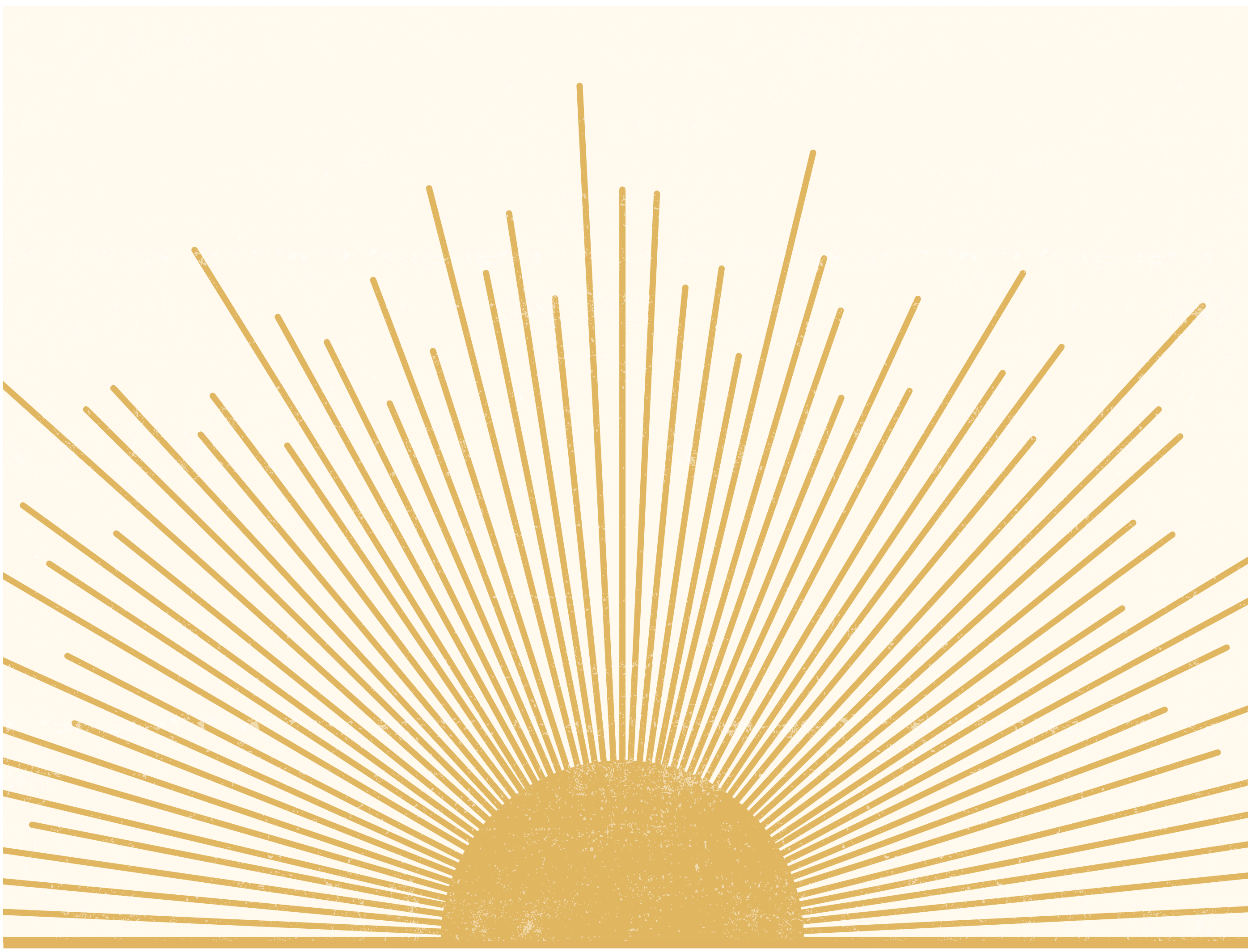
2020–21

Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2021

Meeting the Challenge,
Fulfilling our Mission



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

CalPERS

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ANNUAL COMPREHENSIVE FINANCIAL REPORT

Fiscal Year Ended June 30, 2021

Prepared through the joint efforts of CalPERS team members.

Available online at **www.calpers.ca.gov**

CalPERS

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

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2020-21 IN NUMBERS

"Despite the challenges of a global health crisis, we continue to fulfill our mission to provide retirement security to our members. After the lessons we've learned from the past two years, we are starting the new fiscal year on a stronger and more resilient path."

Marcie Frost, *CalPERS CEO*

Where We Stand

$477.3 billion
Net position (PERF)

2,892
Contracted employers

2 million+
members

21.3%
Net time-weighted rate of return (PERF)

1.5 million+
Total covered lives (health)

70.6%
Funded as of June 30, 2020 (PERF)

750,000+
Retirees & beneficiaries

82%
Estimated funded as of June 30, 2021 (PERF) (based on 7% discount rate)

$27.4 billion
Annual pension benefit payments (PERF)

$58.7 billion
Invested in California-based companies & projects

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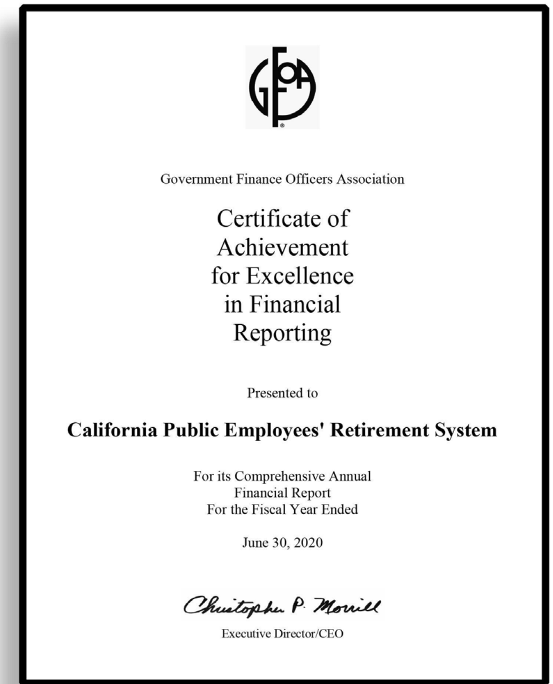
INTRODUCTORY SECTION

PROFESSIONAL AWARDS

CERTIFICATE OF ACHIEVEMENT FOR EXCELLENCE IN FINANCIAL REPORTING

The Government Finance Officers Association of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to CalPERS for our Annual Comprehensive Financial Report for the fiscal year ended June 30, 2020. This was the 25th 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 Annual Comprehensive Financial Report that satisfies both generally accepted accounting principles and applicable legal requirements. We believe our current Annual Comprehensive Financial Report continues to meet the Certificate of Achievement Program's requirements.



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

California Public Employees' Retirement System

For its Comprehensive Annual Financial Report For the Fiscal Year Ended

June 30, 2020

Christopher P. Morrill

Executive Director/CEO

PUBLIC PENSION STANDARDS AWARD

The Public Pension Coordinating Council awarded a Public Pension Standards Award for Funding and Administration to CalPERS for the fiscal year ended June 30, 2021. This is the 19th 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.

PPCC

Public Pension Coordinating Council

Public Pension Standards Award For Funding and Administration 2021

Presented to

California Public Employees' Retirement System

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

Presented by the Public Pension Coordinating Council, a confederation of

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

Alan H. Winkle
Program Administrator

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL

Marcie Frost
Chief Executive Officer

November 19, 2021

Members of the CalPERS Board of Administration:
I am pleased to present the California Public Employees' Retirement System (CalPERS) Annual Comprehensive Financial Report (ACFR) for the fiscal year ended June 30, 2021.

This year has been like no other as we face a second year of the COVID-19 pandemic. The ongoing situation and the historic nature of the pandemic have created challenges in how we live and work. With 95 percent of our team members working remotely, we continued to operate largely in a virtual work environment during the fiscal year, while the remaining team members conducted in-office operations for essential services and support. While this has created unique situations, we have found innovative solutions to continue to meet the needs of our members and employers.

With the economy rebounding from the downturn, we saw a strong fiscal year return of 21.3 percent primarily driven by our Private and Public Equity programs that generated a 43.8 percent and 36.3 percent net return, respectively. The market value of the fund also saw tremendous growth of $84 billion over the previous fiscal year and it stood at $477 billion as of June 30, 2021.

With the strong investment return, the Funding Risk Mitigation Policy was triggered and reduced the discount rate from 7 percent to 6.8 percent. This policy was approved by the CalPERS Board in 2015 and automatically reduced the discount rate in years of good investment returns. The goal of the policy is to help balance pension plan risks and funding, while providing greater predictability and less volatility in contribution rates for employers. This is the first time the policy was triggered.

While the Funding Risk Mitigation Policy lowered the discount rate to a new baseline, the board is considering if it will remain at this current level or if it should be lowered again as part of our formal Asset Liability Management (ALM) process. This process will continue through the end of 2021 as the board reviews the capital market assumptions and the experience study that measures our member's life expectancy. To keep our stakeholders informed about the ALM process, we held numerous educational sessions throughout the second half of fiscal year 2020-21 to keep everyone up-to-date as we balance costs and our future investment returns.

Balancing costs is also critical as retirements continue to increase each year. At the end of the fiscal year, we paid out $27.4 billion in pension benefits to more than 750,000 retirees and beneficiaries, a $1.6 billion or 6.3 percent increase from the previous year. This increase was primarily due the cost-of-living increases in benefit payments and the rise in the number of retirees and beneficiaries.

Though retirements increased and the majority of our team members worked remotely during the pandemic, we still exceeded our Customer Service targets in benefit payment timeliness. We also continued to provide virtual counseling services for members and completed nearly 59,000 virtual appointments during the year by phone and video appointments.

Retirement benefits play an important role in the state's economy. The most recent Economic Impacts of CalPERS Pensions in California report that solely focuses on the impacts in the state showed that we paid $21.3 billion in retirement benefits during fiscal year 2019-20 to California retirees and beneficiaries. This generated $28 billion in economic activity that supported jobs and increased business and tax revenue. The economic impacts are significant throughout the state, and especially in smaller communities.

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

Our core mission is to pay benefits for generations, and investing in California helps us fulfill that commitment. The most recent CalPERS for California report, presented to the board in November 2020, showed that in fiscal year 2018-19, CalPERS' California-based investments totaled $34 billion or 9 percent of the total fund and supported an estimated 169,600 estimated jobs.

Executing on our investment strategy requires having the right team in place. While we have a strong team in place based on our investment return results, our chief investment officer position is vacant. We have been working with an outside recruiting firm who is leading the search, and we're hopeful we can make a selection by the end of this calendar year 2021.

To continue our longstanding commitment to diversity, equity, and inclusion (DEI), we named our first Chief Diversity, Equity & Inclusion Officer, Marlene Timberlake D'Adamo, in June 2021. This position will help strengthen our DEI framework presented to the board in March 2021 and will better enable us to identify and analyze emerging DEI issues and opportunities.

In health care, the average overall premium increase will be 4.86 percent for calendar year 2022. Overall, the impact of COVID-19 is projected to be modest, but we expect some increase as a result of the delayed or deferred care caused by the pandemic. Cost drivers for the overall 2022 premium increase include medical inflation, pharmaceutical inflation, and buy-down adjustments to premiums made in 2021. For some plans, excess funds in their health care fund account were used to lower the plan's premium. The new premiums were approved by the board in July 2021 and will take effect on January 1, 2022.

Next year will also be the first year that the three CalPERS PPOs will change to two new plans—PERS Platinum and PERS Gold that offer more distinction in benefit design, networks, and pricing. This change was a result of a yearlong analysis to stabilize the basic plan portfolio that had a high level of engagement with our members, employers, and stakeholders.

In the Long-Term Care Program, we suspended open enrollment in the program in June 2020 due to uncertainty in the long-term care market. The board also approved a rate increase on all LTC program policies over two years that will take effect no earlier than November 2021 and, if necessary, a second increase to take effect no earlier than fall 2022.

While this is our final and fifth year of the *2017-22 Strategic Plan*, we kicked off a two-year process to begin development of a thoughtful and relevant *2022-27 Strategic Plan*. This new five-year plan will help guide us as we strive to meet the investment, health, and retirement benefit needs of our members and their families.

Looking Forward

As we look back and move forward into this new fiscal year through the continued global health crisis, we've learned that despite these challenges our team can quickly shift to keep us on track to meet our goals.

This new fiscal year will be marked by major decisions by the board under the ALM process. These include selecting a new asset allocation for the Fund's investment portfolio and changes to the actuarial assumptions that may lower the discount rate. These changes will have financial impacts to employer and employee costs, so having input from the employer and employee stakeholders in addition to the pension and investment consultants has been a top priority.

While we reflect on our progress and look forward to returning to the office when it's safe to do so, you can be confident that our goals remain the same—strengthening the fund each year and keeping our stakeholders and employers informed through the shifting financial landscape. Ultimately, despite the challenges, through innovation and leadership, we will continue delivering the exceptional service that our members and employers expect.

Funding

The funded status of the PERF is 70.6 percent as of June 30, 2020, that was calculated using the 7 percent discount rate, while the estimate for June 30, 2021, increased by almost 12 percentage points to approximately 82 percent. When the discount rate was lowered to 6.8 percent due to the Funding Risk Mitigation Policy that was triggered as of July 1, 2021, the funded status is estimated at 80 percent. This lower discount rate increases the likelihood that we can reach our target over the longer term.

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 ACFR for Fiscal Year 2020-21. 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.

CHIEF EXECUTIVE OFFICER'S LETTER OF TRANSMITTAL (CONTINUED)

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 and other procedures as they deem necessary to express opinions on the Basic Financial Statements in their report to the board. The external auditors also have full and unrestricted access to the board to discuss their audit and related findings as to the integrity of the financial reporting and the adequacy of internal control systems.

Accounting System and Reports

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

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

This Letter of Transmittal is designed to complement the MD&A and should be read in conjunction with it. The CalPERS MD&A can be found immediately following the report of the independent auditors.

Marcie Frost
Chief Executive Officer

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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 $477 billion as of June 30, 2021.

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 Bernardino, San Diego, 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 1,328,419 active and inactive members and 753,054 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, deferred compensation retirement savings plans, a pension prefunding plan, and a defined benefit other post-employment benefit plan.

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.

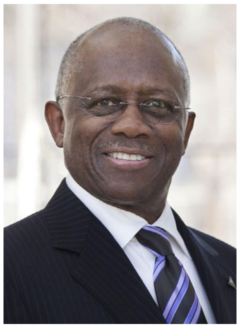
Competitive Plan Choice

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[1]



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

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

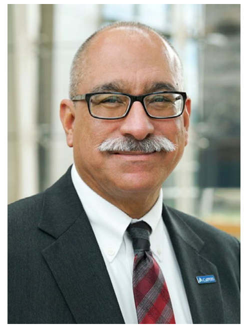
David Miller
All Member Representative
Senior Environmental Scientist
California Department of Toxic Substances Control
Term Ends: January 15, 2022

Stacie Olivares
Governor Appointee
Insurance Industry Representative

[1]As of June 30, 2021, unless otherwise noted.

