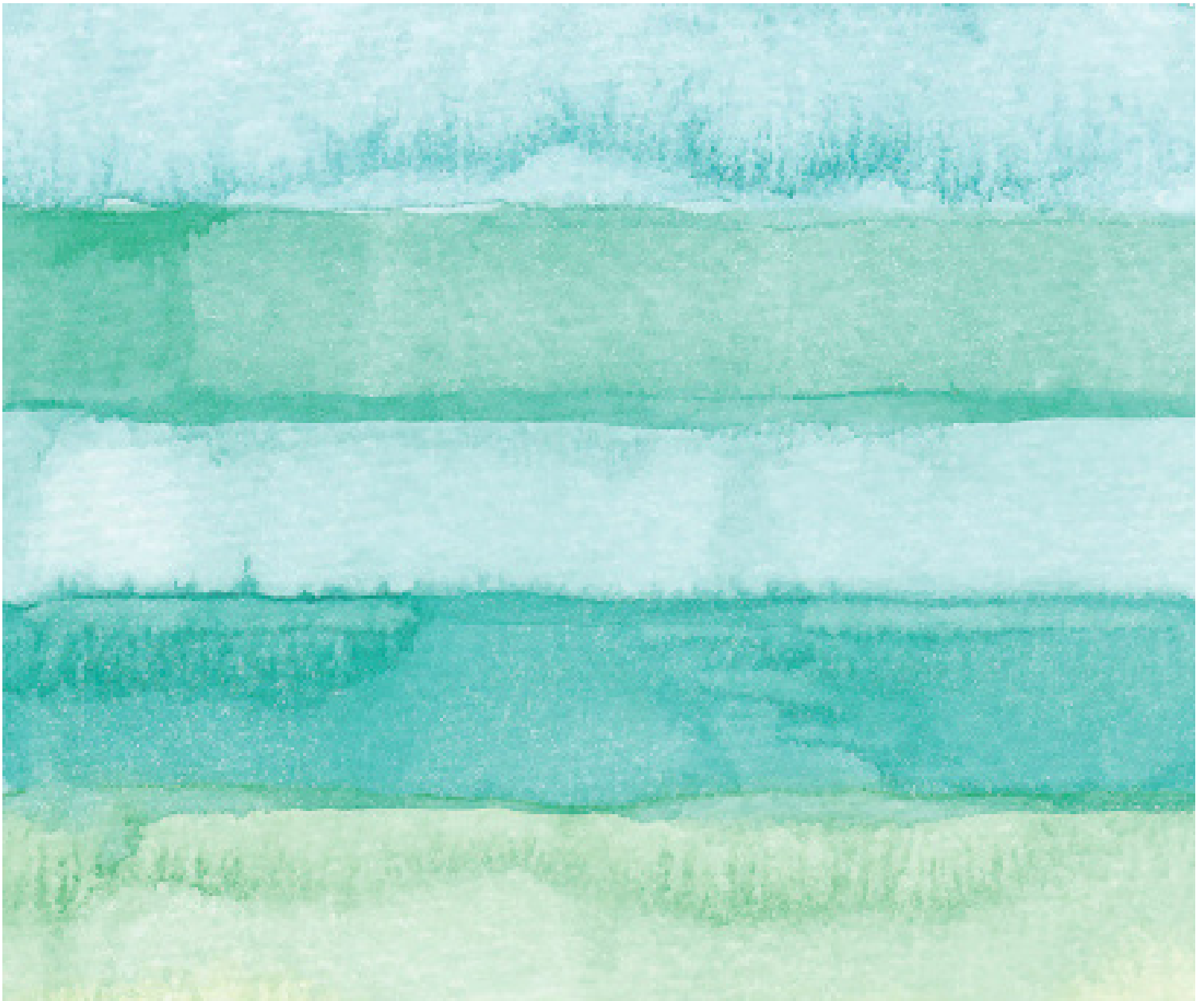


2019-20

Comprehensive Annual Financial Report

Fiscal Year Ended June 30, 2020

Focused On Our Mission



This page intentionally left blank.

COMPREHENSIVE ANNUAL FINANCIAL REPORT

Fiscal Year Ended June 30, 2020

Prepared through the joint efforts of CalPERS team members.

Available online at www.calpers.ca.gov



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

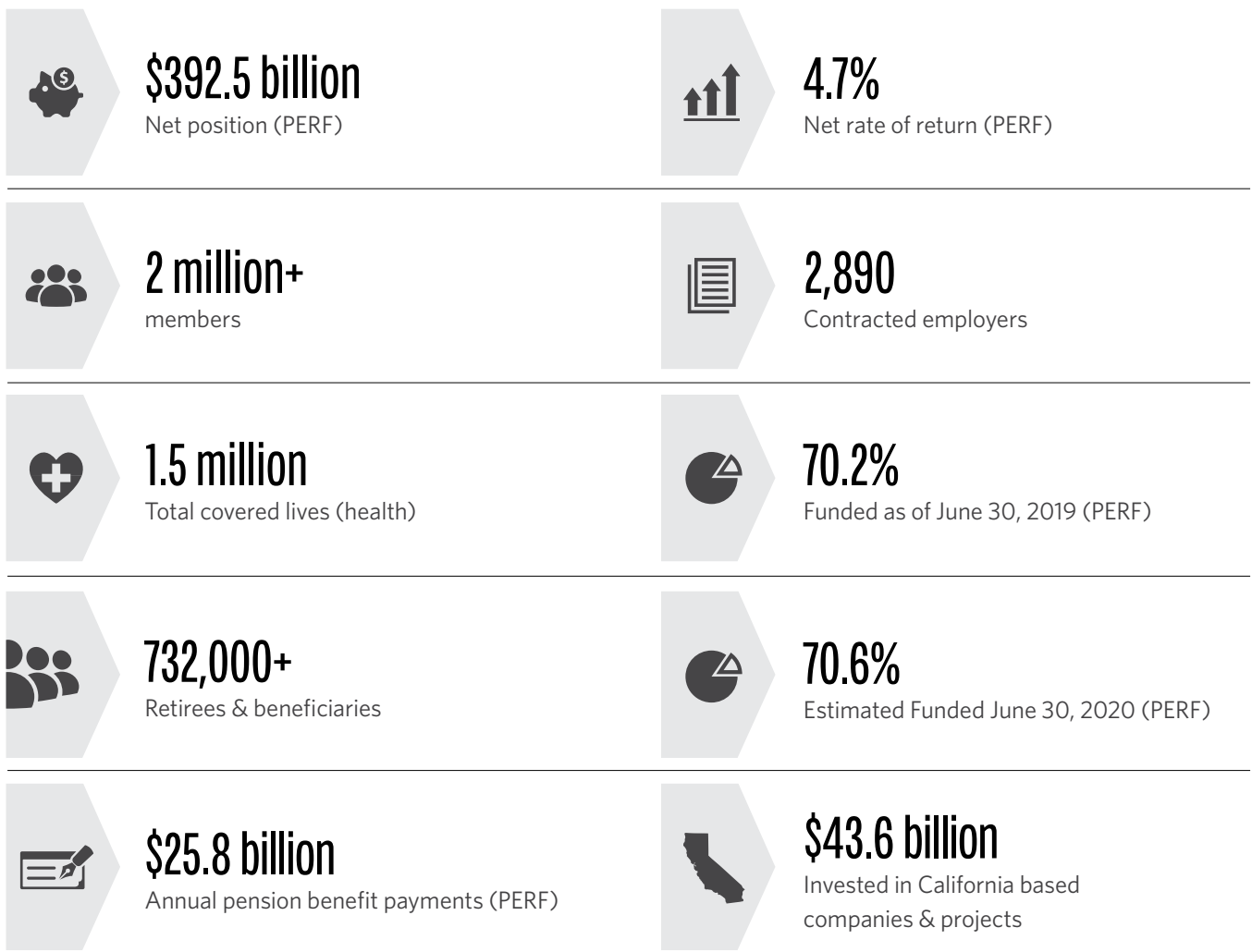
This page intentionally left blank.

2019-20 IN NUMBERS

"Despite the unprecedented economic challenges due to COVID-19, we had many accomplishments this past fiscal year and ended on a strong note."

Marcie Frost, CalPERS CEO

Where We Stand



This page intentionally left blank.

Table of Contents

Introductory Section	1	Actuarial Section	119
Professional Awards	2	Actuarial Certifications	120
Chief Executive Officer's Letter of Transmittal	3	Actuarial Methods & Assumptions	122
About CalPERS	7	Summary of Funding Progress	125
Board of Administration	10	Exhibit A: Funding Progress – Unfunded Liability & Funded Ratios ...	126
Organizational Chart – Executive Team	12	Exhibit B: Funding Progress – Solvency Test	127
Consultant & Professional Services	13	Exhibit C: Sample Pay Increase Assumptions for Individual Members	129
		Exhibit D: Sample Non-Economic Assumptions	130
		Exhibit E: Single Life Retirement Values	139
Financial Section	15	Exhibit F: Schedule of Active Member Valuation Data	139
Independent Auditor's Report	16	Exhibit G: Members in Valuation	140
Management's Discussion & Analysis (MD&A)	19	Exhibit H: Schedule of Retirees & Beneficiaries Added to and Removed from Rolls	143
		Exhibit I: Analysis of Financial Experience	144
Financial Section: Basic Financial Statements	41	Statistical Section	149
Statement of Fiduciary Net Position – Fiduciary Funds	42	Introduction	150
Statement of Changes in Fiduciary Net Position – Fiduciary Funds ...	44	Changes in Fiduciary Net Position – Retirement Programs	150
Statement of Net Position – Proprietary Funds	46	Changes in Fiduciary Net Position – Pension Prefunding Plan	153
Statement of Revenues, Expenses, and Changes in Net Position – Proprietary Funds	47	Changes in Fiduciary Net Position – OPEB Plan	154
Statement of Cash Flows – Proprietary Funds	48	Changes in Fiduciary Net Position – Custodial Funds	155
Notes to the Basic Financial Statements	49	Public Employees' Retirement System Membership & Retirement Data	156
		Public Employees' Retirement Fund Program Data	158
Financial Section: Required Supplementary Information	77	Public Agency Employers	167
Schedules of Changes in Net Pension Liability/(Asset) and Related Ratios	78	Legislators' Retirement System Membership & Retirement Data	185
Schedules of Plan Contributions	87	Legislators' Retirement System Program Data	186
Schedule of Investment Returns	89	Judges' Retirement System Membership & Retirement Data	189
Schedule of Claims Development Information	90	Judges' Retirement System Program Data	190
		Judges' Retirement System II Membership & Retirement Data	193
Financial Section: Other Supplementary Information	91	Judges' Retirement System II Program Data	194
Administrative Expenses – All Funds	92	Statistical Section: Other Programs	197
Investment Expenses – Investment Management Fees	93	Health Care Fund	198
Investment Expenses – Performance Fees	96	Contingency Reserve Fund	199
Investment Expenses – Other Investment Expenses	97	Long-Term Care Fund	200
Consultant and Professional Services Expenses – All Funds	100	Health Benefits Program Data	201
		Defined Contribution Plans	209
Investment Section	103	Long-Term Care Program Data	210
Chief Investment Officer's Letter	104	Index of Tables, Charts & Lists	211
Summary of Investments – PERF	105	Glossary of Acronyms	218
Portfolio Comparisons – PERF	105		
Asset Allocation – PERF	106		
Portfolio of California Investments at Fair Value – PERF	106		
Largest Stock & Bond Holdings at Fair Value – PERF	107		
Schedule of Commissions & Fees	108		
Private Equity Management Fees & Profit Sharing – PERF	110		
Investment Performance – LRF	115		
Investment Performance – JRF II	115		
Investment Performance – CEPPTF	116		
Investment Performance – CERBTF	117		
Investment Performance – HCF	118		
Investment Performance – LTCF	118		

This page intentionally left blank.

INTRODUCTORY SECTION

- 2 Professional Awards
- 3 Chief Executive Officer's Letter of Transmittal
- 7 About CalPERS
- 10 Board of Administration
- 12 Organizational Chart – Executive Team
- 13 Consultant & Professional Services



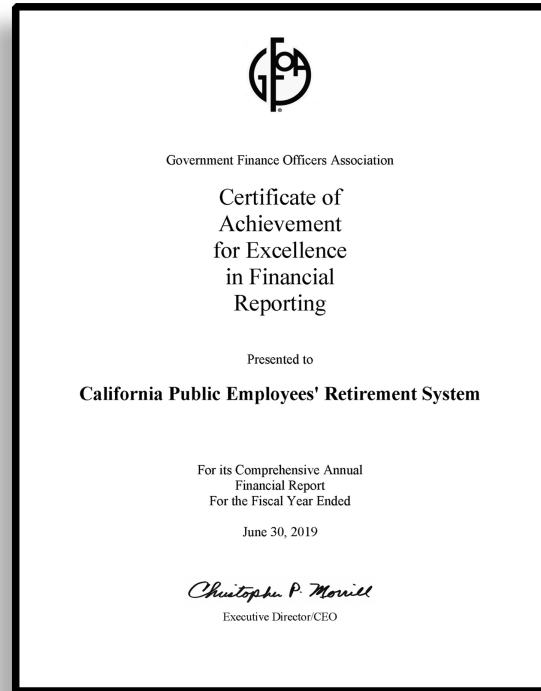
Leading into the Future

Introductory Section

PROFESSIONAL AWARDS

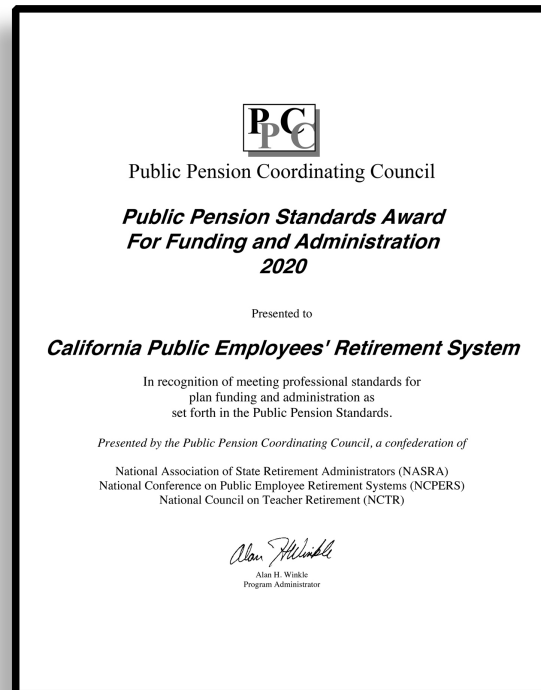
CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

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, 2019. This was the 24th 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, 2020. This is the 18th 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.



CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL



Marcie Frost
Chief Executive Officer

November 20, 2020

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, 2020.

While the first part of the fiscal year showed signs of progress, the later part brought unprecedented challenges associated with the COVID-19 pandemic. During this time period, we faced extreme economic uncertainty while striving to maintain customer service to our members and employer partners.

While our assets declined by an estimated \$70 billion in late February and March 2020, the net position of the Public Employees' Retirement Fund (PERF) recovered nearly all of that value and grew by more than \$19.5 billion from the previous fiscal year. As of June 30, 2020, the fund stood at \$392.5 billion.

Our work to prepare for a downturn in the markets enabled us to achieve a 4.7 percent net investment return. That was below our target of 7 percent but above our benchmark of 4.3 percent. Our Fixed Income asset class generated a 12.5 percent net return, followed by Real Assets and Public Equity net returns of 4.6 percent and 0.6 percent, respectively. This is a testament to the strength of our strategy, since this period was one of the most volatile in our country's history.

As the economic downturn continued, our Investment Office executed a new investment strategy in June 2020 to meet the goal of achieving a 7 percent rate of return. The 7 percent solution is a plan for better assets and more assets to capitalize on our structural advantages: a long-term investment horizon, strong liquidity, and access to private markets, including private equity and private lending. We will implement this strategy over the next several years.

In sustainable investments, the Investment Office issued CalPERS' first Task Force on Climate-Related Financial Disclosure report. This report uses the best available data to identify climate risks within our portfolio. With this information, we can best direct our engagement efforts toward companies within our portfolio that produce the largest emissions. Through partnerships with organizations such as Climate Action 100+, we encourage companies to transition to low carbon processes and materials thereby curbing global greenhouse gas emissions.

As part of our Asset Liability Management (ALM) process, the CalPERS Board of Administration (the Board) reviewed the capital market assumptions and economic assumptions in June 2020. The economic assumptions showed how COVID-19 caused unprecedented economic impacts to the financial markets and lingering uncertainty. Understanding these risks is an important part of the ALM process, which is an integrated review of our pension assets and liabilities that informs decisions designed to achieve a sound and sustainable fund.

Pursuing new strategies that generate higher investment returns is critical as retirements continue to increase each year. As of June 30, 2020, CalPERS paid out \$25.8 billion in benefits to more than 732,000 retirees and beneficiaries, a \$1.6 billion increase from the previous fiscal year. This increase was primarily due to the cost-of-living increases in benefit payments and the rise in the number of retirees and beneficiaries.

To help lead the organization into the future, we named three new leaders to our executive team, including the appointment of a chief health director, chief operating officer, and a deputy executive officer. Don Moulds was named CalPERS chief health director in August 2019, Doug Hoffner

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

was appointed chief operating officer in October 2019, and Anthony Suine was named deputy executive officer for Customer Services & Support in January 2020. In these volatile times, their experience and leadership will benefit our members, employers, and stakeholders.

To help our employer partners plan for the current environment and into the future, we developed a new informational tool for state and local public agencies called Pension Outlook. The tool is available on our website and allows employers to see pension cost drivers by using various financial and investment scenarios.

We also launched the California Employers' Pension Prefunding Trust Fund (CEPPTF) early in the fiscal year to help employers prefund their future pension costs and allow them to voluntarily make additional contributions. This will allow them to mitigate rate increases and temper contribution rate volatility. As of June 30, 2020, the CEPPTF had \$11 million in assets under management with 15 participating employers.

In health care, the average premium increase was 4.32 percent overall for calendar year 2021. The overall impact of COVID-19 on these rates was a modest 0.57 percent and was included in the rate above. This year we focused on more transparency and the identification of costs and projections from health plans, which gave us stronger negotiating power. The new premiums were approved by the Board in July 2020 and will be effective on January 1, 2021.

The Board also added a new health plan, expanded the coverage area, and made benefit design enhancements for specific plans in 2021. We continued to offer members a convenient way to find, manage, and change their health plan information during the 2019 open enrollment period using their mobile devices to access their myCalPERS accounts.

In October 2019 we launched the PPO Health Plan Assessment Project. The resulting data will help us understand the cause of the current premium disparities between the Preferred Provider Organization (PPO) Basic Plans and help inform proposed changes designed to achieve long-term sustainability of the PPO Program. The assessment includes actuarial analyses and stakeholder outreach activities to provide insight into how members' choices may influence their decisions when choosing a health plan. The next phase of the assessment, which is currently in process, will include a proposal for new health plan benefit designs for our Board's consideration.

Looking Forward

Despite the unprecedented economic challenges due to COVID-19, we had many accomplishments this past fiscal year and ended the fiscal year on a strong note. As we enter the fourth year of the 2017-22 Strategic Plan, our focus will be to continue to navigate the rapidly changing economy by following our long-term approach to strengthen the pension fund.

We are committed to deliver on our mission of serving the valued public employees who serve California.

Funding

The funded status of the PERF is 70.2 percent as of June 30, 2019, while the estimate for June 30, 2020, is approximately 70.6 percent. These values were calculated using the 7 percent discount rate for all employers.

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.

Management Responsibility for Financial Reporting

CalPERS' management prepared the financial statements in this CAFR for Fiscal Year 2019-20. 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, BDO, have conducted an audit of the Basic Financial Statements in accordance with auditing standards generally accepted in the United States and Government Auditing Standards, performing such tests

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

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

This page intentionally left blank.

ABOUT CalPERS

The California Public Employees' Retirement System (CalPERS or the System) is the nation's largest defined benefit public pension fund with a total fiduciary net position in the Public Employees' Retirement Fund (PERF) of nearly \$392 billion as of June 30, 2020.

Headquartered in Sacramento, CalPERS provides retirement benefit services to nearly 2.1 million members and health benefit services to over 1.5 million covered lives for state, school, and public employers. The System also operates eight Regional Offices located in Fresno, Glendale, Orange, Sacramento, San Diego, San Bernardino, San Jose, and Walnut Creek.

Led by a 13-member Board of Administration consisting of member-elected, appointed, and ex officio members, CalPERS membership consists of 1,321,315 active and inactive members and 735,123 retirees, beneficiaries, and survivors.

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

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

VISION

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

MISSION

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

2017-22 STRATEGIC PLAN GOALS AND OBJECTIVES

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

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

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

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

Reduce Complexity – Reduce Complexity Across the Enterprise

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

Risk Management – Cultivate a Risk-Intelligent Organization

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

Talent Management – Promote a High-Performing and Diverse Workforce

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

ABOUT CalPERS (CONTINUED)

PENSION BELIEFS

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

Pension Belief 1

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

Pension Belief 2

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

Pension Belief 3

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

Pension Belief 4

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

Pension Belief 5

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

Pension Belief 6

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

Pension Belief 7

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

Pension Belief 8

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

Pension Belief 9

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

Pension Belief 10

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

Pension Belief 11

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

ABOUT CalPERS (CONTINUED)

INVESTMENT BELIEFS

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

Investment Belief 1

Liabilities must influence the asset structure.

Investment Belief 2

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

Investment Belief 3

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

Investment Belief 4

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

Investment Belief 5

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

Investment Belief 6

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

Investment Belief 7

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

Investment Belief 8

Costs matter and need to be effectively managed.

Investment Belief 9

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

Investment Belief 10

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

HEALTH BELIEFS

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

Health Program Sustainability

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

High Quality Care

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

Affordability

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

Comprehensive Care

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

Competitive Plan Choice

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

Quality Program Administration

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

BOARD OF ADMINISTRATION



Henry Jones, President
Retired Member Representative
Retired, Chief Financial Officer
Los Angeles Unified School District
Term Ends: January 15, 2024



Stacie Olivares
Governor Appointee
Insurance Industry Representative



Theresa Taylor, Vice President
State Member Representative
Principal Compliance Representative
Franchise Tax Board
Term Ends: January 15, 2023



Fiona Ma
Ex Officio Member
California State Treasurer



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



Lisa Middleton
Governor Appointee
Local Government Elected Official
Elected Member
Palm Springs City Council



Rob Feckner
School Member Representative
Glazing Specialist
Napa Valley Unified School District
Term Ends: January 15, 2023

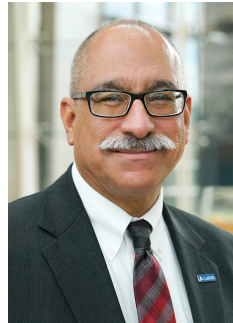


David Miller
All Member Representative
Senior Environmental Scientist
California Department of Toxic Substances
Control
Term Ends: January 15, 2022

BOARD OF ADMINISTRATION (CONTINUED)



Eraina Ortega
Ex Officio Member
Director
California Department of Human
Resources



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



Jason Perez
Public Agency Member Representative
Sergeant
Corona Police Department
Term Ends: January 15, 2023



Betty Yee
Ex Officio Member
California State Controller



Shawnda Westly
Ex Officio Member
State Personnel Board Representative

ORGANIZATIONAL CHART – EXECUTIVE TEAM



Marcie Frost
Chief Executive Officer



Dan Bienvenue
Interim Chief Investment Officer
Investment Office



Michael Cohen
Chief Financial Officer
Financial Office



Christian Farland
Chief Information Officer
Information Technology



Douglas Hoffner
Chief Operating Officer
Operations & Technology



Matthew G. Jacobs
General Counsel
General Counsel Office



Donald B. Moulds, Ph.D.
Chief Health Director
Health Policy & Benefits



Brad W. Pacheco
Deputy Executive Officer
Communications & Stakeholder Relations



Anthony Suine
Deputy Executive Officer
Customer Services & Support



Scott Terando
Chief Actuary
Actuarial Office



Marlene Timberlake D'Adamo
Chief Compliance Officer
Enterprise Compliance

CONSULTANT & PROFESSIONAL SERVICES

Individual or Firm ¹	Individual or Firm ¹
AgreeYa Solutions, Inc.	OnCore Consulting, LLC
Anthem Blue Cross	OptumRx
Aon Consulting, Inc.	Orrick Herrington & Sutcliffe, LLP
ATV Video Center, Inc.	Pasanna Consulting Group, LLC
Baker & Hostetler, LLP	Perspecta State and Local, Inc.
BDO USA, LLP	Princeton Solutions Group, Inc.
Belmonte Enterprises, LLC	QualApps, Inc.
Berman Tabacco	RVK, Inc.
Blue Shield of California	Randle Communications
Buck Global, LLC	Recon Distribution, Inc.
Capio Group	Reed Smith, LLP
Claims Eval, Inc.	Ridgeway Partners, LLC
Cook Brown, LLP	RS3 Consulting
Cornerstone Fitness, Inc.	RSC Insurance Brokerage, Inc.
Delegata Corporation	Runyon Saltzman, Inc.
Department of Justice	Saba Software, Inc.
Domain Experts Corporation	Shah & Associates, A Professional Law Company
DSS Research	Sharp Health Plan
Durie Tangri, LLP	Slalom, LLC
Eaton Interpreting Services, Inc.	Sophus Consulting
Elynview Corporation	State Controller's Office
Enterprise Networking Solutions, Inc.	State Personnel Board
Equanim Technologies	State Treasurer's Office
Faegre Drinker Biddle & Reath, LLP	Steptoe & Johnson, LLP
Fair Political Practices Commission	SymSoft Solutions, LLC
FB3 Consulting, LLC	T5 Consulting
First Data Merchant Services Corporation	Take 1 Productions
Gartner, Inc.	The Berwyn Group
Government Operations Agency	The RAND Corporation
H&B Joint Venture	The Regents of the University of California
Health Actuaries	The Taylor Feldman Group, LLC
Health Net of California	Toppan Merrill, LLC
inContact, Inc.	Trinity Technology Group, Inc.
Innovative Software Technologies, Inc.	UnitedHealthcare
Integrity Voting Systems (IVS)	Unleashing Leaders, Inc.
J & K Court Reporting, LLC	Van Dermyden Maddux Law Corporation
JLynn Consulting, Inc.	Vantage Consulting Group, Inc.
K&L Gates, LLP	Voya
KearnFord Application Systems Design	Western Health Advantage
Kiefer Consulting, Inc.	Worktank Enterprises, LLC
King & Spalding, LLP	(1) Additional information regarding investment professionals who provide services to the System can be found in the Financial Section: Other Supplementary Information. The Schedule of Commissions & Fees listed by broker, and Private Equity Management Fees – PERF listed by fund, can be found in the Investment Section on pages 108-114.
Kong Consulting, Inc.	
Korn Ferry (US)	
Level Access, Inc.	
Long Term Care Group, Inc.	
Matrix Software Services	
Mellon Bank	
Mercer	
Michael Scales Consulting, LLC	
Milliman, Inc.	
National Association Corporate Directors	
Northeast Retirement Services	
Olson Remcho, LLP	

This page intentionally left blank.

FINANCIAL SECTION

Independent Auditor's Report/MD&A

16	Independent Auditor's Report
19	Management's Discussion & Analysis (MD&A)
19	Introduction
19	Management Discussion
20	Overview of the Financial Statements and Accompanying Information
21	Financial Analysis
24	Other Defined Benefit Plans
27	Asset Liability Management – Defined Benefit Plans
29	Defined Contribution Plans
32	Other Post-Employment Benefit Trust Fund
34	Custodial Funds
36	Enterprise Funds
39	Requests for Information



Strength in our Strategy

Independent Auditor's Report



Tel: 415-490-3037
Fax: 415-397-2161
www.bdo.com

One Bush Street, Suite 1800
San Francisco, CA 94104

Independent Auditor's Report

To the Board of Administration
California Public Employees' Retirement System
Sacramento, CA

Report on the Financial Statements

We have audited the accompanying financial statements of the fiduciary activities and the proprietary activities of the California Public Employees' Retirement System (the System), a component unit of the State of California, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the accompanying table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the fiduciary activities and the proprietary activities of the California Public Employees' Retirement System as of June 30, 2020, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

BDO USA, LLP, a Delaware limited liability partnership, is the U.S. member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

BDO is the brand name for the BDO network and for each of the BDO Member Firms.



Other Matters

Prior-Year Comparative Information

The financial statements include summarized prior-year comparative information. Such information does not include all of the information required to constitute a presentation in accordance with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the System's financial statements for the year ended June 30, 2019, from which such summarized information was derived.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information, as listed in the accompanying table of contents (collectively referred to as RSI) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The other supplementary information and the introductory, investment, actuarial, statistical, and compliance sections as listed in the accompanying table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

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



Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 20, 2020 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.

BDO USA, LLP

San Francisco, CA
November 20, 2020

Management's Discussion & Analysis (Unaudited)

INTRODUCTION

This section presents Management's Discussion & Analysis of the California Public Employees' Retirement System's (CalPERS or the System) financial performance during the fiscal year ended June 30, 2020. It is a narrative overview and analysis that is presented in conjunction with the Chief Executive Officer's Letter of Transmittal included in the Introductory Section of this Comprehensive Annual Financial Report (CAFR). It should also be read in conjunction with the Basic Financial Statements as presented in this report.

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

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

MANAGEMENT DISCUSSION

Strategic Planning

CalPERS finished the third year of its *2017-22 Strategic Plan*. This plan is a blueprint that guides the enterprise to meet the investment, retirement, and health benefit needs of our members and their families.

The *2017-22 Strategic Plan* was developed over the course of a year-long effort by CalPERS Board of Administration (the 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.

The current 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

The *2017-22 Strategic Plan* includes the annual Business Plan Initiatives. The 2019-20 Business Plan Initiatives allowed

the organization to set priorities and assisted in the allocation of resources. It aligned to the 2019-20 budget cycle to accomplish the goals and objectives of the strategic plan. CalPERS identified 28 initiatives to begin the work needed to support the overall strategic direction of the organization.

Key Initiatives

CalPERS continued to enhance its operations as follows:

- CalPERS continues the Asset Liability Management (ALM) process to expand its review of assets and liabilities to ensure financial risks to the System are better understood, communicated, and mitigated. To establish appropriate levels of risk, ALM is focused on investment and actuarial policies. These policies include key decision factors and are intended to drive optimum asset allocations, while stabilizing employer contribution rates and the volatility of those rates from year to year. Additionally, 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 time frame, accelerating notifications to the Board and members, and adopting a risk oversight process to improve early detection of financial hardship issues. In Fiscal Year 2019-20, CalPERS continued the four-year asset allocation of the fund's investment portfolio to align with a phased lowering of the discount rate to 7.0 percent. CalPERS also adopted new actuarial assumptions and modifications to the amortization policy during Fiscal Year 2017-18. Changes to the amortization policy included shortening the period over which actuarial gains and losses are amortized from 30 to 20 years for new Unfunded Accrued Liability (UAL) bases established June 30, 2019 and later.
- CalPERS' five-year sustainable investment strategy (2017-22) takes an enterprise-wide view on improving the sustainability of long-term pension benefits and actively managing business risks. CalPERS has associated key performance indicators (KPIs) with this strategy, and includes a strategic focus on:
 - Data and Corporate Reporting Standards
 - Climate Action 100+ Engagement
 - Diversity and Inclusion
 - Manager Expectations
 - Research
 - Private Equity Fee and Profit Sharing Transparency

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

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

OVERVIEW OF THE FINANCIAL STATEMENTS AND ACCOMPANYING INFORMATION

Management's Discussion & Analysis provides an overview of the financial position, which is comprised of 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, 2020. It also summarizes the combined changes in fiduciary net position restricted for pension, other post-employment, and replacement benefits; the changes in unrestricted net position; and the cash flows of the proprietary funds for the year then-ended, along with disclosures about the net pension liabilities of the single-employer and cost-sharing multiple-employer defined benefit pension plans.

FINANCIAL HIGHLIGHTS

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

- The Public Employees' Retirement Fund (PERF) realized a money-weighted rate of return (MWRR) of 5.0 percent and a realized time-weighted rate of return of 4.7 percent in Fiscal Year 2019-20 resulting from positive performance across most globally diversified asset classes. Drivers of the PERF's investment return include a strong performance from fixed income. Real assets and public equity returns reflected market volatility, but performed relatively well. Additionally, investment allocation changes made during the period in response to financial market volatility contributed positively to fund performance.
- CalPERS requested health plans to submit estimated 2021 rates reflecting COVID-19 impacts in May 2020. The preliminary 2021 premiums with COVID-19 impacts for CalPERS health plans were submitted to the CalPERS Board of Administration in June 2020, with final rates adopted the following month. The overall impact of

COVID-19 on CalPERS' 2021 rate was projected to be an increase of 0.57 percent.

- The California Employers' Pension Prefunding Trust Fund (CEPPTF) was created on September 21, 2018, pursuant to Senate Bill (SB) 1413, Chapter 665, Statutes of 2018. The CEPPTF is reported as an investment trust fund under the fiduciary statements effective Fiscal Year 2019-20.
- During the calendar year 2020, the World Health Organization announced a global health emergency from a new strain of coronavirus (COVID-19) that has resulted in a global pandemic outbreak. This pandemic has adversely affected global economic activity and greatly contributed to uncertainty and instability in the global financial markets. CalPERS investment portfolio was exposed to the volatility of the financial markets during the last half of Fiscal Year 2019-20 but was also well positioned to take advantage of new investment opportunities that were present during this time. While negative market conditions could have an impact on CalPERS' ability to earn the actuarial assumed rate of return and negatively impact the receipt of contributions and premiums due from public agencies and participants, CalPERS cannot predict the impact of the COVID-19 pandemic. Although CalPERS cannot estimate the length or gravity of the impact of the COVID-19 outbreak at this time, management continues to closely monitor the situation, to assess further possible adverse implications that may occur to operations, investments, public agencies and participants, and to take actions to mitigate resulting consequences.

On March 27, 2020, President Trump signed into law the "Coronavirus Aid, Relief, and Economic Security (CARES) Act." The CARES Act, among other things, includes several relief provisions available to tax-qualified retirement plans and their participants. CalPERS has assessed the applicability of such funds and has not acted to take part in applying for and receiving any such relief funds. Management is continuing to monitor applicability of any new funding or programs that may become available.

BASIC FINANCIAL STATEMENTS

The June 30, 2020, financial statements separate the funds administered by CalPERS into two categories: fiduciary funds and proprietary funds. With the exception of Old Age and Survivors' Insurance Revolving Fund (OASI), CalPERS' role as a trustee and monitoring of financial position occur in both categories, and a primary focus of fiduciary funds is CalPERS'

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

duty with respect to the payment of benefits, whereas a core function for proprietary funds is the payment of services.

Fiduciary Funds – include the PERF (split into PERF A, PERF B, and PERF C), Legislators' Retirement Fund (LRF), JRF, Judges' Retirement Fund II (JRF II), Public Employees' Deferred Compensation Fund (DCF), Supplemental Contributions Program Fund (SCPF), CEPPTF, Annuitants' Health Care Coverage Fund, also known as California Employers' Retiree Benefit Trust Fund (CERBTf), OASI, and Replacement Benefit Fund (RBF). Generally, 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, 2020, along with comparative total information as of, and for, fiscal year ended June 30, 2019. 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 Public Employees' Health Care Fund (HCF), Public Employees' 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, 2020, along with comparative total information as of, and for, fiscal year ended June 30, 2019. 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 information on cash and cash equivalents.

Note 4 – provides detail on the fair value of investments, and information on MWRR.

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 CEPPTF, including plan members, participating employers, and contributions.

Note 10 – provides information about the CERBTf, including plan members, participating employers, and contributions.

Note 11 – provides information about the RBF, as well as applicable internal revenue and government codes.

Note 12 – provides detailed information about the OASI.

Note 13 – provides detailed information about the HCF and the estimated claims liability of the HCF.

Note 14 – provides additional information about participating agencies and insurance premiums paid by the CRF.

Note 15 – provides information about the LTCF actuarial valuation and the estimated liability for future policy benefits.

Note 16 – provides information on potential contingencies of CalPERS.

Note 17 – provides information about future accounting pronouncements.

REQUIRED SUPPLEMENTARY INFORMATION

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

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

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

OTHER SUPPLEMENTARY INFORMATION

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

FINANCIAL ANALYSIS

PUBLIC EMPLOYEES' RETIREMENT FUND (PERF)

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

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

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

The PERF net position increased by \$19.8 billion or 5.3 percent from \$372.6 billion as of June 30, 2019, to \$392.5 billion as of June 30, 2020, primarily due to continued market growth. Receivables decreased \$0.4 billion or 10.2 percent due to lower outstanding investment trades. Investment balances increased by \$19.5 billion from \$376.3 billion as of June 30, 2019, to \$395.8 billion as of June 30, 2020, due to continued market growth. Securities lending collateral decreased \$3.1 billion or 71.7 percent, and securities lending obligations decreased \$3.1 billion or 71.7 percent as a result of an overall decrease in demand to borrow securities at year-end. Capital Assets, Net and Other Assets decreased \$79.1 million or 18.7 percent primarily due to increased cumulative amortization of capitalized intangible assets related to myCalPERS software development.

Similar to receivables, retirement benefits, investment settlement and other liabilities decreased \$1.1 billion or 13.6 percent primarily due to lower outstanding investment trades. Total net pension and OPEB liabilities increased by \$28.5 million or 2.8 percent. Net pension liability increased

primarily as a result of lower contributions and an unfavorable difference between expected and actual experience. Net OPEB liability also increased due to a decrease in the blended discount rate.

Additions to the PERF net position include member contributions, employer contributions, nonemployer contributions and investment income. Member contributions increased \$0.2 billion or 5.1 percent. Employer and nonemployer contributions increased \$7.3 billion or 47.0 percent. Employer contribution rates increased between 0.8 percent and 4.0 percent for state, 1.7 percent for schools, and between 1.9 percent and 4.8 percent on average for public agency miscellaneous and safety plans. Additionally, a large state supplemental employer contribution of \$2.5 billion and nonemployer contribution of \$904 million was received in Fiscal Year 2019-20.

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

Net investment income was \$18.5 billion in Fiscal Year 2019-20, compared to \$23.0 billion in Fiscal Year 2018-19, a decrease of \$4.5 billion or 19.4 percent due to lower investment returns in Fiscal Year 2019-20. The current year returns were bolstered by strong performance in fixed income markets. The PERF recognized a MWRR of 5.0 percent for Fiscal Year 2019-20 compared with 6.5 percent for Fiscal Year 2018-19.

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 2019-20, retirement, death, and survivor benefits payments increased \$1.6 billion or 6.5 percent, primarily due to cost-of-living increases in benefit payments, and an increase in the number of retirees and beneficiaries from 712,115 as of June 30, 2019, to 732,529 as of June 30, 2020. Administrative expenses for CalPERS personnel increased \$0.3 billion or 107.7 percent, primarily due to an increase in the state's pension and OPEB expenses as a result of increased net pension and OPEB liabilities.

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	2020 PERF Total	2019 PERF Total	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	\$364,515	\$90,632	\$41,575	\$496,722	\$664,713	(\$167,991)
Receivables	2,825,293	813,062	265,075	3,903,430	4,346,843	(443,413)
Investments	290,570,602	72,097,875	33,150,486	395,818,963	376,301,885	19,517,078
Securities Lending Collateral	899,153	223,563	102,554	1,225,270	4,334,507	(3,109,237)
Capital Assets, Net & Other Assets	251,823	62,613	28,722	343,158	422,242	(79,084)
Total Assets	\$294,911,386	\$73,287,745	\$33,588,412	\$401,787,543	\$386,070,190	\$15,717,353
Deferred Outflows of Resources	\$94,443	\$23,482	\$10,772	\$128,697	\$108,084	\$20,613
Total Assets and Deferred Outflows of Resources	\$295,005,829	\$73,311,227	\$33,599,184	\$401,916,240	\$386,178,274	\$15,737,966
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement Benefits, Investment Settlement & Other	\$5,251,008	\$1,274,146	\$579,210	\$7,104,364	\$8,219,837	(\$1,115,473)
Net Pension & OPEB Liabilities	758,151	188,505	86,471	1,033,127	1,004,655	28,472
Securities Lending Obligations	899,449	223,636	102,587	1,225,672	4,324,097	(3,098,425)
Total Liabilities	\$6,908,608	\$1,686,287	\$768,268	\$9,363,163	\$13,548,589	(\$4,185,426)
Deferred Inflows of Resources	\$73,777	\$18,344	\$8,415	\$100,536	\$18,252	\$82,284
Total Liabilities and Deferred Inflows of Resources	\$6,982,385	\$1,704,631	\$776,683	\$9,463,699	\$13,566,841	(\$4,103,142)
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	\$288,023,444	\$71,606,596	\$32,822,501	\$392,452,541	\$372,611,433	\$19,841,108

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

	PERF A	PERF B	PERF C			
	Agent	Cost-Sharing Schools	Cost-Sharing Public Agencies	2020 PERF Total	2019 PERF Total	Increase/ (Decrease)
ADDITIONS						
Member Contributions	\$3,470,691	\$1,047,983	\$382,326	\$4,901,000	\$4,664,618	\$236,382
Employer Contributions	17,576,280	2,866,144	1,597,137	22,039,561	15,612,678	6,426,883
Nonemployer Contributions	—	904,000	—	904,000	—	904,000
Net Investment Income	13,575,714	3,378,674	1,562,606	18,516,994	22,969,664	(4,452,670)
Securities Lending & Other Income	80,151	19,861	9,092	109,104	111,079	(1,975)
Plan-to-Plan Resource Movement	—	164	185,743	185,907	167,612	18,295
Total Additions	\$34,702,836	\$8,216,826	\$3,736,904	\$46,656,566	\$43,525,651	\$3,130,915
DEDUCTIONS						
Retirement, Death & Survivor Benefits	\$19,206,411	\$4,549,797	\$2,025,712	\$25,781,920	\$24,209,283	\$1,572,637
Refund of Contributions	177,375	121,560	24,245	323,180	280,266	42,914
Administrative Expenses	384,977	95,614	43,860	524,451	252,558	271,893
Plan-to-Plan Resource Movement	185,907	—	—	185,907	167,612	18,295
Total Deductions	\$19,954,670	\$4,766,971	\$2,093,817	\$26,815,458	\$24,909,719	\$1,905,739
INCREASE IN NET POSITION	\$14,748,166	\$3,449,855	\$1,643,087	\$19,841,108	\$18,615,932	\$1,225,176
NET POSITION						
Beginning of Year	\$273,275,278	\$68,156,741	\$31,179,414	\$372,611,433	\$353,995,501	\$18,615,932
End of Year	\$288,023,444	\$71,606,596	\$32,822,501	\$392,452,541	\$372,611,433	\$19,841,108

OTHER DEFINED BENEFIT PLANS

LEGISLATORS' RETIREMENT FUND (LRF)

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

Because 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 decrease over time.

The LRF's net position in Fiscal Year 2019-20 decreased by less than \$0.4 million or 0.3 percent from the beginning balance of \$114.4 million to \$114.0 million mainly due to lower return on investments. Investments at fair value decreased \$0.2 million or 0.2 percent, due to the shift in the investment asset allocation and decreased market values of the holdings. The total liabilities increased slightly, mainly due to the increased net pension and OPEB liabilities in Fiscal Year 2019-20. The net pension liability increased primarily as a result of lower contributions and unfavorable difference between expected and actual experience. Net OPEB liability also increased due to a decrease in the blended discount rate.

Additions to the LRF's net position primarily were the result of net investment income of \$7.0 million in Fiscal Year 2019-20, which is 10.8 percent lower than in the prior year, or \$0.8 million decrease due to unfavorable investment market conditions. The LRF recognized a MWRR of 6.2 percent for Fiscal Year 2019-20 compared with 7.0 percent for Fiscal Year 2018-19. In addition, both member and employer contributions decreased by a total of \$0.2 million or 64.8 percent due to a decrease in the active members contributing to the fund.

Deductions from the LRF are primarily comprised of benefit payments, refunds, and administrative expenses. Total deductions decreased by \$0.2 million or 2.4 percent due to a slight decrease in benefit payments and no refunds of contributions in Fiscal Year 2019-20, as opposed to \$0.3 million refund in the prior fiscal year. This was partially offset by an increase of \$0.2 million or 69.8 percent in administrative expenses for CalPERS personnel due to higher state pension and OPEB expenses as a result of increased net pension and OPEB liabilities.

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.

The net position of the JRF increased \$33.6 million or 330.0 percent, primarily due to increased contributions from the State General Fund. Also, the increased contributions from the State resulted in the \$29.5 million or 160.8 percent increase in short-term investments. Total liabilities decreased \$5.0 million or 46.1 percent, primarily due to reduced outstanding unclaimed benefits.

Additions to the JRF come from employer, member, and state balancing contributions from the General Fund. Additions increased \$46.5 million or 23.0 percent, primarily due to an increase in the State General Fund contributions.

Deductions from JRF are primarily comprised of benefit payments, refunds, and administrative expenses. Retirement, death, and survivor benefits decreased by \$9.2 million, or 4.1 percent, as well as administrative expenses for CalPERS personnel decreased \$7.8 million or 77.4 percent, due to Fiscal Year 2018-19 costs associated with the back wages, including 10.0 percent interest, awarded to plan members in Fiscal Year 2018-19 by the court decision in the Robert Mallano judgment.

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

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 JRF II in Fiscal Year 2019-20 increased by \$169.9 million or 9.9 percent from the beginning net position of \$1.7 billion to \$1.9 billion. Receivables decreased by \$1.2 million or 11.4 percent, primarily due to decreased outstanding employers' contributions owed to the fund as of fiscal year ended June 30, 2020. JRF II investments increased by \$171.8 million or 10.1 percent primarily due to positive net cash inflows from contributions less benefit payments, combined with a positive market return in Fiscal Year 2019-20. Total liabilities increased by \$0.4 million or 6.0 percent primarily due to an increase in the net pension and OPEB liabilities and an increase in other liabilities. Net pension liability increased primarily as a result of lower contributions and unfavorable difference between expected and actual experience. Net OPEB liability also increased due to a decrease in the blended discount rate.

Additions to the JRF II net position include member contributions, employer contributions, and investment income. Despite a decrease in the number of active members from 1,645 as of June 30, 2019, to 1,625 as of June 30, 2020, member and employer contributions increased due to an increase in the required contribution rate and a general salary increase for state employees. Member contributions increased by \$4.4 million or 14.1 percent, while employer contributions increased by \$7.0 million or 8.4 percent. Net investment income decreased by \$26.7 million or 25.0 percent from \$106.8 million in Fiscal Year 2018-19 to \$80.1 million in Fiscal Year 2019-20. This decrease resulted from a lower investment return in Fiscal Year 2019-20. The JRF II recognized a MWRR of 4.1 percent for Fiscal Year 2019-20 compared with 6.9 percent for Fiscal Year 2018-19.

Deductions from the JRF II are comprised of benefit payments, refunds of contributions to members and beneficiaries, and costs of administering the JRF II. Despite an increase in benefit recipients from 281 in Fiscal Year 2018-19 to 390 in Fiscal Year 2019-20, benefit payments decreased by \$1.5 million or 4.2 percent due to a decrease in monetary credit payments in Fiscal Year 2019-20. Administrative expenses increased by \$1.1 million or 72.8 percent primarily due to an increase in the state's pension and OPEB expenses as a result of increased net pension and OPEB liabilities.

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

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

	LRF			JRF			JRF II		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES									
Cash & Cash Equivalents	\$1,200	\$1,200	\$0	\$0	\$1	(\$1)	\$2	\$1	\$1
Receivables	54	49	5	1,613	2,267	(654)	9,392	10,601	(1,209)
Investments	114,960	115,207	(247)	47,843	18,342	29,501	1,876,676	1,704,904	171,772
Total Assets	\$116,214	\$116,456	(\$242)	\$49,456	\$20,610	\$28,846	\$1,886,070	\$1,715,506	\$170,564
Deferred Outflows of Resources	\$187	\$165	\$22	\$540	\$452	\$88	\$677	\$579	\$98
Total Assets and Deferred Outflows of Resources	\$116,401	\$116,621	(\$220)	\$49,996	\$21,062	\$28,934	\$1,886,747	\$1,716,085	\$170,662
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES									
Retirement Benefits, Investment Settlement & Other	\$676	\$661	\$15	\$1,436	\$6,529	(\$5,093)	\$666	\$450	\$216
Net Pension & OPEB Liabilities	1,560	1,529	31	4,375	4,255	120	5,557	5,421	136
Total Liabilities	\$2,236	\$2,190	\$46	\$5,811	\$10,784	(\$4,973)	\$6,223	\$5,871	\$352
Deferred Inflows of Resources	\$117	\$27	\$90	\$458	\$109	\$349	\$517	\$125	\$392
Total Liabilities and Deferred Inflows of Resources	\$2,353	\$2,217	\$136	\$6,269	\$10,893	(\$4,624)	\$6,740	\$5,996	\$744
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS									
	\$114,048	\$114,404	(\$356)	\$43,727	\$10,169	\$33,558	\$1,880,007	\$1,710,089	\$169,918

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

	LRF			JRF			JRF II		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ADDITIONS									
Member Contributions	\$22	\$91	(\$69)	\$2,843	\$2,679	\$164	\$35,796	\$31,376	\$4,420
Employer Contributions	98	250	(152)	243,131	195,903	47,228	91,147	84,099	7,048
Net Investment Income	7,011	7,860	(849)	885	1,166	(281)	80,074	106,781	(26,707)
Securities Lending & Other Income	2	—	2	2,202	2,776	(574)	—	—	—
Total Additions	\$7,133	\$8,201	(\$1,068)	\$249,061	\$202,524	\$46,537	\$207,017	\$222,256	(\$15,239)
DEDUCTIONS									
Retirement, Death & Survivor Benefits	\$6,939	\$7,005	(\$66)	\$212,775	\$221,954	(\$9,179)	\$34,547	\$36,045	(\$1,498)
Refund of Contributions	—	344	(344)	458	—	458	—	159	(159)
Administrative Expenses	550	324	226	2,270	10,032	(7,762)	2,552	1,477	1,075
Total Deductions	\$7,489	\$7,673	(\$184)	\$215,503	\$231,986	(\$16,483)	\$37,099	\$37,681	(\$582)
INCREASE (DECREASE) IN NET POSITION	(\$356)	\$528	(\$884)	\$33,558	(\$29,462)	\$63,020	\$169,918	\$184,575	(\$14,657)
NET POSITION									
Beginning of Year	\$114,404	\$113,876	\$528	\$10,169	\$39,631	(\$29,462)	\$1,710,089	\$1,525,514	\$184,575
End of Year	\$114,048	\$114,404	(\$356)	\$43,727	\$10,169	\$33,558	\$1,880,007	\$1,710,089	\$169,918

ASSET LIABILITY MANAGEMENT – DEFINED BENEFIT PLANS

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

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

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

In February 2018, the Board approved modifications to the amortization policy that shorten the period over which actuarial gains and losses are amortized from 30 to 20 years and amortize unfunded liability with level dollar payments rather than increasing payments. The effective date of the policy changes was June 30, 2019, and the changes apply only to unfunded accrued liability bases created on and after this date.

In June 2020, CalPERS' investment staff presented updates on capital market assumptions and economic assumptions to the Board. The capital market assumptions update compared the 10-year 2020 expected returns to 2017 for the PERF and 2018 for the affiliates. The economic assumptions presented an economic overview based on the unprecedented impact caused by COVID-19. Topics addressed were U.S. unemployment, U.S. GDP, U.S. & Global responses, and the economic uncertainty forecasted. Last, the Board received a presentation regarding next step planning and preparation for the ALM cycle set to begin in 2021.

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 time frame, accelerating notifications to the Board and members, and adopting a risk oversight process to improve early detection of financial hardship issues. These processes and monitoring improvements support Fund Sustainability and Risk Management Goals of the CalPERS *2017-22 Strategic Plan*, which aims to strengthen the long-term sustainability of the pension funds.

FUNDING ANALYSIS – DEFINED BENEFIT PLANS

The Board has made several important decisions in the recent past which impact the current funding of pension benefits at CalPERS. In February 2018, the Board voted to shorten the period over which actuarial gains and losses are amortized from 30 to 20 years. Over time, these policies are designed to improve funding levels and help reduce overall funding level risk.

The JRF is funded on a pay-as-you-go basis, where short-term investments, contributions received during the year, and a State General Fund augmentation are used to provide funding for benefit payments. This funding method is generally more expensive in the long term, as the plan does not have investment returns generated by a funded plan. Without the State General Fund augmentation, the JRF will not be able to pay the accumulated benefit payments due in Fiscal Year 2020-21.

As of June 30, 2019, the funded status of the PERF was 70.2 percent. This percentage was determined by dividing the total assets in the PERF by the sum of liabilities for all plans reported under the PERF. CalPERS calculated the PERF funded status value using a 7.0 percent discount rate. As of June 30, 2019, the funded status of the JRF II was 99.4 percent. CalPERS calculated JRF II funded status value using a 6.5 percent discount rate. As of June 30, 2019, the funded status of the LRF was 116.8 percent. CalPERS calculated LRF funded status value 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.

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

The GASB 67 financial reporting discount rate for the PERF remained at 7.15 percent. Assets used for GASB 67 financial reporting purposes are slightly greater than assets used for funding requirements, as the former include amounts for

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

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 set equal to the unadjusted long-term expected return assumption for each plan. The discount rates used for funding are net of administrative expenses. The funding discount rate used in the JRF valuation differs from the financial reporting discount rate which is based on 20-year tax-exempt General Obligation Municipal Bonds.

The LRF funding discount rate is 5.00 percent, JRF is 3.00 percent, and JRF II is 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 discount rates for the LRF, JRF, and JRF II for funding and financial reporting purposes as of June 30, 2020:

Fund	Funding Discount Rate	Financial Reporting Discount Rate
LRF	5.00%	5.25%
JRF	3.00%	2.45%
JRF II	6.50%	6.65%

DEFINED CONTRIBUTION PLANS

PUBLIC EMPLOYEES' DEFERRED COMPENSATION FUND (DCF)

The DCF is a fund into which CalPERS deposits contributions by employees of public agencies and school districts within the State of California that have elected to contract for a deferred compensation plan. To help administer the program, CalPERS contracts with a third-party administrator (TPA). In January 2020, the Board approved the renewal of a five-year contract through December 2025 with Voya Financial, LLC (Voya). As the TPA, Voya provides full recordkeeping, plan administration services, and new business development in support of the DCF.

The net position of the DCF increased by \$95.2 million or 5.6 percent from the beginning balance of \$1.7 billion to \$1.8 billion. Investment balances increased by \$96.3 million or 5.8 percent from Fiscal Year 2018-19 to Fiscal Year 2019-20, due to the investment of net inflows from contributions and return on investment exceeding participant withdrawal outflows. There was a slight decrease of \$0.9 million or 4.9 percent in receivables due to less outstanding contributions at year-end. Total liabilities also decreased by \$0.5 million or 7.0 percent, mainly due to lower amounts of outstanding distributions and TPA and external investment management fees payables, offset by a \$0.1 million or 2.8 percent increase in total net pension and OPEB liabilities.

Member contributions in the fund decreased \$101.0 million or 40.2 percent compared with the prior year primarily due to a new public agency transferring into the fund with a \$130.1 million balance in July 2018, partially offset by increased contributions as a result of an increase in members from 30,733 in Fiscal Year 2018-19 to 31,821 in Fiscal Year 2019-20.

Total additions decreased \$121.7 million primarily due to the \$130.1 million transfer in the prior year, combined with slightly less favorable investment returns in Fiscal Year 2019-20 compared with Fiscal Year 2018-19.

Total deductions in the DCF decreased by \$27.6 million or 17.2 percent. This was primarily due to a decrease of \$28.6 million in participant withdrawals from the plan from \$156.8 million in Fiscal Year 2018-19 to \$128.2 million in Fiscal Year 2019-20. Administrative expenses for CalPERS personnel increased \$1.0 million or 24.2 percent, primarily due to an increase in the state's pension and OPEB expenses resulting from increased net pension and OPEB liabilities.

SUPPLEMENTAL CONTRIBUTIONS PROGRAM FUND (SCPF)

Established on January 1, 2000, the SCPF is a member-funded program that provides supplemental retirement benefits to State of California employees who are CalPERS members. To help administer the program, CalPERS contracts with a TPA. In January 2020, the Board approved the renewal of a five-year contract through December 2025 with Voya. As the TPA, Voya provides full recordkeeping, plan administration services, and new business development in support of the SCPF.

The net position of the SCPF decreased \$0.6 million or 0.5 percent from the beginning balance of \$114.1 million to \$113.4 million, primarily due to participant withdrawals exceeding contributions and investment income by \$0.4 million. Total assets decreased by \$0.7 million or 0.6 percent mainly due to a decrease in investments, and total liabilities also decreased by less than \$0.1 million or 5.1 percent due to lower amounts of outstanding distributions and TPA and external investment management fees payables.

While positive returns were achieved in both current and prior years, Fiscal Year 2019-20 was slightly less favorable. Net investment income increased by \$0.1 million, from \$5.4 million in Fiscal Year 2018-19 to \$5.5 million in Fiscal Year 2019-20 due to higher volume of investments sold.

Total additions decreased \$0.1 million primarily due to decreased fee revenue from participants as a result of a decrease in members from 6,897 in Fiscal Year 2018-19 to 6,661 in Fiscal Year 2019-20.

The primary deductions in the SCPF reflect withdrawals made by participants. Participant withdrawals decreased \$1.6 million, from \$7.7 million as of Fiscal Year 2018-19 to \$6.1 million as of Fiscal Year 2019-20. Administrative expenses for CalPERS personnel increased \$0.04 million or 15.5 percent, primarily due to an increase in the state's pension and OPEB expenses as a result of increased net pension and OPEB liabilities. Net pension liability increased primarily as a result of lower contributions and unfavorable difference between expected and actual experience. Net OPEB liability also increased due to a decrease in the blended discount rate.

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

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

	DCF			SCPF		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	\$1	\$398	(\$397)	\$1	\$67	(\$66)
Receivables	18,177	19,113	(936)	703	732	(29)
Investments	1,768,226	1,671,915	96,311	113,929	114,503	(574)
Total Assets	\$1,786,404	\$1,691,426	\$94,978	\$114,633	\$115,302	(\$669)
Deferred Outflows of Resources	\$551	\$462	\$89	\$47	\$41	\$6
Total Assets and Deferred Outflows of Resources	\$1,786,955	\$1,691,888	\$95,067	\$114,680	\$115,343	(\$663)
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement Benefits, Investment Settlement & Other	\$1,909	\$2,508	(\$599)	\$834	\$908	(\$74)
Net Pension & OPEB Liabilities	4,431	4,309	122	386	377	9
Total Liabilities	\$6,340	\$6,817	(\$477)	\$1,220	\$1,285	(\$65)
Deferred Inflows of Resources	\$439	\$85	\$354	\$31	\$7	\$24
Total Liabilities and Deferred Inflows of Resources	\$6,779	\$6,902	(\$123)	\$1,251	\$1,292	(\$41)
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	\$1,780,176	\$1,684,986	\$95,190	\$113,429	\$114,051	(\$622)

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

	DCF			SCPF		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ADDITIONS						
Member Contributions	\$150,108	\$251,102	(\$100,994)	\$254	\$251	\$3
Net Investment Income	71,266	92,546	(21,280)	5,495	5,360	135
Other Income	7,192	6,590	602	93	337	(244)
Total Additions	\$228,566	\$350,238	(\$121,672)	\$5,842	\$5,948	(\$106)
DEDUCTIONS						
Administrative Expenses	\$5,217	\$4,202	\$1,015	\$327	\$283	\$44
Participant Withdrawals	128,159	156,796	(28,637)	6,137	7,749	(1,612)
Total Deductions	\$133,376	\$160,998	(\$27,622)	\$6,464	\$8,032	(\$1,568)
INCREASE (DECREASE) IN NET POSITION	\$95,190	\$189,240	(\$94,050)	(\$622)	(\$2,084)	\$1,462
NET POSITION						
Beginning of Year	\$1,684,986	\$1,495,746	\$189,240	\$114,051	\$116,135	(\$2,084)
End of Year	\$1,780,176	\$1,684,986	\$95,190	\$113,429	\$114,051	(\$622)

PENSION PREFUNDING TRUST FUND
CALIFORNIA EMPLOYERS' PENSION PREFUNDING TRUST FUND (CEPPTF)

The California Employers' Pension Prefunding Trust Fund (CEPPTF) was created on September 21, 2018, pursuant to Senate Bill (SB) 1413, Chapter 665, Statutes of 2018. Funding on a reimbursement basis from the State of California's General Fund is effective for Fiscal Year 2019-20. The CEPPTF is a trust dedicated to prefunding employer contributions to defined benefit pension systems for eligible California public agencies.

The net position of the CEPPTF was \$10.9 million as of June 30, 2020. Additions to the CEPPTF net position are primarily employer contributions and net investment income. Employers contributed \$10.5 million to the CEPPTF during the Fiscal Year 2019-20. The net investment income was \$0.5 million in Fiscal Year 2019-20. Deductions from the CEPPTF are primarily costs incurred to administer the fund. Administrative expenses were \$0.1 million in Fiscal Year 2019-20.

Fiduciary Net Position – Pension Prefunding Trust Fund (Dollars in Thousands)

	CEPPTF
	2020
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	
Investments	\$11,036
Total Assets	\$11,036
Deferred Outflows of Resources	\$19
Total Assets and Deferred Outflows of Resources	\$11,055
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	
Other Post-Employment Benefits, Investment Settlement & Other	\$16
Net Pension & OPEB Obligation	26
Total Liabilities	\$42
Deferred Inflows of Resources	\$74
Total Liabilities and Deferred Inflows of Resources	\$116
TOTAL NET POSITION RESTRICTED FOR PENSION	<u>\$10,939</u>

Changes in Fiduciary Net Position – Pension Prefunding Trust Fund (Dollars in Thousands)

	CEPPTF
	2020
ADDITIONS	
Employer Contributions	\$10,523
Net Investment Income	502
Other Income	10
Total Additions	\$11,035
DEDUCTIONS	
Administrative Expenses	\$96
Total Deductions	\$96
INCREASE IN NET POSITION	\$10,939
NET POSITION	
Beginning of Year	\$0
End of Year	<u>\$10,939</u>

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. CalPERS contracts with a TPA, Northeast Retirement Services (NRS), to perform recordkeeping for individual CERBTf employer accounts.

Net position restricted for OPEB benefits on June 30, 2020, increased \$1.9 billion or 19.2 percent from the prior year, primarily due to continued employer contributions in Fiscal Year 2019-20, combined with continued positive investment returns. Receivables increased \$43.5 million or 100.8 percent, primarily due to higher outstanding employer contributions pending at year-end. Investments at fair value increased \$1.9 billion or 18.9 percent due to continued positive return on investments and the growth of assets under management from employer contributions.

Total liabilities increased \$12.3 million or 17.2 percent, primarily due to increased member distributions payable. Additionally, total net pension and OPEB liabilities increased by \$0.3 million or 3.7 percent. Net pension liability increased primarily as a result of lower contributions and an unfavorable difference between expected and actual experience. Net OPEB liability also increased due to a decrease in the blended discount rate.

