Services, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support, Application Development
Ope Technology, LLC	467	Release Management/Quality Assurance/Configuration Management, Business Transformation/ Transition
OptumRx	18,635	Pharmacy Claims Administration, Account Management, Eligibility, Retail and Other Reporting Services
Orrick Herrington & Sutcliffe, LLP	303	Legal Services
Pasanna Consulting Group, LLC	1,867	Application Development, Data Base Administration, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Performance Technology Partners, LLC	345	Application Development
Planet Technologies, Inc.	100	Systems Analysis, Design, Implementation, Maintenance and Support
President and Fellows of Harvard College	50	Innovation and Development
Princeton Solutions Group, Inc.	702	Business Transformation/Transition, Project Management Services, Release Management/Quality Assurance/Configuration Management
Providence Technology Group, Inc.	156	Consulting Services for Security Governance Program
Qualapps, Inc.	1,569	Application Development, Business Process Re-engineering, IT Architecture, Technical Writing
Recon Distribution, Inc.	159	Exhibition Management
Reed Smith, LLP	(600)	Legal Services

Other Supplementary Information (continued)

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
Root9B Technologies, Inc.	$21	Project Oversight Services, Project Management Services
RVK, Inc.	20	Market Analysis
Saba Software, Inc.	89	Employee Training and Development
Shah & Associates, A Professional Law Company	127	Legal Services
Sharp Health Plan	5,614	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention and Disease Management Services
Shooting Star Solutions, LLC	42	IT Security
Sign Language Interpreting Service Agency	21	Interpreting Services
Softsol Technologies, Inc.	373	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management, Business Intelligence and Reporting
Sophus Consulting	150	Legal Services
SRI Infotech, Inc.	220	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
State Controller's Office	5,427	Account Management, Performance Management and Program Evaluation, Information Services, Other Post Employment Benefits, General Administrative Services, and Premium Remittance Services
State Personnel Board	95	Compliance Review, Audit, and Processing of Appeals and Complaints
State Treasurer's Office	46	Wiring Services
Steptoe & Johnson, LLP	823	Legal Services
T5 Consulting	1,792	Application Development, Business Intelligence and Reporting, Information Services
Take 1 Productions	80	Video and Multimedia Production Services
Technology Crest Corporation	257	Release Management/Quality Assurance/Configuration Management
Teranomic	26	Project Management Services
The Ballard Group, Inc.	173	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management
The Regents of the University of California	282	Organizational and Leadership Development
The Taylor Feldman Group, LLC	34	Management Support Services
Trinity Technology Group, Inc.	1,080	Business Intelligence and Reporting, Information Services, IT Architecture
United Health Actuarial Services, Inc.	1,376	Medical Consulting Services
United Healthcare	33,655	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention and Disease Management Services
Unleashing Leaders, Inc.	33	Organizational and Leadership Development
Vantage Consulting Group, Inc.	607	Business Process Re-engineering, IT Architecture, Technical Writing
VanWrite Writing Consultants, LLC	43	Employee Training and Development
Vasquez Benisek & Lindgren, LLP	39	Legal Services, Intellectual Property Law
Viaspire	80	Marketing Services, Social Media Services, Writing and Editorial Services
Visionary Integration Professionals, LLC (VIP)	166	Business Process Re-engineering, Technical Writing
Voya	3,565	Third-Party Member Record Keeper
VPI Strategies	29	Employee Training and Development
Western Health Advantage	1,401	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention and Disease Management Services
Worktank Enterprises, LLC	60	Video and Multimedia Production Services, Web Event Services
Various	241	
Total Consultant and Professional Services Expenses	**$328,057**	

Note: Negative Consultant and Professional Expenses are due to adjusting entries.

Investment Section

Investment Section

CHIEF INVESTMENT OFFICER'S LETTER

DRAFT - Date Placeholder

On behalf of the California Public Employees' Retirement System (CalPERS) Investment Office, I am pleased to report on CalPERS' investment performance, operations, and initiatives for the one-year period ending on June 30, 2018. The CalPERS Public Employees' Retirement Fund (PERF) earned a time-weighted rate of return of 8.6 percent this fiscal year, with the ending fair value of investments at $358 billion.

The 12-month returns were led by the Private Equity Program, which generated a 16.1 percent net return. Public equity also delivered double-digit net returns at 11.5 percent, followed by real estate, with net returns of 8.0 percent.

While the positive returns are encouraging, the focus is always on the long-term sustainability of the Fund. CalPERS invests for decades, not years.

With this in mind, in late 2017 the CalPERS Board voted on the asset allocation of the Fund's investment portfolio for the next four years. As part of the Asset Liability Management (ALM) process, the Board examined four potential portfolios and their impact on the CalPERS Fund. Each portfolio represented different distributions of assets based on varying rates of expected return and risk of volatility.

The new asset allocation will be distributed as follows:

- 50% in Global Equity
- 28% Fixed Income
- 13% Real Assets
- 8% Private Equity
- 1% Liquidity

In making its decision, the Board reviewed recommendations from CalPERS' team members, external pension and investment consultants, and input from employer and employee stakeholder groups.

At the same time, the CalPERS Investment Office continues to make strides to reduce the risk, cost, and complexity of the Fund, as outlined in our 2020 Vision Strategic Plan. The investment office's external management fees and operational expenses have declined by approximately $239 million since Fiscal Year 2010-11. Contributors to the savings include transitioning assets from external managers to internal management when possible, reducing external management fees, and decreasing the number of outside consultants and advisors. In the annual and independent CEM Benchmarking survey, it was reported that CalPERS' was low cost compared to its global peers.

This year CalPERS continued to advocate for corporate governance best practices through proxy voting and corporate engagements centered around Environmental, Social, and Governance issues. In total, CalPERS cast votes in line with our Governance & Sustainability Principles at over 11,000 meetings, representing more than 105,000 individual ballot items.

We also made progress advancing corporate governance reforms on specific issues related to climate risk reporting, proxy access, majority vote for director elections, and board diversity. We targeted 121 companies for shareowner campaigns and reached settlements with 88 of them. At companies where settlements could not be reached, team members ran proxy solicitations to maximize investor support (8 of 17 shareowner proposals passed with majority support).

Additionally, the team made significant progress on board diversity engagements. Based on CalPERS' requests to improve diversity at 504 U.S. companies, 151 companies added a diverse director, and another 126 have or will be enhancing their diversity disclosures.

In addition to managing current investments, CalPERS continued outreach regarding a global solicitation process for investment proposals from eligible mid-size external investment managers. Also known as transition managers, these firms provide CalPERS with unique investment opportunities that may otherwise be overlooked and will help to cultivate the next generation of external portfolio management talent. We also remain committed to our Emerging Manager Program which identifies early stage funds with strong potential for success.

While we are a global investor, CalPERS is also proud to make investments in California. In Fiscal Year 2016-17, the *CalPERS for California* Report showed that some 266,200 estimated jobs were supported as a result of CalPERS' private market investments in the state economy, and the number of California jobs represented by the California-based public companies in which CalPERS invests is estimated at over one million. These dollars were invested across multiple asset classes, including public equity, fixed income, private equity, real estate, and infrastructure. These commitments contribute to major infrastructure projects, and support business expansion efforts.

CalPERS is committed to the success and sustainability of our system. Our mission remains the same—manage the CalPERS investment portfolio in a cost-effective, transparent, and risk-aware manner in order to generate returns to pay benefits. While we are pleased with this year's strong returns, we continue to identify ways to reduce the cost, risk, and complexity of the Fund's portfolio and operations, while also maximizing investment returns.

Our Investment Office team, the Board's pension consultant Wilshire Associates, and State Street Bank & Trust, our master custodian, compiled the investment data presented on the following pages.

Ted Eliopoulos
Chief Investment Officer

INVESTMENT PERFORMANCE – PUBLIC EMPLOYEES' RETIREMENT FUND (PERF)

Summary of Investments – PERF – As of June 30, 2018 (Dollars in Thousands)

Category	Book Value	Fair Value	% of Investments at Fair Value
Short-Term Investments	$21,337,113	$21,337,180	6%
Global Equity Securities	126,955,006	163,011,734	45%
Global Debt Securities	108,959,634	108,439,708	30%
Real Assets	25,420,331	38,008,043	11%
Private Equity	27,660,154	27,192,946	8%
TOTAL INVESTMENT VALUE	**$310,332,238**	**$357,989,611**	**100%**

Portfolio Comparisons – PERF (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	10-Year Return	Index[5]	1-Year Return	3-Year Return	5-Year Return	10-Year Return
Total Fund	**8.6%**	**6.7%**	**8.1%**	**5.6%**	Weighted Policy Benchmark[1]	8.6%	6.9%	8.1%	6.7%
					Trust Universe Comparison Service (TUCS) Public Fund Median	7.5%	6.4%	7.6%	9.4%
					Wilshire Large Fund Universe Median	8.7%	7.4%	8.6%	6.8%
Public Equity	11.5%	8.8%	10.2%	6.7%	CalPERS Custom FTSE Global Composite	11.9%	8.8%	10.1%	7.0%
Private Equity	16.1%	10.4%	11.9%	9.0%	67% FTSE US TMI+33% FTSE AW EX US +3%; 1Qtr Lag	18.6%	12.3%	14.2%	13.5%
Global Fixed Income	0.4%	3.2%	3.8%	5.7%	Global Fixed Income Benchmark[2]	0.0%	2.7%	3.1%	4.9%
Real Assets	8.0%	7.1%	9.4%	(0.5%)	Real Assets Benchmark[3]	6.8%	8.3%	9.6%	6.3%
Liquidity	1.7%	0.9%	0.9%	1.0%	30-Day Treasury Bill	1.3%	0.7%	1.0%	1.1%
Inflation	9.3%	0.8%	(0.4%)	(1.8%)	Inflation Benchmark[4]	8.9%	0.5%	(0.9%)	(1.0%)

(1) The Asset Allocation Policy Index return equals the return for each asset class benchmark, weighted at the historical target asset allocations.
(2) The current benchmark is 90% Bloomberg Barclays Long Liabilities and 10% Bloomberg Barclays International Fixed Income GDP weighted ex US.
(3) The current benchmark is 83.4% Real Estate Benchmark (NCREIF ODCE-Net,) 8.3% Infrastructure Benchmark (CPI + 4%,) and 8.3% Forestland Benchmark (NCREIF Timberland-Gross) 1 Qtr Lag.
(4) The current benchmark is 75% ILB Custom Index and 25% Standard & Poor's GSCI Total Return Index Benchmark.
(5) Index benchmarks are as of June 30, 2018, and are subject to be updated based on changes within the fund portfolios.

PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

Asset Allocation – PERF

Asset Class	Current Allocation	New Interim Target Allocation[1]	Previous Interim Target Allocation[2]
Global Equity	48.9%	49.0%	46.0%
Private Equity	7.7%	8.0%	8.0%
Global Fixed Income	22.5%	22.0%	20.0%
Real Assets	10.8%	12.0%	13.0%
Liquidity	3.3%	3.0%	4.0%
Inflation Assets	5.9%	6.0%	9.0%
Total Plan Level[3]	0.9%	—	—
TOTAL FUND	**100.0%**	**100.0%**	**100.0%**

(1) Effective April 1, 2018.
(2) As of October 1, 2016.
(3) The Total Plan Level includes Multi-Asset Class, Absolute Return Strategies, transition, and plan level portfolios. These assets do not have targets because they are not components of the Total Fund Policy benchmark.

Portfolio of California Investments at Fair Value – PERF (Dollars in Millions)

California Investments	Fair Value	Cost
Public Equity[1]	$17,157	$9,640
Global Fixed Income[2]	5,559	5,675
Real Assets[3]	10,019	6,426
Private Equity[3]	821	572
TOTAL CALIFORNIA INVESTMENTS	**$33,556**	**$22,313**

(1) Includes listed public equities corporate bonds.
(2) Fixed Income also includes a portion of MBS & ABS which have significant geographical exposure to CA, and MHLP.
(3) Real assets and private equity as of March 31, 2018.

PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

Largest Stock Holdings at Fair Value – PERF (Dollars in Thousands)

Rank	Security Name	Shares	Fair Value
1	Apple	12,548,987	$2,322,943
2	Microsoft Corporation	19,538,459	1,926,687
3	Amazon	896,562	1,523,976
4	Alphabet	1,107,312	1,250,366
5	Facebook	5,639,190	1,095,807
6	JP Morgan Chase & Company	10,396,195	1,083,284
7	Exxon Mobil Corporation	11,861,588	981,309
8	Johnson & Johnson	7,277,131	883,007
9	Unitedhealth Group Incorporation	3,386,443	830,830
10	Bank of America	29,218,694	823,675

Largest Bond Holdings at Fair Value – PERF (Dollars in Thousands)

Rank	Bond	Interest Rate	Maturity Date	Par Value	Fair Value
1	United States Treasury	0.500%	1/15/2028	$2,918,733	$2,856,365
2	United States Treasury	3.125%	5/15/2048	2,546,308	2,617,458
3	United States Treasury	2.875%	5/15/2028	2,196,500	2,201,279
4	United States Treasury	0.375%	7/15/2027	1,803,952	1,755,704
5	United States Treasury	2.250%	8/15/2027	1,822,000	1,734,374
6	United States Treasury	0.125%	4/15/2021	1,702,177	1,676,221
7	United States Treasury	2.875%	5/15/2043	1,679,500	1,649,194
8	Federal Home Loan Mortgage Corp.	3.500%	8/13/2048	1,240,337	1,232,414
9	United States Treasury	2.750%	2/15/2028	1,214,800	1,204,359
10	Federal Home Loan Mortgage Corp.	4.000%	8/13/2048	1,166,925	1,187,906

A complete list of portfolio holdings is available upon request.

Schedule of Commissions & Fees (Dollars in Thousands)

Broker	Number of Shares Traded	Base Commission & Fees Amount
Academy Securities, Inc.	745,247	$10
Banco Pactual SA	1,959,235	14
Barclays Capital, Inc./LE	24,420,794	334
Barclays Capital, Inc.	13,629,607	101
BMO Capital Markets	2,645,664	74
BNP Paribas Securities (Asia), Ltd.	588,550	11
BNP Paribas Securities Services	12,592,931	79
Bradesco S.A. CTVM	11,501,743	77
Broadcort Capital Corp.	997,055	19
BTG Pactual Chile S.A. Corredores de	20,043,333	20
BTIG, LLC	43,914,460	424
Cantor Fitzgerald & Co.	4,083,309	93
Capital Institutional Services, Inc.	23,884,693	254
Citation Group	730,447	26
Citigroup Global Market Korea Secs., Ltd.	1,974,135	65
Citigroup Global Markets CME	23,651	44
Citigroup Global Markets India	5,771,080	40
Citigroup Global Markets Taiwan	33,380,165	36
Citigroup Global Markets, Inc.	1,848,890,003	2,780
Citigroup Global Markets, Inc.Salomon Bro.	200,717	350
Citigroup Global Markets, Ltd.	119,863,040	625
CL Securities Taiwan and Company, Ltd.	8,911,000	12
CLSA Australia PTY, Ltd.	34,463,482	122
CLSA Securities Korea, Ltd	564,483	102
CLSA Singapore PTE, Ltd.	172,706,318	522
Concordia SA CVMCC	2,357,154	13
Cormark Securities, Inc.	576,012	10
Cowen and Company, LLC	1,621,196	39
Cowen Execution Services, LLC	49,329,365	280
Credit Agricole Securities (Asia)	1,837,263,978	534
Credit Lyonnais Securities (USA), Inc.	2,409,154	15
Credit Suisse First Boston	558,912,708	378
Credit Suisse First Boston (Europe)	75,163	10
Credit Suisse First Boston SA CTVM	2,274,130	24
Credit Suisse Secs India Private, Ltd.	1,222,139	10
Credit Suisse Securities (Europe), Ltd.	9,751,494	127
Credit Suisse Securities (USA), LLC	681,604,855	2,425
CS First Boston (Hong Kong), Ltd.	4,696,702	46
CSFB Australia Equities, Ltd.	3,697,288	13
Daiwa Securities (HK), Ltd.	3,035,100	19
Davy Stockbrokers	3,793,058	27
Deutche Bank AG, London	35,410,933	252
Deutsche Bank Securities, Inc.	155,600,022	985
Deutsche Morgan Grenfell Securities	1,347,767	8
Deutsche Securities Asia, Ltd.	15,957,106	52
Drexel Hamilton, LLC	4,762,390	73
DSP Merrill Lynch, Ltd.	8,536,619	25
Exane SA	36,955,255	312
FBR Capital Markets & Company	814,377	19
Financial Brokerage Group	2,862,712	13
Flow Corretora De mercadorias, Ltd.	1,585,205	16
GMP Securities, LP	399,600	8
Goldman Sachs (Asia), LLC	14,290,294	$58
Goldman Sachs (India)	818,606	28
Goldman Sachs and Company	876,927,347	2,621
Goldman Sachs Do Brasil Corretora	19,906,140	95
Goldman Sachs International	57,854,368	271
Goodbody Stockbrokers	3,907,289	13
Guzman and Company	6,081,215	93
Hongkong and Shanghai Banking, Corp.	39,298,328	12
Hongkong Bank Malaysia Berhad	21,745,111	16
HSBC Bank, PLC	8,466,994,373	357
HSBC Brokerage (USA), Inc.	9,339,346	65
HSBC Securities (USA), Inc.	935,707,151	429
HSBC Securities India Holdings	63,265,403	533
ICICI Brokerage Services, Ltd.	6,998,250	31
Instinet	29,764,941	380
Instinet Australia Clearing Srvc. Pty., Ltd.	12,595,924	60
Instinet Europe, Ltd.	303,580,610	1,525
Instinet Pacific, Ltd.	133,795,323	270
Instinet Singapore Services PT	9,952,900	13
Instinet, LLC	132,880,238	1,286
Investec Bank, PLC	367,835	85
Investment Technology Group, Inc.	20,646,030	248
Investment Technology Group, Ltd.	277,441,176	930
ISI Group, Inc.	2,886,108	67
ITG Australia, Ltd.	142,464,176	508
ITG Canada	3,064,894	43
Jefferies and Company, Inc.	73,463,092	583
Jefferies Hong Kong, Ltd.	20,837,600	12
Jefferies India Private, Ltd.	3,416,107	11
Jefferies International, Ltd.	50,802,065	93
JMP Securities	370,775	14
Joh Berenberg Gossler and Company	1,885,057	63
Jones Trading Institutional Services, LLC	13,673,804	170
JP Morgan Chase Bank	1,709,049	24
JP Morgan Clearing Corp.	9,702,268	85
JP Morgan India Private, Ltd.	20,278,190	218
JP Morgan Securities (Asia Pacific), Ltd.	155,703,171	163
JP Morgan Securities (Far East), Ltd.	2,103,291	134
JP Morgan Securities (Singapore)	11,586,896	21
JP Morgan Securities Asia Private, Ltd.	12,031,000,000	9
JP Morgan Securities Australia, Ltd.	4,915,773	20
JP Morgan Securities, Inc.	903,918,519	1,750
JP Morgan Securities, Ltd.	819,639	40
JP Morgan Securities, PLC	6,741,191,281	843
Keefe Bruyette and Woods, Inc.	1,195,123	36
Kepler Equities Paris	1,541,654	59
Keybanc Capital Markets, Inc.	698,080	22
Knight Capital Group, Inc.	178,272	14
Leerink Partners, LLC	1,053,810	38
Liquidnet Europe, Ltd.	2,182,851	10
Liquidnet, Inc.	38,869,272	421
Loop Capital Markets, LLC	4,092,514	34

Investment Section (continued)

Schedule of Commissions & Fees (Dollars in Thousands) (continued)

Broker	Number of Shares Traded	Base Commission & Fees Amount
Luminex Trading and Analytics, LLC	4,076,681	$12
Macquarie Bank, Ltd.	89,828,322	213
Macquarie Securities (India), Inc.	2,957,418	11
Macquarie Securities (Korea), Ltd.	563,072	103
Merrill Lynch International	21,381,665,277	1,813
Merrill Lynch Pierce Fenner and Smith, Inc.	229,283,816	1,751
Mirae Asset Daewoo and company, Ltd.	1,634,898	19
Mitsubishi UFJ Securities (USA)	432,345	11
Mizuho Securities Asia, Ltd.	386,000	11
Mizuho Securities USA, Inc.	1,697,631	28
MKM Partners, LLC	258,731	9
Morgan Stanley (Taiwan), Ltd.	20,406,000	46
Morgan Stanley and Company International	15,011,571	109
Morgan Stanley and Company, LLC	1,512,286,976	2,906
Morgan Stanley Dean Witter, Inc.	186,710	10
Morgan Stanley India Company PVT, Ltd.	3,679,197	27
National Financial Services, LLC	608,350	9
Nesbitt Burns	1,324,600	18
Nomura Securities International, Inc.	3,846,205	53
Noredea Bank AB (publ), Finnish Branch	1,550,597	11
North South Capital, LLC	6,774,136	104
Parel	658,517	33
Pavilion Global Markets Ltd.	8,139,272	96
Penserra Securities, LLC	34,109,251	417
Pershing, LLC	12,160,039	131
Pershing Securities, Ltd.	302,138	9
Raymond James and Associates, Inc.	2,865,277	101
RBC Capital Markets, LLC	6,559,202	135
RBC Dominion Securities, Inc.	10,606,288	170
Reburn (Europe), Ltd.	1,865,837	21
Robert W. Baird Company, Inc.	706,800	20
Rosenblatt Securities, LLC	35,452,158	467
Royal Bank of Canada Europe, Ltd.	27,581,856	296
Sanford C. Bernstein, Ltd.	43,412,195	248
Scotia Capital, Inc.	613,000	9
SG Americas Securities, LLC	72,507,469	252
SG Asia Securities (India) Pvt. Ltd.	19,573,549	61
SG Securities (London), Ltd.	68,460,711	49
SG Securities Hong Kong	609,788,437	488
SJ Levinson and Sons, LLC	9,995,574	146
SMBC Nikko Capital Markets, Ltd.	2,870,800	14
SMBC Nikko Securities (Honk Kong), Ltd.	832,300	10
SMBC Securities, Inc.	430,316	11
Societe Generale London Branch	190,393,370	755
Stanford C Bernstein and Company, LLC	33,287,737	409
State Street Bank and Trust Company	14,050	28
State Street Corp.	44,863	56
Stephens, Inc.	328,638	8
Stifel Nicolaus and Company, Inc.	1,421,464	45
Stuart Frankel and Co., Inc.	16,990,812	164
Suntrust Capital Markets, Inc.	458,710	$12
The Hongkong and Shanghai Bank	2,614,448	44
UBS Ag	46,601,392	312
UBS, Ltd.	193,477,159	858
UBS Securities Asia, Ltd.	415,855,608	717
UBS Securities India Private, Ltd.	4,212,162	45
UBS Securities Pte. Ltd.	101,464,860	162
UBS Securities, Pte. Ltd., Seoul	3,334,732	73
UBS Securities, LLC	43,527,557	640
UBS Warburg Australia Equities	397,340	8
Virtu Americas, LLC	46,629,100	506
Weeden and Company	60,846,577	573
Wells Fargo Securities, LLC	818,015	18
XP Investimentos CCTVM SA	9,392,872	40
Various[1]	30,647,163,108	338
TOTAL	**93,572,322,246**	**$43,160**

(1) Commissions and fees paid to brokers that totaled less than $8,000 for the year are reported under the "Various" line item.

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF (Dollars in Thousands)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates[1,2]	Net Management Fees	Profit Sharing Paid[3,4]
57 Stars Global Opportunities Fund 2 (CalPERS), LLC	$1,720	($1,114)	$606	$0
57 Stars Global Opportunities Fund, LLC	600	—	600	—
Aberdare Ventures IV, LP	296	(37)	259	—
Advent International GPE V-D, LP	81	—	81	—
Advent International GPE VI-A, LP	2,241	(8)	2,233	10,517
Advent International GPE VII-C, LP	4,537	(164)	4,373	—
Advent International GPE VIII-B Limited Partnership	7,500	(45)	7,455	—
Advent Latin America Private Equity Fund IV-D, LP	1,200	—	1,200	—
Advent Latin America Private Equity Fund V-H, LP	1,121	—	1,121	—
Advent Latin American Private Equity Fund III-D, LP	151	—	151	—
Affinity Asia Pacific Fund III, LP	774	—	774	—
Aisling Capital II, LP	11	(12)	(1)	—
Aisling Capital III, LP	606	(88)	518	325
AP Alternative Assets (AAA), LP	—	—	—	33,155
Apollo Credit Opportunity Fund I, LP	290	(290)	—	1,666
Apollo European Principal Finance Fund, LP	—	—	—	93
Apollo Investment Fund VI, LP	951	(163)	788	—
Apollo Investment Fund VII, LP	1,432	(288)	1,144	3,790
Apollo Investment Fund VIII, LP	4,999	(2,533)	2,466	7,696
Apollo Special Opportunities Managed Account, LP	4,688	(202)	4,486	—
ArcLight Energy Partners Fund IV, LP	121	(1)	120	3,179
Ares Corporate Opportunities Fund III, LP	1,417	(7)	1,410	16,627
Ares Corporate Opportunities Fund V, LP	5,950	(19)	5,931	—
Ares Special Situations Fund, LP	—	—	—	27
Asia Alternatives Capital Partners II, LP	230	—	230	—
Asia Alternatives Capital Partners, LP	77	—	77	1,627
Avenue Special Situations Fund IV, LP	—	—	—	127
Avenue Special Situations Fund V, LP	—	—	—	139
Avenue Special Situations Fund VI (A), LP	84	—	84	—
Baring Vostok Private Equity Fund IV, LP	727	—	727	—
BDC III C, LP	2,899	(344)	2,555	—
Birch Hill Equity Partners (US) III, LP	53	(40)	13	—
Birch Hill Equity Partners (US) IV, LP	1,026	(29)	997	—
Blackstone / GSO Capital Solutions Fund, LP	571	(21)	550	216
Blackstone Capital Partners IV, LP	—	—	—	469
Blackstone Capital Partners V, LP	104	(26)	78	4,045
Blackstone Capital Partners VI, LP	2,678	(686)	1,992	9,101
Blackstone Capital Partners VII, LP	6,250	—	6,250	—
Blackstone RL Co-Invest, LP	370	—	370	4,991
Blackstone Tactical Opportunities Fund - C, LP	5,283	(129)	5,154	9,677
Blackstone Tactical Opportunities Fund (KG Co-Invest), LP	482	(1)	481	491
Blackstone Tactical Opportunities Fund (T4U Co-Invest), LP	203	—	203	—
Blackstone Tactical Opportunities Fund II - C, LP	2,289	(7)	2,282	1,114
Bridgepoint Europe II 'A', LP	—	(10)	(10)	—
Bridgepoint Europe II 'C', LP	—	(3)	(3)	—
Bridgepoint Europe III 'C', LP	—	(6)	(6)	—
Bridgepoint Europe III 'D', LP	—	(35)	(35)	—
Bridgepoint Europe IV 'B', LP	713	(52)	661	—
Bridgepoint Europe IV 'D', LP	1,822	(84)	1,738	—
Bridgepoint Europe V	7,631	(809)	6,822	—
California Asia Investors, LP	303	—	303	—

Private Equity Management Fees & Profit Sharing – PERF (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates[1,2]	Net Management Fees	Profit Sharing Paid[3,4]
California Emerging Ventures II, LLC	$88	$0	$88	$0
California Emerging Ventures III, LLC	200	—	200	—
California Emerging Ventures IV, LLC	562	—	562	3,918
California Emerging Ventures, LLC	—	—	—	12
California Mezzanine Investment Fund, LP	179	—	179	—
CalPERS Clean Energy & Technology Fund, LLC	568	—	568	—
CalPERS Corporate Partners, LLC	—	—	—	18
Capital Link Fund I, LLC	477	—	477	647
Capital Link Fund II, LLC	380	—	380	3,832
Carlyle Asia Growth Partners III, LP	29	—	29	—
Carlyle Asia Growth Partners IV, LP	759	—	759	—
Carlyle Asia Partners II, LP	218	(15)	203	6,339
Carlyle Asia Partners III, LP	810	(36)	774	18,190
Carlyle Europe Partners II, LP	—	—	—	231
Carlyle Europe Partners III, LP	578	(235)	343	8,634
Carlyle Europe Technology Partners II, LP	384	—	384	4,127
Carlyle Global Financial Services Partners, LP	872	(34)	838	12,056
Carlyle High Yield Partners 2008-1	—	—	—	18
Carlyle Japan Partners II, LP	330	(34)	296	—
Carlyle Mexico Partners, LP	93	—	93	—
Carlyle Partners V, LP	1,304	(595)	709	20,201
Carlyle Partners VI, LP	6,564	(3,078)	3,486	—
Carlyle Realty Partners III, LP	—	—	—	275
Carlyle Strategic Partners II, LP	99	(50)	49	208
Carlyle Strategic Partners IV, LP	1,950	(16)	1,934	—
Carlyle U.S. Equity Opportunities II, LP	3,100	(365)	2,735	—
Carlyle U.S. Growth Fund III, LP	220	—	220	—
Carlyle/Riverstone Global Energy and Power Fund II	—	—	—	(4,105)
Carlyle/Riverstone Global Energy and Power Fund III, LP	395	—	395	(21,167)
CDH Fund V, LP	3,450	—	3,450	—
Centerbridge Capital Partners III, LP	2,250	(695)	1,555	1,454
Cerberus CAL II Partners, LP	166	—	166	—
Cerberus CP Partners, LP	2,275	(1,232)	1,043	—
Cerberus Institutional Partners V, LP	1,454	(332)	1,122	—
Clarus Lifesciences II, LP	1,101	(60)	1,041	1,637
Clayton, Dubilier & Rice Fund X, LP	1,498	(86)	1,412	—
Clearlake Capital Partners III, LP	556	(562)	(6)	4,485
Clearlake Capital Partners IV, LP	1,058	(212)	846	—
Clearlake Capital Partners V, LP	212	(59)	153	—
Clearlake Opportunities Partners (P), LP	992	(301)	691	—
Clearwater Capital Partners Fund III, LP	570	—	570	—
Coller International Partners V-A, LP	2,441	—	2,441	—
Craton Equity Investors I, LP	180	—	180	—
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	5,700	—	5,700	—
CVC Capital Partners VI, LP	6,003	368	6,371	—
CVC Capital Partners VII (A), LP	1,944	—	1,944	—
CVC Credit Strategic Investment A, LP	1,996	—	1,996	—
CVC European Equity Partners IV (D), LP	—	(3)	(3)	3,722
CVC European Equity Partners Tandem Fund (B), LP	—	(4)	(4)	638
CVC European Equity Partners V (B), LP	853	(303)	550	16,375
EM Alternatives Investments, LP	200	—	200	—
Essex Woodlands Health Ventures Fund VIII, LP	1,471	(11)	1,460	—

Private Equity Management Fees & Profit Sharing – PERF (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates[1,2]	Net Management Fees	Profit Sharing Paid[3,4]
First Reserve Fund XII, LP	$1,431	($12)	$1,419	$0
First Reserve Fund XIII, LP	5,440	(787)	4,653	—
Francisco Partners II, LP	173	(3)	170	—
Francisco Partners III, LP	1,071	(190)	881	7,921
GCM Grosvenor DEM II, LP	1,250	—	1,250	—
GCM Grosvenor DEM, LP	459	—	459	—
Golden State Investment Fund, LLC	224	—	224	28
Green Equity Investors IV, LP	(4)	(38)	(42)	—
Green Equity Investors V, LP	851	(987)	(136)	10,286
GSO Capital Opportunities Fund II, LP	1,344	1	1,345	5,787
GSO Capital Opportunities Fund, LP	36	—	36	—
GSO Capital Solutions Fund II, LP	3,080	(98)	2,982	—
GSO Energy Partners-C II, LP	1,167	—	1,167	—
GSO Energy Partners-C, LP	1,925	—	1,925	—
Hellman & Friedman Capital Partners V LP	—	—	—	162
Hellman & Friedman Capital Partners VI	257	(67)	190	17,776
Hellman & Friedman Capital Partners VII	1,256	(66)	1,190	15,201
Hellman & Friedman Capital Partners VIII, LP	5,774	(1,103)	4,671	—
ICV Partners II, LP	—	—	—	79
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	4,145	(19)	4,126	7,867
Insight Venture Partners IX, LP	1,810	—	1,810	799
Insight Venture Partners V, LP	—	—	—	312
Insight Venture Partners VI, LP	28	—	28	3,582
Insight Venture Partners X, LP	1,580	—	1,580	—
Ithaca, LP	—	—	—	—
Khosla Ventures III, LP	2,000	—	2,000	—
Khosla Ventures Seed, LP	837	—	837	—
KKR 2006 Fund, LP	365	—	365	10,825
KKR Asian Fund II, LP	1,475	—	1,475	6,362
KKR Asian Fund, LP	270	—	270	2,075
KKR European Fund II, LP	114	—	114	111
KKR European Fund III, LP	856	—	856	6,960
KKR European Fund, LP	—	—	—	3
KKR Millennium Fund, LP	1	—	1	2,056
Kline Hawkes Pacific, LP	—	(33)	(33)	—
KM Corporate Partners Fund II, LP	700	(10)	690	—
KPS Special Situations Fund III, LP	777	(464)	313	1,843
Lime Rock Partners IV, LP	179	—	179	22,899
Lime Rock Partners V, LP	519	(6)	513	(385)
Lindsay Goldberg IV, LP	4,688	(4)	4,684	—
Lion Capital Fund II, LP	528	—	528	—
Madison Dearborn Capital Partners V, LP	652	(652)	—	6,882
Magnum Capital, LP	144	—	144	—
MHR Institutional Partners III, LP	1,480	(27)	1,453	—
New Mountain Partners III, LP	486	(486)	—	16,702
Newbridge Asia IV, LP	228	(41)	187	2,283
Oak Hill Capital Partners II, LP	52	(2)	50	268
Oak Hill Capital Partners III, LP	1,454	(22)	1,432	8,269
Oaktree Opportunities Fund VIIIb, LP	2,005	(17)	1,988	—
Onex Partners IV, LP	5,113	(429)	4,684	—
PAG Asia I, LP	670	—	670	64

Private Equity Management Fees & Profit Sharing – PERF (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates[1,2]	Net Management Fees	Profit Sharing Paid[3,4]
Palladium Equity Partners III, LP	$0	($8)	($8)	$0
Patria Brazilian Private Equity Fund V, LP	3,018	(8)	3,010	—
Permira Europe III	—	(1)	(1)	208
Permira IV, LP 2	—	(19)	(19)	7,918
Permira V, LP	2,941	(99)	2,842	—
Permira VI, LP 1	7,058	(623)	6,435	—
Polish Enterprise Fund V, LP	—	—	—	1,674
Polish Enterprise Fund VI, LP	444	—	444	16,197
Providence Equity Partners V	113	(113)	—	—
Providence Equity Partners VI, LP	587	(204)	383	—
RFG Private Equity Limited Partnership No. 1A, 1B and 1C	59	—	59	—
Rhone Partners III, LP	—	—	—	2,730
Richardson Capital Private Equity Limited Partnership No.2A, 2B and 2C	17	—	17	—
Riverstone Global Energy and Power Fund V, LP	2,653	(379)	2,274	—
Riverstone Global Energy and Power Fund VI, LP	7,500	(133)	7,367	—
Riverstone/Carlyle Global Energy and Power Fund IV, LP	1,318	(369)	949	—
Riverstone/Carlyle Renewable & Alternative Energy Fund II, LP	1,462	(267)	1,195	—
Riverwood Capital Partners (Parallel - A), LP	353	(18)	335	5,467
Sacramento Private Equity Partners, LP	1,000	—	1,000	7,682
SAIF Partners III, LP	1,020	—	1,020	3,508
SAIF Partners IV, LP	1,899	—	1,899	—
Sankaty Managed Account (CalPERS), LP	4,766	(534)	4,232	—
Silver Lake Partners II, LP	—	—	—	1,534
Silver Lake Partners III, LP	1,145	(132)	1,013	18,184
Silver Lake Partners IV, LP	4,496	(1,364)	3,132	—
Silver Lake Partners V, LP	711	—	711	—
Siris Partners III, LP	1,513	(652)	861	—
SL SPV-1, LP	190	—	190	—
Tailwind Capital Partners (PP), LP	444	(32)	412	342
Tailwind Capital Partners II, LP	1,695	(856)	839	—
The Central Valley Fund II SBIC, LP	260	(52)	208	—
The Central Valley Fund, LP	—	—	—	135
The Resolute Fund II, LP	936	(249)	687	13
The Rise Fund (A), LP	1,259	—	1,259	—
Thomas H. Lee Equity Fund VI, LP	355	(235)	120	468
TowerBrook Investors II, LP	—	—	—	486
TowerBrook Investors III, LP	515	91	606	2,592
TowerBrook Investors IV (Onshore), LP	7,151	(401)	6,750	(45)
Towerbrook Structured Opportunities Fund (Onshore), LP	1,894	(140)	1,754	—
TPG Asia V, LP	684	—	684	—
TPG Biotechnology Partners II, LP	49	(49)	—	(2,378)
TPG Biotechnology Partners III, LP	309	(124)	185	—
TPG Growth IV, LP	662	—	662	—
TPG Partners IV, LP	—	—	—	341
TPG Partners V, LP	14	(76)	(62)	—
TPG Partners VI, LP	3,155	(508)	2,647	6,546
TPG STAR, LP	208	(27)	181	—
Trident VI	3,455	(151)	3,304	—
Trident VII, LP	3,803	—	3,803	—
Triton Fund IV, LP	1,465	—	1,465	—
T-VI Co-Invest-A, LP	—	(195)	(195)	—

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates[1,2]	Net Management Fees	Profit Sharing Paid[3,4]
Valor Equity Partners IV, LP	$848	($274)	$574	$0
VantagePoint CleanTech Partners, LP	67	—	67	—
VantagePoint Venture Partners 2006 (Q), LP	769	—	769	—
Vicente Capital Partners Growth Equity Fund, LP	372	(130)	242	—
W Capital Partners II, LP	451	(19)	432	—
Wellspring Capital Partners V, LP	663	(663)	—	651
Welsh, Carson, Anderson & Stowe X, LP	45	(17)	28	4,889
Welsh, Carson, Anderson & Stowe XI, LP	397	(1)	396	3,855
Welsh, Carson, Anderson & Stowe XII, LP	4,882	—	4,882	306
Wigmore Street (BDC III), LP	3	—	3	—
Wigmore Street Co-investment No.1, LP	2	—	2	—
WLR Recovery Fund III, LP	464	(464)	—	—
WLR Recovery Fund IV, LP	1,869	(17)	1,852	—
Yucaipa American Alliance Fund II, LP	3,035	—	3,035	—
Yucaipa Corporate Initiatives Fund II, LP	310	—	310	—
TOTAL	**$276,653**	**($30,277)**	**$246,376**	**$431,137**

(1) Amounts include management fee waivers that may be paid in a subsequent period.
(2) Positive amounts are reflective of timing differences between when a waiver is used compared with when the fee is called.
(3) Profit sharing represents the investment manager's share of the gain realized during the fiscal year, net of any return of realized profit distributed in earlier years.
(4) Negative amounts are reflective of decreased investment value resulting in the return of realized profit.

INVESTMENT PERFORMANCE – LEGISLATORS' RETIREMENT FUND (LRF)

LRF Portfolio Comparisons (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**4.8%**	**4.4%**	**5.2%**	Weighted Policy Benchmark	4.7%	4.2%	4.9%
Global Equity	12.0%	9.0%	10.3%	SSGA MSCI ACWI IMI - DB	11.9%	8.8%	10.2%
Global Fixed Income	0.2%	3.3%	4.2%	Bloomberg Barclays Long Liability Index	(0.2%)	2.7%	3.4%
TIPS	2.2%	1.9%	1.6%	Bloomberg Barclays U.S. TIPs Index, Series L	2.1%	1.9%	1.7%
REITs	6.6%	6.7%	6.9%	SSGA Global REIT	6.7%	6.7%	6.9%
Commodities	30.3%	(3.9%)	(9.4%)	S&P GSCI Total Return Daily	30.0%	(4.4%)	(9.4%)

LRF Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Equity	24.1%	24.0%
Global Fixed Income	38.7%	39.0%
TIPS	26.1%	26.0%
REITs	8.1%	8.0%
Commodities	3.0%	3.0%
Cash	—%	—%
Total Fund	**100.0%**	**100.0%**

INVESTMENT PERFORMANCE – JUDGES' RETIREMENT FUND II (JRF II)

JRF II Portfolio Comparisons (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**7.5%**	**6.2%**	**7.2%**	Weighted Policy Benchmark	7.3%	6.0%	7.0%
Global Equity	12.0%	8.9%	10.3%	SSGA MSCI ACWI IMI - DB	11.9%	8.8%	10.2%
Global Fixed Income	0.2%	3.3%	4.2%	Bloomberg Barclays Long Liability Index	(0.2%)	2.7%	3.4%
TIPS	2.2%	1.9%	1.6%	Bloomberg Barclays U.S. TIPs Index, Series L	2.1%	1.9%	1.7%
REITs	6.6%	6.7%	6.9%	SSGA Global REIT	6.7%	6.7%	6.9%
Commodities	30.3%	(3.9%)	(9.4%)	S&P GSCI Total Return Daily	30.0%	(4.4%)	(9.4%)

JRF II Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Equity	49.2%	50.0%
Global Fixed Income	34.4%	34.0%
TIPS	5.0%	5.0%
REITs	8.2%	8.0%
Commodities	3.2%	3.0%
Cash	—%	—%
Total Fund	**100.0%**	**100.0%**

INVESTMENT PERFORMANCE – CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST FUND (CERBTF)

CERBTF Strategy 1 Portfolio Comparisons (Inception date is June 1, 2007) (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**8.0%**	**6.4%**	**7.4%**	Weighted Policy Benchmark	7.7%	6.0%	7.0%
Global Equity	11.5%	8.7%	10.0%	MSCI ACWI IMI (Net)	11.1%	8.3%	9.6%
Global Fixed Income	0.2%	3.3%	4.2%	Bloomberg Barclays Long Liability Index	(0.2%)	2.7%	3.4%
TIPS	2.2%	1.9%	1.6%	Bloomberg Barclays U.S. TIPs Index, Series L	2.1%	1.9%	1.7%
REITs	6.2%	5.9%	6.2%	FTSE EPRA/NAREIT Developed Liquid (Net)	5.5%	5.1%	5.4%
Commodities	30.3%	(4.4%)	(9.6%)	S&P GSCI Total Return Daily	30.0%	(4.4%)	(9.4%)

CERBTF Strategy 2 Portfolio Comparisons (Inception date is October 1, 2011) (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**6.2%**	**5.4%**	**6.2%**	Weighted Policy Benchmark	5.8%	5.0%	5.8%
Global Equity	11.5%	8.7%	9.9%	MSCI ACWI IMI (Net)	11.1%	8.3%	9.6%
Global Fixed Income	0.2%	3.3%	4.2%	Bloomberg Barclays Long Liability Index	(0.2%)	2.7%	3.4%
TIPS	2.2%	1.9%	1.6%	Bloomberg Barclays U.S. TIPs Index, Series L	2.1%	1.9%	1.7%
REITs	6.2%	5.9%	6.2%	FTSE EPRA/NAREIT Developed Liquid (Net)	5.5%	5.1%	5.4%
Commodities	30.4%	(4.4%)	(9.6%)	S&P GSCI Total Return Daily	30.0%	(4.4%)	(9.4%)

CERBTF Strategy 3 Portfolio Comparisons (Inception date is January 1, 2012) (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**4.7%**	**4.3%**	**5.1%**	Weighted Policy Benchmark	4.4%	4.0%	4.6%
Global Equity	11.5%	8.7%	9.9%	MSCI ACWI IMI (Net)	11.1%	8.3%	9.6%
Global Fixed Income	0.2%	3.3%	4.2%	Bloomberg Barclays Long Liability Index	(0.2%)	2.7%	3.4%
TIPS	2.2%	1.9%	1.6%	Bloomberg Barclays U.S. TIPs Index, Series L	2.1%	1.9%	1.7%
REITs	6.2%	5.9%	6.1%	FTSE EPRA/NAREIT Developed Liquid (Net)	5.5%	5.1%	5.4%
Commodities	30.4%	(4.2%)	(9.5%)	S&P GSCI Total Return Daily	30.0%	(4.4%)	(9.4%)

CERBTF Asset Allocation

	Strategy 1		Strategy 2		Strategy 3	
Asset Class	Current Allocation	Policy Target Allocation	Current Allocation	Policy Target Allocation	Current Allocation	Policy Target Allocation
Global Equity	56.0%	57.0%	39.8%	40.0%	23.8%	24.0%
Global Fixed Income	26.3%	27.0%	38.3%	39.0%	38.1%	39.0%
TIPS	4.9%	5.0%	9.9%	10.0%	25.7%	26.0%
REITs	8.2%	8.0%	8.3%	8.0%	8.2%	8.0%
Commodities	3.2%	3.0%	3.2%	3.0%	3.2%	3.0%
Cash Equivalents	1.4%	—	0.5%	—	1.0%	—
Total Fund	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

INVESTMENT PERFORMANCE – HEALTH CARE FUND (HCF)

HCF Portfolio Comparisons (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**(0.3%)**	**1.8%**	**2.5%**	Bloomberg Barclays U.S. Aggregate Bond Index	(0.4%)	1.7%	2.3%

HCF Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Fixed Income	100.0%	100.0%
Total Fund	**100.0%**	**100.0%**

INVESTMENT PERFORMANCE – LONG-TERM CARE FUND (LTCF)

LTCF Portfolio Comparisons (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Index	1-Year Return	3-Year Return	5-Year Return
Total Fund	**4.0%**	**3.7%**	**4.1%**	Weighted Policy Benchmark	4.0%	3.5%	3.9%
Global Equity	11.4%	8.7%	9.9%	MSCI ACWI IMI (Net)	11.1%	8.3%	9.6%
Global Fixed Income	(0.2%)	2.7%	3.4%	Bloomberg Barclays Long Liability Index	(0.2%)	2.7%	3.4%
TIPS	2.1%	1.9%	1.7%	Bloomberg Barclays U.S. Treasury Inflation	2.1%	1.9%	1.7%
REITs	6.2%	5.9%	6.2%	FTSE EPRA/NAREIT Developed Liquid (Net)	5.5%	5.1%	5.4%
Commodities	29.7%	(4.4%)	(9.4%)	S&P GSCI Total Return Daily	30.0%	(4.4%)	(9.4%)

LTCF Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Equity	17.1%	15.0%
Global Fixed Income	58.7%	61.0%
TIPS	5.7%	6.0%
REITs	12.4%	12.0%
Commodities	6.1%	6.0%
Total Fund	**100.0%**	**100.0%**

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Actuarial Section

ACTUARIAL CERTIFICATIONS

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

July 31, 2018

It is our opinion that the valuations have been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

As authorized, the CalPERS actuarial staff performs annual actuarial valuations of the CalPERS state, schools, and public agency defined benefit pension plans; the latest such valuations are as of June 30, 2017.