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*
*Vacant as of June 2021

Shawnda Westly
Ex Officio Member
State Personnel Board Representative

Betty Yee
Ex Officio Member
California State Controller

ORGANIZATIONAL CHART – EXECUTIVE TEAM[1]

Marcie Frost
Chief Executive Officer

Dan Bienvenue
Interim Chief Investment Officer
Investment Office

Michael Cohen
Chief Financial Officer
Financial Office

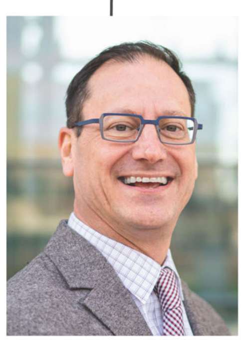
Christian Farland
Chief Information Officer
Information Technology

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 Diversity, Equity, and Inclusion Officer

[1]As of June 30, 2021, unless otherwise noted.

CONSULTANT & PROFESSIONAL SERVICES

Individual or Firm[1]
AgreeYa Solutions, Inc.
American Unit, Inc.
Anthem Blue Cross
BDO USA, LLP
Belmonte Enterprises, LLC
Berman Tabacco
Blue Shield of California
BM Associates, Inc.
Buck Global, LLC
Capio Group
CogentTec, LLC
Cornerstone Fitness, Inc.
Delegata Corporation
Department of Human Resources
Department of Industrial Relations
Department of Justice
Dore Partnership, LLC
Durie Tangri, LLP
Elegant Enterprise Wide Solutions, Inc.
Elite Tech Solutions
Elynview Corporation
Employment Development Department
Equanim Technologies
Faegre Drinker Biddle & Reath, LLP
First Data Merchant Services Corporation
Global Governance Advisors, LLC
Government Operations Agency
Health Net of California
Health Services Advisory Group, Inc.
inContact, Inc.
Innovative Software Technologies, Inc.
Integrity Voting Systems (IVS)
J & K Court Reporting, LLC
JLynn Consulting, Inc.
K&L Gates, LLP
KearnFord Application Systems Design
King & Spalding, LLP
Kong Consulting, Inc.
Long Term Care Group, Inc.
Matrix Software Services
Mellon Bank
Mercer Health and Benefits
Michael Scales Consulting, LLC
Milliman, Inc.
Mulkey Consulting, LLC
National Association Corporate Directors
Northeast Retirement Services
Nossaman, LLP
Olson Remcho, LLP
OptumRx
Orrick Herrington & Sutcliffe, LLP
Pasanna Consulting Group, LLC
Perspecta State and Local, Inc.

Individual or Firm[1]
QualApps, Inc.
Randle Communications, LLC
Recon Distribution, Inc.
RS3 Consulting
RSC Insurance Brokerage, Inc.
Runyon Saltzman, Inc.
Saba Software, Inc.
Sard Verbinnen & Co, LLC
Sharp Health Plan
Skadden, Arps, Slate, Meagher & Flom, LLP
Slalom, LLC
Sophus Consulting
SPH Analytics
State Controller's Office
State Personnel Board
State Treasurer's Office
Steptoe & Johnson, LLP
T5 Consulting
Take 1 Productions
The Highlands Consulting Group, LLC
The RAND Corporation
The Regents of the University of California
Toppan Merrill, LLC
Trinity Technology Group, Inc.
United HealthCare
Vantage Consulting Group, Inc.
Voya
West Advanced Technologies, Inc.
Western Health Advantage
Wolfsdorf Rosenthal, LLP
Worktank Enterprises, LLC

(1) Additional information regarding investment professionals who provide services to the System can be found in the Financial Section: Other Supplementary Information. The Schedule of Commissions & Fees listed by broker, and Private Equity Management Fees – PERF listed by fund, can be found in the Investment Section on pages 112-117.

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FINANCIAL SECTION

Independent Auditor's Report/MD&A

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 Audit of the Financial Statements

Opinions

We have audited the 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, 2021, 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.

In our opinion, the accompanying financial statements 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, 2021, 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.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the System and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern within one year after the date that the financial statements are issued or available to be issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 System's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the System's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

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 as of and for the year ended June 30, 2020, 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 is the responsibility of management and, 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 GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Supplementary 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 GAAS. 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 it.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 19, 2021 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 System's internal control over financial reporting and compliance.

BDO USA, LLP

San Francisco, CA
November 19, 2021

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, 2021. 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 Annual Comprehensive Financial Report. 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 fourth 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 2020-21 Business Plan Initiatives allowed the organization to set priorities and assisted in the allocation of resources. It aligns to the 2020-21 budget cycle to accomplish the goals and objectives of the strategic plan. CalPERS identified 33 initiatives to continue 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 result in optimum asset allocations to assure the competency of the assets, 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. CalPERS is conducting an ALM process during calendar year 2021 for the next four-year cycle. During the first half of the year team members provided a series of webinars to stakeholders, as well as educational agenda items to the CalPERS Board. During the second half of the year staff will present results of the ALM analysis to the CalPERS Board for adoption of changes to asset allocations or actuarial assumptions. The effective date for the selected strategic asset allocation implementation is July 1, 2022.

- 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

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. The pandemic negatively impacted CalPERS' corporate governance activities. While staff was still able to vote proxies, file shareholder proposals, and run proxy solicitations, some Annual General Meetings (AGMs) and some engagement meetings were canceled or postponed. During the proxy season, team members engaged with numerous companies concerning how COVID-19 was/is impacting their business operations, financial condition, human capital, customers, and communities at large.

- In November 2020, the Board approved a portfolio rating strategy for Basic HMO and PPO plans that will commence in the 2022 plan year with a two-year phase-in period. Portfolio Rating will enable CalPERS to manage population health risk within the portfolio of Basic health plans, improve quality and affordability of health care, promote efficient care management, and mitigate year-over-year premium volatility and large premium increases. Additionally, the Board approved to replace the current three PPO Basic and Medicare Supplemental plans (PERSCare, PERS Choice, and PERS Select) with two plans, PERS Platinum and PERS Gold effective January 1, 2022. This change will benefit members by eliminating adverse selection and stabilizing the health plan portfolio.

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, 2021. 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 22.4 percent and realized a time-weighted rate of return of 21.3 percent in Fiscal Year 2020-21. The investment results reflect a globally diversified portfolio with primary drivers including strong performance from public and private equity.

- In July 2020, the Board approved health plan premiums for calendar year 2021, at an overall average premium increase of 4.32 percent.

- CalPERS has agreed to a proposed settlement in the Long-Term Care Program class action lawsuit upon acceptance by the affected parties and the courts. CalPERS could pay an estimated $2.9 billion, which includes contingency costs, settlement administration expenses, attorneys' fees and expenses, and service awards for the plaintiffs.

- CalPERS as the State Social Security Administrator (SSSA) began collecting an Annual Maintenance Fee on July 1, 2019. The fee is charged to fund the State Social Security Administration (SSA) and its services. The fees collected during Fiscal Year 2020-21 exceeded the targeted amount needed to fund next fiscal year's anticipated expenditures; therefore, for fiscal year 2021-22, SSSA will not issue Annual Maintenance Fee invoices.

- 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 long-term 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.

The U.S. House of Representatives on March 10, 2021, passed the Senate-amended H.R. 1319, the American Rescue Plan (ARP). The ARP provides $1.9 trillion in additional relief to respond to the novel coronavirus (COVID-19). This follows the enactment of nearly $4 trillion in COVID relief in 2020. President Joe Biden called for Congress to enact the ARP to provide relief for individuals and businesses struggling due to COVID-19, as well as to achieve other priorities of the Biden Administration and Congress. ARP includes provisions on aid to state and local governments, hard-hit industries and communities, tax changes affecting individuals and businesses, and other provisions. 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.

- The total pension administration cost in Fiscal Year 2019-20 (most recent available) was $217 per active member and annuitant.

BASIC FINANCIAL STATEMENTS

The June 30, 2021, 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’ 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), Judges’ Retirement Fund (JRF), Judges’ Retirement Fund II (JRF II), Public Employees’ Deferred Compensation Fund (DCF), Supplemental Contributions Program Fund (SCPF), California Employers' Pension Prefunding Trust Fund (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, 2021, along with comparative total information as of, and for, fiscal year ended June 30, 2020. 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, 2021, along with comparative total information as of, and for, fiscal year ended June 30, 2020. 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. The following is a description of information available in the Notes to the Basic Financial Statements:

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 Governmental Accounting Standards Board 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 supplementary 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 $84.9 billion or 21.6 percent from $392.5 billion as of June 30, 2020, to $477.3 billion as of June 30, 2021, primarily due to significant market growth this year. Receivables increased $0.7 billion or 16.9 percent due to higher outstanding investment trades. Investment balances increased by $89.4 billion from $395.8 billion as of June 30, 2020, to $485.2 billion as of June 30, 2021, due to significant market growth. Securities lending collateral increased $2.1 billion or 173.5 percent, and securities lending obligations increased $2.1 billion or 173.4 percent as a result of an overall increase in demand to borrow securities at year-end. Capital Assets, Net and Other Assets decreased $83.4 million or 24.3 percent primarily due to increased cumulative amortization of capitalized intangible assets related to myCalPERS software development.

Retirement benefits, investment settlement and other liabilities increased $5.7 billion or 80.2 percent primarily due to higher outstanding investment trades. Total net pension and OPEB liabilities decreased by $8.4 million or 0.8 percent. While the overall net OPEB obligation for the state increased, the PERF share decreased due to a decrease in the allocated share of the liability, partially offset by an increase in interest on total pension liability.

Additions to the PERF net position include member contributions, employer contributions, nonemployer contributions, and investment income. Member contributions decreased $0.1 billion or 2.9 percent. Employer and nonemployer contributions decreased $2.9 billion or 12.7 percent, due in part to state furloughs resulting in salary reductions this year. Additionally, the prior year included a one-time supplemental employer contribution. Employer contribution rates increased between 0.1 percent and 1.3 percent for state, 1.0 percent for schools, and between 2.8 percent and 4.0 percent on average for public agency miscellaneous and safety plans.

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 $88.1 billion in Fiscal Year 2020-21, compared to $18.5 billion in Fiscal Year 2019-20, an increase of $69.5 billion or 375.6 percent, due to significantly higher investment returns in Fiscal Year 2020-21. The current year returns were driven by Private Equity and Public Equity. The PERF recognized a MWRR of 22.4 percent for Fiscal Year 2020-21 compared with 5.0 percent for Fiscal Year 2019-20.

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 2020-21, retirement, death, and survivor benefits payments increased $1.6 billion or 6.3 percent, primarily due to cost-of-living increases in benefit payments, and an increase in the number of retirees and beneficiaries from 732,529 as of June 30, 2020, to 750,618 as of June 30, 2021. Administrative expenses for CalPERS personnel decreased $132.3 million or 25.2 percent primarily due to a decrease in the OPEB expense as a result of lower net OPEB liability.

Fiduciary Net Position – PERF (Dollars in Thousands)

	PERF A Agent	PERF B Cost-Sharing Schools	PERF C Cost-Sharing Public Agencies	2021 PERF Total	2020 PERF Total	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	$785,899	$194,460	$92,398	$1,072,757	$496,722	$576,035
Receivables	3,225,634	999,712	339,191	4,564,537	3,903,430	661,107
Investments	355,963,472	87,769,397	41,485,187	485,218,056	395,818,963	89,399,093
Securities Lending Collateral	2,454,847	607,417	288,617	3,350,881	1,225,270	2,125,611
Capital Assets, Net & Other Assets	190,264	47,078	22,369	259,711	343,158	(83,447)
Total Assets	**$362,620,116**	**$89,618,064**	**$42,227,762**	**$494,465,942**	**$401,787,543**	**$92,678,399**
Deferred Outflows of Resources	$80,525	$19,925	$9,467	$109,917	$128,697	($18,780)
Total Assets and Deferred Outflows of Resources	**$362,700,641**	**$89,637,989**	**$42,237,229**	**$494,575,859**	**$401,916,240**	**$92,659,619**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement Benefits, Investment Settlement & Other	$9,404,253	$2,307,464	$1,086,902	$12,798,619	$7,104,364	$5,694,255
Net Pension & OPEB Liabilities	750,748	185,762	88,266	1,024,776	1,033,127	(8,351)
Securities Lending Obligations	2,454,978	607,449	288,632	3,351,059	1,225,672	2,125,387
Total Liabilities	**$12,609,979**	**$3,100,675**	**$1,463,800**	**$17,174,454**	**$9,363,163**	**$7,811,291**
Deferred Inflows of Resources	$57,623	$14,258	$6,775	$78,656	$100,536	($21,880)
Total Liabilities and Deferred Inflows of Resources	**$12,667,602**	**$3,114,933**	**$1,470,575**	**$17,253,110**	**$9,463,699**	**$7,789,411**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$350,033,039**	**$86,523,056**	**$40,766,654**	**$477,322,749**	**$392,452,541**	**$84,870,208**

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

	PERF A Agent	PERF B Cost-Sharing Schools	PERF C Cost-Sharing Public Agencies	2021 PERF Total	2020 PERF Total	Increase/ (Decrease)
ADDITIONS						
Member Contributions	$3,342,716	$1,019,154	$395,130	$4,757,000	$4,901,000	($144,000)
Employer Contributions	15,141,505	2,972,220	1,921,032	20,034,757	22,039,561	(2,004,804)
Nonemployer Contributions	—	—	—	—	904,000	(904,000)
Net Investment Income	64,637,985	15,907,972	7,513,952	88,059,909	18,516,994	69,542,915
Securities Lending & Other Income	83,158	20,527	9,726	113,411	109,104	4,307
Plan-to-Plan Resource Movement	—	—	348,384	348,384	185,907	162,477
Total Additions	**$83,205,364**	**$19,919,873**	**$10,188,224**	**$113,313,461**	**$46,656,566**	**$66,656,895**
DEDUCTIONS						
Retirement, Death & Survivor Benefits	$20,396,477	$4,833,052	$2,185,665	$27,415,194	$25,781,920	$1,633,274
Refund of Contributions	163,551	99,343	24,662	287,556	323,180	(35,624)
Administrative Expenses	287,357	71,018	33,744	392,119	524,451	(132,332)
Plan-to-Plan Resource Movement	348,384	—	—	348,384	185,907	162,477
Total Deductions	**$21,195,769**	**$5,003,413**	**$2,244,071**	**$28,443,253**	**$26,815,458**	**$1,627,795**
INCREASE IN NET POSITION	**$62,009,595**	**$14,916,460**	**$7,944,153**	**$84,870,208**	**$19,841,108**	**$65,029,100**
NET POSITION						
Beginning of Year	**$288,023,444**	**$71,606,596**	**$32,822,501**	**$392,452,541**	**$372,611,433**	**$19,841,108**
End of Year	**$350,033,039**	**$86,523,056**	**$40,766,654**	**$477,322,749**	**$392,452,541**	**$84,870,208**

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 2020-21 increased by $8.0 million or 7.0 percent from the beginning balance of $114.0 million to $122.0 million mainly due to higher return on investments. Investments at fair value increased $7.9 million or 6.9 percent, due to the high performance of equity securities. The total liabilities decreased slightly, mainly due to the lower outstanding benefit payables in Fiscal Year 2020-21.

