

**DRAFT**

**2016-17**

**Comprehensive Annual Financial Report**

Fiscal Year Ended June 30, 2017

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COMPREHENSIVE ANNUAL FINANCIAL REPORT

Fiscal Year Ended June 30, 2017

Prepared through the joint efforts of CalPERS' team members.

Available online at [www.calpers.ca.gov](http://www.calpers.ca.gov)



California Public Employees' Retirement System

A Component Unit of the State of California

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# Introductory Section

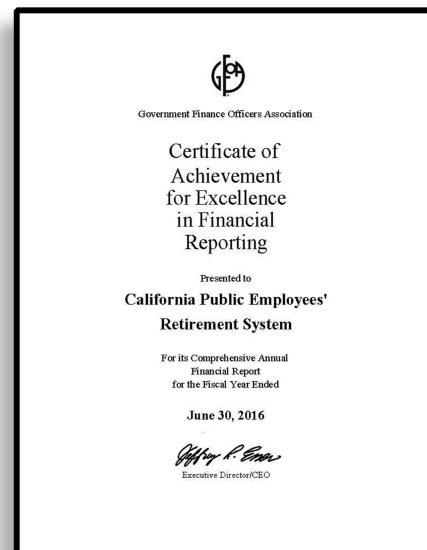
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## Introductory Section

### 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, 2016. This was the 21<sup>st</sup> 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.



#### 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, 2017. This is the 15<sup>th</sup> 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.



## Introductory Section (Continued)

### CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL



Marcie Frost  
*Chief Executive Officer*

November 30, 2017

#### **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, 2017.

Since coming to CalPERS as the new CEO in October 2016, I have focused on ensuring the long-term sustainability of the System. During this past fiscal year, we took a number of important steps to strengthen the Public Employees' Retirement Fund (PERF) and move toward our overall goal of fully funding pension benefits promised to members.

With that goal in mind, I'm pleased to report that as the financial markets have improved, so have our assets. Our investment assets increased by more than \$24 billion and stood at \$326 billion as of June 30, 2017, compared with \$302 billion as of June 30, 2016. The PERF realized a strong 11.2 percent overall net return on investments in Fiscal Year 2016-17 primarily due to the strong performance of financial markets. Our public equity investments had a 19.6 percent net return, followed by a double-digit return of 13.9 percent for private equity investments, and a 7.4 percent return in real assets.

While our investment performance improved from the prior fiscal year, uncertainties remained and lower returns may occur in the future. Therefore, the CalPERS Board made the difficult decision to lower the discount rate used for the PERF from 7.5 percent to 7.0 percent, which will be phased-in over the next three years. This will give our employers more time to plan their budgets as the change will increase unfunded liabilities and normal costs. The new discount rate for the State went into effect on July 1, 2017, while the change for

school districts and public agencies will take effect on July 1, 2018.

Our strategy to improve net returns also means cutting costs throughout our organization, while not compromising on quality service. In the last fiscal year, we decreased our overall investment expense costs by \$170 million. This was due in part to ongoing efforts to transition assets from external managers to internal managers where possible.

Operating more efficiently is critical as we are paying out more in retirement benefits than we receive in contributions. As of June 30, 2017, CalPERS paid out \$21.4 billion in benefits to more than 670,000 retirees and beneficiaries. This \$1.1 billion increase from the previous fiscal year is primarily due to an increase in the number of retirees and beneficiaries.

To help oversee all of our financial systems and risk programs, CalPERS named Charles Asubonten as our new Chief Financial Officer. Prior to his work at CalPERS, Mr. Asubonten served as a chief financial officer, group controller, finance director, treasury analyst, systems analyst, auditor, and accountant, and brings more than 20 years of experience in many facets of finance and investments.

Our work to reduce risk also moved us to develop new processes to monitor the financial health of public agencies. This was a result of two agencies that terminated their contracts and failed to uphold their pension commitment to their employees. Our processes will help us identify contracted employers' financial hardship issues sooner and notify the members and Board earlier to reduce the risk of benefit reduction. Pension obligations are a shared responsibility between the employer and the employee, and our processes will protect the System and beneficiaries well into the future.

## Introductory Section (Continued)

### CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

In Fiscal Year 2015-16 the *CalPERS for California* report showed more than 262,000 jobs were supported as a result of CalPERS' private asset class investments in California. Our investments provided \$27.3 billion in ancillary benefits to the California economy in Fiscal Year 2015-16 and represented 9.3 percent of the total PERF.

In health care, our Medicare and Basic (non-Medicare) rate increase was the lowest in 20 years. The changes approved by the Board in June 2017 will increase 2018 rates by an average of 2.33 percent overall. Other notable changes for 2018 include adding Western Health Advantage as a new Health Maintenance Organization (HMO) choice, expanding Health Net SmartCare coverage to new Placer County cities, and offering Kaiser Permanente to 13 counties in the State of Washington. For our Medicare members, we also added the well-regarded SilverSneakers community fitness program to Preferred Provider Organization (PPO) supplement plans. According to an analysis by our healthcare consultant, Mercer, CalPERS successfully negotiated low premium increases compared with larger purchasers for 2014-17, except for 2016.

Additionally, total assets in the California Employers' Retiree Benefit Trust Fund grew by \$1.3 billion along with the number of contracted employers, from 493 to 524 since last fiscal year. This optional program pre-funds retiree health, dental, and other non-pension post-employment obligations.

As we mark the end of the 2012-17 Strategic Plan, together we can be proud to look back at the many accomplishments that helped us deliver benefits to our more than 670,000 retirees and beneficiaries and serve nearly 2 million public service workers and their families.

#### Funding

The funded status of the PERF is 68.3 percent for Fiscal Year 2015-16 and the estimate for Fiscal Year 2016-17 holds at approximately 68.0 percent.

We have a clear plan forward to increase our funded status, but it will take time. Our plan to raise the funded status is built on three strategies: addressing financial challenges, operating our organization as efficiently as possible to contain costs, and following sound investment principles.

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

To help us achieve our immediate priority of long-term sustainability, the Board approved a new strategic plan that will guide CalPERS forward over the next five years. The

2017-22 Strategic Plan is a blueprint that will meet the investment, retirement, and health benefit needs of our members and their families for the years ahead.

The Board has had to make some tough decisions over the last fiscal year to further strengthen the System. Over the next fiscal year, we plan to take every opportunity to operate efficiently and reduce costs where possible with a focus on our members' retirement security.

To ensure we meet our goals, I will continue to lead CalPERS with five principles: be customer service driven; achieve high levels of team member engagement; be a reliable partner; maintain efficient and effective operations; and be a best practice leader. These principles will help influence the decisions we make as we embark on the next fiscal year.

This is our 85<sup>th</sup> anniversary, and our commitment to retirement security and wellness ensures your pension and health benefits are protected.

#### Management Responsibility for Financial Reporting

CalPERS' management prepared the financial statements in this CAFR for Fiscal Year 2016-17. 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 (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 auditors, Macias Gini & O'Connell LLP, have conducted an audit of the Basic Financial Statements in accordance with auditing standards generally accepted in the United States and *Government Auditing*

## Introductory Section (Continued)

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### CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

*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 auditors also have 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' 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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## Introductory Section (continued)

### 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 \$326 billion as of June 30, 2017.

Headquartered in Sacramento, CalPERS provides retirement benefit services to more than 1.9 million members and health benefit services to 1.4 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 1,259,123 active and inactive members and 670,347 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 trusted leader respected by our members and stakeholders for our integrity, innovation, and service.

### MISSION

Provide responsible and efficient stewardship of the System to deliver promised retirement and health benefits, while promoting wellness and retirement security for members and beneficiaries.

### 2012-17 STRATEGIC PLAN GOALS AND OBJECTIVES

#### Goal A: Improve long-term pension and health benefit sustainability

- Fund the System through an integrated view of pension assets and liabilities.
- Educate employers and other stakeholders to make informed decisions about retirement security and health care.
- Deliver target risk-adjusted investment returns.
- Ensure high-quality, accessible, and affordable health benefits.
- Create a lifestyle of wellness among members and employers.

#### Goal B: Cultivate a high-performing, risk-intelligent, and innovative organization

- Use a focused approach to generate, test, refine, and implement new ideas.
- Deliver superior end-to-end customer service that is adaptive to customer needs.
- Recruit, retain, develop, and empower a broad range of talents against organizational priorities.
- Actively manage business risks with an enterprise-wide view.

#### Goal C: Engage in state and national policy development to enhance the long-term sustainability and effectiveness of our programs

- Clarify and communicate CalPERS' perspective on pension, health, and financial markets.
- Provide education and engagement opportunities to shape policy agenda and expand impact.

**Note:** The Vision, Mission, and Strategic Plan detailed above were in effect through June 30, 2017. For the current Vision, Mission, and Strategic Plan effective July 1, 2017, refer to the CalPERS website, [www.calpers.ca.gov](http://www.calpers.ca.gov).

## Introductory Section (continued)

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### 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.

## Introductory Section (continued)

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### 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.

## Introductory Section (continued)

### BOARD OF ADMINISTRATION



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



**Richard Costigan**  
Ex Officio Member  
State Personnel Board Representative



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



**Richard Gillihan**  
Ex Officio Member  
Director  
California Department of Human  
Resources



**Michael Bilbrey**  
All Member Representative  
Bookstore Operations Coordinator  
Citrus Community College  
Term Ends: January 15, 2018



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



**John Chiang**  
Ex Officio Member  
California State Treasurer



**JJ Jelincic**  
All Member Representative  
Investment Officer III  
CalPERS  
Term Ends: January 15, 2018

## Introductory Section (continued)

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### BOARD OF ADMINISTRATION (CONTINUED)



**Ron Lind**  
Appointed Jointly by the Senate Rules  
Committee and the Speaker of the  
Assembly  
Public Representative



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



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



**Betty Yee**  
Ex Officio Member  
California State Controller

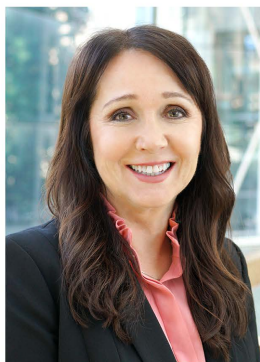


**Bill Slaton**  
Governor Appointee  
Local Government Elected Official  
Elected Board Member of  
Sacramento Municipal Utility District



## Introductory Section (continued)

### ORGANIZATIONAL CHART – EXECUTIVE STAFF



**Marcie Frost**  
Chief Executive Officer



**Marlene Timberlake D'Adamo**  
Interim Chief Financial Officer  
*Financial Office*



**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*



**Liana Bailey-Crimmins**  
Chief Health Director  
*Health Policy & Benefits*



**Brad W. Pacheco**  
Deputy Executive Officer  
*Communications &  
Stakeholder Relations*

## Introductory Section (continued)

### CONSULTANT & PROFESSIONAL SERVICES

Individual or Firm <sup>1</sup>	Individual or Firm <sup>1</sup>	Individual or Firm <sup>1</sup>
Accenture, LLP	Innovative Software Technologies, Inc.	Softsol Technologies, Inc.
Aisitech, LLC	IVS/Everyone Counts, Inc.	Sophus Consulting
Allied Network Solutions, Inc.	J & K Court Reporting, LLC	SRI Infotech, Inc.
Anthem Blue Cross	Jay Gaines & Company, Inc.	State Controller's Office
ATV Video Center, Inc.	JLynn Consulting, Inc.	Steptoe & Johnson, LLP
Avenue Solutions	K & L Gates, LLP	Stoel Rives, LLP
Baker Hostetler	KearnFord Application Systems Design	T5 Consulting
Base 3 Consulting	King & Spalding, LLP	Take 1 Productions
Bedrosian & Associates	Knowledge Structures, Inc.	Teranomic
Belmonte Enterprises, LLC	Kong Consulting, Inc.	TG Page Design Group
Blue Shield of California	LCS Technologies, Inc.	The Ballard Group, Inc.
BluePath Health	Long-Term Care Group, Inc.	The Harry Walker Agency, Inc.
Business Advantage Consulting, Inc.	Lussier Group	The Taylor Feldman Group, LLC
California Department of Corrections & Rehabilitation	Macias Gini & O'Connell LLP	Thomson Reuters
California Department of Health Care Services	Matrix Software Services	Trinity Technology Group, Inc.
Carahsoft Technology Corp.	Mazel Immigration Law, PC	Truven Health Analytics, LLC
Cast Software, Inc.	McKinsey & Company, Inc.	United Health Actuarial Services, Inc.
Centers for Disease Control	Mellon Bank	United Healthcare
CoachSource, LLC	Mercer Health and Benefits	Unleashing Leaders, Inc.
Conduent HR Consulting, LLC	Michael Scales Consulting, LLC	Van Dermeyden Maddux Law Corporation
Cooperative Personnel Services, Inc.	Milliman, Inc.	Vantage Consulting Group, Inc.
Cornerstone Fitness, Inc.	Modis, Inc.	VanWrite Writing Consultants, LLC
Corporate Executive Board	National Association of Corporate Directors	Vasquez Benisek & Lindgren, LLP
Cutter Associates, LLC	Nichols Consulting	Viaspire
CVS Caremark	Northeast Retirement Services	Visionary Integration Professionals, LLC (VIP)
Delegata Corporation	Nossaman, LLP	Voya
Delfino Madden O'Malley Coyle & Koewler, LLP	OnCore Consulting, LLC	VPI Strategies
Department of Finance	Ope Technology, LLC	Warrigal Consulting, Inc.
Department of Human Resources	OptumRx	Worktank Enterprises, LLC
Department of Justice	Orrick Herrington & Sutcliffe, LLP	
DLT Solutions	Pacific Business Group on Health	
Drinker Biddle & Reath, LLP	Pasanna Consulting Group, LLC	
DSS Research	Paul Benefits Law Corporation	
Eagle Management Group, LLC, dba Matran	Persell Design Group, LLC	
Eaton Interpreting Services, Inc.	President and Fellows of Harvard College	
Elegant Enterprise Wide Solutions, Inc.	Princeton Solutions Group, Inc.	
Elynview Corporation	Propoint Technology, Inc.	
Enterprise Networking Solutions, Inc.	Qualapps, Inc.	
Enterprise Services, LLC	Radian Solutions, LLC	
Equanim Technologies	Randstad Technologies US, LP	
Esoft Infosystems, Inc.	Recon Distribution, Inc.	
Eterasys Consulting, Inc.	Reed Smith, LLP	
Experis US, Inc.	Regents of the University of CA, Davis	
First Data Merchant Services Corporation	Ridgeway Partners, LLC	
Fortuna BMC	Root9B Technologies, Inc.	
Gartner, Inc.	RR Donnelley	
Government Operations Agency	Runyon Saltzman, Inc.	
GovernmentJobs.com, Inc., dba NEOGOV	Saba Software, Inc.	
Grant Thornton, LLP	Senn-Delaney Leadership Conslt Group, LLC	
Group One Consultants, Inc.	Shah & Associates, A Professional Law	
H&B Joint Venture	Sharp Health Plan	
Health Net of California	Shooting Star Solutions, LLC	
Heidrick & Struggles	Sign Language Interpreting Service Agency	

(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 can be found in the Investment Section on pages 102-103.

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# Financial Section

## Independent Auditor's Report/MD&A

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# Management's Discussion & Analysis (Unaudited)

## INTRODUCTION

This section presents Management's Discussion and Analysis of the California Public Employees' Retirement System's (CalPERS or the System) financial performance during the fiscal year ended June 30, 2017. 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. 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 and 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 CalPERS 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 to meet the goals of the 2012-17 Strategic Plan 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 that drive optimum asset allocations, while stabilizing employer rates, and volatility of those rates 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.
- CalPERS' new 5-year sustainable investment strategy on integrating environmental, social, and governance (ESG) factors 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
  - Engage United Nations Principles for Responsible Investment (UN PRI) Montreal Pledge Companies
  - Diversity and Inclusion
  - Manager Expectations
  - Research
  - Private Equity Fee and Profit Sharing Transparency

Core work areas within the ESG group remain focused on Federal and Legislative Guidelines, Proxy Voting, Corporate Engagement, Responsible Contractor Program, and Carbon Footprinting.

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

- In May 2016, the CalPERS Board approved Blue Shield's request to terminate its NetValue Health Maintenance Organization (HMO) health plan. Blue Shield's NetValue exit was effective January 1, 2017, but the Blue Shield Access+ HMO health plan continues to be available as an option to members.
- In May 2016, CalPERS selected OptumRx as the new Pharmacy Benefits Manager (PBM). The company is administering prescription drug benefits for the members and their dependents enrolled in CalPERS' health plans with the exception of the Kaiser and Blue Shield of California (HMO) plans. The five-year contract took effect January 1, 2017, and ends December 31, 2021. It will cover pharmacy benefits for members enrolled in CalPERS' self-funded PERS Select, PERS Choice, and PERSCare Preferred Provider Organization health plans, in addition to those members enrolled in the Anthem Blue Cross, HealthNet, Sharp, and UnitedHealthcare HMO plans.
- The CalPERS Information Security Office (ISOF) directs ongoing efforts that enhance CalPERS' information security capabilities to protect members' privacy and the safety of CalPERS' information assets. The ISOF conducts annual risk assessments and identifies, prioritizes, and selects initiatives that support CalPERS' business initiatives to effectively respond to the evolving threat landscape. In addition, CalPERS uses the federal Cybersecurity Framework (CSF) published by the National Institute of Standards and Technology to organize its cybersecurity capabilities. Using the CSF structure of "Identify, Protect, Detect, Respond, and Recover" helps ensure that our cybersecurity initiatives most effectively address current and future cybersecurity risks. CalPERS continues to demonstrate a strong commitment to identifying and implementing operating capabilities that protect our members, stakeholders, and business operations, resulting in nimble, proactive, and responsive information security processes and protocols that enable CalPERS to maintain and continually improve its security profile.

## OVERVIEW OF THE FINANCIAL STATEMENTS AND ACCOMPANYING INFORMATION

Management's Discussion and 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, 2017. 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:

- Governmental Accounting Standards Board (GASB) Statement No. 84, *Fiduciary Activities* (GASB 84), is effective for financial statements for fiscal years beginning after December 15, 2018. CalPERS has elected to early implement this standard. As a result, the Replacement Benefit Fund (RBF), which was previously classified as an agency fund, has been reclassified to a custodial fund. The RBF reported activity in the Statement of Changes in Fiduciary Net Position for Fiscal Year 2016-17, and will report a net position balance going forward.
- The Public Employees' Retirement Fund (PERF) realized a money-weighted rate of return (MWRR) of 11.2 percent in Fiscal Year 2016-17 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.
- CalPERS continued to realize investment expense reductions during Fiscal Year 2016-17. Overall, CalPERS realized a total investment expense reduction of \$169.9 million from Fiscal Year 2015-16. Contributing factors included focuses on reducing cost, complexity, risk, and fewer but more strategic partnerships with external investment managers. Reductions also came from continued discussions with general partners, limited partners, and other various agencies regarding opportunities for increased collaboration and disclosure to manage investment portfolios in a cost-effective, transparent, and risk-aware manner.

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

- In September 2016, CalPERS adopted an interim asset allocation strategy for the PERF through July 2018 to continue the focus on long-term returns and sustainability of the fund. 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. Factors contributing to the Board's decision included: volatility of financial markets, challenging global economic conditions, current funding status of the PERF, and cash flow projections.
- In the December 2016 and April 2017 meetings, the Board voted to lower the funding discount rates used for the PERF, Legislators' Retirement Fund (LRF), Judges' Retirement Fund (JRF), and Judges' Retirement Fund II (JRF II). 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. The lowered funding discount rate for the PERF will be phased in over a three-year period beginning July 1, 2017, for the State and July 1, 2018, for public agencies and school districts. The lowered funding discount rate for the LRF, JRF, and JRF II took effect in April 2017.

### BASIC FINANCIAL STATEMENTS

The June 30, 2017, 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 A, PERF B, PERF C, LRF, JRF, JRF II, Public Employees' Deferred Compensation Fund (DCF), Supplemental Contributions Program Fund (SCPF), 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, 2017, along with comparative total information as of and for fiscal year ended June 30, 2016. 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 combined (for financial reporting purposes only) Health Care Fund (HCF) and 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, 2017, along with comparative total information as of and for fiscal year ended June 30, 2016. 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,

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

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 less than 100 active members.

Movements of member account asset balances occur between PERF A, PERF B, and PERF C when employer rate plans have less 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 \$27.8 billion or 9.3 percent compared with the prior year primarily due to favorable market conditions. Receivables decreased \$10.9 billion or 60.1 percent due to reduced outstanding

investment trades as of year end. Investment balances increased by \$24.4 billion from \$302.0 billion as of June 30, 2016, to \$326.4 billion as of June 30, 2017. Securities lending collateral decreased \$8.0 billion or 62.5 percent and securities lending obligations decreased \$7.9 billion or 62.4 percent as a result of an overall decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased \$14.2 billion or 61.0 percent due to reduced outstanding investment trades as of year end.

Additions to the PERF net position include member contributions, employer contributions, and investment income. Member contributions increased \$0.2 billion or 5.0 percent due to an increase in the number of active members who contribute, which increased from 873,026 at June 30, 2016, to 887,220 at June 30, 2017. Employer contribution rates increased between 0.6 percent and 3.3 percent for State, 2.0 percent for schools, and between 1.5 percent and 1.9 percent on average for public agency miscellaneous and safety plans. The increase in both employer contribution rates and active members who contribute resulted in an increase in employer contributions of \$1.4 billion or 13.2 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 increased from \$1.4 billion in Fiscal Year 2015-16 to \$33.0 billion in Fiscal Year 2016-17, as returns were higher due to strengthened market conditions. The current year returns were helped by gains in CalPERS' public equity and private equity programs. Additionally, the PERF recognized a MWRR of 11.2 percent for Fiscal Year 2016-17 compared with 0.5 percent for Fiscal Year 2015-16.

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 2016-17, retirement, death, and survivor benefits increased \$1.1 billion or 5.6 percent, primarily due to a rise in the number of retirees and beneficiaries from 648,645 as of June 30, 2016, to 668,059 as of June 30, 2017. Administrative expenses increased primarily due to the amortization of intangible assets that were capitalized in Fiscal Year 2016-17. Additionally, administrative expenses were lower in Fiscal Year 2015-16 due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.



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

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

	PERF A	PERF B	PERF C			
	Agent	Cost-Sharing Schools	Cost-Sharing Public Agencies	2017 PERF Total	2016 PERF Total	Increase/ (Decrease)
<b>ASSETS</b>						
Cash & Cash Equivalents	\$961,730	\$246,570	\$110,753	\$1,319,053	\$1,110,492	\$208,561
Receivables	5,376,819	1,319,575	531,172	7,227,566	18,109,500	(10,881,934)
Investments	238,105,245	60,996,323	27,304,544	326,406,112	301,982,051	24,424,061
Securities Lending Collateral	3,471,852	890,121	399,819	4,761,792	12,714,487	(7,952,695)
Capital Assets, Net & Other Assets	436,899	112,013	50,313	599,225	701,741	(102,516)
<b>Total Assets</b>	<b>\$248,352,545</b>	<b>\$63,564,602</b>	<b>\$28,396,601</b>	<b>\$340,313,748</b>	<b>\$334,618,271</b>	<b>\$5,695,477</b>
<b>LIABILITIES</b>						
Retirement Benefits, Investment Settlement & Other	\$6,628,824	\$1,677,285	\$753,222	\$9,059,331	\$23,250,171	(\$14,190,840)
Securities Lending Obligations	3,467,205	888,930	399,284	4,755,419	12,664,098	(7,908,679)
<b>Total Liabilities</b>	<b>\$10,096,029</b>	<b>\$2,566,215</b>	<b>\$1,152,506</b>	<b>\$13,814,750</b>	<b>\$35,914,269</b>	<b>(\$22,099,519)</b>
<b>TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS</b>	<b>\$238,256,516</b>	<b>\$60,998,387</b>	<b>\$27,244,095</b>	<b>\$326,498,998</b>	<b>\$298,704,002</b>	<b>\$27,794,996</b>

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

	PERF A	PERF B	PERF C			
	Agent	Cost-Sharing Schools	Cost-Sharing Public Agencies	2017 PERF Total	2016 PERF Total	Increase/ (Decrease)
<b>ADDITIONS</b>						
Member Contributions	\$3,000,116	\$897,438	\$317,024	\$4,214,578	\$4,015,754	\$198,824
Employer Contributions	9,565,742	1,783,736	980,359	12,329,837	10,892,489	1,437,348
Net Investment Income	24,032,118	6,183,341	2,761,561	32,977,020	1,398,927	31,578,093
Securities Lending & Other Income	111,808	28,440	12,760	153,008	149,494	3,514
Plan to Plan Resource Movement	132	16	134,513	134,661	49,803	84,858
<b>Total Additions</b>	<b>\$36,709,916</b>	<b>\$8,892,971</b>	<b>\$4,206,217</b>	<b>\$49,809,104</b>	<b>\$16,506,467</b>	<b>\$33,302,637</b>
<b>DEDUCTIONS</b>						
Retirement, Death & Survivor Benefits	\$15,952,745	\$3,650,554	\$1,612,590	\$21,215,889	\$20,093,933	\$1,121,956
Refund of Contributions	129,907	74,356	18,012	222,275	238,821	(16,546)
Administrative Expenses	321,742	82,489	37,052	441,283	184,426	256,857
Plan to Plan Resource Movement	134,511	150	—	134,661	49,803	84,858
<b>Total Deductions</b>	<b>\$16,538,905</b>	<b>\$3,807,549</b>	<b>\$1,667,654</b>	<b>\$22,014,108</b>	<b>\$20,566,983</b>	<b>\$1,447,125</b>
<b>INCREASE (DECREASE) IN NET POSITION</b>	<b>\$20,171,011</b>	<b>\$5,085,422</b>	<b>\$2,538,563</b>	<b>\$27,794,996</b>	<b>(\$4,060,516)</b>	<b>\$31,855,512</b>
<b>NET POSITION</b>						
Beginning of Year	\$218,085,505	\$55,912,965	\$24,705,532	\$298,704,002	\$302,764,518	(\$4,060,516)
End of Year	<b>\$238,256,516</b>	<b>\$60,998,387</b>	<b>\$27,244,095</b>	<b>\$326,498,998</b>	<b>\$298,704,002</b>	<b>\$27,794,996</b>

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

### 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 those 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 2016-17 net position of the LRF decreased by \$2.2 million or 1.8 percent compared with the prior year. Receivables decreased by \$9.4 million or 73.8 percent due to reduced outstanding investment trades as of year end. Investments at fair value decreased \$5.2 million or 4.2 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 decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased \$12.2 million or 65.1 percent due to reduced outstanding investment trades as of year end.

Additions to the LRF's net position primarily came from net investment income of \$5.0 million in Fiscal Year 2016-17. This was an increase of \$0.5 million or 11.0 percent and was primarily due to gains from the sale of investment holdings. The LRF recognized a MWRR of 4.3 percent for Fiscal Year 2016-17 compared with 3.8 percent for Fiscal Year 2015-16. Partially offsetting this increase was a decrease in combined member and employer contributions due to fewer active participants contributing to the fund.

Deductions from the LRF are primarily comprised of benefit payments, refunds, and administrative expenses. Total deductions increased by \$0.2 million or 2.8 percent due primarily to an increase of \$0.4 million in administrative expenses, which were lower in Fiscal Year 2015-16 due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16. This increase was partially offset by combined decreases in benefit payments and refund of contributions of \$0.2 million or 2.1 percent in Fiscal Year 2016-17.

#### 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 2016-17 net position increased \$8.5 million or 21.3 percent due to increased contributions from the State General Fund. Liabilities decreased \$0.3 million or 56.5 percent due primarily to reduced outstanding unclaimed benefits in the current year.

Additions to the JRF come from employer, member, and state "balancing contributions," which increased \$12.0 million or 6.1 percent as a whole primarily due to an increase in the State General Fund contributions. The fund held a surplus cash balance in prior fiscal years, which resulted in a reduction to General Fund contributions necessary to pay participant benefits. With that surplus now liquidated, General Fund contributions increased for Fiscal Year 2016-17 to pay benefits.

Deductions from the JRF include benefit payments, which increased \$1.2 million or 0.6 percent due to an increase in the number of benefit recipients receiving distributions from the Extended Service Incentive Program. Administrative expenses of the fund increased \$1.1 million primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.

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

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### 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 \$183.1 million or 15.6 percent compared with the prior year. Receivables decreased by \$75.3 million or 65.3 percent primarily due to reduced outstanding investment trades as of year end. JRF II investment balances increased by \$165.5 million or 13.7 percent primarily due to favorable market conditions. Securities lending cash collateral and securities lending obligations decreased as a result of decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, retirement benefits, investment settlement, and other liabilities decreased \$90.0 million or 58.1 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 state judges' salaries and an

increase in the number of active members from 1,491 as of June 30, 2016, to 1,508 as of June 30, 2017. Member contributions increased \$0.5 million or 1.9 percent, while employer contributions increased \$1.3 million or 1.9 percent. The fund had an increase in net investment income of \$94.1 million from \$20.2 million in Fiscal Year 2015-16, to \$114.3 million in Fiscal Year 2016-17. This increase resulted from improved performance in the investment markets. Additionally, the JRF II recognized a MWRR of 9.6 percent for Fiscal Year 2016-17 compared with 1.9 percent for Fiscal Year 2015-16.

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 \$0.8 million or 3.6 percent due to an increase in benefit recipients from 134 in Fiscal Year 2015-16 to 170 in Fiscal Year 2016-17. Overall administrative expenses increased primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.



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

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

	LRF			JRF			JRF II		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
<b>ASSETS</b>									
Cash & Cash Equivalents	\$350	\$75	\$275	\$5	\$0	\$5	\$4,122	\$1,369	\$2,753
Receivables	3,356	12,795	(9,439)	2,464	2,486	(22)	39,919	115,205	(75,286)
Investments	119,724	124,962	(5,238)	46,048	37,864	8,184	1,377,120	1,211,586	165,534
Securities Lending Collateral	766	3,514	(2,748)	—	—	—	17,979	53,795	(35,816)
<b>Total Assets</b>	<b>\$124,196</b>	<b>\$141,346</b>	<b>(\$17,150)</b>	<b>\$48,517</b>	<b>\$40,350</b>	<b>\$8,167</b>	<b>\$1,439,140</b>	<b>\$1,381,955</b>	<b>\$57,185</b>
<b>LIABILITIES</b>									
Retirement Benefits, Investment Settlement & Other	\$6,547	\$18,779	(\$12,232)	\$242	\$556	(\$314)	\$65,086	\$155,174	(\$90,088)
Securities Lending Obligations	765	3,517	(2,752)	—	—	—	17,955	53,828	(35,873)
<b>Total Liabilities</b>	<b>\$7,312</b>	<b>\$22,296</b>	<b>(\$14,984)</b>	<b>\$242</b>	<b>\$556</b>	<b>(\$314)</b>	<b>\$83,041</b>	<b>\$209,002</b>	<b>(\$125,961)</b>
<b>TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS</b>	<b>\$116,884</b>	<b>\$119,050</b>	<b>(\$2,166)</b>	<b>\$48,275</b>	<b>\$39,794</b>	<b>\$8,481</b>	<b>\$1,356,099</b>	<b>\$1,172,953</b>	<b>\$183,146</b>

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

	LRF			JRF			JRF II		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
<b>ADDITIONS</b>									
Member Contributions	\$94	\$97	(\$3)	\$3,398	\$3,559	(\$161)	\$25,076	\$24,598	\$478
Employer Contributions	516	549	(33)	204,475	192,287	12,188	67,102	65,839	1,263
Net Investment Income	5,006	4,511	495	424	194	230	114,331	20,213	94,118
Securities Lending & Other Income	42	34	8	2,395	2,568	(173)	726	597	129
<b>Total Additions</b>	<b>\$5,658</b>	<b>\$5,191</b>	<b>\$467</b>	<b>\$210,692</b>	<b>\$198,608</b>	<b>\$12,084</b>	<b>\$207,235</b>	<b>\$111,247</b>	<b>\$95,988</b>
<b>DEDUCTIONS</b>									
Retirement, Death & Survivor Benefits	\$6,960	\$7,028	(\$68)	\$200,440	\$199,271	\$1,169	\$22,326	\$21,549	\$777
Refund of Contributions	289	379	(90)	—	78	(78)	80	155	(75)
Administrative Expenses	575	203	372	1,771	642	1,129	1,683	732	951
<b>Total Deductions</b>	<b>\$7,824</b>	<b>\$7,610</b>	<b>\$214</b>	<b>\$202,211</b>	<b>\$199,991</b>	<b>\$2,220</b>	<b>\$24,089</b>	<b>\$22,436</b>	<b>\$1,653</b>
<b>INCREASE (DECREASE) IN NET POSITION</b>	<b>(\$2,166)</b>	<b>(\$2,419)</b>	<b>\$253</b>	<b>\$8,481</b>	<b>(\$1,383)</b>	<b>\$9,864</b>	<b>\$183,146</b>	<b>\$88,811</b>	<b>\$94,335</b>
<b>NET POSITION</b>									
<b>Beginning of Year</b>	<b>\$119,050</b>	<b>\$121,469</b>	<b>(\$2,419)</b>	<b>\$39,794</b>	<b>\$41,177</b>	<b>(\$1,383)</b>	<b>\$1,172,953</b>	<b>\$1,084,142</b>	<b>\$88,811</b>
<b>End of Year</b>	<b>\$116,884</b>	<b>\$119,050</b>	<b>(\$2,166)</b>	<b>\$48,275</b>	<b>\$39,794</b>	<b>\$8,481</b>	<b>\$1,356,099</b>	<b>\$1,172,953</b>	<b>\$183,146</b>

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

### 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 could 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 fund. In September 2016, the CalPERS Board adopted an interim asset allocation for the PERF through July 2018 that lowers investment risk but largely keeps 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 2016, the CalPERS Board voted to lower the funding discount rate for the PERF from 7.50 percent to 7.00 percent. Additionally, the Board approved separate timelines for implementing the new funding rates for state, school, and public agencies, which will be phased in over a three-year period. The new funding discount rate for the State will impact employer rates beginning in Fiscal Year 2017-18, while the new rate for schools and public agencies will impact employer rates beginning in Fiscal Year 2018-19, allowing schools and public agencies additional time to plan for rate increases.

In February 2017, the Board adopted modifications to the Funding Risk Mitigation Policy, which provides for an incremental reduction in the discount rate for the PERF in years when investment performance significantly outperforms the discount rate. The policy also triggers adjustments to expected investment return and strategic asset allocation targets. The Board voted to suspend the policy until Fiscal Year 2020-21.

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 fund.

### FUNDING ANALYSIS – DEFINED BENEFIT PLANS

The CalPERS Board has made several important historical decisions which impact the current funding of pension benefits at CalPERS. In April 2013, the CalPERS Board approved new actuarial policies that included a rate-smoothing method with a 30-year fixed amortization period for gains and losses. In February 2014, the CalPERS Board voted to include future mortality improvements in the actuarial assumptions. In April 2014, the Board adopted an experience study completed by CalPERS which focused on patterns of termination, death, disability, retirement, and salary increases. The assumptions included in this study are still used in setting current contribution rates. 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 2017-18.

As of June 30, 2016, the funded status of the PERF was 68.3 percent. The funded status as of June 30, 2017, is estimated to be approximately 68.0 percent. Both of these PERF funded status values were calculated using a 7.0 percent discount rate. As of June 30, 2016, the funded status of the JRF II was 92.2 percent. The funded status as of June 30, 2017, is estimated to increase to approximately 95.1 percent, mostly as a result of investment returns in Fiscal Year 2016-17. Both JRF II funded status values were calculated using a 6.5 percent discount rate. As of June 30, 2016, the funded status of the LRF was 111.3 percent. The funded status as of June 30, 2017, is estimated to decrease to approximately 111.2 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 the three-year phase-in, funding discount rates for PERF employers will decrease from 7.50 percent to

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

7.375 percent, from 7.375 percent to 7.25 percent, and finally from 7.25 percent to 7.00 percent.

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 decreased from 7.65 percent to 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 will impact employer rates beginning in Fiscal Year 2017-18. These funding rates are used in the June 30, 2016, actuarial valuation reports for the LRF, JRF, and JRF II. The LRF funding discount rate was lowered from 5.75 percent to 5.00 percent, JRF was lowered from 4.25 percent to 3.25 percent, and JRF II was lowered from 7.00 percent to 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, 2017:

Fund	Funding Discount Rate	Financial Reporting Discount Rate
LRF	5.00%	5.25%
JRF	3.25%	3.56%
JRF II	6.50%	6.65%

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

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### 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 \$154.2 million or 11.9 percent primarily due to increased investment income and decreased participant withdrawals. Net investment income increased by \$124.8 million from \$7.5 million in Fiscal Year 2015-16 to \$132.3 million in Fiscal Year 2016-17 due to favorable market conditions. Member contributions in the fund increased \$4.2 million or 3.9 percent compared with prior year.

Overall total deductions in the DCF decreased by \$74.1 million or 43.9 percent. This was primarily due to a decrease in participant withdrawals from the plan of \$74.0 million from \$164.4 million in Fiscal Year 2015-16 to \$90.3 million in Fiscal Year 2016-17.

#### 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 \$3.7 million or 2.9 percent. Despite an increase in net investment income for the year, the overall decrease to the net position of the SCPF was primarily due to participant withdrawals exceeding total additions to the fund. Net investment income increased by \$6.5 million, from \$0.4 million in Fiscal Year 2015-16 to \$6.9 million in Fiscal Year 2016-17.

The primary deductions in the SCPF reflect withdrawals made by former State Peace Officers' and Firefighters' (SPOFF) participants subsequent to the termination date. Participant withdrawals decreased \$5.1 million, from \$16.1 million as of Fiscal Year 2015-16 to \$11.0 million as of Fiscal Year 2016-17.

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

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

	DCF			SCPF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
<b>ASSETS</b>						
Cash & Cash Equivalents	\$2	\$0	\$2	\$1	\$0	\$1
Receivables	16,147	14,586	1,561	838	898	(60)
Investments	1,431,283	1,277,596	153,687	120,818	124,509	(3,691)
<b>Total Assets</b>	<b>\$1,447,432</b>	<b>\$1,292,182</b>	<b>\$155,250</b>	<b>\$121,657</b>	<b>\$125,407</b>	<b>(\$3,750)</b>
<b>LIABILITIES</b>						
Retirement Benefits, Investment Settlement & Other	\$2,826	\$1,775	\$1,051	\$953	\$1,053	(\$100)
<b>Total Liabilities</b>	<b>\$2,826</b>	<b>\$1,775</b>	<b>\$1,051</b>	<b>\$953</b>	<b>\$1,053</b>	<b>(\$100)</b>
<b>TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS</b>	<b>\$1,444,606</b>	<b>\$1,290,407</b>	<b>\$154,199</b>	<b>\$120,704</b>	<b>\$124,354</b>	<b>(\$3,650)</b>

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

	DCF			SCPF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
<b>ADDITIONS</b>						
Member Contributions	\$110,258	\$106,072	\$4,186	\$246	\$269	(\$23)
Employer Contributions	962	909	53	—	—	—
Net Investment Income	132,305	7,541	124,764	6,890	416	6,474
Other Income	5,583	5,354	229	628	668	(40)
<b>Total Additions</b>	<b>\$249,108</b>	<b>\$119,876</b>	<b>\$129,232</b>	<b>\$7,764</b>	<b>\$1,353</b>	<b>\$6,411</b>
<b>DEDUCTIONS</b>						
Administrative Expenses	\$4,576	\$4,677	(\$101)	\$373	\$330	\$43
Participant Withdrawals	90,333	164,362	(74,029)	11,041	16,130	(5,089)
<b>Total Deductions</b>	<b>\$94,909</b>	<b>\$169,039</b>	<b>(\$74,130)</b>	<b>\$11,414</b>	<b>\$16,460</b>	<b>(\$5,046)</b>
Interfund Transfer In	\$0	\$0	\$0	\$0	\$5,582	(\$5,582)
<b>INCREASE (DECREASE) IN NET POSITION</b>	<b>\$154,199</b>	<b>(\$49,163)</b>	<b>\$203,362</b>	<b>(\$3,650)</b>	<b>(\$9,525)</b>	<b>\$5,875</b>
<b>NET POSITION</b>						
Beginning of Year	\$1,290,407	\$1,339,570	(\$49,163)	\$124,354	\$133,879	(\$9,525)
End of Year	<b>\$1,444,606</b>	<b>\$1,290,407</b>	<b>\$154,199</b>	<b>\$120,704</b>	<b>\$124,354</b>	<b>(\$3,650)</b>

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

### 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, 2017, increased \$1.7 billion or 32.6 percent primarily due to significant increases in employer contributions in Fiscal Year 2016-17, combined with improved investment returns. Receivables decreased \$247.0 million or 62.8 percent due to reduced outstanding investment trades as of year end. Investments at fair value increased \$1.6 billion or 29.7 percent due to favorable market conditions and greater employer contributions. Securities lending cash collateral and securities lending obligations decreased as a result of decrease in demand to borrow securities at year end, along with an increase in demand to borrow securities with non-cash securities as collateral. Similar to receivables, other post-employment benefits, investment settlement, and other liabilities decreased \$312.2 million or 50.0 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 and net investment income. Employer contributions increased \$2.0 billion or 110.9 percent, primarily due to increased contributions among existing participating employers. During Fiscal Year 2016-17, the fund experienced net investment income of \$560.0 million, an increase of \$483.3 million from a net investment return of \$76.6 million in Fiscal Year 2015-16. The increase resulted from improved performance in investment markets. Additionally, the CERBTf recognized a MWRR of 10.0 percent in Fiscal Year 2016-17, compared with 1.6 percent in Fiscal Year 2015-16.

Deductions from the CERBTf net position restricted for OPEB benefits were primarily made up of employer reimbursements, which increased \$1.4 billion or 115.3 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 \$2.6 billion for Fiscal Year 2016-17 compared with \$1.1 billion in Fiscal Year 2015-16. Administrative expenses increased primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16 and increases in internal costs to administer the fund in Fiscal Year 2016-17.

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

	CERBTf		
	2017	2016	Increase/ (Decrease)
<b>ASSETS</b>			
Cash & Cash Equivalents	\$12,590	\$66	\$12,524
Receivables	146,309	393,267	(246,958)
Investments	6,944,685	5,353,358	1,591,327
Securities Lending Collateral	1,069	47,810	(46,741)
<b>Total Assets</b>	<b>\$7,104,653</b>	<b>\$5,794,501</b>	<b>\$1,310,152</b>
<b>LIABILITIES</b>			
Other Post-Employment Benefits, Investment Settlement & Other	\$312,296	\$624,474	(\$312,178)
Securities Lending Obligations	1,068	47,839	(46,771)
<b>Total Liabilities</b>	<b>\$313,364</b>	<b>\$672,313</b>	<b>(\$358,949)</b>
<b>TOTAL NET POSITION RESTRICTED FOR OPEB</b>	<b>\$6,791,289</b>	<b>\$5,122,188</b>	<b>\$1,669,101</b>

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

	CERBTf		
	2017	2016	Increase/ (Decrease)
<b>ADDITIONS</b>			
Employer Contributions	\$3,754,709	\$1,780,240	\$1,974,469
Net Investment Income	559,967	76,638	483,329
Securities Lending & Other Income	5,599	4,048	1,551
<b>Total Additions</b>	<b>\$4,320,275</b>	<b>\$1,860,926</b>	<b>\$2,459,349</b>
<b>DEDUCTIONS</b>			
Administrative Expenses	\$3,014	\$1,559	\$1,455
Employer Withdrawals	680	—	680
OPEB Reimbursements	2,647,480	1,229,523	1,417,957
<b>Total Deductions</b>	<b>\$2,651,174</b>	<b>\$1,231,082</b>	<b>\$1,420,092</b>
<b>INCREASE IN NET POSITION</b>	<b>\$1,669,101</b>	<b>\$629,844</b>	<b>\$1,039,257</b>
<b>NET POSITION</b>			
<b>Beginning of Year</b>	<b>\$5,122,188</b>	<b>\$4,492,344</b>	<b>\$629,844</b>
<b>End of Year</b>	<b>\$6,791,289</b>	<b>\$5,122,188</b>	<b>\$1,669,101</b>

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

### 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.

Prior to Fiscal Year 2016-17, the RBF was classified as an agency fund per GASB Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments* (GASB 34). CalPERS elected to early implement the requirements of GASB 84 in Fiscal Year 2016-17, which changed the classification of the RBF from an agency fund to a custodial fund. As a result, the RBF now reports a Statement of Changes in Fiduciary Net Position in addition to a Statement of Fiduciary Net Position effective in Fiscal Year 2016-17. Furthermore, the beginning of year net position for Fiscal Year 2016-17 was restated as a result of the implementation of GASB 84.

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

	RBF		
	2017	2016	Increase/ (Decrease)
<b>ASSETS</b>			
Cash & Cash Equivalents	\$0	\$1	(\$1)
Receivables	374	292	82
Investments	11,633	10,148	1,485
<b>Total Assets</b>	<b>\$12,007</b>	<b>\$10,441</b>	<b>\$1,566</b>
<b>LIABILITIES</b>			
Unearned Replacement Benefits & Other	\$11,839	\$10,441	\$1,398
<b>Total Liabilities</b>	<b>\$11,839</b>	<b>\$10,441</b>	<b>\$1,398</b>
<b>TOTAL NET POSITION RESTRICTED FOR REPLACEMENT BENEFITS</b>	<b>\$168</b>	<b>\$0</b>	<b>\$168</b>

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

	RBF
	2017
<b>ADDITIONS</b>	
Replacement Benefits	\$20,573
Investment Income	168
Other Income	239
<b>Total Additions</b>	<b>\$20,980</b>
<b>DEDUCTIONS</b>	
Replacement Benefit Payments	\$20,573
Administrative Expenses	239
<b>Total Deductions</b>	<b>\$20,812</b>
<b>INCREASE IN NET POSITION</b>	<b>\$168</b>
<b>NET POSITION</b>	
<b>Beginning of Year<sup>(1)</sup></b>	<b>\$0</b>
<b>End of Year</b>	<b>\$168</b>

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



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

### ENTERPRISE FUNDS

#### PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF) AND PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

Health premiums are collected from employers and members for medical and pharmaceutical services. The HCF covers payments related to fee-for-service self-funding, while the CRF generally covers costs associated with fully-insured services. Both funds incur expenses to administer the CalPERS health care programs. In addition, the CRF establishes a contingency reserve for unanticipated health program-related costs. For financial reporting purposes only, the HCF and CRF statements and schedules are combined to provide a more comprehensive overview of the health programs administered by CalPERS.

In May 2016, the CalPERS Board approved Blue Shield's request to terminate its NetValue HMO health plan effective January 1, 2017. Also, the Board approved the addition of Western Health Advantage to the Basic HMO choices for members in Placer, El Dorado, Sacramento, Yolo, Colusa, Solano, Napa, Sonoma, and Marin counties effective January 1, 2018. On January 1, 2017, OptumRx replaced CVS Caremark as CalPERS' new Pharmacy Benefit Manager. The company will administer prescription drug benefits for members and their dependents enrolled in all of CalPERS' health plans with the exception of Kaiser and Blue Shield of California Health Maintenance Organization (HMO) plans. The five-year contract took effect January 1, 2017, and ends December 31, 2021.

Although premium revenues slightly increased year over year, the net position of the HCF and CRF increased \$174.9 million or 53.9 percent primarily due to an increase in premiums revenue combined with a decrease in both administrative expenses and estimated claims liabilities. Receivables decreased \$82.0 million or 24.7 percent due to more timely payments made by Pharmacy Benefit Managers and health carriers. Total liabilities decreased \$134.3 million or 11.6 percent due to fewer outstanding, unpaid claims as of June 30, 2017.

Revenues related to the HCF and CRF include premiums collected from members and employers, federal subsidies, investment income (non-operating revenues), and administrative fees collected from employers to administer the CalPERS health care program. Premiums collected increased \$84.8 million or 2.3 percent primarily due to the health care contract termination and an increase in health care rates. Net investment income decreased \$23.5 million or 82.4 percent due to a decreased rate of return compared with Fiscal Year 2015-16. Fees collected for administering the fund are determined as a percentage of total active and retired health premiums. These fees decreased by \$0.2 million or 0.7 percent because an increase in total health premiums was offset by a decrease in the employer administrative fee in Fiscal Year 2016-17.

Expenses are comprised of claims, investment fees, and costs incurred to oversee the plans (which include third-party administrator fees). The expenses of medical and drug-related claims increased, but were offset by an increase in pharmacy rebates. Costs incurred to administer the plans decreased by \$27.6 million or 7.5 percent due to a decrease in Affordable Care Act taxes and fees.



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

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### 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 on services for participants.

Unrestricted net position of the LTCF decreased by \$158.4 million or 63.9 percent, primarily due to lower investment returns and an increase in the estimated liability for future policy benefits resulting from rising costs of healthcare. Receivables decreased \$23.8 million due to a decrease in the volume of the trades outstanding at year end. Cash and cash equivalents also decreased by \$2.1 million or 22.2 percent due to a shift of investing more in fixed income versus short-term investments.

The LTCF revenues to administer the plan 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 offset premium revenue, which increased by \$23.9 million or 8.5 percent due to rate increases. Non-operating revenues are comprised of net appreciation or depreciation in fair value of investments and interest income. The investment income for Fiscal Year 2016-17 was \$69.0 million, a decrease of \$157.5 million or 69.6 percent from the prior year due to negative returns on fixed income investments.

Total expenses are comprised of claims, changes in estimated future claims liabilities, administrative costs to the program, and investment expenses. The overall decrease in total expenses is primarily attributable to a decrease in the Fiscal Year 2016-17 change in future estimated liabilities for future policy benefits compared with prior year. Refer to Note 13 for additional information regarding the calculation of the estimated liabilities for future policy benefits. Administrative expenses increased primarily due to a one-time accounting entry that reversed the State OPEB obligation for CalPERS employees in Fiscal Year 2015-16.