The funding objective for each of these plans is to accumulate assets equal to 100 percent of the accrued liability as measured by the Entry Age Normal Cost Method. Unfunded actuarial liabilities or surplus assets (excess assets) are amortized pursuant to Board policy.

The valuations are based on the member and financial data as of the valuation date, extracted from the various CalPERS databases. Both the membership and financial data are subject to extensive tests for reasonableness.

Further, we have provided information for the completion of Exhibits A through I in the Actuarial Section of the Comprehensive Annual Financial Report (CAFR).

Scott Terando, ASA, EA, MAAA, FCA, CFA
Chief Actuary, CalPERS

LEGISLATORS' RETIREMENT SYSTEM

February 2018

To the best of our knowledge, this report is complete and accurate and contains sufficient information to fully and fairly disclose the actuarial funded condition of the Legislators' Retirement System. This valuation is based on the member and financial data as of June 30, 2017 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. In our opinion, this valuation has been performed in accordance with generally accepted actuarial principles, and in accordance with the standards of practice prescribed by the Actuarial Standards Board. The assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employee's Retirement Law.

The undersigned are actuaries for CalPERS, who are members of the American Academy of Actuaries and the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

David Clement, ASA, EA, MAAA
Senior Pension Actuary, CalPERS

Scott Terando, ASA, EA, MAAA, FCA, CFA
Chief Actuary, CalPERS

Note: Actuarial reports and supporting documents for the state, schools, and local agencies and Legislators' Retirement System can be obtained on the CalPERS website, **www.calpers.ca.gov**.

ACTUARIAL CERTIFICATIONS

JUDGES' RETIREMENT SYSTEM

February 2018

To the best of our knowledge, this report is complete and accurate and contains sufficient information to fully and fairly disclose the actuarial funded condition of the Judges’ Retirement System. This valuation is based on the member and financial data as of June 30, 2017 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board. The assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees’ Retirement Law.

The undersigned are actuaries for CalPERS, who are members of the American Academy of Actuaries and the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Stuart Bennett, ASA, MAAA
Senior Pension Actuary, CalPERS

Scott Terando, ASA, EA, MAAA, FCA, CFA
Chief Actuary, CalPERS

JUDGES' RETIREMENT SYSTEM II

February 2018

To the best of our knowledge, this report is complete and accurate and contains sufficient information to fully and fairly disclose the actuarial funded condition of the Judges’ Retirement System II. This valuation is based on the member and financial data as of June 30, 2017 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. In our opinion, this valuation has been performed in accordance with generally accepted actuarial principles, and in accordance with the standards of practice prescribed by the Actuarial Standards Board. The assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employee’s Retirement Law.

The undersigned are actuaries for CalPERS, who are members of the American Academy of Actuaries and the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Jean Fannjiang, ASA, MAAA
Senior Pension Actuary, CalPERS

Scott Terando, ASA, EA, MAAA, FCA, CFA
Chief Actuary, CalPERS

Note: The actuarial report and supporting documents for the Judges' Retirement System and Judges' Retirement System II can be obtained on the CalPERS website, **www.calpers.ca.gov**.

ACTUARIAL METHODS & ASSUMPTIONS

The ultimate cost that a retirement system such as the California Public Employees' Retirement System (CalPERS or the System) incurs is equal to benefits paid plus the expenses resulting from administration and financing. These costs are paid through contributions to the plan and investment earnings on the System's assets.

Actuarial Data

As stated in the Actuarial Certifications, the data which serves as the basis of these valuations have been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of the valuations. Summary information regarding plan membership data for various groups is provided in Exhibits F through G.

Actuarial Cost Method

The primary funding method used is the Entry Age Normal Cost Method. This method is used for all defined benefit pay-related plans within CalPERS, for the Legislators' Retirement System (LRS), for the Judges' Retirement System (JRS) and for the Judges' Retirement System II (JRS II). It is also used for the Indexed Level of 1959 Survivor Benefits.

Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percentage of pay in each year from the member's entry age to their assumed retirement age on the valuation date. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits and for members entitled to deferred benefits is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

For CalPERS non-pay-related plans, the financial objective is to produce annual costs that coincide with the value of benefits earned for that year. The Term Insurance Cost Method is used for the plans within the 1959 Survivor Program that are not indexed. The Term Insurance Cost Method is also used for the State Group Term Life Insurance Program. The required contributions are calculated as one and one-half times the expected life insurance payments for the coming year less the current assets available to pay those benefits, but not less than zero.

Amortization of Unfunded Actuarial Accrued Liability

The excess of the total actuarial accrued liability over the market value of plan assets is called the unfunded actuarial accrued liability (UAL). Funding requirements are determined by adding the normal cost and an amortization payment toward the unfunded liability.

The unfunded liability is amortized as a "level percent of pay." All new gains or losses are amortized over a fixed 30-year period with a five-year ramp-up at the beginning and a five-year ramp-down at the end of the amortization period. All changes in liability due to plan amendments (other than golden handshakes) are amortized over a 20-year period with no ramp. Changes in actuarial assumptions or changes in actuarial methodology are amortized over a 20-year period with a five-year ramp-up at the beginning and a five-year ramp-down at the end of the amortization period. Changes in unfunded accrued liability due to a Golden Handshake will be amortized over a period of five years. A summary of the current policy is provided in the table below:

	Source				
	(Gain)/Loss				
Driver	Investment	Non-Investment	Assumption/ Method Change	Benefit Change	Golden Handshake
Amortization Period	30 Years	30 Years	20 Years	20 Years	5 Years
Escalation Rate					
Active Plans	2.875%	2.875%	2.875%	2.875%	2.875%
Inactive Plans	0%	0%	0%	0%	0%
Ramp-Up	5	5	5	—	—
Ramp-Down	5	5	5	—	—

The five-year ramp-up means that the payments in the first four years of the amortization period are 20 percent, 40 percent, 60 percent and 80 percent of the "full" payment which begins in year five. The five-year ramp-down means that the reverse is true in the final four years of the amortization period.

Exceptions for Inactive Plans

The following exceptions apply to plans classified as Inactive. These plans have no active members and no expectation to have active members in the future.

- Amortization of the unfunded liability is on a "level dollar" basis rather than a "level percent of pay" basis. For amortization layers, which utilize a ramp-up and ramp-down, the "ultimate" payment is constant.

- Actuarial judgment will be used to shorten amortization periods for Inactive plans with existing periods that are deemed too long given the duration of the liability. The specific demographics of the plan will be used to determine if shorter periods may be more appropriate.

The CalPERS Board of Administration (the Board) adopted a new amortization policy effective with the June 30, 2019, actuarial valuations. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the five-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy removes the five-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

For inactive employers the new amortization policy imposes a maximum amortization period of 15 years for all unfunded accrued liabilities effective June 30, 2017. Furthermore, the plan actuary has the ability to shorten the amortization period on any valuation date based on the life expectancy of plan members and projected cash flow needs to the plan. The impact of this has been reflected in the current valuation results.

Exception for JRS Plan

The JRS plan is not currently prefunded. The June 30, 2017, actuarial valuation provides a recommended contribution if the state were to begin prefunding. This recommended contribution includes a payment toward unfunded liability based on a 10-year amortization period and level dollar payments.

Asset Valuation Method

As of April 2013, the Board decided to move away from using an actuarial value of assets for setting contribution requirements and use the market value of assets. This change was implemented in the June 30, 2014, actuarial valuations and is reflected in the information provided in this section for school plans, state plans, Legislators' Retirement Fund (LRF), Judges' Retirement Fund (JRF), and Judges' Retirement Fund II (JRF II). For public agencies, the change to using the market value of assets was implemented in the June 30, 2013, actuarial valuation.

ACTUARIAL ASSUMPTIONS

The actuarial assumptions used in determining actuarial liabilities and required employer contributions include both economic and non-economic assumptions. These assumptions represent the actuary's best estimate of anticipated future experience and are reviewed in depth periodically.

Economic Assumptions

Based upon the asset allocation of the Public Employees' Retirement Fund (PERF), the prescribed discount rate assumption (net of investment and administrative expenses) adopted by the Board on December 21, 2016, is 7.00 percent compounded annually. The Board also prescribed that the assumed discount rate (net of expenses) will reduce to 7.0 percent using a phase-in approach. The prescribed discount rate for state and public agency valuations will be fully phased in with the June 30, 2018, valuation. The discount rate for the schools valuation will be fully phased in with the June 30, 2019, valuation. Scheduled changes to the discount rate after June 30, 2017, are not reflected in the determination of required contributions determined in the June 30, 2017, reports.

Different asset allocations and lower assumed investment returns apply to the LRF, JRF, and JRF II. The assumed investment returns for these three plans are 5.0 percent, 3.0 percent, and 6.5 percent respectively, net of administrative expenses.

As stated above, the discount rates used for funding purposes are net of administrative expenses. The financial reporting discount rates are not reduced for administrative expenses. The funding discount rates used for the PERF and JRF II were determined by subtracting 15 basis points from the financial reporting discount rate, while the LRF funding discount rate resulted from subtracting 25 basis points from the financial reporting discount rate. Refer to the discussion on Changes in Actuarial Assumptions for additional detail regarding changes to the funding discount rates used in the PERF, LRF, JRF, and JRF II.

The assumed inflation assumptions vary according to the plan. Public agencies and state plans use a 2.625 percent assumption compounded annually as of June 30, 2017. This assumed rate will decrease to 2.5 percent as of June 30, 2018. For the school's plan, the assumed inflation rate is 2.75 percent compounded annually as of June 30, 2017, dropping to 2.625 percent as of June 30, 2018, and 2.5 percent as of June 30, 2019. The assumed inflation rate for LRF, JRF, and JRF II is 2.5 percent. The inflation assumption is a component of assumed investment return, assumed wage growth, and assumed future post-retirement cost-of-living increases.

For plans within CalPERS, the overall payroll is assumed to increase by the inflation assumption plus a 0.25 percent per annum productivity increase assumption. The overall payroll growth assumption is used to project future payroll over which the unfunded liability is amortized.

For plans within CalPERS, the assumed growth in an individual employee's future pay is composed of the inflation assumption, an additional 0.25 percent per annum productivity component, and an annual merit increase based on the member's length of service. The service-based merit increase in an individual's salary recognizes that larger salary increases tend to occur earlier in an employee's career. Pay increase assumptions for individual members are shown for sample lengths of service in Exhibit C.

Non-Economic Assumptions
Non-economic assumptions for plans within the PERF are based upon the most recent CalPERS experience study (covering the period June 30, 1997, through June 30, 2015) that was completed and adopted by the Board in December 2017.

Post-retirement mortality rates are based on CalPERS' experience and include 15 years of projected ongoing mortality improvement using 90 percent of Scale MP 2016 published by the Society of Actuaries. These tables are used to estimate the value of benefits expected to be paid for service and disability retirements. For disability retirements, impaired longevity is recognized by a separate table. Sample life annuity values based on these tables are shown in Exhibit E.

CHANGES SINCE PRIOR VALUATION

Changes in Actuarial Methods
There were no changes in the actuarial methods for the school plans, state plans, LRF, JRF, and JRF II.

Changes in Actuarial Assumptions
On December 21, 2016, the Board lowered the discount rate for the PERF for funding purposes from 7.50 percent to 7.00 percent using a three-year phase-in beginning with the June 30, 2016, actuarial valuations (the June 30, 2017, valuations for schools). The minimum public agency employer contributions for Fiscal Year 2019-20 determined in the June 30, 2017, funding valuations, were calculated using a discount rate of 7.25 percent. The projected public agency employer contributions for Fiscal Year 2020-21 are calculated assuming that the discount rate will be lowered to 7.00 percent next year. For the State, the minimum employer contributions for Fiscal Year 2018-19 determined in the June 30, 2017, funding valuations, were calculated using a discount rate of 7.25 percent. The recommended employer and employee contributions rates for the school's plan for Fiscal Year 2018-19, determined in the June 30, 2017, funding valuation were calculated using a discount rate of 7.375 percent.

On December 19, 2017, the CalPERS Board of Administration adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumption for public agencies, state plan, and the schools plan. These new assumptions are incorporated into the June 30, 2017, actuarial valuations (June 30, 2018, for schools). In addition, the Board adopted a new asset portfolio as part of its Asset Liability Management (ALM). The new asset mix supports a 7.00 percent discount rate. The reduction of the inflation assumption will be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2017, valuation (June 30, 2018, for schools), an inflation rate of 2.625 percent will be used and a rate of 2.50 percent will be used in the following valuation. However, for LRF, JRF, and JRF II the inflation assumption was set to 2.5 percent in the June 30, 2017, actuarial valuations.

Changes in Plan Provisions
There were no changes in the plan provisions for the school plans, state plans, LRF, JRF, and JRF II. Public agencies can make changes to their plan provisions; such changes occur on an ongoing basis. A summary of the plan provisions that were used for a specific plan can be found in Appendix B of the plan's annual valuation report.

SUMMARY OF FUNDING PROGRESS

UNFUNDED LIABILITY & FUNDED RATIOS

For the plans in CalPERS, unfunded actuarial accrued liabilities are the difference between entry age normal accrued liabilities and the assets of the Fund. It is required that these unfunded liabilities be financed systematically over future years.

While no one measure can fully describe the financial condition of a plan, the ratio of a pension plan's market value of assets to its liabilities provides a meaningful index. This is the true measure of a plan's ability to pay benefits. The higher this ratio, the stronger the plan and observation of this ratio over a period of years can give an indication as to the financial strength of the system. This measure is presented in Exhibit A.

As of the June 30, 2014, valuation, all plans set the actuarial value of assets equal to the market value of assets for the schools plan, state plans, LRF, JRF, and JRF II. For the public agencies, the change to using the market value of assets was implemented in the June 30, 2013, actuarial valuation.

SOLVENCY TEST

Exhibit B, Funding Progress — Solvency Test, demonstrates System solvency as measured using the System's own assumptions and liability calculation methods.

INDEPENDENT REVIEW

To ensure the quality of its valuations, CalPERS contracts with independent consulting actuaries to review the valuations on an annual basis. The review is broken into three groups, so that each group is reviewed on a triennial basis.

EXHIBIT A: FUNDING PROGRESS – UNFUNDED LIABILITY & FUNDED RATIOS[1]

Actuarial Valuation Date	Actuarial Value of Assets (1)	Actuarial Accrued Liability (AAL) (Entry Age) (2)	Unfunded AAL (UAAL)/ Surplus (AVA Basis) (3) = (2) - (1)	Funded Ratio (Actuarial Value of Assets Basis) (4) = (1) / (2)	Annual Covered Payroll (5)	UAAL/ Surplus as a % of Covered Payroll (6) = (3) / (5)	Market Value of Assets (MVA) (7)	Unfunded AAL (UAAL)/ Surplus (MVA Basis) (8) = (2) - (7)	Funded Ratio (Market Value of Assets Basis) (9) = (7) / (2)
PERF (Dollars in Millions)									
06/30/17	$326,182	$465,046	$138,864	70.1%	$51,991	267.1%	$326,182	$138,864	70.1%
06/30/16	298,126	436,703	138,577	68.3%	49,833	278.1%	298,126	138,577	68.3%
06/30/15	302,418	413,700	111,282	73.1%	47,458	234.5%	302,418	111,282	73.1%
06/30/14	301,257	394,726	93,469	76.3%	44,958	207.9%	301,257	93,469	76.3%
06/30/13	281,928	375,019	93,091	75.2%	42,575	218.7%	261,622	113,397	69.8%
06/30/12	282,991	340,429	57,438	83.1%	42,599	134.8%	236,800	103,629	69.6%
06/30/11	271,389	328,567	57,178	82.6%	43,901	130.2%	241,740	86,827	73.6%
06/30/10	257,070	308,343	51,273	83.4%	44,984	114%	201,632	106,711	65.4%
06/30/09	244,964	294,042	49,078	83.3%	45,100	108.8%	178,860	115,182	60.8%
06/30/08	233,272	268,324	35,052	86.9%	44,236	79.2%	238,041	30,283	88.7%
LRF (Dollars in Thousands)									
06/30/17	$116,884	$100,845	($16,039)	115.9%	$1,209	(1,326.6%)	$116,884	($16,039)	115.9%
06/30/16	119,050	106,975	(12,075)	111.3%	1,321	(914.1%)	119,050	(12,075)	111.3%
06/30/15	121,469	105,746	(15,723)	114.9%	1,275	(1,233.2%)	121,469	(15,723)	114.9%
06/30/14	130,353	111,274	(19,079)	117.1%	1,500	(1,271.9%)	130,353	(19,079)	117.1%
06/30/13	123,201	115,806	(7,395)	106.4%	1,427	(518.2%)	122,148	(6,342)	105.5%
06/30/12	124,212	108,585	(15,627)	114.4%	1,983	(788.0%)	123,029	(14,444)	113.3%
06/30/11	125,646	108,977	(16,669)	115.3%	2,269	(734.6%)	123,570	(14,593)	113.4%
06/30/10	126,642	112,356	(14,286)	112.7%	2,159	(661.7%)	114,105	(1,749)	101.6%
06/30/09	134,195	111,898	(22,297)	119.9%	2,057	(1,084.0%)	111,829	69	99.9%
06/30/08	142,351	103,036	(39,315)	138.2%	2,216	(1,774.1%)	134,140	(31,104)	130.2%
JRF (Dollars in Thousands)									
06/30/17	$48,275	$3,315,731	$3,267,456	1.5%	$38,330	8,524.5%	$48,275	$3,267,456	1.5%
06/30/16	39,794	3,428,743	3,388,949	1.2%	42,430	7,987.2%	39,794	3,388,949	1.2%
06/30/15	41,178	3,322,610	3,281,432	1.2%	44,284	7,410.0%	41,178	3,281,432	1.2%
06/30/14	57,199	3,414,780	3,357,581	1.7%	52,335	6,415.6%	57,199	3,357,581	1.7%
06/30/13	53,820	3,383,310	3,329,490	1.6%	60,594	5,494.8%	53,820	3,329,490	1.6%
06/30/12	72,693	3,172,276	3,099,583	2.3%	69,227	4,477.4%	72,693	3,099,583	2.3%
06/30/11	54,383	3,296,538	3,242,155	1.6%	75,920	4,270.5%	54,383	3,242,155	1.6%
06/30/10	63,828	3,429,381	3,365,553	1.9%	85,947	3,915.8%	63,828	3,365,553	1.9%
06/30/09	41,390	3,582,992	3,541,602	1.2%	96,649	3,664.4%	41,390	3,541,602	1.2%
06/30/08	19,289	3,606,845	3,587,556	0.5%	111,464	3,218.6%	19,289	3,587,556	0.5%
JRF II (Dollars in Thousands)									
06/30/17	$1,356,099	$1,365,862	$9,763	99.3%	$291,383	3.4%	$1,356,099	$9,763	99.3%
06/30/16	1,172,953	1,272,751	99,798	92.2%	282,619	35.3%	1,172,953	99,798	92.2%
06/30/15	1,084,142	1,081,824	(2,318)	100.2%	272,698	(0.9%)	1,084,142	(2,318)	100.2%
06/30/14	1,013,840	950,642	(63,198)	106.6%	251,586	(25.1%)	1,013,840	(63,198)	106.6%
06/30/13	778,980	837,198	58,218	93.0%	241,988	24.1%	795,966	41,232	95.1%
06/30/12	667,557	702,732	35,175	95.0%	230,736	15.2%	655,384	47,348	93.3%
06/30/11	561,476	609,562	48,086	92.1%	229,650	20.9%	575,978	33,584	94.5%
06/30/10	461,071	520,687	59,616	88.6%	212,663	28.0%	422,101	98,586	81.1%
06/30/09	378,692	450,547	71,855	84.1%	198,793	36.1%	315,577	134,970	70.0%
06/30/08	334,903	366,514	31,611	91.4%	175,346	18.0%	325,451	41,063	88.8%

(1) For contributions data, the actuarially determined contribution compared with actual employer contributions received (including the excess or deficiency for each of the last four years) is shown in the Schedule of Contributions in the Required Supplementary Information.

EXHIBIT B: FUNDING PROGRESS – SOLVENCY TEST

The funding objective for a retirement system is to be able to pay long-term benefit promises.

If a system follows actuarially sound financing principles, it will be able to pay all of its promised benefits when due—the ultimate test of financial soundness.

A short-term solvency test is one means of checking a system's funding progress. In a short-term solvency test, the plan's present assets (investments and cash) are compared with 1) member contributions on deposit, 2) the liabilities for future benefits to persons who have retired or terminated, and 3) the liabilities for projected benefits for service already rendered by active members. In a system that employs level contribution rate financing, the liabilities for member contributions on deposit (liability 1) and the liabilities for future benefits to present retirees (liability 2) will be fully covered by present assets, except in rare circumstances.

In addition, the liabilities for service already rendered by members (liability 3) will be partially covered by the remainder of present assets. Generally, if the System has been using level contribution rate financing, the funded portion of liability 3 will increase over time.

Actuarial Section (continued)

EXHIBIT B: FUNDING PROGRESS – SOLVENCY TEST (CONTINUED)

Valuation Date	Accrued Liability				Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Valuation Assets		
	Member Contributions[1] (1)	Terminated, Retirees & Beneficiaries (2)	Employer-Financed Portion of Active Members (3)	Total Accrued Liability (1) + (2) + (3)		(1)	(2)	(3)
PERF (Dollars in Millions)								
6/30/17	$56,009	$275,222	$133,815	$465,046	$326,182	100.0%	98.2%	0.0%
6/30/16	53,872	256,253	126,578	436,703	298,126	100.0%	95.3%	—
6/30/15	51,572	241,931	120,197	413,700	302,418	100.0%	100.0%	7.4%
6/30/14	49,197	228,283	117,246	394,726	301,257	100.0%	100.0%	20.3%
6/30/13	46,343	203,680	124,996	375,019	281,900	100.0%	100.0%	25.5%
6/30/12	43,015	193,015	104,399	340,429	283,000	100.0%	100.0%	45.0%
6/30/11	42,322	179,069	107,176	328,567	271,400	100.0%	100.0%	46.7%
6/30/10	40,613	160,208	107,522	308,343	257,100	100.0%	100.0%	52.3%
6/30/09	39,071	146,753	108,218	294,042	245,000	100.0%	100.0%	54.6%
6/30/08	36,679	133,801	97,844	268,324	233,300	100.0%	100.0%	64.2%
LRF (Dollars in Thousands)								
6/30/17	$731	$95,188	$4,926	$100,845	$116,884	100.0%	100.0%	425.6%
6/30/16	673	101,400	4,902	106,975	119,050	100.0%	100.0%	346.3%
6/30/15	556	100,658	4,532	105,746	121,469	100.0%	100.0%	446.9%
6/30/14	508	104,992	5,774	111,274	130,353	100.0%	100.0%	430.4%
6/30/13	351	110,313	5,142	115,806	123,201	100.0%	100.0%	243.8%
6/30/12	801	100,337	7,447	108,585	124,212	100.0%	100.0%	309.8%
6/30/11	1,608	99,305	8,064	108,977	125,646	100.0%	100.0%	306.7%
6/30/10	1,391	103,673	7,292	112,356	126,642	100.0%	100.0%	295.9%
6/30/09	1,047	105,002	5,849	111,898	134,195	100.0%	100.0%	481.2%
6/30/08	1,367	95,765	5,904	103,036	142,351	100.0%	100.0%	765.8%
JRF (Dollars in Thousands)								
6/30/17	$61,748	$2,914,854	$339,129	$3,315,731	$48,275	78.2%	0.0%	0.0%
6/30/16	65,966	2,970,871	391,906	3,428,743	39,794	60.3%	—	—
6/30/15	66,911	2,761,781	493,918	3,322,610	41,178	61.5%	—	—
6/30/14	76,196	2,734,090	604,494	3,414,780	57,199	75.1%	—	—
6/30/13	84,692	2,691,326	607,292	3,383,310	53,820	64.0%	—	—
6/30/12	91,589	2,441,189	639,498	3,172,276	72,693	79.0%	—	—
6/30/11	94,320	2,494,653	707,565	3,296,538	54,383	58.0%	—	—
6/30/10	100,426	2,404,920	924,035	3,429,381	63,828	64.0%	—	—
6/30/09	105,851	1,949,177	1,527,964	3,582,992	41,390	39.0%	—	—
6/30/08	114,128	1,883,956	1,608,761	3,606,845	19,289	17.0%	—	—
JRF II (Dollars in Thousands)								
6/30/17	$364,967	$207,997	$792,898	$1,365,862	$1,356,099	100.0%	100.0%	98.8%
6/30/16	357,069	145,526	770,156	1,272,751	1,172,953	100.0%	100.0%	87.0%
6/30/15	348,475	110,645	622,704	1,081,824	1,084,142	100.0%	100.0%	100.4%
6/30/14	285,683	79,563	585,396	950,642	1,013,840	100.0%	100.0%	110.8%
6/30/13	243,049	58,393	535,756	837,198	778,980	100.0%	100.0%	89.1%
6/30/12	223,897	41,142	437,693	702,732	667,557	100.0%	100.0%	92.0%
6/30/11	172,538	31,596	405,428	609,562	561,476	100.0%	100.0%	88.1%
6/30/10	136,179	14,430	370,078	520,687	461,071	100.0%	100.0%	83.9%
6/30/09	121,016	13,191	316,340	450,547	378,692	100.0%	100.0%	77.3%
6/30/08	107,497	10,610	248,407	366,514	334,903	100.0%	100.0%	87.3%

(1) Includes accrued interest on member contributions.

EXHIBIT C: SAMPLE PAY INCREASE ASSUMPTIONS FOR INDIVIDUAL MEMBERS

Annual Percentage Increases by Duration of Service[1]

Duration of Services	State Miscellaneous First & Second Tier			State Industrial First & Second Tier			State Safety		
	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40
0	9.29%	8.47%	7.31%	10.15%	9.90%	9.29%	7.88%	7.88%	7.88%
3	8.15%	7.24%	5.93%	7.97%	7.58%	6.74%	5.95%	5.95%	5.95%
5	7.22%	6.44%	5.26%	6.89%	6.48%	5.64%	4.99%	4.99%	4.99%
10	5.18%	4.69%	4.03%	5.58%	5.03%	4.26%	3.71%	3.71%	3.71%
15	4.41%	4.12%	3.69%	4.67%	4.34%	3.93%	3.59%	3.59%	3.59%
20	3.90%	3.73%	3.46%	4.08%	3.88%	3.68%	3.49%	3.49%	3.49%
25	3.56%	3.46%	3.29%	3.68%	3.56%	3.44%	3.40%	3.40%	3.40%
30	3.33%	3.28%	3.17%	3.42%	3.35%	3.28%	3.33%	3.33%	3.33%

Duration of Services	State Peace Officer/Firefighter			California Highway Patrol			School		
	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40
0	17.57%	17.57%	17.57%	9.64%	9.64%	9.64%	7.16%	7.06%	6.67%
3	9.62%	9.62%	9.62%	6.87%	6.87%	6.87%	6.41%	6.20%	5.67%
5	6.89%	6.89%	6.89%	5.31%	5.31%	5.31%	5.50%	5.21%	4.67%
10	4.07%	4.07%	4.07%	3.83%	3.83%	3.83%	4.59%	4.41%	4.00%
15	3.37%	3.37%	3.37%	3.83%	3.83%	3.83%	4.39%	4.21%	3.86%
20	4.28%	4.28%	4.28%	4.63%	4.63%	4.63%	4.22%	4.05%	3.74%
25	4.38%	4.38%	4.38%	4.83%	4.83%	4.83%	4.07%	3.90%	3.64%
30	3.88%	3.88%	3.88%	3.83%	3.83%	3.83%	3.74%	3.58%	3.35%

Duration of Services	Public Agency Miscellaneous			Public Agency Fire			Public Agency Police		
	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40
0	11.38%	10.63%	9.38%	19.88%	19.88%	19.88%	13.15%	13.15%	13.15%
3	7.58%	7.13%	6.23%	8.68%	8.68%	8.68%	7.78%	7.78%	7.78%
5	6.28%	5.83%	5.03%	6.60%	6.60%	6.60%	5.87%	5.87%	5.87%
10	4.48%	4.23%	3.78%	4.52%	4.52%	4.52%	4.33%	4.33%	4.33%
15	4.08%	3.88%	3.48%	4.32%	4.32%	4.32%	4.37%	4.37%	4.37%
20	3.78%	3.63%	3.33%	4.14%	4.14%	4.14%	4.42%	4.42%	4.42%
25	3.68%	3.53%	3.28%	3.98%	3.98%	3.98%	4.48%	4.48%	4.48%
30	3.68%	3.53%	3.28%	3.85%	3.85%	3.85%	4.53%	4.53%	4.53%

Duration of Services	Public Agency County Peace Officer		
	Entry Age 20	Entry Age 30	Entry Age 40
0	16.08%	16.08%	16.08%
3	8.13%	8.13%	8.13%
5	6.22%	6.22%	6.22%
10	4.58%	4.58%	4.58%
15	4.38%	4.38%	4.38%
20	4.38%	4.38%	4.38%
25	4.63%	4.63%	4.63%
30	4.88%	4.88%	4.88%

(1) Increase includes the assumed inflation rate of 2.5 percent per year.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS

State Miscellaneous First and Second Tier – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement[3]		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
AGE[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02720	0.04410	N/A	N/A	0.00022	0.00007	0.00019	0.00039	N/A	N/A
25	0.02720	0.04410	N/A	N/A	0.00029	0.00011	0.00019	0.00039	N/A	N/A
30	0.02230	0.03940	N/A	N/A	0.00038	0.00015	0.00019	0.00046	N/A	N/A
35	0.01740	0.03460	N/A	N/A	0.00049	0.00027	0.00036	0.00096	N/A	N/A
40	0.01600	0.02890	N/A	N/A	0.00064	0.00037	0.00103	0.00186	N/A	N/A
45	0.01470	0.02310	N/A	N/A	0.00080	0.00054	0.00204	0.00326	N/A	N/A
50	0.01540	0.01810	0.01000	0.01900	0.00116	0.00079	0.00274	0.00405	N/A	N/A
55	0.01600	0.01300	0.03700	0.09400	0.00172	0.00120	0.00238	0.00310	N/A	N/A
56	0.01600	0.01300	0.03500	0.08300	0.00187	0.00131	0.00222	0.00275	N/A	N/A
57	0.01600	0.01300	0.03600	0.08400	0.00203	0.00141	0.00200	0.00267	N/A	N/A
58	0.01600	0.01300	0.04300	0.08900	0.00221	0.00150	0.00200	0.00259	N/A	N/A
59	0.01600	0.01300	0.04800	0.10700	0.00239	0.00158	0.00200	0.00257	N/A	N/A
60	0.01600	0.01300	0.06200	0.14100	0.00255	0.00166	0.00200	0.00256	N/A	N/A
61	0.01600	0.01300	0.06800	0.14200	0.00271	0.00174	0.00200	0.00256	N/A	N/A
62	0.01600	0.01300	0.12700	0.26300	0.00287	0.00183	0.00200	0.00256	N/A	N/A
63	0.01600	0.01300	0.12500	0.26300	0.00306	0.00195	0.00200	0.00256	N/A	N/A
64	0.01600	0.01300	0.11900	0.23500	0.00331	0.00212	0.00200	0.00256	N/A	N/A
65	0.01600	0.01300	0.15800	0.24900	0.00363	0.00233	0.00200	0.00256	N/A	N/A
70	0.01600	0.01300	0.17600	0.27600	0.00623	0.00388	0.00200	0.00256	N/A	N/A

(1) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.
(2) Years of service.
(3) State Miscellaneous Second Tier members have the right to convert their Second Tier service to First Tier service provided that they make up the shortfall in their accumulated contributions with interest. The assumption is that all Second Tier members will elect to convert to First Tier service.

State Industrial – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
AGE[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
20	0.01900	0.04960	N/A	N/A	0.00022	0.00007	0.00043	0.00004	0.00015
25	0.01900	0.04490	N/A	N/A	0.00029	0.00011	0.00043	0.00006	0.00015
30	0.01900	0.04050	N/A	N/A	0.00038	0.00015	0.00106	0.00007	0.00015
35	0.01900	0.03560	N/A	N/A	0.00049	0.00027	0.00184	0.00009	0.00029
40	0.01900	0.03110	N/A	N/A	0.00064	0.00037	0.00295	0.00010	0.00029
45	0.01900	0.00000	N/A	N/A	0.00080	0.00054	0.00448	0.00012	0.00044
50	0.01900	0.00000	0.00800	0.02600	0.00116	0.00079	0.00601	0.00013	0.00044
55	0.01900	0.00000	0.04700	0.14800	0.00172	0.00120	0.00771	0.00015	0.00058
56	0.01900	0.00000	0.04000	0.12600	0.00187	0.00131	0.00771	0.00015	0.00058
57	0.01900	0.00000	0.03600	0.11400	0.00203	0.00141	0.00771	0.00015	0.00058
58	0.01900	0.00000	0.04100	0.13100	0.00221	0.00150	0.00771	0.00015	0.00058
59	0.01900	0.00000	0.04800	0.15300	0.00239	0.00158	0.00771	0.00016	0.00058
60	0.01900	0.00000	0.06000	0.19100	0.00255	0.00166	0.00771	0.00016	0.00058
61	0.01900	0.00000	0.06400	0.20500	0.00271	0.00174	0.00771	0.00016	0.00058
62	0.01900	0.00000	0.11300	0.35700	0.00287	0.00183	0.00771	0.00017	0.00058
63	0.01900	0.00000	0.10300	0.32800	0.00306	0.00195	0.00771	0.00017	0.00058
64	0.01900	0.00000	0.09000	0.28600	0.00331	0.00212	0.00771	0.00017	0.00058
65	0.01900	0.00000	0.11700	0.37100	0.00363	0.00233	0.00771	0.00018	0.00058
70	0.01900	0.00000	0.13900	0.44300	0.00623	0.00388	0.00771	0.00019	0.00058

(1) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.
(2) Years of service.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

California Highway Patrol – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10500	20	0.00900	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00016
1	0.02430	25	0.00900	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00035
2	0.01520	30	0.00900	N/A	N/A	0.00038	0.00015	0.00010	0.00007	0.00068
3	0.00910	35	0.00900	N/A	N/A	0.00049	0.00027	0.00010	0.00009	0.00122
4	0.00540	40	0.00900	N/A	N/A	0.00064	0.00037	0.00010	0.00010	0.00202
5	0.00290	45	0.00900	N/A	N/A	0.00080	0.00054	0.00020	0.00012	0.00316
6	0.00150	50	0.00900	0.03800	0.10700	0.00116	0.00079	0.00020	0.00013	0.01214
7	0.00080	55	0.00900	0.05000	0.11700	0.00172	0.00120	0.00020	0.00015	0.05407
8	0.00070	56	0.00900	0.05100	0.13900	0.00187	0.00131	0.00020	0.00015	0.07109
9	0.00060	57	0.00900	0.05100	0.15600	0.00203	0.00141	0.00020	0.00015	0.09310
10	0.00050	58	0.00900	0.04900	0.17100	0.00221	0.00150	0.00020	0.00015	0.12144
15	0.00030	59	0.00900	0.08800	0.27400	0.00239	0.00158	0.00020	0.00016	0.15781
20	0.00020	60	0.00900	1.00000	1.00000	0.00255	0.00166	0.00020	0.00016	0.20431
25	0.00020	61	0.00900	1.00000	1.00000	0.00271	0.00174	0.00020	0.00016	0.26350
30	0.00020	62	0.00900	1.00000	1.00000	0.00287	0.00183	0.00020	0.00017	0.27373
35	0.00010	63	0.00900	1.00000	1.00000	0.00306	0.00195	0.00020	0.00017	0.27395
40	0.00010	64	0.00900	1.00000	1.00000	0.00331	0.00212	0.00020	0.00017	0.27418
45	0.00010	65	0.00900	1.00000	1.00000	0.00363	0.00233	0.00020	0.00018	0.27440
50	0.00000	70	0.00900	1.00000	1.00000	0.00623	0.00388	0.00020	0.00019	0.27551

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

Schools – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
Age[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male	Female	Male & Female	Male & Female
20	0.08080	0.04050	N/A	N/A	0.00022	0.00007	0.00010	0.00011	N/A	N/A
25	0.08080	0.04050	N/A	N/A	0.00029	0.00011	0.00010	0.00011	N/A	N/A
30	0.06340	0.03460	N/A	N/A	0.00038	0.00015	0.00011	0.00016	N/A	N/A
35	0.04610	0.02880	N/A	N/A	0.00049	0.00027	0.00053	0.00043	N/A	N/A
40	0.04090	0.02640	N/A	N/A	0.00064	0.00037	0.00119	0.00081	N/A	N/A
45	0.03580	0.02410	N/A	N/A	0.00080	0.00054	0.00195	0.00168	N/A	N/A
50	0.04030	0.02200	0.00700	0.01300	0.00116	0.00079	0.00261	0.00224	N/A	N/A
55	0.04470	0.01990	0.04200	0.07700	0.00172	0.00120	0.00246	0.00180	N/A	N/A
56	0.04470	0.01990	0.03700	0.06900	0.00187	0.00131	0.00241	0.00160	N/A	N/A
57	0.04470	0.01990	0.03800	0.07100	0.00203	0.00141	0.00236	0.00146	N/A	N/A
58	0.04470	0.01990	0.04500	0.08200	0.00221	0.00150	0.00231	0.00132	N/A	N/A
59	0.04470	0.01990	0.04900	0.09000	0.00239	0.00158	0.00226	0.00119	N/A	N/A
60	0.04470	0.01990	0.06600	0.12100	0.00255	0.00166	0.00221	0.00109	N/A	N/A
61	0.04470	0.01990	0.07200	0.13300	0.00271	0.00174	0.00216	0.00099	N/A	N/A
62	0.04470	0.01990	0.13100	0.24200	0.00287	0.00183	0.00211	0.00092	N/A	N/A
63	0.04470	0.01990	0.12600	0.23300	0.00306	0.00195	0.00206	0.00085	N/A	N/A
64	0.04470	0.01990	0.11700	0.21500	0.00331	0.00212	0.00206	0.00080	N/A	N/A
65	0.04470	0.01990	0.15800	0.29100	0.00363	0.00233	0.00206	0.00077	N/A	N/A
70	0.04470	0.01990	0.14000	0.25800	0.00623	0.00388	0.00206	0.00065	N/A	N/A

(1) Years of service.
(2) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

State Safety – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.14080	20	0.02460	N/A	N/A	0.00022	0.00007	0.00036	0.00004	0.00002
1	0.10140	25	0.02460	N/A	N/A	0.00029	0.00011	0.00054	0.00006	0.00076
2	0.07230	30	0.02460	N/A	N/A	0.00038	0.00015	0.00063	0.00007	0.00170
3	0.05330	35	0.02460	N/A	N/A	0.00049	0.00027	0.00072	0.00009	0.00264
4	0.04440	40	0.02460	N/A	N/A	0.00064	0.00037	0.00072	0.00010	0.00360
5	0.01550	45	0.02460	N/A	N/A	0.00080	0.00054	0.00108	0.00012	0.00457
6	0.01140	50	0.02460	0.01300	0.03200	0.00116	0.00079	0.00201	0.00013	0.00557
7	0.00850	55	0.02460	0.04300	0.18800	0.00172	0.00120	0.00240	0.00015	0.00658
8	0.00690	56	0.02460	0.03900	0.13800	0.00187	0.00131	0.00255	0.00015	0.00679
9	0.00510	57	0.02460	0.04100	0.15100	0.00203	0.00141	0.00262	0.00015	0.00700
10	0.00330	58	0.02460	0.04700	0.13200	0.00221	0.00150	0.00280	0.00015	0.00720
15	0.00190	59	0.02460	0.04900	0.14600	0.00239	0.00158	0.00290	0.00016	0.00741
20	0.00110	60	0.02460	0.05600	0.15800	0.00255	0.00166	0.00320	0.00016	0.00762
25	0.00060	61	0.02460	0.08000	0.16500	0.00271	0.00174	0.00350	0.00016	0.00783
30	0.00040	62	0.02460	0.09500	0.25300	0.00287	0.00183	0.00375	0.00017	0.00805
35	0.00020	63	0.02460	0.10500	0.25500	0.00306	0.00195	0.00420	0.00017	0.00826
40	0.00010	64	0.02460	0.10200	0.25500	0.00331	0.00212	0.00440	0.00017	0.00847
45	0.00010	65	0.02460	0.13800	0.25700	0.00363	0.00233	0.00459	0.00018	0.00869
50	0.00000	70	0.02460	0.16700	0.30900	0.00623	0.00388	0.00459	0.00019	0.00978

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

State Peace Officer/Firefighter – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.12170	20	0.01170	N/A	N/A	0.00022	0.00007	0.00030	0.00004	0.00039
1	0.07790	25	0.01170	N/A	N/A	0.00029	0.00011	0.00030	0.00006	0.00087
2	0.04310	30	0.01170	N/A	N/A	0.00038	0.00015	0.00030	0.00007	0.00167
3	0.03530	35	0.01170	N/A	N/A	0.00049	0.00027	0.00030	0.00009	0.00289
4	0.02750	40	0.01170	N/A	N/A	0.00064	0.00037	0.00040	0.00010	0.00464
5	0.00560	45	0.01170	N/A	N/A	0.00080	0.00054	0.00060	0.00012	0.00706
6	0.00520	50	0.01170	0.03000	0.22400	0.00116	0.00079	0.00098	0.00013	0.01027
7	0.00490	55	0.01170	0.05400	0.20900	0.00172	0.00120	0.00143	0.00015	0.01442
8	0.00460	56	0.01170	0.04400	0.21300	0.00187	0.00131	0.00150	0.00015	0.01538
9	0.00420	57	0.01170	0.04700	0.21500	0.00203	0.00141	0.00158	0.00015	0.01638
10	0.00390	58	0.01170	0.06500	0.22400	0.00221	0.00150	0.00165	0.00015	0.01742
15	0.00250	59	0.01170	0.05700	0.27600	0.00239	0.00158	0.00180	0.00016	0.01852
20	0.00150	60	0.01170	0.06600	0.27600	0.00255	0.00166	0.00188	0.00016	0.01966
25	0.00060	61	0.01170	0.06400	0.25100	0.00271	0.00174	0.00195	0.00016	0.02085
30	0.00030	62	0.01170	0.10400	0.32400	0.00287	0.00183	0.00203	0.00017	0.02209
35	0.00030	63	0.01170	0.09300	0.26800	0.00306	0.00195	0.00218	0.00017	0.02339
40	0.00030	64	0.01170	0.08100	0.30600	0.00331	0.00212	0.00225	0.00017	0.02474
45	0.00030	65	0.01170	0.08100	0.34200	0.00363	0.00233	0.00233	0.00018	0.02614
50	0.00000	70	0.01170	1.00000	1.00000	0.00623	0.00388	0.00233	0.00019	0.03403

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

Public Agency 2% at 55 Miscellaneous – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
AGE[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.04220	N/A	N/A	0.00022	0.00007	0.00017	0.00010	N/A	N/A
25	0.01930	0.04220	N/A	N/A	0.00029	0.00011	0.00017	0.00010	N/A	N/A
30	0.01740	0.03930	N/A	N/A	0.00038	0.00015	0.00019	0.00024	N/A	N/A
35	0.01550	0.03640	N/A	N/A	0.00049	0.00027	0.00039	0.00071	N/A	N/A
40	0.01360	0.03440	N/A	N/A	0.00064	0.00037	0.00102	0.00135	N/A	N/A
45	0.01160	0.03250	N/A	N/A	0.00080	0.00054	0.00151	0.00188	N/A	N/A
50	0.00970	0.02710	0.01300	0.02200	0.00116	0.00079	0.00158	0.00199	N/A	N/A
55	0.00780	0.02180	0.04000	0.10900	0.00172	0.00120	0.00158	0.00149	N/A	N/A
56	0.00740	0.02180	0.05000	0.10700	0.00187	0.00131	0.00158	0.00138	N/A	N/A
57	0.00700	0.02180	0.04800	0.09600	0.00203	0.00141	0.00158	0.00128	N/A	N/A
58	0.00660	0.02180	0.05400	0.10600	0.00221	0.00150	0.00158	0.00119	N/A	N/A
59	0.00620	0.02180	0.05500	0.11500	0.00239	0.00158	0.00158	0.00111	N/A	N/A
60	0.00590	0.02180	0.07500	0.14300	0.00255	0.00166	0.00153	0.00105	N/A	N/A
61	0.00550	0.02180	0.08800	0.16300	0.00271	0.00174	0.00148	0.00100	N/A	N/A
62	0.00510	0.02180	0.11800	0.21300	0.00287	0.00183	0.00143	0.00096	N/A	N/A
63	0.00470	0.02180	0.13300	0.24900	0.00306	0.00195	0.00138	0.00093	N/A	N/A
64	0.00440	0.02180	0.12900	0.22300	0.00331	0.00212	0.00133	0.00090	N/A	N/A
65	0.00390	0.02180	0.17300	0.26600	0.00363	0.00233	0.00128	0.00088	N/A	N/A
70	0.00200	0.02180	0.17100	0.30400	0.00623	0.00388	0.00102	0.00084	N/A	N/A

(1) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.
(2) Years of service.