Additions to the CERBTf net position restricted for OPEB benefits are primarily made up of employer contributions (directly to the trust and outside the trust) and net investment income. Employer contributions increased \$626.5 million or 15.6 percent, primarily due to higher contributions from existing participating employers. During Fiscal Year 2019-20, the fund experienced net investment income of \$402.6 million, a decrease of \$166.2 million from a net investment return of \$568.8 million in Fiscal Year 2018-19. Additionally, the CERBTf recognized a MWRR of 4.0 percent in Fiscal Year 2019-20, compared with 6.5 percent in Fiscal Year 2018-19.

Deductions from the CERBTf net position restricted for OPEB benefits were primarily made up of OPEB reimbursements to employers (directly from the trust and outside the trust), which increased \$154.4 million or 5.2 percent, due to increased volume of reimbursement requests among existing participating employers. Employer withdrawals decreased by \$63.3 million or 83.3 percent, due to a lower amount of balance transfers out of the plan. The amounts reported for contributions and reimbursements made directly by employers to health care providers outside the trust amounted to \$3.0 billion for Fiscal Year 2019-20 compared with \$2.9 billion in Fiscal Year 2018-19. Administrative expenses for CalPERS personnel increased \$3.3 million primarily due to an increase in the state's pension and OPEB expenses as a result of increased net pension and OPEB liabilities.

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

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

	CERBTF		
	2020	2019	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Cash & Cash Equivalents	\$1	\$669	(\$668)
Receivables	86,749	43,211	43,538
Investments	11,700,758	9,841,991	1,858,767
Total Assets	\$11,787,508	\$9,885,871	\$1,901,637
Deferred Outflows of Resources	\$1,198	\$956	\$242
Total Assets and Deferred Outflows of Resources	\$11,788,706	\$9,886,827	\$1,901,879
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES			
Other Post-Employment Benefits, Investment Settlement & Other	\$74,310	\$62,367	\$11,943
Net Pension & OPEB Liabilities	9,285	8,950	335
Total Liabilities	\$83,595	\$71,317	\$12,278
Deferred Inflows of Resources	\$1,172	\$205	\$967
Total Liabilities and Deferred Inflows of Resources	\$84,767	\$71,522	\$13,245
TOTAL NET POSITION RESTRICTED FOR OPEB	\$11,703,939	\$9,815,305	\$1,888,634

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

	CERBTF		
	2020	2019	Increase/ (Decrease)
ADDITIONS			
Employer Contributions	\$4,634,449	\$4,007,941	\$626,508
Net Investment Income	402,609	568,801	(166,192)
Other Income	9,094	7,490	1,604
Total Additions	\$5,046,152	\$4,584,232	\$461,920
DEDUCTIONS			
Administrative Expenses	\$5,161	\$1,882	\$3,279
Employer Withdrawals	12,711	75,991	(63,280)
OPEB Reimbursements	3,139,646	2,985,226	154,420
Total Deductions	\$3,157,518	\$3,063,099	\$94,419
INCREASE IN NET POSITION	\$1,888,634	\$1,521,133	\$367,501
NET POSITION			
Beginning of Year	\$9,815,305	\$8,294,172	\$1,521,133
End of Year	\$11,703,939	\$9,815,305	\$1,888,634

CUSTODIAL FUNDS

REPLACEMENT BENEFIT FUND (RBF)

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

The net position of the RBF increased by \$0.3 million or 43.5 percent, primarily due to an increase in the number of retirees receiving benefits. As a result, employer contributions increased \$3.4 million or 13.1 percent, primarily due to more retirees participating in the plan.

Additions to the fund include replacement benefits, investment income and other income. Other income decreased \$226 thousand or 46.9 percent, primarily due to a temporary cancellation of the administrative fees beginning January 1, 2020.

Deductions from the RBF include benefit payments, which increased \$3.4 million or 13.1 percent due to an increase in the number of retirees receiving benefits from 1,383 as of June 30, 2019, to 1,496 as of June 30, 2020.

OLD AGE AND SURVIVORS' INSURANCE REVOLVING FUND (OASI)

The OASI was established to consolidate the collection and payment of employee and employer contributions for California public agencies under the provisions of the federal Social Security regulations.

The Board serves as the State Social Security Administrator (SSSA). Between 1955 and 1986, the SSSA was responsible for collecting Social Security and Medicare taxes from public employers. Effective January 1, 1987, with the enactment of the Omnibus Budget Reconciliation Act of 1986, the responsibility of collecting taxes moved from CalPERS to the Internal Revenue Service and the SSSA has been operating since 1987 using the interest that was earned on the OASI. The OASI funds have diminished, requiring additional funding to pay for the costs of administering the SSSA program. CalPERS started charging participating agencies a specified fee to pay for these costs in Fiscal Year 2019-20.

The net position of the OASI increased by \$0.9 million or 82.4 percent, primarily due to the collection of fees from the participating agencies. Total assets increased \$0.4 million or 25.8 percent in Fiscal Year 2019-20 due to an increased number of fee receivables. Total liabilities decreased in Fiscal Year 2019-20 by \$0.5 million or 80.8 percent due to a lower outstanding liability for administrative expenses than in the prior fiscal year.

Additions to the fund include investment income and fees that amounted to \$2.0 million for the fiscal year. Deductions from the OASI are primarily costs incurred to administer the fund. Administrative expenses for CalPERS personnel increased \$0.5 million or 76.6 percent in Fiscal Year 2019-20 due to an increased involvement in the fund.

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

Fiduciary Net Position – Custodial Funds (Dollars in Thousands)

	RBF			OASI		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	\$1	\$0	\$1	\$1	\$0	\$1
Receivables	204	309	(105)	1,057	1	1,056
Investments	18,138	16,005	2,133	1,086	1,703	(617)
Total Assets	\$18,343	\$16,314	\$2,029	\$2,144	\$1,704	\$440
Deferred Outflows of Resources	\$0	\$0	\$0	\$41	\$0	\$41
Total Assets and Deferred Outflows of Resources	\$18,343	\$16,314	\$2,029	\$2,185	\$1,704	\$481
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Due to Members & Employers	\$0	\$0	\$0	\$0	\$0	\$0
Due to Other Funds	44	37	7	71	667	(596)
Net Pension & OPEB Liabilities	—	—	—	57	—	57
Unearned Replacement Benefits	17,355	15,619	1,736	—	—	—
Total Liabilities	\$17,399	\$15,656	\$1,743	\$128	\$667	(\$539)
Deferred Inflows of Resources	\$0	\$0	\$0	\$165	\$0	\$165
Total Liabilities and Deferred Inflows of Resources	\$17,399	\$15,656	\$1,743	\$293	\$667	(\$374)
TOTAL NET POSITION RESTRICTED FOR REPLACEMENT BENEFITS/PROGRAM ADMINISTRATION	\$944	\$658	\$286	\$1,892	\$1,037	\$855

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

	RBF			OASI		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ADDITIONS						
Replacement Benefits	\$29,125	\$25,756	\$3,369	\$0	\$0	\$0
Investment Income	276	301	(25)	21	1	20
Other Income	256	482	(226)	2,012	—	2,012
Total Additions	\$29,657	\$26,539	\$3,118	\$2,033	\$1	\$2,032
DEDUCTIONS						
Replacement Benefit Payments	\$29,125	\$25,756	\$3,369	\$0	\$0	\$0
Administrative Expenses	246	450	(204)	1,178	667	511
Total Deductions	\$29,371	\$26,206	\$3,165	\$1,178	\$667	\$511
INCREASE (DECREASE) IN NET POSITION	\$286	\$333	(\$47)	\$855	(\$666)	\$1,521
NET POSITION						
Beginning of Year	\$658	\$325	\$333	\$1,037	\$0	\$1,037
Adjustments	—	—	—	—	1,703 ¹	(1,703)
End of Year	\$944	\$658	\$286	\$1,892	\$1,037	\$855

(1) In anticipation of future income and expense reporting, the beginning balance was restated to more accurately depict the nature of the fund.

ENTERPRISE FUNDS

PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF)

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

The net position of the HCF in Fiscal Year 2019-20 decreased by \$49.9 million or 13.3 percent from the beginning net position of \$375.4 million to \$325.5 million.

Total assets decreased by \$33.3 million or 2.5 percent. Cash and cash equivalents decreased by \$94.4 million or 25.4 percent as the fund continues to liquidate its short-term investments to cover claim expenses in excess of the premiums revenue. Total liabilities increased \$10.2 million or 1.0 percent primarily due to an increase in estimated insurance claims due.

Revenues include premiums collected from members and employers, federal subsidies, and investment income (non-operating revenue). Premiums collected increased by \$25.4 million or 0.7 percent, primarily due to an increase in premium rates. Investment income increased by \$2.0 million or 3.8 percent due to improved performance in the fixed income market.

Expenses are comprised of claims, investment fees, and costs incurred to oversee the plans. Claim expenses decreased by \$68.2 million, or 1.9 percent due to a decrease in medical claims. Administrative expenses for CalPERS personnel increased by \$32.3 million or 10.8 percent, primarily due to an increase in the state's pension and OPEB expenses resulting from increased net pension and OPEB liabilities.

PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

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

The net position of the CRF in Fiscal Year 2019-20 was negative \$54.2 million, a decrease of \$5.9 million or 12.3 percent from the beginning net position of negative \$48.3 million primarily due to an increase in pension and OPEB expenses.

Cash and cash equivalents increased by \$84.8 million or 13.2 percent primarily due to timing as there was an increase in outstanding payables to health carriers in Fiscal Year 2019-20 compared to the prior year. Total receivables decreased by \$5.6 million or 20.6 percent primarily due to a decrease in direct pay premiums due from health carriers combined with a decrease in outstanding interest receivables. Total liabilities increased by \$80.5 million or 11.1 percent primarily due to more premiums pending to be remitted to health carriers as of June 30, 2020. Net pension and OPEB liabilities increased by \$2.2 million or 3.0 percent. Net pension liability increased primarily as a result of lower contributions and unfavorable differences between expected and actual experience. Net OPEB liability also increased due to a decrease in the blended discount rate.

Revenues include administrative fees collected and investment income. Administrative fees are determined as a percentage of total active and retired health premiums. These fees increased by \$3.4 million or 15.4 percent primarily due to an increase in the administrative fee rate from 0.23 percent in Fiscal Year 2018-19 to 0.27 percent in Fiscal Year 2019-20. Investment income increased by \$0.2 million or 3.6 percent due to an increase in short-term investments.

Expenses are comprised of investment fees and costs incurred to administer the CRF. Administrative expenses for CalPERS personnel increased by \$19.1 million or 101.4 percent, primarily due to an increase in the state's pension and OPEB expenses resulting from increased net pension and OPEB liabilities.

PUBLIC EMPLOYEES' LONG-TERM CARE FUND (LTCF)

The LTCF provides 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. Long-Term Care Group (LTCG) is the third-party administrator (TPA) for the CalPERS Long-Term Care program. CalPERS has temporarily suspended open enrollment on the CalPERS Long-Term Care Program due to current uncertainty in the long-term care market. Therefore, effective June 17, 2020, and until further notice, the CalPERS Long-Term Care Program will not be accepting new applications for coverage.

Unrestricted net position of the LTCF decreased by \$2.3 billion from beginning net position \$0.1 billion to negative \$2.2 billion primarily due to a \$2.4 billion increase in estimated future policy liabilities in Fiscal Year 2019-20. Total assets increased by \$146.4 million or 3.1 percent primarily due to positive investment returns in Fiscal Year 2019-20. Investments increased by \$140.4 million or 2.9 percent. Based on updated actuarial assumptions, the program is considering asset allocation changes, benefit design changes including benefit reduction options, and/or future premium increase mitigation options. The CalPERS Chief Health Director will be presenting to the Board options for adoption in November 2020.

Total liabilities increased by \$2.4 billion or 51.9 percent primarily due to the increase in the estimated liabilities for future policy benefits. The increased liability reflects the assumption updates in the June 30, 2019, actuarial valuation, which include increasing the morbidity assumptions to project longer length of stay on claim and higher claim utilization rate, and lowering the lapse assumption to project lower future lapses. In addition, the liability is calculated using a 4 percent discount rate reflecting the low interest rate environment.

The LTCF revenues include premiums collected from participants and investment income. Participation in the plan decreased by 3.2 percent mainly due to participant deaths, coverage cancellations, nonpayment of premiums, and exhaustion of benefits. This resulted in the decrease of premium revenue of \$4.9 million or 1.7 percent. Non-operating revenues are comprised of net appreciation or depreciation in fair value of investments and interest, dividend, and other investment income. The investment income for Fiscal Year 2019-20 was \$224.2 million, a decrease of \$97.6 million or 30.3 percent from the prior year due to a decrease in the annual investment return from 7.1 percent in Fiscal Year 2018-19 to 4.7 percent in Fiscal Year 2019-20.

Total expenses are comprised of claims, changes in estimated liabilities for future policy benefits, administrative costs to the program, and investment expenses. In Fiscal Year 2019-20, total expenses increased by \$2.4 billion due to an increase of \$2.4 billion in the estimated future policy liabilities. The overall increase in total expenses is primarily attributable to a higher increase in the estimated future policy liabilities compared to Fiscal Year 2018-19. Refer to Note 15 for additional information regarding the calculation of the estimated liabilities for future policy benefits. Administrative expenses for CalPERS personnel increased \$3.2 million or 13.2 percent, primarily due to an increase in the state's pension and OPEB expenses as a result of increased net pension and OPEB liabilities.

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

Net Position – Enterprise Funds (Dollars in Thousands)

	HCF			CRF			LTCF		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES									
Cash & Cash Equivalents	\$277,089	\$371,537	(\$94,448)	\$728,826	\$644,041	\$84,785	\$17,060	\$11,250	\$5,810
Receivables	515,913	497,015	18,898	21,535	27,117	(5,582)	610	414	196
Investments	520,342	478,102	42,240	—	—	—	4,910,167	4,769,798	140,369
Total Assets	\$1,313,344	\$1,346,654	(\$33,310)	\$750,361	\$671,158	\$79,203	\$4,927,837	\$4,781,462	\$146,375
Deferred Outflows of Resources	\$13,458	\$11,344	\$2,114	\$9,197	\$7,637	\$1,560	\$1,372	\$1,046	\$326
Total Assets and Deferred Outflows of Resources	\$1,326,802	\$1,357,998	(\$31,196)	\$759,558	\$678,795	\$80,763	\$4,929,209	\$4,782,508	\$146,701
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES									
Claims Payable, Unearned Premiums, Estimated Insurance Claims Due & Due to Carriers	\$853,565	\$839,094	\$14,471	\$398,597	\$345,063	\$53,534	\$48,864	\$38,993	\$9,871
Due to Employers	—	—	—	192	642	(450)	—	—	—
Other Liabilities	28,798	35,958	(7,160)	334,171	308,941	25,230	8,461	8,725	(264)
Estimated Liability for Future Policy Benefits	—	—	—	—	—	—	7,053,071	4,628,993	2,424,078
Net Pension & OPEB Liabilities	108,500	105,579	2,921	73,255	71,100	2,155	10,249	9,799	450
Total Liabilities	\$990,863	\$980,631	\$10,232	\$806,215	\$725,746	\$80,469	\$7,120,645	\$4,686,510	\$2,434,135
Deferred Inflows of Resources	\$10,446	\$2,005	\$8,441	\$7,592	\$1,364	\$6,228	\$1,528	\$226	\$1,302
Total Liabilities and Deferred Inflows of Resources	\$1,001,309	\$982,636	\$18,673	\$813,807	\$727,110	\$86,697	\$7,122,173	\$4,686,736	\$2,435,437
TOTAL UNRESTRICTED NET POSITION (DEFICIT)	\$325,493	\$375,362	(\$49,869)	(\$54,249)	(\$48,315)	(\$5,934)	(\$2,192,964)	\$95,772	(\$2,288,736)

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

	HCF			CRF			LTCF		
	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)	2020	2019	Increase/ (Decrease)
REVENUES									
Premiums	\$3,706,490	\$3,681,106	\$25,384	\$0	\$0	\$0	\$278,535	\$283,445	(\$4,910)
Federal Government Subsidies	12,489	18,753	(6,264)	—	—	—	—	—	—
Non-Operating Revenues	53,522	51,547	1,975	6,111	5,896	215	224,152	321,711	(97,559)
Administrative Fees & Other	—	—	—	25,817	22,375	3,442	—	—	—
Total Revenues	\$3,772,501	\$3,751,406	\$21,095	\$31,928	\$28,271	\$3,657	\$502,687	\$605,156	(\$102,469)
EXPENSES									
Claims Expense	\$3,480,089	\$3,548,295	(\$68,206)	\$0	\$0	\$0	\$337,298	\$324,841	\$12,457
Increase (Decrease) in Estimated Liabilities	10,885	14,332	(3,447)	—	—	—	2,424,078	80,892	2,343,186
Non-Operating Expenses	160	166	(6)	—	—	—	2,547	2,596	(49)
Administrative Expenses	331,236	298,887	32,349	37,862	18,799	19,063	27,500	24,300	3,200
Total Expenses	\$3,822,370	\$3,861,680	(\$39,310)	\$37,862	\$18,799	\$19,063	\$2,791,423	\$432,629	\$2,358,794
INCREASE (DECREASE) IN UNRESTRICTED NET POSITION	(\$49,869)	(\$110,274)	\$60,405	(\$5,934)	\$9,472	(\$15,406)	(\$2,288,736)	\$172,527	(\$2,461,263)
UNRESTRICTED NET POSITION (DEFICIT)									
Beginning of Year	\$375,362	\$485,636	(\$110,274)	(\$48,315)	(\$57,787)	\$9,472	\$95,772	(\$76,755)	\$172,527
End of Year	\$325,493	\$375,362	(\$49,869)	(\$54,249)	(\$48,315)	(\$5,934)	(\$2,192,964)	\$95,772	(\$2,288,736)

REQUESTS FOR INFORMATION

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

This page intentionally left blank.

FINANCIAL SECTION

Basic Financial Statements

- 42 Statement of Fiduciary Net Position – Fiduciary Funds
- 44 Statement of Changes in Fiduciary Net Position – Fiduciary Funds
- 46 Statement of Net Position – Proprietary Funds
- 47 Statement of Revenues, Expenses, and Changes in Net Position – Proprietary Funds
- 48 Statement of Cash Flows – Proprietary Funds
- 49 Notes to the Basic Financial Statements

Basic Financial Statements

STATEMENT OF FIDUCIARY NET POSITION – FIDUCIARY FUNDS

As of June 30, 2020, with Comparative Totals as of June 30, 2019 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	\$364,515	\$90,632	\$41,575	\$1,200	\$0	\$2
Receivables						
Members	\$472,245	\$120,541	\$42,310	\$44	\$1,028	\$1,278
Employers	966,700	347,823	64,644	—	478	8,067
Investment Sales & Other	677,215	168,381	77,240	—	—	4
Interest & Dividends	636,012	158,136	72,541	1	76	43
Due from Other Funds	7,487	1,862	854	—	—	—
Other Program	65,634	16,319	7,486	9	31	—
Total Receivables	\$2,825,293	\$813,062	\$265,075	\$54	\$1,613	\$9,392
Investments, at Fair Value						
Short-Term Investments	\$20,711,863	\$5,139,134	\$2,362,965	\$704	\$47,843	\$9,791
Global Equity Securities	143,910,669	35,707,857	16,418,415	42,977	—	1,231,610
Global Debt Securities	74,924,759	18,590,717	8,547,982	71,279	—	635,275
Real Assets	31,572,296	7,833,881	3,602,005	—	—	—
Private Equity	19,451,015	4,826,286	2,219,119	—	—	—
Total Investments	\$290,570,602	\$72,097,875	\$33,150,486	\$114,960	\$47,843	\$1,876,676
Securities Lending Collateral	\$899,153	\$223,563	\$102,554	\$0	\$0	\$0
Capital Assets, Net & Other Assets	251,823	62,613	28,722	—	—	—
TOTAL ASSETS	\$294,911,386	\$73,287,745	\$33,588,412	\$116,214	\$49,456	\$1,886,070
Deferred Outflows of Resources	\$94,443	\$23,482	\$10,772	\$187	\$540	\$677
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$295,005,829	\$73,311,227	\$33,599,184	\$116,401	\$49,996	\$1,886,747
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement & Other Benefits	\$1,623,271	\$385,308	\$171,551	\$582	\$0	\$0
Investment Purchases & Other	3,533,228	878,493	402,985	—	—	—
Due to Members & Employers	8,154	—	—	16	44	2
Net Pension & OPEB Liabilities	758,151	188,505	86,471	1,560	4,375	5,557
Securities Lending Obligations	899,449	223,636	102,587	—	—	—
Due to Other Funds	—	—	—	49	177	270
Management & Third-Party Administrator Fees	3,319	825	379	20	—	324
Unearned Replacement Benefits	—	—	—	—	—	—
Other Program	83,036	9,520	4,295	9	1,215	70
TOTAL LIABILITIES	\$6,908,608	\$1,686,287	\$768,268	\$2,236	\$5,811	\$6,223
Deferred Inflows of Resources	\$73,777	\$18,344	\$8,415	\$117	\$458	\$517
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	\$6,982,385	\$1,704,631	\$776,683	\$2,353	\$6,269	\$6,740
NET POSITION – RESTRICTED FOR PENSION, OTHER POST-EMPLOYMENT, REPLACEMENT BENEFITS, AND PROGRAM ADMINISTRATION	\$288,023,444	\$71,606,596	\$32,822,501	\$114,048	\$43,727	\$1,880,007

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

Basic Financial Statements (continued)

Pension Trust Funds		Investment Trust Fund	Other Post-Employment Benefit Trust Fund	Custodial Funds		Totals	
DCF	SCPF	CEPPTF	CERBTF	RBF	OASI	2020	2019
\$1	\$1	\$0	\$1	\$1	\$1	\$497,929	\$667,049
\$4,267	\$701	\$0	\$0	\$16	\$0	\$642,430	\$676,908
—	—	—	86,694	119	—	1,474,525	1,362,639
—	—	—	—	—	—	922,840	1,452,262
3	2	—	55	69	2	866,940	822,444
—	—	—	—	—	—	10,203	3,114
13,907	—	—	—	—	1,055	104,441	105,759
\$18,177	\$703	\$0	\$86,749	\$204	\$1,057	\$4,021,379	\$4,423,126
\$149,016	\$11,266	\$11	\$60,682	\$18,138	\$1,086	\$28,512,499	\$10,120,470
1,251,713	64,632	4,852	7,971,301	—	—	206,604,026	193,792,729
367,497	38,031	6,173	3,668,775	—	—	106,850,488	118,633,362
—	—	—	—	—	—	43,008,182	40,768,569
—	—	—	—	—	—	26,496,420	26,471,325
\$1,768,226	\$113,929	\$11,036	\$11,700,758	\$18,138	\$1,086	\$411,471,615	\$389,786,455
\$0	\$0	\$0	\$0	\$0	\$0	\$1,225,270	\$4,334,507
—	—	—	—	—	—	343,158	422,242
\$1,786,404	\$114,633	\$11,036	\$11,787,508	\$18,343	\$2,144	\$417,559,351	\$399,633,379
\$551	\$47	\$19	\$1,198	\$0	\$41	\$131,957	\$110,739
\$1,786,955	\$114,680	\$11,055	\$11,788,706	\$18,343	\$2,185	\$417,691,308	\$399,744,118
\$0	\$0	\$0	\$71,928	\$0	\$0	\$2,252,640	\$2,117,988
—	—	—	—	—	—	4,814,706	6,070,626
618	751	—	—	—	—	9,585	7,726
4,431	386	26	9,285	—	57	1,058,804	1,029,496
—	—	—	—	—	—	1,225,672	4,324,097
467	32	—	863	44	71	1,973	3,548
824	51	16	1,519	—	—	7,277	4,309
—	—	—	—	17,355	—	17,355	15,619
—	—	—	—	—	—	98,145	89,767
\$6,340	\$1,220	\$42	\$83,595	\$17,399	\$128	\$9,486,157	\$13,663,176
\$439	\$31	\$74	\$1,172	\$0	\$165	\$103,509	\$18,810
\$6,779	\$1,251	\$116	\$84,767	\$17,399	\$293	\$9,589,666	\$13,681,986
\$1,780,176	\$113,429	\$10,939	\$11,703,939	\$944	\$1,892	\$408,101,642	\$386,062,132

Basic Financial Statements (continued)

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – FIDUCIARY FUNDS

For the Fiscal Year Ended June 30, 2020, with Comparative Totals for the Fiscal Year Ended June 30, 2019 (Dollars in Thousands)

	Pension Trust Funds					
	PERF A	PERF B	PERF C			
	Agent	Schools Cost-Sharing	Public Agency Cost-Sharing	LRF	JRF	JRF II
ADDITIONS						
Retirement and OPEB Contributions						
Members	\$3,470,691	\$1,047,983	\$382,326	\$22	\$2,843	\$35,796
Employers	17,576,280	2,866,144	1,597,137	98	3,799	91,147
Nonemployer Contribution	—	904,000	—	—	—	—
Replacement Benefits	—	—	—	—	—	—
State of California General Fund	—	—	—	—	239,332	—
Employer Contributions Direct – OPEB	—	—	—	—	—	—
Employer Contributions Outside of Trust – OPEB	—	—	—	—	—	—
Total Retirement and OPEB Contribution	\$21,046,971	\$4,818,127	\$1,979,463	\$120	\$245,974	\$126,943
Investment Income						
Net Appreciation in Fair Value of Investments	\$8,823,809	\$2,197,172	\$1,020,625	\$7,051	\$0	\$80,569
Interest & Amortization	2,036,305	506,302	232,251	6	891	208
Dividends	3,410,919	848,082	389,035	—	—	—
Other Investment Income	18,583	4,621	2,120	17	—	266
Less Investment Expenses:						
Management & Performance Fees	(510,689)	(126,977)	(58,247)	(42)	—	(656)
Other	(203,213)	(50,526)	(23,178)	(21)	(6)	(313)
Net Investment Income	\$13,575,714	\$3,378,674	\$1,562,606	\$7,011	\$885	\$80,074
Securities Lending Income	\$115,186	\$28,639	\$13,137	\$0	\$0	\$0
Securities Lending Expense	(45,281)	(11,258)	(5,164)	—	—	—
Net Securities Lending	\$69,905	\$17,381	\$7,973	\$0	\$0	\$0
Other Income	\$10,246	\$2,480	\$1,119	\$2	\$2,202	\$0
Plan-to-Plan Resource Movement	—	164	185,743	—	—	—
TOTAL ADDITIONS	\$34,702,836	\$8,216,826	\$3,736,904	\$7,133	\$249,061	\$207,017
DEDUCTIONS						
Retirement, Death & Survivor Benefits	\$19,206,411	\$4,549,797	\$2,025,712	\$6,939	\$212,775	\$34,547
Replacement Benefit Payments	—	—	—	—	—	—
Refund of Contributions	177,375	121,560	24,245	—	458	—
Administrative Expenses	384,977	95,614	43,860	550	2,270	2,552
Plan-to-Plan Resource Movement	185,907	—	—	—	—	—
Participant & Employer Withdrawals	—	—	—	—	—	—
OPEB Reimbursements Direct	—	—	—	—	—	—
OPEB Reimbursements – Outside Trust	—	—	—	—	—	—
TOTAL DEDUCTIONS	\$19,954,670	\$4,766,971	\$2,093,817	\$7,489	\$215,503	\$37,099
INCREASE (DECREASE) IN NET POSITION	\$14,748,166	\$3,449,855	\$1,643,087	(\$356)	\$33,558	\$169,918
NET POSITION						
Beginning of Year	\$273,275,278	\$68,156,741	\$31,179,414	\$114,404	\$10,169	\$1,710,089
Adjustments	\$0	\$0	\$0	\$0	\$0	\$0
Beginning of Year (as adjusted)	\$273,275,278	\$68,156,741	\$31,179,414	\$114,404	\$10,169	\$1,710,089
End of year	\$288,023,444	\$71,606,596	\$32,822,501	\$114,048	\$43,727	\$1,880,007

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

Basic Financial Statements (continued)

Pension Trust Funds		Investment Trust Fund	Other Post-Employment Benefit Trust Fund	Custodial Funds		Totals	
DCF	SCPF	CEPPTF	CERBTF	RBF	OASI	2020	2019
\$150,108	\$254	\$0	\$0	\$0	\$0	\$5,090,023	\$4,950,117
—	—	10,523	—	—	—	22,145,128	15,701,215
—	—	—	—	—	—	904,000	—
—	—	—	—	29,125	—	29,125	25,756
—	—	—	—	—	—	239,332	191,715
—	—	—	1,655,173	—	—	1,655,173	1,148,521
—	—	—	2,979,276	—	—	2,979,276	2,859,420
\$150,108	\$254	\$10,523	\$4,634,449	\$29,125	\$0	\$33,042,057	\$24,876,744
\$69,259	\$5,407	\$501	\$406,742	\$0	\$0	\$12,611,135	\$19,348,131
2,601	131	2	691	276	21	2,779,685	2,776,240
—	—	—	—	—	—	4,648,036	2,490,753
81	1	—	—	—	—	25,689	141,383
(375)	(24)	(1)	(2,999)	—	—	(700,010)	(737,168)
(300)	(20)	—	(1,825)	—	—	(279,402)	(266,859)
\$71,266	\$5,495	\$502	\$402,609	\$276	\$21	\$19,085,133	\$23,752,480
\$0	\$0	\$0	\$0	\$0	\$0	\$156,962	\$262,507
—	—	—	—	—	—	(61,703)	(158,164)
\$0	\$0	\$0	\$0	\$0	\$0	\$95,259	\$104,343
\$7,192	\$93	\$10	\$9,094	\$256	\$2,012	\$34,706	\$24,411
—	—	—	—	—	—	185,907	167,612
\$228,566	\$5,842	\$11,035	\$5,046,152	\$29,657	\$2,033	\$52,443,062	\$48,925,590
\$0	\$0	\$0	\$0	\$0	\$0	\$26,036,181	\$24,474,287
—	—	—	—	29,125	—	29,125	25,756
—	—	—	—	—	—	323,638	280,769
5,217	327	96	5,161	246	1,178	542,048	271,875
—	—	—	—	—	—	185,907	167,612
128,159	6,137	—	12,711	—	—	147,007	240,536
—	—	—	160,370	—	—	160,370	125,806
—	—	—	2,979,276	—	—	2,979,276	2,859,420
\$133,376	\$6,464	\$96	\$3,157,518	\$29,371	\$1,178	\$30,403,552	\$28,446,061
\$95,190	(\$622)	\$10,939	\$1,888,634	\$286	\$855	\$22,039,510	\$20,479,529
\$1,684,986	\$114,051	\$0	\$9,815,305	\$658	\$1,037	\$386,062,132	\$365,580,900
\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,703
\$1,684,986	\$114,051	\$0	\$9,815,305	\$658	\$1,037	\$386,062,132	\$365,582,603
\$1,780,176	\$113,429	\$10,939	\$11,703,939	\$944	\$1,892	\$408,101,642	\$386,062,132

Basic Financial Statements (continued)

STATEMENT OF NET POSITION – PROPRIETARY FUNDS

As of June 30, 2020, with Comparative Totals as of June 30, 2019 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2020	2019
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES					
Current Assets					
Cash & Cash Equivalents	\$0	\$1	\$16,827	\$16,828	\$11,233
Short-Term Investments	277,089	728,825	233	1,006,147	1,015,595
Receivables					
Members & Employers	\$0	\$17,330	\$610	\$17,940	\$17,554
Health Carriers & Pharmacy Benefit Managers	188,251	1,581	—	189,832	192,195
Interest & Dividends	690	2,547	—	3,237	6,020
Due from Other Funds	326,961	77	—	327,038	308,766
Other Receivables	11	—	—	11	11
Total Receivables	\$515,913	\$21,535	\$610	\$538,058	\$524,546
Subtotal Current Assets	\$793,002	\$750,361	\$17,670	\$1,561,033	\$1,551,374
Noncurrent Assets					
Investments, at Fair Value					
Global Equity Securities	\$0	\$0	\$1,671,180	\$1,671,180	\$1,628,790
Global Debt Securities	520,342	—	3,238,987	3,759,329	3,619,110
Total Investments	\$520,342	\$0	\$4,910,167	\$5,430,509	\$5,247,900
Subtotal Noncurrent Assets	\$520,342	\$0	\$4,910,167	\$5,430,509	\$5,247,900
TOTAL ASSETS	\$1,313,344	\$750,361	\$4,927,837	\$6,991,542	\$6,799,274
Deferred Outflows of Resources	\$13,458	\$9,197	\$1,372	\$24,027	\$20,027
Total Assets and Deferred Outflows of Resources	\$1,326,802	\$759,558	\$4,929,209	\$7,015,569	\$6,819,301
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES					
Current Liabilities					
Claims Payable	\$267,612	\$0	\$28,912	\$296,524	\$308,159
Unearned Premiums	115,407	—	19,952	135,359	110,267
Due to Employers	—	192	—	192	642
Estimated Insurance Claims Due	470,546	—	—	470,546	459,661
Estimated Future Policy Liability Short-Term	—	—	109,991	109,991	73,497
Due to Carriers	—	398,597	—	398,597	345,063
Due to Other Funds	4,127	330,208	933	335,268	308,332
Management & Third-Party Administrator Fees	24,671	—	2,466	27,137	37,413
Other	—	3,963	5,062	9,025	7,879
Total Current Liabilities	\$882,363	\$732,960	\$167,316	\$1,782,639	\$1,650,913
Long-Term Liabilities					
Estimated Liability for Future Policy Benefits	\$0	\$0	\$6,943,080	\$6,943,080	\$4,555,496
Net Pension & OPEB Liabilities	108,500	73,255	10,249	192,004	186,478
Total Long-Term Liabilities	\$108,500	\$73,255	\$6,953,329	\$7,135,084	\$4,741,974
TOTAL LIABILITIES	\$990,863	\$806,215	\$7,120,645	\$8,917,723	\$6,392,887
Deferred Inflows of Resources	\$10,446	\$7,592	\$1,528	\$19,566	\$3,595
Total Liabilities and Deferred Inflows of Resources	\$1,001,309	\$813,807	\$7,122,173	\$8,937,289	\$6,396,482
TOTAL UNRESTRICTED NET POSITION (DEFICIT)	\$325,493	(\$54,249)	(\$2,192,964)	(\$1,921,720)	\$422,819

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, 2020, with Comparative Totals for the Fiscal Year Ended June 30, 2019 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2020	2019
Operating Revenues					
Premiums	\$3,706,490	\$0	\$278,535	\$3,985,025	\$3,964,551
Federal Government Subsidies	12,489	—	—	12,489	18,753
Administrative Fees Earned	—	25,758	—	25,758	22,339
Other	—	59	—	59	36
Total Operating Revenues	\$3,718,979	\$25,817	\$278,535	\$4,023,331	\$4,005,679
Operating Expenses					
Claims Expense	\$3,480,089	\$0	\$337,298	\$3,817,387	\$3,873,136
Increase in Estimated Liabilities	10,885	—	2,424,078	2,434,963	95,224
Administrative Expenses	331,236	37,862	27,500	396,598	341,986
Total Operating Expenses	\$3,822,210	\$37,862	\$2,788,876	\$6,648,948	\$4,310,346
OPERATING LOSS	(\$103,231)	(\$12,045)	(\$2,510,341)	(\$2,625,617)	(\$304,667)
Non-Operating Revenues					
Net Appreciation in Fair Value of Investments	\$42,307	\$0	\$223,252	\$265,559	\$355,624
Interest, Dividends & Other Investment Income	11,215	6,111	900	18,226	23,530
Total Non-Operating Revenues	\$53,522	\$6,111	\$224,152	\$283,785	\$379,154
Non-Operating Expenses					
Management Fees	\$68	\$0	\$1,659	\$1,727	\$1,624
Other Investment Expenses	92	—	888	980	1,138
Total Non-Operating Expenses	\$160	\$0	\$2,547	\$2,707	\$2,762
NON-OPERATING INCOME	\$53,362	\$6,111	\$221,605	\$281,078	\$376,392
CHANGE IN UNRESTRICTED NET POSITION	(\$49,869)	(\$5,934)	(\$2,288,736)	(\$2,344,539)	\$71,725
TOTAL UNRESTRICTED NET POSITION (DEFICIT)					
Beginning of Year	\$375,362	(\$48,315)	\$95,772	\$422,819	\$351,094
End of Year	\$325,493	(\$54,249)	(\$2,192,964)	(\$1,921,720)	\$422,819

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, 2020, with Comparative Totals for the Fiscal Year Ended June 30, 2019 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2020	2019
Cash Flows From Operating Activities					
Premiums Collected	\$3,700,510	\$0	\$286,681	\$3,987,191	\$3,941,619
Federal Government Subsidies	12,489	—	—	12,489	18,753
Administrative Fees Collected	—	25,817	—	25,817	22,375
Claims Paid	(3,493,253)	—	(335,392)	(3,828,645)	(3,906,077)
Administrative Expenses Paid	(326,669)	(27,330)	(26,745)	(380,744)	(348,580)
Other (Payments) Receipts, Net	—	78,756	—	78,756	(38,219)
Net Cash Provided by (Used for) Operating Activities	(\$106,923)	\$77,243	(\$75,456)	(\$105,136)	(\$310,129)
Cash Flows From Investing Activities					
Net Sales of Investments	\$67	\$0	\$82,883	\$82,950	\$65,195
Net Change in Short-Term Investments	94,447	(84,784)	(215)	9,448	226,415
Interest & Dividends Received	12,557	7,542	471	20,570	22,461
Other Investment (Payments) Receipts, Net	(149)	—	(2,088)	(2,237)	(2,320)
Net Cash Provided by (Used for) Investing Activities	\$106,922	(\$77,242)	\$81,051	\$110,731	\$311,751
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(\$1)	\$1	\$5,595	\$5,595	\$1,622
Cash & Cash Equivalents, Beginning of Year	\$1	\$0	\$11,232	\$11,233	\$9,611
Cash & Cash Equivalents, End of Year	\$0	\$1	\$16,827	\$16,828	\$11,233
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used for) Operating Activities					
Operating Income (Loss)	(\$103,231)	(\$12,045)	(\$2,510,341)	(\$2,625,617)	(\$304,667)
Changes in Assets and Liabilities:					
Receivables:					
Members & Employers	—	(190)	(196)	(386)	(978)
Health Carriers & Pharmacy Benefit Managers	(551)	2,914	—	2,363	(23,914)
Due from Other Funds	(19,699)	1,427	—	(18,272)	(4,082)
Claims Payable	(13,164)	—	1,529	(11,635)	(33,484)
Unearned Premiums	16,750	—	8,342	25,092	4,754
Due to Employers	—	(450)	—	(450)	(12,846)
Estimated Insurance Claims Due	10,885	—	—	10,885	14,332
Net Pension & OPEB Liabilities	9,248	6,823	1,426	17,497	(29,197)
Estimated Liability for Future Policy Benefits Short-Term	—	—	36,494	36,494	(8,521)
Estimated Liability for Future Policy Benefits Long-Term	—	—	2,387,584	2,387,584	89,414
Due to Carriers	—	53,534	—	53,534	(2,834)
Due to Other Funds	3,085	24,461	(610)	26,936	7,037
Management & Third-Party Administrator Fees Payable	(10,246)	—	(61)	(10,307)	(5,680)
Other	—	769	377	1,146	537
Net Cash Provided by (Used for) Operating Activities	(\$106,923)	\$77,243	(\$75,456)	(\$105,136)	(\$310,129)
Noncash Investing Activities					
Noncash Increase/(Decrease) in Fair Value of Investments	\$42,292	\$0	(\$198,814)	(\$156,522)	\$81,468

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 all active and retired 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 Senate Rules Committee and the Speaker of the Assembly, and four ex officio members: State Treasurer, State Controller, Director of California Department of Human Resources, and Designee of the State Personnel Board. The Board is responsible for the management and control of CalPERS, including the exclusive control of the administration and investment of the System.

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

CalPERS Plans

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

DEFINED BENEFIT PENSION PLANS

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

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

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

As of June 30, 2020, the PERF had the following participating employers:

Employers for PERF

PERF Employers	2020
PERF A	
State	1
Public Agencies ¹	309
Total	310
PERF B	
School Districts and Charter Schools	1,326
PERF C	
Public Agencies ¹	1,296
Total Employers	2,932

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

Legislators' Retirement Fund (LRF) – The LRF was established by Chapter 879 of the 1947 Statutes and provides retirement, death, and disability benefits to state legislators, constitutional officers, and legislative statutory officers. The benefits for the LRF are established in accordance with the

Notes to the Basic Financial Statements (continued)

provisions of the Legislators' Retirement Law. In November 1990, Article IV, Section 4.5 was added to the State Constitution, pursuant to the adoption of Proposition 140. This section effectively prohibited future legislators from earning state retirement benefits for service in the Legislature on or after November 7, 1990, though it recognized vested pension benefits that had accrued before that date. The only active members in the fund are constitutional officers and legislative statutory officers. The Public Employees' Pension Reform Act of 2013 (PEPRA) closed the Legislators' Retirement System to new participants effective January 1, 2013.

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

The JRF is funded on a pay-as-you-go basis, where short-term investments, contributions received during the year, and a State General Fund augmentation are used to provide funding for benefit payments. This funding method is generally more expensive in the long term, as the plan does not have investment returns generated by a funded plan. Without the State General Fund augmentation, the JRF will not be able to pay the accumulated benefit payments due in Fiscal Year 2020-21.

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

Plan Membership

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

As of June 30, 2020, 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 ¹	Survivors & Beneficiaries ¹	Members		Total
			Active	Inactive or Deferred not receiving benefits	
PERF A					
Agent	392,840	63,275	492,671	208,464	1,157,250
PERF B					
Schools Cost-Sharing	201,860	30,408	336,019	206,626	774,913
PERF C					
Public Agency Cost-Sharing	38,769	5,377	49,394	26,379	119,919
Total PERF	633,469	99,060	878,084	441,469	2,052,082
LRF	102	110	2	4	218
JRF	1,382	610	130	1	2,123
JRF II	349	41	1,625	—	2,015
Total	635,302	99,821	879,841	441,474	2,056,438

(1) Retirees and Survivors & Beneficiaries represent inactives receiving benefits.

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, employers, non-employers, and earnings from investments. Member and employer contributions are a percentage of applicable member compensation. Member contribution rates are defined by law and depend on the respective employer’s benefit formulas. In some circumstances, contributions are made by the employer to satisfy member contribution requirements. Member and employer contribution rates are determined by periodic actuarial valuations or by state statute. Actuarial valuations are based on the benefit formulas and employee groups of each employer. Non-employer contributions are not expected each year, but when provided they are accrued for.

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, changed the way CalPERS retirement benefits are applied, and places compensation limits on members with the most impact felt by new CalPERS members. Under PEPRA, new members include:

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

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

Required contribution rates for active plan members and employers as a percentage of payroll for the fiscal year ended June 30, 2020, were as follows:

Required Contribution Rates

	Employee Contribution Rates		Employer - Required Contribution Rates
	Classic	PEPRA	
PERF A – Agent			
State:			
Miscellaneous – First Tier	5% to 11%	7.25% to 11%	30.98%
Miscellaneous – Second Tier	3.75%	3.75%	30.98%
Industrial – First Tier	5% to 11%	6% to 11%	20.82%
Industrial – Second Tier	3.75%	3.75%	20.82%
Safety	11.00%	11.00%	21.53%
Peace Officers and Firefighters	8% to 13%	11 to 13%	47.20%
California Highway Patrol	11.50%	11.50%	57.81%
Public Agency:			
Miscellaneous	5% to 8%	5.50% to 8.25%	varies ¹
Safety	7% to 9%	9.25% to 14.50%	varies ¹
PERF B – Schools Cost-Sharing			
Classified School	7.00%	7.00%	19.72%
PERF C – Public Agency Cost-Sharing			
Public Agency:			
Miscellaneous	2% to 8%	4.00% to 7.25%	varies ¹
Safety	7.00% to 10.10%	10% to 16%	varies ¹
LRF	4% or 8%	N/A	35.27% ²
JRF	8.00%	N/A	8.00% ³
JRF II	8.00%	16.00%	24.96% ²

(1) Required contributions for individual public agencies’ plans are the sum of the normal cost (expressed as a percentage of pay) and a payment toward any unfunded liability. Individual plan results vary.

(2) This is the minimum PEPRA employer contribution rate, which is the greater of the actuarially determined employer contribution or the employer normal cost.

(3) 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 for certain members. These funds are further described below:

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

Supplemental Contributions Program Fund (SCPF) – The SCPF was established 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, 2020, membership in the defined contribution plans consisted of the following:

Members in DCF and SCPF

Plan	Employers	Members
DCF	821	31,821
SCPF	1	6,661

OTHER ADMINISTRATIVE ACTIVITIES

CalPERS administers other activities as follows:

The California Employers' Pension Prefunding Trust Fund (CEPPTF) – The CEPPTF was established by Chapter 665 of the 2018 Statutes, and employers elect to participate in the CEPPTF to prefund pension contributions to their defined benefit pension plans. Currently, the CEPPTF has 15 participating employers. Of the 15 participating employers, eight employers have contributed assets in the CEPPTF as of June 30, 2020. The CEPPTF is more fully described in Note 9 to the financial statements.

The California Employers' Retiree Benefit Trust Fund (CERBTF) – The Annuitants' Health Care Coverage Fund, also known as CERBTF, was established by Chapter 331 of the 1988 Statutes, and employers elect to participate in the CERBTF to save funds to pay future retiree and survivors health care and other post-employment benefits (OPEB). Currently, the CERBTF has 572 participating employers. Of the 572 participating employers, 557 employers have

contributed assets in the CERBTF as of June 30, 2020. The CERBTF is more fully described in Note 10 to the financial statements.

Replacement Benefit Fund (RBF) – The RBF was established by Chapter 798 of the 1990 Statutes, providing replacement benefits to members of the defined benefit pension plans. The RBF is more fully described in Note 11 to the financial statements.

Old Age and Survivors' Insurance Revolving Fund (OASI) – The OASI was established pursuant to Government Code section 22600 in order to carry out all of the provisions of the Old Age and Survivors' Insurance Program in accordance with Section 218 of Title II of the Social Security Act. The OASI Fund is more fully described in Note 12 to the financial statements.

Public Employees' Health Care Fund (HCF) – The HCF was created by Chapter 1129 of the 1987 Statutes under the Public Employees' Medical and Hospital Care Act (PEMHCA), providing health insurance coverage to CalPERS members through a pooled risk plan. The HCF is more fully described in Note 13 to the financial statements.

Public Employees' Contingency Reserve Fund (CRF) – The CRF was created by Chapter 1236 of the 1961 Statutes with the passage of PEMHCA, and provides a contingency reserve for items such as future rates or future benefits. The CRF is more fully described in Note 14 to the financial statements.

Public Employees' Long-Term Care Fund (LTCF) – The LTCF was established by Chapter 1154 of the 1992 Statutes as part of the Public Employees Long-Term Care Act to administer the long-term care insurance plans available to eligible participants. The LTCF is described in more depth in Note 15 to the financial statements.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

REPORTING ENTITY

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

MEASUREMENT FOCUS, BASIS OF ACCOUNTING & BASIS OF PRESENTATION

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

Notes to the Basic Financial Statements (continued)

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, 2020:

Fiduciary Funds – include pension trusts (PERF A, PERF B, PERF C, LRF, JRF, JRF II, DCF, SCPF), an investment trust (CEPPTF), an other post-employment trust (CERBTF), and custodial funds RBF and OASI, 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. Contributions to the defined contribution plans, the investment plan, and the other post-employment benefit plan are recognized when received. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan. The RBF and OASI are custodial funds and are fiduciary in nature, accounted for on the flow of economic resources measurement focus and the accrual basis of accounting.

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

TARGET ASSET ALLOCATION

State statutes and Board policies allow investments in government, domestic and international debt, domestic and international equities, mutual funds, private equity, real assets, and other investments.

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, 2020:

Target Asset Allocation

Asset Class	PERF A	PERF B	PERF C	LRF	JRF	JRF II
Global Equity	50%	50%	50%	22%	—	52%
Private Equity	8%	8%	8%	—	—	—
Global Debt Securities	28%	28%	28%	49%	—	32%
Real Assets	13%	13%	13%	—	—	—
Liquidity	1%	1%	1%	—	100%	—
Inflation	—	—	—	16%	—	5%
REITs	—	—	—	8%	—	8%
Commodities	—	—	—	5%	—	3%
Total	100%	100%	100%	100%	100%	100%

The California Employers' Retiree Benefit Trust Fund (CERBTF) enables employers to pre-fund liabilities for other post-employment benefits (OPEB). Three diversified policy portfolios (Strategy 1, 2, and 3) are available for employers to select depending on employer preferences for return and risk (volatility) expectations. By comparison, Strategy 1 has the higher 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 lower 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	59%	40%	22%
Global Debt Securities	25%	43%	49%
Inflation Assets	5%	5%	16%
REITs	8%	8%	8%
Commodities	3%	4%	5%
Total	100%	100%	100%

The California Employers' Pension Prefunding Trust Fund (CEPPTF) enables employers to pre-fund employer contributions to defined benefit pension plans. Two diversified policy portfolios (Strategy 1 and 2) are available for employers to select depending on employer preferences for return and risk (volatility) expectations. By comparison, Strategy 1 has the higher long-term expected rate of return and return volatility. Strategy 2 has the lower long-term expected rate of return and return volatility.

Notes to the Basic Financial Statements (continued)

The following table shows the Board-adopted target asset allocation policy for the two CEPPTF strategies:

CEPPTF Target Asset Allocation

Asset Class	CEPPTF Strategy 1	CEPPTF Strategy 2
Global Equity	40%	14%
Global Debt Securities	47%	73%
Inflation Assets	5%	5%
REITs	8%	8%
Total	100%	100%

CAPITAL ASSETS

Capital assets are defined as assets with an initial individual cost of \$5,000 or more, or \$1 million or more for intangible assets, and an estimated useful life in excess of one year. Capital assets consist of buildings, furniture, equipment, and intangible assets recorded at cost or, if donated, at their acquisition value. Capital assets are depreciated over their estimated useful lives, ranging from 3 to 5 years for furniture and equipment, and 40 years for buildings, and determined on an asset-by-asset basis for intangible assets, using the straight-line method of depreciation.

INVESTMENT EXPENSES

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

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

USE OF ESTIMATES IN THE PREPARATION OF FINANCIAL STATEMENTS

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make significant estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, and deferred inflows of resources and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue/additions and expenses/deductions 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, and foreign currency risks. 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 4.0 percent, morbidity lapse rates, voluntary termination, mortality, and plan expenses.

Due to uncertainties inherent in the estimations and assumptions described in this section, it is at least reasonably possible that changes in these estimates and assumptions in the near term may 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, 2019, to conform to the presentation as of and for the fiscal year ended June 30, 2020.

COMPARATIVE TOTALS

The Basic Financial Statements include certain prior year summarized comparative information in total but not at the level of detail required for a presentation in conformity with U.S. generally accepted accounting principles. Accordingly,

Notes to the Basic Financial Statements (continued)

such information should be read in conjunction with CalPERS financial statements for the fiscal year ended June 30, 2019, from which the summarized information was derived. The Fiscal Year 2018-19 beginning of the year net position of the OASI was restated as a result of it being reported separately to more accurately depict the custodial nature of the fund.

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.

EMPLOYER SHARE OF POST-EMPLOYMENT BENEFITS

As of June 30, 2020, CalPERS has adjusted its proportionate share of the state's net pension and OPEB liabilities totaling approximately \$592 million and \$659 million, respectively. CalPERS recorded these post-employment liabilities along with the corresponding amount of deferred inflows and outflows of resources and related post-employment benefit expense for all affected funds. CalPERS is not providing additional disclosures as it has concluded that presenting such employer related pension and post-employment obligations disclosures would be misleading to the users of CalPERS financial statements where the focus is on plans, not individual employer pension and post-employment obligations. Refer to the State of California CAFR for additional information on CalPERS pension and OPEB liabilities.

INTERFUND BALANCES

The Basic Financial Statements include amounts Due from Other Funds and Due to Other Funds. The principal purposes for these interfund balances include administration expense reimbursements due from other CalPERS funds to the PERF; incoming health premiums in transit and due from the CRF and due to the HCF; and member transfers in transit and due to and due from one pension plan to another. The balance of Health premiums due from CRF to HCF was \$327 million at June 30, 2020. All interfund balances are expected to be repaid within one year from the date of these financial statements. This interfund activity occurs on a routine basis

and is consistent with the activities of the fund making the transfer.

3. CASH AND CASH EQUIVALENTS

Cash and cash equivalents of approximately \$0.5 billion at June 30, 2020, represent amounts held in the CalPERS general operating accounts with the State Treasury and the master custodian, State Street Bank and Trust Company. 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, 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). NAV is used as a practical expedient to estimate the fair value of CalPERS interest therein, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. As of June 30, 2020, CalPERS had no specific plans or intentions to sell investments at amounts different from NAV.

Notes to the Basic Financial Statements (continued)

The following table presents a summary of CalPERS investments by type as of June 30, 2020, at fair value:

CalPERS – Investments at Fair Value¹ (Dollars in Thousands)

	Fair Value June 30, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Global Equity				
Domestic Equity	\$104,785,260	\$104,785,260	\$0	\$0
International Equity	80,575,711	80,575,711	—	—
Total Global Equity	\$185,360,971	\$185,360,971	\$0	\$0
Global Debt				
Asset-Backed	\$30,188,725	\$0	\$29,106,225	\$1,082,500
Bank Loans	356,614	—	356,614	—
International Debt	3,017,725	—	3,017,725	—
Municipal/Public Bonds	10,838	—	10,838	—
Sovereign Debt	7,609,571	—	7,609,571	—
U.S. Corporate	26,743,748	—	26,743,748	—
U.S. Treasuries, STRIPS and TIPS	21,673,873	—	21,673,873	—
Total Global Debt	\$89,601,094	\$0	\$88,518,594	\$1,082,500
Derivatives				
Futures	\$9,790	\$9,790	\$0	\$0
Rights & Warrants	9,617	—	9,617	—
Forward Contract Assets	365,988	—	365,988	—
Forward Contract (Liabilities)	(144,346)	—	(144,346)	—
Swap Assets	548,313	—	548,313	—
Swap (Liabilities)	(12,765)	—	(12,765)	—
Total Derivatives	\$776,597	\$9,790	\$766,807	\$0
Other				
Rule 144(a) Securities	\$21,664,232	\$0	\$21,664,232	\$0
Securitized Assets	464,184	—	—	464,184
Private Equity ²	64,892	—	—	64,892
Total Other	\$22,193,308	\$0	\$21,664,232	\$529,076
Total Investments by Fair Value Level	\$297,931,970	\$185,370,761	\$110,949,633	\$1,611,576
Investments Measured at NAV				
Commingled/Pooled Funds	\$20,748,187			
Real Assets	43,008,182			
Private Equity ²	26,430,660			
Other Investments	1,269,829			
Total Investments Measured at NAV	\$91,456,858			
Total Investments Measured at Fair Value	\$389,388,828			

(1) Certain securities and derivatives disclosed in this table may be classified as short-term investments, global equity or debt securities, investment sales and other receivables, and investment purchases and other payables on the combined Statement of Fiduciary Net Position – Fiduciary Funds and the Statement of Net Position – Proprietary Funds. Accordingly, the totals presented in this table will not agree to the combined totals of investments presented in those statements.

(2) Private Equity is shown at NAV on the Statement of Fiduciary Net Position – Fiduciary Funds, while the direct holdings categorized in Level 3 represent the fair value of the assets for each private equity investment for GASB 72 purposes. Remaining real assets are valued at NAV.

Notes to the Basic Financial Statements (continued)

Global equity securities include both domestic and international securities, and are classified in Level 1. 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 that values these investments using observable inputs. Asset-backed securities not classified as Level 2 include collateralized mortgage obligations (CMO), which are mortgage-backed securities that contain a pool of mortgages bundled together and sold as an investment. These are classified in Level 3 of the fair value hierarchy, as assumptions are made by CalPERS to determine prepayment rates, probability of defaults, and loss severity, all of which are unobservable inputs.

Futures are actively traded on major exchanges with quoted prices, and are classified in Level 1 of the fair value hierarchy. Index, commodity, and fixed income futures are publicly traded on active markets, which is the market approach to valuing securities. All other derivatives are classified in Level 2 of the fair value hierarchy. For swaps, observable inputs may include yield curves or interest rates. Options, rights, warrants, and forward contracts are priced using the cost approach and/or are on a dealer market traded on lower frequencies. When these derivative securities are valued, they may not have similar or observable pricing inputs compared to 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 Act of 1933, which modifies a two-year holding period requirement on privately placed securities to permit qualified institutional buyers to trade these positions among themselves. These securities are typically acquired through unregistered, private sales, or constitute a control stake in an issuing company. Due to pricing inputs that are observable either directly or indirectly, which include

quoted prices for similar securities in active or inactive markets, or market-corroborated inputs, these securities are classified as Level 2. Additionally, other investments include securitized investments, which contain pooled debt instruments, limited partnership investments, and various other investment structures. Many securitized assets are created by combining similar financial assets into a security, and are marketed to investors as a single investment. Typically, these assumptions are internally generated and cannot be observed in an active market. Due to the fact that these assumptions are unobservable for holdings categorized as other investments, these are also classified as Level 3. Private Equity holdings, in which CalPERS invests directly, are valued at Level 3 of the fair market value hierarchy. Private equity holdings are valued at the income, cost, or market approach depending on the type of holdings. All direct holdings are valued using unobservable inputs and are classified in Level 3 of the fair value hierarchy.

Investments Measured at NAV (Dollars in Thousands)

Asset class	Fair Value	Unfunded Commitments
Commingled/Pooled Funds	\$20,748,187	\$0
Real Assets	43,008,182	4,150,595
Private Equity	26,430,660	25,070,093
Other Investments	1,269,829	240,560
Total	\$91,456,858	\$29,461,248

A commingled fund/pooled investment vehicle is a fund with capital pooled from multiple investors that is deployed to a mutually agreed upon strategy. The fair value of commingled funds/pooled investment vehicles is measured at NAV, where fair value is measured by multiplying the pool's share price by the number of shares held. Typically, there are no redemption constraints for the commingled funds.

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

Private equity holdings include fund 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.

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. This strategy is no longer actively managed but some residual balances exist at fiscal year end.
- Multi-Asset Class Program – management of portfolios which attempt to outperform the CalPERS assumed rate of return with less risk than the PERF.
- Venture Capital Funds – investments made to finance small, early-stage, emerging firms that are believed to have long-term growth potential.
- Opportunistic Strategies – objectives include:
 - The Low Liquidity Enhanced Return Policy goal is to earn a premium versus traditional limited duration assets by purchasing a broader universe of limited duration securities than those typically available to traditional money market portfolios. Trade finance extends duration, invests down the credit spectrum and is less liquid.

The other investment strategies are reported at NAV as they are externally managed fund-structure investments in nongovernmental entities that do not have readily determinable fair values. The redemption terms for these investments range from at will up to 90 days, with the exception of the Venture Capital Funds.

CalPERS invests in privately held real assets with vehicles such as separate accounts, direct investments, and commingled funds. Separate accounts, with co-invested external managers, are the predominant vehicle and operate through an annual investment process where commitments are generally revocable and excluded from the unfunded commitment disclosure. Direct vehicles generally entail a contractual commitment to an operating company, not controlled by a general partner. With commingled funds, CalPERS commits a stated amount of capital and funds such capital at the partners' request; undrawn balances are included 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 \$40.8 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, 2020:

Money-Weighted Rate of Return

Plan	Rate of Return
PERF A	
Agent	5.0%
PERF B	
Schools Cost-Sharing	5.0%
PERF C	
Public Agency Cost-Sharing	5.0%
LRF	6.2%
JRF	2.3%
JRF II	4.1%
CERBTF	4.0%

5. INVESTMENT RISK DISCLOSURES

INVESTMENT LEGAL DISCLOSURES

The Board of Administration's investment authority as well as other administrative duties and responsibilities are outlined in the California Constitution, Article 16, Section 17, the Public Employees Retirement Law, Article 6, Section 20190, and the California Public Employees' Pension Reform Act of 2013, Article 4 of Chapter 21 of Division 7 of Title 1, which, among other things, require diversification of investments so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so. As such, policies voted on by the Board allow for investments in government, domestic and international debt, domestic and international equities, mutual funds, private equity, real assets, and other investments, except for certain investments specifically prohibited by other statutes.

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.

Notes to the Basic Financial Statements (continued)

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, 2020, 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 Credit Risk

Other than U.S. Government Securities, which are not subject to the GASB 40 disclosure requirements, CalPERS utilizes its control framework that includes policies and policy-related procedures which are inclusive of issuer concentration and credit quality limits. 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 option-adjusted methodology. Generally, CalPERS investment policies require the option-adjusted duration of the total fixed income portfolio to stay within negative 10 percent to positive 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, 2020:

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

Debt Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2020	Percent of Debt Securities
U.S. Treasuries and Agencies:			
U.S. Treasury Bonds	19.00	\$16,296,740	15.97%
U.S. Treasury Notes	8.08	5,321,092	5.21%
U.S. Treasury Strips	12.86	56,040	0.05%
Corporate	9.80	40,486,357	39.67%
Mortgages	1.60	29,794,061	29.19%
Asset-Backed	0.41	11,255,796	11.03%
Foreign Government	5.05	7,560,172	7.41%
Municipals	14.64	10,838	0.01%
No Effective Duration:			
Commingled Fund	N/A	\$391,963	0.38%
Foreign Government	N/A	187,780	0.18%
Corporate	N/A	117,994	0.12%
Asset-Backed	N/A	25,612	0.03%
Mortgage	N/A	10,138	0.01%
Swaps	N/A	(9,451,129)	(9.26%)
Total		\$102,063,454	100.00%

CalPERS invests in the State Treasury pool, State Street Bank Global Advisors' (SSGA) funds: (1) Short-Term Investment Fund (STIF) and (2) U.S. Government Short-Term Investment Fund (GSTIF), and other short-term investment funds. These investments are included as part of the short-term investments in the financial statements. As of June 30, 2020, the pooled money investment account with the State Treasury totaled approximately \$3.4 billion. The SSGA STIF totaled approximately \$3.2 billion, and the SSGA GSTIF totaled approximately \$2.7 billion. 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, 2020, the weighted average maturity was 191 days for the State Treasury pool, 35 days for the SSGA STIF, and 33 days for the SSGA GSTIF. Both the SSGA STIF and the SSGA GSTIF are rated as P1. The State Treasury pool is not rated.

Notes to the Basic Financial Statements (continued)

The LRF, JRF II, CERBTF, SCPF, DCF, HCF, LTCF, and CEPPTF invest in various SSGA funds, with weighted average maturities and credit ratings as of June 30, 2020:

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

SSGA Fund	Fair Value June 30, 2020	Credit Rating ¹	Weighted Average Maturity ²
Bloomberg Barclays Long Liability Index	\$6,891,192	Aa3	14.18
U.S. Aggregate Bond Index	526,071	Aa2	8.02
U.S. Bond Index	384,447	Aa2	7.91
U.S. Inflation Protected Bond Index	11,195	Aaa	8.16
U.S. Short-Term Govt/Credit Bond Index	42,645	Aa2	1.97
U.S. TIPS Index	1,042,341	Aaa	8.23
Total	\$8,897,891		

(1) Credit rating reflects fair 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 years.