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

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

	HCF/CRF			LTCF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
<b>ASSETS</b>						
Cash & Cash Equivalents	\$823,342	\$699,485	\$123,857	\$7,540	\$9,686	(\$2,146)
Receivables	249,505	331,508	(82,003)	11,371	35,181	(23,810)
Investments	444,679	445,871	(1,192)	4,374,447	4,313,329	61,118
<b>Total Assets</b>	<b>\$1,517,526</b>	<b>\$1,476,864</b>	<b>\$40,662</b>	<b>\$4,393,358</b>	<b>\$4,358,196</b>	<b>\$35,162</b>
<b>LIABILITIES</b>						
Claims Payable, Unearned Premiums, Estimated Insurance Claims Due & Due to Carriers	\$955,682	\$999,330	(\$43,648)	\$362,199	\$341,891	\$20,308
Due to Employers	18,432	23,734	(5,302)	—	—	—
Other Liabilities	44,187	129,501	(85,314)	15,285	36,925	(21,640)
Estimated Liability for Future Policy Benefits	—	—	—	3,926,231	3,731,387	194,844
<b>Total Liabilities</b>	<b>\$1,018,301</b>	<b>\$1,152,565</b>	<b>(\$134,264)</b>	<b>\$4,303,715</b>	<b>\$4,110,203</b>	<b>\$193,512</b>
<b>TOTAL UNRESTRICTED NET POSITION</b>	<b>\$499,225</b>	<b>\$324,299</b>	<b>\$174,926</b>	<b>\$89,643</b>	<b>\$247,993</b>	<b>(\$158,350)</b>

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

	HCF/CRF			LTCF		
	2017	2016	Increase/ (Decrease)	2017	2016	Increase/ (Decrease)
<b>REVENUES</b>						
Premiums	\$3,826,107	\$3,741,352	\$84,755	\$306,303	\$282,426	\$23,877
Federal Government Subsidies	29,534	32,539	(3,005)	—	—	—
Non-Operating Revenues	5,013	28,538	(23,525)	68,986	226,526	(157,540)
Administrative Fees & Other	27,487	27,668	(181)	—	—	—
<b>Total Revenues</b>	<b>\$3,888,141</b>	<b>\$3,830,097</b>	<b>\$58,044</b>	<b>\$375,289</b>	<b>\$508,952</b>	<b>(\$133,663)</b>
<b>EXPENSES</b>						
Claims Expense	\$3,387,753	\$3,404,222	(\$16,469)	\$293,693	\$271,742	\$21,951
Increase (Decrease) in Estimated Liabilities	(14,701)	13,258	(27,959)	213,048	376,284	(163,236)
Non-Operating Expenses	92	77	15	1,816	1,606	210
Administrative Expenses	340,071	367,685	(27,614)	25,082	24,999	83
<b>Total Expenses</b>	<b>\$3,713,215</b>	<b>\$3,785,242</b>	<b>(\$72,027)</b>	<b>\$533,639</b>	<b>\$674,631</b>	<b>(\$140,992)</b>
<b>INCREASE (DECREASE) IN UNRESTRICTED NET POSITION</b>	<b>\$174,926</b>	<b>\$44,855</b>	<b>\$130,071</b>	<b>(\$158,350)</b>	<b>(\$165,679)</b>	<b>\$7,329</b>
<b>UNRESTRICTED NET POSITION</b>						
Beginning of Year	\$324,299	\$279,444	\$44,855	\$247,993	\$413,672	(\$165,679)
End of Year	<b>\$499,225</b>	<b>\$324,299</b>	<b>\$174,926</b>	<b>\$89,643</b>	<b>\$247,993</b>	<b>(\$158,350)</b>

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

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### REQUESTS FOR INFORMATION

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

# Financial Section

## Basic Financial Statements

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## Basic Financial Statements

### STATEMENT OF FIDUCIARY NET POSITION – FIDUCIARY FUNDS

As of June 30, 2017, with Comparative Totals as of June 30, 2016 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
<b>ASSETS</b>						
<b>Cash &amp; Cash Equivalents</b>	<b>\$961,730</b>	<b>\$246,570</b>	<b>\$110,753</b>	<b>\$350</b>	<b>\$5</b>	<b>\$4,122</b>
<b>Receivables</b>						
Members	\$593,918	\$105,793	\$52,214	\$50	\$1,179	\$725
Employers	905,919	219,792	32,484	50	1,176	6,445
Investment Sales & Other	3,407,204	873,547	392,374	3,246	—	32,728
Interest & Dividends	201,286	51,606	23,180	1	77	18
Due from Other Funds	1,611	413	186	—	—	—
Note Receivable	212,872	54,577	24,514	—	—	—
Other Program	54,009	13,847	6,220	9	32	3
<b>Total Receivables</b>	<b>\$5,376,819</b>	<b>\$1,319,575</b>	<b>\$531,172</b>	<b>\$3,356</b>	<b>\$2,464</b>	<b>\$39,919</b>
<b>Investments, at Fair Value</b>						
Short-Term Investments	\$20,411,159	\$5,228,865	\$2,340,777	\$6,656	\$46,048	\$78,787
Global Equity Securities	105,869,673	27,120,640	12,139,604	37,063	—	768,395
Global Debt Securities	67,002,360	17,164,449	7,683,914	76,005	—	529,938
Real Assets	25,849,621	6,622,072	2,964,467	—	—	—
Private Equity	18,972,432	4,860,297	2,175,782	—	—	—
<b>Total Investments</b>	<b>\$238,105,245</b>	<b>\$60,996,323</b>	<b>\$27,304,544</b>	<b>\$119,724</b>	<b>\$46,048</b>	<b>\$1,377,120</b>
Securities Lending Collateral	\$3,471,852	\$890,121	\$399,819	\$766	\$0	\$17,979
Capital Assets, Net & Other Assets	436,899	112,013	50,313	—	—	—
<b>TOTAL ASSETS</b>	<b>\$248,352,545</b>	<b>\$63,564,602</b>	<b>\$28,396,601</b>	<b>\$124,196</b>	<b>\$48,517</b>	<b>\$1,439,140</b>
<b>LIABILITIES</b>						
Retirement & Other Benefits	\$77,052	\$17,646	\$7,795	\$46	\$0	\$0
Investment Purchases & Other	6,436,563	1,650,220	741,236	6,471	—	65,066
Due to Members & Employers	5,814	—	—	13	74	6
Securities Lending Obligations	3,467,205	888,930	399,284	765	—	17,955
Due to Other Funds	897	230	104	4	11	13
Management & Third-Party Administrator Fees	—	—	—	—	—	—
Unearned Replacement Benefits	—	—	—	—	—	—
Other Program	108,498	9,189	4,087	13	157	1
<b>TOTAL LIABILITIES</b>	<b>\$10,096,029</b>	<b>\$2,566,215</b>	<b>\$1,152,506</b>	<b>\$7,312</b>	<b>\$242</b>	<b>\$83,041</b>
<b>NET POSITION – RESTRICTED FOR PENSION, OTHER POST-EMPLOYMENT, AND REPLACEMENT BENEFITS</b>	<b>\$238,256,516</b>	<b>\$60,998,387</b>	<b>\$27,244,095</b>	<b>\$116,884</b>	<b>\$48,275</b>	<b>\$1,356,099</b>

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	2017	2016
\$2	\$1	\$12,590	\$0	\$1,336,123	\$1,112,003
\$3,549	\$782	\$0	\$131	\$758,341	\$813,496
—	—	15,296	211	1,181,373	1,037,059
477	51	130,787	—	4,840,414	14,922,724
4	5	56	32	276,265	808,039
—	—	170	—	2,380	1,589
—	—	—	—	291,963	983,575
12,117	—	—	—	86,237	82,547
<b>\$16,147</b>	<b>\$838</b>	<b>\$146,309</b>	<b>\$374</b>	<b>\$7,436,973</b>	<b>\$18,649,029</b>
\$232,886	\$32,660	\$434,764	\$11,633	\$28,824,235	\$22,499,132
882,243	43,605	4,115,363	—	150,976,586	146,134,120
316,154	44,553	2,394,558	—	95,211,931	84,109,945
—	—	—	—	35,436,160	31,225,522
—	—	—	—	26,008,511	26,153,355
<b>\$1,431,283</b>	<b>\$120,818</b>	<b>\$6,944,685</b>	<b>\$11,633</b>	<b>\$336,457,423</b>	<b>\$310,122,074</b>
\$0	\$0	\$1,069	\$0	\$4,781,606	\$12,819,606
—	—	—	—	599,225	701,741
<b>\$1,447,432</b>	<b>\$121,657</b>	<b>\$7,104,653</b>	<b>\$12,007</b>	<b>\$350,611,350</b>	<b>\$343,404,453</b>
\$0	\$0	\$36,991	\$0	\$139,530	\$1,735,687
—	—	274,874	—	9,174,430	22,153,678
915	797	—	—	7,619	6,669
—	—	1,068	—	4,775,207	12,769,282
527	48	—	226	2,060	2,384
1,380	108	431	—	1,919	1,340
—	—	—	11,613	11,613	10,440
4	—	—	—	121,949	152,225
<b>\$2,826</b>	<b>\$953</b>	<b>\$313,364</b>	<b>\$11,839</b>	<b>\$14,234,327</b>	<b>\$36,831,705</b>
<b>\$1,444,606</b>	<b>\$120,704</b>	<b>\$6,791,289</b>	<b>\$168</b>	<b>\$336,377,023</b>	<b>\$306,572,748</b>

## Basic Financial Statements (continued)

### STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – FIDUCIARY FUNDS

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for the Fiscal Year Ended June 30, 2016 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
<b>ADDITIONS</b>						
<b>Retirement and OPEB Contributions</b>						
Members	\$3,000,116	\$897,438	\$317,024	\$94	\$3,398	\$25,076
Employers	9,565,742	1,783,736	980,359	516	5,173	67,102
Replacement Benefits	—	—	—	—	—	—
State of California General Fund	—	—	—	—	199,302	—
Employer Contributions Direct – OPEB	—	—	—	—	—	—
Employer Contributions Outside of Trust – OPEB	—	—	—	—	—	—
<b>Total Retirement and OPEB Contributions</b>	<b>\$12,565,858</b>	<b>\$2,681,174</b>	<b>\$1,297,383</b>	<b>\$610</b>	<b>\$207,873</b>	<b>\$92,178</b>
<b>Investment Income</b>						
Net Appreciation in Fair Value of Investments	\$22,851,723	\$5,880,709	\$2,625,626	\$5,038	\$0	\$114,624
Interest & Amortization	749,387	192,129	86,300	3	425	64
Dividends	1,029,886	264,044	118,602	—	—	—
Other Investment Income	32,864	8,426	3,785	—	—	—
Less Investment Expenses:						
Management & Performance Fees	(434,237)	(111,330)	(50,007)	—	—	—
Other	(197,505)	(50,637)	(22,745)	(35)	(1)	(357)
<b>Net Investment Income</b>	<b>\$24,032,118</b>	<b>\$6,183,341</b>	<b>\$2,761,561</b>	<b>\$5,006</b>	<b>\$424</b>	<b>\$114,331</b>
Securities Lending Income	\$166,169	\$42,603	\$19,136	\$74	\$0	\$1,193
Securities Lending Expense	(63,953)	(16,396)	(7,365)	(32)	—	(467)
<b>Net Securities Lending</b>	<b>\$102,216</b>	<b>\$26,207</b>	<b>\$11,771</b>	<b>\$42</b>	<b>\$0</b>	<b>\$726</b>
Other Income	\$9,592	\$2,233	\$989	\$0	\$2,395	\$0
Plan to Plan Resource Movement	132	16	134,513	—	—	—
<b>TOTAL ADDITIONS</b>	<b>\$36,709,916</b>	<b>\$8,892,971</b>	<b>\$4,206,217</b>	<b>\$5,658</b>	<b>\$210,692</b>	<b>\$207,235</b>
<b>DEDUCTIONS</b>						
Retirement, Death & Survivor Benefits	\$15,952,745	\$3,650,554	\$1,612,590	\$6,960	\$200,440	\$22,326
Replacement Benefit Payments	—	—	—	—	—	—
Refund of Contributions	129,907	74,356	18,012	289	—	80
Administrative Expenses	321,742	82,489	37,052	575	1,771	1,683
Plan to Plan Resource Movement	134,511	150	—	—	—	—
Participant & Employer Withdrawals	—	—	—	—	—	—
OPEB Reimbursements Direct	—	—	—	—	—	—
OPEB Reimbursements – Outside Trust	—	—	—	—	—	—
<b>TOTAL DEDUCTIONS</b>	<b>\$16,538,905</b>	<b>\$3,807,549</b>	<b>\$1,667,654</b>	<b>\$7,824</b>	<b>\$202,211</b>	<b>\$24,089</b>
<b>INCREASE (DECREASE) IN NET POSITION</b>	<b>\$20,171,011</b>	<b>\$5,085,422</b>	<b>\$2,538,563</b>	<b>(\$2,166)</b>	<b>\$8,481</b>	<b>\$183,146</b>
<b>NET POSITION</b>						
<b>Beginning of Year<sup>1</sup></b>	<b>\$218,085,505</b>	<b>\$55,912,965</b>	<b>\$24,705,532</b>	<b>\$119,050</b>	<b>\$39,794</b>	<b>\$1,172,953</b>
<b>End of Year</b>	<b>\$238,256,516</b>	<b>\$60,998,387</b>	<b>\$27,244,095</b>	<b>\$116,884</b>	<b>\$48,275</b>	<b>\$1,356,099</b>

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

(1) The Fiscal Year 2016-17 beginning of year net position balance for the RBF was restated due to the implementation of Governmental Accounting Standards Board Statement No. 84, *Fiduciary Activities*. Refer to Note 2 in the Notes to the Basic Financial Statements for additional discussion of financial statement disclosures.

## Basic Financial Statements (continued)

Pension Trust Funds		Other Post-Employment Benefit Trust Fund	Custodial Fund	Totals	
DCF	SCPF	CERBTf	RBF	2017	2016
\$110,258	\$246	\$0	\$0	\$4,353,650	\$4,150,349
962	—	—	—	12,403,590	10,965,120
—	—	—	20,573	20,573	—
—	—	—	—	199,302	186,953
—	—	1,203,175	—	1,203,175	633,445
—	—	2,551,534	—	2,551,534	1,146,795
<b>\$111,220</b>	<b>\$246</b>	<b>\$3,754,709</b>	<b>\$20,573</b>	<b>\$20,731,824</b>	<b>\$17,082,662</b>
\$131,486	\$6,861	\$561,746	\$0	\$32,177,813	\$1,061,495
1,306	55	240	168	1,030,077	164,787
—	—	—	—	1,412,532	1,258,604
31	19	—	—	45,125	70,360
(439)	(36)	(1,123)	—	(597,172)	(828,816)
(79)	(9)	(896)	—	(272,264)	(217,990)
<b>\$132,305</b>	<b>\$6,890</b>	<b>\$559,967</b>	<b>\$168</b>	<b>\$33,796,111</b>	<b>\$1,508,440</b>
\$0	\$0	\$1,351	\$0	\$230,526	\$185,596
—	—	(747)	—	(88,960)	(48,437)
<b>\$0</b>	<b>\$0</b>	<b>\$604</b>	<b>\$0</b>	<b>\$141,566</b>	<b>\$137,159</b>
\$5,583	\$628	\$4,995	\$239	\$26,654	\$25,604
—	—	—	—	134,661	49,803
<b>\$249,108</b>	<b>\$7,764</b>	<b>\$4,320,275</b>	<b>\$20,980</b>	<b>\$54,830,816</b>	<b>\$18,803,668</b>
\$0	\$0	\$0	\$0	\$21,445,615	\$20,321,781
—	—	—	20,573	20,573	—
—	—	—	—	222,644	239,433
4,576	373	3,014	239	453,514	192,569
—	—	—	—	134,661	49,803
90,333	11,041	680	—	102,054	180,492
—	—	95,946	—	95,946	82,728
—	—	2,551,534	—	2,551,534	1,146,795
<b>\$94,909</b>	<b>\$11,414</b>	<b>\$2,651,174</b>	<b>\$20,812</b>	<b>\$25,026,541</b>	<b>\$22,213,601</b>
<b>\$154,199</b>	<b>(\$3,650)</b>	<b>\$1,669,101</b>	<b>\$168</b>	<b>\$29,804,275</b>	<b>(\$3,409,933)</b>
<b>\$1,290,407</b>	<b>\$124,354</b>	<b>\$5,122,188</b>	<b>\$0</b>	<b>\$306,572,748</b>	<b>\$309,982,681</b>
<b>\$1,444,606</b>	<b>\$120,704</b>	<b>\$6,791,289</b>	<b>\$168</b>	<b>\$336,377,023</b>	<b>\$306,572,748</b>



## Basic Financial Statements (continued)

### STATEMENT OF NET POSITION – PROPRIETARY FUNDS

As of June 30, 2017, with Comparative Totals as of June 30, 2016 (Dollars in Thousands)

	Proprietary Funds		Totals	
	HCF/CRF	LTCF	2017	2016
<b>ASSETS</b>				
<b>Current Assets</b>				
Cash & Cash Equivalents	\$1	\$7,444	\$7,445	\$4,706
Short-Term Investments	823,341	96	823,437	704,465
<b>Receivables</b>				
Members & Employers	\$19,704	\$425	\$20,129	\$21,014
Health Carriers & Pharmacy Benefit Managers	226,679	—	226,679	303,585
Interest & Dividends	2,051	—	2,051	1,895
Due from Other Funds	1,060	—	1,060	1,734
Investment Sales and Other	—	10,946	10,946	33,948
Short-Term Loan	—	—	—	4,500
Other Receivables	11	—	11	13
<b>Total Receivables</b>	<b>\$249,505</b>	<b>\$11,371</b>	<b>\$260,876</b>	<b>\$366,689</b>
<b>Subtotal Current Assets</b>	<b>\$1,072,847</b>	<b>\$18,911</b>	<b>\$1,091,758</b>	<b>\$1,075,860</b>
<b>Noncurrent Assets</b>				
<b>Investments, at Fair Value</b>				
Global Equity Securities	\$0	\$1,457,101	\$1,457,101	\$1,363,437
Global Debt Securities	444,679	2,917,346	3,362,025	3,395,763
<b>Total Investments</b>	<b>\$444,679</b>	<b>\$4,374,447</b>	<b>\$4,819,126</b>	<b>\$4,759,200</b>
<b>Subtotal Noncurrent Assets</b>	<b>\$444,679</b>	<b>\$4,374,447</b>	<b>\$4,819,126</b>	<b>\$4,759,200</b>
<b>TOTAL ASSETS</b>	<b>\$1,517,526</b>	<b>\$4,393,358</b>	<b>\$5,910,884</b>	<b>\$5,835,060</b>
<b>LIABILITIES</b>				
<b>Current Liabilities</b>				
Claims Payable	\$227,274	\$23,041	\$250,315	\$327,614
Unearned Premiums	99,152	12,430	111,582	106,724
Due to Employers	18,432	—	18,432	23,734
Estimated Insurance Claims Due	408,720	326,728	735,448	731,944
Due to Carriers	220,536	—	220,536	174,939
Due to Other Funds	—	1,380	1,380	940
Investment Purchases & Other	—	9,904	9,904	32,434
Management & Third-Party Administrator Fees	29,618	391	30,009	50,988
Other	14,569	3,610	18,179	82,064
<b>Total Current Liabilities</b>	<b>\$1,018,301</b>	<b>\$377,484</b>	<b>\$1,395,785</b>	<b>\$1,531,381</b>
<b>Long-Term Liabilities</b>				
Estimated Liability for Future Policy Benefits	\$0	\$3,926,231	\$3,926,231	\$3,731,387
<b>Total Long-Term Liabilities</b>	<b>\$0</b>	<b>\$3,926,231</b>	<b>\$3,926,231</b>	<b>\$3,731,387</b>
<b>TOTAL LIABILITIES</b>	<b>\$1,018,301</b>	<b>\$4,303,715</b>	<b>\$5,322,016</b>	<b>\$5,262,768</b>
<b>TOTAL UNRESTRICTED NET POSITION</b>	<b>\$499,225</b>	<b>\$89,643</b>	<b>\$588,868</b>	<b>\$572,292</b>

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

## Basic Financial Statements (continued)

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

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for the Fiscal Year Ended June 30, 2016 (Dollars in Thousands)

	Proprietary Funds		Totals	
	HCF/CRF	LTCF	2017	2016
<b>Operating Revenues</b>				
Premiums	\$3,826,107	\$306,303	\$4,132,410	\$4,023,778
Federal Government Subsidies	29,534	—	29,534	32,539
Administrative Fees Earned	27,448	—	27,448	27,598
Other	39	—	39	70
<b>Total Operating Revenues</b>	<b>\$3,883,128</b>	<b>\$306,303</b>	<b>\$4,189,431</b>	<b>\$4,083,985</b>
<b>Operating Expenses</b>				
Claims Expense	\$3,387,753	\$293,693	\$3,681,446	\$3,675,964
Increase/(Decrease) in Estimated Liabilities	(14,701)	213,048	198,347	389,542
Administrative Expenses	340,071	25,082	365,153	392,684
<b>Total Operating Expenses</b>	<b>\$3,713,123</b>	<b>\$531,823</b>	<b>\$4,244,946</b>	<b>\$4,458,190</b>
<b>OPERATING INCOME (LOSS)</b>	<b>\$170,005</b>	<b>(\$225,520)</b>	<b>(\$55,515)</b>	<b>(\$374,205)</b>
<b>Non-Operating Revenues</b>				
Net Appreciation/(Depreciation) in Fair Value of Investments	(\$1,538)	\$67,851	\$66,313	\$250,902
Interest, Dividends & Other Investment Income	6,551	1,135	7,686	4,162
<b>Total Non-Operating Revenues</b>	<b>\$5,013</b>	<b>\$68,986</b>	<b>\$73,999</b>	<b>\$255,064</b>
<b>Non-Operating Expenses</b>				
Management Fees	\$63	\$1,560	\$1,623	\$1,525
Other Investment Expenses	29	256	285	158
<b>Total Non-Operating Expenses</b>	<b>\$92</b>	<b>\$1,816</b>	<b>\$1,908</b>	<b>\$1,683</b>
<b>NON-OPERATING INCOME</b>	<b>\$4,921</b>	<b>\$67,170</b>	<b>\$72,091</b>	<b>\$253,381</b>
<b>CHANGE IN UNRESTRICTED NET POSITION</b>	<b>\$174,926</b>	<b>(\$158,350)</b>	<b>\$16,576</b>	<b>(\$120,824)</b>
<b>TOTAL UNRESTRICTED NET POSITION</b>				
Beginning of Year	\$324,299	\$247,993	\$572,292	\$693,116
End of Year	\$499,225	\$89,643	\$588,868	\$572,292

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

## Basic Financial Statements (continued)

### STATEMENT OF CASH FLOWS – PROPRIETARY FUNDS

For the Fiscal Year Ended June 30, 2017, with Comparative Totals for the Fiscal Year Ended June 30, 2016 (Dollars in Thousands)

	Proprietary Funds		Totals	
	HCF/CRF	LTCF	2017	2016
<b>Cash Flows From Operating Activities</b>				
Premiums Collected	\$3,908,025	\$307,034	\$4,215,059	\$3,892,967
Federal Government Subsidies	29,534	—	29,534	32,539
Claims Paid	(3,466,375)	(292,370)	(3,758,745)	(3,647,162)
Other (Payments) Receipts, Net	(352,427)	(24,218)	(376,645)	(511,296)
<b>Net Cash Provided by (Used for) Operating Activities</b>	<b>\$118,757</b>	<b>(\$9,554)</b>	<b>\$109,203</b>	<b>(\$232,952)</b>
<b>Cash Flows From Investing Activities</b>				
Net Sales (Purchases) of Investments	(\$346)	\$7,206	\$6,860	\$21,375
Net Change in Short-Term Investments	(123,892)	4,920	(118,972)	212,992
Interest, Amortization & Dividends	5,154	1,154	6,308	2,205
Other Investment (Payments) Receipts, Net	292	(952)	(660)	(1,357)
<b>Net Cash Provided by (Used for) Investing Activities</b>	<b>(\$118,792)</b>	<b>\$12,328</b>	<b>(\$106,464)</b>	<b>\$235,215</b>
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	<b>(\$35)</b>	<b>\$2,774</b>	<b>\$2,739</b>	<b>\$2,263</b>
<b>Cash &amp; Cash Equivalents, Beginning of Year</b>	<b>\$36</b>	<b>\$4,670</b>	<b>\$4,706</b>	<b>\$2,443</b>
<b>Cash &amp; Cash Equivalents, End of Year</b>	<b>\$1</b>	<b>\$7,444</b>	<b>\$7,445</b>	<b>\$4,706</b>
<b>Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used for) Operating Activities</b>				
Operating Income (Loss)	\$170,005	(\$225,520)	(\$55,515)	(\$374,205)
Changes in Assets and Liabilities:				
Receivables:				
Members & Employers	934	(49)	885	4,731
Health Carriers & Pharmacy Benefit Managers	76,906	—	76,906	(142,470)
Due from Other Funds	674	—	674	(812)
Loans	4,500	—	4,500	4,500
Other	2	—	2	4,501
Claims Payable	(78,622)	1,323	(77,299)	28,802
Unearned Premiums	4,078	780	4,858	6,928
Due to Employers	(5,302)	—	(5,302)	(4,972)
Estimated Insurance Claims Due	(14,701)	18,204	3,503	51,031
Estimated Liability for Future Policy Benefits	—	194,844	194,844	338,511
Due to Carriers	45,597	—	45,597	(151,081)
Due to Other Funds	—	440	440	88
Management & Third-Party Administrator Fees Payable	(21,004)	—	(21,004)	1,983
Other	(64,310)	424	(63,886)	(487)
<b>Net Cash Provided by (Used for) Operating Activities</b>	<b>\$118,757</b>	<b>(\$9,554)</b>	<b>\$109,203</b>	<b>(\$232,952)</b>
<b>Noncash Investing, Capital &amp; Financing Activities</b>				
Noncash Increase/(Decrease) in Fair Value of Investments	(\$1,538)	\$43,140	\$41,602	\$228,824

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:

Plan Name	Type of Plan
<b>Defined Benefit Pension Plans:</b>	
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
<b>Defined Contribution Plans:</b>	
Public Employees' Deferred Compensation Fund	Multiple-employer (457 & 401K plans)
Supplemental Contributions Program Fund	Single-employer
<b>Defined Benefit Other Post-Employment Benefit Plan:</b>	
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 in 1932 and provides retirement, death and disability benefits to its member 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 comprised of agent multiple-employer plans, 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 less than 100 active members.

As of June 30, 2017, the PERF had the following participating employers:

#### Affiliated Employers for PERF

PERF Participants	2017
PERF A	
State	1
Public Agencies <sup>1</sup>	311
<b>Total</b>	<b>312</b>
PERF B	
School Districts and Charter Schools	1,366
PERF C	
Public Agencies <sup>1</sup>	1,313
<b>Total Employers</b>	<b>2,991</b>

<sup>1</sup>) 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 in 1947 and provides retirement, death, and disability benefits to members employed by the State of California. LRF members consist of 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

## Notes to the Basic Financial Statements (continued)

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 in 1937 and provides retirement, death, and disability benefits to members employed by the State of California. JRF members consist of 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 2017-18.

*Judges' Retirement Fund II (JRF II)* – The JRF II was established in 1994 and provides retirement, death, and disability benefits to members employed by the State of California. JRF II members consist of 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 by rate plan.

As of June 30, 2017, 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

Plan	Retirees	Survivors & Beneficiaries	Members		Total
			Active	Inactive or Deferred	
PERF A Agent	358,659	58,376	487,960	184,640	1,089,635
PERF B Schools Cost-Sharing	183,669	28,458	350,616	163,286	726,029
PERF C Public Agency Cost-Sharing	34,184	4,713	48,644	22,254	109,795
<b>Total PERF</b>	<b>576,512</b>	<b>91,547</b>	<b>887,220</b>	<b>370,180</b>	<b>1,925,459</b>
LRF	127	103	8	6	244
JRF	1,328	560	198	3	2,089
JRF II	147	23	1,508	—	1,678
<b>Total</b>	<b>578,114</b>	<b>92,233</b>	<b>888,934</b>	<b>370,189</b>	<b>1,929,470</b>

### 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. Employer-paid member contributions are reported as member contributions in the Statement of Changes in Fiduciary Net Position. 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 cost of administering CalPERS is financed through contributions and investment earnings.

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 6 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, 2017, were as follows:

### Required Contribution Rates

	Employee Contribution Rates		Employer - Required Contribution Rates
	Classic	PEPRA	
<b>PERF A – Agent</b>			
State:			
Miscellaneous – First Tier	5% to 11%	6% to 11%	26.65%
Miscellaneous – Second Tier	3.75%	3.75%	26.10%
Industrial – First Tier	5% to 11%	6% to 11%	18.37%
Industrial – Second Tier	3.75%	3.75%	18.37%
Safety	11%	11%	18.75%
Peace Officers and Firefighters	8% to 13%	11% to 13%	40.28%
California Highway Patrol	11.50%	11.50%	48.72%
Public Agency:			
Miscellaneous	5% to 8%	5.25% to 8.25%	7.33% to 46.88%
Safety	7% to 9%	8.25% to 13.75%	23.53% to 62.13%
<b>PERF B – Schools Cost-Sharing</b>			
Classified School	7%	6%	13.89%
<b>PERF C – Public Agency Cost-Sharing</b>			
Public Agency (Pooled):			
Miscellaneous	2% to 8%	4% to 7.25%	4.13% to 404.07%
Safety	7% to 10.10%	9.50% to 15.25%	8.87% to 1011.38%
<b>LRF</b>	4% or 8%	N/A	40.66% <sup>1</sup>
<b>JRF</b>	8%	N/A	8% <sup>2</sup>
<b>JRF II</b>	8%	15.25%	23.19% <sup>1</sup>

(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.



## Notes to the Basic Financial Statements (continued)

### 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 in 1990 by Government Code sections 21670 through 21685, granting the maximum tax-preferred retirement saving opportunities under Title 26 of the United States Code. 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 on January 1, 2000, by 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, 2017, membership in the defined contribution plans consisted of the following:

#### Members in DCF and SCPF

Plan	Employers	Members
DCF	785	28,337
SCPF	1	7,641

### OTHER ADMINISTRATIVE ACTIVITIES

CalPERS administers other activities as follows:

*The California Employers' Retiree Benefit Trust Fund (CERBTf)* – The CERBTf was established by Chapter 331 of the 1988 California 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. Currently, the CERBTf has 524 participating employers. 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 under the Public Employees' Medical and Hospital Care Act (PEMHCA) as of July 1, 1988, 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 in 1962 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 in 1995 as part of the Public Employees Long-Term Care Act (Public Employees' Retirement Law, Chapter 15) to administer the self-funded 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 938 of the 1995 State of California 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.



## Notes to the Basic Financial Statements (continued)

### 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.

#### 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, 2017:

**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 combined (for financial reporting purposes only) HCF and 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 September 2016, 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, 2017:

#### Target Asset Allocation

Asset Class	PERF A	PERF B	PERF C	LRF	JRF	JRF II
Global Equity	46%	46%	46%	24%	—	50%
Private Equity	8%	8%	8%	—	—	—
Global Debt Securities	20%	20%	20%	39%	—	34%
Real Assets	13%	13%	13%	—	—	—
Liquidity	4%	4%	4%	—	100%	—
Inflation	9%	9%	9%	26%	—	5%
REITs	—	—	—	8%	—	8%
Commodities	—	—	—	3%	—	3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

The CERBTF offers three diversified allocation strategies. 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%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## Notes to the Basic Financial Statements (continued)

### 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.

### NOTES RECEIVABLE

In October 2015, CalPERS sold holdings in privately held in real estate investments. Part of the sale included a note receivable, which had a balance reported in the PERF of \$292.0 million as of June 30, 2017. The terms require quarterly payments from the borrower, with the balance to be paid off in Fiscal Year 2017-18.

### 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 5.75 percent, morbidity lapse rates, voluntary termination, mortality, and plan expenses.

Due to uncertainties inherent in the estimations and assumptions processes 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, 2016, to conform to the presentation as of and for the fiscal year ended June 30, 2017.

### COMPARATIVE TOOLS

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 accounting principles generally accepted in the U.S. Accordingly, such information should be read in conjunction with CalPERS' financial statements for the fiscal year ended June 30, 2016, from which the summarized information was derived.

## Notes to the Basic Financial Statements (continued)

### 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.

### NEW ACCOUNTING PRONOUNCEMENT

CalPERS early-implemented the requirements of GASB Statement No. 84 (GASB 84), *Fiduciary Activities*, which establishes criteria for identifying fiduciary activities of all state and local governments. The statement describes four fiduciary funds that should be reported, if applicable: 1) pension (and Other Post-Employment Benefit (OPEB)) trust funds, 2) investment trust funds, 3) private-purpose trust funds, and 4) custodial funds, which generally should report fiduciary activities that are not required to be reported in pension trust funds, investment trust funds, or private-purpose trust funds. Agency funds are now classified as custodial funds and require the presentation of a Statement of Fiduciary Net Position and a Statement of Changes in Fiduciary Net Position. The RBF is impacted by the requirements of GASB 84. Although the beginning net position remained as zero, the requirements of GASB 84 impact the RBF and resulted in a restatement of beginning net position for Fiscal Year 2016-17. Refer to Note 10 in the Notes to the Basic Financial Statements for additional discussion on the impact of GASB 84 on the RBF.

## 3. CASH AND CASH EQUIVALENTS

Cash and cash equivalents of approximately \$1.3 billion at June 30, 2017, represent amounts held in the CalPERS general operating accounts with the State Treasury. 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.

### 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). These are investments in non-governmental entities for which a readily determinable fair value is not available, such as member units or an ownership interest in partners' capital to which a proportionate share of net assets is attributed. Investments at NAV are commonly calculated by subtracting the fair value of liabilities from the fair value of assets.

## Notes to the Basic Financial Statements (continued)

The following table presents a summary of CalPERS' investments by type as of June 30, 2017, at fair value:

CalPERS – Investments at Fair Value<sup>1</sup> (Dollars in Thousands)

	Fair Value June 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by Fair Value Level</b>				
Global Equity				
Domestic Equity	\$75,937,971	\$75,937,971	\$0	\$0
International Equity	65,026,903	65,026,903	—	—
<b>Total Global Equity</b>	<b>\$140,964,874</b>	<b>\$140,964,874</b>	<b>\$0</b>	<b>\$0</b>
Global Debt				
Asset-Backed	\$13,864,125	\$0	\$12,877,216	\$986,909
Bank Loans	296,905	—	296,905	—
International Debt	2,150,706	—	2,150,706	—
Municipal/Public Bonds	10,014	—	10,014	—
Sovereign Debt	18,127,654	—	18,127,654	—
U.S. Corporate	11,735,444	—	11,735,444	—
U.S. Treasuries, STRIPS and TIPS	36,962,687	—	36,962,687	—
<b>Total Global Debt</b>	<b>\$83,147,535</b>	<b>\$0</b>	<b>\$82,160,626</b>	<b>\$986,909</b>
Derivatives				
Futures	(\$25,278)	(\$25,278)	\$0	\$0
Options	5,786	—	5,786	—
Rights & Warrants	5,876	—	5,876	—
Forward Contract Assets	125,156	—	125,156	—
Forward Contract (Liabilities)	(219,579)	—	(219,579)	—
Swap Assets	12,945,535	—	12,945,535	—
Swap (Liabilities)	(12,715,209)	—	(12,715,209)	—
<b>Total Derivatives</b>	<b>\$122,287</b>	<b>(\$25,278)</b>	<b>\$147,565</b>	<b>\$0</b>
Other				
Rule 144(a) Securities	\$11,471,935	\$0	\$0	\$11,471,935
Securitized Assets	827,023	—	—	827,023
Real Assets <sup>2</sup>	1,108,691	—	—	1,108,691
Private Equity	273,314	—	—	273,314
<b>Total Other</b>	<b>\$13,680,963</b>	<b>\$0</b>	<b>\$0</b>	<b>\$13,680,963</b>
<b>Total Investments by Fair Value Level</b>	<b>\$237,915,659</b>	<b>\$140,939,596</b>	<b>\$82,308,191</b>	<b>\$14,667,872</b>
<b>Investments Measured at NAV</b>				
Commingled/Pooled Funds	\$10,167,615			
Real Assets <sup>2</sup>	34,316,630			
Private Equity	24,968,841			
Other Investments	5,465,597			
<b>Total Investments Measured at NAV</b>	<b>\$74,918,683</b>			
<b>Total Investments Measured at Fair Value</b>	<b>\$312,834,342</b>			

(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) Real assets are 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 real asset investment for GASB 72 purposes. Remaining real assets are valued at NAV.

## Notes to the Basic Financial Statements (continued)

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. Many index, commodity, and fixed income futures are publicly traded on active markets, which is the market approach to valuing securities. Futures trading on active markets are typically priced using the matrix pricing technique which relies on the securities relationship to other benchmark quoted prices. These inputs are observable as they are derived from quoted prices for identical or similar securities which might be exchanged in multiple active markets. All other derivatives are classified in Level 2 of the fair value hierarchy, as these securities are priced using the cost approach on a dealer market traded on lower frequencies. When these 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 the acquisition method and primarily unobservable pricing inputs, these securities are classified as Level 3. 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 equity and real assets direct holdings are investments in which CalPERS owns 100 percent of the assets. Private equity and real estate direct 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	\$10,167,615	\$0
Real Assets	34,316,630	3,825,103
Private Equities	24,968,841	14,330,497
Other Investments	5,465,597	15,038
<b>Total</b>	<b>\$74,918,683</b>	<b>\$18,170,638</b>

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.

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.



## Notes to the Basic Financial Statements (continued)

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 does not look through to capture the value of individual securities, but reports CalPERS' ownership interest in the investments.

Upon initial investment with a general partner, CalPERS commits to a certain funding level for the duration of the contract. At will, partners may request that CalPERS fund a portion of this amount. Certain unfunded commitments for real assets are subjected to annual renewal and are excluded in the unfunded commitment disclosure.

Certain real asset investments are leveraged in that partnerships have been established to purchase properties through a combination of contributions from CalPERS and other investors and through the acquisition of debt. Real asset investments of approximately \$34.3 billion are reported at NAV. CalPERS no longer holds recourse debt in real asset investment partnerships.

## 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, 2017:

### Money-Weighted Rate of Return

Plan	Rate of Return
PERF A	
Agent	11.2%
PERF B	
Schools Cost-Sharing	11.2%
PERF C	
Public Agency Cost-Sharing	11.2%
LRF	4.3%
JRF	1.0%
JRF II	9.6%
CERBTf	10.0%

## 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, 2017, 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, 2017:

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

Debt Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2017	Percent of Debt Securities
<b>U.S. Treasuries and Agencies:</b>			
US Treasury Notes	5.55	\$22,776,440	21.18%
US Treasury Bonds	16.58	13,681,532	12.72%
US Agencies	12.57	1,079,308	1.00%
US Treasury Strips	11.78	49,160	0.05%
Foreign Government	8.62	19,263,486	17.92%
Corporate	11.16	14,869,868	13.83%
Mortgages	4.08	12,423,202	11.55%
Asset-Backed	3.21	1,141,696	1.06%
Municipals	10.94	10,014	0.01%
<b>No Effective Duration:</b>			
Commercial Paper	N/A	\$12,316,946	11.46%
Asset-Backed	N/A	8,304,526	7.72%
Foreign Government	N/A	715,322	0.67%
Commingled Fund	N/A	635,598	0.59%
Swaps	N/A	230,341	0.21%
Corporate	N/A	19,690	0.02%
Mortgages	N/A	13,903	0.01%
<b>Total<sup>1</sup></b>		<b>\$107,531,032</b>	<b>100.00%</b>

(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, 2017, the pooled money investment account with the State Treasury totaled approximately \$1.0 billion, and the SSGA STIF totaled approximately \$16.3 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, 2017, the weighted average maturity was 194 days for the State Treasury pool and 24 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 LTCF, HCF, SCPF, and DCF invest in various SSGA funds, with weighted average maturities and credit ratings as of June 30, 2017:

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

SSGA Fund	Fair Value June 30, 2017	Credit Rating <sup>1</sup>	Weighted Average Maturity <sup>2</sup>
U.S. Aggregate Bond Index	\$444,679	AA2	8.26
3-10 Year U.S. Agency Index	4,883	AA1	5.08
3-10 Year U.S. Credit Index	213,654	A3	6.08
3-10 Year U.S. Treasury Index	256,788	AAA	5.58
Long U.S. Agency Index	23,233	AA1	17.73
Long U.S. Credit Corporate Index	435,190	BAA1	23.84
Long U.S. Credit Non-Corporate Index	70,526	A3	24.39
Long U.S. Treasury Index	549,356	AAA	25.11
U.S. Asset-Backed/Comm Mort Backed Index	59,305	AA1	5.29
U.S. High Yield Bond Index	93,581	B1	6.62
U.S. Inflation Protected Bond Index	6,733	AAA	8.48
U.S. Mortgage Backed Index	741,279	AAA	6.99
U.S. Short-Term Govt/Credit Bond Index	38,249	AA2	1.99
U.S. Bond Index	322,443	AA2	8.19
U.S. Tips Index	257,096	AAA	8.48
<b>Total</b>	<b>\$3,516,995</b>		

(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, 2017:

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

Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2017	Percent of Securities Lending Collateral
Asset-Backed Securities	0.05%	\$337,466	12.1%
Commercial Paper	0.01%	220,534	8.0%
<b>No Effective Duration:</b>			
Money Market Fund <sup>1</sup>	N/A	\$120,103	4.3%
Short-Term Investment Fund <sup>2</sup>	N/A	2,103,503	75.6%
<b>Total<sup>3</sup></b>		<b>\$2,781,606</b>	<b>100.0%</b>

(1) Money Market Fund is invested in U.S. Treasury securities with a weighted average maturity (to final maturity) of less than 1 day.

(2) Short-Term Investment Fund has a weighted average maturity (to final maturity) of 1 day.

(3) This figure does not include \$2,000,000 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 \$4,781,606 for fiduciary funds.

As of June 30, 2017, 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, 2017, the collateral invested in CalPERS Internal Securities Lending had an aggregate weighted average maturity (to final maturity) of 228.48 days and duration of 3.6 days. eSecLending has a weighted average maturity (to final maturity) of 31.13 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, 91 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, 2017:

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

Moody's Quality Rating	Fair Value June 30, 2017	Fair Value as a Percent of Debt Security Investments
Aaa	\$11,260,681	10.47%
Aa1	3,990,451	3.71%
Aa2	2,448,101	2.28%
Aa3	788,803	0.74%
A1	1,631,520	1.52%
A2	1,422,969	1.32%
A3	3,357,015	3.12%
Baa1	2,546,447	2.37%
Baa2	4,040,391	3.76%
Baa3	2,248,943	2.09%
Ba1	1,321,491	1.23%
Ba2	776,335	0.72%
Ba3	249,860	0.23%
B1	379,629	0.35%
B2	185,195	0.17%
B3	177,224	0.17%
Caa1	140,039	0.13%
Caa2	353	—%
Caa3	28,841	0.03%
Caa	72,294	0.07%
Ca	26,767	0.02%
C	35,022	0.03%
NA <sup>1</sup>	36,969,657	34.38%
NR <sup>2</sup>	33,433,004	31.09%
<b>Total<sup>3</sup></b>	<b>\$107,531,032</b>	<b>100.00%</b>

(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.

## Notes to the Basic Financial Statements (continued)

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	\$985,270	35.4%
P-2	220,534	7.9%
NR <sup>1,2</sup>	1,575,802	56.7%
<b>Total<sup>3</sup></b>	<b>\$2,781,606</b>	<b>100.0%</b>

(1) NR represents those securities that are not rated.

(2) This figure includes \$120,103 invested in a money market fund and \$1,000,000 invested in short-term investments.

(3) This figure does not include \$2,000,000 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 \$4,781,606 for fiduciary funds.

### 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, 20 percent is targeted for investment in international securities. 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.

## 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' market value. CalPERS cannot seize the collateral security without borrower default; as such, the collateral security or noncash collateral is 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 market value of the securities loaned. The securities loaned are priced daily by third-party sources, and margins are paid and 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, 2017, the fair value of the securities on loan was approximately \$11.6 billion. The securities on loan remain on CalPERS' Statement of Fiduciary Net Position in their respective investment categories. At June 30, 2017, cash collateral received totaling \$4.8 billion is reported as securities lending obligation, and the fair value of reinvested cash collateral totaling \$4.8 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 May 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, 2017.

## Notes to the Basic Financial Statements (continued)

### 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, 2017, the aggregate fair value of investment derivatives in an asset position subject to counterparty credit risk was approximately \$425.5 million. The aggregate amount of cash collateral held by CalPERS on behalf of over-the-counter derivatives was approximately \$27.0 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, 2017	Fair value at June 30, 2017		
Derivatives (by Type)	Amount	Classification	Amount	Notional (Dollars)
Commodity Futures Long	\$32,563	Equity Securities	\$0	\$0
Commodity Futures Short	(583)	Equity Securities	—	—
Credit Default Swaps Bought	(616)	Debt Securities	(1,089)	48,118
Credit Default Swaps Written	1,044	Debt Securities	(701)	21,104
Currency Swaps	2,469	Debt Securities	6,861	237,163
Equity Options Bought	(86,432)	Equity Securities	70,410	2,500,000
Equity Options Written	24,305	Equity Securities	(64,617)	(2,500,052)
Fixed Income Futures Long	61,142	Equity Securities	(5,083)	185,390,740
Fixed Income Futures Short	29,421	Equity Securities	621	(23,762,393)
Fixed Income Options Bought	161	Equity Securities	99	547,945
Fixed Income Options Written	(595)	Equity Securities	(11)	(27,900)
Foreign Currency Options Bought	(20,105)	Equity Securities	1,000	365,612
Foreign Currency Options Written	18,694	Equity Securities	(1,083)	(371,823)
Futures Options Bought	(7,226)	Equity Securities	48	1,495
Futures Options Written	11,981	Equity Securities	(60)	(1,635)
FX Forwards	(333,589)	Investment Sales/Purchases	(94,424)	14,602,020
Index Futures Long	1,441,406	Equity Securities	(19,317)	7,912,763
Index Futures Short	(58,679)	Equity Securities	(1,499)	(425,398)
Pay Fixed Interest Rate Swaps	9,392	Debt Securities	(76)	282,814
Receive Fixed Interest Rate Swaps	(6,597)	Debt Securities	769	332,670
Rights <sup>1</sup>	(1,345)	Equity Securities	3,069	6,938
Total Return Swaps Bond	204,005	Debt Securities	224,587	8,552,844
Total Return Swaps Equity	143	Debt Securities	(25)	28
Warrants <sup>1</sup>	1,129	Equity Securities	2,789	2,945
<b>Total</b>	<b>\$1,322,088</b>		<b>\$122,268</b>	

(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 Type	Fair Value June 30, 2017	Investment Maturities (in years)			
		Under-1	1-5	6-10	10+
Credit Default Swaps Bought	(\$1,089)	\$0	(\$1,089)	\$0	\$0
Credit Default Swaps Written	(701)	—	(679)	(22)	—
Currency Swaps	6,861	—	6,532	329	—
Fixed Income Options Bought	99	99	—	—	—
Fixed Income Options Written	(11)	(11)	—	—	—
Pay Fixed Interest Rate Swaps	(76)	(9)	(77)	183	(173)
Receive Fixed Interest Rate Swaps	769	52	1,000	59	(342)
Total Return Swaps Bond	224,587	224,587	—	—	—
Total Return Swaps Equity	(25)	—	(25)	—	—
<b>Total</b>	<b>\$230,414</b>	<b>\$224,718</b>	<b>\$5,662</b>	<b>\$549</b>	<b>(\$515)</b>

## 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, 2017	Notional
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.694%	\$237	\$16,940
Interest Rate Swaps	Receive Variable 6-month BBSW, Pay Fixed 3.5%	(198)	3,682
Interest Rate Swaps	Receive Variable 3-month JIBAR, Pay Fixed 8.52%	(91)	2,469
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.02%	90	649
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.25%	114	16,400
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.50%	126	1,800
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed .88%	(75)	22,017
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.16%	14	5,230
Interest Rate Swaps	Receive Variable 3-month JIBOR, Pay Fixed 7.40%	(9)	62,701
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.75%	(30)	974
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed 1.50%	(512)	41,242
Interest Rate Swaps	Receive Variable 6-month EURIB, Pay Fixed 1.50%	327	14,086
Interest Rate Swaps	Receive Variable 6-month EURIB, Pay Fixed .25%	106	26,575
Interest Rate Swaps	Receive Variable 6-month LIBOR, Pay Fixed .75%	(7)	55,595
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.75%	(49)	1,400
Interest Rate Swaps	Receive Variable 6-month BUBOR, Pay Fixed 1.28%	(30)	2,907
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.25%	(11)	1,200
Interest Rate Swaps	Receive Variable 1-month TIE, Pay Fixed 7.03%	(42)	3,455
Interest Rate Swaps	Receive Variable 1-month TIE, Pay Fixed 6.99%	(36)	3,488
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 2.12%	—	5
Interest Rate Swaps	Receive Fixed 3.795%, Pay Variable 3-month BKBM	103	2,343
Interest Rate Swaps	Receive Fixed 1.02%, Pay Variable 3-month STIBOR	9	948
Interest Rate Swaps	Receive Fixed 1.04%, Pay Variable 3-month STIBOR	12	1,114
Interest Rate Swaps	Receive Fixed 1.03%, Pay Variable 3-month STIBOR	44	4,245
Interest Rate Swaps	Receive Fixed 1.01%, Pay Variable 3-month STIBOR	10	1,150
Interest Rate Swaps	Receive Fixed 1.09%, Pay Variable 3-month STIBOR	7	486
Interest Rate Swaps	Receive Fixed 1.08%, Pay Variable 3-month STIBOR	24	1,790
Interest Rate Swaps	Receive Fixed 6.00%, Pay Variable 1-month TIE	(775)	22,100
Interest Rate Swaps	Receive Fixed 1.50%, Pay Variable 3-month LIBOR	263	1,424
Interest Rate Swaps	Receive Fixed 8.75%, Pay Variable 3-month JIBAR	747	16,027
Interest Rate Swaps	Receive Fixed 5.57%, Pay Variable 1-month TIE	(474)	7,790
Interest Rate Swaps	Receive Fixed .03%, Pay Variable 6-month LIBOR	(68)	3,026
Interest Rate Swaps	Receive Fixed 8.50% Pay Variable 3-month JIBAR	86	2,603
Interest Rate Swaps	Receive Fixed 1.75%, Pay Variable 3-month CDOR	(1,137)	7,546
Interest Rate Swaps	Receive Fixed 7.75%, Pay Variable 3-month JIBAR	24	1,946
Interest Rate Swaps	Receive Fixed 8.25%, Pay Variable 3-month JIBAR	23	725
Interest Rate Swaps	Receive Fixed .78%, Pay Variable 6-month LIBOR	43	22,018
Interest Rate Swaps	Receive Fixed 2.55%, Pay Variable 6-month THBSR	135	9,432
Interest Rate Swaps	Receive Fixed 7.40%, Pay Variable 3-month JIBAR	9	62,701
Interest Rate Swaps	Receive Fixed 1.00%, Pay Variable 6-month EURIB	403	82,918
Interest Rate Swaps	Receive Fixed 1.50%, Pay Variable 6-month EURIB	(75)	3,308
Interest Rate Swaps	Receive Fixed 1.00%, Pay Variable 6-month LIBOR	(4)	2,598
Interest Rate Swaps	Receive Fixed 6.68%, Pay Variable 6-month MIBOR	33	1,918
Interest Rate Swaps	Receive Fixed 6.70%, Pay Variable 6-month MIFOR	15	835
Interest Rate Swaps	Receive Fixed 7.74%, Pay Variable 1-month TIE	783	18,664
Interest Rate Swaps	Receive Fixed 1.75%, Pay Variable 6-month LIBOR	13	390
Interest Rate Swaps	Receive Fixed .30%, Pay Variable 6-month LIBOR	5	4,183
Interest Rate Swaps	Receive Fixed 6.65%, Pay Variable 6-month MIBOR	57	2,384
Interest Rate Swaps	Receive Fixed 2.48%, Pay Variable 6-month THBSR	20	3,023
Interest Rate Swaps	Receive Fixed 2.81%, Pay Variable 6-month THBSR	5	918
Interest Rate Swaps	Receive Fixed 7.46%, Pay Variable 1-month TIE	56	2,280
Interest Rate Swaps	Receive Fixed 7.61%, Pay Variable 1-month TIE	76	2,145
Interest Rate Swaps	Receive Fixed 6.25%, Pay Variable 6-month MIFOR	16	4,951

## Notes to the Basic Financial Statements (continued)

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

Investment type	Reference rate	Fair Value at June 30, 2017	Notional
Interest Rate Swaps	Receive Fixed 7.24%, Pay Variable 1-month TIIE	\$15	\$1,977
Interest Rate Swaps	Receive Fixed 2.50%, Pay Variable 3-month LIBOR	181	14,900
Interest Rate Swaps	Receive Fixed 7.14%, Pay Variable 1-month TIIE	40	7,962
Interest Rate Swaps	Receive Fixed 7.18%, Pay Variable 1-month TIIE	45	7,896
Interest Rate Swaps	Receive Fixed 1.78%, Pay Variable 3-month LIBOR	—	5
<b>Subtotal – Interest Rate Swaps</b>		<b>\$693</b>	<b>\$615,484</b>
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0%	\$35,452	\$24,204
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0.07%	30,766	1,042,153
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0.08%	91,178	3,088,510
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 0.09%	33,650	1,139,848
Total Return Bond Swaps	Receive Fixed 0%, Pay Fixed 1.27%	—	10
Total Return Bond Swaps	Receive Fixed 0.07%, Pay Fixed 0%	(12,324)	417,487
Total Return Bond Swaps	Receive Fixed 0.07%, Pay Fixed 0.07%	37,524	1,271,052
Total Return Bond Swaps	Receive Fixed 0.08%, Pay Fixed 0%	(18,998)	643,525
Total Return Bond Swaps	Receive Fixed 0.08%, Pay Fixed 0.08%	19,680	666,611
Total Return Bond Swaps	Receive Fixed 0.09%, Pay Fixed 0.09%	7,659	259,444
<b>Subtotal – Total Return Bond Swaps</b>		<b>\$224,587</b>	<b>\$8,552,844</b>
<b>TOTAL</b>		<b>\$225,280</b>	<b>\$9,168,328</b>

### CalPERS – Derivative Instruments Subject to Counterparty Credit Risk

Counterparty	Percentage of Net Exposure	Moody's Ratings
Goldman Sachs Intl. London	20.82%	A3
JP Morgan	12.28%	A3
BNP Paribas, S.A.	9.54%	A1
Wells Fargo Bank, N.A.	8.05%	Aa2
Morgan Stanley Capital Services, Inc.	7.65%	A3
Goldman Sachs International	7.08%	A1
Goldman Sachs & Co	4.69%	A3
HSBC Bank USA	4.65%	Aa3
Societe Generale	4.49%	A2
Bank of America	3.14%	Baa1
JP Morgan Chase Bank	2.30%	Aa3
Citibank N.A.	2.08%	A1
HSBC	1.92%	A1
Morgan Stanley	1.58%	A3
UBS AG	1.55%	A1
CIBC World Mkts, Inc.	1.50%	A1
Bank of America, N.A.	1.37%	A1
State Street Bank and Trust Company	0.95%	Aa3
Goldman Sachs CME	0.65%	A3
Deutsche Bank Ag	0.61%	Baa2
Goldman Sachs Bank USA	0.60%	A3
Barclays Bank Plc Wholesale	0.52%	A1
Credit Suisse First Boston Corp	0.45%	A1
JP Morgan Chase Bank N.A., London	0.45%	Aa3
Royal Bank of Scotland Plc	0.18%	A3
Standard Chartered Bank	0.16%	A1
Credit Suisse International	0.12%	A1
Toronto Dominion Bank	0.11%	Aa2
Morgan Stanley Bank, N.A.	0.10%	A1
State Street Bank, London	0.07%	A1

Counterparty	Percentage of Net Exposure	Moody's Ratings
Merrill Lynch International	0.06%	Baa1
Australia and New Zealand Banking	0.05%	Aa3
Standard Chartered Bank, London	0.05%	A1
Credit Suisse FOB CME	0.04%	A1
UBS AG London	0.04%	A1
Deutsche Bank Securities, Inc.	0.03%	Baa2
The Northern Trust Company	0.03%	A2
BNP Paribas, London	0.01%	A1
Citigroup Global Markets CME	0.01%	Baa1
Morgan Stanley and Co. International	0.01%	A3
National Australia Bank Limited	0.01%	Aa3
<b>TOTAL</b>	<b>100.00%</b>	



## Notes to the Basic Financial Statements (continued)

### CalPERS – International Investment Securities<sup>1</sup> – Fair Value at June 30, 2017 (U.S. Dollars in Thousands)

Currency	Cash	Equity	Debt Securities	Real Assets	Private Equity	Forward Contracts	Total
Australian Dollar	\$27,419	\$3,030,068	\$518,262	\$795,296	\$0	(\$6,935)	\$4,364,110
Brazilian Real	1,062	1,031,324	489,391	835,723	—	(162)	2,357,338
British Pound	433,266	7,735,792	4,004,492	624,725	—	11,021	12,809,296
Canadian Dollar	22,650	4,145,513	1,433,445	444,224	163,307	(15,770)	6,193,369
Chilean Peso	626	119,452	95,650	8,200	—	2,140	226,068
Chinese Yuan Renminbi	—	—	—	927,716	—	(111)	927,605
Colombian Peso	52	46,762	1,466	—	—	344	48,624
Czech Koruna	339	22,978	28,155	—	—	834	52,306
Danish Krone	355	872,862	102,824	—	—	(777)	975,264
Egyptian Pound	44	23,806	—	—	—	—	23,850
Euro Currency	168,516	15,850,810	6,380,506	101,800	2,558,281	(30,528)	25,029,385
Guatemala Quetzal	—	—	—	94,109	—	—	94,109
Hong Kong Dollar	4,597	3,982,004	—	—	—	(207)	3,986,394
Hungarian Forint	1,154	101,821	13,799	—	—	530	117,304
Indian Rupee	10,057	1,416,504	120	31,859	—	173	1,458,713
Indonesian Rupiah	4,494	378,279	38,702	—	—	(135)	421,340
Israeli Shekel	382	252,859	338,676	—	—	(1,766)	590,151
Japanese Yen	49,039	11,433,189	1,607,213	30,496	42,167	(23,781)	13,138,323
Kazakhstani Tenge	—	—	—	—	—	(35)	(35)
Malaysian Ringgit	1,195	313,636	80,644	251	—	(99)	395,627
Mexican Peso	3,724	452,315	799,165	6,859	—	(7,778)	1,254,285
Moroccan Dirham	3	7,331	—	—	—	—	7,334
New Taiwan Dollar	5,839	1,961,991	—	—	—	(35)	1,967,795
New Zealand Dollar	982	162,278	139,287	—	—	(1,939)	300,608
Norwegian Krone	428	451,333	67,640	—	—	(356)	519,045
Pakistan Rupee	1,354	67,732	—	—	—	—	69,086
Peruvian Nuevo Sol	265	1,454	51,216	—	—	28	52,963
Philippine Peso	93	170,651	—	—	—	(58)	170,686
Polish Zloty	425	164,543	191,210	—	—	(3,305)	352,873
Qatari Riyal	81	51,496	—	—	—	—	51,577
Romanian Leu	—	—	28,327	—	—	362	28,689
Russian Ruble	973	—	497,276	361,721	—	1,897	861,867
Singapore Dollar	359	656,666	46,762	—	—	(53)	703,734
South African Rand	2,540	1,084,252	253,834	—	—	(1,415)	1,339,211
South Korean Won	1,167	2,835,377	—	—	—	319	2,836,863
Swedish Krona	391	1,682,144	783,001	—	—	(16,555)	2,448,981
Swiss Franc	1,151	3,657,497	100,542	—	—	497	3,759,687
Thailand Baht	953	490,039	107,887	—	—	94	598,973
Turkish Lira	151	432,558	425,157	—	—	(867)	856,999
UAE Dirham	47	66,371	—	—	—	—	66,418
Uruguayan Peso	—	—	651	—	—	4	655
<b>Total</b>	<b>\$746,173</b>	<b>\$65,153,687</b>	<b>\$18,625,300</b>	<b>\$4,262,979</b>	<b>\$2,763,755</b>	<b>(\$94,424)</b>	<b>\$91,457,470</b>

(1) This table presents investment securities of all CalPERS managed funds, including derivative instruments that are subject to foreign currency risk.



## Notes to the Basic Financial Statements (continued)

### 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, 2017, are reported below. PERF A is an agent multiple-employer plan and therefore not disclosed in the following tables, consistent with 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
<b>PERF B:</b>				
Schools Cost-Sharing Plan	\$84,871,026	\$60,998,387	\$23,872,639	71.9%
<b>PERF C:</b>				
Public Agencies Cost-Sharing Plan	37,161,348	27,244,095	9,917,253	73.3%
<b>LRF:</b>				
State of California	102,760	116,884	(14,124)	113.7%
<b>JRF:</b>				
State of California	3,258,434	48,275	3,210,159	1.5%
<b>JRF II:</b>				
State of California	1,411,327	1,356,099	55,228	96.1%

The total pension liability by fund was determined by actuarial valuations as of June 30, 2016, which were rolled forward to June 30, 2017, 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	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies by Entry Age and Service	Varies by Entry Age and Service	3.00%	3.00%	3.00%
Mortality Rate Table <sup>1</sup>	Derived using CalPERS membership data for all funds				
Period Upon Which Actuarial Experience Survey Assumptions Were Based	1997-2011	1997-2011	1997-2011	1997-2011	1997-2011
Post-Retirement Benefit Increase	2.00% until PPPA floor on purchasing power applies, 2.75% thereafter	Contract COLA up to 2.75% until PPPA floor on purchasing power applies, 2.75% thereafter	2.75%	3.00%	2.75%
Discount Rate	7.15%	7.15%	5.25%	3.56%	6.65%

(1) The mortality table used was developed based on CalPERS-specific data. The table includes 20 years of mortality improvements using Society of Actuaries Scale BB. For more details on this table, please refer to the April 2014 experience study report (based on CalPERS demographic data from 1997 to 2011) available online at <https://www.calpers.ca.gov/docs/forms-publications/calpers-experience-study-2014.pdf>.