Public Agency 2.5% at 55 Miscellaneous – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
AGE[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.04220	N/A	N/A	0.00022	0.00007	0.00017	0.00010	N/A	N/A
25	0.01930	0.04220	N/A	N/A	0.00029	0.00011	0.00017	0.00010	N/A	N/A
30	0.01740	0.03930	N/A	N/A	0.00038	0.00015	0.00019	0.00024	N/A	N/A
35	0.01550	0.03640	N/A	N/A	0.00049	0.00027	0.00039	0.00071	N/A	N/A
40	0.01360	0.03440	N/A	N/A	0.00064	0.00037	0.00102	0.00135	N/A	N/A
45	0.01160	0.03250	N/A	N/A	0.00080	0.00054	0.00151	0.00188	N/A	N/A
50	0.00970	0.02710	0.01400	0.03300	0.00116	0.00079	0.00158	0.00199	N/A	N/A
55	0.00780	0.02180	0.03800	0.12200	0.00172	0.00120	0.00158	0.00149	N/A	N/A
56	0.00740	0.02180	0.04700	0.13600	0.00187	0.00131	0.00158	0.00138	N/A	N/A
57	0.00700	0.02180	0.04800	0.12300	0.00203	0.00141	0.00158	0.00128	N/A	N/A
58	0.00660	0.02180	0.05400	0.11200	0.00221	0.00150	0.00158	0.00119	N/A	N/A
59	0.00620	0.02180	0.05400	0.13100	0.00239	0.00158	0.00158	0.00111	N/A	N/A
60	0.00590	0.02180	0.07200	0.15800	0.00255	0.00166	0.00153	0.00105	N/A	N/A
61	0.00550	0.02180	0.07800	0.16100	0.00271	0.00174	0.00148	0.00100	N/A	N/A
62	0.00510	0.02180	0.09300	0.20500	0.00287	0.00183	0.00143	0.00096	N/A	N/A
63	0.00470	0.02180	0.12400	0.22600	0.00306	0.00195	0.00138	0.00093	N/A	N/A
64	0.00440	0.02180	0.11200	0.20700	0.00331	0.00212	0.00133	0.00090	N/A	N/A
65	0.00390	0.02180	0.15600	0.26500	0.00363	0.00233	0.00128	0.00088	N/A	N/A
70	0.00200	0.02180	0.15600	0.26500	0.00623	0.00388	0.00102	0.00084	N/A	N/A

(1) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.
(2) Years of service.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

Public Agency 2.7% at 55 Miscellaneous – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
AGE[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.04220	N/A	N/A	0.00022	0.00007	0.00017	0.00010	N/A	N/A
25	0.01930	0.04220	N/A	N/A	0.00029	0.00011	0.00017	0.00010	N/A	N/A
30	0.01740	0.03930	N/A	N/A	0.00038	0.00015	0.00019	0.00024	N/A	N/A
35	0.01550	0.03640	N/A	N/A	0.00049	0.00027	0.00039	0.00071	N/A	N/A
40	0.01360	0.03440	N/A	N/A	0.00064	0.00037	0.00102	0.00135	N/A	N/A
45	0.01160	0.03250	N/A	N/A	0.00080	0.00054	0.00151	0.00188	N/A	N/A
50	0.00970	0.02710	0.01000	0.03300	0.00116	0.00079	0.00158	0.00199	N/A	N/A
55	0.00780	0.02180	0.05500	0.15600	0.00172	0.00120	0.00158	0.00149	N/A	N/A
56	0.00740	0.02180	0.06700	0.16900	0.00187	0.00131	0.00158	0.00138	N/A	N/A
57	0.00700	0.02180	0.06700	0.14200	0.00203	0.00141	0.00158	0.00128	N/A	N/A
58	0.00660	0.02180	0.06600	0.15100	0.00221	0.00150	0.00158	0.00119	N/A	N/A
59	0.00620	0.02180	0.07000	0.15800	0.00239	0.00158	0.00158	0.00111	N/A	N/A
60	0.00590	0.02180	0.08600	0.18200	0.00255	0.00166	0.00153	0.00105	N/A	N/A
61	0.00550	0.02180	0.09400	0.18400	0.00271	0.00174	0.00148	0.00100	N/A	N/A
62	0.00510	0.02180	0.12200	0.22600	0.00287	0.00183	0.00143	0.00096	N/A	N/A
63	0.00470	0.02180	0.16100	0.22200	0.00306	0.00195	0.00138	0.00093	N/A	N/A
64	0.00440	0.02180	0.14700	0.25400	0.00331	0.00212	0.00133	0.00090	N/A	N/A
65	0.00390	0.02180	0.17400	0.30600	0.00363	0.00233	0.00128	0.00088	N/A	N/A
70	0.00200	0.02180	0.18100	0.29100	0.00623	0.00388	0.00102	0.00084	N/A	N/A

(1) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.
(2) Years of service.

Public Agency 3% at 60 Miscellaneous – Probability of an active member leaving due to:

	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
AGE[1]	5 Years[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.04220	N/A	N/A	0.00022	0.00007	0.00017	0.00010	N/A	N/A
25	0.01930	0.04220	N/A	N/A	0.00029	0.00011	0.00017	0.00010	N/A	N/A
30	0.01740	0.03930	N/A	N/A	0.00038	0.00015	0.00019	0.00024	N/A	N/A
35	0.01550	0.03640	N/A	N/A	0.00049	0.00027	0.00039	0.00071	N/A	N/A
40	0.01360	0.03440	N/A	N/A	0.00064	0.00037	0.00102	0.00135	N/A	N/A
45	0.01160	0.03250	N/A	N/A	0.00080	0.00054	0.00151	0.00188	N/A	N/A
50	0.00970	0.02710	0.01900	0.03800	0.00116	0.00079	0.00158	0.00199	N/A	N/A
55	0.00780	0.02180	0.05200	0.09500	0.00172	0.00120	0.00158	0.00149	N/A	N/A
56	0.00740	0.02180	0.05600	0.10200	0.00187	0.00131	0.00158	0.00138	N/A	N/A
57	0.00700	0.02180	0.06000	0.10900	0.00203	0.00141	0.00158	0.00128	N/A	N/A
58	0.00660	0.02180	0.05600	0.12600	0.00221	0.00150	0.00158	0.00119	N/A	N/A
59	0.00620	0.02180	0.06800	0.14400	0.00239	0.00158	0.00158	0.00111	N/A	N/A
60	0.00590	0.02180	0.10600	0.22600	0.00255	0.00166	0.00153	0.00105	N/A	N/A
61	0.00550	0.02180	0.11700	0.23000	0.00271	0.00174	0.00148	0.00100	N/A	N/A
62	0.00510	0.02180	0.15500	0.28200	0.00287	0.00183	0.00143	0.00096	N/A	N/A
63	0.00470	0.02180	0.16300	0.26800	0.00306	0.00195	0.00138	0.00093	N/A	N/A
64	0.00440	0.02180	0.15000	0.27700	0.00331	0.00212	0.00133	0.00090	N/A	N/A
65	0.00390	0.02180	0.24200	0.30000	0.00363	0.00233	0.00128	0.00088	N/A	N/A
70	0.00200	0.02180	0.25500	0.35800	0.00623	0.00388	0.00102	0.00084	N/A	N/A

(1) Age for Termination with Refund and Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.
(2) Years of service.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

Public Agency 2% at 50 Police – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10130	20	0.01630	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00000
1	0.06360	25	0.01630	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00165
2	0.02710	30	0.01630	N/A	N/A	0.00038	0.00015	0.00020	0.00007	0.00476
3	0.02580	35	0.01630	N/A	N/A	0.00049	0.00027	0.00030	0.00009	0.00788
4	0.02450	40	0.01630	N/A	N/A	0.00064	0.00037	0.00040	0.00010	0.01100
5	0.00860	45	0.01630	N/A	N/A	0.00080	0.00054	0.00050	0.00012	0.01412
6	0.00790	50	0.00000	0.05000	0.05000	0.00116	0.00079	0.00080	0.00013	0.01846
7	0.00720	55	0.00000	0.07200	0.14100	0.00172	0.00120	0.00130	0.00015	0.04785
8	0.00660	56	0.00000	0.06600	0.12900	0.00187	0.00131	0.00150	0.00015	0.05032
9	0.00590	57	0.00000	0.06000	0.11800	0.00203	0.00141	0.00160	0.00015	0.05279
10	0.00530	58	0.00000	0.08000	0.13800	0.00221	0.00150	0.00180	0.00015	0.05527
15	0.00270	59	0.00000	0.08000	0.14000	0.00239	0.00158	0.00200	0.00016	0.05775
20	0.00170	60	0.00000	0.15000	0.15000	0.00255	0.00166	0.00200	0.00016	0.06024
25	0.00120	61	0.00000	0.14400	0.14400	0.00271	0.00174	0.00200	0.00016	0.06273
30	0.00090	62	0.00000	0.15000	0.15000	0.00287	0.00183	0.00200	0.00017	0.06523
35	0.00090	63	0.00000	0.15000	0.15000	0.00306	0.00195	0.00200	0.00017	0.06774
40	0.00090	64	0.00000	0.15000	0.15000	0.00331	0.00212	0.00200	0.00017	0.07025
45	0.00090	65	0.00000	1.00000	1.00000	0.00363	0.00233	0.00200	0.00018	0.07277
50	0.00000	70	0.00000	1.00000	1.00000	0.00623	0.00388	0.00200	0.00019	0.08549

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

Public Agency 2% at 50 Fire – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.12980	20	0.00940	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00005
1	0.06740	25	0.00940	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00019
2	0.03200	30	0.00940	N/A	N/A	0.00038	0.00015	0.00010	0.00007	0.00056
3	0.02370	35	0.00940	N/A	N/A	0.00049	0.00027	0.00010	0.00009	0.00119
4	0.00870	40	0.00940	N/A	N/A	0.00064	0.00037	0.00010	0.00010	0.00225
5	0.00520	45	0.00940	N/A	N/A	0.00080	0.00054	0.00020	0.00012	0.00398
6	0.00320	50	0.00940	0.00900	0.01300	0.00116	0.00079	0.00050	0.00013	0.02079
7	0.00190	55	0.00940	0.08900	0.13600	0.00172	0.00120	0.00070	0.00015	0.03066
8	0.00110	56	0.00940	0.08300	0.12700	0.00187	0.00131	0.00070	0.00015	0.03300
9	0.00070	57	0.00940	0.08200	0.12600	0.00203	0.00141	0.00070	0.00015	0.03548
10	0.00050	58	0.00940	0.08800	0.13600	0.00221	0.00150	0.00070	0.00015	0.03809
15	0.00040	59	0.00940	0.07400	0.11300	0.00239	0.00158	0.00070	0.00016	0.04085
20	0.00030	60	0.00940	0.10000	0.15400	0.00255	0.00166	0.00070	0.00016	0.04375
25	0.00020	61	0.00940	0.07200	0.11000	0.00271	0.00174	0.00070	0.00016	0.04681
30	0.00020	62	0.00940	0.09900	0.15200	0.00287	0.00183	0.00070	0.00017	0.05003
35	0.00010	63	0.00940	0.11400	0.17500	0.00306	0.00195	0.00070	0.00017	0.05341
40	0.00010	64	0.00940	0.11400	0.17500	0.00331	0.00212	0.00070	0.00017	0.05696
45	0.00010	65	0.00940	1.00000	1.00000	0.00363	0.00233	0.00070	0.00018	0.06069
50	0.00000	70	0.00940	1.00000	1.00000	0.00623	0.00388	0.00070	0.00019	0.08221

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

Public Agency 3% at 50 Police – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10130	20	0.01630	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00000
1	0.06360	25	0.01630	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00165
2	0.02710	30	0.01630	N/A	N/A	0.00038	0.00015	0.00020	0.00007	0.00476
3	0.02580	35	0.01630	N/A	N/A	0.00049	0.00027	0.00030	0.00009	0.00788
4	0.02450	40	0.01630	N/A	N/A	0.00064	0.00037	0.00040	0.00010	0.01100
5	0.00860	45	0.01630	N/A	N/A	0.00080	0.00054	0.00050	0.00012	0.01412
6	0.00790	50	0.00000	0.05000	0.15500	0.00116	0.00079	0.00080	0.00013	0.01846
7	0.00720	55	0.00000	0.07000	0.17500	0.00172	0.00120	0.00130	0.00015	0.04785
8	0.00660	56	0.00000	0.06000	0.16500	0.00187	0.00131	0.00150	0.00015	0.05032
9	0.00590	57	0.00000	0.06000	0.16500	0.00203	0.00141	0.00160	0.00015	0.05279
10	0.00530	58	0.00000	0.08000	0.18500	0.00221	0.00150	0.00180	0.00015	0.05527
15	0.00270	59	0.00000	0.09000	0.18500	0.00239	0.00158	0.00200	0.00016	0.05775
20	0.00170	60	0.00000	0.15000	0.18500	0.00255	0.00166	0.00200	0.00016	0.06024
25	0.00120	61	0.00000	0.12000	0.16000	0.00271	0.00174	0.00200	0.00016	0.06273
30	0.00090	62	0.00000	0.15000	0.20000	0.00287	0.00183	0.00200	0.00017	0.06523
35	0.00090	63	0.00000	0.15000	0.20000	0.00306	0.00195	0.00200	0.00017	0.06774
40	0.00090	64	0.00000	0.15000	0.17500	0.00331	0.00212	0.00200	0.00017	0.07025
45	0.00090	65	0.00000	1.00000	1.00000	0.00363	0.00233	0.00200	0.00018	0.07277
50	0.00000	70	0.00000	1.00000	1.00000	0.00623	0.00388	0.00200	0.00019	0.08549

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

Public Agency 3% at 50 Fire – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.12980	20	0.00940	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00005
1	0.06740	25	0.00940	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00019
2	0.03200	30	0.00940	N/A	N/A	0.00038	0.00015	0.00010	0.00007	0.00056
3	0.02370	35	0.00940	N/A	N/A	0.00049	0.00027	0.00010	0.00009	0.00119
4	0.00870	40	0.00940	N/A	N/A	0.00064	0.00037	0.00010	0.00010	0.00225
5	0.00520	45	0.00940	N/A	N/A	0.00080	0.00054	0.00020	0.00012	0.00398
6	0.00320	50	0.00940	0.02000	0.13000	0.00116	0.00079	0.00050	0.00013	0.02079
7	0.00190	55	0.00940	0.04300	0.17400	0.00172	0.00120	0.00070	0.00015	0.03066
8	0.00110	56	0.00940	0.05300	0.19600	0.00187	0.00131	0.00070	0.00015	0.03300
9	0.00070	57	0.00940	0.05400	0.19700	0.00203	0.00141	0.00070	0.00015	0.03548
10	0.00050	58	0.00940	0.05200	0.19300	0.00221	0.00150	0.00070	0.00015	0.03809
15	0.00040	59	0.00940	0.07500	0.23900	0.00239	0.00158	0.00070	0.00016	0.04085
20	0.00030	60	0.00940	0.06500	0.21900	0.00255	0.00166	0.00070	0.00016	0.04375
25	0.00020	61	0.00940	0.07600	0.24100	0.00271	0.00174	0.00070	0.00016	0.04681
30	0.00020	62	0.00940	0.06800	0.22400	0.00287	0.00183	0.00070	0.00017	0.05003
35	0.00010	63	0.00940	0.02700	0.14300	0.00306	0.00195	0.00070	0.00017	0.05341
40	0.00010	64	0.00940	0.09400	0.27700	0.00331	0.00212	0.00070	0.00017	0.05696
45	0.00010	65	0.00940	1.00000	1.00000	0.00363	0.00233	0.00070	0.00018	0.06069
50	0.00000	70	0.00940	1.00000	1.00000	0.00623	0.00388	0.00070	0.00019	0.08221

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

Public Agency 3% at 55 Police – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10130	20	0.01630	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00000
1	0.06360	25	0.01630	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00165
2	0.02710	30	0.01630	N/A	N/A	0.00038	0.00015	0.00020	0.00007	0.00476
3	0.02580	35	0.01630	N/A	N/A	0.00049	0.00027	0.00030	0.00009	0.00788
4	0.02450	40	0.01630	N/A	N/A	0.00064	0.00037	0.00040	0.00010	0.01100
5	0.00860	45	0.01630	N/A	N/A	0.00080	0.00054	0.00050	0.00012	0.01412
6	0.00790	50	0.00000	0.03500	0.07000	0.00116	0.00079	0.00080	0.00013	0.01846
7	0.00720	55	0.00000	0.07000	0.17500	0.00172	0.00120	0.00130	0.00015	0.04785
8	0.00660	56	0.00000	0.06000	0.16500	0.00187	0.00131	0.00150	0.00015	0.05032
9	0.00590	57	0.00000	0.06000	0.16500	0.00203	0.00141	0.00160	0.00015	0.05279
10	0.00530	58	0.00000	0.08000	0.18500	0.00221	0.00150	0.00180	0.00015	0.05527
15	0.00270	59	0.00000	0.09000	0.18500	0.00239	0.00158	0.00200	0.00016	0.05775
20	0.00170	60	0.00000	0.15000	0.18500	0.00255	0.00166	0.00200	0.00016	0.06024
25	0.00120	61	0.00000	0.12000	0.16000	0.00271	0.00174	0.00200	0.00016	0.06273
30	0.00090	62	0.00000	0.15000	0.20000	0.00287	0.00183	0.00200	0.00017	0.06523
35	0.00090	63	0.00000	0.15000	0.20000	0.00306	0.00195	0.00200	0.00017	0.06774
40	0.00090	64	0.00000	0.15000	0.17500	0.00331	0.00212	0.00200	0.00017	0.07025
45	0.00090	65	0.00000	1.00000	1.00000	0.00363	0.00233	0.00200	0.00018	0.07277
50	0.00000	70	0.00000	1.00000	1.00000	0.00623	0.00388	0.00200	0.00019	0.08549

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

Public Agency 3% at 55 Fire – Probability of an active member leaving due to:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years[2]	10 Years[2]	25 Years[2]	Male	Female	Male & Female	Male & Female	Male & Female
0	0.12980	20	0.00940	N/A	N/A	0.00022	0.00007	0.00010	0.00004	0.00005
1	0.06740	25	0.00940	N/A	N/A	0.00029	0.00011	0.00010	0.00006	0.00019
2	0.03200	30	0.00940	N/A	N/A	0.00038	0.00015	0.00010	0.00007	0.00056
3	0.02370	35	0.00940	N/A	N/A	0.00049	0.00027	0.00010	0.00009	0.00119
4	0.00870	40	0.00940	N/A	N/A	0.00064	0.00037	0.00010	0.00010	0.00225
5	0.00520	45	0.00940	N/A	N/A	0.00080	0.00054	0.00020	0.00012	0.00398
6	0.00320	50	0.00940	0.00100	0.01600	0.00116	0.00079	0.00050	0.00013	0.02079
7	0.00190	55	0.00940	0.07300	0.17900	0.00172	0.00120	0.00070	0.00015	0.03066
8	0.00110	56	0.00940	0.06400	0.16100	0.00187	0.00131	0.00070	0.00015	0.03300
9	0.00070	57	0.00940	0.06300	0.15700	0.00203	0.00141	0.00070	0.00015	0.03548
10	0.00050	58	0.00940	0.06500	0.16300	0.00221	0.00150	0.00070	0.00015	0.03809
15	0.00040	59	0.00940	0.08800	0.21300	0.00239	0.00158	0.00070	0.00016	0.04085
20	0.00030	60	0.00940	0.10500	0.25100	0.00255	0.00166	0.00070	0.00016	0.04375
25	0.00020	61	0.00940	0.11800	0.28200	0.00271	0.00174	0.00070	0.00016	0.04681
30	0.00020	62	0.00940	0.08700	0.21000	0.00287	0.00183	0.00070	0.00017	0.05003
35	0.00010	63	0.00940	0.06700	0.16500	0.00306	0.00195	0.00070	0.00017	0.05341
40	0.00010	64	0.00940	0.06700	0.16500	0.00331	0.00212	0.00070	0.00017	0.05696
45	0.00010	65	0.00940	1.00000	1.00000	0.00363	0.00233	0.00070	0.00018	0.06069
50	0.00000	70	0.00940	1.00000	1.00000	0.00623	0.00388	0.00070	0.00019	0.08221

(1) Years of service.
(2) Age for Termination with Vested Deferred Benefits means Entry Age. For all other decrements, age means Attained Age.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

Post-Retirement Mortality – Rates vary by age and gender. These rates are used for all plans.

	Healthy Recipients		Non-Industrially Disabled (Not Job Related)		Industrially Disabled (Job Related)	
AGE	Male	Female	Male	Female	Male	Female
50	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02183	0.01607	0.01111
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151

EXHIBIT E: SINGLE LIFE RETIREMENT VALUES

Present value of $1 monthly increase 2 percent annually after two-year waiting period. Discount rate of 7.50 percent for schools and 7.375 percent for public agencies and state.

	Schools					Public Agencies and State					
	Service Retirement		Non-Industrial Disability Retirement			Service Retirement		Non-Industrial Disability Retirement		Industrial Disability Retirement	
AGE	Male	Female	Male	Female	AGE	Male	Female	Male	Female	Male	Female
50	176.729	182.855	148.427	163.229	50	180.526	186.103	153.125	164.751	177.769	183.741
51	175.013	181.429	146.881	161.839	51	178.574	184.411	150.935	163.134	175.665	181.919
52	173.226	179.940	145.300	160.374	52	176.549	182.661	148.718	161.443	173.479	180.030
53	171.366	178.364	143.685	158.831	53	174.440	180.842	146.479	159.672	171.198	178.066
54	169.432	176.678	142.038	157.202	54	172.235	178.946	144.223	157.819	168.812	176.015
55	167.428	174.850	140.366	155.438	55	169.925	176.962	141.957	155.881	166.310	173.868
56	165.342	172.872	138.682	153.526	56	167.500	174.883	139.686	153.858	163.682	171.616
57	163.159	170.754	137.002	151.468	57	164.956	172.702	137.412	151.753	160.924	169.252
58	160.863	168.513	135.280	149.273	58	162.356	170.415	135.135	149.571	158.095	166.772
59	158.470	166.158	133.518	146.966	59	159.702	168.021	132.856	147.317	155.197	164.174
60	155.980	163.692	131.700	144.562	60	156.993	165.522	130.569	145.000	152.227	161.459
61	153.394	161.111	129.814	142.073	61	154.220	162.917	128.269	142.620	149.174	158.624
62	150.688	158.408	127.841	139.493	62	151.374	160.208	125.950	140.181	146.253	155.835
63	147.852	155.573	125.763	136.808	63	148.444	157.396	123.604	137.678	143.252	152.943
64	144.871	152.623	123.557	134.056	64	145.416	154.475	121.222	135.108	140.157	149.944
65	141.741	149.565	121.210	131.247	65	142.279	151.443	118.800	132.464	136.954	146.834
70	124.316	132.887	107.369	116.426	70	124.752	134.483	105.832	117.881	119.124	129.516
75	105.080	114.222	91.184	99.749	75	105.187	114.873	90.816	100.750	99.515	109.728
80	84.532	94.082	74.096	81.494	80	84.775	94.128	74.287	81.924	79.588	89.339
85	64.424	72.993	58.214	63.430	85	64.517	73.192	58.664	63.325	60.713	69.667
90	45.905	52.824	44.612	46.678	90	46.647	53.759	45.379	46.996	45.134	52.362
95	32.116	36.268	32.116	33.078	95	33.275	38.078	33.275	33.872	33.275	38.078
100	22.471	23.912	22.471	23.912	100	23.906	26.567	23.906	23.832	23.906	26.567

EXHIBIT F: SCHEDULE OF ACTIVE MEMBER VALUATION DATA

Valuation Date	Number of Active Members	Annual Covered Payroll (in Millions)	Average Annual Salary	% Increase in Average Pay	Number of Employers
6/30/2017	835,473	$51,991	$62,229	2.3 %	2,946
6/30/2016	818,889	49,833	60,854	2.6 %	3,022
6/30/2015	800,205	47,458	59,307	1.9 %	3,008
6/30/2014	772,817	44,958	58,174	2.8 %	3,094
6/30/2013	752,681	42,575	56,564	1.2%	3,090
6/30/2012	762,459	42,599	55,871	(0.8%)	3,065
6/30/2011	779,481	43,901	56,321	(0.6%)	3,104
6/30/2010	794,138	44,984	56,645	2.2 %	3,034
6/30/2009	812,864	45,100	55,425	1.9 %	3,027
6/30/2008	813,474	44,236	54,379	5.5 %	2,620

EXHIBIT G: MEMBERS IN VALUATION

State Miscellaneous First Tier – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll[2]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	2,737	7	—	—	—	—	2,744	$96,742,947
25-29	10,614	980	8	—	—	—	11,602	520,954,549
30-34	11,809	4,679	889	99	—	—	17,476	981,520,453
35-39	9,306	5,269	3,258	1,372	76	—	19,281	1,231,183,743
40-44	6,646	4,469	3,749	3,904	643	53	19,464	1,347,903,919
45-49	5,913	4,049	4,160	5,515	2,134	1,152	22,923	1,660,077,418
50-54	5,030	3,652	3,518	5,470	2,719	4,906	25,295	1,887,755,652
55-59	4,306	3,276	3,065	5,142	2,487	6,698	24,974	1,865,534,064
60-64	2,510	2,390	2,286	3,328	1,572	4,208	16,294	1,224,869,107
65 & up	1,334	1,425	1,281	1,662	695	1,878	8,275	637,333,252
Total	**60,205**	**30,196**	**22,214**	**26,492**	**10,326**	**18,895**	**168,328**	**$11,453,875,104**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.
(2) The grand total of Total Valuation Payroll may not agree to published valuation reports due to rounding.

State Miscellaneous Second Tier – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll[2]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	3	—	—	—	—	—	3	$127,780
25-29	25	—	—	—	—	—	25	1,353,742
30-34	21	14	—	—	—	—	35	2,163,015
35-39	23	15	3	55	—	—	96	5,940,172
40-44	21	15	34	228	76	6	380	24,594,953
45-49	19	36	45	322	280	93	795	51,502,896
50-54	14	14	38	322	303	280	971	61,464,354
55-59	8	19	23	261	241	312	864	55,397,264
60-64	7	9	19	176	152	229	592	37,745,041
65 & up	11	9	8	91	62	95	276	18,479,432
Total	**152**	**131**	**170**	**1,455**	**1,114**	**1,015**	**4,037**	**$258,768,649**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.
(2) The grand total of Total Valuation Payroll may not agree to published valuation reports due to rounding.

State Industrial First & Second Tier – By Attained Age & Year of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	276	1	—	—	—	—	277	$9,350,348
25-29	886	86	1	—	—	—	973	39,432,501
30-34	981	388	61	2	—	—	1,432	70,345,173
35-39	721	469	222	68	—	—	1,480	79,471,372
40-44	599	398	252	178	28	—	1,455	85,440,556
45-49	556	399	275	238	118	45	1,631	98,448,136
50-54	492	403	321	271	170	131	1,788	111,031,589
55-59	361	302	281	244	146	138	1,472	89,439,393
60-64	182	170	160	119	66	46	743	46,229,232
65 & up	73	98	77	65	28	18	359	23,131,521
Total	**5,127**	**2,714**	**1,650**	**1,185**	**556**	**378**	**11,610**	**$652,319,821**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.

EXHIBIT G: MEMBERS IN VALUATION (CONTINUED)

State Safety – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll[2]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	367	2	—	—	—	—	369	$15,762,353
25-29	1,566	145	4	—	—	—	1,715	99,225,086
30-34	2,130	629	181	1	—	—	2,941	197,085,824
35-39	1,829	934	556	64	—	—	3,383	244,103,269
40-44	1,589	900	862	196	9	—	3,556	285,021,217
45-49	1,483	934	997	402	116	13	3,945	325,071,789
50-54	1,283	854	1,055	480	241	73	3,986	326,074,061
55-59	1,048	804	1,003	511	247	111	3,724	311,052,357
60-64	570	561	698	446	158	85	2,518	230,042,625
65 & up	196	304	399	225	103	58	1,285	133,628,422
Total	**12,061**	**6,067**	**5,755**	**2,325**	**874**	**340**	**27,422**	**$2,167,067,003**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.
(2) The grand total of Total Valuation Payroll may not agree to published valuation reports due to rounding.

California Highway Patrol – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll[2]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	173	—	—	—	—	—	173	$13,314,009
25-29	490	58	—	—	—	—	548	49,634,040
30-34	425	582	209	—	—	—	1,216	128,850,200
35-39	204	484	495	244	—	—	1,427	160,394,534
40-44	43	274	397	646	278	1	1,639	194,956,014
45-49	—	29	182	511	621	207	1,550	193,901,213
50-54	1	1	19	50	285	303	659	88,402,082
55-59	—	—	—	3	28	113	144	20,367,453
60-64	—	—	—	—	—	1	1	251,926
65 & up	—	—	—	—	—	—	—	—
Total	**1,336**	**1,428**	**1,302**	**1,454**	**1,212**	**625**	**7,357**	**$850,071,471**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.
(2) The grand total of Total Valuation Payroll may not agree to published valuation reports due to rounding.

State Peace Officer/Firefighter – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll[2]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	1,429	—	—	—	—	—	1,429	$67,700,297
25-29	4,151	240	1	—	—	—	4,392	252,915,103
30-34	2,755	1,931	861	2	—	—	5,549	396,480,621
35-39	1,383	1,786	2,691	736	3	—	6,599	539,356,705
40-44	723	1,200	2,181	2,447	566	3	7,120	627,615,408
45-49	427	834	1,587	2,027	2,429	427	7,731	724,890,103
50-54	266	534	933	1,095	1,346	761	4,935	464,563,751
55-59	110	249	532	584	631	415	2,521	235,441,464
60-64	51	109	183	224	231	127	925	85,057,569
65 & up	8	29	51	60	48	48	244	22,643,833
Total	**11,303**	**6,912**	**9,020**	**7,175**	**5,254**	**1,781**	**41,445**	**$3,416,664,854**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.
(2) The grand total of Total Valuation Payroll may not agree to published valuation reports due to rounding.

EXHIBIT G: MEMBERS IN VALUATION (CONTINUED)

School – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll[2]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	11,939	19	—	—	—	—	11,958	$296,621,164
25-29	24,989	1,964	64	—	—	—	27,017	813,813,275
30-34	20,267	7,010	2,177	69	—	—	29,523	1,089,123,101
35-39	16,974	7,492	6,036	1,985	58	—	32,545	1,331,149,785
40-44	15,341	7,338	6,511	4,754	1,101	28	35,073	1,485,540,170
45-49	15,200	8,726	7,255	5,865	2,662	935	40,643	1,723,674,329
50-54	13,167	9,888	9,110	7,429	3,606	3,639	46,839	2,044,398,148
55-59	9,939	9,057	9,904	8,501	4,487	5,505	47,393	2,113,749,623
60-64	5,300	5,777	6,830	6,462	3,728	4,168	32,265	1,415,720,814
65 & up	2,597	2,915	3,071	2,641	1,576	1,804	14,604	584,159,699
Total	**135,713**	**60,186**	**50,958**	**37,706**	**17,218**	**16,079**	**317,860**	**$12,897,950,108**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.

(2) The grand total of Total Valuation Payroll may not agree to published valuation reports due to rounding.

Public Agency Miscellaneous – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	4,983	25	—	—	—	—	5,008	$187,141,114
25-29	15,282	1,377	89	—	—	—	16,748	823,039,432
30-34	15,990	5,081	2,476	110	—	—	23,657	1,426,986,362
35-39	12,966	5,874	6,032	1,986	101	—	26,959	1,870,627,263
40-44	9,362	4,836	6,180	4,658	1,060	74	26,170	1,980,225,380
45-49	8,052	4,578	6,090	5,647	2,621	1,333	28,321	2,256,677,879
50-54	6,834	4,165	5,632	5,761	3,254	4,636	30,282	2,486,446,073
55-59	5,072	3,488	4,995	5,187	2,861	5,298	26,901	2,206,243,731
60-64	2,775	2,220	3,201	3,407	1,821	3,078	16,502	1,314,800,814
65 & up	1,173	1,081	1,502	1,476	791	1,261	7,284	554,598,002
Total	**82,489**	**32,725**	**36,197**	**28,232**	**12,509**	**15,680**	**207,832**	**$15,106,786,050**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.

Public Agency Safety – By Attained Age & Years of Service – June 30, 2017

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date[1]						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	1,352	5	—	—	—	—	1,357	$85,053,786
25-29	5,440	512	13	—	—	—	5,965	454,037,132
30-34	4,252	2,660	1,202	13	—	—	8,127	741,151,509
35-39	2,132	2,212	3,814	877	6	—	9,041	929,406,092
40-44	915	1,143	2,764	2,968	597	3	8,390	937,353,894
45-49	503	706	1,816	2,810	2,273	821	8,929	1,079,248,607
50-54	276	287	631	1,078	1,217	1,609	5,098	640,191,108
55-59	141	134	190	366	377	736	1,944	237,742,512
60-64	55	53	76	104	92	208	588	66,917,916
65 & up	20	17	12	21	17	56	143	16,046,518
Total	**15,086**	**7,729**	**10,518**	**8,237**	**4,579**	**3,433**	**49,582**	**$5,187,149,074**

(1) Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double count of liabilities.

EXHIBIT H: SCHEDULE OF RETIREES & BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

	Added to Rolls		Removed from Rolls		Rolls – End of Year		% Increase/ (Decrease) in Annual Allowances	Average Annual Allowance
Year Ended	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		
PERF								
6/30/18	46,834	$1,601,849,767	21,614	$504,232,434	691,489	$22,335,191,684	5.2%	$32,300
6/30/17[1]	44,619	1,457,465,533	21,783	480,093,857	666,269	21,237,574,351	4.8%	31,875
6/30/16[1]	43,132	1,379,126,240	20,399	475,981,343	643,433	20,260,202,675	4.7%	31,488
6/30/15[1]	43,501	1,333,700,350	18,731	399,466,572	620,700	19,357,057,778	5.1%	31,186
6/30/14[2]	36,000	1,229,596,000	17,358	393,057,000	595,930	18,422,824,000	6.8%	30,914
6/30/13[2]	39,121	1,434,115,000	17,310	379,821,000	577,288	17,242,387,000	6.9%	29,868
6/30/12[2]	39,729	1,286,891,000	19,412	381,443,000	555,477	16,126,912,000	7.3%	29,033
LRF								
6/30/18	—	$0	8	$293,767	200	$6,296,356	(4.5%)	$31,482
6/30/17[1]	8	342,858	16	592,323	208	6,590,123	(3.6%)	31,683
6/30/16[1]	3	86,709	8	250,007	216	6,839,588	(2.3%)	31,665
6/30/15[1]	6	233,438	9	592,552	221	7,002,886	(4.9%)	31,687
6/30/14[2]	1	13,000	10	434,000	224	7,362,000	0.9%	32,866
6/30/13[2]	2	133,000	14	587,000	233	7,297,000	(5.0%)	31,318
6/30/12[2]	3	102,000	12	461,000	245	7,680,000	(2.4%)	31,347
JRF								
6/30/18	74	$7,011,721	96	$9,836,577	1,815	$176,916,940	(1.6%)	$97,475
6/30/17[1]	83	6,500,928	106	11,047,170	1,837	179,741,796	(2.5%)	97,845
6/30/16[1]	68	4,719,741	80	8,389,989	1,860	184,288,038	(2.0%)	99,080
6/30/15[1]	102	9,011,281	84	7,820,995	1,872	187,958,286	0.6%	100,405
6/30/14[2]	55	6,608,000	68	6,696,000	1,854	186,768,000	2.4%	100,738
6/30/13[2]	49	6,082,000	74	7,383,000	1,867	182,464,000	(1.3%)	97,731
6/30/12[2]	75	7,365,000	67	5,804,000	1,892	184,952,000	1.7%	97,755
JRF II								
6/30/18	57	$6,710,581	3	$231,646	211	$20,393,051	46.6%	$96,650
6/30/17[1]	41	4,654,642	1	125,977	157	13,914,116	48.3%	88,625
6/30/16[1]	30	2,479,659	3	260,218	117	9,385,451	31.0%	80,218
6/30/15[1]	27	2,551,990	2	164,980	90	7,166,010	49.9%	79,622
6/30/14[2]	20	1,648,000	3	378,000	65	4,779,000	35.7%	73,523
6/30/13[2]	13	1,172,000	2	232,000	48	3,522,700	13.9%	73,390
6/30/12[2]	9	744,000	2	195,000	37	3,093,000	43.9%	83,595

(1) These total counts and allowances account for all payments types with the exception of one-time lump-sum payments.
(2) These total counts and allowances are for service, disability, and industrial retirement, special death, 1957 Survivor, Pre-Retirement Option 2, and 1959 Survivor beneficiaries and non-members.