Additions to the LRF's net position primarily were the result of net investment income of $15.1 million in Fiscal Year 2020-21, which is 115.3 percent higher than in the prior year. This was an $8.1 million increase due to favorable investment market conditions. The LRF recognized a MWRR of 13.4 percent for Fiscal Year 2020-21 compared with 6.2 percent for Fiscal Year 2019-20. A slight decrease in employer contributions offset the investment income for the year, due to a 16.7 percent reduction in the required contribution rate.

Deductions from the LRF are primarily comprised of benefit payments and administrative expenses. Total deductions decreased by $0.3 million or 3.7 percent due to a slight decrease in benefit payments and lower administrative expenses, which decreased by $0.1 million or 18.2 percent due to lower OPEB expenses as a result of decreased OPEB liability.

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 $17.9 million or 41.0 percent primarily due to the excess of the State General Fund contribution over the benefits paid. Total liabilities increased $3.1 million or 53.1 percent primarily due to outstanding federal and state income tax withholdings due to the Internal Revenue Service and Employment Development Department.

Additions to the JRF come from employer, member, and state balancing contributions from the General Fund. Despite contributions exceeding benefits paid, the total additions decreased $18.5 million or 7.4 percent primarily due to a decrease in the State General Fund contributions compared to the prior year.

Deductions from JRF are primarily comprised of benefit payments, refunds, and administrative expenses. Retirement, death, and survivor benefits decreased by $1.8 million, or 0.9 percent, and administrative expenses for CalPERS personnel decreased $0.5 million or 23.7 percent, primarily due to a decrease in OPEB expense as a result of a decrease in the net OPEB liability.

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 2020-21 increased by $518.0 million or 27.6 percent from the beginning net position of $1.9 billion to $2.4 billion. Receivables decreased by $2.1 million or 22.5 percent primarily due to decreased outstanding employers’ contributions owed to the fund as of fiscal year ended June 30, 2021. JRF II investments increased by $519.8 million or 27.7 percent primarily due to positive net cash inflows from contributions less benefit payments, combined with a positive market return in Fiscal Year 2020-21. Total liabilities increased by $0.4 million or 6.2 percent primarily due to an increase in other liabilities.

Additions to the JRF II net position include member contributions, employer contributions, and investment income. Despite there being no change in the number of active members (1,625 as of June 30, 2020, and June 30, 2021), member and employer contributions decreased due to a pay reduction for state employees as a result of furlough. Member contributions decreased by $1.7 million or 4.8 percent, while employer contributions decreased by $7.0 million or 7.7 percent. Net investment income increased by $383.4 million or 478.8 percent from $80.1 million in Fiscal Year 2019-20 to $463.5 million in Fiscal Year 2020-21. This increase resulted from a higher investment return in Fiscal Year 2020-21. The JRF II recognized a MWRR of 24.3 percent for Fiscal Year 2020-21 compared with 4.1 percent for Fiscal Year 2019-20.

Deductions from the JRF II are comprised of benefit payments, refunds, and administrative expenses. There was an increase in benefit payments of $27.1 million or 78.3 percent due to an increase in benefit recipients from 390 in Fiscal Year 2019-20 to 406 in Fiscal Year 2020-21 and an increase in monetary credit payments. Administrative expenses decreased by $0.8 million or 33.3 percent primarily due to a decrease in the OPEB expenses as a result of decreased OPEB liabilities.

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

	LRF			JRF			JRF II		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES									
Cash & Cash Equivalents	$1,201	$1,200	$1	$3,361	$0	$3,361	$724	$2	$722
Receivables	56	54	2	1,893	1,613	280	7,279	9,392	(2,113)
Investments	122,900	114,960	7,940	65,189	47,843	17,346	2,396,459	1,876,676	519,783
Total Assets	**$124,157**	**$116,214**	**$7,943**	**$70,443**	**$49,456**	**$20,987**	**$2,404,462**	**$1,886,070**	**$518,392**
Deferred Outflows of Resources	$166	$187	($21)	$457	$540	($83)	$580	$677	($97)
Total Assets and Deferred Outflows of Resources	**$124,323**	**$116,401**	**$7,922**	**$70,900**	**$49,996**	**$20,904**	**$2,405,042**	**$1,886,747**	**$518,295**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES									
Retirement Benefits, Investment Settlement & Other	$632	$676	($44)	$4,560	$1,436	$3,124	$1,095	$666	$429
Net Pension & OPEB Liabilities	1,551	1,560	(9)	4,339	4,375	(36)	5,514	5,557	(43)
Total Liabilities	**$2,183**	**$2,236**	**($53)**	**$8,899**	**$5,811**	**$3,088**	**$6,609**	**$6,223**	**$386**
Deferred Inflows of Resources	$92	$117	($25)	$361	$458	($97)	$404	$517	($113)
Total Liabilities and Deferred Inflows of Resources	**$2,275**	**$2,353**	**($78)**	**$9,260**	**$6,269**	**$2,991**	**$7,013**	**$6,740**	**$273**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$122,048**	**$114,048**	**$8,000**	**$61,640**	**$43,727**	**$17,913**	**$2,398,029**	**$1,880,007**	**$518,022**

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

	LRF			JRF			JRF II		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ADDITIONS									
Member Contributions	$21	$22	($1)	$2,146	$2,843	($697)	$34,094	$35,796	($1,702)
Employer Contributions	92	98	(6)	225,824	243,131	(17,307)	84,147	91,147	(7,000)
Net Investment Income	15,098	7,011	8,087	163	885	(722)	463,478	80,074	383,404
Securities Lending & Other Income	—	2	(2)	2,462	2,202	260	—	—	—
Total Additions	**$15,211**	**$7,133**	**$8,078**	**$230,595**	**$249,061**	**($18,466)**	**$581,719**	**$207,017**	**$374,702**
DEDUCTIONS									
Retirement, Death & Survivor Benefits	$6,761	$6,939	($178)	$210,951	$212,775	($1,824)	$61,613	$34,547	$27,066
Refund of Contributions	—	—	—	—	458	(458)	381	—	381
Administrative Expenses	450	550	(100)	1,731	2,270	(539)	1,703	2,552	(849)
Total Deductions	**$7,211**	**$7,489**	**($278)**	**$212,682**	**$215,503**	**($2,821)**	**$63,697**	**$37,099**	**$26,598**
INCREASE (DECREASE) IN NET POSITION	**$8,000**	**($356)**	**$8,356**	**$17,913**	**$33,558**	**($15,645)**	**$518,022**	**$169,918**	**$348,104**
NET POSITION									
Beginning of Year	**$114,048**	**$114,404**	**($356)**	**$43,727**	**$10,169**	**$33,558**	**$1,880,007**	**$1,710,089**	**$169,918**
End of Year	**$122,048**	**$114,048**	**$8,000**	**$61,640**	**$43,727**	**$17,913**	**$2,398,029**	**$1,880,007**	**$518,022**

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.

In March 2021, CalPERS investment staff updated the Board on current ALM risk concepts and provided examples of choices that balance the risks arising from the variability of three components: liabilities, contributions, and returns. The Board and staff will be selecting a final asset allocation for the next four years in late 2021, based on the research and analysis conducted by staff for the ALM process.

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 that 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 2021-22.

As of June 30, 2020, the funded status of the PERF was 70.6 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, 2020, the funded status of the JRF II was 98.6 percent. CalPERS calculated JRF II funded status value using a 6.5 percent discount rate. As of June 30, 2020, the funded status of the LRF was 119.9 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 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, 2021:

Fund	Funding Discount Rate	Financial Reporting Discount Rate
LRF	5.00%	5.25%
JRF	3.00%	1.92%
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 adminstrator (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 $402.7 million or 22.6 percent from the beginning balance of $1.8 billion to $2.2 billion. Investment balances increased by $404.1 million or 22.9 percent from Fiscal Year 2019-20 to Fiscal Year 2020-21, due to the investment of net inflows from contributions and return on investment exceeding participant withdrawal outflows. There was a slight decrease of $0.8 million or 4.3 percent in receivables due to less outstanding contributions at year-end. Total liabilities increased by $0.7 million or 11.1 percent, mainly due to higher amounts of outstanding distributions.

Member contributions to the fund decreased $23.0 million or 15.3 percent compared with the prior year primarily due to a large one-time transfer into the plan in the prior year. Additionally, there was a slight decrease in members from 31,821 in Fiscal Year 2019-20 to 31,733 in Fiscal Year 2020-21.

However, the total additions increased $384.1 million primarily due to more favorable investment returns in Fiscal Year 2020-21 compared with Fiscal Year 2019-20, resulting in a 572.6 percent increase in investment income.

Total deductions in the DCF increased by $76.6 million or 57.5 percent. This was primarily due to an increase of $77.4 million in participant withdrawals from the plan from $128.2 million in Fiscal Year 2019-20 to $205.5 million in Fiscal Year 2020-21. Administrative expenses for CalPERS personnel decreased $0.8 million or 14.4 percent primarily due to a decrease in the OPEB expenses resulting from decreased 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 increased $17.4 million or 15.3 percent from the beginning balance of $113.4 million to $130.8 million primarily due to more favorable investment performance. Total assets increased by $17.3 million or 15.1 percent mainly due to an increase in investments, and total liabilities decreased by $0.1 million or 9.0 percent due to lower amounts of outstanding distributions payables.

Total additions increased $17.3 million primarily due to more favorable investment returns in Fiscal Year 2020-21. Net investment income increased by $17.2 million, from $5.5 million in Fiscal Year 2019-20 to $22.7 million in Fiscal Year 2020-21 due to improved investment performance.

The primary deductions in the SCPF reflect withdrawals made by participants. Participant withdrawals decreased $0.7 million, from $6.1 million as of Fiscal Year 2019-20 to $5.5 million as of Fiscal Year 2020-21. Administrative expenses for CalPERS personnel decreased $0.1 million or 19.3 percent primarily due to a decrease in the OPEB expenses.

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

	DCF			SCPF		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	$1	$1	$0	$1	$1	$0
Receivables	17,395	18,177	(782)	712	703	9
Investments	2,172,365	1,768,226	404,139	131,205	113,929	17,276
Total Assets	**$2,189,761**	**$1,786,404**	**$403,357**	**$131,918**	**$114,633**	**$17,285**
Deferred Outflows of Resources	$462	$551	($89)	$41	$47	($6)
Total Assets and Deferred Outflows of Resources	**$2,190,223**	**$1,786,955**	**$403,268**	**$131,959**	**$114,680**	**$17,279**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement Benefits, Investment Settlement & Other	$2,654	$1,909	$745	$727	$834	($107)
Net Pension & OPEB Liabilities	4,392	4,431	(39)	383	386	(3)
Total Liabilities	**$7,046**	**$6,340**	**$706**	**$1,110**	**$1,220**	**($110)**
Deferred Inflows of Resources	$336	$439	($103)	$25	$31	($6)
Total Liabilities and Deferred Inflows of Resources	**$7,382**	**$6,779**	**$603**	**$1,135**	**$1,251**	**($116)**
TOTAL NET POSITION RESTRICTED FOR PENSION BENEFITS	**$2,182,841**	**$1,780,176**	**$402,665**	**$130,824**	**$113,429**	**$17,395**

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

	DCF			SCPF		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ADDITIONS						
Member Contributions	$127,135	$150,108	($22,973)	$343	$254	$89
Net Investment Income	479,324	71,266	408,058	22,713	5,495	17,218
Other Income	6,212	7,192	(980)	87	93	(6)
Total Additions	**$612,671**	**$228,566**	**$384,105**	**$23,143**	**$5,842**	**$17,301**
DEDUCTIONS						
Administrative Expenses	$4,466	$5,217	($751)	$264	$327	($63)
Participant Withdrawals	205,540	128,159	77,381	5,484	6,137	(653)
Total Deductions	**$210,006**	**$133,376**	**$76,630**	**$5,748**	**$6,464**	**($716)**
INCREASE (DECREASE) IN NET POSITION	**$402,665**	**$95,190**	**$307,475**	**$17,395**	**($622)**	**$18,017**
NET POSITION						
Beginning of Year	**$1,780,176**	**$1,684,986**	**$95,190**	**$113,429**	**$114,051**	**($622)**
End of Year	**$2,182,841**	**$1,780,176**	**$402,665**	**$130,824**	**$113,429**	**$17,395**

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 $58.0 million at June 30, 2021, an increase of $47.1 million or 430.5 percent from the net position of $10.9 million at June 30, 2020.

Additions to the CEPPTF net position are primarily employer contributions and net investment income. Employers contributions increased $35.2 million or 334.9 percent due to increased employer participation. The net investment income increased $2.5 million or 496.6 percent primarily due to favorable investment returns combined with an increase in assets available for investment. Deductions from the CEPPTF are primarily employer withdrawals. Employers withdrew $1.7 million in Fiscal Year 2020-21.

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

	CEPPTF		
	2021	2020	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Cash & Cash Equivalents	$1	$0	$1
Receivables	138	—	138
Investments	$57,977	$11,036	$46,941
Total Assets	**$58,116**	**$11,036**	**$47,080**
Deferred Outflows of Resources	$19	$19	$—
Total Assets and Deferred Outflows of Resources	**$58,135**	**$11,055**	**$47,080**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES			
Investment Settlement & Other	$7	$16	($9)
Net Pension & OPEB Obligation	26	26	—
Total Liabilities	**$33**	**$42**	**($9)**
Deferred Inflows of Resources	$74	$74	$0
Total Liabilities and Deferred Inflows of Resources	**$107**	**$116**	**($9)**
TOTAL NET POSITION RESTRICTED FOR PENSION	**$58,028**	**$10,939**	**$47,089**

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

	CEPPTF		
	2021	2020	Increase/ (Decrease)
ADDITIONS			
Employer Contributions	$45,764	$10,523	$35,241
Net Investment Income	2,995	502	2,493
Other Income	53	10	43
Total Additions	**$48,812**	**$11,035**	**$37,777**
DEDUCTIONS			
Administrative Expenses	$16	$96	($80)
Employer Withdrawals	1,707	—	1,707
Total Deductions	**$1,723**	**$96**	**$1,627**
INCREASE IN NET POSITION	**$47,089**	**$10,939**	**$36,150**
NET POSITION			
Beginning of Year	**$10,939**	**$0**	**$10,939**
End of Year	**$58,028**	**$10,939**	**$47,089**

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, 2021, increased $3.9 billion or 33.6 percent from the prior year, primarily due to strong positive investment returns and to continued employer contributions. Receivables decreased $33.3 million or 38.4 percent, primarily due to lower outstanding employer contributions pending at year-end. Investments at fair value increased $4.0 billion or 34.1 percent due to strong positive return on investments and the growth of assets under management from employer contributions.