The following table presents the weighted average duration for securities lending collateral subject to interest rate risk as of June 30, 2020:

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

Security Type	Fair Value June 30, 2020	Percent of Securities Lending Collateral
No Effective Duration:		
Money Market Fund ¹	\$136,527	12.1%
Short-Term Investment Fund ²	989,154	87.9%
Total³	\$1,125,681	100.0%

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

(2) Short-Term Investment Fund has a weighted average maturity of 11 days.

(3) This figure does not include \$99,589 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 \$1,225,270 for fiduciary funds.

As of June 30, 2020, 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, 2020, the collateral invested in CalPERS Internal Securities Lending had an aggregate weighted average maturity (to final maturity) of one day. eSecLending (eSec) has a weighted average maturity (to final maturity) of one day.

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 controls framework, which includes investment policies, establish both general and specific risk measures. We manage credit risk through our Total Fund Policy, and policy related procedures, which is inclusive, but not limited to sector, issuer concentration, and credit quality limits. Of the total fixed income portfolio of the rated securities, 97 percent are investment-grade securities.

Investment-grade securities have low default probabilities and are rated at a minimum of Baa3 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, 2020:

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

Moody's Quality Rating	Fair Value June 30, 2020	Fair Value as a Percent of Debt Security Investments
Aaa	\$7,313,485	7.17%
Aa1	941,527	0.92%
Aa2	1,963,264	1.92%
Aa3	984,438	0.96%
A1	1,885,059	1.85%
A2	2,497,463	2.45%
A3	3,286,092	3.22%
B1	2,210,457	2.17%
B2	2,067,080	2.03%
B3	1,627,296	1.59%
Baa1	5,576,711	5.46%
Baa2	7,578,618	7.43%
Baa3	3,833,836	3.76%
Ba1	1,867,212	1.83%
Ba2	2,103,775	2.06%
Ba3	3,437,776	3.37%
Caa1	899,948	0.88%
Caa2	515,303	0.50%
Caa3	74,542	0.07%
Ca	26,015	0.03%
C	4,914	—%
NA ¹	22,782,822	22.32%
NR ²	28,585,821	28.01%
Total	\$102,063,454	100.00%

(1) NA represents U.S. government securities that are not applicable to the GASB 40 disclosure requirements.

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

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
NR ^{1,2}	\$1,125,681	100.0%
Total³	\$1,125,681	100.0%

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

(2) This figure includes \$136,527 invested in a money market fund and \$989,154 invested in short-term investments.

(3) This figure does not include \$99,589 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 \$1,225,270 for fiduciary funds.

Notes to the Basic Financial Statements (continued)

Foreign Currency Risk

Foreign currency risk is defined as any deposits or investments that are denominated in foreign currencies, which bear a potential risk of loss arising from changes in currency exchange rates. The System's asset allocation and investment policies allow for active and passive investments in international securities to reflect benchmarks that have both U.S. domestic and foreign currency. While there is not a formal policy related to foreign currency risk, the System manages and addresses the risk in asset class policies and policy related procedures, through metrics such as tracking error, and is required to report our total non-USD currency exposures to the Board as part of its Trust Level Review. The proportion of international stocks within the global equity portfolio is roughly equal to their market capitalization weight in the global equity benchmark. For the global debt securities, investing includes exposure to non-dollar denominated issues. Real assets and private equity do not have a target allocation for international investments. Foreign currency risk disclosures are shown in the CalPERS – International Investment Securities table below.

CalPERS – International Investment Securities¹ – Fair Value at June 30, 2020 (U.S. Dollars in Thousands)

Currency	Cash	Equity	Debt Securities	Real Assets	Private Equity	Forward Contracts	Total
Australian Dollar	(10,158)	3,325,877	—	816,758	—	25,084	\$4,157,561
Brazilian Real	312	993,394	41,797	532,313	—	3,849	1,571,665
British Pound	38,806	6,012,419	200,716	1,036,071	125,197	60,525	7,473,734
Canadian Dollar	1,225,740	5,397,813	—	308,106	113,742	(32,440)	7,012,961
Chilean Peso	75	148,247	—	75	—	6,436	154,833
Chinese Yuan Renminbi	1,876	914,613	—	969,817	—	(410)	1,885,896
Colombian Peso	109	39,176	—	—	—	(1,403)	37,882
Czech Koruna	150	26,722	—	—	—	638	27,510
Danish Krone	215	1,210,907	—	29,591	—	1,058	1,241,771
Egyptian Pound	68	39,022	—	—	—	(92)	38,998
Euro Currency	(49,045)	15,078,520	3,275,458	1,895,351	3,764,494	151,201	24,115,979
Guatemala Quetzal	—	—	—	118,656	—	—	118,656
Hong Kong Dollar	1,974	6,363,583	—	—	—	495	6,366,052
Hungarian Forint	93	84,263	—	—	—	47	84,403
Indian Rupee	110	2,858,169	—	698	—	48	2,859,025
Indonesian Rupiah	84	491,177	—	—	—	(270)	490,991
Israeli Shekel	201	389,668	—	—	—	(10)	389,859
Japanese Yen	12,751	16,591,202	1,219,761	65,913	1,205	4,917	17,895,749
Kuwaiti Dinar	(140)	98,804	—	—	—	—	98,664
Malaysian Ringgit	107	613,767	—	—	—	—	613,874
Mexican Peso	100	259,194	—	19,532	—	(516)	278,310
New Taiwan Dollar	16	4,313,803	—	—	—	(1,679)	4,312,140
New Zealand Dollar	175	299,344	—	—	—	(1,147)	298,372
Norwegian Krone	90	416,618	—	4,693	—	(2,117)	419,284
Pakistan Rupee	99	12,896	—	—	—	—	12,995
Peruvian Nuevo Sol	25	—	—	—	—	25	50
Philippine Peso	173	241,717	—	—	—	205	242,095
Polish Zloty	276	110,937	—	—	—	340	111,553
Qatari Riyal	159	285,969	—	—	—	(8)	286,120
Russian Ruble	—	—	—	105,305	—	2,505	107,810
Saudi Riyal	420	942,848	—	—	—	(2)	943,266
Singapore Dollar	1,197	955,760	—	8,013	—	626	965,596
South African Rand	146	706,940	—	—	—	5,086	712,172
South Korean Won	1,261	2,293,959	—	10,238	—	303	2,305,761
Swedish Krona	359	1,421,518	132,160	32,185	—	1,693	1,587,915
Swiss Franc	345	6,515,465	—	—	—	403	6,516,213
Thailand Baht	739	805,522	—	—	—	(256)	806,005
Turkish Lira	85	130,260	—	—	—	(2,283)	128,062
Uae Dirham	10,704	192,220	—	—	—	(10)	202,914
Total	\$1,239,697	\$80,582,313	\$4,869,892	\$5,953,315	\$4,004,638	\$222,841	\$96,872,696

(1) This table presents investment securities of all CalPERS managed funds, including derivative instruments that are subject to foreign currency risk; investment securities includes partnership level information for private assets. Applicable derivative instrument amounts are reflected under Equity and Forward Contracts columns.

6. SECURITIES LENDING

The State Constitution and Board policy permits 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 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 a minimum of 102 percent and 105 percent, respectively, of the loaned securities' fair value. CalPERS cannot seize the collateral without borrower default; the collateral is therefore not reported in CalPERS financial statements in accordance with GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions* (GASB 28). Management believes CalPERS has minimized credit risk exposure to borrowers by requiring the borrower to provide collateralization greater than 100 percent of the fair value of the securities loaned. The securities loaned are priced daily by third-party sources, and margins are delivered/received daily to maintain over-collateralized levels. Securities on loan can be recalled or returned by CalPERS or the borrower at any time. Since loans are terminable at will, loan durations do not generally match the duration of the investments made with the cash collateral. CalPERS may enter into term loan agreements, which are evaluated on an individual basis. On June 30, 2020, the fair value of the securities on loan was approximately \$28.9 billion. The securities on loan remain on CalPERS' Statement of Fiduciary Net Position in their respective investment categories. At June 30, 2020, cash collateral received totaling \$1.2 billion is reported as securities lending obligation, and the fair value of reinvested cash collateral totaling \$1.2 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, eSecLending and CalPERS manage the collateral.

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, because 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 the standard International Swaps and Derivatives Association and Credit Support Annex agreements with all counterparties.

At June 30, 2020, the aggregate fair value of investment derivatives in an asset position subject to counterparty credit risk was approximately \$914.3 million. The aggregate amount of cash collateral held by CalPERS on behalf of over-the-counter derivatives was approximately \$597.6 million.

Notes to the Basic Financial Statements (continued)

CalPERS – Derivative Instruments Summary^{1,2} (Dollars in Thousands)

Investment	Net Appreciation/ (Depreciation) in Fair Value for the Fiscal Year Ended June 30, 2020	Fair value at June 30, 2020		
		Classification	Amount	Notional
Derivatives (by Type)	Amount	Classification	Amount	Notional
Credit Default Swaps Bought	(\$559)	Debt Securities	\$0	\$0
Credit Default Swaps Written	(721)	Debt Securities	—	—
Currency Swaps	(288)	Debt Securities	—	—
Fixed Income Futures Long	1,437,951	Equity Securities	(41,071)	1,418,699,230
Fixed Income Futures Short	(195,556)	Equity Securities	4,587	(118,566,255)
Fixed Income Options Bought	1,468	Equity Securities	—	—
Fixed Income Options Written	(12,460)	Equity Securities	—	—
Foreign Currency Options Bought	(899)	Equity Securities	—	—
Foreign Currency Options Written	217	Equity Securities	—	—
Futures Options Written	(9)	Equity Securities	—	—
FX Forwards	293,627	Investment Sales/ Purchases	221,642	20,000,731
Index Futures Long	1,655,488	Equity Securities	46,809	9,602,637
Index Futures Short	85,702	Equity Securities	(535)	(53,407)
Index Options Written	1,058	Debt Securities	—	—
Pay Fixed Interest Rate Swaps	(6,818)	Debt Securities	(5,790)	29,700
Receive Fixed Interest Rate Swaps	14,356	Debt Securities	292	1,500
Rights ³	2,548	Equity Securities	9,533	24,896
Total Return Swaps Bond	1	Debt Securities	—	338,366
Total Return Swaps Equity	1,665,684	Debt Securities	541,046	(9,445,136)
Warrants ³	(116)	Equity Securities	84	3,125
Total	\$4,940,674		\$776,597	

(1) The information presented in this table is derived from CalPERS' June 30, 2020, accounting records and in some instances may reflect trades on a one-day lag basis.

(2) Derivative instruments subject to foreign currency risk include FX Forwards, and a portion of the Rights and Index Futures amounts listed. These amounts are reflected in the International Investment Securities table under Forward Contracts and Equity columns.

(3) Rights and Warrants are Notional units.

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

Investment Type	Fair Value June 30, 2020	Investment Maturities (in years)			
		Under 1	1–5	6–10	10+
Pay Fixed Interest Rate Swaps	(\$5,790)	\$0	\$0	\$0	(\$5,790)
Receive Fixed Interest Rate Swaps	292	—	—	120	172
Total Return Swaps Equity	541,046	541,046	—	—	—
Total	\$535,548	\$541,046	\$0	\$120	(\$5,618)

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, 2020	Notional
Interest Rate Swaps	Receive Fixed 1.931%, Pay Variable - 3 month LIBOR	\$120	\$1,000
Interest Rate Swaps	Receive Fixed 2.201%, Pay Variable - 3 month LIBOR	172	500
Interest Rate Swaps	Receive Variable 3-month LIBOR, Pay Fixed 1.643%	(5,790)	29,700
Subtotal – Interest Rate Swaps		(\$5,498)	\$31,200
Total Return Bond Swaps	Receive Fixed 3.90%, Pay Fixed 0%	\$0	\$3,691
Total Return Bond Swaps	Receive Fixed 4.10%, Pay Fixed 0%	—	146,440
Total Return Bond Swaps	Receive Fixed 5.10%, Pay Fixed 0%	—	19,424
Total Return Bond Swaps	Receive Fixed 5.50%, Pay Fixed 0%	—	3,933
Total Return Bond Swaps	Receive Fixed 5.80%, Pay Fixed 0%	—	4,950
Total Return Bond Swaps	Receive Variable 1-month spread, Pay Fixed 0%	—	36,230
Total Return Bond Swaps	Receive Variable 3-month spread, Pay Fixed 0%	—	123,698
Subtotal – Total Return Bond Swaps		\$0	\$338,366
TOTAL		(\$5,498)	\$369,566

CalPERS – Derivative Instruments Subject to Counterparty Credit Risk

Counterparty	Percentage of Net Exposure	Moody's Ratings
BNP Paribas, S.A.	51.24%	Aa3
Goldman Sachs International	23.26%	A1
Morgan Stanley Capital Services, Inc.	5.30%	A3
Standard Chartered Bank	3.38%	A1
Bank of America	3.19%	A2
Societe Generale	2.42%	A1
UBS AG	2.40%	Aa3
JP Morgan Chase Bank, N.A.	1.98%	Aa2
State Street Bank and Trust Company	1.90%	Aa3
Citibank N.A.	1.54%	Aa3
Natwest Markets Plc	1.27%	Baa2
Bank of New York	0.58%	A1
Bank of America, N.A.	0.46%	Aa2
Wells Fargo Bank, N.A.	0.44%	A2
Barclays Bank Plc Wholesale	0.28%	A1
HSBC Bank USA	0.24%	Aa3
Royal Bank of Canada	0.05%	A2
Credit Suisse International	0.04%	A1
Citigroup Global Markets Ltd.	0.03%	NR
TOTAL	100.00%	

8. EMPLOYERS' NET PENSION LIABILITY/(ASSET)

The components of the net pension liability of the PERF B, PERF C, LRF, JRF, and JRF II as of June 30, 2020, are reported below. PERF A is an agent multiple-employer plan and therefore not disclosed in the following tables, consistent with GASB Statement No. 67, *Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25* (GASB 67) reporting requirements.

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

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	\$102,289,672	\$71,606,596	\$30,683,076	70.0%
PERF C				
Public Agencies Cost-Sharing	43,702,931	32,822,501	10,880,430	75.1%
LRF				
State of California	94,510	114,048	(19,538)	120.7%
JRF				
State of California	3,235,471	43,727	3,191,744	1.4%
JRF II				
State of California	1,892,581	1,880,007	12,574	99.3%

The total pension liability for each defined benefit plan was determined by actuarial valuations as of June 30, 2019, which were rolled forward to June 30, 2020, using the following actuarial assumptions:

Actuarial Assumptions Used to Measure the Total Pension Liability

	PERF B Schools Cost-Sharing	PERF C Public Agency Cost-Sharing	LRF	JRF	JRF II
Inflation Rate	2.50%	2.50%	2.50%	2.50%	2.50%
Salary Increases	Varies by Entry Age and Service	Varies by Entry Age and Service	2.75%	2.75%	2.75%
Mortality Rate Table ¹	Derived using CalPERS membership data for all funds				
The above actuarial assumptions were based upon the following experience study periods:	1997-2015	1997-2015	1997-2015	1997-2015	1997-2015
Post-Retirement Benefit Increase	2.00% until PPPA floor on purchasing power applies, 2.5% thereafter	Contract COLA up to 2.5% until PPPA floor on purchasing power applies, 2.5% thereafter	2.50%	2.50%	2.50%
Long-term rate of return assumption on plan investments used in discounting liabilities:	7.15%	7.15%	5.25%	2.45%	6.65%

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

Notes to the Basic Financial Statements (continued)

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

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

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

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

Asset Class ¹	Assumed Asset Allocation	Real Return Years 1 - 10 ²	Real Return Years 11+ ³
Global Equity	50.00%	4.80%	5.98%
Fixed Income	28.00%	1.00%	2.62%
Inflation Assets	0.00%	0.77%	1.81%
Private Equity	8.00%	6.30%	7.23%
Real Assets	13.00%	3.75%	4.93%
Liquidity	1.00%	0.00%	(0.92%)

(1) In the Basic Financial Statements, Fixed Income is included in Global Debt Securities; Liquidity is included in Short-Term Investments; Inflation Assets are included in both Global Equity Securities and Global Debt Securities.

(2) An expected inflation of 2.00% used for this period.

(3) An expected inflation of 2.92% used for this period.

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

Asset Class ¹	Assumed Asset Allocation	Real Return Years 1 - 10 ²	Real Return Years 11+ ³
Global Equity	22.00%	4.80%	5.98%
Fixed Income	49.00%	1.10%	2.62%
TIPS	16.00%	0.25%	1.46%
Commodities	5.00%	1.50%	2.87%
REITs	8.00%	3.50%	5.00%

(1) In the Basic Financial Statements, Commodities and REITs are included in Global Equity Securities; Fixed Income and TIPS are included in Global Debt Securities.

(2) An expected inflation of 2.00% used for this period.

(3) An expected inflation of 2.92% used for this period.

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

Asset Class ¹	Assumed Asset Allocation	Real Return Years 1 - 10 ²	Real Return Years 11+ ³
Global Equity	52.00%	4.80%	5.98%
Fixed Income	32.00%	1.10%	2.62%
TIPS	5.00%	0.25%	1.46%
Commodities	3.00%	1.50%	2.87%
REITs	8.00%	3.50%	5.00%

(1) In the Basic Financial Statements, Commodities and REITs are included in Global Equity Securities; Fixed Income and TIPS are included in Global Debt Securities.

(2) An expected inflation of 2.00% used for this period.

(3) An expected inflation of 2.92% used for this period.

DISCOUNT RATE

PERF B, PERF C, LRF, and JRF II

The discount rates used to measure the total pension liability as of June 30, 2020, for the PERF B, PERF C, LRF, and JRF II were 7.15 percent, 7.15 percent, 5.25 percent, and 6.65 percent, respectively. These discount rates are not adjusted for administrative expenses.

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

JRF

The discount rate used to measure the total pension liability as of June 30, 2020, was 2.45 percent, which differs from the discount rate used as of June 30, 2019, of 3.13 percent. The State funds the JRF benefit obligations using the pay-as-you-go method. Under the pay-as-you-go method, the pension plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments of current active and inactive employees. The discount rate is based on a 20-year tax-exempt General Obligation Municipal Bond with an average rating of AA (as reported in Fidelity Index's "20-Year Municipal GO AA Index") and was applied to all periods of projected benefit payments to measure the total pension liability.

Notes to the Basic Financial Statements (continued)

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

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

Sensitivity Analysis (Dollars in Thousands)

Discount Rate (assumed)

Plan	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability/(Asset)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	\$102,289,672	\$71,606,596	\$30,683,076	70.0%
PERF C				
Public Agencies Cost-Sharing	43,702,931	32,822,501	10,880,430	75.1%
LRF				
State of California	94,510	114,048	(19,538)	120.7%
JRF				
State of California	3,235,471	43,727	3,191,744	1.4%
JRF II				
State of California	1,892,581	1,880,007	12,574	99.3%

Sensitivity Analysis (Dollars in Thousands)

Discount Rate -1%

Plan	Total Pension Liability (-1%)	Plan Fiduciary Net Position	Net Pension Liability/(Asset) (-1%)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	\$115,719,113	\$71,606,596	\$44,112,517	61.9%
PERF C				
Public Agencies Cost-Sharing	49,586,334	32,822,501	16,763,833	66.2%
LRF				
State of California	105,865	114,048	(8,183)	107.7%
JRF				
State of California	3,593,078	43,727	3,549,351	1.2%
JRF II				
State of California	2,123,622	1,880,007	243,615	88.5%

Sensitivity Analysis (Dollars in Thousands)

Discount Rate +1%

Plan	Total Pension Liability (+1%)	Plan Fiduciary Net Position	Net Pension Liability/(Asset) (+1%)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability
PERF B				
Schools Cost-Sharing	\$91,143,910	\$71,606,596	\$19,537,314	78.6%
PERF C				
Public Agencies Cost-Sharing	38,860,756	32,822,501	6,038,255	84.5%
LRF				
State of California	85,298	114,048	(28,750)	133.7%
JRF				
State of California	2,932,817	43,727	2,889,090	1.5%
JRF II				
State of California	1,704,682	1,880,007	(175,325)	110.3%

9. CALIFORNIA EMPLOYERS' PENSION PREFUNDING TRUST FUND

The CEPPTF was established by Chapter 665 of the 2018 Statutes and initially funded in 2019. At June 30, 2020, 15 employers had elected to participate in the fund. Of the 15 participating employers, nine employers have contributed assets in the CEPPTF as of June 30, 2020. The purpose of the fund is to receive contributions from participating employers and establish separate employer prefunding accounts to pay for future contributions to their defined benefit pension plans. Contributions are voluntarily determined by the employer's own funding schedule, and there are no long-term contracts for contributions to the trust. As such, contributions to the CEPPTF are elective and not required. The CEPPTF is an investment trust fund as defined in GASB Statement No. 84, *Fiduciary Activities*, with pooled administrative and investment functions.

Participating employers may receive disbursements from the fund not to exceed the actual contributions made to their pension plans during the fiscal year. 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 (IRC), 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 IRC, other laws and accounting standards, and the Board's fiduciary duties that all of the employer's obligations for the payment of defined benefit pension plan benefits and reasonable administrative costs have been satisfied.

The CEPPTF costs include direct administrative and investment costs as well as indirect costs that are allocated through the Board-approved annual budget and cost-allocation process. CalPERS contracts with a third-party service provider, Northeast Retirement Services (NRS), to perform recordkeeping for individual CEPPTF employer accounts.

The total Fiscal Year 2019-20 employer contributions from participating employers were \$10.5 million and there were no disbursements.

The CEPPTF 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 CEPPTF has separate, Board-approved asset allocation policies in place for the two investment options offered by the fund. Each

strategy seeks to offer employers investment alternatives dependent upon expected levels of return and volatility.

10. OTHER POST-EMPLOYMENT BENEFIT TRUST FUND

The CERBTF (also known as Annuitants' Health Care Coverage Fund) was established by Chapter 331 of the 1988 Statutes and initially funded in 2007. At June 30, 2020, 572 employers had elected to participate in the fund. Of the 572 participating employers, 557 employers have contributed assets in the CERBTF as of June 30, 2020. 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 IRC, 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 IRC, 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, 2020, there were 497,011 active plan members, 308,931 inactive plan members currently receiving benefit payments, and 11,511 inactive plan members entitled to but not yet receiving benefit payments.

The CERBTF costs include direct administrative and investment costs as well as indirect costs that are allocated through the Board-approved annual budget and cost-allocation process. CalPERS contracts with a third-party service provider, NRS, to perform recordkeeping for individual CERBTF employer accounts.

The total Fiscal Year 2019-20 actual OPEB employer contributions from participating employers representing 589 OPEB plans were \$4.6 billion. In compliance with GASB 74, this amount includes the \$1.6 billion in contributions made to the CERBTF, plus an additional \$3.0 billion in retiree health care premiums paid by employers directly to health care 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 4.0 percent for Fiscal Year 2019-20.

11. REPLACEMENT BENEFIT FUND (RBF)

The RBF was established as a custodial fund by Chapter 798 of the 1990 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) and 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, 2020, there were 1,496 participants 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.

12. OLD AGE AND SURVIVORS' INSURANCE REVOLVING FUND (OASI)

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

The Board of Administration serves as the State Social Security Administrator (SSSA). Between 1955 and 1986 the SSSA was responsible for collecting Social Security and Medicare taxes from public employers. Effective January 1, 1987, with the enactment of the Omnibus Budget Reconciliation Act of 1986, the responsibility of collecting taxes moved from CalPERS to the Internal Revenue Service and the OASI has been operating since 1987 using the interest that was earned on the OASI. The OASI funds diminished requiring additional funding to pay for the costs of administering the SSSA program. On July 1, 2019, CalPERS began charging participating agencies a specified fee to pay for these costs. In Fiscal Year 2020-21 CalPERS will continue assessing fees to cover costs, and continue administering the program.

13. PUBLIC EMPLOYEES' HEALTH CARE FUND (HCF)

The HCF was established under the PEMHCA as of July 1, 1988. Health plan offerings include self-funded plans, PERS Choice, PERSCare, and PERS Select. Effective January 1, 2014, flex-funded plans, Anthem Blue Cross, Blue Shield of California, Health Net, Sharp, UnitedHealthcare, and effective January 1, 2018, Western Health Advantage were added. 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, effective January 1, 2019, the flex-funded plans retain no risk of loss when capitated and fee-for-service expenses come higher than agreed with the contractor. 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 2019-20 the Board approved aggregate increases

Notes to the Basic Financial Statements (continued)

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.

At June 30, 2020, 100 percent of the HCF's investments in global debt securities are in the SSGA U.S. Aggregate Bond Index Fund with further details in Note 4.

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, 2020, 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 \$470.5 million is carried at its face amount, and no interest discount is assumed. The IBNR portion of \$401.4 million represents an estimate for claims that have been incurred prior to June 30, 2020, but have not been reported to the HCF. The total of the estimated claims liabilities at the end of the Fiscal Year 2019-20 is \$738.1 million. The year-end amount also includes \$267.6 million of known claims, which is reported as claims payable liability in the Statement of Net Position.

ANTICIPATED INVESTMENT INCOME AND REINSURANCE

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

The following schedule represents changes in the aggregate estimated claims liabilities for the fiscal years ended June 30, 2020, and June 30, 2019.

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

Year Ended June 30	2020	2019
Total Estimated Claims at Beginning of Fiscal Year	\$740,437	\$764,066
Total Incurred Claims and Claim Adjustment Expenses	3,490,974	3,562,627
Total Payments	(3,493,253)	(3,586,256)
Total Estimated Claims at End of Fiscal Year	\$738,158	\$740,437

14. PUBLIC EMPLOYEES' CONTINGENCY RESERVE FUND (CRF)

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

PEMHCA establishes eligibility rules for the following:

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

Amounts charged to employers 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, 2020, was 0.27 percent. Administrative rates are reviewed annually and are adjusted, if needed, to cover budgeted administrative expenses.

Health insurance premiums are initially received in the CRF and then remitted to health insurance carriers, apart from premium dollars designated for self-funded and flex-funded health plans, which are transferred to the HCF. As of June 30, 2020, there were 1,155 public agencies and schools participating in health insurance coverage under PEMHCA.

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

The LTCF began offering self-insured Long-Term Care (LTC) plans in 1995 through the LTC program. The LTC program provides LTC coverage to enrolled participants under the

Notes to the Basic Financial Statements (continued)

Public Employees' Retirement Law (PERL), Chapter 15. Administered by Long-Term Care Group, Inc., the LTC program is a voluntary member-paid program and is not funded or subsidized by the employers.

There are four LTC policy series:

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

As of June 30, 2020, there are 116,832 active participants in the LTC 1, LTC 2, LTC 3, and LTC 4 policy series, of which 6,980 are receiving benefits.

CalPERS has temporarily suspended open enrollment on the CalPERS Long-Term Care Program due to current uncertainty in the long-term care market. Therefore, effective June 17, 2020, and until further notice, the CalPERS Long-Term Care Program will not be accepting new applications for coverage.

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

The LTCF establishes the liability for future policy benefits based on the present value of future benefits and expenses less the present value of future premiums. The actuarial valuations are very sensitive to the underlying actuarial assumptions, including a discount rate of 4.00 percent, morbidity, lapse rates, mortality, and plan expenses. In Fiscal Year 2019-20, the actual investment returns were approximately \$36.3 million higher than expected investment income. Economic assumptions are evaluated periodically in accordance with Board policy. An evaluation of assumptions for the June 30, 2020, 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 for the June 30, 2020, CAFR was rolled forward from the June 30, 2019, actuarial valuation using standard actuarial techniques, and all assumptions remained the same as what was used in the June 30, 2019, valuation. Due to the discount rate assumption update, morbidity assumptions update, and lapse assumption update implemented in the 2019 actuarial valuation, the estimated liability for future policy benefits as of June 30, 2020, increased significantly compared to the liability as of June 30, 2019.

The following schedule represents changes in the aggregate estimated claims liabilities and liabilities for future policy benefits for the fiscal years ended June 30, 2020, and June 30, 2019.

Changes in the Aggregate Estimated Claims Liabilities of the LTCF (Dollars in Thousands)

Year Ended June 30	2020	2019
Total Estimated Future Policy Liabilities at Beginning of Fiscal Year	\$4,628,993	\$4,548,101
Increase in Liability and Change in Estimate	2,759,847	401,256
Claim Payments	(335,769)	(320,364)
Total Estimated Future Policy Liabilities at End of Fiscal Year	<u>\$7,053,071</u>	<u>\$4,628,993</u>

Total LTCF investments as of June 30, 2020, were approximately \$4.9 billion. At June 30, 2020, the Fund's investment portfolio consisted of approximately 60 percent, 16 percent, 10 percent, 8 percent, and 6 percent of the respective SSGA Funds: Bloomberg Barclays Long Liability Index, MSCI ACWI Investable Market Index, Global Real Estate, S&P GSCI Commodity Index, and U.S. TIPS Index, respectively with further details in Note 4.

For Fiscal Year 2019-20, the annual premium was \$278.5 million and the total benefits paid out were \$337.3 million. Since the program's inception in 1995 through June 30, 2020, the total benefits paid were approximately \$3.2 billion. Based on updated actuarial assumptions, the program is considering asset allocation changes, benefit design changes including benefit reduction options, and/or future premium increase mitigation options. The CalPERS Chief Health Director will be presenting to the board options for adoption in November 2020.

16. 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 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

Notes to the Basic Financial Statements (continued)

and JRS II in turn contended that they did not have statutory authority to increase benefits until the active judges have received an actual pay increase and JRS and JRS II have received a copy of an official Pay Letter from California Department of Human Resources to SCO authorizing an increase. JRS has been included in this suit because retired JRS judges receive increases to their retirement benefits when active judges receive salary increases. For JRS II, salary increases impact final compensation at retirement.

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

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

Defendants implemented the court's Order on a prospective basis shortly after the July 28, 2017 Order was issued. Then, on September 19, 2017, Defendants filed a Notice of Appeal from Post-Remittitur Order Entered July 28, 2017. The appeal was 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 were that the Order directs retroactive monetary relief to the Plaintiff class for past alleged wrongs, by ordering Defendants to pay prior salary increases. In so doing, Defendants argue that the trial court has disregarded the ruling of the Court of Appeal, which expressly held that, "the judgment includes no monetary damages award."

On June 26, 2018, an unpublished Decision was issued, denying the appeal: "The order enforcing the judgment,

including the provision for 'pre and post judgment interest thereon at the rate of 10% per annum from the date on which the additional payment should have been paid to the actual date of payment' is affirmed." On August 3, 2018, the Controller, JRS and JRS II (State Defendants) filed a Petition for Review in the California Supreme Court. On October 26, 2018, the court denied the State's Petition for Review. Since then, JRS and JRS II have been working with SCO and the Department of Finance (DOF) to administer payment of the damages that were awarded in the case. In Fiscal Year 2019-20, JRS paid \$25,140 in damages, bringing their total payout to \$19,118,499. CalPERS' Financial Reporting and Accounting Services Division (FRAS) requested a general fund transfer pursuant to Chapter 23 of the budget bill, which has earmarked \$41 million to cover the *Mallano* damages payable by JRS. In Fiscal Year 2019-20, JRS II paid damages totaling \$809,085 from the JRS II Fund. All damages have currently been distributed and the court has declared the case closed.

Sanchez, Elma, et al. v. CalPERS (presently identified by the court as the *Wedding* case) is a class action lawsuit originally brought 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 assert damages in the amount of approximately \$2.5 billion.

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

CalPERS and the Board Defendants denied that CalPERS breached the contract by imposing the premium increase and that the policies were intentionally or negligently underpriced and asserted 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 asserted that it timely informed policyholders about the need to impose premium increases and has managed the program

Notes to the Basic Financial Statements (continued)

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.

After a two-day court trial in early June 2019 on contract interpretation issues, the court issued a "Draft Proposed Statement of Decision." In this ruling, the court held in favor of Plaintiffs on the interpretation of the "Inflation-Protection" clause in the policy contract, finding that CalPERS could not increase premiums as a result of rising liabilities from the Inflation Protection benefit's automatic five percent annual increase in the maximum allowable monthly benefit. In other words, the court tentatively ruled that CalPERS cannot increase premiums on policies with the inflation protection benefit unless such an increase is driven by cost factors other than the cost of the escalation of daily/monthly limits on Inflation-Protection benefits over time. The court's ruling also urged the parties to attempt to settle the case by petitioning other branches of State government for a monetary infusion. The court said, "[T]his case can only settle if CalPERS and the State find a way to make peace with the class and its counsel. While the Long-Term Care plan was indisputably authorized by the Legislature in 1995 on the theory that it would be self-sustaining and not a drag on the General Fund or public employers, there is a very serious risk that a money judgment for a rather large amount of money will be issued in due course in this case. The [CalPERS long-term care] plan currently has some substantial reserves (needed in the actuaries' view to pay foreseeable future claims) which could pay a money judgment in the near term but doing so would then set the plan up for insolvency some time in the near future...An inability of this CalPERS plan to pay just claims will create an obvious default by an arm of the State in the fulfillment of its contract obligations. This, in turn, could seriously impair the credit rating of the State. If this case is not settled in the near term, a very large money judgment against CalPERS appears to be the most likely outcome. For this reason, the best path forward, in this experienced jurist's view, is for the parties to try to strike a deal which requires a one-

time appropriation by the Legislature to resolve the pending suit while also providing a judicially-approved road map so that the plan is self-sustaining thereafter." To provide time for this discussion to occur, the court initially continued the jury trial date to the end of October 2019, and recently continued it again until March 29, 2021. On March 11, 2020, Plaintiffs filed a Motion for Leave to File a Third Amended Complaint. Two of the proposed amendments were to add language to the caption stating that CalPERS is "an agency of the State of California" and to add language to the paragraph concerning CalPERS in the "Parties" section stating that CalPERS is "a state agency within the Executive Branch of the State of California" and "[a]t all times mentioned herein, CalPERS was a state agency acting by and on behalf of the State of California." The purpose for these amendments is to strengthen Plaintiffs' assertions that the State of California itself will have to respond to any judgment against the Long-Term Care (LTC) Plan. The motion was granted by the court.

The parties have engaged in several mediation sessions, with no resolution. On July 1, 2020, the court granted Plaintiffs leave to file a Third Amended Complaint, which would relabel the Defendant as, "California Public Employees' Retirement System, an agency of the State of California." Plaintiffs filed their Third Amended Complaint on August 26, 2020. On July 27, 2020, the court issued its final Statement of Decision regarding contract interpretation issues and statute of limitations defense.

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

On May 7, 2018, the court issued a ruling that Plaintiff must proceed with his Petition for Writ of Administrative Mandamus, and that all other causes of action were stayed in their entirety pending the outcome of the writ. On January 25, 2019, the court denied Plaintiff's Petition for Writ of Administrative Mandamus finding that there was no evidence that CalPERS and Anthem improperly reduced the "allowable amount" for "out-of-network" non-emergency medical services. As a result of this ruling, CalPERS demurred to the remaining causes of action. The court sustained CalPERS' demurrer and entered judgment in favor of CalPERS, ending Plaintiff's lawsuit. On August 19, 2019, Plaintiff filed a Notice of Appeal indicating his intention to appeal the Superior Court's decision. The parties

Notes to the Basic Financial Statements (continued)

are in the process of briefing the appeal and a decision is not expected until March 2021, at the earliest.

A second lawsuit related to CalPERS' administration of health benefits is *County of Monterey dba Natividad Medical Center v. CalPERS, Anthem et al.* CalPERS was served with this Complaint on August 10, 2017. The dispute in this case arises out of a "Facility Agreement" between Natividad Medical Center ("NMC") and Anthem effective August 1, 2012, pursuant to which NMC agreed to provide certain healthcare services to Anthem members for certain agreed-upon reimbursements. The Facility Agreement governs not only claims for Anthem insureds, but also services for and claims by members of "Other Payors" for whom Anthem provides claim processing services for its Managed Care Network, such as CalPERS. No reimbursement rates for "trauma services" were established in the 2012 Agreement because NMC was not yet providing such services and these rates were to be negotiated at a later date, when NMC had set up its trauma care services. However, the parties have been unable to agree upon trauma rates since 2012. As a result, the Complaint alleges that Anthem has been instructing its Other Payors, including CalPERS, to pay NMC's trauma services claims at the "emergency services" rate. With regard to CalPERS' plan members' treatment for trauma, NMC alleges it has been underpaid by \$2.8 million. CalPERS filed a demurrer to Natividad's Second Amended Complaint, which was sustained without leave to amend, essentially dismissing the action against CalPERS. On or about June 26, 2018, Natividad filed a Notice of Appeal. On February 5, 2020, the Court of Appeal upheld the decision of the Superior Court to dismiss the action as to CalPERS. Since all relevant appeal periods have passed, this case is now closed.

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.

Economic Conditions

During the calendar year 2020, World Health Organization announced a global health emergency from a new strain of coronavirus (COVID-19) that has resulted in a global pandemic outbreak. This pandemic has adversely affected global economic activity and greatly contributed to uncertainty and instability in the global financial markets. CalPERS investment portfolio was exposed to the volatility of the financial markets during the last half of Fiscal Year 2019-20 but was also well positioned to take advantage of new investment opportunities that were present during this time. While negative market conditions could have an impact on CalPERS' ability to earn the actuarial assumed rate of return and negatively impact the receipt of contributions and premiums due from public agencies and participants,

CalPERS cannot predict the impact of the COVID-19 pandemic. Although CalPERS cannot estimate the length or gravity of the impact of the COVID-19 outbreak at this time, management continues to closely monitor the situation, to assess further possible adverse implications that may occur to operations, investments, public agencies and participants, and to take actions to mitigate resulting consequences.

On March 27, 2020, President Trump signed into law the "Coronavirus Aid, Relief, and Economic Security (CARES) Act." The CARES Act, among other things, includes several relief provisions available to tax-qualified retirement plans and their participants. CalPERS has assessed the applicability of such funds and has not acted to take part in applying for and receiving any such relief funds. Management is continuing to monitor applicability of any new funding or programs that may become available.

17. 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 effective date for GASB 87 has been delayed to reporting periods beginning after December 31, 2020 due to the COVID-19 virus. CalPERS has determined GASB 87 will not have a material impact on the future financial statements.

FINANCIAL SECTION

Required Supplementary Information

- 78 Schedules of Changes in Net Pension Liability/(Asset) and Related Ratios
- 87 Schedules of Plan Contributions
- 89 Schedule of Investment Returns
- 90 Schedule of Claims Development Information

Required Supplementary Information

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

PERF B – Seven-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014
Discount Rate Assumption	7.15 %	7.15 %	7.15%	7.15%	7.65%	7.65%	7.50%
Total Pension Liability:							
Service Cost	\$2,302,877	\$2,226,797	\$2,172,696	\$2,031,914	\$1,716,677	\$1,624,993	\$1,576,667
Interest	6,904,699	6,563,541	6,165,715	5,719,835	5,441,918	5,152,519	4,820,116
Changes of Assumptions	—	—	450,064	4,649,299	—	(1,217,974)	—
Differences Between Expected and Actual Experience	452,461	1,398,796	1,852,902	531,862	400,103	1,119,011	—
Benefit Payments, Including Refunds of Member Contributions	(4,671,357)	(4,347,426)	(4,053,119)	(3,724,910)	(3,546,836)	(3,334,081)	(3,139,923)
Net Change in Total Pension Liability	\$4,988,680	\$5,841,708	\$6,588,258	\$9,208,000	\$4,011,862	\$3,344,468	\$3,256,860
Total Pension Liability – Beginning	\$97,300,992	\$91,459,284	\$84,871,026	\$75,663,026	\$71,651,164	\$68,306,696	\$65,049,836
Total Pension Liability – Ending (a)	\$102,289,672	\$97,300,992	\$91,459,284	\$84,871,026	\$75,663,026	\$71,651,164	\$68,306,696
Plan Fiduciary Net Position:							
Contributions – Employer	\$2,866,144	\$2,527,726	\$2,070,832	\$1,783,736	\$1,434,632	\$1,323,090	\$1,203,071
Contributions – Member	1,047,983	1,014,070	952,979	897,438	851,133	773,580	744,437
Contributions – Nonemployer	904,000	—	—	—	—	—	—
Total Net Investment Income	3,398,535	4,212,090	5,095,064	6,211,781	297,514	1,272,365	8,625,601
Benefit Payments, Including Refunds of Member Contributions	(4,671,357)	(4,347,426)	(4,053,119)	(3,724,910)	(3,546,836)	(3,334,081)	(3,139,923)
Net Plan-to-Plan Resource Movement	164	304	2	(134)	10	(71,460)	—
Administrative Expenses	(95,614)	(46,159)	(92,448)	(82,489)	(34,554)	(64,124)	(72,167)
Net Change in Plan Fiduciary Net Position	\$3,449,855	\$3,360,605	\$3,973,310	\$5,085,422	(\$998,101)	(\$100,630)	\$7,361,019
Plan Fiduciary Net Position – Beginning	\$68,156,741	\$64,796,136	\$60,998,387	\$55,912,965	\$56,911,066	\$57,011,696	\$49,650,677
Adjustments ²	—	—	(175,561)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	68,156,741	64,796,136	60,822,826	55,912,965	56,911,066	57,011,696	49,650,677
Plan Fiduciary Net Position – Ending (b)	71,606,596	68,156,741	64,796,136	60,998,387	55,912,965	56,911,066	57,011,696
Net Pension Liability (a) - (b)	\$30,683,076	\$29,144,251	\$26,663,148	\$23,872,639	\$19,750,061	\$14,740,098	\$11,295,000
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	70.0%	70.0%	70.8%	71.9%	73.9%	79.4%	83.5%
Covered Payroll	\$14,447,159	\$13,819,881	\$13,252,995	\$12,643,354	\$11,747,602	\$10,964,872	\$10,120,248
Net Pension Liability as a Percentage of Covered Payroll	212.4%	210.9%	201.2%	188.8%	168.1%	134.4%	111.6%

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

(2) Cumulative effect of CalPERS employer proportionate share of postemployment benefit obligations.

NOTES TO SCHEDULE

Change of Assumptions and Methods

The CalPERS Board of Administration adopted a new amortization policy effective with the June 30, 2019, actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed as a level dollar amount. In addition, the new policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy also does not utilize a five-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019. In Fiscal Year 2019-20, no changes have occurred to the actuarial assumptions in relation to financial reporting.

In Fiscal Year 2018-19, CalPERS implemented a new actuarial valuation software system for the June 30, 2018, valuation. This new system has refined and improved calculation methodology.

In December 2017, the CalPERS Board of Administration (the Board) adopted a new inflation assumption. The assumption was reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth were reduced from 3.00 percent to 2.75 percent. These changes were implemented in two steps commencing in the June 30, 2018, funding valuation. For financial reporting purposes, these assumption changes were fully reflected in the results for Fiscal Year 2017-18.

In Fiscal Year 2016-17, the financial reporting discount rate for the PERF B was lowered from 7.65 percent to 7.15 percent. In December 2016, the Board approved lowering the funding discount rate used in the PERF B from 7.50 percent to

Required Supplementary Information (continued)

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

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.

PERF C – Seven-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014
Discount Rate Assumption	7.15 %	7.15 %	7.15%	7.15%	7.65%	7.65%	7.50%
Total Pension Liability:							
Service Cost	\$912,529	\$878,707	\$844,273	\$820,583	\$712,307	\$698,416	\$713,731
Interest	2,954,008	2,798,484	2,629,157	2,506,761	2,399,259	2,285,565	2,169,786
Changes of Benefit Terms	900	1,283	668	2,119	1,478	—	—
Changes of Assumptions	—	—	(248,318)	2,122,413	—	(543,686)	—
Differences Between Expected and Actual Experience	453,273	705,149	313,467	(18,554)	(6,333)	(5,678)	—
Benefit Payments, Including Refunds of Member Contributions ²	(2,044,232)	(1,902,025)	(1,755,740)	(1,630,602)	(1,519,301)	(1,423,756)	(1,335,871)
Net Change in Total Pension Liability	\$2,276,478	\$2,481,598	\$1,783,507	\$3,802,720	\$1,587,410	\$1,010,861	\$1,547,646
Total Pension Liability – Beginning	\$41,426,453	\$38,944,855	\$37,161,348	\$33,358,628	\$31,800,055	\$30,789,194	\$29,241,548
Adjustment to Beginning Amount	—	—	—	—	(28,837)	—	—
Total Adjusted Pension Liability – Beginning	\$41,426,453	\$38,944,855	\$37,161,348	\$33,358,628	\$31,771,218	\$30,789,194	\$29,241,548
Total Pension Liability – Ending (a)	\$43,702,931	\$41,426,453	\$38,944,855	\$37,161,348	\$33,358,628	\$31,800,055	\$30,789,194
Plan Fiduciary Net Position:							
Contributions – Employer ²	\$1,594,811	\$1,333,559	\$1,182,686	\$980,359	\$882,991	\$859,456	\$747,694
Contributions – Member ²	381,786	357,159	334,140	317,024	300,135	278,529	291,772
Total Net Investment Income ²	1,565,953	1,935,939	2,308,558	2,774,321	127,043	548,097	3,770,935
Benefit Payments, Including Refunds of Member Contributions ²	(2,044,232)	(1,902,025)	(1,755,740)	(1,630,602)	(1,519,301)	(1,423,756)	(1,335,871)
Net Plan-to-Plan Resource Movement ²	188,629	167,308	116,550	134,513	22,621	(267,581)	—
Administrative Expenses	(43,860)	(21,115)	(41,980)	(37,052)	(15,263)	(27,967)	(31,550)
Net Change in Plan Fiduciary Net Position	\$1,643,087	\$1,870,825	\$2,144,214	\$2,538,563	(\$201,774)	(\$33,222)	\$3,442,980
Plan Fiduciary Net Position – Beginning	\$31,179,414	\$29,308,589	\$27,244,095	\$24,705,532	\$24,907,306	\$24,940,528	\$21,497,548
Adjustments ³	—	—	(79,720)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	31,179,414	29,308,589	27,164,375	24,705,532	24,907,306	24,940,528	21,497,548
Plan Fiduciary Net Position – Ending (b)	32,822,501	31,179,414	29,308,589	27,244,095	24,705,532	24,907,306	24,940,528
Net Pension Liability (a) - (b)	\$10,880,430	\$10,247,039	\$9,636,266	\$9,917,253	\$8,653,096	\$6,892,749	\$5,848,666
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	75.1%	75.3%	75.3%	73.3%	74.1%	78.3%	81.0%
Covered Payroll	\$4,155,772	\$3,949,226	\$3,793,609	\$3,631,919	\$3,472,950	\$3,356,312	\$3,248,018
Net Pension Liability as a Percentage of Covered Payroll	261.8%	259.5%	254.0%	273.1%	249.2%	205.4%	180.1%

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

(2) Does not agree to the Basic Financial Statements in 2020 as a result of an adjustment made in December 2019.

(3) Cumulative effect of CalPERS employer proportionate share of postemployment benefit obligations.

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

The CalPERS Board of Administration adopted a new amortization policy effective with the June 30, 2019, actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to

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

20 years with the payments computed as a level dollar amount. In addition, the new policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy also does not utilize a five-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019. In Fiscal Year 2019-20, no changes have occurred to the actuarial assumptions in relation to financial reporting.

In Fiscal Year 2018-19, CalPERS implemented a new actuarial valuation software system for the June 30, 2018, valuation. This new system has refined and improved calculation methodology.

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

In Fiscal Year 2016-17, the financial reporting discount rate for the PERF C was lowered from 7.65 percent to 7.15 percent. In December 2016, the 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 – Seven-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014
Discount Rate Assumption	5.25 %	5.25 %	5.25%	5.25%	6.00%	6.00%	5.75%
Total Pension Liability:							
Service Cost	\$100	\$268	\$542	\$639	\$608	\$769	\$732
Interest	4,885	4,871	4,987	5,291	5,978	6,427	6,465
Changes of Assumptions	—	—	(2,529)	7,857	—	(2,655)	—
Differences Between Expected and Actual Experience	2,320	(427)	(2,061)	(5,998)	(3,530)	(4,246)	—
Benefit Payments, Including Refunds of Member Contributions	(6,939)	(7,349)	(6,918)	(7,249)	(7,407)	(9,086)	(7,482)
Net Change in Total Pension Liability	\$366	(\$2,637)	(\$5,979)	\$540	(\$4,351)	(\$8,791)	(\$285)
Total Pension Liability – Beginning	\$94,144	\$96,781	\$102,760	\$102,220	\$106,730	\$115,521	\$115,806
Adjustment to Beginning Amount	—	—	—	—	(159)	—	—
Total Adjusted Pension Liability – Beginning	\$94,144	\$96,781	\$102,760	\$102,220	\$106,571	\$115,521	\$115,806
Total Pension Liability – Ending (a)	\$94,510	\$94,144	\$96,781	\$102,760	\$102,220	\$106,730	\$115,521
Plan Fiduciary Net Position:							
Contributions – Employer	\$98	\$250	\$467	\$516	\$549	\$590	\$565
Contributions – Member	22	91	82	94	97	105	113
Total Net Investment Income	7,013	7,860	5,486	5,048	4,545	(94)	15,372
Benefit Payments, Including Refunds of Member Contributions	(6,939)	(7,349)	(6,918)	(7,249)	(7,407)	(9,086)	(7,482)
Administrative Expenses	(550)	(324)	(671)	(575)	(203)	(400)	(362)
Net Change in Plan Fiduciary Net Position	(\$356)	\$528	(\$1,554)	(\$2,166)	(\$2,419)	(\$8,885)	\$8,206
Plan Fiduciary Net Position – Beginning	\$114,404	\$113,876	\$116,884	\$119,050	\$121,469	\$130,354	\$122,148
Adjustments ²	—	—	(1,454)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	114,404	113,876	115,430	119,050	121,469	130,354	122,148
Plan Fiduciary Net Position – Ending (b)	114,048	114,404	113,876	116,884	119,050	121,469	130,354
Net Pension Asset (a) - (b)	(\$19,538)	(\$20,260)	(\$17,095)	(\$14,124)	(\$16,830)	(\$14,739)	(\$14,833)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	120.7%	121.5%	117.7%	113.7%	116.5%	113.8%	112.8%
Covered Payroll	\$278	\$655	\$1,242	\$1,360	\$1,313	\$1,545	\$1,470
Net Pension Asset as a Percentage of Covered Payroll	(7,028.1%)	(3,093.1%)	(1,376.4%)	(1,038.5%)	(1,281.8%)	(954.0%)	(1,009.0%)

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

(2) Cumulative effect of CalPERS employer proportionate share of postemployment benefit obligations.

NOTES TO SCHEDULE

Change of Assumptions and Methods

In Fiscal Year 2019-20, no changes have occurred to the actuarial assumptions in relation to financial reporting.

The CalPERS Board of Administration adopted a new amortization policy effective with June 30, 2019, actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed as a level dollar amount. In addition, the new policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy also does not utilize a five-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019. In

Fiscal Year 2019-20, there were no changes to the actuarial assumptions in relation to financial reporting.

In Fiscal Year 2018-19, CalPERS implemented a new actuarial valuation software system for the June 30, 2018, valuation. This new system refined and improved calculation methodology. Due to the closed nature of the Legislators' Retirement System and term limits met by a majority of the June 30, 2018, active members during Fiscal Year 2018-19, the projected payroll for Fiscal Year 2019-20 has been adjusted to reflect expected active members. The assumed payroll growth rate assumption of 2.75 percent was used to project Fiscal Year 2019-20 payroll for expected remaining actives.

In December 2017, the Board adopted new mortality assumptions. The new mortality table was developed from the December 2017 experience study and includes 15 years of

Required Supplementary Information (continued)

projected ongoing mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. The inflation assumption was reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth were reduced from 3.00 percent to 2.75 percent.

In Fiscal Year 2016-17, the financial reporting discount rate for the Legislators' Retirement Fund (LRF) was lowered from 6.00 percent to 5.25 percent. In April 2017, the 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 – Seven-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014
Discount Rate Assumption	2.45 %	3.13 %	3.62%	3.56%	2.85%	3.82%	4.25%
Total Pension Liability:							
Service Cost	\$17,026	\$20,073	\$19,131	\$22,733	\$29,314	\$25,372	\$27,581
Interest	79,719	99,428	109,395	115,067	107,515	127,074	140,256
Changes of Assumptions	218,683	153,651	(20,879)	(107,670)	384,306	167,036	—
Differences Between Expected and Actual Experience	(41,794)	86,873	(121,259)	(366,200)	(59,421)	57,568	—
Benefit Payments, Including Refunds of Member Contributions	(213,233)	(221,954)	(207,823)	(200,440)	(199,349)	(201,868)	(193,935)
Net Change in Total Pension Liability	\$60,401	\$138,071	(\$221,435)	(\$536,510)	\$262,365	\$175,182	(\$26,098)
Total Pension Liability – Beginning	\$3,175,070	\$3,036,999	\$3,258,434	\$3,794,944	\$3,532,394	\$3,357,212	\$3,383,310
Adjustment to Beginning Amount	—	—	—	—	185	—	—
Total Adjusted Pension Liability – Beginning	\$3,175,070	\$3,036,999	\$3,258,434	\$3,794,944	\$3,532,579	\$3,357,212	\$3,383,310
Total Pension Liability – Ending (a)	\$3,235,471	\$3,175,070	\$3,036,999	\$3,258,434	\$3,794,944	\$3,532,394	\$3,357,212
Plan Fiduciary Net Position:							
Contributions – Employer and General Fund ²	\$243,131	\$195,903	\$199,241	\$204,475	\$192,287	\$180,910	\$191,148
Contributions – Member	2,843	2,679	3,062	3,398	3,559	3,877	4,724
Total Net Investment Income	3,087	3,942	3,378	2,819	2,762	2,286	2,583
Benefit Payments, Including Refunds of Member Contributions	(213,233)	(221,954)	(207,823)	(200,440)	(199,349)	(201,868)	(193,935)
Administrative Expenses	(2,270)	(10,032)	(2,106)	(1,771)	(642)	(1,227)	(1,141)
Net Change in Plan Fiduciary Net Position	\$33,558	(\$29,462)	(\$4,248)	\$8,481	(\$1,383)	(\$16,022)	\$3,379
Plan Fiduciary Net Position – Beginning	\$10,169	\$39,631	\$48,275	\$39,794	\$41,177	\$57,199	\$53,820
Adjustments ³	—	—	(4,396)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	10,169	39,631	43,879	39,794	41,177	57,199	53,820
Plan Fiduciary Net Position – Ending (b)	43,727	10,169	39,631	48,275	39,794	41,177	57,199
Net Pension Liability (a) - (b)	\$3,191,744	\$3,164,901	\$2,997,368	\$3,210,159	\$3,755,150	\$3,491,217	\$3,300,013
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability							
Covered Payroll	1.4%	0.3%	1.3%	1.5%	1.0%	1.2%	1.7%
Net Pension Liability as a Percentage of Covered Payroll							
	13,953.0%	9,907.3%	8,441.6%	8,144.9%	10,947.6%	8,437.4%	6,038.6%

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

(2) Includes State of California General Fund.

(3) Cumulative effect of CalPERS employer proportionate share of postemployment benefit obligations.

NOTES TO SCHEDULE

Change of Assumptions and Methods

In Fiscal Year 2019-20, the discount rate used to measure the total pension liability was 2.45 percent. The State funds the Judges' Retirement Fund (JRF) benefit obligations using the pay-as-you-go method. Member contributions plus state contributions are designed to cover only benefit payments and expenses each year. Under the pay-as-you-go method, the pension plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments of current active and inactive employees. Therefore, a discount rate of 2.45 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, 2020, was applied to all periods of projected benefit payments to measure the total pension liability. There were no other changes to assumptions or methods.

In Fiscal Year 2018-19, the discount rate used to measure the total pension liability was 3.13 percent. CalPERS implemented a new actuarial valuation software system for the June 30, 2018 valuation. This new system refined and improved calculation methodology.

In Fiscal Year 2017-18, the discount rate used to measure the total pension liability was 3.62 percent. In December 2017, the Board adopted new mortality assumptions. The new mortality table was developed from the December 2017 experience study and includes 15 years of projected ongoing mortality improvement using 90 percent of scale MP 2016 published by the Society of Actuaries. The inflation assumption was reduced from 2.75 percent to 2.50 percent. The assumptions for individual salary increases and overall payroll growth were reduced from 3.00 percent to 2.75 percent.

In Fiscal Year 2016-17, the discount rate used to measure the total pension liability was 3.56 percent. Assumption

Required Supplementary Information (continued)

changes were made in the JRF June 30, 2016, valuation including 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.

In Fiscal Year 2015-16, the discount rate used to measure the total pension liability was 2.85 percent.

In Fiscal Year 2014-15, the discount rate used to measure the total pension liability was 3.82 percent. Changes to actuarial methods were made in the June 30, 2014, valuation including 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 nonmember spouse for Qualified Domestic Relations Order changed to full service for the member in order to determine both eligibility and the benefit multiplier.

In Fiscal Year 2013-14, the discount rate used to measure the total pension liability was 4.25 percent. Changes to actuarial assumptions were made in the June 30, 2013, valuation. In February 2014, the Board adopted new mortality assumptions. The new mortality table was developed from the February 2014 Experience Study and includes 20 years of projected ongoing mortality improvement using the Scale BB table published by the Society of Actuaries.

Required Supplementary Information (continued)

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

JRF II – Seven-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014
Discount Rate Assumption	6.65 %	6.65 %	6.65%	6.65%	7.15%	7.15%	7.00%
Total Pension Liability:							
Service Cost	\$114,486	\$103,791	\$95,843	\$97,678	\$86,635	\$81,679	\$78,670
Interest	115,517	103,889	91,419	85,654	78,412	70,389	61,044
Changes of Assumptions	—	—	(41,763)	69,233	—	(14,883)	—
Differences Between Expected and Actual Experience	(2,797)	30,291	(26,876)	(26,382)	(4,546)	(17,319)	—
Benefit Payments, Including Refunds of Member Contributions	(34,547)	(36,204)	(31,795)	(22,406)	(21,704)	(14,040)	(8,950)
Net Change in Total Pension Liability	\$192,659	\$201,767	\$86,828	\$203,777	\$138,797	\$105,826	\$130,764
Total Pension Liability – Beginning	\$1,699,922	\$1,498,155	\$1,411,327	\$1,207,550	\$1,073,788	\$967,962	\$837,198
Adjustment to Beginning Amount	—	—	—	—	(5,035)	—	—
Total Adjusted Pension Liability – Beginning	\$1,699,922	\$1,498,155	\$1,411,327	\$1,207,550	\$1,068,753	\$967,962	\$837,198
Total Pension Liability – Ending (a)	\$1,892,581	\$1,699,922	\$1,498,155	\$1,411,327	\$1,207,550	\$1,073,788	\$967,962
Plan Fiduciary Net Position:							
Contributions – Employer	\$91,147	\$84,099	\$79,699	\$67,102	\$65,839	\$65,629	\$57,027
Contributions – Member	35,796	31,376	27,513	25,076	24,598	22,242	20,413
Total Net Investment Income	80,074	106,781	101,820	115,057	20,810	(2,401)	150,168
Benefit Payments, Including Refunds of Member Contributions	(34,547)	(36,204)	(31,795)	(22,406)	(21,704)	(14,040)	(8,950)
Administrative Expenses	(2,552)	(1,477)	(2,370)	(1,683)	(732)	(1,127)	(785)
Net Change in Plan Fiduciary Net Position	\$169,918	\$184,575	\$174,867	\$183,146	\$88,811	\$70,303	\$217,873
Plan Fiduciary Net Position – Beginning	\$1,710,089	\$1,525,514	\$1,356,099	\$1,172,953	\$1,084,142	\$1,013,839	\$795,966
Adjustments ²	—	—	(5,452)	—	—	—	—
Total Adjusted Plan Fiduciary Net Position – Beginning	1,710,089	1,525,514	1,350,647	1,172,953	1,084,142	1,013,839	795,966
Plan Fiduciary Net Position – Ending (b)	1,880,007	1,710,089	1,525,514	1,356,099	1,172,953	1,084,142	1,013,839
Net Pension Liability/(Asset) (a) - (b)	\$12,574	(\$10,167)	(\$27,359)	\$55,228	\$34,597	(\$10,354)	(\$45,877)
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	99.3%	100.6 %	101.8 %	96.1%	97.1%	101.0 %	104.7 %
Covered Payroll	\$352,700	\$318,827	\$299,396	\$291,097	\$280,879	\$259,133	\$249,248
Net Pension Liability/(Asset) as a Percentage of Covered Payroll	3.6%	(3.2)%	(9.1)%	19.0%	12.3%	(4.0)%	(18.4)%

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

(2) Cumulative effect of CalPERS employer proportionate share of postemployment benefit obligations.

NOTES TO SCHEDULE

Change of Assumptions and Methods

The CalPERS Board of Administration adopted a new amortization policy effective with the June 30, 2019, actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed as a level dollar amount. In addition, the new policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes and non-investment gains/losses. The new policy also does not utilize a five-year ramp-down on investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019. In Fiscal Year 2019-20, no changes have occurred to the actuarial assumptions in relation to financial reporting.

CalPERS implemented a new actuarial valuation software system for the June 30, 2018, valuation. This new system has refined and improved calculation methodology.