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE

PERF B (Dollars in Millions)

	2017	2016
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$21,759	$16,511
b) Expected Payment on the UAL	731	423
c) Interest	1,605	1,223
d) Expected UAL Before Other Changes [1a - 1b + 1c]	**$22,633**	**$17,311**
e) Change Due to Plan Changes	$0	$0
f) Change Due to Assumption Changes	1,282	—
g) Expected UAL After All Changes	**$23,915**	**$17,311**
h) Actual UAL as of June 30	23,551	21,759
i) Total (Gain)/Loss [1h - 1g]	**($364)**	**$4,448**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$2,621	$2,203
b) Actual Contributions	2,681	2,288
c) Contributions (Gain)/Loss [2a - 2b]	**($60)**	**($85)**
3) Asset (Gain)/Loss for the Year		
a) Beginning Fiduciary Net Position as of June 30	$55,785	$56,814
b) Prior Fiscal Year Receivables	(96)	(98)
c) Current Fiscal Year Receivables	96	96
d) Contributions Received	2,681	2,288
e) Benefits and Refunds Paid	(3,725)	(3,547)
f) Transfers and Miscellaneous Adjustments	—	—
g) Expected Interest	4,138	4,207
h) Expected Assets as of June 30 [3a + 3b + 3c + 3d + 3e + 3f + 3g]	**$58,879**	**$59,760**
i) Ending Fiduciary Net Position as of June 30	$60,865	$55,785
j) Asset (Gain)/Loss [3h - 3i]	**($1,986)**	**$3,975**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	($364)	$4,448
b) Contribution (Gain)/Loss (2c)	(60)	(85)
c) Asset (Gain)/Loss (3j)	(1,986)	3,975
d) Liability (Gain)/Loss [4a - 4b - 4c]	**$1,682**	**$558**

(Gains and losses in actuarial accrued liability resulting from differences between assumed and actual experience)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

PERF C (Dollars in Millions)

	2017	2016
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$9,665	$7,447
b) Expected Payment on the UAL	503	446
c) Interest	695	542
d) Expected UAL Before Other Changes [1a - 1b + 1c]	**$9,857**	**$7,543**
e) Change Due to Plan Amendments	$0	$0
f) Change Due to Plan Golden Handshakes and Service Purchases	1	2
g) Transfers Out of Risk Pool	7	(1)
h) Transfers Into Risk Pool	48	88
i) Change Due to Assumption Change	652	526
j) Expected UAL After All Other Changes [1d + 1e + 1f - 1g + 1h + 1i]	**$10,551**	**$8,160**
k) Actual UAL as of June 30	$9,612	$9,665
l) Total (Gain)/Loss [1k-1j]	**($939)**	**$1,505**
2) Asset (Gain)/Loss for the Year		
a) Beginning Fiduciary Net Position as of June 30	$24,809	$24,911
b) Transfers Out of Pool	45	8
c) Transfers Into Pool	108	165
d) Adjusted MVA at Beginning of Year [2a - 2b + 2c]	**$24,872**	**$25,068**
e) Receivables Prior Year	$52	$57
f) Receivables Current Year	47	51
g) Contributions Received	1,297	1,181
h) Benefits and Refunds Paid	(1,631)	(1,519)
i) Transfers and Miscellaneous Adjustments	19	2
j) Expected Interest	$1,819	$1,863
k) Expected Assets as of June 30 [2d - 2e + 2f + 2g + 2h + 2i + 2j]	**$26,371**	**$26,589**
l) Ending Fiduciary Net Position as of June 30	$27,298	$24,809
m) Asset (Gain)/Loss [2k - 2l]	**($927)**	**$1,780**
3) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1l)	($939)	$1,505
b) Asset (Gain)/Loss (2m)	(927)	1,767
c) Liability (Gain)/Loss [3a - 3b]	**($12)**	**($262)**

(Gains and losses in actuarial accrued liability resulting from differences between assumed and actual experience)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

LRF (Dollars in Thousands)

	2017	2016
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	($12,075)	($15,723)
b) Expected Payment on the UAL	(14)	21
c) Interest	(603)	(905)
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	**($12,664)**	**($16,649)**
e) Change Due to Revised Actuarial Methods	$0	$0
f) Change Due to New Actuarial Assumptions	(2,654)	8,263
g) Expected UAL After All Changes [1d + 1e + 1f]	**($15,318)**	**($8,386)**
h) Actual UAL as of June 30	($16,039)	($12,075)
i) Total (Gain)/Loss [1h - 1g]	**($721)**	**($3,689)**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$654	$655
b) Interest on Expected Contributions	16	19
c) Actual Contributions	610	646
d) Interest on Actual Contributions	15	18
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	**$45**	**$10**
3) Asset (Gain)/Loss for the Year		
a) Beginning Fiduciary Net Position as of June 30	$119,050	$121,469
b) Contributions Received	610	646
c) Benefits and Refunds Paid and Administrative Costs	(7,824)	(7,610)
d) Expected Interest	5,775	6,787
e) Expected Assets as of June 30 [3a + 3b + 3c + 3d]	**$117,611**	**$121,292**
f) Ending Fiduciary Net Position as of June 30	$116,884	$119,050
g) Asset (Gain)/Loss [3e - 3f]	**$727**	**$2,242**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	($721)	($3,689)
b) Contribution (Gain)/Loss (2e)	45	10
c) Asset (Gain)/Loss (3g)	727	2,242
d) Liability (Gain)/Loss [4a - 4b - 4c]	**($1,493)**	**($5,941)**

(Gains and losses in actuarial accrued liability resulting from differences between assumed and actual experience)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

JRF (Dollars in Thousands)

	2017	2016
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$3,388,950	$3,281,433
b) Expected Normal Cost During the Year	24,522	20,725
c) Contributions	(210,268)	(198,414)
d) Interest	99,273	136,169
e) Expected UAL Before All Other Changes [1a + 1b + 1c + 1d]	**$3,302,477**	**$3,239,913**
f) Change Due to Revised Actuarial Methods	$0	$0
g) Change Due to Assumption Change	3,330	216,912
h) Expected UAL [1e + 1f + 1g]	**$3,305,807**	**$3,456,825**
i) Actual UAL as of June 30	$3,267,457	$3,388,950
j) Total (Gain)/Loss [1i - 1h]	**($38,350)**	**($67,875)**
2) Asset (Gain)/Loss for the Year		
a) Beginning Fiduciary Net Position as of June 30	$39,794	$41,177
b) Contributions and Other Revenue Received	210,268	198,414
c) Benefits and Refunds Paid and Administrative Costs	(202,211)	(199,991)
d) Expected Interest	1,314	1,701
e) Expected Assets as of June 30 [2a + 2b + 2c + 2d]	**$49,165**	**$41,301**
f) Ending Fiduciary Net Position as of June 30	$48,275	$39,794
g) Asset (Gain)/Loss [2e - 2f]	**$890**	**$1,507**
3) Liability (Gain)/Loss for the year		
a) Total (Gain)/Loss (1j)	($38,350)	($67,875)
b) Asset (Gain)/Loss (2g)	890	(1,061)
c) Liability (Gain)/Loss [3a - 3b]	**($39,240)**	**($66,814)**

(Gains and losses in actuarial accrued liability resulting from differences between assumed and actual experience)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

JRF II (Dollars in Thousands)

	2017	2016
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$99,798	($2,318)
b) Expected Payment on the UAL	(8,210)	(281)
c) Interest	6,750	(153)
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	**$114,758**	**($2,190)**
e) Change Due To Revised Actuarial Methods	$0	$0
f) Change Due to New Actuarial Assumptions	(43,082)	71,631
g) Expected UAL After All Changes [1d + 1e + 1f]	**$71,676**	**$69,441**
h) Actual UAL as of June 30	$9,763	$99,798
i) Total (Gain)/Loss [1h - 1g]	**($61,913)**	**$30,357**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$92,044	$88,532
b) Interest on Expected Contributions	2,944	3,046
c) Actual Contributions	92,178	90,437
d) Interest on Actual Contributions	2,948	3,112
e) Contributions (Gain/Loss [(2a + 2b) - (2c + 2d)]	**($138)**	**($1,971)**
3) Asset (Gain)/Loss for the Year		
a) Beginning Fiduciary Net Position as of June 30	$1,172,953	$1,084,142
b) Contributions Received	92,178	90,437
c) Benefits and Refunds Paid and Administrative Costs	(24,089)	(22,436)
d) Expected Interest	78,420	78,230
e) Expected Assets as of June 30 [3a + 3b + 3c + 3d]	**$1,319,462**	**$1,230,373**
f) Ending Fiduciary Net Position as of June 30	$1,356,099	$1,172,953
g) Asset (Gain)/Loss [3e -3f]	**($36,637)**	**$57,420**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	($61,913)	$30,357
b) Contribution (Gain)/Loss (2e)	(138)	(1,971)
c) Asset (Gain)/Loss (3g)	(36,637)	57,420
d) Liability (Gain)/Loss [4a - 4b - 4c]	**($25,138)**	**($25,092)**

(Gains and losses in actuarial accrued liability resulting from differences between assumed and actual experience)

Statistical Section

Statistical Section

INTRODUCTION

The Statistical section provides additional historical information to understand the economic condition of the California Public Employees' Retirement System (CalPERS).

The schedules presented contain information on financial trends, analysis, and additional analytical information on employees' membership data, retirement benefits, health benefits, supplemental income, long-term care and public agency employers.

The information in this section is obtained from comprehensive annual financial reports for relevant years and other internal sources.

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS

PERF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Member	$4,415,129	$4,214,578	$4,015,754	$3,826,072	$3,775,038	$3,896,078	$3,598,437	$3,600,089	$3,378,867	$3,882,355
Employer	19,917,796	12,329,837	10,892,489	9,977,705	8,777,602	8,123,833	7,772,913	7,465,397	6,955,049	6,912,376
Investment Income/(Loss)	27,448,098	32,977,020	1,398,927	6,579,019	45,471,821	30,284,807	(203,084)	43,904,425	25,567,295	(57,367,054)
Plan to Plan Resource Movement	116,552	134,661	49,803	469,688	—	—	—	—	—	—
Miscellaneous Income	121,573	153,008	149,494	123,978	126,223	7,176	7,070	3,011	10,234	3,155
TOTAL ADDITIONS	**$52,019,148**	**$49,809,104**	**$16,506,467**	**$20,976,462**	**$58,150,684**	**$42,311,894**	**$11,175,336**	**$54,972,922**	**$35,911,445**	**($46,569,168)**
DEDUCTIONS										
Benefit Payments	$22,654,444	$21,215,889	$20,093,933	$18,922,292	$17,760,584	$16,635,263	$15,356,696	$14,242,258	$12,972,457	$11,831,836
Refund of Contributions	286,979	222,275	238,821	240,623	236,968	242,595	218,082	227,168	182,387	186,783
Administrative Expenses	505,513	441,283	184,426	340,880	381,497	426,077	380,404	357,779	278,036	427,809
Plan to Plan Resource Movement	116,552	134,661	49,803	469,688	—	—	—	—	—	—
TOTAL DEDUCTIONS	**$23,563,488**	**$22,014,108**	**$20,566,983**	**$19,973,483**	**$18,379,049**	**$17,303,935**	**$15,955,182**	**$14,827,205**	**$13,432,880**	**$12,446,428**
CHANGE IN NET POSITION	**$28,455,660**	**$27,794,996**	**($4,060,516)**	**$1,002,979**	**$39,771,635**	**$25,007,959**	**($4,779,846)**	**$40,145,717**	**$22,478,565**	**($59,015,596)**
NET POSITION										
Beginning of Year	**$325,539,841**[1]	**$298,704,002**	**$302,764,518**	**$301,761,539**	**$261,989,904**	**$236,981,945**	**$241,761,791**	**$201,616,074**	**$179,137,509**[1]	**$237,915,479**
End of Year	**$353,995,501**	**$326,498,998**	**$298,704,002**	**$302,764,518**	**$301,761,539**	**$261,989,904**	**$236,981,945**	**$241,761,791**	**$201,616,074**	**$178,899,883**

(1) Due to prior period adjustment, beginning balance was restated.

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

LRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Member	$82	$94	$97	$105	$113	$31	$0	$3	$17	$69
Employer	467	516	549	590	565	80	—	—	—	—
Investment Income/(Loss)	5,458	5,006	4,511	(125)	15,332	6,974	7,761	17,667	17,793	(14,041)
Miscellaneous Income	28	42	34	31	40	—	—	—	—	—
TOTAL ADDITIONS	**$6,035**	**$5,658**	**$5,191**	**$601**	**$16,050**	**$7,085**	**$7,761**	**$17,670**	**$17,810**	**($13,972)**
DEDUCTIONS										
Benefit Payments	$6,918	$6,960	$7,028	$7,393	$7,482	$7,548	$7,659	$7,382	$11,082	$7,706
Refund of Contributions	—	289	379	1,693	—	—	202	440	35	296
Administrative Expenses	671	575	203	400	362	418	347	408	4,444	358
TOTAL DEDUCTIONS	**$7,589**	**$7,824**	**$7,610**	**$9,486**	**$7,844**	**$7,966**	**$8,208**	**$8,230**	**$15,561**	**$8,360**
CHANGE IN NET POSITION	**($1,554)**	**($2,166)**	**($2,419)**	**($8,885)**	**$8,206**	**($881)**	**($447)**	**$9,440**	**$2,249**	**($22,332)**
NET POSITION										
Beginning of Year	**$115,430[1]**	**$119,050**	**$121,469**	**$130,354**	**$122,148**	**$123,029**	**$123,476**	**$114,036**	**$111,787**	**$134,119**
End of Year	**$113,876**	**$116,884**	**$119,050**	**$121,469**	**$130,354**	**$122,148**	**$123,029**	**$123,476**	**$114,036**	**$111,787**

(1) Due to prior period adjustment, beginning balance was restated.

JRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Member	$3,062	$3,398	$3,559	$3,877	$4,724	$4,909	$5,796	$6,658	$7,361	$8,597
Employer	199,241	204,475	192,287	180,910	191,148	161,945	196,402	167,302	185,389	190,510
Investment Income	845	424	194	88	54	76	80	184	332	410
Miscellaneous Income	2,533	2,395	2,568	2,198	2,529	2,694	2,877	3,216	3,486	3,574
TOTAL ADDITIONS	**$205,681**	**$210,692**	**$198,608**	**$187,073**	**$198,455**	**$169,624**	**$205,155**	**$177,360**	**$196,568**	**$203,091**
DEDUCTIONS										
Benefit Payments	$207,815	$200,440	$199,271	$201,734	$193,925	$187,084	$185,428	$185,119	$178,861	$174,902
Refund of Contributions	8	—	78	134	10	—	17	—	32	—
Administrative Expenses	2,106	1,771	642	1,227	1,141	1,413	1,163	1,188	968	1,049
TOTAL DEDUCTIONS	**$209,929**	**$202,211**	**$199,991**	**$203,095**	**$195,076**	**$188,497**	**$186,608**	**$186,307**	**$179,861**	**$175,951**
CHANGE IN NET POSITION	**($4,248)**	**$8,481**	**($1,383)**	**($16,022)**	**$3,379**	**($18,873)**	**$18,547**	**($8,947)**	**$16,707**	**$27,140**
NET POSITION										
Beginning of Year	**$43,879[1]**	**$39,794**	**$41,177**	**$57,199**	**$53,820**	**$72,693**	**$54,146**	**$63,093**	**$46,386**	**$19,246**
End of Year	**$39,631**	**$48,275**	**$39,794**	**$41,177**	**$57,199**	**$53,820**	**$72,693**	**$54,146**	**$63,093**	**$46,386**

(1) Due to prior period adjustment, beginning balance was restated.

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

JRF II Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Member	$27,513	$25,076	$24,598	$22,242	$20,413	$18,819	$18,757	$18,589	$16,178	$15,400
Employer	79,699	67,102	65,839	65,629	57,027	54,025	53,711	53,863	42,589	39,514
Investment Income/(Loss)	101,244	114,331	20,213	(2,863)	149,679	79,214	13,947	91,596	50,801	(59,927)
Miscellaneous Income	576	726	597	462	489	—	—	—	—	—
TOTAL ADDITIONS	**$209,032**	**$207,235**	**$111,247**	**$85,470**	**$227,608**	**$152,058**	**$86,415**	**$164,048**	**$109,568**	**($5,013)**
DEDUCTIONS										
Benefit Payments	$31,745	$22,326	$21,549	$14,024	$8,865	$10,518	$3,536	$2,236	$1,392	$1,252
Refund of Contributions	50	80	155	16	85	58	2,604	5,870	2,592	3,062
Administrative Expenses	2,370	1,683	732	1,127	785	899	725	716	494	578
TOTAL DEDUCTIONS	**$34,165**	**$24,089**	**$22,436**	**$15,167**	**$9,735**	**$11,475**	**$6,865**	**$8,822**	**$4,478**	**$4,892**
CHANGE IN NET POSITION	**$174,867**	**$183,146**	**$88,811**	**$70,303**	**$217,873**	**$140,583**	**$79,550**	**$155,226**	**$105,090**	**($9,905)**
NET POSITION										
Beginning of Year	**$1,350,647[1]**	**$1,172,953**	**$1,084,142**	**$1,013,839**	**$795,966**	**$655,383**	**$575,833**	**$420,607**	**$315,517**	**$325,422**
End of Year	**$1,525,514**	**$1,356,099**	**$1,172,953**	**$1,084,142**	**$1,013,839**	**$795,966**	**$655,383**	**$575,833**	**$420,607**	**$315,517**

(1) Due to prior period adjustment, beginning balance was restated.

DCF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Member	$112,586	$110,258	$106,072	$106,272	$131,900	$99,977	$104,333	$89,531	$108,436	$247,484
Employer	977	962	909	783	698	455	80	84	84	87
Investment Income/(Loss)	108,821	132,305	7,541	32,735	164,384	114,471	4,872	151,932	72,951	(251,890)
Miscellaneous Income	6,306	5,583	5,354	6,260	5,258	—	225	214	858	113
TOTAL ADDITIONS	**$228,690**	**$249,108**	**$119,876**	**$146,050**	**$302,240**	**$214,903**	**$109,510**	**$241,761**	**$182,329**	**($4,206)**
DEDUCTIONS										
Participant Withdrawals	$168,064	$90,333	$164,362	$88,973	$97,388	$82,587	$73,025	$93,844	$46,418	$34,753
Administrative Expenses	5,296	4,576	4,677	4,320	4,101	3,467	3,131	3,874	3,491	2,393
TOTAL DEDUCTIONS	**$173,360**	**$94,909**	**$169,039**	**$93,293**	**$101,489**	**$86,054**	**$76,156**	**$97,718**	**$49,909**	**$37,146**
CHANGE IN NET POSITION	**$55,330**	**$154,199**	**($49,163)**	**$52,757**	**$200,751**	**$128,849**	**$33,354**	**$144,043**	**$132,420**	**($41,352)**
NET POSITION										
Beginning of Year	**$1,440,416[1]**	**$1,290,407**	**$1,339,570**	**$1,286,813**	**$1,086,062**	**$957,213[1]**	**$947,062**	**$803,019**	**$670,599**	**$711,951**
End of Year	**$1,495,746**	**$1,444,606**	**$1,290,407**	**$1,339,570**	**$1,286,813**	**$1,086,062**	**$980,416**	**$947,062**	**$803,019**	**$670,599**

(1) Due to prior period adjustment, beginning balance was restated.

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

SCPF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Member	$252	$246	$269	$127,833	$160	$164	$208	$285	$536	$483
Investment Income/(Loss)	4,362	6,890	416	1,058	2,077	2,051	3	3,610	1,884	(4,054)
Miscellaneous Income	619	628	668	305	111	—	—	—	33	—
TOTAL ADDITIONS	**$5,233**	**$7,764**	**$1,353**	**$129,196**	**$2,348**	**$2,215**	**$211**	**$3,895**	**$2,453**	**($3,571)**
DEDUCTIONS										
Participant Withdrawals	$9,046	$11,041	$16,130	$15,751	$1,013	$1,448	$1,219	$2,113	$1,624	$671
Administrative Expenses	398	373	330	135	62	58	63	84	117	61
TOTAL DEDUCTIONS	**$9,444**	**$11,414**	**$16,460**	**$15,886**	**$1,075**	**$1,506**	**$1,282**	**$2,197**	**$1,741**	**$732**
Interfund Transfer In	$0	$0	$5,582	$0	$0	$0	$0	$0	$0	$0
CHANGE IN NET POSITION	**($4,211)**	**($3,650)**	**($9,525)**	**$113,310**	**$1,273**	**$709**	**($1,071)**	**$1,698**	**$712**	**($4,303)**
NET POSITION										
Beginning of Year	**$120,346[1]**	**$124,354**	**$133,879**	**$20,569**	**$19,296**	**$18,587**	**$19,658**	**$17,960**	**$17,248**	**$21,551**
End of Year	**$116,135**	**$120,704**	**$124,354**	**$133,879**	**$20,569**	**$19,296**	**$18,587**	**$19,658**	**$17,960**	**$17,248**

(1) Due to prior period adjustment, beginning balance was restated.

CHANGES IN FIDUCIARY NET POSITION – OPEB PLAN

CERBTF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ADDITIONS										
Employer	$3,915,969	$3,754,709	$1,780,240	$1,714,060	$1,681,053	$1,031,619	$771,750	$758,251	$674,406	$595,632
Investment Income/(Loss)	530,189	559,967	76,638	(13,988)	515,507	237,710	8,066	331,492	128,918	(143,800)
Miscellaneous Income	6,985	5,599	4,048	4,932	4,483	—	—	—	—	—
TOTAL ADDITIONS	**$4,453,143**	**$4,320,275**	**$1,860,926**	**$1,705,004**	**$2,201,043**	**$1,269,329**	**$779,816**	**$1,089,743**	**$803,324**	**$451,832**
DEDUCTIONS										
OPEB Reimbursements & Employer Withdrawals	$2,937,413	$2,648,160	$1,229,523	$1,099,376	$1,020,924	$635,074	$566,360	$507,951	$364,182	$246,047
Administrative Expenses	3,862	3,014	1,559	2,044	1,786	2,062	1,910	2,305	822	543
TOTAL DEDUCTIONS	**$2,941,275**	**$2,651,174**	**$1,231,082**	**$1,101,420**	**$1,022,710**	**$637,136**	**$568,270**	**$510,256**	**$365,004**	**$246,590**
CHANGE IN NET POSITION	**$1,511,868**	**$1,669,101**	**$629,844**	**$603,584**	**$1,178,333**	**$632,193**	**$211,546**	**$579,487**	**$438,320**	**$205,242**
NET POSITION										
Beginning of Year	**$6,782,304[1]**	**$5,122,188**	**$4,492,344**	**$3,888,760**	**$2,710,427**	**$2,078,234**	**$1,866,688**	**$1,287,201**	**$848,881**	**$643,639**
End of Year	**$8,294,172**	**$6,791,289**	**$5,122,188**	**$4,492,344**	**$3,888,760**	**$2,710,427**	**$2,078,234**	**$1,866,688**	**$1,287,20**	**$848,881**

(1) Due to prior period adjustment, beginning balance was restated.

CHANGES IN FIDUCIARY NET POSITION – CUSTODIAL FUND

RBF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2018 – 2-Year Review[1] (Dollars in Thousands)

	2018	2017
ADDITIONS		
Replacement Benefits	$22,487	$20,573
Investment Income	163	168
Miscellaneous Income	444	239
TOTAL ADDITIONS	**$23,094**	**$20,980**
DEDUCTIONS		
Replacement Benefit Payments	$22,487	$20,573
Administrative Expenses	450	239
TOTAL DEDUCTIONS	**$22,937**	**$20,812**
CHANGE IN NET POSITION	**$157**	**$168**
NET POSITION		
Beginning of Year[2]	**$168**	**$0**
End of Year	**$325**	**$168**

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2017 due to the implementation of GASB 84. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.
(2) Due to prior period adjustment, beginning balance was restated.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

The presentation of the following table has been modified to better align statistical data with current categorizations of members and beneficiaries by rate plan and current pension reform changes. This table will continue populating each subsequent year until 10 years of data is available.

Public Employees' Retirement System – Four-Year Review

	2018	2017	2016	2015
ACTIVE & INACTIVE MEMBERS				
STATE MEMBERS				
State Miscellaneous – Classic	202,920	216,008	216,647	233,574
State Miscellaneous – PEPRA	77,329	59,617	44,057	29,009
State Safety – Classic	61,926	68,086	68,020	64,167
State Safety – PEPRA	25,130	22,051	16,991	11,054
Total State Members	**367,305**	**365,762**	**345,715**	**337,804**
PUBLIC AGENCY MEMBERS				
School – Miscellaneous – Classic	348,410	376,546	396,832	422,114
School – Miscellaneous – PEPRA	167,280	137,356	102,550	67,363
Public Agency – Miscellaneous – Classic	216,493	231,458	241,605	269,528
Public Agency – Miscellaneous – PEPRA	102,845	84,913	64,234	46,091
Public Agency – Safety – Classic	45,711	48,596	50,372	54,825
Public Agency – Safety – PEPRA	15,283	12,769	9,601	6,896
Total Public Agency Members	**896,022**	**891,638**	**865,194**	**866,817**
TOTAL ACTIVE & INACTIVE MEMBERS[1]	**1,263,327**	**1,257,400**	**1,210,909**	**1,204,621**
BENEFIT RECIPIENTS				
Retired				
Classic	595,483	576,228	557,679	530,725
PEPRA	534	284	166	90
Survivors and Beneficiaries				
Classic	98,457	91,488	90,774	80,250
PEPRA	96	59	26	13
TOTAL BENEFIT RECIPIENTS[2]	**694,570**	**668,059**	**648,645**	**611,078**
TOTAL MEMBERS AND BENEFIT RECIPIENTS	**1,957,897**	**1,925,459**	**1,859,554**	**1,815,699**

(1) A participant could be counted more than once if he/she has multiple active appointments on the report effective date.
(2) This total includes payments to individual retirees, survivors, and beneficiaries who have received any monthly and/or lump-sum payments.

PUBLIC EMPLOYEES' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA (CONTINUED)

Public Employees' Retirement System – Six-Year Review[1]

	2014	2013	2012	2011	2010	2009
ACTIVE & INACTIVE MEMBERS						
STATE MEMBERS						
Miscellaneous	236,552	227,291	228,667	223,251	224,084	224,966
University of California	44	44	45	49	56	81
Industrial	13,669	13,038	13,734	13,732	13,624	12,822
Alternative Retirement Plan	7,407	12,160	9,491	13,972	16,477	19,422
Highway Patrol	7,479	7,556	7,565	7,573	7,589	7,471
Safety	31,150	28,878	28,935	29,402	29,305	29,911
Peace Officer/Firefighter	45,346	45,116	47,162	48,243	49,437	51,260
Total State Members	**341,647**	**334,083**	**335,599**	**336,222**	**340,572**	**345,933**
PUBLIC AGENCY MEMBERS						
Schools	442,088	430,865	428,117	425,186	427,211	432,383
Cities	160,127	158,649	160,253	163,430	167,994	173,315
Counties	97,780	94,980	93,468	93,651	95,122	97,188
Districts & Other Public Agencies	87,372	85,660	85,003	84,937	85,145	85,578
Total Public Agency Members	**787,367**	**770,154**	**766,841**	**767,204**	**775,472**	**788,464**
TOTAL ACTIVE & INACTIVE	**1,129,014**	**1,104,237**	**1,102,440**	**1,103,426**	**1,116,044**	**1,134,397**
BENEFIT RECIPIENTS						
Service Retirement	505,031	486,625	464,601	450,263	428,821	408,428
Disability Retirement	44,242	43,857	43,626	43,347	43,090	43,074
Industrial Disability Retirement	37,686	36,493	35,495	34,733	33,951	33,453
Industrial Death	891	894	903	1,070	1,056	1,045
1957 Survivor Benefit	3,775	3,698	3,831	3,626	3,535	3,398
1959 Survivor Benefit	3,217	3,192	3,171	3,195	3,170	3,115
TOTAL BENEFIT RECIPIENTS[1]	**594,842**	**574,759**	**551,627**	**536,234**	**513,623**	**492,513**
TOTAL MEMBERS	**1,723,856**	**1,678,996**	**1,654,067**	**1,639,660**	**1,629,667**	**1,626,910**

(1) Information presented using different categorization of members and beneficiaries.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA

PRIMARY BENEFITS

CalPERS' benefit categories are established in the Public Employees' Retirement Law (PERL) and the Public Employees' Pension Reform Act of 2013 (PEPRA). The PERL and PEPRA categorize members under two distinct levels of membership, which are:

- **Public Employees' Pension Reform Act (PEPRA) Members** – New members who first became members of the CalPERS System on or after January 1, 2013, or were hired on or after January 1, 2013, by a new employer after a break in service longer than six months from previous eligible employment.
- **Classic Members** – All members that do not fit within the definition of a new member as defined by PEPRA. These existing CalPERS members as of December 31, 2012, will retain the existing benefit levels for future service with the same employer. Because the new member determination is made on an appointment-by-appointment basis, classic members will be tested against the "new member" definition upon each new appointment.

Benefits are paid according to the category of employment and the type of benefit coverage provided by an employer. A local agency's benefits may vary based upon statutory elections made by the employer.

The four categories of membership are:

- **Miscellaneous Members** – Staff, operational, supervisory, and all other eligible employees who are not in special membership categories.
- **Safety Members** – California Highway Patrol officers, police officers, firefighters, and other employees whose principal duties are in active law enforcement or fire prevention and suppression work, or who occupy positions designated by law as safety member positions.
- **State Industrial Members** – Employees of the California Department of Corrections and Rehabilitation who have the same service retirement and other benefits as miscellaneous members, but who also have industrial death and disability benefits under certain limited circumstances.
- **State Peace Officer/Firefighter Members** – State employees who are involved in law enforcement, firefighting and fire suppression, public safety, protective services, or the management and supervision thereof, whose positions are defined as state peace officer/firefighter members in the Government Code or by the Department of Human Resources.

SERVICE RETIREMENT

State Miscellaneous & State Industrial Members – Classic

- 2 percent at 55 – A guarantee of 2 percent of final compensation at age 55 for each year of service credit.
- 2 percent at 60 – A guarantee of 2 percent of final compensation at age 60 for each year of service credit.

Retirement may begin at age 50 with a reduced benefit rate, or at age 55 or 60 with an increased benefit rate to age 63.

- 1.25 percent at 65 – A guarantee of 1.25 percent of final compensation at age 65 for each year of service credit. Retirement may begin at age 55 with a reduced benefit rate.

State Miscellaneous & State Industrial Members – PEPRA

- 2 percent at 62 – A guarantee of 2 percent of final compensation at age 62 for each year of service credit. Retirement may begin at age 52 with a reduced benefit rate, or after age 62 with an increased benefit rate to age 67.
- 1.25 percent at 67 – A guarantee of 1.25 percent of final compensation at age 67 for each year of service credit. Retirement may begin at age 55 with a reduced benefit rate.

State Safety Members – Classic

- 2 percent at 55 – It provides 2 percent of final compensation for each year of service for retirement at age 55.
- 2.5 percent at 55 – It provides 2.5 percent of final compensation for each year of service for retirement at age 55.

The maximum allowance payable is 80 percent of final compensation. Retirement may begin at age 50 with a reduced benefit rate.

- 3 percent at 50 – It provides 3 percent of final compensation for each year of service for retirement at age 50.
- 3 percent at 55 – It provides 3 percent of final compensation for each year of service for retirement at age 55. Retirement may begin at age 50 with a reduced benefit rate.

The maximum allowance payable is 90 percent.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

State Safety Members – PEPRA

- 2 percent at 57 – It provides 2 percent of final compensation for each year of service for retirement at age 57.
- 2.5 percent at 57 – It provides 2.5 percent of final compensation for each year of service for retirement at age 57.
- 2.7 percent at 57 – It provides 2.7 percent of final compensation for each year of service for retirement at age 57.

Retirement may begin at age 50 with a reduced benefit rate.

School Members 2 Percent at 55 – Classic

A guarantee of 2 percent of final compensation at age 55 for each year of service credit. Retirement may begin at age 50 with a reduced benefit rate, or after age 55 with an increased benefit rate to age 63.

School Members 2 Percent at 62 – PEPRA

A guarantee of 2 percent of final compensation at age 62 for each year of service credit. Retirement may begin at age 52 with a reduced benefit rate, or after age 62 with an increased benefit rate to age 67.

Local Miscellaneous Members – Classic

- 2 percent at 55 – A guarantee of 2 percent of final compensation at age 55 for each year of service credit.
- 2 percent at 60 – A guarantee of 2 percent of final compensation at age 60 for each year of service.

Retirement may begin at age 50 with a reduced benefit rate, or after age 55 or 60 with an increased benefit rate to age 63.

- 2.5 percent at 55 – A guarantee of 2.5 percent of final compensation at age 55 for each year of service credit.
- 2.7 percent at 55 – A guarantee of 2.7 percent of final compensation at age 55 for each year of service credit.
- 3 percent at 60 – A guarantee of 3 percent of final compensation at age 60 for each year or service credit.

Retirement may begin at age 50 with a reduced benefit rate.

- 1.5 percent at 65 – A guarantee of 1.5 percent of final compensation at age 65 for each year of service credit. Retirement may begin at age 55 with a reduced benefit rate.

Local Miscellaneous Members 2 Percent at 62 – PEPRA

A guarantee of 2 percent of final compensation at age 62 for each year of service credit. Retirement may begin at age 52 with a reduced benefit rate, or after age 62 with an increased benefit rate to age 67.

Local Safety Members 2 Percent at 50 Formula

2 percent of final compensation for each year of service for retirement at age 50, with an increased benefit rate to age 55. The maximum allowance payable is 90 percent of final compensation.

Local Safety Members – Classic

- 2 percent at 50 – It provides 2 percent of final compensation for each year of service for retirement at age 50, with an increased benefit rate to age 55.
- 3 percent at 50 – It provides 3 percent of final compensation for each year of service for retirement at age 50.

The maximum allowance payable is 90 percent of final compensation.

- 2 percent at 55 – It provides 2 percent of final compensation for each year of service for retirement at age 55.
- 2.5 percent at 55 – It provides 2.5 percent of final compensation for each year of service retirement at age 55.
- 3 percent at 55 – It provides 3 percent of final compensation for each year of service for retirement at age 55.

Retirement may begin at age 50 with a reduced benefit rate. The maximum allowance payable is 90 percent of final compensation.

Local Safety Members – PEPRA

- 2 percent at 57 – It provides 2 percent of final compensation for each year of service for retirement at age 57.
- 2.5 percent at 57 – It provides 2.5 percent of final compensation for each year of service for retirement at age 57.
- 2.7 percent at 57 – It provides 2.7 percent of final compensation for each year of service for retirement at age 57.

Retirement may begin at age 50 with a reduced benefit rate.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

DISABILITY RETIREMENT

For Most Members
A monthly allowance of 1.8 percent of final compensation for each year of service, improved under certain conditions to 33.33 percent of final compensation, applicable to members with at least five years of service credit.

By Contract Amendment Only for Local Agencies
A monthly allowance of 30 percent of final compensation, plus an additional 1 percent for each year of service over five years to a maximum of 50 percent.

For State Second Tier Members
A monthly allowance of 1.125 percent of final compensation for each year of service, improved under certain conditions to 33.33 percent of final compensation, applicable to members with at least 10 years of service credit or five years if credited as of January 1, 1985.

For Certain Local Miscellaneous Second Tier Members
A monthly allowance of 1.35 percent of final compensation for each year of service, improved under certain conditions to 33.33 percent of final compensation, applicable to members with at least five years of service credit.

INDUSTRIAL DISABILITY RETIREMENT

For Most Members
A monthly allowance of 50 percent of final compensation, applicable to California Highway Patrol (CHP) members, state and local safety members, state peace officer/firefighter members, state industrial members, local miscellaneous members (by contract amendment only), and certain state miscellaneous members defined by law. The injury or illness must be job related and the member must be serving in one of these categories at the time the industrial disability occurs. CHP members may be entitled to an enhanced benefit if specific qualifying factors are met.

By Contract Amendment Only for Local Agencies
A monthly allowance of 75 percent of final compensation, if found totally disabled.

By Contract Amendment Only for Local Agencies
A monthly allowance of 50 percent to 90 percent of final compensation, depending on the disability rating by the Workers' Compensation Appeals Board.

DEATH BENEFITS (BEFORE RETIREMENT)

STATE MEMBERS: LUMP SUM

Basic Death Benefit – State Members Only
Eligible to retire or not eligible to retire with 20 years or more of state service credit – a return of member contributions plus interest (compounded annually) and a state-paid portion equal to six months' pay (50 percent of the member's earnable pay for the 12 months prior to the member's death).
Not eligible to retire with less than 20 years of state service credit – a return of only the member contributions plus interest (compounded annually).

Insurance Benefit – State Members Only
Eligible to retire or not eligible to retire with 20 years or more of state service credit – $5,000 in a lump sum.
Not eligible to retire with less than 20 years of state service credit – $5,000 in a lump sum plus six months' pay (50 percent of annual compensation).

STATE MEMBERS – MONTHLY

Alternate Death Benefit[1] – For State Members in Bargaining Units Contracting for this Benefit
Not Eligible to Retire, With 20 Years or More of State Service Credit – a monthly allowance payable to a surviving spouse or registered domestic partner until death, then to children under age 18. It is calculated similarly to pre-retirement Option 2W (if the beneficiary is a spouse or registered domestic partner), or like a 1957 Survivor Benefit (if the beneficiary is a minor child), as though the member had been old enough to retire. A spouse or registered domestic partner or minor child may receive continued health and dental insurance with the Alternate Death Benefit. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Pre-Retirement Option 2W Benefit[1] – For All State Members, Married, or Registered Domestic Partnership
A monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to 100 percent of the option portion had the member retired on their date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit[1] – For All State Members, Not Married, or No Registered Domestic Partnership
For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1959 Survivor Benefit – State Members
A monthly benefit paid to survivors of deceased members who died prior to retirement. This benefit is similar to the Social Security Survivor Benefit and is paid in addition to any other applicable pre-retirement death benefit, except the Special Death Benefit.

Special Death Benefit[1] – Survivors of State, State Industrial, State Peace Officer/Firefighter Members, State Miscellaneous[3]
A monthly allowance equal to 50 percent of final compensation payable to the surviving spouse or registered domestic partner until death, or if no spouse, to natural or adopted unmarried children up to age 22. The monthly allowance is recalculated annually on October 1 based on the salary rates for employees who work in the position the member held at the time of death until such time as the member would have attained age 50.

Special Death Benefit[2] – Violent Death
Provides increased benefits (up to 75 percent of final compensation) based upon the number of surviving children, if the member's death is the result of external violence or physical force.

SCHOOL MEMBERS – LUMP SUM

Basic Death Benefit – School Members
Eligible to retire or not—A return of member contributions plus interest (compounded annually) and an employer-paid portion equal to one month's compensation earnable for each year of current service to a maximum of six months.

SCHOOL MEMBERS – MONTHLY

1957 Survivor Benefit[1] – School Members, Married, or Registered Domestic Partnership
For all members eligible to retire who are married or in a registered domestic partnership, a monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit – For All School Members, Not Married, or No Registered Domestic Partnership
For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.
(2) The Special Death Benefit is payable if the member's death is job related.
(3) The survivor of a state or local miscellaneous member qualifies for the Special Death Benefit if the member was killed or fatally injured while performing their official duties.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

1959 Survivor Benefit – School Members
A monthly benefit paid to survivors of deceased members who died prior to retirement. This benefit is similar to the Social Security Survivor Benefit and is paid in addition to any other applicable pre-retirement death benefit, except the Special Death Benefit.

LOCAL AGENCY MEMBERS – LUMP SUM

Basic Death Benefit – Local Agency Members
Eligible to retire or not – A return of member contributions plus interest (compounded annually) and an employer-paid portion equal to one month's compensation earnable for each year of current service to a maximum of six months.

LOCAL AGENCY MEMBERS – MONTHLY

1957 Survivor Benefit[1] – Local Agency Members, Married, or Registered Domestic Partnership
For all members eligible to retire who are married or in a registered domestic partnership, a monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit – For All Local Agency Members, Not Married, or No Registered Domestic Partnership
For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1959 Survivor Benefit – Local Agency Members Not Coordinated With Social Security by Contract Option Amendment
A monthly benefit paid to survivors of deceased members who died prior to retirement. This benefit is similar to the Social Security Survivor Benefit and is paid in addition to any other applicable pre-retirement death benefit, except the Special Death Benefit.

Alternate Death Benefit for Firefighters – Local Agencies by Contract With 20 Years or More of Total Service Credit
A monthly non-job-related allowance payable to a surviving spouse or registered domestic partner until death, then to children under age 18. It is calculated similarly to Pre-Retirement Option 2W (if the beneficiary is a spouse or registered domestic partner, even if the agency does not contract separately for the Pre-Retirement Option 2W benefit), or like a 1957 Survivor Benefit (if the beneficiary is a minor child), as though the member had either been old enough to retire (if the member died before reaching retirement age), or based on the member's actual age if the member was eligible to retire at the time of death. This benefit applies to all service credit earned by the member, including service that may have been earned with a local agency that does not contract for the Alternate Death Benefit, as long as the member was employed at the time of death by a local agency that provides this benefit in their contract. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

Pre-Retirement Option 2W Benefit – Local Agencies by Contract, Married, or Registered Domestic Partnership
A monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to 100 percent of the option portion had the member retired on their date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Special Death Benefit[1] – Survivors of Patrol, Local Safety & Local Miscellaneous by Contract Amendment[3]
A monthly allowance equal to 50 percent of final compensation payable to the surviving spouse or registered domestic partner until death, or if no spouse, to natural or adopted unmarried children up to age 22. The monthly allowance is recalculated annually on October 1 based on the salary rates for employees who work in the position the member held at the time of death until such time as the member would have attained age 50.

Special Death Benefit[2] – Violent Death
Provides increased benefits (up to 75 percent of final compensation) based upon the number of surviving children, if the member's death is the result of external violence or physical force.

COST-OF-LIVING ADJUSTMENTS

For All Members – Except State Second Tier
A maximum of 2 percent compounded annually (up to 5 percent maximum as a contract option for retired members of local agencies). Note: Does not apply to the 1959 Survivor Death Benefit.

For State Second Tier Members Only
A fixed 3 percent compounded annually.

SEPARATION FROM EMPLOYMENT/REFUNDS

At permanent separation from employment, members may either leave their contributions on deposit and defer retirement[4] or terminate membership by electing to take a refund of member contributions plus interest (compounded annually). With a refund election, CalPERS is required to deduct federal withholding of 20 percent from the untaxed portion of the refund, unless the taxable portion is directly rolled over to a qualified plan or IRA.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.
(2) The Special Death Benefit is payable if the member's death is job-related.
(3) The survivor of a state or local miscellaneous member qualifies for the Special Death Benefit if the member was killed or fatally injured while performing their official duties.
(4) A member who has less than the required amount of service credit may return to CalPERS-covered employment to obtain the minimum service credit required to be eligible for retirement.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

The presentation of the following table has been modified to better align statistical data with current categorizations of members and beneficiaries by rate plan and current pension reform changes. For financial reporting purposes only, the Public Employees' Retirement Fund (PERF) is comprised of and reported as three separate entities. PERF A is comprised of agent multiple-employer plans, which includes State of California and most public agencies' rate plans with more than 100 active members. PERF B is a cost-sharing multiple-employer plan of school employers consisting of non-teaching and non-certified employees. PERF C is a cost-sharing multiple-employer plan of public agencies' plans with generally fewer than 100 active members. Under applicable law, the CalPERS Board may terminate or a public agency may terminate that agency's plan under either PERF A or PERF C. The terminated agency is liable to the system for all costs to fund all benefits under the agency's contract. An unpaid deficit in funding will result in a commensurate reduction in benefits provided under that agency's contract.