## 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 below 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	Assumed Asset Allocation	Real Return Years 1 - 10 <sup>1</sup>	Real Return Years 11+ <sup>2</sup>
Global Equity	47.0%	4.90%	5.38%
Fixed Income	19.0%	0.80%	2.27%
Inflation Assets	6.0%	0.60%	1.39%
Private Equity	12.0%	6.60%	6.63%
Real Estate	11.0%	2.80%	5.21%
Infrastructure and Forestland	3.0%	3.90%	5.36%
Liquidity	2.0%	(0.40%)	(0.90%)

(1) An expected inflation of 2.50% used for this period.

(2) An expected inflation of 3.00% used for this period.

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

Asset Class	Assumed Asset Allocation	Real Return Years 1 - 10 <sup>1</sup>	Real Return Years 11+ <sup>2</sup>
Global Equity	24.0%	3.95%	5.71%
Fixed Income	39.0%	0.70%	2.24%
TIPs	26.0%	(0.10%)	2.04%
Commodities	3.0%	1.10%	4.95%
REITs	8.0%	2.60%	7.88%

(1) An expected inflation of 2.50% used for this period.

(2) An expected inflation of 3.00% used for this period.

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

Asset Class	Assumed Asset Allocation	Real Return Years 1 - 10 <sup>1</sup>	Real Return Years 11+ <sup>2</sup>
Global Equity	50.0%	3.95%	5.71%
Fixed Income	34.0%	0.70%	2.24%
TIPs	5.0%	(0.10%)	2.04%
Commodities	3.0%	1.10%	4.95%
REITs	8.0%	2.60%	7.88%

(1) An expected inflation of 2.50% used for this period.

(2) An expected inflation of 3.00% used for this period.

## Notes to the Basic Financial Statements (continued)

### DISCOUNT RATE

#### **PERF B, PERF C, LRF, and JRF II**

The discount rates used in the actuarial valuations used to measure the total pension liability as of June 30, 2017, reflect the long-term expected rates of return for the respective plans. This excludes the JRF, which is funded on a pay-as-you-go basis and does not have assets accumulated to pay future benefits.

The discount rates used to measure the total pension liability as of June 30, 2017, 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 differ from the discount rates used as of June 30, 2016, for the PERF B, PERF C, LRF, and JRF II, which were 7.65 percent, 7.65 percent, 6.00 percent, and 7.15 percent, respectively due to a decrease in the long-term expected rate of return. For the LRF and JRF II, the financial reporting discount rates are consistent with the funding discount rates, but are without the adjustment for administrative expenses, consistent with generally accepted accounting principles. For the PERF B and PERF C, the financial reporting discount rates are not adjusted for administrative expenses and are consistent with the funding discount rates at the end of the three-year funding discount rate phase-in period.

To determine whether the municipal bond rate should be used in the calculation of a discount rate, the amortization and smoothing periods adopted by the Board in 2013 were used. For the PERF B, LRF, and JRF II, projections of expected benefit payments and contributions at the statutorily required member and employer rates were performed to determine if the assets would run out. The tests revealed the assets would not run out for the PERF B, LRF, and JRF II. Therefore, the long-term expected rates of return on pension plan investments were applied to all periods of projected benefit payments to determine the total pension liability for the PERF B, LRF, and JRF II.

For the PERF C, the crossover test was performed for a miscellaneous agent plan and a safety agent plan selected as being more at risk of failing the crossover test and resulting in a discount rate that would be different from the long-term expected rate of return on pension investments.

Based on the testing of the plans, the tests revealed the assets would not run out. Therefore the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability for the PERF C.

#### **JRF**

The discount rate used to measure the total pension liability as of June 30, 2017, was 3.56 percent, which differs from the discount rate used as of June 30, 2016, of 2.85 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. Therefore, a discount rate of 3.56 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, 2017, 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
<b>PERF B</b>				
Schools Cost-Sharing	\$84,871,026	\$60,998,387	\$23,872,639	71.9%
<b>PERF C</b>				
Public Agency Cost-Sharing	37,161,348	27,244,095	9,917,253	73.3%
<b>LRF</b>				
State of California	102,760	116,884	(14,124)	113.7%
<b>JRF</b>				
State of California	3,258,434	48,275	3,210,159	1.5%
<b>JRF II</b>				
State of California	1,411,327	1,356,099	55,228	96.1%

#### 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
<b>PERF B</b>				
Schools Cost-Sharing	\$96,122,689	\$60,998,387	\$35,124,302	63.5%
<b>PERF C</b>				
Public Agency Cost-Sharing	42,322,893	27,244,095	15,078,798	64.4%
<b>LRF</b>				
State of California	115,172	116,884	(1,712)	101.5%
<b>JRF</b>				
State of California	3,619,979	48,275	3,571,704	1.3%
<b>JRF II</b>				
State of California	1,595,080	1,356,099	238,981	85.0%

#### 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
<b>PERF B</b>				
Schools Cost-Sharing	\$75,536,829	\$60,998,387	\$14,538,442	80.8%
<b>PERF C</b>				
Public Agency Cost-Sharing	32,918,321	27,244,095	5,674,226	82.8%
<b>LRF</b>				
State of California	92,658	116,884	(24,226)	126.1%
<b>JRF</b>				
State of California	2,952,029	48,275	2,903,754	1.6%
<b>JRF II</b>				
State of California	1,264,325	1,356,099	(91,774)	107.3%

## Notes to the Basic Financial Statements (continued)

### 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, 2017, 524 employers had elected to participate in the fund. 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, 2017, there were 461,592 active plan members, 266,978 inactive plan members currently receiving benefit payments, and 8,675 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 2016-17 actual OPEB employer contributions from 524 participating employers representing 539 OPEB plans was \$3.8 billion. In compliance with GASB 74, this amount includes the \$1.2 billion in contributions made to the CERBTf, plus an additional \$2.6 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 10.0 percent for Fiscal Year 2016-17.

### 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, 2017, there were 978 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.

The RBF was impacted by the requirements of GASB 84, which resulted in reporting activity in the Statement of Changes in Fiduciary Net Position for Fiscal Year 2016-17. The beginning of year net position for Fiscal Year 2016-17 was restated despite total additions equaling total deductions for Fiscal Year 2015-16. Furthermore, the RBF will report a net position balance going forward.

## Notes to the Basic Financial Statements (continued)

### 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, and effective January 1, 2014, flex-funded plans, Anthem Blue Cross, Blue Shield of California, Health Net, Sharp, and UnitedHealthcare. 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 2016-17, the Board approved 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, 2017, 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 \$408.7 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, 2017, but have not been reported to the HCF. The total of the estimated claims liabilities at the end of the Fiscal Year 2016-17 also includes \$227.3 million of known

claims, which is reported as claims payable liability in the Statement of Net Position.

In the health care environment, it is reasonably possible that estimates regarding third-party payments could change in the near term as a result of one or more future confirming events. Differences between original estimates and subsequent revisions might arise due to final settlements, ongoing audits, and reconciliations. Retroactive adjustments are considered in the recognition of revenue and expenses on an estimated basis in the period the related services are rendered, and such amounts are adjusted in future periods as adjustments become known. For the HCF/CRF, these estimates also reflect health care contract termination, which are reported as Other Liabilities 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, 2017, and June 30, 2016.

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

Year ended June 30	2017	2016
<b>Total Estimated Claims at Beginning of Fiscal Year</b>	<b>\$729,317</b>	<b>\$689,202</b>
Total Incurred Claims and Claim Adjustment Expenses	3,373,052	3,417,480
Total Payments	(3,466,375)	(3,377,365)
<b>Total Estimated Claims at End of Fiscal Year</b>	<b>\$635,994</b>	<b>\$729,317</b>

### 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. For financial reporting purposes only, activity in the CRF is reported in the HCF/CRF combined financial statements.

PEMHCA establishes eligibility rules for the following:

- Retirees and beneficiaries receiving health care benefits,



## Notes to the Basic Financial Statements (continued)

- 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, 2017, was 0.31 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, with the exception of premium dollars designated for self-funded and flex-funded health plans, which are transferred to the HCF. As of June 30, 2017, there were 1,164 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 5 years. CalPERS conducted a procurement in 2017, which resulted in awarding a new 5-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 types:

- 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, 2017, there are 128,276 active participants in the LTC 1, LTC 2, LTC 3, and LTC 4 policy series, of which 6,315 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. Participants in the Long-Term Care program with a lifetime benefit period or inflation protection received a 36 percent rate increase in both 2015 and 2016, which totaled an 85 percent overall rate increase.

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 5.75 percent, morbidity, lapse rates, voluntary termination, mortality, and plan expenses. In Fiscal Year 2016-17, the actual investment returns were approximately \$177.3 million lower than expected. Economic and demographic 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, 2017, has been rolled forward from the June 30, 2016, actuarial valuation using standard actuarial techniques, and all assumptions remained the same as the previous year.

Total LTCF investments as of June 30, 2017, were approximately \$4.4 billion. For Fiscal Year 2016-17, the annual premium was \$306.3 million and the total benefits paid out were \$293.6 million. Since the program's inception in 1995 through June 30, 2017, the total benefits paid were approximately \$2.2 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



## Notes to the Basic Financial Statements (continued)

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 non-published 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."

Both JRS and JRS II funds could potentially be impacted, in an unknown amount, depending upon how the Court of Appeal rules on the most recently filed appeal.

*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 1995-2004 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 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. The court set a tentative trial date of November 19, 2018.

*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

## Notes to the Basic Financial Statements (continued)

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.

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.

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

- 74 Schedules of Changes in Net Pension Liability/(Asset) and Related Ratios
- 79 Schedules of Plan Contributions
- 81 Schedule of Investment Returns
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## Required Supplementary Information

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

PERF B – Four-Year Review<sup>1</sup> (Dollars in Thousands)

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

(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 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 – Four-Year Review<sup>1</sup> (Dollars in Thousands)

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

(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 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 – Four-Year Review<sup>1</sup> (Dollars in Thousands)

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

(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 Fiscal Year 2016-17, the financial reporting discount rate for the 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 – Four-Year Review<sup>1</sup> (Dollars in Thousands)

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

(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

The discount rate used to measure the total pension liability was 3.56 percent. The State funds the 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 3.56 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, 2017, was applied to all periods of projected benefit payments to measure the total pension liability.

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 – Four-Year Review<sup>1</sup> (Dollars in Thousands)

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

(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 Fiscal Year 2016-17, the financial reporting discount rate for the 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.

## Required Supplementary Information (continued)

### SCHEDULES OF PLAN CONTRIBUTIONS

#### Four-Year Review<sup>1</sup> (Dollars in Thousands)

	2017	2016	2015	2014
<b>PERF B:</b>				
Actuarially Determined Contribution	\$1,767,813	\$1,421,289	\$1,303,162	\$1,201,125
Contributions in Relation to the Actuarially Determined Contribution	1,767,813	1,421,289	1,303,162	1,201,125
<b>Contribution Excess</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Covered Payroll	\$12,643,354	\$11,747,602	\$10,964,872	\$10,120,248
Contributions as a Percentage of Covered Payroll	14.0%	12.1%	11.9%	11.8%
<b>PERF C:</b>				
Actuarially Determined Contribution	\$858,954	\$789,103	\$691,602	\$732,142
Contributions in Relation to the Actuarially Determined Contribution	858,954	789,103	691,602	732,142
<b>Contribution Excess</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Covered Payroll	\$3,631,919	\$3,472,950	\$3,356,312	\$3,248,018
Contributions as a Percentage of Covered Payroll	23.7%	22.7%	20.6%	22.5%
<b>LRF:</b>				
Actuarially Determined Contribution	\$0	\$141	\$260	\$33
Contributions in Relation to the Actuarially Determined Contribution <sup>2</sup>	516	549	590	565
<b>Contribution Excess</b>	<b>(\$516)</b>	<b>(\$408)</b>	<b>(\$330)</b>	<b>(\$532)</b>
Covered Payroll	\$1,360	\$1,313	\$1,545	\$1,470
Contributions as a Percentage of Covered Payroll	37.9%	41.8%	38.2%	38.4%
<b>JRF:</b>				
Actuarially Determined Contribution <sup>3</sup>	\$448,636	\$463,073	\$1,884,555	\$1,569,630
Contributions in Relation to the Actuarially Determined Contribution <sup>4</sup>	204,475	192,287	180,910	191,148
<b>Contribution Deficiency</b>	<b>\$244,161</b>	<b>\$270,786</b>	<b>\$1,703,645</b>	<b>\$1,378,482</b>
Covered Payroll	\$39,413	\$34,301	\$41,378	\$54,649
Contributions as a Percentage of Covered Payroll	518.8%	560.6%	437.2%	349.8%
<b>JRF II:</b>				
Actuarially Determined Contribution	\$67,102	\$65,839	\$63,193	\$55,538
Contributions in Relation to the Actuarially Determined Contribution	67,102	65,839	63,193	55,538
<b>Contribution Excess</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Covered Payroll	\$291,097	\$280,879	\$259,133	\$249,248
Contributions as a Percentage of Covered Payroll	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 PEPPRA, 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 – Four-Year Review

	2016-17	2015-16	2014-15	2013-14
<b>PERF B</b>				
Actuarial Cost Method	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	Level Percentage of Payroll
Remaining Amortization Periods <sup>1</sup>	14-30 years	15-30 years	16-30 years	17-30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	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
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%
<b>PERF C</b>				
Actuarial Cost Method	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	Level Percentage of Payroll
Remaining Amortization Periods <sup>1</sup>	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	Smoothing of Market Value	Smoothing of Market Value
Inflation	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
Investment Rate of Return	7.50%	7.50%	7.50%	7.50%
<b>LRF</b>				
Actuarial Cost Method	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	Level Percentage of Payroll
Remaining Amortization Periods <sup>1</sup>	63 years	29-30 years	30 years	30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	5.75%	5.75%	5.75%	5.75%
<b>JRF</b>				
Actuarial Cost Method	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
Remaining Amortization Periods	10 years	10 years	2 years	2 years
Asset Valuation Method	Market Value	Market Value	Market Value	Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	4.25%	4.25%	4.25%	4.25%
<b>JRF II</b>				
Actuarial Cost Method	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	Level Percentage of Payroll
Remaining Amortization Periods <sup>1</sup>	30 years	30 years	16-30 years	17-30 years
Asset Valuation Method	Market Value	Market Value	Smoothing of Market Value	Smoothing of Market Value
Inflation	2.75%	2.75%	2.75%	2.75%
Salary Increases	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	7.00%	7.00%	7.00%	7.00%

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

## Required Supplementary Information (continued)

### SCHEDULE OF INVESTMENT RETURNS

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

Plan	2017 Rate of Return	2016 Rate of Return	2015 Rate of Return	2014 Rate of Return
PERF A <sup>1</sup>				
Agent	11.2%	0.5%	2.2%	17.7%
PERF B <sup>1</sup>				
Schools Cost-Sharing	11.2%	0.5%	2.2%	17.7%
PERF C <sup>1</sup>				
Public Agency Cost-Sharing	11.2%	0.5%	2.2%	17.7%
LRF <sup>1</sup>	4.3%	3.8%	(0.1%)	12.9%
JRF <sup>1</sup>	1.0%	0.5%	0.2%	0.1%
JRF II <sup>1</sup>	9.6%	1.9%	(0.2%)	18.3%
CERBTf <sup>2</sup>	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 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)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
1) Net Earned Required Premium and Investment Revenues	\$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	\$1,543,643
2) Unallocated Expenses	\$312,924	\$355,779	\$371,916	\$192,987	\$105,154	\$96,043	\$88,392	\$90,292	\$85,511	\$78,607
3) Estimated Incurred Claims and Expenses, End of Policy Year	\$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	\$1,385,438
4) Paid (Cumulative) as of:										
End of Policy Year	\$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	\$1,197,390
One Year 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	1,316,774
Two Years Later	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Three Years Later	—	—	—	—	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Four Years Later	—	—	—	—	—	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Five Years Later	—	—	—	—	—	—	1,698,615	1,589,771	1,448,134	1,316,774
Six Years Later	—	—	—	—	—	—	—	1,589,771	1,448,134	1,316,774
Seven Years Later	—	—	—	—	—	—	—	—	1,448,134	1,316,774
Eight Years Later	—	—	—	—	—	—	—	—	—	1,316,774
Nine Years Later	—	—	—	—	—	—	—	—	—	—
5) Re-Estimated Incurred Claims Expenses:										
End of Policy Year	\$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	\$1,385,438
One Year 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	1,316,774
Two Years Later	—	—	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Three Years Later	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Four Years Later	—	—	—	—	1,796,587	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Five Years Later	—	—	—	—	—	1,788,135	1,698,615	1,589,771	1,448,134	1,316,774
Six Years Later	—	—	—	—	—	—	1,698,615	1,589,771	1,448,134	1,316,774
Seven Years Later	—	—	—	—	—	—	—	1,589,771	1,448,134	1,316,774
Eight Years Later	—	—	—	—	—	—	—	—	1,448,134	1,316,774
Nine Years Later	—	—	—	—	—	—	—	—	—	1,316,774
6) Decrease in Estimated Incurred Claims and Expenses From End of Policy Year	\$0	(\$18,131)	\$370,175	(\$69,915)	(\$125,370)	(\$28,110)	(\$93,984)	(\$64,443)	(\$82,130)	(\$68,664)

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/CRF operating costs, including overhead and claims expense not allocable to individual claims, for each fiscal year.
- (3) This line shows the HCF/CRF 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

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## Other Supplementary Information

### ADMINISTRATIVE EXPENSE – ALL FUNDS (DOLLARS IN THOUSANDS)

	2017
<b>PERSONNEL SERVICES</b>	
Salaries & Wages	\$181,413
Employee Benefits	86,720
<b>Total Personnel Services</b>	<b>\$268,133</b>
<b>CONSULTANT &amp; PROFESSIONAL SERVICES</b>	
State of California Agencies	\$6,142
External Consultants	47,062
Retiree Benefit Trust Management Fees	102
Deferred Compensation Management/Custody Fees	3,297
Health Plan Administrator Fees	254,352
Long-Term Care Administrator Fees	20,690
<b>Total Consultant &amp; Professional Services</b>	<b>\$331,645</b>
<b>OPERATING EXPENSES &amp; EQUIPMENT</b>	
General Expense	\$5,403
Software	1,825
Printing	1,963
Building	22,694
Postage	2,698
Communications	1,564
Data Processing Services	18,932
Travel	1,817
Training	1,010
Medical Examiners	1,999
Facilities Operation	4,034
Central Administrative Services	21,118
Administrative Hearings	1,696
Consolidated Data Center	65
Equipment	3,053
<b>Total Operating Expenses &amp; Equipment</b>	<b>\$89,871</b>
<b>OTHER EXPENSES &amp; ADJUSTMENTS</b>	
Depreciation Expense	\$19,120
Amortization	67,843
Miscellaneous	42,055
<b>Total Other Expenses &amp; Adjustments</b>	<b>\$129,018</b>
<b>TOTAL ADMINISTRATIVE EXPENSES — ALL FUNDS</b>	<b><u>\$818,667</u></b>

## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS

#### Investment Management Fees<sup>1,2</sup> (Dollars in Thousands)

	Fees		Fees
<b>Equity Managers</b>		<b>Equity Managers</b>	
Allianz Global Investors U.S., LLC	\$4,862	Aisling Capital II, LP	\$59
Arrowstreet Capital, LP	9,394	Aisling Capital III, LP	719
Ashmore Equities Investment Management	174	Apollo Asia Opportunity Fund, LP	(3,618)
Baillie Gifford Overseas, Ltd.	1,684	Apollo European Principal Finance Fund, LP	6
Cartica Corporate Governance Fund, LP	5,739	Apollo Investment Fund VII, LP	1,074
Epoch Investment Partners, Inc.	7,815	Apollo Investment Fund VIII, LP	1,563
First Quadrant, LP	932	Apollo Special Opportunities Managed Account, LP	3,751
FIS CalBear Fund, LLC	1,741	ArcLight Energy Partners Fund IV, LP	473
Genesis Asset Managers, LLP	2,545	Ares Corporate Opportunities Fund III, LP	1,536
Hamilton Lane Advisors, LLC	705	Ares Corporate Opportunities Fund V, LP	479
Hermes Sourcecap Limited	2,447	Asia Alternatives Capital Partners II, LP	335
Huber Capital Management, LLC	2,292	Asia Alternatives Capital Partners, LP	144
J.P. Morgan Investment Management, Inc.	873	Avenue Asia Special Situations Fund IV, LP	137
Lazard Asset Management, LLC	3,927	Avenue Special Situations Fund VI (A), LP	304
Legato Capital Management Investments, LLC	5,036	Baring Vostok Private Equity Fund IV, LP	1,283
LEIA GEM Investment, LLC	2,661	BDC III C, LP	384
Progress Investments II, LLC	3,315	Birch Hill Equity Partners (US) III, LP	131
Pyramis Global Advisors Trust Company	1,922	Birch Hill Equity Partners (US) IV, LP	990
Pzena Investment Management, LLC	1,716	Blackstone / GSO Capital Solutions Fund, LP	1,258
State Street Global Advisors	3,221	Blackstone Capital Partners V, LP	548
Strategic Investment Group II, LLC	2,744	Blackstone Capital Partners VI, LP	2,254
Strategic Investment Management, LP	399	Blackstone Capital Partners VII, LP	2,569
Taiyo Fund, LP	773	Blackstone Tactical Opportunities Fund - C, LP	8,055
The Boston Company Asset Management, LLC	519	Blackstone Tactical Opportunities Fund II - C, LP	2,155
TOBAM	2,494	Bridgepoint Europe II 'A', LP	(5)
Wasatch Advisors, Inc.	4,780	Bridgepoint Europe IV 'B', LP	514
Wellington Management Company, LLP	6,197	Bridgepoint Europe IV 'D', LP	3,985
<b>Total Equity Managers</b>	<b>\$80,907</b>	Bridgepoint Europe V	5,062
<b>Fixed Income Managers</b>		California Asia Investors, LP	229
Alliance Bernstein, LP	\$441	California Emerging Ventures II, LLC	200
Baring International Investment Limited	371	California Emerging Ventures III, LLC	200
Bluebay Asset Management, LLP	526	California Emerging Ventures IV, LLC	562
Investec Asset Management North America	619	California Mezzanine Investment Fund, LP	39
Neuberger Berman	206	CalPERS Clean Energy & Technology Fund, LLC	800
Pacific Investment Management Co.	761	CalPERS Corporate Partners, LLC	86
<b>Total Fixed Income Managers</b>	<b>\$2,924</b>	Capital Link Fund I, LLC	382
<b>Private Equity Managers<sup>3</sup></b>		Capital Link Fund II, LLC	380
57 Stars Global Opportunities Fund 2, LLC	\$500	Carlyle Asia Growth Partners III, LP	237
57 Stars Global Opportunities Fund, LLC	600	Carlyle Asia Growth Partners IV, LP	1,043
Aberdare Ventures III, LP	28	Carlyle Asia Partners II, LP	638
Aberdare Ventures IV, LP	386	Carlyle Asia Partners III, LP	851
Advent International GPE V-D, LP	140	Carlyle Europe Partners III, LP	882
Advent International GPE VI-A, LP	2,738	Carlyle Europe Technology Partners II, LP	481
Advent International GPE VII-C, LP	4,068	Carlyle Global Financial Services Partners, LP	1,654
Advent International GPE VIII-B Limited Partnership	6,669	Carlyle Japan Partners II, LP	442
Advent Latin America Private Equity Fund IV-D, LP	1,501	Carlyle Partners V, LP	1,383
Advent Latin America Private Equity Fund V-H, LP	1,111	Carlyle Partners VI, LP	4,400
Advent Latin American Private Equity Fund III-D, LP	186	Carlyle Strategic Partners II, LP	171
Affinity Asia Pacific Fund III, LP	1,399	Carlyle Strategic Partners IV, LP	1,950
		Carlyle U.S. Equity Opportunities II, LP	2,504
		Carlyle U.S. Growth Fund III, LP	330
		Carlyle/Riverstone Global Energy and Power Fund III, LP	697

## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

#### Investment Management Fees<sup>1,2</sup> (Dollars in Thousands) (continued)

	Fees		Fees
CDH Fund V, LP	\$4,461	KKR Asian Fund, LP	\$488
Centerbridge Capital Partners III, LP	2,295	KKR European Fund II, LP	211
Cerberus CAL II Partners, LP	9	KKR European Fund III, LP	977
Cerberus CP Partners, LP	1,692	KKR Millennium Fund, LP	12
Cerberus Institutional Partners V, LP	1,716	Kline Hawkes Pacific, LP	(67)
Clarus Lifesciences I, LP	96	KM Corporate Partners Fund II, LP	980
Clarus Lifesciences II, LP	1,156	KPS Special Situations Fund III, LP	200
Clearlake Capital Partners III, LP	427	Levine Leichtman Capital Partners Deep Value Fund, LP	22
Clearlake Capital Partners IV, LP	855	Levine Leichtman Capital Partners IV, LP	136
Clearlake Opportunities Partners (P), LP	658	Lime Rock Partners IV, LP	182
Clearwater Capital Partners Fund II Holdings, LP	22	Lime Rock Partners V, LP	487
Clearwater Capital Partners Fund III, LP	494	Lindsay Goldberg IV, LP	3,591
Collier International Partners V-A, LP	2,628	Lion Capital Fund II, LP	442
Craton Equity Investors I, LP	239	Lombard Asia III, LP	195
CVC Capital Partners Strategic Opportunities Compounding	3,045	Madison Dearborn Capital Partners V, LP	217
CVC Capital Partners VI, LP	6,386	Magnum Capital, LP	713
CVC Credit Strategic Investment A, LP	1,442	MHR Institutional Partners III, LP	1,569
CVC European Equity Partners IV (D), LP	(313)	New Mountain Partners III, LP	1,249
CVC European Equity Partners Tandem Fund (B), LP	(430)	Newbridge Asia IV, LP	181
CVC European Equity Partners V (B), LP	894	Nogales Investors Fund I, LP	(195)
EMAlternatives Investments, LP	800	Oak Hill Capital Partners II, LP	73
ESP Golden Bear Europe Fund	120	Oak Hill Capital Partners III, LP	1,754
Essex Woodlands Health Ventures Fund VIII, LP	1,896	Oaktree Opportunities Fund VIIIb, LP	2,218
First Reserve Fund XI, LP	927	Onex Partners IV, LP	4,865
First Reserve Fund XII, LP	1,554	PAG Asia I, LP	708
First Reserve Fund XIII, LP	4,958	Patria Brazilian Private Equity Fund V, LP	3,000
Francisco Partners II, LP	681	Permira Europe III	—
Francisco Partners III, LP	991	Permira IV, LP 2	322
GCM Grosvenor DEM II, LP	750	Permira V, LP	3,218
GCM Grosvenor DEM, LP	590	Permira VI, LP 1	2,867
Golden State Investment Fund, LLC	371	Polish Enterprise Fund VI, LP	1,245
Granite Global Ventures II, LP	123	Providence Equity Partners V	—
Granite Global Ventures III, LP	169	Providence Equity Partners VI, LP	1,079
Green Equity Investors IV, LP	(109)	RFG Private Equity Limited Partnership No. 1A, 1B and 1C	89
Green Equity Investors V, LP	326	Richardson Capital Private Equity Limited Partnership No.2A,	33
GSO Capital Opportunities Fund II, LP	1,972	Riverstone Global Energy and Power Fund V, LP	2,652
GSO Capital Opportunities Fund, LP	144	Riverstone Global Energy and Power Fund VI, LP	7,142
GSO Capital Solutions Fund II, LP	2,962	Riverstone/Carlyle Global Energy and Power Fund IV, LP	1,720
GSO Energy Partners-C II, LP	545	Riverstone/Carlyle Renewable & Alternative Energy Fund II,	1,517
GSO Energy Partners-C, LP	1,970	Riverwood Capital Partners (Parallel - A), LP	542
Hellman & Friedman Capital Partners VI	476	Sacramento Private Equity Partners, LP	1,500
Hellman & Friedman Capital Partners VII	2,217	SAIF Partners III, LP	1,299
Hellman & Friedman Capital Partners VIII, LP	4,488	SAIF Partners IV, LP	2,188
Insight Venture Partners Growth-Buyout Coinvestment Fund	4,158	Sankaty Managed Account, LP	263
Insight Venture Partners IX, LP	1,957	Silver Lake Partners II, LP	58
Insight Venture Partners VI, LP	500	Silver Lake Partners III, LP	1,174
Khosla Ventures III, LP	2,000	Silver Lake Partners IV, LP	2,676
Khosla Ventures Seed, LP	1,018	Siris Partners III, LP	350
KKR 2006 Fund, LP	246	Tailwind Capital Partners (PP), LP	247
KKR Asian Fund II, LP	3,399	Tailwind Capital Partners II, LP	1,781

## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

#### Investment Management Fees<sup>1,2</sup> (Dollars in Thousands) (continued)

	Fees		Fees
The Central Valley Fund II SBIC, LP	\$557	FSP - Base	\$17,105
The Central Valley Fund, LP	50	FSP - DT 2011	2,521
The Resolute Fund II, LP	396	FSP - DT 2012 and Beyond	5,512
TowerBrook Investors II, LP	907	Global Infrastructure Partners II, LP (GIP II)	3,051
TowerBrook Investors III, LP	981	Global Retail Investors, LLC	1,678
TowerBrook Investors IV (Onshore), LP	5,390	Golden Reef Infrastructure Trust	914
Towerbrook Structured Opportunities Fund (Onshore), LP	1,648	GRI - Base	11,016
TPG Asia V, LP	1,270	GRI - DT 2011	118
TPG Biotechnology Partners III, LP	479	Harbert Gulf Pacific Power, LLC (HGPP)	3,821
TPG Partners V, LP	524	Harbert Power Fund V, LP (HPF V)	783
TPG Partners VI, LP	2,716	HC Green Development Fund, LP	518
TPG STAR, LP	638	HC NOP Holdings, LP	118
Trident VI	2,684	HCB Interests II, LP	1,725
Triton Fund IV, LP	1,411	HCB LTH	5,408
VantagePoint Venture Partners 2006 (Q), LP	1,492	HCC Interests, LP	252
Vicente Capital Partners Growth Equity Fund, LP	270	HCM Holdings II, LP	(3)
W Capital Partners II, LP	651	HCR LTH, LLC	4,008
Wellspring Capital Partners V, LP	(537)	Hearthstone Housing Partners II, LLC	1,382
Welsh, Carson, Anderson & Stowe X, LP	31	Hearthstone Housing Partners III, LLC	258
Welsh, Carson, Anderson & Stowe XI, LP	463	Hearthstone Multi-State Residential Value-Added III	3
Welsh, Carson, Anderson & Stowe XII, LP	4,799	IHP Investment Fund I, LP	530
WLR Recovery Fund II, LP	(138)	IHP Investment Fund II, LP	731
WLR Recovery Fund IV, LP	(462)	IHP Investment Fund III, LP	1,355
Yucaipa American Alliance Fund I, LP	61	IMI - Base	21,583
Yucaipa American Alliance Fund II, LP	3,026	IMI - DT 2011	375
Yucaipa Corporate Initiatives Fund II, LP	329	IMP - Base	16,374
<b>Total Private Equity Managers</b>	<b>\$233,789</b>	IMP - DT 2011	99
		IMP - DT 2012 and Beyond	711
<b>Real Asset Managers</b>		Institutional Core Multifamily Investors	3,508
301 Capitol Mall, LP	\$127	Institutional Logistics Partners, LLC	2,769
AGI Resmark Housing Fund, LLC	570	Institutional Multifamily Partners	1,129
Alinda Infrastructure Fund I, LP	723	KC 2011, LLC	2,922
Alinda Infrastructure Fund II, LP	2,363	KSC Affordable Housing Investment Fund, LLC	935
ARA Asia Dragon Fund II	525	Land Management Company, LLC	2,465
ARA China Long Term Hold	5,825	LaSalle French Fund II, LP	4
Asia Pacific Property Fund SCSP	523	Lincoln Timber, LP	7,343
CalEast Canada Limited Partnership	29	Meriwether Farms, LLC	322
CalEast Industrial Investors, LLC	842	National Office Partners, LLC (CWP)	707
CalEast Solstice - Base	7,414	North Haven Infrastructure Partners II, LP	1,550
CalEast Solstice - DT Land	1,584	ORA Multifamily Investments I, LLC	3,404
CalEast Solstice - DT Other	2,002	ORA Residential Investments I, LP	4,021
CalWest - CalPERS	159	Pacific Multifamily Investors, LLC	3,250
Canyon Catalyst Fund, LLC	1,606	Pacific Vineyard Partners, LLC	328
Canyon Johnson Urban Fund, III	93	PLA Retail Fund I, LP	29
Carlyle Infrastructure Partners, LP	480	PRECO Account Partnership III, LP	48
CBRE Strategic Partners UK Fund II	44	Stockbridge Hollywood Park Co-Investors, LP	311
CUC III, LLC	49	Stockbridge Real Estate Fund II -B, LP	151
CIM Fund III, LP	7,610	Sylvanus, LLC	2,774
CIM Infrastructure Fund, LP	2,043	TechCore, LLC	7,267
CIM Urban Real Estate Fund, LP	2,348	TPG Hospitality Investments IV, LLC	438

## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

#### Investment Management Fees<sup>1,2</sup> (Dollars in Thousands) (continued)

	Fees
UBS International Infrastructure Fund II (B), LP	\$445
UBS International Infrastructure Fund II (C), LP	945
Whitney Ranch Venture, LLC	702
Xander Co-Investment	321
Xander JV Fund I (India Realty)	75
<b>Total Real Asset Managers</b>	<b>\$187,068</b>

#### Other Investment Management Fees

AQR Capital Management, LLC	\$3,597
Brookside Capital Partners Fund, LP	34
Deephaven Market Neutral, LLC	4
OZ Domestic Partners II, LP	25
OZ Eureka Fund, LP	841
Rock Creek 1848 Fund, LP	(230)
Standard Life Investments Limited	4,597
<b>Total Other Investment Management Fees</b>	<b>\$8,868</b>

#### **Total Management Fees** **\$513,556**

(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.

## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

#### Performance Fees<sup>1</sup> (Dollars in Thousands)

	Fees		Fees
<b>Absolute Return Strategy Managers</b>		National Office Partners, LLC (CWP)	(\$19,072)
Brookside Capital Partners Fund, LP	(\$28)	ORA Multifamily Investments I, LLC	14,156
Chatham Eureka Fund, LP	(39)	ORA Residential Investments I, LP	3,647
OZ Domestic Partners II, LP	34	Pacific Multifamily Investors, LLC	1,485
OZ Eureka Fund, LP	2,740	TechCore, LLC	14,101
Rock Creek 1848 Fund, LP	(18)	<b>Total Real Asset Managers</b>	<b>\$56,593</b>
<b>Total Absolute Return Strategy Managers</b>	<b>\$2,689</b>	<b>Total Performance Fees</b>	<b>\$85,239</b>
<b>Equity Managers</b>		<b>Total Management and Performance Fees</b>	<b>\$598,795</b>
Arrowstreet Capital, LP	\$8,142	(1) Negative performance fees are due to the reversal of accruals caused by the fluctuation in market values.	
Baillie Gifford Overseas, Ltd.	11,418		
J.P. Morgan Investment Management, Inc.	2,306		
Pyramis Global Advisors Trust Company	173		
The Boston Company Asset Management, LLC	1,004		
<b>Total Equity Managers</b>	<b>\$23,043</b>		
<b>Fixed Income Managers</b>			
Alliance Bernstein, LP	\$358		
Baring International Investment Limited	242		
Pacific Investment Management Co.	2,314		
<b>Total Fixed Income Managers</b>	<b>\$2,914</b>		
<b>Real Asset Managers</b>			
AGI Resmark Housing Fund, LLC	\$7,724		
AGI-TMG Housing Partners I, LLC	16,292		
CalEast Solstice, LLC	1,665		
Canyon Catalyst Fund, LLC	5,077		
Canyon Johnson Urban Fund, III	(1,757)		
CIM Fund III, LP	(36,891)		
CIM Infrastructure Fund, LP	4,328		
FSP - Base	2,674		
FSP - DT 2011	1,997		
FSP - DT 2012 and Beyond	(8,849)		
Global Infrastructure Partners II, LP (GIP II)	5,534		
Global Innovation Partners, LLC	(489)		
Global Retail Investors, LLC	14,742		
GRI - Base	5,620		
GRI - DT 2011	1,188		
Harbert Power Fund V, LP (HPF V)	712		
HCB Interests II, LP	807		
Hearthstone Housing Partners, LP	(74)		
Hearthstone Multi-State Residential Value-Added III	(1)		
Hearthstone-MSII Homebuilding Investors, LLC	72		
IHP Investment Fund I, LP	2,200		
IMI - Base	(21,618)		
IMP - Base	2,383		
IMP - DT 2011	274		
IMP - DT 2012 and Beyond	7,883		
Institutional Core Multifamily Investors	856		
Institutional Logistics Partners, LLC	2,159		
Institutional Multifamily Partners	8,461		
Ivy Investment Vehicle LDC (SWPM)	19,307		

## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

#### Other Investment Expenses<sup>1,2</sup> (Dollars in Thousands)

	Fees		Fees
<b>Advisory Fees</b>		Pavilion Alternatives Group, LLC	\$38
Fan Asset Management, LLC	\$391	Pension Consulting Alliance, LLC	102
FIS CalBear Fund, LLC	1,501	Persell Design Group, LLC	(10)
Goldman Sachs Asset Management	431	Propoint Technology, Inc.	1,820
Legato Capital Management Investments, LLC	2,188	Pyramid Technical Consultants, Inc.	244
LEIA GEM Investment, LLC	1,250	Qualapps, Inc.	127
Principal Life Insurance Company	(143)	RCLCO	45
Progress Investments II, LLC	1,250	RVK, Inc.	88
QS Investors, LLC	423	Ryedale, Inc.	462
Research Affiliates, LLC	1,394	SRI Infotech, Inc.	240
Strategic Investment Group II, LLC	1,250	Technology Crest Corporation	190
<b>Total Advisory Fees</b>	<b>\$9,935</b>	Trinity Technology Group, Inc.	253
		University of California, Davis	47
<b>Auditor Fees</b>		Wilcox, Miller & Nelson	108
Conrad, LLP	\$251	<b>Total Investment Consultant Fees</b>	<b>\$6,565</b>
KPM & Associates, LLP	40		
KPM & Associates, LLP (Partnership)	225	<b>Legal Fees</b>	
<b>Total Auditor Fees</b>	<b>\$516</b>	AlvaradoSmith, a Professional Corporation	\$0
		Berman DeValerio	10
<b>Appraisal Fees</b>		Cox, Castle & Nicholson, LLP	281
Altus Group U.S. Inc.	\$8,637	Hogan Lovells, US, LLP	102
<b>Total Appraisal Fees</b>	<b>\$8,637</b>	Jackson Walker, LLP	79
		K & L Gates, LLP	1,396
<b>Company Expense</b>		Katten Muchin Rosenman, LLP	9
FIS CalBear Fund, LLC	\$123	Morgan Lewis & Bockius, LLP	555
Legato Capital Management, LLC	203	Nixon Peabody, LLP	14
LEIA GEM Investment, LLC	177	Orrick Herrington & Sutcliffe, LLP	25
Progress Investments II, LLC	161	Pacific Corporate Group, LLC	153
Strategic Investment Group II, LLC	102	Pillsbury Winthrop Shaw Pittman, LLP	764
Strategic Investment Management, LP	56	Soltman, Levitt, Flaherty & Wattles, LLP	—
<b>Total Company Expense</b>	<b>\$822</b>	Steptoe & Johnson, LLP	54
		Stoel Rives, LLP	7
<b>Investment Consultant Fees</b>		<b>Total Legal Fees</b>	<b>\$3,449</b>
Adviser Compliance Associates, LLC	\$40		
Bard Consulting, LLC	580	<b>Master Custodian Fees</b>	
BDO USA, LLP	31	State Street Bank and Trust Company	\$5,103
Cambridge Associates, LLC	105	<b>Total Master Custodian Fees</b>	<b>\$5,103</b>
Courtland Partners, Ltd	70		
Crosswater Realty Advisors, LLC	56	<b>Fund Administration Fees</b>	
Cutter Associates, LLC	250	State Street Bank and Trust Company	\$2,816
Edhec Business School	149	<b>Total Fund Administration Fees</b>	<b>\$2,816</b>
Fitch 7City Learning, Inc.	1		
FTI Consulting, Inc.	184	<b>Tax Advisory Fees</b>	
Garland Associates, Inc.	238	Ernst & Young, LLP	\$1,072
Hamilton Lane Advisors, LLC	250	<b>Total Tax Advisory Fees</b>	<b>\$1,072</b>
KPMG, LLP	30		
Meketa Investment Group, Inc.	40	<b>Technology Expenses</b>	
Mercer Investment Consulting, Inc.	18	13D Research, Inc	\$60
Mosaic Investment Advisors, Inc.	176	Ablegov, Inc.	19
Pacific Alternative Asset Mgmt Company	200	Acadiasoft, Inc.	10
Pacific Community Ventures, Inc.	383	Allied Network Solutions, Inc.	1
Pavilion Alternatives Group, Ltd	10	Barclays Capital	100



## Other Supplementary Information (continued)

### INVESTMENT EXPENSE – ALL FUNDS (CONTINUED)

#### Other Investment Expenses<sup>1,2</sup> (Dollars in Thousands) (continued)

	Fees		Fees
Barra, LLC	\$2,026	MRI Software, LLC	\$282
BCA Research	129	MSCI, Inc.	598
Blackrock Financial Management, Inc.	8,582	MUFG Capital Analytics, LLC	5,961
Bloomberg, LP	2,667	NYSE Market, Inc.	11
Business Entity Data B.V.	—	Omgeo	106
Cambridge Associates, LLC	185	Options Price Reporting Authority	2
Candeal, Inc.	16	Preqin Limited	35
Carahsoft Technology Corp.	130	Quantal International, Inc.	37
CBRE, Inc.	37	Radianz Americas, Inc.	168
Charles River Systems, Inc.	2,921	Real Capital Analytics, Inc.	136
Convergence, Inc.	17	RG & Associates	8
Cornerstone Macro, LP	120	Russell Investment Group	34
Cost Effectiveness Measurement, Inc.	70	Ryedale Europe Limited	472
Costar Investment Analysis	150	S&P Global Market Intelligence, LLC	323
Covenant Review, LLC	30	SNL Financial LC	84
Creditsights	75	Standard & Poor's Corporation	782
Depository Trust Co.	1	Stone & Kanto, LLC	4
Derived Data, LLC	9	Strategic Economic Decisions, Inc.	15
eFront Financial Solutions, Inc.	1,767	Summit Financial Printing, LLC	8
eMBS, Inc.	9	The Depository Trust & Clearing Corp.	17
Empirical Research Partners, LLC	400	The Mathworks, Inc.	37
Equilar, Inc.	12	The Statestore, Inc.	1
Esai Energy, LLC	9	The Yield Book, Inc.	184
Etrali North America, LLC	304	Thomson Financial/Nelson	283
Eurasia Group	132	Thomson Reuters Scientific	(18)
Euromoney Trading Limited	15	Toronto Stock Exchange	4
eVestment Alliance	42	Trade Web	114
Factset Research Systems, Inc.	2,641	Trend Macrolytics, LLC	25
Fan Asset Management, LLC	(91)	TriOptima AB	38
Firsttrain, Inc.	10	Viola Risk Advisors, LLC	5
Fitch Ratings, Inc.	90	William O'Neil & Company	30
FTSE	700	Yardeni Research, Inc.	19
FX Alliance, Inc.	16	Zeno Consulting Group, LLC	49
GaveKal Capital Management Limited	25	<b>Total Technology Expenses</b>	<b>\$35,120</b>
Glass Lewis & Co., LLC	528		
Global Financial Data	25	<b>Internal Investment Personnel and Administrative</b>	
Global Investor Collaboration Svcs., LLC	5	Internal Investment Personnel and Administrative Expenses	\$69,100
Green Street Advisors	105	<b>Total Internal Investment Personnel and Administrative</b>	<b>\$69,100</b>
IHS Global, Inc.	100		
Institutional Shareholder Services, Inc.	192	<b>Miscellaneous Investment Expense Fees</b>	
Intex Solutions, Inc.	254	Miscellaneous Investment Expense Fees	\$428
Ives Group, Inc.	13	Transaction Fees	128,986
Kyriba Corporation	50	<b>Total Miscellaneous Investment Expense Fees</b>	<b>\$129,414</b>
London Stock Exchange PLC	32		
Macroeconomic Advisers, LLC	16	<b>Total Other Investment Fees and Expenses</b>	<b>\$272,549</b>
Mcgraw Hill/Standard & Poors	—		
Microsoft Services	1	<b>Total Investment Expenses - All Funds</b>	<b>\$871,344</b>
Moody's Analytics, Inc.	431		
Morningstar	13		
Mountainview Analytics, LLC	15		
MRB Partners, Inc.	50		

(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
Accenture, LLP	\$21	Business Process Re-engineering
Aisitech, LLC	(28)	Release Management/Quality Assurance/Configuration Management
Allied Network Solutions, Inc.	49	Business Analysis Services, Application Development, Information Services
Anthem Blue Cross	107,364	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
ATV Video Center, Inc.	111	Video and Multimedia Production Services
Avenue Solutions	288	Management Analysis
Baker Hostetler	(21)	Legal Services
Base 3 Consulting	201	Management Support Services
Bedrosian & Associates	24	Stakeholder Outreach & Communications
Belmonte Enterprises, LLC	896	Application Development, Information Services
Blue Shield of California	85,228	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
BluePath Health	104	Organizational and Leadership Development
Business Advantage Consulting, Inc.	120	Business Process Re-engineering, Technical Writing
California Department of Corrections & Rehabilitation	49	Management Support Services
California Department of Health Care Services	20	Annual Fee for Long-Term Care Policy & Partnership Services
Carahsoft Technology Corp.	24	Innovation and Development
Cast Software, Inc.	35	Information Services
Centers for Disease Control	125	Survey and Research Services
CoachSource, LLC	20	Organizational and Leadership Development
Conduent HR Consulting, LLC	402	Systems Analysis, Design, Implementation, Maintenance and Support
Cooperative Personnel Services, Inc.	38	Organizational and Leadership Development
Cornerstone Fitness, Inc.	99	Employee Training and Development
Corporate Executive Board	54	Employee Training and Development
Cutter Associates, LLC	(51)	Investment Business Consulting
CVS Caremark	(852)	Pharmacy Claims Administration, Account Management, Eligibility, Retail & Other Reporting Services
Delegata Corporation	1,426	Application Development, Business Intelligence and Reporting, Project Management Services
Delfino Madden O'Malley Coyle & Koewler, LLP	60	Advice on Labor/Employment Law
Department of Finance	35	Employee Training and Development
Department of Human Resources	255	Election Forms for the Alternate Retirement Program (ARP) Processing Services
Department of Justice	544	Conduct & Provide External Investigative Services
DLT Solutions	104	Software Installation, Implementation and Configuration Services
Drinker Biddle & Reath, LLP	157	Legal Services
DSS Research	172	Medical Consulting Services
Eagle Management Group, LLC, dba Matran	53	Marketing Services
Eaton Interpreting Services, Inc.	94	Interpreting Services
Elegant Enterprise Wide Solutions, Inc.	99	Application Development, IT Security, Management Support Services, Business Process Reengineering
Elynview Corporation	271	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Enterprise Networking Solutions, Inc.	84	Systems Analysis, Design, Implementation, Maintenance and Support

## Other Supplementary Information (continued)

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

Individual or Firm	Fees	Nature of Services
Enterprise Services, LLC	\$202	Business Analysis Services, Project Management Services, Information Services, Application Development, Disaster Recovery, Management Support Services, IT Security, Business Intelligence and Reporting
Equanim Technologies	775	Management Support Services, Project Management Services
Esoft Infosystems, Inc.	626	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Eterasys Consulting, Inc.	386	Application Development, Data Base Administration
Experis US, Inc.	35	Business Analysis Services, Project Management Services, Application Development, Business Intelligence and Reporting
First Data Merchant Services Corporation	67	Banking services
Fortuna BMC	173	IT Security
Gartner, Inc.	410	Management Support Services
Government Operations Agency	268	Operations and Strategic Business Planning
GovernmentJobs.com, Inc., dba NEOGOV	21	Recruiting and Placement
Grant Thornton, LLP	873	Operations and Strategic Business Planning, Performance Management and Program Evaluation, Project Oversight Services
Group One Consultants, Inc.	23	Recruiting and Placement
H&B Joint Venture	757	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management
Health Net of California	14,573	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
Heidrick & Struggles	809	Recruiting and Placement
Innovative Software Technologies, Inc.	629	Specialized IT Support Services for Actuarial Systems/Business
IVS/Everyone Counts, Inc.	1,376	Election services
J & K Court Reporting, LLC	67	Legal Services
Jay Gaines & Company, Inc.	39	Recruiting and Placement
JLynn Consulting, Inc.	1,117	Application Development, Information Services
K & L Gates, LLP	(573)	Legal Services
KearnFord Application Systems Design	3,862	Business Transformation/Transition, Information Services, Management Support Services, Project Management Services, Release Management/Quality Assurance/Configuration Management
King & Spalding, LLP	213	Legal Services
Knowledge Structures, Inc.	58	Employee Training and Development
Kong Consulting, Inc.	483	Systems Analysis, Design, Implementation, Maintenance and Support
LCS Technologies, Inc.	192	Data Base Administration
Long-Term Care Group, Inc.	20,254	Third-Party Member Record-Keeper, Medical Claims Administration, Eligibility, Retail & Other Reporting Services, IT services
Lussier Group	176	Management Analysis, Legal Services
Macias Gini & O'Connell LLP	2,851	Audit Services
Matrix Software Services	149	Systems Analysis, Design, Implementation, Maintenance and Support, Data Base Administration
Mazel Immigration Law, PC	37	Legal Services
McKinsey & Company, Inc.	85	Organizational and Leadership Development
Mellon Bank	321	Banking services
Mercer Health and Benefits	577	Actuarial Consulting Services, Medical Consulting Services
Michael Scales Consulting, LLC	239	Application Development
Milliman, Inc.	2,428	Project Management Services
Modis, Inc.	28	Architecture, Specialized IT Support Services
National Association of Corporate Directors	22	Operations and Strategic Business Planning
Nichols Consulting	158	Management Support Services

## Other Supplementary Information (continued)

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

Individual or Firm	Fees	Nature of Services
Northeast Retirement Services	\$102	Third-Party Member Record-Keeper
Nossaman, LLP	80	Legal Services
OnCore Consulting, LLC	7,106	Application Development, Information Services, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Ope Technology, LLC	456	Release Management/Quality Assurance/Configuration Management, Business Transformation/Transition
OptumRx	10,284	Pharmacy Claims Administration, Account Management, Eligibility, Retail and Other Reporting Services
Orrick Herrington & Sutcliffe, LLP	284	Legal Services
Pacific Business Group on Health	62	Application Development
Pasanna Consulting Group, LLC	1,822	Application Development, Data Base Administration, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Paul Benefits Law Corporation	65	Legal Services
Persell Design Group, LLC	78	User Experience Design, Strategy and Research
President and Fellows of Harvard College	260	Innovation and Development
Princeton Solutions Group, Inc.	576	Business Transformation/Transition, Project Management Services, Release Management/Quality Assurance/Configuration Management
Propoint Technology, Inc.	21	Management Support Services
Qualapps, Inc.	1,359	Application Development, Business Process Re-engineering, IT Architecture, Technical Writing
Radian Solutions, LLC	26	Application Development
Randstad Technologies US, LP	23	IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Recon Distribution, Inc.	36	Exhibition Management
Reed Smith, LLP	1,131	Legal Services
Ridgeway Partners, LLC	187	Recruitment and Placement
Root9B Technologies, Inc.	209	Project Management Services, Project Oversight Services
RR Donnelley	792	Open Enrollment Printing, Mail Processing & Postage
Runyon Saltzman, Inc.	(88)	Marketing Services
Saba Software, Inc.	164	Employee Training and Development
Senn-Delaney Leadership Conslt Group, LLC	(35)	Organizational and Leadership Development
Shah & Associates, A Professional Law Company	198	Legal Services
Sharp Health Plan	5,042	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
Shooting Star Solutions, LLC	158	IT Security
Sign Language Interpreting Service Agency	53	Interpreting Services
Softsol Technologies, Inc.	382	Application Development, Business Intelligence and Reporting, Business Transformation/Transition, Information Services, Release Management/Quality Assurance/Configuration Management
Sophus Consulting	276	Legal Services
SRI Infotech, Inc.	110	Application Development
State Controller's Office	8,835	Account Management, Performance Management and Program Evaluation
Steptoe & Johnson, LLP	1,021	Legal Services
Stoel Rives, LLP	29	Legal Services
T5 Consulting	1,802	Application Development, Business Intelligence and Reporting, Information Services
Take 1 Productions	54	Video and Multimedia Production Services
Teranomic	287	Project Management Services
TG Page Design Group	68	Marketing Services, Video and Multimedia Production Services
The Ballard Group, Inc.	150	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management

## Other Supplementary Information (continued)

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

Individual or Firm	Fees	Nature of Services
The Harry Walker Agency, Inc.	\$20	Employee Training and Development
Regents of the University of CA, Davis	291	Organizational and Leadership Development
The Taylor Feldman Group, LLC	27	Management Support Services
Thomson Reuters	71	Electronic Legal Library Database
Trinity Technology Group, Inc.	1,606	Application Development, Business Intelligence and Reporting, IT Architecture, Specialized IT Support Services for Investment Systems/Business
Truven Health Analytics, LLC	374	Performance Management and Program Evaluation
United Health Actuarial Services, Inc.	318	Medical Consulting Services
United Healthcare	28,154	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation & Development, Wellness, Prevention & Disease Management Services
Unleashing Leaders, Inc.	24	Organizational Leadership and Development, Employee Training and Development, Succession and Workforce Planning, Performance Management
Van Dermyden Maddux Law Corporation	32	Labor and Employment Outside Counsel
Vantage Consulting Group, Inc.	388	Application Development, IT Architecture
VanWrite Writing Consultants, LLC	52	Employee Training and Development
Vasquez Benisek & Lindgren, LLP	41	Outside Counsel, Intellectual Property Law
Viaspire	145	Marketing Services, Social Media Services, Writing and Editorial Services
Visionary Integration Professionals, LLC (VIP)	180	Management Support Services, Application Development, Business Process Re-engineering
Voya	3,297	Third-Party Member Record-Keeper
VPI Strategies	46	Organizational Leadership and Development, Employee Training and Development, Succession and Workforce Planning, Performance Management
Warrigal Consulting, Inc.	300	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management
Worktank Enterprises, LLC	186	Video and Multimedia Production Services, Web Event Services
Various	168	
<b>Total Consultant and Professional Services Expenses</b>	<b>\$331,645</b>	

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

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## Investment Section

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## Investment Section

### CHIEF INVESTMENT OFFICER'S LETTER

November 30, 2017

On behalf of the CalPERS Investment Office, I am pleased to report on CalPERS' investment performance, operations, and initiatives for the one-year period ending on June 30, 2017. The CalPERS Public Employees' Retirement Fund (PERF) earned a time-weighted rate of return of 11.2 percent this fiscal year, with the ending fair value of investments at \$326 billion.

The strong 12-month returns were led by the public equity investments, which generated a 19.6 percent return. Private equity also delivered double-digit net returns at 13.9 percent, followed by real assets, with net returns of 7.4 percent.

While the positive returns are encouraging, our focus is always on the long-term sustainability of the PERF. CalPERS invests for decades, not a single year.

With this in mind, in late 2016 the CalPERS Board made the difficult, but important decision to lower the discount rate for the PERF from 7.5 percent to 7.0 percent over the next three years. This incremental reduction of the discount rate, also known as the assumed rate of return, was done to give employers more time to prepare for the changes in contribution costs. While this means many employers and employees will see increases to their costs, it also brings the PERF more aligned with what CalPERS can responsibly assume to return from our investments over the longer term.

At the same time, the CalPERS Investment Office continues to make strides to reduce the risk, cost, and complexity of the System, as outlined in our 2020 Vision Strategic Plan. In the annual cost effectiveness presentation, the Investment Office reported that CalPERS' ongoing fees and expenses for its investment operations have declined by approximately \$281 million since Fiscal Year 2010-11. Contributors to the savings include transitioning assets from external managers to internal management when possible, renegotiating external management fees, and decreasing the number of outside consultants and advisors. The annual Cost Effectiveness Measurement (CEM) Benchmarking Survey found that CalPERS' investment program continues to be a low-cost leader compared with peers.