Total liabilities increased $16.5 million or 19.7 percent, primarily due to increased member distributions payable. Slightly offsetting this, total net pension and OPEB liabilities decreased by $0.1 million or 1.4 percent. While the overall net OPEB obligation for the state increased, CERBTF share decreased due to a decrease in the allocated share of the liability.

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 decreased $554.5 million or 12.0 percent, primarily due to higher contributions from existing participating employers. During Fiscal Year 2020-21, the fund experienced net investment income of $3.1 billion, an increase of $2.7 billion from a net investment return of $0.4 billion in Fiscal Year 2019-20. Additionally, the CERBTF recognized a MWRR of 25.6 percent in Fiscal Year 2020-21, compared with 4.0 percent in Fiscal Year 2019-20.

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 $103.3 million or 3.3 percent, due to increased volume of reimbursement requests among existing participating employers. Employer withdrawals decreased by $11.4 million or 89.6 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 $3.1 billion for Fiscal Year 2020-21 compared with $3.0 billion in Fiscal Year 2019-20. Administrative expenses for CalPERS personnel decreased $0.6 million primarily due to a decrease in OPEB expense as a result of a decrease in the net OPEB liability.

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

	CERBTF		
	2021	2020	Increase/(Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES			
Cash & Cash Equivalents	$25	$1	$24
Receivables	53,468	86,749	(33,281)
Investments	15,685,090	11,700,758	3,984,332
Total Assets	**$15,738,583**	**$11,787,508**	**$3,951,075**
Deferred Outflows of Resources	$913	$1,198	($285)
Total Assets and Deferred Outflows of Resources	**$15,739,496**	**$11,788,706**	**$3,950,790**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES			
Other Post-Employment Benefits, Investment Settlement & Other	$90,942	$74,310	$16,632
Net Pension & OPEB Liabilities	9,158	9,285	(127)
Total Liabilities	**$100,100**	**$83,595**	**$16,505**
Deferred Inflows of Resources	$839	$1,172	($333)
Total Liabilities and Deferred Inflows of Resources	**$100,939**	**$84,767**	**$16,172**
TOTAL NET POSITION RESTRICTED FOR OPEB	**$15,638,557**	**$11,703,939**	**$3,934,618**

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

	CERBTF		
	2021	2020	Increase/(Decrease)
ADDITIONS			
Employer Contributions	$4,079,904	$4,634,449	($554,545)
Net Investment Income	3,091,811	402,609	2,689,202
Other Income	11,704	9,094	2,610
Total Additions	**$7,183,419**	**$5,046,152**	**$2,137,267**
DEDUCTIONS			
Administrative Expenses	$4,544	$5,161	($617)
Employer Withdrawals	1,318	12,711	(11,393)
OPEB Reimbursements	3,242,939	3,139,646	103,293
Total Deductions	**$3,248,801**	**$3,157,518**	**$91,283**
INCREASE IN NET POSITION	**$3,934,618**	**$1,888,634**	**$2,045,984**
NET POSITION			
Beginning of Year	**$11,703,939**	**$9,815,305**	**$1,888,634**
End of Year	**$15,638,557**	**$11,703,939**	**$3,934,618**

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 decreased by $0.5 million or 55.1 percent primarily because no administrative fees were collected from members and there were higher administrative costs in Fiscal Year 2020-21.

Additions to the fund include replacement benefits, investment income, and other income. Employer contributions increased $6.5 million or 22.2 percent primarily due to more retirees participating in the plan. Other income decreased $0.3 million or 100.0 percent primarily due to a temporary cancellation of the administrative fees beginning January 1, 2020.

Deductions from the RBF include benefit payments and administrative expenses. Benefit payments increased $6.5 million or 22.2 percent primarily due to an increase in the number of participants receiving benefits from 1,496 as of June 30, 2020, to 1,878 as of June 30, 2021. Total administrative expenses increased $0.4 million primarily due to changes in spending and allocation patterns for CalPERS personnel.

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 the prior Fiscal Year 2019-20.

The net position of the OASI increased by $1.8 million or 97.6 percent primarily due to the collection of higher fees from the participating agencies. Total assets increased $1.8 million or 84.8 percent in Fiscal Year 2020-21 due to increased investments. Total liabilities decreased slightly in Fiscal Year 2020-21 by 17.2 percent primarily due to a decrease in OPEB liability.

Additions to the fund include investment income and fees and increased by $0.3 million or 15.8 percent in the Fiscal Year 2020-21. Deductions from the OASI are primarily costs incurred to administer the fund. Administrative expenses for CalPERS personnel decreased $0.7 million or 56.9 percent in Fiscal Year 2020-21 primarily due to a reversal of a duplicate charge to the fund in the prior fiscal year and a decrease in OPEB expense due to a decrease in OPEB liability.

Fiduciary Net Position – Custodial Funds (Dollars in Thousands)

	RBF			OASI		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES						
Cash & Cash Equivalents	$1	$1	$0	$0	$1	($1)
Receivables	433	204	229	502	1,057	(555)
Investments	22,427	18,138	4,289	3,460	1,086	2,374
Total Assets	**$22,861**	**$18,343**	**$4,518**	**$3,962**	**$2,144**	**$1,818**
Deferred Outflows of Resources	$0	$0	$0	$1	$41	($40)
Total Assets and Deferred Outflows of Resources	**$22,861**	**$18,343**	**$4,518**	**$3,963**	**$2,185**	**$1,778**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Due to Members & Employers	$0	$0	$0	$0	$0	$0
Due to Other Funds	57	44	13	67	71	(4)
Net Pension & OPEB Liabilities	—	—	—	39	57	(18)
Unearned Replacement Benefits	22,380	17,355	5,025	—	—	—
Total Liabilities	**$22,437**	**$17,399**	**$5,038**	**$106**	**$128**	**($22)**
Deferred Inflows of Resources	$0	$0	$0	$118	$165	($47)
Total Liabilities and Deferred Inflows of Resources	**$22,437**	**$17,399**	**$5,038**	**$224**	**$293**	**($69)**
TOTAL NET POSITION RESTRICTED FOR REPLACEMENT BENEFITS/PROGRAM ADMINISTRATION	**$424**	**$944**	**($520)**	**$3,739**	**$1,892**	**$1,847**

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

	RBF			OASI		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ADDITIONS						
Replacement Benefits	$35,594	$29,125	$6,469	$0	$0	$0
Investment Income	85	276	(191)	11	21	(10)
Other Income	—	256	(256)	2,344	2,012	332
Total Additions	**$35,679**	**$29,657**	**$6,022**	**$2,355**	**$2,033**	**$322**
DEDUCTIONS						
Replacement Benefit Payments	$35,594	$29,125	$6,469	$0	$0	$0
Administrative Expenses	605	246	359	508	1,178	(670)
Total Deductions	**$36,199**	**$29,371**	**$6,828**	**$508**	**$1,178**	**($670)**
INCREASE (DECREASE) IN NET POSITION	**($520)**	**$286**	**($806)**	**$1,847**	**$855**	**$992**
NET POSITION						
Beginning of Year	**$944**	**$658**	**$286**	**$1,892**	**$1,037**	**$855**
End of Year	**$424**	**$944**	**($520)**	**$3,739**	**$1,892**	**$1,847**

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 was $319.6 million at June 30, 2021, a decrease of $5.9 million or 1.8 percent from the net position of $325.5 million at June 30, 2020.

Total assets increased by $20.8 million or 1.6 percent primarily due to an increase of $148.6 million or 28.8 percent in receivables; however, that caused a decrease in cash available to be invested in Surplus Money Investment Fund (SMIF). Cash and cash equivalents decreased by $125.9 million or 45.4 percent primarily due to timing. Total liabilities increased by $27.1 million or 2.7 percent primarily due to an increase in estimated insurance claims due in Fiscal Year 2020-21.

Revenues include premiums collected from members and employers, federal subsidies, and investment income (non-operating revenue). Premiums collected increased by $233.4 million or 6.3 percent primarily due to an increase in premium rates. Investment income decreased by $52.5 million or 98.2 percent due to less favorable market conditions in the fixed income market.

Expenses are comprised of claims, investment fees, and costs incurred to oversee the plans. Claim expenses increased by $134.4 million, or 3.9 percent due to an increase in medical claims. Administrative expenses decreased by $26.2 million or 7.9 percent primarily due to a decrease in third party administrator fees combined with a decrease in OPEB expenses due to a decrease in OPEB liability.

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 was negative $56.9 million at June 30, 2021, a decrease of $2.6 million or 4.8 percent from the net position of negative $54.2 million at June 30, 2020, primarily due to a decrease in SMIF interest income combined with a decrease in administrative fees earned.

Cash and cash equivalents decreased slightly by $0.4 million. Total receivables increased by $7.2 million or 33.2 percent primarily due to an increase in premiums due from the General Fund. Total liabilities increased by $9.6 million or 1.2 percent primarily due to the annual increase of health premiums. The annual increase of health premiums caused an increase in monthly premium transfers due from CRF to HCF.

Revenues include administrative fees collected and investment income. Administrative fees are determined as a percentage of total active and retired health premiums. These fees decreased by $1.8 million or 7.1 percent primarily due to a decrease in the administrative fee rate from 0.27 percent in Fiscal Year 2019-20 to 0.24 percent in Fiscal Year 2020-21. Investment income decreased by $4.3 million or 70.1 percent due to a decrease in interest rates.

Expenses are comprised of costs incurred to administer the CRF. Administrative expenses decreased by $9.4 million or 25.0 percent primarily due to a decrease in OPEB expenses due to a decrease in OPEB liability.

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 participant-paid 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 suspended open enrollment in 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 increased by $2.7 billion from beginning net position of negative $2.2 billion to positive $0.5 billion primarily due to an increase in both operating income and investment income in Fiscal Year 2020-21. Total assets increased by $554.5 million or 11.3 percent primarily due to improved investment returns in Fiscal Year 2020-21. Investments increased by $566.1 million or 11.5 percent. Total liabilities decreased by $2.1 billion or 29.7 percent primarily due to a decrease in estimated liability for future policy benefits.

The LTCF revenues include premiums collected from participants and investment income. Participation in the plan decreased by 4.5 percent mainly due to participant deaths, coverage cancellations, nonpayment of premiums, and exhaustion of benefits. This resulted in the decrease of premium revenue of $6.8 million or 2.4 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 2020-21 increased by $411.1 million or 183.4 percent from the prior year due to an increase in the annual investment return from 4.7 percent in Fiscal Year 2019-20 to 13.0 percent in Fiscal Year 2020-21.

Total expenses are comprised of claims, changes in estimated liabilities for future policy benefits, settlement expenses, administrative costs to the program, and investment expenses. In Fiscal Year 2020-21, total expenses decreased by $4.6 billion. Administrative expenses decreased by $1.7 million or 6.2 percent primarily due to a decrease in OPEB expenses. The increase/(decrease) in estimated liabilities line item decreased by $5.0 billion, which was partially offset by settlement expenses recognized in Fiscal Year 2020-21 of an estimated $2.9 billion due to a proposed legal settlement. Refer to Note 15 for additional information regarding the calculation of the estimated liabilities for future policy benefits.

Net Position – Enterprise Funds (Dollars in Thousands)

	HCF			CRF			LTCF		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES									
Cash & Cash Equivalents	$151,180	$277,089	($125,909)	$728,470	$728,826	($356)	$5,591	$17,060	($11,469)
Receivables	664,543	515,913	148,630	28,690	21,535	7,155	417	610	(193)
Investments	518,418	520,342	(1,924)	—	—	—	5,476,314	4,910,167	566,147
Total Assets	**$1,334,141**	**$1,313,344**	**$20,797**	**$757,160**	**$750,361**	**$6,799**	**$5,482,322**	**$4,927,837**	**$554,485**
Deferred Outflows of Resources	$11,477	$13,458	($1,981)	$7,793	$9,197	($1,404)	$1,006	$1,372	($366)
Total Assets and Deferred Outflows of Resources	**$1,345,618**	**$1,326,802**	**$18,816**	**$764,953**	**$759,558**	**$5,395**	**$5,483,328**	**$4,929,209**	**$554,119**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES									
Claims Payable, Unearned Premiums, Estimated Insurance Claims Due & Due to Carriers	$878,906	$853,565	$25,341	$374,997	$398,597	($23,600)	$34,542	$48,864	($14,322)
Due to Employers	—	—	—	241	192	49	—	—	—
Other Liabilities	31,393	28,798	2,595	367,980	334,171	33,809	6,596	8,461	(1,865)
Settlement Liability	—	—	—	—	—	—	2,900,000	—	2,900,000
Estimated Liability for Future Policy Benefits	—	—	—	—	—	—	2,051,292	7,053,071	(5,001,779)
Net Pension & OPEB Liabilities	107,619	108,500	(881)	72,631	73,255	(624)	10,086	10,249	(163)
Total Liabilities	**$1,017,918**	**$990,863**	**$27,055**	**$815,849**	**$806,215**	**$9,634**	**$5,002,516**	**$7,120,645**	**($2,118,129)**
Deferred Inflows of Resources	$8,138	$10,446	($2,308)	$5,957	$7,592	($1,635)	$1,102	$1,528	($426)
Inflows of Resources	**$1,026,056**	**$1,001,309**	**$24,747**	**$821,806**	**$813,807**	**$7,999**	**$5,003,618**	**$7,122,173**	**($2,118,555)**
TOTAL UNRESTRICTED NET POSITION (DEFICIT)	**$319,562**	**$325,493**	**($5,931)**	**($56,853)**	**($54,249)**	**($2,604)**	**$479,710**	**($2,192,964)**	**$2,672,674**