Retirement Benefit Recipients and Members by Employer Category – PERF – As of June 30, 2018

Employer/Category	Plan Type	Active[1]	Inactive[1]	Retired[2]	Survivors & Beneficiaries[3]	Total
STATE						
Miscellaneous – Classic[4]	PERF A	128,588	74,332	148,363	28,080	379,363
Miscellaneous – PEPRA[4]	PERF A	62,648	14,681	99	2	77,430
Safety – Classic[5]	PERF A	53,863	8,063	59,589	7,355	128,870
Safety – PEPRA[5]	PERF A	23,354	1,776	35	1	25,166
Pre-Retirement Death – Classic	PERF A	—	—	—	3,098	3,098
Pre-Retirement Death – PEPRA	PERF A	—	—	—	9	9
TOTAL STATE		**268,453**	**98,852**	**208,086**	**38,545**	**613,936**
SCHOOL						
Miscellaneous – Classic	PERF B	201,912	146,498	190,128	30,013	568,551
Miscellaneous – PEPRA	PERF B	130,747	36,533	116	—	167,396
Pre-Retirement Death – Classic	PERF B	—	—	—	1,181	1,181
Pre-Retirement Death – PEPRA	PERF B	—	—	—	51	51
TOTAL SCHOOL		**332,659**	**183,031**	**190,244**	**31,245**	**737,179**
PUBLIC AGENCY						
Miscellaneous – Classic	PERF A	111,496	70,232	126,049	17,427	325,204
Miscellaneous – PEPRA	PERF A	65,963	19,356	185	1	85,505
Safety – Classic	PERF A	26,133	5,401	35,756	4,749	72,039
Safety – PEPRA	PERF A	8,576	1,395	20	—	9,991
Pre-Retirement Death – Classic	PERF A	—	—	—	1,457	1,457
Pre-Retirement Death – PEPRA	PERF A	—	—	—	28	28
Miscellaneous – Classic	PERF C	19,554	15,211	20,392	2,622	57,779
Miscellaneous – PEPRA	PERF C	13,335	4,191	66	—	17,592
Safety – Classic	PERF C	10,324	3,853	15,206	2,077	31,460
Safety – PEPRA	PERF C	4,394	918	13	—	5,325
Pre-Retirement Death – Classic	PERF C	—	—	—	398	398
Pre-Retirement Death – PEPRA	PERF C	—	—	—	4	4
TOTAL PUBLIC AGENCY		**259,775**	**120,557**	**197,687**	**28,763**	**606,782**
TOTAL BENEFIT RECIPIENTS AND MEMBERS		**860,887**	**402,440**	**596,017**	**98,553**	**1,957,897**

(1) A participant could be counted more than once if he/she has multiple active appointments on the report effective date.
(2) The actual number of retirees is by the employer category from which they retired, regardless of whether they had service in other employer categories.
(3) The total includes those recipients receiving either a lump-sum, one-time only payment, and/or continuous payments.
(4) State miscellaneous includes state industrial.
(5) State safety includes Highway Patrol and Peace Officer/Firefighter.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Benefit and Refund Deductions from Fiduciary Net Position – Six-Year Review – PERF

Category	2018	2017	2016	2015	2014	2013
Service Retirement	$19,851,652,792	$18,537,701,906	$17,482,814,843	$16,399,932,312	$15,318,518,965	$14,304,469,220
Disability Retirement	629,909,937	621,706,049	614,204,683	599,845,301	575,825,287	560,645,818
Industrial Disability Retirement	1,946,751,674	1,867,178,738	1,784,205,878	1,695,674,147	1,583,017,137	1,494,486,150
PPPA Payments[1]	14,739,908	17,399,875	21,742,842	25,792,689	33,299,953	37,957,813
Total	**$22,443,054,311**	**$21,043,986,568**	**$19,902,968,246**	**$18,721,244,449**	**$17,510,661,342**	**$16,397,559,001**
Basic Death Benefit/Group Term Life Insurance	$45,353,650	$36,354,849	$37,528,299	$25,652,204	$26,528,315	$45,181,888
1957 Survivor Benefit	103,212,410	99,140,672	95,869,358	92,157,432	87,564,961	83,210,337
1959 Survivor Benefit	33,515,158	33,448,316	33,770,778	33,886,098	33,699,064	34,606,918
Industrial Death Allowance	50,041,476	48,682,349	47,735,846	45,653,060	43,918,078	42,555,263
Option 1, Temporary Annuity, Other Lump-Sum Death Benefits & Other Prior-Year Adjustments	44,705,434	30,796,681	36,775,082	55,058,746	57,285,779	32,149,825
Adjustments[2]	(65,438,104)	(76,521,097)	(60,714,425)	(51,360,036)	—	—
Total	**$211,390,024**	**$171,901,770**	**$190,964,938**	**$201,047,504**	**$248,996,197**	**$237,704,231**
Total Retirement and Death Payments	**$22,654,444,335**	**$21,215,888,338**	**$20,093,933,184**	**$18,922,291,953**	**$17,759,657,539**	**$16,635,263,232**
Refunds	286,978,986	222,274,594	238,821,624	240,623,206	237,893,870	242,595,215
GRAND TOTAL	**$22,941,423,321**	**$21,438,162,932**	**$20,332,754,808**	**$19,162,915,159**	**$17,997,551,409**	**$16,877,858,447**

(1) These payments were made from the Purchasing Power Protection Account, which is structured to maintain current benefit levels and to restore CalPERS allowances to 75 percent of their original purchasing power (80 percent for public agencies).
(2) Adjustment category added in FY 2015 to accommodate manual claims and overpayment recoveries.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Program Data – PERF – Average Benefit Payments – As of June 30, 2018 – 10-Year Review

	Years of Service Credit						
Retirement Effective Dates	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
2017-18							
Average Monthly Allowance[1]	$614	$1,069	$1,766	$2,508	$3,672	$5,510	$6,192
Average Final Compensation	$6,427	$5,310	$5,598	$6,023	$6,776	$7,993	$7,854
Number of Recipients[1]	1,482	4,669	5,531	6,209	5,100	5,994	5,620
2016-17							
Average Monthly Allowance[1]	$569	$1,059	$1,630	$2,426	$3,487	$5,288	$5,841
Average Final Compensation	$6,366	$5,244	$5,311	$5,865	$6,491	$7,700	$7,476
Number of Recipients[1]	1,551	5,101	5,481	5,806	4,641	5,805	5,312
2015-16							
Average Monthly Allowance[1]	$541	$1,053	$1,641	$2,392	$3,443	$5,223	$5,744
Average Final Compensation	$5,942	$5,130	$5,282	$5,728	$6,361	$7,565	$7,307
Number of Recipients[1]	1,383	4,840	5,571	5,140	4,741	5,599	5,057
2014-15							
Average Monthly Allowance[2]	$634	$1,034	$1,591	$2,313	$3,264	$5,026	$5,370
Average Final Compensation	$6,024	$5,028	$5,131	$5,625	$6,227	$7,503	$7,081
Number of Recipients[2]	1,510	5,240	5,908	5,277	5,020	5,534	5,168
2013-14							
Average Monthly Allowance[3]	$530	$837	$1,340	$1,890	$2,791	$4,295	$4,975
Average Final Compensation	$5,923	$4,680	$4,782	$5,041	$5,643	$6,680	$6,720
Number of Recipients[3]	880	5,029	5,707	4,890	5,013	5,085	5,808
2012-13							
Average Monthly Allowance[3]	$540	$774	$1,304	$1,911	$2,806	$4,337	$4,954
Average Final Compensation	$6,098	$4,537	$4,758	$5,127	$5,651	$6,692	$6,686
Number of Recipients[3]	774	5,053	5,864	4,958	5,664	5,557	6,861
2011-12							
Average Monthly Allowance[3]	$541	$747	$1,267	$1,860	$2,733	$4,228	$5,026
Average Final Compensation	$6,104	$4,442	$4,679	$5,037	$5,722	$6,587	$6,700
Number of Recipients[3]	763	4,688	5,628	4,735	5,746	5,163	6,726
2010-11							
Average Monthly Allowance[3]	$517	$782	$1,291	$1,856	$2,815	$4,146	$5,130
Average Final Compensation	$6,442	$4,508	$4,739	$4,927	$5,606	$6,500	$6,741
Number of Recipients[3]	713	4,322	5,128	4,607	5,993	5,243	7,572
2009-10							
Average Monthly Allowance[3]	$586	$829	$1,377	$2,059	$3,043	$4,577	$5,572
Average Final Compensation	$6,806	$4,460	$4,760	$5,153	$5,819	$6,738	$7,076
Number of Recipients[3]	878	4,172	4,322	4,208	5,596	5,322	7,092
2008-09							
Average Monthly Allowance[3]	$606	$830	$1,360	$1,988	$2,906	$4,432	$5,569
Average Final Compensation	$6,519	$4,378	$4,680	$4,982	$5,641	$6,574	$7,013
Number of Recipients[3]	680	3,796	3,598	3,681	4,157	3,977	5,801

(1) These averages and totals are for retired members only.
(2) These averages and totals are for retired members and community property only.
(3) These averages and totals are for retired members, survivors, beneficiaries, and community property recipients.

PUBLIC AGENCY EMPLOYERS

CONTRACTS SUMMARY

On June 30, 2018, 1,579 public agency contracts provided retirement, death, and survivor benefits for participants of 57 county offices of education; 4 school district offices; 451 cities and towns; 37 counties; the State of California; and 1,029 districts and other public agencies. The 57 county offices of education contracts provide benefits for 1,313 school districts and charter schools, bringing the total number of public agency employers to 2,892.

During Fiscal Year 2017-18, four additional agencies contracted with CalPERS for retirement, death, and survivor benefits. The new contracting agencies are:

New Contracts

Effective Date	Public Agency	Misc. Member Formula	Safety Member Formula
7/1/2017	Graton Community Services District	2% @ 62	N/A
7/1/2017	Sonoma County Junior College District	N/A	2.7% @ 57
1/1/2018	Transportation Authority of Marin	2% @ 55 2% @ 62	N/A
5/4/2018	Channel Islands Beach Community Services District	2% @ 62	N/A

Amendments

Public agency contracts vary depending upon the member categories covered, the formula the agency elects to provide, and the optional benefit provisions selected from the group of 41 benefits. These optional benefits may be provided at the time the original contract is established or they may be added later through the contract amendment process.

During Fiscal Year 2017-18, 40 contract amendments were completed.

Two Years of Additional Service Credit – "Golden Handshake"

Contracting agencies may amend their contracts to provide additional service credit if there are impending mandatory transfers, layoffs, or demotions. Eligible employees who retire within a 90- to 180-day window period established by the employer receive two years additional service credit. The county offices of education may also contract for this benefit when there is an impending curtailment of, or change, in the manner of performing services, and their best interest would be served by granting the additional service credit. Once the contract is amended, the employer may establish additional window periods.

Popular Benefit Amendments

Benefit	Number of Amendments
Employees Sharing Additional Cost	27
Succeeding Agency	2
Pre-Retirement Option 2W Death Benefit	2
Fourth Level of 1959 Survivor Benefits	2
Post-Retirement Survivor Allowance	2
Removal of Contract Exclusions Prospectively Only	1
Termination of a Portion of the Contract	1
Credit for Unused Sick Leave	1
Partial Service Retirement	1
Additional Opportunity to Elect 1959 Survivor Benefits	1

Mergers

- San Diego Pooled Insurance Program Authority merged to the CSAC Excess Insurance Authority, effective July 1, 2017.
- Loomis Fire Protection District merged to the South Placer Fire District, effective January 20, 2018.

Terminations

CalPERS pension contract terminations are permissible under the Public Employees' Retirement Law (PERL), which defines the methods in which a contracting agency voluntarily or involuntarily exits CalPERS' pension program. A contracting agency may voluntarily terminate its pension contract with the adoption of a formal resolution effectuating this action. The termination is effective with the agency's Board approval on the date designated in the resolution terminating the contract and any unfunded liabilities must be fully paid. In the case of an involuntary termination, the CalPERS Board has the authority to terminate a contracting agency's pension contracts due to specific inabilities by a contracting agency to meet the requirements of participation as defined by the PERL. There were no terminations effective during Fiscal Year 2017-18.

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Reciprocal Systems

Reciprocity is a valuable addition to the CalPERS benefit package. Its purpose is to encourage career public service, by allowing members to move between employers under different public retirement systems without losing their retirement and related benefits. The following retirement systems have reciprocity with CalPERS:

Counties Under the County Employees' Retirement Law of 1937

- Alameda
- Contra Costa
- Fresno
- Imperial
- Kern
- Los Angeles
- Marin
- Mendocino
- Merced
- Orange
- Sacramento
- San Bernardino
- San Diego
- San Joaquin
- San Mateo
- Santa Barbara
- Sonoma
- Stanislaus
- Tulare
- Ventura

The University of California Retirement Plan (UCRP)

Reciprocal Public Retirement Systems

- Concord, City of
- Contra Costa Water District
- Costa Mesa, City of (safety only)
- East Bay Municipal Utility District
- East Bay Regional Park District (safety only)
- Fresno, City of
- Los Angeles City Employees' Retirement Plan
- Los Angeles County Metropolitan Transportation Authority (Non-Contract Employees' Retirement Income Plan)
- Oakland, City of (non-safety only)
- Pasadena, City of (fire and police only)
- Sacramento, City of
- San Clemente, City of (non-safety only)
- San Diego, City of
- San Francisco, City and County of
- San Jose, City of
- San Luis Obispo, County of

Systems with Limited Reciprocity

- Judges' Retirement System
- Judges' Retirement System II
- Legislators' Retirement System
- California State Teachers' Retirement System

PARTICIPATING PUBLIC AGENCIES BY TYPE

The following tables are counts of active participants, excluding retirees, sorted by public agency. In most cases, a participant is only counted once. A participant could be counted more than once if he/she has multiple active appointments on the report effective date. An active member is currently employed by the State of California, a CalPERS contracting public agency, or a school district. Agencies that contract with CalPERS for retirement benefits and have zero participants were included.

For financial reporting purposes only, the PERF is comprised of and reported as three separate entities. PERF A is comprised of agent multiple-employer plans, which includes State of California and most public agency rate plans with more than 100 active members. PERF B is a cost-sharing multiple-employer plan of school employers consisting of non-teaching and non-certified employees. PERF C is a cost-sharing multiple-employer plan of public agency plans with generally fewer than 100 active members. Under applicable law, the CalPERS Board may terminate or a public agency may terminate that agency's plan under either PERF A or PERF C. The terminated agency is liable to the system for all costs to fund all benefits under the agency's contract. An unpaid deficit in funding will result in a commensurate reduction in benefits provided under that agency's contract.

Largest Participating Employers – Current Year

Rank	Employer	2018 Number of Employees[1]	% of Total System
1	State of California	268,453	31.18%
2	Los Angeles County Schools	46,868	5.44%
3	Los Angeles Unified School District	27,006	3.14%
4	San Diego County Schools	26,615	3.09%
5	Orange County Schools	25,646	2.98%
6	Riverside County Schools	21,729	2.52%
7	San Bernardino County Schools	20,490	2.38%
	All Other	424,080	49.27%
	Total Covered Employees	**860,887**	**100.00%**

(1) Number of Employees includes only active members.

Largest Participating Employers – Nine-Years Prior

Rank	Employer	2009 Number of Employees[1]	% of Total System
1	State of California	345,933	31.91%
2	Los Angeles County Office of Education	78,948	7.28%
3	Los Angeles Unified School District	46,890	4.32%
4	San Diego County Office of Education	24,817	2.29%
5	County of Riverside	24,748	2.28%
6	Orange County Office of Education	21,328	1.97%
	All Other	541,630	49.95%
	Total Covered Employees	**1,084,294**	**100.00%**

(1) Number of Employees includes active and inactive members.

PUBLIC AGENCY EMPLOYERS (CONTINUED)

County Offices of Education (57)

	PERF B Active		PERF B Active
Alameda	11,134	Orange	25,621
Alpine	33	Placer	3,128
Amador	259	Plumas	288
Butte	2,668	Riverside	21,729
Calaveras	447	Sacramento	13,675
Colusa	361	San Benito	581
Contra Costa	8,144	San Bernardino	20,438
Del Norte	214	San Diego	26,544
El Dorado	1,763	San Joaquin	7,623
Fresno	12,047	San Luis Obispo	2,452
Glenn	425	San Mateo	5,364
Humboldt	1,860	Santa Barbara	3,993
Imperial	2,556	Santa Clara	13,323
Inyo	221	Santa Cruz	2,275
Kern	12,390	Shasta	2,156
Kings	1,502	Sierra	39
Lake	651	Siskiyou	696
Lassen	356	Solano	3,418
Los Angeles	46,811	Sonoma	4,102
Madera	1,561	Stanislaus	6,844
Marin	1,721	Sutter	1,120
Mariposa	133	Tehama	935
Mendocino	1,349	Trinity	194
Merced	3,696	Tulare	6,398
Modoc	199	Tuolumne	440
Mono	158	Ventura	7,669
Monterey	5,018	Yolo	1,757
Napa	1,384	Yuba	1,070
Nevada	706	**Total**	**303,639**

School District Offices[1] (4)

	Active		
	PERF A	PERF B	Total
Los Angeles Unified School District	360	26,646	27,006
Los Angeles Community College District	—	2,374	2,374
Los Angeles County Office of Education	1,523	—	1,523
San Diego County Office of Education	675	—	675
Total	**2,558**	**29,020**	**31,578**

(1) Agencies that contract with CalPERS as public agencies and are not reflected elsewhere in this report.

Counties (37 total)

	Active		
	PERF A	PERF C	Total
Alpine	—	89	89
Amador	281	97	378
Butte	2,238	—	2,238
Calaveras	448	81	529
Colusa	300	61	361
Del Norte	382	34	416
El Dorado	1,826	—	1,826
Glenn	417	32	449
Humboldt	2,017	—	2,017
Inyo	336	39	375
Kings	1,486	—	1,486
Lake	862	—	862
Lassen	353	65	418
Madera	1,367	—	1,367
Mariposa	335	70	405
Modoc	194	17	211
Mono	205	70	275
Monterey	5,144	—	5,144
Napa	1,346	112	1,458
Nevada	715	68	783
Placer	2,640	—	2,640
Plumas	341	32	373
Riverside	20,088	—	20,088
San Benito	377	76	453
San Joaquin	—	—	—
Santa Clara	17,776	—	17,776
Santa Cruz	2,355	—	2,355
Shasta	1,948	—	1,948
Sierra	—	106	106
Siskiyou	639	—	639
Solano	3,023	—	3,023
Sutter	973	—	973
Tehama	798	—	798
Trinity	251	52	303
Tuolumne	522	129	651
Yolo	1,572	—	1,572
Yuba	837	—	837
Total	**74,392**	**1,230**	**75,622**

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (451)

City/Town	Active PERF A	Active PERF C	Total	City/Town	Active PERF A	Active PERF C	Total	City/Town	Active PERF A	Active PERF C	Total
Adelanto	—	46	46	Calabasas	—	96	96	Del Mar	—	58	58
Agoura Hills	—	33	33	Calexico	—	135	135	Del Rey Oaks	—	7	7
Alameda	490	—	490	California City	—	97	97	Delano	—	51	51
Albany	—	96	96	Calimesa	—	9	9	Desert Hot Springs	—	71	71
Alhambra	394	—	394	Calipatria	—	12	12	Diamond Bar	—	58	58
Aliso Viejo	—	20	20	Calistoga	—	60	60	Dinuba	—	148	148
Alturas	—	21	21	Camarillo	138	—	138	Dixon	—	107	107
American Canyon	—	77	77	Campbell	134	43	177	Dos Palos	—	22	22
Anaheim	2,355	—	2,355	Canyon Lake	—	5	5	Downey	432	—	432
Anderson	—	60	60	Capitola	—	68	68	Duarte	—	48	48
Angels	—	39	39	Carlsbad	683	—	683	Dublin	—	100	100
Antioch	189	94	283	Carmel-By-The-Sea	—	70	70	Dunsmuir	—	12	12
Apple Valley	—	107	107	Carpinteria	—	30	30	East Palo Alto	—	101	101
Arcadia	304	—	304	Carson	394	—	394	Eastvale	—	17	17
Arcata	—	116	116	Cathedral City	—	175	175	El Cajon	392	—	392
Arroyo Grande	—	86	86	Cerritos	248	—	248	El Centro	185	78	263
Artesia	—	36	36	Chico	348	—	348	El Cerrito	—	174	174
Arvin	—	58	58	Chino	334	104	438	El Monte	288	—	288
Atascadero	—	142	142	Chowchilla	—	68	68	El Segundo	174	95	269
Atherton	—	48	48	Chula Vista	950	—	950	Elk Grove	—	325	325
Atwater	—	79	79	Citrus Heights	—	201	201	Emeryville	—	39	39
Auburn	—	65	65	Claremont	136	41	177	Encinitas	157	61	218
Avalon	—	70	70	Clayton	—	29	29	Escalon	—	29	29
Avenal	—	51	51	Clearlake	—	52	52	Escondido	794	—	794
Azusa	242	64	306	Cloverdale	—	41	41	Etna	—	14	14
Bakersfield	1,484	—	1,484	Clovis	628	—	628	Eureka	164	48	212
Baldwin Park	149	67	216	Coachella City	—	69	69	Exeter	—	41	41
Banning	135	25	160	Coalinga	—	92	92	Fairfax	—	33	33
Barstow	—	140	140	Colfax	—	11	11	Fairfield	514	—	514
Beaumont	—	141	141	Colma	—	46	46	Farmersville	—	30	30
Bell	—	90	90	Colton	205	87	292	Fillmore	—	34	34
Bell Gardens	—	157	157	Colusa	—	34	34	Firebaugh	—	34	34
Bellflower	—	85	85	Commerce	159	—	159	Folsom	430	—	430
Belmont	—	129	129	Compton	262	64	326	Fontana	743	—	743
Belvedere	—	21	21	Concord	409	—	409	Fort Bragg	—	56	56
Benicia	161	62	223	Corcoran	—	58	58	Fortuna	—	74	74
Berkeley	1,356	—	1,356	Corning	—	42	42	Fountain Valley	—	214	214
Beverly Hills	890	—	890	Corona	487	96	583	Fowler	—	28	28
Biggs	—	8	8	Coronado	188	71	259	Fremont	889	—	889
Bishop	—	39	39	Corte Madera	—	49	49	Fullerton	564	—	564
Blue Lake	—	9	9	Costa Mesa	461	79	540	Galt	117	31	148
Blythe	—	60	60	Cotati	—	40	40	Garden Grove	644	—	644
Bradbury	—	3	3	Covina	111	52	163	Gardena	343	91	434
Brawley	—	131	131	Crescent City	—	62	62	Gilroy	238	—	238
Brea	278	—	278	Cudahy	—	20	20	Glendale	1,825	—	1,825
Brentwood	223	62	285	Culver City	653	—	653	Glendora	144	48	192
Brisbane	—	89	89	Cupertino	195	—	195	Goleta	—	62	62
Buellton	—	23	23	Cypress	—	137	137	Gonzales	—	58	58
Buena Park	189	87	276	Daly City	446	—	446	Grand Terrace	—	18	18
Burbank	1,305	—	1,305	Dana Point	—	61	61	Grass Valley	—	83	83
Burlingame	191	36	227	Davis	261	92	353	Greenfield	—	55	55

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (continued)

City/Town	Active PERF A	Active PERF C	Total	City/Town	Active PERF A	Active PERF C	Total	City/Town	Active PERF A	Active PERF C	Total
Gridley	—	51	51	Lancaster	272	—	272	Morgan Hill	171	37	208
Grover Beach	—	61	61	Larkspur	—	61	61	Morro Bay	—	90	90
Guadalupe	—	33	33	Lathrop	—	73	73	Mountain View	618	—	618
Gustine	—	22	22	Lawndale	—	51	51	Mt. Shasta	—	35	35
Half Moon Bay	—	34	34	Lemon Grove	—	57	57	Murrieta	—	246	246
Hanford	183	81	264	Lemoore	—	122	122	Napa	462	—	462
Hawaiian Gardens	—	78	78	Lincoln	—	151	151	National City	309	—	309
Hawthorne	174	93	267	Lindsay	—	42	42	Needles	—	48	48
Hayward	824	—	824	Live Oak	—	21	21	Nevada City	—	35	35
Healdsburg	—	124	124	Livermore	315	89	404	Newark	121	55	176
Hemet	290	—	290	Livingston	—	68	68	Newman	—	39	39
Hercules	—	73	73	Lodi	361	—	361	Newport Beach	765	—	765
Hermosa Beach	—	146	146	Loma Linda	—	79	79	Norco	—	58	58
Hesperia	—	113	113	Lomita	—	43	43	Norwalk	242	—	242
Hidden Hills	—	3	3	Lompoc	278	71	349	Novato	147	58	205
Highland	—	31	31	Long Beach	4,668	—	4,668	Oakdale	—	77	77
Hillsborough	—	85	85	Loomis	—	10	10	Oakland	3,854	—	3,854
Hollister	—	176	176	Los Alamitos	—	46	46	Oakley	—	73	73
Hughson	—	15	15	Los Altos	—	137	137	Oceanside	866	—	866
Huntington Beach	1,003	—	1,003	Los Altos Hills	—	20	20	Ojai	—	38	38
Huntington Park	—	145	145	Los Banos	—	155	155	Ontario	1,129	—	1,129
Imperial	—	62	62	Los Gatos	114	37	151	Orange	614	—	614
Imperial Beach	—	74	74	Lynwood	109	—	109	Orange Cove	—	28	28
Indian Wells	—	27	27	Madera	198	63	261	Orland	—	35	35
Indio	168	63	231	Malibu	—	82	82	Oroville	—	86	86
Industry	—	22	22	Mammoth Lakes	—	63	63	Oxnard	1,187	113	1,300
Inglewood	630	—	630	Manhattan Beach	258	85	343	Pacific Grove	—	84	84
Ione	—	16	16	Manteca	280	112	392	Pacifica	129	55	184
Irvine	972	—	972	Marina	—	82	82	Palm Desert	102	—	102
Irwindale	—	89	89	Martinez	—	139	139	Palm Springs	457	—	457
Jackson	—	28	28	Marysville	—	60	60	Palmdale	196	—	196
Kerman	—	63	63	Maywood	—	19	19	Palo Alto	970	—	970
King City	—	33	33	Mendota	—	25	25	Palos Verdes	—	50	50
Kingsburg	—	52	52	Menifee	—	78	78	Paradise	—	64	64
La Canada Flintridge	—	36	36	Menlo Park	209	44	253	Paramount	—	93	93
La Habra	249	63	312	Merced	434	—	434	Parlier	—	54	54
La Habra Heights	—	23	23	Mill Valley	—	163	163	Pasadena	1,773	—	1,773
La Mesa	254	—	254	Millbrae	—	83	83	Paso Robles	127	55	182
La Mirada	—	79	79	Milpitas	344	—	344	Patterson	—	118	118
La Palma	—	57	57	Mission Viejo	154	—	154	Perris	—	93	93
La Puente	—	32	32	Modesto	1,140	—	1,140	Petaluma	305	—	305
La Quinta	—	88	88	Monrovia	164	86	250	Pico Rivera	148	—	148
La Verne	—	158	158	Montague	—	8	8	Piedmont	—	93	93
Laguna Beach	174	99	273	Montclair	—	156	156	Pinole	—	90	90
Laguna Hills	—	40	40	Monte Sereno	—	6	6	Pismo Beach	—	94	94
Laguna Niguel	—	99	99	Montebello	419	—	419	Pittsburg	182	74	256
Laguna Woods	—	8	8	Monterey	316	129	445	Placentia	—	125	125
Lake Elsinore	—	87	87	Monterey Park	319	—	319	Placerville	—	86	86
Lake Forest	—	73	73	Moorpark	—	61	61	Pleasant Hill	—	114	114
Lakeport	—	48	48	Moraga	—	33	33	Pleasanton	429	75	504
Lakewood	309	—	309	Moreno Valley	310	—	310	Pomona	487	—	487

Statistical Section (continued)

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (continued)

City/Town	Active		Total
	PERF A	PERF C	
Port Hueneme	—	114	114
Porterville	203	95	298
Portola	—	10	10
Portola Valley	—	15	15
Poway	174	53	227
Rancho Cordova	—	82	82
Rancho	537	—	537
Rancho Mirage	—	78	78
Rancho Palos	—	104	104
Rancho Santa	—	23	23
Red Bluff	—	101	101
Redding	769	—	769
Redlands	318	135	453
Redondo Beach	482	—	482
Redwood City	564	—	564
Reedley	—	122	122
Rialto	290	—	290
Richmond	719	—	719
Ridgecrest	—	98	98
Rio Vista	—	43	43
Ripon	—	22	22
Riverbank	—	58	58
Riverside	2,175	—	2,175
Rocklin	145	91	236
Rohnert Park	139	60	199
Rolling Hills	—	4	4
Rolling Hills	—	22	22
Rosemead	—	62	62
Roseville	1,259	—	1,259
Ross	—	19	19
Sacramento	3,928	—	3,928
Salinas	450	87	537
San Anselmo	—	35	35
San Bernardino	894	—	894
San Bruno	152	78	230
San Buenaventura	607	—	607
San Carlos	—	79	79
San Clemente	177	5	182
San Dimas	—	90	90
San Fernando	—	105	105
San Francisco[1]	816	2	818
San Gabriel	—	178	178
San Jacinto	—	48	48
San Joaquin	—	13	13
San Jose	—	8	8
San Leandro	262	89	351
San Luis Obispo	314	98	412
San Marcos	201	68	269
San Marino	—	119	119
San Mateo	551	—	551
San Pablo	—	141	141

City/Town	Active		Total
	PERF A	PERF C	
San Ramon	216	65	281
Sand City	—	24	24
Sanger	—	107	107
Santa Ana	1,029	—	1,029
Santa Barbara	919	101	1,020
Santa Clara	1,019	—	1,019
Santa Clarita	437	—	437
Santa Cruz	710	144	854
Santa Fe Springs	99	51	150
Santa Maria	352	176	528
Santa Monica	2,287	—	2,287
Santa Paula	—	101	101
Santa Rosa	1,203	—	1,203
Santee	—	125	125
Saratoga	—	58	58
Sausalito	—	69	69
Scotts Valley	—	57	57
Seal Beach	—	93	93
Seaside	—	169	169
Sebastopol	—	45	45
Selma	—	85	85
Shafter	—	185	185
Shasta Lake	—	47	47
Sierra Madre	—	83	83
Signal Hill	—	104	104
Simi Valley	507	—	507
Solana Beach	—	68	68
Soledad	—	51	51
Solvang	—	33	33
Sonoma	—	36	36
Sonora	—	38	38
South El Monte	—	41	41
South Gate	244	75	319
South Lake Tahoe	131	65	196
South Pasadena	—	160	160
South San Francisco	453	—	453
St. Helena	—	76	76
Stanton	—	32	32
Stockton	1,595	—	1,595
Suisun City	—	97	97
Sunnyvale	877	—	877
Susanville	—	56	56
Sutter Creek	—	13	13
Taft	—	129	129
Tehachapi	—	62	62
Temecula	180	—	180
Temple City	—	51	51
Thousand Oaks	348	—	348
Tiburon	—	39	39
Torrance	1,364	—	1,364
Tracy	485	—	485

City/Town	Active		Total
	PERF A	PERF C	
Truckee	—	113	113
Tulare	243	103	346
Tulelake	—	8	8
Turlock	208	124	332
Tustin	200	89	289
Twentynine Palms	—	36	36
Ukiah	147	46	193
Union City	200	77	277
Upland	212	—	212
Vacaville	517	—	517
Vallejo	474	—	474
Vernon	260	—	260
Victorville	351	1	352
Villa Park	—	7	7
Visalia	587	—	587
Vista	205	82	287
Walnut	—	46	46
Walnut Creek	345	84	429
Wasco	—	66	66
Waterford	—	18	18
Watsonville	303	107	410
Weed	—	29	29
West Covina	309	—	309
West Hollywood	221	—	221
West Sacramento	274	128	402
Westlake Village	—	16	16
Westminster	138	78	216
Whittier	365	—	365
Wildomar	—	15	15
Williams	—	37	37
Willits	—	45	45
Willows	—	18	18
Windsor	—	100	100
Winters	—	40	40
Woodlake	—	27	27
Woodland	280	—	280
Woodside	—	18	18
Yorba Linda	114	—	114
Yountville	—	29	29
Yreka	—	57	57
Yuba City	182	108	290
Yucaipa	—	45	45
Yucca Valley	—	42	42
Total	**95,600**	**23,988**	**119,588**

(1) San Francisco has both City and County employees; however it is listed only in the "total" count of the Cities & Towns category.

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (1,029)

Other Public Agency	Active PERF A	Active PERF C	Total
Academic Senate for California Community Colleges	—	11	11
Access Services Incorporated	—	66	66
Agoura Hills and Calabasas Community Center	—	6	6
Alameda Alliance for Health	293	—	293
Alameda Corridor Transportation Authority	—	10	10
Alameda County Fire Department	345	73	418
Alameda County Law Library	—	8	8
Alameda County Mosquito Abatement District	—	18	18
Alameda County Schools Insurance Group	—	3	3
Alameda County Transportation Commission	—	32	32
Alameda County Waste Management Authority	—	42	42
Alameda County Water District	222	—	222
Alliance of Schools for Cooperative Insurance Programs	—	38	38
Alpine Fire Protection District	—	16	16
Alpine Springs County Water District	—	3	3
Alta California Regional Center, Inc.	454	—	454
Alta Irrigation District	—	20	20
Altadena Library District	—	23	23
Amador County Transportation Commission	—	4	4
Amador Transit	—	23	23
Amador Water Agency	—	42	42
American Canyon Fire Protection District	—	18	18
American River Flood Control District	—	8	8
Anderson Cemetery District	—	1	1
Anderson Fire Protection District	—	9	9
Angiola Water District	—	6	6
Antelope Valley Mosquito and Vector Control District	—	5	5
Antelope Valley Schools Transportation Agency	205	—	205
Antelope Valley Transit Authority	—	40	40
Apple Valley Fire Protection District	—	57	57
Aptos/La Selva Fire Protection Agency	—	40	40
Arbuckle-College City Fire Protection District	—	3	3
Arcade Creek Recreation and Park District	—	4	4
Arcata Fire Protection District	—	23	23
Area 12 Agency on Aging	—	14	14
Armona Community Services District	—	—	—
Aromas Water District	—	5	5
Arrowbear Park County Water District	—	5	5
Arroyo Grande District Cemetery	—	3	3
Associated Students California State University San Bernardino	—	5	5
Associated Students Incorporated of California State University East Bay	—	5	5
Associated Students Incorporated of California State University Stanislaus	—	5	5
Associated Students of California State University, Chico	—	94	94
Association of California Water Agencies	—	39	39
Association of California Water Agencies - Joint Powers Insurance Authority	—	48	48
Association of Monterey Bay Area Governments	—	15	15
Atascadero Cemetery District	—	3	3
Auburn Area Recreation and Park District	—	47	47
Auburn Public Cemetery District	—	7	7
Avila Beach Community Services District	—	1	1
Aztec Shops, Ltd.	—	45	45
Baldwin Park Unified School District	—	7	7
Bard Water District	—	19	19
Bardsdale Cemetery District	—	2	2
Barstow Cemetery District	—	4	4
Bay Area Air Quality Management District	343	—	343
Bay Area Water Supply and Conservation	—	8	8
Beach Cities Health District	—	64	64
Bear Mountain Recreation and Park District	—	5	5
Bear Valley Community Services District	—	29	29
Beaumont District Library	—	11	11
Beaumont-Cherry Valley Recreation and Park District	—	11	11
Beaumont-Cherry Valley Water District	—	37	37
Bella Vista Water District	—	25	25
Belmont Fire Protection District	—	25	25
Belmont-San Carlos Fire Department	—	—	—
Belvedere-Tiburon Library Agency	—	19	19
Benicia City Housing Authority	—	9	9
Bennett Valley Fire Protection District	—	9	9
Berkeley Housing Authority	—	11	11
BETA Healthcare Group Risk Management Authority	—	125	125
Big Bear Area Regional Wastewater Agency	—	14	14
Big Bear City Airport District	—	5	5
Big Bear City Community Services District	—	36	36
Big Bear Municipal Water District	—	9	9
Bighorn-Desert View Water Agency	—	8	8
Black Gold Cooperative Library System	—	6	6
Blanchard/Santa Paula Public Library District	—	5	5
Blue Lake Fire Protection District	—	1	1
Bodega Bay Fire Protection District	—	12	12
Bolinas Community Public Utility District	—	6	6
Bolinas Fire Protection District	—	2	2
Bonita-Sunnyside Fire Protection District	—	14	14
Boron Community Services District	—	4	4
Borrego Springs Fire Protection District	—	14	14
Borrego Water District	—	11	11
Boulder Creek Fire Protection District	—	1	1
Branciforte Fire Protection District	—	6	6
Brannan-Andrus Levee Maintenance District	—	2	2
Broadmoor Police Protection District	—	9	9

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Brooktrails Township Community Services District	—	10	10
Browns Valley Irrigation District	—	11	11
Buena Park Library District	—	18	18
Burney Basin Mosquito Abatement District	—	1	1
Burney Fire District	—	6	6
Burney Water District	—	7	7
Butte County Air Quality Management District	—	11	11
Butte County Association of Governments	—	12	12
Butte County Fair Association	—	3	3
Butte County In-Home Supportive Services Public Authority	—	2	2
Butte County Mosquito and Vector Control District	—	16	16
Butte Local Agency Formation Commission	—	3	3
Butte Schools Self-Funded Programs	—	2	2
Butte-Glenn Community College District	—	5	5
Byron-Bethany Irrigation District	—	4	4
Cabrillo College Foundation	—	5	5
Cachuma Operation and Maintenance Board	—	12	12
Cal Poly Corporation	294	—	294
Cal Poly Pomona Foundation, Inc.	—	216	216
Calaveras Council of Governments	—	4	4
Calaveras County Water District	—	64	64
Calaveras Public Utility District	—	9	9
California Association for Park and Recreation Indemnity	—	4	4
California Authority of Racing Fairs	—	5	5
California Bear Credit Union	—	23	23
California Central Valley Flood Control	—	2	2
California Fair Services Authority	—	26	26
California Fairs Financing Authority	—	—	—
California Firefighter's Joint Apprenticeship Committee	—	25	25
California Interscholastic Federation, Central Coast Section	—	5	5
California Interscholastic Federation, Central Section	—	3	3
California Interscholastic Federation, North Coast Section	—	6	6
California Interscholastic Federation, Northern Section	—	1	1
California Interscholastic Federation, Sac-Joaquin Section	—	7	7
California Interscholastic Federation, San Diego Section	—	4	4
California Interscholastic Federation, Southern Section	—	16	16
California Interscholastic Federation, State Office	—	10	10
California Joint Powers Insurance Authority	—	27	27
California Joint Powers Risk Management Authority	—	6	6
California Maritime Academy Foundation, Inc.	—	—	—
California Municipal Utilities Association	—	7	7
California Pines Community Services District	—	9	9
California Redevelopment Association Foundation	—	—	—
California School Boards Association	—	82	82
California Special Districts Association	—	25	25
California State and Federal Employees No. 20 Credit Union	—	10	10
California State University, Bakersfield Foundation	—	4	4
California State University, East Bay Foundation, Inc.	—	—	—
California State University, Fresno Athletic Corporation	—	57	57
California State University, Stanislaus Auxiliary and Business Services	—	—	—
California State University-Fresno Association, Inc.	—	68	68
Callayomi County Water District	—	4	4
Calleguas Municipal Water District	—	64	64
Camarillo Health Care District	—	24	24
Cambria Cemetery District	—	1	1
Cambria Community Healthcare District	—	23	23
Cambria Community Services District	—	40	40
Cameron Park Community Services District	—	14	14
Camrosa Water District	—	25	25
Capitol Area Development Authority	—	36	36
Carmel Area Wastewater District	—	25	25
Carmel Highlands Fire Protection District of Monterey County	—	—	—
Carmel Regional Fire Ambulance Authority	—	—	—
Carmichael Water District	—	27	27
Carpinteria Sanitary District	—	15	15
Carpinteria Valley Water District	—	19	19
Casitas Municipal Water District	—	62	62
Castaic Lake Water Agency	—	164	164
Castro Valley Sanitary District	—	21	21
Castroville Community Services District	—	6	6
Cawelo Water District	—	16	16
Cayucos Sanitary District	—	5	5
Cayucos-Morro Bay Cemetery District	—	3	3
Centerville Community Services District	—	4	4
Central Basin Municipal Water District	—	20	20
Central Calaveras Fire and Rescue Protection District	—	4	4
Central Coast Computing Authority	—	—	—
Central Coast Water Authority	—	30	30
Central Contra Costa Solid Waste Authority	—	6	6

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Central Contra Costa Transit Authority	254	—	254
Central County Fire Department	—	86	86
Central Fire Protection District of Santa Cruz County	—	64	64
Central Marin Police Authority	—	43	43
Central Marin Sanitation Agency	—	41	41
Central Sierra Child Support Agency	—	39	39
Central Sierra Planning Council	—	—	—
Central Valley Regional Center, Inc.	429	—	429
Central Water District	—	4	4
Channel Islands Beach Community Services District	—	8	8
Chester Public Utility District	—	14	14
Chico Area Recreation and Park District	—	67	67
Children and Families Commission of San Luis Obispo County	—	4	4
Chino Basin Water Conservation District	—	16	16
Chino Basin Watermaster	—	8	8
Chino Valley Independent Fire District	—	138	138
Citrus Heights Water District	—	35	35
City/County Association of Governments of San Mateo County	—	2	2
Clear Creek Community Services District	—	14	14
Clearlake Oaks County Water District	—	14	14
Cloverdale Citrus Fair	—	3	3
Cloverdale Fire Protection District	—	7	7
Clovis Cemetery District	—	10	10
Coachella Valley Association of Governments	—	17	17
Coachella Valley Mosquito and Vector Control District	—	57	57
Coachella Valley Public Cemetery District	—	7	7
Coachella Valley Water District	545	—	545
Coalinga/Huron Unified School District Library District	—	10	10
Coalinga-Huron Cemetery District	—	1	1
Coalinga-Huron Recreation and Park District	—	13	13
Coast Life Support District	—	10	10
Coastal Developmental Services Fdn DBA Westside Regional Center	229	—	229
Coastside County Water District	—	20	20
Coastside Fire Protection District	—	—	—
Colfax Cemetery District	—	2	2
College of the Canyons Foundation	—	1	1
College Town	—	—	—
Colusa County One-Stop Partnership	—	9	9
Colusa Mosquito Abatement District	—	3	3
Community College League of California	—	20	20
Community Development Commission of Mendocino County	—	16	16
Community Development Commission of the County of Los Angeles	499	—	499
Compton Creek Mosquito Abatement District	—	1	1
Compton Unified School District	—	21	21
Conejo Recreation and Park District	145	—	145
Consolidated Mosquito Abatement District	—	22	22
Contra Costa Community College District	—	23	23
Contra Costa County Law Library	—	3	3
Contra Costa County Schools Insurance Group	—	30	30
Contra Costa Transportation Authority	—	19	19
Cooperative Organization for the Development of Employee Selection Procedures	—	5	5
Cooperative Personnel Services	190	—	190
Copperopolis Fire Protection District	—	15	15
Cordelia Fire Protection District of Solano County	—	3	3
Cordova Recreation and Park District	—	46	46
Corning Water District	—	3	3
Costa Mesa Sanitary District	—	18	18
Cosumnes Community Services District	454	—	454
Cottonwood Fire Protection District	—	3	3
Cottonwood Water District	—	2	2
CRA/LA, a Designated Local Authority	—	9	9
Crescent City Harbor District	—	7	7
Crescenta Valley Water District	—	34	34
Crestline Lake Arrowhead Water Agency	—	11	11
Crestline Village Water District	—	13	13
Crockett Community Services District	—	4	4
CSAC Excess Insurance Authority	—	74	74
Cucamonga Valley Water District	121	—	121
Cutler Public Utility District	—	5	5
Cutler-Orosi Joint Powers Wastewater Authority	—	2	2
Cuyama Valley Recreation District	—	2	2
Dairy Council of California	—	36	36
Davis Cemetery District	—	6	6
De Luz Community Services District	—	6	6
Del Norte County Library District	—	2	2
Del Paso Manor Water District	—	4	4
Del Puerto Water District	—	5	5
Del Rey Community Services District	—	4	4
Delano Mosquito Abatement District	—	6	6
Delta Diablo	—	78	78
Delta Vector Control District	—	16	16
Denair Community Services District	—	7	7
Desert Water Agency	—	80	80
Diablo Water District	—	15	15
Diamond Springs/El Dorado Fire Protection District	—	22	22
Dixon Public Library District	—	10	10
Donald P. And Katherine B. Loker University Student Union, Inc.	—	10	10
Dougherty Regional Fire Authority	—	—	—