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

In Fiscal Year 2016-17, the financial reporting discount rate for the Judges' Retirement Fund II (JRF II) was lowered from 7.15 percent to 6.65 percent. In April 2017, the Board approved lowering the funding discount rate used in the JRF II from 7.00 percent to 6.50 percent beginning with the

Required Supplementary Information (continued)

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

Seven-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014
PERF B:							
Actuarially Determined Contribution	\$2,759,835	\$2,501,770	\$2,048,531	\$1,767,813	\$1,421,289	\$1,303,162	\$1,201,125
Contributions in Relation to the Actuarially Determined Contribution	3,663,835	2,501,770	2,048,531	1,767,813	1,421,289	1,303,162	1,201,125
Contribution Excess	\$904,000	\$0	\$0	\$0	\$0	\$0	\$0
Covered Payroll	\$14,447,159	\$13,819,881	\$13,252,995	\$12,643,354	\$11,747,602	\$10,964,872	\$10,120,248
Contributions as a Percentage of Covered Payroll	25.4%	18.1%	15.5%	14.0%	12.1%	11.9%	11.8%
PERF C:							
Actuarially Determined Contribution	\$1,597,137	\$1,333,559	\$1,182,686	\$858,954	\$789,103	\$691,602	\$732,142
Contributions in Relation to the Actuarially Determined Contribution ²	1,971,737	1,586,007	1,418,316	956,558	881,767	691,602	732,142
Contribution Excess	\$374,600	\$252,448	\$235,630	\$97,604	\$92,664	\$0	\$0
Covered Payroll	\$4,155,772	\$3,949,226	\$3,793,609	\$3,631,919	\$3,472,950	\$3,356,312	\$3,248,018
Contributions as a Percentage of Covered Payroll	47.4%	40.2%	37.4%	26.3%	25.4%	20.6%	22.5%
LRF:							
Actuarially Determined Contribution	\$98	\$250	\$20	\$0	\$141	\$260	\$33
Contributions in Relation to the Actuarially Determined Contribution ³	98	250	467	516	549	590	565
Contribution Excess	\$0	\$0	(\$447)	(\$516)	(\$408)	(\$330)	(\$532)
Covered Payroll	\$278	\$655	\$1,242	\$1,360	\$1,313	\$1,545	\$1,470
Contributions as a Percentage of Covered Payroll	35.3%	38.2%	37.6%	37.9%	41.8%	38.2%	38.4%
JRF:							
Actuarially Determined Contribution ⁴	\$414,849	\$415,110	\$438,156	\$448,636	\$463,073	\$1,884,555	\$1,569,630
Contributions in Relation to the Actuarially Determined Contribution ⁵	243,131	195,903	199,241	204,475	192,287	180,910	191,148
Contribution Deficiency	\$171,718	\$219,207	\$238,915	\$244,161	\$270,786	\$1,703,645	\$1,378,482
Covered Payroll	\$22,875	\$31,945	\$35,507	\$39,413	\$34,301	\$41,378	\$49,287
Contributions as a Percentage of Covered Payroll	1,062.9%	613.3%	561.1%	518.8%	560.6%	437.2%	387.8%
JRF II:							
Actuarially Determined Contribution	\$91,147	\$84,099	\$79,699	\$67,102	\$65,839	\$63,193	\$55,538
Contributions in Relation to the Actuarially Determined Contribution	91,147	84,099	79,699	67,102	65,839	63,193	55,538
Contribution Excess	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Covered Payroll	\$352,700	\$318,827	\$299,396	\$291,097	\$280,879	\$259,133	\$249,248
Contributions as a Percentage of Covered Payroll	25.8%	26.4%	26.6%	23.1%	23.4%	24.4%	22.3%

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

(2) Additional discretionary contribution payments are not available prior to 2016.

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

(4) 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.

(5) 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 – Seven-Year Review

	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14
PERF B							
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods ¹	11-30 years	12-30 years	13-30 years	14-30 years	15-30 years	16-30 years	17-30 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
Inflation	2.63%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.25%	7.38%	7.50%	7.50%	7.50%	7.50%	7.50%
PERF C							
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods ¹	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	Differs by employer rate plan but no more than 30 years	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	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
Inflation	2.63%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.25%	7.38%	7.50%	7.50%	7.50%	7.50%	7.50%
LRF							
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods ¹	N/A	30 years	30 years	63 years	29-30 years	30 years	30 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
Inflation	2.50%	2.50%	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	2.75%	2.75%	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	5.00%	5.00%	5.00%	5.75%	5.75%	5.75%	5.75%

Required Supplementary Information (continued)

Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions – Seven-Year Review (CONTINUED)

	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14
JRF							
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar
Remaining Amortization Periods	10 years	10 years	10 years	10 years	10 years	2 years	2 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value
Inflation	2.50%	2.50%	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	2.75%	2.75%	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	3.00%	3.00%	3.25%	4.25%	4.25%	4.25%	4.25%
JRF II							
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
Remaining Amortization Periods ¹	5-30 years	2-30 years	20-30 years	30 years	30 years	16-30 years	17-30 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
Inflation	2.50%	2.50%	2.75%	2.75%	2.75%	2.75%	2.75%
Salary Increases	2.75%	2.75%	3.00%	3.00%	3.00%	3.00%	3.00%
Investment Rate of Return	6.50%	6.50%	6.50%	7.00%	7.00%	7.00%	7.00%

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

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense – Seven-Year Review¹

Plan	2020 Rate of Return	2019 Rate of Return	2018 Rate of Return	2017 Rate of Return	2016 Rate of Return	2015 Rate of Return	2014 Rate of Return
PERF A							
Agent	5.0%	6.5%	8.4%	11.2%	0.5%	2.2%	17.7%
PERF B							
Schools Cost-Sharing	5.0%	6.5%	8.4%	11.2%	0.5%	2.2%	17.7%
PERF C							
Public Agency Cost-Sharing	5.0%	6.5%	8.4%	11.2%	0.5%	2.2%	17.7%
LRF	6.2%	7.0%	4.8%	4.3%	3.8%	(0.1%)	12.9%
JRF	2.3%	3.2%	1.9%	1.0%	0.5%	0.2%	0.1%
JRF II	4.1%	6.9%	7.4%	9.6%	1.9%	(0.2%)	18.3%
CERBTF ²	4.0%	6.5%	7.3%	10.0%	1.6%	—	—

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

(2) Information in this schedule is not available prior to 2016.

Required Supplementary Information (continued)

PUBLIC EMPLOYEES' HEALTH CARE FUND

Schedule of Claims Development Information (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
1) Net Earned Required Premium and Investment Revenues	\$3,772,501	\$3,751,406	\$3,985,393	\$3,829,095	\$3,801,266	\$3,642,206	\$2,808,384	\$1,948,531	\$1,912,355	\$1,775,005
2) Unallocated Expenses	\$331,235	\$299,053	\$304,408	\$312,924	\$355,779	\$371,916	\$192,987	\$105,154	\$96,043	\$88,392
3) Estimated Incurred Claims and Expenses, End of Policy Year	\$3,569,208	\$3,666,596	\$3,576,081	\$3,391,183	\$3,424,147	\$3,432,102	\$2,748,821	\$1,921,957	\$1,816,245	\$1,792,599
4) Paid (Cumulative) as of:										
End of Policy Year	\$3,111,826	\$3,244,896	\$3,039,289	\$3,061,085	\$3,000,726	\$3,378,857	\$2,122,865	\$1,640,709	\$1,635,839	\$1,550,306
One Year Later	—	3,620,210	3,380,649	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Two Years Later	—	—	3,386,762	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Three Years Later	—	—	—	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Four Years Later	—	—	—	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Five Years Later	—	—	—	—	—	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Six Years Later	—	—	—	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615
Seven Years Later	—	—	—	—	—	—	—	1,796,587	1,788,135	1,698,615
Eight Years Later	—	—	—	—	—	—	—	—	1,788,135	1,698,615
Nine Years Later	—	—	—	—	—	—	—	—	—	1,698,615
5) Re-Estimated Incurred Claims Expenses:										
End of Policy Year	\$0	\$3,666,596	\$3,576,081	\$3,391,183	\$3,424,147	\$3,432,102	\$2,748,821	\$1,921,957	\$1,816,245	\$1,792,599
One Year Later	—	3,620,210	3,380,649	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Two Years Later	—	—	3,386,762	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Three Years Later	—	—	—	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Four Years Later	—	—	—	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Five Years Later	—	—	—	—	—	3,802,277	2,678,906	1,796,587	1,788,135	1,698,615
Six Years Later	—	—	—	—	—	—	2,678,906	1,796,587	1,788,135	1,698,615
Seven Years Later	—	—	—	—	—	—	—	1,796,587	1,788,135	1,698,615
Eight Years Later	—	—	—	—	—	—	—	—	1,788,135	1,698,615
Nine Years Later	—	—	—	—	—	—	—	—	—	1,698,615
6) Increase (Decrease) in Estimated Incurred Claims and Expenses From End of Policy Year	\$0	(\$46,386)	(\$195,432)	\$4,490	(\$18,131)	\$370,175	(\$69,915)	(\$125,370)	(\$28,110)	(\$93,984)

Rows 1 through 6 contain the following information:

- (1) This line shows the total earned premium revenues and investment revenues for each fiscal year.
- (2) This line shows other HCF operating costs, including overhead and claims expense not allocable to individual claims, for each fiscal year.
- (3) This line shows the HCF incurred claims and allocated claim adjustment expenses (both paid and accrued) as reported at the end of the policy year. The policy year is the first year in which the triggering event under the contract occurred.
- (4) This section shows the cumulative amounts paid as of the end of each policy year and years succeeding the policy year.
- (5) This section shows re-estimated incurred claims as of the end of each policy year and years succeeding the policy year. Re-estimates are based on new information on new claims not previously reported.
- (6) This line compares the amount of the re-estimated incurred claims to the amount initially established (line 3), and shows whether the re-estimate is greater or less than projected. As data mature for individual policy years, the correlation between initial estimates and re-estimates is used to evaluate the accuracy of incurred claims currently recognized.

FINANCIAL SECTION

Other Supplementary Information

- 92 Administrative Expenses – All Funds
- 93 Investment Expenses – Investment Management Fees
- 96 Investment Expenses – Performance Fees
- 97 Investment Expenses – Other Investment Expenses
- 100 Consultant and Professional Services Expenses – All Funds

Other Supplementary Information

ADMINISTRATIVE EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS)

	2020
PERSONAL SERVICES	
Salaries & Wages	\$196,933
Employee Benefits	106,996
Accrued Pension & OPEB Expense	110,285
Total Personal Services	\$414,214
CONSULTANT & PROFESSIONAL SERVICES	
State of California Agencies	\$6,363
External Consultants	26,876
Retiree Benefit Trust Management Fees	90
Pension Prefunding Trust Management Fees	15
Deferred Compensation Management/Custody Fees	3,516
Health Plan Administrator Fees	277,804
Long-Term Care Administrator Fees	20,490
Total Consultant & Professional Services	\$335,154
OPERATING EXPENSES & EQUIPMENT	
General Expense	\$5,378
Software	1,661
Printing	1,973
Building	24,384
Postage	2,890
Communications	1,504
Data Processing Services	18,726
Travel	1,585
Training	665
Medical Examiners	1,172
Facilities Operation	3,276
Central Administrative Services	20,234
Administrative Hearings	1,396
Consolidated Data Center	441
CSUS Foundation - Students	157
Equipment	2,806
Total Operating Expenses & Equipment	\$88,248
OTHER EXPENSES & ADJUSTMENTS	
Depreciation Expense	\$17,580
Increase in Paid Absence Obligation	4,368
Amortization	71,578
Miscellaneous	7,504
Total Other Expenses & Adjustments	\$101,030
TOTAL ADMINISTRATIVE EXPENSES — ALL FUNDS	<u>\$938,646</u>

INVESTMENT EXPENSES – ALL FUNDS**Investment Management Fees^{1,2}** (Dollars in Thousands)

	Fees		Fees
Equity Managers		Asia Alternatives Capital Partners, LP	\$6
Allianz Global Investors U.S., LLC	\$323	Baring Vostok Private Equity Fund IV, LP	220
Arrowstreet Capital, LP	15,834	BDC III C, LP	2,068
Baillie Gifford Overseas, Ltd.	857	Bridgepoint Europe VI 'H', LP	4,729
Cartica Corporate Governance Fund, LP	2,869	Birch Hill Equity Partners (US) IV, LP	942
Epoch Investment Partners, Inc.	230	Blackstone Capital Partners VI, LP	1,222
FIS CalBear Fund, LLC	793	Blackstone Capital Partners VII, LP	6,250
Hamilton Lane Advisors, LLC	753	Blackstone Tactical Opportunities Fund - C, LP	3,328
Hermes European Equities Limited	510	Blackstone Tactical Opportunities Fund (KG Co-Invest), LP	453
J.P. Morgan Investment Management, Inc.	3	Blackstone Tactical Opportunities Fund (T4U Co-Invest), LP	209
Lazard Asset Management, LLC	(729)	Blackstone Tactical Opportunities Fund II - C, LP	2,697
LEIA GEM Investment, LLC	1,422	Blackstone Tactical Opportunities Fund III-C (Surge), LP	264
Legato Capital Management Investments, LLC	3,873	Blackstone Tactical Opportunities Fund III - C, LP	914
Progress Investment Management Company	1,834	Bridgepoint Europe II 'A', LP	(3)
State Street Global Advisors	5,824	Bridgepoint Europe II 'C', LP	(1)
Strategic Investment Management, LP	1,583	Bridgepoint Europe IV 'B', LP	(1,833)
Wellington Management Company, LLP	3,876	Bridgepoint Europe IV 'D', LP	(6,952)
Total Equity Managers	<u>\$39,855</u>	Bridgepoint Europe V	4,091
Fixed Income Managers		California Asia Investors, LP	180
AllianceBernstein, LP	\$53	California Emerging Ventures IV, LLC	275
Baring International Investment Limited	21	California Mezzanine Investment Fund, LP	409
Columbia Management Investment Advisers	1,825	CalPERS Clean Energy & Technology Fund, LLC	270
Investec Asset Management North America	41	Capital Link Fund I, LLC	477
Neuberger Berman Investment Advisers, LLC	46	Capital Link Fund II, LLC	380
Nomura	2,402	Carlyle Asia Growth Partners IV, LP	297
Pacific Investment Management Co., LLC	167	Carlyle Asia Partners III, LP	383
Total Fixed Income Managers	<u>\$4,555</u>	Carlyle Asia Partners V, LP	3,250
Private Equity Funds^{3,4}		Carlyle Europe Partners III, LP	76
57 Stars Global Opportunities Fund 2 (CalPERS), LLC	\$766	Carlyle Europe Partners V, S.C.Sp	3,722
57 Stars Global Opportunities Fund, LLC	600	Carlyle Europe Technology Partners II, LP	47
Aberdare Ventures IV, LP	92	Carlyle Global Financial Services Partners, LP	143
Advent International GPE IX Limited Partnership	6,819	Carlyle Japan Partners II, LP	33
Advent International GPE V-D, LP	76	Carlyle Partners IV, LP	(1)
Advent International GPE VI-A, LP	1,052	Carlyle Partners V, LP	—
Advent International GPE VII-C, LP	3,513	Carlyle Partners VI, LP	2,842
Advent International GPE VIII-B Limited Partnership	6,023	Carlyle Partners VII, LP	5,756
Advent Latin America Private Equity Fund IV-D, LP	481	Carlyle Strategic Partners IV, LP	1,926
Advent Latin America Private Equity Fund V-H, LP	748	Carlyle U.S. Equity Opportunities II, LP	2,271
Advent Latin American Private Equity Fund III-D, LP	122	Carlyle/Riverstone Global Energy and Power Fund III, LP	181
Affinity Asia Pacific Fund III, LP	452	CDH Fund V, LP	2,571
Aisling Capital III, LP	(91)	Centerbridge Capital Partners III, LP	1,281
Apollo Investment Fund IX, LP	4,866	Cerberus CAL II Partners, LP	2,031
Apollo Investment Fund VI, LP	(10)	Cerberus CAL III Partners, LP	1,804
Apollo Investment Fund VII, LP	885	Cerberus CP Partners, LP	1,386
Apollo Investment Fund VIII, LP	1,747	Cerberus Institutional Partners V, LP	580
Apollo Special Opportunities Managed Account, LP	(367)	Clarus Lifesciences II, LP	—
Ares Corporate Opportunities Fund III, LP	580	Clayton, Dubilier & Rice Fund X, LP	1,684
Ares Corporate Opportunities Fund V, LP	5,914	Clearlake Capital Partners III, LP	356
Asia Alternatives Capital Partners II, LP	96	Clearlake Capital Partners IV, LP	622
		Clearlake Capital Partners V, LP	423
		Clearlake Opportunities Partners (P), LP	582

Other Supplementary Information (continued)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Investment Management Fees^{1,2} (Dollars in Thousands) (continued)

	Fees		Fees
Craton Equity Investors I, LP	\$11	PAG Asia III, LP	\$6,650
CVC Capital Partners Asia V, LP	214	Palladium Equity Partners V, LP	1,347
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	6,924	Patria Brazilian Private Equity Fund V, LP	2,881
CVC Capital Partners VI, LP	4,580	Permira Growth Opportunities I, LP 1	2,500
CVC Capital Partners VII (A), LP	7,097	Permira IV, LP 2	—
CVC European Equity Partners V (B), LP	5	Permira V, LP	2,399
EMAlternatives Investments, LP	200	Permira VI, LP 1	5,212
Essex Woodlands Health Ventures Fund VIII, LP	1,600	Permira VII, LP 1	4,448
First Reserve Fund XII, LP	98	RFG Private Equity Limited Partnership No. 1A, 1B and 1C	1
First Reserve Fund XIII, LP	2,481	Riverstone Global Energy and Power Fund V, LP	2,360
Francisco Partners III, LP	422	Riverstone Global Energy and Power Fund VI, LP	7,500
GCM Grosvenor DEM II, LP	887	Riverstone/Carlyle Global Energy and Power Fund IV, LP	566
GCM Grosvenor DEM III, LP	2,806	Riverstone/Carlyle Renewable & Alternative Energy Fund II, LP	772
GCM Grosvenor DEM, LP	662	Riverwood Capital Partners (Parallel - A), LP	322
Green Equity Investors V, LP	(20)	Sacramento Private Equity Partners, LP	250
GSO Capital Opportunities Fund II, LP	608	SAIF Partners III, LP	784
GSO Capital Solutions Fund II, LP	1,489	SAIF Partners IV, LP	1,207
GSO Energy Partners-C II, LP	1,483	Sankaty Managed Account (CalPERS), LP	1,828
GSO Energy Partners-C, LP	2,212	Silver Lake Partners III, LP	253
Hellman & Friedman Capital Partners IX, LP	2,745	Silver Lake Partners IV, LP	1,848
Hellman & Friedman Capital Partners VII, LP	523	Silver Lake Partners V, LP	4,774
Hellman & Friedman Capital Partners VIII, LP	3,238	Siris Partners III, LP	738
Insight Partners XI, LP	2,275	Siris Partners IV, LP	1,459
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	3,154	SL SPV-1, LP	381
Insight Venture Partners IX, LP	1,673	SL SPV-2, LP	280
Insight Venture Partners X, LP	4,084	Tailwind Capital Partners (PP), LP	109
Ithaca, LP	—	Tailwind Capital Partners II, LP	590
Khosla Ventures III, LP	1,248	Tailwind Capital Partners III, LP	579
Khosla Ventures Seed, LP	883	TCV X, LP	1,897
KKR 2006 Fund, LP	218	The Central Valley Fund II SBIC, LP	191
KKR Asian Fund II, LP	1,452	The Rise Fund (A), LP	1,184
KKR Asian Fund, LP	86	Thomas H. Lee Equity Fund VI, LP	69
KKR European Fund II, LP	8	TowerBrook Investors III, LP	235
KKR European Fund III, LP	880	TowerBrook Investors IV (Onshore), LP	2,845
KKR European Fund V (USD) SCSp	2,044	Towerbrook Investors V (Onshore), LP	2,537
KKR Millennium Fund, LP	13	Towerbrook Structured Opportunities Fund (Onshore), LP	1,565
KM Corporate Partners Fund II, LP	536	Towerbrook Structured Opportunities Fund II (Onshore), LP	491
KPS Special Situations Fund III, LP	1	TPG Asia VII (A), LP	4,127
Lime Rock Partners V, LP	156	TPG Growth IV, LP	1,309
Lindsay Goldberg IV, LP	4,861	TPG Healthcare Partners, LP	1,592
Lion Capital Fund II, LP	106	TPG Partners VI, LP	(74)
Madison Dearborn Capital Partners VIII, LP	500	TPG Partners VIII, LP	7,771
MHR Institutional Partners III, LP	1,320	Trident VI	3,274
Newbridge Asia IV, LP	129	Trident VII, LP	3,007
Oak Hill Capital Partners II, LP	14	Triton Fund IV, LP	866
Oak Hill Capital Partners III, LP	464	Triton Fund V, LP	2,791
Oaktree Opportunities Fund VIIIb, LP	1,308	T-VI Co-Invest-A, LP	(132)
Onex Partners IV, LP	2,018	Valor Equity Partners IV, LP	1,447
Onex Partners V (B), LP	8,255	VantagePoint Venture Partners 2006 (Q), LP	550
PAG Asia I, LP	460	Vicente Capital Partners Growth Equity Fund, LP	139
		Vista Equity Partners Fund VII-Z, LP	5,864

Other Supplementary Information (continued)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Investment Management Fees^{1,2} (Dollars in Thousands) (continued)

	Fees		Fees
WCAS XIII, LP	\$5,003	Land Management Company Resmark	\$610
Welsh, Carson, Anderson & Stowe XI, LP	287	Land Management Company, LLC	3,223
Welsh, Carson, Anderson & Stowe XII, LP	3,589	Lincoln Timber, LP	2,537
Wigmore Street (BDC III), LP	1	North Haven Infrastructure Partners II, LP	1,878
Wigmore Street Co-investment No.1, LP	1	ORA Multifamily Investments I, LLC	380
Wigmore Street VI Co-Investment No.1, LP	71	ORA Residential Investments I, LP	557
WLR Recovery Fund IV, LP	—	Pacific Multifamily Investors, LLC	6,600
Yucaipa Corporate Initiatives Fund II, LP	80	PMI Tactical	161
Total Private Equity Funds	<u>\$272,231</u>	Sacramento Venture - Base	216
		Sacramento Venture - DT	211
Real Asset Funds		Sacramento Venture Hines Base	222
Alinda Infrastructure Fund II, LP	\$542	Sacramento Venture Hines DT	216
ARA China Long Term Hold	6,796	SF Mission Street Partners, LLC	2
Archmore International Infrastructure Fund II (B), LP	436	Stockbridge Hollywood Park Co-Investors, LP	312
Archmore International Infrastructure Fund II (C), LP	927	Stockbridge Real Estate Fund II -B, LP	76
Blackstone Property Partners Europe, LP	1,531	Strategic Property Fund Asia SCSP	1,866
CalEast Solstice - Base	12,719	Sylvanus, LLC	1,938
CalEast Solstice - DT Land	4,637	TechCore, LLC	9,106
CalEast Solstice - DT Other	894	Tower Bridge Infrastructure Partners, LP	5,137
CalWest CalPERS GIP	60	Whitney Ranch Resmark	46
Canyon Catalyst Fund II, LLC	2,471	Whitney Ranch Venture, LLC	1,050
CCF III, LLC	66	Total Real Asset Funds	<u>\$215,200</u>
CCP 2020	177		
CIM Fund III, LP	4,040	Other Investment Management Fees	
CIM Infrastructure Fund, LP	2,732	AQR	\$3,196
CIM Urban Real Estate Fund, LP	4,010	Brookside Capital Partners Fund, LP	6
FSP - Base	26,686	FIAM Fidelity Investments	614
FSP - DT 2012 and Beyond	130	LongTail Alpha, LLC	5,840
Global Infrastructure Partners II, LP (GIP II)	2,736	OZ Eureka Fund, LP	216
Global Infrastructure Partners IV-A/B, LP	8,279	Standard Life	179
Golden Reef Infrastructure Trust	3,290	Universa Investments, LP	14,219
Gotham Office Realty Partnership	116	VCM Dynamic Multi-Asset	2,005
GRI - Base	17,377	Total Other Investment Management Fees	<u>\$26,275</u>
GRI - DT 2012 and Beyond	94		
Harbert Gulf Pacific Power, LLC (HGPP)	5,040	Total Management Fees	<u>\$558,116</u>
Harbert Power Fund V, LP (HPF V)	1,064		
HC Green Development Fund, LP	482		
HC LTH, LLC	4,311		
HC NOP Holdings, LP	25		
HCB LTH	877		
HCC Interests, LP	155		
HCR LTH, LLC	1,006		
IHP Investment Fund III, LP	2,062		
IMI - Base	24,578		
IMP - Base	26,247		
IMP - DT 2012 and Beyond	1,585		
IMP - ICMI	3,483		
IMP Abaca	631		
Institutional Logistics Partners, LLC	4,970		
KC 2011, LLC	1,594		

Other Supplementary Information (continued)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Performance Fees⁵ (Dollars in Thousands)

	Fees		Fees
Equity Managers		Other Investment Managers	
Baillie Gifford Overseas, Ltd.	\$9,407	Brookside Capital Partners Fund, LP	\$38
J.P. Morgan Investment Management, Inc.	1,429	OZ Domestic Partners II, LP	(8)
Total Equity Managers	\$10,836	Total Other Investment Managers	\$30
Fixed Income Managers		Total Performance Fees	
Baring International Investment Limited	\$373		\$143,621
Pacific Investment Management Co., LLC	2,466	Total Management and Performance Fees	\$701,737
Total Fixed Income Managers	\$2,839		
Real Asset Funds			
AGI Resmark Housing Fund, LLC	(\$121)		
Blackstone Property Partners Europe, LP	7,583		
CalEast Canada Limited Partnership	4		
CalEast Solstice, LLC	322		
Canyon Catalyst Fund II, LLC	2,890		
Canyon Johnson Urban Fund, III	(61)		
CIM Infrastructure Fund, LP	(17,896)		
FSP - Base	17,613		
FSP - DT 2012 and Beyond	4,441		
Global Infrastructure Partners II, LP (GIP II)	(6,516)		
Golden Reef Infrastructure Trust	(255)		
GRI - Base	17,377		
Harbert Gulf Pacific Power, LLC (HGPP)	10,598		
Harbert Power Fund V, LP (HPF V)	265		
HC Green Development Fund, LP	1,736		
HCB Interests II, LP	(4,219)		
IHP Investment Fund III, LP	(663)		
IMI - Base	8,069		
IMP - Base	37,547		
IMP - DT 2012 and Beyond	5,763		
IMP - ICMI	4,668		
IMP Abaca	750		
Institutional Logistics Partners, LLC	4,889		
Ivy Investment Vehicle LDC (SWPM)	(1,626)		
KC 2011, LLC	21,549		
LaSalle Japan Logistics Fund II, LP	1		
ORA Multifamily Investments I, LLC	6,701		
ORA Residential Investments I, LP	(633)		
Pacific Multifamily Investors, LLC	3,375		
Sacramento Venture - Base	(142)		
TechCore, LLC	5,907		
Total Real Asset Funds	\$129,916		

Other Supplementary Information (continued)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Other Investment Expenses^{1,5} (Dollars in Thousands)

	Fees		Fees
Advisory Fees		Hamilton Lane Advisors, LLC	\$590
Alliance Bernstein, LP	\$411	JLynn Consulting, Inc.	235
AXA Rosenberg Investment Management, LLC	213	Mckinsey & Company, Inc. Washington, DC	999
FIS Group, Inc.	584	Meketa Investment Group, Inc.	(20)
Goldman Sachs Asset Management, LP	302	Mercer Alternatives Limited	150
Lazard Asset Management, LLC	500	Mercer Investments, LLC	204
Legato Capital Management Investments, LLC	1,750	Mosaic Investment Advisors, Inc.	200
LEIA GEM Investment, LLC	583	MSys International, Inc.	180
Principal Life Insurance Company	996	Pacific Community Ventures, Inc.	179
Progress Investment Management Company	583	Propoint Technology, Inc.	2,621
QS Investors, LLC	133	Pyramid Technical Consultants, Inc.	241
Quantitative Management Associates, LLC	367	RCLCO Fund Advisors, LLC	192
Strategic Investment Group, LLC	584	Ryedale, Inc.	(6)
Total Advisory Fees	\$7,006	SPS Consulting Services, LLC	227
		SRI InfoTech, Inc.	292
Appraisal Fees		Steer Davies Gleave Limited	(127)
RERC, LLC	\$11,153	Technology Crest Corporation	196
Total Appraisal Fees	\$11,153	The Spaulding Group	84
		Trinity Technology Group, Inc.	3
Auditor Fees		Wellington Management Company, LLP	219
Cohn Reznick, LLP	\$60	Wilcox Miller & Nelson	40
Conrad, LLP	30	Total Investment Consultant Fees	\$8,762
KPM & Associates, LLP	38		
RSM US, LLP	—	Legal Fees	
Total Auditor Fees	\$128	Arguedas, Cassman, Headley & Goldman, LLP	\$5
		Berman Tabacco	(22)
Company Expense		Cox, Castle & Nicholson, LLP	239
FIS Group, Inc.	\$65	DLA Piper, LLP	314
Leading Edge Investment Advisors, LLC	129	Durie Tangri, LLP	288
Legato Capital Management, LLC	338	Foster Pepper, PLLC	41
LongTail Alpha, LLC	334	Hogan Lovells, US LLP	127
Progress Investments, LLC	174	K & L Gates, LLP	112
Strategic Investment Group, LLC	75	Katten Muchin Rosenman, LLP	14
Universa Investments, LP	175	Morgan, Lewis & Bockius, LLP	466
Total Company Expense	\$1,290	Nixon Peabody, LLP	30
		Pennington, LLP	15
Fund Administration Fees		Pillsbury Winthrop Shaw Pittman, LLP	1,357
State Street Bank and Trust Company	\$4,053	Reed Smith, LLP	(5)
Total Fund Administration Fees	\$4,053	Stoel Rives, LLP	1
		Vasquez Benisek Lindgren	(5)
Investment Consultant Fees		Wilson Sonsini Goodrich & Rosati	96
AON Risk Insurance Services West, Inc.	\$40	Total Legal Fees	\$3,073
Bard Consulting, LLC	650		
BDO USA, LLP	26	Master Custodian Fees	
Callan, LLC	460	State Street Bank and Trust Company	\$10,623
Crosswater Advisors, LLC	234	Total Master Custodian Fees	\$10,623
D2 Alternative Investments Limited	(199)		
Duff & Phelps, LLC	455	Tax Advisory Fees	
Ernst & Young, LLP	40	Ernst & Young, LLP	\$737
Funston Advisory Services, LLC	355	Total Tax Advisory Fees	\$737
Greenhill & Co., LLC	2		

Other Supplementary Information (continued)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Other Investment Expenses^{1,5} (Dollars in Thousands) (continued)

	Fees		Fees
Technology Expenses		Intex Solutions, Inc.	\$266
13D Research, Inc.	\$70	Investment Property Databank	88
A.M. Best Company, Inc.	3	IPC, Systems, Inc.	301
Abel Noser Solutions, LLC	48	Kyriba Corporation	75
Acadiasoft, Inc.	11	London Stock Exchange PLC	36
Axioma, Inc.	349	Markit Indices Limited	29
Babelfish Analytics, Inc.	35	Markit North America, Inc.	92
Barclays Capital, Inc.	(43)	Microsoft Services	26
Barra, LLC	2,430	Moody's Analytics, Inc.	438
BCA Research	267	Mountainview Analytics, LLC	10
BDO USA, LLP	24	MRB Partners, Inc.	50
BlackRock Financial Management, Inc.	9,061	MRI Software, LLC	317
Bloomberg Index Services Limited	167	MSCI, INC	1,838
Bloomberg, LP	2,935	MUFG Capital Analytics, LLC	7,034
Broadridge Investor Communications	18	Noel L Scherf	(6)
Cambridge Associates, LLC	21	NYSE Market, Inc.	21
Carahsoft Technology Corp.	851	Option Research & Technology Services, LLC	56
CEM Benchmarking, Inc.	155	Options Price Reporting Authority	4
Charles River Systems, Inc.	2,915	Preqin Limited	42
Clarity Solutions Group, LLC	60	Quantal International, Inc.	45
Convergence, Inc.	25	Radianz Americas, Inc.	188
Cornerstone Macro, LLC	132	Real Capital Analytics, Inc.	96
CoStar Realty Information, Inc.	180	Refinitiv US, LLC	229
Credit Market Analysis Limited	(21)	RIMES Technologies Corporation	405
Creditsights	150	Ryedale Europe Limited	730
Dow Jones & Company, Inc.	2	S & P Global Market Intelligence, LLC	1,525
DTCC ITP, LLC	182	S&P Dow Jones Indices, LLC	70
eFront Financial Solutions, Inc.	1,596	S&P Trucost Limited	18
eMBS, Inc.	9	SASB Foundation	4
Empirical Research Partners, LLC	435	SpiderRock EXS, LLC	(13)
Equilar, Inc.	35	State Street Bank and Trust Company	4,076
Etrali North America, LLC	81	StepStone Group, LP	222
Eurasia Group	138	Stone & Kanto, LLC	9
Euromoney Trading Limited	20	STOXX Limited	29
eVestment Alliance	37	Sustainalytics U.S., Inc.	43
Factset Research Systems, Inc.	2,500	The Burgiss Group, LLC	129
Fan Asset Management, LLC	208	The Depository Trust & Clearing Corp.	11
Fitch Solutions, Inc.	292	The Mathworks, Inc.	65
Frank Russell Company	34	The Statestore, Inc.	2
FTSE	805	The Yield Book, Inc.	228
Fundamental Intelligence, LTD	8	Tradeweb, LLC	181
Gartner, Inc.	229	Trend Macrolytics, LLC	27
Gavekal Capital Management Limited	45	TRGRP, Inc.	273
Glass Lewis & Co., LLC	498	TriOptima AB	30
Global Financial Data	30	TSX, Inc.	35
Global Investor Collaboration Services, LLC	5	Viola Risk Advisors, LLC	10
Green Street Advisors	145	Wellington Management Company, LLP	187
Haver Analytics, Inc.	132	William O'Neil & Company	30
ICE Benchmark Administration Limited	32	Wood Mackenzie, Inc.	220
IHS Global, Inc.	21	Yardeni Research, Inc.	19
Insight Public Sector, Inc.	79	Total Technology Expenses	\$47,509
Institutional Shareholder Services, Inc.	228		

Other Supplementary Information (continued)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Other Investment Expenses^{1,6} (Dollars in Thousands) (continued)

	Fees
Internal Investment Personnel and Administrative Expenses	
Internal Investment Personnel and Administrative Expenses	\$88,965
Total Internal Investment Personnel and Administrative Expenses	\$88,965
Miscellaneous Investment Expense Fees	
Miscellaneous Investment Expense Fees	\$332
Transaction Fees	96,751
Total Miscellaneous Investment Expense Fees	\$97,083
Total Other Investment Fees and Expenses	\$280,382
Total Investment Expenses - All Funds	\$982,119

(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.

(4) Investments listed reflect only those investments with management fees, rebates, offsets, and/or carried interest incurred within the fiscal reporting period.

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

(6) Negative expenses are due to market fluctuations, adjusting entries, and reimbursements.

Other Supplementary Information (continued)

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES¹ – ALL FUNDS (DOLLARS IN THOUSANDS)

Individual or Firm	Fees	Nature of Services
AgreeYa Solutions, Inc.	\$337	Information, Technology Consulting and Support Services
Anthem Blue Cross	122,767	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Aon Consulting, Inc.	25	Consulting for Salary Surveys, Executive Compensation Recommendations and Advice for the Compensation Program
ATV Video Center, Inc.	170	Video and Multimedia Production Services
Baker & Hostetler, LLP	29	Medical Consulting Services
BDO USA, LLP	2,650	Auditor Services
Belmonte Enterprises, LLC	619	Application Development
Berman Tabacco	777	Succession and Workforce Planning
Blue Shield of California	57,435	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Buck Global, LLC	1,807	Actuarial Services
Capio Group	983	Application Development
Claims Eval, Inc.	28	Health Appeals Review Services
Cook Brown, LLP	78	Legal Services
Cornerstone Fitness, Inc.	36	Employee Training and Development
Delegata Corporation	184	Application Development
Department of Justice	563	Conduct & Provide External Investigative Services
Domain Experts Corporation	72	Recruiting and Placement
DSS Research	179	Medical Consulting Services
Durie Tangri, LLP	763	Legal Services
Eaton Interpreting Services, Inc.	165	Interpreting Services
Elynview Corporation	338	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Enterprise Networking Solutions, Inc.	250	IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Equanim Technologies	447	Business Process Re-engineering, Project Management Services, Technical Writing
Faegre Drinker Biddle & Reath, LLP	(477)	Legal Services
Fair Political Practices Commission	58	Assessment Services
FB3 Consulting, LLC	260	Information Services, Advanced Analytics Solutions Development
First Data Merchant Services Corporation	89	Banking Services
Gartner, Inc.	433	Management Support Services
Government Operations Agency	354	Operations and Strategic Business Planning
H&B Joint Venture	199	Business Transformation/Transition, Release Management/Quality Assurance/Configuration Management
Health Actuaries	72	Actuarial Consulting Services
Health Net of California	16,637	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
inContact, Inc.	182	Information Technology Services, New Solution for the Contact Center
Innovative Software Technologies, Inc.	415	Specialized IT Support Services for Actuarial Systems/Business
Integrity Voting Systems (IVS)	709	Board Election Services
J & K Court Reporting, LLC	54	Legal Services
JLynn Consulting, Inc.	412	Application Development, Information Services
K&L Gates, LLP	348	Legal Services
KearnFord Application Systems Design	316	Business Transformation/Transition, Information Services, Release Management/Quality Assurance/Configuration Management
Kiefer Consulting, Inc.	123	Application Development, IT Architecture
King & Spalding, LLP	(39)	Legal Services

Other Supplementary Information (continued)

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES¹ – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
Kong Consulting, Inc.	\$500	Systems Analysis, Design, Implementation, Maintenance and Support
Korn Ferry (US)	410	Search Firm Services
Level Access, Inc.	182	Accessibility Training Services
Long Term Care Group, Inc.	20,054	Third-Party Member Record Keeper, Billing, Banking, Claims Administration, Care Advisory, Enrollment, Customer and Specialist, Reporting, Data Feed Services, Information Technology Services, Marketing Consultant
Matrix Software Services	160	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Mellon Bank	335	Banking Services
Mercer	475	Health Care and Actuarial Consulting
Michael Scales Consulting, LLC	221	Application Development
Milliman, Inc.	2,602	Project Management Services
National Association Corporate Directors	182	Board Evaluations
Northeast Retirement Services	105	Third-Party Member Record Keeper
Olson Remcho, LLP	32	Election Services
OnCore Consulting, LLC	478	Application Development, IT Architecture
OptumRx	22,826	Pharmacy Claims Administration, Account Management, Eligibility, Retail and Other Reporting Services
Orrick Herrington & Sutcliffe, LLP	386	Legal Services
Pasanna Consulting Group, LLC	1,387	Application Development, Data Base Administration, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Perspecta State and Local, Inc.	218	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Princeton Solutions Group, Inc.	86	Business Transformation/Transition, Project Management Services, Release Management/Quality Assurance/Configuration Management
QualApps, Inc.	796	Application Development, IT Architecture
RVK, Inc.	25	Market Analysis
Randle Communications	391	Media Training, Writing, Editorial, Marketing, and Crisis Communication Services
Recon Distribution, Inc.	182	Exhibition Management
Reed Smith, LLP	739	Legal Services
Ridgeway Partners, LLC	44	Search Firms Services
RS3 Consulting	185	Information Services, Application Development
RSC Insurance Brokerage, Inc.	385	Actuarial Consulting Services
Runyon Saltzman, Inc.	74	Writing, Editorial and Marketing Services
Saba Software, Inc.	108	Employee Training and Development
Shah & Associates, A Professional Law Company	118	Legal Services
Sharp Health Plan	7,359	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Stalom, LLC	480	Information Technology Services, Applications Migration
Sophus Consulting	300	Legal Services
State Controller's Office	7,497	Account Management, Information Technology, Other Post Employment Benefits, General Administrative Services, and Premium Remittance Services
State Personnel Board	100	Compliance Review, Audit, and Processing of Appeals and Complaints
State Treasurer's Office	28	Money Wiring Services
Step toe & Johnson, LLP	110	Legal Services
SymSoft Solutions, LLC	62	Information Services, Application Development
T5 Consulting	765	Application Development, Information Services
Take 1 Productions	45	Video and Multimedia Production Services
The Berwyn Group	27	Identifying Deceased Individuals, Providing Death Certificates to CalPERS
The RAND Corporation	30	Reference Based Pricing Drug Program

Other Supplementary Information (continued)

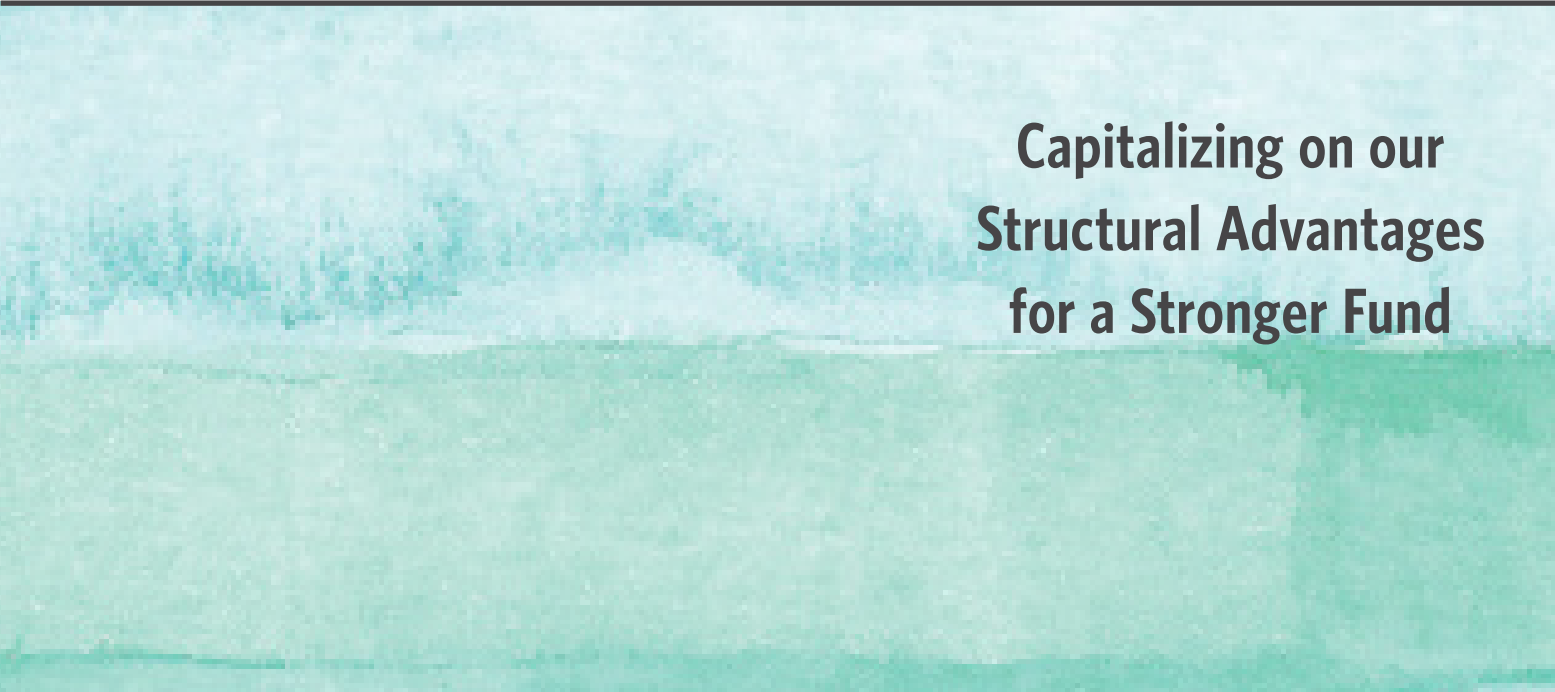
CONSULTANT AND PROFESSIONAL SERVICES EXPENSES¹ – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
The Regents of the University of California	\$272	Organizational and Leadership Development
The Taylor Feldman Group, LLC	38	Management Support Services
Toppan Merrill, LLC	64	Printing of Open Enrollment Materials and Dissemination
Trinity Technology Group, Inc.	931	Application Development, Business Intelligence and Reporting, Information Services, IT Architecture
UnitedHealthcare	43,609	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Unleashing Leaders, Inc.	45	Organizational and Leadership Development
Van Dermyden Maddux Law Corporation	(51)	Legal Services
Vantage Consulting Group, Inc.	445	Application Development, IT Architecture
Voya	3,516	Third-Party Member Record Keeper
Western Health Advantage	4,674	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Worktank Enterprises, LLC	68	Video and Multimedia Production Services, Web Event Services
Various	207	
Total Consultant and Professional Services Expenses	<u>\$335,154</u>	

(1) Negative Consultant and Professional Expenses are due to adjusting entries as a result of reversal of accruals which are estimates.

INVESTMENT SECTION

104	Chief Investment Officer's Letter
105	Summary of Investments – PERF
105	Portfolio Comparisons – PERF
106	Asset Allocation – PERF
106	Portfolio of California Investments at Fair Value – PERF
107	Largest Stock & Bond Holdings at Fair Value – PERF
108	Schedule of Commissions & Fees
110	Private Equity Management Fees & Profit Sharing – PERF
115	Investment Performance – LRF
115	Investment Performance – JRF II
116	Investment Performance – CEPPTF
117	Investment Performance – CERBTF
118	Investment Performance – HCF
118	Investment Performance – LTCF



**Capitalizing on our
Structural Advantages
for a Stronger Fund**

Investment Section

CHIEF INVESTMENT OFFICER'S LETTER

November 21, 2020

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, 2020. The CalPERS Public Employees' Retirement Fund (PERF) earned a time-weighted rate of return of 4.7 percent this fiscal year, with the ending fair value of investments at \$395.8 billion. CalPERS claims compliance with the Global Investment Performance Standards (GIPS).¹

Drivers of the returns included the Fixed Income program, which generated a 12.5 percent net return, followed by Real Assets and Public Equity net returns of 4.6 percent and 0.6 percent, respectively.

The third and fourth quarter of this fiscal year brought increased market volatility and slowed economic growth due to the coronavirus pandemic. The CalPERS investment team was prepared for this unanticipated situation through taking crucial steps and making decisions leading up to the downturn, which reduced the impact on the PERF. During this challenging time, our enhanced balance-sheet liquidity management framework allowed us to generate liquidity on demand, while the centralized governance structure allowed us to allocate liquidity in the most efficient way, maximizing the benefits to the Fund.

Also, during this fiscal year, we conducted several Investment Strategy Reviews, focusing on our comparative advantages, and eliminating costly fees. This resulted in reducing external manager relationships by over 20, reallocating approximately \$28 billion of assets to internal management and saving CalPERS over \$100 million a year in fees.

This fiscal year, we observed how the Fund benefited from diversification of the segments built into the strategic asset allocation, which helped offset our losses during the drawdown in spring of 2020. This speaks to the importance of not just focusing on strong returns, but also working to minimize risk, especially downside risk, within the portfolio.

While we did not reach the targeted 7 percent return in this fiscal year, our returns were positive and we beat our benchmark of 4.3 percent, despite the market volatility. We are a long-term investor and continue to stay focused on the sustainability and long-term performance of the Fund, while managing through the highs and lows of the short-term volatility.

In this current low-yield and low-growth environment, we continue to execute on our strategy to achieve our 7 percent return target, as these challenging times require innovation and an understanding of our structural advantages. We must also be prudent with the risks we take. Our 7 percent solution includes building our private equity and private debt assets as they have the potential of higher returns and lower expected volatility compared to publicly traded assets. We will also look to prudently and diligently apply leverage within our portfolio at the Total Fund level to take advantage of the current low interest rate environment.

We understand that increasing leverage and private asset investments comes with risk. However, with the proper controls, careful planning, a comprehensive balance-sheet liquidity management framework, and a long-term commitment, we can work to mitigate the corresponding risks. Prudent use of leverage can actually reduce risk over time by allowing us to keep more exposure in diversifying assets like Treasury bonds, while pursuing higher returns in other parts of the portfolio.

CalPERS is committed to the success and sustainability of our system. While the 2019-20 fiscal year brought unique challenges and opportunities, we remain focused on our Strategic Plan Goal to strengthen the long-term sustainability of the pension Fund. The Investment Office continues to stay focused on our Mission to manage the CalPERS investment portfolio in an efficient and risk aware manner to generate returns to sustainably pay benefits. And as we move forward, we will continue to implement our Vision to work as one team, with a culture of trust, respect, and accountability to effectively manage one Total Fund. We continue to identify ways to reduce the cost, risk, and complexity in the Fund's portfolio and operations, while also maximizing investment returns.

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

Dan Bienvenue
Interim Chief Investment Officer

¹GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. Asset Owner reports are made available to the Board and public at the first Investment Committee meeting following fiscal year end. <https://www.calpers.ca.gov/page/about/board/board-meetings>

Investment Section (continued)

INVESTMENT PERFORMANCE – PUBLIC EMPLOYEES’ RETIREMENT FUND (PERF)

Summary of Investments – PERF – As of June 30, 2020 (Dollars in Thousands)

Category	Book Value	Fair Value	% of Investments at Fair Value
Short-Term Investments	\$28,195,632	\$28,213,962	7%
Global Equity Securities	172,520,804	196,036,941	49%
Global Debt Securities	94,716,319	102,063,458	26%
Real Assets	30,460,556	43,008,182	11%
Private Equity	30,170,606	26,496,420	7%
TOTAL INVESTMENT VALUE	\$356,063,917	\$395,818,963	100%

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

Category	1-Year Return	3-Year Return	5-Year Return	10-Year Return	Benchmark/Peer Universe	1-Year Return	3-Year Return	5-Year Return	10-Year Return
Total Fund	4.7%	6.6%	6.3%	8.5%	Total Fund Policy Benchmark ¹	4.3%	6.7%	6.4%	8.4%
					Trust Universe Comparison Service (TUCS)				
					Public Fund Median	3.5%	5.9%	5.9%	8.1%
					Wilshire Large Fund Universe Median	2.6%	6.1%	6.4%	8.8%
Public Equity	0.6%	6.0%	6.6%	9.7%	CalPERS Custom Public Equity Benchmark ²	0.4%	6.1%	6.5%	9.5%
Private Equity ⁴	(5.1%)	5.9%	6.6%	10.4%	Custom FTSE All World, All Cap Equity +150bps, Quarter Lag	(11.0%)	3.2%	5.6%	10.2%
Income	12.5%	7.4%	6.3%	5.9%	CalPERS Custom Global Fixed Income Benchmark ³	12.3%	7.1%	5.9%	5.2%
Real Assets ⁴	4.6%	5.4%	5.9%	8.8%	MSCI/PREA U.S. ACOE Quarterly Property Fund Index (Unfrozen), Quarter Lag	3.9%	5.7%	7.0%	9.6%
Liquidity	1.6%	2.0%	1.4%	1.3%	30-Day Treasury Bill	1.3%	1.6%	1.1%	1.3%

(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 70% Custom FTSE All World, All Cap Equity and 30% MSCI ACWI Select Factor Weighted Index.

(3) The current benchmark is 36% Custom Bloomberg Barclays Long Government, 53% Custom Bloomberg Barclays Long Spread, and 11% Custom Bloomberg Barclays High Yield.

(4) Private assets reflect valuations as of March 31, 2020, and are cash adjusted through June 30, 2020.

Investment Section (continued)

PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

Asset Allocation – PERF

Asset Class	Current Allocation	Current Policy Target Weight (as of 6/30/2020)	Prior Policy Target Weight (as of 6/30/2019)
Public Equity	53.1%	50.0%	50.0%
Private Equity	6.3%	8.0%	8.0%
Income	28.2%	28.0%	28.0%
Real Assets	11.3%	13.0%	13.0%
Liquidity	0.9%	1.0%	1.0%
Trust Level ¹	0.2%	—	—
TOTAL FUND	100.0%	100.0%	100.0%

(1) Trust Level includes Multi-Asset Class, Completion Overlay, Risk Mitigation, Absolute Return Strategies (Direct Investments only), Plan Level Transition, and other Total Fund level portfolios. These assets do not have targets because they are not components of the Total Fund Policy benchmark.

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

California Investments	Fair Value	Cost
Public Equity ¹	\$22,418	\$13,970
Global Fixed Income ²	7,911	7,400
Real Assets ³	12,526	8,152
Private Equity ³	791	490
TOTAL CALIFORNIA INVESTMENTS	\$43,646	\$30,012

(1) Includes listed public equities corporate bonds.

(2) Fixed Income also includes a portion of MBS & ABS, which have significant geographical exposure to CA, and MHLF.

(3) Real assets and private equity as of March 31, 2020.

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	Microsoft Corporation	17,769,746	\$3,616,321
2	Apple Incorporated	9,255,014	3,376,229
3	Amazon.com Incorporated	977,291	2,696,170
4	Johnson & Johnson	10,272,785	1,444,662
5	Verizon Communications Incorporated	25,116,944	1,384,697
6	Nestle Corporation	12,414,252	1,372,243
7	Visa Corporation	6,639,256	1,282,505
8	Pepsi-Co Incorporated	9,654,971	1,276,966
9	Facebook Incorporated	5,505,269	1,250,081
10	Procter and Gamble Company	9,629,325	1,151,378

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

Rank	Bond	Interest Rate	Maturity Date	Par Value	Fair Value
1	Federal National Mortgage Association	2.500%	7/14/2050	\$2,884,975	\$3,007,586
2	United States Treasury	1.250%	5/15/2050	2,151,600	2,067,553
3	United States Treasury	0.625%	5/15/2030	2,008,500	2,003,165
4	United States Treasury	4.375%	5/15/2040	750,800	1,186,147
5	Federal National Mortgage Association	3.000%	7/14/2050	1,067,100	1,123,873
6	United States Treasury	4.500%	8/15/2039	655,800	1,043,952
7	Federal Home Loan Mortgage Corp.	4.000%	8/1/2048	866,731	935,361
8	United States Treasury	4.625%	2/15/2040	562,400	912,055
9	United States Treasury	3.000%	2/15/2048	659,950	903,410
10	United States Treasury	2.875%	5/15/2028	747,600	882,285

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
Bank of America Merrill Lynch Securities, Inc.	137,632,002	\$333	Jefferies India Pte., Ltd.	646,918	\$23
Barclays Capital	48,210,346	296	Jefferies International, Ltd.	6,898,163	17
Barclays Capital, Inc./LE	55,403,273	313	JMP Securities	240,330	10
BNP Paribas Securities Corp.	3,850,000	15	Joh Berenberg Gossler and Company	538,184	17
BNP Paribas Securities Services	14,725,927	25	Jones Trading Institutional Services, LLC	13,416,210	153
Bofa Securities, Inc.	57,664,832	983	JP Morgan Clearing, Corp.	14,140,985	73
Bradesco S.A CTVM	5,156,445	12	JP Morgan India Private, Ltd.	2,513,199	9
Broadcort Capital, Corp.	7,837,566	78	JP Morgan Securities (Far East), Ltd. Seoul	1,748,791	29
BTIG, LLC	69,657,979	588	JP Morgan Securities Asia Pacific, Ltd.	7,654,723,540	88
Canadian Imperial Bank of Commerce	821,578	8	JP Morgan Securities Australia, Ltd.	14,981,770	32
Capital Institutional Services, Inc.	26,682,120	196	JP Morgan Securities, Inc.	503,481,984	526
Citibank	500,000,000	11	JP Morgan Securities, LLC	44,827,160	331
Citigroup Global Market Korea Secs., Ltd.	2,542,973	30	JP Morgan Securities, Ltd.	66,819,199	1,041
Citigroup Global Markets CME	19,624	45	JP Morgan Securities, PLC	321,547,621	1,110
Citigroup Global Markets India	106,988,775	114	Leerink Partners, LLC	1,451,559	27
Citigroup Global Markets Taiwan	367,943,249	193	Liquidnet, Inc.	28,506,762	187
Citigroup Global Markets, Inc.	650,163,480	1,658	Macquarie Bank, Ltd.	1,285,481,802	640
Citigroup Global Markets, Inc. Salomon Bro.	1,621,993	2,959	Macquarie Securities (India), Inc.	10,981,121	48
Citigroup Global Markets, Ltd.	131,177,598	310	Macquarie Securities (Korea), Ltd.	221,548	19
CLSA Australia Pty., Ltd.	10,603,202	24	Maxim Group, LLC	277,880	11
CLSA Singapore Pte., Ltd.	555,988,261	532	Merrill Lynch International	729,917,677	1,363
Cowen and Company, LLC	994,113	10	Morgan Stanley (Taiwan), Ltd.	187,505,730	136
Cowen Execution Services, LLC	24,048,857	86	Morgan Stanley and Company International	67,465,709	82
Credit Lyonnais Securities (Asia)	755,367,551	204	Morgan Stanley and Company, Inc.	1,990,821,153	1,718
Credit Lyonnais Securities (USA), Inc.	2,985,800	18	Numis Securities, Ltd.	1,081,798	8
Credit Suisse First Boston	22,211,719	53	Penserra Securities, LLC	35,245,255	299
Credit Suisse First Boston SA CTVM	50,447,527	110	Pershing Division of Donaldson Lufkin	1,280,130	13
Credit Suisse Securities (Europe), Ltd.	1,407,788	28	Pershing, LLC	15,326,881	141
Credit Suisse Securities (USA), LLC	3,203,454,143	1,748	Pershing Securities, Ltd.	762,683	10
Credit Suisse Securities India Pte., Ltd.	35,679,471	190	Piper Jaffray and Company	77,868,015	577
Exane S.A	20,455,102	75	RBC Capital Markets, LLC	747,651	10
Goldman Sachs (Asia), LLC	1,734,733	18	RBC Dominion Securities, Inc.	33,099,199	118
Goldman Sachs and Company	271,250,908	1,004	Rosenblatt Securities, Inc.	21,911,296	173
Guzman and Company	26,937,287	250	Royal Bank of Canada Europe, Ltd.	191,897	16
Hongkong and Shanghai Banking, Corp.	32,827,183	12	Sanford C. Bernstein, Ltd.	12,519,318	54
HSBC Bank, PLC	11,478,725,044	1,227	SG Americas Securities, LLC	21,948,546	87
HSBC Brokerage (USA), Inc.	12,520,838	85	SG Securities Hong Kong	360,623,778	107
HSBC Securities India Holdings	24,234,406	62	Societe Generale	218,301,424	280
HSBC Securities (USA), Inc.	1,344,596,645	977	Societe Generale London Branch	6,303,650	32
ICBC Financial Services, LLC	16,709,409	170	Standard Chartered Bank London	20,266,000,000	9
ICICI Brokerage Services, Ltd.	5,787,586	9	Stanford C Bernstein and Company, LLC	35,065,046	197
Instinet	59,606,635	403	State Street Bank and Trust Company	58,141	139
Instinet Australia Clearing Srvc. Pty., Ltd.	21,085,931	52	Stifel Nicolaus and Company, Inc.	558,155	11
Instinet Europe, Ltd.	111,779,500	492	Stuart Frankel and Co. Inc.	24,374,796	174
Instinet Pacific, Ltd.	68,547,098	109	UBS Ag	134,552,783	491
Instinet, LLC	27,502,078	148	UBS Ag London Branch	5,435,676	85
Investment Technology Group, Inc.	197,284,102	646	UBS Securities Asia, Ltd.	754,623,555	461
ITG Australia, Ltd.	69,560,753	257	UBS Securities Canada, Inc.	2,461,013	13
ITG Canada	6,679,742	50	UBS Securities India Pte., Ltd.	7,991,929	42
Jefferies and Company, Inc.	23,259,320	169	UBS Securities Pte., Ltd.	90,404,202	42

Investment Section (continued)

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

Broker	Number of Shares Traded	Base Commission & Fees Amount
UBS Securities Pte.,Ltd., Seoul	11,895,761	\$47
UBS Securities, LLC	14,923,839	137
Virtu Americas, LLC	54,625,437	446
Weeden and Company	14,698,415	147
XP Investimentos CCTVM SA	2,530,549	9
Various ¹	24,375,839,900	183
TOTAL	80,224,778,205	\$29,633

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

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF^{1,5,6} (Dollars in Thousands)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates ^{2,3}	Net Management Fees	Profit Sharing Paid ^{4,5}
57 Stars Global Opportunities Fund 2 (CalPERS), LLC	\$960	(\$194)	\$766	\$0
57 Stars Global Opportunities Fund, LLC	600	—	600	—
Aberdare Ventures IV, LP	86	6	92	—
Advent International GPE IX Limited Partnership	6,867	(48)	6,819	—
Advent International GPE V-D, LP	76	—	76	—
Advent International GPE VI-A, LP	1,063	(11)	1,052	1,948
Advent International GPE VII-C, LP	3,539	(26)	3,513	5,757
Advent International GPE VIII-B Limited Partnership	6,038	(15)	6,023	—
Advent Latin America Private Equity Fund IV-D, LP	481	—	481	—
Advent Latin America Private Equity Fund V-H, LP	748	—	748	—
Advent Latin American Private Equity Fund III-D, LP	122	—	122	—
Affinity Asia Pacific Fund III, LP	452	—	452	1,921
Aisling Capital III, LP	60	(151)	(91)	226
Apollo Credit Opportunity Fund I, LP	50	(50)	—	1,105
Apollo European Principal Finance Fund, LP	—	—	—	67
Apollo Investment Fund IX, LP	6,325	(1,459)	4,866	—
Apollo Investment Fund VI, LP	—	(10)	(10)	—
Apollo Investment Fund VII, LP	1,012	(127)	885	—
Apollo Investment Fund VIII, LP	2,528	(781)	1,747	9,517
Apollo Special Opportunities Managed Account, LP	(367)	—	(367)	—
Arclight Energy Partners Fund IV, LP	—	—	—	2,022
Ares Corporate Opportunities Fund II, LP	—	—	—	(442)
Ares Corporate Opportunities Fund III, LP	585	(5)	580	30,334
Ares Corporate Opportunities Fund V, LP	5,950	(36)	5,914	—
Asia Alternatives Capital Partners II, LP	96	—	96	3,573
Asia Alternatives Capital Partners, LP	6	—	6	61
Baring Vostok Private Equity Fund IV, LP	220	—	220	—
BDC III C, LP	2,220	(152)	2,068	—
Bridgepoint Europe VI 'H', LP	5,851	(1,122)	4,729	—
Birch Hill Equity Partners (US) III, LP	—	—	—	4,334
Birch Hill Equity Partners (US) IV, LP	976	(34)	942	9,953
Blackstone Capital Partners IV, LP	—	—	—	462
Blackstone Capital Partners V, LP	—	—	—	430
Blackstone Capital Partners VI, LP	1,970	(748)	1,222	4,499
Blackstone Capital Partners VII, LP	6,250	—	6,250	—
Blackstone Tactical Opportunities Fund - C, LP	3,485	(157)	3,328	3,679
Blackstone Tactical Opportunities Fund (KG Co-Invest), LP	453	—	453	—
Blackstone Tactical Opportunities Fund (T4U Co-Invest), LP	209	—	209	—
Blackstone Tactical Opportunities Fund II - C, LP	3,297	(600)	2,697	3,597
Blackstone Tactical Opportunities Fund III-C (Surge), LP	264	—	264	—
Blackstone Tactical Opportunities Fund III - C, LP	914	—	914	124
Bridgepoint Europe II 'A', LP	—	(3)	(3)	224
Bridgepoint Europe II 'C', LP	—	(1)	(1)	56
Bridgepoint Europe IV 'B', LP	(2,013)	180	(1,833)	2,734
Bridgepoint Europe IV 'D', LP	(7,634)	682	(6,952)	10,370
Bridgepoint Europe V	4,389	(298)	4,091	—
California Asia Investors, LP	180	—	180	4,460
California Emerging Ventures IV, LLC	275	—	275	2,422
California Emerging Ventures, LLC	—	—	—	28
California Mezzanine Investment Fund, LP	409	—	409	—
CalPERS Clean Energy & Technology Fund, LLC	270	—	270	—