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

	HCF			CRF			LTCF		
	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)	2021	2020	Increase/ (Decrease)
REVENUES									
Premiums	$3,939,906	$3,706,490	$233,416	$0	$0	$0	$271,766	$278,535	($6,769)
Federal Government Subsidies	8,263	12,489	(4,226)	—	—	—	—	—	—
Non-Operating Revenues	986	53,522	(52,536)	1,829	6,111	(4,282)	635,250	224,152	411,098
Administrative Fees & Other	—	—	—	23,981	25,817	(1,836)	890	—	890
Total Revenues	**$3,949,155**	**$3,772,501**	**$176,654**	**$25,810**	**$31,928**	**($6,118)**	**$907,906**	**$502,687**	**$405,219**
EXPENSES									
Claims Expense	$3,614,513	$3,480,089	$134,424	$0	$0	$0	$308,976	$337,298	($28,322)
Increase (Decrease) in Estimated Liabilities	35,438	10,885	24,553	—	—	—	(5,001,779)	2,424,078	(7,425,857)
Settlement Expenses	—	—	—	—	—	—	2,900,000	—	2,900,000
Non-Operating Expenses	145	160	(15)	—	—	—	2,231	2,547	(316)
Administrative Expenses	304,990	331,236	(26,246)	28,414	37,862	(9,448)	25,804	27,500	(1,696)
Total Expenses	**$3,955,086**	**$3,822,370**	**$132,716**	**$28,414**	**$37,862**	**($9,448)**	**($1,764,768)**	**$2,791,423**	**($4,556,191)**
INCREASE (DECREASE) IN UNRESTRICTED NET POSITION	**($5,931)**	**($49,869)**	**$43,938**	**($2,604)**	**($5,934)**	**$3,330**	**$2,672,674**	**($2,288,736)**	**$4,961,410**
UNRESTRICTED NET POSITION (DEFICIT)									
Beginning of Year	**$325,493**	**$375,362**	**($49,869)**	**($54,249)**	**($48,315)**	**($5,934)**	**($2,192,964)**	**$95,772**	**($2,288,736)**
End of Year	**$319,562**	**$325,493**	**($5,931)**	**($56,853)**	**($54,249)**	**($2,604)**	**$479,710**	**($2,192,964)**	**$2,672,674**

REQUESTS FOR INFORMATION

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

FINANCIAL SECTION

Basic Financial Statements

STATEMENT OF FIDUCIARY NET POSITION – FIDUCIARY FUNDS

As of June 30, 2021, with Comparative Totals as of June 30, 2020 (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	**$785,899**	**$194,460**	**$92,398**	**$1,201**	**$3,361**	**$724**
Receivables						
Members	$413,322	$110,246	$37,502	$46	$1,085	$1,367
Employers	675,262	360,684	50,436	8	788	5,901
Investment Sales & Other	1,318,682	326,289	155,037	—	—	4
Interest & Dividends	746,996	184,833	87,825	—	18	5
Due from Other Funds	7,849	1,942	923	—	—	—
Other Program	63,523	15,718	7,468	2	2	2
Total Receivables	**$3,225,634**	**$999,712**	**$339,191**	**$56**	**$1,893**	**$7,279**
Investments, at Fair Value						
Short-Term Investments	$17,835,288	$4,397,621	$2,078,585	$697	$65,189	$1,863
Public Equity	175,289,605	43,220,904	20,428,843	44,149	—	1,530,490
Fixed Income	95,318,204	23,502,471	11,108,706	78,054	—	864,106
Real Assets	34,631,860	8,539,127	4,036,114	—	—	—
Private Equity/Debt	32,888,515	8,109,274	3,832,939	—	—	—
Total Investments	**$355,963,472**	**$87,769,397**	**$41,485,187**	**$122,900**	**$65,189**	**$2,396,459**
Securities Lending Collateral	$2,454,847	$607,417	$288,617	$0	$0	$0
Capital Assets, Net & Other Assets	190,264	47,078	22,369	—	—	—
TOTAL ASSETS	**$362,620,116**	**$89,618,064**	**$42,227,762**	**$124,157**	**$70,443**	**$2,404,462**
Deferred Outflows of Resources	$80,525	$19,925	$9,467	$166	$457	$580
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	**$362,700,641**	**$89,637,989**	**$42,237,229**	**$124,323**	**$70,900**	**$2,405,042**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES						
Retirement & Other Benefits	$1,721,073	$408,642	$184,801	$567	$0	$0
Investment Purchases & Other	7,593,435	1,878,887	892,763	—	—	—
Due to Members & Employers	8,174	—	—	13	40	5
Net Pension & OPEB Liabilities	750,748	185,762	88,266	1,551	4,339	5,514
Securities Lending Obligations	2,454,978	607,449	288,632	—	—	—
Due to Other Funds	—	—	—	41	147	214
Management & Third-Party Administrator Fees	3,082	763	362	8	—	145
Unearned Replacement Benefits	—	—	—	—	—	—
Other Program	78,489	19,172	8,976	3	4,373	731
TOTAL LIABILITIES	**$12,609,979**	**$3,100,675**	**$1,463,800**	**$2,183**	**$8,899**	**$6,609**
Deferred Inflows of Resources	$57,623	$14,258	$6,775	$92	$361	$404
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	**$12,667,602**	**$3,114,933**	**$1,470,575**	**$2,275**	**$9,260**	**$7,013**
NET POSITION – RESTRICTED FOR PENSION, OTHER POST-EMPLOYMENT, REPLACEMENT BENEFITS, AND PROGRAM ADMINISTRATION	**$350,033,039**	**$86,523,056**	**$40,766,654**	**$122,048**	**$61,640**	**$2,398,029**

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

Pension Trust Funds		Investment Trust Fund	Other Post-Employment Benefit Trust Fund	Custodial Funds		Totals	
DCF	SCPF	CEPPTF	CERBTF	RBF	OASI	2021	2020
$1	**$1**	$1	**$25**	**$1**	$0	**$1,078,072**	**$497,929**
$3,981	$711	$0	$0	$35	$0	$568,295	$642,430
—	—	138	53,457	377	—	1,147,051	1,474,525
—	—	—	—	—	—	1,800,012	922,840
1	1	—	11	21	2	1,019,713	866,940
—	—	—	—	—	—	10,714	10,203
13,413	—	—	—	—	500	100,628	104,441
$17,395	**$712**	**$138**	**$53,468**	**$433**	**$502**	**$4,646,413**	**$4,021,379**
$142,484	$11,582	$12,618	$71,702	$22,427	$3,460	$24,643,516	$28,512,499
1,598,429	73,462	18,017	10,450,927	—	—	252,654,826	206,604,026
431,452	46,161	27,342	5,162,461	—	—	136,538,957	106,850,488
—	—	—	—	—	—	47,207,101	43,008,182
—	—	—	—	—	—	44,830,728	26,496,420
$2,172,365	**$131,205**	**$57,977**	**$15,685,090**	**$22,427**	**$3,460**	**$505,875,128**	**$411,471,615**
$0	$0	$0	$0	$0	$0	$3,350,881	$1,225,270
—	—	—	—	—	—	259,711	343,158
$2,189,761	**$131,918**	**$58,116**	**$15,738,583**	**$22,861**	**$3,962**	**$515,210,205**	**$417,559,351**
$462	$41	$19	$913	$0	$1	$112,556	$131,957
$2,190,223	**$131,959**	**$58,135**	**$15,739,496**	**$22,861**	**$3,963**	**$515,322,761**	**$417,691,308**
$0	$0	$0	$89,276	$0	$0	$2,404,359	$2,252,640
—	—	—	—	—	—	10,365,085	4,814,706
1,314	647	—	—	—	—	10,193	9,585
4,392	383	26	9,158	—	39	1,050,178	1,058,804
—	—	—	—	—	—	3,351,059	1,225,672
459	29	1	726	57	67	1,741	1,973
881	51	6	940	—	—	6,238	7,277
—	—	—	—	22,380	—	22,380	17,355
—	—	—	—	—	—	111,744	98,145
$7,046	**$1,110**	**$33**	**$100,100**	**$22,437**	**$106**	**$17,322,977**	**$9,486,157**
$336	$25	$74	$839	$0	$118	$80,905	$103,509
$7,382	**$1,135**	**$107**	**$100,939**	**$22,437**	**$224**	**$17,403,882**	**$9,589,666**
$2,182,841	**$130,824**	**$58,028**	**$15,638,557**	**$424**	**$3,739**	**$497,918,879**	**$408,101,642**

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION – FIDUCIARY FUNDS

For the Fiscal Year Ended June 30, 2021, with Comparative Totals for the Fiscal Year Ended June 30, 2020 (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	$3,342,716	$1,019,154	$395,130	$21	$2,146	$34,094
Employers	15,141,505	2,972,220	1,921,032	92	2,874	84,147
Nonemployer Contribution	—	—	—	—	—	—
Replacement Benefits	—	—	—	—	—	—
State of California General Fund	—	—	—	—	222,950	—
Employer Contributions Direct – OPEB	—	—	—	—	—	—
Employer Contributions Outside of Trust – OPEB	—	—	—	—	—	—
Total Retirement and OPEB Contribution	**$18,484,221**	**$3,991,374**	**$2,316,162**	**$113**	**$227,970**	**$118,241**
Investment Income						
Net Appreciation in Fair Value of Investments	$59,788,812	$14,708,114	$6,943,833	$15,133	$0	$464,056
Interest & Amortization	2,028,556	501,938	238,498	1	170	43
Dividends	3,422,958	846,962	402,438	—	—	—
Other Investment Income	137,188	33,945	16,129	12	—	204
Less Investment Costs:						
Management & Performance Fees	(524,170)	(129,699)	(61,627)	(31)	—	(531)
Other	(215,359)	(53,288)	(25,319)	(17)	(7)	(294)
Net Investment Income	**$64,637,985**	**$15,907,972**	**$7,513,952**	**$15,098**	**$163**	**$463,478**
Securities Lending Income	$89,837	$22,229	$10,562	$0	$0	$0
Securities Lending Expense	(12,361)	(3,058)	(1,453)	—	—	—
Net Securities Lending	**$77,476**	**$19,171**	**$9,109**	**$0**	**$0**	**$0**
Other Income	$5,682	$1,356	$617	$0	$2,462	$0
Plan-to-Plan Resource Movement	—	—	348,384	—	—	—
TOTAL ADDITIONS	**$83,205,364**	**$19,919,873**	**$10,188,224**	**$15,211**	**$230,595**	**$581,719**
DEDUCTIONS						
Retirement, Death & Survivor Benefits	$20,396,477	$4,833,052	$2,185,665	$6,761	$210,951	$61,613
Replacement Benefit Payments	—	—	—	—	—	—
Refund of Contributions	163,551	99,343	24,662	—	—	381
Administrative Expenses	287,357	71,018	33,744	450	1,731	1,703
Plan-to-Plan Resource Movement	348,384	—	—	—	—	—
Participant & Employer Withdrawals	—	—	—	—	—	—
OPEB Reimbursements Direct	—	—	—	—	—	—
OPEB Reimbursements – Outside Trust	—	—	—	—	—	—
TOTAL DEDUCTIONS	**$21,195,769**	**$5,003,413**	**$2,244,071**	**$7,211**	**$212,682**	**$63,697**
INCREASE (DECREASE) IN NET POSITION	**$62,009,595**	**$14,916,460**	**$7,944,153**	**$8,000**	**$17,913**	**$518,022**
NET POSITION						
Beginning of Year	**$288,023,444**	**$71,606,596**	**$32,822,501**	**$114,048**	**$43,727**	**$1,880,007**
End of year	**$350,033,039**	**$86,523,056**	**$40,766,654**	**$122,048**	**$61,640**	**$2,398,029**

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

Pension Trust Funds		Investment Trust Fund	Other Post-Employment Benefit Trust Fund	Custodial Funds		Totals	
DCF	SCPF	CEPPTF	CERBTF	RBF	OASI	2021	2020
$127,135	$343	$0	$0	$0	$0	$4,920,739	$5,090,023
—	—	45,764	—	—	—	20,167,634	22,145,128
—	—	—	—	—	—	—	904,000
—	—	—	—	35,594	—	35,594	29,125
—	—	—	—	—	—	222,950	239,332
—	—	—	1,009,680	—	—	1,009,680	1,655,173
—	—	—	3,070,224	—	—	3,070,224	2,979,276
$127,135	**$343**	**$45,764**	**$4,079,904**	**$35,594**	**$0**	**$29,426,821**	**$33,042,057**
$479,116	$22,744	$2,998	$3,097,145	$0	$0	$85,521,951	$12,611,135
890	12	1	96	85	11	2,770,301	2,779,685
—	—	—	—	—	—	4,672,358	4,648,036
1	1	2	—	—	—	187,482	25,689
(408)	(27)	(4)	(3,601)	—	—	(720,098)	(700,010)
(275)	(17)	(2)	(1,829)	—	—	(296,407)	(279,402)
$479,324	**$22,713**	**$2,995**	**$3,091,811**	**$85**	**$11**	**$92,135,587**	**$19,085,133**
$0	$0	$0	$0	$0	$0	$122,628	$156,962
—	—	—	—	—	—	(16,872)	(61,703)
$0	**$0**	**$0**	**$0**	**$0**	**$0**	**$105,756**	**$95,259**
$6,212	$87	$53	$11,704	$0	$2,344	$30,517	$34,706
—	—	—	—	—	—	348,384	185,907
$612,671	**$23,143**	**$48,812**	**$7,183,419**	**$35,679**	**$2,355**	**$122,047,065**	**$52,443,062**
$0	$0	$0	$0	$0	$0	$27,694,519	$26,036,181
—	—	—	—	35,594	—	35,594	29,125
—	—	—	—	—	—	287,937	323,638
4,466	264	16	4,544	605	508	406,406	542,048
—	—	—	—	—	—	348,384	185,907
205,540	5,484	1,707	1,318	—	—	214,049	147,007
—	—	—	172,715	—	—	172,715	160,370
—	—	—	3,070,224	—	—	3,070,224	2,979,276
$210,006	**$5,748**	**$1,723**	**$3,248,801**	**$36,199**	**$508**	**$32,229,828**	**$30,403,552**
$402,665	**$17,395**	**$47,089**	**$3,934,618**	**($520)**	**$1,847**	**$89,817,237**	**$22,039,510**
$1,780,176	**$113,429**	**$10,939**	**$11,703,939**	**$944**	**$1,892**	**$408,101,642**	**$386,062,132**
$2,182,841	**$130,824**	**$58,028**	**$15,638,557**	**$424**	**$3,739**	**$497,918,879**	**$408,101,642**