This year CalPERS also continued to strongly advocate for shareowner rights. CalPERS invests in more than 10,000 public companies worldwide, and we use our proxy voting rights at those companies to effect changes in line with our Governance & Sustainability Principles. During this year's proxy season we saw progress in the areas of climate risk reporting and proxy access, which are main themes in our Environmental, Social, and Governance (ESG) Strategic Plan.

Significant progress was made on climate risk reporting proposals which passed at Occidental Petroleum,

Pennsylvania Power and Light (PPL), and ExxonMobil, while a proposal at Chevron was withdrawn due to substantial implementation. Most notably, the win at Occidental Petroleum was the first of its kind in the United States. There were also advancements surrounding boardroom accountability through the request for proxy access. During the year, CalPERS led 19 proxy solicitation campaigns tied to the corporate governance best practice, 16 of which passed with more than 50 percent shareowner support.

In addition, CalPERS continued to advocate for the one-share, one-vote structure for all shareowners. This was particularly notable this year when InterActiveCorp (IAC) pursued changing their voting structures for their own benefit. To protect our rights and our investment, CalPERS pursued legal action and successfully blocked these efforts.

In addition to managing current investments, CalPERS began a global solicitation 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 managers with strong potential for success.

While we are a global investor, CalPERS is also proud to make investments in California. The Fiscal Year 2015-16 *CalPERS for California* report showed \$27.3 billion was invested in our home state, representing 9.3 percent of the PERF. These dollars were invested across multiple asset classes, including public equity, fixed income, private equity, and real assets. These commitments support local jobs, 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 Section (continued)

### INVESTMENT PERFORMANCE – PUBLIC EMPLOYEES’ RETIREMENT FUND (PERF)

Summary of Investments – PERF – As of June 30, 2017 (Dollars in Thousands)

Category	Book Value	Fair Value	% of Investments at Fair Value
Short-Term Investments	\$27,980,368	\$27,980,801	9%
Global Equity Securities	106,737,086	145,129,917	44%
Global Debt Securities	90,129,452	91,850,723	28%
Real Assets	24,410,999	35,436,160	11%
Private Equity	27,103,921	26,008,511	8%
<b>TOTAL INVESTMENT VALUE</b>	<b>\$276,361,826</b>	<b>\$326,406,112</b>	<b>100%</b>

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

Category	1-Year Return	3-Year Return	5-Year Return	10-Year Return	Index <sup>6</sup>	1-Year Return	3-Year Return	5-Year Return	10-Year Return
<b>Total Fund</b>	<b>11.2%</b>	<b>4.6%</b>	<b>8.8%</b>	<b>4.4%</b>	Asset Allocation Policy Index <sup>1</sup>	11.3%	4.9%	8.6%	5.6%
					Trust Universe Comparison Service (TUCS)				
					Public Fund Median	11.3%	4.9%	8.3%	5.4%
					Wilshire Large Fund Universe Median	12.9%	5.9%	9.4%	5.4%
Public Equity	19.6%	5.3%	11.6%	4.3%	CalPERS FTSE Global All Cap Custom	19.8%	5.3%	11.4%	4.7%
Private Equity	13.9%	8.1%	11.5%	9.3%	67% FTSE USTMI+33% FTSEAWEXUS +3%; 1Qtr Lag	20.3%	9.9%	13.7%	13.0%
Global Fixed Income	0.3%	3.5%	3.4%	6.5%	Global Fixed Income Benchmark <sup>2</sup>	(0.9%)	2.8%	2.5%	5.8%
Real Assets	7.4%	8.6%	10%	(0.9%)	Real Assets Benchmark <sup>3</sup>	7.0%	9.9%	10.2%	6.9%
Liquidity	0.8%	0.7%	0.4%	1.3%	91-Day Treasury Bill	0.5%	0.8%	0.6%	1.4%
Inflation <sup>5</sup>	(2.7%)	(6.0%)	(2.1%)	—%	Inflation Benchmark <sup>4</sup>	(1.8%)	(6.7%)	(2.7%)	—%
Multi-Asset Class <sup>7</sup>	6.9%	3.9%	—%	—%	Absolute 7.5%	7.5%	7.5%	—%	—%

(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% Barclays Long Liabilities and 10% Barclays International Fixed Income.

(3) The current benchmark is 84.6% Real Estate Benchmark (NCREIF ODCE-net,) 7.7% Infrastructure Benchmark (CPI + 4%), and 7.7% Forestland Benchmark (NCREIF Timberland-Gross) 1 Qtr Lag.

(4) The current benchmark is 75% ILB Benchmark and 25% Commodities Benchmark.

(5) Inception date for Inflation Asset Class is 2007.

(6) Index benchmarks are as of June 30, 2017, and are subject to be updated based on changes within the fund portfolios.

(7) Inception date for Multi-Asset Class is 2013.

## Investment Section (continued)

### PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

#### Asset Allocation – PERF

Asset Class	Current Allocation	New Interim Target Allocation <sup>1</sup>	Previous Interim Target Allocation <sup>2</sup>
Global Equity	48.3%	46.0%	51.0%
Private Equity	8.0%	8.0%	10.0%
Global Fixed Income	19.4%	20.0%	20.0%
Real Assets	11.2%	13.0%	12.0%
Liquidity	4.8%	4.0%	1.0%
Inflation Assets	7.8%	9.0%	6.0%
Total Plan Level <sup>3</sup>	0.5%	—	—
<b>TOTAL FUND</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

(1) Effective October 1, 2016.

(2) As of September 30, 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
Public Equity	\$10,621
Global Fixed Income	3,931
Real Assets <sup>1</sup>	8,131
Private Equity <sup>1</sup>	1,970
<b>TOTAL CALIFORNIA INVESTMENTS</b>	<b>\$24,653</b>

(1) Real assets and private equity as of March 31, 2017.

## Investment Section (continued)

### PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

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

Rank	Security Name	Shares	Fair Value
1	Apple	13,877,319	\$1,998,611
2	Microsoft Corporation	19,948,037	1,375,018
3	Amazon	1,009,281	976,984
4	Johnson & Johnson	7,212,824	954,184
5	JP Morgan Chase & Company	10,241,228	936,048
6	Exxon Mobil Corporation	11,503,974	928,716
7	Facebook	5,908,622	892,084
8	SamSung Electronics Company	371,217	771,212
9	Wells Fargo & Company	13,500,962	748,088
10	Alphabet	811,314	737,265

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

Rank	Bond	Interest Rate	Maturity Date	Par Value	Fair Value
1	United States Treasury	2.375%	5/15/2027	\$6,076,319	\$6,115,501
2	United States Treasury	2.875%	5/15/2043	3,026,176	3,056,206
3	United States Treasury	0.125%	4/15/2021	2,627,511	2,624,652
4	United States Treasury	0.625%	1/15/2024	2,472,033	2,508,158
5	United States Treasury	0.125%	7/15/2024	1,361,133	1,337,856
6	Federal Home Loan Mortgage Corp.	3.500%	9/13/2047	1,129,124	1,156,200
7	Federal Home Loan Mortgage PC Pool	3.000%	1/1/2047	1,143,621	1,141,967
8	Federal National Mortgage Association	3.500%	7/13/2047	1,107,552	1,137,501
9	United States Treasury	1.875%	4/30/2022	1,043,079	1,042,976
10	United States Treasury	2.500%	2/15/2045	1,114,024	1,040,119

A complete list of portfolio holdings is available upon request.

## Investment Section (continued)

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

Broker	Number of Shares Traded	Base Commission & Fees Amount	Broker	Number of Shares Traded	Base Commission & Fees Amount
Academy Securities, Inc.	1,345,126	\$14	Deutsche Bank Securities, Inc.	151,587,258	\$779
Attijariwafa Bank	50,911	8	Deutsche Eq In Prvt LIM DB	593,645	11
Autonomous, LLP	2,640,232	12	Deutsche Securities Asia, Ltd.	2,914,248	64
Banco Itau SA	2,272,684	22	Drexel Hamilton, LLC	6,112,321	84
Banco Pactual SA	2,574,551	19	DSP Merrill Lynch, Ltd.	1,896,057	18
Banco Santander Central Hispano	5,419,031	48	Edelweiss Securities Pvt. Ltd.	8,535,737	90
Bank Of Nova Scotia	3,076,066	21	Enam Securities Pvt. Ltd.	2,623,303	67
Barclays Capital, Inc.	9,903,193	122	Exane SA	3,526,295	44
Barclays Capital Inc./LE	23,034,380	307	Exane, Inc.	198,092	9
Bloomberg Tradebook Europe, Ltd.	5,237,464	8	FBR Capital Markets & Company	502,731	13
BMO Capital Markets	2,415,157	54	Flow Corretora De Mercadorias, Ltd.	4,489,475	48
BMO Capital Markets, Ltd.	1,197,323	19	Goldman Sachs (Asia), LLC	11,490,588	99
BNP Paribas Securities (Asia), Ltd.	4,235,900	21	Goldman Sachs (India)	661,037	15
BNP Paribas Securities Services	17,735,215	87	Goldman Sachs and Company	808,089,259	1,822
Bradesco S.A. CTVM	8,871,083	41	Goldman Sachs CME	4,703	9
Broadcort Capital Corp.	1,244,802	29	Goldman Sachs Do Brasil Corretora	4,382,464	25
BTIG, LLC	22,577,330	255	Goldman Sachs International	24,516,032	183
Canaccord Genuity, Inc.	433,745	12	Gordon, Haskett Capital Corp.	739,375	26
Cantor Fitzgerald & Co.	4,254,256	114	Guzman and Company	11,332,305	145
Capital Institutional Services, Inc., Equities	4,432,236	53	Hongkong and Shanghai Banking, Corp.	22,344,274	18
Celfin Capital SA Corredores De Bolsa	32,333,991	12	HSBC Bank, PLC	68,672,583	361
China International Capital Corp.	25,329,600	33	HSBC Brokerage (USA), Inc.	630,560	13
Citigroup Global Market Korea Secs., Ltd.	1,213,089	99	HSBC Securities (USA), Inc.	168,524,245	388
Citigroup Global Markets CME	24,253	46	Hyundai Securities	516,476	48
Citigroup Global Markets India	1,980,132	13	Icap Do Brasit Dtm, Ltda	15,555,802	105
Citigroup Global Markets Taiwan	8,191,800	21	ICICI Brokerage Services, Ltd.	22,405,810	101
Citigroup Global Markets, Inc.	573,160,336	2,980	India Infoline, Ltd.	1,741,480	39
Citigroup Global Markets, Inc. Salomon	201,757	342	Instinet	38,117,773	369
Citigroup Global Markets, Ltd.	89,708,909	621	Instinet Australia Clearing Svc. Pty., Ltd.	29,863,937	79
CL Securities Taiwan and Company, Ltd.	3,512,000	19	Instinet Pacific, Ltd.	246,268,394	271
CLSA Australia PTY, Ltd.	9,470,526	24	Instinet Singapore Services PT	48,095,808	23
CLSA Securities Korea, Ltd.	29,349	24	Instinet United Kingdom, Ltd.	247,957,903	1,291
CLSA Singapore PTE, Ltd.	165,264,976	363	Instinet, LLC	148,202,321	1,270
Convergex Execution Solutions, LLC	44,733,041	251	Investec Bank, PLC	901,147	30
Core Pacific Securities International, Ltd.	1,073,800	13	Investec Henderson Crosthwaite	230,081	8
Cowen and Company, LLC	1,068,187	30	Investment Technology Group, Inc.	35,045,349	216
Credit Agricole Securities (Asia)	577,139,394	295	Investment Technology Group, Ltd.	193,366,043	690
Credit Lyonnais Securities (USA), Inc.	2,057,575	27	ISI Group, Inc.	2,759,546	70
Credit Suisse First Boston	5,007,627	29	Itau USA Securities, Inc.	1,523,767	17
Credit Suisse First Boston (Europe)	475,282	49	ITG Australia, Ltd.	32,826,326	96
Credit Suisse First Boston SA CTVM	2,863,942	23	ITG Canada	2,533,562	16
Credit Suisse Secs India Private, Ltd.	2,328,543	23	ITG Securities (HK), Ltd.	141,895,656	77
Credit Suisse Securities (Europe), Ltd.	100,121,898	296	Jefferies and Company, Inc.	7,009,704	126
Credit Suisse Securities (USA), LLC	127,277,330	982	Jefferies International, Ltd.	3,181,029	25
CS First Boston (Hong Kong), Ltd.	6,122,394	43	JM Financial Institutional Securities PR	1,886,195	12
CSFB Australia Equities, Ltd.	1,330,437	19	JMP Securities	948,023	36
Daiwa Securities (HK), Ltd.	23,190,398	91	Joh Berenberg Gossler and Company	1,679,479	31
Daiwa Securities America, Inc.	4,239,400	12	Jones Trading Institutional Services, LLC	47,993,762	666
Davy Stockbrokers	2,821,967	104	JP Morgan Chase Bank	710,342	22
Den Norske Bank	388,223	10	JP Morgan Clearing Corp.	23,021,627	138
Deutsche Bank AG	6,006,911,595	18	JP Morgan India Private, Ltd.	17,794,322	74
Deutsche Bank AG, London	32,256,857	252	JP Morgan Securities (Asia Pacific), Ltd.	517,279,954	348

## Investment Section (continued)

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

Broker	Number of Shares Traded	Base Commission & Fees Amount	Broker	Number of Shares Traded	Base Commission & Fees Amount
JP Morgan Securities (Far East), Ltd.	1,691,774	\$35	Royal Bank of Canada Europe, Ltd.	1,575,466	\$35
JP Morgan Securities (Singapore)	50,063,136	35	S.S Kantilal Ishwarlal Securities	876,176	8
JP Morgan Securities Australia, Ltd.	12,772,262	43	Samsung Securities Co., Ltd.	605,838	42
JP Morgan Securities, Inc.	411,079,676	850	Sanford C Bernstein Co., LLC	66,977,020	414
JP Morgan Securities, Ltd.	331,398	9	Sanford C. Bernstein, Ltd.	32,469,679	203
JP Morgan Securities, PLC	328,716,650	1,203	SG Americas Securities, LLC	30,053,046	183
Keefe Bruyette and Woods, Inc.	1,052,990	29	SG Asia Securities (India) Pvt. Ltd.	7,167,053	31
Kepler Equities Paris	1,934,166	27	SG Securities Hong Kong	187,164,069	363
Keybank Capital Markets, Inc.	935,395	34	SJ Levinson and Sons, LLC	5,514,986	86
Kim Eng Securities (Hong Kong), Ltd.	5,251,265	63	SMBC Nikko Securities (Honk Kong) Ltd.	1,519,400	9
Knight Equity Markets, L.P	27,610,674	336	SMBC Securities, Inc.	273,588	9
Knight Securities, Intl.	2,521,863	20	Societe Generale London Branch	349,584,397	1,075
Korea Investment and Securities Company, Ltd.	65,740	21	Standard Bank London, Ltd.	1,305,293	28
Kotak Securities, Ltd.	4,440,439	93	State Steet Global Markets, LLC	645,689	13
Leerink Swann and Company	894,156	34	State Street Bank and Trust Company	57,697	14
Liquidnet, Inc.	24,616,525	292	Stifel Nicolaus and Co., Inc.	31,488,574	386
Loop Capital Markets, LLC	20,325,766	169	Suntrust Capital Markets, Inc.	402,336	14
M. Ramsey King Securities, Inc.	5,988,580	63	TD Securities (USA), LLC	326,179	8
Macquarie Bank, Ltd.	118,316,642	453	Tera Menkul Degerler A.S.	10,603,407	20
Macquarie Securities (India), Inc.	1,430,949	23	The Hongkong and Shanghai Bank	1,385,918	24
Macquarie Securities (USA), Inc.	569,045	21	Themis Trading, LLC	486,156	8
Macquarie Securities, Ltd.	7,315,890	31	UBS Ag	33,244,767	201
Merrill Lynch International	337,175,343	1,125	UBS, Ltd.	139,445,071	635
Merrill Lynch Pierce Fenner and Smith	204,570,627	1,240	UBS Securities Asia, Ltd.	432,943,996	432
Mirae Asset Daewoo and Company, Ltd.	90,453	17	UBS Securities Canada, Inc.	2,009,726	12
Mizuho Securities Asia, Ltd.	735,700	17	UBS Securities India Private, Ltd.	2,554,560	18
Mizuho Securities USA, Inc.	4,007,178	25	UBS Securities Pte.,Ltd.	106,008,498	87
Morgan Stanley (Taiwan), Ltd.	304,765,867	219	UBS Securities Pte.,Ltd., Seoul	3,634,533	44
Morgan Stanley and Company Inc.	1,995,040,741	1,589	UBS Securities, LLC	41,355,486	657
Morgan Stanley and Company International	1,121,691,252	326	UBS Warburg Australia Equities	1,415,669	20
Morgan Stanley India Company Pvt. Ltd.	78,764,348	123	Weeden and Company	43,487,428	458
Motilal Oswal Securities, Ltd.	1,249,157	10	Wells Fargo Prime Services, LLC	1,646,982	48
National Financial Services, Corp.	1,846,971	24	William Blair and Company, LLC	373,413	11
National Financial Services, LLC	272,344	8	Various <sup>1</sup>	61,123,873	395
NH Investment and Securities Co., Ltd.	341,548	13	<b>TOTAL</b>	<b>17,960,418,961</b>	<b>\$35,567</b>
North South Capital, LLC	14,200,344	183	(1) Commissions and fees paid to brokers that totaled less than \$8,000 for the year are reported under the "Various" line item.		
Oddo Et Cie	743,517	16			
Parel	803,675	21			
Pavilion Global Markets Ltd.	12,109,906	108			
Penserra Securities, LLC	57,313,260	570			
Pershing LLC	3,236,990	19			
Pershing Securities, Ltd.	422,227	11			
Piper Jaffray	577,819	20			
Raymond James and Associates, Inc.	2,734,579	101			
RBC Capital Markets	3,792,796	108			
RBC Dominion Securities, Inc.	38,007,690	338			
Redburn Partners, LLP	4,304,327	32			
Robert W. Baird Company, Inc.	841,833	28			
Robotti and Company, LLC	9,910,257	121			
Rosenblatt Securities, LLC	22,759,764	225			

## Investment Section (continued)

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

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates <sup>1,2</sup>	Net Management Fees	Profit Sharing Paid <sup>3,4</sup>
57 Stars Global Opportunities Fund 2 (CalPERS), LLC	\$960	(\$460)	\$500	\$0
57 Stars Global Opportunities Fund, LLC	600	—	600	—
Aberdare Ventures III, LP	28	—	28	—
Aberdare Ventures IV, LP	411	(25)	386	—
Acon-Bastion Partners II, LP	374	(374)	—	—
Advent International GPE V-D, LP	140	—	140	—
Advent International GPE VI-A, LP	2,869	(131)	2,738	24,465
Advent International GPE VII-C, LP	4,882	(814)	4,068	—
Advent International GPE VIII-B Limited Partnership	6,673	(4)	6,669	—
Advent Latin America Private Equity Fund IV-D, LP	1,501	—	1,501	—
Advent Latin America Private Equity Fund V-H, LP	1,111	—	1,111	—
Advent Latin American Private Equity Fund III-D, LP	186	—	186	—
Affinity Asia Pacific Fund III, LP	1,399	—	1,399	479
Aisling Capital II, LP	128	(69)	59	—
Aisling Capital III, LP	818	(99)	719	4,413
Alta BioPharma Partners II, LP	—	—	—	27
AP Alternative Assets (AAA), LP	—	—	—	11,769
Apollo Asia Opportunity Fund, LP	(3,618)	—	(3,618)	—
Apollo Credit Opportunity Fund I, LP	299	(299)	—	1,036
Apollo European Principal Finance Fund, LP	6	—	6	451
Apollo Investment Fund VI, LP	1,350	(1,350)	—	—
Apollo Investment Fund VII, LP	1,547	(473)	1,074	5,104
Apollo Investment Fund VIII, LP	4,999	(3,436)	1,563	2,828
Apollo Special Opportunities Managed Account, LP	3,751	—	3,751	—
ArcLight Energy Partners Fund II, LP	—	—	—	39
ArcLight Energy Partners Fund III, LP	—	—	—	1,614
ArcLight Energy Partners Fund IV, LP	473	—	473	5,389
Ares Corporate Opportunities Fund II, LP	—	—	—	2,645
Ares Corporate Opportunities Fund III, LP	1,767	(231)	1,536	12,874
Ares Corporate Opportunities Fund V, LP	479	—	479	—
Ares Special Situations Fund, LP	—	—	—	2,156
Asia Alternatives Capital Partners II, LP	335	—	335	—
Asia Alternatives Capital Partners, LP	144	—	144	—
Avenue Asia Special Situations Fund IV, LP	137	—	137	—
Avenue Europe Special Situations Fund, LP	—	—	—	329
Avenue Special Situations Fund IV, LP	—	—	—	900
Avenue Special Situations Fund V, LP	—	—	—	1,067
Avenue Special Situations Fund VI (A), LP	304	—	304	—
Baring Vostok Private Equity Fund IV, LP / Supplemental	1,283	—	1,283	—
BDC III C, LP	384	—	384	—
Birch Hill Equity Partners (US) III, LP	205	(74)	131	1,035
Birch Hill Equity Partners (US) IV, LP	1,017	(27)	990	—
Blackstone / GSO Capital Solutions Fund, LP	1,057	201	1,258	814
Blackstone Capital Partners IV, LP	50	(50)	—	3,965
Blackstone Capital Partners V, LP	765	(217)	548	26,812
Blackstone Capital Partners VI, LP	3,387	(1,133)	2,254	10,549
Blackstone Capital Partners VII, LP	2,569	—	2,569	—
Blackstone Mezzanine Partners, LP	—	—	—	(56)
Blackstone Tactical Opportunities Fund - C, LP	8,357	(302)	8,055	2,944
Blackstone Tactical Opportunities Fund II - C, LP	2,351	(196)	2,155	1,491
Bridgepoint Europe II 'A', LP	—	(5)	(5)	—



## Investment Section (continued)

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

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates <sup>1,2</sup>	Net Management Fees	Profit Sharing Paid <sup>3,4</sup>
Bridgepoint Europe IV 'B', LP	\$560	(\$46)	\$514	\$0
Bridgepoint Europe IV 'D', LP	4,273	(288)	3,985	—
Bridgepoint Europe V	5,814	(752)	5,062	—
California Asia Investors, LP	229	—	229	—
California Emerging Ventures II, LLC	200	—	200	—
California Emerging Ventures III, LLC	200	—	200	—
California Emerging Ventures IV, LLC	562	—	562	2,241
California Emerging Ventures, LLC	—	—	—	405
California Mezzanine Investment Fund, LP	39	—	39	—
CalPERS Clean Energy & Technology Fund, LLC	800	—	800	—
CalPERS Corporate Partners, LLC	86	—	86	7
Capital Link Fund I, LLC	382	—	382	—
Capital Link Fund II, LLC	380	—	380	—
Carlyle Asia Growth Partners III, LP	237	—	237	—
Carlyle Asia Growth Partners IV, LP	1,043	—	1,043	—
Carlyle Asia Partners (PV II), LP	—	—	—	19
Carlyle Asia Partners II, LP	638	—	638	—
Carlyle Asia Partners III, LP	967	(116)	851	145
Carlyle Europe Partners II, LP	—	—	—	1,522
Carlyle Europe Partners III, LP	882	—	882	12,673
Carlyle Europe Technology Partners II, LP	481	—	481	6,365
Carlyle Global Financial Services Partners, LP	1,689	(35)	1,654	9,370
Carlyle Japan Partners II, LP	442	—	442	—
Carlyle Japan Partners, LP	—	—	—	437
Carlyle Partners IV, LP	—	—	—	1,797
Carlyle Partners V, LP	2,026	(643)	1,383	27,091
Carlyle Partners VI, LP	6,600	(2,200)	4,400	—
Carlyle Realty Partners III, LP	—	—	—	175
Carlyle Strategic Partners II, LP	171	—	171	—
Carlyle Strategic Partners IV, LP	1,950	—	1,950	—
Carlyle U.S. Equity Opportunities II, LP	3,098	(594)	2,504	—
Carlyle U.S. Growth Fund III, LP	330	—	330	28
Carlyle/Riverstone Global Energy and Power Fund III, LP	697	—	697	—
CDH Fund V, LP	4,461	—	4,461	—
Centerbridge Capital Partners III, LP	2,296	(1)	2,295	—
Cerberus CAL II Partners, LP	9	—	9	—
Cerberus CP Partners, LP	3,170	(1,478)	1,692	—
Cerberus Institutional Partners V, LP	2,430	(714)	1,716	—
Clarus Lifesciences I, LP	105	(9)	96	—
Clarus Lifesciences II, LP	1,169	(13)	1,156	—
Clearlake Capital Partners III, LP	756	(329)	427	—
Clearlake Capital Partners IV, LP	1,190	(335)	855	—
Clearlake Opportunities Partners (P), LP	1,074	(416)	658	—
Clearwater Capital Partners Fund II Holdings, LP	22	—	22	—
Clearwater Capital Partners Fund III, LP	504	(10)	494	—
Collier International Partners IV-D, LP	—	—	—	63
Collier International Partners V-A, LP	2,628	—	2,628	248
Craton Equity Investors I, LP	239	—	239	—
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	3,045	—	3,045	—
CVC Capital Partners VI, LP	6,929	(543)	6,386	—
CVC Credit Strategic Investment A, LP	1,442	—	1,442	—
CVC European Equity Partners II (D), LP	—	—	—	605

## Investment Section (continued)

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

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates <sup>1,2</sup>	Net Management Fees	Profit Sharing Paid <sup>3,4</sup>
CVC European Equity Partners IV (D), LP	\$56	(\$369)	(\$313)	\$12,850
CVC European Equity Partners Tandem Fund (B), LP	(366)	(64)	(430)	7,078
CVC European Equity Partners V (B), LP	1,358	(464)	894	27,955
EM Alternatives Investments, LP	800	—	800	—
ESP Golden Bear Europe Fund	120	—	120	—
Essex Woodlands Health Ventures Fund VIII, LP	2,053	(157)	1,896	—
First Reserve Fund XI, LP	953	(26)	927	—
First Reserve Fund XII, LP	1,545	9	1,554	—
First Reserve Fund XIII, LP	5,440	(482)	4,958	—
Francisco Partners II, LP	688	(7)	681	—
Francisco Partners III, LP	1,264	(273)	991	4,235
GCM Grosvenor DEM II, LP	750	—	750	—
GCM Grosvenor DEM, LP	590	—	590	—
Golden State Investment Fund, LLC	371	—	371	—
Granite Global Ventures II, LP	123	—	123	—
Granite Global Ventures III, LP	169	—	169	—
Green Equity Investors IV, LP	(29)	(80)	(109)	—
Green Equity Investors V, LP	1,378	(1,052)	326	11,421
GSO Capital Opportunities Fund II, LP	1,973	(1)	1,972	500
GSO Capital Opportunities Fund, LP	144	—	144	959
GSO Capital Solutions Fund II, LP	3,391	(429)	2,962	—
GSO Energy Partners-C II, LP	545	—	545	—
GSO Energy Partners-C, LP	1,970	—	1,970	—
Hellman & Friedman Capital Partners V, LP	—	—	—	267
Hellman & Friedman Capital Partners VI	600	(124)	476	8,010
Hellman & Friedman Capital Partners VII	2,261	(44)	2,217	3,325
Hellman & Friedman Capital Partners VIII, LP	7,150	(2,662)	4,488	—
ICV Partners II, LP	—	—	—	1,137
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	4,160	(2)	4,158	1,990
Insight Venture Partners IX, LP	1,922	35	1,957	403
Insight Venture Partners V, LP	—	—	—	1,261
Insight Venture Partners VI, LP	500	—	500	682
Khosla Ventures III, LP	2,000	—	2,000	—
Khosla Ventures Seed, LP	1,018	—	1,018	—
KKR 2006 Fund, LP	246	—	246	13,087
KKR Asian Fund II, LP	3,399	—	3,399	2,825
KKR Asian Fund, LP	488	—	488	12,946
KKR European Fund II, LP	211	—	211	6,607
KKR European Fund III, LP	977	—	977	10,784
KKR European Fund, LP	—	—	—	50
KKR Millennium Fund, LP	12	—	12	810
Kline Hawkes Pacific, LP	—	(67)	(67)	—
KM Corporate Partners Fund II, LP	984	(4)	980	(996)
KPS Special Situations Fund III, LP	971	(771)	200	2,725
Levine Leichtman Capital Partners Deep Value Fund, LP	22	—	22	—
Levine Leichtman Capital Partners III, LP	—	—	—	3
Levine Leichtman Capital Partners IV, LP	136	—	136	767
Lime Rock Partners IV, LP	183	(1)	182	—
Lime Rock Partners V, LP	491	(4)	487	—
Lindsay Goldberg IV, LP	3,670	(79)	3,591	—
Lion Capital Fund II, LP	443	(1)	442	—

## Investment Section (continued)

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

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates <sup>1,2</sup>	Net Management Fees	Profit Sharing Paid <sup>3,4</sup>
Lombard Asia III, LP	\$196	(\$1)	\$195	\$0
Madison Dearborn Capital Partners V, LP	827	(610)	217	—
Magnum Capital, LP	713	—	713	—
MHR Institutional Partners III, LP	1,582	(13)	1,569	—
New Mountain Partners III, LP	1,768	(519)	1,249	10,884
Newbridge Asia IV, LP	212	(31)	181	—
Nogales Investors Fund I, LP	(11)	(184)	(195)	—
Oak Hill Capital Partners II, LP	78	(5)	73	11
Oak Hill Capital Partners III, LP	1,769	(15)	1,754	4,707
Oaktree Opportunities Fund VIIIb, LP	2,360	(142)	2,218	—
Onex Partners IV, LP	5,106	(241)	4,865	—
PAG Asia I, LP	708	—	708	2,964
Palladium Equity Partners III, LP	—	—	—	1,935
Patria Brazilian Private Equity Fund V, LP	3,000	—	3,000	—
Permira Europe III	—	—	—	756
Permira IV, LP2	375	(53)	322	28,781
Permira V, LP	3,305	(87)	3,218	—
Permira VI, LP 1	2,867	—	2,867	—
Polish Enterprise Fund V, LP	—	—	—	499
Polish Enterprise Fund VI, LP	1,245	—	1,245	—
Providence Equity Partners V	—	—	—	—
Providence Equity Partners VI, LP	1,079	—	1,079	—
RFG Private Equity Limited Partnership No. 1A, 1B and 1C	89	—	89	—
Rhone Partners III, LP	260	(260)	—	—
Richardson Capital Private Equity Limited Partnership No. 2A, 2B and 2C	33	—	33	—
Riverstone Global Energy and Power Fund V, LP	3,036	(384)	2,652	—
Riverstone Global Energy and Power Fund VI, LP	7,077	65	7,142	—
Riverstone/Carlyle Global Energy and Power Fund IV, LP	1,883	(163)	1,720	—
Riverstone/Carlyle Renewable & Alternative Energy Fund II, LP	1,567	(50)	1,517	—
Riverwood Capital Partners (Parallel - A), LP	542	—	542	6,912
Sacramento Private Equity Partners, LP	1,500	—	1,500	527
SAIF Partners III, LP	1,299	—	1,299	—
SAIF Partners IV, LP	2,188	—	2,188	—
Sankaty Managed Account (CalPERS), LP	263	—	263	—
Silver Lake Partners II, LP	52	6	58	(1,521)
Silver Lake Partners III, LP	1,757	(583)	1,174	11,658
Silver Lake Partners IV, LP	3,212	(536)	2,676	7,606
Siris Partners III, LP	1,282	(932)	350	—
Tailwind Capital Partners (PP), LP	267	(20)	247	144
Tailwind Capital Partners II, LP	2,357	(576)	1,781	—
The Central Valley Fund II SBIC, LP	739	(182)	557	—
The Central Valley Fund, LP	57	(7)	50	—
The Resolute Fund II, LP	1,214	(818)	396	189
Thomas H. Lee Equity Fund VI, L.P	—	—	—	7,792
TowerBrook Investors II, LP	907	—	907	—
TowerBrook Investors III, LP	2,088	(1,107)	981	1,001
TowerBrook Investors IV (Onshore), LP	6,529	(1,139)	5,390	834
Towerbrook Structured Opportunities Fund (Onshore), LP	2,023	(375)	1,648	—
TPG Asia V, LP	1,288	(18)	1,270	—
TPG Biotechnology Partners II, LP	(14)	14	—	—
TPG Biotechnology Partners III, LP	516	(37)	479	464

## Investment Section (continued)

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

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates <sup>1,2</sup>	Net Management Fees	Profit Sharing Paid <sup>3,4</sup>
TPG Partners IV, LP	\$0	\$0	\$0	\$3,229
TPG Partners V, LP	630	(106)	524	—
TPG Partners VI, LP	3,623	(907)	2,716	22,700
TPG STAR, LP	641	(3)	638	—
Trident VI	2,844	(160)	2,684	—
Triton Fund IV, LP	1,411	—	1,411	—
VantagePoint Venture Partners 2006 (Q), LP	1,492	—	1,492	—
Vicente Capital Partners Growth Equity Fund, LP	449	(179)	270	775
W Capital Partners II, LP	681	(30)	651	—
Wellspring Capital Partners V, LP	1,710	(2,247)	(537)	20,703
Welsh, Carson, Anderson & Stowe X, LP	169	(138)	31	936
Welsh, Carson, Anderson & Stowe XI, LP	488	(25)	463	—
Welsh, Carson, Anderson & Stowe XII, LP	4,987	(188)	4,799	206
WLR Recovery Fund II, LP	(138)	—	(138)	213
WLR Recovery Fund IV, LP	(429)	(33)	(462)	210
Yucaipa American Alliance Fund I, LP	566	(505)	61	—
Yucaipa American Alliance Fund II, LP	3,172	(146)	3,026	—
Yucaipa Corporate Initiatives Fund II, LP	329	—	329	—
<b>TOTAL</b>	<b>\$272,668</b>	<b>(\$38,879)</b>	<b>\$233,789</b>	<b>\$455,126</b>

(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 Section (continued)

### 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
<b>Total Fund</b>	<b>4.4%</b>	<b>2.8%</b>	<b>5.4%</b>	CAL LRS Policy Index (Daily)	3.8%	2.5%	4.9%
Global Equity	20.0%	5.4%	11.5%	LRS Global Equity Benchmark	19.8%	5.3%	11.4%
Global Fixed Income	0.3%	4.3%	3.9%	CalPERS Custom BC Ex Tips	(0.9%)	3.5%	2.9%
TIPS	(0.6%)	0.6%	0.2%	CalPERS Tips (Daily)	(0.6%)	0.6%	0.3%
REITs	1.2%	4.6%	8.4%	CalPERS Custom REIT Index	1.1%	4.6%	8.4%
Commodities	(8.8%)	(24.6%)	(13.8%)	GSCI Total Return Daily	(9.0%)	(24.8%)	(13.7%)

#### LRF Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Equity	24.1%	24.0%
Global Fixed Income	38.8%	39.0%
TIPS	25.5%	26.0%
REITs	7.9%	8.0%
Commodities	3.2%	3.0%
Cash	0.5%	—%
<b>Total Fund</b>	<b>100%</b>	<b>100%</b>

### 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
<b>Total Fund</b>	<b>9.6%</b>	<b>3.6%</b>	<b>8.2%</b>	CAL JRS II Policy Index	9.0%	3.4%	7.9%
Global Equity	20.0%	5.4%	11.5%	JRS II Global Equity Benchmark	19.8%	5.3%	11.4%
Global Fixed Income	0.3%	4.2%	3.9%	CalPERS Custom Long Liability	(0.9%)	3.5%	2.9%
TIPS	(0.6%)	0.5%	0.2%	CalPERS TIPS (Daily)	(0.6%)	0.6%	0.3%
REITs	1.2%	4.6%	8.4%	CalPERS Custom REIT Index	1.1%	4.6%	8.4%
Commodities	(8.8%)	(24.6%)	(13.8%)	GSCI Total Return (Daily)	(9.0%)	(24.8%)	(13.7%)

#### JRF II Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Equity	50.1%	50.0%
Global Fixed Income	33.8%	34.0%
TIPS	4.8%	5.0%
REITs	7.9%	8.0%
Commodities	3.2%	3.0%
Cash	0.2%	—%
<b>Total Fund</b>	<b>100.0%</b>	<b>100.0%</b>

## Investment Section (continued)

### 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
<b>Total Fund</b>	<b>10.6%</b>	<b>3.7%</b>	<b>8.1%</b>	CERBT Strategy 1 Policy Index	9.9%	3.2%	7.7%
Global Equity	19.4%	5.2%	11.1%	CERBT S1 Global Equity Benchmark	19.0%	4.9%	10.8%
Global Fixed Income	0.3%	4.3%	3.9%	CalPERS Custom Long Liability (Daily)	(0.9%)	3.5%	2.9%
TIPS	(0.6%)	0.6%	0.2%	CalPERS TIPS (Daily)	(0.6%)	0.6%	0.3%
REITs	(0.1%)	3.9%	7.6%	PERS FTSE EPRA NAREIT Developed Liquid	(0.9%)	3.1%	7.0%
Commodities	(8.9%)	(24.8%)	(14.0%)	GSCI Total Return (Daily)	(9.0%)	(24.8%)	(13.7%)

#### 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
<b>Total Fund</b>	<b>7.2%</b>	<b>3.2%</b>	<b>6.7%</b>	CERBT Strategy 2 Policy Index	6.5%	2.8%	6.3%
Global Equity	19.5%	5.2%	11.2%	CERBT S2 Global Equity Benchmark	19.0%	4.9%	11.0%
Global Fixed Income	0.3%	4.3%	3.9%	CalPERS Custom Long Liability (Daily)	(0.9%)	3.5%	2.9%
TIPS	(0.6%)	0.5%	0.2%	CalPERS TIPS (Daily)	(0.6%)	0.6%	0.3%
REITs	0.0%	3.8%	7.6%	PERS FTSE EPRA NAREIT Developed Liquid	(0.9%)	3.1%	7.0%
Commodities	(8.9%)	(24.8%)	(14.0%)	GSCI Total Return (Daily)	(9.0%)	(24.8%)	(13.7%)

#### 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
<b>Total Fund</b>	<b>4.1%</b>	<b>2.7%</b>	<b>5.2%</b>	CERBT Strategy 3 Policy Index	3.5%	2.3%	4.7%
Global Equity	19.4%	5.2%	11.2%	CERBT S3 Global Equity Benchmark	19.0%	4.9%	11.0%
Global Fixed Income	0.2%	4.2%	3.8%	CalPERS Custom Long Liability (Daily)	(0.9%)	3.5%	2.9%
TIPS	(0.7%)	0.6%	0.2%	CalPERS TIPS (Daily)	(0.6%)	0.6%	0.3%
REITs	(0.3%)	3.8%	7.6%	PERS FTSE EPRA NAREIT Developed Liquid	(0.9%)	3.1%	7.0%
Commodities	(8.6%)	(24.6%)	(13.9%)	GSCI Total Return (Daily)	(9.0%)	(24.8%)	(13.7%)

#### CERBTf Asset Allocation

Asset Class	Strategy 1		Strategy 2		Strategy 3	
	Current Allocation	Policy Target Allocation	Current Allocation	Policy Target Allocation	Current Allocation	Policy Target Allocation
Global Equity	55.8%	57.0%	40.0%	40.0%	24.0%	24.0%
Global Fixed Income	26.3%	27.0%	38.8%	39.0%	38.6%	39.0%
TIPS	4.7%	5.0%	9.4%	10.0%	24.8%	26.0%
REITs	7.8%	8.0%	7.9%	8.0%	7.9%	8.0%
Commodities	3.0%	3.0%	3.1%	3.0%	3.0%	3.0%
Cash Equivalents	2.4%	—%	0.8%	—%	1.7%	—%
<b>Total Fund</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

## Investment Section (continued)

### 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
<b>Total Fund</b>	<b>(0.3%)</b>	<b>2.7%</b>	<b>2.8%</b>	Weighted Policy Benchmark	<b>(0.3%)</b>	<b>2.5%</b>	<b>2.2%</b>

#### HCF Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Fixed Income	100.0%	100.0%
<b>Total Fund</b>	<b>100.0%</b>	<b>100.0%</b>

### 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 <sup>1</sup>
<b>Total Fund</b>	<b>1.6%</b>	<b>2.0%</b>	<b>3.9%</b>	CAL Long Term Care Policy Index (Daily)	<b>1.5%</b>	<b>1.8%</b>	<b>3.7%</b>
Global Equity	19.4%	5.2%	11.0%	LTC Global Equity Benchmark	19.0%	4.9%	10.8%
Global Fixed Income	(0.8%)	3.5%	3.1%	CalPERS Custom BC Long Liability	(0.9%)	3.5%	2.9%
TIPS	(0.6%)	0.6%	0.2%	CalPERS TIPS (Daily)	(0.6%)	0.6%	0.3%
REITs	(0.1%)	3.8%	7.6%	PERS FTSE EPRA NAREIT Developed Liquid	(0.9%)	3.1%	7.0%
Commodities	(9.2%)	(24.8%)	(13.6%)	GSCI Total Return (Daily)	(9.0%)	(24.8%)	(13.7%)

#### LTCF Asset Allocation

Asset Class	Current Allocation	Current Year Target
Global Equity	16.1%	15.0%
Global Fixed Income	60.8%	61.0%
TIPS	5.9%	6.0%
REITs	12.4%	12.0%
Commodities	4.8%	6.0%
<b>Total Fund</b>	<b>100.0%</b>	<b>100.0%</b>



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## Actuarial Section

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### ACTUARIAL CERTIFICATIONS

#### CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

July 31, 2017

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, 2016.

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 in a manner that keeps contributions approximately level as a percentage of payroll. 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 H in the Actuarial Section of the CAFR.

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

#### LEGISLATORS' RETIREMENT SYSTEM

April 2017

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, 2016 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](http://www.calpers.ca.gov).

## Actuarial Section (continued)

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### ACTUARIAL CERTIFICATIONS

#### JUDGES' RETIREMENT SYSTEM

April 2017

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, 2016 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.

Randall Dziubek, ASA, EA, MAAA  
*Senior Pension Actuary, CalPERS*

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

#### JUDGES' RETIREMENT SYSTEM II

April 2017

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, 2016 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](http://www.calpers.ca.gov).

## Actuarial Section (continued)

### ACTUARIAL METHODS & ASSUMPTIONS

#### ACTUARIAL METHODS

The ultimate cost that a retirement system such as CalPERS 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.

The actuarial valuations rely upon data extracted from central databases maintained by CalPERS. These databases are created from data supplied by the individual employers. The data was not audited by the actuarial team, but appears to be reasonable for valuation purposes. Summary information regarding plan membership data for various groups is provided in Exhibits F through G.

Using each plan's schedule of benefits, member data described above, and a set of actuarial assumptions, the plan's actuary estimates the cost of the benefits to be paid. Then, using a particular actuarial funding method, the actuary allocates these costs to the fiscal years within the employee's career.

In the case of the CalPERS plans with pay-related benefits, the financial objective is to fund in a manner which keeps contribution rates approximately level as a percentage of payroll from generation to generation, while accumulating sufficient assets over each member's working career. The primary funding method used to accomplish this objective 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.

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 and for the State Group Term Life Insurance Program.

Annual actuarial valuations are performed each June 30, using these methods. This report contains information through the most recent valuation date of June 30, 2016. Progress in financing can be found in the Summary of Funding Progress, Exhibits A and B.

The discount rate used for funding purposes is net of administrative expenses. The funding discount rate used for the PERF and JRF II is reduced by 15 basis points compared with the financial reporting discount rate, while the LRF funding discount rate is reduced by 25 basis points compared with the financial reporting discount rate. The financial reporting discount rate differs as it is not reduced for

administrative expenses. 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.

#### Entry Age Normal Cost Method

Under the Entry Age Normal Cost Method, projected benefits are determined for all members. For active members, liabilities are spread in a manner that produces level annual costs as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. 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 inactive 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. The excess of the total actuarial accrued liability over the value of plan assets is called the unfunded actuarial accrued liability.

The required contribution is then determined by adding the normal cost and an amortization payment toward the unfunded liability as a level percentage of assumed future payroll.

The actuarial assumptions discussed in this section are used to determine projected benefits. The effect of differences between those assumptions and the actual experience of the plan is calculated each year when the annual actuarial valuation is performed. These differences are experience gains or losses.

In April 2013, the CalPERS Board approved actuarial policies that are aimed at returning The California Public Employees' Retirement System (the System) to fully funded status within 30 years. The policies include a rate smoothing method with a 30-year fixed amortization period for gains and losses. The amortization reflects a five-year ramp-up of rates at the start and a five-year ramp-down at the end. These policies applied beginning with the June 30, 2014, valuation for the schools plan, state plans, LRF, and JRF II, setting employer contribution rates for the Fiscal Year 2015-16. For Public Agencies, the policies applied in the June 30, 2013, valuations, setting rates for the Fiscal Year 2015-16.

In addition, for those plans in which the amortization methods described above result in either mathematical inconsistencies or unreasonable actuarial results, all unfunded liability components are combined into a single base and amortized over a period of time, as determined by the CalPERS chief actuary. Note that for the purpose of deriving the actuarially determined contribution rate, there is a minimum employer contribution equal to normal cost, less 30-year amortization of surplus (negative unfunded liability), if

## Actuarial Section (continued)

any. Note that there is a requirement in state statute that employers always contribute an amount never less than normal cost.

### Term Insurance Cost Method

The actuarial funding method for non-indexed levels of the 1959 Survivor Program is a modified Term Insurance Cost Method. Under this method, there is no actuarial accrued liability for active members; all liability is due to current beneficiaries. The normal cost is calculated as the amount needed to provide benefits to survivors of deaths expected in the next one-year period.

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. The Term Insurance Cost Method was adopted by the Board in November 1997.

### 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, LRF, JRF and 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

The economic assumptions include an assumed inflation assumption of 2.75 percent compounded annually. The inflation assumption is a component of assumed investment return, assumed wage growth, and assumed future post-retirement cost-of-living increases.

Based upon the asset allocation of the PERF, the assumed investment return (net of administrative and investment expenses) is 7.0 percent per year, compounded annually.

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, 3.25 percent, and 6.5 percent respectively, net of administrative expenses. For plans within CalPERS, the overall payroll is assumed to increase 3.0 percent annually. This is based upon the 2.75 percent inflation assumption and 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 2.75 percent inflation component, 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, 2011) that was completed and adopted by the Board in April 2014.

Post-retirement mortality tables are based on CalPERS' experience. 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.

## Actuarial Section (continued)

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### 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 CalPERS Board of Administration lowered the discount rate for the PERF from 7.50 percent to 7.00 percent using a three-year phase-in beginning with the June 30, 2016, actuarial valuations. The minimum public agency employer contributions for Fiscal Year 2018-19 determined in this valuation were calculated using a discount rate of 7.375 percent. The projected public agency employer contributions for Fiscal Year 2019-20 and 2020-21 are calculated assuming that the discount rate will be lowered to 7.25 percent next year and 7.00 percent respectively as adopted by the Board. For the State, the minimum employer contributions for Fiscal Year 2017-18 determined in this valuation were calculated using a discount rate of 7.375 percent. For the schools plan, this will start in the June 30, 2017, annual valuation and will increase the employer contribution costs beginning in Fiscal Year 2018-19. The recommended employer and employee contributions rates for the schools plan were generated based on the June 30, 2016, annual valuation using the discount rate as of the prior year, which is 7.50 percent.

On April 19, 2017, the CalPERS Board of Administration adopted lower discount rates for the June 30, 2016, actuarial valuations for the LRF, JRF, and JRF II. The LRF discount rate lowered from 5.75 percent to 5.00, the JRF lowered from 4.25 percent to 3.25 percent, and the JRF II lowered from 7.0 percent to 6.5 percent.

#### 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.



## Actuarial Section (continued)

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### 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.

Because of inflation, comparing the dollar amounts of assets, benefits paid, member salaries, and unfunded actuarial accrued liabilities can be misleading. 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.

## Actuarial Section (continued)

### EXHIBIT A: FUNDING PROGRESS – UNFUNDED LIABILITY & FUNDED RATIOS<sup>1</sup>

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)
<b>PERF</b> (Dollars in Millions)									
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	114.0%	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%
06/30/07	216,484	248,224	31,740	87.2%	40,864	77.7%	251,162	(2,938)	101.2%
<b>LRF</b> (Dollars in Thousands)									
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%
06/30/07	141,603	101,571	(40,032)	139.4%	2,106	(1,900.9%)	142,209	(40,638)	140.0%
<b>JRF</b> (Dollars in Thousands)									
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%
06/30/07	11,672	2,713,640	2,701,968	0.4%	119,274	2,265.3%	11,672	2,701,968	0.4%
<b>JRF II</b> (Dollars in Thousands)									
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%
06/30/07	267,604	294,983	27,379	90.7%	156,252	17.5%	290,733	4,250	98.6%

(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.

## Actuarial Section (continued)

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### EXHIBIT B: FUNDING PROGRESS – SOLVENCY TEST

The funding objective for a retirement system is to be able to pay long-term benefit promises through member contributions as a percent of salary that remains approximately level from year to year. In this way, members and employers pay their fair share for retirement services accrued in that year by the retirement system's members.

If a system follows level contribution rate financing principles, it will pay all 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 <sup>1</sup> (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)								
6/30/16	\$53,872	\$256,253	\$126,578	\$436,703	\$298,126	100.0%	95.3%	0.0%
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%
6/30/07	34,054	123,002	91,168	248,224	216,500	100.0%	100.0%	65.2%
LRF (Dollars in Thousands)								
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%
6/30/07	1,365	95,661	4,545	101,571	141,603	100.0%	100.0%	980.6%
JRF (Dollars in Thousands)								
6/30/16	\$65,966	\$2,970,871	\$391,906	\$3,428,743	\$39,794	60.3%	0.0%	0.0%
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%	—	—
6/30/07	118,940	1,773,682	821,018	2,713,640	11,672	10.0%	—	—
JRF II (Dollars in Thousands)								
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%
6/30/07	81,693	5,340	207,950	294,983	267,604	100.0%	100.0%	86.8%

(1) Includes accrued interest on member contributions.

## Actuarial Section (continued)

### EXHIBIT C: SAMPLE PAY INCREASE ASSUMPTIONS FOR INDIVIDUAL MEMBERS

#### Annual Percentage Increases by Duration of Service<sup>1</sup>

Duration of Service	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	9.50%	8.60%	7.30%	10.00%	10.00%	9.20%	11.20%	10.00%	8.30%
3	7.50%	6.80%	5.60%	7.70%	7.40%	6.60%	6.50%	6.10%	5.60%
5	6.90%	6.20%	5.20%	7.00%	6.60%	5.80%	5.10%	4.90%	4.80%
10	5.20%	4.70%	4.10%	5.90%	5.30%	4.60%	3.60%	3.60%	3.60%
15	4.30%	4.10%	3.70%	5.00%	4.70%	4.30%	3.60%	3.50%	3.40%
20	3.80%	3.70%	3.50%	4.40%	4.30%	4.10%	3.60%	3.50%	3.20%
25	3.50%	3.50%	3.40%	3.90%	3.90%	3.80%	3.60%	3.50%	3.20%
30	3.50%	3.50%	3.40%	3.60%	3.60%	3.60%	3.60%	3.50%	3.20%

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	17.30%	18.20%	18.60%	8.00%	8.00%	8.00%	9.00%	8.80%	8.20%
3	9.70%	9.70%	9.40%	6.50%	6.50%	6.50%	6.50%	6.30%	5.80%
5	7.50%	7.20%	6.70%	5.40%	5.40%	5.40%	5.80%	5.60%	5.10%
10	4.20%	4.00%	3.70%	3.80%	3.80%	3.80%	4.60%	4.50%	4.10%
15	4.20%	4.00%	3.70%	3.80%	3.80%	3.80%	4.20%	4.10%	3.80%
20	4.20%	4.00%	3.70%	4.50%	4.50%	4.50%	3.90%	3.80%	3.50%
25	4.20%	4.00%	3.70%	4.50%	4.50%	4.50%	3.70%	3.50%	3.30%
30	4.20%	4.00%	3.70%	3.80%	3.80%	3.80%	3.50%	3.30%	3.10%

Duration of Service	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	12.20%	11.60%	10.20%	20.00%	19.80%	16.80%	15.00%	14.70%	13.10%
3	7.70%	7.20%	6.30%	9.80%	9.40%	8.10%	8.10%	7.80%	7.00%
5	6.40%	6.00%	5.20%	6.90%	6.40%	5.50%	6.10%	5.80%	5.20%
10	4.60%	4.30%	3.90%	4.70%	4.60%	4.20%	4.50%	4.30%	3.70%
15	4.20%	4.00%	3.60%	4.40%	4.20%	3.90%	4.50%	4.30%	3.70%
20	3.90%	3.80%	3.40%	4.20%	3.90%	3.60%	4.50%	4.30%	3.70%
25	3.70%	3.60%	3.30%	4.00%	3.70%	3.40%	4.50%	4.30%	3.70%
30	3.50%	3.40%	3.20%	3.80%	3.60%	3.40%	4.50%	4.30%	3.70%

Duration of Service	Public Agency County Peace Officer		
	Entry Age 20	Entry Age 30	Entry Age 40
0	17.70%	16.70%	15.00%
3	9.00%	8.60%	7.90%
5	6.50%	6.20%	5.80%
10	4.70%	4.50%	4.10%
15	4.60%	4.50%	3.90%
20	4.60%	4.50%	3.80%
25	4.60%	4.50%	3.80%
30	4.60%	4.40%	3.80%

(1) Increase includes the assumed inflation rate of 2.75 percent per year.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS

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

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement <sup>3</sup>		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male	Female	Male & Female	Male & Female
20	0.01040	0.05560	N/A	N/A	0.00031	0.00020	0.00019	0.00039	N/A	N/A
25	0.00940	0.05040	N/A	N/A	0.00040	0.00023	0.00019	0.00039	N/A	N/A
30	0.00840	0.04520	N/A	N/A	0.00049	0.00025	0.00019	0.00046	N/A	N/A
35	0.00750	0.04000	N/A	N/A	0.00057	0.00035	0.00036	0.00096	N/A	N/A
40	0.00650	0.03490	N/A	N/A	0.00075	0.00050	0.00103	0.00206	N/A	N/A
45	0.00550	0.00000	N/A	N/A	0.00106	0.00071	0.00204	0.00346	N/A	N/A
50	0.00460	0.00000	0.00800	0.02400	0.00155	0.00100	0.00274	0.00415	N/A	N/A
55	0.00360	0.00000	0.04800	0.10800	0.00228	0.00138	0.00238	0.00325	N/A	N/A
56	0.00340	0.00000	0.03900	0.09000	0.00249	0.00148	0.00222	0.00295	N/A	N/A
57	0.00320	0.00000	0.04400	0.10000	0.00265	0.00157	0.00200	0.00277	N/A	N/A
58	0.00300	0.00000	0.04800	0.10800	0.00280	0.00166	0.00200	0.00264	N/A	N/A
59	0.00280	0.00000	0.05900	0.13000	0.00294	0.00174	0.00200	0.00257	N/A	N/A
60	0.00260	0.00000	0.07400	0.16300	0.00308	0.00182	0.00200	0.00256	N/A	N/A
61	0.00240	0.00000	0.08500	0.18600	0.00328	0.00196	0.00200	0.00256	N/A	N/A
62	0.00220	0.00000	0.13600	0.29500	0.00347	0.00208	0.00200	0.00256	N/A	N/A
63	0.00200	0.00000	0.13700	0.29600	0.00366	0.00225	0.00200	0.00256	N/A	N/A
64	0.00190	0.00000	0.11400	0.24600	0.00383	0.00241	0.00200	0.00256	N/A	N/A
65	0.00170	0.00000	0.14600	0.31600	0.00400	0.00257	0.00200	0.00256	N/A	N/A
70	0.00070	0.00000	0.12800	0.27800	0.00524	0.00367	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:

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
20	0.00950	0.04960	N/A	N/A	0.00031	0.00020	0.00043	0.00003	0.00015
25	0.00860	0.04490	N/A	N/A	0.00040	0.00023	0.00085	0.00007	0.00015
30	0.00770	0.04050	N/A	N/A	0.00049	0.00025	0.00136	0.00010	0.00015
35	0.00680	0.03560	N/A	N/A	0.00057	0.00035	0.00204	0.00012	0.00029
40	0.00590	0.03110	N/A	N/A	0.00075	0.00050	0.00315	0.00013	0.00029
45	0.00500	0.00000	N/A	N/A	0.00106	0.00071	0.00468	0.00014	0.00044
50	0.00420	0.00000	0.01100	0.03100	0.00155	0.00100	0.00621	0.00015	0.00044
55	0.00330	0.00000	0.05200	0.14100	0.00228	0.00138	0.00791	0.00016	0.00058
56	0.00310	0.00000	0.03700	0.10000	0.00249	0.00148	0.00816	0.00016	0.00058
57	0.00290	0.00000	0.03500	0.09400	0.00265	0.00157	0.00850	0.00016	0.00058
58	0.00270	0.00000	0.04600	0.12500	0.00280	0.00166	0.00867	0.00016	0.00058
59	0.00260	0.00000	0.05300	0.14600	0.00294	0.00174	0.00893	0.00017	0.00058
60	0.00240	0.00000	0.07000	0.19100	0.00308	0.00182	0.00918	0.00017	0.00058
61	0.00220	0.00000	0.07100	0.19500	0.00328	0.00196	0.00935	0.00017	0.00058
62	0.00210	0.00000	0.13900	0.37800	0.00347	0.00208	0.00952	0.00017	0.00058
63	0.00180	0.00000	0.11400	0.31200	0.00366	0.00225	0.00969	0.00017	0.00058
64	0.00170	0.00000	0.08700	0.23700	0.00383	0.00241	0.00986	0.00018	0.00058
65	0.00150	0.00000	0.15300	0.41600	0.00400	0.00257	0.01003	0.00018	0.00058
70	0.00060	0.00000	0.16300	0.44400	0.00524	0.00367	0.01003	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.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.01290	20	0.00930	N/A	N/A	0.00031	0.00020	0.00014	0.00003	0.00026
1	0.01240	25	0.00930	N/A	N/A	0.00040	0.00023	0.00014	0.00007	0.00058
2	0.01210	30	0.00930	N/A	N/A	0.00049	0.00025	0.00014	0.00010	0.00114
3	0.01160	35	0.00930	N/A	N/A	0.00057	0.00035	0.00014	0.00012	0.00204
4	0.01130	40	0.00930	N/A	N/A	0.00075	0.00050	0.00014	0.00013	0.00337
5	0.00400	45	0.00000	N/A	N/A	0.00106	0.00071	0.00028	0.00014	0.00527
6	0.00380	50	0.00000	0.05000	0.14900	0.00155	0.00100	0.00028	0.00015	0.02023
7	0.00360	55	0.00000	0.05000	0.14900	0.00228	0.00138	0.00028	0.00016	0.09011
8	0.00340	56	0.00000	0.05100	0.15200	0.00249	0.00148	0.00028	0.00016	0.11848
9	0.00310	57	0.00000	0.05100	0.15400	0.00265	0.00157	0.00028	0.00016	0.15516
10	0.00290	58	0.00000	0.04900	0.14600	0.00280	0.00166	0.00028	0.00017	0.20240
15	0.00190	59	0.00000	0.08800	0.26300	0.00294	0.00174	0.00028	0.00017	0.26302
20	0.00110	60	0.00000	1.00000	1.00000	0.00308	0.00182	0.00028	0.00017	0.34051
25	0.00060	61	0.00000	1.00000	1.00000	0.00328	0.00196	0.00028	0.00017	0.43917
30	0.00030	62	0.00000	1.00000	1.00000	0.00347	0.00208	0.00028	0.00017	0.45622
35	0.00030	63	0.00000	1.00000	1.00000	0.00366	0.00225	0.00028	0.00018	0.45659
40	0.00030	64	0.00000	1.00000	1.00000	0.00383	0.00241	0.00028	0.00018	0.45696
45	0.00030	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00028	0.00018	0.45733
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00028	0.00019	0.45918

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

(2) Years of service.