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF^{1,5,6} (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates ^{2,3}	Net Management Fees	Profit Sharing Paid ^{4,5}
Capital Link Fund I, LLC	\$477	\$0	\$477	\$425
Capital Link Fund II, LLC	380	—	380	7,629
Carlyle Asia Growth Partners IV, LP	297	—	297	—
Carlyle Asia Partners III, LP	383	—	383	968
Carlyle Asia Partners V, LP	3,250	—	3,250	—
Carlyle Europe Partners II, LP	—	—	—	66
Carlyle Europe Partners III, LP	178	(102)	76	—
Carlyle Europe Partners V, S.C.Sp	4,004	(282)	3,722	—
Carlyle Europe Technology Partners II, LP	47	—	47	1,889
Carlyle Global Financial Services Partners, LP	143	—	143	1,826
Carlyle Japan Partners II, LP	45	(12)	33	—
Carlyle Partners IV LP	—	(1)	(1)	1,887
Carlyle Partners V, LP	275	(275)	—	43
Carlyle Partners VI, LP	3,624	(782)	2,842	—
Carlyle Partners VII, LP	7,200	(1,444)	5,756	—
Carlyle Realty Partners III, LP	—	—	—	6,090
Carlyle Strategic Partners II, LP	22	(22)	—	—
Carlyle Strategic Partners IV, LP	1,950	(24)	1,926	—
Carlyle U.S. Equity Opportunities II, LP	3,102	(831)	2,271	—
Carlyle/Riverstone Global Energy and Power Fund III, LP	215	(34)	181	—
CDH Fund V, LP	2,571	—	2,571	—
Centerbridge Capital Partners III, LP	2,256	(975)	1,281	1,071
Cerberus CAL II Partners, LP	2,212	(181)	2,031	—
Cerberus CAL III Partners, LP	1,804	—	1,804	—
Cerberus CP Partners, LP	2,224	(838)	1,386	—
Cerberus Institutional Partners V, LP	798	(218)	580	—
Clarus Lifesciences II, LP	—	—	—	341
Clayton, Dubilier & Rice Fund X, LP	2,250	(566)	1,684	1,136
Clearlake Capital Partners III, LP	362	(6)	356	225
Clearlake Capital Partners IV, LP	899	(277)	622	—
Clearlake Capital Partners V, LP	1,315	(892)	423	181
Clearlake Opportunities Partners (P), LP	790	(208)	582	—
Coller International Partners V-A, LP	—	—	—	3,188
Craton Equity Investors I, LP	11	—	11	—
CVC Capital Partners Asia V, LP	238	(24)	214	—
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	6,945	(21)	6,924	—
CVC Capital Partners VI, LP	4,817	(237)	4,580	—
CVC Capital Partners VII (A), LP	8,358	(1,261)	7,097	—
CVC European Equity Partners V (B), LP	17	(12)	5	16,891
EMAlternatives Investments, LP	200	—	200	—
Essex Woodlands Health Ventures Fund VIII, LP	1,595	5	1,600	—
First Reserve Fund XII, LP	103	(5)	98	—
First Reserve Fund XIII, LP	2,526	(45)	2,481	—
Francisco Partners III, LP	476	(54)	422	1,959
GCM Grosvenor DEM II, LP	887	—	887	—
GCM Grosvenor DEM III, LP	2,806	—	2,806	—
GCM Grosvenor DEM, LP	662	—	662	—
Green Equity Investors IV, LP	—	—	—	340
Green Equity Investors V, LP	272	(292)	(20)	12,738
GSO Capital Opportunities Fund II, LP	628	(20)	608	693
GSO Capital Solutions Fund II, LP	1,505	(16)	1,489	—
GSO Energy Partners-C II, LP	1,483	—	1,483	—

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF^{1,5,6} (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates ^{2,3}	Net Management Fees	Profit Sharing Paid ^{4,5}
GSO Energy Partners-C, LP	\$2,212	\$0	\$2,212	\$0
Hellman & Friedman Capital Partners IX, LP	9,750	(7,005)	2,745	—
Hellman & Friedman Capital Partners VII	577	(54)	523	11,781
Hellman & Friedman Capital Partners VIII, LP	3,767	(529)	3,238	—
Insight Partners XI, LP	2,275	—	2,275	—
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	3,215	(61)	3,154	9,357
Insight Venture Partners IX, LP	1,678	(5)	1,673	991
Insight Venture Partners V, LP	—	—	—	713
Insight Venture Partners VI, LP	—	—	—	1,777
Insight Venture Partners X, LP	4,145	(61)	4,084	—
Ithaca, LP	—	—	—	—
Khosla Ventures III, LP	1,248	—	1,248	—
Khosla Ventures Seed, LP	883	—	883	—
KKR 2006 Fund, LP	218	—	218	4,197
KKR Asian Fund II, LP	1,452	—	1,452	11,064
KKR Asian Fund, LP	86	—	86	—
KKR European Fund II, LP	8	—	8	166
KKR European Fund III, LP	880	—	880	438
KKR European Fund V (USD) SCSp	3,472	(1,428)	2,044	—
KKR Millennium Fund, LP	13	—	13	—
KM Corporate Partners Fund II, LP	548	(12)	536	—
KPS Special Situations Fund III, LP	(69)	70	1	8,744
Lime Rock Partners V, LP	163	(7)	156	—
Lindsay Goldberg IV, LP	5,101	(240)	4,861	3,384
Lion Capital Fund II, LP	106	—	106	—
Madison Dearborn Capital Partners V, LP	—	—	—	620
Madison Dearborn Capital Partners VIII, LP	500	—	500	—
MHR Institutional Partners III, LP	1,325	(5)	1,320	—
New Mountain Partners III, LP	2,454	(2,454)	—	5,179
Newbridge Asia IV, LP	129	—	129	—
Oak Hill Capital Partners II, LP	14	—	14	—
Oak Hill Capital Partners III, LP	464	—	464	—
Oaktree Opportunities Fund VIIIb, LP	1,385	(77)	1,308	—
Onex Partners IV, LP	2,416	(398)	2,018	—
Onex Partners V (B), LP	8,257	(2)	8,255	—
PAG Asia I, LP	460	—	460	3,053
PAG Asia III, LP	6,650	—	6,650	—
Palladium Equity Partners III, LP	—	—	—	232
Palladium Equity Partners V, LP	1,504	(157)	1,347	—
Patria Brazilian Private Equity Fund V, LP	2,913	(32)	2,881	—
Permira Europe III	—	—	—	68
Permira Growth Opportunities I, LP 1	2,500	—	2,500	—
Permira IV, LP 2	—	—	—	803
Permira V, LP	2,446	(47)	2,399	—
Permira VI, LP 1	5,493	(281)	5,212	—
Permira VII, LP 1	4,448	—	4,448	—
Polish Enterprise Fund VI, LP	—	—	—	1,736
RFG Private Equity Limited Partnership No. 1A, 1B and 1C	1	—	1	—
Riverstone Global Energy and Power Fund V, LP	2,569	(209)	2,360	—
Riverstone Global Energy and Power Fund VI, LP	7,500	—	7,500	—
Riverstone/Carlyle Global Energy and Power Fund IV, LP	611	(45)	566	(20,402)

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF^{1,5,6} (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates ^{2,3}	Net Management Fees	Profit Sharing Paid ^{4,5}
Riverstone/Carlyle Renewable & Alternative Energy Fund II, LP	\$1,007	(\$235)	\$772	\$0
Riverwood Capital Partners (Parallel - A), LP	424	(102)	322	(1,867)
Sacramento Private Equity Partners, LP	250	—	250	2,347
SAIF Partners III, LP	784	—	784	—
SAIF Partners IV, LP	1,207	—	1,207	—
Sankaty Managed Account (CalPERS), LP	1,894	(66)	1,828	—
Silver Lake Partners II, LP	—	—	—	140
Silver Lake Partners III, LP	269	(16)	253	6,542
Silver Lake Partners IV, LP	2,263	(415)	1,848	13,176
Silver Lake Partners V, LP	5,567	(793)	4,774	—
Siris Partners III, LP	789	(51)	738	—
Siris Partners IV, LP	1,750	(291)	1,459	—
SL SPV-1, LP	381	—	381	—
SL SPV-2, LP	280	—	280	—
Summit Partners Growth Equity Fund X-A, LP	469	(469)	—	—
Tailwind Capital Partners (PP), LP	109	—	109	(535)
Tailwind Capital Partners II, LP	890	(300)	590	—
Tailwind Capital Partners III, LP	2,500	(1,921)	579	—
TCV X, LP	1,897	—	1,897	—
The Central Valley Fund II SBIC, LP	223	(32)	191	—
The Rise Fund (A), LP	1,184	—	1,184	—
Thomas H. Lee Equity Fund VI, LP	148	(79)	69	8,429
TowerBrook Investors II, LP	—	—	—	559
TowerBrook Investors III, LP	235	—	235	6,733
TowerBrook Investors IV (Onshore), LP	3,341	(496)	2,845	—
Towerbrook Investors V (Onshore), LP	2,537	—	2,537	—
Towerbrook Structured Opportunities Fund (Onshore), LP	1,800	(235)	1,565	—
Towerbrook Structured Opportunities Fund II (Onshore), LP	3,031	(2,540)	491	—
TPG Asia V, LP	—	—	—	3,043
TPG Asia VII (A), LP	4,213	(86)	4,127	—
TPG Biotechnology Partners II, LP	17	(17)	—	1,194
TPG Biotechnology Partners III, LP	219	(219)	—	—
TPG Growth IV, LP	1,315	(6)	1,309	—
TPG Healthcare Partners, LP	1,592	—	1,592	—
TPG Partners VI, LP	3	(77)	(74)	—
TPG Partners VIII, LP	7,960	(189)	7,771	—
Trident VI	3,405	(131)	3,274	26,115
Trident VII, LP	2,767	240	3,007	—
Triton Fund IV, LP	866	—	866	—
Triton Fund V, LP	4,754	(1,963)	2,791	—
T-VI Co-Invest-ALP	—	(132)	(132)	—
Valor Equity Partners IV, LP	1,500	(53)	1,447	—
VantagePoint Venture Partners 2006 (Q), LP	550	—	550	—
Vicente Capital Partners Growth Equity Fund, LP	246	(107)	139	554
Vista Equity Partners Fund VII-Z, LP	6,008	(144)	5,864	147
W Capital Partners II, LP	—	—	—	40
WCAS XIII, LP	5,750	(747)	5,003	—
Wellspring Capital Partners V, LP	645	(645)	—	(2,080)
Welsh, Carson, Anderson & Stowe XI, LP	287	—	287	—
Welsh, Carson, Anderson & Stowe XII, LP	3,642	(53)	3,589	4,348
Wigmore Street (BDC III), LP	1	—	1	—

Investment Section (continued)

Private Equity Management Fees & Profit Sharing – PERF^{1,5,6} (Dollars in Thousands) (continued)

Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates ^{2,3}	Net Management Fees	Profit Sharing Paid ^{4,5}
Wigmore Street Co-investment No.1, LP	\$1	\$0	\$1	\$0
Wigmore Street VI Co-Investment No.1, LP	71	—	71	—
WLR Recovery Fund IV, LP	—	—	—	—
Yucaipa American Alliance Fund II, LP	1,536	(1,536)	—	2,081
Yucaipa Corporate Initiatives Fund II, LP	80	—	80	—
TOTAL	\$314,288	(\$42,057)	\$272,231	\$277,914

(1) Amounts less than \$500 are indicated by a dash.

(2) Amounts include management fee waivers that may be paid in a subsequent period.

(3) Positive amounts are reflective of timing differences between when a waiver is used compared with when the fee is called.

(4) 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.

(5) Negative amounts are reflective of decreased investment value resulting in the return of realized profit.

(6) Investments listed include only those investments with management fees, rebates, offsets, and/or profit sharing incurred within the reporting period.

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	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	6.4%	6.2%	5.4%	Total Fund Policy Benchmark	6.1%	6.0%	5.2%
Global Equity	1.5%	6.1%	6.6%	MSCI ACWI IMI (Net)	1.2%	5.8%	6.4%
Global Fixed Income	13.2%	7.7%	6.6%	Bloomberg Barclays Long Liability Index	13.1%	7.5%	6.2%
TIPS	8.3%	5.1%	3.8%	Bloomberg Barclays U.S. TIPS Index, Series L	8.3%	5.0%	3.7%
REITs	(15.7%)	(0.7%)	2.2%	FTSE EPRA/NAREIT Developed Index	(16.2%)	(1.2%)	1.9%
Commodities	(34.0%)	(8.3%)	(12.1%)	S&P GSCI Total Return Daily	(33.9%)	(8.7%)	(12.5%)

LRF Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
Global Equity	24.4%	22.0%
Global Fixed Income	47.0%	49.0%
TIPS	15.4%	16.0%
REITs	8.1%	8.0%
Commodities	5.1%	5.0%
Total Fund	100.0%	100.0%

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

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

Category	1-Year Return	3-Year Return	5-Year Return	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	4.5%	6.2%	6.0%	Total Fund Policy Benchmark	4.1%	6.0%	5.7%
Global Equity	1.6%	6.1%	6.6%	MSCI ACWI IMI (Net)	1.2%	5.8%	6.4%
Global Fixed Income	13.2%	7.7%	6.6%	Bloomberg Barclays Long Liability Index	13.1%	7.5%	6.2%
TIPS	8.3%	5.1%	3.7%	Bloomberg Barclays U.S. TIPS Index, Series L	8.3%	5.0%	3.7%
REITs	(15.9%)	(0.8%)	2.2%	FTSE EPRA/NAREIT Developed Index	(16.2%)	(1.2%)	1.9%
Commodities	(34.7%)	(9.0%)	(12.5%)	S&P GSCI Total Return Daily	(33.9%)	(8.7%)	(12.5%)

JRF II Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
Global Equity	55.3%	52.0%
Global Fixed Income	29.4%	32.0%
TIPS	4.6%	5.0%
REITs	7.8%	8.0%
Commodities	2.9%	3.0%
Total Fund	100.0%	100.0%

INVESTMENT PERFORMANCE – CALIFORNIA EMPLOYERS’ PENSION PREFUNDING TRUST FUND (CEPPTF)

CEPPTF Asset Allocation¹

Asset Class	Strategy 1		Strategy 2	
	Current Allocation	Policy Target Weight	Current Allocation	Policy Target Weight
Global Equity	42.0%	40.0%	14.0%	14.0%
Global Fixed Income	45.7%	47.0%	73.0%	73.0%
TIPS	4.6%	5.0%	5.0%	5.0%
REITs	7.7%	8.0%	8.0%	8.0%
Total Fund	100.0%	100.0%	100.0%	100.0%

1) Performance for CEPPTF is not reported because they funded less than one year ago. CEPPTF Strategy 1 has an inception date of October 1, 2019, and CEPPTF Strategy 2 has an inception date of January 1, 2020.

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	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	3.5%	5.9%	5.8%	Total Fund Policy Benchmark	3.2%	5.6%	5.4%
Global Equity	1.5%	5.9%	6.5%	MSCI ACWI IMI (Net)	1.2%	5.5%	6.1%
Global Fixed Income	13.2%	7.7%	6.6%	Bloomberg Barclays Long Liability Index	13.1%	7.5%	6.2%
TIPS	8.2%	5.0%	3.7%	Bloomberg Barclays U.S. TIPS Index, Series L	8.3%	5.0%	3.7%
REITs	(15.7%)	(0.8%)	1.8%	FTSE EPRA/NAREIT Developed Index (Net)	(16.2%)	(1.5%)	1.0%
Commodities	(34.1%)	(8.7%)	(12.6%)	S&P GSCI Total Return Daily	(33.9%)	(8.7%)	(12.5%)

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	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	5.4%	6.2%	5.7%	Total Fund Policy Benchmark	5.2%	6.0%	5.4%
Global Equity	1.5%	5.9%	6.5%	MSCI ACWI IMI (Net)	1.2%	5.5%	6.1%
Global Fixed Income	13.2%	7.7%	6.6%	Bloomberg Barclays Long Liability Index	13.1%	7.5%	6.2%
TIPS	8.2%	5.1%	3.8%	Bloomberg Barclays U.S. TIPS Index, Series L	8.3%	5.0%	3.7%
REITs	(15.8%)	(0.8%)	1.8%	FTSE EPRA/NAREIT Developed Index (Net)	(16.2%)	(1.5%)	1.0%
Commodities	(34.0%)	(8.5%)	(12.5%)	S&P GSCI Total Return Daily	(33.9%)	(8.7%)	(12.5%)

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	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	6.3%	6.1%	5.3%	Total Fund Policy Benchmark	6.1%	5.9%	5.0%
Global Equity	1.4%	5.8%	6.4%	MSCI ACWI IMI (Net)	1.2%	5.5%	6.1%
Global Fixed Income	13.2%	7.7%	6.6%	Bloomberg Barclays Long Liability Index	13.1%	7.5%	6.2%
TIPS	8.2%	5.1%	3.8%	Bloomberg Barclays U.S. TIPS Index, Series L	8.3%	5.0%	3.7%
REITs	(15.7%)	(0.8%)	1.8%	FTSE EPRA/NAREIT Developed Index (Net)	(16.2%)	(1.5%)	1.0%
Commodities	(34.1%)	(8.3%)	(12.3%)	S&P GSCI Total Return Daily	(33.9%)	(8.7%)	(12.5%)

CERBTf Asset Allocation

Asset Class	Strategy 1		Strategy 2		Strategy 3	
	Current Allocation	Policy Target Weight	Current Allocation	Policy Target Weight	Current Allocation	Policy Target Weight
Global Equity	61.8%	59.0%	43.0%	40.0%	24.3%	22.0%
Global Fixed Income	22.7%	25.0%	40.1%	43.0%	46.8%	49.0%
TIPS	4.6%	5.0%	4.7%	5.0%	15.4%	16.0%
REITs	7.7%	8.0%	7.9%	8.0%	8.1%	8.0%
Commodities	2.9%	3.0%	4.0%	4.0%	5.1%	5.0%
Cash Equivalents	0.3%	—	0.3%	—	0.3%	—
Total Fund	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	8.8%	5.4%	4.3%	Bloomberg Barclays U.S. Aggregate Bond Index	8.7%	5.3%	4.3%

HCF Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
Global Fixed Income	100.0%	100.0%
Total Fund	100.0%	100.0%

INVESTMENT PERFORMANCE – LONG-TERM CARE FUND (LTCF)

LTCF Portfolio Comparisons (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	4.7%	5.3%	4.6%	Total Fund Policy Benchmark	5.1%	5.4%	4.6%
Global Equity	1.5%	5.8%	6.4%	MSCI ACWI IMI (Net)	1.2%	5.5%	6.1%
Global Fixed Income	13.2%	7.6%	6.2%	Bloomberg Barclays Long Liability Index	13.1%	7.5%	6.2%
TIPS	8.3%	5.0%	3.7%	Bloomberg Barclays U.S. TIPS Index, Series L	8.3%	5.0%	3.7%
REITs	(15.7%)	(0.8%)	1.8%	FTSE EPRA/NAREIT Developed Index (Net)	(16.2%)	(1.5%)	1.0%
Commodities	(33.8%)	(8.7%)	(12.5%)	S&P GSCI Total Return Daily	(33.9%)	(8.7%)	(12.5%)

LTCF Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
Global Equity	15.6%	15.0%
Global Fixed Income	60.2%	60.0%
TIPS	5.8%	6.0%
REITs	10.2%	11.0%
Commodities	8.2%	8.0%
Total Fund	100.0%	100.0%

ACTUARIAL SECTION

- 120 Actuarial Certifications
- 122 Actuarial Methods & Assumptions
- 125 Summary of Funding Progress
- 126 Exhibit A: Funding Progress - Unfunded Liability & Funded Ratios
- 127 Exhibit B: Funding Progress - Solvency Test
- 129 Exhibit C: Sample Pay Increase Assumptions for Individual Members
- 130 Exhibit D: Sample Non-Economic Assumptions
- 139 Exhibit E: Single Life Retirement Values
- 139 Exhibit F: Schedule of Active Member Valuation Data
- 140 Exhibit G: Members in Valuation
- 143 Exhibit H: Schedule of Retirees & Beneficiaries Added to and Removed from Rolls
- 144 Exhibit I: Analysis of Financial Experience



**Navigating Change
to Strengthen our
Long-Term Approach**

Actuarial Section

ACTUARIAL CERTIFICATIONS

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

July 2020

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, 2019.

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

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

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

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

LEGISLATORS' RETIREMENT SYSTEM

February 2020

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, 2019, 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.

Alex Grunder, ASA, MAAA
Associate Pension Actuary, CalPERS

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

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

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

ACTUARIAL CERTIFICATIONS

JUDGES' RETIREMENT SYSTEM

February 2020

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, 2019, 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.

Tony Cuny, ASA, MAAA
Associate Pension Actuary, CalPERS

Kerry J. Worgan, MAAA, FSA, FCIA
Supervising Pension Actuary, CalPERS

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

JUDGES' RETIREMENT SYSTEM II

February 2020

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, 2019, 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

Julian Robinson, FSA, EA, MAAA
Senior Pension Actuary, CalPERS

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

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

ACTUARIAL METHODS & ASSUMPTIONS

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

Actuarial Data

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

Actuarial Cost Method

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

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

The actuarial accrued liability for active members is 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 separated members entitled to deferred benefits is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

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

Amortization of Unfunded Actuarial Accrued Liability

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

Amortization periods and payment methods are based on the source of the liability change and the date created. Periods range from five to 30 years. Payment methods include "level dollar," "level percent of payroll," and with or without five-year ramps. A five-year ramp-up means that the payments in the first four years of the amortization period are 20 percent, 40 percent, 60 percent, and 80 percent of the "full" payment which begins in year five. The five-year ramp-down means that the reverse is true in the final four years of the amortization period. A summary of the current policy is provided in the tables below:

Driver	Bases Created June 30, 2018 or Earlier				
	(Gain)/Loss		Assumption/ Method Change	Benefit Change	Golden Handshake
	Investment	Non- Investment			
Amortization Period	30 Years	30 Years	20 Years	20 Years	5 Years
Escalation Rate:					
Active Plans	2.75%	2.75%	2.75%	2.75%	2.75%
Inactive Plans	—%	—%	—%	—%	—%
Ramp-Up	5	5	5	N/A	N/A
Ramp-Down	5	5	5	N/A	N/A

Driver	Bases Created June 30, 2019 or Later				
	(Gain)/Loss		Assumption/ Method Change	Benefit Change	Golden Handshake
	Investment	Non- Investment			
Amortization Period	20 Years	20 Years	20 Years	20 Years	5 Years
Escalation Rate:					
Active Plans	—%	—%	—%	—%	—%
Inactive Plans	—%	—%	—%	—%	—%
Ramp-Up	5	N/A	N/A	N/A	N/A
Ramp-Down	N/A	N/A	N/A	N/A	N/A

Actuarial Section (continued)

Exceptions for "Inactive Plans" and "Inactive Employers"

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

- Amortization of the unfunded liability is on a "level dollar" basis rather than a "level percent of pay" basis.
- Actuarial judgment will be used to shorten amortization periods for inactive plans with existing periods that are deemed too long given the duration of the liability. The specific demographics of the plan will be used to determine if shorter periods may be more appropriate.

For inactive employers the maximum amortization period is 15 years for all unfunded accrued liabilities. Furthermore, the plan actuary has the ability to further shorten the amortization period on any valuation date based on the life expectancy of plan members and projected cash flow needs to the plan.

Exception for JRS Plan

The JRS plan is not currently prefunded. The June 30, 2019, actuarial valuation provides a recommended contribution if the state were to begin prefunding. This recommended contribution includes a payment toward unfunded liability based on a 10-year amortization period and level dollar payments.

Asset Valuation Method

For all plans, market value of assets are used to set the required contributions.

ACTUARIAL ASSUMPTIONS

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

Economic Assumptions

Based upon the asset allocation of the Public Employees' Retirement Fund (PERF), the prescribed discount rate assumption as of June 30, 2019, (net of investment and administrative expenses) adopted by the Board on December 21, 2016, is 7.00 percent compounded annually.

Different asset allocations and lower assumed investment returns apply to the LRF, JRF, and JRF II.

The discount rates used for funding purposes are net of administrative expenses. The financial reporting discount rates are not reduced for administrative expenses.

The inflation assumption is a component of assumed investment return, assumed wage inflation, and assumed future post-retirement cost-of-living increases.

For plans within CalPERS, the overall payroll is assumed to increase by the inflation assumption plus a 0.25 percent per annum productivity increase assumption. The overall payroll growth assumption is used to project future payroll over which the unfunded liability established before June 30, 2019, is amortized.

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

Economic Assumptions	Public Agencies	State	Schools
June 30, 2019 Funding Valuations			
Contribution Year	2021-22	2020-21	2020-21
Discount Rate/ Investment Return (net of expenses)	7.00%	7.00%	7.00%
Expenses	15 basis points	15 basis points	15 basis points
Inflation	2.50%	2.50%	2.50%
Wage Inflation ¹	2.75%	2.75%	2.75%
Fiscal Year 2019-20 Financial Reporting			
Discount Rate	7.15%	7.15%	7.15%
Inflation	2.50%	2.50%	2.50%
Wage Inflation	2.75%	2.75%	2.75%

(1) This is also the assumed payroll growth which is used to amortize unfunded liabilities.

Economic Assumptions	JRF	JRF II	LRF
June 30, 2019 Funding Valuations			
Contribution Year	2020-21	2020-21	2020-21
Discount Rate/ Investment Return (net of expenses)	3.00%	6.50%	5.00%
Expenses		15 basis points	25 basis points
Inflation	2.50%	2.50%	2.50%
Wage Inflation	2.75%	2.75% ¹	2.75%
Fiscal Year 2019-20 Financial Reporting			
Discount Rate	2.45%	6.65%	5.25%
Inflation	2.50%	2.50%	2.50%
Wage Inflation	2.75%	2.75%	2.75%

(1) This is also the assumed payroll growth which is used to amortize unfunded liabilities.

Non-Economic Assumptions

Non-economic assumptions for plans within the PERF are based upon the most recent CalPERS experience study (covering the period June 30, 1997, through June 30, 2015)

Actuarial Section (continued)

that was completed and adopted by the Board in December 2017.

Post-retirement mortality rates are based on CalPERS experience and include 15 years of projected ongoing mortality improvement using 90 percent of Scale MP 2016 published by the Society of Actuaries. These tables are used to estimate the value of benefits expected to be paid for service and disability retirements. For disability retirements, impaired longevity is recognized by a separate table. Sample life annuity values based on these tables are shown on page 139 in Exhibit E.

CHANGES SINCE PRIOR VALUATION

Changes in Actuarial Assumptions

On December 21, 2016, the Board lowered the discount rate for the PERF for funding purposes from 7.50 percent to 7.00 percent using a three-year phase-in beginning with the June 30, 2016, actuarial valuations and the June 30, 2017, valuations for schools. The final scheduled decrease from 7.25 percent to 7.0 percent for the school's valuation occurred in the June 30, 2019, valuation.

The Board of Administration adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases, and inflation assumption for public agencies, the state plan, and the schools plan. These new assumptions are incorporated into the June 30, 2017, actuarial valuations (June 30, 2018, for schools). A summary of assumption changes for the PERF is shown below:

With regard to the LRF, JRF, and JRF II, the only assumption change was a change to the discount rate for financial reporting purposes for JRF from 3.13 percent to 2.45 percent for Fiscal Year 2019-20.

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.

Assumptions Changes	Public Agencies	State	Schools
June 30, 2019 Funding Valuations			
Contribution Year	2021-22	2020-21	2020-21
Discount Rate/ Investment Return (net of expenses)	No change	No change	7.25% to 7.00%
Expenses	No change	No change	No change
Inflation	No change	No change	2.65% to 2.50%
Wage Inflation	No change	No change	2.875% to 2.75%
Demographic Assumptions	No change	No change	No Change
Fiscal Year 2019-20 Financial Reporting			
Discount Rate	No change	No change	No change
Inflation	No change	No change	No change
Wage Inflation	No change	No change	No change
Demographic Assumptions	No change	No change	No change

SUMMARY OF FUNDING PROGRESS

UNFUNDED LIABILITY & FUNDED RATIOS

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

While no single 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. 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 on page 126 in Exhibit A.

For all plans, assets of the Fund refers to the market value of assets.

SOLVENCY TEST

Exhibit B, Funding Progress — Solvency Test shown on page 127 demonstrates System solvency as measured using the System's own assumptions and liability calculation methods.

INDEPENDENT REVIEW

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

EXHIBIT A: FUNDING PROGRESS – UNFUNDED LIABILITY & FUNDED RATIOS¹

Actuarial Valuation Date	Actuarial Value of Assets (1)	Actuarial Accrued Liability (AAL) (Entry Age) (2)	Unfunded AAL (UAAL)/ Surplus (AVA Basis) (3) = (2) - (1)	Funded Ratio (Actuarial Value of Assets Basis) (4) = (1) / (2)	Annual Covered Payroll (5)	UAAL/ Surplus as a % of Covered Payroll (6) = (3) / (5)	Market Value of Assets (MVA) (7)	Unfunded AAL (UAAL)/ Surplus (MVA Basis) (8) = (2) - (7)	Funded Ratio (Market Value of Assets Basis) (9) = (7) / (2)
PERF (Dollars in Millions)									
06/30/19	\$372,778	\$531,166	\$158,388	70.2%	\$56,391	280.9%	\$372,778	\$158,388	70.2%
06/30/18	354,616	504,996	150,380	70.2%	53,903	279.0%	354,616	150,380	70.2%
06/30/17	326,182	465,046	138,864	70.1%	51,991	267.1%	326,182	138,864	70.1%
06/30/16	298,126	436,703	138,577	68.3%	49,833	278.1%	298,126	138,577	68.3%
06/30/15	302,418	413,700	111,282	73.1%	47,458	234.5%	302,418	111,282	73.1%
06/30/14	301,257	394,726	93,469	76.3%	44,958	207.9%	301,257	93,469	76.3%
06/30/13	281,928	375,019	93,091	75.2%	42,575	218.7%	261,622	113,397	69.8%
06/30/12	282,991	340,429	57,438	83.1%	42,599	134.8%	236,800	103,629	69.6%
06/30/11	271,389	328,567	57,178	82.6%	43,901	130.2%	241,740	86,827	73.6%
06/30/10	257,070	308,343	51,273	83.4%	44,984	114.0%	201,632	106,711	65.4%
LRF (Dollars in Thousands)									
06/30/19	\$115,796	\$99,130	(\$16,666)	116.8%	\$272	(6,127.2%)	\$115,796	(\$16,666)	116.8%
06/30/18	115,484	98,927	(16,557)	116.7%	1,098	(1,507.9%)	115,484	(16,557)	116.7%
06/30/17	116,884	100,845	(16,039)	115.9%	1,209	(1,326.6%)	116,884	(16,039)	115.9%
06/30/16	119,050	106,975	(12,075)	111.3%	1,321	(914.1%)	119,050	(12,075)	111.3%
06/30/15	121,469	105,746	(15,723)	114.9%	1,275	(1,233.2%)	121,469	(15,723)	114.9%
06/30/14	130,353	111,274	(19,079)	117.1%	1,500	(1,271.9%)	130,353	(19,079)	117.1%
06/30/13	123,201	115,806	(7,395)	106.4%	1,427	(518.2%)	122,148	(6,342)	105.5%
06/30/12	124,212	108,585	(15,627)	114.4%	1,983	(788.0%)	123,029	(14,444)	113.3%
06/30/11	125,646	108,977	(16,669)	115.3%	2,269	(734.6%)	123,570	(14,593)	113.4%
06/30/10	126,642	112,356	(14,286)	112.7%	2,159	(661.7%)	114,105	(1,749)	101.6%
JRF (Dollars in Thousands)									
06/30/19	\$14,081	\$3,173,229	\$3,159,148	0.4%	\$31,511	10,025.5%	\$14,081	\$3,159,148	0.4%
06/30/18	44,492	3,320,530	3,276,038	1.3%	35,335	9,271.4%	44,492	3,276,038	1.3%
06/30/17	48,275	3,315,731	3,267,456	1.5%	38,330	8,524.5%	48,275	3,267,456	1.5%
06/30/16	39,794	3,428,743	3,388,949	1.2%	42,430	7,987.2%	39,794	3,388,949	1.2%
06/30/15	41,178	3,322,610	3,281,432	1.2%	44,284	7,410.0%	41,178	3,281,432	1.2%
06/30/14	57,199	3,414,780	3,357,581	1.7%	52,335	6,415.6%	57,199	3,357,581	1.7%
06/30/13	53,820	3,383,310	3,329,490	1.6%	60,594	5,494.8%	53,820	3,329,490	1.6%
06/30/12	72,693	3,172,276	3,099,583	2.3%	69,227	4,477.4%	72,693	3,099,583	2.3%
06/30/11	54,383	3,296,538	3,242,155	1.6%	75,920	4,270.5%	54,383	3,242,155	1.6%
06/30/10	63,828	3,429,381	3,365,553	1.9%	85,947	3,915.8%	63,828	3,365,553	1.9%
JRF II (Dollars in Thousands)									
06/30/19	\$1,715,056	\$1,725,877	\$10,821	99.4%	\$343,260	3.2%	\$1,715,056	\$10,821	99.4%
06/30/18	1,531,543	1,554,348	22,805	98.5%	310,294	7.3%	1,531,543	22,805	98.5%
06/30/17	1,356,099	1,365,862	9,763	99.3%	291,383	3.4%	1,356,099	9,763	99.3%
06/30/16	1,172,953	1,272,751	99,798	92.2%	282,619	35.3%	1,172,953	99,798	92.2%
06/30/15	1,084,142	1,081,824	(2,318)	100.2%	272,698	(0.9%)	1,084,142	(2,318)	100.2%
06/30/14	1,013,840	950,642	(63,198)	106.6%	251,586	(25.1%)	1,013,840	(63,198)	106.6%
06/30/13	778,980	837,198	58,218	93.0%	241,988	24.1%	795,966	41,232	95.1%
06/30/12	667,557	702,732	35,175	95.0%	230,736	15.2%	655,384	47,348	93.3%
06/30/11	561,476	609,562	48,086	92.1%	229,650	20.9%	575,978	33,584	94.5%
06/30/10	461,071	520,687	59,616	88.6%	212,663	28.0%	422,101	98,586	81.1%

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

EXHIBIT B: FUNDING PROGRESS – SOLVENCY TEST

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

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

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

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

Refer to Exhibit B on page 128 for solvency test related to PERF, LRF, JRF, and JRF II.

Actuarial Section (continued)

EXHIBIT B: FUNDING PROGRESS – SOLVENCY TEST (CONTINUED)

Valuation Date	Accrued Liability				Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Valuation Assets		
	Member Contributions ¹ (1)	Terminated, Retirees & Beneficiaries (2)	Employer-Financed Portion of Active Members (3)	Total Accrued Liability (1) + (2) + (3)		(1)	(2)	(3)
PERF (Dollars in Millions)								
6/30/19	\$60,326	\$322,055	\$148,785	\$531,166	\$372,778	100.0%	97.0%	0.0%
6/30/18	58,803	302,037	144,156	504,996	354,616	100.0%	97.9%	—%
6/30/17	56,009	275,222	133,815	465,046	326,182	100.0%	98.2%	—%
6/30/16	53,872	256,253	126,578	436,703	298,126	100.0%	95.3%	—%
6/30/15	51,572	241,931	120,197	413,700	302,418	100.0%	100.0%	7.4%
6/30/14	49,197	228,283	117,246	394,726	301,257	100.0%	100.0%	20.3%
6/30/13	46,343	203,680	124,996	375,019	281,900	100.0%	100.0%	25.5%
6/30/12	43,015	193,015	104,399	340,429	283,000	100.0%	100.0%	45.0%
6/30/11	42,322	179,069	107,176	328,567	271,400	100.0%	100.0%	46.7%
6/30/10	40,613	160,208	107,522	308,343	257,100	100.0%	100.0%	52.3%
LRF (Dollars in Thousands)								
6/30/19	\$158	\$97,980	\$992	\$99,130	\$115,796	100.0%	100.0%	1,780%
6/30/18	799	93,565	4,563	98,927	115,484	100.0%	100.0%	462.9%
6/30/17	731	95,188	4,926	100,845	116,884	100.0%	100.0%	425.6%
6/30/16	673	101,400	4,902	106,975	119,050	100.0%	100.0%	346.3%
6/30/15	556	100,658	4,532	105,746	121,469	100.0%	100.0%	446.9%
6/30/14	508	104,992	5,774	111,274	130,353	100.0%	100.0%	430.4%
6/30/13	351	110,313	5,142	115,806	123,201	100.0%	100.0%	243.8%
6/30/12	801	100,337	7,447	108,585	124,212	100.0%	100.0%	309.8%
6/30/11	1,608	99,305	8,064	108,977	125,646	100.0%	100.0%	306.7%
6/30/10	1,391	103,673	7,292	112,356	126,642	100.0%	100.0%	295.9%
JRF (Dollars in Thousands)								
6/30/19	\$51,927	\$2,860,638	\$260,664	\$3,173,229	\$14,081	27.1%	0.0%	0.0%
6/30/18	57,561	2,955,053	307,916	3,320,530	44,492	77.3%	—	—
6/30/17	61,748	2,914,854	339,129	3,315,731	48,275	78.2%	—	—
6/30/16	65,966	2,970,871	391,906	3,428,743	39,794	60.3%	—	—
6/30/15	66,911	2,761,781	493,918	3,322,610	41,178	61.5%	—	—
6/30/14	76,196	2,734,090	604,494	3,414,780	57,199	75.1%	—	—
6/30/13	84,692	2,691,326	607,292	3,383,310	53,820	64.0%	—	—
6/30/12	91,589	2,441,189	639,498	3,172,276	72,693	79.0%	—	—
6/30/11	94,320	2,494,653	707,565	3,296,538	54,383	58.0%	—	—
6/30/10	100,426	2,404,920	924,035	3,429,381	63,828	64.0%	—	—
JRF II (Dollars in Thousands)								
6/30/19	\$426,860	\$377,779	\$921,238	\$1,725,877	\$1,715,056	100.0%	100.0%	98.8%
6/30/18	393,673	305,259	855,416	1,554,348	1,531,543	100.0%	100.0%	97.3%
6/30/17	364,967	207,997	792,898	1,365,862	1,356,099	100.0%	100.0%	98.8%
6/30/16	357,069	145,526	770,156	1,272,751	1,172,953	100.0%	100.0%	87.0%
6/30/15	348,475	110,645	622,704	1,081,824	1,084,142	100.0%	100.0%	100.4%
6/30/14	285,683	79,563	585,396	950,642	1,013,840	100.0%	100.0%	110.8%
6/30/13	243,049	58,393	535,756	837,198	778,980	100.0%	100.0%	89.1%
6/30/12	223,897	41,142	437,693	702,732	667,557	100.0%	100.0%	92.0%
6/30/11	172,538	31,596	405,428	609,562	561,476	100.0%	100.0%	88.1%
6/30/10	136,179	14,430	370,078	520,687	461,071	100.0%	100.0%	83.9%

(1) Includes accrued interest on member contributions.

EXHIBIT C: SAMPLE PAY INCREASE ASSUMPTIONS FOR INDIVIDUAL MEMBERS

Annual Percentage Increases by Duration of Service¹

Duration of Services	State Miscellaneous First & Second Tier			State Industrial First & Second Tier			State Safety		
	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40
0	9.16%	8.34%	7.19%	10.03%	9.78%	9.17%	7.75%	7.75%	7.75%
3	8.03%	7.11%	5.80%	7.84%	7.45%	6.62%	5.82%	5.82%	5.82%
5	7.09%	6.31%	5.14%	6.77%	6.35%	5.51%	4.87%	4.87%	4.87%
10	5.05%	4.57%	3.91%	5.45%	4.91%	4.14%	3.59%	3.59%	3.59%
15	4.28%	3.99%	3.57%	4.55%	4.22%	3.80%	3.47%	3.47%	3.47%
20	3.77%	3.60%	3.33%	3.95%	3.75%	3.55%	3.36%	3.36%	3.36%
25	3.43%	3.33%	3.16%	3.56%	3.44%	3.32%	3.28%	3.28%	3.28%
30	3.20%	3.15%	3.04%	3.29%	3.22%	3.15%	3.20%	3.20%	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	17.45%	17.45%	17.45%	9.52%	9.52%	9.52%	7.03%	6.94%	6.55%
3	9.50%	9.50%	9.50%	6.74%	6.74%	6.74%	6.29%	6.07%	5.55%
5	6.76%	6.76%	6.76%	5.19%	5.19%	5.19%	5.37%	5.09%	4.55%
10	3.95%	3.95%	3.95%	3.70%	3.70%	3.70%	4.46%	4.29%	3.87%
15	3.25%	3.25%	3.25%	3.70%	3.70%	3.70%	4.27%	4.09%	3.73%
20	4.15%	4.15%	4.15%	4.50%	4.50%	4.50%	4.10%	3.92%	3.61%
25	4.25%	4.25%	4.25%	4.70%	4.70%	4.70%	3.95%	3.78%	3.51%
30	3.75%	3.75%	3.75%	3.70%	3.70%	3.70%	3.62%	3.46%	3.23%

Duration of Services	Public Agency Miscellaneous			Public Agency Fire			Public Agency Police		
	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40	Entry Age 20	Entry Age 30	Entry Age 40
0	11.25%	10.50%	9.25%	19.75%	19.75%	19.75%	13.02%	13.02%	13.02%
3	7.45%	7.00%	6.10%	8.55%	8.55%	8.55%	7.66%	7.66%	7.66%
5	6.15%	5.70%	4.90%	6.47%	6.47%	6.47%	5.75%	5.75%	5.75%
10	4.35%	4.10%	3.65%	4.40%	4.40%	4.40%	4.20%	4.20%	4.20%
15	3.95%	3.75%	3.35%	4.19%	4.19%	4.19%	4.25%	4.25%	4.25%
20	3.65%	3.50%	3.20%	4.01%	4.01%	4.01%	4.30%	4.30%	4.30%
25	3.55%	3.40%	3.15%	3.86%	3.86%	3.86%	4.35%	4.35%	4.35%
30	3.55%	3.40%	3.15%	3.72%	3.72%	3.72%	4.40%	4.40%	4.40%

Duration of Services	Public Agency County Peace Officer		
	Entry Age 20	Entry Age 30	Entry Age 40
0	15.95%	15.95%	15.95%
3	8.00%	8.00%	8.00%
5	6.10%	6.10%	6.10%
10	4.45%	4.45%	4.45%
15	4.25%	4.25%	4.25%
20	4.25%	4.25%	4.25%
25	4.50%	4.50%	4.50%
30	4.75%	4.75%	4.75%

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

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS

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

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

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

(2) Years of service.

(3) State Miscellaneous Second Tier members have the right to convert their Second Tier service to First Tier service provided that they make up the shortfall in their accumulated contributions with interest. The assumption is that all Second Tier members will elect to convert to First Tier service.

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

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

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

(2) Years of service.

Actuarial Section (continued)

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

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

(1) Years of service.

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

Schools – Probability of an active member leaving due to:

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

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

(1) Years of service.

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

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

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

(1) Years of service.

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

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

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

(2) Years of service.

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

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

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

(2) Years of service.

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

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

(2) Years of service.

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

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

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

(2) Years of service.

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

(1) Years of service.

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

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

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

(1) Years of service.

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

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

(1) Years of service.

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

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

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

(1) Years of service.

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

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

(1) Years of service.

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

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

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

(1) Years of service.

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

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	0.00372	0.00346	0.01183	0.01083	0.00372	0.00346
55	0.00437	0.00410	0.01613	0.01178	0.00437	0.00410
60	0.00671	0.00476	0.02166	0.01404	0.00671	0.00476
65	0.00928	0.00637	0.02733	0.01757	0.01113	0.00765
70	0.01339	0.00926	0.03358	0.02183	0.01607	0.01111
75	0.02316	0.01635	0.04277	0.02969	0.02779	0.01962
80	0.03977	0.03007	0.06272	0.04641	0.04773	0.03609
85	0.07122	0.05418	0.09793	0.07847	0.08547	0.06501
90	0.13044	0.10089	0.14616	0.13220	0.14348	0.11098
95	0.21658	0.17698	0.21658	0.21015	0.21658	0.17698
100	0.32222	0.28151	0.32222	0.32226	0.32222	0.28151

EXHIBIT E: SINGLE LIFE RETIREMENT VALUES

Present value of \$1 monthly increase 2 percent annually after two-year waiting period. Discount rate of 7.00 percent used for all plans.

Schools					Public Agencies and State						
AGE	Service Retirement		Non-Industrial Disability Retirement		AGE	Service Retirement		Non-Industrial Disability Retirement		Industrial Disability Retirement	
	Male	Female	Male	Female		Male	Female	Male	Female	Male	Female
50	185.940	191.929	157.117	169.399	50	185.940	191.929	157.117	169.399	182.976	189.380
51	183.846	190.100	154.807	167.668	51	183.846	190.100	154.807	167.668	180.724	187.417
52	181.675	188.211	152.470	165.861	52	181.675	188.211	152.470	165.861	178.388	185.385
53	179.418	186.251	150.113	163.973	53	179.418	186.251	150.113	163.973	175.955	183.275
54	177.064	184.211	147.741	162.001	54	177.064	184.211	147.741	162.001	173.416	181.077
55	174.602	182.081	145.359	159.942	55	174.602	182.081	145.359	159.942	170.759	178.781
56	172.023	179.853	142.973	157.796	56	172.023	179.853	142.973	157.796	167.974	176.376
57	169.323	177.520	140.586	155.567	57	169.323	177.520	140.586	155.567	165.057	173.858
58	166.568	175.080	138.198	153.259	58	166.568	175.080	138.198	153.259	162.070	171.222
59	163.759	172.531	135.808	150.880	59	163.759	172.531	135.808	150.880	159.015	168.466
60	160.895	169.875	133.413	148.436	60	160.895	169.875	133.413	148.436	155.887	165.591
61	157.967	167.111	131.006	145.929	61	157.967	167.111	131.006	145.929	152.678	162.596
62	154.967	164.243	128.580	143.363	62	154.967	164.243	128.580	143.363	149.606	159.649
63	151.882	161.269	126.128	140.734	63	151.882	161.269	126.128	140.734	146.455	156.599
64	148.701	158.188	123.641	138.037	64	148.701	158.188	123.641	138.037	143.210	153.442
65	145.409	154.994	121.115	135.265	65	145.409	154.994	121.115	135.265	139.857	150.174
70	127.123	137.231	107.636	120.053	70	127.123	137.231	107.636	120.053	121.296	132.074
75	106.865	116.863	92.133	102.320	75	106.865	116.863	92.133	102.320	101.033	111.562
80	85.872	95.468	75.177	82.968	80	85.872	95.468	75.177	82.968	80.573	90.568
85	65.169	74.016	59.231	63.964	85	65.169	74.016	59.231	63.964	61.305	70.432
90	47.003	54.220	45.723	47.359	90	47.003	54.220	45.723	47.359	45.474	52.807
95	33.463	38.318	33.463	34.065	95	33.463	38.318	33.463	34.065	33.463	38.318
100	24.004	26.685	24.004	23.929	100	24.004	26.685	24.004	23.929	24.004	26.685

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
6/30/2019	860,485	\$56,391	\$65,534	2.9%	2,890
6/30/2018	846,467	53,903	63,680	2.3%	2,892
6/30/2017	835,473	51,991	62,229	2.3%	2,946
6/30/2016	818,889	49,833	60,854	2.6%	3,022
6/30/2015	800,205	47,458	59,307	1.9%	3,008
6/30/2014	772,817	44,958	58,174	2.8%	3,094
6/30/2013	752,681	42,575	56,564	1.2%	3,090
6/30/2012	762,459	42,599	55,871	(0.8)%	3,065
6/30/2011	779,481	43,901	56,321	(0.6)%	3,104
6/30/2010	794,138	44,984	55,425	2.2 %	3,034

EXHIBIT G: MEMBERS IN VALUATION

State Miscellaneous First & Second Tier – By Attained Age & Years of Service – June 30, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll ²
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	2,971	7	—	—	—	—	2,978	\$119,459,465
25-29	11,549	1,135	3	—	—	—	12,687	624,656,294
30-34	12,852	5,202	933	35	—	—	19,022	1,145,754,153
35-39	10,628	5,911	3,909	946	62	2	21,458	1,482,457,278
40-44	7,640	4,695	4,400	3,394	878	78	21,085	1,570,497,717
45-49	6,192	4,120	4,502	4,882	2,654	1,017	23,367	1,822,919,857
50-54	5,144	3,503	3,946	4,991	3,220	4,506	25,310	2,032,583,356
55-59	4,391	3,233	3,426	4,463	3,069	6,467	25,049	2,024,018,981
60-64	2,628	2,409	2,531	3,129	2,004	4,168	16,869	1,350,212,271
65 & up	1,410	1,442	1,580	1,618	957	2,010	9,017	725,475,158
Total	65,405	31,657	25,230	23,458	12,844	18,248	176,842	\$12,898,034,530

(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, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	247	—	—	—	—	—	247	\$8,913,026
25-29	978	64	—	—	—	—	1,042	44,746,822
30-34	1,037	351	93	1	—	—	1,482	80,306,887
35-39	740	406	352	52	1	—	1,551	92,623,278
40-44	568	356	360	167	31	1	1,483	95,853,592
45-49	581	325	363	241	117	43	1,670	112,037,997
50-54	423	355	391	250	135	119	1,673	115,422,717
55-59	348	249	360	228	139	134	1,458	98,385,307
60-64	175	155	221	116	86	60	813	54,971,886
65 & up	72	87	91	61	41	24	376	26,432,010
Total	5,169	2,348	2,231	1,116	550	381	11,795	\$729,693,522

(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.

State Safety – By Attained Age & Years of Service – June 30, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll ²
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	379	—	—	—	—	—	379	\$17,234,152
25-29	1,611	172	3	—	—	—	1,786	103,012,842
30-34	2,218	861	195	3	—	—	3,277	233,619,494
35-39	1,990	1,051	612	76	1	—	3,730	285,574,344
40-44	1,644	961	939	254	22	—	3,820	318,350,872
45-49	1,558	949	1,114	446	131	14	4,212	375,533,549
50-54	1,291	868	1,074	570	280	74	4,157	364,038,055
55-59	1,022	765	953	500	268	126	3,634	323,035,618
60-64	509	561	738	458	198	87	2,551	241,368,195
65 & up	208	263	464	245	165	62	1,407	157,400,170
Total	12,430	6,451	6,092	2,552	1,065	363	28,953	\$2,419,167,291

(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)

California Highway Patrol – By Attained Age & Years of Service – June 30, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll ²
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	122	—	—	—	—	—	122	\$10,702,011
25-29	625	46	—	—	—	—	671	68,561,613
30-34	414	282	310	—	—	—	1,006	115,389,897
35-39	223	295	768	134	1	—	1,421	172,195,123
40-44	21	145	515	625	175	1	1,482	189,422,829
45-49	—	44	226	522	688	174	1,654	224,090,910
50-54	1	1	28	133	382	232	777	110,484,202
55-59	—	—	1	3	49	81	134	19,758,713
60-64	—	—	—	—	—	—	—	—
65 & up	—	—	—	—	—	—	—	—
Total	1,406	813	1,848	1,417	1,295	488	7,267	\$910,605,298

(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, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll ²
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	1,026	2	—	—	—	—	1,028	\$50,673,813
25-29	4,490	398	—	—	—	—	4,888	321,083,928
30-34	3,377	1,395	739	1	—	—	5,512	415,961,160
35-39	1,737	1,263	3,001	681	—	—	6,682	579,746,493
40-44	865	742	2,212	2,442	540	4	6,805	637,578,043
45-49	562	536	1,645	2,095	2,241	570	7,649	762,215,700
50-54	306	320	986	1,183	1,311	739	4,845	487,700,328
55-59	144	173	551	613	618	439	2,538	251,081,214
60-64	45	84	202	234	240	145	950	93,219,084
65 & up	10	24	48	67	43	55	247	23,899,464
Total	12,562	4,937	9,384	7,316	4,993	1,952	41,144	\$3,623,159,227

(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.

School – By Attained Age & Years of Service – June 30, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll ²
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	12,145	46	—	—	—	—	12,191	\$320,584,636
25-29	27,969	1,997	30	—	—	—	29,996	953,171,213
30-34	24,037	7,019	1,903	34	—	—	32,993	1,266,321,096
35-39	20,190	7,781	6,028	1,842	12	—	35,853	1,548,858,442
40-44	17,684	7,234	6,903	5,601	85	1	37,508	1,682,422,760
45-49	16,665	8,265	7,802	8,542	222	23	41,519	1,873,613,255
50-54	14,231	9,103	9,260	12,581	248	92	45,515	2,091,256,731
55-59	11,145	8,757	10,687	15,619	288	138	46,634	2,181,975,219
60-64	6,269	5,870	8,163	11,998	226	123	32,649	1,498,624,496
65 & up	3,070	3,084	4,033	5,124	100	63	15,474	643,667,612
Total	153,405	59,156	54,809	61,341	1,181	440	330,332	\$14,060,495,460

(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)

Public Agency Miscellaneous – By Attained Age & Years of Service – June 30, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	5,377	23	—	—	—	—	5,400	\$215,676,897
25-29	16,557	1,499	24	—	—	—	18,080	939,159,901
30-34	18,220	5,381	1,938	57	1	—	25,597	1,599,052,653
35-39	14,873	6,341	6,047	1,652	102	1	29,016	2,105,817,672
40-44	11,154	5,067	6,355	4,404	1,213	86	28,279	2,241,325,165
45-49	8,953	4,285	6,034	5,225	3,052	1,079	28,628	2,397,428,221
50-54	7,280	3,763	5,296	5,077	3,642	3,739	28,797	2,492,404,139
55-59	5,726	3,265	4,880	4,665	3,190	4,603	26,329	2,272,096,689
60-64	3,235	2,126	3,146	3,088	2,064	2,985	16,644	1,389,235,965
65 & up	1,386	1,060	1,484	1,442	954	1,269	7,595	597,128,331
Total	92,761	32,810	35,204	25,610	14,218	13,762	214,365	\$16,249,325,633

(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, 2019

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date ¹						Total	Total Valuation Payroll
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	1,501	5	—	—	—	—	1,506	\$100,054,780
25-29	5,581	722	9	—	—	—	6,312	519,177,468
30-34	4,656	2,641	991	4	—	—	8,292	791,804,008
35-39	2,384	2,039	3,764	769	2	—	8,958	973,647,874
40-44	968	934	2,854	2,982	576	2	8,316	985,970,605
45-49	557	556	1,728	2,777	2,438	575	8,631	1,106,383,664
50-54	337	243	657	1,174	1,423	1,279	5,113	683,968,534
55-59	178	100	213	375	446	627	1,939	253,366,847
60-64	63	48	68	107	96	191	573	69,907,543
65 & up	20	22	15	16	21	53	147	16,665,184
Total	16,245	7,310	10,299	8,204	5,002	2,727	49,787	\$5,500,946,507

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

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

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								
6/30/20	45,701	\$1,680,586,052	21,666	\$540,832,696	739,949	\$24,567,991,825	4.9%	\$33,202
6/30/19	45,954	1,624,873,200	21,529	531,826,415	715,914	23,428,238,469	4.9%	32,725
6/30/18	46,834	1,601,849,767	21,614	504,232,434	691,489	22,335,191,684	5.2%	32,300
6/30/17 ¹	44,619	1,457,465,533	21,783	480,093,857	666,269	21,237,574,351	4.8%	31,875
6/30/16 ¹	43,132	1,379,126,240	20,399	475,981,343	643,433	20,260,202,675	4.7%	31,488
6/30/15 ¹	43,501	1,333,700,350	18,731	399,466,572	620,700	19,357,057,778	5.1%	31,186
6/30/14 ²	36,000	1,229,596,000	17,358	393,057,000	595,930	18,422,824,000	6.8%	30,914
6/30/13 ²	39,121	1,434,115,000	17,310	379,821,000	577,288	17,242,387,000	6.9%	29,868
6/30/12 ²	39,729	1,286,891,000	19,412	381,443,000	555,477	16,126,912,000	7.3%	29,033
LRF								
6/30/20	5	\$150,301	22	\$558,470	183	\$6,056,419	(6.3%)	\$33,095
6/30/19	14	482,883	14	314,651	200	6,464,588	2.7%	32,323
6/30/18	—	—	8	293,767	200	6,296,356	(4.5%)	31,482
6/30/17 ¹	8	342,858	16	592,323	208	6,590,123	(3.6%)	31,683
6/30/16 ¹	3	86,709	8	250,007	216	6,839,588	(2.3%)	31,665
6/30/15 ¹	6	233,438	9	592,552	221	7,002,886	(4.9%)	31,687
6/30/14 ²	1	13,000	10	434,000	224	7,362,000	0.9%	32,866
6/30/13 ²	2	133,000	14	587,000	233	7,297,000	(5.0%)	31,318
6/30/12 ²	3	102,000	12	461,000	245	7,680,000	(2.4%)	31,347
JRF								
6/30/20	42	\$4,015,220	73	\$8,207,420	1,766	\$163,549,862	(2.5%)	\$92,610
6/30/19	66	6,271,344	84	15,446,222	1,797	167,742,062	(5.2%)	93,346
6/30/18	74	7,011,721	96	9,836,577	1,815	176,916,940	(1.6%)	97,475
6/30/17 ¹	83	6,500,928	106	11,047,170	1,837	179,741,796	(2.5%)	97,845
6/30/16 ¹	68	4,719,741	80	8,389,989	1,860	184,288,038	(2.0%)	99,080
6/30/15 ¹	102	9,011,281	84	7,820,995	1,872	187,958,286	0.6%	100,405
6/30/14 ²	55	6,608,000	68	6,696,000	1,854	186,768,000	2.4%	100,738
6/30/13 ²	49	6,082,000	74	7,383,000	1,867	182,464,000	(1.3%)	97,731
6/30/12 ²	75	7,365,000	67	5,804,000	1,892	184,952,000	1.7%	97,755
JRF II								
6/30/20	41	\$4,827,219	6	\$570,590	297	\$30,157,133	16.4%	\$101,539
6/30/19	55	6,043,661	4	536,208	262	25,900,504	27.0%	98,857
6/30/18	57	6,710,581	3	231,646	211	20,393,051	46.6%	96,650
6/30/17 ¹	41	4,654,642	1	125,977	157	13,914,116	48.3%	88,625
6/30/16 ¹	30	2,479,659	3	260,218	117	9,385,451	31.0%	80,218
6/30/15 ¹	27	2,551,990	2	164,980	90	7,166,010	49.9%	79,622
6/30/14 ²	20	1,648,000	3	378,000	65	4,779,000	35.7%	73,523
6/30/13 ²	13	1,172,000	2	232,000	48	3,522,700	13.9%	73,390
6/30/12 ²	9	744,000	2	195,000	37	3,093,000	43.9%	83,595

(1) These total counts and allowances account for all payment 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 nonmembers.

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE

PERF B¹ (Dollars in Millions)

	2019	2018
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	\$27,225	\$23,551
b) Expected Payment on the UAL	1,255	885
c) Interest	1,929	1,705
d) Expected UAL Before Other Changes [1a - 1b + 1c]	\$27,899	\$24,371
e) Change Due to Plan Changes	\$0	\$0
f) Change Due to Assumption Changes	2,598	3,279
g) Expected UAL After All Changes	\$30,497	\$27,650
h) Actual UAL as of June 30	\$31,351	\$27,225
i) Total (Gain)/Loss [1h - 1g]	\$854	(\$425)
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	\$3,466	\$2,993
b) Actual Contributions	3,509	2,986
c) Contributions (Gain)/Loss [2a - 2b]	(\$43)	\$7
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	\$64,846	\$60,865
b) Prior Fiscal Year Receivables	(104)	(96)
c) Current Fiscal Year Receivables	106	104
d) Contributions Received	3,509	2,986
e) Benefits and Refunds Paid	(4,347)	(4,053)
f) Transfers and Miscellaneous Adjustments	31	30
g) Expected Interest	4,665	4,444
h) Expected Assets as of June 30 [3a + 3b + 3c + 3d + 3e + 3f + 3g]	\$68,706	\$64,280
i) Market Value of Assets as of June 30	\$68,177	\$64,846
j) Asset (Gain)/Loss [3h - 3i]	\$529	(\$566)
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	\$854	(\$425)
b) Contribution (Gain)/Loss (2c)	(43)	8
c) Asset (Gain)/Loss (3j)	529	(566)
d) Liability (Gain)/Loss [4a - 4b - 4c]	\$368	\$133

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

Actuarial Section (continued)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

PERF C¹ (Dollars in Millions)

	2019	2018
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	\$10,893	\$9,612
b) Expected Payment on the UAL	771	673
c) Interest	736	673
d) Expected UAL Before Other Changes [1a - 1b + 1c]	\$10,858	\$9,612
e) Change Due to Plan Amendments	\$0	\$0
f) Change Due to Plan Golden Handshakes and Service Purchases	1	1
g) Transfers Out of Risk Pool	(1)	0
h) Transfers Into Risk Pool	82	77
i) Change Due to Assumption Change	—	1,084
j) Change Due to Method Change	—	277
k) Change Due to Excessive Liability	1	2
l) Expected UAL After All Other Changes [1d + 1e + 1f - 1g + 1h + 1i + 1j + 1k]	\$10,943	\$11,053
m) Actual UAL as of June 30	\$11,274	\$10,893
n) Total (Gain)/Loss [1m-1l]	\$331	(\$160)
2) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	\$29,500	\$27,298
b) Transfers Out of Pool	—	2
c) Transfers Into Pool	185	162
d) Adjusted MVA at Beginning of Year [2a - 2b + 2c]	\$29,685	\$27,458
e) Receivables Prior Year	\$45	\$47
f) Receivables Current Year	42	45
g) Contributions Received	1,678	1,516
h) Benefits and Refunds Paid	(1,908)	(1,768)
i) Transfers and Miscellaneous Adjustments	18	16
j) Expected Interest	2,067	1,978
k) Expected Assets as of June 30 [2d - 2e + 2f + 2g + 2h + 2i + 2j]	\$31,537	\$29,198
l) Market Value of Assets as of June 30	\$31,383	\$29,500
m) Asset (Gain)/Loss [2k - 2l]	\$154	(\$302)
3) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1n)	\$331	(\$160)
b) Asset (Gain)/Loss (2m)	154	(302)
c) Liability (Gain)/Loss [3a - 3b]	\$177	\$142

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

Actuarial Section (continued)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

LRF¹ (Dollars in Thousands)

	2019	2018
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	(\$16,558)	(\$16,039)
b) Expected Payment on the UAL	9	44
c) Interest	(828)	(803)
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	(\$17,395)	(\$16,886)
e) Change Due to Revised Actuarial Methods	\$0	\$575
f) Change Due to New Actuarial Assumptions	—	—
g) Expected UAL After All Changes [1d + 1e + 1f]	(\$17,395)	(\$16,311)
h) Actual UAL as of June 30	(\$16,666)	(\$16,558)
i) Total (Gain)/Loss [1h - 1g]	\$729	(\$247)
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	\$299	\$540
b) Interest on Expected Contributions	7	13
c) Actual Contributions	341	549
d) Interest on Actual Contributions	8	14
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	(\$43)	(\$10)
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	\$115,484	\$116,884
b) Contributions Received	341	549
c) Benefits and Refunds Paid and Administrative Costs	(7,350)	(7,435)
d) Expected Interest	5,601	5,674
e) Expected Assets as of June 30 [3a + 3b + 3c + 3d]	\$114,076	\$115,672
f) Market Value of Assets as of June 30	\$115,796	\$115,484
g) Asset (Gain)/Loss [3e - 3f]	(\$1,720)	\$188
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	\$729	(\$247)
b) Contribution (Gain)/Loss (2e)	(43)	(10)
c) Asset (Gain)/Loss (3g)	(1720)	188
d) Liability (Gain)/Loss [4a - 4b - 4c]	\$2,492	(\$425)

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

Actuarial Section (continued)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

JRF¹ (Dollars in Thousands)

	2019	2018
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	\$3,276,038	\$3,267,457
b) Expected Pay as You Go Excluding Normal Cost	187,408	180,058
c) Interest	95,491	95,679
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	\$3,184,121	\$3,183,078
e) Change Due to Revised Actuarial Methods	—	5,705
f) Change Due to New Actuarial Assumptions	—	—
g) Expected UAL After All Changes [1d + 1e + 1f]	\$3,184,121	\$3,188,783
h) Actual UAL as of June 30	\$3,159,148	\$3,276,038
i) Total (Gain)/Loss [1h - 1g]	(\$24,973)	\$87,255
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	\$209,653	N/A ²
b) Interest on Expected Contributions	3,121	N/A ²
c) Actual Contributions	198,582	N/A ²
d) Interest on Actual Contributions	2,957	N/A ²
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	\$11,235	N/A¹
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	\$44,491	\$48,275
b) Contributions Received	198,582	202,302
c) Benefits and Refunds Paid and Administrative Costs	(232,934)	(209,466)
d) Transfers, SCP, and Miscellaneous Adjustments	2,776	2,533
e) Expected Interest	865	1,379
f) Expected Assets as of June 30 [3a + 3b + 3c + 3d + 3e]	\$13,780	\$45,023
g) Market Value of Assets as of June 30	\$14,081	\$44,492
h) Asset (Gain)/Loss [3f - 3g]	(\$301)	\$531
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	(\$24,973)	\$87,255
b) Contribution (Gain)/Loss (2e)	11,235	N/A ²
c) Asset (Gain)/Loss (3h)	(301)	531
d) Liability (Gain)/Loss [4a - 4b - 4c]	(\$35,907)	\$86,724

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

(2) Contribution (Gain)/Loss not available for valuations prior to June 30, 2019.