STATEMENT OF NET POSITION – PROPRIETARY FUNDS

As of June 30, 2021, with Comparative Totals as of June 30, 2020 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2021	2020
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES					
Current Assets					
Cash & Cash Equivalents	$1	$1	$5,440	$5,442	$16,828
Short-Term Investments	151,179	728,469	151	879,799	1,006,147
Receivables					
Members & Employers	$0	$25,190	$417	$25,607	$17,940
Health Carriers & Pharmacy Benefit Managers	302,742	2,255	—	304,997	189,832
Interest & Dividends	260	466	—	726	3,237
Due from Other Funds	361,530	779	—	362,309	327,038
Other Receivables	11	—	—	11	11
Total Receivables	**$664,543**	**$28,690**	**$417**	**$693,650**	**$538,058**
Subtotal Current Assets	**$815,723**	**$757,160**	**$6,008**	**$1,578,891**	**$1,561,033**
Noncurrent Assets					
Investments, at Fair Value					
Public Equity	$0	$0	$2,028,606	$2,028,606	$1,671,180
Fixed Income	518,418	—	3,447,708	3,966,126	3,759,329
Total Investments	**$518,418**	**$0**	**$5,476,314**	**$5,994,732**	**$5,430,509**
Subtotal Noncurrent Assets	**$518,418**	**$0**	**$5,476,314**	**$5,994,732**	**$5,430,509**
TOTAL ASSETS	**$1,334,141**	**$757,160**	**$5,482,322**	**$7,573,623**	**$6,991,542**
Deferred Outflows of Resources	$11,477	$7,793	$1,006	$20,276	$24,027
Total Assets and Deferred Outflows of Resources	**$1,345,618**	**$764,953**	**$5,483,328**	**$7,593,899**	**$7,015,569**
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES					
Current Liabilities					
Claims Payable	$243,972	$0	$23,088	$267,060	$296,524
Unearned Premiums	128,950	—	11,454	140,404	135,359
Due to Employers	—	241	—	241	192
Estimated Insurance Claims Due	505,984	—	—	505,984	470,546
Estimated Liability for Future Policy Benefits Short-Term	—	—	54,879	54,879	109,991
Due to Carriers	—	374,997	—	374,997	398,597
Due to Other Funds	4,888	364,236	2,159	371,283	335,268
Settlement Liability	—	—	2,900,000	2,900,000	—
Management & Third-Party Administrator Fees	26,505	—	1,960	28,465	27,137
Other	—	3,744	2,477	6,221	9,025
Total Current Liabilities	**$910,299**	**$743,218**	**$2,996,017**	**$4,649,534**	**$1,782,639**
Long-Term Liabilities					
Estimated Liability for Future Policy Benefits	$0	$0	$1,996,413	$1,996,413	$6,943,080
Net Pension & OPEB Liabilities	107,619	72,631	10,086	190,336	192,004
Total Long-Term Liabilities	**$107,619**	**$72,631**	**$2,006,499**	**$2,186,749**	**$7,135,084**
TOTAL LIABILITIES	**$1,017,918**	**$815,849**	**$5,002,516**	**$6,836,283**	**$8,917,723**
Deferred Inflows of Resources	$8,138	$5,957	$1,102	$15,197	$19,566
Total Liabilities and Deferred Inflows of Resources	**$1,026,056**	**$821,806**	**$5,003,618**	**$6,851,480**	**$8,937,289**
TOTAL UNRESTRICTED NET POSITION (DEFICIT)	**$319,562**	**($56,853)**	**$479,710**	**$742,419**	**($1,921,720)**

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

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

For the Fiscal Year Ended June 30, 2021, with Comparative Totals for the Fiscal Year Ended June 30, 2020 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2021	2020
Operating Revenues					
Premiums	$3,939,906	$0	$271,766	$4,211,672	$3,985,025
Federal Government Subsidies	8,263	—	—	8,263	12,489
Administrative Fees Earned	—	23,921	—	23,921	25,758
Other	—	60	890	950	59
Total Operating Revenues	**$3,948,169**	**$23,981**	**$272,656**	**$4,244,806**	**$4,023,331**
Operating Expenses					
Claims Expense	$3,614,513	$0	$308,976	$3,923,489	$3,817,387
Increase (Decrease) in Estimated Liabilities	35,438	—	(5,001,779)	(4,966,341)	2,434,963
Settlement Expenses	—	—	2,900,000	2,900,000	—
Administrative Expenses	304,990	28,414	25,804	359,208	396,598
Total Operating Expenses	**$3,954,941**	**$28,414**	**($1,766,999)**	**$2,216,356**	**$6,648,948**
OPERATING INCOME (LOSS)	**($6,772)**	**($4,433)**	**$2,039,655**	**$2,028,450**	**($2,625,617)**
Non-Operating Revenues					
Net Appreciation/(Depreciation) in Fair Value of Investments	($1,854)	$0	$634,658	$632,804	$265,559
Interest, Dividends & Other Investment Income	2,840	1,829	592	5,261	18,226
Total Non-Operating Revenues	**$986**	**$1,829**	**$635,250**	**$638,065**	**$283,785**
Non-Operating Expenses					
Management Fees	$70	$0	$1,479	$1,549	$1,727
Other Investment Expenses	75	—	752	827	980
Total Non-Operating Expenses	**$145**	**$0**	**$2,231**	**$2,376**	**$2,707**
NON-OPERATING INCOME	**$841**	**$1,829**	**$633,019**	**$635,689**	**$281,078**
CHANGE IN UNRESTRICTED NET POSITION	**($5,931)**	**($2,604)**	**$2,672,674**	**$2,664,139**	**($2,344,539)**
TOTAL UNRESTRICTED NET POSITION (DEFICIT)					
Beginning of Year	**$325,493**	**($54,249)**	**($2,192,964)**	**($1,921,720)**	**$422,819**
End of Year	**$319,562**	**($56,853)**	**$479,710**	**$742,419**	**($1,921,720)**

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

STATEMENT OF CASH FLOWS – PROPRIETARY FUNDS

For the Fiscal Year Ended June 30, 2021, with Comparative Totals for the Fiscal Year Ended June 30, 2020 (Dollars in Thousands)

	Proprietary Funds			Totals	
	HCF	CRF	LTCF	2021	2020
Cash Flows From Operating Activities					
Premiums Collected	$3,805,091	$0	$264,351	$4,069,442	$3,987,191
Federal Government Subsidies	8,263	—	—	8,263	12,489
Administrative Fees Collected	—	23,981	—	23,981	25,817
Claims Paid	(3,638,153)	—	(314,800)	(3,952,953)	(3,828,645)
Administrative Expenses Paid	(304,288)	(29,810)	(24,873)	(358,971)	(380,744)
Other (Payments) Receipts, Net	—	1,563	(2,585)	(1,022)	78,756
Net Cash Used for Operating Activities	**($129,087)**	**($4,266)**	**($77,907)**	**($211,260)**	**($105,136)**
Cash Flows From Investing Activities					
Net Sales of Investments	$70	$0	$68,511	$68,581	$82,950
Net Change in Short-Term Investments	125,910	356	82	126,348	9,448
Interest & Dividends Received	3,265	3,910	252	7,427	20,570
Other Investment (Payments) Receipts, Net	(157)	—	(2,325)	(2,482)	(2,237)
Net Cash Provided by Investing Activities	**$129,088**	**$4,266**	**$66,520**	**$199,874**	**$110,731**
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	**$1**	**$0**	**($11,387)**	**($11,386)**	**$5,595**
Cash & Cash Equivalents, Beginning of Year	**$0**	**$1**	**$16,827**	**$16,828**	**$11,233**
Cash & Cash Equivalents, End of Year	**$1**	**$1**	**$5,440**	**$5,442**	**$16,828**
Reconciliation of Operating Income (Loss) to Net Cash Used for Operating Activities					
Operating Income (Loss)	($6,772)	($4,433)	$2,039,655	$2,028,450	($2,625,617)
Changes in Assets and Liabilities:					
Receivables:					
Members & Employers	—	(7,860)	193	(7,667)	(386)
Health Carriers & Pharmacy Benefit Managers	(114,491)	(674)	—	(115,165)	2,363
Due from Other Funds	(34,569)	(702)	—	(35,271)	(18,272)
Claims Payable	(23,640)	—	(5,824)	(29,464)	(11,635)
Unearned Premiums	13,543	—	(8,498)	5,045	25,092
Due to Employers	—	49	—	49	(450)
Estimated Insurance Claims Due	35,438	—	—	35,438	10,885
Net Pension & OPEB Liabilities	(1,208)	(855)	—	(2,063)	17,497
Estimated Liability for Future Policy Benefits Short-Term	—	—	(55,112)	(55,112)	36,494
Estimated Liability for Future Policy Benefits Long-Term	—	—	(4,946,667)	(4,946,667)	2,387,584
Settlement Liability	—	—	2,900,000	2,900,000	—
Due to Carriers	—	(23,600)	1,226	(22,374)	53,534
Due to Other Funds	761	34,028	(223)	34,566	26,936
Management & Third-Party Administrator Fees	1,851	—	(72)	1,779	(10,307)
Other	—	(219)	(2,585)	(2,804)	1,146
Net Cash Used for Operating Activities	**($129,087)**	**($4,266)**	**($77,907)**	**($211,260)**	**($105,136)**
Noncash Investing Activities					
Noncash Increase/(Decrease) in Fair Value of Investments	**($1,871)**	**$0**	**$602,100**	**$600,229**	**($156,522)**

The accompanying notes are an integral part of these 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

The following is a summary description 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, 2021, the PERF had the following participating employers:

Employers for PERF

PERF Employers	2021
PERF A	
State	1
Public Agencies[1]	307
Total	**308**
PERF B	
School Districts and Charter Schools	1,329
PERF C	
Public Agencies[1]	1,301
Total Employers	**2,938**

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

Legislators' Retirement Fund (LRF) – The LRF was established by Chapter 879 of the 1947 Statutes and provides retirement, death, and disability benefits to state legislators, constitutional officers, and legislative statutory officers. The benefits for the LRF are established in accordance with the provisions of the Legislators' Retirement Law. In November 1990, Article IV, Section 4.5 was added to the State Constitution, pursuant to the adoption of Proposition 140. This section effectively prohibited future legislators from earning state retirement benefits for service in the Legislature on or after November 7, 1990, though it recognized vested pension benefits that had accrued before that date. 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 2021-22.

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, 2021, 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	404,764	63,231	488,784	217,363	1,174,142
PERF B Schools Cost-Sharing	206,914	29,612	324,300	219,272	780,098
PERF C Public Agency Cost-Sharing	40,625	5,472	48,946	28,012	123,055
Total PERF	**652,303**	**98,315**	**862,030**	**464,647**	**2,077,295**
LRF	94	108	2	4	208
JRF	1,230	598	110	1	1,939
JRF II	357	49	1,625	—	2,031
Total	**653,984**	**99,070**	**863,767**	**464,652**	**2,081,473**

(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.

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, 2021, were as follows:

Required Contribution Rates

	Employee Contribution Rates		Employer - Required Contribution Rates
	Classic	PEPRA	
PERF A – Agent			
State:			
Miscellaneous – First Tier	5% - 11%	6% - 11%	29.37%
Miscellaneous – Second Tier	3.75%	3.75%	29.37%
Industrial – First Tier	5% - 11%	6% - 11%	18.19%
Industrial – Second Tier	3.75%	3.75%	18.19%
Safety	11% - 11.50%	11% - 11.50%	19.95%
Peace Officers and Firefighters	8% - 13%	12% - 13%	36.10%
California Highway Patrol	11.50%	11.50%	61.08%
Public Agency:			
Miscellaneous	5% to 8%	5.75% - 8.25%	varies[1]
Safety	7% to 9%	10% - 15.50%	varies[1]
PERF B – Schools Cost-Sharing			
Classified School	7%	7%	20.70%
PERF C – Public Agency Cost-Sharing			
Public Agency:			
Miscellaneous	2% - 7.96%	4.50% - 8%	varies[1]
Safety	6.94% - 10.10%	10% - 16.50%	varies[1]
LRF	4% or 8%	N/A	29.38%
JRF	8%	N/A	8%[2]
JRF II	8%	16%	24.40%

(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) The employee and State contribution rates for the JRF are set by statute and are equal to 8% of payroll each. The JRF is currently funded using a pay-as-you-go approach, and statutory contributions made by the employees and the State are not adequate to meet current benefit payments. In Fiscal Year 2020-21, an additional State contribution of $209,344,866 was required to satisfy the pay-as-you-go cost.

DEFINED CONTRIBUTION PLANS

CalPERS currently administers a defined contribution plan and a deferred compensation plan for certain members. The following is a further description of each of these funds:

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, 2021, membership in the defined contribution plans consisted of the following:

Members in DCF and SCPF

Plan	Employers	Members
DCF	821	31,772
SCPF	1	6,464

PENSION PREFUNDING PLAN

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 43 participating employers. Of the 43 participating employers, 31 employers have contributed assets in the CEPPTF as of June 30, 2021. The CEPPTF is more fully described in Note 9 to the financial statements.

DEFINED BENEFIT OTHER POST-EMPLOYMENT BENEFIT PLAN

The California Employers' Retiree Benefit Trust Fund (CERBTF) – The Annuitants' Health Care Coverage Fund, also known as the 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 survivor health care and other post-employment benefits (OPEB). Currently, the CERBTF has 586 participating employers. Of the 586 participating employers, 568 employers have contributed assets in the CERBTF as of June 30, 2021. The CERBTF is more fully described in Note 10 to the financial statements.

OTHER ADMINISTRATIVE ACTIVITIES

CalPERS administers other activities as follows:

Replacement Benefit Fund (RBF) – The RBF was established by Chapter 798 of the 1990 Statutes, providing replacement benefits to participants 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 premiums 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 Annual Comprehensive Financial Report.

MEASUREMENT FOCUS, BASIS OF ACCOUNTING & BASIS OF PRESENTATION

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

The accounts of CalPERS are organized and operated on the basis of funds. The Board has a fiduciary responsibility for the investments within both the fiduciary and proprietary funds. CalPERS has the following fund types as of June 30, 2021:

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 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, 2021:

Target Asset Allocation

Asset Class	PERF A	PERF B	PERF C	LRF	JRF	JRF II
Public Equity	50%	50%	50%	22%	—	52%
Private Equity	8%	8%	8%	—	—	—
Fixed Income	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
Public Equity	59%	40%	22%
Fixed Income	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 prefund 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.

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
Public Equity	40%	14%
Fixed Income	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 three to five years for furniture and equipment, and 40 years for buildings, and determined on an asset-by-asset basis for intangible assets, using the straight-line method of depreciation.

INVESTMENT COSTS

Investment costs 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 costs 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 costs 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 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 4.75 percent, morbidity rates, lapse rates, mortality, and plan expenses.

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

CalPERS participates in commercial insurance programs and is self-insured for fiduciary liability. During the fiscal year, insurance settlements did not exceed insurance coverage.

RECLASSIFICATIONS

Certain reclassifications have been made to the comparative totals as of and for the fiscal year ended June 30, 2020, to conform to the presentation as of and for the fiscal year ended June 30, 2021.

COMPARATIVE TOTALS

The Basic Financial Statements include certain prior year summarized comparative information in total but not at the level of detail required for a presentation in conformity with U.S. generally accepted accounting principles. Accordingly, such information should be read in conjunction with CalPERS financial statements for the fiscal year ended June 30, 2020, from which the summarized information was derived.

TERMINATION OF PENSION PLANS

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

EMPLOYER SHARE OF POST-EMPLOYMENT BENEFITS

As of June 30, 2021, CalPERS has adjusted its proportionate share of the state's net pension and OPEB liabilities totaling approximately $606 million and $634 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 Annual Comprehensive Financial Report 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 $362 million at June 30, 2021. 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 $1.1 billion at June 30, 2021, 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. The cash balances reported in the Statement of Cash Flows for proprietary fund types include cash in general operating accounts with the State Treasury and cash and money market funds (short-term investments) held at the Bank of New York Mellon in checking and demand deposit accounts, respectively.

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, 2021, CalPERS had no specific plans or intentions to sell investments at amounts different from NAV.