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Downey Cemetery District	—	—	—
Dublin San Ramon Services District	—	116	116
Durham Mosquito Abatement District	—	1	1
East Bay Dischargers Authority	—	3	3
East Bay Regional Park District	607	73	680
East Contra Costa Irrigation District	—	19	19
East County Schools Federal Credit Union	—	17	17
East Orange County Water District	—	8	8
East Palo Alto Sanitary District	—	3	3
East Quincy Services District	—	5	5
East Valley Water District	—	65	65
Eastern Municipal Water District	606	—	606
Eastern Sierra Transit Authority	—	49	49
Ebbetts Pass Fire Protection District	—	24	24
El Dorado County Fire Protection District	—	71	71
El Dorado County Resource Conservation District	—	2	2
El Dorado County Transit Authority	—	73	73
El Dorado County Transportation Commission	—	5	5
El Dorado County Water Agency	—	3	3
El Dorado Hills Community Services District	—	29	29
El Dorado Hills County Water District	—	67	67
El Dorado Irrigation District	210	—	210
El Dorado Local Agency Formation Commission	—	3	3
Encina Wastewater Authority	—	66	66
Esparto Community Services District	—	6	6
Esparto Fire Protection District	—	2	2
Estero Municipal Improvement District	133	69	202
Exeter District Ambulance	—	33	33
Fair Oaks Recreation & Park District	—	18	18
Fair Oaks Water District	—	25	25
Fairfield-Suisun Sewer District	—	57	57
Fall River Valley Community Services District	—	4	4
Fallbrook Public Utility District	—	64	64
Far Northern Coordinating Council on Developmental Disabilities	185	—	185
Feather River Air Quality Management District	—	9	9
Feather River Recreation and Park District	—	14	14
Feather Water District	—	3	3
Felton Fire Protection District	—	2	2
Fern Valley Water District	—	4	4
Florin County Water District	—	13	13
Florin Resource Conservation District Elk Grove Water District	—	29	29
Fontana Unified School District	—	17	17
Foothill Municipal Water District	—	8	8
Foresthill Public Utility District	—	9	9
Forestville Fire Protection District	—	7	7
Forestville Water District	—	6	6
Fort Bragg Fire Protection Authority	—	4	4
Fort Ord Reuse Authority	—	16	16
Foundation for California Community Colleges	—	200	200
Fresno City Housing Authority	108	—	108
Fresno County Housing Authority	114	—	114
Fresno County Law Library	—	3	3
Fresno Westside Mosquito Abatement District	—	9	9
Fruitridge Fire Protection District	—	—	—
Fullerton California State University Associated Students	—	60	60
Fulton-El Camino Recreation and Park District	—	10	10
Garden Valley Fire Protection District	—	15	15
Georgetown Divide Public Utility District	—	22	22
Georgetown Divide Resource Conservation District	—	2	2
Georgetown Fire Protection District	—	11	11
Gilsizer County Drainage District	—	2	2
Glendale College, Associated Students of	—	1	1
Glendale Community College District	—	7	7
Glenn County Mosquito and Vector Control District	—	2	2
Gold Coast Transit	188	—	188
Gold Ridge Fire Protection District	—	15	15
Gold Ridge Resource Conservation District	—	10	10
Golden Gate Bridge Highway and	448	—	448
Golden Hills Community Services District	—	10	10
Golden Sierra Job Training Agency	—	14	14
Goleta Sanitary District	—	33	33
Goleta Water District	—	65	65
Goleta West Sanitary District	—	7	7
Granada Community Services District	—	2	2
Graton Community Services District	—	3	3
Great Basin Unified Air Pollution Control District	—	24	24
Greater Anaheim Special Education Local Plan Area	—	63	63
Greater Los Angeles County Vector Control District	—	77	77
Greater Vallejo Recreation District	—	85	85
Green Valley County Water District	—	2	2
Greenfield Fire Protection District	—	6	6
Gridley Biggs Cemetery District	—	4	4
Grossmont Healthcare District	—	6	6
Grossmont-Cuyamaca Community College District Auxiliary Organization	—	69	69
Groveland Community Services District	—	16	16
Gualala Community Services District	—	4	4
Hacienda La Puente Unified School District	—	6	6
Hamilton Branch Fire Protection District	—	—	—
Happy Camp Sanitary District	—	—	—
Happy Homestead Cemetery District	—	3	3

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Happy Valley Fire District	—	2	2
Hayward Area Recreation and Park District	122	—	122
Health Plan of San Joaquin	—	309	309
Heartland Communications Facility Authority	—	20	20
Heber Public Utility District	—	13	13
Helendale Community Services District	—	16	16
Helix Water District	140	—	140
Henry Miller Reclamation District No. 2131	—	32	32
Heritage Ranch Community Services District	—	7	7
Herlong Public Utility District	—	5	5
Hesperia Fire Protection District	—	—	—
Hesperia Unified School District	—	7	7
Hesperia Water District	—	55	55
Hidden Valley Lake Community Services District	—	12	12
Hi-Desert Water District	—	44	44
Higgins Area Fire Protection District	—	10	10
Hilton Creek Community Services District	—	2	2
Hopland Public Utility District	—	—	—
Housing Authority of the City of Alameda	—	47	47
Housing Authority of the City of Calexico	—	15	15
Housing Authority of the City of Eureka	—	20	20
Housing Authority of the City of Livermore	—	14	14
Housing Authority of the City of Los Angeles	693	—	693
Housing Authority of the City of Madera	—	30	30
Housing Authority of the City of San Buenaventura	—	54	54
Housing Authority of the City of San Luis Obispo	—	48	48
Housing Authority of the City of South San Francisco	—	4	4
Housing Authority of the County of Butte	—	35	35
Housing Authority of the County of Kern	143	—	143
Housing Authority of the County of Santa Cruz	—	57	57
Hub Cities Consortium	—	17	17
Human Rights/Fair Housing Commission of the City and County of Sacramento	—	17	17
Humboldt Bay Fire Joint Powers Authority	—	55	55
Humboldt Bay Harbor Recreation and Conservation District	—	13	13
Humboldt Bay Municipal Water District	—	27	27
Humboldt Community Services District	—	21	21
Humboldt County Association of Governments	—	5	5
Humboldt State University Center Board of Directors	—	46	46
Humboldt Transit Authority	—	50	50
Humboldt Waste Management Authority	—	35	35
Idyllwild Fire Protection District	—	7	7
Independent Cities Association, Inc.	—	—	—
Indian Wells Valley Water District	—	30	30
Inland Counties Regional Center, Inc.	742	—	742
Inland Empire Health Plan	1,938	—	1,938
Inland Empire Resource Conservation District	—	12	12
Inland Empire Utilities Agency	276	—	276
Intelecom Intelligent Telecommunications	—	7	7
Intergovernmental Training and Development Center	—	6	6
Inverness Public Utility District	—	5	5
Ironhouse Sanitary District	—	26	26
Irvine Child Care Project	—	—	—
Irvine Ranch Water District	374	—	374
Isla Vista Recreation and Park District	—	13	13
Jackson Valley Irrigation District	—	3	3
Jamestown Sanitary District	—	5	5
Janesville Fire Protection District	—	—	—
Joshua Basin Water District	—	22	22
June Lake Public Utility District	—	6	6
Jurupa Area Recreation and Park District	—	19	19
Jurupa Community Services District	—	187	187
Kaweah Delta Water Conservation District	—	22	22
Kelseyville Fire Protection District	—	24	24
Kensington Community Services District	—	7	7
Kentfield Fire Protection District	—	16	16
Kenwood Fire Protection District	—	7	7
Kern County Council of Governments	—	19	19
Kern County Law Library	—	5	5
Kern County Local Agency Formation Commission	—	3	3
Kern Health Systems	—	376	376
Kern River Valley Cemetery District	—	2	2
Kern-Tulare Water District	—	9	9
Kettleman City Community Services District	—	4	4
Kings County Area Public Transit Agency	—	5	5
Kings County Association of Governments	—	6	6
Kings County In-Home Supportive Services Public Authority	—	—	—
Kings Mosquito Abatement District	—	15	15
Kings Waste and Recycling Authority	—	38	38
Kinneloa Irrigation District	—	5	5
Kirkwood Meadows Public Utility District	—	17	17
Konocti County Water District	—	6	6
La Branza Water District	—	—	—
La Habra Heights County Water District	—	10	10
La Puente Valley County Water District	—	14	14
Laguna Beach County Water District	—	39	39
Lake Arrowhead Community Services District	—	54	54
Lake County Fire Protection District	—	28	28
Lake County Vector Control District	—	10	10
Lake Don Pedro Community Services District	—	3	3
Lake Hemet Municipal Water District	—	51	51

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Lake Oroville Area Public Utility District	—	7	7
Lake Shastina Community Services District	—	9	9
Lake Valley Fire Protection District	—	30	30
Lakeport County Fire Protection District	—	19	19
Lakeside Fire Protection District	—	51	51
Lakeside Water District	—	13	13
Lamont Public Utility District	—	11	11
Las Gallinas Valley Sanitary District of Marin County	—	19	19
Las Virgenes Municipal Water District	114	—	114
Lassen County Waterworks District No. 1	—	1	1
League of California Cities	—	70	70
Leucadia Wastewater District	—	20	20
Levee District No. 1 of Sutter County	—	2	2
Linda County Water District	—	15	15
Linda Fire Protection District	—	16	16
Linden-Peters Rural County Fire Protection District	—	13	13
Lindsay Strathmore Public Cemetery District	—	5	5
Little Lake Fire Protection District	—	4	4
Littlerock Creek Irrigation District	—	6	6
Live Oak Cemetery District	—	3	3
Livermore/Amador Valley Transit Authority	—	14	14
Local Agency Formation Commission of Monterey County	—	5	5
Local Agency Formation Commission of Solano County	—	2	2
Local Government Services Authority, a Joint Powers Authority	—	1	1
Long Beach City College Associated Student Body Enterprises	—	—	—
Long Beach State University, Associated Students	—	61	61
Long Beach State University, Forty-Niner Shops, Inc.	—	56	56
Los Alamos Community Services District	—	5	5
Los Angeles County Area 'E' Civil Defense and Disaster Board	—	1	1
Los Angeles County Law Library	—	34	34
Los Angeles County Sanitation District No. 2	1,622	—	1,622
Los Angeles County West Vector Control District	—	35	35
Los Angeles Memorial Coliseum Commission	—	1	1
Los Angeles Regionalized Insurance Services Authority	—	—	—
Los Gatos-Saratoga Department of Community Education and Recreation	—	48	48
Los Osos Community Services District	—	16	16
Lower Lake Cemetery District	—	1	1
Lower Lake County Waterworks District No. 1	—	6	6
Lower Tule River Irrigation District	—	32	32
Madera Cemetery District	—	19	19

Other Public Agency	Active PERF A	Active PERF C	Total
Madera County Mosquito and Vector Control District	—	10	10
Main San Gabriel Basin Watermaster	—	8	8
Majestic Pines Community Services District	—	3	3
Mammoth Lakes Fire District	—	13	13
Mammoth Lakes Mosquito Abatement District	—	—	—
Management of Emeryville Services Authority	—	105	105
March Joint Powers Authority	—	16	16
Marin Children and Families Commission	—	2	2
Marin Community College District	—	6	6
Marin County Housing Authority	—	37	37
Marin County In-Home Supportive Services Public Authority	—	4	4
Marin Healthcare District	—	—	—
Marin Municipal Water District	227	—	227
Marina Coast Water District	—	38	38
Marinwood Community Services District	—	18	18
Mariposa Public Utility District	—	7	7
Maxwell Public Utility District	—	2	2
McCloud Community Services District	—	7	7
McFarland Recreation and Park District	—	12	12
McKinleyville Community Services District	—	25	25
Meeks Bay Fire Protection District	—	1	1
Meiners Oaks County Water District	—	5	5
Mendocino City Community Services District	—	4	4
Mendocino County Russian River Flood Control & Water Conservation Improvement Dt	—	1	1
Mendocino Transit Authority	—	59	59
Menlo Park Fire Protection District	—	132	132
Merced County Housing Authority	—	34	34
Merced County Mosquito Abatement District	—	13	13
Merced Irrigation District	170	—	170
Mesa Water District	—	45	45
Metro Gold Line Foothill Extension	4	—	4
Metropolitan Transportation Commission	273	—	273
Metropolitan Water District of Southern California	1,756	—	1,756
Midpeninsula Regional Open Space District	—	155	155
Mid-Peninsula Water District	—	18	18
Mid-Placer Public Schools Transportation Agency	—	32	32
Midway City Sanitary District	—	25	25
Midway Heights County Water District	—	3	3
Millview County Water District	—	—	—
Minter Field Airport District	—	8	8
Mission Springs Water District	—	42	42
Mojave Air and Space Port	—	21	21
Mojave Water Agency	—	35	35
Mokelumne Rural Fire District	—	10	10
Monte Vista County Water District	—	33	33
Montecito Fire Protection District	—	45	45

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Montecito Sanitary District of Santa Barbara County	—	16	16
Montecito Water District	—	27	27
Monterey Bay Unified Air Pollution Control District	—	32	32
Monterey County Regional Fire Protection District	—	62	62
Monterey County Water Resources Agency	—	35	35
Monterey Peninsula Airport District	—	29	29
Monterey Peninsula Regional Park District	—	13	13
Monterey Peninsula Water Management District	—	25	25
Monterey Regional Waste Management District	127	—	127
Monterey Regional Water Pollution Control Agency	—	78	78
Monterey-Salinas Transit District	260	—	260
Montezuma Fire Protection District	—	11	11
Morongo Basin Transit Authority	—	41	41
Mother Lode Job Training Agency	—	20	20
Moulton-Niguel Water District	—	137	137
Mountains Recreation and Conservation Authority	—	134	134
Mountain-Valley Library System	—	—	—
Mt. San Antonio College Auxiliary Services	—	6	6
Mt. View Sanitary District of Contra Costa County	—	15	15
Municipal Pooling Authority	—	17	17
Municipal Water District of Orange County	—	32	32
Murphys Sanitary District	—	4	4
Murrieta Fire Protection District	—	48	48
Murrieta Valley Cemetery District	—	4	4
Napa County Mosquito Abatement District	—	8	8
Napa County Resource Conservation District	—	8	8
Napa Sanitation District	—	53	53
Napa Valley Transportation Authority	—	13	13
National Orange Show	—	58	58
Natomas Fire Protection District	—	—	—
Nevada Cemetery District	—	4	4
Nevada County Consolidated Fire District	—	37	37
Nevada County Local Agency Formation Commission	—	3	3
Nevada County Resource Conservation District	—	3	3
Nevada Irrigation District	206	—	206
Nevada-Sierra Connecting Point Public Authority	—	18	18
Newcastle, Rocklin, Gold Hill Cemetery District	—	9	9
Newhall County Water District	—	28	28
Nipomo Community Services District	—	15	15
North Bay Cooperative Library System	—	—	—
North Bay Regional Center	222	—	222
North Bay Schools Insurance Authority	—	28	28
North Central Counties Consortium	—	5	5
North Coast County Water District	—	17	17
North Coast Railroad Authority	—	2	2
North Coast Unified Air Quality Management District	—	13	13
North County Dispatch Joint Powers Authority	—	30	30
North County Fire Protection District of Monterey County	—	37	37
North County Fire Protection District of San Diego County	—	80	80
North County Transit District	124	—	124
North Delta Water Agency	—	2	2
North Kern Cemetery District	—	8	8
North Kern Water Storage District	—	29	29
North Kern-South Tulare Hospital District	162	—	162
North Los Angeles County Regional Center, Inc.	456	—	456
North Marin Water District	—	52	52
North of the River Municipal Water District	—	—	—
North of the River Recreation and Park District	143	—	143
North State Cooperative Library System	—	—	—
North Tahoe Fire Protection District	—	60	60
North Tahoe Public Utility District	—	42	42
Northern California Power Agency	149	—	149
Northern California Special Districts Insurance Authority	—	—	—
Northern Salinas Valley Mosquito Abatement District	—	7	7
Northern Sierra Air Quality Management District	—	4	4
Northshore Fire Protection District	—	25	25
Northstar Community Services District	—	39	39
Northwest Mosquito and Vector Control District	—	20	20
Novato Sanitary District	—	19	19
Oakdale Irrigation District	—	75	75
Oakdale Rural Fire Protection District	—	—	—
Oakland City Housing Authority	292	26	318
Oakland Unified School District	—	14	14
Oceano Community Services District	—	7	7
Ojai Valley Sanitary District	—	19	19
Olcese Water District	—	—	—
Olivenhain Municipal Water District	—	84	84
Omnitrans	675	—	675
Ophir Hill Fire Protection District	—	8	8
Orange County Health Authority	1,203	—	1,203
Orange County Transportation Authority	—	2	2
Orange County Vector Control District	—	104	104
Orchard Dale Water District	—	9	9
Orland Cemetery District	—	4	4
Oro Loma Sanitary District	—	44	44
Orosi Public Utility District	—	3	3
Oroville Cemetery District	—	7	7

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Oroville Mosquito Abatement District	—	—	—
Otay Water District	131	—	131
Oxnard Harbor District	—	31	31
Pacific Fire Protection District	—	—	—
Padre Dam Municipal Water District	126	—	126
Pajaro Valley Fire Protection Agency	—	—	—
Pajaro Valley Public Cemetery District	—	7	7
Pajaro Valley Water Management Agency	—	13	13
Palm Ranch Irrigation District	—	4	4
Palmdale Water District	—	83	83
Palo Verde Valley District Library	—	4	4
Palos Verdes Library District	—	49	49
Paradise Recreation and Park District	—	17	17
Pasadena City College Bookstore	—	7	7
Paso Robles City Housing Authority	—	7	7
Patterson Irrigation District	—	12	12
Pauma Valley Community Services District	—	17	17
Peardale Chicago Park Fire Protection District	—	5	5
Pebble Beach Community Services District	—	13	13
Peninsula Fire Protection District	—	11	11
Peninsula Health Care District	—	4	4
Peninsula Traffic Congestion Relief Alliance	—	6	6
Penn Valley Fire Protection District	—	15	15
Personal Assistance Services Council	—	26	26
Phelan Pinon Hills Community Services District	—	25	25
Pico Water District	—	10	10
Pine Cove Water District	—	4	4
Pine Grove Mosquito Abatement District	—	1	1
Pinedale County Water District	—	6	6
Pioneer Cemetery District	—	3	3
Pixley Irrigation District	—	4	4
Placer County Cemetery District No. 1	—	6	6
Placer County Resource Conservation District	—	2	2
Placer County Transportation Planning Agency	—	7	7
Placer County Water Agency	221	—	221
Placer Hills Fire Protection District	—	16	16
Placer Mosquito and Vector Control District	—	22	22
Planning and Service Area II Area Agency on Aging	—	9	9
Pleasant Hill Recreation and Park District	—	66	66
Pleasant Valley County Water District	—	4	4
Pleasant Valley Recreation and Park District	—	40	40
Plumas Eureka Community Services District	—	3	3
Plumas Local Agency Formation Commission	—	—	—
Pomerado Cemetery District	—	6	6
Pomona Valley Transportation Authority	—	3	3
Pomona, Calif State Polytechnic University, Associated Students, Inc.	—	62	62
Port San Luis Harbor District	—	29	29
Porter Vista Public Utility District	—	2	2
Porterville Irrigation District	—	4	4
Porterville Public Cemetery District	—	9	9
Public Agency Risk Sharing Authority of California	—	4	4
Public Cemetery District No. 1 of Kern County	—	6	6
Public Entity Risk Management Authority	—	5	5
Public Transportation Services Corporation	2,497	—	2,497
Pupil Transportation Cooperative	76	—	76
Purissima Hills Water District	—	7	7
Quartz Hill Water District	—	11	11
Quincy Community Services District	—	5	5
Rainbow Municipal Water District	—	49	49
Ramona Municipal Water District	—	46	46
Rancho Adobe Fire Protection District	—	26	26
Rancho California Water District	133	—	133
Rancho Cucamonga Fire Protection District	—	111	111
Rancho Murieta Community Services District	—	32	32
Rancho Santa Fe Fire Protection District	—	71	71
Rancho Santiago Community College Associated Students	—	—	—
Rancho Simi Recreation & Park District	233	—	233
Reclamation District No. 1000	—	11	11
Reclamation District No. 1001	—	8	8
Reclamation District No. 1660	—	—	—
Reclamation District No. 3	—	2	2
Reclamation District No. 833	—	2	2
Reclamation District No. 999	—	4	4
Red Bluff Cemetery District	—	3	3
Redwood Coast Regional Center	—	111	111
Redwood Empire Municipal Insurance Fund	—	4	4
Redwood Empire School Insurance Group	—	23	23
Reedley Cemetery District	—	6	6
Regional Center of Orange County	438	—	438
Regional Center of the East Bay	420	—	420
Regional Housing Authority	—	35	35
Regional Water Authority	—	6	6
Rescue Fire Protection District	—	10	10
Resort Improvement District No. 1	—	11	11
Resource Conservation District of the Santa Monica Mountains	—	14	14
Richardson Bay Sanitary District	—	3	3
Rincon Del Diablo Municipal Water District	—	18	18
Rincon Valley Fire Protection District	—	25	25
Rio Alto Water District	—	6	6
Rio Linda Elverta Community Water District	—	9	9
Rio Vista-Montezuma Cemetery District	—	4	4
Riverbank City Housing Authority	—	—	—
Riverside County Air Pollution Control District	—	—	—
Riverside County Flood Control and Water Conservation District	218	—	218

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Riverside County Law Library	—	8	8
Riverside County Regional Park and Open Space District	—	105	105
Riverside County Transportation Commission	—	47	47
Riverside County Waste Resources Management District	—	17	17
Riverside Transit Agency	482	—	482
Rosamond Community Services District	—	17	17
Rose Bowl Operating Company	—	34	34
Rosedale-Rio Bravo Water Storage District	—	8	8
Roseville Public Cemetery District	—	6	6
Ross Valley Fire Department	—	31	31
Rowland Water District	—	24	24
Rubidoux Community Services District	—	23	23
Running Springs Water District	—	36	36
Rural County Representatives of California	—	26	26
Russian River Fire Protection District	—	13	13
Sacramento Area Council of Governments	—	59	59
Sacramento Area Flood Control Agency	—	15	15
Sacramento City Housing Authority	222	—	222
Sacramento County Public Law Library	—	18	18
Sacramento Groundwater Authority	—	5	5
Sacramento Metropolitan Air Quality Management District	—	88	88
Sacramento Metropolitan Cable Television Commission	—	7	7
Sacramento Metropolitan Fire District	576	85	661
Sacramento Municipal Utility District	2,249	—	2,249
Sacramento Public Library Authority	306	—	306
Sacramento Regional Fire/EMS Communications Center	—	49	49
Sacramento Suburban Water District	—	66	66
Sacramento Transportation Authority	—	3	3
Sacramento-Yolo Mosquito and Vector Control District	—	65	65
Salida Fire Protection District	—	7	7
Salinas Valley Solid Waste Authority	—	53	53
Salton Community Services District	—	13	13
Samoa Peninsula Fire Protection District	—	—	—
San Andreas Regional Center, Inc.	309	—	309
San Andreas Sanitary District	—	6	6
San Benito County Water District	—	19	19
San Bernardino City Unified School District	—	28	28
San Bernardino County Housing Authority	125	—	125
San Bernardino County Transportation Authority	—	—	—
San Bernardino Valley Municipal Water District	—	23	23
San Bernardino Valley Water Conservation District	—	7	7
San Diego Association of Governments	360	—	360
San Diego Community College District	—	34	34
San Diego County Law Library	—	15	15
San Diego County Water Authority	235	—	235
San Diego Metropolitan Transit System	—	158	158
San Diego State University Associated Students	—	38	38
San Diego Trolley, Inc.	543	—	543
San Diego Unified School District	—	37	37
San Dieguito Water District	—	21	21
San Elijo Joint Powers Authority	—	21	21
San Francisco Bay Area Rapid Transit District	3,729	—	3,729
San Francisco Bay Area Water Emergency Transportation Authority	—	13	13
San Francisco City and County Housing Authority	137	—	137
San Francisco Community College District Bookstore Auxiliary	—	—	—
San Francisco County Transportation Authority	—	39	39
San Francisco Health Authority	—	323	323
San Francisco Law Library	—	7	7
San Francisquito Creek Joint Powers Authority	—	4	4
San Gabriel County Water District	—	15	15
San Gabriel Valley Council of Governments	—	29	29
San Gabriel Valley Mosquito and Vector Control District	—	39	39
San Gabriel Valley Municipal Water District	—	7	7
San Gorgonio Pass Water Agency	—	4	4
San Jacinto Valley Cemetery District	—	7	7
San Joaquin County Housing Authority	—	78	78
San Joaquin County IHSS Public Authority	—	9	9
San Joaquin Delta Community College District	—	11	11
San Juan Water District	—	48	48
San Lorenzo Valley Water District	—	32	32
San Luis Obispo Cal Poly Associated Students, Inc.	—	72	72
San Luis Obispo Council of Governments	—	17	17
San Luis Obispo Regional Transit Authority	—	11	11
San Luis Water District	—	13	13
San Mateo County Harbor District	—	33	33
San Mateo County In-Home Supportive Services Public Authority	—	14	14
San Mateo County Law Library	—	2	2
San Mateo County Schools Insurance Group	—	6	6
San Mateo County Transit District	697	—	697
San Miguel Community Services District	—	5	5
San Miguel Consolidated Fire Protection District	—	76	76
San Simeon Community Services District	—	—	—
Sanger Cemetery District	—	7	7
Sanitary District No. 1 of Marin County	—	33	33

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Sanitary District No. 5 of Marin County	—	9	9
Santa Ana River Flood Protection Agency	—	—	—
Santa Ana Unified School District	—	25	25
Santa Ana Watershed Project Authority	—	27	27
Santa Barbara County Law Library	—	2	2
Santa Barbara County Special Education Local Plan Area	—	8	8
Santa Barbara Regional Health Authority	—	224	224
Santa Clara County Central Fire Protection District	247	65	312
Santa Clara County Health Authority	—	240	240
Santa Clara County Housing Authority	144	—	144
Santa Clara County Law Library	—	3	3
Santa Clara County Schools Insurance Group	—	4	4
Santa Clara Valley Open Space Authority	—	30	30
Santa Clara Valley Transportation Authority	662	—	662
Santa Clara Valley Water District	744	—	744
Santa Clarita Valley School Food Services Agency	—	94	94
Santa Cruz County Law Library	—	—	—
Santa Cruz County Regional Transportation Commission	—	17	17
Santa Cruz Local Agency Formation Commission	—	2	2
Santa Cruz Metropolitan Transit District	300	—	300
Santa Cruz Port District	—	39	39
Santa Cruz Regional 9-1-1	—	49	49
Santa Fe Irrigation District	—	47	47
Santa Margarita Water District	142	—	142
Santa Maria Public Airport District	—	13	13
Santa Monica Community College District	—	16	16
Santa Nella County Water District	—	5	5
Santa Paula City Housing Authority	—	6	6
Santa Ynez River Water Conservation District, Improvement District No. 1	—	17	17
Sausalito-Marin City Sanitary District	—	11	11
Schell Vista Fire Protection District	—	3	3
School Risk And Insurance Management Group	—	7	7
Schools Excess Liability Fund	—	8	8
Schools Insurance Authority	—	76	76
Scotts Valley Fire Protection District	—	30	30
Scotts Valley Water District	—	18	18
Selma Cemetery District	—	6	6
Selma-Kingsburg-Fowler County Sanitation District	—	28	28
Serrano Water District	—	9	9
Sewer Authority Mid-Coastside	—	17	17
Sewerage Commission-Oroville Region	—	9	9
Shafter Wasco Irrigation District	—	10	10
Shasta Area Safety Communications Agency	—	41	41
Shasta Community Services District	—	5	5
Shasta Lake Fire Protection District	—	11	11
Shasta Local Agency Formation Commission	—	—	—
Shasta Mosquito and Vector Control District	—	15	15
Shasta Regional Transportation Agency	—	10	10
Shasta Valley Cemetery District	—	2	2
Shiloh Public Cemetery District	—	4	4
Sierra Lakes County Water District	—	3	3
Sierra-Sacramento Valley Emergency Medical Services Agency	—	11	11
Silicon Valley Animal Control Authority	—	16	16
Silicon Valley Clean Water	—	86	86
Silveyville Cemetery District	—	5	5
Solano Cemetery District	—	10	10
Solano County Mosquito Abatement District	—	9	9
Solano County Water Agency	—	19	19
Solano Irrigation District	—	80	80
Solano Transportation Authority	—	21	21
Soledad Community Health Care District	—	—	—
Sonoma County Junior College District	—	13	13
Sonoma County Library	196	—	196
Sonoma Marin Area Rail Transit District	—	121	121
Sonoma State Enterprises, Inc.	—	—	—
Sonoma Student Union Corporation	—	—	—
Soquel Creek Water District	—	44	44
South Bay Regional Public Communications Authority	—	61	61
South Central Los Angeles Regional Center for Developmentally Disabled Persons	354	—	354
South Coast Water District	—	84	84
South County Support Services Agency	—	31	31
South Feather Water and Power Agency	—	56	56
South Kern Cemetery District	—	4	4
South Orange County Wastewater Authority	—	63	63
South Placer Fire District	—	58	58
South Placer Municipal Utility District	—	27	27
South San Joaquin Irrigation District	—	92	92
South San Luis Obispo County Sanitation District	—	6	6
South Tahoe Public Utility District	—	115	115
Southeast Area Social Services Funding Authority	—	42	42
Southern California Association of Governments	131	—	131
Southern California Library Cooperative	—	5	5
Southern California Public Power Authority	—	15	15
Southern California Regional Rail Authority	230	—	230
Southern San Joaquin Municipal Utility District	—	13	13
Southern Sonoma County Resource Conservation District	—	—	—
Southwest Transportation Agency	—	52	52
Special District Risk Management Authority	—	14	14

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Squaw Valley Public Service District	—	30	30
Stallion Springs Community Services District	—	11	11
Stanislaus Consolidated Fire Protection District	—	78	78
Stanislaus County Housing Authority	—	79	79
State and Federal Contractors Water Agency	—	1	1
State Bar of California	529	—	529
State Water Contractors	—	8	8
Stege Sanitary District	—	10	10
Stinson Beach County Water District	—	8	8
Stockton East Water District	—	35	35
Stockton Unified School District	—	34	34
Strawberry Recreation District	—	10	10
Student Union, San Bernardino, California State University	—	27	27
Successor Agency to the Redevelopment Agency of the City of Fresno	—	2	2
Successor Agency to the Redevelopment Agency of the City of San Bernardino	—	1	1
Successor Agency to the Redevelopment Agy of the City & County of San Francisco	—	46	46
Suisun Fire Protection District	—	2	2
Suisun Resource Conservation District	—	7	7
Summit Cemetery District	—	9	9
Sunnyslope County Water District	—	23	23
Susanville Sanitary District	—	6	6
Sutter Cemetery District	—	13	13
Sweetwater Authority	121	—	121
Sweetwater Springs Water District	—	11	11
Sylvan Cemetery District	—	6	6
Tahoe City Public Utility District	—	50	50
Tahoe Resource Conservation District	—	21	21
Tahoe Transportation District	—	—	—
Tahoe-Truckee Sanitation Agency	—	52	52
Tehachapi Valley Recreation and Park District	—	12	12
Tehachapi-Cummings County Water District	—	18	18
Tehama County Mosquito Abatement District	—	6	6
Temescal Valley Water District	—	10	10
Templeton Community Services District	—	29	29
Thermalito Water and Sewer District	—	11	11
Three Arch Bay Community Services District	—	—	—
Three Rivers Community Services District	—	1	1
Three Valleys Municipal Water District	—	25	25
Tiburon Fire Protection District	—	27	27
Torrance City Redevelopment Agency	—	—	—
Trabuco Canyon Water District	—	18	18
Tracy Rural County Fire Protection District	—	—	—
Transbay Joint Powers Authority	—	13	13
Transportation Agency for Monterey County	—	14	14
Transportation Authority of Marin	—	13	13
Treasure Island Development Authority	—	—	—

Other Public Agency	Active PERF A	Active PERF C	Total
Tri-City Mental Health Center	—	165	165
Tri-Counties Association for the Developmentally Disabled	334	—	334
Tri-County Schools Insurance Group	—	3	3
Tri-Dam Project	—	27	27
Trindel Insurance Fund	—	12	12
Trinity Public Utilities District	—	21	21
Truckee Donner Public Utility District	—	68	68
Truckee Fire Protection District	—	55	55
Truckee Sanitary District	—	37	37
Truckee Tahoe Airport District	—	23	23
Tulare Mosquito Abatement District	—	5	5
Tulare Public Cemetery District	—	6	6
Tuolumne Fire District	—	2	2
Tuolumne Utilities District	—	71	71
Turlock Mosquito Abatement District	—	13	13
Twain Harte Community Services District	—	13	13
Twentynine Palms Water District	—	19	19
Twin Rivers Unified School District	—	21	21
Ukiah Valley Fire District	—	—	—
Union Public Utility District	—	7	7
Union Sanitary District	136	—	136
United Water Conservation District	—	54	54
University Enterprises Corporation at CSUSB	—	146	146
University Enterprises, Inc.	173	—	173
University Student Union California State University Stanislaus	—	3	3
Upland City Housing Authority	—	2	2
Upper San Gabriel Valley Municipal Water District	—	11	11
Vacaville Fire Protection District	—	8	8
Vacaville-Elmira Cemetery District	—	6	6
Vallecitos Water District	—	104	104
Vallejo Sanitation and Flood Control District	—	85	85
Valley Center Municipal Water District	—	60	60
Valley County Water District	—	27	27
Valley Mountain Regional Center, Inc.	323	—	323
Valley of the Moon Water District	—	12	12
Valley Sanitary District	—	24	24
Valley Springs Public Utility District	—	3	3
Valley-Wide Recreation and Park District	—	97	97
Vandenberg Village Community Services District	—	10	10
Ventura College Foundation	—	7	7
Ventura County Law Library	—	4	4
Ventura County Schools Business Services Authority	—	11	11
Ventura County Schools Self-Funding Authority	—	8	8
Ventura County Transportation Commission	—	20	20
Ventura Port District	—	37	37
Ventura River Water District	—	6	6

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active PERF A	Active PERF C	Total
Victor Valley Transit Authority	—	24	24
Victor Valley Wastewater Reclamation Authority	—	34	34
Visalia Public Cemetery District	—	12	12
Vista Irrigation District	—	91	91
Walnut Valley Water District	—	54	54
Wasco Recreation and Park District	—	3	3
Washington Colony Cemetery District	—	3	3
Water Employee Services Authority	155	—	155
Water Facilities Authority	—	8	8
Water Replenishment District of Southern California	—	39	39
Weaverville Community Services District	—	5	5
Weaverville Sanitary District	—	3	3
West Almanor Community Services District	—	1	1
West Basin Municipal Water District	—	48	48
West Bay Sanitary District	—	28	28
West Cities Communication Center	—	24	24
West Contra Costa Integrated Waste Management Authority	—	5	5
West Contra Costa Transportation Advisory Committee	—	5	5
West County Transportation Agency	—	174	174
West County Wastewater District	—	53	53
West End Communications Authority	—	—	—
West Kern Water District	—	42	42
West Stanislaus Irrigation District	—	14	14
West Valley Mosquito and Vector Control District	—	22	22
West Valley Sanitation District of Santa Clara County	—	26	26
West Valley Water District	—	76	76
West Valley-Mission Community College District	—	8	8
Westborough Water District	—	5	5
Western Contra Costa Transit Authority	—	8	8
Western Municipal Water District	—	144	144
Western Riverside Council of Governments	—	29	29
Westlands Water District	—	117	117
Westwood Community Services District	—	6	6
Wheeler Ridge-Maricopa Water Storage District	—	45	45
Wildomar Cemetery District	—	—	—
Williams Fire Protection Authority	—	5	5
Willow County Water District	—	12	12
Willow Creek Community Services District	—	5	5
Willows Cemetery District	—	2	2
Wilton Fire Protection District	—	1	1
Windsor Fire Protection District	—	21	21
Winterhaven Water District	—	2	2
Winters Cemetery District	—	3	3
Winters Fire Protection District	—	—	—
Winton Water and Sanitary District	—	8	8
Woodbridge Rural County Fire Protection District	—	31	31
Woodlake Fire District	—	7	7
Woodside Fire Protection District	—	55	55
Yolo County Federal Credit Union	—	51	51
Yolo County Housing Authority	—	37	37
Yolo County In-Home Supportive Services Public Authority	—	2	2
Yolo County Public Agency Risk Management Insurance Authority	—	6	6
Yolo County Transportation District	—	10	10
Yolo Emergency Communications Agency	—	41	41
Yolo-Solano Air Quality Management District	—	22	22
Yorba Linda Water District	—	78	78
Yuba Community College District	—	4	4
Yuba County Water Agency	—	63	63
Yuba Sutter Transit Authority	—	5	5
Yucaipa Valley Water District	—	69	69
Yuima Municipal Water District	—	11	11
Total	39,618	22,389	62,007

LEGISLATORS' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

Legislators' Retirement System – 10-Year Review

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ACTIVE & INACTIVE MEMBERS										
Members of the Legislature	4	4	6	6	6	7	8	8	15	17
Constitutional Officers	10	10	13	14	17	17	19	20	17	18
Legislative Statutory Officers	—	—	1	2	4	4	4	4	4	4
TOTAL ACTIVE & INACTIVE MEMBERS	**14**	**14**	**20**	**22**	**27**	**28**	**31**	**32**	**36**	**39**
BENEFIT RECIPIENTS										
Members of the Legislature										
Service Retirement	202	205	215	221	225	226	200	210	214	221
Disability Retirement	7	7	7	8	7	7	9	9	9	9
Pre-Retirement Option 2	1	1	1	1	2	2	—	—	—	—
Total Members of the Legislature	**210**	**213**	**223**	**230**	**234**	**235**	**209**	**219**	**223**	**230**
Constitutional Officers										
Service Retirement	14	14	12	12	11	10	26	26	25	21
Disability Retirement	1	1	1	1	1	1	1	1	1	1
Pre-Retirement Option 2	1	1	1	1	—	1	2	2	2	2
Total Constitutional Officers	**16**	**16**	**14**	**14**	**12**	**12**	**29**	**29**	**28**	**24**
Legislative Statutory Officers										
Service Retirement	1	1	1	1	1	1	5	5	5	5
Total Legislative Statutory Officers	1	1	1	1	1	1	5	5	5	5
TOTAL BENEFIT RECIPIENTS	**227**	**230**	**238**	**245**	**247**	**248**	**243**	**253**	**256**	**259**
TOTAL MEMBERS	**241**	**244**	**258**	**267**	**274**	**276**	**274**	**285**	**292**	**298**

LEGISLATORS' RETIREMENT SYSTEM PROGRAM DATA

PRIMARY BENEFITS

CalPERS has administered the Legislators' Retirement System (LRS) since its inception in 1947. The duties of the Board with respect to administering the LRS are the same as the PERF on such items as determining membership and benefit rights, making investments, crediting interest, and obtaining information necessary for administration. Benefits payable from the LRS are financed through the State's contribution as an employer, member contributions, and interest earned on investments.

The CalPERS Board is authorized to establish actuarially determined rates. For Fiscal Year 2017-18, the Board approved an employer contribution rate of 41.696 percent. Effective January 1, 2013, Assembly Bill 340 added Government Code section 7522.52. Section 7522.52 requires that a public employer's contribution to a defined benefit plan, in combination with employee contributions to that defined benefit plan, shall not be less than the normal cost.

Member contributions to the LRS are made by active members based on position and membership date. Active Legislative Members and Constitutional Officers contribute 4 percent of compensation if first elected before March 4, 1972, or 8 percent of compensation if first elected after March 4, 1972. The interest credited to member accounts is the net earnings rate of investments.

ASSEMBLY BILL 340 – PUBLIC EMPLOYEES' PENSION REFORM ACT (PEPRA)

The California Legislature passed and the Governor signed the Public Employees' Pension Reform Act of 2013 (PEPRA) on September 12, 2012. PEPRA contained a number of provisions intended to reduce future pension obligations. PEPRA primarily affects new pension plan members who are enrolled for the first time after December 31, 2012. The financial impact will be gradually realized as total pension costs and the employer share of those costs decrease.

PEPRA amended the Legislators' Retirement Law, and permanently closed the LRS to all Constitutional and Legislative Statutory Officers who take office on or after January 1, 2013.

PROPOSITION 140

Proposition 140, the Political Reform Act of 1990, requires that Legislators (Senators and Members of the Assembly) first elected after November 7, 1990 participate in the federal Social Security program and in no other retirement system.

MEMBERSHIP

Members of the Legislature serving prior to November 7, 1990; elected Constitutional Officers; and Legislative Statutory Officers serving prior to January 1, 2013, were eligible for membership.

SERVICE RETIREMENT

Retirement Age

The retirement age is 60, with four or more years of service credit, or any age with 20 or more years. The retirement age for Legislative Statutory Officers is 55, or any age with 20 years or more of service credit.

Members of the Legislature Benefit Formula

The retirement formula consists of three separate formulas that are totaled together to provide the members with their allowance. The first part of the formula consists of 5 percent of the first $500 of salary up to 15 years of service. The second part is 3 percent per year of the same $500 of salary for years in excess of 15 years. And finally, total years of service is multiplied by 3 percent per year of their salary above $500. In no case may members receive more than two-thirds of their salary.