Actuarial Section (continued)

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

JRF II¹ (Dollars in Thousands)

	2019	2018
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	\$22,805	\$9,763
b) Expected Payment on the UAL	211	6,521
c) Interest	1,476	426
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	\$24,070	\$3,668
e) Change Due to Revised Actuarial Methods	\$0	\$23,246
f) Change Due to New Actuarial Assumptions	—	—
g) Expected UAL After All Changes [1d + 1e + 1f]	\$24,070	\$26,914
h) Actual UAL as of June 30	\$10,821	\$22,805
i) Total (Gain)/Loss [1h - 1g]	(\$13,249)	(\$4,109)
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	\$107,882	\$104,870
b) Interest on Expected Contributions	3,451	3,355
c) Actual Contributions	115,475	107,213
d) Interest on Actual Contributions	3,694	3,430
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	(\$7,836)	(\$2,418)
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	\$1,531,543	\$1,356,099
b) Contributions Received	115,475	107,213
c) Benefits and Refunds Paid and Administrative Costs	(36,205)	(33,589)
d) Expected Interest	102,086	90,502
e) Expected Assets as of June 30 [3a + 3b + 3c + 3d]	\$1,712,899	\$1,520,225
f) Market Value of Assets as of June 30	\$1,715,056	\$1,531,543
g) Asset (Gain)/Loss [3e - 3f]	(\$2,157)	(\$11,318)
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	(\$13,249)	(\$4,109)
b) Contribution (Gain)/Loss (2e)	(7,836)	(2,418)
c) Asset (Gain)/Loss (3g)	(2,157)	(11,318)
d) Liability (Gain)/Loss [4a - 4b - 4c]	(\$3,256)	\$9,627

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

STATISTICAL SECTION

150	Introduction
150	Changes in Fiduciary Net Position – Retirement Programs
153	Changes in Fiduciary Net Position – Pension Prefunding Plan
154	Changes in Fiduciary Net Position – OPEB Plan
155	Changes in Fiduciary Net Position – Custodial Funds
156	Public Employees’ Retirement System Membership & Retirement Data
158	Public Employees’ Retirement Fund Program Data
167	Public Agency Employers
185	Legislators’ Retirement System Membership & Retirement Data
186	Legislators’ Retirement System Program Data
189	Judges’ Retirement System Membership & Retirement Data
190	Judges’ Retirement System Program Data
193	Judges’ Retirement System II Membership & Retirement Data
194	Judges’ Retirement System II Program Data



**Maintaining Strong
Customer Service to
our Members and
Employer Partners**

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, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Member	\$4,901,000	\$4,664,618	\$4,415,129	\$4,214,578	\$4,015,754	\$3,826,072	\$3,775,038	\$3,896,078	\$3,598,437	\$3,600,089
Employer	22,039,561	15,612,678	19,917,796	12,329,837	10,892,489	9,977,705	8,777,602	8,123,833	7,772,913	7,465,397
Nonemployer Contribution	904,000	—	—	—	—	—	—	—	—	—
Investment Income/(Loss)	18,516,994	22,969,664	27,448,098	32,977,020	1,398,927	6,579,019	45,471,821	30,284,807	(203,084)	43,904,425
Plan-to-Plan Resource Movement	185,907	167,612	116,552	134,661	49,803	469,688	—	—	—	—
Miscellaneous Income	109,104	111,079	121,573	153,008	149,494	123,978	126,223	7,176	7,070	3,011
TOTAL ADDITIONS	\$46,656,566	\$43,525,651	\$52,019,148	\$49,809,104	\$16,506,467	\$20,976,462	\$58,150,684	\$42,311,894	\$11,175,336	\$54,972,922
DEDUCTIONS										
Benefit Payments	\$25,781,920	\$24,209,283	\$22,654,444	\$21,215,889	\$20,093,933	\$18,922,292	\$17,760,584	\$16,635,263	\$15,356,696	\$14,242,258
Refund of Contributions	323,180	280,266	286,979	222,275	238,821	240,623	236,968	242,595	218,082	227,168
Administrative Expenses	524,451	252,558	505,513	441,283	184,426	340,880	381,497	426,077	380,404	357,779
Plan-to-Plan Resource Movement	185,907	167,612	116,552	134,661	49,803	469,688	—	—	—	—
TOTAL DEDUCTIONS	\$26,815,458	\$24,909,719	\$23,563,488	\$22,014,108	\$20,566,983	\$19,973,483	\$18,379,049	\$17,303,935	\$15,955,182	\$14,827,205
CHANGE IN NET POSITION	\$19,841,108	\$18,615,932	\$28,455,660	\$27,794,996	(\$4,060,516)	\$1,002,979	\$39,771,635	\$25,007,959	(\$4,779,846)	\$40,145,717
NET POSITION										
Beginning of Year	\$372,611,433	\$353,995,501	\$325,539,841 ¹	\$298,704,002	\$302,764,518	\$301,761,539	\$261,989,904	\$236,981,945	\$241,761,791	\$179,137,509 ¹
End of Year	\$392,452,541	\$372,611,433	\$353,995,501	\$326,498,998	\$298,704,002	\$302,764,518	\$301,761,539	\$261,989,904	\$236,981,945	\$241,761,791

(1) Due to prior period adjustment, 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, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Member	\$22	\$91	\$82	\$94	\$97	\$105	\$113	\$31	\$0	\$3
Employer	98	250	467	516	549	590	565	80	—	—
Investment Income/(Loss)	7,011	7,860	5,458	5,006	4,511	(125)	15,332	6,974	7,761	17,667
Miscellaneous Income	2	—	28	42	34	31	40	—	—	—
TOTAL ADDITIONS	\$7,133	\$8,201	\$6,035	\$5,658	\$5,191	\$601	\$16,050	\$7,085	\$7,761	\$17,670
DEDUCTIONS										
Benefit Payments	\$6,939	\$7,005	\$6,918	\$6,960	\$7,028	\$7,393	\$7,482	\$7,548	\$7,659	\$7,382
Refund of Contributions	—	344	—	289	379	1,693	—	—	202	440
Administrative Expenses	550	324	671	575	203	400	362	418	347	408
TOTAL DEDUCTIONS	\$7,489	\$7,673	\$7,589	\$7,824	\$7,610	\$9,486	\$7,844	\$7,966	\$8,208	\$8,230
CHANGE IN NET POSITION	(\$356)	\$528	(\$1,554)	(\$2,166)	(\$2,419)	(\$8,885)	\$8,206	(\$881)	(\$447)	\$9,440
NET POSITION										
Beginning of Year	\$114,404	\$113,876	\$115,430¹	\$119,050	\$121,469	\$130,354	\$122,148	\$123,029	\$123,476	\$114,036
End of Year	\$114,048	\$114,404	\$113,876	\$116,884	\$119,050	\$121,469	\$130,354	\$122,148	\$123,029	\$123,476

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

JRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Member	\$2,843	\$2,679	\$3,062	\$3,398	\$3,559	\$3,877	\$4,724	\$4,909	\$5,796	\$6,658
Employer	243,131	195,903	199,241	204,475	192,287	180,910	191,148	161,945	196,402	167,302
Investment Income	885	1,166	845	424	194	88	54	76	80	184
Miscellaneous Income	2,202	2,776	2,533	2,395	2,568	2,198	2,529	2,694	2,877	3,216
TOTAL ADDITIONS	\$249,061	\$202,524	\$205,681	\$210,692	\$198,608	\$187,073	\$198,455	\$169,624	\$205,155	\$177,360
DEDUCTIONS										
Benefit Payments	\$212,775	\$221,954	\$207,815	\$200,440	\$199,271	\$201,734	\$193,925	\$187,084	\$185,428	\$185,119
Refund of Contributions	458	—	8	—	78	134	10	—	17	—
Administrative Expenses	2,270	10,032	2,106	1,771	642	1,227	1,141	1,413	1,163	1,188
TOTAL DEDUCTIONS	\$215,503	\$231,986	\$209,929	\$202,211	\$199,991	\$203,095	\$195,076	\$188,497	\$186,608	\$186,307
CHANGE IN NET POSITION	\$33,558	(\$29,462)	(\$4,248)	\$8,481	(\$1,383)	(\$16,022)	\$3,379	(\$18,873)	\$18,547	(\$8,947)
NET POSITION										
Beginning of Year	\$10,169	\$39,631	\$43,879¹	\$39,794	\$41,177	\$57,199	\$53,820	\$72,693	\$54,146	\$63,093
End of Year	\$43,727	\$10,169	\$39,631	\$48,275	\$39,794	\$41,177	\$57,199	\$53,820	\$72,693	\$54,146

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

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, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Member	\$35,796	\$31,376	\$27,513	\$25,076	\$24,598	\$22,242	\$20,413	\$18,819	\$18,757	\$18,589
Employer	91,147	84,099	79,699	67,102	65,839	65,629	57,027	54,025	53,711	53,863
Investment Income/(Loss)	80,074	106,781	101,244	114,331	20,213	(2,863)	149,679	79,214	13,947	91,596
Miscellaneous Income	—	—	576	726	597	462	489	—	—	—
TOTAL ADDITIONS	\$207,017	\$222,256	\$209,032	\$207,235	\$111,247	\$85,470	\$227,608	\$152,058	\$86,415	\$164,048
DEDUCTIONS										
Benefit Payments	\$34,547	\$36,045	\$31,745	\$22,326	\$21,549	\$14,024	\$8,865	\$10,518	\$3,536	\$2,236
Refund of Contributions	—	159	50	80	155	16	85	58	2,604	5,870
Administrative Expenses	2,552	1,477	2,370	1,683	732	1,127	785	899	725	716
TOTAL DEDUCTIONS	\$37,099	\$37,681	\$34,165	\$24,089	\$22,436	\$15,167	\$9,735	\$11,475	\$6,865	\$8,822
CHANGE IN NET POSITION	\$169,918	\$184,575	\$174,867	\$183,146	\$88,811	\$70,303	\$217,873	\$140,583	\$79,550	\$155,226
NET POSITION										
Beginning of Year	\$1,710,089	\$1,525,514	\$1,350,647 ¹	\$1,172,953	\$1,084,142	\$1,013,839	\$795,966	\$655,383	\$575,833	\$420,607
End of Year	<u>\$1,880,007</u>	<u>\$1,710,089</u>	<u>\$1,525,514</u>	<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>

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

DCF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Member	\$150,108	\$251,102	\$112,586	\$110,258	\$106,072	\$106,272	\$131,900	\$99,977	\$104,333	\$89,531
Employer	—	—	977	962	909	783	698	455	80	84
Investment Income	71,266	92,546	108,821	132,305	7,541	32,735	164,384	114,471	4,872	151,932
Miscellaneous Income	7,192	6,590	6,306	5,583	5,354	6,260	5,258	—	225	214
TOTAL ADDITIONS	\$228,566	\$350,238	\$228,690	\$249,108	\$119,876	\$146,050	\$302,240	\$214,903	\$109,510	\$241,761
DEDUCTIONS										
Participant Withdrawals	\$128,159	\$156,796	\$168,064	\$90,333	\$164,362	\$88,973	\$97,388	\$82,587	\$73,025	\$93,844
Administrative Expenses	5,217	4,202	5,296	4,576	4,677	4,320	4,101	3,467	3,131	3,874
TOTAL DEDUCTIONS	\$133,376	\$160,998	\$173,360	\$94,909	\$169,039	\$93,293	\$101,489	\$86,054	\$76,156	\$97,718
CHANGE IN NET POSITION	\$95,190	\$189,240	\$55,330	\$154,199	(\$49,163)	\$52,757	\$200,751	\$128,849	\$33,354	\$144,043
NET POSITION										
Beginning of Year	\$1,684,986	\$1,495,746	\$1,440,416 ¹	\$1,290,407	\$1,339,570	\$1,286,813	\$1,086,062	\$957,213	\$947,062	\$803,019
End of Year	<u>\$1,780,176</u>	<u>\$1,684,986</u>	<u>\$1,495,746</u>	<u>\$1,444,606</u>	<u>\$1,290,407</u>	<u>\$1,339,570</u>	<u>\$1,086,062</u>	<u>\$1,086,062</u>	<u>\$980,416</u>	<u>\$947,062</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, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Member	\$254	\$251	\$252	\$246	\$269	\$127,833	\$160	\$164	\$208	\$285
Investment Income	5,495	5,360	4,362	6,890	416	1,058	2,077	2,051	3	3,610
Miscellaneous Income	93	337	619	628	668	305	111	—	—	—
TOTAL ADDITIONS	\$5,842	\$5,948	\$5,233	\$7,764	\$1,353	\$129,196	\$2,348	\$2,215	\$211	\$3,895
DEDUCTIONS										
Participant Withdrawals	\$6,137	\$7,749	\$9,046	\$11,041	\$16,130	\$15,751	\$1,013	\$1,448	\$1,219	\$2,113
Administrative Expenses	327	283	398	373	330	135	62	58	63	84
TOTAL DEDUCTIONS	\$6,464	\$8,032	\$9,444	\$11,414	\$16,460	\$15,886	\$1,075	\$1,506	\$1,282	\$2,197
Interfund Transfer In	\$0	\$0	\$0	\$0	\$5,582	\$0	\$0	\$0	\$0	\$0
CHANGE IN NET POSITION	(\$622)	(\$2,084)	(\$4,211)	(\$3,650)	(\$15,107)	\$113,310	\$1,273	\$709	(\$1,071)	\$1,698
NET POSITION										
Beginning of Year	\$114,051	\$116,135	\$120,346 ¹	\$124,354	\$133,879	\$20,569	\$19,296	\$18,587	\$19,658	\$17,960
End of Year	\$113,429	\$114,051	\$116,135	\$120,704	\$118,772	\$133,879	\$20,569	\$19,296	\$18,587	\$19,658

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

CHANGES IN FIDUCIARY NET POSITION – PENSION PREFUNDING PLAN

CEPPTF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2020 – 1-Year Review¹ (Dollars in Thousands)

	2020
ADDITIONS	
Employer	\$10,523
Investment Income	502
Miscellaneous Income	10
TOTAL ADDITIONS	\$11,035
DEDUCTIONS	
Administrative Expenses	\$96
TOTAL DEDUCTIONS	\$96
CHANGE IN NET POSITION	\$10,939
NET POSITION	
Beginning of Year	\$0
End of Year	\$10,939

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2020. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

CHANGES IN FIDUCIARY NET POSITION – OPEB PLAN

CERBTF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2020 – 10-Year Review (Dollars in Thousands)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ADDITIONS										
Employer	\$4,634,449	\$4,007,941	\$3,915,969	\$3,754,709	\$1,780,240	\$1,714,060	\$1,681,053	\$1,031,619	\$771,750	\$758,251
Investment Income/(Loss)	402,609	568,801	530,189	559,967	76,638	(13,988)	515,507	237,710	8,066	331,492
Miscellaneous Income	9,094	7,490	6,985	5,599	4,048	4,932	4,483	—	—	—
TOTAL ADDITIONS	\$5,046,152	\$4,584,232	\$4,453,143	\$4,320,275	\$1,860,926	\$1,705,004	\$2,201,043	\$1,269,329	\$779,816	\$1,089,743
DEDUCTIONS										
OPEB Reimbursements & Employer Withdrawals	\$3,152,357	\$3,061,217	\$2,937,413	\$2,648,160	\$1,229,523	\$1,099,376	\$1,020,924	\$635,074	\$566,360	\$507,951
Administrative Expenses	5,161	1,882	3,862	3,014	1,559	2,044	1,786	2,062	1,910	2,305
TOTAL DEDUCTIONS	\$3,157,518	\$3,063,099	\$2,941,275	\$2,651,174	\$1,231,082	\$1,101,420	\$1,022,710	\$637,136	\$568,270	\$510,256
CHANGE IN NET POSITION	\$1,888,634	\$1,521,133	\$1,511,868	\$1,669,101	\$629,844	\$603,584	\$1,178,333	\$632,193	\$211,546	\$579,487
NET POSITION										
Beginning of Year	\$9,815,305	\$8,294,172	\$6,782,304 ⁽¹⁾	\$5,122,188	\$4,492,344	\$3,888,760	\$2,710,427	\$2,078,234	\$1,866,688	\$1,287,201
End of Year	\$11,703,939	\$9,815,305	\$8,294,172	\$6,791,289	\$5,122,188	\$4,492,344	\$3,888,760	\$2,710,427	\$2,078,234	\$1,866,688

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

CHANGES IN FIDUCIARY NET POSITION – CUSTODIAL FUNDS

RBF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2020 – 4-Year Review¹ (Dollars in Thousands)

	2020	2019	2018	2017
ADDITIONS				
Replacement Benefits	\$29,125	\$25,756	\$22,487	\$20,573
Investment Income	276	301	163	168
Miscellaneous Income	256	482	444	239
TOTAL ADDITIONS	\$29,657	\$26,539	\$23,094	\$20,980
DEDUCTIONS				
Replacement Benefit Payments	\$29,125	\$25,756	\$22,487	\$20,573
Administrative Expenses	246	450	450	239
TOTAL DEDUCTIONS	\$29,371	\$26,206	\$22,937	\$20,812
CHANGE IN NET POSITION	\$286	\$333	\$157	\$168
NET POSITION				
Beginning of Year	\$658	\$325	\$168	\$0²
End of Year	\$944	\$658	\$325	\$168

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2017 due to the implementation of GASB 84. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

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

OASI Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2020 – 2-Year Review¹ (Dollars in Thousands)

	2020	2019
ADDITIONS		
Investment Income	\$21	\$1
Other Income	2,012	—
TOTAL ADDITIONS	\$2,033	\$1
DEDUCTIONS		
Administrative Expenses	\$1,178	\$667
TOTAL DEDUCTIONS	\$1,178	\$667
CHANGE IN NET POSITION	\$855	(\$666)
NET POSITION		
Beginning of Year	\$1,037	\$0
Adjustments	\$0	\$1,703
End of Year	\$1,892	\$1,037

(1) This is a 10-year schedule. Information in this schedule is not available prior to 2019 due to the breakout from the PERF. Additional years will be added to this schedule in future fiscal years until 10 years of data is presented.

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 – Six-Year Review

	2020	2019	2018	2017	2016	2015
ACTIVE & INACTIVE MEMBERS						
STATE MEMBERS						
State Miscellaneous – Classic	181,136	189,514	200,645	216,008	216,647	233,574
State Miscellaneous – PEPRA	104,049	90,313	76,222	59,617	44,057	29,009
State Safety – Classic	57,897	60,807	64,165	68,086	68,020	64,167
State Safety – PEPRA	35,783	30,786	26,540	22,051	16,991	11,054
Total State Members	378,865	371,420	367,572	365,762	345,715	337,804
PUBLIC AGENCY MEMBERS						
School – Miscellaneous – Classic	318,039	332,074	348,372	376,546	396,832	422,114
School – Miscellaneous – PEPRA	224,606	200,455	167,654	137,356	102,550	67,363
Public Agency – Miscellaneous – Classic	194,781	204,679	216,445	231,458	241,605	269,528
Public Agency – Miscellaneous – PEPRA	140,641	123,966	103,226	84,913	64,234	46,091
Public Agency – Safety – Classic	41,121	43,263	45,704	48,596	50,372	54,825
Public Agency – Safety – PEPRA	21,500	18,397	15,345	12,769	9,601	6,896
Total Public Agency Members	940,688	922,834	896,746	891,638	865,194	866,817
TOTAL ACTIVE & INACTIVE MEMBERS¹	1,319,553	1,294,254	1,264,318	1,257,400	1,210,909	1,204,621
BENEFIT RECIPIENTS						
Retired						
Classic	631,344	614,257	595,483	576,228	557,679	530,725
PEPRA	2,125	1,145	534	284	166	90
Survivors and Beneficiaries						
Classic	98,897	96,570	98,457	91,488	90,774	80,250
PEPRA	163	143	96	59	26	13
TOTAL BENEFIT RECIPIENTS²	732,529	712,115	694,570	668,059	648,645	611,078
TOTAL MEMBERS AND BENEFIT RECIPIENTS	2,052,082	2,006,369	1,958,888	1,925,459	1,859,554	1,815,699

(1) A participant could be counted more than once if they have 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 – Four-Year Review¹

	2014	2013	2012	2011
ACTIVE & INACTIVE MEMBERS				
STATE MEMBERS				
Miscellaneous	236,552	227,291	228,667	223,251
University of California	44	44	45	49
Industrial	13,669	13,038	13,734	13,732
Alternative Retirement Plan	7,407	12,160	9,491	13,972
Highway Patrol	7,479	7,556	7,565	7,573
Safety	31,150	28,878	28,935	29,402
Peace Officer/Firefighter	45,346	45,116	47,162	48,243
Total State Members	341,647	334,083	335,599	336,222
PUBLIC AGENCY MEMBERS				
Schools	442,088	430,865	428,117	425,186
Cities	160,127	158,649	160,253	163,430
Counties	97,780	94,980	93,468	93,651
Districts & Other Public Agencies	87,372	85,660	85,003	84,937
Total Public Agency Members	787,367	770,154	766,841	767,204
TOTAL ACTIVE & INACTIVE MEMBERS	1,129,014	1,104,237	1,102,440	1,103,426
BENEFIT RECIPIENTS				
Service Retirement	505,031	486,625	464,601	450,263
Disability Retirement	44,242	43,857	43,626	43,347
Industrial Disability Retirement	37,686	36,493	35,495	34,733
Industrial Death	891	894	903	1,070
1957 Survivor Benefit	3,775	3,698	3,831	3,626
1959 Survivor Benefit	3,217	3,192	3,171	3,195
TOTAL BENEFIT RECIPIENTS¹	594,842	574,759	551,627	536,234
TOTAL MEMBERS	1,723,856	1,678,996	1,654,067	1,639,660

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

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA

PRIMARY BENEFITS

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

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

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

The four categories of membership are:

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

SERVICE RETIREMENT

State Miscellaneous & State Industrial Members – Classic

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

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

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

State Miscellaneous & State Industrial Members – PEPRA

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

State Safety Members – Classic

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

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

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

The maximum allowance payable is 90 percent.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

State Safety Members – PEPRA

- 2 percent at 57 – It provides 2 percent of final compensation for each year of service for retirement at age 57.
- 2.5 percent at 57 – It provides 2.5 percent of final compensation for each year of service for retirement at age 57.
- 2.7 percent at 57 – It provides 2.7 percent of final compensation for each year of service for retirement at age 57.

Retirement may begin at age 50 with a reduced benefit rate.

School Members 2 Percent at 55 – Classic

A guarantee of 2 percent of final compensation at age 55 for each year of service credit. Retirement may begin at age 50 with a reduced benefit rate, or after age 55 with an increased benefit rate to age 63.

School Members 2 Percent at 62 – PEPRA

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

Local Miscellaneous Members – Classic

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

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

- 2.5 percent at 55 – A guarantee of 2.5 percent of final compensation at age 55 for each year of service credit.
- 2.7 percent at 55 – A guarantee of 2.7 percent of final compensation at age 55 for each year of service credit.
- 3 percent at 60 – A guarantee of 3 percent of final compensation at age 60 for each year or service credit.

Retirement may begin at age 50 with a reduced benefit rate.

- 1.5 percent at 65 – A guarantee of 1.5 percent of final compensation at age 65 for each year of service credit. Retirement may begin at age 55 with a reduced benefit rate.

Local Miscellaneous Members 2 Percent at 62 – PEPRA

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

Local Safety Members 2 Percent at 50

2 percent of final compensation for each year of service for retirement at age 50, with an increased benefit rate to age 55. The maximum allowance payable is 90 percent of final compensation.

Local Safety Members – Classic

- 2 percent at 50 – It provides 2 percent of final compensation for each year of service for retirement at age 50, with an increased benefit rate to age 55.
- 3 percent at 50 – It provides 3 percent of final compensation for each year of service for retirement at age 50.

The maximum allowance payable is 90 percent of final compensation.

- 2 percent at 55 – It provides 2 percent of final compensation for each year of service for retirement at age 55.
- 2.5 percent at 55 – It provides 2.5 percent of final compensation for each year of service retirement at age 55.
- 3 percent at 55 – It provides 3 percent of final compensation for each year of service for retirement at age 55.

Retirement may begin at age 50 with a reduced benefit rate.

The maximum allowance payable is 90 percent of final compensation.

Local Safety Members – PEPRA

- 2 percent at 57 – It provides 2 percent of final compensation for each year of service for retirement at age 57.
- 2.5 percent at 57 – It provides 2.5 percent of final compensation for each year of service for retirement at age 57.
- 2.7 percent at 57 – It provides 2.7 percent of final compensation for each year of service for retirement at age 57.

Retirement may begin at age 50 with a reduced benefit rate.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

DISABILITY RETIREMENT

For Most Members

A monthly allowance of 1.8 percent of final compensation for each year of service, improved under certain conditions to 33.33 percent of final compensation, applicable to members with at least five years of service credit.

By Contract Amendment Only for Local Agencies

A monthly allowance of 30 percent of final compensation, plus an additional 1 percent for each year of service over five years to a maximum of 50 percent.

For State Second Tier Members

A monthly allowance of 1.125 percent of final compensation for each year of service, improved under certain conditions to 33.33 percent of final compensation, applicable to members with at least 10 years of service credit or five years if credited as of January 1, 1985.

For Certain Local Miscellaneous Second Tier Members

A monthly allowance of 1.35 percent of final compensation for each year of service, improved under certain conditions to 33.33 percent of final compensation, applicable to members with at least five years of service credit.

INDUSTRIAL DISABILITY RETIREMENT

For Most Members

A monthly allowance of 50 percent of final compensation, applicable to California Highway Patrol (CHP) members, state and local safety members, state peace officer/firefighter members, state industrial members, local miscellaneous members (by contract amendment only), and certain state miscellaneous members defined by law. The injury or illness must be job related and the member must be serving in one of these categories at the time the industrial disability occurs. CHP members may be entitled to an enhanced benefit if specific qualifying factors are met.

By Contract Amendment Only for Local Agencies

A monthly allowance of 75 percent of final compensation, if found totally disabled.

By Contract Amendment Only for Local Agencies

A monthly allowance of 50 percent to 90 percent of final compensation, depending on the disability rating by the Workers' Compensation Appeals Board.

SURVIVOR BENEFITS (PRIOR TO 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).

Group Term Life Insurance – 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 Benefit¹ – For State Members in Bargaining Units Contracting for this Benefit

Not Eligible to Retire, With 20 Years or More of State Service Credit – a monthly allowance payable to a surviving spouse or registered domestic partner until death, then to children under age 18. It is calculated similarly to pre-retirement Option 2W (if the beneficiary is a spouse or registered domestic partner), or like a 1957 Survivor Benefit (if the beneficiary is a minor child), as though the member had been old enough to retire. A spouse or registered domestic partner or minor child may receive continued health and dental insurance with the Alternate Death Benefit. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Pre-Retirement Option 2W Benefit¹ – For All State Members, Married, or Registered Domestic Partnership

A monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to 100 percent of the option portion had the member retired on their date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit¹ – 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 survivor benefit, except the Special Death Benefit.

Special Death Benefit¹ – Survivors of State, State Industrial, State Peace Officer/Firefighter Members, State Miscellaneous²

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. For members who pass under the age of 50, 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 Benefit³ – Additional Special 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 Benefit¹ – 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 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.

(3) The Special Death Benefit is payable if the member's death is job related.

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 Benefit¹ – Local Agency Members, Married, or Registered Domestic Partnership

For all members eligible to retire who are married or in a registered domestic partnership, a monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit – For All Local Agency Members, Not Married, or No Registered Domestic Partnership

For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1959 Survivor Benefit – Local Agency Members Not Coordinated With Social Security by Contract Option Amendment

A monthly benefit paid to survivors of deceased members who died prior to retirement. This benefit is similar to the Social Security Survivor Benefit and is paid in addition to any other applicable pre-retirement death benefit, except the Special Death Benefit.

Alternate Death Benefit for Firefighters – Local Agencies by Contract With 20 Years or More of Total Service Credit

A monthly non-job-related allowance payable to a surviving spouse or registered domestic partner until death, then to children under age 18. It is calculated similarly to Pre-Retirement Option 2W (if the beneficiary is a spouse or registered domestic partner, even if the agency does not contract separately for the Pre-Retirement Option 2W benefit), or like a 1957 Survivor Benefit (if the beneficiary is a minor child), as though the member had either been old enough to retire (if the member died before reaching retirement age), or based on the member's actual age if the member was eligible to retire at the time of death. This benefit applies to all service credit earned by the member, including service that may have been earned with a local agency that does not contract for the Alternate Death Benefit, as long as the member was employed at the time of death by a local agency that provides this benefit in their contract. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

Pre-Retirement Option 2W Benefit – Local Agencies by Contract, Married, or Registered Domestic Partnership

A monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to 100 percent of the option portion had the member retired on their date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Special Death Benefit¹ – Survivors of Patrol, Local Safety & Local Miscellaneous by Contract Amendment²

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. For members who pass under the age of 50, 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 Benefit³ – Additional Special 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 retirement⁴ 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 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.

(3) The Special Death Benefit is payable if the member's death is job-related.

(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 fewer than 100 active members. Under applicable law, the CalPERS Board of Administration (the Board) may terminate, or a public agency may terminate that agency's plan under either PERF A or PERF C. The terminated agency is liable to the System for all costs to fund all benefits under the agency's contract. An unpaid deficit in funding will result in a commensurate reduction in benefits provided under that agency's contract.

Retirement Benefit Recipients and Members by Employer Category – PERF – As of June 30, 2020

Employer/Category	Plan Type	Active ¹	Inactive	Retired ²	Survivors & Beneficiaries ³	Total
STATE						
Miscellaneous – Classic ⁴	PERF A	112,128	69,008	155,447	28,086	364,669
Miscellaneous – PEPRA ⁴	PERF A	83,918	20,131	540	8	104,597
Safety – Classic ⁵	PERF A	47,862	10,035	64,032	7,990	129,919
Safety – PEPRA ⁵	PERF A	31,286	4,497	183	3	35,969
Pre-Retirement Death – Classic	PERF A	—	—	—	3,038	3,038
Pre-Retirement Death – PEPRA	PERF A	—	—	—	17	17
TOTAL STATE		275,194	103,671	220,202	39,142	638,209
SCHOOL						
Miscellaneous – Classic	PERF B	174,559	143,480	201,373	29,167	548,579
Miscellaneous – PEPRA	PERF B	161,460	63,146	487	2	225,095
Pre-Retirement Death – Classic	PERF B	—	—	—	1,183	1,183
Pre-Retirement Death – PEPRA	PERF B	—	—	—	56	56
TOTAL SCHOOL		336,019	206,626	201,860	30,408	774,913
PUBLIC AGENCY						
Miscellaneous – Classic	PERF A	96,108	67,322	134,323	17,694	315,447
Miscellaneous – PEPRA	PERF A	86,413	30,289	596	4	117,302
Safety – Classic	PERF A	23,008	5,170	37,648	4,955	70,781
Safety – PEPRA	PERF A	11,948	2,012	71	—	14,031
Pre-Retirement Death – Classic	PERF A	—	—	—	1,430	1,430
Pre-Retirement Death – PEPRA	PERF A	—	—	—	50	50
Miscellaneous – Classic	PERF C	16,752	14,599	22,108	2,740	56,199
Miscellaneous – PEPRA	PERF C	17,302	6,637	195	—	24,134
Safety – Classic	PERF C	9,204	3,739	16,413	2,217	31,573
Safety – PEPRA	PERF C	6,136	1,404	53	4	7,597
Pre-Retirement Death – Classic	PERF C	—	—	—	397	397
Pre-Retirement Death – PEPRA	PERF C	—	—	—	19	19
TOTAL PUBLIC AGENCY		266,871	131,172	211,407	29,510	638,960
TOTAL BENEFIT RECIPIENTS AND MEMBERS		878,084	441,469	633,469	99,060	2,052,082

(1) A participant could be counted more than once if they have 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	2020	2019	2018	2017	2016	2015
Service Retirement	\$22,753,798,454	\$21,288,786,325	\$19,851,652,792	\$18,537,701,906	\$17,482,814,843	\$16,399,932,312
Disability Retirement	647,385,586	640,390,289	629,909,937	621,706,049	614,204,683	599,845,301
Industrial Disability Retirement	2,148,950,254	2,044,665,647	1,946,751,674	1,867,178,738	1,784,205,878	1,695,674,147
PPPA Payments ¹	11,482,597	12,956,146	14,739,908	17,399,875	21,742,842	25,792,689
Total	\$25,561,616,891	\$23,986,798,407	\$22,443,054,311	\$21,043,986,568	\$19,902,968,246	\$18,721,244,449
Basic Death Benefit/Group Term Life Insurance	\$41,489,834	\$42,184,086	\$45,353,650	\$36,354,849	\$37,528,299	\$25,652,204
1957 Survivor Benefit	111,565,097	107,503,062	103,212,410	99,140,672	95,869,358	92,157,432
1959 Survivor Benefit	34,472,004	33,431,530	33,515,158	33,448,316	33,770,778	33,886,098
Industrial Death Allowance	55,500,395	53,295,292	50,041,476	48,682,349	47,735,846	45,653,060
Option 1, Temporary Annuity, Other Lump-Sum Death Benefits & Other Prior-Year Adjustments	40,068,528	41,755,031	44,705,434	30,796,681	36,775,082	55,058,746
Adjustments ²	(62,792,096)	(55,684,211)	(65,438,104)	(76,521,097)	(60,714,425)	(51,360,036)
Total	\$220,303,762	\$222,484,790	\$211,390,024	\$171,901,770	\$190,964,938	\$201,047,504
Total Retirement and Death Payments	\$25,781,920,653	\$24,209,283,197	\$22,654,444,335	\$21,215,888,338	\$20,093,933,184	\$18,922,291,953
Refunds	323,180,050	280,265,587	286,978,986	222,274,594	238,821,624	240,623,206
GRAND TOTAL	\$26,105,100,703	\$24,489,548,784	\$22,941,423,321	\$21,438,162,932	\$20,332,754,808	\$19,162,915,159

(1) These payments were made from the Purchasing Power Protection Account, which is structured to maintain current benefit levels and to restore CalPERS allowances to 75 percent of their original purchasing power (80 percent for public agencies).

(2) Adjustment category added in Fiscal Year 2014-15 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, 2020 – 10-Year Review

Retirement Effective Dates	Years of Service Credit						
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
2019-20							
Average Monthly Allowance ¹	\$641	\$1,089	\$1,903	\$2,708	\$3,946	\$5,744	\$6,331
Average Final Compensation	\$6,746	\$5,510	\$6,071	\$6,390	\$7,303	\$8,479	\$8,293
Number of Recipients ¹	1,551	4,382	5,663	6,039	5,817	5,490	5,814
2018-19							
Average Monthly Allowance ¹	\$613	\$1,037	\$1,752	\$2,563	\$3,807	\$5,484	\$6,199
Average Final Compensation	\$6,442	\$5,310	\$5,718	\$6,132	\$7,063	\$8,146	\$8,082
Number of Recipients ¹	1,552	4,643	5,825	6,429	5,391	5,685	5,961
2017-18							
Average Monthly Allowance ¹	\$614	\$1,069	\$1,766	\$2,508	\$3,672	\$5,510	\$6,192
Average Final Compensation	\$6,427	\$5,310	\$5,598	\$6,023	\$6,776	\$7,993	\$7,854
Number of Recipients ¹	1,482	4,669	5,531	6,209	5,100	5,994	5,620
2016-17							
Average Monthly Allowance ¹	\$569	\$1,059	\$1,630	\$2,426	\$3,487	\$5,288	\$5,841
Average Final Compensation	\$6,366	\$5,244	\$5,311	\$5,865	\$6,491	\$7,700	\$7,476
Number of Recipients ¹	1,551	5,101	5,481	5,806	4,641	5,805	5,312
2015-16							
Average Monthly Allowance ¹	\$541	\$1,053	\$1,641	\$2,392	\$3,443	\$5,223	\$5,744
Average Final Compensation	\$5,942	\$5,130	\$5,282	\$5,728	\$6,361	\$7,565	\$7,307
Number of Recipients ¹	1,383	4,840	5,571	5,140	4,741	5,599	5,057
2014-15							
Average Monthly Allowance ²	\$634	\$1,034	\$1,591	\$2,313	\$3,264	\$5,026	\$5,370
Average Final Compensation	\$6,024	\$5,028	\$5,131	\$5,625	\$6,227	\$7,503	\$7,081
Number of Recipients ²	1,510	5,240	5,908	5,277	5,020	5,534	5,168
2013-14							
Average Monthly Allowance ³	\$530	\$837	\$1,340	\$1,890	\$2,791	\$4,295	\$4,975
Average Final Compensation	\$5,923	\$4,680	\$4,782	\$5,041	\$5,643	\$6,680	\$6,720
Number of Recipients ³	880	5,029	5,707	4,890	5,013	5,085	5,808
2012-13							
Average Monthly Allowance ³	\$540	\$774	\$1,304	\$1,911	\$2,806	\$4,337	\$4,954
Average Final Compensation	\$6,098	\$4,537	\$4,758	\$5,127	\$5,651	\$6,692	\$6,686
Number of Recipients ³	774	5,053	5,864	4,958	5,664	5,557	6,861
2011-12							
Average Monthly Allowance ³	\$541	\$747	\$1,267	\$1,860	\$2,733	\$4,228	\$5,026
Average Final Compensation	\$6,104	\$4,442	\$4,679	\$5,037	\$5,722	\$6,587	\$6,700
Number of Recipients ³	763	4,688	5,628	4,735	5,746	5,163	6,726
2010-11							
Average Monthly Allowance ³	\$517	\$782	\$1,291	\$1,856	\$2,815	\$4,146	\$5,130
Average Final Compensation	\$6,442	\$4,508	\$4,739	\$4,927	\$5,606	\$6,500	\$6,741
Number of Recipients ³	713	4,322	5,128	4,607	5,993	5,243	7,572

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

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

(3) These averages and totals are for retired members, survivors, beneficiaries, and community property recipients.

PUBLIC AGENCY EMPLOYERS

CONTRACTS SUMMARY

On June 30, 2020, 1,564 public agency contracts provided retirement, death, and survivor benefits for participants of 57 county offices of education; 4 school district offices; 452 cities and towns; 37 counties; the State of California; and 1,013 districts and other public agencies. The 57 county offices of education contracts provide benefits for 1,326 school districts and charter schools, bringing the total number of public agency employers to 2,890.

During Fiscal Year 2019-20, three 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
8/1/2019	Val Verde Unified School District	N/A	2.7% @ 57
12/21/2019	Tuolumne City Sanitary District	2% @ 62	N/A
3/12/2020	Edgemont Community College District	2% @ 62	N/A

Amendments

Public agency contracts vary depending upon the member categories covered, the formula the agency elects to provide, and the optional benefit provisions selected from the group of 41 benefits. These optional benefits may be provided at the time the original contract is established or they may be added later through the contract amendment process.

During Fiscal Year 2019-20, 54 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 as established by the employer receive two years additional service credit. The county offices of education may also contract for this benefit when there is an impending curtailment of, or change in, the manner of performing services, and their best interest would be served by granting the additional service credit. Once the contract is amended, the employer may establish additional window periods.

Popular Benefit Amendments

Benefit	Number of Amendments
Employees Sharing Additional Cost	33
1959 Survivor Benefit, Fourth Level	4
Partial Service Retirement	3
Add New Category - Fire	3
Two Years Additional Service Credit	2
Prior Service	1
"Local Firefighter"—Various Including Emergency Medical Services	1
Add Exclusion(s)	1
Removal of Contract Exclusion Prospective Only	1
Merger	1
Termination of Inactive Member Group	1
Credit for Unused Sick Leave	1
Public Service Credit for Limited Prior Service	1
Pre-Retirement Option 2W Death Benefit	1

Mergers

- Carmel Regional Fire Ambulance Authority to the City of Carmel-by-the-Sea, effective August 16, 2019

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 the CalPERS pension program. A contracting agency may voluntarily terminate its pension contract with the adoption of a formal resolution effectuating this action. The termination is effective with the agency's Board approval on the date designated in the resolution terminating the contract and any unfunded liabilities must be fully paid. In the case of an involuntary termination, the 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.

- College Town, effective August 1, 2019
- La Branza Water District, effective November 11, 2019
- Marin Healthcare District, effective December 10, 2019
- Tahoe Transportation District, effective December 13, 2019
- Central Sierra Planning Council, effective December 31, 2019
- San Luis Obispo Regional Transit Authority, effective January 11, 2020
- Shasta Local Agency Formation, effective May 21, 2020
- Central Coast Computing Authority, effective June 9, 2020
- Fort Ord Reuse Authority, June 30, 2020

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 they have multiple active appointments on the report effective date. An active member is one who is currently employed by the State of California, a CalPERS contracting public agency, or a school district. Agencies that contract with CalPERS for retirement benefits and have zero participants were included.

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

Largest Participating Employers – Current Year

Rank	Employer	2020	% of Total System
		Number of Employees ¹	
1	State of California	275,194	31.34%
2	Los Angeles County Schools	46,692	5.32%
3	San Diego County Schools	27,089	3.08%
4	Los Angeles Unified School District	27,018	3.08%
5	Orange County Schools	25,877	2.95%
6	Riverside County Schools	22,124	2.52%
7	County of Riverside	20,918	2.38%
	All Other	433,172	49.33%
	Total Covered Employees	878,084	100.00%

(1) Number of Employees includes only active members.

Largest Participating Employers – Nine Years Prior

Rank	Employer	2011	% of Total System
		Number of Employees ¹	
1	State of California	336,222	28.46%
2	Los Angeles County Office of Education	106,296	9.00%
3	Los Angeles Unified School District	44,256	3.75%
4	San Diego County Office of Education	36,441	3.08%
5	Orange County Office of Education	31,726	2.69%
6	County of Riverside	24,507	2.07%
7	San Bernardino County Office of Education	24,344	2.06%
	All Other	577,539	48.89%
	Total Covered Employees	1,181,331	100.00%

(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	11,043	Orange	25,848
Alpine	32	Placer	3,346
Amador	227	Plumas	298
Butte	2,551	Riverside	22,118
Calaveras	470	Sacramento	12,970
Colusa	386	San Benito	602
Contra Costa	8,026	San Bernardino	20,732
Del Norte	244	San Diego	27,015
El Dorado	1,689	San Joaquin	7,965
Fresno	12,635	San Luis Obispo	2,436
Glenn	429	San Mateo	5,219
Humboldt	1,737	Santa Barbara	4,197
Imperial	2,586	Santa Clara	13,323
Inyo	212	Santa Cruz	2,310
Kern	12,947	Shasta	2,238
Kings	1,611	Sierra	46
Lake	701	Siskiyou	667
Lassen	372	Solano	3,299
Los Angeles	46,634	Sonoma	4,034
Madera	1,695	Stanislaus	7,262
Marin	1,660	Sutter	1,109
Mariposa	158	Tehama	941
Mendocino	1,360	Trinity	184
Merced	3,972	Tulare	6,877
Modoc	184	Tuolumne	460
Mono	153	Ventura	7,641
Monterey	4,974	Yolo	1,774
Napa	1,339	Yuba	1,085
Nevada	705	Total	306,728

Counties (37 total)

	Active		Total
	PERF A	PERF C	
Alpine	289	88	377
Amador	—	103	103
Butte	2,287	—	2,287
Calaveras	499	101	600
Colusa	306	57	363
Del Norte	371	59	430
El Dorado	1,833	—	1,833
Glenn	434	29	463
Humboldt	2,182	—	2,182
Inyo	370	39	409
Kings	1,501	—	1,501
Lake	875	—	875
Lassen	325	61	386
Madera	1,454	—	1,454
Mariposa	356	72	428
Modoc	204	20	224
Mono	211	79	290
Monterey	5,233	—	5,233
Napa	1,362	112	1,474
Nevada	733	66	799
Placer	2,717	—	2,717
Plumas	338	32	370
Riverside	20,918	—	20,918
San Benito	424	86	510
San Joaquin	—	—	—
Santa Clara	19,863	—	19,863
Santa Cruz	2,505	—	2,505
Shasta	2,012	—	2,012
Sierra	—	110	110
Siskiyou	624	—	624
Solano	3,089	—	3,089
Sutter	1,024	—	1,024
Tehama	798	—	798
Trinity	254	54	308
Tuolumne	510	130	640
Yolo	1,629	—	1,629
Yuba	850	—	850
Total	78,380	1,298	79,678

School District Offices¹ (4)

	Active		Total
	PERF A	PERF B	
Los Angeles Unified School District	343	26,675	27,018
Los Angeles Community College District	—	2,616	2,616
Los Angeles County Office of Education	1,118	—	1,118
San Diego County Office of Education	734	—	734
Total	2,195	29,291	31,486

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

Statistical Section (continued)

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (452)

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	—	21	21	Calabasas	—	87	87	Del Mar	—	60	60
Agoura Hills	—	36	36	Calexico	—	155	155	Del Rey Oaks	—	15	15
Alameda	507	—	507	California City	—	103	103	Delano	—	49	49
Albany	—	102	102	Calimesa	—	9	9	Desert Hot Springs	—	81	81
Alhambra	398	—	398	Calipatria	—	11	11	Diamond Bar	—	63	63
Aliso Viejo	—	24	24	Calistoga	—	60	60	Dinuba	—	141	141
Alturas	—	22	22	Camarillo	141	—	141	Dixon	—	120	120
American Canyon	—	74	74	Campbell	132	41	173	Dos Palos	—	27	27
Anaheim	2,384	—	2,384	Canyon Lake	—	9	9	Downey	422	—	422
Anderson	—	59	59	Capitola	—	66	66	Duarte	—	56	56
Angels	—	35	35	Carlsbad	773	—	773	Dublin	—	99	99
Antioch	213	115	328	Carmel-By-The-Sea	—	69	69	Dunsmuir	—	14	14
Apple Valley	—	111	111	Carpinteria	—	32	32	East Palo Alto	—	103	103
Arcadia	299	—	299	Carson	383	—	383	Eastvale	—	24	24
Arcata	—	120	120	Cathedral City	—	181	181	El Cajon	392	—	392
Arroyo Grande	—	94	94	Cerritos	240	—	240	El Centro	163	79	242
Artesia	—	40	40	Chico	373	—	373	El Cerrito	—	180	180
Arvin	—	51	51	Chino	364	105	469	El Monte	295	—	295
Atascadero	—	148	148	Chowchilla	—	81	81	El Segundo	169	97	266
Atherton	—	42	42	Chula Vista	1,021	—	1,021	Elk Grove	—	371	371
Atwater	—	78	78	Citrus Heights	—	209	209	Emeryville	—	37	37
Auburn	—	72	72	Claremont	130	38	168	Encinitas	166	65	231
Avalon	—	68	68	Clayton	—	29	29	Escalon	—	35	35
Avenal	—	49	49	Clearlake	—	63	63	Escondido	812	—	812
Azusa	226	57	283	Cloverdale	—	42	42	Etna	—	16	16
Bakersfield	1,583	—	1,583	Clovis	634	—	634	Eureka	180	50	230
Baldwin Park	150	69	219	Coachella City	—	75	75	Exeter	—	37	37
Banning	142	26	168	Coalinga	—	78	78	Fairfax	—	35	35
Barstow	—	145	145	Colfax	—	12	12	Fairfield	525	—	525
Beaumont	—	149	149	Colma	—	45	45	Farmersville	—	33	33
Bell	—	96	96	Colton	201	89	290	Fillmore	—	32	32
Bell Gardens	—	156	156	Colusa	—	29	29	Firebaugh	—	34	34
Bellflower	—	85	85	Commerce	151	—	151	Folsom	438	—	438
Belmont	—	130	130	Compton	249	55	304	Fontana	723	—	723
Belvedere	—	19	19	Concord	377	—	377	Fort Bragg	—	49	49
Benicia	161	66	227	Corcoran	—	65	65	Fortuna	—	76	76
Berkeley	1,375	—	1,375	Corning	—	43	43	Foster City	127	38	165
Beverly Hills	942	—	942	Corona	499	88	587	Fountain Valley	—	223	223
Biggs	—	8	8	Coronado	175	78	253	Fowler	—	29	29
Bishop	—	36	36	Corte Madera	—	38	38	Fremont	934	—	934
Blue Lake	—	12	12	Costa Mesa	477	80	557	Fullerton	527	—	527
Blythe	—	55	55	Cotati	—	41	41	Galt	109	31	140
Bradbury	—	3	3	Covina	114	55	169	Garden Grove	559	—	559
Brawley	—	112	112	Crescent City	—	56	56	Gardena	331	85	416
Brea	277	—	277	Cudahy	—	21	21	Gilroy	261	—	261
Brentwood	242	64	306	Culver City	667	—	667	Glendale	1,832	—	1,832
Brisbane	—	93	93	Cupertino	204	—	204	Glendora	144	51	195
Buellton	—	22	22	Cypress	—	124	124	Goleta	—	77	77
Buena Park	183	87	270	Daly City	446	—	446	Gonzales	—	52	52
Burbank	1,307	—	1,307	Dana Point	—	63	63	Grand Terrace	—	14	14
Burlingame	198	39	237	Davis	265	101	366	Grass Valley	—	87	87

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	
Greenfield	—	70	70	Lakewood	277	—	277	Moreno Valley	322	—	322
Gridley	—	45	45	Lancaster	253	—	253	Morgan Hill	152	39	191
Grover Beach	—	62	62	Larkspur	—	41	41	Morro Bay	—	94	94
Guadalupe	—	39	39	Lathrop	—	76	76	Mountain View	631	—	631
Gustine	—	27	27	Lawndale	—	54	54	Mt. Shasta	—	40	40
Half Moon Bay	—	40	40	Lemon Grove	—	57	57	Murrieta	—	289	289
Hanford	204	91	295	Lemoore	—	112	112	Napa	460	—	460
Hawaiian Gardens	—	84	84	Lincoln	—	159	159	National City	297	—	297
Hawthorne	177	89	266	Lindsay	—	40	40	Needles	—	49	49
Hayward	832	—	832	Live Oak	—	24	24	Nevada City	—	36	36
Healdsburg	—	127	127	Livermore	323	95	418	Newark	118	52	170
Hemet	276	—	276	Livingston	—	62	62	Newman	—	41	41
Hercules	—	73	73	Lodi	386	—	386	Newport Beach	820	—	820
Hermosa Beach	—	144	144	Loma Linda	—	85	85	Norco	—	71	71
Hesperia	—	107	107	Lomita	—	41	41	Norwalk	245	—	245
Hidden Hills	—	3	3	Lompoc	274	64	338	Novato	145	54	199
Highland	—	37	37	Long Beach	4,832	—	4,832	Oakdale	—	89	89
Hillsborough	—	86	86	Loomis	—	14	14	Oakland	3,973	—	3,973
Hollister	—	197	197	Los Alamitos	—	43	43	Oakley	—	76	76
Hughson	—	16	16	Los Altos	—	142	142	Oceanside	890	—	890
Huntington Beach	981	—	981	Los Altos Hills	—	24	24	Ojai	—	35	35
Huntington Park	—	149	149	Los Banos	—	164	164	Ontario	1,202	—	1,202
Imperial	—	71	71	Los Gatos	—	35	35	Orange	638	—	638
Imperial Beach	—	76	76	Lynwood	121	—	121	Orange Cove	—	29	29
Indian Wells	—	30	30	Madera	167	68	235	Orland	—	38	38
Indio	181	72	253	Malibu	—	86	86	Oroville	—	100	100
Industry	—	24	24	Mammoth Lakes	—	77	77	Oxnard	1,115	108	1,223
Inglewood	650	—	650	Manhattan Beach	244	91	335	Pacific Grove	—	94	94
Ione	—	18	18	Manteca	280	123	403	Pacifica	119	56	175
Irvine	972	—	972	Marina	—	98	98	Palm Desert	107	—	107
Irwindale	—	100	100	Martinez	—	130	130	Palm Springs	461	—	461
Jackson	—	30	30	Marysville	—	74	74	Palmdale	225	—	225
Kerman	—	72	72	Maywood	—	23	23	Palo Alto	952	—	952
King City	—	34	34	Mendota	—	24	24	Palos Verdes	—	—	—
Kingsburg	—	59	59	Menifee	—	192	192	Estates	—	41	41
La Canada Flintridge	—	42	42	Menlo Park	219	48	267	Paradise	—	54	54
La Habra	243	69	312	Merced	452	—	452	Paramount	—	88	88
La Habra Heights	—	24	24	Mill Valley	—	156	156	Parlier	—	51	51
La Mesa	257	—	257	Millbrae	—	85	85	Pasadena	1,770	—	1,770
La Mirada	—	81	81	Milpitas	395	—	395	Paso Robles	131	67	198
La Palma	—	54	54	Mission Viejo	147	—	147	Patterson	—	122	122
La Puente	—	39	39	Modesto	1,155	—	1,155	Perris	—	99	99
La Quinta	—	91	91	Monrovia	144	81	225	Petaluma	317	—	317
La Verne	—	148	148	Montague	—	7	7	Pico Rivera	149	—	149
Laguna Beach	172	102	274	Montclair	—	151	151	Piedmont	—	94	94
Laguna Hills	—	41	41	Monte Sereno	—	5	5	Pinole	—	98	98
Laguna Niguel	—	90	90	Montebello	454	—	454	Pismo Beach	—	89	89
Laguna Woods	—	9	9	Monterey	250	129	379	Pittsburg	191	84	275
Lake Elsinore	—	90	90	Monterey Park	308	—	308	Placentia	—	138	138
Lake Forest	—	66	66	Moorpark	—	59	59	Placerville	—	80	80
Lakeport	—	50	50	Moraga	—	36	36	Pleasant Hill	—	110	110

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	
Pleasanton	435	78	513	San Luis Obispo	319	107	426	Temple City	—	50	50
Pomona	514	—	514	San Marcos	178	68	246	Thousand Oaks	354	—	354
Port Hueneme	—	104	104	San Marino	—	120	120	Tiburon	—	39	39
Porterville	218	109	327	San Mateo	464	—	464	Torrance	1,339	—	1,339
Portola	—	13	13	San Pablo	—	155	155	Tracy	503	—	503
Portola Valley	—	14	14	San Ramon	213	60	273	Truckee	—	120	120
Poway	173	53	226	Sand City	—	22	22	Tulare	251	107	358
Rancho Cordova	—	87	87	Sanger	—	107	107	Tulelake	—	8	8
Rancho Cucamonga	427	—	427	Santa Ana	1,088	—	1,088	Turlock	204	124	328
Rancho Mirage	—	84	84	Santa Barbara	888	101	989	Tustin	212	91	303
Rancho Palos Verdes	—	97	97	Santa Clara	1,034	—	1,034	Twentynine Palms	—	35	35
Rancho Santa Margarita	—	25	25	Santa Clarita	446	—	446	Ukiah	149	46	195
Red Bluff	—	99	99	Santa Cruz	707	141	848	Union City	175	72	247
Redding	799	—	799	Santa Fe Springs	116	53	169	Upland	152	66	218
Redlands	338	135	473	Santa Maria	399	203	602	Vacaville	550	—	550
Redondo Beach	455	—	455	Santa Monica	1,965	—	1,965	Vallejo	506	—	506
Redwood City	561	—	561	Santa Paula	—	104	104	Ventura	637	—	637
Reedley	—	115	115	Santa Rosa	1,189	—	1,189	Vernon	139	92	231
Rialto	333	—	333	Santee	—	133	133	Victorville	350	55	405
Richmond	666	—	666	Saratoga	—	60	60	Villa Park	—	7	7
Ridgecrest	—	99	99	Sausalito	—	69	69	Visalia	608	—	608
Rio Vista	—	33	33	Scotts Valley	—	51	51	Vista	207	85	292
Ripon	—	22	22	Seal Beach	—	100	100	Walnut	—	47	47
Riverbank	—	53	53	Seaside	—	166	166	Walnut Creek	330	82	412
Riverside	2,147	—	2,147	Sebastopol	—	45	45	Wasco	—	69	69
Rocklin	140	94	234	Selma	—	112	112	Waterford	—	17	17
Rohnert Park	159	71	230	Shafter	—	193	193	Watsonville	304	106	410
Rolling Hills	—	6	6	Shasta Lake	—	51	51	Weed	—	30	30
Rolling Hills Estates	—	23	23	Sierra Madre	—	82	82	West Covina	272	—	272
Rosemead	—	62	62	Signal Hill	—	101	101	West Hollywood	224	—	224
Roseville	1,308	—	1,308	Simi Valley	488	—	488	West Sacramento	285	126	411
Ross	—	21	21	Solana Beach	—	67	67	Westlake Village	—	16	16
Sacramento	3,989	—	3,989	Soledad	—	57	57	Westminster	142	85	227
Salinas	436	91	527	Solvang	—	22	22	Whittier	337	—	337
San Anselmo	—	36	36	Sonoma	—	41	41	Wildomar	—	17	17
San Bernardino	814	—	814	Sonora	—	42	42	Williams	—	34	34
San Bruno	159	75	234	South El Monte	—	55	55	Willits	—	43	43
San Carlos	—	86	86	South Gate	257	71	328	Willows	—	16	16
San Clemente	179	4	183	South Lake Tahoe	125	77	202	Windsor	—	102	102
San Dimas	—	89	89	South Pasadena	—	143	143	Winters	—	46	46
San Fernando	—	108	108	South San Francisco	449	—	449	Woodlake	—	29	29
San Francisco ¹	709	—	709	St. Helena	—	76	76	Woodland	298	—	298
San Gabriel	—	174	174	Stanton	—	40	40	Woodside	—	22	22
San Jacinto	—	61	61	Stockton	1,586	—	1,586	Yorba Linda	120	—	120
San Joaquin	—	14	14	Suisun City	—	95	95	Yountville	—	33	33
San Jose	—	8	8	Sunnyvale	909	—	909	Yreka	—	61	61
San Leandro	257	88	345	Susanville	—	61	61	Yuba City	176	119	295
				Sutter Creek	—	13	13	Yucaipa	—	54	54
				Taft	—	121	121	Yucca Valley	—	44	44
				Tehachapi	—	67	67	Total	95,806	25,007	120,813
				Temecula	178	—	178	(1) San Francisco has both City and County employees; however it is listed only in the "total" count of the Cities & Towns category.			