The following table presents a summary of CalPERS investments by type as of June 30, 2021, at fair value:

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

	Fair Value June 30, 2021	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				
Public Equity				
Domestic Equity	$138,092,390	$138,092,390	$0	$0
International Equity	99,157,313	99,157,313	—	—
Total Public Equity	**$237,249,703**	**$237,249,703**	**$0**	**$0**
Global Debt				
Asset-Backed	$31,964,830	$0	$30,634,188	$1,330,642
Bank Loans	334,504	—	334,504	—
International Debt	2,793,091	—	2,793,091	—
Municipal/Public Bonds	23,474	—	23,474	—
Sovereign Debt	3,351,801	—	3,351,801	—
U.S. Corporate	26,769,484	—	26,769,484	—
U.S. Treasuries, STRIPS and TIPS	40,303,776	—	40,303,776	—
Total Global Debt	**$105,540,960**	**$0**	**$104,210,318**	**$1,330,642**
Derivatives				
Futures	$34,611	$34,611	$0	$0
Rights & Warrants	1,787	—	1,787	—
Forward Contract Assets	328,238	—	328,238	—
Forward Contract (Liabilities)	(242,511)	—	(242,511)	—
Swap Assets	26,951	—	26,951	—
Swap (Liabilities)	(2,092)	—	(2,092)	—
Total Derivatives	**$146,984**	**$34,611**	**$112,373**	**$0**
Other				
Rule 144(a) Securities	$24,806,385	$0	$24,806,385	$0
Securitized Assets	446,922	—	—	446,922
Private Equity[2]	55,989	—	—	55,989
Total Other	**$25,309,296**	**$0**	**$24,806,385**	**$502,911**
Total Investments by Fair Value Level	**$368,246,943**	**$237,284,314**	**$129,129,076**	**$1,833,553**
Investments Measured at NAV				
Commingled/Pooled Funds	$26,313,150			
Real Assets	47,207,101			
Private Equity[2]	42,727,186			
Private Debt/Other Investments	2,989,572			
Total Investments Measured at NAV	**$119,237,009**			
Total Investments Measured at Fair Value	**$487,483,952**			

(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. Real assets are valued at NAV.

Public equity includes 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.

Fixed Income consists 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	$26,313,150	$0
Real Assets	47,207,101	3,161,707
Private Equity	42,727,186	30,389,565
Private Debt/Other Investments	2,989,572	9,662,338
Total	**$119,237,009**	**$43,213,610**

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.

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 that 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:
  - Invests outside the mandate of traditional asset classes. Strategies may include middle market direct lending, specialty lending, public market dislocation, liquidity financing, structured products and whole loans, real estate financing, bank loans and CLO.

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 typically range from at-will up to 90 days, with the exception of the Opportunistic Strategies and 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 $47.2 billion are reported at NAV.

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, 2021:

Money-Weighted Rate of Return

Plan	Rate of Return
PERF A	
Agent	22.4%
PERF B	
Schools Cost-Sharing	22.4%
PERF C	
Public Agency Cost-Sharing	22.4%
LRF	13.4%
JRF	0.3%
JRF II	24.3%
CERBTF	25.6%
CEPPTF	14.4%

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.

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, 2021, 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 that 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, 2021:

CalPERS – Debt Securities Subject to Interest Rate Risk

(Dollars in Thousands)

Debt Security Type	Portfolio Weighted Average Effective Duration	Fair Value June 30, 2021	Percent of Debt Securities
Corporate	9.11	$45,057,840	34.68%
U.S. Treasuries and Agencies:			
U.S. Treasury Bonds	18.22	31,108,111	23.94%
U.S. Treasury Notes	8.29	9,141,237	7.04%
U.S. Treasury Strips	11.77	54,428	0.04%
Mortgages	4.51	31,633,910	24.35%
Asset-Backed	0.42	9,697,339	7.46%
Foreign Government	12.86	3,397,827	2.62%
Municipals	12.35	23,474	0.02%
No Effective Duration:			
Commingled Fund	N/A	$356,787	0.27%
Asset-Backed	N/A	258,920	0.20%
Mortgages	N/A	49,561	0.04%
Corporate	N/A	9,864	—%
Swaps	N/A	(859,917)	(0.66%)
Total		**$129,929,381**	**100.00%**

CalPERS invests in the State Treasury pool, State Street Bank Global Advisors' (SSGA) fund: Short-Term Investment Fund (STIF) 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, 2021, the pooled money investment account with the State Treasury totaled approximately $3.3 billion. The SSGA STIF totaled approximately $6.9 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, 2021, the weighted average maturity was 291 days for the State Treasury pool, 48 days for the SSGA STIF. The SSGA STIF is rated as P1. The State Treasury pool is not rated.

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, 2021:

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

SSGA Fund	Fair Value June 30, 2021	Credit Rating[1]	Weighted Average Maturity[2]
Bloomberg Barclays Long Liability Index	$8,423,680	Aa3	14.40
1-10 Year U.S. TIPS Index	12,301	Aaa	4.94
U.S. Aggregate Bond Index	550,563	Aa2	8.30
U.S. Bond Index	447,237	Aa2	8.23
U.S. Short-Term Government/ Credit Bond Index	40,122	Aa2	1.99
U.S. TIPS Index Non Lending	1,179,078	Aaa	8.00
U.S. TIPS Index Security Lending	139,699	Aaa	7.99
Total	**$10,792,680**		

(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, 2021:

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

Security Type	Fair Value June 30, 2021	Percent of Securities Lending Collateral
No Effective Duration:		
Money Market Fund[1]	$612,708	18.6%
Short-Term Investment Fund[2]	2,688,847	81.4%
Total[3]	**$3,301,555**	**100.0%**

(1) Money Market Fund is invested in U.S. Treasury securities with a weighted average maturity (to final maturity) of one day.
(2) Short-Term Investment Fund has a weighted average maturity (to final maturity) of one day.
(3) This figure does not include $49,325 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 $3,350,880 for fiduciary funds.

As of June 30, 2021, 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, 2021, 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 though 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, 80 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 or Standard & Poor's). 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, 2021:

CalPERS – Debt Security Investments Subject to Credit Risk

(Dollars in Thousands)

Moody's Quality Rating	Fair Value June 30, 2021	Fair Value as a Percent of Debt Security Investments
Aaa	$46,061,131	35.45%
Aa1	459,294	0.35%
Aa2	1,713,823	1.32%
Aa3	785,137	0.60%
A1	2,217,580	1.71%
A2	2,113,708	1.63%
A3	2,329,600	1.79%
Baa1	6,082,577	4.68%
Baa2	8,298,291	6.39%
Baa3	5,519,756	4.25%
Ba1	2,863,925	2.20%
Ba2	2,749,509	2.12%
Ba3	3,772,088	2.90%
B1	3,244,878	2.50%
B2	2,640,214	2.03%
B3	1,984,545	1.53%
Caa1	756,335	0.58%
Caa2	373,400	0.29%
Caa3	50,935	0.04%
Ca	8,102	0.01%
C	1,512	—%
NA[1]	5,260,514	4.05%
NR[2]	30,642,527	23.58%
Total	**$129,929,381**	**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 by credit agencies.

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]	$3,301,555	100.0%
Total[3]	**$3,301,555**	**100.0%**

(1) NR represents those securities that are not rated.
(2) This figure includes $612,708 invested in a money market fund and $2,688,847 invested in short-term investments.
(3) This figure does not include $49,325 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 $3,350,880 for fiduciary funds.

Foreign Currency Risk

Foreign currency risk is defined as any deposits or investments that are denominated in foreign currencies, which bear a potential risk of loss arising from changes in currency exchange rates. The System's asset allocation and investment policies allow for active and passive investments in international securities 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 total non-USD currency exposures to the Board as part of its Trust Level Review. The proportion of international stocks within the public equity portfolio is roughly equal to their market capitalization weight in the public equity benchmark. For fixed income, 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.

CalPERS – International Investment Securities[1] – Fair Value at June 30, 2021 (U.S. Dollars in Thousands)

Currency	Cash	Equity	Debt Securities	Real Assets	Private Equity	Forward Contracts	Total
Australian Dollar	$1,095	$3,934,315	$0	$947,260	$0	($29,923)	$4,852,747
Brazilian Real	5,888	1,187,405	—	528,522	—	19,739	1,741,554
British Pound	32,745	7,064,900	—	1,084,214	184,468	(32,257)	8,334,070
Canadian Dollar	1,633,705	5,813,920	—	27,746	140,527	8,463	7,624,361
Chilean Peso	9,095	23,474	—	—	—	114	32,683
Chinese Yuan Renminbi	5,497	816,936	—	1,081,127	—	4,980	1,908,540
Colombian Peso	24	6,667	—	—	—	(301)	6,390
Czech Koruna	28	3,339	—	—	—	26	3,393
Danish Krone	146,935	2,045,451	—	27,854	—	7,259	2,227,499
Egyptian Pound	983	342	—	—	—	(132)	1,193
Euro Currency	970,478	16,875,913	—	1,807,969	5,232,080	80,714	24,967,154
Guatemala Quetzal	—	—	—	116,428	—	—	116,428
Hong Kong Dollar	5,436	10,520,712	—	—	—	82	10,526,230
Hungarian Forint	26	6,653	—	—	—	(881)	5,798
Indian Rupee	(1,414)	4,716,630	231	648	—	(6,323)	4,709,772
Indonesian Rupiah	(134)	381,108	—	—	—	77	381,051
Israeli Shekel	128	491,645	—	—	—	(20)	491,753
Japanese Yen	1,575,904	19,145,766	—	108,830	1,136	26,123	20,857,759
Kuwaiti Dinar	21	156,359	—	—	—	(2)	156,378
Malaysian Ringgit	214	627,855	—	—	—	—	628,069
Mexican Peso	223	327,963	—	8,114	—	(471)	335,829
New Taiwan Dollar	2,511	6,085,042	—	—	—	7,459	6,095,012
New Zealand Dollar	181	293,079	—	25,335	—	3,148	321,743
Norwegian Krone	195	469,801	—	4,695	—	130	474,821
Pakistani Rupee	337	2,217	—	—	—	—	2,554
Peruvian Nuevo Sol	33	—	36,681	—	—	(1,641)	35,073
Philippine Peso	136	197,263	—	—	—	(979)	196,420
Polish Zloty	41	31,694	—	—	—	(2,491)	29,244
Qatari Riyal	83	306,187	—	—	—	5	306,275
Russian Ruble	2,623	327,827	—	108,216	—	(1,035)	437,631
Saudi Riyal	164	1,398,460	—	—	—	(10)	1,398,614
Singapore Dollar	347	1,037,590	—	27,339	—	2,881	1,068,157
South African Rand	167	750,703	—	—	—	(5,202)	745,668
South Korean Won	2,016	3,244,718	—	10,079	—	4,819	3,261,632
Swedish Krona	349,660	2,020,325	—	64,159	—	147	2,434,291
Swiss Franc	443	7,970,613	—	—	—	(3,796)	7,967,260
Thailand Baht	120	700,209	—	—	—	1,615	701,944
Turkish Lira	5	1,750	—	—	—	(777)	978
UAE Dirham	69	176,557	—	—	—	8	176,634
Total	**$4,746,008**	**$99,161,388**	**$36,912**	**$5,978,535**	**$5,558,211**	**$81,548**	**$115,562,602**

(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, 2021, the fair value of the securities on loan was approximately $30.6 billion. The securities on loan remain on CalPERS' Statement of Fiduciary Net Position in their respective investment categories. At June 30, 2021, cash collateral received totaling $3.4 billion is reported as securities lending obligation, and the fair value of reinvested cash collateral totaling $3.4 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.

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, 2021, the aggregate fair value of investment derivatives in an asset position subject to counterparty credit risk was approximately $355.2 million. The aggregate amount of cash collateral held by CalPERS on behalf of over-the-counter derivatives was approximately $74.4 million.

CalPERS – Derivative Instruments Summary[1,2] (Dollars in Thousands)

Investment	Net Appreciation/ (Depreciation) in Fair Value for the Fiscal Year Ended June 30, 2021	Fair value at June 30, 2021		
Derivatives (by Type)	**Amount**	**Classification**	**Amount**	**Notional**
Fixed Income Futures Long	($1,034,374)	Investment Revenue	$45,733	$1,718,437,930
Fixed Income Futures Short	38,286	Investment Revenue	(5,476)	(306,773,909)
FX Forwards	(411,236)	Investment Revenue	85,727	24,475,263
Index Futures Long	1,620,158	Investment Revenue	(5,646)	2,978,055
Index Futures Short	(211,443)	Investment Revenue	—	—
Pay Fixed Interest Rate Swaps	5,790	Investment Revenue	—	—
Receive Fixed Interest Rate Swaps	(4,248)	Investment Revenue	—	—
Rights[3]	1,109	Investment Revenue	1,571	3,552
Total Return Swaps Bond	(556,233)	Investment Revenue	—	859,917
Total Return Swaps Equity	2,932,483	Investment Revenue	24,859	(859,917)
Warrants[3]	(7,790)	Investment Revenue	216	3,072
Total	**$2,372,502**		**$146,984**	

(1) The information presented in this table is derived from CalPERS' June 30, 2021, 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 Maturities (in years)			
Investment Type	**Fair Value June 30, 2021**	**Under 1**	**1–5**	**6–10**	**10+**
Total Return Swaps Equity	$24,859	$24,859	$0	$0	$0
Total	**$24,859**	**$24,859**	**$0**	**$0**	**$0**

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

Investment Type	Reference Rate	Fair Value at June 30, 2021	Notional
Total Return Bond Swaps	Receive Fixed 5.25%, Pay Fixed 0%	$0	$169,194
Total Return Bond Swaps	Receive Fixed 6.00%, Pay Fixed 0%	—	66,060
Total Return Bond Swaps	Receive Fixed 6.60%, Pay Fixed 0%	—	5,861
Total Return Bond Swaps	Receive Variable 1-month spread, Pay Fixed 0%	—	—
Total Return Bond Swaps	Receive Variable 1-month spread, Pay Variable 1-month spread	—	54,018
Total Return Bond Swaps	Receive Variable 3-month spread, Pay Variable 3-month spread	—	564,784
Subtotal – Total Return Bond Swaps		**$0**	**$859,917**
TOTAL		**$0**	**$859,917**

CalPERS – Derivative Instruments Subject to Counterparty Credit Risk

Counterparty	Percentage of Net Exposure	Moody's Ratings
Goldman Sachs International	21.75%	A1
UBS AG	19.50%	Aa3
Natwest Markets Plc	12.18%	A3
State Street Bank and Trust Company	7.85%	Aa3
Standard Chartered Bank	6.17%	A1
Societe Generale	5.68%	A1
Citibank N.A.	5.67%	Aa3
JP Morgan Chase Bank, N.A.	5.20%	Aa2
Credit Suisse International	3.16%	Aa3
Bank of New York	2.89%	A1
Deutsche Bank AG	2.67%	A3
Barclays Bank Plc Wholesale	2.51%	A1
Morgan Stanley Capital Services, Inc.	1.74%	A1
BNP Paribas, S.A.	1.17%	Aa3
HSBC Bank USA	1.02%	Aa3
JP Morgan Chase & Company	0.74%	A2
Bank of America, N.A.	0.10%	Aa2
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, 2021, are reported in the Net Pension Liability/(Asset) table. 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	$106,857,488	$86,523,056	$20,334,432	81.0%
PERF C				
Public Agencies Cost-Sharing	46,174,942	40,766,654	5,408,288	88.3%
LRF				
State of California	91,867	122,048	(30,181)	132.9%
JRF				
State of California	3,326,289	61,640	3,264,649	1.9%
JRF II				
State of California	2,063,342	2,398,029	(334,687)	116.2%

The total pension liability for each defined benefit plan was determined by actuarial valuations as of June 30, 2020, which were rolled forward to June 30, 2021, 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%	2.75%	2.50%
Long-term rate of return assumption on plan investments used in discounting liabilities:	7.15%	7.15%	5.25%	1.92%	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.