Constitutional Officers' Benefit Formula

Five percent per year of service up to eight years (40 percent) of their highest salary. If the member has 24 or more years of service, the retirement allowance is 60 percent of their final salary.

Statutory Officers' Benefit Formula

Statutory Officers receive 3 percent per year of service, not to exceed 66 2/3 percent of final monthly compensation.

Early Retirement Options for Members of the Legislature & Constitutional Officers

Legislators and Constitutional Officers may retire before age 60 with 15 years of service. However, their retirement allowance is reduced by 2 percent for each year they retire before age 60.

DISABILITY RETIREMENT

Disability retirement uses the same formula as service retirement. There is no reduction if retirement is before age 60 for members of the Legislature.

LEGISLATORS' RETIREMENT SYSTEM PROGRAM DATA (CONTINUED)

DEATH BENEFITS (BEFORE RETIREMENT)

Not Eligible to Retire

One month's salary for each year of service, plus the return of the member's contributions with interest payable to a survivor.

Eligible to Retire

A surviving spouse will receive a monthly allowance equal to the Optional Settlement 2. In lieu of this benefit, a surviving spouse of a Member of the Legislature may receive a monthly allowance equal to one-half of the unmodified allowance, payable for life or until remarriage.

DEATH BENEFITS WHILE IN OFFICE

Beneficiaries receive a lump-sum benefit in an amount equal to the annual compensation of an LRS member during the 12 months preceding the member's death, regardless of whether the member was eligible to retire.

DEATH BENEFITS (AFTER RETIREMENT)

Members choose between one of four options. The level of survivor benefit is based on the option chosen, without a reduction in allowance for members of the Legislature. Constitutional Officers and Statutory Officers receive a reduced allowance based on their age at time of retirement and the option they choose. Beneficiaries also receive a $600 lump-sum payment.

COST-OF-LIVING ADJUSTMENTS (COLA)

The annual COLA is determined by the Consumer Price Index.

LRS Active & Inactive Members

Category	Active	Inactive	Total
Members of the Legislature	1	3	4
Constitutional Officers	6	4	10
Total	**7**	**7**	**14**

LRS Benefit Payments by Type

Category	Amount Paid
Service Retirement	$6,721,691
Disability Retirement	107,205
Beneficiary Death Benefits	19,179
Beneficiary Death Benefits/Allowance	76,990
Adjustments[1]	(7,261)
Total	**$6,917,804**

(1) Adjustments contain manual claims and overpayment recoveries.

LRS Benefit Recipients by Retirement Type

Category	Retired[1]	Survivors & Beneficiaries[1]	Total
Members of Legislature			
Service Retirement	108	94	202
Disability Retirement	—	7	7
Pre-Retirement Option 2	—	1	1
TOTAL MEMBERS OF LEGISLATURE	**108**	**102**	**210**
Constitutional Officers			
Service Retirement	13	1	14
Disability Retirement	—	1	1
Pre-Retirement Option 2	—	1	1
TOTAL CONSTITUTIONAL OFFICERS	**13**	**3**	**16**
Legislative Statutory Officers			
Service Retirement	—	1	1
TOTAL LEGISLATIVE STATUTORY OFFICERS	**0**	**1**	**1**
TOTAL	**121**	**106**	**227**

(1) The actual number of benefit recipients is by the employer category from which they retired, regardless of whether they had service in other employer categories.

LEGISLATORS' RETIREMENT SYSTEM PROGRAM DATA (CONTINUED)

LRS Average Benefit Payments – As of June 30, 2018 – 10-Year Review

	Years of Service Credit						
Retirement Effective Dates	**0 - 5**	**6 - 10**	**11 - 15**	**16 - 20**	**21 - 25**	**26 - 30**	**31+**
2017-18							
Average Monthly Allowance[1]	$0	$0	$0	$0	$0	$0	$0
Average Final Compensation	$0	$0	$0	$0	$0	$0	$0
Number of Recipients[1]	0	0	—	—	—	—	—
2016-17							
Average Monthly Allowance[2]	$2,353	$3,661	$0	$0	$0	$0	$0
Average Final Compensation	$12,628	$7,802	$0	$0	$0	$0	$0
Number of Recipients[2]	2	2	—	—	—	—	—
2015-16							
Average Monthly Allowance[2]	$1,921	$5,305	$0	$0	$0	$0	$0
Average Final Compensation	$3,542	$13,261	$0	$0	$0	$0	$0
Number of Recipients[2]	1	1	—	—	—	—	—
2014-15							
Average Monthly Allowance[3]	$0	$2,458	$0	$0	$0	$0	$0
Average Final Compensation	$0	$7,921	$0	$0	$0	$0	$0
Number of Recipients[3]	—	1	—	—	—	—	—
2013-14							
Average Monthly Allowance[3]	$1,074	$552	$0	$0	$0	$0	$0
Average Final Compensation	$2,342	$780	$0	$0	$0	$0	$0
Number of Recipients[3]	1	3	—	—	—	—	—
2012-13							
Average Monthly Allowance[3]	$0	$4,479	$2,103	$6,699	$0	$0	$0
Average Final Compensation	$0	$13,008	$4,375	$8,812	$0	$0	$0
Number of Recipients[3]	—	2	1	2	—	—	—
2011-12[4]							
Average Monthly Allowance[3]	$0	$0	$0	$0	$0	$0	$0
Average Final Compensation	$0	$0	$0	$0	$0	$0	$0
Number of Recipients[3]	—	—	—	—	—	—	—
2010-11							
Average Monthly Allowance[3]	$0	$4,258	$2,103	$0	$8,206	$0	$0
Average Final Compensation	$0	$6,481	$4,375	$0	$9,215	$0	$0
Number of Recipients[3]	—	3	1	—	1	—	—
2009-10							
Average Monthly Allowance[3]	$0	$435	$1,759	$6,604	$4,965	$3,842	$4,452
Average Final Compensation	$0	$1,600	$0	$13,767	$0	$0	$0
Number of Recipients[3]	—	4	1	1	1	1	1
2008-09							
Average Monthly Allowance[3]	$0	$0	$1,250	$2,957	$6,456	$0	$0
Average Final Compensation	$0	$0	$0	$0	$9,684	$0	$0
Number of Recipients[3]	—	—	2	1	2	—	—

(1) There were no retirements in FY 2017-18, thus no benefit amounts to report.
(2) These averages and totals are for retired members only.
(3) These averages and totals are for retired members and community property only.
(4) There were no retirements in FY 2011-12, thus no benefit amounts to report.

JUDGES' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

Judges' Retirement System – 10-Year Review

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ACTIVE & DEFERRED MEMBERS										
Judges	170	201	225	241	285	325	431	466	528	620
TOTAL ACTIVE & DEFERRED MEMBERS	**170**	**201**	**225**	**241**	**285**	**325**	**431**	**466**	**528**	**620**
BENEFIT RECIPIENTS										
Service Retirement	1,165	1,171	1,182	1,193	1,157	1,151	654	655	648	641
Disability Retirement	78	85	89	100	100	50	46	46	46	48
Deferred Retirement	534	556	584	594	598	632	582	590	595	595
Optional Settlement Benefit	—	—	—	—	—	—	527	510	478	433
Industrial Disability Retired	1	1	1	1	1	—	—	—	—	—
Pre-Retirement Survivor	—	—	—	—	—	63	75	73	76	72
Pre-Retirement Death	57	57	61	60	66	—	—	—	—	—
Extended Service Incentive Program	27	18	9	29	—	—	—	—	—	—
TOTAL BENEFIT RECIPIENTS	**1,862**	**1,888**	**1,926**	**1,977**	**1,922**	**1,896**	**1,884**	**1,874**	**1,843**	**1,789**
TOTAL MEMBERS	**2,032**	**2,089**	**2,151**	**2,218**	**2,207**	**2,221**	**2,315**	**2,340**	**2,371**	**2,409**

JUDGES' RETIREMENT SYSTEM PROGRAM DATA

PRIMARY BENEFITS

The Judges' Retirement System (JRS) was established in 1937. The operational activities of the JRS were transferred from the State Controller's Office to CalPERS in 1979. Benefits payable through the JRS are financed by the General Fund, the payroll contributions of members, and the State's contribution as an employer. Both employer and members contribute at the rate of 8 percent of compensation.

MEMBERSHIP

The Judges' Retirement System provides retirement, disability, death, and survivor benefits for Supreme and Appellate Court Justices and Superior Court Judges elected prior to November 9, 1994, and beneficiaries. Health and dental benefits are provided to eligible retirees and beneficiaries of the JRS under the Public Employees' Medical and Hospital Care Act (PEMHCA).

SERVICE RETIREMENT

Retirement Age

Members must be at least age 60 with 20 years of service, or age 70 with at least 10 years of service.

Retirement Benefit Formula

The retirement allowance is a percentage of the current salary of the last judicial office held and is increased proportionally with active judicial salaries. The allowance is based on a member's age and years of service as follows:

Age	Years of Service	Retirement Allowance
60-70	20	75%
66	18	65%
67	16	65%
68	14	65%
69	12	65%
70	10	65%

Judges can work as long as they want and receive their full pension of either 65 percent or 75 percent (depending on credited service).

Deferred Retirement

Judges are eligible for deferred retirement at any age if they have at least five years of service. However, judges are not paid the allowance until they reach the age they would be eligible for normal retirement if they had remained in office. A judge must be at least age 63, or age 60 with 20 years of service, to receive a retirement allowance. The allowance is based on years of service multiplied by a percentage of the judge's final salary—varying from 2 percent for five years to 3.75 percent for 12 or more years of service. The maximum benefit they can receive is 75 percent of salary.

DISABILITY RETIREMENT

Judges must apply to the Commission on Judicial Performance to receive a disability retirement. Judges receive the same allowance for work-related disability retirement as non-work related disability retirement. The retirement allowance is 65 percent of the judge's final salary, or 75 percent of their final salary if the judge has 20 or more years of service.

DISABILITY RETIREMENT (NON-WORK RELATED)

There is no age requirement, but there may be a service requirement depending on when the person became a judge. Any person who became a judge prior to January 1, 1980, is not subject to a service requirement. Any person who became a judge between January 1, 1980 and December 31, 1988, must have at least two years of judicial service. Any person who became a judge on or after January 1, 1989, must have at least four years of judicial service.

DISABILITY RETIREMENT (WORK RELATED)

There is no age or service requirement if the disability is a result of injury or disease arising out of and in the course of judicial service.

DEATH BENEFITS (BEFORE RETIREMENT)

Not Eligible to Retire

Spouses or registered domestic partners can receive 25 percent of a current active judge's salary for life or return of contributions plus one month's salary, for each year of service not to exceed six months; or the surviving spouse or registered domestic partner can elect a monthly allowance for life, if the judge had paid an extra $2 per month and had 10 to 20 years of service. This allowance would be equal to 1.625 percent of the salary multiplied by the number of years of service.

Eligible to Retire

Spouses or registered domestic partners receive one-half of what the retirement allowance would have been if the judge had retired on date of death. At any time while in office, a judge may make an irrevocable election for their eligible surviving spouse or registered domestic partner to receive the maximum survivor benefit (Option 2) in the event of the judge's pre-retirement death. This benefit is only payable if a judge dies after 20 or more years of service.

JUDGES' RETIREMENT SYSTEM PROGRAM DATA (CONTINUED)

DEATH BENEFITS (AFTER RETIREMENT)

Spouses or registered domestic partners receive one-half of the unmodified allowance for life, if the member retired with the standard retirement benefit formula, or on disability.

Judges may elect to take a reduced retirement allowance in order to enhance the survivor benefits to their spouse, registered domestic partner, or a designated beneficiary.

COST-OF-LIVING ADJUSTMENTS

The allowance increases are based on the current salary of an active judge. Retirees receive the same increase as active judges.

JRS Active and Deferred Members

Category	Active	Deferred	Total
Judges	168	2	170
TOTAL	**168**	**2**	**170**

JRS Benefit Payments by Type

Category	Amount Paid
Service Retirement	$165,387,633
Disability Retirement	4,748,869
Beneficiary Death Benefits	378,901
Beneficiary Death Benefits/Life Allowance	31,860,119
Extended Service Incentive Program	6,526,095
Adjustments[1]	(1,079,085)
TOTAL	**$207,822,532**

(1) Adjustments contain manual claims and overpayment recoveries.

JRS Benefit Recipients by Retirement Type

Category	Retired[1]	Survivors & Beneficiaries[1]	Total
Service Retirement	883	282	1,165
Disability Retirement	34	44	78
Deferred Retirement	369	165	534
Industrial Disability Retirement	1	—	1
Pre-Retirement Death	—	57	57
Extended Service Incentive	25	2	27
TOTAL	**1,312**	**550**	**1,862**

(1) The actual number of benefit recipients is by the employer category from which they retired, regardless of whether they had service in other employer categories.

JUDGES' RETIREMENT SYSTEM PROGRAM DATA (CONTINUED)

JRS Average Benefit Payments – As of June 30, 2018 – 10-Year Review

	Years of Service Credit						
Retirement Effective Dates	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	25 - 30	31+
2017-18							
Average Monthly Allowance[1]	$2,928	$4,530	$5,686	$10,504	$11,463	$11,262	$12,639
Average Final Compensation	$16,670	$16,670	$16,670	$19,077	$16,670	$17,732	$18,274
Number of Recipients[1]	1	1	1	1	11	8	6
2016-17							
Average Monthly Allowance[1]	$1,018	$4,340	$6,637	$8,441	$11,109	$11,347	$11,718
Average Final Compensation	$15,968	$15,968	$10,645	$7,984	$9,581	$14,450	$16,544
Number of Recipients[1]	1	1	3	4	5	9	4
2015-16							
Average Monthly Allowance[1]	$2,725	$2,365	$6,962	$0	$10,842	$11,792	$5,284
Average Final Compensation	$15,753	$15,753	$7,877	$0	$11,027	$16,890	$0
Number of Recipients[1]	2	4	2	—	10	2	1
2014-15							
Average Monthly Allowance[2]	$2,165	$2,554	$7,224	$9,556	$10,612	$9,184	$11,749
Average Final Compensation	$15,292	$15,292	$16,516	$15,469	$15,341	$15,746	$16,217
Number of Recipients[2]	3	3	3	16	19	14	5
2013-14							
Average Monthly Allowance[2]	$0	$3,723	$5,343	$7,529	$8,959	$10,439	$9,800
Average Final Compensation	$0	$12,142	$9,432	$10,218	$7,426	$10,581	$3,776
Number of Recipients[2]	—	9	13	12	35	16	4
2012-13							
Average Monthly Allowance[2]	$2,233	$3,325	$4,546	$9,156	$8,434	$8,549	$11,147
Average Final Compensation	$14,899	$7,049	$3,044	$1,752	$974	$1,655	$0
Number of Recipients[2]	2	6	9	17	33	9	4
2011-12							
Average Monthly Allowance[2]	$1,316	$3,160	$7,580	$8,055	$9,795	$10,090	$0
Average Final Compensation	$14,899	$15,473	$17,879	$15,114	$15,042	$15,168	$0
Number of Recipients[2]	2	4	5	20	30	9	—
2010-11							
Average Monthly Allowance[2]	$1,447	$4,186	$5,586	$8,680	$8,645	$7,809	$9,245
Average Final Compensation	$14,899	$14,899	$14,899	$14,899	$14,382	$17,299	$17,018
Number of Recipients[2]	3	8	10	22	41	16	4
2009-10							
Average Monthly Allowance[2]	$2,352	$3,914	$7,133	$8,742	$8,730	$8,892	$7,771
Average Final Compensation	$15,974	$15,290	$15,042	$14,947	$15,042	$15,437	$14,899
Number of Recipients[2]	2	11	15	45	45	8	3
2008-09							
Average Monthly Allowance[2]	$1,385	$3,388	$6,231	$9,236	$9,313	$10,636	$10,189
Average Final Compensation	$14,899	$15,114	$15,095	$15,071	$15,412	$14,193	$14,899
Number of Recipients[2]	1	10	11	25	50	15	4

(1) These averages and totals are for retired members only.
(2) These averages and totals are for retired members and community property only.

JUDGES' RETIREMENT SYSTEM II MEMBERSHIP & RETIREMENT DATA

Judges' Retirement System II – 10-Year Review

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
ACTIVE MEMBERS										
Judges II – Classic	1,326	1,350	1,367	1,385	1,396	1,352	1,272	1,290	1,197	1,119
Judges II – PEPRA[1]	217	158	124	85	—	—	—	—	—	—
TOTAL ACTIVE MEMBERS	**1,543**	**1,508**	**1,491**	**1,470**	**1,396**	**1,352**	**1,272**	**1,290**	**1,197**	**1,119**
BENEFIT RECIPIENTS										
Service Retirement	172	118	86	68	47	30	14	7	6	4
Monetary Credit Annuity	1	—	—	—	—	—	—	—	—	—
Disability Retirement	18	18	13	10	11	18	9	13	7	6
Optional Settlement Benefit	—	—	—	—	—	—	—	6	4	4
Pre-Retirement Survivor	—	—	—	—	—	2	13	2	2	1
Industrial Disability Retirement	5	5	4	4	3	—	—	—	—	—
Surviving Spouse 50% Allowance	7	6	6	6	6	—	—	—	—	—
Survivor Continuance	9	9	8	5	4	—	—	—	—	—
Option 2 Survivor Death Benefit	1	1	—	—	—	—	—	—	—	—
36-month Judge's Salary	1	2	2	2	2	2	1	2	—	—
Monetary Credit	17	11	15	11	—	—	—	—	—	—
TOTAL BENEFIT RECIPIENTS	**231**	**170**	**134**	**106**	**73**	**52**	**37**	**30**	**19**	**15**
TOTAL MEMBERS	**1,774**	**1,678**	**1,625**	**1,576**	**1,469**	**1,404**	**1,309**	**1,320**	**1,216**	**1,134**

(1) Reporting for PEPRA active members began in Fiscal Year 2014-15.

JUDGES' RETIREMENT SYSTEM II PROGRAM DATA

PRIMARY BENEFITS

The Judges' Retirement System II (JRS II) was established in 1994 to create a fully funded, actuarially sound retirement system for judges appointed or elected on or after November 9, 1994. This system provides two different types of retirement benefits: a traditional defined benefit plan or a cash balance (monetary credits) plan. The defined benefit plan provides a lifetime monthly retirement allowance of up to 75 percent of final compensation.

Alternatively, a judge may elect to receive the amount of his or her monetary credits in either a lump sum or an annuity of actuarially equivalent value.

ASSEMBLY BILL 340 – PUBLIC EMPLOYEES' PENSION REFORM ACT (PEPRA)

The California Legislature passed and the Governor signed the Public Employees' Pension Reform Act of 2013 (PEPRA) on September 12, 2012. PEPRA contained a number of provisions intended to reduce future pension obligations. PEPRA primarily affects new pension plan members who are enrolled for the first time after December 31, 2012. The financial impact will be gradually realized as total pension costs and the employer share of those costs decrease.

The new law implemented new member contribution requirements for judges who meet the definition of a new member under PEPRA, effective January 1, 2013. The new requirements provide that all new PEPRA members must contribute to the JRS II an amount equal to half of the normal cost.

MEMBERSHIP

JRS II provides retirement, disability, death, and survivor benefits for Supreme and Appellate Court Justices, and Superior Court Judges, first appointed or elected on or after November 9, 1994, and their beneficiaries. Health and dental benefits are provided to eligible retirees and beneficiaries of JRS II under PEMHCA.

SERVICE RETIREMENT

Retirement Age

Judges must be at least age 65 with 20 years of service or age 70 with a minimum of five years of service to receive the defined benefit plan. Judges who leave office with five or more years of service but who do not meet the above criteria receive the amount of their monetary credits.

RETIREMENT FORMULA

Defined Benefit Plan

This option provides a defined benefit of 3.75 percent of the judge's final compensation per year of service, up to 75 percent of the judge's final compensation. Optional settlements are available which reduce a judge's retirement allowance to provide a lifetime benefit for a surviving spouse upon death of the judge.

The Public Employees' Pension Reform Act of 2013 (Chapter 296, Stats. 2012) (PEPRA) also added Government Code section 7522.32, which for the purpose of determining the retirement benefits to be paid to a new member of a public retirement system, defines final compensation as the highest average annual pensionable compensation earned by the member during a period of at least 36 consecutive months.

Monetary Credit Plan

The judge may elect to have his or her monetary credits paid in a single lump sum, as an annuity for his or her lifetime, or pursuant to one of the available optional settlements.

DISABILITY RETIREMENT (NON WORK-RELATED)

Judges who have five years of service and become permanently disabled because of a mental or physical disability may apply to the Commission on Judicial Performance for disability retirement.

A judge who retires for non work-related disability will receive an allowance in an amount equal to the lower of the following:

- 3.75 percent of the judge's final compensation on the effective date of the disability retirement multiplied by the number of years of service the judge would have been credited had the judge continued to work until the age the judge would have first been eligible for service retirement, or
- 65 percent of the judge's final compensation on the effective date of the disability retirement.

DISABILITY RETIREMENT (WORK RELATED)

Judges receive 65 percent of their final compensation on the effective date of the disability retirement, regardless of age or length of service, if the disability is predominantly a result of injury arising out of and in the course of judicial service.

JUDGES' RETIREMENT SYSTEM II PROGRAM DATA (CONTINUED)

DEATH BENEFITS (BEFORE RETIREMENT)

Not Eligible to Retire

Spouses or registered domestic partners receive the judge's monetary credits or three times the judge's annual salary at the time of death, whichever is greater.

Eligible for the Defined Benefit Plan

Spouses or registered domestic partners receive either a monthly retirement allowance equal to one-half of the judge's defined benefit plan allowance or the judge's monetary credits. Or if elected by the judge, the surviving spouse or registered domestic partner of an eligible judge who dies after 20 or more years of service, will receive the maximum survivor benefit (Option 2).

JRS II Active Judges

	Active
Judges II - Classic	1,326
Judges II - PEPRA	217
TOTAL	**1,543**

JRS II Benefit Payments by Type

Category	Amount Paid
Service Retirement	$15,658,540
Disability Retirement	2,643,414
Beneficiary Death Benefits	315,530
Beneficiary Death Benefits/Life Allowance	1,124,342
Monetary Credit	12,044,590
Adjustments[1]	8,293
TOTAL	**$31,794,709**

(1) Adjustments contain manual claims and overpayment recoveries.

JRS II Benefit Recipients by Retirement Type

Category	Retired[1]	Survivors & Beneficiaries[1]	Total
Service Retirement	168	4	172
Disability Retirement	18	—	18
Monetary Credit Annuity	1	—	1
Industrial Disability Retirement	5	—	5
Surviving Spouse 50% Allowance	—	7	7
Pre-Retirement Option 2	—	1	1
Survivor Continuance	—	9	9
36-month Judge's Salary	—	1	1
Monetary Credit	15	2	17
TOTAL	**207**	**24**	**231**

(1) The actual number of benefit recipients is by the employer category from which they retired, regardless of whether they had service in other employer categories.

DEATH BENEFITS (AFTER RETIREMENT)

Defined Benefit Plan

Spouses or registered domestic partners receive one-half of the judge's monthly allowance for life. Judges who retired under a service retirement may also elect an optional settlement to increase the monthly benefits to their eligible surviving spouse or registered domestic partner.

Monetary Credit Plan

If the judge elected to receive his or her monetary credits in a lump sum or as a lifetime annuity for his or her life alone, there are no other benefits payable. If the judge elected one of the available optional settlements, his or her surviving spouse or registered domestic partner will receive benefits based on the optional settlement elected.

COST-OF-LIVING ADJUSTMENTS

The retirement allowance of retired judges who have elected the defined benefit plan will be adjusted every January after the judge has been retired for more than six months. The adjustment is based on the United States city average of the Consumer Price Index for All Urban Consumers, as published by the United States Bureau of Statistics. No adjustment will be made unless the cost-of-living increase equals or exceeds 1 percent, and the allowance cannot be increased more than 3 percent in a single year.

JUDGES' RETIREMENT SYSTEM II PROGRAM DATA (CONTINUED)

JRS II Average Benefit Payments – As of June 30, 2018 – 10-Year Review

	Years of Credited Service						
Retirement Effective Dates	0-5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
2017-18							
Average Monthly Allowance[1]	$2,863	$4,964	$7,808	$10,696	$11,923	$0	$0
Average Final Compensation	$16,400	$16,445	$16,278	$16,291	$16,420	$0	$0
Number of Recipients[1]	3	2	7	28	15	—	—
2016-17							
Average Monthly Allowance[1]	$0	$6,761	$8,025	$10,401	$11,114	$0	$0
Average Final Compensation	$0	$15,865	$15,882	$15,889	$15,879	$0	$0
Number of Recipients[1]	—	5	8	21	5	—	—
2015-16							
Average Monthly Allowance[1]	$3,047	$4,774	$7,918	$10,667	$0	$0	$0
Average Final Compensation	$15,638	$15,521	$15,683	$15,710	$0	$0	$0
Number of Recipients[2]	1	3	5	11	—	—	—
2014-15							
Average Monthly Allowance[2]	$0	$5,198	$6,740	$9,637	$0	$0	$0
Average Final Compensation	$0	$15,149	$15,225	$15,253	$0	$0	$0
Number of Recipients[2]	—	1	8	13	—	—	—
2013-14							
Average Monthly Allowance[2]	$0	$4,175	$6,457	$8,991	$11,274	$0	$0
Average Final Compensation	$0	$11,205	$14,949	$14,942	$15,032	$0	$0
Number of Recipients[2]	—	4	12	4	1	—	—
2012-13							
Average Monthly Allowance[2]	$2,024	$7,337	$6,449	$8,691	$10,168	$0	$0
Average Final Compensation	$14,899	$14,899	$14,899	$14,899	$14,899	$0	$0
Number of Recipients[2]	3	5	3	6	1	—	—
2011-12							
Average Monthly Allowance[2]	$0	$3,812	$8,824	$8,192	$0	$0	$0
Average Final Compensation	$0	$14,899	$15,975	$14,899	$0	$0	$0
Number of Recipients[2]	—	3	2	4	—	—	—
2010-11							
Average Monthly Allowance[2]	$0	$11,423	$8,150	$0	$0	$0	$0
Average Final Compensation	$0	$14,899	$14,899	$0	$0	$0	$0
Number of Recipients[2]	—	3	6	1	1	—	—
2009-10							
Average Monthly Allowance[2]	$0	$9,684	$6,025	$0	$0	$0	$0
Average Final Compensation	$0	$14,899	$15,437	$0	$0	$0	$0
Number of Recipients[2]	—	1	4	—	—	—	—
2008-09							
Average Monthly Allowance[2]	$14,899	$4,476	$0	$0	$0	$0	$0
Average Final Compensation	$14,899	$15,975	$0	$0	$0	$0	$0
Number of Recipients[2]	1	2	—	—	—	—	—

(1) These averages and totals are for retired members only.
(2) These averages and totals are for retired members and community property only.

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Statistical Section
Other Programs

Statistical Section: Other Programs

HEALTH CARE FUND

Expenses & Revenues – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
OPERATING REVENUES										
Premiums	$3,945,826	$3,826,107	$3,741,352	$3,594,279	$2,744,305	$1,921,838	$1,846,210	$1,709,975	$1,362,081	$1,586,942
Federal Government Subsidies	22,720	29,534	32,539	36,077	43,900	22,375	—	—	—	—
Federal Government Reimbursements	—	—	—	—	—	17	32,710	42,583		
Total Operating Revenues	**$3,968,546**	**$3,855,641**	**$3,773,891**	**$3,630,356**	**$2,788,205**	**$1,944,230**	**$1,878,920**	**$1,752,558**	**$1,362,081**	**$1,586,942**
OPERATING EXPENSES										
Claims Expense	$3,543,962	$3,387,753	$3,404,222	$3,411,618	$2,449,655	$1,824,082	$1,728,231	$1,728,156	$1,572,084	$1,461,601
Increase (Decrease) in Estimated Liabilities	36,609	(14,701)	13,258	20,484	173,796	16,781	—	—	—	—
Administrative Expenses	304,319	312,832	355,702	371,915	192,987	105,154	96,043	88,391	90,292	85,511
Total Operating Expenses	**$3,884,890**	**$3,685,884**	**$3,773,182**	**$3,804,017**	**$2,816,438**	**$1,946,017**	**$1,824,274**	**$1,816,547**	**$1,662,376**	**$1,547,112**
OPERATING INCOME (LOSS)	**$83,656**	**$169,757**	**$709**	**($173,661)**	**($28,233)**	**($1,787)**	**$54,646**	**($63,989)**	**($300,295)**	**$39,830**
NON-OPERATING REVENUES										
Investment Income	$16,847	$2,988	$27,374	$11,850	$20,165	$4,260	$33,468	$22,447	$47,540	$21,796
Total Non-Operating Revenues	**$16,847**	**$2,988**	**$27,374**	**$11,850**	**$20,165**	**$4,260**	**$33,468**	**$22,447**	**$47,540**	**$21,796**
NON-OPERATING EXPENSES										
Other Investment Expenses	$89	$92	$77	$83	$157	$87	$75	$0	$0	$0
Total Non-Operating Expenses	**$89**	**$92**	**$77**	**$83**	**$157**	**$87**	**$75**	**$0**	**$0**	**$0**
Securities Lending Income	$0	$0	$0	$0	$15	$41	$54	$0	$0	$0
Cost of Lending Securities	—	—	—	—	(3)	(8)	(12)	—	—	—
Net Securities Lending	**$0**	**$0**	**$0**	**$0**	**$12**	**$33**	**$42**	**$0**	**$0**	**$0**
NON-OPERATING INCOME	**$16,758**	**$2,896**	**$27,297**	**$11,767**	**$20,020**	**$4,206**	**$33,435**	**$22,447**	**$47,540**	**$21,796**
CHANGE IN UNRESTRICTED NET POSITION	**$100,414**	**$172,653**	**$28,006**	**($161,894)**	**($8,213)**	**$2,419**	**$88,081**	**($41,542)**	**($252,755)**	**$61,626**
TOTAL UNRESTRICTED NET POSITION										
Beginning of Year	**$385,222[1]**	**$314,274**	**$286,268**	**$448,162**	**$456,375**	**$453,956**	**$365,875**	**$407,417**	**$660,172**	**$598,546**
End of Year	**$485,636**	**$486,927**	**$314,274**	**$286,268**	**$448,162**	**$456,375**	**$453,956**	**$365,875**	**$407,417**	**$660,172**

(1) Due to prior period adjustment, beginning balance was restated.

CONTINGENCY RESERVE FUND

Expenses & Revenues – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
OPERATING REVENUES										
Administrative Fees Earned & Other	$30,152	$27,487	$27,668	$26,712	$24,899	$17,809	$25,490	$23,956	$22,528	$25,633
Total Operating Revenues	**$30,152**	**$27,487**	**$27,668**	**$26,712**	**$24,899**	**$17,809**	**$25,490**	**$23,956**	**$22,528**	**$25,633**
OPERATING EXPENSES										
Administrative Expenses	$34,763	$27,239	$11,983	$29,735	$28,891	$27,402	$28,073	$27,448	$27,065	$27,288
Total Operating Expenses	**$34,763**	**$27,239**	**$11,983**	**$29,735**	**$28,891**	**$27,402**	**$28,073**	**$27,448**	**$27,065**	**$27,288**
OPERATING INCOME (LOSS)	**($4,611)**	**$248**	**$15,685**	**($3,023)**	**($3,992)**	**($9,593)**	**($2,583)**	**($3,492)**	**($4,537)**	**($1,655)**
NON-OPERATING REVENUES										
Investment Income	$3,165	$2,025	$1,164	$803	$681	$704	$874	$993	$1,071	$3,706
Total Non-Operating Revenues	**$3,165**	**$2,025**	**$1,164**	**$803**	**$681**	**$704**	**$874**	**$993**	**$1,071**	**$3,706**
NON-OPERATING EXPENSES										
Other Investment Expenses	$0	$0	$0	$0	$0	$0	$1	$0	$0	$0
Total Non-Operating Expenses	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1**	**$0**	**$0**	**$0**
NON-OPERATING INCOME	**$3,165**	**$2,025**	**$1,164**	**$803**	**$681**	**$704**	**$873**	**$993**	**$1,071**	**$3,706**
CHANGE IN UNRESTRICTED NET POSITION	**($1,446)**	**$2,273**	**$16,849**	**($2,220)**	**($3,311)**	**($8,889)**	**($1,710)**	**($2,499)**	**($3,466)**	**$2,051**
TOTAL UNRESTRICTED NET POSITION										
Beginning of Year	**($56,341)[1]**	**$10,025**	**($6,824)**	**($4,604)**	**($1,293)**	**$7,596**	**$9,306**	**$11,805**	**$15,271**	**$13,220**
End of Year	**($57,787)**	**$12,298**	**$10,025**	**($6,824)**	**($4,604)**	**($1,293)**	**$7,596**	**$9,306**	**$11,805**	**$15,271**

(1) Due to prior period adjustment, beginning balance was restated.

LONG-TERM CARE FUND

Expenses & Revenues – 10-Year Review (Dollars in Thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
OPERATING REVENUES										
Premiums	$296,323	$306,303	$282,426	$272,362	$286,571	$307,812	$313,466	$314,099	$285,948	$296,529
Total Operating Revenues	**$296,323**	**$306,303**	**$282,426**	**$272,362**	**$286,571**	**$307,812**	**$313,466**	**$314,099**	**$285,948**	**$296,529**
OPERATING EXPENSES										
Claims Expense	$306,879	$293,693	$271,742	$248,785	$225,691	$198,185	$174,896	$156,118	$133,042	$116,191
Increase (Decrease) in Estimated Liabilities	295,142	213,048	376,284	310,565	345,547	(631,804)	1,063,318	(115,600)	(208,200)	469,800
Administrative Expenses	26,545	25,082	24,999	24,304	22,946	21,819	21,718	21,303	19,663	18,421
Total Operating Expenses	**$628,566**	**$531,823**	**$673,025**	**$583,654**	**$594,184**	**($411,800)**	**$1,259,932**	**$61,821**	**($55,495)**	**$604,412**
OPERATING INCOME (LOSS)	**($332,243)**	**($225,520)**	**($390,599)**	**($311,292)**	**($307,613)**	**$719,612**	**($946,466)**	**$252,278**	**$341,443**	**($307,883)**
NON-OPERATING REVENUES										
Investment Income/(Loss)	$177,562	$68,986	$226,526	($36,550)	$393,354	$119,607	$114,947	$537,156	$351,745	($369,021)
Total Non-Operating Revenues	**$177,562**	**$68,986**	**$226,526**	**($36,550)**	**$393,354**	**$119,607**	**$114,947**	**$537,156**	**$351,745**	**($369,021)**
NON-OPERATING EXPENSES										
Other Investment Expenses	$1,853	$1,816	$1,606	$1,734	$1,615	$1,160	$540	$0	$0	$0
Total Non-Operating Expenses	**$1,853**	**$1,816**	**$1,606**	**$1,734**	**$1,615**	**$1,160**	**$540**	**$0**	**$0**	**$0**
Securities Lending Income	$0	$0	$0	$0	$0	$909	$1,624	$0	$0	$0
Cost of Lending Securities	—	—	—	—	—	(120)	(274)	—	—	—
Net Securities Lending	**$0**	**$0**	**$0**	**$0**	**$0**	**$789**	**$1,350**	**$0**	**$0**	**$0**
NON-OPERATING INCOME (LOSS)	**$175,709**	**$67,170**	**$224,920**	**($38,284)**	**$391,739**	**$119,236**	**$115,757**	**$537,156**	**$351,745**	**($369,021)**
CHANGE IN UNRESTRICTED NET POSITION	**($156,534)**	**($158,350)**	**($165,679)**	**($349,576)**	**$84,126**	**$838,848**	**($830,709)**	**$789,434**	**$693,188**	**($676,904)**
TOTAL UNRESTRICTED NET POSITION										
Beginning of Year	**$79,779[1]**	**$247,993**	**$413,672**	**$763,248**	**$679,122**	**($159,726)**	**$670,983**	**($118,451)**	**($811,639)**	**($134,735)**
End of Year	**($76,755)**	**$89,643**	**$247,993**	**$413,672**	**$763,248**	**$679,122**	**($159,726)**	**$670,983**	**($118,451)**	**($811,639)**

(1) Due to prior period adjustment, beginning balance was restated.

HEALTH BENEFITS PROGRAM DATA

Total Covered Lives by Health Plan as of June 30, 2018

	Basic					Medicare					Total Covered Lives
	State		Public Agency			State		Public Agency			
	Active	Retired	Active	Retired	Total	Active	Retired	Active	Retired	Total	
Health Maintenance Organization (HMO)											
Anthem HMO Select	9,327	1,086	12,429	872	23,714	—	—	—	—	—	23,714
Anthem HMO Traditional	3,213	814	8,486	1,143	13,656	—	519	—	351	870	14,526
Blue Shield Access+	78,138	16,666	62,540	8,898	166,242	—	—	—	—	—	166,242
Health Net Salud y Más	3,555	118	4,835	121	8,629	—	—	—	—	—	8,629
Health Net SmartCare	6,632	994	10,132	727	18,485	—	—	—	—	—	18,485
Kaiser	244,553	41,332	211,466	21,584	518,935	7	60,109	5	36,804	96,925	615,860
Kaiser/Out of State	5	376	20	312	713	—	1,351	—	756	2,107	2,820
Sharp	9,366	639	1,339	107	11,451	—	—	—	—	—	11,451
UnitedHealthcare	47,023	7,602	19,720	2,370	76,715	5	24,439	4	15,939	40,387	117,102
Western Health	3,604	477	1,912	187	6,180	—	—	—	—	—	6,180
SUBTOTAL	**405,416**	**70,104**	**332,879**	**36,321**	**844,720**	**12**	**86,418**	**9**	**53,850**	**140,289**	**985,009**
Preferred Provider Organization (PPO)											
Anthem EPO Del Norte	128	8	—	1	137	—	—	—	—	—	137
Blue Shield EPO	583	220	222	48	1,073	—	—	—	—	—	1,073
PERS Choice	57,528	29,944	50,356	11,733	149,561	7	44,548	1	26,115	70,671	220,232
PERS Select	26,389	2,303	21,606	1,360	51,658	1	784	—	1,256	2,041	53,699
PERSCare	8,669	7,841	17,234	6,145	39,889	4	43,079	—	18,422	61,505	101,394
SUBTOTAL	**93,297**	**40,316**	**89,418**	**19,287**	**242,318**	**12**	**88,411**	**1**	**45,793**	**134,217**	**376,535**
Association (ASN) Plans											
CAHP	22,368	6,277	—	—	28,645	—	4,338	—	—	4,338	32,983
CCPOA North	7,045	2,229	—	—	9,274	—	533	—	—	533	9,807
CCPOA South	26,538	4,985	—	—	31,523	—	652	—	—	652	32,175
PORAC	657	369	16,673	5,711	23,410	—	185	—	2,156	2,341	25,751
SUBTOTAL	**56,608**	**13,860**	**16,673**	**5,711**	**92,852**	**—**	**5,708**	**—**	**2,156**	**7,864**	**100,716**
TOTAL	**555,321**	**124,280**	**438,970**	**61,319**	**1,179,890**	**24**	**180,537**	**10**	**101,799**	**282,370**	**1,462,260**

10-Year Enrollments

Members	2018	2017	2016	2015	2014[2]	2013[2]	2012[2]	2011[2]	2010[2]	2009[2]
Total Covered Lives[1]	1,462,260	1,442,156	1,424,983	1,400,960	1,390,104	1,382,151	1,369,235	1,358,496	1,309,209	1,285,301
Subscribers[1]	709,592	697,163	684,436	669,127	658,048	645,697	634,667	631,309	621,775	606,709

(1) Total Covered Lives and Subscribers as of June 30 of each reported year.
(2) Corrected figures from previously reported data in 2016.