Schools – Probability of an active member leaving due to:

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02780	0.08160	N/A	N/A	0.00031	0.00020	0.00028	0.00026	N/A	N/A
25	0.02490	0.07330	N/A	N/A	0.00040	0.00023	0.00010	0.00012	N/A	N/A
30	0.02210	0.06490	N/A	N/A	0.00049	0.00025	0.00011	0.00016	N/A	N/A
35	0.01920	0.05660	N/A	N/A	0.00057	0.00035	0.00053	0.00043	N/A	N/A
40	0.01640	0.04820	N/A	N/A	0.00075	0.00050	0.00149	0.00101	N/A	N/A
45	0.01350	0.00000	N/A	N/A	0.00106	0.00071	0.00295	0.00188	N/A	N/A
50	0.01070	0.00000	0.00900	0.01600	0.00155	0.00100	0.00388	0.00244	N/A	N/A
55	0.00780	0.00000	0.04800	0.08800	0.00228	0.00138	0.00358	0.00205	N/A	N/A
56	0.00730	0.00000	0.03900	0.07200	0.00249	0.00148	0.00346	0.00190	N/A	N/A
57	0.00670	0.00000	0.04200	0.07800	0.00265	0.00157	0.00334	0.00176	N/A	N/A
58	0.00620	0.00000	0.05000	0.09200	0.00280	0.00166	0.00323	0.00162	N/A	N/A
59	0.00560	0.00000	0.05700	0.10500	0.00294	0.00174	0.00314	0.00149	N/A	N/A
60	0.00500	0.00000	0.07300	0.13400	0.00308	0.00182	0.00306	0.00139	N/A	N/A
61	0.00450	0.00000	0.09000	0.16600	0.00328	0.00196	0.00299	0.00129	N/A	N/A
62	0.00390	0.00000	0.15100	0.27800	0.00347	0.00208	0.00293	0.00122	N/A	N/A
63	0.00330	0.00000	0.13600	0.25100	0.00366	0.00225	0.00289	0.00115	N/A	N/A
64	0.00270	0.00000	0.13300	0.24400	0.00383	0.00241	0.00285	0.00110	N/A	N/A
65	0.00220	0.00000	0.18000	0.33100	0.00400	0.00257	0.00282	0.00107	N/A	N/A
70	0.00030	0.00000	0.13100	0.24100	0.00524	0.00367	0.00279	0.00105	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.



## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.13130	20	0.03690	N/A	N/A	0.00031	0.00020	0.00036	0.00003	0.00002
1	0.09670	25	0.03690	N/A	N/A	0.00040	0.00023	0.00054	0.00007	0.00076
2	0.06220	30	0.03690	N/A	N/A	0.00049	0.00025	0.00063	0.00010	0.00170
3	0.04610	35	0.03690	N/A	N/A	0.00057	0.00035	0.00072	0.00012	0.00264
4	0.03740	40	0.03690	N/A	N/A	0.00075	0.00050	0.00072	0.00013	0.00360
5	0.00800	45	0.00000	N/A	N/A	0.00106	0.00071	0.00108	0.00014	0.00457
6	0.00750	50	0.00000	0.01200	0.03900	0.00155	0.00100	0.00216	0.00015	0.00557
7	0.00710	55	0.00000	0.06800	0.13900	0.00228	0.00138	0.00306	0.00016	0.00658
8	0.00660	56	0.00000	0.05600	0.11700	0.00249	0.00148	0.00324	0.00016	0.00679
9	0.00620	57	0.00000	0.05400	0.11500	0.00265	0.00157	0.00342	0.00016	0.00700
10	0.00580	58	0.00000	0.06200	0.12800	0.00280	0.00166	0.00351	0.00017	0.00720
15	0.00390	59	0.00000	0.05900	0.12200	0.00294	0.00174	0.00369	0.00017	0.00741
20	0.00250	60	0.00000	0.07300	0.14800	0.00308	0.00182	0.00387	0.00017	0.00762
25	0.00130	61	0.00000	0.09000	0.17800	0.00328	0.00196	0.00396	0.00017	0.00783
30	0.00090	62	0.00000	0.11500	0.22200	0.00347	0.00208	0.00414	0.00017	0.00805
35	0.00090	63	0.00000	0.11700	0.22700	0.00366	0.00225	0.00432	0.00018	0.00826
40	0.00090	64	0.00000	0.11300	0.21900	0.00383	0.00241	0.00441	0.00018	0.00847
45	0.00090	65	0.00000	0.14800	0.28100	0.00400	0.00257	0.00459	0.00018	0.00869
50	0.00000	70	0.00000	0.14300	0.27100	0.00524	0.00367	0.00459	0.00019	0.00978

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

(2) Years of service.

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.12170	20	0.01730	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00039
1	0.07790	25	0.01730	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00087
2	0.04310	30	0.01730	N/A	N/A	0.00049	0.00025	0.00010	0.00010	0.00167
3	0.03530	35	0.01730	N/A	N/A	0.00057	0.00035	0.00020	0.00012	0.00289
4	0.02750	40	0.01730	N/A	N/A	0.00075	0.00050	0.00040	0.00013	0.00464
5	0.00560	45	0.00000	N/A	N/A	0.00106	0.00071	0.00060	0.00014	0.00706
6	0.00520	50	0.00000	0.05200	0.14600	0.00155	0.00100	0.00098	0.00015	0.01027
7	0.00490	55	0.00000	0.07800	0.21300	0.00228	0.00138	0.00143	0.00016	0.01442
8	0.00460	56	0.00000	0.07400	0.20300	0.00249	0.00148	0.00150	0.00016	0.01538
9	0.00420	57	0.00000	0.07100	0.19700	0.00265	0.00157	0.00158	0.00016	0.01638
10	0.00390	58	0.00000	0.08100	0.22000	0.00280	0.00166	0.00165	0.00017	0.01742
15	0.00250	59	0.00000	0.08900	0.23900	0.00294	0.00174	0.00180	0.00017	0.01852
20	0.00150	60	0.00000	0.08800	0.24100	0.00308	0.00182	0.00188	0.00017	0.01966
25	0.00060	61	0.00000	0.09100	0.24800	0.00328	0.00196	0.00195	0.00017	0.02085
30	0.00030	62	0.00000	0.09900	0.26700	0.00347	0.00208	0.00203	0.00017	0.02209
35	0.00030	63	0.00000	0.09100	0.24600	0.00366	0.00225	0.00218	0.00018	0.02339
40	0.00030	64	0.00000	0.10700	0.28800	0.00383	0.00241	0.00225	0.00018	0.02474
45	0.00030	65	0.00000	0.10300	0.27700	0.00400	0.00257	0.00233	0.00018	0.02614
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00233	0.00019	0.03403

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

(2) Years of service.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.06560	N/A	N/A	0.00031	0.00020	0.00017	0.00010	N/A	N/A
25	0.01930	0.05970	N/A	N/A	0.00040	0.00023	0.00017	0.00010	N/A	N/A
30	0.01740	0.05370	N/A	N/A	0.00049	0.00025	0.00019	0.00024	N/A	N/A
35	0.01550	0.04770	N/A	N/A	0.00057	0.00035	0.00049	0.00081	N/A	N/A
40	0.01360	0.04180	N/A	N/A	0.00075	0.00050	0.00122	0.00155	N/A	N/A
45	0.01160	0.00000	N/A	N/A	0.00106	0.00071	0.00191	0.00218	N/A	N/A
50	0.00970	0.00000	0.01800	0.02700	0.00155	0.00100	0.00213	0.00229	N/A	N/A
55	0.00780	0.00000	0.06100	0.10000	0.00228	0.00138	0.00221	0.00179	N/A	N/A
56	0.00740	0.00000	0.05300	0.08500	0.00249	0.00148	0.00222	0.00168	N/A	N/A
57	0.00700	0.00000	0.05600	0.09100	0.00265	0.00157	0.00223	0.00158	N/A	N/A
58	0.00660	0.00000	0.06200	0.10000	0.00280	0.00166	0.00223	0.00149	N/A	N/A
59	0.00620	0.00000	0.07200	0.11800	0.00294	0.00174	0.00223	0.00141	N/A	N/A
60	0.00590	0.00000	0.08600	0.13900	0.00308	0.00182	0.00222	0.00135	N/A	N/A
61	0.00550	0.00000	0.10300	0.16800	0.00328	0.00196	0.00221	0.00130	N/A	N/A
62	0.00510	0.00000	0.14700	0.24300	0.00347	0.00208	0.00219	0.00126	N/A	N/A
63	0.00470	0.00000	0.14400	0.23700	0.00366	0.00225	0.00217	0.00123	N/A	N/A
64	0.00440	0.00000	0.13800	0.22700	0.00383	0.00241	0.00214	0.00120	N/A	N/A
65	0.00390	0.00000	0.19700	0.32500	0.00400	0.00257	0.00210	0.00118	N/A	N/A
70	0.00200	0.00000	0.16500	0.27200	0.00524	0.00367	0.00180	0.00114	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:

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.06560	N/A	N/A	0.00031	0.00020	0.00017	0.00010	N/A	N/A
25	0.01930	0.05970	N/A	N/A	0.00040	0.00023	0.00017	0.00010	N/A	N/A
30	0.01740	0.05370	N/A	N/A	0.00049	0.00025	0.00019	0.00024	N/A	N/A
35	0.01550	0.04770	N/A	N/A	0.00057	0.00035	0.00049	0.00081	N/A	N/A
40	0.01360	0.04180	N/A	N/A	0.00075	0.00050	0.00122	0.00155	N/A	N/A
45	0.01160	0.00000	N/A	N/A	0.00106	0.00071	0.00191	0.00218	N/A	N/A
50	0.00970	0.00000	0.00900	0.04900	0.00155	0.00100	0.00213	0.00229	N/A	N/A
55	0.00780	0.00000	0.08800	0.17900	0.00228	0.00138	0.00221	0.00179	N/A	N/A
56	0.00740	0.00000	0.05700	0.12800	0.00249	0.00148	0.00222	0.00168	N/A	N/A
57	0.00700	0.00000	0.05700	0.12800	0.00265	0.00157	0.00223	0.00158	N/A	N/A
58	0.00660	0.00000	0.06100	0.13600	0.00280	0.00166	0.00223	0.00149	N/A	N/A
59	0.00620	0.00000	0.07400	0.15700	0.00294	0.00174	0.00223	0.00141	N/A	N/A
60	0.00590	0.00000	0.08800	0.17900	0.00308	0.00182	0.00222	0.00135	N/A	N/A
61	0.00550	0.00000	0.09500	0.19100	0.00328	0.00196	0.00221	0.00130	N/A	N/A
62	0.00510	0.00000	0.13000	0.24800	0.00347	0.00208	0.00219	0.00126	N/A	N/A
63	0.00470	0.00000	0.12100	0.23300	0.00366	0.00225	0.00217	0.00123	N/A	N/A
64	0.00440	0.00000	0.11900	0.23100	0.00383	0.00241	0.00214	0.00120	N/A	N/A
65	0.00390	0.00000	0.16000	0.29700	0.00400	0.00257	0.00210	0.00118	N/A	N/A
70	0.00200	0.00000	0.16500	0.30600	0.00524	0.00367	0.00180	0.00114	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.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.06560	N/A	N/A	0.00031	0.00020	0.00017	0.00010	N/A	N/A
25	0.01930	0.05970	N/A	N/A	0.00040	0.00023	0.00017	0.00010	N/A	N/A
30	0.01740	0.05370	N/A	N/A	0.00049	0.00025	0.00019	0.00024	N/A	N/A
35	0.01550	0.04770	N/A	N/A	0.00057	0.00035	0.00049	0.00081	N/A	N/A
40	0.01360	0.04180	N/A	N/A	0.00075	0.00050	0.00122	0.00155	N/A	N/A
45	0.01160	0.00000	N/A	N/A	0.00106	0.00071	0.00191	0.00218	N/A	N/A
50	0.00970	0.00000	0.00900	0.05500	0.00155	0.00100	0.00213	0.00229	N/A	N/A
55	0.00780	0.00000	0.10100	0.20500	0.00228	0.00138	0.00221	0.00179	N/A	N/A
56	0.00740	0.00000	0.07400	0.16000	0.00249	0.00148	0.00222	0.00168	N/A	N/A
57	0.00700	0.00000	0.06800	0.15100	0.00265	0.00157	0.00223	0.00158	N/A	N/A
58	0.00660	0.00000	0.07400	0.16100	0.00280	0.00166	0.00223	0.00149	N/A	N/A
59	0.00620	0.00000	0.08200	0.17400	0.00294	0.00174	0.00223	0.00141	N/A	N/A
60	0.00590	0.00000	0.09300	0.19200	0.00308	0.00182	0.00222	0.00135	N/A	N/A
61	0.00550	0.00000	0.11300	0.22500	0.00328	0.00196	0.00221	0.00130	N/A	N/A
62	0.00510	0.00000	0.13800	0.26600	0.00347	0.00208	0.00219	0.00126	N/A	N/A
63	0.00470	0.00000	0.13500	0.26200	0.00366	0.00225	0.00217	0.00123	N/A	N/A
64	0.00440	0.00000	0.14300	0.27500	0.00383	0.00241	0.00214	0.00120	N/A	N/A
65	0.00390	0.00000	0.17400	0.32600	0.00400	0.00257	0.00210	0.00118	N/A	N/A
70	0.00200	0.00000	0.18300	0.34100	0.00524	0.00367	0.00180	0.00114	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:

AGE <sup>1</sup>	Termination with Refund	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability		Industrial Death	Industrial Disability
	5 Years <sup>2</sup>	5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male	Female	Male & Female	Male & Female
20	0.02120	0.06560	N/A	N/A	0.00031	0.00020	0.00017	0.00010	N/A	N/A
25	0.01930	0.05970	N/A	N/A	0.00040	0.00023	0.00017	0.00010	N/A	N/A
30	0.01740	0.05370	N/A	N/A	0.00049	0.00025	0.00019	0.00024	N/A	N/A
35	0.01550	0.04770	N/A	N/A	0.00057	0.00035	0.00049	0.00081	N/A	N/A
40	0.01360	0.04180	N/A	N/A	0.00075	0.00050	0.00122	0.00155	N/A	N/A
45	0.01160	0.00000	N/A	N/A	0.00106	0.00071	0.00191	0.00218	N/A	N/A
50	0.00970	0.00000	0.01800	0.04000	0.00155	0.00100	0.00213	0.00229	N/A	N/A
55	0.00780	0.00000	0.05700	0.10500	0.00228	0.00138	0.00221	0.00179	N/A	N/A
56	0.00740	0.00000	0.05600	0.10300	0.00249	0.00148	0.00222	0.00168	N/A	N/A
57	0.00700	0.00000	0.06500	0.11900	0.00265	0.00157	0.00223	0.00158	N/A	N/A
58	0.00660	0.00000	0.07600	0.13600	0.00280	0.00166	0.00223	0.00149	N/A	N/A
59	0.00620	0.00000	0.10000	0.17500	0.00294	0.00174	0.00223	0.00141	N/A	N/A
60	0.00590	0.00000	0.14800	0.25500	0.00308	0.00182	0.00222	0.00135	N/A	N/A
61	0.00550	0.00000	0.12300	0.21400	0.00328	0.00196	0.00221	0.00130	N/A	N/A
62	0.00510	0.00000	0.17200	0.29400	0.00347	0.00208	0.00219	0.00126	N/A	N/A
63	0.00470	0.00000	0.16600	0.28500	0.00366	0.00225	0.00217	0.00123	N/A	N/A
64	0.00440	0.00000	0.18500	0.31500	0.00383	0.00241	0.00214	0.00120	N/A	N/A
65	0.00390	0.00000	0.26000	0.43900	0.00400	0.00257	0.00210	0.00118	N/A	N/A
70	0.00200	0.00000	0.18200	0.31000	0.00524	0.00367	0.00180	0.00114	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.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10130	20	0.01630	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00000
1	0.06360	25	0.01630	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00165
2	0.02710	30	0.01630	N/A	N/A	0.00049	0.00025	0.00020	0.00010	0.00476
3	0.02580	35	0.01630	N/A	N/A	0.00057	0.00035	0.00030	0.00012	0.00788
4	0.02450	40	0.01630	N/A	N/A	0.00075	0.00050	0.00040	0.00013	0.01100
5	0.00860	45	0.00000	N/A	N/A	0.00106	0.00071	0.00050	0.00014	0.01412
6	0.00790	50	0.00000	0.00500	0.01700	0.00155	0.00100	0.00080	0.00015	0.01846
7	0.00720	55	0.00000	0.08600	0.16600	0.00228	0.00138	0.00130	0.00016	0.04785
8	0.00660	56	0.00000	0.06700	0.13000	0.00249	0.00148	0.00150	0.00016	0.05032
9	0.00590	57	0.00000	0.06600	0.12900	0.00265	0.00157	0.00160	0.00016	0.05279
10	0.00530	58	0.00000	0.06600	0.12900	0.00280	0.00166	0.00180	0.00017	0.05527
15	0.00270	59	0.00000	0.13900	0.17600	0.00294	0.00174	0.00200	0.00017	0.05775
20	0.00170	60	0.00000	0.12300	0.15300	0.00308	0.00182	0.00200	0.00017	0.06024
25	0.00120	61	0.00000	0.11000	0.13800	0.00328	0.00196	0.00200	0.00017	0.06273
30	0.00090	62	0.00000	0.13000	0.16200	0.00347	0.00208	0.00200	0.00017	0.06523
35	0.00090	63	0.00000	0.13000	0.16200	0.00366	0.00225	0.00200	0.00018	0.06774
40	0.00090	64	0.00000	0.13000	0.16200	0.00383	0.00241	0.00200	0.00018	0.07025
45	0.00090	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00200	0.00018	0.07277
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00200	0.00019	0.08549

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

(2) Years of service.

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.07100	20	0.01620	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00007
1	0.05540	25	0.01620	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00025
2	0.03980	30	0.01620	N/A	N/A	0.00049	0.00025	0.00010	0.00010	0.00074
3	0.02420	35	0.01620	N/A	N/A	0.00057	0.00035	0.00010	0.00012	0.00158
4	0.02180	40	0.01620	N/A	N/A	0.00075	0.00050	0.00010	0.00013	0.00300
5	0.00290	45	0.00000	N/A	N/A	0.00106	0.00071	0.00020	0.00014	0.00530
6	0.00240	50	0.00000	0.00900	0.01300	0.00155	0.00100	0.00050	0.00015	0.02772
7	0.00200	55	0.00000	0.08900	0.13600	0.00228	0.00138	0.00100	0.00016	0.04088
8	0.00160	56	0.00000	0.08300	0.12700	0.00249	0.00148	0.00110	0.00016	0.04400
9	0.00120	57	0.00000	0.08200	0.12600	0.00265	0.00157	0.00130	0.00016	0.04730
10	0.00090	58	0.00000	0.08800	0.13600	0.00280	0.00166	0.00150	0.00017	0.05078
15	0.00060	59	0.00000	0.07400	0.11300	0.00294	0.00174	0.00150	0.00017	0.05446
20	0.00050	60	0.00000	0.10000	0.15400	0.00308	0.00182	0.00150	0.00017	0.05833
25	0.00030	61	0.00000	0.07200	0.11000	0.00328	0.00196	0.00150	0.00017	0.06241
30	0.00030	62	0.00000	0.09900	0.15200	0.00347	0.00208	0.00150	0.00017	0.06670
35	0.00030	63	0.00000	0.11400	0.17500	0.00366	0.00225	0.00150	0.00018	0.07121
40	0.00030	64	0.00000	0.11400	0.17500	0.00383	0.00241	0.00150	0.00018	0.07595
45	0.00030	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00150	0.00018	0.08092
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00150	0.00019	0.10961

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

(2) Years of service.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10130	20	0.01630	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00000
1	0.06360	25	0.01630	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00165
2	0.02710	30	0.01630	N/A	N/A	0.00049	0.00025	0.00020	0.00010	0.00476
3	0.02580	35	0.01630	N/A	N/A	0.00057	0.00035	0.00030	0.00012	0.00788
4	0.02450	40	0.01630	N/A	N/A	0.00075	0.00050	0.00040	0.00013	0.01100
5	0.00860	45	0.00000	N/A	N/A	0.00106	0.00071	0.00050	0.00014	0.01412
6	0.00790	50	0.00000	0.05000	0.24000	0.00155	0.00100	0.00080	0.00015	0.01846
7	0.00720	55	0.00000	0.05200	0.24800	0.00228	0.00138	0.00130	0.00016	0.04785
8	0.00660	56	0.00000	0.04200	0.22100	0.00249	0.00148	0.00150	0.00016	0.05032
9	0.00590	57	0.00000	0.04300	0.22300	0.00265	0.00157	0.00160	0.00016	0.05279
10	0.00530	58	0.00000	0.05400	0.25500	0.00280	0.00166	0.00180	0.00017	0.05527
15	0.00270	59	0.00000	0.05400	0.25300	0.00294	0.00174	0.00200	0.00017	0.05775
20	0.00170	60	0.00000	0.06000	0.27200	0.00308	0.00182	0.00200	0.00017	0.06024
25	0.00120	61	0.00000	0.04800	0.23800	0.00328	0.00196	0.00200	0.00017	0.06273
30	0.00090	62	0.00000	0.06100	0.27400	0.00347	0.00208	0.00200	0.00017	0.06523
35	0.00090	63	0.00000	0.05700	0.26300	0.00366	0.00225	0.00200	0.00018	0.06774
40	0.00090	64	0.00000	0.06900	0.29600	0.00383	0.00241	0.00200	0.00018	0.07025
45	0.00090	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00200	0.00018	0.07277
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00200	0.00019	0.08549

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

(2) Years of service.

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.07100	20	0.01620	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00007
1	0.05540	25	0.01620	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00025
2	0.03980	30	0.01620	N/A	N/A	0.00049	0.00025	0.00010	0.00010	0.00074
3	0.02420	35	0.01620	N/A	N/A	0.00057	0.00035	0.00010	0.00012	0.00158
4	0.02180	40	0.01620	N/A	N/A	0.00075	0.00050	0.00010	0.00013	0.00300
5	0.00290	45	0.00000	N/A	N/A	0.00106	0.00071	0.00020	0.00014	0.00530
6	0.00240	50	0.00000	0.02000	0.13000	0.00155	0.00100	0.00050	0.00015	0.02772
7	0.00200	55	0.00000	0.04300	0.17400	0.00228	0.00138	0.00100	0.00016	0.04088
8	0.00160	56	0.00000	0.05300	0.19600	0.00249	0.00148	0.00110	0.00016	0.04400
9	0.00120	57	0.00000	0.05400	0.19700	0.00265	0.00157	0.00130	0.00016	0.04730
10	0.00090	58	0.00000	0.05200	0.19300	0.00280	0.00166	0.00150	0.00017	0.05078
15	0.00060	59	0.00000	0.07500	0.23900	0.00294	0.00174	0.00150	0.00017	0.05446
20	0.00050	60	0.00000	0.06500	0.21900	0.00308	0.00182	0.00150	0.00017	0.05833
25	0.00030	61	0.00000	0.07600	0.24100	0.00328	0.00196	0.00150	0.00017	0.06241
30	0.00030	62	0.00000	0.06800	0.22400	0.00347	0.00208	0.00150	0.00017	0.06670
35	0.00030	63	0.00000	0.02700	0.14300	0.00366	0.00225	0.00150	0.00018	0.07121
40	0.00030	64	0.00000	0.09400	0.27700	0.00383	0.00241	0.00150	0.00018	0.07595
45	0.00030	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00150	0.00018	0.08092
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00150	0.00019	0.10961

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

(2) Years of service.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.10130	20	0.01630	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00000
1	0.06360	25	0.01630	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00165
2	0.02710	30	0.01630	N/A	N/A	0.00049	0.00025	0.00020	0.00010	0.00476
3	0.02580	35	0.01630	N/A	N/A	0.00057	0.00035	0.00030	0.00012	0.00788
4	0.02450	40	0.01630	N/A	N/A	0.00075	0.00050	0.00040	0.00013	0.01100
5	0.00860	45	0.00000	N/A	N/A	0.00106	0.00071	0.00050	0.00014	0.01412
6	0.00790	50	0.00000	0.00400	0.01500	0.00155	0.00100	0.00080	0.00015	0.01846
7	0.00720	55	0.00000	0.06100	0.13100	0.00228	0.00138	0.00130	0.00016	0.04785
8	0.00660	56	0.00000	0.07200	0.15300	0.00249	0.00148	0.00150	0.00016	0.05032
9	0.00590	57	0.00000	0.06500	0.14000	0.00265	0.00157	0.00160	0.00016	0.05279
10	0.00530	58	0.00000	0.06600	0.14200	0.00280	0.00166	0.00180	0.00017	0.05527
15	0.00270	59	0.00000	0.11800	0.24700	0.00294	0.00174	0.00200	0.00017	0.05775
20	0.00170	60	0.00000	0.06500	0.13800	0.00308	0.00182	0.00200	0.00017	0.06024
25	0.00120	61	0.00000	0.08400	0.17800	0.00328	0.00196	0.00200	0.00017	0.06273
30	0.00090	62	0.00000	0.10800	0.22600	0.00347	0.00208	0.00200	0.00017	0.06523
35	0.00090	63	0.00000	0.08400	0.17800	0.00366	0.00225	0.00200	0.00018	0.06774
40	0.00090	64	0.00000	0.08400	0.17800	0.00383	0.00241	0.00200	0.00018	0.07025
45	0.00090	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00200	0.00018	0.07277
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00200	0.00019	0.08549

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

(2) Years of service.

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

YRS <sup>2</sup>	Termination with Refund	AGE <sup>1</sup>	Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
	Vary by Service		5 Years <sup>2</sup>	10 Years <sup>2</sup>	25 Years <sup>2</sup>	Male	Female	Male & Female	Male & Female	Male & Female
0	0.07100	20	0.01620	N/A	N/A	0.00031	0.00020	0.00010	0.00003	0.00007
1	0.05540	25	0.01620	N/A	N/A	0.00040	0.00023	0.00010	0.00007	0.00025
2	0.03980	30	0.01620	N/A	N/A	0.00049	0.00025	0.00010	0.00010	0.00074
3	0.02420	35	0.01620	N/A	N/A	0.00057	0.00035	0.00010	0.00012	0.00158
4	0.02180	40	0.01620	N/A	N/A	0.00075	0.00050	0.00010	0.00013	0.00300
5	0.00290	45	0.00000	N/A	N/A	0.00106	0.00071	0.00020	0.00014	0.00530
6	0.00240	50	0.00000	0.00100	0.01600	0.00155	0.00100	0.00050	0.00015	0.02772
7	0.00200	55	0.00000	0.07300	0.17900	0.00228	0.00138	0.00100	0.00016	0.04088
8	0.00160	56	0.00000	0.06400	0.16100	0.00249	0.00148	0.00110	0.00016	0.04400
9	0.00120	57	0.00000	0.06300	0.15700	0.00265	0.00157	0.00130	0.00016	0.04730
10	0.00090	58	0.00000	0.06500	0.16300	0.00280	0.00166	0.00150	0.00017	0.05078
15	0.00060	59	0.00000	0.08800	0.21300	0.00294	0.00174	0.00150	0.00017	0.05446
20	0.00050	60	0.00000	0.10500	0.25100	0.00308	0.00182	0.00150	0.00017	0.05833
25	0.00030	61	0.00000	0.11800	0.28200	0.00328	0.00196	0.00150	0.00017	0.06241
30	0.00030	62	0.00000	0.08700	0.21000	0.00347	0.00208	0.00150	0.00017	0.06670
35	0.00030	63	0.00000	0.06700	0.16500	0.00366	0.00225	0.00150	0.00018	0.07121
40	0.00030	64	0.00000	0.06700	0.16500	0.00383	0.00241	0.00150	0.00018	0.07595
45	0.00030	65	0.00000	1.00000	1.00000	0.00400	0.00257	0.00150	0.00018	0.08092
50	0.00000	70	0.00000	1.00000	1.00000	0.00524	0.00367	0.00150	0.00019	0.10961

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

(2) Years of service.

## Actuarial Section (continued)

### EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

AGE	Healthy Recipients		Non-Industrially Disabled (Not Job Related)		Industrially Disabled (Job Related)	
	Male	Female	Male	Female	Male	Female
50	0.00501	0.00466	0.01680	0.01158	0.00501	0.00466
55	0.00599	0.00416	0.01973	0.01149	0.00599	0.00416
60	0.00710	0.00436	0.02289	0.01235	0.00754	0.00518
65	0.00829	0.00588	0.02451	0.01607	0.01122	0.00838
70	0.01305	0.00993	0.02875	0.02211	0.01635	0.01395
75	0.02205	0.01722	0.03990	0.03037	0.02834	0.02319
80	0.03899	0.02902	0.06083	0.04725	0.04899	0.03910
85	0.06969	0.05243	0.09731	0.07762	0.07679	0.06251
90	0.12974	0.09887	0.14804	0.12890	0.12974	0.09887
95	0.22444	0.18489	0.22444	0.21746	0.22444	0.18489
100	0.32536	0.30017	0.32536	0.30017	0.32536	0.30017



## Actuarial Section (continued)

### 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.

AGE	Schools						AGE	Public Agencies and State					
	Service Retirement		Non-Industrial Disability Retirement		Industrial Disability Retirement			Service Retirement		Non-Industrial Disability Retirement		Industrial Disability Retirement	
Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female		
50	174.201	180.132	146.566	161.023	171.308	176.597	50	176.729	182.855	148.427	163.229	173.734	179.192
51	172.546	178.765	145.064	159.681	169.482	175.022	51	175.013	181.429	146.881	161.839	171.845	177.556
52	170.822	177.335	143.528	158.267	167.575	173.371	52	173.226	179.940	145.300	160.374	169.874	175.843
53	169.025	175.819	141.958	156.776	165.585	171.622	53	171.366	178.364	143.685	158.831	167.818	174.030
54	167.155	174.197	140.356	155.200	163.509	169.752	54	169.432	176.678	142.038	157.202	165.676	172.094
55	165.216	172.433	138.729	153.491	161.351	167.729	55	167.428	174.850	140.366	155.438	163.451	170.003
56	163.195	170.523	137.091	151.636	159.098	165.544	56	165.342	172.872	138.682	153.526	161.130	167.749
57	161.080	168.475	135.456	149.637	156.735	163.206	57	163.159	170.754	137.002	151.468	158.697	165.339
58	158.853	166.304	133.781	147.502	154.245	160.728	58	160.863	168.513	135.280	149.273	156.137	162.789
59	156.529	164.021	132.064	145.255	151.648	158.156	59	158.470	166.158	133.518	146.966	153.470	160.144
60	154.108	161.628	130.294	142.913	148.969	155.504	60	155.980	163.692	131.700	144.562	150.720	157.419
61	151.594	159.121	128.455	140.485	146.206	152.769	61	153.394	161.111	129.814	142.073	147.887	154.610
62	148.959	156.492	126.530	137.967	143.367	149.943	62	150.688	158.408	127.841	139.493	144.977	151.711
63	146.195	153.733	124.502	135.345	140.462	147.022	63	147.852	155.573	125.763	136.808	142.002	148.717
64	143.287	150.858	122.347	132.655	137.490	144.025	64	144.871	152.623	123.557	134.056	138.960	145.647
65	140.230	147.876	120.051	129.907	134.438	140.956	65	141.741	149.565	121.210	131.247	135.839	142.506
70	123.167	131.573	106.473	115.386	117.503	124.624	70	124.316	132.887	107.369	116.426	118.563	125.823
75	104.262	113.259	90.538	98.992	98.938	106.897	75	105.080	114.222	91.184	99.749	99.693	107.777
80	83.998	93.429	73.663	80.985	80.609	88.688	80	84.532	94.082	74.096	81.494	81.114	89.295
85	64.107	72.594	57.941	63.116	63.244	70.925	85	64.424	72.993	58.214	63.430	63.556	71.312
90	45.736	52.607	44.449	46.502	45.736	52.607	90	45.905	52.824	44.612	46.678	45.905	52.824
95	32.030	36.161	32.030	32.986	32.030	36.161	95	32.116	36.268	32.116	33.078	32.116	36.268
100	22.430	23.866	22.430	23.866	22.430	23.866	100	22.471	23.912	22.471	23.912	22.471	23.912

### 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
6/30/2016	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
6/30/2007	793,164	40,864	51,521	3.9 %	2,615

## Actuarial Section (continued)

### EXHIBIT G: MEMBERS IN VALUATION

#### State Miscellaneous First Tier – By Attained Age & Years of Service – June 30, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll <sup>2</sup>
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	2,757	3	—	—	—	—	2,760	\$95,512,229
25-29	10,349	1,040	15	—	—	—	11,404	499,408,447
30-34	10,993	4,784	931	89	—	—	16,797	921,216,776
35-39	8,330	5,331	3,242	1,332	87	—	18,322	1,135,773,318
40-44	6,232	4,646	3,817	3,687	692	65	19,139	1,290,595,494
45-49	5,679	4,301	4,316	4,990	2,343	1,322	22,951	1,611,763,448
50-54	4,997	3,914	3,783	5,204	2,920	5,399	26,217	1,900,394,513
55-59	4,194	3,396	3,318	4,654	2,543	6,985	25,090	1,821,101,219
60-64	2,368	2,457	2,370	3,033	1,580	4,280	16,088	1,178,125,795
65 & up	1,256	1,369	1,246	1,463	701	1,766	7,801	577,228,552
<b>Total</b>	<b>57,155</b>	<b>31,241</b>	<b>23,038</b>	<b>24,452</b>	<b>10,866</b>	<b>19,817</b>	<b>166,569</b>	<b>\$11,031,119,791</b>

(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, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll <sup>2</sup>
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	2	—	—	—	—	—	2	\$98,436
25-29	22	2	—	—	—	—	24	1,311,268
30-34	28	9	—	—	—	—	37	2,214,015
35-39	19	18	19	75	—	—	131	7,640,458
40-44	18	23	44	287	94	4	470	29,565,155
45-49	31	40	55	381	312	86	905	56,583,618
50-54	18	23	40	368	315	272	1,036	65,362,440
55-59	13	24	33	308	269	291	938	57,215,652
60-64	7	14	28	185	148	207	589	37,061,432
65 & up	13	10	7	102	70	83	285	18,632,294
<b>Total</b>	<b>171</b>	<b>163</b>	<b>226</b>	<b>1,706</b>	<b>1,208</b>	<b>943</b>	<b>4,417</b>	<b>\$275,684,768</b>

(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, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	258	—	—	—	—	—	258	\$8,677,686
25-29	808	140	1	—	—	—	949	39,162,809
30-34	840	480	53	3	—	—	1,376	66,244,542
35-39	601	524	172	68	—	—	1,365	73,731,241
40-44	557	463	238	162	33	3	1,456	83,306,139
45-49	527	471	253	253	106	50	1,660	97,088,522
50-54	470	487	285	282	178	146	1,848	111,558,345
55-59	320	353	236	253	127	135	1,424	85,132,318
60-64	177	209	119	127	54	54	740	45,474,314
65 & up	69	107	66	63	28	19	352	22,597,819
<b>Total</b>	<b>4,627</b>	<b>3,234</b>	<b>1,423</b>	<b>1,211</b>	<b>526</b>	<b>407</b>	<b>11,428</b>	<b>\$632,973,735</b>

(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.

## Actuarial Section (continued)

### EXHIBIT G: MEMBERS IN VALUATION (CONTINUED)

#### State Safety – By Attained Age & Years of Service – June 30, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll <sup>2</sup>
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	376	2	—	—	—	—	378	\$16,153,879
25-29	1,568	177	3	—	—	—	1,748	98,957,845
30-34	1,991	727	131	—	—	—	2,849	187,345,871
35-39	1,642	1,098	427	54	—	—	3,221	229,348,840
40-44	1,457	1,157	704	189	10	—	3,517	284,552,081
45-49	1,352	1,169	802	390	120	10	3,843	311,164,570
50-54	1,207	1,094	910	491	226	109	4,037	320,911,867
55-59	967	988	852	564	236	123	3,730	312,911,561
60-64	511	714	572	432	181	83	2,493	226,985,993
65 & up	161	365	328	216	101	55	1,226	128,181,040
<b>Total</b>	<b>11,232</b>	<b>7,491</b>	<b>4,729</b>	<b>2,336</b>	<b>874</b>	<b>380</b>	<b>27,042</b>	<b>\$2,116,513,547</b>

(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, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll <sup>2</sup>
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	106	—	—	—	—	—	106	\$8,207,115
25-29	340	145	—	—	—	—	485	44,926,427
30-34	298	768	108	—	—	—	1,174	121,196,297
35-39	144	592	436	269	—	—	1,441	155,912,157
40-44	35	319	400	650	287	3	1,694	192,124,998
45-49	—	25	184	475	525	246	1,455	173,819,162
50-54	1	1	7	69	240	342	660	84,410,201
55-59	1	—	2	3	22	106	134	18,050,460
60-64	—	—	—	—	—	1	1	240,202
65 & up	—	—	—	—	—	—	—	—
<b>Total</b>	<b>925</b>	<b>1,850</b>	<b>1,137</b>	<b>1,466</b>	<b>1,074</b>	<b>698</b>	<b>7,150</b>	<b>\$798,887,019</b>

(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, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll <sup>2</sup>
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	1,640	—	—	—	—	—	1,640	\$72,710,195
25-29	3,633	316	2	—	—	—	3,951	206,663,247
30-34	2,246	2,748	682	3	—	—	5,679	393,031,792
35-39	1,143	2,204	2,538	715	5	—	6,605	518,166,851
40-44	615	1,526	2,138	2,298	627	5	7,209	608,774,568
45-49	367	1,078	1,490	2,040	2,136	572	7,683	687,097,422
50-54	225	667	950	1,147	1,119	816	4,924	441,571,311
55-59	116	289	471	580	524	415	2,395	212,986,742
60-64	48	124	177	222	172	119	862	74,789,778
65 & up	12	26	49	62	44	43	236	20,665,204
<b>Total</b>	<b>10,045</b>	<b>8,978</b>	<b>8,497</b>	<b>7,067</b>	<b>4,627</b>	<b>1,970</b>	<b>41,184</b>	<b>\$3,236,457,110</b>

(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.

## Actuarial Section (continued)

### EXHIBIT G: MEMBERS IN VALUATION (CONTINUED)

#### School – By Attained Age & Years of Service – June 30, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll <sup>2</sup>
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	11,093	14	—	—	—	—	11,107	\$283,696,372
25-29	22,000	2,205	59	—	—	—	24,264	736,214,872
30-34	18,279	7,150	2,019	81	—	—	27,529	1,007,359,467
35-39	15,732	7,593	5,298	1,755	50	—	30,428	1,223,511,433
40-44	15,217	7,358	6,031	4,074	849	28	33,557	1,382,059,774
45-49	16,071	9,044	6,910	5,177	2,240	930	40,372	1,668,786,721
50-54	14,774	10,343	8,972	6,728	3,288	3,506	47,611	2,032,103,870
55-59	11,722	9,337	9,416	7,801	3,927	4,989	47,192	2,050,802,001
60-64	6,453	5,813	6,397	5,806	3,214	3,715	31,398	1,346,852,306
65 & up	3,088	2,858	2,734	2,302	1,348	1,566	13,896	542,785,345
<b>Total</b>	<b>134,429</b>	<b>61,715</b>	<b>47,836</b>	<b>33,724</b>	<b>14,916</b>	<b>14,734</b>	<b>307,354</b>	<b>\$12,274,172,161</b>

(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, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	4,813	24	—	—	—	—	4,837	\$174,147,481
25-29	14,111	1,616	89	—	—	—	15,816	747,179,152
30-34	14,399	5,991	2,253	114	—	—	22,757	1,330,265,817
35-39	11,446	6,751	5,535	1,830	97	—	25,659	1,724,501,780
40-44	8,453	5,739	5,987	4,263	979	85	25,506	1,868,087,297
45-49	7,499	5,291	5,947	5,347	2,518	1,525	28,127	2,169,113,042
50-54	6,450	5,040	5,871	5,425	3,253	5,137	31,176	2,478,283,393
55-59	4,627	4,090	5,030	4,904	2,800	5,492	26,943	2,142,903,954
60-64	2,460	2,607	3,169	3,147	1,787	3,080	16,250	1,260,961,115
65 & up	1,068	1,254	1,514	1,416	716	1,186	7,154	525,189,984
<b>Total</b>	<b>75,326</b>	<b>38,403</b>	<b>35,395</b>	<b>26,446</b>	<b>12,150</b>	<b>16,505</b>	<b>204,225</b>	<b>\$14,420,633,015</b>

(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, 2016

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date <sup>1</sup>						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	1,367	—	—	—	—	—	1,367	\$82,887,005
25-29	4,975	617	12	—	—	—	5,604	412,494,809
30-34	3,877	3,325	1,082	6	—	—	8,290	737,966,339
35-39	1,808	2,706	3,565	777	2	—	8,858	885,999,715
40-44	832	1,467	2,871	2,869	618	4	8,661	941,849,151
45-49	508	860	1,789	2,558	2,174	1,001	8,890	1,041,123,992
50-54	270	351	625	1,009	1,139	1,778	5,172	632,565,489
55-59	143	156	233	355	349	728	1,964	231,042,040
60-64	38	61	74	83	97	220	573	63,668,008
65 & up	21	17	11	22	20	60	151	16,665,072
<b>Total</b>	<b>13,839</b>	<b>9,560</b>	<b>10,262</b>	<b>7,679</b>	<b>4,399</b>	<b>3,791</b>	<b>49,530</b>	<b>\$5,046,261,620</b>

(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.

Actuarial Section (continued)

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

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

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## Statistical Section

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## 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, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Member	\$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	\$3,512,075
Employer	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	7,242,802
Investment Income/(Loss)	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)	(12,499,110)
Plan to Plan Resource Movement	134,661	49,803	469,688	—	—	—	—	—	—	—
Miscellaneous Income	153,008	149,494	123,978	126,223	7,176	7,070	3,011	10,234	3,155	6,202
<b>TOTAL ADDITIONS</b>	<b>\$49,809,104</b>	<b>\$16,506,467</b>	<b>\$20,976,462</b>	<b>\$58,150,684</b>	<b>\$42,311,894</b>	<b>\$11,175,336</b>	<b>\$54,972,922</b>	<b>\$35,911,445</b>	<b>(\$46,569,168)</b>	<b>(\$1,738,031)</b>
<b>DEDUCTIONS</b>										
Benefit Payments	\$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	\$10,884,417
Refund of Contributions	222,275	238,821	240,623	236,968	242,595	218,082	227,168	182,387	186,783	182,415
Administrative Expenses	441,283	184,426	340,880	381,497	426,077	380,404	357,779	278,036	427,809	402,340
Plan to Plan Resource Movement	134,661	49,803	469,688	—	—	—	—	—	—	—
<b>TOTAL DEDUCTIONS</b>	<b>\$22,014,108</b>	<b>\$20,566,983</b>	<b>\$19,973,483</b>	<b>\$18,379,049</b>	<b>\$17,303,935</b>	<b>\$15,955,182</b>	<b>\$14,827,205</b>	<b>\$13,432,880</b>	<b>\$12,446,428</b>	<b>\$11,469,172</b>
<b>CHANGE IN NET POSITION</b>	<b>\$27,794,996</b>	<b>(\$4,060,516)</b>	<b>\$1,002,979</b>	<b>\$39,771,635</b>	<b>\$25,007,959</b>	<b>(\$4,779,846)</b>	<b>\$40,145,717</b>	<b>\$22,478,565</b>	<b>(\$59,015,596)</b>	<b>(\$13,207,203)</b>
<b>NET POSITION</b>										
Beginning of Year	\$298,704,002	\$302,764,518	\$301,761,539	\$261,989,904	\$236,981,945	\$241,761,791	\$201,616,074	\$179,137,509 <sup>1</sup>	\$237,915,479	\$251,122,682
End of Year	<b>\$326,498,998</b>	<b>\$298,704,002</b>	<b>\$302,764,518</b>	<b>\$301,761,539</b>	<b>\$261,989,904</b>	<b>\$236,981,945</b>	<b>\$241,761,791</b>	<b>\$201,616,074</b>	<b>\$178,899,883</b>	<b>\$237,915,479</b>

(1) Due to the implementation of GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, beginning balance was restated.

## Statistical Section (continued)

### CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

LRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Member	\$94	\$97	\$105	\$113	\$31	\$0	\$3	\$17	\$69	\$14
Employer	516	549	590	565	80	—	—	—	—	—
Investment Income/(Loss)	5,006	4,511	(125)	15,332	6,974	7,761	17,667	17,793	(14,041)	223
Miscellaneous Income	42	34	31	40	—	—	—	—	—	—
<b>TOTAL ADDITIONS</b>	<b>\$5,658</b>	<b>\$5,191</b>	<b>\$601</b>	<b>\$16,050</b>	<b>\$7,085</b>	<b>\$7,761</b>	<b>\$17,670</b>	<b>\$17,810</b>	<b>(\$13,972)</b>	<b>\$237</b>
<b>DEDUCTIONS</b>										
Benefit Payments	\$6,960	\$7,028	\$7,393	\$7,482	\$7,548	\$7,659	\$7,382	\$11,082	\$7,706	\$7,621
Refund of Contributions	289	379	1,693	—	—	202	440	35	296	309
Administrative Expenses	575	203	400	362	418	347	408	4,444	358	397
<b>TOTAL DEDUCTIONS</b>	<b>\$7,824</b>	<b>\$7,610</b>	<b>\$9,486</b>	<b>\$7,844</b>	<b>\$7,966</b>	<b>\$8,208</b>	<b>\$8,230</b>	<b>\$15,561</b>	<b>\$8,360</b>	<b>\$8,327</b>
<b>CHANGE IN NET POSITION</b>	<b>(\$2,166)</b>	<b>(\$2,419)</b>	<b>(\$8,885)</b>	<b>\$8,206</b>	<b>(\$881)</b>	<b>(\$447)</b>	<b>\$9,440</b>	<b>\$2,249</b>	<b>(\$22,332)</b>	<b>(\$8,090)</b>
<b>NET POSITION</b>										
Beginning of Year	\$119,050	\$121,469	\$130,354	\$122,148	\$123,029	\$123,476	\$114,036	\$111,787	\$134,119	\$142,209
End of Year	<u>\$116,884</u>	<u>\$119,050</u>	<u>\$121,469</u>	<u>\$130,354</u>	<u>\$122,148</u>	<u>\$123,029</u>	<u>\$123,476</u>	<u>\$114,036</u>	<u>\$111,787</u>	<u>\$134,119</u>

JRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Member	\$3,398	\$3,559	\$3,877	\$4,724	\$4,909	\$5,796	\$6,658	\$7,361	\$8,597	\$9,569
Employer	204,475	192,287	180,910	191,148	161,945	196,402	167,302	185,389	190,510	163,206
Investment Income	424	194	88	54	76	80	184	332	410	384
Miscellaneous Income	2,395	2,568	2,198	2,529	2,694	2,877	3,216	3,486	3,574	3,827
<b>TOTAL ADDITIONS</b>	<b>\$210,692</b>	<b>\$198,608</b>	<b>\$187,073</b>	<b>\$198,455</b>	<b>\$169,624</b>	<b>\$205,155</b>	<b>\$177,360</b>	<b>\$196,568</b>	<b>\$203,091</b>	<b>\$176,986</b>
<b>DEDUCTIONS</b>										
Benefit Payments	\$200,440	\$199,271	\$201,734	\$193,925	\$187,084	\$185,428	\$185,119	\$178,861	\$174,902	\$168,304
Refund of Contributions	—	78	134	10	—	17	—	32	—	136
Administrative Expenses	1,771	642	1,227	1,141	1,413	1,163	1,188	968	1,049	973
<b>TOTAL DEDUCTIONS</b>	<b>\$202,211</b>	<b>\$199,991</b>	<b>\$203,095</b>	<b>\$195,076</b>	<b>\$188,497</b>	<b>\$186,608</b>	<b>\$186,307</b>	<b>\$179,861</b>	<b>\$175,951</b>	<b>\$169,413</b>
<b>CHANGE IN NET POSITION</b>	<b>\$8,481</b>	<b>(\$1,383)</b>	<b>(\$16,022)</b>	<b>\$3,379</b>	<b>(\$18,873)</b>	<b>\$18,547</b>	<b>(\$8,947)</b>	<b>\$16,707</b>	<b>\$27,140</b>	<b>\$7,573</b>
<b>NET POSITION</b>										
Beginning of Year	\$39,794	\$41,177	\$57,199	\$53,820	\$72,693	\$54,146	\$63,093	\$46,386	\$19,246	\$11,673
End of Year	<u>\$48,275</u>	<u>\$39,794</u>	<u>\$41,177</u>	<u>\$57,199</u>	<u>\$53,820</u>	<u>\$72,693</u>	<u>\$54,146</u>	<u>\$63,093</u>	<u>\$46,386</u>	<u>\$19,246</u>

## Statistical Section (continued)

### CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

JRF II Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Member	\$25,076	\$24,598	\$22,242	\$20,413	\$18,819	\$18,757	\$18,589	\$16,178	\$15,400	\$13,808
Employer	67,102	65,839	65,629	57,027	54,025	53,711	53,863	42,589	39,514	36,761
Investment Income/(Loss)	114,331	20,213	(2,863)	149,679	79,214	13,947	91,596	50,801	(59,927)	(12,184)
Miscellaneous Income	726	597	462	489	—	—	—	—	—	—
<b>TOTAL ADDITIONS</b>	<b>\$207,235</b>	<b>\$111,247</b>	<b>\$85,470</b>	<b>\$227,608</b>	<b>\$152,058</b>	<b>\$86,415</b>	<b>\$164,048</b>	<b>\$109,568</b>	<b>(\$5,013)</b>	<b>\$38,385</b>
<b>DEDUCTIONS</b>										
Benefit Payments	\$22,326	\$21,549	\$14,024	\$8,865	\$10,518	\$3,536	\$2,236	\$1,392	\$1,252	\$964
Refund of Contributions	80	155	16	85	58	2,604	5,870	2,592	3,062	2,134
Administrative Expenses	1,683	732	1,127	785	899	725	716	494	578	597
<b>TOTAL DEDUCTIONS</b>	<b>\$24,089</b>	<b>\$22,436</b>	<b>\$15,167</b>	<b>\$9,735</b>	<b>\$11,475</b>	<b>\$6,865</b>	<b>\$8,822</b>	<b>\$4,478</b>	<b>\$4,892</b>	<b>\$3,695</b>
<b>CHANGE IN NET POSITION</b>	<b>\$183,146</b>	<b>\$88,811</b>	<b>\$70,303</b>	<b>\$217,873</b>	<b>\$140,583</b>	<b>\$79,550</b>	<b>\$155,226</b>	<b>\$105,090</b>	<b>(\$9,905)</b>	<b>\$34,690</b>
<b>NET POSITION</b>										
Beginning of Year	\$1,172,953	\$1,084,142	\$1,013,839	\$795,966	\$655,383	\$575,833	\$420,607	\$315,517	\$325,422	\$290,732
End of Year	<u>\$1,356,099</u>	<u>\$1,172,953</u>	<u>\$1,084,142</u>	<u>\$1,013,839</u>	<u>\$795,966</u>	<u>\$655,383</u>	<u>\$575,833</u>	<u>\$420,607</u>	<u>\$315,517</u>	<u>\$325,422</u>

DCF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Member	\$110,258	\$106,072	\$106,272	\$131,900	\$99,977	\$104,333	\$89,531	\$108,436	\$247,484	\$125,952
Employer	962	909	783	698	455	80	84	84	87	53
Investment Income/(Loss)	132,305	7,541	32,735	164,384	114,471	4,872	151,932	72,951	(251,890)	(47,015)
Miscellaneous Income	5,583	5,354	6,260	5,258	—	225	214	858	113	39
<b>TOTAL ADDITIONS</b>	<b>\$249,108</b>	<b>\$119,876</b>	<b>\$146,050</b>	<b>\$302,240</b>	<b>\$214,903</b>	<b>\$109,510</b>	<b>\$241,761</b>	<b>\$182,329</b>	<b>(\$4,206)</b>	<b>\$79,029</b>
<b>DEDUCTIONS</b>										
Participant Withdrawals	\$90,333	\$164,362	\$88,973	\$97,388	\$82,587	\$73,025	\$93,844	\$46,418	\$34,753	\$47,942
Administrative Expenses	4,576	4,677	4,320	4,101	3,467	3,131	3,874	3,491	2,393	1,759
<b>TOTAL DEDUCTIONS</b>	<b>\$94,909</b>	<b>\$169,039</b>	<b>\$93,293</b>	<b>\$101,489</b>	<b>\$86,054</b>	<b>\$76,156</b>	<b>\$97,718</b>	<b>\$49,909</b>	<b>\$37,146</b>	<b>\$49,701</b>
<b>CHANGE IN NET POSITION</b>	<b>\$154,199</b>	<b>(\$49,163)</b>	<b>\$52,757</b>	<b>\$200,751</b>	<b>\$128,849</b>	<b>\$33,354</b>	<b>\$144,043</b>	<b>\$132,420</b>	<b>(\$41,352)</b>	<b>\$29,328</b>
<b>NET POSITION</b>										
Beginning of Year	\$1,290,407	\$1,339,570	\$1,286,813	\$1,086,062	\$957,213 <sup>1</sup>	\$947,062	\$803,019	\$670,599	\$711,951	\$682,623
End of Year	<u>\$1,444,606</u>	<u>\$1,290,407</u>	<u>\$1,339,570</u>	<u>\$1,286,813</u>	<u>\$1,086,062</u>	<u>\$980,416</u>	<u>\$947,062</u>	<u>\$803,019</u>	<u>\$670,599</u>	<u>\$711,951</u>

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

## Statistical Section (continued)

### CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

SCPF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Member	\$246	\$269	\$127,833	\$160	\$164	\$208	\$285	\$536	\$483	\$713
Investment Income/(Loss)	6,890	416	1,058	2,077	2,051	3	3,610	1,884	(4,054)	(1,517)
Miscellaneous Income	628	668	305	111	—	—	—	33	—	—
<b>TOTAL ADDITIONS</b>	<b>\$7,764</b>	<b>\$1,353</b>	<b>\$129,196</b>	<b>\$2,348</b>	<b>\$2,215</b>	<b>\$211</b>	<b>\$3,895</b>	<b>\$2,453</b>	<b>(\$3,571)</b>	<b>(\$804)</b>
<b>DEDUCTIONS</b>										
Participant Withdrawals	\$11,041	\$16,130	\$15,751	\$1,013	\$1,448	\$1,219	\$2,113	\$1,624	\$671	\$870
Administrative Expenses	373	330	135	62	58	63	84	117	61	113
<b>TOTAL DEDUCTIONS</b>	<b>\$11,414</b>	<b>\$16,460</b>	<b>\$15,886</b>	<b>\$1,075</b>	<b>\$1,506</b>	<b>\$1,282</b>	<b>\$2,197</b>	<b>\$1,741</b>	<b>\$732</b>	<b>\$983</b>
Interfund Transfer In	\$0	\$5,582	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>CHANGE IN NET POSITION</b>	<b>(\$3,650)</b>	<b>(\$9,525)</b>	<b>\$113,310</b>	<b>\$1,273</b>	<b>\$709</b>	<b>(\$1,071)</b>	<b>\$1,698</b>	<b>\$712</b>	<b>(\$4,303)</b>	<b>(\$1,787)</b>
<b>NET POSITION</b>										
Beginning of Year	\$124,354	\$133,879	\$20,569	\$19,296	\$18,587	\$19,658	\$17,960	\$17,248	\$21,551	\$23,338
End of Year	\$120,704	\$124,354	\$133,879	\$20,569	\$19,296	\$18,587	\$19,658	\$17,960	\$17,248	\$21,551

### CHANGES IN FIDUCIARY NET POSITION – OPEB PLAN

CERBTF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ADDITIONS</b>										
Employer	\$3,754,709	\$1,780,240	\$1,714,060	\$1,681,053	\$1,031,619	\$771,750	\$758,251	\$674,406	\$595,632	\$655,030
Investment Income/(Loss)	559,967	76,638	(13,988)	515,507	237,710	8,066	331,492	128,918	(143,800)	(20,998)
Miscellaneous Income	5,599	4,048	4,932	4,483	—	—	—	—	—	—
<b>TOTAL ADDITIONS</b>	<b>\$4,320,275</b>	<b>\$1,860,926</b>	<b>\$1,705,004</b>	<b>\$2,201,043</b>	<b>\$1,269,329</b>	<b>\$779,816</b>	<b>\$1,089,743</b>	<b>\$803,324</b>	<b>\$451,832</b>	<b>\$634,032</b>
<b>DEDUCTIONS</b>										
OPEB Reimbursements & Employer Withdrawals	\$2,648,160	\$1,229,523	\$1,099,376	\$1,020,924	\$635,074	\$566,360	\$507,951	\$364,182	\$246,047	\$1,702
Administrative Expenses	3,014	1,559	2,044	1,786	2,062	1,910	2,305	822	543	131
<b>TOTAL DEDUCTIONS</b>	<b>\$2,651,174</b>	<b>\$1,231,082</b>	<b>\$1,101,420</b>	<b>\$1,022,710</b>	<b>\$637,136</b>	<b>\$568,270</b>	<b>\$510,256</b>	<b>\$365,004</b>	<b>\$246,590</b>	<b>\$1,833</b>
<b>CHANGE IN NET POSITION</b>	<b>\$1,669,101</b>	<b>\$629,844</b>	<b>\$603,584</b>	<b>\$1,178,333</b>	<b>\$632,193</b>	<b>\$211,546</b>	<b>\$579,487</b>	<b>\$438,320</b>	<b>\$205,242</b>	<b>\$632,199</b>
<b>NET POSITION</b>										
Beginning of Year	\$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	\$11,440
End of Year	\$6,791,289	\$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

Statistical Section (continued)

CHANGES IN FIDUCIARY NET POSITION – CUSTODIAL FUND

RBF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2017 – 1-Year Review<sup>1</sup> (Dollars in Thousands)

	2017
<b>ADDITIONS</b>	
Replacement Benefits	\$20,573
Investment Income	168
Miscellaneous Income	239
<b>TOTAL ADDITIONS</b>	<b>\$20,980</b>
<b>DEDUCTIONS</b>	
Replacement Benefit Payments	\$20,573
Administrative Expenses	239
<b>TOTAL DEDUCTIONS</b>	<b>\$20,812</b>
<b>CHANGE IN NET POSITION</b>	<b>\$168</b>
<b>NET POSITION</b>	
<b>Beginning of Year<sup>2</sup></b>	<b>\$0</b>
<b>End of Year</b>	<b>\$168</b>

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

## Statistical Section (continued)

### 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 – Three-Year Review

	2017	2016	2015
<b>ACTIVE &amp; INACTIVE MEMBERS</b>			
<b>STATE MEMBERS</b>			
State Miscellaneous – Classic	216,008	216,647	233,574
State Miscellaneous – PEPR	59,617	44,057	29,009
State Safety – Classic	68,086	68,020	64,167
State Safety – PEPR	22,051	16,991	11,054
<b>Total State Members</b>	<b>365,762</b>	<b>345,715</b>	<b>337,804</b>
<b>PUBLIC AGENCY MEMBERS</b>			
School – Miscellaneous – Classic	376,546	396,832	422,114
School – Miscellaneous – PEPR	137,356	102,550	67,363
Public Agency – Miscellaneous – Classic	231,458	241,605	269,528
Public Agency – Miscellaneous – PEPR	84,913	64,234	46,091
Public Agency – Safety – Classic	48,596	50,372	54,825
Public Agency – Safety – PEPR	12,769	9,601	6,896
<b>Total Public Agency Members</b>	<b>891,638</b>	<b>865,194</b>	<b>866,817</b>
<b>TOTAL ACTIVE &amp; INACTIVE MEMBERS<sup>1</sup></b>	<b>1,257,400</b>	<b>1,210,909</b>	<b>1,204,621</b>
<b>BENEFIT RECIPIENTS</b>			
Retired			
Classic	576,228	557,679	530,725
PEPR	284	166	90
Survivors and Beneficiaries			
Classic	91,488	90,774	80,250
PEPR	59	26	13
<b>TOTAL BENEFIT RECIPIENTS<sup>2</sup></b>	<b>668,059</b>	<b>648,645</b>	<b>611,078</b>
<b>TOTAL MEMBERS AND BENEFIT RECIPIENTS</b>	<b>1,925,459</b>	<b>1,859,554</b>	<b>1,815,699</b>

(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.