Statistical Section (continued)

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (1,013)

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	Associated Students of California State University, Chico	—	69	69
Access Services Incorporated	—	69	69	Association of California Water Agencies	—	38	38
Agoura Hills and Calabasas Community Center	—	1	1	Association of California Water Agencies - Joint Powers Insurance Authority	—	51	51
Alameda Alliance for Health	318	—	318	Association of Monterey Bay Area Governments	—	12	12
Alameda Corridor Transportation Authority	—	10	10	Atascadero Cemetery District	—	3	3
Alameda County Fire Department	356	84	440	Auburn Area Recreation and Park District	—	49	49
Alameda County Law Library	—	6	6	Auburn Public Cemetery District	—	6	6
Alameda County Mosquito Abatement District	—	18	18	Avila Beach Community Services District	—	1	1
Alameda County Schools Insurance Group	—	3	3	Aztec Shops, Ltd.	—	41	41
Alameda County Transportation Commission	—	33	33	Baldwin Park Unified School District	—	8	8
Alameda County Waste Management Authority	—	43	43	Bard Water District	—	16	16
Alameda County Water District	221	—	221	Bardsdale Cemetery District	—	1	1
Alliance of Schools for Cooperative Insurance Programs	—	44	44	Barstow Cemetery District	—	4	4
Alpine Fire Protection District	—	15	15	Bay Area Air Quality Management District	380	—	380
Alpine Springs County Water District	—	3	3	Bay Area Water Supply and Conservation Agency	—	9	9
Alta California Regional Center, Inc.	492	—	492	Beach Cities Health District	—	71	71
Alta Irrigation District	—	17	17	Bear Mountain Recreation and Park District	—	6	6
Altadena Library District	—	21	21	Bear Valley Community Services District	—	36	36
Amador County Transportation Commission	—	4	4	Beaumont District Library	—	10	10
Amador Transit	—	21	21	Beaumont-Cherry Valley Recreation and Park District	—	15	15
Amador Water Agency	—	43	43	Beaumont-Cherry Valley Water District	—	36	36
American Canyon Fire Protection District	—	21	21	Bella Vista Water District	—	25	25
American River Flood Control District	—	10	10	Belmont-San Carlos Fire Department	—	—	—
Anderson Cemetery District	—	—	—	Belvedere-Tiburon Library Agency	—	17	17
Anderson Fire Protection District	—	9	9	Benicia City Housing Authority	—	9	9
Angiola Water District	—	5	5	Berkeley Housing Authority	—	10	10
Antelope Valley Mosquito and Vector Control District	—	8	8	BETA Healthcare Group Risk Management Authority	—	150	150
Antelope Valley Schools Transportation Agency	213	—	213	Big Bear Area Regional Wastewater Agency	—	14	14
Antelope Valley Transit Authority	—	49	49	Big Bear City Airport District	—	5	5
Apple Valley Fire Protection District	—	53	53	Big Bear City Community Services District	—	36	36
Aptos/La Selva Fire Protection Agency	—	39	39	Big Bear Municipal Water District	—	10	10
Arbuckle-College City Fire Protection District	—	3	3	Bighorn-Desert View Water Agency	—	7	7
Arcade Creek Recreation and Park District	—	3	3	Black Gold Cooperative Library System	—	5	5
Arcata Fire Protection District	—	18	18	Blanchard/Santa Paula Public Library District	—	5	5
Area 12 Agency on Aging	—	17	17	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	—	2	2	Bolinas Fire Protection District	—	2	2
Associated Students California State University San Bernardino	—	4	4	Bonita-Sunnyside Fire Protection District	—	13	13
Associated Students Inc., California State University, Fullerton	—	64	64	Boron Community Services District	—	4	4
Associated Students Incorporated of California State University East Bay	—	6	6	Borrego Springs Fire Protection District	—	14	14
Associated Students Incorporated of California State University Stanislaus	—	5	5	Borrego Water District	—	11	11
				Boulder Creek Fire Protection District	—	1	1
				Branciforte Fire Protection District	—	6	6
				Brannan-Andrus Levee Maintenance District	—	2	2

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	—	9	9	California Joint Powers Insurance Authority	—	30	30
Brooktrails Township Community Services District	—	11	11	California Joint Powers Risk Management Authority	—	6	6
Browns Valley Irrigation District	—	11	11	California Maritime Academy Foundation, Inc.	—	—	—
Buena Park Library District	—	19	19	California Municipal Utilities Association	—	8	8
Burney Basin Mosquito Abatement District	—	1	1	California Pines Community Services District	—	5	5
Burney Fire District	—	6	6	California Redevelopment Association Foundation	—	—	—
Burney Water District	—	7	7	California School Boards Association	—	93	93
Butte County Air Quality Management District	—	10	10	California Special Districts Association	—	27	27
Butte County Association of Governments	—	12	12	California State University, Bakersfield Foundation	—	1	1
Butte County Fair Association	—	3	3	California State University, East Bay Foundation, Inc.	—	—	—
Butte County In-Home Supportive Services Public Authority	—	—	—	California State University, Fresno Athletic Corporation	—	62	62
Butte County Mosquito and Vector Control District	—	16	16	California State University, Stanislaus Auxiliary and Business Services	—	—	—
Butte Local Agency Formation Commission	—	4	4	California State University-Fresno Association, Inc.	—	49	49
Butte Schools Self-Funded Programs	—	2	2	Callayomi County Water District	—	4	4
Butte-Glenn Community College District	—	4	4	Calleguas Municipal Water District	—	68	68
Byron-Bethany Irrigation District	—	3	3	Camarillo Health Care District	—	23	23
Cabrillo College Foundation	—	5	5	Cambria Cemetery District	—	1	1
Cachuma Operation and Maintenance Board	—	15	15	Cambria Community Healthcare District	—	16	16
Cal Poly Corporation	272	—	272	Cambria Community Services District	—	41	41
Cal Poly Pomona Foundation, Inc.	—	172	172	Cameron Park Community Services District	—	18	18
Calaveras Council of Governments	—	3	3	Camrosa Water District	—	24	24
Calaveras County Water District	—	62	62	Capitol Area Development Authority	—	40	40
Calaveras Public Utility District	—	8	8	Carmel Area Wastewater District	—	27	27
California Association for Park and Recreation Indemnity	—	3	3	Carmel Highlands Fire Protection District of Monterey County	—	—	—
California Authority of Racing Fairs	—	5	5	Carmichael Water District	—	27	27
California Bear Credit Union	—	22	22	Carpinteria Sanitary District	—	15	15
California Central Valley Flood Control Association	—	2	2	Carpinteria Valley Water District	—	19	19
California Fair Services Authority	—	19	19	Casitas Municipal Water District	—	74	74
California Fairs Financing Authority	—	6	6	Castro Valley Sanitary District	—	24	24
California Firefighter's Joint Apprenticeship Committee	—	25	25	Castroville Community Services District	—	6	6
California Interscholastic Federation, Central Coast Section	—	5	5	Cawelo Water District	—	16	16
California Interscholastic Federation, Central Section	—	3	3	Cayucos Sanitary District	—	7	7
California Interscholastic Federation, North Coast Section	—	6	6	Cayucos-Morro Bay Cemetery District	—	3	3
California Interscholastic Federation, Northern Section	—	1	1	Centerville Community Services District	—	5	5
California Interscholastic Federation, Sac-Joaquin Section	—	6	6	Central Basin Municipal Water District	—	17	17
California Interscholastic Federation, San Diego Section	—	5	5	Central Calaveras Fire and Rescue Protection District	—	3	3
California Interscholastic Federation, Southern Section	—	17	17	Central Coast Water Authority	—	30	30
California Interscholastic Federation, State Office	—	10	10	Central Contra Costa Solid Waste Authority	—	6	6
				Central Contra Costa Transit Authority	237	—	237
				Central County Fire Department	—	87	87
				Central Fire Protection District of Santa Cruz County	—	64	64

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 Marin Fire Authority	—	37	37	Contra Costa County Schools Insurance Group	—	32	32
Central Marin Police Authority	—	47	47	Contra Costa Transportation Authority	—	18	18
Central Marin Sanitation Agency	—	46	46	Cooperative Organization for the Development of Employee Selection Procedures	—	6	6
Central Sierra Child Support Agency	—	31	31	Cooperative Personnel Services	115	—	115
Central Valley Regional Center, Inc.	451	—	451	Copperopolis Fire Protection District	—	10	10
Central Water District	—	4	4	Cordelia Fire Protection District of Solano County	—	4	4
Channel Islands Beach Community Services District	—	8	8	Cordova Recreation and Park District	—	52	52
Chester Public Utility District	—	12	12	Coming Water District	—	4	4
Chico Area Recreation and Park District	—	52	52	Costa Mesa Sanitary District	—	19	19
Children and Families Commission of San Luis Obispo County	—	4	4	Cosumnes Community Services District	393	—	393
Chino Basin Water Conservation District	—	16	16	Cottonwood Fire Protection District	—	3	3
Chino Basin Watermaster	—	10	10	Cottonwood Water District	—	3	3
Chino Valley Independent Fire District	—	135	135	CRA/LA, a Designated Local Authority	—	6	6
Citrus Heights Water District	—	34	34	Crescent City Harbor District	—	11	11
City/County Association of Governments of San Mateo County	—	2	2	Crescenta Valley Water District	—	30	30
Clear Creek Community Services District	—	9	9	Crestline Lake Arrowhead Water Agency	—	11	11
Clearlake Oaks County Water District	—	14	14	Crestline Village Water District	—	13	13
Cloverdale Citrus Fair	—	1	1	Crockett Community Services District	—	4	4
Cloverdale Fire Protection District	—	10	10	CSAC Excess Insurance Authority	—	82	82
Clovis Cemetery District	—	10	10	Cucamonga Valley Water District	122	—	122
Coachella Valley Association of Governments	—	19	19	Cutler Public Utility District	—	5	5
Coachella Valley Mosquito and Vector Control District	—	57	57	Cutler-Orosi Joint Powers Wastewater Authority	—	3	3
Coachella Valley Public Cemetery District	—	6	6	Cuyama Valley Recreation District	—	1	1
Coachella Valley Water District	546	—	546	Dairy Council of California	—	42	42
Coalinga/Huron Unified School District Library District	—	10	10	Davis Cemetery District	—	5	5
Coalinga-Huron Cemetery District	—	1	1	De Luz Community Services District	—	6	6
Coalinga-Huron Recreation and Park District	—	13	13	Del Norte County Library District	—	2	2
Coast Life Support District	—	12	12	Del Paso Manor Water District	—	3	3
Coastal Developmental Services Fdn DBA Westside Regional Center	234	—	234	Del Puerto Water District	—	6	6
Coastside County Water District	—	20	20	Del Rey Community Services District	—	5	5
Coastside Fire Protection District	—	—	—	Delano Mosquito Abatement District	—	8	8
Colfax Cemetery District	—	2	2	Delta Diablo	—	73	73
College of the Canyons Foundation	—	—	—	Delta Vector Control District	—	17	17
Colusa County One-Stop Partnership	—	7	7	Denair Community Services District	—	7	7
Colusa Mosquito Abatement District	—	3	3	Desert Water Agency	—	82	82
Community College League of California	—	22	22	Diablo Water District	—	17	17
Community Development Commission of Mendocino County	—	20	20	Diamond Springs/El Dorado Fire Protection District	—	21	21
Compass Community Credit Union	—	24	24	Dixon Public Library District	—	—	—
Compton Creek Mosquito Abatement District	—	1	1	Donald P. And Katherine B. Loker University Student Union, Inc.	—	10	10
Compton Unified School District	—	20	20	Dougherty Regional Fire Authority	—	—	—
Conejo Recreation and Park District	151	—	151	Downey Cemetery District	—	—	—
Consolidated Mosquito Abatement District	—	21	21	Dublin San Ramon Services District	—	115	115
Contra Costa Community College District	—	21	21	Durham Mosquito Abatement District	—	1	1
Contra Costa County Law Library	—	4	4	East Bay Dischargers Authority	—	4	4
				East Bay Regional Park District	646	73	719
				East Contra Costa Irrigation District	—	17	17

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	
East County Schools Federal Credit Union	—	17	17	Fresno County Housing Authority	103	—	103
East Orange County Water District	—	12	12	Fresno County Law Library	—	3	3
East Palo Alto Sanitary District	—	8	8	Fresno Westside Mosquito Abatement District	—	9	9
East Quincy Services District	—	4	4	Fruitridge Fire Protection District	—	—	—
East Valley Water District	—	65	65	Fulton-El Camino Recreation and Park District	—	10	10
Eastern Municipal Water District	613	—	613	Garden Valley Fire Protection District	—	8	8
Eastern Sierra Transit Authority	—	47	47	Georgetown Divide Public Utility District	—	22	22
Ebbetts Pass Fire Protection District	—	24	24	Georgetown Divide Resource Conservation District	—	4	4
Edgemont Community Services District	—	1	1	Georgetown Fire Protection District	—	11	11
El Dorado County Fire Protection District	—	69	69	Gilsizer County Drainage District	—	—	—
El Dorado County Resource Conservation District	—	4	4	Glendale College, Associated Students of	—	1	1
El Dorado County Transit Authority	—	64	64	Glendale Community College District	—	8	8
El Dorado County Transportation Commission	—	5	5	Glenn County Mosquito and Vector Control District	—	2	2
El Dorado County Water Agency	—	3	3	Gold Coast Transit	187	—	187
El Dorado Hills Community Services District	—	30	30	Gold Ridge Fire Protection District	—	21	21
El Dorado Hills County Water District	—	69	69	Gold Ridge Resource Conservation District	—	8	8
El Dorado Irrigation District	226	—	226	Golden Gate Bridge Highway and Transportation District	456	—	456
El Dorado Local Agency Formation Commission	—	2	2	Golden Hills Community Services District	—	11	11
Encina Wastewater Authority	—	72	72	Golden Sierra Job Training Agency	—	13	13
Esparto Community Services District	—	6	6	Goleta Sanitary District	—	34	34
Esparto Fire Protection District	—	2	2	Goleta Water District	—	63	63
Exeter District Ambulance	—	24	24	Goleta West Sanitary District	—	7	7
Fair Oaks Recreation & Park District	—	21	21	Granada Community Services District	—	1	1
Fair Oaks Water District	—	28	28	Graton Community Services District	—	3	3
Fairfield-Suisun Sewer District	—	57	57	Great Basin Unified Air Pollution Control District	—	22	22
Fall River Valley Community Services District	—	4	4	Greater Anaheim Special Education Local Plan Area	—	56	56
Fallbrook Public Utility District	—	64	64	Greater Los Angeles County Vector Control District	—	87	87
Far Northern Coordinating Council on Developmental Disabilities	190	—	190	Greater Vallejo Recreation District	—	67	67
Feather River Air Quality Management District	—	11	11	Green Valley County Water District	—	2	2
Feather River Recreation and Park District	—	15	15	Gridley Biggs Cemetery District	—	3	3
Feather Water District	—	3	3	Grossmont Healthcare District	—	7	7
Felton Fire Protection District	—	1	1	Groveland Community Services District	—	21	21
Fern Valley Water District	—	5	5	Gualala Community Services District	—	4	4
Florin County Water District	—	12	12	Hacienda La Puente Unified School District	—	5	5
Florin Resource Conservation District Elk Grove Water District	—	29	29	Hamilton Branch Fire Protection District	—	—	—
Fontana Unified School District	—	17	17	Happy Camp Sanitary District	—	—	—
Foothill Municipal Water District	—	8	8	Happy Homestead Cemetery District	—	3	3
Foresthill Public Utility District	—	7	7	Happy Valley Fire District	—	3	3
Forestville Fire Protection District	—	8	8	Hayward Area Recreation and Park District	118	—	118
Forestville Water District	—	6	6	Health Plan of San Joaquin	—	383	383
Fort Bragg Fire Protection Authority	—	4	4	Heartland Communications Facility Authority	—	19	19
Fort Ord Reuse Authority	4	—	4	Heber Public Utility District	—	12	12
Foundation for California Community Colleges	—	323	323	Helendale Community Services District	—	17	17
Foundation for Grossmont and Cuyamaca Colleges	—	72	72	Helix Water District	142	—	142
Fresno City Housing Authority	108	—	108	Henry Miller Reclamation District No. 2131	—	30	30

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	
Heritage Ranch Community Services District	—	6	6	Ironhouse Sanitary District	—	27	27
Herlong Public Utility District	—	4	4	Irvine Child Care Project	—	—	—
Hesperia Fire Protection District	—	—	—	Irvine Ranch Water District	397	—	397
Hesperia Unified School District	—	9	9	Isla Vista Recreation and Park District	—	9	9
Hesperia Water District	—	57	57	Jackson Valley Irrigation District	—	3	3
Hidden Valley Lake Community Services District	—	11	11	Jamestown Sanitary District	—	5	5
Hi-Desert Water District	—	44	44	Joshua Basin Water District	—	26	26
Higgins Area Fire Protection District	—	11	11	June Lake Public Utility District	—	7	7
Hilton Creek Community Services District	—	3	3	Jurupa Area Recreation and Park District	—	25	25
Hopland Public Utility District	—	—	—	Jurupa Community Services District	—	173	173
Housing Authority of the City of Alameda	—	50	50	Kaweah Delta Water Conservation District	—	21	21
Housing Authority of the City of Calexico	—	15	15	Kelseyville Fire Protection District	—	18	18
Housing Authority of the City of Eureka	—	21	21	Kensington Community Services District	—	7	7
Housing Authority of the City of Livermore	—	11	11	Kentfield Fire Protection District	—	16	16
Housing Authority of the City of Los Angeles	712	—	712	Kenwood Fire Protection District	—	5	5
Housing Authority of the City of Madera	—	26	26	Kern County Council of Governments	—	17	17
Housing Authority of the City of San Buenaventura	—	62	62	Kern County Local Agency Formation Commission	—	3	3
Housing Authority of the City of San Luis Obispo	—	58	58	Kern Health Systems	—	421	421
Housing Authority of the City of South San Francisco	—	4	4	Kern River Valley Cemetery District	—	2	2
Housing Authority of the County of Butte	—	36	36	Kern-Tulare Water District	—	9	9
Housing Authority of the County of Kern	153	—	153	Kettleman City Community Services District	—	4	4
Housing Authority of the County of Santa Cruz	—	56	56	Kings County Area Public Transit Agency	—	6	6
Hub Cities Consortium	—	19	19	Kings County Association of Governments	—	5	5
Human Rights/Fair Housing Commission of the City and County of Sacramento	—	1	1	Kings County In-Home Supportive Services Public Authority	—	—	—
Humboldt Bay Fire Joint Powers Authority	—	59	59	Kings Mosquito Abatement District	—	17	17
Humboldt Bay Harbor Recreation and Conservation District	—	12	12	Kings Waste and Recycling Authority	—	21	21
Humboldt Bay Municipal Water District	—	28	28	Kinneloa Irrigation District	—	6	6
Humboldt Community Services District	—	19	19	Kirkwood Meadows Public Utility District	—	17	17
Humboldt County Association of Governments	—	4	4	Konocti County Water District	—	7	7
Humboldt State University Center Board of Directors	—	36	36	La Habra Heights County Water District	—	10	10
Humboldt Transit Authority	—	54	54	La Puente Valley County Water District	—	14	14
Humboldt Waste Management Authority	—	34	34	Laguna Beach County Water District	—	38	38
Idyllwild Fire Protection District	—	11	11	Lake Arrowhead Community Services District	—	55	55
Independent Cities Association, Inc.	—	—	—	Lake County Fire Protection District	—	25	25
Indian Wells Valley Water District	—	31	31	Lake County Vector Control District	—	8	8
Inland Counties Regional Center, Inc.	766	—	766	Lake Don Pedro Community Services District	—	5	5
Inland Empire Health Plan	2,281	—	2,281	Lake Hemet Municipal Water District	—	48	48
Inland Empire Resource Conservation District	—	15	15	Lake Oroville Area Public Utility District	—	8	8
Inland Empire Utilities Agency	277	—	277	Lake Shastina Community Services District	—	11	11
Intelcom Intelligent Telecommunications	—	7	7	Lake Valley Fire Protection District	—	28	28
Intergovernmental Training and Development Center	—	6	6	Lakeport County Fire Protection District	—	11	11
Inverness Public Utility District	—	8	8	Lakeside Fire Protection District	—	53	53
				Lakeside Water District	—	13	13
				Lamont Public Utility District	—	12	12
				Las Gallinas Valley Sanitary District of Marin County	—	20	20
				Las Virgenes Municipal Water District	108	—	108

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	
Lassen County Waterworks District No. 1	—	1	1	Marin Community College District	—	6	6
League of California Cities	—	67	67	Marin County Housing Authority	—	42	42
Leucadia Wastewater District	—	21	21	Marin County In-Home Supportive Services Public Authority	—	5	5
Levee District No. 1 of Sutter County	—	3	3	Marin Municipal Water District	226	—	226
Linda County Water District	—	17	17	Marina Coast Water District	—	40	40
Linda Fire Protection District	—	17	17	Marinwood Community Services District	—	18	18
Linden-Peters Rural County Fire Protection District	—	13	13	Mariposa Public Utility District	—	8	8
Lindsay Strathmore Public Cemetery District	—	5	5	Maxwell Public Utility District	—	3	3
Little Lake Fire Protection District	—	4	4	McCloud Community Services District	—	8	8
Littlerock Creek Irrigation District	—	6	6	McFarland Recreation and Park District	—	8	8
Live Oak Cemetery District	—	3	3	McKinleyville Community Services District	—	26	26
Livermore/Amador Valley Transit Authority	—	15	15	Meeks Bay Fire Protection District	—	1	1
Local Agency Formation Commission of Monterey County	—	5	5	Meiners Oaks County Water District	—	5	5
Local Agency Formation Commission of Solano County	—	2	2	Mendocino City Community Services District	—	4	4
Local Government Services Authority, a Joint Powers Authority	—	—	—	Mendocino County Russian River Flood Control & Water Conservation Improvement Dt	—	1	1
Long Beach City College Associated Student Body Enterprises	—	—	—	Mendocino Transit Authority	—	54	54
Long Beach State University, Associated Students	—	64	64	Menlo Park Fire Protection District	—	136	136
Long Beach State University, Forty-Niner Shops, Inc.	—	38	38	Merced County Housing Authority	—	35	35
Los Alamos Community Services District	—	6	6	Merced County Mosquito Abatement District	—	13	13
Los Angeles County Area 'E' Civil Defense and Disaster Board	—	1	1	Merced Irrigation District	189	—	189
Los Angeles County Development Authority	520	—	520	Mesa Water District	—	53	53
Los Angeles County Law Library	—	36	36	Metropolitan Transportation Commission	280	—	280
Los Angeles County Sanitation District No. 2	1,665	—	1,665	Metropolitan Water District of Southern California	1,853	—	1,853
Los Angeles County West Vector Control District	—	40	40	Midpeninsula Regional Open Space District	—	164	164
Los Angeles Memorial Coliseum Commission	—	—	—	Mid-Peninsula Water District	—	19	19
Los Angeles Regionalized Insurance Services Authority	—	—	—	Mid-Placer Public Schools Transportation Agency	—	29	29
Los Gatos-Saratoga Department of Community Education and Recreation	—	42	42	Midway City Sanitary District	—	28	28
Los Osos Community Services District	—	16	16	Midway Heights County Water District	—	3	3
Lower Lake Cemetery District	—	1	1	Millview County Water District	—	—	—
Lower Lake County Waterworks District No. 1	—	6	6	Minter Field Airport District	—	7	7
Lower Tule River Irrigation District	—	33	33	Mission Springs Water District	—	47	47
Madera Cemetery District	—	20	20	Mojave Air and Space Port	—	24	24
Madera County Mosquito and Vector Control District	—	9	9	Mojave Water Agency	—	35	35
Main San Gabriel Basin Watermaster	—	8	8	Mokelumne Rural Fire District	—	10	10
Majestic Pines Community Services District	—	3	3	Monte Vista County Water District	—	35	35
Mammoth Lakes Fire District	—	12	12	Montecito Fire Protection District	—	42	42
Mammoth Lakes Mosquito Abatement District	—	—	—	Montecito Sanitary District of Santa Barbara County	—	17	17
Management of Emeryville Services Authority	—	113	113	Montecito Water District	—	28	28
March Joint Powers Authority	—	16	16	Monterey Bay Unified Air Pollution Control District	—	29	29
Marin Children and Families Commission	—	4	4	Monterey County Regional Fire Protection District	—	66	66
				Monterey County Water Resources Agency	—	31	31
				Monterey One Water	—	88	88
				Monterey Peninsula Airport District	—	22	22
				Monterey Peninsula Regional Park District	—	13	13

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	
Monterey Peninsula Water Management District	—	22	22	North Kern Water Storage District	—	33	33
Monterey Regional Waste Management District	133	—	133	North Kern-South Tulare Hospital District	191	—	191
Monterey-Salinas Transit District	245	—	245	North Los Angeles County Regional Center, Inc.	528	—	528
Montezuma Fire Protection District	—	12	12	North Marin Water District	—	50	50
Morongo Basin Transit Authority	—	41	41	North of the River Municipal Water District	—	—	—
Mother Lode Job Training Agency	—	20	20	North of the River Recreation and Park District	128	—	128
Moulton-Niguel Water District	—	157	157	North State Cooperative Library System	—	—	—
Mountains Recreation and Conservation Authority	—	134	134	North Tahoe Fire Protection District	—	61	61
Mountain-Valley Library System	—	—	—	North Tahoe Public Utility District	—	46	46
Mt. San Antonio College Auxiliary Services	—	5	5	Northern California Power Agency	159	—	159
MT. View Sanitary District of Contra Costa County	—	15	15	Northern California Special Districts Insurance Authority	—	—	—
Municipal Pooling Authority	—	18	18	Northern Salinas Valley Mosquito Abatement District	—	7	7
Municipal Water District of Orange County	—	39	39	Northern Sierra Air Quality Management District	—	7	7
Murphys Sanitary District	—	4	4	Northshore Fire Protection District	—	24	24
Murrieta Fire Protection District	—	53	53	Northstar Community Services District	—	42	42
Murrieta Valley Cemetery District	—	5	5	Northwest Mosquito and Vector Control District	—	19	19
Napa County Mosquito Abatement District	—	9	9	Novato Sanitary District	—	19	19
Napa County Resource Conservation District	—	11	11	Oakdale Irrigation District	—	78	78
Napa Sanitation District	—	50	50	Oakdale Rural Fire Protection District	—	—	—
Napa Valley Transportation Authority	—	14	14	Oakland City Housing Authority	296	27	323
National Orange Show	—	46	46	Oakland Unified School District	—	11	11
Natomas Fire Protection District	—	—	—	Oceano Community Services District	—	8	8
Nevada Cemetery District	—	4	4	Ojai Valley Sanitary District	—	20	20
Nevada County Consolidated Fire District	—	37	37	Olcese Water District	—	2	2
Nevada County Local Agency Formation Commission	—	3	3	Olivenhain Municipal Water District	—	88	88
Nevada County Resource Conservation District	—	2	2	Omnitrans	522	—	522
Nevada Irrigation District	212	—	212	Ophir Hill Fire Protection District	—	8	8
Nevada-Sierra Connecting Point Public Authority	—	26	26	Orange County Health Authority	1,359	—	1,359
Newcastle, Rocklin, Gold Hill Cemetery District	—	9	9	Orange County Transportation Authority	—	2	2
Nipomo Community Services District	—	18	18	Orange County Vector Control District	—	101	101
North Bay Cooperative Library System	—	—	—	Orchard Dale Water District	—	9	9
North Bay Regional Center	227	—	227	Orland Cemetery District	—	4	4
North Bay Schools Insurance Authority	—	30	30	Oro Loma Sanitary District	—	43	43
North Central Counties Consortium	—	5	5	Orosi Public Utility District	—	3	3
North Coast County Water District	—	17	17	Oroville Cemetery District	—	7	7
North Coast Railroad Authority	—	2	2	Oroville Mosquito Abatement District	—	—	—
North Coast Unified Air Quality Management District	—	14	14	Otay Water District	135	—	135
North County Dispatch Joint Powers Authority	—	28	28	Oxnard Harbor District	—	35	35
North County Fire Protection District of Monterey County	—	27	27	Pacific Fire Protection District	—	—	—
North County Fire Protection District of San Diego County	—	85	85	Padre Dam Municipal Water District	135	—	135
North County Transit District	132	—	132	Pajaro Valley Fire Protection Agency	—	—	—
North Delta Water Agency	—	2	2	Pajaro Valley Public Cemetery District	—	8	8
North Kern Cemetery District	—	8	8	Pajaro Valley Water Management Agency	—	13	13
				Palm Ranch Irrigation District	—	4	4
				Palmdale Water District	—	86	86
				Palo Verde Valley District Library	—	4	4
				Palos Verdes Library District	—	51	51

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	
Paradise Recreation and Park District	—	15	15	Ramona Municipal Water District	—	46	46
Pasadena City College Bookstore	—	—	—	Rancho Adobe Fire Protection District	—	33	33
Paso Robles City Housing Authority	—	9	9	Rancho California Water District	143	—	143
Patterson Irrigation District	—	12	12	Rancho Cucamonga Fire Protection District	—	121	121
Pauma Valley Community Services District	—	18	18	Rancho Murieta Community Services District	—	33	33
Peardale Chicago Park Fire Protection District	—	5	5	Rancho Santa Fe Fire Protection District	—	68	68
Pebble Beach Community Services District	—	14	14	Rancho Santiago Community College Associated Students	—	—	—
Peninsula Fire Protection District	—	10	10	Rancho Simi Recreation & Park District	160	—	160
Peninsula Health Care District	—	5	5	Reclamation District No. 1000	—	12	12
Peninsula Traffic Congestion Relief Alliance	—	8	8	Reclamation District No. 1001	—	10	10
Penn Valley Fire Protection District	—	15	15	Reclamation District No. 1660	—	—	—
Personal Assistance Services Council	—	37	37	Reclamation District No. 3	—	2	2
Phelan Pinon Hills Community Services District	—	27	27	Reclamation District No. 833	—	2	2
Pico Water District	—	10	10	Reclamation District No. 999	—	5	5
Pine Cove Water District	—	4	4	Red Bluff Cemetery District	—	3	3
Pine Grove Mosquito Abatement District	—	1	1	Redwood Coast Regional Center	—	113	113
Pinedale County Water District	—	6	6	Redwood Empire Municipal Insurance Fund	—	3	3
Pioneer Cemetery District	—	3	3	Redwood Empire School Insurance Group	—	23	23
Pixley Irrigation District	—	4	4	Reedley Cemetery District	—	6	6
Placer County Cemetery District No. 1	—	6	6	Regional Center of Orange County	446	—	446
Placer County Resource Conservation District	—	4	4	Regional Center of the East Bay	437	—	437
Placer County Transportation Planning Agency	—	7	7	Regional Housing Authority	—	33	33
Placer County Water Agency	220	—	220	Regional Water Authority	—	7	7
Placer Hills Fire Protection District	—	20	20	Rescue Fire Protection District	—	6	6
Placer Mosquito and Vector Control District	—	23	23	Resort Improvement District No. 1	—	14	14
Planning and Service Area II Area Agency on Aging	—	10	10	Resource Conservation District of the Santa Monica Mountains	—	12	12
Pleasant Hill Recreation and Park District	—	58	58	Richardson Bay Sanitary District	—	4	4
Pleasant Valley County Water District	—	4	4	Rincon Del Diablo Municipal Water District	—	20	20
Pleasant Valley Recreation and Park District	—	39	39	Rio Alto Water District	—	7	7
Plumas Eureka Community Services District	—	4	4	Rio Linda Elverta Community Water District	—	10	10
Plumas Local Agency Formation Commission	—	—	—	Rio Vista-Montezuma Cemetery District	—	5	5
Pomeroado Cemetery District	—	6	6	Riverbank City Housing Authority	—	—	—
Pomona Valley Transportation Authority	—	5	5	Riverside County Air Pollution Control District	—	—	—
Pomona, Calif State Polytechnic University, Associated Students, Inc.	—	67	67	Riverside County Department of Waste Resources	—	11	11
Port San Luis Harbor District	—	28	28	Riverside County Flood Control and Water Conservation District	223	—	223
Porter Vista Public Utility District	—	2	2	Riverside County Law Library	—	8	8
Porterville Irrigation District	—	3	3	Riverside County Regional Park and Open Space District	—	91	91
Porterville Public Cemetery District	—	9	9	Riverside County Transportation Commission	—	50	50
Public Agency Risk Sharing Authority of California	—	4	4	Riverside Transit Agency	491	—	491
Public Cemetery District No. 1 of Kern County	—	6	6	Rosamond Community Services District	—	21	21
Public Entity Risk Management Authority	—	6	6	Rose Bowl Operating Company	—	32	32
Public Transportation Services Corporation	2,656	—	2,656	Rosedale-Rio Bravo Water Storage District	—	10	10
Pupil Transportation Cooperative	—	2	2	Roseville Public Cemetery District	—	8	8
Purissima Hills Water District	—	8	8	Ross Valley Fire Department	—	31	31
Quartz Hill Water District	—	11	11	Ross Valley Sanitary District	—	32	32
Quincy Community Services District	—	4	4	Rowland Water District	—	25	25
Rainbow Municipal Water District	—	57	57				

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	
Rubidoux Community Services District	—	22	22	San Francisco City and County Housing Authority	40	—	40
Running Springs Water District	—	34	34	San Francisco Community College District Bookstore Auxiliary	—	—	—
Rural County Representatives of California	—	28	28	San Francisco County Transportation Authority	—	37	37
Russian River Fire Protection District	—	11	11	San Francisco Health Authority	—	357	357
Sacramento Area Council of Governments	—	54	54	San Francisco Law Library	—	7	7
Sacramento Area Flood Control Agency	—	18	18	San Francisquito Creek Joint Powers Authority	—	3	3
Sacramento City Housing Authority	201	—	201	San Gabriel County Water District	—	14	14
Sacramento County Public Law Library	—	17	17	San Gabriel Valley Council of Governments	—	25	25
Sacramento Groundwater Authority	—	5	5	San Gabriel Valley Mosquito and Vector Control District	—	44	44
Sacramento Metropolitan Air Quality Management District	—	88	88	San Gabriel Valley Municipal Water District	—	7	7
Sacramento Metropolitan Cable Television Commission	—	6	6	San Geronio Pass Water Agency	—	4	4
Sacramento Metropolitan Fire District	582	81	663	San Jacinto Valley Cemetery District	—	7	7
Sacramento Municipal Utility District	2,214	—	2,214	San Joaquin County Housing Authority	—	79	79
Sacramento Public Library Authority	313	—	313	San Joaquin County IHSS Public Authority	—	7	7
Sacramento Regional Fire/EMS Communications Center	—	50	50	San Joaquin Delta Community College District	—	13	13
Sacramento Suburban Water District	—	69	69	San Juan Water District	—	46	46
Sacramento Transportation Authority	—	2	2	San Lorenzo Valley Water District	—	34	34
Sacramento-Yolo Mosquito and Vector Control District	—	69	69	San Luis Obispo Cal Poly Associated Students, Inc.	—	73	73
Salida Fire Protection District	—	9	9	San Luis Obispo Council of Governments	—	19	19
Salinas Valley Solid Waste Authority	—	58	58	San Luis Water District	—	16	16
Salton Community Services District	—	15	15	San Mateo Consolidated Fire Department	—	152	152
Samoa Peninsula Fire Protection District	—	—	—	San Mateo County Harbor District	—	38	38
San Andreas Regional Center, Inc.	329	—	329	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	—	19	19	San Mateo County Schools Insurance Group	—	6	6
San Bernardino City Unified School District	—	25	25	San Mateo County Transit District	731	—	731
San Bernardino County Housing Authority	125	—	125	San Miguel Community Services District	—	8	8
San Bernardino County Transportation Authority	—	—	—	San Miguel Consolidated Fire Protection District	—	85	85
San Bernardino Valley Municipal Water District	—	25	25	San Simeon Community Services District	—	—	—
San Bernardino Valley Water Conservation District	—	9	9	Sanger Cemetery District	—	7	7
San Diego Association of Governments	368	—	368	Sanitary District No. 5 of Marin County	—	10	10
San Diego Community College District	—	36	36	Santa Ana River Flood Protection Agency	—	—	—
San Diego County Law Library	—	18	18	Santa Ana Unified School District	—	29	29
San Diego County Water Authority	242	—	242	Santa Ana Watershed Project Authority	—	25	25
San Diego Metropolitan Transit System	—	161	161	Santa Barbara County Law Library	—	2	2
San Diego State University Associated Students	—	37	37	Santa Barbara County Special Education Local Plan Area	—	8	8
San Diego Trolley, Inc.	594	—	594	Santa Barbara Regional Health Authority	—	258	258
San Diego Unified School District	—	38	38	Santa Clara County Central Fire Protection District	223	74	297
San Dieguito Water District	—	23	23	Santa Clara County Health Authority	—	310	310
San Elijo Joint Powers Authority	—	21	21	Santa Clara County Housing Authority	149	—	149
San Francisco Bay Area Rapid Transit District	4,234	—	4,234	Santa Clara County Law Library	—	3	3
San Francisco Bay Area Water Emergency Transportation Authority	—	16	16	Santa Clara County Schools Insurance Group	—	5	5
				Santa Clara Valley Open Space Authority	—	42	42

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	
Santa Clara Valley Transportation Authority	627	—	627	Solano County Mosquito Abatement District	—	10	10
Santa Clara Valley Water District	797	—	797	Solano County Water Agency	—	21	21
Santa Clarita Valley School Food Services Agency	—	90	90	Solano Irrigation District	—	78	78
Santa Clarita Valley Water Agency	—	200	200	Solano Transportation Authority	—	22	22
Santa Cruz County Law Library	—	—	—	Sonoma County Fire District	—	59	59
Santa Cruz County Regional Transportation Commission	—	17	17	Sonoma County Junior College District	—	9	9
Santa Cruz Local Agency Formation Commission	—	2	2	Sonoma County Library	216	—	216
Santa Cruz Metropolitan Transit District	311	—	311	Sonoma Marin Area Rail Transit District	—	125	125
Santa Cruz Port District	—	32	32	Sonoma State Enterprises, Inc.	—	—	—
Santa Cruz Regional 9-1-1	—	53	53	Sonoma Student Union Corporation	—	—	—
Santa Fe Irrigation District	—	47	47	Soquel Creek Water District	—	46	46
Santa Margarita Water District	150	—	150	South Bay Regional Public Communications Authority	—	68	68
Santa Maria Public Airport District	—	12	12	South Central Los Angeles Regional Center for Developmentally Disabled Persons	364	—	364
Santa Monica Community College District	—	17	17	South Coast Water District	—	84	84
Santa Nella County Water District	—	6	6	South County Support Services Agency	—	26	26
Santa Paula City Housing Authority	—	6	6	South Feather Water and Power Agency	—	53	53
Santa Ynez River Water Conservation District, Improvement District No. 1	—	16	16	South Kern Cemetery District	—	5	5
Santos Manuel Student Union of California State University, San Bernardino	—	28	28	South Orange County Wastewater Authority	—	59	59
Sausalito-Marín City Sanitary District	—	11	11	South Placer Fire District	—	58	58
Schell Vista Fire Protection District	—	6	6	South Placer Municipal Utility District	—	27	27
School Risk And Insurance Management Group	—	8	8	South San Joaquin Irrigation District	—	95	95
Schools Excess Liability Fund	—	8	8	South San Luis Obispo County Sanitation District	—	9	9
Schools Insurance Authority	—	79	79	South Tahoe Public Utility District	—	117	117
Scotts Valley Fire Protection District	—	29	29	Southeast Area Social Services Funding Authority	—	37	37
Scotts Valley Water District	—	18	18	Southern California Association of Governments	147	—	147
Selma Cemetery District	—	6	6	Southern California Library Cooperative	—	5	5
Selma-Kingsburg-Fowler County Sanitation District	—	30	30	Southern California Public Power Authority	—	15	15
Serrano Water District	—	9	9	Southern California Regional Rail Authority	258	—	258
Sewer Authority Mid-Coastside	—	15	15	Southern San Joaquin Municipal Utility District	—	12	12
Sewerage Commission-Oroville Region	—	9	9	Southern Sonoma County Resource Conservation District	—	—	—
Shafter Wasco Irrigation District	—	10	10	Southwest Transportation Agency	—	46	46
Shasta Area Safety Communications Agency	—	40	40	Special District Risk Management Authority	—	15	15
Shasta Community Services District	—	6	6	Squaw Valley Public Service District	—	29	29
Shasta Lake Fire Protection District	—	10	10	Stallion Springs Community Services District	—	14	14
Shasta Mosquito and Vector Control District	—	15	15	Stanislaus Consolidated Fire Protection District	—	49	49
Shasta Regional Transportation Agency	—	10	10	Stanislaus County Housing Authority	—	79	79
Shasta Valley Cemetery District	—	2	2	State Bar of California	568	—	568
Shiloh Public Cemetery District	—	4	4	State Center Community College District	—	18	18
Sierra Lakes County Water District	—	3	3	State Water Contractors	—	7	7
Sierra-Sacramento Valley Emergency Medical Services Agency	—	11	11	Stege Sanitary District	—	10	10
Silicon Valley Animal Control Authority	—	15	15	Stinson Beach County Water District	—	7	7
Silicon Valley Clean Water	—	79	79	Stockton East Water District	—	40	40
Silveyville Cemetery District	—	6	6	Stockton Unified School District	—	35	35
Solano Cemetery District	—	9	9	Strawberry Recreation District	—	8	8

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	
Successor Agency to the Redevelopment Agency of the City of Fresno	—	1	1	Turlock Mosquito Abatement District	—	14	14
Successor Agency to the Redevelopment Agency of the City of San Bernardino	—	1	1	Twain Harte Community Services District	—	14	14
Successor Agency to the Redevelopment Agency of the City & County of San Francisco	—	45	45	Twentynine Palms Water District	—	23	23
Suisun Fire Protection District	—	2	2	Twin Rivers Unified School District	—	15	15
Suisun Resource Conservation District	—	8	8	Ukiah Valley Fire District	—	—	—
Summit Cemetery District	—	9	9	Union Public Utility District	—	7	7
Sunnyslope County Water District	—	23	23	Union Sanitary District	140	—	140
Susanville Sanitary District	—	6	6	United Water Conservation District	—	61	61
Sutter Cemetery District	—	12	12	University Enterprises Corporation at CSUSB	—	158	158
Sweetwater Authority	128	—	128	University Enterprises, Inc.	174	—	174
Sweetwater Springs Water District	—	11	11	University Student Center of California State University Stanislaus	—	7	7
Sylvan Cemetery District	—	6	6	Upland City Housing Authority	—	—	—
Tahoe City Public Utility District	—	55	55	Upper San Gabriel Valley Municipal Water District	—	11	11
Tahoe Resource Conservation District	—	21	21	Vacaville Fire Protection District	—	6	6
Tahoe-Truckee Sanitation Agency	—	46	46	Vacaville-Elmira Cemetery District	—	6	6
Tehachapi Valley Recreation and Park District	—	14	14	Val Verde Unified School District	—	6	6
Tehachapi-Cummings County Water District	—	20	20	Vallecitos Water District	—	105	105
Tehama County Mosquito Abatement District	—	6	6	Vallejo Flood and Wastewater District	—	91	91
Temescal Valley Water District	—	10	10	Valley Center Municipal Water District	—	70	70
Templeton Community Services District	—	30	30	Valley County Water District	—	28	28
Thermalito Water and Sewer District	—	12	12	Valley Mountain Regional Center, Inc.	341	—	341
Three Rivers Community Services District	—	1	1	Valley of the Moon Water District	—	15	15
Three Valleys Municipal Water District	—	24	24	Valley Sanitary District	—	32	32
Tiburon Fire Protection District	—	32	32	Valley Springs Public Utility District	—	3	3
Town of Los Gatos	120	—	120	Valley-Wide Recreation and Park District	—	82	82
Trabuco Canyon Water District	—	22	22	Vandenberg Village Community Services District	—	10	10
Tracy Rural County Fire Protection District	—	—	—	Ventura College Foundation	—	6	6
Transbay Joint Powers Authority	—	12	12	Ventura County Law Library	—	2	2
Transportation Agency for Monterey County	—	14	14	Ventura County Schools Business Services Authority	—	11	11
Transportation Authority of Marin	—	13	13	Ventura County Schools Self-Funding Authority	—	6	6
Treasure Island Development Authority	—	—	—	Ventura County Transportation Commission	—	21	21
Tri-City Mental Health Center	—	196	196	Ventura Port District	—	41	41
Tri-Counties Association for the Developmentally Disabled	351	—	351	Ventura River Water District	—	5	5
Tri-County Schools Insurance Group	—	3	3	Victor Valley Transit Authority	—	22	22
Tri-Dam Project	—	27	27	Victor Valley Wastewater Reclamation Authority	—	35	35
Trindel Insurance Fund	—	13	13	Visalia Public Cemetery District	—	12	12
Trinity Public Utilities District	—	21	21	Vista Irrigation District	—	88	88
Truckee Donner Public Utility District	—	64	64	Walnut Valley Water District	—	54	54
Truckee Fire Protection District	—	50	50	Wasco Recreation and Park District	—	5	5
Truckee Sanitary District	—	40	40	Washington Colony Cemetery District	—	3	3
Truckee Tahoe Airport District	—	25	25	Water Employee Services Authority	160	—	160
Tulare Mosquito Abatement District	—	6	6	Water Facilities Authority	—	8	8
Tulare Public Cemetery District	—	6	6	Water Replenishment District of Southern California	—	44	44
Tuolumne City Sanitary District	—	5	5	Weaverville Community Services District	—	4	4
Tuolumne Fire District	—	2	2	Weaverville Sanitary District	—	3	3
Tuolumne Utilities District	—	76	76	West Almanor Community Services District	—	1	1

PUBLIC AGENCY EMPLOYERS (CONTINUED)

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

Other Public Agency	Active		Total
	PERF A	PERF C	
West Basin Municipal Water District	—	49	49
West Bay Sanitary District	—	31	31
West Cities Communication Center	—	21	21
West Contra Costa Integrated Waste Management Authority	—	3	3
West Contra Costa Transportation Advisory Committee	—	5	5
West County Transportation Agency	—	168	168
West County Wastewater District	—	61	61
West End Communications Authority	—	—	—
West Kern Water District	—	43	43
West Stanislaus Irrigation District	—	14	14
West Valley Mosquito and Vector Control District	—	21	21
West Valley Sanitation District of Santa Clara County	—	27	27
West Valley Water District	—	81	81
West Valley-Mission Community College District	—	8	8
Westborough Water District	—	6	6
Western Contra Costa Transit Authority	—	9	9
Western Municipal Water District	—	161	161
Western Riverside Council of Governments	—	31	31
Westlands Water District	—	114	114
Westwood Community Services District	—	6	6
Wheeler Ridge-Maricopa Water Storage District	—	42	42
Wildomar Cemetery District	—	—	—
Williams Fire Protection Authority	—	5	5
Willow County Water District	—	15	15
Willow Creek Community Services District	—	4	4
Willows Cemetery District	—	3	3
Wilton Fire Protection District	—	1	1
Winterhaven Water District	—	2	2
Winters Cemetery District	—	3	3
Winters Fire Protection District	—	—	—
Winton Water and Sanitary District	—	8	8
Woodbridge Rural County Fire Protection District	—	26	26
Woodlake Fire District	—	7	7
Woodside Fire Protection District	—	54	54
Yolo County Federal Credit Union	—	60	60
Yolo County Housing Authority	—	34	34
Yolo County In-Home Supportive Services Public Authority	—	3	3
Yolo County Public Agency Risk Management Insurance Authority	—	5	5
Yolo County Transportation District	—	10	10
Yolo Emergency Communications Agency	—	41	41
Yolo-Solano Air Quality Management District	—	23	23
Yorba Linda Water District	—	73	73
Yuba Community College District	—	3	3

Other Public Agency	Active		Total
	PERF A	PERF C	
Yuba County Water Agency	—	79	79
Yuba Sutter Transit Authority	—	5	5
Yucaipa Valley Water District	—	72	72
Yuima Municipal Water District	—	10	10
Total	41,096	23,089	64,185

LEGISLATORS' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

Legislators' Retirement System – 10-Year Review

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ACTIVE & INACTIVE MEMBERS										
Members of the Legislature	2	2	4	4	6	6	6	7	8	8
Constitutional Officers	4	5	10	10	13	14	17	17	19	20
Legislative Statutory Officers	—	—	—	—	1	2	4	4	4	4
TOTAL ACTIVE & INACTIVE MEMBERS	6	7	14	14	20	22	27	28	31	32
BENEFIT RECIPIENTS										
Members of the Legislature										
Service Retirement	181	198	202	205	215	221	225	226	200	210
Disability Retirement	7	7	7	7	7	8	7	7	9	9
Pre-Retirement Option 2	1	1	1	1	1	1	2	2	—	—
Total Members of the Legislature	189	206	210	213	223	230	234	235	209	219
Constitutional Officers										
Service Retirement	20	19	14	14	12	12	11	10	26	26
Disability Retirement	1	1	1	1	1	1	1	1	1	1
Pre-Retirement Option 2	1	1	1	1	1	1	—	1	2	2
Total Constitutional Officers	22	21	16	16	14	14	12	12	29	29
Legislative Statutory Officers										
Service Retirement	1	1	1	1	1	1	1	1	5	5
Total Legislative Statutory Officers	1	1	1	1	1	1	1	1	5	5
TOTAL BENEFIT RECIPIENTS	212	228	227	230	238	245	247	248	243	253
TOTAL MEMBERS	218	235	241	244	258	267	274	276	274	285

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 Board is authorized to establish actuarially determined rates. For Fiscal Year 2019-20, the Board approved an employer contribution rate of 35.272 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 PEPRA of 2013 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	1	2
Constitutional Officers	1	3	4
Total	2	4	6

LRS Benefit Payments by Type

Category	Amount Paid
Service Retirement	\$6,776,562
Disability Retirement	111,968
Beneficiary Death Benefits	18,288
Beneficiary Death Benefits/Allowance	80,424
Adjustments ¹	(48,695)
Total	\$6,938,547

(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 for all Urban Consumers.

LRS Benefit Recipients by Retirement Type

Category	Retired ¹	Survivors & Beneficiaries ¹	Total
Members of Legislature			
Service Retirement	83	98	181
Disability Retirement	—	7	7
Pre-Retirement Option 2	—	1	1
TOTAL MEMBERS OF LEGISLATURE	83	106	189
Constitutional Officers			
Service Retirement	19	1	20
Disability Retirement	—	1	1
Pre-Retirement Option 2	—	1	1
TOTAL CONSTITUTIONAL OFFICERS	19	3	22
Legislative Statutory Officers			
Service Retirement	—	1	1
TOTAL LEGISLATIVE STATUTORY OFFICERS	0	1	1
TOTAL	102	110	212

(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, 2020 – 10-Year Review

Retirement Effective Dates	Years of Service Credit						
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
2019-20							
Average Monthly Allowance	\$0	\$3,064	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$8,936	\$0	\$0	\$0	\$0	\$0
Number of Recipients	—	2	—	—	—	—	—
2018-19							
Average Monthly Allowance	\$0	\$3,630	\$0	\$2,670	\$0	\$0	\$0
Average Final Compensation	\$0	\$10,785	\$0	\$14,145	\$0	\$0	\$0
Number of Recipients	—	4	—	2	—	—	—
2017-18							
Average Monthly Allowance ¹	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Number of Recipients ¹	—	—	—	—	—	—	—
2016-17							
Average Monthly Allowance ²	\$2,353	\$3,661	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$12,628	\$7,802	\$0	\$0	\$0	\$0	\$0
Number of Recipients ²	2	2	—	—	—	—	—
2015-16							
Average Monthly Allowance ²	\$1,921	\$5,305	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$3,542	\$13,261	\$0	\$0	\$0	\$0	\$0
Number of Recipients ²	1	1	—	—	—	—	—
2014-15							
Average Monthly Allowance ³	\$0	\$2,458	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$7,921	\$0	\$0	\$0	\$0	\$0
Number of Recipients ³	—	1	—	—	—	—	—
2013-14							
Average Monthly Allowance ³	\$1,074	\$552	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$2,342	\$780	\$0	\$0	\$0	\$0	\$0
Number of Recipients ³	1	3	—	—	—	—	—
2012-13							
Average Monthly Allowance ³	\$0	\$4,479	\$2,103	\$6,699	\$0	\$0	\$0
Average Final Compensation	\$0	\$13,008	\$4,375	\$8,812	\$0	\$0	\$0
Number of Recipients ³	—	2	1	2	—	—	—
2011-12⁴							
Average Monthly Allowance ³	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Number of Recipients ³	—	—	—	—	—	—	—
2010-11							
Average Monthly Allowance ³	\$0	\$4,258	\$2,103	\$0	\$8,206	\$0	\$0
Average Final Compensation	\$0	\$6,481	\$4,375	\$0	\$9,215	\$0	\$0
Number of Recipients ³	—	3	1	—	1	—	—

(1) There were no retirements in FY 2017-18, thus no benefit amounts to report.

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

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

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

JUDGES' RETIREMENT SYSTEM MEMBERSHIP & RETIREMENT DATA

Judges' Retirement System – 10-Year Review

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ACTIVE & DEFERRED MEMBERS										
Judges	131	147	170	201	225	241	285	325	431	466
TOTAL ACTIVE & DEFERRED MEMBERS	131	147	170	201	225	241	285	325	431	466
BENEFIT RECIPIENTS										
Service Retirement	1,197	1,202	1,165	1,171	1,182	1,193	1,157	1,151	654	655
Disability Retirement	69	75	78	85	89	100	100	50	46	46
Deferred Retirement	507	526	534	556	584	594	598	632	582	590
Optional Settlement Benefit	—	—	—	—	—	—	—	—	527	510
Industrial Disability Retired	1	1	1	1	1	1	1	—	—	—
Pre-Retirement Survivor	12	12	—	—	—	—	—	63	75	73
Pre-Retirement Death	40	42	57	57	61	60	66	—	—	—
Extended Service Incentive Program	166	22	27	18	9	29	—	—	—	—
TOTAL BENEFIT RECIPIENTS	1,992	1,880	1,862	1,888	1,926	1,977	1,922	1,896	1,884	1,874
TOTAL MEMBERS	2,123	2,027	2,032	2,089	2,151	2,218	2,207	2,221	2,315	2,340

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, provided by Government Code section 75033.5 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	130	1	131
TOTAL	130	1	131

JRS Benefit Payments by Type

Category	Amount Paid
Service Retirement	\$170,597,610
Disability Retirement	4,576,281
Beneficiary Death Benefits	482,757
Beneficiary Death Benefits/Life Allowance	33,669,996
Extended Service Incentive Program	4,138,799
Adjustments ¹	(231,715)
TOTAL	\$213,233,728

(1) Adjustments contain manual claims and overpayment recoveries.

JRS Benefit Recipients by Retirement Type

Category	Retired ¹	Survivors & Beneficiaries ¹	Total
Service Retirement	871	326	1,197
Disability Retirement	31	38	69
Deferred Retirement	329	178	507
Industrial Disability Retirement	1	—	1
Pre-Retirement Death	—	40	40
Pre-Retirement Option 2	—	12	12
Extended Service Incentive Program	150	16	166
TOTAL	1,382	610	1,992

(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, 2020 – 10-Year Review

Retirement Effective Dates	Years of Service Credit						
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	25 - 30	31+
2019-20							
Average Monthly Allowance ¹	\$1,095	\$0	\$0	\$14,367	\$0	\$12,309	\$13,073
Average Final Compensation	\$17,883	\$0	\$0	\$20,465	\$0	\$17,883	\$18,314
Number of Recipients ¹	1	—	—	1	—	8	6
2018-19							
Average Monthly Allowance ¹	\$429	\$5,089	\$9,147	\$0	\$11,877	\$12,179	\$12,267
Average Final Compensation	\$17,285	\$17,285	\$17,285	\$0	\$17,285	\$17,701	\$17,909
Number of Recipients ¹	1	1	1	—	5	6	12
2017-18							
Average Monthly Allowance ¹	\$2,928	\$4,530	\$5,686	\$10,504	\$11,463	\$11,262	\$12,639
Average Final Compensation	\$16,670	\$15,753	\$16,670	\$19,077	\$16,670	\$17,732	\$18,274
Number of Recipients ¹	1	1	1	1	11	8	6
2016-17							
Average Monthly Allowance ¹	\$1,018	\$4,340	\$6,637	\$8,441	\$11,109	\$11,347	\$11,718
Average Final Compensation	\$15,968	\$15,968	\$10,645	\$7,984	\$9,581	\$14,450	\$16,544
Number of Recipients ¹	1	1	3	4	5	9	4
2015-16							
Average Monthly Allowance ¹	\$2,725	\$2,365	\$6,962	\$0	\$10,842	\$11,792	\$5,284
Average Final Compensation	\$15,753	\$15,753	\$7,877	\$0	\$11,027	\$16,890	\$0
Number of Recipients ¹	2	4	2	—	10	2	1
2014-15							
Average Monthly Allowance ²	\$2,165	\$2,554	\$7,224	\$9,556	\$10,612	\$9,184	\$11,749
Average Final Compensation	\$15,292	\$15,292	\$16,516	\$15,469	\$15,341	\$15,746	\$16,217
Number of Recipients ²	3	3	3	16	19	14	5
2013-14							
Average Monthly Allowance ²	\$0	\$3,723	\$5,343	\$7,529	\$8,959	\$10,439	\$9,800
Average Final Compensation	\$0	\$12,142	\$9,432	\$10,218	\$7,426	\$10,581	\$3,776
Number of Recipients ²	—	9	13	12	35	16	4
2012-13							
Average Monthly Allowance ²	\$2,233	\$3,325	\$4,546	\$9,156	\$8,434	\$8,549	\$11,147
Average Final Compensation	\$14,899	\$7,049	\$3,044	\$1,752	\$974	\$1,655	\$0
Number of Recipients ²	2	6	9	17	33	9	4
2011-12							
Average Monthly Allowance ²	\$1,316	\$3,160	\$7,580	\$8,055	\$9,795	\$10,090	\$0
Average Final Compensation	\$14,899	\$15,473	\$17,879	\$15,114	\$15,042	\$15,168	\$0
Number of Recipients ²	2	4	5	20	30	9	—
2010-11							
Average Monthly Allowance ²	\$1,447	\$4,186	\$5,586	\$8,680	\$8,645	\$7,809	\$9,245
Average Final Compensation	\$14,899	\$14,899	\$14,899	\$14,899	\$14,382	\$17,299	\$17,018
Number of Recipients ²	3	8	10	22	41	16	4

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

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

JUDGES' RETIREMENT SYSTEM II MEMBERSHIP & RETIREMENT DATA

Judges' Retirement System II – 10-Year Review

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
ACTIVE MEMBERS										
Judges II – Classic	1,314	1,352	1,326	1,350	1,367	1,385	1,396	1,352	1,272	1,290
Judges II – PEPRA ⁽¹⁾	311	293	217	158	124	85	—	—	—	—
TOTAL ACTIVE MEMBERS	1,625	1,645	1,543	1,508	1,491	1,470	1,396	1,352	1,272	1,290
BENEFIT RECIPIENTS										
Service Retirement	249	214	172	118	86	68	47	30	14	7
Monetary Credit Annuity	3	2	1	—	—	—	—	—	—	—
Disability Retirement	19	19	18	18	13	10	11	18	9	13
Optional Settlement Benefit	—	—	—	—	—	—	—	—	—	6
Pre-Retirement Survivor	—	—	—	—	—	—	—	2	13	2
Industrial Disability Retirement	4	4	5	5	4	4	3	—	—	—
Surviving Spouse 50% Allowance	7	8	7	6	6	6	6	—	—	—
Survivor Continuance	18	18	9	9	8	5	4	—	—	—
Option 2 Survivor Death Benefit	1	1	1	1	—	—	—	—	—	—
36-Month Judge's Salary	1	1	1	2	2	2	2	2	1	2
Monetary Credit	88	14	17	11	15	11	—	—	—	—
TOTAL BENEFIT RECIPIENTS	390	281	231	170	134	106	73	52	37	30
TOTAL MEMBERS	2,015	1,926	1,774	1,678	1,625	1,576	1,469	1,404	1,309	1,320

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

JUDGES' RETIREMENT SYSTEM II PROGRAM DATA

PRIMARY BENEFITS

The Judges' Retirement System II (JRS II) was established in 1994 to create a fully funded, actuarially sound retirement system for judges appointed or elected on or after November 9, 1994. This system provides two different types of retirement benefits: a traditional defined benefit plan or a cash balance (monetary credits) plan. The defined benefit plan provides a lifetime monthly retirement allowance of up to 75 percent of final compensation.

Alternatively, a judge may elect to receive the amount of his or her monetary credits in either a lump sum or an annuity of actuarially equivalent value.

ASSEMBLY BILL 340 – PUBLIC EMPLOYEES' PENSION REFORM ACT (PEPRA)

The California Legislature passed and the Governor signed the Public Employees' Pension Reform Act of 2013 (PEPRA) on September 12, 2012. PEPRA contained a number of provisions intended to reduce future pension obligations. PEPRA primarily affects new pension plan members who are enrolled for the first time after December 31, 2012. The financial impact will be gradually realized as total pension costs and the employer share of those costs decrease.

The new law implemented new member contribution requirements for judges who meet the definition of a new member under PEPRA, effective January 1, 2013. The new requirements provide that all new PEPRA members must contribute to the JRS II an amount equal to half of the normal cost.

MEMBERSHIP

JRS II provides retirement, disability, death, and survivor benefits for Supreme and Appellate Court Justices, and Superior Court Judges, first appointed or elected on or after November 9, 1994, and their beneficiaries. Health and dental benefits are provided to eligible retirees and beneficiaries of JRS II under PEMHCA.

SERVICE RETIREMENT

Retirement Age

Judges must be at least age 65 with 20 years of service or age 70 with a minimum of five years of service to receive the defined benefit plan. Judges who leave office with five or more years of service but who do not meet the above criteria receive the amount of their monetary credits.

RETIREMENT FORMULA

Defined Benefit Plan

This option provides a defined benefit of 3.75 percent of the judge's final compensation per year of service, up to 75 percent of the judge's final compensation. Optional settlements are available that 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	1,314
Judges II - PEPR	311
TOTAL	1,625

JRS II Benefit Payments by Type

Category	Amount Paid
Service Retirement	\$26,360,471
Disability Retirement	2,886,177
Beneficiary Death Benefits	131,227
Beneficiary Death Benefits/Life Allowance	1,699,432
Monetary Credit	3,618,328
Adjustments ¹	(148,994)
TOTAL	\$34,546,641

(1) Adjustments contain manual claims and overpayment recoveries.

JRS II Benefit Recipients by Retirement Type

Category	Retired ¹	Survivors & Beneficiaries ¹	Total
Service Retirement	243	6	249
Disability Retirement	19	—	19
Monetary Credit Annuity	3	—	3
Industrial Disability Retirement	4	—	4
Surviving Spouse 50% Allowance	—	7	7
Pre-Retirement Option 2	—	1	1
Survivor Continuance	—	18	18
36-Month Judge's Salary	—	1	1
Monetary Credit	80	8	88
TOTAL	349	41	390

(1) The actual number of benefit recipients is by the employer category from which they retired, regardless of whether they had service in other employer categories.

DEATH BENEFITS (AFTER RETIREMENT)

Defined Benefit Plan

Spouses or registered domestic partners receive one-half of the judge's monthly allowance for life. Judges who retired under a service retirement may also elect an optional settlement to increase the monthly benefits to their eligible surviving spouse or registered domestic partner.

Monetary Credit Plan

If the judge elected to receive his or her monetary credits in a lump sum or as a lifetime annuity for his or her life alone, there are no other benefits payable. If the judge elected one of the available optional settlements, his or her surviving spouse or registered domestic partner will receive benefits based on the optional settlement elected.

COST-OF-LIVING ADJUSTMENTS

The retirement allowance of retired judges who have elected the defined benefit plan will be adjusted every January after the judge has been retired for more than six months. The adjustment is based on the United States city average of the Consumer Price Index for All Urban Consumers, as published by the United States Bureau of Statistics. No adjustment will be made unless the cost-of-living increase equals or exceeds 1 percent, and the allowance cannot be increased more than 3 percent in a single year.