Total Covered Lives Summary as of June 30, 2018

	State	Public Agency	Total
Total Covered Lives	860,162	602,098	1,462,260

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State HMO Total Covered Lives by County as of June 30, 2018

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Alameda	145	110	2,522	0	68	11,905	0	0	1,636	0	16,386
Alpine	—	—	—	—	—	—	—	—	—	—	—
Amador	—	—	1	—	—	1,892	—	—	28	—	1,921
Butte	—	46	4,150	—	—	1	—	—	661	—	4,858
Calaveras	—	—	—	—	—	15	—	—	5	—	20
Colusa	—	—	—	—	—	—	—	—	17	8	25
Contra Costa	59	101	2,074	—	122	8,378	—	1	845	—	11,580
Del Norte	—	—	3	—	—	—	—	—	1	—	4
El Dorado	425	110	1,052	—	—	5,111	—	—	277	110	7,085
Fresno	50	150	3,723	—	308	11,066	—	—	8,537	—	23,834
Glenn	—	1	220	—	—	—	—	—	47	—	268
Humboldt	—	174	2,849	—	2	4	—	—	287	—	3,316
Imperial	306	38	1,926	—	—	1	—	—	120	—	2,391
Inyo	—	—	—	—	—	—	—	—	—	—	—
Kern	106	71	2,186	126	299	9,881	—	—	959	—	13,628
Kings	—	117	2,105	—	287	875	—	—	3,289	—	6,673
Lake	—	—	—	—	—	3	—	—	4	—	7
Lassen	—	—	2	—	—	—	—	—	—	—	2
Los Angeles	993	486	7,818	1,648	447	40,562	—	2	4,378	—	56,334
Madera	—	34	713	—	—	2,349	—	—	686	—	3,782
Marin	—	31	408	—	27	1,509	—	—	169	11	2,155
Mariposa	—	1	149	—	—	10	—	—	31	—	191
Mendocino	—	22	6	—	—	2	—	—	168	—	198
Merced	252	20	978	—	—	11	—	—	237	—	1,498
Modoc	—	—	—	—	—	—	—	—	—	—	—
Mono	—	—	—	—	—	—	—	—	—	—	—
Monterey	1,725	2	4	—	—	11	—	—	17	—	1,759
Napa	—	56	2	—	31	4,576	—	—	11	14	4,690
Nevada	108	35	579	—	—	43	—	—	251	—	1,016
Orange	235	190	4,410	583	70	12,087	—	—	2,156	—	19,731
Placer	514	189	2,307	—	11	13,606	—	2	3,255	72	19,956
Plumas	—	—	—	—	—	—	—	—	7	—	7
Riverside	241	115	4,484	207	105	16,497	—	—	2,052	—	23,701
Sacramento	2,729	985	20,592	—	3,689	106,456	—	4	21,828	3,447	159,730
San Benito	—	48	—	—	—	—	—	—	3	—	51
San Bernardino	407	165	3,570	500	276	21,811	—	1	3,058	—	29,788
San Diego	235	—	3,181	602	164	12,786	—	9,992	2,878	—	29,838
San Francisco	46	94	1,626	—	125	4,267	—	—	1,546	—	7,704
San Joaquin	291	137	2,426	—	279	10,273	—	—	1,847	—	15,253
San Luis Obispo	—	180	3,089	—	—	—	—	—	7,478	—	10,747
San Mateo	—	59	1,201	—	22	3,178	—	—	1,015	—	5,475
Santa Barbara	2	59	780	—	—	5	—	—	256	—	1,102
Santa Clara	120	101	1,376	—	29	8,382	—	—	1,014	—	11,022
Santa Cruz	38	21	652	—	22	242	—	—	627	—	1,602
Shasta	—	—	—	—	—	2	—	—	14	—	16
Sierra	—	—	—	—	—	—	—	—	14	—	14
Siskiyou	—	—	—	—	—	4	—	—	3	—	7
Solano	1	183	960	—	47	15,777	—	—	1,040	59	18,067
Sonoma	—	98	1,253	—	30	7,365	—	—	878	13	9,637
Stanislaus	162	80	1,085	—	—	3,624	—	—	1,146	—	6,097

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State HMO Total Covered Lives by County as of June 30, 2018 (continued)

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Sutter	1	—	6	—	—	138	—	—	10	—	155
Tehama	—	—	—	—	—	3	—	—	5	—	8
Trinity	—	—	—	—	—	—	—	—	2	—	2
Tulare	700	32	5,237	—	779	96	—	—	442	—	7,286
Tuolumne	5	—	—	—	—	3	—	—	2	—	10
Ventura	278	31	947	—	3	3,165	—	—	600	—	5,024
Yolo	230	174	2,112	—	384	7,040	—	—	2,572	347	12,859
Yuba	2	—	1	—	—	892	—	—	6	—	901
Out of State	7	—	39	—	—	89	1,732	3	652	—	2,522
Out of Country/ Unknown	—	—	—	7	—	8	—	—	2	—	17
Total Covered Lives	**10,413**	**4,546**	**94,804**	**3,673**	**7,626**	**346,001**	**1,732**	**10,005**	**79,069**	**4,081**	**561,950**

State PPO Total Covered Lives by County as of June 30, 2018

County	Anthem EPO Del Norte	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Alameda	—	—	1,328	177	1,052	2,557
Alpine	—	—	25	5	2	32
Amador	—	—	1,045	123	292	1,460
Butte	—	—	2,973	965	1,399	5,337
Calaveras	—	—	932	156	232	1,320
Colusa	—	84	39	11	38	172
Contra Costa	—	—	878	113	805	1,796
Del Norte	136	—	2,180	1,861	200	4,377
El Dorado	—	—	1,540	360	860	2,760
Fresno	—	—	3,913	1,113	1,612	6,638
Glenn	—	—	147	29	44	220
Humboldt	—	—	2,169	664	757	3,590
Imperial	—	—	765	359	253	1,377
Inyo	—	—	499	262	64	825
Kern	—	—	3,047	848	945	4,840
Kings	—	—	918	453	246	1,617
Lake	—	—	382	105	166	653
Lassen	—	—	3,207	3,063	319	6,589
Los Angeles	—	—	11,714	2,275	5,896	19,885
Madera	—	—	608	234	222	1,064
Marin	—	—	483	47	367	897
Mariposa	—	—	188	37	75	300
Mendocino	—	700	310	167	202	1,379
Merced	—	—	693	304	297	1,294
Modoc	—	—	232	57	37	326
Mono	—	—	164	55	12	231
Monterey	—	—	5,738	1,972	891	8,601
Napa	—	—	592	76	260	928
Nevada	—	—	568	104	392	1,064
Orange	—	—	5,125	948	3,182	9,255
Placer	—	—	1,718	251	1,175	3,144
Plumas	—	—	307	156	103	566
Riverside	—	—	2,868	635	1,406	4,909

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State PPO Total Covered Lives by County as of June 30, 2018 (continued)

County	Anthem EPO Del Norte	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Sacramento	—	1	7,103	1,624	6,421	15,149
San Benito	—	—	305	83	67	455
San Bernardino	—	—	2,416	634	1,184	4,234
San Diego	—	—	3,551	442	2,194	6,187
San Francisco	—	—	797	157	751	1,705
San Joaquin	—	—	1,176	231	806	2,213
San Luis Obispo	—	—	7,694	2,209	2,666	12,569
San Mateo	—	—	563	62	441	1,066
Santa Barbara	—	—	724	249	423	1,396
Santa Clara	—	—	1,579	165	817	2,561
Santa Cruz	—	—	540	105	349	994
Shasta	—	—	3,467	2,027	722	6,216
Sierra	—	18	19	16	19	72
Siskiyou	—	—	899	325	133	1,357
Solano	—	—	622	69	364	1,055
Sonoma	—	—	1,086	116	831	2,033
Stanislaus	—	—	829	134	508	1,471
Sutter	—	—	1,425	190	259	1,874
Tehama	—	—	897	486	186	1,569
Trinity	—	—	202	99	44	345
Tulare	—	—	3,677	1,139	941	5,757
Tuolumne	—	—	1,815	320	324	2,459
Ventura	—	—	2,152	361	1,026	3,539
Yolo	—	—	1,013	144	690	1,847
Yuba	—	—	618	80	152	850
Out of State	—	—	29,215	25	13,415	42,655
Out of Country/ Unknown	—	—	348	—	57	405
Total Covered Lives	**136**	**803**	**132,027**	**29,477**	**59,593**	**222,036**

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State ASN Total Covered Lives by County as of June 30, 2018

County	CAHP	CCPOA North	CCPOA South	PORAC	Total
Alameda	378	38	—	—	416
Alpine	8	—	—	—	8
Amador	164	—	—	4	168
Butte	528	64	—	29	621
Calaveras	172	—	—	10	182
Colusa	51	—	—	4	55
Contra Costa	521	102	—	6	629
Del Norte	121	—	—	3	124
El Dorado	804	161	—	27	992
Fresno	1,095	1,153	—	65	2,313
Glenn	75	—	—	—	75
Humboldt	319	—	—	17	336
Imperial	309	—	4,859	8	5,176
Inyo	115	—	—	1	116
Kern	1,433	—	10,538	23	11,994
Kings	278	1,255	2	—	1,535
Lake	170	—	—	16	186
Lassen	138	—	—	4	142
Los Angeles	2,609	—	2,185	120	4,914
Madera	351	240	—	8	599
Marin	113	29	—	—	142
Mariposa	74	—	—	—	74
Mendocino	170	—	—	—	170
Merced	388	328	—	12	728
Modoc	100	—	—	4	104
Mono	30	—	—	2	32
Monterey	357	—	—	88	445
Napa	172	—	—	3	175
Nevada	356	22	—	27	405
Orange	1,233	—	370	91	1,694
Placer	1,803	327	—	19	2,149
Plumas	185	—	—	—	185
Riverside	2,860	—	4,831	49	7,740
Sacramento	1,523	1,346	—	30	2,899
San Benito	77	—	—	26	103
San Bernardino	1,983	—	3,124	12	5,119
San Diego	1,726	—	2,405	46	4,177
San Francisco	85	28	—	4	117
San Joaquin	662	1,128	—	3	1,793
San Luis Obispo	913	—	2,916	103	3,932
San Mateo	142	17	—	4	163
Santa Barbara	423	—	513	14	950
Santa Clara	436	24	—	12	472
Santa Cruz	214	27	—	29	270
Shasta	1,119	—	—	41	1,160
Sierra	4	—	—	—	4
Siskiyou	398	—	—	14	412
Solano	690	311	—	—	1,001
Sonoma	544	61	—	8	613
Stanislaus	599	494	—	8	1,101
Sutter	257	—	—	6	263
Tehama	329	—	—	8	337
Trinity	53	—	—	1	54
Tulare	760	2,496	11	2	3,269
Tuolumne	165	3	—	12	180
Ventura	884	—	406	56	1,346
Yolo	265	150	—	2	417
Yuba	120	—	—	2	122
Out of State	1,123	3	15	128	1,269
Out of Country/ Unknown	9	—	—	—	9
Total Covered Lives	**32,983**	**9,807**	**32,175**	**1,211**	**76,176**

Public Agency HMO Total Covered Lives by County as of June 30, 2018

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Alameda	890	899	3,320	—	396	29,357	—	—	1,395	—	36,257
Alpine	—	—	—	—	—	—	—	—	—	—	—
Amador	—	—	—	—	—	120	—	—	3	—	123
Butte	—	4	661	—	—	1	—	—	280	—	946
Calaveras	—	—	—	—	—	3	—	—	13	—	16
Colusa	—	—	—	—	—	—	—	—	64	9	73
Contra Costa	902	996	3,695	—	1,516	32,178	—	—	1,506	—	40,793
Del Norte	—	—	—	—	—	—	—	—	2	—	2
El Dorado	61	21	512	—	—	2,299	—	—	65	55	3,013
Fresno	2	9	115	—	55	900	—	—	1,561	—	2,642
Glenn	—	4	314	—	—	—	—	—	98	—	416
Humboldt	—	16	276	—	—	—	—	—	88	—	380
Imperial	63	10	105	—	—	—	—	—	9	—	187

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency HMO Total Covered Lives by County as of June 30, 2018 (continued)

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Inyo	—	—	—	—	—	—	—	—	—	—	—
Kern	8	6	138	32	182	660	—	—	200	—	1,226
Kings	—	—	6	—	10	9	—	—	41	—	66
Lake	—	—	3	—	—	—	—	—	7	—	10
Lassen	—	—	—	—	—	—	—	—	—	—	—
Los Angeles	1,970	1,998	22,431	2,990	3,330	51,623	—	—	6,558	—	90,900
Madera	—	3	192	—	—	1,105	—	—	1,438	—	2,738
Marin	—	90	384	—	43	3,100	—	—	207	33	3,857
Mariposa	1	—	19	—	—	4	—	—	29	—	53
Mendocino	—	—	—	—	—	—	—	—	25	—	25
Merced	59	11	464	—	—	2	—	—	83	—	619
Modoc	—	—	—	—	—	—	—	—	—	—	—
Mono	—	—	—	—	—	—	—	—	1	—	1
Monterey	784	—	—	—	—	—	—	—	51	—	835
Napa	—	41	—	—	51	6,370	—	—	8	34	6,504
Nevada	1,552	85	224	—	—	34	—	—	597	—	2,492
Orange	703	413	5,649	505	549	11,018	—	—	3,186	—	22,023
Placer	69	138	2,507	—	5	9,310	—	—	2,143	100	14,272
Plumas	2	—	—	—	—	—	—	—	—	—	2
Riverside	668	327	3,818	285	593	9,943	—	1	3,558	—	19,193
Sacramento	77	50	2,126	—	169	12,028	—	—	1,420	572	16,442
San Benito	—	77	—	—	—	9	—	—	12	—	98
San Bernardino	571	262	4,447	455	952	12,030	—	—	1,874	—	20,591
San Diego	135	—	967	689	469	2,523	—	1,445	1,897	—	8,125
San Francisco	54	185	770	—	76	2,589	—	—	188	—	3,862
San Joaquin	1,329	332	1,384	—	825	11,604	—	—	425	—	15,899
San Luis Obispo	—	33	589	—	—	—	—	—	2,271	—	2,893
San Mateo	3	853	3,065	—	223	10,179	1	—	1,091	—	15,415
Santa Barbara	—	61	2,277	—	—	—	—	—	155	—	2,493
Santa Clara	829	814	2,353	—	119	22,299	—	—	705	—	27,119
Santa Cruz	1,716	834	2,837	—	870	1,790	—	—	987	—	9,034
Shasta	—	—	—	—	—	4	—	—	17	—	21
Sierra	—	—	—	—	—	—	—	—	—	—	—
Siskiyou	—	—	—	—	—	—	—	—	11	—	11
Solano	6	700	733	—	153	19,925	—	—	583	171	22,271
Sonoma	—	113	602	—	92	5,488	—	—	193	44	6,532
Stanislaus	249	212	785	—	—	3,782	—	—	267	—	5,295
Sutter	—	—	—	—	—	19	—	—	3	—	22
Tehama	—	—	—	—	—	—	—	—	2	—	2
Trinity	—	—	—	—	—	—	—	—	1	—	1
Tulare	25	—	161	—	97	16	—	—	34	—	333
Tuolumne	—	—	—	—	—	2	—	—	12	—	14
Ventura	544	352	2,704	—	—	4,082	—	—	767	—	8,449
Yolo	21	28	784	—	84	3,212	—	—	1,167	1,081	6,377
Yuba	3	—	—	—	—	176	—	—	5	—	184
Out of State	5	3	20	—	—	65	1,087	—	728	—	1,908
Out of Country/ Unknown	—	—	1	—	—	1	—	—	2	—	4
Total Covered Lives	**13,301**	**9,980**	**71,438**	**4,956**	**10,859**	**269,859**	**1,088**	**1,446**	**38,033**	**2,099**	**423,059**

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency PPO Total Covered Lives by County as of June 30, 2018

County	Anthem EPO Del Norte	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Alameda	—	—	2,079	311	1,282	3,672
Alpine	—	—	8	4	7	19
Amador	—	—	222	28	63	313
Butte	—	—	721	1,060	271	2,052
Calaveras	—	—	619	207	102	928
Colusa	—	172	156	171	37	536
Contra Costa	—	—	2,241	467	1,349	4,057
Del Norte	1	—	84	47	30	162
El Dorado	—	—	708	168	305	1,181
Fresno	—	—	278	88	96	462
Glenn	—	—	194	164	39	397
Humboldt	—	—	1,068	1,705	115	2,888
Imperial	—	—	56	21	17	94
Inyo	—	—	1,117	159	224	1,500
Kern	—	—	395	91	103	589
Kings	—	—	23	2	4	29
Lake	—	—	136	15	80	231
Lassen	—	—	171	140	24	335
Los Angeles	—	—	18,144	3,198	10,931	32,273
Madera	—	—	328	121	110	559
Marin	—	—	485	39	275	799
Mariposa	—	—	103	12	41	156
Mendocino	—	42	75	25	38	180
Merced	—	—	245	128	175	548
Modoc	—	—	15	3	3	21
Mono	—	—	581	5	60	646
Monterey	—	—	9,735	2,145	1,022	12,902
Napa	—	—	851	238	248	1,337
Nevada	—	—	793	525	333	1,651
Orange	—	—	4,632	1,014	2,989	8,635
Placer	—	—	1,752	319	765	2,836
Plumas	—	—	277	151	53	481
Riverside	—	—	2,443	579	1,658	4,680
Sacramento	—	—	804	309	483	1,596
San Benito	—	—	511	103	77	691
San Bernardino	—	—	1,746	421	1,313	3,480
San Diego	—	—	941	195	545	1,681
San Francisco	—	—	302	84	256	642
San Joaquin	—	—	1,699	772	330	2,801
San Luis Obispo	—	—	1,422	756	470	2,648
San Mateo	—	—	1,867	206	1,141	3,214
Santa Barbara	—	—	776	501	388	1,665
Santa Clara	—	—	3,789	1,010	1,738	6,537
Santa Cruz	—	—	2,093	351	670	3,114
Shasta	—	—	1,583	2,159	359	4,101
Sierra	—	56	24	6	7	93
Siskiyou	—	—	690	1,027	47	1,764
Solano	—	—	694	157	318	1,169
Sonoma	—	—	670	68	255	993
Stanislaus	—	—	1,175	681	310	2,166
Sutter	—	—	336	43	42	421
Tehama	—	—	168	250	53	471

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency PPO Total Covered Lives by County as of June 30, 2018 (continued)

County	Anthem EPO Del Norte	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Trinity	—	—	397	111	25	533
Tulare	—	—	197	47	35	279
Tuolumne	—	—	848	420	305	1,573
Ventura	—	—	2,491	846	2,195	5,532
Yolo	—	—	503	157	233	893
Yuba	—	—	861	187	57	1,105
Out of State	—	—	10,822	5	7,260	18,087
Out of Country/Unknown	—	—	61	—	40	101
Total Covered Lives	**1**	**270**	**88,205**	**24,222**	**41,801**	**154,499**

Public Agency ASN Total Covered Lives by County as of June 30, 2018

County	CAHP	CCPOA North	CCPOA South	PORAC	Total
Alameda	—	—	—	556	556
Alpine	—	—	—	—	—
Amador	—	—	—	185	185
Butte	—	—	—	934	934
Calaveras	—	—	—	53	53
Colusa	—	—	—	61	61
Contra Costa	—	—	—	697	697
Del Norte	—	—	—	14	14
El Dorado	—	—	—	279	279
Fresno	—	—	—	31	31
Glenn	—	—	—	103	103
Humboldt	—	—	—	474	474
Imperial	—	—	—	21	21
Inyo	—	—	—	235	235
Kern	—	—	—	35	35
Kings	—	—	—	—	—
Lake	—	—	—	96	96
Lassen	—	—	—	80	80
Los Angeles	—	—	—	2,794	2,794
Madera	—	—	—	15	15
Marin	—	—	—	78	78
Mariposa	—	—	—	29	29
Mendocino	—	—	—	22	22
Merced	—	—	—	46	46
Modoc	—	—	—	50	50
Mono	—	—	—	85	85
Monterey	—	—	—	2,337	2,337
Napa	—	—	—	77	77
Nevada	—	—	—	364	364
Orange	—	—	—	2,958	2,958
Placer	—	—	—	438	438
Plumas	—	—	—	254	254
Riverside	—	—	—	1,170	1,170
Sacramento	—	—	—	199	199
San Benito	—	—	—	437	437
San Bernardino	—	—	—	693	693
San Diego	—	—	—	221	221
San Francisco	—	—	—	51	51
San Joaquin	—	—	—	329	329
San Luis Obispo	—	—	—	221	221
San Mateo	—	—	—	227	227
Santa Barbara	—	—	—	162	162
Santa Clara	—	—	—	622	622
Santa Cruz	—	—	—	793	793
Shasta	—	—	—	849	849
Sierra	—	—	—	9	9
Siskiyou	—	—	—	282	282
Solano	—	—	—	111	111
Sonoma	—	—	—	136	136
Stanislaus	—	—	—	88	88
Sutter	—	—	—	403	403
Tehama	—	—	—	175	175
Trinity	—	—	—	38	38
Tulare	—	—	—	2	2
Tuolumne	—	—	—	393	393
Ventura	—	—	—	910	910
Yolo	—	—	—	48	48
Yuba	—	—	—	335	335
Out of State	—	—	—	2,232	2,232
Out of Country/ Unknown	—	—	—	3	3
Total Covered Lives	**0**	**0**	**0**	**24,540**	**24,540**

DEFINED CONTRIBUTION PLANS

California Public Employees' Retirement System (CalPERS) administers a defined contribution plan and a deferred compensation plan to certain members to save for retirement.

These plans include:

- Deferred Compensation Program
- Supplemental Contributions Program

DEFERRED COMPENSATION PROGRAM

The Deferred Compensation Program is a way for participants to defer a portion of pre-tax salary into investments of an individual's choosing. It allows both the amount deferred and the amount earned on the investment to be protected from income tax until the money is distributed. The plan is intended to provide for supplemental savings to CalPERS or other defined benefit plans. Eligible public agencies and school employers may elect to offer the Deferred Compensation Program to their employees.

The CalPERS Board designates the investment fund options made available to participants and provides the administrative functions of the program. Assets are held in trust by the Board for the exclusive benefit of participating employees.

As of June 30, 2018, the Deferred Compensation Program was adopted by 794 California public agencies and school districts. For a full listing of the program's participating public agencies, please visit our public agency employer page at **www.calpers.ca.gov.**

SUPPLEMENTAL CONTRIBUTIONS PROGRAM

The Supplemental Contributions Program is available to State of California employees who are members of CalPERS, and active judges who are members of the Judges' Retirement System I or II. Participants may invest after-tax contributions through payroll deductions or cash contributions by check. Participant earnings grow tax-deferred until the program participants begin to take withdrawals in retirement or upon separation from state employment.

INVESTMENT FUND LINEUP

The Deferred Compensation Program and Supplemental Contributions Program for the Fiscal Year 2017-18 investment line-up allows participants to choose from 10 target retirement date funds and six core funds.

The investment fund lineup includes:

Ten Target Retirement Date Funds

- Structured with five-year increments to allow participants to target their retirement date.
- Utilizes glide path strategy intended to reduce volatility risk as the member approaches retirement.

Six Core Funds

- Provides a broad range of asset class coverage to create a portfolio consistent with the participants' individual investment goals, time horizons, and risk tolerance.
- Spans the risk-return spectrum, without duplication.

LONG-TERM CARE PROGRAM DATA

As of June 30, 2018, the total long-term care (LTC) participant count decreased 3.0 percent to 124,472. This decrease may be attributable to the LTC program stabilization and sustainability measures and realized participant population attrition. Annual premiums as of June 30, 2018, were $296.3 million.

Long-Term Care Program Data – Comprehensive Plans

	LTC 1 (1995-2002)		LTC 2 (2003-2004)		LTC 3 (2005-2008)		
Benefit Period	With Inflation	No Inflation	With Inflation	No Inflation	With Inflation	No Inflation	Total
Lifetime	18,758	5,303	1,079	624	1,102	1,039	27,905
10 Year	—	18,438	—	1,647	—	5	20,090
6 Year	2,018	17,282	19	1,476	3,116	3,273	27,184
3 Year	2,815	12,443	228	1,415	2,685	851	20,437
TOTAL	23,591	53,466	1,326	5,162	6,903	5,168	95,616

Long-Term Care Program Data – Facility Only Plans

	LTC 1 (1995-2002)		LTC 2 (2003-2004)		LTC 3 (2005-2008)		
Benefit Period	With Inflation	No Inflation	With Inflation	No Inflation	With Inflation	No Inflation	Total
Lifetime	2,574	1,099	120	53	172	142	4,160
10 Year	—	4,256	—	254	—	—	4,510
6 Year	339	4,602	9	256	204	731	6,141
3 Year	1,022	5,468	34	294	622	245	7,685
TOTAL	3,935	15,425	163	857	998	1,118	22,496

Partnership Plans with Inflation

Benefit Period	LTC 1 (1995-2002)	LTC 2 (2003-2004)	LTC 3 (2005-2008)	Total
2 Year	2,565	149	63	2,777
1 Year	1,391	76	33	1,500
6 Month	97	9	1	107
TOTAL	4,053	234	97	4,384

LTC 4[1] Comprehensive and Partnership Plans

Benefit Period	5% Compound Inflation	3% Compound Inflation	5% Simple Inflation	3% Simple Inflation	Benefit Increase Offer	No Inflation	Total
10 Year	17	45	5	250	38	16	371
6 Year	28	120	13	427	41	19	648
3 Year	41	158	14	621	57	32	923
2 Year	27	—	—	—	—	—	27
1 Year	7	—	—	—	—	—	7
TOTAL	120	323	32	1,298	136	67	1,976

(1) LTC 4 opened for enrollment in December 2013.

Nine-Year Historical Participant Counts

	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total Covered Lives	124,472	128,276	132,274	136,253	139,947	144,933	150,330	154,634	159,528

Compliance Section

Compliance Section

CHIEF COMPLIANCE OFFICER'S LETTER

The Annual Compliance Report outlines key accomplishments on ethics and compliance activities covering Fiscal Year (FY) 2017-18. This report is included as a complement to the Comprehensive Annual Financial Report (CAFR). The Enterprise Compliance Branch (Enterprise Compliance) of the California Public Employees' Retirement System (CalPERS) is responsible for coordinating, supporting, and promoting an effective enterprise-wide ethics and compliance program. Enterprise Compliance is at the forefront of compliance and ethics at CalPERS, working to protect the enterprise by ensuring we are following all the laws and regulations that govern our business.

Consistent with CalPERS' values of Integrity, Openness, and Accountability, Enterprise Compliance is keenly aware of our responsibility to set the example of ethical behavior and practices. To leverage our effectiveness, we embrace partnerships with other program areas to maximize our impact.

This work relies on our partnerships across the enterprise to help inform and raise awareness about the importance of compliance and ethics. Enterprise Compliance is staffed with 26 team members to oversee the ethics and compliance in an organization with approximately 2,900 employees.

Enterprise Compliance also recognizes that effective compliance programs grow organically; our job is to make sure everyone knows how they can positively impact our organization. For instance, we have embedded compliance liaisons in some of our largest program areas who serve as first line compliance experts. We are grateful for their participation and partnership throughout the CalPERS organization.

Marlene Timberlake D'Adamo
Chief Compliance Officer

CULTURE OF COMPLIANCE

We strive to embed compliance into the CalPERS culture, strategy, and day-to-day business operations. All of Enterprise Compliance's activities and accomplishments directly support our organization's strategic plan and core values.

During the FY 2017-18, Enterprise Compliance was transitioned from a division within the Financial Office to its own Branch. The Chief Compliance Officer now reports directly to the Chief Executive Officer, Marcie Frost. Not only did this move help set the "tone at the top" of the importance of compliance, but it allows for improved communication, visibility, and influence for compliance efforts.

In 2004, CalPERS established a separate and distinct compliance office to support the enterprise level commitment to strong ethics, compliance, and risk management practices. Since then, the office has continued to grow and develop.

In 2015, Enterprise Compliance developed a new multi-year compliance plan, building upon the already effective compliance practices in place.

The five-year compliance plan is aimed at building and enhancing compliance capabilities to mature the program and is consistent with changes in the broader compliance landscape (see Figure 1). The compliance plan focuses on strengthening our compliance and ethics program by fostering a culture of compliance, clarifying the compliance governance structure, and providing our CalPERS' Board and management with compliance tools and information to fulfill their oversight responsibilities. We have just completed the third year of the compliance plan and are on track to begin implementing our FY 2018-19 planned activities.

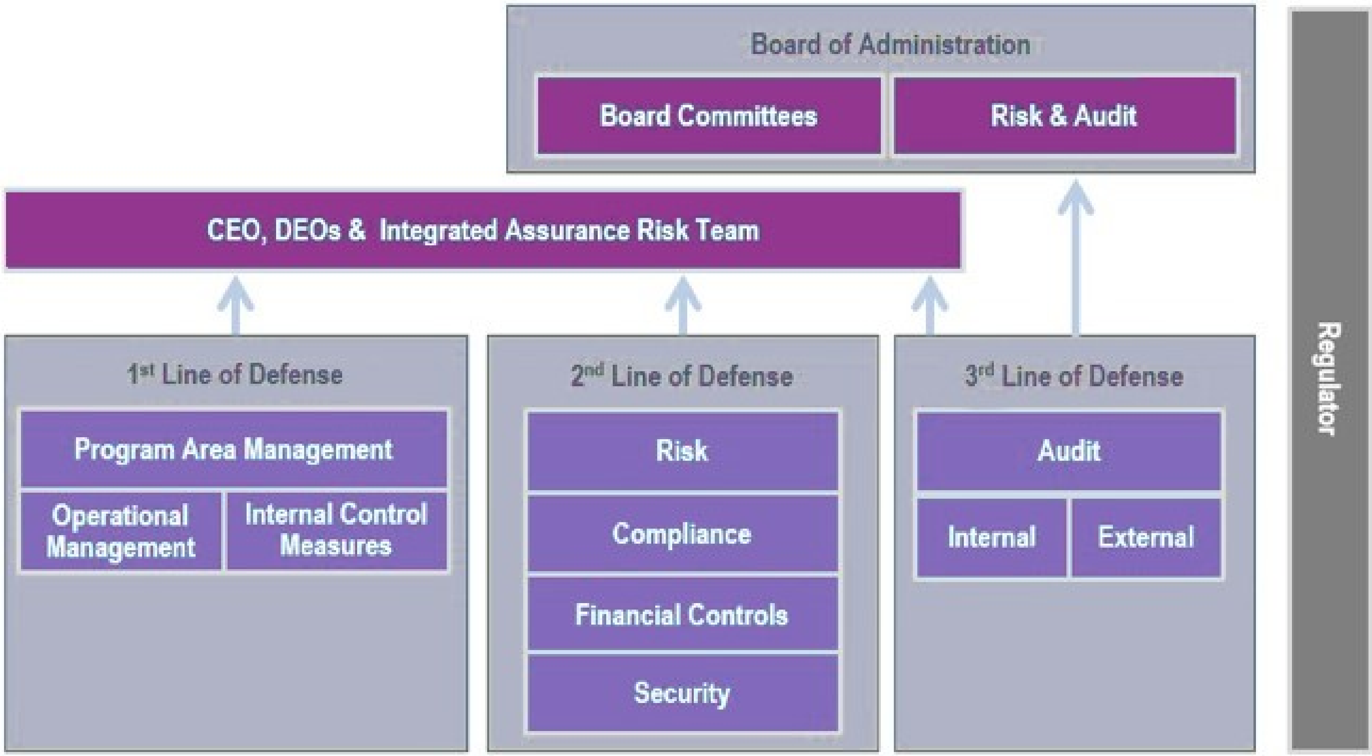
FIGURE 1: FIVE-YEAR COMPLIANCE PLAN

(Figure 1)

INTEGRATED ASSURANCE MODEL: THREE LINES OF DEFENSE

To implement our governance, risk, and compliance practices, we have embraced an Integrated Assurance Model to promote a multi-faceted approach to compliance awareness and accountability. The model centers on a Three Lines of Defense framework (see Figure 2), which promotes collaboration and an increased understanding of roles and responsibilities to detect, prevent, and correct instances of non-compliance.

FIGURE 2: INTEGRATED ASSURANCE MODEL



(Figure 2)

- **First Line of Defense** – The first level of the control environment are the program areas, which perform day-to-day risk management activities. In addition to performing day-to-day operations, the functional areas are responsible for compliance and risk mitigation.
- **Second Line of Defense** – The Enterprise Compliance Branch and Enterprise Risk Management Division partner collaborate to provide oversight, guidance, monitoring of governance, risk, and compliance activities. As a result of this partnership, we are able to support the organization in mitigating strategic and operational risks along with strengthening the organization's control environment and promoting strong ethical business practices. To demonstrate this alignment, both work closely together to develop and implement their annual plans.
- **Third Line of Defense** – Internal audits provides independent assurance on the effectiveness of governance, risk management, and internal controls. The Office of Audit Services participates in a joint organization wide-risk assessment with the Risk and Compliance offices. This coordination assists with the development of a common view of risk across the organization.

The Integrated Assurance Model helps clarify roles and responsibilities and promote ownership of compliance throughout the organization. Through the Three Lines of Defense, CalPERS encourages a culture of doing the right thing. By fostering a work environment based on our core values of quality, respect, integrity, openness, accountability and balance, CalPERS also recognizes that compliance is everyone's responsibility. The partners within the Integrated Assurance Model hold monthly working sessions to collaboratively discuss, plan, and receive feedback on each party's inter-related efforts. These monthly meetings help ensure cooperation and improve timing of reviews by reducing over-lapping efforts and encourage collaboration with the program areas.

FISCAL YEAR 2017-18 ETHICS AND COMPLIANCE PROGRAM INITIATIVES HIGHLIGHTS

Enterprise Compliance is guided by compliance standards set out in a variety of federal and state guidelines. Federal Sentencing Guidelines identify consistent, continuous promotion and enforcement of compliance and ethics standards as essential components of an effective compliance program. The California State Leadership Accountability Act also sets compliance industry best practices, benchmarks, and organizational needs for the state agencies of California.

Through our internal partnerships, Enterprise Compliance identified program areas and topics where additional time and attention are necessary to continue to meet compliance requirements, support ethical behaviors and ensure overall organizational integrity.

ENTERPRISE COMPLIANCE BRANCH

The Enterprise Compliance Branch is committed to ensuring CalPERS maintains compliance with the letter and spirit of all applicable laws, regulation, and policies in partnership with program areas. This Branch is comprised of four units:

- Enterprise Compliance Monitoring and Oversight,
- Enterprise Ethical Standards and Investigations,
- Enterprise Policy and Delegation Management, and
- Enterprise Compliance Operations, Communications, and Reporting.

Enterprise Compliance Monitoring and Oversight Unit

This unit is responsible for developing consistency in program area compliance activities and ongoing monitoring and reporting of the enterprise.

Compliance Monitoring and Oversight

- Implemented regular monitoring of Investment decision-making materials and incorporated reporting of Investment Policy violations to the Risk and Audit Committee
- Conducted targeted compliance reviews and compliance monitoring of program areas
- Developed framework to track legislative change implementation

Embedded Compliance Program

- Partnered with embedded compliance liaisons to strengthen compliance controls, oversight, and awareness
- Collaborated with Customer Services and Support and Operations and Technology liaisons to create and adopt Branch compliance plans
- Clarified roles and responsibilities for new Financial Office and Health Policy and Benefits Branch compliance liaisons

Enterprise Ethical Standards and Investigations Unit

This unit oversees all ethics policies and conflict of interest disclosures. The unit is involved in many business areas of CalPERS where decision makers are required to file the Statement of Economic Interests From 700 to stay in compliance with the California Fair Political Practices Commission regulations. This unit also oversees the Ethics Helpline, which is a reporting tool for anonymous complaints that are then researched and investigated by appropriate program areas.

Conflicts of Interest

- Aligned Conflict of Interest Rules with vendor management process
- Created contract review tools to improve consultant Form 700 filing processes
- Developed new training and improved communications process to better outline vendor Form 700 roles and responsibilities for contract mangers and compliance liaisons
- Enhanced reporting and outreach to all Form 700 filers

Ethics Laws & Policies Oversight

- Evaluated, revised, and consolidated CalPERS ethics-related laws and policies
- Reviewed and prepared revisions to CalPERS Statement of Incompatible Activities
- Conducted review of CalPERS Conflict of Interest Code, including assessments of new classification for potential Form 700 filer requirements
- Created a roadmap of all ethics-related policies to be combined into a single manual for clarity and ease of understanding
- Enhanced program administration to ensure consistency across intake channels
- Standardized the tracking and reporting of Ethics Helpline cases in the ethics case management system
- Completed the transition to online tracking/reporting through our ethics case management system

Enterprise Policy and Delegation Management Unit

This unit has the responsibility for maintaining a policy and authoritative source governance program. The purpose of this program is to maintain current comprehensive policies, delegations and charters conveying CalPERS' expectations. CalPERS has established enterprise-wide standards for policy management and delegations of authority consistent with professional best practice.

FISCAL YEAR 2017-18 ETHICS AND COMPLIANCE PROGRAM INITIATIVES HIGHLIGHTS (CONTINUED)

Policy Management

- Expanded frameworks to include guidance on committee governance and guidelines
- Developed governance framework, including standardized templates for committee charters and bylaws
- Developed on-demand policy training materials, to support CalPERS team members in navigating each step of the Enterprise policy lifecycle

Delegation Management

- Aligned Board-approved policies and reporting with Board delegations of authority
- Developed a framework to ensure Board Committee reporting complies with Committee delegations of authority
- Conducted preliminary historical assessment of Board Agenda Items for future alignment with Board Delegations of Authority in support of enterprise efforts to streamline and improve Board Reporting

Compliance Operations, Communications and Reporting Unit

The Compliance Education, Communications, and Reporting unit is responsible for external mandated reporting, communications, education, and training.

Communications

- Continued to enhance compliance education and communication
- Developed and rolled out the Compliance Discussion Guides to align Core Values with compliance principles to help initiate conversations on building a strong ethical culture
- Hosted Second Annual National Compliance and Ethics Week in November 2017, including an Executive Panel Discussion on Ethical Leadership for managers and an Enterprise Compliance open-house
- Sponsored onsite training on Compliance Metrics Development
- Published InCalPERS articles and an internal social media platform weekly posts highlighting compliance related priorities, team members and topics
- Presented CalPERS' Compliance Program at the 2017 Education Forum
- Participated in outreach events to create awareness of the compliance program during CalPERS Career Fair and Take Our Daughters and Sons to Work Day
- Set baselines for Employee Awareness Survey, Stakeholder Assessment, and Maturity Program Assessment that support the CalPERS Five-Year Strategic Goal

Compliance Reporting

- Continued to expand compliance reporting to include program operations
- Updated the Enterprise Compliance Activity Report with additional metrics, including trend information

Incorporated Investment Office, Operations and Technology Branch, and Customer Services and Support into the Enterprise Compliance Fiscal Year 2017-18 Mid-Year Plan Update

EMBEDDED COMPLIANCE PROGRAM

An important strategy Enterprise Compliance uses to help meet compliance efforts is partnering with embedded compliance liaisons in key program areas to provide reporting mechanisms and help solidify the enterprise-wide culture of compliance. Embedded liaisons are individuals or team members that have a portion of their job function to help their program areas promote, coordinate, and facilitate compliance efforts. Sometimes referred to as Compliance Champions, the embedded compliance liaisons often help bridge compliance concerns between Enterprise Compliance and program team members.

Health Policy and Benefits Branch

The Health Policy and Benefits Branch (HPBB) administers and oversees the CalPERS Health Benefits Program and Long-Term Care Program. HPBB is composed of the following divisions:

- Health Account Management Division
- Health Benefits Administrative Support
- Health Plan Administration Division
- Health Policy Research Division

Policy Management

- Implemented health benefit delivery policies and procedures in compliance with the administration of the Public Employees’ Medical and Hospital Care Act (PEMHCA) and Affordable Care Act (ACA)

Compliance Monitoring and Oversight

- Conducted semi-annual my|CalPERS user access reviews to comply with information security standards

Compliance Reporting

- Developed and submitted annual report on health premium increases and decreases

FISCAL YEAR 2017-18 ETHICS AND COMPLIANCE PROGRAM INITIATIVES HIGHLIGHTS (CONTINUED)

Health Benefits Program

- Developed and submitted an annual report on Health Benefits Program pursuant to California Government Code Section 22866(a)

Customer Services and Support Branch

The Customer Services and Support (CSS) branch administers health and pension benefits as well as related services to our members and business partners, delivering end-to-end customer service that is adaptive to our customers' needs. Within CSS, the Embedded Compliance program supports a coordinated effort in ensuring compliance with applicable laws, regulations and polices which govern our business.

Communication

- Led efforts to address significant changes in the audit compliance and resolution process through the Audit Resolution Project
- The team developed a six-month process that incorporated communications, education, escalation, and enforcement phases
    - Provides structure and uniformity to increase efficiencies within CalPERS and with our business partners
    - Increased interactions and reduced response times resulted in 100 percent of surveyed agencies reporting they were "very satisfied" with the audit resolution process.

Compliance Monitoring and Oversight

Service Credit Purchase Elections Compliance

- Successfully resolved over 170 survivor benefit cases that did not receive a Service Credit purchase payment
- Collected over $1.1 million in outstanding accounts receivables contributing to the overall sustainability of the fund

Compliance Reporting

- Worked with business partners to reconcile retirement appointments in my|CalPERS and reduced the number of outstanding unreconciled appointments by 126,000, a reduction of over 50 percent
- Reduced the number of participant retirement enrollment appointments with missing payroll over 12-months by 94 percent

Investment Office

The Investment Compliance and Operational Risk office serves as an embedded compliance function and assists our Investment Office staff by ensuring compliance with key policies, laws, and regulations that impact the Investment Office.

Compliance Monitoring and Oversight

- Partnered with Investment Office's asset classes to produce and present the Assembly Bill (AB) 2833 (Alternative Investment Fee Transparency) report to the Investment Committee as part of the disclosure for Public Investment Funds

Controls Enhancements

- Worked with the Global Fixed Income team to design and implement additional controls to enhance pre-trade compliance reviews

Compliance Reporting

- Continued to lead the Investment roadmap initiative relating to broker selection and evaluation practices; and associated reporting and governance activities

Operations and Technology Branch

The Operations and Technology (OPT) Embedded Compliance Team acts as branch liaisons between OPT divisions and Enterprise Compliance, the Enterprise Risk Management Division and the Office of Audit Services, to help ensure compliance with mandatory training and disclosures, assist with policy creation and updates, and ensure compliance with contracting delegations of authority, as well as coordinating resolution of audit findings within OPT.

Information Technology Services

The Information Technology Services Branch (ITSB) partners with CalPERS business stakeholders to design and implement technology solutions that add business value and deliver customer focused results. These services include system analysis, design, programming, testing, implementation, and maintenance for major computer systems and databases. ITSB also provides technical support and training for personal computers, local area networks, and office automation facilities.

Compliance Monitoring and Oversight

- Coordinated and led the completion of the Identity Access Management Policy and Program which provides governance, oversight and management of enterprise identity and access management processes. The Identity Access Management Program's goal is to ensure that the right people have the right access, at the right time
- Facilitated the appropriate, timely management of user identities, and associated system access throughout the enterprise and by automating on-boarding, allowing for a streamlined user-provisioning and account set-up process

FISCAL YEAR 2017-18 ETHICS AND COMPLIANCE PROGRAM INITIATIVES HIGHLIGHTS (CONTINUED)

Operations Support Services Division

The Operations Support Services Division (OSSD) provides a variety of essential support services to the CalPERS Board, management, and staff. These include contracts management, copy and printing services, facilities and building management, mailroom and receiving services, parking and rideshare, purchasing, records and asset management and CalPERS Board Elections.

Embedded Compliance Program

- Collaborated with Enterprise Compliance Branch's Targeted Compliance Review of contracting practices
- Conducted a targeted compliance review of contracting practices resulting in strengthened internal controls
- Operations Support Services Division and Enterprise Compliance and presented to the Integrated Assurance Risk Council in March 2018
- Created a new Spring-Fed Pool/Letter of Engagement unit to support effective administration and oversight of Spring-Fed Pools
- Developed an enterprise-wide training/education plan regarding proper Spring-Fed Pool/Letter of Engagement use and is currently drafting procedures to standardize the letter of engagement process across the enterprise

Human Resource Services Division

The Human Resources Division leads the enterprise strategies in talent management practices to acquire, develop, motivate and retain a diverse, high-performing workforce, in compliance with applicable laws, rules and regulations.

Policy Management

- Partnered with Enterprise Compliance to develop and begin work on a formal policy management plan, to ensure all human resource policies are up to date and working as intended, in compliance with enterprise standards

Conflicts of Interest

- Enhanced Conflicts of Interest process
- Refined Form 700 notification process
- Human Resources and Enterprise Compliance developed a process to streamline identification of new staff or staff moving into positions required to file Form 700

Communications

- Improved Human Resources Process Documentation
- Worked with program staff to develop and improve process maps and desk manuals to provide consistency and ensure compliant processes.
- Enhanced Human Resources Leadership Development
- Offered CalPERS' leaders multiple opportunities for leadership training that counted toward the 20-hour requirement of ongoing biennial/leadership development training as stated in California Government Code 19995.4:
  - 15 seven-hour Leadership Development classes
  - One two-day workshop of Executive Presentation Skills
  - One two-day coaching clinic for 25 Emerging Leader Program mentors
  - Two Leadership Forums
  - One Executive Presentation Skills Panel Member Opportunity
  - Five Supervisory Skills Enhancement classes

Compliance Reporting

Improved Mandatory Training Reporting

- Operations and Technology Branch's embedded compliance team facilitated their branch's approximate 100% completion rate of mandatory trainings, Form 700 filings, and Personal Trading attestations.

SUMMARY

The compliance efforts at CalPERS continues to mature and make progress. The efforts of dedicated compliance resources and our internal partners is an investment in the long-term foundation of CalPERS' culture of ethical behavior and the processes that strengthen internal controls. Elements of compliance can be found interwoven in all six of CalPERS' Core Values of Quality, Respect, Accountability, Integrity, Openness, and Balance. Enterprise Compliance takes pride in helping with these efforts and will continue to give guidance and direction to help CalPERS continue to build a sustainable future based on a strong foundation of integrity and compliance.