## Statistical Section (continued)

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

#### Public Employees' Retirement System – Seven-Year Review<sup>1</sup>

	2014	2013	2012	2011	2010	2009	2008
<b>ACTIVE &amp; INACTIVE MEMBERS</b>							
<b>STATE MEMBERS</b>							
Miscellaneous	236,552	227,291	228,667	223,251	224,084	224,966	222,806
University of California	44	44	45	49	56	81	93
Industrial	13,669	13,038	13,734	13,732	13,624	12,822	11,862
Alternative Retirement Plan	7,407	12,160	9,491	13,972	16,477	19,422	19,086
Highway Patrol	7,479	7,556	7,565	7,573	7,589	7,471	7,133
Safety	31,150	28,878	28,935	29,402	29,305	29,911	28,763
Peace Officer/Firefighter	45,346	45,116	47,162	48,243	49,437	51,260	51,371
<b>Total State Members</b>	<b>341,647</b>	<b>334,083</b>	<b>335,599</b>	<b>336,222</b>	<b>340,572</b>	<b>345,933</b>	<b>341,114</b>
<b>PUBLIC AGENCY MEMBERS</b>							
Schools	442,088	430,865	428,117	425,186	427,211	432,383	426,686
Cities	160,127	158,649	160,253	163,430	167,994	173,315	175,240
Counties	97,780	94,980	93,468	93,651	95,122	97,188	98,395
Districts & Other Public Agencies	87,372	85,660	85,003	84,937	85,145	85,578	84,698
<b>Total Public Agency Members</b>	<b>787,367</b>	<b>770,154</b>	<b>766,841</b>	<b>767,204</b>	<b>775,472</b>	<b>788,464</b>	<b>785,019</b>
<b>TOTAL ACTIVE &amp; INACTIVE</b>	<b>1,129,014</b>	<b>1,104,237</b>	<b>1,102,440</b>	<b>1,103,426</b>	<b>1,116,044</b>	<b>1,134,397</b>	<b>1,126,133</b>
<b>BENEFIT RECIPIENTS</b>							
Service Retirement	505,031	486,625	464,601	450,263	428,821	408,428	393,328
Disability Retirement	44,242	43,857	43,626	43,347	43,090	43,074	42,813
Industrial Disability Retirement	37,686	36,493	35,495	34,733	33,951	33,453	32,757
Industrial Death	891	894	903	1,070	1,056	1,045	1,039
1957 Survivor Benefit	3,775	3,698	3,831	3,626	3,535	3,398	3,246
1959 Survivor Benefit	3,217	3,192	3,171	3,195	3,170	3,115	3,069
<b>TOTAL BENEFIT RECIPIENTS<sup>1</sup></b>	<b>594,842</b>	<b>574,759</b>	<b>551,627</b>	<b>536,234</b>	<b>513,623</b>	<b>492,513</b>	<b>476,252</b>
<b>TOTAL MEMBERS</b>	<b>1,723,856</b>	<b>1,678,996</b>	<b>1,654,067</b>	<b>1,639,660</b>	<b>1,629,667</b>	<b>1,626,910</b>	<b>1,602,385</b>

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



## Statistical Section (continued)

### 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.

## Statistical Section (continued)

### 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.

## Statistical Section (continued)

### 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<sup>1</sup> – 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.

## Statistical Section (continued)

### PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

#### **Pre-Retirement Option 2W Benefit<sup>1</sup> – 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 what the deceased member would have received had they retired on the date of their death and elected Option 2W. 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<sup>1</sup> – 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<sup>1</sup> – Survivors of State, State Industrial, State Peace Officer/Firefighter Members, State Miscellaneous<sup>3</sup>**

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<sup>2</sup> – 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<sup>1</sup> – 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.

## Statistical Section (continued)

### 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<sup>1</sup> – 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 what the deceased member would have received had they retired on the date of their death and elected Option 2W. 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.

## Statistical Section (continued)

### PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

#### **Special Death Benefit<sup>1</sup> – Survivors of Patrol, Local Safety & Local Miscellaneous by Contract Amendment<sup>3</sup>**

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<sup>2</sup> – 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<sup>4</sup> 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.



## Statistical Section (continued)

### 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 less than 100 active members.

#### Retirement Benefit Recipients and Members by Employer Category – PERF – As of June 30, 2017

Employer/Category	Plan Type	Active <sup>1</sup>	Inactive <sup>1</sup>	Retired <sup>2</sup>	Survivors & Beneficiaries <sup>3</sup>	Total
<b>STATE</b>						
Miscellaneous – Classic <sup>4</sup>	PERF A	143,419	72,589	145,008	26,611	387,627
Miscellaneous – PEPRA <sup>4</sup>	PERF A	51,255	8,362	41	2	59,660
Safety – Classic <sup>5</sup>	PERF A	57,802	10,284	57,376	6,708	132,170
Safety – PEPRA <sup>5</sup>	PERF A	19,746	2,305	13	1	22,065
Pre-Retirement Death – Classic	PERF A	—	—	—	3,031	3,031
Pre-Retirement Death – PEPRA	PERF A	—	—	—	3	3
<b>TOTAL STATE</b>		<b>272,222</b>	<b>93,540</b>	<b>202,438</b>	<b>36,356</b>	<b>604,556</b>
<b>SCHOOL</b>						
Miscellaneous – Classic	PERF B	234,116	142,430	183,608	27,297	587,451
Miscellaneous – PEPRA	PERF B	116,500	20,856	61	—	137,417
Pre-Retirement Death – Classic	PERF B	—	—	—	1,138	1,138
Pre-Retirement Death – PEPRA	PERF B	—	—	—	23	23
<b>TOTAL SCHOOL</b>		<b>350,616</b>	<b>163,286</b>	<b>183,669</b>	<b>28,458</b>	<b>726,029</b>
<b>PUBLIC AGENCY</b>						
Miscellaneous – Classic	PERF A	123,108	71,356	121,443	16,125	332,032
Miscellaneous – PEPRA	PERF A	57,183	13,391	106	—	70,680
Safety – Classic	PERF A	28,116	5,316	34,660	4,454	72,546
Safety – PEPRA	PERF A	7,331	1,037	12	—	8,380
Pre-Retirement Death – Classic	PERF A	—	—	—	1,416	1,416
Pre-Retirement Death – PEPRA	PERF A	—	—	—	25	25
Miscellaneous – Classic	PERF C	21,808	15,186	19,345	2,397	58,736
Miscellaneous – PEPRA	PERF C	11,679	2,660	43	—	14,382
Safety – Classic	PERF C	11,375	3,789	14,788	1,935	31,887
Safety – PEPRA	PERF C	3,782	619	8	—	4,409
Pre-Retirement Death – Classic	PERF C	—	—	—	376	376
Pre-Retirement Death – PEPRA	PERF C	—	—	—	5	5
<b>TOTAL PUBLIC AGENCY</b>		<b>264,382</b>	<b>113,354</b>	<b>190,405</b>	<b>26,733</b>	<b>594,874</b>
<b>TOTAL BENEFIT RECIPIENTS AND MEMBERS</b>		<b>887,220</b>	<b>370,180</b>	<b>576,512</b>	<b>91,547</b>	<b>1,925,459</b>

(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.



## Statistical Section (continued)

### PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

#### Benefit and Refund Deductions from Fiduciary Net Position – Six-Year Review – PERF

Category	2017	2016	2015	2014	2013	2012
Service Retirement	\$18,537,701,906	\$17,482,814,843	\$16,399,932,312	\$15,318,518,965	\$14,304,469,220	\$13,100,533,228
Disability Retirement	621,706,049	614,204,683	599,845,301	575,825,287	560,645,818	566,771,017
Industrial Disability Retirement	1,867,178,738	1,784,205,878	1,695,674,147	1,583,017,137	1,494,486,150	1,425,569,675
PPPA Payments <sup>1</sup>	17,399,875	21,742,842	25,792,689	33,299,953	37,957,813	38,927,217
<b>Total</b>	<b>\$21,043,986,568</b>	<b>\$19,902,968,246</b>	<b>\$18,721,244,449</b>	<b>\$17,510,661,342</b>	<b>\$16,397,559,001</b>	<b>\$15,131,801,137</b>
Basic Death Benefit/Group Term Life Insurance	\$36,354,849	\$37,528,299	\$25,652,204	\$26,528,315	\$45,181,888	\$43,730,806
1957 Survivor Benefit	99,140,672	95,869,358	92,157,432	87,564,961	83,210,337	77,780,450
1959 Survivor Benefit	33,448,316	33,770,778	33,886,098	33,699,064	34,606,918	32,855,386
Industrial Death Allowance	48,682,349	47,735,846	45,653,060	43,918,078	42,555,263	42,035,922
Option 1, Temporary Annuity, Other Lump Sum-Death Benefits & Other Prior Year Adjustments	30,796,681	36,775,082	55,058,746	57,285,779	32,149,825	28,492,596
Adjustments <sup>2</sup>	(76,521,097)	(60,714,425)	(51,360,036)	—	—	—
<b>Total</b>	<b>\$171,901,770</b>	<b>\$190,964,938</b>	<b>\$201,047,504</b>	<b>\$248,996,197</b>	<b>\$237,704,231</b>	<b>\$224,895,160</b>
<b>Total Retirement and Death Payments</b>	<b>\$21,215,888,338</b>	<b>\$20,093,933,184</b>	<b>\$18,922,291,953</b>	<b>\$17,759,657,539</b>	<b>\$16,635,263,232</b>	<b>\$15,356,696,297</b>
Refunds	222,274,594	238,821,624	240,623,206	237,893,870	242,595,215	218,082,685
<b>Grand Total</b>	<b>\$21,438,162,932</b>	<b>\$20,332,754,808</b>	<b>\$19,162,915,159</b>	<b>\$17,997,551,409</b>	<b>\$16,877,858,447</b>	<b>\$15,574,778,982</b>

(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% of their original purchasing power (80 percent for public agencies).

(2) Adjustment category added in FY 2015 to accommodate manual claims and overpayment recoveries.

## Statistical Section (continued)

### PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

#### Program Data – PERF – Average Benefit Payments – As of June 30, 2017 – 10-Year Review

Retirement Effective Dates	Years of Service Credit						
	0-5	6-10	11-15	16-20	21-25	26-30	31+
<b>2016-17</b>							
Average Monthly Allowance <sup>1</sup>	\$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 <sup>1</sup>	1,551	5,101	5,481	5,806	4,641	5,805	5,312
<b>2015-16</b>							
Average Monthly Allowance <sup>1</sup>	\$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 <sup>1</sup>	1,383	4,840	5,571	5,140	4,741	5,599	5,057
<b>2014-15</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	1,510	5,240	5,908	5,277	5,020	5,534	5,168
<b>2013-14</b>							
Average Monthly Allowance <sup>3</sup>	\$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 <sup>3</sup>	880	5,029	5,707	4,890	5,013	5,085	5,808
<b>2012-13</b>							
Average Monthly Allowance <sup>3</sup>	\$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 <sup>3</sup>	774	5,053	5,864	4,958	5,664	5,557	6,861
<b>2011-12</b>							
Average Monthly Allowance <sup>3</sup>	\$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 <sup>3</sup>	763	4,688	5,628	4,735	5,746	5,163	6,726
<b>2010-11</b>							
Average Monthly Allowance <sup>3</sup>	\$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 <sup>3</sup>	713	4,322	5,128	4,607	5,993	5,243	7,572
<b>2009-10</b>							
Average Monthly Allowance <sup>3</sup>	\$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 <sup>3</sup>	878	4,172	4,322	4,208	5,596	5,322	7,092
<b>2008-09</b>							
Average Monthly Allowance <sup>3</sup>	\$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 <sup>3</sup>	680	3,796	3,598	3,681	4,157	3,977	5,801
<b>2007-08</b>							
Average Monthly Allowance <sup>3</sup>	\$506	\$777	\$1,306	\$1,966	\$2,882	\$4,364	\$5,433
Average Final Compensation	\$6,138	\$4,358	\$4,518	\$4,970	\$5,587	\$6,472	\$6,864
Number of Recipients <sup>3</sup>	727	3,620	3,371	3,652	3,765	3,458	4,883

(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.

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS

#### CONTRACTS SUMMARY

On June 30, 2017, 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 1,366 school districts and charter schools, bringing the total number of public agency employers to 2,945.

During Fiscal Year 2016-17, six 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
7/1/2016	Sacramento Groundwater Authority	2% @ 55 2% @ 62	
8/22/2016	City of Mendota	2% @ 62	
8/1/2016	Williams Fire Protection		2.7% @ 57
8/16/2016	Schell-Vista Fire Protection		2.7% @ 57
2/1/2017	San Diego Community College District		2.7% @ 57
		2% @ 55 2% @ 60 2% @ 62	
2/18/2017	El Dorado County Water Agency		

#### 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 2016-17, 49 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
Cost Sharing	42
Removal of Exclusion(s)	3
Contract Amendment without Employee Election	2
Pre-Retirement Optional Settlement 2 Death Benefit	2
"Local Safety Officer" - Public Safety Department	1
Succeeding Agency	1
"Public Service" - Fellowship Employment	1
Application for Partial Service Retirement - Local Member	1
Alternative Death Benefit - Death of State Member with 20 Years of State Service	1
1959 Survivor Allowance - Fourth Level - Local Member	1

#### Mergers

- The County of El Dorado merged their Water Management function to the El Dorado County Water Agency effective February 18, 2017.

#### 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. Contracting agencies may voluntarily terminate its pension contract with the adoption of formal resolutions 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.

#### Voluntary Terminations:

- Niland Sanitary District, effective May 12, 2016
- Trinity County Waterworks District #1, effective September 30, 2016
- Herald Fire Protection District, effective January 20, 2017
- Alhambra Redevelopment Agency, effective March 27, 2017
- Exposition Metro Line Construction Authority, effective June 30, 2017

#### Involuntary Terminations:

- East San Gabriel Valley Human Services Consortium, effective May 30, 2017

## Statistical Section (continued)

### 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.

#### Largest Participating Employers – Current Year

Rank	Employer	2017	% of Total System
		Number of Employees <sup>1</sup>	
1	State of California	272,222	30.68%
2	Los Angeles County Office of Education	47,947	5.40%
3	San Diego County Office of Education	29,999	3.38%
4	Los Angeles Unified School District	27,306	3.08%
5	Orange County Office of Education	26,091	2.94%
6	San Bernardino County Office of Education	23,405	2.64%
7	Riverside County Office of Education	21,480	2.42%
	All other	438,770	49.46%
	<b>Total Covered Employees</b>	<b>887,220</b>	<b>100.00%</b>

(1) Number of Employees includes active and inactive members.

#### Largest Participating Employers – Nine-Years Prior

Rank	Employer	2008	% of Total System
		Number of Employees <sup>1</sup>	
1	State of California	341,114	31.28%
2	Los Angeles County Office of Education	79,289	7.27%
3	Los Angeles Unified School District	45,233	4.15%
4	San Diego County Office of Education	26,976	2.48%
5	County of Riverside	25,093	2.30%
6	Orange County Office of Education	22,367	2.05%
7	County of Santa Clara	20,733	1.90%
	All Other	529,632	48.57%
	<b>Total Covered Employees</b>	<b>1,090,437</b>	<b>100.00%</b>

(1) Number of Employees includes active and inactive members.

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### County Offices of Education (57)

	PERF B Active		PERF B Active
Alameda	13,179	Orange	26,091
Alpine	37	Placer	3,143
Amador	361	Plumas	467
Butte	3,176	Riverside	21,480
Calaveras	479	Sacramento	14,022
Colusa	449	San Benito	581
Contra Costa	8,406	San Bernardino	23,405
Del Norte	309	San Diego	29,999
El Dorado	1,685	San Joaquin	7,875
Fresno	11,905	San Luis Obispo	3,040
Glenn	470	San Mateo	5,357
Humboldt	1,658	Santa Barbara	4,048
Imperial	2,549	Santa Clara	15,107
Inyo	248	Santa Cruz	2,436
Kern	12,784	Shasta	2,562
Kings	1,643	Sierra	49
Lake	702	Siskiyou	858
Lassen	388	Solano	3,591
Los Angeles	47,947	Sonoma	4,486
Madera	1,731	Stanislaus	6,586
Marin	1,806	Sutter	1,092
Mariposa	136	Tehama	963
Mendocino	1,760	Trinity	200
Merced	3,728	Tulare	6,539
Modoc	199	Tuolumne	482
Mono	212	Ventura	7,431
Monterey	5,662	Yolo	1,897
Napa	1,442	Yuba	1,195
Nevada	873	<b>Total</b>	<b>320,906</b>

#### School District Offices<sup>1</sup> (4)

	Active		Total
	PERF A	PERF B	
Los Angeles Unified School District	377	26,929	27,306
Los Angeles Community College District	—	2,781	2,781
Los Angeles County Office of Education	1,647	—	1,647
San Diego County Office of Education	762	—	762
<b>Total</b>	<b>2,786</b>	<b>29,710</b>	<b>32,496</b>

(1) Agencies that contract with CalPERS as public agencies and are not reflected elsewhere in this report.

#### Counties (37 total)

	Active		Total
	PERF A	PERF C	
Alpine	—	97	97
Amador	287	99	386
Butte	2,279	—	2,279
Calaveras	454	89	543
Colusa	308	59	367
Del Norte	408	37	445
El Dorado	1,843	—	1,843
Glenn	409	25	434
Humboldt	2,028	—	2,028
Inyo	333	38	371
Kings	1,529	—	1,529
Lake	910	—	910
Lassen	386	64	450
Madera	1,374	—	1,374
Mariposa	320	74	394
Modoc	209	20	229
Mono	204	76	280
Monterey	5,247	—	5,247
Napa	1,341	113	1,454
Nevada	723	68	791
Placer	2,589	—	2,589
Plumas	384	35	419
Riverside	20,992	—	20,992
San Benito	391	78	469
San Joaquin	—	—	—
Santa Clara	17,514	—	17,514
Santa Cruz	2,432	—	2,432
Shasta	1,942	—	1,942
Sierra	—	115	115
Siskiyou	647	—	647
Solano	3,116	—	3,116
Sutter	993	—	993
Tehama	815	—	815
Trinity	259	59	318
Tuolumne	550	138	688
Yolo	1,552	—	1,552
Yuba	852	—	852
<b>Total</b>	<b>75,620</b>	<b>1,284</b>	<b>76,904</b>

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Cities & Towns (451)

City /Town	Active		Total	City /Town	Active		Total	City /Town	Active		Total
	PERF A	PERF C			PERF A	PERF C			PERF A	PERF C	
Adelanto	—	41	41	Calabasas	—	90	90	Del Mar	—	63	63
Agoura Hills	—	36	36	Calexico	—	130	130	Del Rey Oaks	—	11	11
Alameda	480	—	480	California City	—	112	112	Delano	—	57	57
Albany	—	102	102	Calimesa	—	10	10	Desert Hot Springs	—	67	67
Alhambra	392	—	392	Calipatria	—	9	9	Diamond Bar	—	59	59
Aliso Viejo	—	22	22	Calistoga	—	63	63	Dinuba	—	170	170
Alturas	—	22	22	Camarillo	139	—	139	Dixon	—	103	103
American Canyon	—	76	76	Campbell	145	43	188	Dos Palos	—	35	35
Anaheim	2,384	—	2,384	Canyon Lake	—	6	6	Downey	417	—	417
Anderson	—	59	59	Capitola	—	72	72	Duarte	—	48	48
Angels	—	52	52	Carlsbad	701	—	701	Dublin	—	96	96
Antioch	200	99	299	Carmel-By-The-Sea	—	72	72	Dunsmuir	—	14	14
Apple Valley	—	108	108	Carpinteria	—	31	31	East Palo Alto	—	103	103
Arcadia	311	—	311	Carson	431	—	431	Eastvale	—	11	11
Arcata	—	118	118	Cathedral City	—	171	171	El Cajon	407	—	407
Arroyo Grande	—	88	88	Cerritos	267	—	267	El Centro	192	85	277
Artesia	—	33	33	Chico	359	—	359	El Cerrito	—	175	175
Arvin	—	66	66	Chino	353	104	457	El Monte	296	—	296
Atascadero	—	141	141	Chowchilla	—	61	61	El Segundo	174	97	271
Atherton	—	48	48	Chula Vista	975	—	975	Elk Grove	—	321	321
Atwater	—	97	97	Citrus Heights	—	198	198	Emeryville	—	38	38
Auburn	—	70	70	Claremont	158	40	198	Encinitas	157	64	221
Avalon	—	75	75	Clayton	—	29	29	Escalon	—	31	31
Avenal	—	48	48	Clearlake	—	62	62	Escondido	832	—	832
Azusa	244	68	312	Cloverdale	—	42	42	Etna	—	17	17
Bakersfield	1,465	—	1,465	Clovis	618	—	618	Eureka	166	57	223
Baldwin Park	174	73	247	Coachella City	—	71	71	Exeter	—	47	47
Banning	141	27	168	Coalinga	—	130	130	Fairfax	—	35	35
Barstow	—	148	148	Colfax	—	12	12	Fairfield	578	—	578
Beaumont	—	125	125	Colma	—	45	45	Farmersville	—	30	30
Bell	—	107	107	Colton	222	84	306	Fillmore	—	37	37
Bell Gardens	—	167	167	Colusa	—	31	31	Firebaugh	—	33	33
Bellflower	—	87	87	Commerce	157	—	157	Folsom	431	—	431
Belmont	—	133	133	Compton	286	65	351	Fontana	732	—	732
Belvedere	—	20	20	Concord	420	—	420	Fort Bragg	—	57	57
Benicia	173	62	235	Corcoran	—	64	64	Fortuna	—	72	72
Berkeley	1,351	—	1,351	Corning	—	40	40	Fountain Valley	—	200	200
Beverly Hills	877	—	877	Corona	520	97	617	Fowler	—	25	25
Biggs	—	7	7	Coronado	192	76	268	Fremont	916	—	916
Bishop	—	39	39	Corte Madera	—	50	50	Fullerton	616	—	616
Blue Lake	—	10	10	Costa Mesa	459	80	539	Galt	128	31	159
Blythe	—	63	63	Cotati	—	36	36	Garden Grove	654	—	654
Bradbury	—	3	3	Covina	132	59	191	Gardena	351	92	443
Brawley	—	134	134	Crescent City	—	59	59	Gilroy	252	—	252
Brea	298	—	298	Cudahy	—	19	19	Glendale	1,791	—	1,791
Brentwood	220	64	284	Culver City	674	—	674	Glendora	151	54	205
Brisbane	—	101	101	Cupertino	188	—	188	Goleta	—	58	58
Buellton	—	25	25	Cypress	101	48	149	Gonzales	—	48	48
Buena Park	190	80	270	Daly City	467	—	467	Grand Terrace	—	34	34
Burbank	1,337	—	1,337	Dana Point	—	65	65	Grass Valley	—	80	80
Burlingame	188	41	229	Davis	258	99	357	Greenfield	—	53	53



## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Cities & Towns (continued)

City /Town	Active		Total	City /Town	Active		Total	City /Town	Active		Total
	PERF A	PERF C			PERF A	PERF C			PERF A	PERF C	
Gridley	—	49	49	Lancaster	346	—	346	Morgan Hill	197	41	238
Grover Beach	—	68	68	Larkspur	—	64	64	Morro Bay	—	95	95
Guadalupe	—	34	34	Lathrop	—	70	70	Mountain View	604	—	604
Gustine	—	23	23	Lawndale	—	63	63	Mt. Shasta	—	35	35
Half Moon Bay	—	27	27	Lemon Grove	—	64	64	Murrieta	—	240	240
Hanford	198	90	288	Lemoore	—	122	122	Napa	516	—	516
Hawaiian Gardens	—	66	66	Lincoln	—	153	153	National City	329	—	329
Hawthorne	184	91	275	Lindsay	—	101	101	Needles	—	50	50
Hayward	825	—	825	Live Oak	—	23	23	Nevada City	—	42	42
Healdsburg	—	125	125	Livermore	319	87	406	Newark	124	57	181
Hemet	296	—	296	Livingston	—	66	66	Newman	—	38	38
Hercules	—	89	89	Lodi	390	—	390	Newport Beach	784	—	784
Hermosa Beach	—	182	182	Loma Linda	—	77	77	Norco	—	60	60
Hesperia	—	116	116	Lomita	—	45	45	Norwalk	245	—	245
Hidden Hills	—	3	3	Lompoc	299	72	371	Novato	165	60	225
Highland	—	42	42	Long Beach	4,675	—	4,675	Oakdale	—	96	96
Hillsborough	—	83	83	Loomis	—	9	9	Oakland	3,925	—	3,925
Hollister	—	174	174	Los Alamitos	—	50	50	Oakley	—	80	80
Hughson	—	25	25	Los Altos	—	126	126	Oceanside	873	—	873
Huntington Beach	993	—	993	Los Altos Hills	—	19	19	Ojai	—	40	40
Huntington Park	—	151	151	Los Banos	—	157	157	Ontario	1,121	—	1,121
Imperial	—	58	58	Los Gatos	116	36	152	Orange	622	—	622
Imperial Beach	—	71	71	Lynwood	128	—	128	Orange Cove	—	49	49
Indian Wells	—	28	28	Madera	233	56	289	Orland	—	34	34
Indio	166	63	229	Malibu	—	77	77	Oroville	—	97	97
Industry	—	25	25	Mammoth Lakes	—	69	69	Oxnard	1,224	102	1,326
Inglewood	645	—	645	Manhattan Beach	273	93	366	Pacific Grove	—	90	90
Ione	—	18	18	Manteca	268	108	376	Pacifica	130	54	184
Irvine	972	—	972	Marina	—	85	85	Palm Desert	112	—	112
Irwindale	—	85	85	Martinez	—	51	51	Palm Springs	448	—	448
Jackson	—	30	30	Marysville	—	69	69	Palmdale	186	—	186
Kerman	—	68	68	Maywood	—	22	22	Palo Alto	1,016	—	1,016
King City	—	37	37	Mendota	—	21	21	Palos Verdes	—	65	65
Kingsburg	—	61	61	Menifee	—	76	76	Paradise	—	66	66
La Canada Flintridge	—	34	34	Menlo Park	212	43	255	Paramount	—	95	95
La Habra	272	66	338	Merced	447	—	447	Parlier	—	43	43
La Habra Heights	—	19	19	Mill Valley	—	191	191	Pasadena	1,808	—	1,808
La Mesa	262	—	262	Millbrae	—	79	79	Paso Robles	125	54	179
La Mirada	—	76	76	Milpitas	342	—	342	Patterson	—	119	119
La Palma	—	55	55	Mission Viejo	159	—	159	Perris	—	89	89
La Puente	—	27	27	Modesto	1,180	—	1,180	Petaluma	316	—	316
La Quinta	—	80	80	Monrovia	160	89	249	Pico Rivera	142	—	142
La Verne	—	168	168	Montague	—	9	9	Piedmont	—	91	91
Laguna Beach	167	94	261	Montclair	96	64	160	Pinole	—	89	89
Laguna Hills	—	43	43	Monte Sereno	—	6	6	Pismo Beach	—	97	97
Laguna Niguel	—	89	89	Montebello	446	—	446	Pittsburg	186	80	266
Laguna Woods	—	7	7	Monterey	336	124	460	Placentia	—	126	126
Lake Elsinore	—	80	80	Monterey Park	312	—	312	Placerville	—	87	87
Lake Forest	—	68	68	Moorpark	—	61	61	Pleasant Hill	—	113	113
Lakeport	—	45	45	Moraga	—	36	36	Pleasanton	468	80	548
Lakewood	297	—	297	Moreno Valley	309	—	309	Pomona	501	—	501



## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Cities & Towns (continued)

City /Town	Active		Total	City /Town	Active		Total	City /Town	Active		Total
	PERF A	PERF C			PERF A	PERF C			PERF A	PERF C	
Port Hueneme	—	119	119	San Ramon	213	64	277	Truckee	—	113	113
Porterville	209	97	306	Sand City	—	22	22	Tulare	240	109	349
Portola	—	13	13	Sanger	—	104	104	Tulelake	—	11	11
Portola Valley	—	16	16	Santa Ana	1,027	—	1,027	Turlock	221	122	343
Poway	181	52	233	Santa Barbara	937	98	1,035	Tustin	204	89	293
Rancho Cordova	—	72	72	Santa Clara	991	—	991	Twentynine Palms	—	34	34
Rancho	573	—	573	Santa Clarita	416	—	416	Ukiah	144	46	190
Rancho Mirage	—	80	80	Santa Cruz	710	145	855	Union City	225	79	304
Rancho Palos	—	90	90	Santa Fe Springs	117	53	170	Upland	257	—	257
Rancho Santa	—	27	27	Santa Maria	390	174	564	Vacaville	497	—	497
Red Bluff	—	97	97	Santa Monica	2,300	—	2,300	Vallejo	488	—	488
Redding	774	—	774	Santa Paula	—	125	125	Vernon	273	—	273
Redlands	334	132	466	Santa Rosa	1,247	—	1,247	Victorville	352	—	352
Redondo Beach	492	—	492	Santee	—	122	122	Villa Park	—	7	7
Redwood City	626	—	626	Saratoga	—	59	59	Visalia	596	—	596
Reedley	—	119	119	Sausalito	—	71	71	Vista	221	78	299
Rialto	330	—	330	Scotts Valley	—	54	54	Walnut	—	47	47
Richmond	722	—	722	Seal Beach	—	87	87	Walnut Creek	363	84	447
Ridgecrest	—	100	100	Seaside	—	180	180	Wasco	—	67	67
Rio Vista	—	40	40	Sebastopol	—	48	48	Waterford	—	18	18
Ripon	—	23	23	Selma	—	100	100	Watsonville	296	110	406
Riverbank	—	61	61	Shafter	—	192	192	Weed	—	28	28
Riverside	2,181	—	2,181	Shasta Lake	—	48	48	West Covina	328	—	328
Rocklin	149	86	235	Sierra Madre	—	86	86	West Hollywood	226	—	226
Rohnert Park	170	65	235	Signal Hill	—	116	116	West Sacramento	289	129	418
Rolling Hills	—	5	5	Simi Valley	524	—	524	Westlake Village	—	15	15
Rolling Hills	—	21	21	Solana Beach	—	68	68	Westminster	132	77	209
Rosemead	—	68	68	Soledad	—	56	56	Whittier	387	—	387
Roseville	1,245	—	1,245	Solvang	—	32	32	Wildomar	—	17	17
Ross	—	19	19	Sonoma	—	47	47	Williams	—	35	35
Sacramento	4,193	—	4,193	Sonora	—	44	44	Willits	—	45	45
Salinas	449	89	538	South El Monte	—	47	47	Willows	—	28	28
San Anselmo	—	34	34	South Gate	251	78	329	Windsor	—	97	97
San Bernardino	918	—	918	South Lake Tahoe	153	69	222	Winters	—	48	48
San Bruno	159	75	234	South Pasadena	—	158	158	Woodlake	—	43	43
San Buenaventura	614	—	614	South San	450	—	450	Woodland	286	—	286
San Carlos	—	80	80	St. Helena	—	85	85	Woodside	—	20	20
San Clemente	176	5	181	Stanton	—	31	31	Yorba Linda	103	—	103
San Dimas	—	94	94	Stockton	1,569	—	1,569	Yountville	—	27	27
San Fernando	—	109	109	Suisun City	—	107	107	Yreka	—	52	52
San Francisco <sup>(1)</sup>	917	3	920	Sunnyvale	857	—	857	Yuba City	171	105	276
San Gabriel	—	174	174	Susanville	—	71	71	Yucaipa	—	44	44
San Jacinto	—	49	49	Sutter Creek	—	14	14	Yucca Valley	—	44	44
San Joaquin	—	15	15	Taft	—	158	158	<b>Total</b>	<b>97,938</b>	<b>24,376</b>	<b>122,314</b>
San Jose	—	9	9	Tehachapi	—	64	64	(1) San Francisco has both City and County employees; however it is listed only in the "total" count of the Cities & Towns category.			
San Leandro	269	92	361	Temecula	177	—	177				
San Luis Obispo	333	103	436	Temple City	—	52	52				
San Marcos	199	68	267	Thousand Oaks	348	—	348				
San Marino	—	116	116	Tiburon	—	38	38				
San Mateo	540	—	540	Torrance	1,387	—	1,387				
San Pablo	—	136	136	Tracy	444	—	444				

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (1,029)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Academic Senate for California Community Colleges	—	13	13	Association of California Water Agencies	—	39	39
Access Services Incorporated	—	70	70	Association of California Water Agencies - Joint Powers Insurance Authority	—	49	49
Agoura Hills and Calabasas Community Center	—	8	8	Association of Monterey Bay Area Governments	—	14	14
Alameda Alliance for Health	276	—	276	Atascadero Cemetery District	—	3	3
Alameda Corridor Transportation Authority	—	10	10	Auburn Area Recreation and Park District	—	48	48
Alameda County Fire Department	350	74	424	Auburn Public Cemetery District	—	6	6
Alameda County Law Library	—	9	9	Avila Beach Community Services District	—	1	1
Alameda County Mosquito Abatement District	—	16	16	Aztec Shops, Ltd.	—	46	46
Alameda County Schools Insurance Group	—	3	3	Baldwin Park Unified School District	—	7	7
Alameda County Transportation Commission	—	27	27	Bard Water District	—	17	17
Alameda County Waste Management Authority	—	35	35	Bardsdale Cemetery District	—	3	3
Alameda County Water District	218	—	218	Barstow Cemetery District	—	3	3
Alliance of Schools for Cooperative Insurance Programs	—	41	41	Bay Area Air Quality Management District	346	—	346
Alpine Fire Protection District	—	17	17	Bay Area Water Supply and Conservation Agency	—	7	7
Alpine Springs County Water District	—	3	3	Beach Cities Health District	—	63	63
Alta California Regional Center, Inc.	441	—	441	Bear Mountain Recreation and Park District	—	7	7
Alta Irrigation District	—	19	19	Bear Valley Community Services District	—	35	35
Altadena Library District	—	22	22	Beaumont District Library	—	11	11
Amador County Transportation Commission	—	5	5	Beaumont-Cherry Valley Recreation and Park District	—	12	12
Amador Transit	—	25	25	Beaumont-Cherry Valley Water District	—	31	31
Amador Water Agency	—	43	43	Bella Vista Water District	—	26	26
American Canyon Fire Protection District	—	19	19	Belmont Fire Protection District	—	24	24
American River Flood Control District	—	9	9	Belmont-San Carlos Fire Department	—	—	—
Anderson Cemetery District	—	1	1	Belvedere-Tiburon Library Agency	—	21	21
Anderson Fire Protection District	—	9	9	Benicia City Housing Authority	—	9	9
Angiola Water District	—	8	8	Bennett Valley Fire Protection District	—	7	7
Antelope Valley Mosquito and Vector Control District	—	6	6	Berkeley Housing Authority	—	12	12
Antelope Valley Schools Transportation Agency	209	—	209	BETA Healthcare Group Risk Management Authority	—	112	112
Antelope Valley Transit Authority	—	41	41	Big Bear Area Regional Wastewater Agency	—	14	14
Apple Valley Fire Protection District	—	48	48	Big Bear City Airport District	—	6	6
Aptos/La Selva Fire Protection Agency	—	37	37	Big Bear City Community Services District	—	54	54
Arbuckle-College City Fire Protection District	—	3	3	Big Bear Municipal Water District	—	11	11
Arcade Creek Recreation and Park District	—	5	5	Bighorn-Desert View Water Agency	—	9	9
Arcata Fire Protection District	—	25	25	Black Gold Cooperative Library System	—	6	6
Area 12 Agency on Aging	—	14	14	Blanchard/Santa Paula Public Library District	—	5	5
Armona Community Services District	—	—	—	Blue Lake Fire Protection District	—	1	1
Aromas Water District	—	6	6	Bodega Bay Fire Protection District	—	14	14
Arrowbear Park County Water District	—	5	5	Bolinas Community Public Utility District	—	6	6
Arroyo Grande District Cemetery	—	3	3	Bolinas Fire Protection District	—	2	2
Associated Students California State University San Bernardino	—	3	3	Bonita-Sunnyside Fire Protection District	—	14	14
Associated Students Incorporated of California State University East Bay	—	6	6	Boron Community Services District	—	5	5
Associated Students Incorporated of California State University Stanislaus	—	5	5	Borrego Springs Fire Protection District	—	22	22
Associated Students of California State University, Chico	—	85	85	Borrego Water District	—	12	12
Association of Bay Area Governments	—	60	60	Boulder Creek Fire Protection District	—	1	1
				Branciforte Fire Protection District	—	6	6
				Brannan-Andrus Levee Maintenance District	—	2	2

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total		Other Public Agency	Active		Total
	PERF A	PERF C				PERF A	PERF C	
Broadmoor Police Protection District	—	8	8		California Joint Powers Insurance Authority	—	26	26
Brooktrails Township Community Services District	—	10	10		California Joint Powers Risk Management Authority	—	6	6
Browns Valley Irrigation District	—	12	12		California Maritime Academy Foundation, Inc.	—	—	—
Buena Park Library District	—	18	18		California Municipal Utilities Association	—	7	7
Burney Basin Mosquito Abatement District	—	1	1		California Pines Community Services District	—	10	10
Burney Fire District	—	6	6		California Redevelopment Association Foundation	—	—	—
Burney Water District	—	7	7		California School Boards Association	—	83	83
Butte County Air Quality Management District	—	11	11		California Special Districts Association	—	25	25
Butte County Association of Governments	—	12	12		California State and Federal Employees No. 20 Credit Union	—	7	7
Butte County Fair Association	—	4	4		California State University, Bakersfield Foundation	—	4	4
Butte County In-Home Supportive Services Public Authority	—	3	3		California State University, East Bay Foundation, Inc.	—	—	—
Butte County Mosquito and Vector Control District	—	20	20		California State University, Fresno Athletic Corporation	—	56	56
Butte Local Agency Formation Commission	—	4	4		California State University, Stanislaus Auxiliary and Business Services	—	—	—
Butte Schools Self-Funded Programs	—	2	2		California State University-Fresno Association, Inc.	—	79	79
Butte-Glenn Community College District	—	4	4		Callayomi County Water District	—	4	4
Byron-Bethany Irrigation District	—	6	6		Calleguas Municipal Water District	—	67	67
Cabrillo College Foundation	—	7	7		Camarillo Health Care District	—	23	23
Cachuma Operation and Maintenance Board	—	13	13		Cambria Cemetery District	—	1	1
Cal Poly Corporation	293	—	293		Cambria Community Healthcare District	—	37	37
Cal Poly Pomona Foundation, Inc.	—	229	229		Cambria Community Services District	—	42	42
Calaveras Council of Governments	—	3	3		Cameron Park Community Services District	—	9	9
Calaveras County Water District	—	65	65		Camrosa Water District	—	26	26
Calaveras Public Utility District	—	8	8		Capitol Area Development Authority	—	41	41
California Association for Park and Recreation Indemnity	—	5	5		Carmel Area Wastewater District	—	25	25
California Authority of Racing Fairs	—	6	6		Carmel Highlands Fire Protection District of Monterey County	—	—	—
California Bear Credit Union	—	29	29		Carmel Regional Fire Ambulance Authority	—	—	—
California Central Valley Flood Control Association	—	2	2		Carmichael Water District	—	28	28
California Fair Services Authority	—	24	24		Carpinteria Sanitary District	—	16	16
California Fairs Financing Authority	—	—	—		Carpinteria Valley Water District	—	27	27
California Firefighter's Joint Apprenticeship Committee	—	26	26		Casitas Municipal Water District	—	59	59
California Interscholastic Federation, Central Coast Section	—	5	5		Castaic Lake Water Agency	—	122	122
California Interscholastic Federation, Central Section	—	3	3		Castro Valley Sanitary District	—	21	21
California Interscholastic Federation, North Coast Section	—	7	7		Castroville Community Services District	—	6	6
California Interscholastic Federation, Northern Section	—	1	1		Cawelo Water District	—	17	17
California Interscholastic Federation, Sac-Joaquin Section	—	9	9		Cayucos Sanitary District	—	6	6
California Interscholastic Federation, San Diego Section	—	5	5		Cayucos-Morro Bay Cemetery District	—	3	3
California Interscholastic Federation, Southern Section	—	16	16		Centerville Community Services District	—	4	4
California Interscholastic Federation, State Office	—	9	9		Central Basin Municipal Water District	—	26	26
					Central Calaveras Fire and Rescue Protection District	—	5	5
					Central Coast Computing Authority	—	—	—
					Central Coast Water Authority	—	31	31

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Central Contra Costa Solid Waste Authority	—	5	5	Compton Creek Mosquito Abatement District	—	1	1
Central Contra Costa Transit Authority	255	—	255	Compton Unified School District	—	22	22
Central County Fire Department	—	85	85	Conejo Recreation and Park District	150	—	150
Central Fire Protection District of Santa Cruz County	—	61	61	Consolidated Mosquito Abatement District	—	27	27
Central Marin Police Authority	—	46	46	Contra Costa Community College District	—	22	22
Central Marin Sanitation Agency	—	43	43	Contra Costa County Law Library	—	3	3
Central Sierra Child Support Agency	—	42	42	Contra Costa County Schools Insurance Group	—	30	30
Central Sierra Planning Council	—	—	—	Contra Costa Transportation Authority	—	19	19
Central Valley Regional Center, Inc.	438	—	438	Cooperative Organization for the Development of Employee Selection Procedures	—	9	9
Central Water District	—	3	3	Cooperative Personnel Services	209	—	209
Chester Public Utility District	—	15	15	Copperopolis Fire Protection District	—	13	13
Chico Area Recreation and Park District	—	65	65	Cordelia Fire Protection District of Solano County	—	4	4
Children and Families Commission of San Luis Obispo County	—	4	4	Cordova Recreation and Park District	—	48	48
Chino Basin Water Conservation District	—	14	14	Coming Water District	—	4	4
Chino Basin Watermaster	—	9	9	Costa Mesa Sanitary District	—	17	17
Chino Valley Independent Fire District	—	136	136	Cosumnes Community Services District	412	—	412
Citrus Heights Water District	—	32	32	Cottonwood Fire Protection District	—	3	3
City/County Association of Governments of San Mateo County	—	2	2	Cottonwood Water District	—	3	3
Clear Creek Community Services District	—	14	14	CRA/LA, a Designated Local Authority	—	16	16
Clearlake Oaks County Water District	—	15	15	Crescent City Harbor District	—	8	8
Cloverdale Citrus Fair	—	3	3	Crescenta Valley Water District	—	33	33
Cloverdale Fire Protection District	—	6	6	Crestline Lake Arrowhead Water Agency	—	11	11
Clovis Cemetery District	—	11	11	Crestline Village Water District	—	14	14
Coachella Valley Association of Governments	—	17	17	Crockett Community Services District	—	4	4
Coachella Valley Mosquito and Vector Control District	—	55	55	CSAC Excess Insurance Authority	—	68	68
Coachella Valley Public Cemetery District	—	6	6	Cucamonga Valley Water District	127	—	127
Coachella Valley Water District	546	—	546	Cutler Public Utility District	—	5	5
Coalinga/Huron Unified School District Library District	—	12	12	Cutler-Orosi Joint Powers Wastewater Authority	—	3	3
Coalinga-Huron Cemetery District	—	2	2	Cuyama Valley Recreation District	—	2	2
Coalinga-Huron Recreation and Park District	—	11	11	Dairy Council of California	—	40	40
Coast Life Support District	—	12	12	Davis Cemetery District	—	6	6
Coastal Developmental Services Fdn dba Westside Regional Center	225	—	225	De Luz Community Services District	—	6	6
Coastside County Water District	—	20	20	Del Norte County Library District	—	2	2
Coastside Fire Protection District	—	—	—	Del Paso Manor Water District	—	4	4
Colfax Cemetery District	—	2	2	Del Puerto Water District	—	5	5
College of the Canyons Foundation	—	1	1	Del Rey Community Services District	—	7	7
College Town	—	—	—	Delano Mosquito Abatement District	—	6	6
Colusa County One-Stop Partnership	—	12	12	Delta Diablo	—	79	79
Colusa Mosquito Abatement District	—	3	3	Delta Vector Control District	—	15	15
Community College League of California	—	22	22	Denair Community Services District	—	6	6
Community Development Commission of Mendocino County	—	25	25	Desert Water Agency	—	76	76
Community Development Commission of the County of Los Angeles	539	—	539	Diablo Water District	—	13	13
				Diamond Springs/El Dorado Fire Protection District	—	21	21
				Dixon Public Library District	—	15	15
				Donald P. And Katherine B. Loker University Student Union, Inc.	—	12	12
				Dougherty Regional Fire Authority	—	—	—

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Downey Cemetery District	—	—	—	Fort Bragg Fire Protection Authority	—	4	4
Dublin San Ramon Services District	—	106	106	Fort Ord Reuse Authority	—	16	16
Durham Mosquito Abatement District	—	1	1	Foundation for California Community Colleges	—	191	191
East Bay Dischargers Authority	—	4	4	Fresno City Housing Authority	112	—	112
East Bay Regional Park District	600	70	670	Fresno County Housing Authority	120	—	120
East Contra Costa Irrigation District	—	18	18	Fresno County Law Library	—	2	2
East County Schools Federal Credit Union	—	17	17	Fresno Westside Mosquito Abatement District	—	10	10
East Orange County Water District	—	7	7	Fruitridge Fire Protection District	—	—	—
East Palo Alto Sanitary District	—	4	4	Fullerton California State University Associated Students	—	62	62
East Quincy Services District	—	5	5	Fulton-El Camino Recreation and Park District	—	11	11
East Valley Water District	—	67	67	Garden Valley Fire Protection District	—	22	22
Eastern Municipal Water District	601	—	601	Georgetown Divide Public Utility District	—	20	20
Eastern Sierra Transit Authority	—	47	47	Georgetown Divide Resource Conservation District	—	2	2
Ebbetts Pass Fire Protection District	—	27	27	Georgetown Fire Protection District	—	11	11
El Dorado County Fire Protection District	—	70	70	Gilsizer County Drainage District	—	2	2
El Dorado County Resource Conservation District	—	2	2	Glen Ellen Fire Protection District	—	9	9
El Dorado County Transit Authority	—	77	77	Glendale College, Associated Students of	—	1	1
El Dorado County Transportation Commission	—	5	5	Glendale Community College District	—	8	8
El Dorado County Water Agency	—	2	2	Glenn County Mosquito and Vector Control District	—	1	1
El Dorado Hills Community Services District	—	38	38	Gold Coast Transit	207	—	207
El Dorado Hills County Water District	—	63	63	Gold Ridge Fire Protection District	—	17	17
El Dorado Irrigation District	206	—	206	Gold Ridge Resource Conservation District	—	8	8
El Dorado Local Agency Formation Commission	—	3	3	Golden Gate Bridge Highway and Transportation District	470	—	470
Encina Wastewater Authority	—	69	69	Golden Hills Community Services District	—	13	13
Esparto Community Services District	—	5	5	Golden Sierra Job Training Agency	—	15	15
Esparto Fire Protection District	—	3	3	Goleta Sanitary District	—	35	35
Estero Municipal Improvement District	134	66	200	Goleta Water District	—	70	70
Exeter District Ambulance	—	33	33	Goleta West Sanitary District	—	7	7
Fair Oaks Recreation & Park District	—	16	16	Granada Sanitary District	—	2	2
Fair Oaks Water District	—	30	30	Great Basin Unified Air Pollution Control District	—	22	22
Fairfield-Suisun Sewer District	—	58	58	Greater Anaheim Special Education Local Plan Area	—	69	69
Fall River Valley Community Services District	—	4	4	Greater Los Angeles County Vector Control District	—	75	75
Fallbrook Public Utility District	—	71	71	Greater Vallejo Recreation District	—	92	92
Far Northern Coordinating Council on Developmental Disabilities	188	—	188	Green Valley County Water District	—	2	2
Feather River Air Quality Management District	—	9	9	Greenfield Fire Protection District	—	6	6
Feather River Recreation and Park District	—	14	14	Gridley Biggs Cemetery District	—	3	3
Feather Water District	—	3	3	Grossmont Healthcare District	—	7	7
Felton Fire Protection District	—	2	2	Grossmont-Cuyamaca Community College District Auxiliary Organization	—	62	62
Fern Valley Water District	—	4	4	Groveland Community Services District	—	19	19
Florin County Water District	—	14	14	Gualala Community Services District	—	4	4
Florin Resource Conservation District Elk Grove Water District	—	31	31	Hacienda La Puente Unified School District	—	6	6
Fontana Unified School District	—	18	18	Hamilton Branch Fire Protection District	—	—	—
Foothill Municipal Water District	—	10	10	Happy Camp Sanitary District	—	—	—
Foresthill Public Utility District	—	9	9	Happy Homestead Cemetery District	—	3	3
Forestville Fire Protection District	—	12	12				
Forestville Water District	—	5	5				



## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Happy Valley Fire District	—	3	3	Indian Wells Valley Water District	—	31	31
Hayward Area Recreation and Park District	125	—	125	Inland Counties Regional Center, Inc.	721	—	721
Health Plan of San Joaquin	—	325	325	Inland Empire Health Plan	1,938	—	1,938
Heartland Communications Facility Authority	—	18	18	Inland Empire Resource Conservation District	—	12	12
Heber Public Utility District	—	15	15	Inland Empire Utilities Agency	291	—	291
Helendale Community Services District	—	21	21	Intelecom Intelligent Telecommunications	—	9	9
Helix Water District	143	—	143	Intergovernmental Training and Development Center	—	10	10
Henry Miller Reclamation District No. 2131	—	28	28	Inverness Public Utility District	—	6	6
Heritage Ranch Community Services District	—	9	9	Ironhouse Sanitary District	—	29	29
Herlong Public Utility District	—	3	3	Irvine Child Care Project	—	—	—
Hesperia Fire Protection District	—	—	—	Irvine Ranch Water District	364	—	364
Hesperia Unified School District	—	8	8	Isla Vista Recreation and Park District	—	13	13
Hesperia Water District	—	55	55	Jackson Valley Irrigation District	—	3	3
Hidden Valley Lake Community Services District	—	14	14	Jamestown Sanitary District	—	4	4
Hi-Desert Water District	—	48	48	Janesville Fire Protection District	—	—	—
Higgins Area Fire Protection District	—	28	28	Joshua Basin Water District	—	21	21
Hilton Creek Community Services District	—	2	2	June Lake Public Utility District	—	7	7
Hopland Public Utility District	—	—	—	Jurupa Area Recreation and Park District	—	19	19
Housing Authority of the City of Alameda	—	46	46	Jurupa Community Services District	—	174	174
Housing Authority of the City of Calexico	—	15	15	Kaweah Delta Water Conservation District	—	21	21
Housing Authority of the City of Eureka	—	25	25	Kelseyville Fire Protection District	—	26	26
Housing Authority of the City of Livermore	—	16	16	Kensington Community Services District	—	9	9
Housing Authority of the City of Los Angeles	766	1	767	Kentfield Fire Protection District	—	16	16
Housing Authority of the City of Madera	—	31	31	Kenwood Fire Protection District	—	7	7
Housing Authority of the City of San Buenaventura	—	59	59	Kern County Council of Governments	—	20	20
Housing Authority of the City of San Luis Obispo	—	46	46	Kern County Law Library	—	4	4
Housing Authority of the City of South San Francisco	—	4	4	Kern County Local Agency Formation	—	4	4
Housing Authority of the County of Butte	—	35	35	Kern Health Systems	—	377	377
Housing Authority of the County of Kern	143	—	143	Kern River Valley Cemetery District	—	2	2
Housing Authority of the County of Santa Clara	126	—	126	Kern-Tulare Water District	—	8	8
Housing Authority of the County of Santa Cruz	—	58	58	Kettleman City Community Services District	—	4	4
Hub Cities Consortium	—	30	30	Kings County Area Public Transit Agency	—	6	6
Human Rights/Fair Housing Commission of the City and County of Sacramento	—	17	17	Kings County Association of Governments	—	6	6
Humboldt Bay Fire Joint Powers Authority	—	55	55	Kings County In-Home Supportive Services Public Authority	—	5	5
Humboldt Bay Harbor Recreation and Conservation District	—	12	12	Kings Mosquito Abatement District	—	16	16
Humboldt Bay Municipal Water District	—	28	28	Kings Waste and Recycling Authority	—	42	42
Humboldt Community Services District	—	21	21	Kinneloa Irrigation District	—	4	4
Humboldt County Association of Governments	—	5	5	Kirkwood Meadows Public Utility District	—	19	19
Humboldt State University Center Board of Directors	—	44	44	Konocti County Water District	—	11	11
Humboldt Transit Authority	—	54	54	La Branza Water District	—	—	—
Humboldt Waste Management Authority	—	46	46	La Habra Heights County Water District	—	10	10
Idyllwild Fire Protection District	—	8	8	La Puente Valley County Water District	—	15	15
Independent Cities Association, Inc.	—	—	—	Laguna Beach County Water District	—	43	43
				Lake Arrowhead Community Services District	—	57	57
				Lake County Fire Protection District	—	42	42
				Lake County Vector Control District	—	10	10
				Lake Don Pedro Community Services District	—	7	7

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Lake Hemet Municipal Water District	—	52	52	Lower Lake County Waterworks District No. 1	—	9	9
Lake Oroville Area Public Utility District	—	8	8	Lower Tule River Irrigation District	—	29	29
Lake Shastina Community Services District	—	9	9	Madera Cemetery District	—	19	19
Lake Valley Fire Protection District	—	33	33	Madera County Mosquito and Vector Control District	—	9	9
Lakeport County Fire Protection District	—	21	21	Main San Gabriel Basin Watermaster	—	8	8
Lakeside Fire Protection District	—	51	51	Majestic Pines Community Services District	—	4	4
Lakeside Water District	—	12	12	Mammoth Lakes Fire District	—	18	18
Lamont Public Utility District	—	9	9	Mammoth Lakes Mosquito Abatement District	—	—	—
Las Gallinas Valley Sanitary District of Marin County	—	20	20	Management of Emeryville Services Authority	—	108	108
Las Virgenes Municipal Water District	111	—	111	March Joint Powers Authority	—	17	17
Lassen County Waterworks District No. 1	—	1	1	Marin Children and Families Commission	—	2	2
League of California Cities	—	77	77	Marin Community College District	—	6	6
Leucadia Wastewater District	—	20	20	Marin County Housing Authority	—	37	37
Levee District No. 1 of Sutter County	—	2	2	Marin County In-Home Supportive Services Public Authority	—	6	6
Linda County Water District	—	15	15	Marin Healthcare District	—	—	—
Linda Fire Protection District	—	18	18	Marin Municipal Water District	228	—	228
Linden-Peters Rural County Fire Protection District	—	13	13	Marina Coast Water District	—	41	41
Lindsay Strathmore Public Cemetery District	—	5	5	Marinwood Community Services District	—	19	19
Little Lake Fire Protection District	—	5	5	Mariposa Public Utility District	—	6	6
Littlerock Creek Irrigation District	—	6	6	Maxwell Public Utility District	—	3	3
Live Oak Cemetery District	—	3	3	McCloud Community Services District	—	5	5
Livermore/Amador Valley Transit Authority	—	16	16	McFarland Recreation and Park District	—	13	13
Local Agency Formation Commission of Monterey County	—	4	4	McKinleyville Community Services District	—	28	28
Local Agency Formation Commission of Solano County	—	1	1	Meeks Bay Fire Protection District	—	1	1
Local Government Services Authority, a Joint Powers Authority	—	11	11	Meiners Oaks County Water District	—	5	5
Lompico County Water District	—	—	—	Mendocino City Community Services District	—	4	4
Long Beach City College Associated Student Body Enterprises	—	—	—	Mendocino County Russian River Flood Control & Water Conservation Improvement Dt	—	1	1
Long Beach State University, Associated Students	—	66	66	Mendocino Transit Authority	—	57	57
Long Beach State University, Forty-Niner Shops, Inc.	—	59	59	Menlo Park Fire Protection District	—	128	128
Loomis Fire Protection District	—	15	15	Merced County Housing Authority	—	33	33
Los Alamos Community Services District	—	5	5	Merced County Mosquito Abatement District	—	13	13
Los Angeles County Area 'E' Civil Defense and Disaster Board	—	1	1	Merced Irrigation District	169	—	169
Los Angeles County Law Library	—	39	39	Mesa Water District	—	49	49
Los Angeles County Sanitation District No. 2	1,653	—	1,653	Metropolitan Transportation Commission	223	—	223
Los Angeles County West Vector Control District	—	35	35	Metropolitan Water District of Southern California	1,748	—	1,748
Los Angeles Memorial Coliseum Commission	—	1	1	Midpeninsula Regional Open Space District	—	148	148
Los Angeles Regionalized Insurance Services Authority	—	—	—	Mid-Peninsula Water District	—	18	18
Los Gatos-Saratoga Department of Community Education and Recreation	—	44	44	Mid-Placer Public Schools Transportation Agency	—	34	34
Los Osos Community Services District	—	13	13	Midway City Sanitary District	—	26	26
Lower Lake Cemetery District	—	1	1	Midway Heights County Water District	—	4	4
				Millview County Water District	—	—	—
				Minter Field Airport District	—	9	9
				Mission Springs Water District	—	44	44
				Mojave Air and Space Port	—	19	19
				Mojave Water Agency	—	39	39
				Mokelumne Rural Fire District	—	10	10



## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Monte Vista County Water District	—	34	34	North Bay Cooperative Library System	—	—	—
Montecito Fire Protection District	—	44	44	North Bay Regional Center	236	—	236
Montecito Sanitary District of Santa Barbara County	—	15	15	North Bay Schools Insurance Authority	—	29	29
Montecito Water District	—	24	24	North Central Counties Consortium	—	5	5
Monterey Bay Unified Air Pollution Control District	—	31	31	North Coast County Water District	—	20	20
Monterey County Regional Fire Protection District	—	62	62	North Coast Railroad Authority	—	2	2
Monterey County Water Resources Agency	—	35	35	North Coast Unified Air Quality Management	—	14	14
Monterey Peninsula Airport District	—	31	31	North County Dispatch Joint Powers Authority	—	27	27
Monterey Peninsula Regional Park District	—	15	15	North County Fire Protection District of Monterey County	—	45	45
Monterey Peninsula Water Management District	—	24	24	North County Fire Protection District of San Diego County	—	89	89
Monterey Regional Waste Management District	114	—	114	North County Transit District	136	—	136
Monterey Regional Water Pollution Control Agency	—	79	79	North Delta Water Agency	—	2	2
Monterey-Salinas Transit District	258	—	258	North Kern Cemetery District	—	10	10
Montezuma Fire Protection District	—	15	15	North Kern Water Storage District	—	28	28
Morongo Basin Transit Authority	—	42	42	North Kern-South Tulare Hospital District	181	—	181
Mother Lode Job Training Agency	—	17	17	North Los Angeles County Regional Center, Inc.	455	—	455
Moulton-Niguel Water District	—	135	135	North Marin Water District	—	54	54
Mountains Recreation and Conservation Authority	—	129	129	North of the River Municipal Water District	—	—	—
Mountain-Valley Library System	—	—	—	North of the River Recreation and Park District	140	—	140
Mt. San Antonio College Auxiliary Services	—	8	8	North State Cooperative Library System	—	—	—
Mt. View Sanitary District of Contra Costa County	—	15	15	North Tahoe Fire Protection District	—	74	74
Municipal Pooling Authority	—	17	17	North Tahoe Public Utility District	—	54	54
Municipal Water District of Orange County	—	33	33	Northern California Power Agency	150	—	150
Murphys Sanitary District	—	3	3	Northern California Special Districts Insurance Authority	—	—	—
Murrieta Fire Protection District	—	56	56	Northern Salinas Valley Mosquito Abatement District	—	7	7
Murrieta Valley Cemetery District	—	4	4	Northern Sierra Air Quality Management District	—	5	5
Napa County Mosquito Abatement District	—	8	8	Northshore Fire Protection District	—	45	45
Napa County Resource Conservation District	—	10	10	Northstar Community Services District	—	39	39
Napa County Transportation and Planning Agency	—	14	14	Northwest Mosquito and Vector Control District	—	20	20
Napa Sanitation District	—	50	50	Novato Sanitary District	—	20	20
National Orange Show	—	59	59	Oakdale Irrigation District	—	70	70
Natomas Fire Protection District	—	—	—	Oakdale Rural Fire Protection District	—	—	—
Nevada Cemetery District	—	4	4	Oakland City Housing Authority	302	30	332
Nevada County Consolidated Fire District	—	37	37	Oakland Unified School District	—	23	23
Nevada County Local Agency Formation Commission	—	3	3	Oceano Community Services District	—	7	7
Nevada County Resource Conservation District	—	2	2	Ojai Valley Sanitary District	—	21	21
Nevada Irrigation District	197	—	197	Olcese Water District	—	—	—
Nevada-Sierra Connecting Point Public Authority	—	25	25	Olivenhain Municipal Water District	—	83	83
Newcastle, Rocklin, Gold Hill Cemetery District	—	9	9	Omnitrans	692	—	692
Newhall County Water District	—	29	29	Ophir Hill Fire Protection District	—	15	15
Nipomo Community Services District	—	17	17	Orange County Health Authority	1,167	—	1,167
				Orange County Transportation Authority	—	2	2
				Orange County Vector Control District	—	91	91
				Orchard Dale Water District	—	9	9
				Orland Cemetery District	—	3	3

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Oro Loma Sanitary District	—	42	42	Pomona, Calif State Polytechnic University, Associated Students, Inc.	—	62	62
Orosi Public Utility District	—	3	3	Port San Luis Harbor District	—	29	29
Oroville Cemetery District	—	7	7	Porter Vista Public Utility District	—	2	2
Oroville Mosquito Abatement District	—	1	1	Porterville Irrigation District	—	2	2
Otay Water District	135	—	135	Porterville Public Cemetery District	—	10	10
Oxnard Harbor District	—	31	31	Public Agency Risk Sharing Authority of California	—	4	4
Pacific Fire Protection District	—	—	—	Public Cemetery District No. 1 of Kern County	—	7	7
Padre Dam Municipal Water District	135	—	135	Public Entity Risk Management Authority	—	5	5
Pajaro Valley Fire Protection Agency	—	—	—	Public Transportation Services Corporation	2,245	—	2,245
Pajaro Valley Public Cemetery District	—	7	7	Pupil Transportation Cooperative	123	—	123
Pajaro Valley Water Management Agency	—	13	13	Purissima Hills Water District	—	7	7
Palm Ranch Irrigation District	—	4	4	Quartz Hill Water District	—	10	10
Palmdale Water District	—	84	84	Quincy Community Services District	—	8	8
Palo Verde Valley District Library	—	4	4	Rainbow Municipal Water District	—	50	50
Palos Verdes Library District	—	48	48	Ramona Municipal Water District	—	46	46
Paradise Recreation and Park District	—	20	20	Rancho Adobe Fire Protection District	—	34	34
Pasadena City College Bookstore	—	9	9	Rancho California Water District	136	—	136
Paso Robles City Housing Authority	—	12	12	Rancho Cucamonga Fire Protection District	—	116	116
Patterson Irrigation District	—	12	12	Rancho Murieta Community Services District	—	38	38
Pauma Valley Community Services District	—	19	19	Rancho Santa Fe Fire Protection District	—	69	69
Peardale Chicago Park Fire Protection District	—	3	3	Rancho Santiago Community College Associated Students	—	—	—
Pebble Beach Community Services District	—	13	13	Rancho Simi Recreation & Park District	240	—	240
Peninsula Fire Protection District	—	13	13	Reclamation District No. 1000	—	12	12
Peninsula Health Care District	—	3	3	Reclamation District No. 1001	—	10	10
Peninsula Traffic Congestion Relief Alliance	—	9	9	Reclamation District No. 1660	—	—	—
Penn Valley Fire Protection District	—	18	18	Reclamation District No. 3	—	2	2
Personal Assistance Services Council	—	30	30	Reclamation District No. 833	—	2	2
Phelan Pinon Hills Community Services District	—	24	24	Reclamation District No. 999	—	4	4
Pico Water District	—	11	11	Red Bluff Cemetery District	—	3	3
Pine Cove Water District	—	5	5	Redwood Coast Regional Center	—	107	107
Pine Grove Mosquito Abatement District	—	1	1	Redwood Empire Municipal Insurance Fund	—	12	12
Pinedale County Water District	—	7	7	Redwood Empire School Insurance Group	—	27	27
Pioneer Cemetery District	—	3	3	Reedley Cemetery District	—	6	6
Pixley Irrigation District	—	4	4	Regional Center of Orange County	502	—	502
Placer County Cemetery District No. 1	—	5	5	Regional Center of the East Bay	412	—	412
Placer County Resource Conservation District	—	3	3	Regional Housing Authority of Sutter and Nevada Counties	—	37	37
Placer County Transportation Planning Agency	—	7	7	Regional Water Authority	—	7	7
Placer County Water Agency	216	—	216	Rescue Fire Protection District	—	9	9
Placer Hills Fire Protection District	—	16	16	Resort Improvement District No. 1	—	12	12
Placer Mosquito and Vector Control District	—	20	20	Resource Conservation District of the Santa Monica Mountains	—	10	10
Planning and Service Area II Area Agency on Aging	—	11	11	Richardson Bay Sanitary District	—	4	4
Pleasant Hill - Martinez Joint Facilities Agency	—	84	84	Rincon Del Diablo Municipal Water District	—	17	17
Pleasant Hill Recreation and Park District	—	58	58	Rincon Valley Fire Protection District	—	22	22
Pleasant Valley County Water District	—	4	4	Rio Alto Water District	—	6	6
Pleasant Valley Recreation and Park District	—	40	40	Rio Linda Elverta Community Water District	—	11	11
Plumas Eureka Community Services District	—	4	4	Rio Vista-Montezuma Cemetery District	—	4	4
Plumas Local Agency Formation Commission	—	—	—				
Pomerado Cemetery District	—	6	6				
Pomona Valley Transportation Authority	—	3	3				

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Riverbank City Housing Authority	—	—	—	San Bernardino Valley Municipal Water District	—	21	21
Riverside County Air Pollution Control District	—	—	—	San Bernardino Valley Water Conservation District	—	7	7
Riverside County Flood Control and Water Conservation District	228	—	228	San Diego Association of Governments	351	—	351
Riverside County Law Library	—	10	10	San Diego Community College District	—	32	32
Riverside County Regional Park and Open Space District	—	145	145	San Diego County Law Library	—	16	16
Riverside County Transportation Commission	—	47	47	San Diego County Water Authority	248	—	248
Riverside County Waste Resources Management District	—	20	20	San Diego Metropolitan Transit System	—	162	162
Riverside Transit Agency	448	—	448	San Diego State University Associated Students	—	39	39
Rosamond Community Services District	—	19	19	San Diego Trolley, Inc.	536	—	536
Rose Bowl Operating Company	—	35	35	San Diego Unified School District	—	36	36
Rosedale-Rio Bravo Water Storage District	—	8	8	San Dieguito Water District	—	22	22
Roseville Public Cemetery District	—	8	8	San Elijo Joint Powers Authority	—	21	21
Ross Valley Fire Department	—	32	32	San Francisco Bay Area Rapid Transit District	3,678	—	3,678
Rowland Water District	—	24	24	San Francisco Bay Area Water Emergency Transportation Authority	—	13	13
Rubidoux Community Services District	—	22	22	San Francisco City and County Housing Authority	136	—	136
Running Springs Water District	—	39	39	San Francisco Community College District Bookstore Auxiliary	—	—	—
Rural County Representatives of California	—	26	26	San Francisco County Transportation Authority	—	39	39
Russian River Fire Protection District	—	17	17	San Francisco Health Authority	—	309	309
Sacramento Area Council of Governments	—	61	61	San Francisco Law Library	—	7	7
Sacramento Area Flood Control Agency	—	14	14	San Francisquito Creek Joint Powers Authority	—	4	4
Sacramento City Housing Authority	212	—	212	San Gabriel County Water District	—	15	15
Sacramento County Public Law Library	—	19	19	San Gabriel Valley Council of Governments	—	29	29
Sacramento Groundwater Authority	—	5	5	San Gabriel Valley Mosquito and Vector Control District	—	33	33
Sacramento Metropolitan Air Quality Management District	—	96	96	San Gabriel Valley Municipal Water District	—	7	7
Sacramento Metropolitan Cable Television Commission	—	7	7	San Geronio Pass Water Agency	—	4	4
Sacramento Metropolitan Fire District	578	83	661	San Jacinto Valley Cemetery District	—	9	9
Sacramento Municipal Utility District	2,182	—	2,182	San Joaquin County Housing Authority	—	84	84
Sacramento Public Library Authority	307	—	307	San Joaquin County IHSS Public Authority	—	9	9
Sacramento Regional Fire/EMS Communications Center	—	50	50	San Joaquin Delta Community College District	—	11	11
Sacramento Suburban Water District	—	62	62	San Juan Water District	—	45	45
Sacramento Transportation Authority	—	3	3	San Lorenzo Valley Water District	—	32	32
Sacramento-Yolo Mosquito and Vector Control District	—	66	66	San Luis Obispo Cal Poly Associated Students, Inc.	—	79	79
Salida Fire Protection District	—	8	8	San Luis Obispo Council of Governments	—	19	19
Salinas Valley Solid Waste Authority	—	50	50	San Luis Obispo Regional Transit Authority	—	12	12
Salton Community Services District	—	17	17	San Luis Water District	—	11	11
Samoa Peninsula Fire Protection District	—	—	—	San Mateo County Harbor District	—	36	36
San Andreas Regional Center, Inc.	308	—	308	San Mateo County In-Home Supportive Services Public Authority	—	14	14
San Andreas Sanitary District	—	6	6	San Mateo County Law Library	—	2	2
San Benito County Water District	—	17	17	San Mateo County Schools Insurance Group	—	6	6
San Bernardino City Unified School District	—	29	29	San Mateo County Transit District	718	—	718
San Bernardino County Housing Authority	115	—	115	San Miguel Community Services District	—	4	4
San Bernardino County Transportation Authority	—	—	—	San Miguel Consolidated Fire Protection District	—	53	53

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total		Other Public Agency	Active		Total
	PERF A	PERF C				PERF A	PERF C	
San Simeon Community Services District	—	—	—		Shasta Area Safety Communications Agency	—	39	39
Sanger Cemetery District	—	7	7		Shasta Community Services District	—	3	3
Sanitary District No. 1 of Marin County	—	34	34		Shasta Lake Fire Protection District	—	10	10
Sanitary District No. 5 of Marin County	—	9	9		Shasta Local Agency Formation Commission	—	—	—
Santa Ana River Flood Protection Agency	—	—	—		Shasta Mosquito and Vector Control District	—	16	16
Santa Ana Unified School District	—	28	28		Shasta Regional Transportation Agency	—	9	9
Santa Ana Watershed Project Authority	—	28	28		Shasta Valley Cemetery District	—	2	2
Santa Barbara County Law Library	—	2	2		Shiloh Public Cemetery District	—	4	4
Santa Barbara County Special Education Local Plan Area	—	8	8		Sierra Lakes County Water District	—	3	3
Santa Barbara Regional Health Authority	—	208	208		Sierra-Sacramento Valley Emergency Medical Services Agency	—	10	10
Santa Clara County Central Fire Protection District	221	85	306		Silicon Valley Animal Control Authority	—	17	17
Santa Clara County Health Authority	—	219	219		Silicon Valley Clean Water	—	82	82
Santa Clara County Law Library	—	3	3		Silveyville Cemetery District	—	4	4
Santa Clara County Schools Insurance Group	—	7	7		Solano County Mosquito Abatement District	—	10	10
Santa Clara Valley Open Space Authority	—	28	28		Solano County Water Agency	—	16	16
Santa Clara Valley Transportation Authority	689	—	689		Solano Irrigation District	—	72	72
Santa Clara Valley Water District	744	—	744		Solano Transportation Authority	—	22	22
Santa Clarita Valley School Food Services Agency	—	90	90		Soledad Community Health Care District	—	—	—
Santa Cruz County Law Library	—	—	—		Sonoma County Library	186	—	186
Santa Cruz County Regional Transportation Commission	—	17	17		Sonoma Marin Area Rail Transit District	—	118	118
Santa Cruz Local Agency Formation Commission	—	2	2		Sonoma State Enterprises, Inc.	—	—	—
Santa Cruz Metropolitan Transit District	325	—	325		Sonoma Student Union Corporation	—	—	—
Santa Cruz Port District	—	44	44		Soquel Creek Water District	—	44	44
Santa Cruz Regional 9-1-1	—	51	51		South Bay Regional Public Communications Authority	—	65	65
Santa Fe Irrigation District	—	47	47		South Central Los Angeles Regional Center for Developmentally Disabled Persons	322	—	322
Santa Margarita Water District	157	—	157		South Coast Water District	—	86	86
Santa Maria Public Airport District	—	11	11		South County Support Services Agency	—	39	39
Santa Monica Community College District	—	18	18		South Feather Water and Power Agency	—	57	57
Santa Nella County Water District	—	7	7		South Kern Cemetery District	—	4	4
Santa Paula City Housing Authority	—	6	6		South Orange County Wastewater Authority	—	61	61
Santa Ynez River Water Conservation District, Improvement District No. 1	—	16	16		South Placer Fire District	—	44	44
Sausalito-Marín City Sanitary District	—	13	13		South Placer Municipal Utility District	—	25	25
Schell Vista Fire Protection District	—	4	4		South San Joaquin Irrigation District	—	92	92
School Risk And Insurance Management Group	—	7	7		South San Luis Obispo County Sanitation District	—	9	9
Schools Excess Liability Fund	—	8	8		South Tahoe Public Utility District	—	114	114
Schools Insurance Authority	—	71	71		Southeast Area Social Services Funding Authority	—	41	41
Scotts Valley Fire Protection District	—	28	28		Southern California Association of Governments	132	—	132
Scotts Valley Water District	—	18	18		Southern California Library Cooperative	—	4	4
Selma Cemetery District	—	6	6		Southern California Public Power Authority	—	14	14
Selma-Kingsburg-Fowler County Sanitation District	—	31	31		Southern California Regional Rail Authority	235	—	235
Serrano Water District	—	10	10		Southern San Joaquin Municipal Utility District	—	13	13
Sewer Authority Mid-Coastside	—	16	16		Southern Sonoma County Resource Conservation District	—	—	—
Sewerage Commission-Oroville Region	—	8	8		Southwest Transportation Agency	—	41	41
Shafter Wasco Irrigation District	—	11	11		Special District Risk Management Authority	—	15	15

## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total	Other Public Agency	Active		Total
	PERF A	PERF C			PERF A	PERF C	
Squaw Valley Public Service District	—	30	30	Tri-City Mental Health Center	—	175	175
Stallion Springs Community Services District	—	14	14	Tri-Counties Association for the Developmentally Disabled	329	—	329
Stanislaus Consolidated Fire Protection District	—	79	79	Tri-County Schools Insurance Group	—	4	4
Stanislaus County Housing Authority	—	89	89	Tri-Dam Project	—	24	24
State and Federal Contractors Water Agency	—	6	6	Trindel Insurance Fund	—	18	18
State Bar of California	521	—	521	Trinity Public Utilities District	—	23	23
State Water Contractors	—	9	9	Truckee Donner Public Utility District	—	70	70
Steger Sanitary District	—	11	11	Truckee Fire Protection District	—	51	51
Stinson Beach County Water District	—	8	8	Truckee Sanitary District	—	39	39
Stockton East Water District	—	38	38	Truckee Tahoe Airport District	—	23	23
Stockton Unified School District	—	34	34	Tulare Mosquito Abatement District	—	5	5
Strawberry Recreation District	—	9	9	Tulare Public Cemetery District	—	7	7
Student Union, San Bernardino, California State University	—	23	23	Tuolumne Fire District	—	2	2
Successor Agency to the Redevelopment Agency of the City of Fresno	—	2	2	Tuolumne Utilities District	—	69	69
Successor Agency to the Redevelopment Agency of the City of San Bernardino	—	1	1	Turlock Mosquito Abatement District	—	13	13
Successor Agency to the Redevelopment Agency of the City & County of San Francisco	—	41	41	Twain Harte Community Services District	—	13	13
Suisun Fairfield Rockville Cemetery District	—	14	14	Twentynine Palms Water District	—	17	17
Suisun Fire Protection District	—	1	1	Twin Rivers Unified School District	—	23	23
Suisun Resource Conservation District	—	7	7	Ukiah Valley Fire District	—	6	6
Summit Cemetery District	—	10	10	Union Public Utility District	—	5	5
Sunnyslope County Water District	—	22	22	Union Sanitary District	134	—	134
Susanville Sanitary District	—	6	6	United Water Conservation District	—	58	58
Sutter Cemetery District	—	14	14	University Enterprises Corporation at CSUSB	—	151	151
Sweetwater Authority	128	—	128	University Enterprises, Inc.	171	—	171
Sweetwater Springs Water District	—	11	11	University Student Union California State University Stanislaus	—	4	4
Sylvan Cemetery District	—	5	5	Upland City Housing Authority	—	2	2
Tahoe City Public Utility District	—	50	50	Upper San Gabriel Valley Municipal Water District	—	11	11
Tahoe Resource Conservation District	—	26	26	Vacaville Fire Protection District	—	6	6
Tahoe Transportation District	—	—	—	Vacaville-Elmira Cemetery District	—	6	6
Tahoe-Truckee Sanitation Agency	—	50	50	Vallecitos Water District	—	107	107
Tehachapi Valley Recreation and Park District	—	9	9	Vallejo Sanitation and Flood Control District	—	78	78
Tehachapi-Cummings County Water District	—	19	19	Valley Center Municipal Water District	—	61	61
Tehama County Mosquito Abatement District	—	6	6	Valley County Water District	—	26	26
Temescal Valley Water District	—	9	9	Valley Mountain Regional Center, Inc.	312	—	312
Templeton Community Services District	—	31	31	Valley of the Moon Water District	—	11	11
Thermalito Water and Sewer District	—	10	10	Valley Sanitary District	—	29	29
Three Arch Bay Community Services District	—	—	—	Valley Springs Public Utility District	—	3	3
Three Rivers Community Services District	—	1	1	Valley-Wide Recreation and Park District	—	102	102
Three Valleys Municipal Water District	—	23	23	Vandenberg Village Community Services District	—	9	9
Tiburon Fire Protection District	—	29	29	Ventura College Foundation	—	8	8
Torrance City Redevelopment Agency	—	—	—	Ventura County Law Library	—	4	4
Trabuco Canyon Water District	—	21	21	Ventura County Schools Business Services Authority	—	10	10
Tracy Rural County Fire Protection District	—	—	—	Ventura County Schools Self-Funding Authority	—	7	7
Transbay Joint Powers Authority	—	10	10	Ventura County Transportation Commission	—	19	19
Transportation Agency for Monterey County	—	13	13	Ventura Port District	—	36	36
Treasure Island Development Authority	—	—	—	Ventura River Water District	—	6	6



## Statistical Section (continued)

### PUBLIC AGENCY EMPLOYERS (CONTINUED)

#### Other Public Agencies that Contract with CalPERS for Retirement Benefits (continued)

Other Public Agency	Active		Total
	PERF A	PERF C	
Victor Valley Transit Authority	—	24	24
Victor Valley Wastewater Reclamation Authority	—	35	35
Visalia Public Cemetery District	—	5	5
Vista Irrigation District	—	90	90
Walnut Valley Water District	—	55	55
Wasco Recreation and Park District	—	4	4
Washington Colony Cemetery District	—	3	3
Water Employee Services Authority	150	—	150
Water Facilities Authority	—	8	8
Water Replenishment District of Southern California	—	36	36
Weaverville Community Services District	—	5	5
Weaverville Sanitary District	—	3	3
West Almanor Community Services District	—	1	1
West Basin Municipal Water District	—	49	49
West Bay Sanitary District	—	29	29
West Cities Communication Center	—	27	27
West Contra Costa Integrated Waste Management Authority	—	5	5
West Contra Costa Transportation Advisory Committee	—	5	5
West County Transportation Agency	—	171	171
West County Wastewater District	—	58	58
West End Communications Authority	—	—	—
West Kern Water District	—	43	43
West Stanislaus Irrigation District	—	14	14
West Valley Mosquito and Vector Control District	—	22	22
West Valley Sanitation District of Santa Clara County	—	28	28
West Valley Water District	—	77	77
West Valley-Mission Community College District	—	9	9
Westborough Water District	—	5	5
Western Contra Costa Transit Authority	—	9	9
Western Municipal Water District	—	148	148
Western Riverside Council of Governments	—	35	35
Westlands Water District	—	110	110
Westwood Community Services District	—	4	4
Wheeler Ridge-Maricopa Water Storage District	—	44	44
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	—	—	—

Other Public Agency	Active		Total
	PERF A	PERF C	
Winton Water and Sanitary District	—	8	8
Woodbridge Rural County Fire Protection District	—	31	31
Woodlake Fire District	—	7	7
Woodside Fire Protection District	—	56	56
Yolo County Federal Credit Union	—	55	55
Yolo County Housing Authority	—	41	41
Yolo County In-Home Supportive Services Public Authority	—	4	4
Yolo County Public Agency Risk Management Insurance Authority	—	7	7
Yolo County Transportation District	—	12	12
Yolo Emergency Communications Agency	—	42	42
Yolo-Solano Air Quality Management District	—	22	22
Yorba Linda Water District	—	77	77
Yuba Community College District	—	4	4
Yuba County Water Agency	—	61	61
Yuba Sutter Transit Authority	—	6	6
Yucaipa Valley Water District	—	62	62
Yuima Municipal Water District	—	12	12
<b>Total</b>	<b>39,394</b>	<b>22,984</b>	<b>62,378</b>

Statistical Section (continued)

LEGISLATORS' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

Legislators' Retirement System – 10-Year Review

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ACTIVE &amp; INACTIVE MEMBERS</b>										
Members of the Legislature	4	6	6	6	7	8	8	15	17	18
Constitutional Officers	10	13	14	17	17	19	20	17	18	18
Legislative Statutory Officers	—	1	2	4	4	4	4	4	4	4
<b>TOTAL ACTIVE &amp; INACTIVE MEMBERS</b>	<b>14</b>	<b>20</b>	<b>22</b>	<b>27</b>	<b>28</b>	<b>31</b>	<b>32</b>	<b>36</b>	<b>39</b>	<b>40</b>
<b>BENEFIT RECIPIENTS</b>										
<b>Members of the Legislature</b>										
Service Retirement	205	215	221	225	226	200	210	214	221	222
Disability Retirement	7	7	8	7	7	9	9	9	9	11
Pre-Retirement Option 2	1	1	1	2	2	—	—	—	—	—
<b>Total Members of the Legislature</b>	<b>213</b>	<b>223</b>	<b>230</b>	<b>234</b>	<b>235</b>	<b>209</b>	<b>219</b>	<b>223</b>	<b>230</b>	<b>233</b>
<b>Constitutional Officers</b>										
Service Retirement	14	12	12	11	10	26	26	25	21	21
Disability Retirement	1	1	1	1	1	1	1	1	1	1
Pre-Retirement Option 2	1	1	1	—	1	2	2	2	2	2
<b>Total Constitutional Officers</b>	<b>16</b>	<b>14</b>	<b>14</b>	<b>12</b>	<b>12</b>	<b>29</b>	<b>29</b>	<b>28</b>	<b>24</b>	<b>24</b>
<b>Legislative Statutory Officers</b>										
Service Retirement	1	1	1	1	1	5	5	5	5	5
<b>Total Legislative Statutory Officers</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>TOTAL BENEFIT RECIPIENTS</b>	<b>230</b>	<b>238</b>	<b>245</b>	<b>247</b>	<b>248</b>	<b>243</b>	<b>253</b>	<b>256</b>	<b>259</b>	<b>262</b>
<b>TOTAL MEMBERS</b>	<b>244</b>	<b>258</b>	<b>267</b>	<b>274</b>	<b>276</b>	<b>274</b>	<b>285</b>	<b>292</b>	<b>298</b>	<b>302</b>



## Statistical Section (continued)

### 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 2016-17, the Board approved an employer contribution rate of 40.66 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.

## Statistical Section (continued)

### 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.

#### LRS Active & Inactive Members

Category	Active	Inactive	Total
Members of the Legislature	1	3	4
Constitutional Officers	7	3	10
<b>Total</b>	<b>8</b>	<b>6</b>	<b>14</b>

#### LRS Benefit Payments by Type

Category	Amount Paid
Service Retirement	\$6,805,156
Disability Retirement	105,334
Beneficiary Death Benefits	20,325
Beneficiary Death Benefits/Allowance	75,704
Adjustments <sup>1</sup>	242,367
<b>Total</b>	<b>\$7,248,886</b>

(1) Adjustments contain manual claims and overpayment recoveries.

#### 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 Benefit Recipients by Retirement Type

Category	Retired <sup>1</sup>	Survivors & Beneficiaries <sup>1</sup>	Total
<b>Members of Legislature</b>			
Service Retirement	114	91	205
Disability Retirement	—	7	7
Pre-Retirement Option 2	—	1	1
<b>TOTAL MEMBERS OF LEGISLATURE</b>	<b>114</b>	<b>99</b>	<b>213</b>
<b>Constitutional Officers</b>			
Service Retirement	13	1	14
Disability Retirement	—	1	1
Pre-Retirement Option 2	—	1	1
<b>TOTAL CONSTITUTIONAL OFFICERS</b>	<b>13</b>	<b>3</b>	<b>16</b>
<b>Legislative Statutory Officers</b>			
Service Retirement	—	1	1
<b>TOTAL LEGISLATIVE STATUTORY OFFICERS</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>TOTAL</b>	<b>127</b>	<b>103</b>	<b>230</b>

(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.

## Statistical Section (continued)

### LEGISLATORS' RETIREMENT SYSTEM PROGRAM DATA (CONTINUED)

#### LRS Average Benefit Payments – As of June 30, 2017 – 10-Year Review

Retirement Effective Dates	Years of Service Credit						
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
<b>2016-17</b>							
Average Monthly Allowance <sup>1</sup>	\$2,353	\$3,661	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$12,628	\$7,802	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>1</sup>	2	2	—	—	—	—	—
<b>2015-16</b>							
Average Monthly Allowance <sup>1</sup>	\$1,921	\$5,305	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$3,542	\$13,261	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>1</sup>	1	1	—	—	—	—	—
<b>2014-15</b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$2,458	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$7,921	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	—	1	—	—	—	—	—
<b>2013-14</b>							
Average Monthly Allowance <sup>2</sup>	\$1,074	\$552	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$2,342	\$780	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	1	3	—	—	—	—	—
<b>2012-13</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	2	1	2	—	—	—
<b>2011-12 <sup>3</sup></b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	—	—	—	—	—	—	—
<b>2010-11</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	3	1	—	1	—	—
<b>2009-10</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	4	1	1	1	1	1
<b>2008-09</b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$0	\$1,250	\$2,957	\$6,456	\$0	\$0
Average Final Compensation	\$0	\$0	\$0	\$0	\$9,684	\$0	\$0
Number of Recipients <sup>2</sup>	—	—	2	1	2	—	—
<b>2007-08</b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$2,212	\$1,250	\$0	\$1,710	\$0	\$0
Average Final Compensation	\$0	\$7,858	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	—	2	3	—	2	—	—

(1) These averages and totals are for retired members only.

(2) These averages and totals are for retired members and community property only.

(3) There were no retirements in FY 2011-12, thus no benefit amounts to report.

Statistical Section (continued)

JUDGES' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

Judges' Retirement System – 10-Year Review

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ACTIVE &amp; DEFERRED MEMBERS</b>										
Judges	201	225	241	285	325	431	466	528	620	682
<b>TOTAL ACTIVE &amp; DEFERRED MEMBERS</b>	<b>201</b>	<b>225</b>	<b>241</b>	<b>285</b>	<b>325</b>	<b>431</b>	<b>466</b>	<b>528</b>	<b>620</b>	<b>682</b>
<b>BENEFIT RECIPIENTS</b>										
Service Retirement	1,171	1,182	1,193	1,157	1,151	654	655	648	641	619
Disability Retirement	85	89	100	100	50	46	46	46	48	47
Deferred Retirement	556	584	594	598	632	582	590	595	595	604
Optional Settlement Benefit	—	—	—	—	—	527	510	478	433	390
Industrial Disability Retired	1	1	1	1	—	—	—	—	—	—
Pre-Retirement Survivor	—	—	—	—	63	75	73	76	72	75
Pre-Retirement Death	57	61	60	66	—	—	—	—	—	—
Extended Service Incentive Program	18	9	29	—	—	—	—	—	—	—
<b>TOTAL BENEFIT RECIPIENTS</b>	<b>1,888</b>	<b>1,926</b>	<b>1,977</b>	<b>1,922</b>	<b>1,896</b>	<b>1,884</b>	<b>1,874</b>	<b>1,843</b>	<b>1,789</b>	<b>1,735</b>
<b>TOTAL MEMBERS</b>	<b>2,089</b>	<b>2,151</b>	<b>2,218</b>	<b>2,207</b>	<b>2,221</b>	<b>2,315</b>	<b>2,340</b>	<b>2,371</b>	<b>2,409</b>	<b>2,417</b>

## Statistical Section (continued)

### 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.

## Statistical Section (continued)

### 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	198	3	201
<b>TOTAL</b>	<b>198</b>	<b>3</b>	<b>201</b>

#### JRS Benefit Payments by Type

Category	Amount Paid
Service Retirement	\$162,470,125
Disability Retirement	4,678,515
Beneficiary Death Benefits	328,299
Beneficiary Death Benefits/Life Allowance	30,203,175
Extended Service Incentive Program	4,025,221
Adjustments <sup>1</sup>	(1,265,487)
<b>TOTAL</b>	<b>\$200,439,848</b>

(1) Adjustments contain manual claims and overpayment recoveries.

#### JRS Benefit Recipients by Retirement Type

Category	Retired <sup>1</sup>	Survivors & Beneficiaries <sup>1</sup>	Total
Service Retirement	881	290	1,171
Disability Retirement	36	49	85
Deferred Retirement	392	164	556
Industrial Disability Retirement	1	—	1
Pre-Retirement Death	—	57	57
Extended Service Incentive	18	—	18
<b>TOTAL</b>	<b>1,328</b>	<b>560</b>	<b>1,888</b>

(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.

## Statistical Section (continued)

### JUDGES' RETIREMENT SYSTEM PROGRAM DATA (CONTINUED)

#### JRS Average Benefit Payments – As of June 30, 2017 – 10-Year Review

Retirement Effective Dates	Years of Service Credit						
	0-5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
<b>2016-17</b>							
Average Monthly Allowance <sup>1</sup>	\$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 <sup>1</sup>	1	1	3	4	5	9	4
<b>2015-16</b>							
Average Monthly Allowance <sup>1</sup>	\$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 <sup>1</sup>	2	4	2	—	10	2	1
<b>2014-15</b>							
Average Monthly Allowance <sup>2</sup>	\$2,165	\$2,554	\$7,224	\$9,556	\$10,612	\$9,184	\$11,749
Average Final Compensation	\$15,292	\$2	\$16,516	\$15,469	\$15,341	\$15,746	\$16,217
Number of Recipients <sup>2</sup>	3	3	3	16	19	14	5
<b>2013-14</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	9	13	12	35	16	4
<b>2012-13</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	2	6	9	17	33	9	4
<b>2011-12</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	2	4	5	20	30	9	—
<b>2010-11</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	3	8	10	22	41	16	4
<b>2009-10</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	2	11	15	45	45	8	3
<b>2008-09</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	1	10	11	25	50	15	4
<b>2007-08</b>							
Average Monthly Allowance <sup>2</sup>	\$3,410	\$5,643	\$6,108	\$8,432	\$8,297	\$9,838	\$12,787
Average Final Compensation	\$14,899	\$14,899	\$15,186	\$14,899	\$15,069	\$14,899	\$17,050
Number of Recipients <sup>2</sup>	3	6	15	38	47	15	1

(1) These averages and totals are for retired members only.

(2) These averages and totals are for retired members and community property only.



## Statistical Section (continued)

### JUDGES' RETIREMENT SYSTEM II MEMBERSHIP & RETIREMENT DATA

#### Judges' Retirement System II – 10-Year Review

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>ACTIVE MEMBERS</b>										
Judges II – Classic	1,350	1,367	1,385	1,396	1,352	1,272	1,290	1,197	1,119	979
Judges II – PEPRA <sup>1</sup>	158	124	85	—	—	—	—	—	—	—
<b>TOTAL ACTIVE MEMBERS</b>	<b>1,508</b>	<b>1,491</b>	<b>1,470</b>	<b>1,396</b>	<b>1,352</b>	<b>1,272</b>	<b>1,290</b>	<b>1,197</b>	<b>1,119</b>	<b>979</b>
<b>BENEFIT RECIPIENTS</b>										
Service Retirement	118	86	68	47	30	14	7	6	4	3
Disability Retirement	18	13	10	11	18	9	13	7	6	5
Optional Settlement Benefit	—	—	—	—	—	—	6	4	4	4
Pre-Retirement Survivor	—	—	—	—	2	13	2	2	1	2
Industrial Disability Retirement	5	4	4	3	—	—	—	—	—	—
Surviving Spouse 50% Allowance	6	6	6	6	—	—	—	—	—	—
Survivor Continuance	9	8	5	4	—	—	—	—	—	—
Option 2 Survivor Death Benefit	1	—	—	—	—	—	—	—	—	—
36-month Judge's Salary	2	2	2	2	2	1	2	—	—	—
Monetary Credit	11	15	11	—	—	—	—	—	—	—
<b>TOTAL BENEFIT RECIPIENTS</b>	<b>170</b>	<b>134</b>	<b>106</b>	<b>73</b>	<b>52</b>	<b>37</b>	<b>30</b>	<b>19</b>	<b>15</b>	<b>14</b>
<b>TOTAL MEMBERS</b>	<b>1,678</b>	<b>1,625</b>	<b>1,576</b>	<b>1,469</b>	<b>1,404</b>	<b>1,309</b>	<b>1,320</b>	<b>1,216</b>	<b>1,134</b>	<b>993</b>

(1) Reporting for PEPRA active members began in Fiscal Year 2014-15.

## Statistical Section (continued)

### 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.

## Statistical Section (continued)

### 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	1,350
Judges II – PEPRA	158
<b>TOTAL</b>	<b>1,508</b>

#### JRS II Benefit Payments by Type

Category	Amount Paid
Service Retirement	\$9,438,317
Disability Retirement	2,323,855
Beneficiary Death Benefits	547,560
Beneficiary Death Benefits/Life Allowance	1,066,296
Monetary Credit	8,955,688
Adjustments <sup>1</sup>	75,172
<b>TOTAL</b>	<b>\$22,406,888</b>

(1) Adjustments contain manual claims and overpayment recoveries.

#### JRS II Benefit Recipients by Retirement Type

Category	Retired <sup>1</sup>	Survivors & Beneficiaries <sup>1</sup>	Total
Service Retirement	115	3	118
Disability Retirement	18	—	18
Industrial Disability Retirement	5	—	5
Surviving Spouse 50% Allowance	—	6	6
Pre-Retirement Option 2	—	1	1
Survivor Continuance	—	9	9
36-month Judge's Salary	—	2	2
Monetary Credit	9	2	11
<b>TOTAL</b>	<b>147</b>	<b>23</b>	<b>170</b>

(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 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.

## Statistical Section (continued)

### JUDGES' RETIREMENT SYSTEM II PROGRAM DATA (CONTINUED)

#### JRS II Average Benefit Payments – As of June 30, 2017 – 10-Year Review

Retirement Effective Dates	Years of Credited Service						
	0-5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
<b>2016-17</b>							
Average Monthly Allowance <sup>1</sup>	\$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 <sup>1</sup>	—	5	8	21	5	—	—
<b>2015-16</b>							
Average Monthly Allowance <sup>1</sup>	\$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 <sup>2</sup>	1	3	5	11	—	—	—
<b>2014-15</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	1	8	13	—	—	—
<b>2013-14</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	4	12	4	1	—	—
<b>2012-13</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	3	5	3	6	1	—	—
<b>2011-12</b>							
Average Monthly Allowance <sup>2</sup>	\$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 <sup>2</sup>	—	3	2	4	—	—	—
<b>2010-11</b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$11,423	\$8,150	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$14,899	\$14,899	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	—	3	6	1	1	—	—
<b>2009-10</b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$9,684	\$6,025	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$14,899	\$15,437	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	—	1	4	—	—	—	—
<b>2008-09</b>							
Average Monthly Allowance <sup>2</sup>	\$14,899	\$4,476	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$14,899	\$15,975	\$0	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	1	2	—	—	—	—	—
<b>2007-08</b>							
Average Monthly Allowance <sup>2</sup>	\$0	\$8,624	\$7,748	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$14,638	\$15,244	\$0	\$0	\$0	\$0
Number of Recipients <sup>2</sup>	—	1	4	—	—	—	—

(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

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## Statistical Section: Other Programs

### HEALTH CARE FUND/CONTINGENCY RESERVE FUND

#### Expenses & Revenues – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>OPERATING REVENUES</b>										
Premiums	\$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	\$1,509,064
Federal Government Subsidies	29,534	32,539	36,077	43,900	22,375	—	—	—	—	—
Federal Government Reimbursements	—	—	—	—	17	32,710	42,583	—	—	—
Administrative Fees Earned & Other	27,487	27,668	26,712	24,899	17,809	25,490	23,956	22,528	25,633	14,928
<b>Total Operating Revenues</b>	<b>\$3,883,128</b>	<b>\$3,801,559</b>	<b>\$3,657,068</b>	<b>\$2,813,104</b>	<b>\$1,962,039</b>	<b>\$1,904,410</b>	<b>\$1,776,514</b>	<b>\$1,384,609</b>	<b>\$1,612,575</b>	<b>\$1,523,992</b>
<b>OPERATING EXPENSES</b>										
Claims Expense	\$3,387,753	\$3,404,222	\$3,411,618	\$2,449,655	\$1,824,082	\$1,765,453	\$1,684,029	\$1,596,473	\$1,433,064	\$1,299,905
Increase (Decrease) in Estimated Liabilities	(14,701)	13,258	20,484	173,796	16,781	(37,222)	44,127	(24,389)	28,537	14,626
Administrative Expenses	340,071	367,685	401,650	221,878	132,556	124,116	115,839	117,357	112,799	103,504
<b>Total Operating Expenses</b>	<b>\$3,713,123</b>	<b>\$3,785,165</b>	<b>\$3,833,752</b>	<b>\$2,845,329</b>	<b>\$1,973,419</b>	<b>\$1,852,347</b>	<b>\$1,843,995</b>	<b>\$1,689,441</b>	<b>\$1,574,400</b>	<b>\$1,418,035</b>
<b>OPERATING INCOME (LOSS)</b>	<b>\$170,005</b>	<b>\$16,394</b>	<b>(\$176,684)</b>	<b>(\$32,225)</b>	<b>(\$11,380)</b>	<b>\$52,063</b>	<b>(\$67,481)</b>	<b>(\$304,832)</b>	<b>\$38,175</b>	<b>\$105,957</b>
<b>NON-OPERATING REVENUES</b>										
Investment Income	\$5,013	\$28,538	\$12,653	\$20,846	\$4,964	\$34,342	\$23,440	\$48,611	\$25,502	\$42,616
<b>Total Non-Operating Revenues</b>	<b>\$5,013</b>	<b>\$28,538</b>	<b>\$12,653</b>	<b>\$20,846</b>	<b>\$4,964</b>	<b>\$34,342</b>	<b>\$23,440</b>	<b>\$48,611</b>	<b>\$25,502</b>	<b>\$42,616</b>
<b>NON-OPERATING EXPENSES</b>										
Other Investment Expenses	\$92	\$77	\$83	\$157	\$87	\$76	\$0	\$0	\$0	\$0
<b>Total Non-Operating Expenses</b>	<b>\$92</b>	<b>\$77</b>	<b>\$83</b>	<b>\$157</b>	<b>\$87</b>	<b>\$76</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Securities Lending Income	\$0	\$0	\$0	\$15	\$41	\$54	\$0	\$0	\$0	\$0
Cost of Lending Securities	—	—	—	(3)	(8)	(12)	—	—	—	—
<b>Net Securities Lending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$12</b>	<b>\$33</b>	<b>\$42</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>NON-OPERATING INCOME</b>	<b>\$4,921</b>	<b>\$28,461</b>	<b>\$12,570</b>	<b>\$20,701</b>	<b>\$4,910</b>	<b>\$34,308</b>	<b>\$23,440</b>	<b>\$48,611</b>	<b>\$25,502</b>	<b>\$42,616</b>
<b>CHANGE IN UNRESTRICTED NET POSITION</b>	<b>\$174,926</b>	<b>\$44,855</b>	<b>(\$164,114)</b>	<b>(\$11,524)</b>	<b>(\$6,470)</b>	<b>\$86,371</b>	<b>(\$44,041)</b>	<b>(\$256,221)</b>	<b>\$63,677</b>	<b>\$148,573</b>
<b>TOTAL UNRESTRICTED NET POSITION</b>										
Beginning of Year	\$324,299	\$279,444	\$443,558	\$455,082	\$461,552	\$375,181	\$419,222	\$675,443	\$611,766	\$463,193
End of Year	\$499,225	\$324,299	\$279,444	\$443,558	\$455,082	\$461,552	\$375,181	\$419,222	\$675,443	\$611,766



## Statistical Section: Other Programs (continued)

### LONG-TERM CARE FUND

#### Expenses & Revenues – 10-Year Review (Dollars in Thousands)

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
<b>OPERATING REVENUES</b>										
Premiums	\$306,303	\$282,426	\$272,362	\$286,571	\$307,812	\$313,466	\$314,099	\$285,948	\$296,529	\$299,489
<b>Total Operating Revenues</b>	<b>\$306,303</b>	<b>\$282,426</b>	<b>\$272,362</b>	<b>\$286,571</b>	<b>\$307,812</b>	<b>\$313,466</b>	<b>\$314,099</b>	<b>\$285,948</b>	<b>\$296,529</b>	<b>\$299,489</b>
<b>OPERATING EXPENSES</b>										
Claims Expense	\$293,693	\$271,742	\$248,785	\$225,691	\$198,185	\$174,896	\$156,118	\$133,042	\$116,191	\$101,349
Increase (Decrease) in Estimated Liabilities	213,048	376,284	310,565	345,547	(631,804)	1,063,318	(115,600)	(208,200)	469,800	(600,900)
Administrative Expenses	25,082	24,999	24,304	22,946	21,819	21,718	21,303	19,663	18,421	18,479
<b>Total Operating Expenses</b>	<b>\$531,823</b>	<b>\$673,025</b>	<b>\$583,654</b>	<b>\$594,184</b>	<b>(\$411,800)</b>	<b>\$1,259,932</b>	<b>\$61,821</b>	<b>(\$55,495)</b>	<b>\$604,412</b>	<b>(\$481,072)</b>
<b>OPERATING INCOME (LOSS)</b>	<b>(\$225,520)</b>	<b>(\$390,599)</b>	<b>(\$311,292)</b>	<b>(\$307,613)</b>	<b>\$719,612</b>	<b>(\$946,466)</b>	<b>\$252,278</b>	<b>\$341,443</b>	<b>(\$307,883)</b>	<b>\$780,561</b>
<b>NON-OPERATING REVENUES</b>										
Investment Income/(Loss)	\$68,986	\$226,526	(\$36,550)	\$393,354	\$119,607	\$114,947	\$537,156	\$351,745	(\$369,021)	(\$73,039)
<b>Total Non-Operating Revenues</b>	<b>\$68,986</b>	<b>\$226,526</b>	<b>(\$36,550)</b>	<b>\$393,354</b>	<b>\$119,607</b>	<b>\$114,947</b>	<b>\$537,156</b>	<b>\$351,745</b>	<b>(\$369,021)</b>	<b>(\$73,039)</b>
<b>NON-OPERATING EXPENSES</b>										
Other Investment Expenses	\$1,816	\$1,606	\$1,734	\$1,615	\$1,160	\$540	\$0	\$0	\$0	\$0
<b>Total Non-Operating Expenses</b>	<b>\$1,816</b>	<b>\$1,606</b>	<b>\$1,734</b>	<b>\$1,615</b>	<b>\$1,160</b>	<b>\$540</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
Securities Lending Income	\$0	\$0	\$0	\$0	\$909	\$1,624	\$0	\$0	\$0	\$0
Cost of Lending Securities	—	—	—	—	(120)	(274)	—	—	—	—
<b>Net Securities Lending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$789</b>	<b>\$1,350</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>NON-OPERATING INCOME (LOSS)</b>	<b>\$67,170</b>	<b>\$224,920</b>	<b>(\$38,284)</b>	<b>\$391,739</b>	<b>\$119,236</b>	<b>\$115,757</b>	<b>\$537,156</b>	<b>\$351,745</b>	<b>(\$369,021)</b>	<b>(\$73,039)</b>
<b>CHANGE IN UNRESTRICTED NET POSITION</b>	<b>(\$158,350)</b>	<b>(\$165,679)</b>	<b>(\$349,576)</b>	<b>\$84,126</b>	<b>\$838,848</b>	<b>(\$830,709)</b>	<b>\$789,434</b>	<b>\$693,188</b>	<b>(\$676,904)</b>	<b>\$707,522</b>
<b>TOTAL UNRESTRICTED NET POSITION</b>										
Beginning of Year	\$247,993	\$413,672	\$763,248	\$679,122	(\$159,726)	\$670,983	(\$118,451)	(\$811,639)	(\$134,735)	(\$842,257)
End of Year	\$89,643	\$247,993	\$413,672	\$763,248	\$679,122	(\$159,726)	\$670,983	(\$118,451)	(\$811,639)	(\$134,735)

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA

Total Covered Lives by Health Plan as of June 30, 2017

	Basic					Medicare					Total Covered Lives
	State		Public Agency		Total	State		Public Agency		Total	
	Active	Retired	Active	Retired		Active	Retired	Active	Retired		
Health Maintenance Organization (HMO)											
Anthem HMO Select	13,322	1,598	13,701	949	29,570	—	—	—	—	—	29,570
Anthem HMO Traditional	3,362	372	8,752	866	13,352	—	—	—	—	—	13,352
Blue Shield Access+	72,219	17,027	59,472	9,201	157,919	—	—	—	—	—	157,919
Health Net Salud y Más	2,814	70	2,945	56	5,885	—	—	—	—	—	5,885
Health Net SmartCare	19,877	2,095	14,522	808	37,302	—	—	—	—	—	37,302
Kaiser	239,551	33,932	203,335	17,889	494,707	25	66,012	21	38,292	104,350	599,057
Kaiser/Out of State	8	203	6	203	420	—	1,334	—	732	2,066	2,486
Sharp	8,678	584	1,103	97	10,462	—	—	—	—	—	10,462
UnitedHealthcare	38,955	3,082	25,502	1,367	68,906	13	26,946	8	16,972	43,939	112,845
SUBTOTAL	398,786	58,963	329,338	31,436	818,523	38	94,292	29	55,996	150,355	968,878
Preferred Provider Organization (PPO)											
Anthem EPO Del Norte	93	7	1	1	102	—	—	—	—	—	102
Anthem EPO Monterey	1,844	99	1,877	36	3,856	—	—	—	—	—	3,856
Blue Shield EPO	620	222	223	40	1,105	—	—	—	—	—	1,105
PERS Choice	59,915	24,500	53,697	9,534	147,646	21	50,336	11	28,118	78,486	226,132
PERS Select	24,304	1,935	19,518	1,058	46,815	1	896	—	1,403	2,300	49,115
PERSCare	6,511	3,040	12,865	3,864	26,280	6	44,916	—	18,699	63,621	89,901
SUBTOTAL	93,287	29,803	88,181	14,533	225,804	28	96,148	11	48,220	144,407	370,211
Association (ASN) Plans											
CAHP	22,518	5,535	—	—	28,053	—	4,890	—	—	4,890	32,943
CCPOA North	8,352	2,126	—	—	10,478	—	648	—	—	648	11,126
CCPOA South	26,652	4,394	—	—	31,046	—	859	—	—	859	31,905
PORAC	678	329	17,959	5,317	24,283	—	204	—	2,606	2,810	27,093
SUBTOTAL	58,200	12,384	17,959	5,317	93,860	—	6,601	—	2,606	9,207	103,067
TOTAL	550,273	101,150	435,478	51,286	1,138,187	66	197,041	40	106,822	303,969	1,442,156

### 10-Year Enrollments

Members	2017	2016	2015	2014 <sup>2</sup>	2013 <sup>2</sup>	2012 <sup>2</sup>	2011 <sup>2</sup>	2010 <sup>2</sup>	2009 <sup>2</sup>	2008
Total Covered Lives <sup>1</sup>	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	1,264,996
Subscribers <sup>1</sup>	697,163	684,436	669,127	658,048	645,697	634,667	631,309	621,775	606,709	593,047

(1) Total Covered Lives and Subscribers as of June 30th of each reported year.