Statistical Section (continued)

JUDGES' RETIREMENT SYSTEM II PROGRAM DATA (CONTINUED)

JRS II Average Benefit Payments – As of June 30, 2020 – 10-Year Review

Retirement Effective Dates	Years of Credited Service						
	0-5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31+
2019-20							
Average Monthly Allowance ¹	\$0	\$5,353	\$8,092	\$11,383	\$13,129	\$0	\$0
Average Final Compensation	\$0	\$17,390	\$17,545	\$17,634	\$17,566	\$0	\$0
Number of Recipients ¹	—	3	14	13	8	—	—
2018-19							
Average Monthly Allowance ¹	\$3,109	\$4,988	\$8,165	\$11,325	\$12,302	\$0	\$0
Average Final Compensation	\$16,495	\$16,924	\$16,819	\$17,059	\$16,912	\$0	\$0
Number of Recipients ¹	2	5	7	16	14	—	—
2017-18							
Average Monthly Allowance ¹	\$2,863	\$4,964	\$7,808	\$10,696	\$11,923	\$0	\$0
Average Final Compensation	\$16,400	\$16,445	\$16,278	\$16,291	\$16,420	\$0	\$0
Number of Recipients ¹	3	2	7	28	15	—	—
2016-17							
Average Monthly Allowance ¹	\$0	\$6,761	\$8,025	\$10,401	\$11,114	\$0	\$0
Average Final Compensation	\$0	\$15,865	\$15,882	\$15,889	\$15,879	\$0	\$0
Number of Recipients ¹	—	5	8	21	5	—	—
2015-16							
Average Monthly Allowance ¹	\$3,047	\$4,774	\$7,918	\$10,667	\$0	\$0	\$0
Average Final Compensation	\$15,638	\$15,521	\$15,683	\$15,710	\$0	\$0	\$0
Number of Recipients ²	1	3	5	11	—	—	—
2014-15							
Average Monthly Allowance ²	\$0	\$5,198	\$6,740	\$9,637	\$0	\$0	\$0
Average Final Compensation	\$0	\$15,149	\$15,225	\$15,253	\$0	\$0	\$0
Number of Recipients ²	—	1	8	13	—	—	—
2013-14							
Average Monthly Allowance ²	\$0	\$4,175	\$6,457	\$8,991	\$11,274	\$0	\$0
Average Final Compensation	\$0	\$11,205	\$14,949	\$14,942	\$15,032	\$0	\$0
Number of Recipients ²	—	4	12	4	1	—	—
2012-13							
Average Monthly Allowance ²	\$2,024	\$7,337	\$6,449	\$8,691	\$10,168	\$0	\$0
Average Final Compensation	\$14,899	\$14,899	\$14,899	\$14,899	\$14,899	\$0	\$0
Number of Recipients ²	3	5	3	6	1	—	—
2011-12							
Average Monthly Allowance ²	\$0	\$3,812	\$8,824	\$8,192	\$0	\$0	\$0
Average Final Compensation	\$0	\$14,899	\$15,975	\$14,899	\$0	\$0	\$0
Number of Recipients ²	—	3	2	4	—	—	—
2010-11							
Average Monthly Allowance ²	\$0	\$11,423	\$8,150	\$0	\$0	\$0	\$0
Average Final Compensation	\$0	\$14,899	\$14,899	\$0	\$0	\$0	\$0
Number of Recipients ²	—	3	6	1	1	—	—

(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

Other Programs

- 198 Health Care Fund
- 199 Contingency Reserve Fund
- 200 Long-Term Care Fund
- 201 Health Benefits Program Data
- 209 Defined Contribution Plans
- 210 Long-Term Care Program Data

Statistical Section: Other Programs

HEALTH CARE FUND

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

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
OPERATING REVENUES										
Premiums	\$3,706,490	\$3,681,106	\$3,945,826	\$3,826,107	\$3,741,352	\$3,594,279	\$2,744,305	\$1,921,838	\$1,846,210	\$1,709,975
Federal Government Subsidies	12,489	18,753	22,720	29,534	32,539	36,077	43,900	22,375	—	—
Federal Government Reimbursements	—	—	—	—	—	—	—	17	32,710	42,583
Total Operating Revenues	\$3,718,979	\$3,699,859	\$3,968,546	\$3,855,641	\$3,773,891	\$3,630,356	\$2,788,205	\$1,944,230	\$1,878,920	\$1,752,558
OPERATING EXPENSES										
Claims Expense	\$3,480,089	\$3,548,295	\$3,543,962	\$3,387,753	\$3,404,222	\$3,411,618	\$2,449,655	\$1,824,082	\$1,728,231	\$1,728,156
Increase (Decrease) in Estimated Liabilities	10,885	14,332	36,609	(14,701)	13,258	20,484	173,796	16,781	—	—
Administrative Expenses	331,236	298,887	304,319	312,832	355,702	371,915	192,987	105,154	96,043	88,391
Total Operating Expenses	\$3,822,210	\$3,861,514	\$3,884,890	\$3,685,884	\$3,773,182	\$3,804,017	\$2,816,438	\$1,946,017	\$1,824,274	\$1,816,547
OPERATING INCOME (LOSS)	(\$103,231)	(\$161,655)	\$83,656	\$169,757	\$709	(\$173,661)	(\$28,233)	(\$1,787)	\$54,646	(\$63,989)
NON-OPERATING REVENUES										
Investment Income	\$53,522	\$51,547	\$16,847	\$2,988	\$27,374	\$11,850	\$20,165	\$4,260	\$33,468	\$22,447
Total Non-Operating Revenues	\$53,522	\$51,547	\$16,847	\$2,988	\$27,374	\$11,850	\$20,165	\$4,260	\$33,468	\$22,447
NON-OPERATING EXPENSES										
Other Investment Expenses	\$160	\$166	\$89	\$92	\$77	\$83	\$157	\$87	\$75	\$0
Total Non-Operating Expenses	\$160	\$166	\$89	\$92	\$77	\$83	\$157	\$87	\$75	\$0
Securities Lending Income	\$0	\$0	\$0	\$0	\$0	\$0	\$15	\$41	\$54	\$0
Cost of Lending Securities	—	—	—	—	—	—	(3)	(8)	(12)	—
Net Securities Lending	\$0	\$0	\$0	\$0	\$0	\$0	\$12	\$33	\$42	\$0
NON-OPERATING INCOME	\$53,362	\$51,381	\$16,758	\$2,896	\$27,297	\$11,767	\$20,020	\$4,206	\$33,435	\$22,447
CHANGE IN UNRESTRICTED NET POSITION	(\$49,869)	(\$110,274)	\$100,414	\$172,653	\$28,006	(\$161,894)	(\$8,213)	\$2,419	\$88,081	(\$41,542)
TOTAL UNRESTRICTED NET POSITION										
Beginning of Year	\$375,362	\$485,636	\$385,222 ¹	\$314,274	\$286,268	\$448,162	\$456,375	\$453,956	\$365,875	\$407,417
End of Year	\$325,493	\$375,362	\$485,636	\$486,927	\$314,274	\$286,268	\$448,162	\$456,375	\$453,956	\$365,875

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

CONTINGENCY RESERVE FUND

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

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
OPERATING REVENUES										
Administrative Fees Earned & Other	\$25,817	\$22,375	\$30,152	\$27,487	\$27,668	\$26,712	\$24,899	\$17,809	\$25,490	\$23,956
Total Operating Revenues	\$25,817	\$22,375	\$30,152	\$27,487	\$27,668	\$26,712	\$24,899	\$17,809	\$25,490	\$23,956
OPERATING EXPENSES										
Administrative Expenses	\$37,862	\$18,799	\$34,763	\$27,239	\$11,983	\$29,735	\$28,891	\$27,402	\$28,073	\$27,448
Total Operating Expenses	\$37,862	\$18,799	\$34,763	\$27,239	\$11,983	\$29,735	\$28,891	\$27,402	\$28,073	\$27,448
OPERATING INCOME (LOSS)	(\$12,045)	\$3,576	(\$4,611)	\$248	\$15,685	(\$3,023)	(\$3,992)	(\$9,593)	(\$2,583)	(\$3,492)
NON-OPERATING REVENUES										
Investment Income	\$6,111	\$5,896	\$3,165	\$2,025	\$1,164	\$803	\$681	\$704	\$874	\$993
Total Non-Operating Revenues	\$6,111	\$5,896	\$3,165	\$2,025	\$1,164	\$803	\$681	\$704	\$874	\$993
NON-OPERATING EXPENSES										
Other Investment Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1	\$0
Total Non-Operating Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1	\$0
NON-OPERATING INCOME	\$6,111	\$5,896	\$3,165	\$2,025	\$1,164	\$803	\$681	\$704	\$873	\$993
CHANGE IN UNRESTRICTED NET POSITION	(\$5,934)	\$9,472	(\$1,446)	\$2,273	\$16,849	(\$2,220)	(\$3,311)	(\$8,889)	(\$1,710)	(\$2,499)
TOTAL UNRESTRICTED NET POSITION (DEFICIT)										
Beginning of Year	(\$48,315)	(\$57,787)	(\$56,341) ¹	\$10,025	(\$6,824)	(\$4,604)	(\$1,293)	\$7,596	\$9,306	\$11,805
End of Year	(\$54,249)	(\$48,315)	(\$57,787)	\$12,298	\$10,025	(\$6,824)	(\$4,604)	(\$1,293)	\$7,596	\$9,306

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

Statistical Section: Other Programs (continued)

LONG-TERM CARE FUND

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

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
OPERATING REVENUES										
Premiums	\$278,535	\$283,445	\$296,323	\$306,303	\$282,426	\$272,362	\$286,571	\$307,812	\$313,466	\$314,099
Total Operating Revenues	\$278,535	\$283,445	\$296,323	\$306,303	\$282,426	\$272,362	\$286,571	\$307,812	\$313,466	\$314,099
OPERATING EXPENSES										
Claims Expense	\$337,298	\$324,841	\$306,879	\$293,693	\$271,742	\$248,785	\$225,691	\$198,185	\$174,896	\$156,118
Increase (Decrease) in Estimated Liabilities	2,424,078	80,892	295,142	213,048	376,284	310,565	345,547	(631,804)	1,063,318	(115,600)
Administrative Expenses	27,500	24,300	26,545	25,082	24,999	24,304	22,946	21,819	21,718	21,303
Total Operating Expenses	\$2,788,876	\$430,033	\$628,566	\$531,823	\$673,025	\$583,654	\$594,184	(\$411,800)	\$1,259,932	\$61,821
OPERATING INCOME (LOSS)	(\$2,510,341)	(\$146,588)	(\$332,243)	(\$225,520)	(\$390,599)	(\$311,292)	(\$307,613)	\$719,612	(\$946,466)	\$252,278
NON-OPERATING REVENUES										
Investment Income/(Loss)	\$224,152	\$321,711	\$177,562	\$68,986	\$226,526	(\$36,550)	\$393,354	\$119,607	\$114,947	\$537,156
Total Non-Operating Revenues	\$224,152	\$321,711	\$177,562	\$68,986	\$226,526	(\$36,550)	\$393,354	\$119,607	\$114,947	\$537,156
NON-OPERATING EXPENSES										
Other Investment Expenses	\$2,547	\$2,596	\$1,853	\$1,816	\$1,606	\$1,734	\$1,615	\$1,160	\$540	\$0
Total Non-Operating Expenses	\$2,547	\$2,596	\$1,853	\$1,816	\$1,606	\$1,734	\$1,615	\$1,160	\$540	\$0
Securities Lending Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$909	\$1,624	\$0
Cost of Lending Securities	—	—	—	—	—	—	—	(120)	(274)	—
Net Securities Lending	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$789	\$1,350	\$0
NON-OPERATING INCOME (LOSS)	\$221,605	\$319,115	\$175,709	\$67,170	\$224,920	(\$38,284)	\$391,739	\$119,236	\$115,757	\$537,156
CHANGE IN UNRESTRICTED NET POSITION	(\$2,288,736)	\$172,527	(\$156,534)	(\$158,350)	(\$165,679)	(\$349,576)	\$84,126	\$838,848	(\$830,709)	\$789,434
TOTAL UNRESTRICTED NET POSITION (DEFICIT)										
Beginning of Year	\$95,772	(\$76,755)	\$79,779 ¹	\$247,993	\$413,672	\$763,248	\$679,122	(\$159,726)	\$670,983	(\$118,451)
End of Year	(\$2,192,964)	\$95,772	(\$76,755)	\$89,643	\$247,993	\$413,672	\$763,248	\$679,122	(\$159,726)	\$670,983

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

HEALTH BENEFITS PROGRAM DATA

Total Covered Lives by Health Plan as of June 30, 2020

	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	17,696	2,275	22,147	1,595	43,713	—	19	—	10	29	43,742
Anthem HMO Traditional	1,834	948	9,512	1,882	14,176	—	1,685	1	1,609	3,295	17,471
Blue Shield Access+	44,690	11,046	30,335	4,935	91,006	—	—	—	—	—	91,006
Blue Shield EPO	512	194	160	32	898	—	—	—	—	—	898
Blue Shield Trio	4,649	654	3,183	237	8,723	—	—	—	—	—	8,723
Health Net Salud y Más	4,370	145	6,294	190	10,999	—	—	—	—	—	10,999
Health Net SmartCare	5,028	985	10,022	1,553	17,588	—	—	—	—	—	17,588
Kaiser	257,779	40,694	229,906	21,843	550,222	5	65,387	3	40,065	105,460	655,682
Kaiser/Out of State	11	441	9	388	849	—	1,473	—	867	2,340	3,189
Sharp	11,347	766	1,879	180	14,172	—	—	—	—	—	14,172
UnitedHealthcare	59,095	9,552	15,273	2,014	85,934	4	26,943	2	16,818	43,767	129,701
Western Health Advantage	5,958	1,056	3,598	493	11,105	—	—	—	—	—	11,105
SUBTOTAL	412,969	68,756	332,318	35,342	849,385	9	95,507	6	59,369	154,891	1,004,276
Preferred Provider Organization (PPO)											
Anthem EPO Del Norte	71	14	3	2	90	—	—	—	—	—	90
PERS Choice	52,540	29,934	50,784	12,053	145,311	6	48,057	2	28,242	76,307	221,618
PERS Select	43,035	3,060	45,559	3,163	94,817	—	1,053	—	1,523	2,576	97,393
PERSCare	5,355	5,988	10,868	5,584	27,795	1	45,331	—	19,152	64,484	92,279
SUBTOTAL	101,001	38,996	107,214	20,802	268,013	7	94,441	2	48,917	143,367	411,380
Association (ASN) Plans											
CAHP	21,457	6,380	—	—	27,837	—	4,472	—	—	4,472	32,309
CCPOA North	5,917	2,292	—	—	8,209	—	658	—	—	658	8,867
CCPOA South	26,036	5,417	—	—	31,453	—	810	—	—	810	32,263
PORAC	1,027	384	14,146	5,451	21,008	—	210	—	2,458	2,668	23,676
SUBTOTAL	54,437	14,473	14,146	5,451	88,507	—	6,150	—	2,458	8,608	97,115
TOTAL	568,407	122,225	453,678	61,595	1,205,905	16	196,098	8	110,744	306,866	1,512,771

10-Year Enrollments

Members	2020	2019	2018	2017	2016	2015	2014 ²	2013 ²	2012 ²	2011 ²
Total Covered Lives ¹	1,512,771	1,479,504	1,462,260	1,442,156	1,424,983	1,400,960	1,390,104	1,382,151	1,369,235	1,358,496
Subscribers ¹	738,851	721,321	709,592	697,163	684,436	669,127	658,048	645,697	634,667	631,309

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

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

Total Covered Lives Summary as of June 30, 2020

	State	Public Agency	Total
Total Covered Lives	886,746	626,025	1,512,771

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State HMO Total Covered Lives by County as of June 30, 2020

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Blue Shield EPO	Blue Shield Trio	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Alameda	696	242	—	—	—	—	596	12,332	—	—	2,611	—	16,477
Alpine	—	—	—	—	—	—	—	—	—	—	1	—	1
Amador	—	—	—	—	—	—	—	2,026	—	—	30	1	2,057
Butte	—	65	3,085	2	—	—	—	4	—	—	555	—	3,711
Calaveras	—	—	—	—	—	—	—	13	—	—	10	—	23
Colusa	—	—	—	67	—	—	—	1	—	—	16	2	86
Contra Costa	359	188	—	—	—	—	1,110	8,499	—	—	1,174	—	11,330
Del Norte	—	—	3	—	—	—	—	1	—	—	1	—	5
El Dorado	415	148	681	—	210	—	—	5,473	—	—	291	244	7,462
Fresno	228	93	2,516	—	—	—	212	12,302	—	—	9,719	—	25,070
Glenn	—	2	171	—	—	—	—	—	—	—	46	—	219
Humboldt	—	126	2,428	—	—	—	—	4	—	—	270	—	2,828
Imperial	1,307	44	754	—	—	—	—	1	—	3	118	—	2,227
Inyo	—	—	—	—	—	—	—	—	—	—	2	—	2
Kern	241	56	1,316	—	—	222	394	10,257	—	—	1,257	—	13,743
Kings	1	72	1,226	—	—	—	203	981	—	—	4,506	—	6,989
Lake	—	—	—	—	—	—	—	—	—	—	10	—	10
Lassen	—	—	—	—	—	—	—	6	—	—	6	—	12
Los Angeles	1,549	361	5,155	—	1,114	1,915	345	42,040	—	—	4,922	—	57,401
Madera	—	31	434	—	—	—	—	2,570	—	—	979	—	4,014
Marin	—	63	—	—	—	—	153	1,499	—	—	236	75	2,026
Mariposa	—	2	124	—	—	—	—	14	—	—	31	—	171
Mendocino	—	24	—	617	4	—	—	—	—	—	170	4	819
Merced	596	32	584	—	—	—	—	9	—	—	274	—	1,495
Modoc	—	—	—	—	—	—	—	—	—	—	—	—	—
Mono	—	—	—	—	—	—	—	—	—	—	—	—	—
Monterey	2,002	—	—	—	—	—	—	2	—	—	19	—	2,023
Napa	—	28	—	—	—	—	36	4,456	—	—	21	56	4,597
Nevada	128	55	321	—	170	—	—	64	—	—	253	—	991
Orange	537	157	3,162	—	—	636	68	12,691	1	—	2,595	—	19,847
Placer	460	135	1,570	—	275	—	—	14,811	—	3	3,891	221	21,366
Plumas	—	—	—	—	—	—	—	—	—	—	9	—	9
Riverside	441	124	3,311	1	—	306	65	17,429	—	5	2,547	—	24,229
Sacramento	3,881	954	14,067	—	3,264	—	—	113,269	—	1	25,458	5,248	166,142
San Benito	—	28	—	—	—	—	—	1	—	—	3	—	32
San Bernardino	623	133	2,484	—	—	800	184	22,323	—	—	3,616	—	30,163
San Diego	348	—	2,132	—	—	635	78	12,742	—	12,094	3,510	—	31,539
San Francisco	110	198	—	—	—	—	575	4,461	—	—	2,280	—	7,624
San Joaquin	771	165	1,502	—	—	—	189	11,283	—	—	2,233	—	16,143
San Luis Obispo	3	179	2,120	—	—	—	—	6	—	—	8,592	—	10,900
San Mateo	—	92	1	—	—	—	195	3,186	—	—	1,705	—	5,179
Santa Barbara	—	71	637	—	—	—	—	—	—	—	231	—	939
Santa Clara	512	109	—	—	—	—	154	8,756	—	—	1,497	—	11,028
Santa Cruz	83	26	408	—	—	—	16	426	—	—	741	—	1,700
Shasta	—	—	—	—	—	—	—	1	—	—	21	—	22
Sierra	—	—	—	19	—	—	—	—	—	—	15	—	34
Siskiyou	—	—	—	—	—	—	—	—	—	—	6	3	9
Solano	—	102	—	—	—	—	432	16,245	—	—	1,287	204	18,270
Sonoma	—	120	1	—	—	—	404	7,401	—	—	974	420	9,320
Stanislaus	415	32	734	—	—	—	—	3,943	—	—	1,372	—	6,496

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State HMO Total Covered Lives by County as of June 30, 2020 (continued)

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Blue Shield EPO	Blue Shield Trio	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Sutter	—	—	—	—	—	—	—	156	—	—	23	—	179
Tehama	—	—	—	—	—	—	—	5	—	—	13	—	18
Trinity	—	—	—	—	—	—	—	—	—	—	2	—	2
Tulare	3,487	11	2,604	—	—	—	602	104	—	—	440	—	7,248
Tuolumne	9	4	1	—	—	—	—	7	—	—	6	—	27
Ventura	444	48	580	—	—	—	—	3,393	—	—	630	—	5,095
Yolo	341	145	1,596	—	263	—	1	7,573	—	—	3,062	532	13,513
Yuba	—	—	1	—	—	—	—	1,037	—	—	11	—	1,049
Out of State	3	2	21	—	3	1	1	60	1,924	7	1,294	4	3,320
Out of Country/ Unknown	—	—	6	—	—	—	—	2	—	—	2	—	10
Total Covered Lives	19,990	4,467	55,736	706	5,303	4,515	6,013	363,865	1,925	12,113	95,594	7,014	577,241

State PPO Total Covered Lives by County as of June 30, 2020

County	Anthem EPO Del Norte	PERS Choice	PERS Select	PERSCare	Total
Alameda	—	1,494	312	1,006	2,812
Alpine	—	24	21	2	47
Amador	—	909	168	280	1,357
Butte	—	2,813	2,023	1,245	6,081
Calaveras	—	857	212	217	1,286
Colusa	—	44	9	39	92
Contra Costa	—	941	257	814	2,012
Del Norte	85	1,648	2,645	162	4,540
El Dorado	—	1,486	648	862	2,996
Fresno	—	4,000	1,431	1,513	6,944
Glenn	—	131	74	45	250
Humboldt	—	2,138	1,265	707	4,110
Imperial	—	837	584	200	1,621
Inyo	—	423	437	63	923
Kern	—	2,941	1,568	826	5,335
Kings	—	924	698	224	1,846
Lake	—	352	121	158	631
Lassen	—	2,408	4,340	225	6,973
Los Angeles	—	11,770	3,469	5,181	20,420
Madera	—	656	344	205	1,205
Marin	—	484	91	356	931
Mariposa	—	186	61	79	326
Mendocino	—	292	252	204	748
Merced	—	696	482	246	1,424
Modoc	—	189	84	28	301
Mono	—	148	75	13	236
Monterey	—	5,088	2,872	740	8,700
Napa	—	575	81	207	863
Nevada	—	533	234	383	1,150
Orange	—	5,192	1,628	2,831	9,651
Placer	—	1,765	494	1,189	3,448
Plumas	—	264	213	97	574

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State PPO Total Covered Lives by County as of June 30, 2020 (continued)

County	Anthem EPO Del Norte	PERS Choice	PERS Select	PERSCare	Total
Riverside	—	2,807	1,255	1,317	5,379
Sacramento	—	7,164	3,023	6,156	16,343
San Benito	—	289	143	57	489
San Bernardino	—	2,357	1,034	1,083	4,474
San Diego	—	3,615	711	2,129	6,455
San Francisco	—	841	251	711	1,803
San Joaquin	—	1,174	360	728	2,262
San Luis Obispo	—	7,259	3,357	2,448	13,064
San Mateo	—	594	104	405	1,103
Santa Barbara	—	754	434	409	1,597
Santa Clara	—	1,618	306	734	2,658
Santa Cruz	—	568	153	295	1,016
Shasta	—	2,687	3,051	636	6,374
Sierra	—	23	13	19	55
Siskiyou	—	732	533	131	1,396
Solano	—	655	163	351	1,169
Sonoma	—	1,114	177	792	2,083
Stanislaus	—	837	245	474	1,556
Sutter	—	1,263	340	226	1,829
Tehama	—	718	801	157	1,676
Trinity	—	158	159	37	354
Tulare	—	3,557	1,767	914	6,238
Tuolumne	—	1,595	517	292	2,404
Ventura	—	2,085	578	949	3,612
Yolo	—	998	279	659	1,936
Yuba	—	633	155	138	926
Out of State	—	31,871	40	14,029	45,940
Out of Country/ Unknown	—	363	6	52	421
Total Covered Lives	85	130,537	47,148	56,675	234,445

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

State ASN Total Covered Lives by County as of June 30, 2020

County	CAHP	CCPOA North	CCPOA South	PORAC	Total	County	CAHP	CCPOA North	CCPOA South	PORAC	Total
Alameda	335	37	—	—	372	Placer	1,817	298	—	25	2,140
Alpine	5	—	—	—	5	Plumas	171	—	—	—	171
Amador	141	—	—	2	143	Riverside	2,799	—	4,849	75	7,723
Butte	474	71	—	42	587	Sacramento	1,431	1,216	2	24	2,673
Calaveras	159	—	—	18	177	San Benito	81	—	—	29	110
Colusa	44	—	—	6	50	San Bernardino	1,872	—	2,979	16	4,867
Contra Costa	527	97	—	6	630	San Diego	1,735	—	2,396	34	4,165
Del Norte	124	—	—	3	127	San Francisco	69	19	—	4	92
El Dorado	762	162	—	26	950	San Joaquin	663	1,050	—	3	1,716
Fresno	1,115	950	12	80	2,157	San Luis Obispo	912	—	2,866	118	3,896
Glenn	74	—	—	—	74	San Mateo	137	14	—	4	155
Humboldt	325	—	—	62	387	Santa Barbara	408	—	566	18	992
Imperial	308	—	5,121	8	5,437	Santa Clara	369	26	—	12	407
Inyo	122	—	—	6	128	Santa Cruz	226	28	—	29	283
Kern	1,401	—	10,533	18	11,952	Shasta	1,109	—	—	71	1,180
Kings	286	996	2	—	1,284	Sierra	3	—	—	—	3
Lake	167	—	—	17	184	Siskiyou	360	—	—	96	456
Lassen	146	—	—	14	160	Solano	681	313	—	—	994
Los Angeles	2,459	—	2,126	112	4,697	Sonoma	523	68	—	24	615
Madera	365	215	—	16	596	Stanislaus	580	413	—	3	996
Marin	125	48	—	—	173	Sutter	242	—	—	7	249
Mariposa	73	—	—	—	73	Tehama	281	—	—	15	296
Mendocino	179	—	—	2	181	Trinity	43	—	—	1	44
Merced	409	252	—	26	687	Tulare	743	2,454	17	29	3,243
Modoc	107	—	—	13	120	Tuolumne	150	—	—	30	180
Mono	35	—	—	2	37	Ventura	934	—	427	57	1,418
Monterey	332	—	—	97	429	Yolo	246	119	1	3	369
Napa	169	—	—	7	176	Yuba	103	—	—	2	105
Nevada	337	21	—	33	391	Out of State	1,232	—	7	176	1,415
Orange	1,271	—	359	100	1,730	Out of Country/ Unknown	13	—	—	—	13
Total Covered Lives							32,309	8,867	32,263	1,621	75,060

Public Agency HMO Total Covered Lives by County as of June 30, 2020

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Blue Shield EPO	Blue Shield Trio	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Alameda	1,615	1,533	—	—	—	—	1,104	30,674	—	—	1,187	—	36,113
Alpine	—	—	—	—	—	—	—	—	—	—	—	—	—
Amador	—	—	—	—	—	—	—	141	—	—	4	—	145
Butte	—	25	444	—	—	—	—	2	—	—	238	—	709
Calaveras	—	—	—	—	—	—	—	2	—	—	22	—	24
Colusa	—	—	—	117	—	—	—	—	—	—	67	16	200
Contra Costa	1,484	1,311	3	—	—	—	3,100	33,801	—	—	1,216	—	40,915
Del Norte	—	—	—	—	—	—	—	—	—	—	2	—	2
El Dorado	69	53	354	—	51	—	—	2,528	—	—	92	195	3,342
Fresno	27	17	67	—	—	—	14	1,164	—	—	1,351	—	2,640
Glenn	—	16	268	—	—	—	—	—	—	—	91	—	375
Humboldt	—	9	101	—	—	—	—	—	—	—	105	—	215
Imperial	122	2	36	—	—	—	—	—	—	—	12	—	172

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency HMO Total Covered Lives by County as of June 30, 2020 (continued)

County	Anthem HMO Select	Anthem HMO Traditional	Blue Shield Access+	Blue Shield EPO	Blue Shield Trio	Health Net Salud y Más	Health Net SmartCare	Kaiser	Kaiser/ Out of State	Sharp	United Healthcare	Western Health Advantage	Total
Inyo	—	—	—	—	—	—	—	—	—	—	2	—	2
Kern	54	15	82	—	—	84	72	711	—	—	133	—	1,151
Kings	—	2	1	—	—	—	12	19	—	—	43	—	77
Lake	—	—	—	—	—	—	—	2	—	—	6	—	8
Lassen	—	—	—	—	—	—	—	—	—	—	1	—	1
Los Angeles	4,824	2,059	14,372	—	2,712	3,694	3,216	52,982	—	—	5,332	—	89,191
Madera	—	6	115	—	—	—	—	1,397	—	—	1,181	—	2,699
Marin	—	131	—	—	—	—	156	3,297	—	—	181	134	3,899
Mariposa	—	—	17	—	—	—	—	4	—	—	30	—	51
Mendocino	—	—	—	25	—	—	—	2	—	—	29	—	56
Merced	311	8	171	—	—	—	—	5	—	—	90	—	585
Modoc	—	—	—	—	—	—	—	—	—	—	—	—	—
Mono	—	—	—	—	—	—	—	—	—	—	1	—	1
Monterey	1,713	—	—	—	—	—	—	10	—	—	62	—	1,785
Napa	—	32	—	—	—	—	17	6,451	—	—	17	123	6,640
Nevada	1,042	121	154	—	212	—	—	22	—	—	609	—	2,160
Orange	1,317	486	3,552	—	—	605	198	13,031	—	—	2,791	—	21,980
Placer	255	224	1,526	—	165	—	4	10,076	—	—	2,049	408	14,707
Plumas	—	—	—	—	—	—	—	2	—	—	4	—	6
Riverside	1,781	473	3,149	—	6	473	457	13,604	—	—	3,244	—	23,187
Sacramento	254	101	1,306	—	216	—	—	12,994	—	—	1,275	971	17,117
San Benito	1	27	—	—	—	—	—	4	—	—	14	—	46
San Bernardino	1,452	294	2,628	—	—	599	760	13,419	—	—	1,632	2	20,786
San Diego	234	—	575	—	—	1,029	88	2,832	—	2,059	1,780	—	8,597
San Francisco	103	398	—	—	—	—	301	2,647	—	—	160	—	3,609
San Joaquin	1,524	246	1,051	—	—	—	317	13,451	—	—	388	3	16,980
San Luis Obispo	—	34	260	—	—	—	—	—	—	—	2,113	—	2,407
San Mateo	5	2,292	—	—	—	—	500	11,127	—	—	951	—	14,875
Santa Barbara	3	162	783	—	—	—	—	—	—	—	128	—	1,076
Santa Clara	1,170	1,393	—	—	—	—	212	22,979	—	—	639	—	26,393
Santa Cruz	2,205	432	2,502	—	—	—	184	3,109	—	—	921	—	9,353
Shasta	—	—	—	—	—	—	—	—	—	—	17	—	17
Sierra	—	—	—	50	—	—	—	—	—	—	—	—	50
Siskiyou	—	—	—	—	—	—	—	—	—	—	12	—	12
Solano	2	618	—	—	—	—	457	20,504	—	—	390	479	22,450
Sonoma	—	129	—	—	—	—	305	5,882	—	—	168	290	6,774
Stanislaus	708	69	339	—	—	—	—	4,377	—	—	179	—	5,672
Sutter	—	—	—	—	—	—	—	23	—	—	7	—	30
Tehama	—	—	—	—	—	—	—	—	—	—	6	—	6
Trinity	—	—	—	—	—	—	—	—	—	—	3	—	3
Tulare	88	—	47	—	—	—	100	20	—	—	34	—	289
Tuolumne	—	—	—	—	—	—	—	4	—	—	11	—	15
Ventura	1,261	232	1,035	—	—	—	—	4,761	—	—	807	—	8,096
Yolo	126	50	327	—	58	—	1	3,491	—	—	1,047	1,470	6,570
Yuba	1	—	—	—	—	—	—	201	—	—	11	—	213
Out of State	1	4	3	—	—	—	—	62	1,264	—	1,220	—	2,554
Out of Country/ Unknown	—	—	2	—	—	—	—	3	—	—	2	—	7
Total Covered Lives	23,752	13,004	35,270	192	3,420	6,484	11,575	291,817	1,264	2,059	34,107	4,091	427,035

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency PPO Total Covered Lives by County as of June 30, 2020

County	Anthem EPO Del Norte	PERS Choice	PERS Select	PERSCare	Total
Alameda	—	2,433	858	1,162	4,453
Alpine	—	3	—	14	17
Amador	—	217	44	67	328
Butte	—	634	2,032	194	2,860
Calaveras	—	564	274	103	941
Colusa	—	144	338	39	521
Contra Costa	—	2,613	814	1,131	4,558
Del Norte	5	65	103	14	187
El Dorado	—	652	562	247	1,461
Fresno	—	352	244	105	701
Glenn	—	206	339	36	581
Humboldt	—	819	2,799	66	3,684
Imperial	—	42	38	12	92
Inyo	—	1,228	176	160	1,564
Kern	—	338	292	85	715
Kings	—	28	26	3	57
Lake	—	152	28	65	245
Lassen	—	124	257	18	399
Los Angeles	—	18,060	7,027	9,228	34,315
Madera	—	322	345	94	761
Marin	—	511	151	223	885
Mariposa	—	98	30	42	170
Mendocino	—	95	29	41	165
Merced	—	292	255	123	670
Modoc	—	15	21	6	42
Mono	—	603	17	46	666
Monterey	—	8,145	4,130	460	12,735
Napa	—	760	358	182	1,300
Nevada	—	731	1,160	289	2,180
Orange	—	4,662	2,794	2,502	9,958
Placer	—	1,565	831	669	3,065
Plumas	—	221	310	52	583
Riverside	—	2,712	1,394	1,498	5,604
Sacramento	—	845	611	396	1,852
San Benito	—	484	363	38	885
San Bernardino	—	1,772	1,393	1,083	4,248
San Diego	—	949	478	505	1,932
San Francisco	—	387	142	242	771
San Joaquin	—	1,616	1,188	284	3,088
San Luis Obispo	—	1,376	1,529	364	3,269
San Mateo	—	2,443	450	1,030	3,923
Santa Barbara	—	1,118	1,935	376	3,429
Santa Clara	—	4,256	1,678	1,260	7,194
Santa Cruz	—	2,338	588	393	3,319
Shasta	—	1,312	3,804	328	5,444
Sierra	—	28	17	6	51
Siskiyou	—	547	1,288	47	1,882
Solano	—	737	402	283	1,422
Sonoma	—	639	182	214	1,035
Stanislaus	—	1,214	1,508	228	2,950
Sutter	—	388	179	35	602
Tehama	—	155	489	49	693

Statistical Section: Other Programs (continued)

HEALTH BENEFITS PROGRAM DATA (CONTINUED)

Public Agency PPO Total Covered Lives by County as of June 30, 2020 (continued)

County	Anthem EPO Del Norte	PERS Choice	PERS Select	PERSCare	Total
Trinity	—	330	222	21	573
Tulare	—	220	118	35	373
Tuolumne	—	861	545	195	1,601
Ventura	—	3,660	2,292	915	6,867
Yolo	—	452	359	209	1,020
Yuba	—	725	391	28	1,144
Out of State	—	12,768	18	8,028	20,814
Out of Country/Unknown	—	55	—	36	91
Total Covered Lives	5	91,081	50,245	35,604	176,935

Public Agency ASN Total Covered Lives by County as of June 30, 2020

County	CAHP	CCPOA North	CCPOA South	PORAC	Total	County	CAHP	CCPOA North	CCPOA South	PORAC	Total
Alameda	—	—	—	566	566	Placer	—	—	—	458	458
Alpine	—	—	—	—	—	Plumas	—	—	—	130	130
Amador	—	—	—	179	179	Riverside	—	—	—	1,119	1,119
Butte	—	—	—	361	361	Sacramento	—	—	—	219	219
Calaveras	—	—	—	59	59	San Benito	—	—	—	401	401
Colusa	—	—	—	32	32	San Bernardino	—	—	—	773	773
Contra Costa	—	—	—	702	702	San Diego	—	—	—	213	213
Del Norte	—	—	—	13	13	San Francisco	—	—	—	37	37
El Dorado	—	—	—	245	245	San Joaquin	—	—	—	300	300
Fresno	—	—	—	30	30	San Luis Obispo	—	—	—	214	214
Glenn	—	—	—	94	94	San Mateo	—	—	—	258	258
Humboldt	—	—	—	91	91	Santa Barbara	—	—	—	187	187
Imperial	—	—	—	41	41	Santa Clara	—	—	—	547	547
Inyo	—	—	—	234	234	Santa Cruz	—	—	—	814	814
Kern	—	—	—	35	35	Shasta	—	—	—	516	516
Kings	—	—	—	—	—	Sierra	—	—	—	8	8
Lake	—	—	—	109	109	Siskiyou	—	—	—	180	180
Lassen	—	—	—	30	30	Solano	—	—	—	100	100
Los Angeles	—	—	—	2,723	2,723	Sonoma	—	—	—	119	119
Madera	—	—	—	15	15	Stanislaus	—	—	—	83	83
Marin	—	—	—	42	42	Sutter	—	—	—	368	368
Mariposa	—	—	—	22	22	Tehama	—	—	—	49	49
Mendocino	—	—	—	20	20	Trinity	—	—	—	32	32
Merced	—	—	—	51	51	Tulare	—	—	—	6	6
Modoc	—	—	—	22	22	Tuolumne	—	—	—	354	354
Mono	—	—	—	117	117	Ventura	—	—	—	914	914
Monterey	—	—	—	2,218	2,218	Yolo	—	—	—	56	56
Napa	—	—	—	73	73	Yuba	—	—	—	315	315
Nevada	—	—	—	302	302	Out of State	—	—	—	2,299	2,299
Orange	—	—	—	2,559	2,559	Out of Country/ Unknown	—	—	—	1	1
						Total Covered Lives	0	0	0	22,055	22,055

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 of Administration (the 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, 2020, the Deferred Compensation Program was adopted by 821 California public agencies and school districts. For a full listing of the program's participating public agencies, please visit our **Deferred Compensation** page at www.calpers.ca.gov.

SUPPLEMENTAL CONTRIBUTIONS PROGRAM

The Supplemental Contributions Program is available to State of California employees who are members of CalPERS, and active judges who are members of the Judges' Retirement System I or II. Participants may invest after-tax contributions through payroll deductions or cash contributions by check. Participant earnings grow tax-deferred until the program participants begin to take withdrawals in retirement or upon separation from state employment.

INVESTMENT FUND LINEUP

The Deferred Compensation Program and Supplemental Contributions Program for the Fiscal Year 2019-20 investment lineup allows participants to choose from 11 target retirement date funds and six core funds.

The investment fund lineup includes:

Eleven Target Retirement Date Funds

- Are structured with five-year increments to allow participants to target their retirement date.
- Utilize glide path strategy intended to reduce volatility risk as the member approaches retirement.

Six Core Funds

- Provide a broad range of asset class coverage to create a portfolio consistent with the participants' individual investment goals, time horizons, and risk tolerance.
- Span the risk-return spectrum, without duplication.

LONG-TERM CARE PROGRAM DATA

As of June 30, 2020, the total long-term care (LTC) participant count decreased 3.2 percent to 116,832. This decrease may be attributable to the LTC program stabilization and sustainability measures and realized participant population attrition. Premiums collected in Fiscal Year 2019-20 were \$278.5 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	17,545	4,800	1,038	595	1,081	1,015	26,074
10 Year	—	17,574	—	1,606	—	6	19,186
6 Year	1,936	16,475	18	1,448	3,006	3,087	25,970
3 Year	2,567	11,337	220	1,362	2,586	815	18,887
In-Nonforfeiture	10	3	—	—	—	—	13
TOTAL	22,058	50,189	1,276	5,011	6,673	4,923	90,130

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	2,287	914	115	50	169	138	3,673
10 Year	—	3,889	—	247	—	—	4,136
6 Year	292	4,119	9	237	191	639	5,487
3 Year	878	4,784	32	283	579	213	6,769
In-Nonforfeiture	1	1	—	—	—	—	2
TOTAL	3,458	13,707	156	817	939	990	20,067

Partnership Plans with Inflation

Benefit Period	LTC 1 (1995-2002)	LTC 2 (2003-2004)	LTC 3 (2005-2008)	Total
2 Year	2,270	142	61	2,473
1 Year	1,157	72	33	1,262
6 Month	78	7	1	86
In-Nonforfeiture	118	—	—	118
TOTAL	3,623	221	95	3,939

LTC 4¹ Comprehensive and Partnership Plans

Benefit Period	5% Compound Inflation	3% Compound Inflation	5% Simple Inflation	3% Simple Inflation	Benefit Increase Offer	No Inflation	Total
10 Year	17	61	5	354	52	17	506
6 Year	41	172	22	572	42	25	874
3 Year	59	241	17	842	71	46	1,276
2 Year	31	—	—	—	—	—	31
1 Year	9	—	—	—	—	—	9
TOTAL	157	474	44	1,768	165	88	2,696

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

Ten-Year Historical Participant Counts

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Total Covered Lives	116,832	120,632	124,472	128,276	132,274	136,253	139,947	144,933	150,330	154,634

INDEX

Tables, Charts and Lists

Index of Tables, Charts & Lists

A	JRS, 191
Active & Inactive Members	JRS II, 195
LRS, 185, 187	LRS, 187
PERF, 50, 156, 157, 164	
Active Members	
JRS, 189, 191	
JRS II, 193, 195	
Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions,	
PERF B, PERF C, LRF, JRF, & JRF II, 88-89	
Actuarial Assumptions Used to Measure the Total Pension Liability, PERF B, PERF C, LRF, JRF, & JRF II, 66	
Administrative Expenses, All Funds, 92	
Amortization of Unfunded Actuarial Accrued Liability, 122, 123	
Annual Money-Weighted Rate of Return, Net of Investment Expense, Six-Year Review, 89	
Asset Allocation	
CEPPTF, 116	
CERBTF, 117	
HCF, 118	
JRF II, 115	
LRF, 115	
LTCF, 118	
PERF, 106	
Asset Allocation, Target, PERF, LRF, JRF, & JRF II, 53	
Asset Allocation, Target, CEPPTF, 54	
Asset Allocation, Target, CERBTF, 53	
Average Benefit Payments, 10-Year Review	
JRS, 192	
JRS II, 196	
LRS, 188	
PERF, 166	
B	
Benefit and Refund Deductions from Fiduciary Net Position, Six-Year Review, PERF, 165	
Benefit Payments by Type	
JRS, 191	
JRS II, 195	
LRS, 187	
Benefit Recipients and Members, PERF, LRF, JRF, & JRF II, 50	
Benefit Recipients and Members by Employer Category, PERF, 164	
Benefit Recipients by Retirement Type	
	JRS, 191
	JRS II, 195
	LRS, 187
	C
	California Public Employees' Retirement System (CalPERS)
	Debt Securities Subject to Interest Rate Risk, 59
	Debt Security Investments Subject to Credit Risk, 60
	Derivative Instruments Highly Sensitive to Interest Rate Changes, 65
	Derivative Instruments Subject to Counterparty Credit Risk, 65
	Derivative Instruments Subject to Interest Rate Risk, 64
	Derivative Instruments Summary, 64
	International Investment Securities, Fair Value, 62
	Securities Lending Collateral Subject to Credit Risk, 61
	Securities Lending Collateral Subject to Interest Rate Risk, 60
	SSGA Fund Weighted Average Maturity and Credit Risk, 60
	CEPPTF
	Asset Allocation, 116
	Asset Allocation, Target, 54
	Changes in Fiduciary Net Position, 10-Year Review, 153
	Other Post-Employment Benefit Trust Fund, Changes in Fiduciary Net Position, 31
	Other Post-Employment Benefit Trust Fund, Net Position, 31
	Statement of Changes in Fiduciary Net Position, 45
	Statement of Fiduciary Net Position, 43
	CERBTF
	Asset Allocation, 117
	Asset Allocation, Target, 53
	Changes in Fiduciary Net Position, 10-Year Review, 154
	Other Post-Employment Benefit Trust Fund, Changes in Fiduciary Net Position, 33
	Other Post-Employment Benefit Trust Fund, Net Position, 33
	Portfolio Comparisons, 117
	Statement of Changes in Fiduciary Net Position, 45
	Statement of Fiduciary Net Position, 43
	Changes in Actuarial Assumptions, 124
	Changes in Fiduciary Net Position, 10-Year Review,
	Retirement Funds
	DCF, 152
	JRF, 151
	JRF II, 152
	LRF, 151

NOTE: For a glossary of frequently used acronyms that appear in this document, please see page 218.

Index of Tables, Charts & Lists (continued)

PERF, 150	Derivative Instruments Subject to Interest Rate Risk, 64
SCPF, 153	Derivative Instruments Summary, 64
Changes in Fiduciary Net Position	Discount Rate, 28
Custodial Fund, 35	
Defined Contribution Plan Funds, 30	
Other Defined Benefit Plan Funds, 26	
Other Post-Employment Benefit Trust Fund, 33	
Pension Prefunding Trust Fund, 31	
PERF, 23	
Change in Net Position	
Enterprise Funds, 38	
Changes in the Aggregate Estimated Claims Liabilities, HCF, 72	
Comprehensive and Partnership Plans, LTC 4,	
Long-Term Care Program, 210	
Comprehensive Plans, Long-Term Care Program, 210	
Consultant and Professional Services, 13	
Consultant and Professional Services Expenses, 100-102	
Contingency Reserve Fund (CRF)	
Expenses & Revenues, 10-Year Review, 199	
Statement of Cash Flows, 48	
Statement of Net Position, Proprietary Funds, 46	
Statement of Revenues, Expenses and Changes in	
Net Position, Proprietary Funds, 47	
Custodial Fund (RBF)	
Changes in Fiduciary Net Position, Three-Year Review, 155	
Statement of Changes in Fiduciary Net Position, 45	
Statement of Fiduciary Net Position, 43	
D	
Debt Securities Subject to Interest Rate Risk, 59	
Debt Security Investments Subject to Credit Risk, 60	
Deferred Compensation Fund (DCF)	
Changes in Fiduciary Net Position, 10-Year Review, 152	
Members, 52	
Statement of Changes in Fiduciary Net Position, 45	
Statement of Fiduciary Net Position, 43	
Defined Contribution Plan Funds	
Changes in Fiduciary Net Position, 30	
Fiduciary Net Position, 30	
Derivative Instruments Highly Sensitive to	
Interest Rate Changes, 65	
Derivative Instruments Subject to Counterparty	
Credit Risk, 65	
	E
	Economic Assumptions, 123
	Employers, PERF, 49
	Enterprise Funds
	Changes in Net Position, 38
	Expenses & Revenues, 10-Year Review,
	HCF, 198
	CRF, 199
	LTCF, 200
	Net Position, 38
	Exhibit A, Funding Progress, Unfunded Liability
	& Funded Ratios, PERF, LRF, JRF, & JRF II, 126
	Exhibit B, Funding Progress, Solvency Test, PERF,
	LRF, JRF, & JRF II, 127-128
	Exhibit C, Sample Pay Increase Assumptions for
	Individual Members, 129
	Exhibit D, Sample Non-Economic Assumptions, 130-138
	Exhibit E, Single Life Retirement Values, 139
	Exhibit F, Schedule of Active Member Valuation Data, 139
	Exhibit G, Members in Valuation, 140-142
	Exhibit H, Schedule of Retirees & Beneficiaries Added
	to and Removed from Rolls, PERF, LRF, JRF, & JRF II, 143
	Exhibit I: Analysis of Financial Experience, PERF, LRF,
	JRF, & JRF II, 144-148
	Expenses, Administrative, All Funds, 92
	Expenses & Revenues, Enterprise Funds, 10-Year Review,
	HCF, 198
	CRF, 199
	LTCF, 200
	F
	Facility Only Plans, Long-Term Care Program, 210
	Fiduciary Funds, Statement of Changes in
	Fiduciary Net Position, 44-45
	Fiduciary Funds, Statement of Fiduciary Net Position, 42-43
	Funding Progress
	Solvency Test, Exhibit B, PERF, LRF, JRF, & JRF II, 127-128
	Unfunded Liability & Funded Ratios, Exhibit A,
	PERF, LRF, JRF, & JRF II, 126

NOTE: For a glossary of frequently used acronyms that appear in this document, please see page 218.

Index of Tables, Charts & Lists (continued)

H	
Health Benefits Program Data	Actuarial Assumptions Used to Measure the Total Pension Liability, 66
Public Agency ASN Total Covered Lives by County, 208	Benefit Recipients and Members, 50
Public Agency HMO Total Covered Lives by County, 205-206	Changes in Fiduciary Net Position, 10-Year Review, 151
Public Agency PPO Total Covered Lives by County, 207-208	Net Pension Liability/(Asset), 66
State ASN Total Covered Lives by County, 205	Required Contribution Rates for Active Plan Members and Employers, 51
State HMO Total Covered Lives by County, 202-203	Schedule of Changes in Net Pension Liability/(Asset) and Related Ratios, Seven-Year Review, 83
State PPO Total Covered Lives by County, 203-204	Schedules of Plan Contributions, Pension Plans, Seven-Year Review, 87
Total Covered Lives by Health Plan, 201	Sensitivity Analysis, Discount Rate, +1%, -1%, 69
Total Covered Lives Summary, 201	Solvency Test, Exhibit B, Funding Progress, 127-128
Ten-Year Enrollments, 201	Statement of Changes in Fiduciary Net Position, 44
Health Care Fund (HCF)	Statement of Fiduciary Net Position, 42
Asset Allocation, 118	Target Asset Allocation, 53
Changes in Aggregate Estimated Claims Liabilities, 72	Unfunded Liability & Funded Ratios, Exhibit A, Funding Progress, 126
Expenses & Revenues, 10-Year Review, 198	Judges' Retirement Fund II (JRF II)
Portfolio Comparisons, 118	Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions, 89
Schedule of Claims Development Information, 90	Actuarial Assumptions Used to Measure the Total Pension Liability, 66
Statement of Cash Flows, 48	Asset Allocation, 115
Statement of Net Position, Proprietary Funds, 46	Benefit Recipients and Members, 50
Statement of Revenues, Expenses and Changes in Net Position, Proprietary Funds, 47	Changes in Fiduciary Net Position, 10-Year Review, 152
	Investment Performance, 115
	Long-Term Expected Real Rates of Return by Asset Class, 67
	Net Pension Liability/(Asset), 66
	Portfolio Comparisons, 115
	Required Contribution Rates for Active Plan Members, and Employers, 51
	Schedule of Changes in Net Pension Liability/(Asset) and Related Ratios, Seven-Year Review, 85
	Schedules of Plan Contributions, Pension Plans, Seven-Year Review, 85
	Sensitivity Analysis, Discount Rate, +1%, -1%, 69
	Solvency Test, Exhibit B, Funding Progress, 127-128
	Statement of Changes in Fiduciary Net Position, 44
	Statement of Fiduciary Net Position, 42
	Target Asset Allocation, 53
	Unfunded Liability & Funded Ratios, Exhibit A,
I	
International Investment Securities, Fair Value, 62	
Investment Expenses	
Investment Management Fees, 93-95	
Other Investment Expenses, 97-99	
Performance Fees, 96	
Investment Performance, Portfolio Comparisons	
CERBTF, 117	
HCF, 118	
JRF II, 115	
LRF, 115	
LTCF, 118	
PERF, 105	
Investments at Fair Value, 56	
Investments Measured at NAV, 57	
J	
Judges' Retirement Fund (JRF)	
Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions, 89	

NOTE: For a glossary of frequently used acronyms that appear in this document, please see page 218.

Index of Tables, Charts & Lists (continued)

Funding Progress, 126	Unfunded Liability & Funded Ratios, Exhibit A, Funding Progress, 126
Judges' Retirement System (JRS)	Legislators' Retirement System (LRS)
Active Members, 189, 191	Active & Inactive members, 187, 189
Average Benefit Payments, 10-Year Review, 192	Average Benefit Payments, 10-Year Review, 188
Benefit Payments by Type, 191	Benefit Payments by Type, 187
Benefit Recipients by Retirement Type, 191	Benefit Recipients by Retirement Type, 187
Membership & Retirement Data, 10-Year Review, 189	Membership & Retirement Data, 10-Year Review, 185
Judges' Retirement System II (JRS II)	Long-Term Care Fund (LTCF)
Active Members, 193, 195	Asset Allocation, 118
Average Benefit Payments, 10-Year Review, 196	Expenses & Revenues, 10-Year Review, 200
Benefit Payments by Type, 195	Portfolio Comparisons, 118
Benefit Recipients by Retirement Type, 195	Statement of Cash Flows, 48
Membership & Retirement Data, 10-Year Review, 193	Statement of Net Position, Proprietary Funds, 46
	Statement of Revenues, Expenses and Changes in Net Position, Proprietary Funds, 47
L	Long-Term Care Program
Largest Participating Employers,	Comprehensive and Partnership Plans, LTC 4, 210
Current Year, 168	Comprehensive Plans, 210
Largest Participating Employers,	Facility Only Plans, 210
Nine-Years Prior, 168	Partnership Plans with Inflation, 210
Largest Stock & Bond Holdings at Fair Value, PERF, 107	Ten-Year Historical Participant Counts, 210
Legislators' Retirement Fund (LRF)	Long-Term Expected Real Rates of Return by Asset Class
Actuarial Assumptions and Methods Used to Set the Actuarially Determined Contributions, 88	JRF II, 67
Actuarial Assumptions Used to Measure the Total Pension Liability, 66	LRF, 67
Asset Allocation, 115	PERF, 67
Benefit Recipients and Members, 50	
Changes in Fiduciary Net Position, 10-Year Review, 152	M
Investment Performance, 115	Members in DCF and SCPF, 52
Long-Term Expected Real Rates of Return by Asset Class, 67	Members in Valuation, Exhibit G, 140-142
Net Pension Liability/(Asset), 66	Membership & Retirement Data, 10-Year Review
Portfolio Comparisons, 115	JRS, 189
Required Contribution Rates for Active Plan Members, 51	JRS II, 193
Schedule of Changes in Net Pension Liability/(Asset) and Related Ratios, Seven-Year Review, 81	LRS, 185
Schedules of Plan Contributions, Pension Plans, Seven-Year Review, 87	PERS, Four-Year Review, 157
Sensitivity Analysis, Discount Rate, +1%, -1%, 69	PERS, Six-Year Review, 156
Solvency Test, Exhibit B, Funding Progress, 127-128	Money-Weighted Rate of Return, 68
Statement of Changes in Fiduciary Net Position, 44	
Statement of Fiduciary Net Position, 42	N
Target Asset Allocation, 53	Net Pension Liability/(Asset), PERF B, PERF C, LRF, JRF, & JRF II, 66

NOTE: For a glossary of frequently used acronyms that appear in this document, please see page 218.

Index of Tables, Charts & Lists (continued)

Net Position	Largest Participating Employers, Current Year, 168
Custodial Fund, 35	Largest Participating Employers, Nine-Years Prior, 168
Defined Contribution Plan Funds, 30	New Contracts, 167
Enterprise Funds, 38	Participating by Type, Employers, 168-172
Other Defined Benefit Plan Funds, 26	Popular Benefit Amendments, 167
Other Post-Employment Benefit Trust Fund (CERBTF), 33	Reciprocal Systems, 168
PERF, 23	Public Employees' Health Care Fund, Schedule of Claims
Pension Prefunding Trust Fund (CEPPTF), 31	Development Information, 90
New Contracts, Public Agency Employers, 167	Public Employees' Retirement Fund (PERF)
	Active & Inactive Members, 50, 156, 157
O	Actuarial Assumptions and Methods Used to Set the
Other Defined Benefit Plan Funds	Actuarially Determined Contributions,
Changes in Fiduciary Net Position, 26	PERF B, PERF C, 88
Fiduciary Net Position, 26	Actuarial Assumptions Used to Measure the Total Pension
Other Investment Expenses, 97-99	Liability, PERF B, PERF C, 66
Other Post-Employment Benefit Trust Fund (CERBTF)	Asset Allocation, Target, 53
Changes in Fiduciary Net Position, 33	Asset Allocations, 106
Fiduciary Net Position, 33	Average Benefit Payments - Ten-Year Review, 166
	Benefit and Refund Deductions from Fiduciary Net Position,
P	Seven-Year Review 165
Participating Public Agencies by Type, Employers 168-184	Benefit Recipients and Members, 50
Partnership Plans with Inflation, Long-Term Care Program, 210	Changes in Fiduciary Net Position, 10-Year Review, 150
Pension Prefunding Trust Fund	Changes in Fiduciary Net Position, 23
Changes in Fiduciary Net Position, 31	Fiduciary Net Position, 23
Fiduciary Net Position, 31	Investment Performance, Portfolio Comparisons, 105
Performance Fees, 96	Largest Stock & Bond Holdings at Fair Value, 107
Popular Benefit Amendments, Public Agency Employers, 167	Long-Term Expected Real Rate of Return by Asset Class, 67
Portfolio Comparisons	Net Pension Liability/(Asset), PERF B, PERF C, 66
CERBTF, 117	Portfolio of California Investments at Fair Value, 106
HCF, 118	Required Contribution Rates for Active Plan Members, 51
JRF II, 115	Schedule of Changes in Net Pension Liability/(Asset) and
LRF, 115	Related Ratios, PERF B, PERF C, Seven-Year Review, 78, 79
LTCF, 118	Schedule of Commissions & Fees, 108-109
PERF, 105	Schedules of Plan Contributions, Pension Plans,
Portfolio of California Investments at Fair Value, PERF, 106	PERF B, PERF C, Seven-Year Review, 87
Private Equity Management Fees & Profit Sharing, PERF, 110-114	Sensitivity Analysis, Discount Rate, +1%, -1%,
Proprietary Funds	PERF B, PERF C, 69
Statement of Cash Flows, 48	Solvency Test, Exhibit B, Funding Progress, 127-128
Statement of Net Position, 46	Statement of Changes in Fiduciary Net Position, 44
Statement of Revenues, Expenses and Changes	Statement of Fiduciary Net Position, 42
in Fund Net Position, 47	Summary of Investments, 105
Public Agency Employers	

NOTE: For a glossary of frequently used acronyms that appear in this document, please see page 218.

Index of Tables, Charts & Lists (continued)

- Target Asset Allocation, 53
- Unfunded Liability & Funded Ratios, Exhibit A, Funding Progress, 126
- Public Employees' Retirement System (PERS)
 - Membership & Retirement Data, Four-Year Review, 157
 - Membership & Retirement Data, Six-Year Review, 156
- R**
- Reciprocal Systems, Public Agency Employers 168
- Replacement Benefit Fund (RBF), 35
 - Changes in Fiduciary Net Position, 155
 - Statement of Changes in Fiduciary Net Position, 45
 - Statement of Fiduciary Net Position, 43
- Required Contribution Rates for Active Plan Members and Employers, PERF, LRF, JRF & JRF II, 51
- Retirement Programs
 - Changes in Fiduciary Net Position, 10-Year Review, DCF, 152
 - JRF, 151
 - JRF II, 152
 - LRF, 151
 - PERF, 150
 - SCPF, 153
- Membership & Retirement Data, 10-Year Review,
 - JRS, 189
 - JRS II, 193
 - LRS, 185
 - PERS, Four-Year Review, 157
 - PERS, Six-Year Review, 156
- S**
- Sample Non-Economic Assumptions, Exhibit D, 130-138
- Sample Pay Increase Assumptions for Individual Members, Exhibit C, 129
- Schedule of Changes in Net Pension Liability/(Asset) and Related Ratios, Seven-Year Review
 - JRF, 83
 - JRF II, 85
 - LRF, 81
 - PERF B, 78
 - PERF C, 79
- Schedule of Claims Development Information, Public Employees' Health Care Fund, 90
- Schedule of Commissions & Fees, PERF, 108-109
- Schedule of Investment Returns, Annual Money-Weighted Rate of Return, Net of Investment Expense, Seven-Year Review, 89
- Schedule of Retirees & Beneficiaries Added to/and Removed from Rolls, Exhibit H, 143
- Schedules of Plan Contributions, Pension Plans,
 - Seven-Year Review, PERF B, PERF C, LRF, JRF & JRF II, 87
- Securities Lending Collateral Subject to Credit Risk, 61
- Securities Lending Collateral Subject to Interest Rate Risk, 60
- Sensitivity Analysis, Discount Rate, +1%, -1%, PERF B, PERF C, LRF, JRF & JRF II, 69
- Ten-Year Historical Participant Counts,
 - Long-Term Care Program, 210
- Single Life Retirement Values, Exhibit E, 139
- SSGA Fund Weighted Average Maturity and Credit Risk, 60
- Statement of Cash Flows, Proprietary Funds, 48
- Statement of Changes
 - in Fiduciary Net Position, Fiduciary Funds, 44-45
- Statement of Fiduciary Net Position, Fiduciary Funds, 42-43
- Statement of Net Position, Proprietary Funds, 46
- Statement of Revenues, Expenses and Changes in Net Position, Proprietary Funds, 47
- Summary of Investments, PERF, 105
- Supplemental Contributions Program Fund (SCPF)
 - Changes in Fiduciary Net Position, 10-Year Review, 153
 - Members, 52
 - Statement of Changes in Fiduciary Net Position, 45
 - Statement of Fiduciary Net Position, 43
- T**
- Target Asset Allocation, PERF, LRF, JRF, JRF II, 53
- Ten-Year Enrollments, Health Benefits Program Data, 201
- U**
- Unfunded Liability & Funded Ratios, Exhibit A, Funding Progress, PERF, LRF, JRF, JRF II, 126
- Schedule of Claims Development Information, Public Employees'

NOTE: For a glossary of frequently used acronyms that appear in this document, please see page 218.

Index of Tables, Charts & Lists (continued)

GLOSSARY OF ACRONYMS

AAL: Actuarial Accrued Liability	HCF: Health Care Fund
ACA: Affordable Care Act	HMO: Health Maintenance Organization
ALM: Asset Liability Management	IBNR: Incurred But Not Reported
CAFR: Comprehensive Annual Financial Report	IRC: Internal Revenue Code
CalPERS: California Public Employees' Retirement System	IRS: Internal Revenue Service
CEPPTF: California Employers' Pension Prefunding Trust Fund	JRF: Judges' Retirement Fund
CERBTF: California Employers' Retiree Benefit Trust Fund	JRF II: Judges' Retirement Fund II
COLA: Cost-of-Living Adjustments	JRS: Judges' Retirement System
CRF: Contingency Reserve Fund	JRS II: Judges' Retirement System II
DCF: Public Agency Deferred Compensation Fund	LRF: Legislators' Retirement Fund
EGWP: Federal Employer Group Waiver Plan	LRS: Legislators' Retirement System
eSec: ESecLending LLC	LTC: Long-Term Care
ESG: Environmental, Social, and Governance	LTCF: Long-Term Care Fund
GASB: Governmental Accounting Standards Board	MWRR: Money-Weighted Rate of Return
GASB 28: GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions	NAV: Net Asset Value
GASB 34: GASB Statement No. 34, Basic Financial Statements— and Management's Discussion and Analysis—for State and Local Governments	OASI: Old Age & Survivors' Insurance Revolving Fund
GASB 40: GASB Statement No. 40, Deposit and Investment Risk Disclosures—an amendment of GASB Statement No. 3	OCC: Options Clearing Corporation
GASB 67: GASB Statement No. 67, Financial Reporting for Pension Plans—an amendment of GASB Statement No. 25	OPEB: Other Post-Employment Benefits
GASB 68: GASB Statement No. 68, Accounting and Financial Reporting for Pensions, an amendment of GASB Statement No. 27	PEMHCA: Public Employees' Medical and Hospital Care Act
GASB 72: GASB Statement No. 72, Fair Value Measurement and Application	PEPRA: Public Employees' Pension Reform Act
GASB 74: GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans	PERF: Public Employees' Retirement Fund
GASB 75: GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pensions	PERL: Public Employees' Retirement Law
GASB 84: GASB Statement No. 84, Fiduciary Activities	PERS: Public Employees' Retirement System
	RBF: Replacement Benefit Fund
	REIT: Real Estate Investment Trusts
	SCPF: Supplemental Contributions Program Fund
	SSB: State Street Bank
	SSGA: State Street Bank Global Advisors
	STIF: Short-Term Investment Fund
	System: The California Public Employees' Retirement System

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

This page intentionally left blank.

This page intentionally left blank.



California Public Employees'
Retirement System
400 Q Street
P.O. Box 942701
Sacramento, CA 94229-2701
(916) 795-3991
(916) 795-3507 fax
TTY: (877) 249-7442

www.calpers.ca.gov