(2) Corrected figures from previously reported data in 2016.

### Total Covered Lives Summary as of June 30, 2017

	State	Public Agency	Total
Total Covered Lives	848,530	593,626	1,442,156

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

#### State HMO Total Covered Lives by County as of June 30, 2017

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	Total
Alameda	252	75	2,596	0	188	11,806	0	0	1,496	16,413
Alpine	—	—	—	—	—	—	—	—	—	—
Amador	—	—	—	—	2	1,792	—	—	19	1,813
Butte	—	20	4,102	—	—	1	—	—	665	4,788
Calaveras	—	—	—	—	—	17	—	—	1	18
Colusa	—	—	—	—	—	5	—	—	19	24
Contra Costa	99	82	1,847	—	435	8,359	—	—	780	11,602
Del Norte	—	—	—	—	—	—	—	—	1	1
El Dorado	585	66	960	—	3	4,862	—	—	264	6,740
Fresno	136	148	3,771	1	678	10,525	—	—	7,818	23,077
Glenn	—	1	207	—	—	—	—	—	45	253
Humboldt	—	215	2,646	—	1	5	—	—	294	3,161
Imperial	1,183	35	1,136	—	—	—	—	—	119	2,473
Inyo	—	—	—	—	—	—	—	—	—	—
Kern	190	40	1,782	89	990	9,713	—	—	827	13,631
Kings	—	117	1,750	—	701	830	—	—	3,048	6,446
Lake	—	—	—	—	—	5	—	—	2	7
Lassen	—	—	—	—	—	1	—	—	—	1
Los Angeles	1,506	412	7,635	1,259	1,217	40,137	—	—	3,851	56,017
Madera	—	15	796	—	—	2,222	—	—	581	3,614
Marin	—	27	405	—	47	1,447	—	—	187	2,113
Mariposa	—	—	162	—	—	10	—	—	28	200
Mendocino	—	12	1	—	—	—	—	—	169	182
Merced	371	16	845	—	—	7	—	—	245	1,484
Modoc	—	—	—	—	—	—	—	—	—	—
Mono	—	—	—	—	—	—	—	—	—	—
Monterey	—	—	5	—	—	7	—	—	11	23
Napa	—	48	1	—	33	4,577	—	—	9	4,668
Nevada	223	24	504	—	—	37	—	—	252	1,040
Orange	429	173	4,308	488	272	11,941	—	—	2,027	19,638
Placer	857	156	2,240	—	3	12,927	—	—	2,827	19,010
Plumas	—	—	—	—	—	—	—	—	4	4
Riverside	382	104	4,534	172	231	16,228	—	—	1,806	23,457
Sacramento	4,780	759	18,878	—	11,439	104,012	—	—	17,120	156,988
San Benito	—	28	—	—	—	5	—	—	1	34
San Bernardino	666	142	3,676	348	606	21,778	—	—	2,629	29,845
San Diego	267	—	3,443	525	285	12,945	—	9,262	2,606	29,333
San Francisco	72	75	1,510	—	388	4,236	—	—	1,461	7,742
San Joaquin	432	96	2,178	—	720	9,643	—	—	1,652	14,721
San Luis Obispo	—	156	3,421	—	—	6	—	—	6,951	10,534
San Mateo	—	22	1,207	—	117	3,200	—	—	930	5,476
Santa Barbara	—	46	756	—	—	2	—	—	249	1,053
Santa Clara	221	71	1,338	—	146	8,423	—	—	950	11,149
Santa Cruz	69	15	687	—	70	154	—	—	610	1,605
Shasta	—	—	5	—	—	3	—	—	11	19
Sierra	—	—	—	—	—	—	—	—	16	16
Siskiyou	—	—	—	—	—	—	—	—	1	1
Solano	—	194	1,099	—	90	15,693	—	—	971	18,047
Sonoma	—	91	1,406	—	72	7,405	—	—	876	9,850
Stanislaus	322	84	1,022	—	—	3,483	—	—	1,115	6,026

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

#### State HMO Total Covered Lives by County as of June 30, 2017 (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	Total
Sutter	—	—	3	—	2	131	—	—	7	143
Tehama	—	—	—	—	—	—	—	—	3	3
Trinity	—	—	—	—	—	—	—	—	2	2
Tulare	937	13	3,557	—	2,050	98	1	—	437	7,093
Tuolumne	6	2	—	—	—	7	—	—	—	15
Ventura	489	11	882	—	—	3,022	—	—	602	5,006
Yolo	444	139	1,916	—	1,184	6,932	—	—	2,052	12,667
Yuba	2	—	—	—	—	818	—	—	5	825
Out of State	—	4	29	2	2	60	1,544	—	342	1,983
Out of Country/ Unknown	—	—	—	—	—	3	—	—	2	5
<b>Total Covered Lives</b>	<b>14,920</b>	<b>3,734</b>	<b>89,246</b>	<b>2,884</b>	<b>21,972</b>	<b>339,520</b>	<b>1,545</b>	<b>9,262</b>	<b>68,996</b>	<b>552,079</b>

#### State PPO Total Covered Lives by County as of June 30, 2017

County	Anthem EPO Del Norte	Anthem EPO Monterey	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Alameda	—	—	—	1,379	146	970	2,495
Alpine	—	—	—	26	5	3	34
Amador	—	—	—	1,089	151	249	1,489
Butte	—	—	—	3,073	874	1,256	5,203
Calaveras	—	—	—	992	168	200	1,360
Colusa	—	—	93	44	11	32	180
Contra Costa	—	—	—	890	112	753	1,755
Del Norte	100	—	—	2,275	1,749	176	4,300
El Dorado	—	—	—	1,602	329	787	2,718
Fresno	—	—	—	3,986	1,028	1,496	6,510
Glenn	—	—	—	152	30	40	222
Humboldt	—	—	—	2,315	632	695	3,642
Imperial	—	—	—	785	373	205	1,363
Inyo	—	—	—	510	211	62	783
Kern	—	—	—	3,106	738	858	4,702
Kings	—	—	—	917	376	194	1,487
Lake	—	—	—	407	95	165	667
Lassen	—	—	—	3,379	2,962	304	6,645
Los Angeles	—	—	—	12,034	2,082	5,409	19,525
Madera	—	—	—	625	229	210	1,064
Marin	—	1	—	507	32	340	880
Mariposa	—	—	—	191	32	68	291
Mendocino	—	—	729	322	139	180	1,370
Merced	—	—	—	696	277	250	1,223
Modoc	—	—	—	243	54	37	334
Mono	—	—	—	161	52	14	227
Monterey	—	1,942	—	5,873	1,802	660	10,277
Napa	—	—	—	642	78	264	984
Nevada	—	—	—	560	89	402	1,051
Orange	—	—	—	5,249	889	2,982	9,120
Placer	—	—	—	1,688	210	1,144	3,042
Plumas	—	—	—	314	170	96	580
Riverside	—	—	—	2,969	526	1,310	4,805

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State PPO Total Covered Lives by County as of June 30, 2017 (continued)

County	Anthem EPO Del Norte	Anthem EPO Monterey	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Sacramento	—	—	—	7,217	1,442	6,083	14,742
San Benito	—	—	—	312	81	62	455
San Bernardino	—	—	—	2,496	565	1,099	4,160
San Diego	—	—	—	3,689	435	2,051	6,175
San Francisco	—	—	—	864	140	705	1,709
San Joaquin	—	—	—	1,202	211	792	2,205
San Luis Obispo	—	—	—	7,891	2,094	2,437	12,422
San Mateo	—	—	—	564	60	418	1,042
Santa Barbara	—	—	—	726	244	386	1,356
Santa Clara	—	—	—	1,627	142	776	2,545
Santa Cruz	—	—	—	601	91	311	1,003
Shasta	—	—	—	3,550	1,843	660	6,053
Sierra	—	—	20	22	14	15	71
Siskiyou	—	—	—	919	304	133	1,356
Solano	—	—	—	610	51	350	1,011
Sonoma	—	—	—	1,116	108	817	2,041
Stanislaus	—	—	—	833	145	501	1,479
Sutter	—	—	—	1,462	165	238	1,865
Tehama	—	—	—	932	400	180	1,512
Trinity	—	—	—	198	92	37	327
Tulare	—	—	—	3,760	996	801	5,557
Tuolumne	—	—	—	1,885	279	288	2,452
Ventura	—	—	—	2,177	357	950	3,484
Yolo	—	—	—	1,037	138	645	1,820
Yuba	—	—	—	632	82	128	842
Out of State	—	—	—	29,112	6	11,748	40,866
Out of Country/ Unknown	—	—	—	337	—	51	388
<b>Total Covered Lives</b>	<b>100</b>	<b>1,943</b>	<b>842</b>	<b>134,772</b>	<b>27,136</b>	<b>54,473</b>	<b>219,266</b>

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

#### State ASN Total Covered Lives by County as of June 30, 2017

County	CAHP	CCPOA North	CCPOA South	PORAC	Total	County	CAHP	CCPOA North	CCPOA South	PORAC	Total
Alameda	379	37	—	—	416	Placer	1,770	341	—	16	2,127
Alpine	8	—	—	3	11	Plumas	187	—	—	—	187
Amador	158	—	—	—	158	Riverside	2,837	1	4,797	56	7,691
Butte	510	66	1	21	598	Sacramento	1,505	1,525	—	31	3,061
Calaveras	170	—	—	12	182	San Benito	79	—	—	25	104
Colusa	57	—	—	—	57	San Bernardino	2,007	—	3,174	15	5,196
Contra Costa	514	100	2	6	622	San Diego	1,745	—	2,394	36	4,175
Del Norte	120	—	—	3	123	San Francisco	75	39	—	4	118
El Dorado	779	181	—	24	984	San Joaquin	651	1,212	2	4	1,869
Fresno	1,126	1,404	3	51	2,584	San Luis Obispo	923	—	2,935	115	3,973
Glenn	87	—	—	—	87	San Mateo	141	17	—	4	162
Humboldt	330	—	—	31	361	Santa Barbara	447	—	516	14	977
Imperial	314	—	4,678	8	5,000	Santa Clara	419	28	—	10	457
Inyo	119	—	—	1	120	Santa Cruz	216	30	—	36	282
Kern	1,409	—	10,385	27	11,821	Shasta	1,106	—	—	40	1,146
Kings	275	1,504	—	—	1,779	Sierra	3	—	—	—	3
Lake	173	—	—	16	189	Siskiyou	411	—	—	14	425
Lassen	145	—	—	4	149	Solano	667	342	—	—	1,009
Los Angeles	2,622	2	2,219	120	4,963	Sonoma	536	63	—	8	607
Madera	358	322	—	7	687	Stanislaus	619	518	4	8	1,149
Marin	113	42	—	—	155	Sutter	264	—	—	7	271
Mariposa	84	—	—	—	84	Tehama	331	—	—	11	342
Mendocino	195	—	—	3	198	Trinity	52	—	—	1	53
Merced	383	353	1	11	748	Tulare	747	2,813	4	2	3,566
Modoc	89	—	—	5	94	Tuolumne	169	—	—	8	177
Mono	41	—	—	2	43	Ventura	886	—	421	60	1,367
Monterey	349	1	—	80	430	Yolo	279	158	—	2	439
Napa	196	—	—	3	199	Yuba	126	—	—	2	128
Nevada	363	27	—	26	416	Out of State	9	—	—	—	9
Orange	1,240	—	363	97	1,700	Out of Country/ Unknown	1,030	—	6	121	1,157
						<b>Total Covered Lives</b>	<b>32,943</b>	<b>11,126</b>	<b>31,905</b>	<b>1,211</b>	<b>77,185</b>

#### Public Agency HMO Total Covered Lives by County as of June 30, 2017

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	Total
Alameda	1,057	875	3,384	—	528	28,728	—	—	1,470	36,042
Alpine	—	—	—	—	—	—	—	—	—	—
Amador	—	—	—	—	—	115	—	—	3	118
Butte	—	2	863	—	—	2	—	—	357	1,224
Calaveras	—	—	—	—	—	5	—	—	7	12
Colusa	—	—	—	—	—	1	—	—	57	58
Contra Costa	1,175	985	3,866	—	1,927	31,601	—	—	1,593	41,147
Del Norte	—	—	—	—	—	1	—	—	2	3
El Dorado	57	12	519	—	—	2,158	—	—	64	2,810
Fresno	6	4	98	—	58	849	—	—	1,603	2,618
Glenn	—	—	336	—	—	—	—	—	100	436
Humboldt	—	13	268	—	—	2	—	—	91	374
Imperial	79	1	100	—	—	—	—	—	10	190

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

#### Public Agency HMO Total Covered Lives by County as of June 30, 2017 (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	Total
Inyo	—	—	—	—	—	—	—	—	2	2
Kern	14	3	147	5	146	652	—	—	228	1,195
Kings	—	—	8	—	6	10	—	—	35	59
Lake	—	—	—	—	—	3	—	—	8	11
Lassen	—	—	—	—	—	—	—	—	—	—
Los Angeles	2,537	1,696	21,670	2,059	2,894	50,835	—	—	7,297	88,988
Madera	—	1	234	—	—	1,041	—	—	1,492	2,768
Marin	—	76	448	—	82	3,501	—	—	237	4,344
Mariposa	—	—	22	—	—	3	—	—	25	50
Mendocino	—	—	—	—	—	—	—	—	23	23
Merced	132	7	431	—	—	3	—	—	90	663
Modoc	—	—	—	—	—	—	—	—	—	—
Mono	—	—	3	—	—	—	—	—	1	4
Monterey	—	—	3	—	—	3	—	—	31	37
Napa	—	40	—	—	60	6,299	—	—	5	6,404
Nevada	1,921	62	218	—	—	29	—	—	584	2,814
Orange	709	289	5,445	195	478	11,088	—	—	3,584	21,788
Placer	91	94	2,496	—	—	8,667	—	—	2,294	13,642
Plumas	—	—	—	—	—	—	—	—	—	—
Riverside	651	249	3,908	138	450	9,660	—	4	3,788	18,848
Sacramento	66	30	1,956	—	1,251	11,032	—	—	1,639	15,974
San Benito	—	76	—	—	—	4	—	—	14	94
San Bernardino	753	234	4,210	304	829	11,246	—	—	2,094	19,670
San Diego	118	—	1,033	300	501	2,524	—	1,194	1,984	7,654
San Francisco	54	203	736	—	113	2,426	—	—	196	3,728
San Joaquin	1,477	350	1,365	—	1,230	10,736	—	—	450	15,608
San Luis Obispo	—	36	864	—	—	2	—	—	4,815	5,717
San Mateo	3	935	2,989	—	277	9,809	—	—	1,157	15,170
Santa Barbara	—	39	2,198	—	—	2	—	—	177	2,416
Santa Clara	1,020	853	2,169	—	200	21,680	—	—	828	26,750
Santa Cruz	1,246	1,268	2,210	—	2,317	616	—	—	1,072	8,729
Shasta	—	—	—	—	—	—	—	—	17	17
Sierra	—	—	—	—	—	—	—	—	1	1
Siskiyou	—	—	—	—	—	—	—	—	11	11
Solano	3	731	811	—	193	19,594	—	—	662	21,994
Sonoma	—	116	656	—	120	5,063	—	—	191	6,146
Stanislaus	268	46	669	—	—	3,458	—	—	744	5,185
Sutter	—	—	—	—	—	20	—	—	2	22
Tehama	—	—	—	—	—	—	—	—	3	3
Trinity	—	—	—	—	—	—	—	—	—	—
Tulare	48	—	114	—	85	16	—	—	32	295
Tuolumne	—	—	2	—	—	2	—	—	11	15
Ventura	1,108	263	1,633	—	—	3,063	—	—	854	6,921
Yolo	48	27	582	—	1,585	2,755	—	—	1,254	6,251
Yuba	7	—	1	—	—	194	—	—	3	205
Out of State	2	2	8	—	—	38	941	2	557	1,550
Out of Country/ Unknown	—	—	—	—	—	1	—	—	—	1
<b>Total Covered Lives</b>	<b>14,650</b>	<b>9,618</b>	<b>68,673</b>	<b>3,001</b>	<b>15,330</b>	<b>259,537</b>	<b>941</b>	<b>1,200</b>	<b>43,849</b>	<b>416,799</b>



## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency PPO Total Covered Lives by County as of June 30, 2017

County	Anthem EPO Del Norte	Anthem EPO Monterey	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Alameda	—	—	—	2,123	246	1,164	3,533
Alpine	—	—	—	12	2	7	21
Amador	—	—	—	249	27	53	329
Butte	—	—	—	1,028	1,559	266	2,853
Calaveras	—	—	—	599	209	99	907
Colusa	—	—	175	165	145	41	526
Contra Costa	—	—	—	2,272	398	1,257	3,927
Del Norte	2	—	—	94	47	22	165
El Dorado	—	—	—	694	109	255	1,058
Fresno	—	—	—	297	66	93	456
Glenn	—	—	—	236	156	44	436
Humboldt	—	—	—	1,205	1,553	88	2,846
Imperial	—	—	—	48	16	12	76
Inyo	—	—	—	1,191	157	183	1,531
Kern	—	—	—	428	72	89	589
Kings	—	—	—	22	5	3	30
Lake	—	—	—	143	20	71	234
Lassen	—	—	—	198	129	22	349
Los Angeles	—	—	—	18,872	2,784	9,230	30,886
Madera	—	—	—	330	110	108	548
Marin	—	—	—	547	62	260	869
Mariposa	—	—	—	93	9	38	140
Mendocino	—	—	45	73	21	33	172
Merced	—	—	—	267	106	140	513
Modoc	—	—	—	17	1	4	22
Mono	—	—	—	614	4	49	667
Monterey	—	1,913	—	9,653	1,284	602	13,452
Napa	—	—	—	897	241	239	1,377
Nevada	—	—	—	751	302	300	1,353
Orange	—	—	—	4,735	1,123	2,666	8,524
Placer	—	—	—	1,782	256	759	2,797
Plumas	—	—	—	324	87	47	458
Riverside	—	—	—	2,516	528	1,412	4,456
Sacramento	—	—	—	797	293	437	1,527
San Benito	—	—	—	586	94	74	754
San Bernardino	—	—	—	1,752	372	1,108	3,232
San Diego	—	—	—	976	204	459	1,639
San Francisco	—	—	—	324	81	249	654
San Joaquin	—	—	—	1,661	681	280	2,622
San Luis Obispo	—	—	—	2,464	1,008	561	4,033
San Mateo	—	—	—	1,885	234	1,061	3,180
Santa Barbara	—	—	—	877	605	366	1,848
Santa Clara	—	—	—	3,920	942	1,443	6,305
Santa Cruz	—	—	—	2,143	345	599	3,087
Shasta	—	—	—	1,730	1,889	332	3,951
Sierra	—	—	43	32	3	2	80
Siskiyou	—	—	—	743	891	57	1,691
Solano	—	—	—	743	144	293	1,180
Sonoma	—	—	—	702	65	224	991
Stanislaus	—	—	—	1,189	557	247	1,993
Sutter	—	—	—	298	39	36	373
Tehama	—	—	—	194	231	43	468

## Statistical Section: Other Programs (continued)

### HEALTH BENEFITS PROGRAM DATA (CONTINUED)

#### Public Agency PPO Total Covered Lives by County as of June 30, 2017 (continued)

County	Anthem EPO Del Norte	Anthem EPO Monterey	Blue Shield EPO	PERS Choice	PERS Select	PERSCare	Total
Trinity	—	—	—	400	97	23	520
Tulare	—	—	—	239	34	32	305
Tuolumne	—	—	—	927	335	255	1,517
Ventura	—	—	—	2,253	660	1,023	3,936
Yolo	—	—	—	497	167	201	865
Yuba	—	—	—	895	167	54	1,116
Out of State	—	—	—	10,588	7	6,279	16,874
Out of Country/ Unknown	—	—	—	70	—	34	104
<b>Total Covered Lives</b>	<b>2</b>	<b>1,913</b>	<b>263</b>	<b>91,360</b>	<b>21,979</b>	<b>35,428</b>	<b>150,945</b>

#### Public Agency ASN Total Covered Lives by County as of June 30, 2017

County	CAHP	CCPOA North	CCPOA South	PORAC	Total	County	CAHP	CCPOA North	CCPOA South	PORAC	Total
Alameda	—	—	—	611	611	Placer	—	—	—	457	457
Alpine	—	—	—	—	—	Plumas	—	—	—	282	282
Amador	—	—	—	183	183	Riverside	—	—	—	1,348	1,348
Butte	—	—	—	1,069	1,069	Sacramento	—	—	—	226	226
Calaveras	—	—	—	60	60	San Benito	—	—	—	454	454
Colusa	—	—	—	67	67	San Bernardino	—	—	—	796	796
Contra Costa	—	—	—	694	694	San Diego	—	—	—	231	231
Del Norte	—	—	—	10	10	San Francisco	—	—	—	51	51
El Dorado	—	—	—	281	281	San Joaquin	—	—	—	352	352
Fresno	—	—	—	31	31	San Luis Obispo	—	—	—	296	296
Glenn	—	—	—	102	102	San Mateo	—	—	—	207	207
Humboldt	—	—	—	547	547	Santa Barbara	—	—	—	174	174
Imperial	—	—	—	26	26	Santa Clara	—	—	—	698	698
Inyo	—	—	—	238	238	Santa Cruz	—	—	—	801	801
Kern	—	—	—	49	49	Shasta	—	—	—	863	863
Kings	—	—	—	1	1	Sierra	—	—	—	15	15
Lake	—	—	—	93	93	Siskiyou	—	—	—	294	294
Lassen	—	—	—	89	89	Solano	—	—	—	115	115
Los Angeles	—	—	—	2,977	2,977	Sonoma	—	—	—	139	139
Madera	—	—	—	23	23	Stanislaus	—	—	—	108	108
Marin	—	—	—	68	68	Sutter	—	—	—	448	448
Mariposa	—	—	—	28	28	Tehama	—	—	—	164	164
Mendocino	—	—	—	18	18	Trinity	—	—	—	39	39
Merced	—	—	—	39	39	Tulare	—	—	—	6	6
Modoc	—	—	—	70	70	Tuolumne	—	—	—	383	383
Mono	—	—	—	70	70	Ventura	—	—	—	954	954
Monterey	—	—	—	2,321	2,321	Yolo	—	—	—	50	50
Napa	—	—	—	78	78	Yuba	—	—	—	319	319
Nevada	—	—	—	359	359	Out of State	—	—	—	3	3
Orange	—	—	—	3,317	3,317	Out of Country/ Unknown	—	—	—	2,090	2,090
						<b>Total Covered Lives</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,882</b>	<b>25,882</b>

## Statistical Section: Other Programs (continued)

### 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, 2017, the Deferred Compensation Program was adopted by 785 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](http://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 2016-17 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.

## Statistical Section: Other Programs (continued)

### LONG-TERM CARE PROGRAM DATA

As of June 30, 2017, the total long-term care (LTC) participant count decreased 3.0 percent to 128,276. This decrease may be attributable to the LTC program stabilization and sustainability measures and realized participant population attrition. Annual premiums as of June 30, 2017, were \$306.3 million.

#### Long-Term Care Program Data – Comprehensive Plans

Benefit Period	LTC 1 (1995-2002)		LTC 2 (2003-2004)		LTC 3 (2005-2008)		Total
	With Inflation	No Inflation	With Inflation	No Inflation	With Inflation	No Inflation	
Lifetime	19,421	5,585	1,103	636	1,112	1,051	28,908
10 Year	—	18,767	—	1,658	—	5	20,430
6 Year	2,064	17,636	19	1,494	3,161	3,379	27,753
3 Year	2,939	12,959	236	1,437	2,738	864	21,173
<b>TOTAL</b>	<b>24,424</b>	<b>54,947</b>	<b>1,358</b>	<b>5,225</b>	<b>7,011</b>	<b>5,299</b>	<b>98,264</b>

#### Long-Term Care Program Data – Facility Only Plans

Benefit Period	LTC 1 (1995-2002)		LTC 2 (2003-2004)		LTC 3 (2005-2008)		Total
	With Inflation	No Inflation	With Inflation	No Inflation	With Inflation	No Inflation	
Lifetime	2,774	1,218	122	54	173	144	4,485
10 Year	—	4,422	—	258	—	—	4,680
6 Year	356	4,846	9	258	210	774	6,453
3 Year	1,097	5,815	35	302	641	267	8,157
<b>TOTAL</b>	<b>4,227</b>	<b>16,301</b>	<b>166</b>	<b>872</b>	<b>1,024</b>	<b>1,185</b>	<b>23,775</b>

#### Partnership Plans with Inflation

Benefit Period	LTC 1 (1995-2002)	LTC 2 (2003-2004)	LTC 3 (2005-2008)	Total
2 Year	2,631	151	64	2,846
1 Year	1,565	77	34	1,676
6 Month	107	9	1	117
<b>TOTAL</b>	<b>4,303</b>	<b>237</b>	<b>99</b>	<b>4,639</b>

#### LTC 4<sup>1</sup> 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	15	30	5	189	39	15	293
6 Year	24	97	11	349	39	18	538
3 Year	36	123	9	494	49	27	738
2 Year	25	—	—	—	—	—	25
1 Year	4	—	—	—	—	—	4
<b>TOTAL</b>	<b>104</b>	<b>250</b>	<b>25</b>	<b>1,032</b>	<b>127</b>	<b>60</b>	<b>1,598</b>

(1) LTC 4 opened for enrollment in December 2013.

#### Seven-Year Historical Participant Counts

	2017	2016	2015	2014	2013	2012	2011	2010	2009
Total Covered Lives	128,276	132,274	136,253	139,947	144,933	150,330	154,634	159,528	165,023

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## Compliance Section

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## Compliance Section

### CULTURE OF COMPLIANCE

Each year the California Public Employees' Retirement System (CalPERS) compiles an Annual Compliance Report for inclusion in the Comprehensive Annual Financial Report (CAFR). This year's report highlights activities and accomplishments for the Fiscal Year (FY) ending June 30, 2017.

Compliance is embedded into our strategy, culture, and day-to-day business operations as our activities and accomplishments directly support our organization's business plan and core values.

CalPERS established a compliance program in 2004 to support our commitment to strong ethics, compliance, and risk management practices. In 2015, CalPERS developed a new multi-year compliance plan, building upon the already effective compliance practices in place. This five-year plan accounts for current industry best practices as well as input from CalPERS leadership in establishing compliance focused priorities.

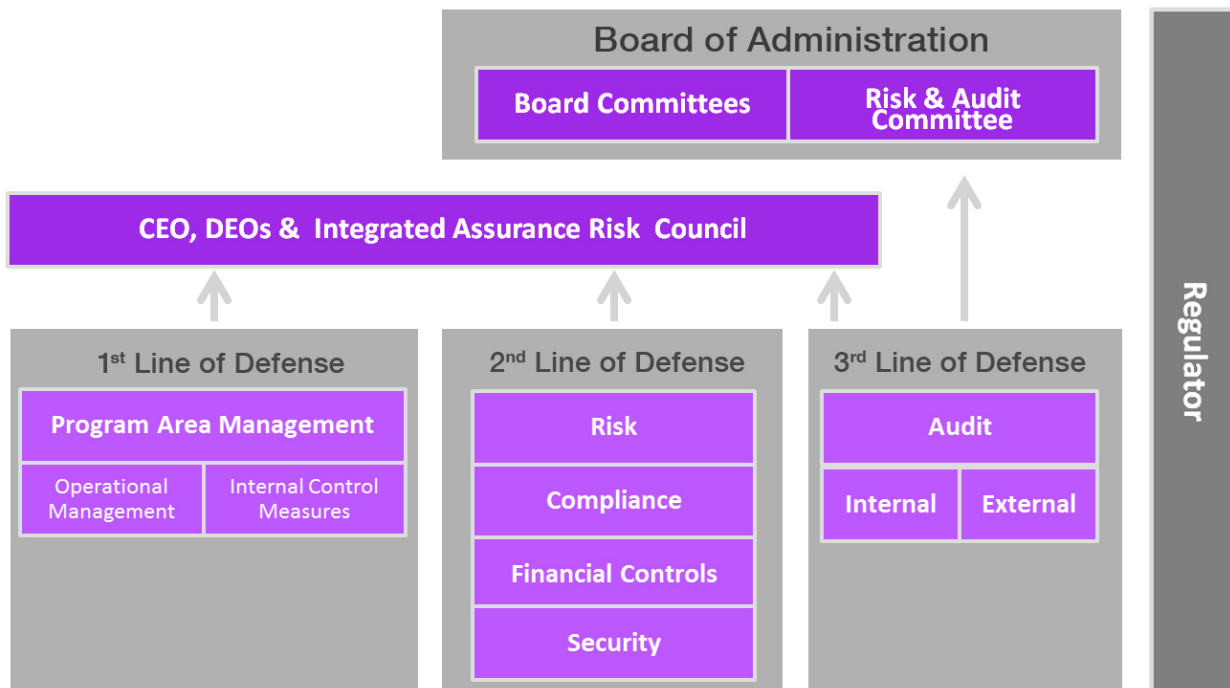
During the first two years of implementation, CalPERS developed a framework and tools aimed at enhancing our control environment, addressing compliance risk exposure, and improving the management of policies and delegations of authority. Additionally, CalPERS has focused on fostering a compliance-aware culture through communication, education, and training. Fiscal Year 2016-17 was "Year Two" of our five-

year plan, emphasizing expanded protocols and processes for policy management, reporting standards, and monitoring.

Compliance awareness, risk management and internal controls are integral to cultivating a high-performing, risk-intelligent, and innovative organization. To implement our governance, risk, and compliance practices, CalPERS has 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 1), which promotes collaboration and an increased understanding of roles and responsibilities to detect, prevent, and correct instances of noncompliance.

- **First Line of Defense** – The first level of the control environment are the program areas, which perform day-to-day risk management activities.
- **Second Line of Defense** – Oversight functions, such as Enterprise Compliance and Enterprise Risk Management, set direction, define policy, and provide assurance.
- **Third Line of Defense** – Internal and external audits offer an independent challenge to the levels of assurance provided by program areas and oversight functions.

### INTEGRATED ASSURANCE MODEL: THE THREE LINES OF DEFENSE



(Figure 1)



## Compliance Section (continued)

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.”

### FY 2016-17 HIGHLIGHTS

Fiscal Year 2016-17 focused on expanding protocols and processes for operational control, policy management, and reporting standards. Programs launched many initiatives and activities that laid the foundation for long-term success, focusing on five key areas: (1) standards and codes, (2) risk assessment and priorities, (3) operating events and incident management, (4) monitoring and testing, and (5) reporting and disclosures. These key areas provide the foundation for our compliance efforts and will continue to remain a focus for multiple years to strengthen CalPERS’ culture of compliance.

### FIRST LINE OF DEFENSE

The first line of defense in any control environment is the management and team members in the functional program areas, who are responsible for the performance of activities. In addition to performing day-to-day operations, the functional program areas are responsible for compliance and risk mitigation. Highlights of our program area activities are described below.

#### HEALTH ADMINISTRATION

In Fiscal Year 2016-17, CalPERS 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).

In compliance with the Budget Act of 2016, CalPERS publicly released unadjusted and risk-adjusted premiums during the May 2017 Pension and Health Benefits Committee meeting.

Additionally, CalPERS developed and submitted reports to meet statutory requirements including:

- An annual report to the Legislature, State Controller, Director of Finance, and Legislative Analyst Office submitted within 100 days of adopting annual health premium increases and decreases that describes methods employed to moderate annual increases in premiums pursuant to the Budget Act of 2015 (Stats. 2015, Ch. 10, Sec. 2.00, Item 7900-015-0822 (2)).
- An annual report to the Legislature pursuant to California Government Code Section 22866(a). This annual report was a comprehensive look at the CalPERS health benefits program due and submitted on November 1, 2016, and will be reviewed annually thereafter.
- A one-time report to the Legislature covering the administration of the health care premium risk adjustment procedures for premium years 2014-2017. The report is inclusive, as authorized by paragraph (3) of subdivision (f) of section 22850, and section 22864 of the Government Code, and related rules and regulations pursuant to the Budget Act of 2016 (Item 7900-001-0822 (2)) and was due and submitted on October 1, 2016.

#### PENSION ADMINISTRATION

In the Benefit Services Division over two million participant birthdates were securely cross-referenced with Social Security data through a third-party vendor. We identified less than one percent of birthdates as discrepant and took action to resolve them. This effort ensured compliance with benefit administration rules and improved the accuracy of benefits paid. The minimal number of discrepancies validated that proper internal controls are in place.

Our Customer Services and Support Branch published a compliance handout distributed to business partners at the Educational Forum as a straightforward reference to support compliance in five key areas: accuracy, timeliness, verification, awareness, and security.

## Compliance Section (continued)

### FIRST LINE OF DEFENSE (CONTINUED)

#### INTERNAL OPERATIONS

##### Financial Controls & Reporting

To meet statutory requirements, CalPERS also developed and submitted the following financial reports:

- Administration of the health care premium risk adjustment procedures for premium years 2014-17. This one-time report was submitted on October 1, 2016 to the Chairperson of the Joint Legislative Budget Committee, the chairpersons of the committees and subcommittees in each house of the Legislature that consider CalPERS' budget and activities, the Controller, the Director of Finance, and the Legislative Analyst pursuant to the Budget Act of 2016 (Stats. 2016, Ch. 23, Item 7900-001-0822 (2)).
- Health Benefits Program Administrative Costs Zero-Based Budgeting Review to the Department of Finance as part of the 2017-18 Governor's Budget development to evaluate program objectives, workload metrics, cost allocation methodologies, reserve levels, personnel services, and operating expenses and equipment pursuant to the Budget Act of 2016 (Stats. 2016, Ch. 23, Item 7900-001-0822 (3) and Item 7900-001-0950 (3)).

In compliance with the enterprise-wide policy management framework, the Actuarial Office implemented the new consolidated Actuarial Cost Method Policy and the Actuarial Amortization Policy in December 2016. The two consolidated policies generally keep the same content of the past policies but add the flexibility to apply dollar billing to the unfunded liability portion of all public agency plans. The policies also help ensure consistency with actuarial and policy management best practices.

##### Investment Office

Investment Compliance and Operational Risk (ICOR) serves as an embedded compliance function and assists our Investment Office (INVO) employees by ensuring compliance with key policies, laws, and regulations that impact the Investment Office.

In Fiscal Year 2016-17, ICOR organized and administered investment compliance training for Investment Office employees. The training addressed various ethics and conflicts of interest-related topics including approval of outside employment and post-employment restrictions applicable to employees.

The ICOR team led strategic projects to evaluate the existing control environment of INVO's trade order management systems, broker selection, and evaluation processes. Additionally, ICOR assumed responsibility for

compliance with all divestment initiatives, including associated Board and legislative reporting.

##### Human Resources

In Fiscal Year 2016-17, CalPERS attained an enterprise-wide annual mandatory training completion rate of 99.5 percent, as of July 1, 2017. The training included Health Insurance Portability and Accountability Act (HIPAA), Information Security Awareness, and Working Values: Ethical Decision Making.

##### Education and Training

To enhance education and training, CalPERS completed a Lean 6 Sigma Contract Compliance Project that aims to eliminate waste and boost project efficiency. This resulted in quality assurance checks for every CalPERS contract. It also helped successfully train Operations Support Services contract analysts, as well as improve templates, procedures, checklists, and contract folders. In January 2017, an audit was performed and all contracts were in compliance.

As part of the goal to increase compliance knowledge across CalPERS, team members from Enterprise Compliance, Customer Services and Support, and Operations and Technology Services attended the Society of Corporate Compliance and Ethics academy. After completing the Academy program and sitting for the examination with the Compliance Certification Board, we now have additional team members who hold the Certified Compliance and Ethics Professional designation.

### SECOND LINE OF DEFENSE

CalPERS Enterprise Compliance Division and Enterprise Risk Management Division partnered under the second line of defense to provide oversight, guidance, and 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, which strengthened the organization's control environment and promoted strong ethical business practices. To demonstrate this alignment, both divisions work closely together to develop and implement their annual plans.

The Office of Audit Services, while independent and considered the third line of defense, partnered with the Enterprise Risk and Enterprise Compliance divisions during the annual risk assessment process to strengthen their understanding of risks and mitigation strategies. The participation of the Office of Audit Services will ultimately help maximize integrated assurance practices.

## Compliance Section (continued)

### SECOND LINE OF DEFENSE (CONTINUED)

#### ENTERPRISE COMPLIANCE

The purpose of the Enterprise Compliance Division is to ensure that CalPERS maintains compliance with the letter and spirit of all applicable laws and regulations, in partnership with program areas. The oversight role of the Enterprise Compliance Division, as a second line of defense, includes defining and overseeing a compliance program that:

- Mitigates and monitors risks
- Establishes effective policies and procedures
- Provides training and communication
- Reinforces behavioral expectations
- Oversees allegations of misconduct

Through increased dialogue and awareness with program management, the Enterprise Compliance Division:

- Strengthened protocols and knowledge for CalPERS' ethics rules

- Continued to clarify roles and responsibilities among team members, management, and control areas
- Established governance protocols for management to clarify roles and promote effective decision making
- Hired and developed knowledgeable compliance "champions"
- Improved compliance capabilities, resulting in strong internal control processes

The implemented 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 2). 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 Board and management with compliance tools and information to fulfill their oversight responsibilities.

FIGURE 2: FIVE-YEAR COMPLIANCE PLAN



(Figure 2)

CalPERS has continued to implement embedded compliance and risk programs throughout the organization. In Fiscal Year 2016-17, embedded compliance and risk liaisons from the Financial and Benefits Programs Policy and Planning branches joined previously implemented embedded programs

from the Investment, Operations and Technology, and Customer Services and Support branches. The embedded compliance and risk liaisons are responsible for working directly with their respective program areas and Enterprise Compliance and Enterprise Risk divisions to enhance CalPERS' ability to identify and resolve compliance issues.

## Compliance Section (continued)

### SECOND LINE OF DEFENSE (CONTINUED)

#### **Enterprise Compliance Oversight and Monitoring**

##### *Monitoring and Testing Compliance*

In Fiscal Year 2016-17, CalPERS launched the first of a series of targeted compliance reviews to conduct compliance assessments of complex, cross-branch functions. This first targeted compliance review focused on reducing risk within the contracting and vendor management process. The review was conducted in cooperation with the embedded compliance team within the Operations and Technology branch and spanned eleven divisions and functional areas.

Recommendations from the review will serve to strengthen internal controls and increase operational efficiency.

The CalPERS Personal Trading Regulations require that CalPERS-covered persons and their spouses or registered domestic partners disclose personal investment holdings and use a personal trading pre-clearance system (2 CCR section 558.1). This requirement is intended to safeguard against trading with material non-public information and ensure that CalPERS meets our fiduciary obligations to our fund and members. Enhanced education resources and escalation procedures for personal trading oversight resulted in a 95 percent decrease in violations to CalPERS' personal trading regulations since January 2015. Enhanced communications, education and reporting, as well as small group training sessions around CalPERS' personal trading rules were launched in Fiscal Year 2016-17.

#### **Enterprise Ethics Program**

##### *Conflicts of Interest*

The Political Reform Act (Cal. Gov. Code section 81000 et seq.) requires CalPERS to adopt and periodically update a Conflict of Interest Code (the Code). The Code designates positions at CalPERS that are required to file a Statement of Economic Interests – Form 700. Additionally, the Code requires that any consultant who makes or takes part in making of governmental decisions, or that manages public funds must file Statements of Economic Interests disclosures. In Fiscal Year 2016-17, Enterprise Compliance completed a reconciliation audit of vendor and consultant conflict-of-interest filings. The Enterprise Ethics Program also began offering monthly small group training sessions for CalPERS employees on the Conflict of Interest Code and disclosure requirements.

##### *Ethics Helpline*

CalPERS maintains and monitors a third-party hosted Ethics Helpline that provides a means to confidentially, anonymously, and securely report allegations of unethical behavior. In compliance with the Citizen Complaint Act of 1997 (Gov. Code section 8330 et seq.). CalPERS' website also provides a plain-language online form that members of the public may use to

submit comments, complaints, or suggestions about our performance. In Fiscal Year 2016-17, Enterprise Compliance developed system enhancements to improve helpline allegation tracking and reporting. This resulted in improved Board reporting and enhanced transparency for the organization.

#### **Policy and Delegation Management**

CalPERS has established standards throughout the enterprise for delegations of authority and policy management consistent with professional best practice.

##### *Policy Management*

In Fiscal Year 2016-17, CalPERS developed and finalized policy standards and education around policy governance and development. Enterprise Compliance collaborated with 18 program areas, performing a holistic review of CalPERS policies and offered guidance on organization and structure. Additionally, the Enterprise Policy Workgroup was formed to consult on policy standards, escalation processes, and stakeholder engagement to ensure that governance was consistently applied and appropriate stakeholders were brought into the development process.

This past year, the Enterprise Compliance Division worked in partnership with program areas to develop and implement an official legislation implementation policy. The policy ensures the appropriate steps are taken when new legislation passes and that all impacted program areas are in compliance with reporting requirements and statutes.

##### *Delegation Management*

Delegation of Authority standards were developed and finalized throughout the enterprise. All delegations of authority for CalPERS executives and senior managers were updated to ensure alignment with the new standards. All Board committee delegations were also reviewed to verify the appropriate standards were met.

## Compliance Section (continued)

### SECOND LINE OF DEFENSE (CONTINUED)

#### Compliance Education and Communication

We have reignited awareness of compliance principles throughout our organization to promote a culture of compliance. This was done by expanding our channels of communication through tools such as the intranet, internal social media page (the SPARK), and enhanced classroom training.

In Fiscal Year 2016-17, Enterprise Compliance collaborated with the Office of Public Affairs to finalize the development of six informal discussion guides that facilitate compliance and ethics discussions among team members and front-line supervisors. The discussion guides tie compliance and ethics best practices to CalPERS' existing core values through a series of easy-to-understand exercises and scenarios.

CalPERS conducted three Annual Compliance Training sessions for executives and senior leaders with a focus on conflicts of interest, travel, and outside employment. To complement the annual training CalPERS developed compliance onboarding training for all new executives and senior leaders.

Enterprise Compliance held the first Compliance & Ethics Week, featuring an expert guest speaker and discussions about ethics in the workplace. In conjunction with the Compliance and Ethics Week, a survey was administered throughout the organization where over one thousand CalPERS team members participated. This provided valuable insight into team members' attitudes and perceptions about compliance and ethics. Based on the results, CalPERS was able to develop and implement a comprehensive communications, training, and education plan for Fiscal Year 2016-17. To further expand the "Tone from the Top" initiative, Enterprise Compliance produced quarterly Inside CalPERS articles that are posted on CalPERS' intranet featuring executives discussing topics on compliance and ethics.

To continue discussions about ethics and compliance, CalPERS developed a new Achieving CalPERS Excellence (ACE) award focusing on Compliance, Risk & Security champions. This internal award is intended to demonstrate CalPERS' commitment to recognizing our team members' commitment to ensuring compliance, risk, and security awareness.

#### ENTERPRISE RISK MANAGEMENT

CalPERS 2017-22 Strategic Plan includes cultivating a risk-intelligent organization as a primary goal. The following provides an overview of some key accomplishments and planned next steps as CalPERS continues to mature the Enterprise Risk Management Framework.

#### Internal Control Framework: Operational Risks Events

In June 2016, the Risk and Audit Committee approved the 2016-17 Enterprise Risk Management Plan to continue enhancing the Enterprise Risk Management Framework. In addition to establishing thresholds and KRIs, there is also an initiative to develop and implement an operational risk event reporting process that will be carried over into the Fiscal Year 2017-18 ERMD Plan.

The operational risk event reporting process was developed to identify and track potential internal control failures and trends throughout the enterprise and focus on identifying event triggers as well as mitigating and preventing internal control breakdowns. The reporting process will provide the enterprise with a systematic way to triage, correct, and monitor events discovered during "day-to-day" operations.

#### State Leadership Accountability Act (SLAA) (Formerly known as FISMA)

The California State Leadership Accountability Act (SLAA) requires state agencies to "maintain effective systems of internal control, to evaluate and monitor the effectiveness of these controls on an ongoing basis, and to biennially report on the adequacy of the agency's systems of internal control" (Gov. Code section 13400 et seq.). Effective June 24, 2015, SLAA was modified and updated through legislative action. The intent of the change is to provide the Department of Finance (DOF) with assurance that all levels of management are involved in evaluating, strengthening, and monitoring internal controls. SLAA requires each state agency to:

- Maintain effective systems of internal control.
- Evaluate and monitor the effectiveness of these controls on an ongoing basis.
- Biannually report on the adequacy of the agency's systems of internal control.

Biannual SLAA Corrective Action Plans were completed and filed promptly with the DOF on December 31, 2016, and June 30, 2017.

#### Risk Awareness

CalPERS is committed to enhancing compliance and risk functions throughout the enterprise.

To cultivate a risk-intelligent organization, ERMD reaches out to inform stakeholders on how the Enterprise Management Framework is being used to manage the risks that CalPERS faces. Progress will be monitored and reported based on stakeholder survey results. Additionally, ERMD works with internal partners to train and educate CalPERS' team members on the importance of risk management and personal accountability toward reporting risk.



## Compliance Section (continued)

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### THIRD LINE OF DEFENSE

Internal and external audits are the third line of defense, offering an independent component to the levels of assurance provided by program areas and compliance and risk oversight functions.

#### OFFICE OF AUDIT SERVICES

In Fiscal Year 2016-17, our Audit Services Public Agency Team completed compliance reviews of 29 agencies, census data testing reviews of 67 agencies, and special compensation reviews of 64 agencies. Audit Services uses business intelligence to perform the census data testing and special compensation reviews. As a result of the 160 reviews, 451 compliance issues were identified. Compliance reviews often identify misreporting prior to and after member retirement. The impact of misreporting could result in corrections to members' retirement benefits and increased workload to CalPERS in making those corrections.

As part of the review process, our Public Agency Team educated employers on the Public Employees' Retirement Law requirements and communicated the areas of noncompliance to CalPERS internal programs to assist them in identifying training needs for employers.

In Fiscal Year 2016-17, our Internal Audit Team completed 27 internal audit assignments. These assignments included reviews of administrative expense management, our global equity program, death benefits, Health Care Decision Support System, Health Insurance Portability and Accountability Act (HIPAA) data assessment, health plan contract compliance, and external real estate manager contract compliance.

Additionally, Audit Services received the highest possible overall opinion, Generally Conforms, on our external quality assessment completed in December 2016 by the Department of Finance. The external quality review is required every five years by the International Standards for the Professional Practice of Internal Auditing.

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### GLOSSARY OF ACRONYMS

<b>AAL:</b> Actuarial Accrued Liability	<b>HMO:</b> Health Maintenance Organization
<b>ACA:</b> Affordable Care Act	<b>IBNR:</b> Incurred But Not Reported
<b>ALM:</b> Asset Liability Management	<b>IRC:</b> Internal Revenue Code
<b>ARC:</b> Annual Required Contribution	<b>IRS:</b> Internal Revenue Service
<b>CAFR:</b> Comprehensive Annual Financial Report	<b>JRF:</b> Judges' Retirement Fund
<b>CalPERS:</b> California Public Employees' Retirement System	<b>JRF II:</b> Judges' Retirement Fund II
<b>CERBTf:</b> California Employers' Retiree Benefit Trust Fund	<b>JRS:</b> Judges' Retirement System
<b>CODE:</b> Conflict of Interest Code	<b>JRS II:</b> Judges' Retirement System II
<b>COLA:</b> Cost-of-Living Adjustments	<b>LRF:</b> Legislators' Retirement Fund
<b>CRF:</b> Contingency Reserve Fund	<b>LRS:</b> Legislators' Retirement System
<b>DCF:</b> Public Agency Deferred Compensation Fund	<b>LTC:</b> Long-Term Care
<b>EGWP:</b> Federal Employer Group Waiver Plan	<b>LTCF:</b> Long-Term Care Fund
<b>eSec:</b> ESecLending LLC	<b>MWRR:</b> Money-Weighted Rate of Return
<b>ESG:</b> Environmental, Social, and Governance	<b>NAV:</b> Net Asset Value
<b>ETF:</b> Exchange-Traded Fund	<b>OASI:</b> Old Age & Survivors' Insurance Revolving Fund
<b>GASB:</b> Governmental Accounting Standards Board	<b>OCC:</b> Options Clearing Corporation
<b>GASB 28:</b> GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions	<b>OPEB:</b> Other Post-Employment Benefits
<b>GASB 34:</b> GASB Statement No. 34, Basic Financial Statements— and Management's Discussion and Analysis—for State and Local Governments	<b>PBM:</b> Pharmacy Benefit Manager
<b>GASB 40:</b> GASB Statement No. 40, Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3	<b>PEMHCA:</b> Public Employees' Medical and Hospital Care Act
<b>GASB 67:</b> GASB Statement No. 67, Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25	<b>PEPRA:</b> Public Employees' Pension Reform Act
<b>GASB 68:</b> GASB Statement No. 68, Accounting and Financial Reporting for Pensions, an amendment of GASB Statement No. 27	<b>PERF:</b> Public Employees' Retirement Fund
<b>GASB 72:</b> GASB Statement No. 72, Fair Value Measurement and Application	<b>PERL:</b> Public Employees' Retirement Law
<b>GASB 74:</b> GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans	<b>PERS:</b> Public Employees' Retirement System
<b>GASB 84:</b> GASB Statement No. 84, Fiduciary Activities	<b>PRA:</b> Public Records Act
<b>HCF:</b> Health Care Fund	<b>RBF:</b> Replacement Benefit Fund
<b>HIPAA:</b> Health Insurance Portability and Accountability Act	<b>REIT:</b> Real Estate Investment Trusts
	<b>SCPF:</b> Supplemental Contributions Program Fund
	<b>SPOFF:</b> State Peace Officers' and Firefighters' Defined Contribution Plan Fund
	<b>SSB:</b> State Street Bank
	<b>SSGA:</b> State Street Bank Global Advisors
	<b>STIF:</b> Short-Term Investment Fund
	<b>System:</b> The California Public Employees' Retirement System



## Index of Tables, Charts & Lists (continued)

### LEGISLATIVE REPORTS

In accordance with Government Code Section 20232, California Public Employees' Retirement System (CalPERS) provides the following information to the Governor and Legislature. The table below provides guidance on where these items are located within the Comprehensive Annual Financial Report (CAFR).

Government Code	CAFR Section	Sub-Section
(a) A copy of the annual audit performed pursuant to Section 20228.	Financial Section	Independent Auditor's Report
(b) A review of the system's asset mix strategy, a market review of the economic and financial environment in which investments were made, and a summary of the system's general investment strategy.	Financial Section Financial Section Investment Section Investment Section	Notes to the Basic Financial Statements – Target Asset Allocation Notes to the Basic Financial Statements – Notes 4-7 Chief Investment Officer's Letter Asset Allocation – PERF
(c) A description of the investments currently held by this system at cost and market value. The description of investments shall include, but not be limited to, the asset classes reported pursuant to Section 20235. The report shall also include a list of all investment holdings at the close of the fiscal year, including any major divestitures taken during the fiscal year.	Financial Section Investment Section	Notes to the Basic Financial Statements – CalPERS Investments at Fair Value Summary of Investments – PERF
(d) The following information regarding the rate of return of this system by asset type: (1) Time-weighted market value rate of return on a five-year, three-year, and one-year basis. (2) Portfolio return comparisons by asset class that compare investment returns with an alternative theoretical portfolio of comparable funds, universes, and indexes.	Investment Section Investment Section	Portfolio Comparisons – PERF, LRF, JRF II, CERBTf, HCF, and LTCF Portfolio Comparisons – PERF, LRF, JRF II, CERBTf, HCF, and LTCF
(e) The use of outside investment advisers and managers, including costs and fees.	Financial Section	Other Supplementary Information – Investment Expense – All Funds Investment Management Fees Performance Fees Other Investment Expenses
(f) A description of the system's investments at cost and market value held in the state.	Investment Section	Portfolio of California Investments at Fair Value – PERF



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