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[2,4]	Real Return Years 11+[3,4]
Public 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, Liquidity is included in Short-Term Investments; Inflation Assets are included in both Public Equity and Fixed Income.
(2) An expected inflation of 2.00% used for this period.
(3) An expected inflation of 2.92% used for this period.
(4) Figures are based on the previous ALM of 2017.

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

Asset Class[1]	Assumed Asset Allocation	Real Return Years 1 - 10[2,4]	Real Return Years 11+[3,4]
Public 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 Public Equity; TIPS are included in Fixed Income.
(2) An expected inflation of 2.00% used for this period.
(3) An expected inflation of 2.92% used for this period.
(4) Figures are based on the previous ALM of 2018.

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

Asset Class[1]	Assumed Asset Allocation	Real Return Years 1 - 10[2,4]	Real Return Years 11+[3,4]
Public 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 Public Equity; TIPS are included in Fixed Income.
(2) An expected inflation of 2.00% used for this period.
(3) An expected inflation of 2.92% used for this period.
(4) Figures are based on the previous ALM of 2018.

DISCOUNT RATE

PERF B, PERF C, LRF, and JRF II

The discount rates used to measure the total pension liability as of June 30, 2021, 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, 2021, was 1.92 percent, which differs from the discount rate used as of June 30, 2020, of 2.45 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.

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	$106,857,488	$86,523,056	$20,334,432	81.0%
PERF C				
Public Agencies Cost-Sharing	46,174,942	40,766,654	5,408,288	88.3%
LRF				
State of California	91,867	122,048	(30,181)	132.9%
JRF				
State of California	3,326,289	61,640	3,264,649	1.9%
JRF II				
State of California	2,063,342	2,398,029	(334,687)	116.2%

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	$120,809,763	$86,523,056	$34,286,707	71.6%
PERF C				
Public Agencies Cost-Sharing	52,339,025	40,766,654	11,572,371	77.9%
LRF				
State of California	102,806	122,048	(19,242)	118.7%
JRF				
State of California	3,697,689	61,640	3,636,049	1.7%
JRF II				
State of California	2,311,430	2,398,029	(86,599)	103.7%

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	$95,274,105	$86,523,056	$8,751,049	90.8%
PERF C				
Public Agencies Cost-Sharing	41,097,915	40,766,654	331,261	99.2%
LRF				
State of California	82,980	122,048	(39,068)	147.1%
JRF				
State of California	3,012,399	61,640	2,950,759	2.0%
JRF II				
State of California	1,861,467	2,398,029	(536,562)	128.8%

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, 2021, 43 employers had elected to participate in the fund. Of the 43 participating employers, 31 employers have contributed assets in the CEPPTF as of June 30, 2021. 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 2020-21 employer contributions from participating employers were $45.8 million. There were two disbursements from the CEPPTF for two participating employers totaling $1.7 million.

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, 2021, 586 employers had elected to participate in the fund. Of the 586 participating employers, 568 employers have contributed assets in the CERBTF as of June 30, 2021. 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, 2021, there were 500,607 active plan members, 318,064 inactive plan members currently receiving benefit payments, and 13,125 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 2020-21 actual OPEB employer contributions from participating employers representing 603 OPEB plans were $4.08 billion. In compliance with GASB 74, this amount includes the $1.01 billion in contributions made to the CERBTF, plus an additional $3.07 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 25.6 percent for Fiscal Year 2020-21.

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 participants 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 participants 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, 2021, there were 1,878 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 over time. 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 fee to pay for these costs. In Fiscal Year 2020-21 CalPERS continued assessing fees to cover costs, and continued 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 was 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 premiums 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 2020-21 the Board approved aggregate increases in member premiums to continue to provide for benefits of the health plans.

Public agencies participating in the health plans are required to make monthly payments based on premiums established annually by CalPERS. Employers' share 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, 2021, 100 percent of the HCF's investments in fixed income 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, 2021, 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 $506.0 million is carried at its face amount, and no interest discount is assumed. The IBNR portion of $431.7 million represents an estimate for claims that have been incurred prior to June 30, 2021, but have not been reported to the HCF. The total of the estimated claims liabilities at the end of the Fiscal Year 2020-21 is $750.0 million. The year-end amount also includes $244.0 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, 2021, and June 30, 2020.

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

Year Ended June 30	2021	2020
Total Estimated Claims at Beginning of Fiscal Year	**$738,158**	**$740,437**
Total Incurred Claims and Claim Adjustment Expenses	3,649,951	3,490,974
Total Payments	(3,638,153)	(3,493,253)
Total Estimated Claims at End of Fiscal Year	**$749,956**	**$738,158**

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 premiums 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
- 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, 2021, was 0.24 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, 2021, there were 1,154 public agencies and schools participating in health insurance coverage under PEMHCA.

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

The LTCF began offering long-term care benefits in 1995 through the CalPERS Long-Term Care (LTC) Program. The LTC Program provides LTC coverage to enrolled participants under the Public Employees' Retirement Law (PERL), Chapter 15. Administered by a third-party administrator, Long Term Care Group, Inc. (LTCG), the self-insured LTC Program is a voluntary program, funded solely by participant-paid premiums and investment income.

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 through fiscal year 2020

As of June 30, 2021, there are 111,518 active participants in the LTC 1, LTC 2, LTC 3, and LTC 4 policy series, of which 6,470 are receiving benefits.

In June 2020, CalPERS suspended open enrollment on the CalPERS Long-Term Care Program due to current uncertainty in the long-term care market until further notice. The CalPERS Long-Term Care Program is not 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 4.75 percent, morbidity, lapse rates, mortality, and plan expenses. In Fiscal Year 2020-21, the actual investment returns were approximately $406.2 million higher than expected investment income. Economic assumptions are evaluated periodically in accordance with Board policy. An evaluation of assumptions for the June 30, 2021, 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, 2021, Annual Comprehensive Financial Report was rolled forward from the June 30, 2020, actuarial valuation using standard actuarial techniques. Due to updates in future cash flows and assumptions over the discount rate (from 4.0 percent to 4.75 percent), morbidity, and lapse rates implemented in the 2020 actuarial valuation and also as a result of the settlement liability accrued, the estimated liability for future policy benefits as of June 30, 2021, decreased significantly compared to the liability as of June 30, 2020.

The following schedule represents changes in the aggregate estimated claims liabilities and liabilities for future policy benefits for the fiscal years ended June 30, 2021, and June 30, 2020.

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

Year Ended June 30	2021	2020
Total Estimated Future Policy Liabilities at Beginning of Fiscal Year	**$7,053,071**	**$4,628,993**
Increase (Decrease) in Liability and Change in Estimate	(1,786,979)	2,759,847
Claim Payments	(314,800)	(335,769)
Change Due to Settlement Liability	(2,900,000)	—
Total Estimated Future Policy Liabilities at End of Fiscal Year	**$2,051,292**	**$7,053,071**

Total LTCF investments as of June 30, 2021, were approximately $5.5 billion. At June 30, 2021, the LTCF's investment portfolio consisted of approximately 60 percent, 15 percent, 11 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 2020-21, the annual premium was $272.7 million and the total benefits paid out were $309.0 million. Since the program's inception in 1995 through June 30, 2021, the total benefits paid were approximately $3.5 billion. Based on updated actuarial assumptions, in November 2020 the Board approved a 52 percent rate increase for all four LTC policy series. In addition, the program is updating its asset allocation based on new policy weights approved by the Board of Administration in March 2021 in Fiscal Year 2021-22, offering new benefit designs including benefit reduction options, and offering premium increase mitigation options. Implementation of the new policy weights will occur in Fiscal Year 2021-22. The Investment Policy will be updated to reflect the newly approved weights in the month that the new strategic asset allocation is implemented.

CalPERS has agreed to a proposed settlement in the Long-Term Care Program class action lawsuit upon acceptance by the affected parties and the courts. CalPERS could pay an estimated $2.9 billion, which includes contingency costs, settlement administration expenses, attorneys' fees and expenses, and service awards for the plaintiffs. This estimate is reported as a Settlement Liability on the Statement of Net Position and Settlement Expenses on the Statement of Revenues, Expenses, and Changes in Net Position. Additional details on the proposed settlement is included in Note 16, as the *Wedding, et al. v. CalPERS* class action lawsuit.

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.

Wedding, et al. v. CalPERS (previously identified as *Sanchez, et al. v. CalPERS*) was filed in 2013. This class action challenges the propriety of CalPERS' decision to increase premiums by 85 percent on certain categories of its Long-Term Care (LTC) policyholders. Plaintiffs allege that the increase breached the relevant insurance contracts and seek to recover all allegedly excess premiums paid by effected policyholders since the increase was effectuated in 2014 and 2015, as well as interest and attorneys' fees. CalPERS denies that it breached the relevant insurance contracts and denies that plaintiffs are entitled to any relief on any cause of action.

In January 2016, the court granted plaintiffs' Motion for Class Certification over CalPERS' objection. The claims certified for class treatment were (1) the breach of contract claim; and (2) the breach of fiduciary duty claim, on the "duty of care" only. However, the court later granted CalPERS' motion for summary adjudication of the breach of fiduciary duty claim, leaving only the breach of contract claim certified for class treatment.

The only other defendants in the case—the actuarial firm that originally helped CalPERS establish the LTC program (Towers-Watson)—entered into a settlement agreement with plaintiffs that was approved by the court in January 2018.

In early June 2019, the first part of the case regarding the proper interpretation of the insurance contracts (the "Evidence of Coverage") at issue was tried to the court, sitting without a jury. The court held in favor of plaintiffs on the interpretation of the "Inflation-Protection" clauses in the Evidence of Coverage, and in favor of CalPERS on the premium adjustments permitted by the "Guaranteed Renewable" clauses. The court held in favor of CalPERS on its Cross-Claim that CalPERS can subject insureds with Inflation-Protection benefits to future rate increases, insofar as any such rate increases are driven by cost factors other than the inherent escalation of daily/monthly limits on Inflation-Protection benefits over time, and as long as these increases are spread over the entire risk pool and not selectively imposed to a greater-than-average degree on the Inflation-Protection insureds. The second part of the case was set for trial by jury on the issue of whether the subject 85% premium increase had, in fact, breached the contracts given the court's interpretation of them in the first part of the trial.

After several continuances to the trial date, the parties settled the case in July 2021. If all class members accept the settlement and there are no opt-outs, the maximum potential cost to the CalPERS Long-Term Care Fund is estimated to be $2.9 billion. On July 12, 2021, the plaintiffs filed a Motion for Preliminary Approval of the Settlement Agreement, which the court granted on July 22, 2021. On August 13, 2021, a court-approved Notice of Proposed Settlement was sent to the class members. The Notice explains the settlement, the rights of class members, and provides answers to frequently asked questions. Class members have 120 days, to December 13, 2021, to decide whether to opt out of the agreement. At that point, CalPERS will assess the financial health of the LTC Fund based on the demographics of the class members who have not opted out and determine whether to proceed with the settlement. If CalPERS proceeds with the settlement, and barring any other impediments to completion of the settlement, the court will be asked to give its final approval to the settlement sometime in mid-2022.

Heinz, et al. v. CalPERS, Anthem et al. is a putative class action lawsuit filed against CalPERS and one of its insurance programs, Anthem, 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 first 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 the lawsuit. Plaintiff subsequently appealed the Superior Court's decision.

On April 19, 2021, the Court of Appeal issued its decision. The Court affirmed the trial court's order denying the Petition for Writ of Administrative Mandamus, but reversed the judgment dismissing the remaining causes of action, finding that the non-contractual causes of action were outside the scope of the issues raised in the administrative proceedings, were thus not barred by claim preclusion, and required further analysis of the equitable estoppel issue relevant to the statute of limitations tolling and Government Code claims presentation timing requirements. The defendants continue to vigorously defend the action.

Huasha Liu, et al. v. Board of Administration, California Public Employees' Retirement System, Southern California Association of Governments, et al. is a writ of mandamus and putative class action lawsuit filed by Plaintiff Liu on February 8, 2020. Plaintiff Liu alleges that CalPERS failed to include her "special compensation" in computing her retirement benefits.

The matter was bifurcated for the writ to be heard first. On December 14, 2020, the court granted Plaintiff Liu's Writ of Mandate, setting aside CalPERS' decision to exclude lump sum payments from Plaintiff's final compensation. The matter is now proceeding as a putative class action. The Third Amended Petition (complaint) was filed and served on August 12, 2021. CalPERS filed a demurrer on September 3, 2021. On September 30, 2021, the court overruled the demurrer and authorized the parties to proceed with discovery to ascertain whether class certification is possible. That discovery is underway. No trial date has been set.

With the exception of the Wedding case, 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.

The U.S. House of Representatives on March 10, 2021, passed the Senate-amended H.R. 1319, the American Rescue Plan (ARP). The ARP provides $1.9 trillion in additional relief to respond to the novel coronavirus (COVID-19). This follows the enactment of nearly $4 trillion in COVID relief in 2020. President Joe Biden called for Congress to enact the ARP to provide relief for individuals and businesses struggling due to COVID-19, as well as to achieve other priorities of the Biden Administration and Congress. ARP includes provisions on aid to state and local governments, hard-hit industries and communities, tax changes affecting individuals and businesses, and other provisions. 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 was delayed to reporting periods beginning after June 15, 2021 due to the COVID-19 virus. CalPERS will implement GASB 87 for fiscal year 2021-22. However, CalPERS has determined GASB 87 will not have a material impact on the future financial statements.

FINANCIAL SECTION

Required Supplementary Information

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

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

	2021	2020	2019	2018	2017
Discount Rate Assumption	**7.15%**	**7.15%**	**7.15%**	**7.15%**	**7.15%**
Total Pension Liability:					
Service Cost	$2,347,398	$2,302,877	$2,226,797	$2,172,696	$2,031,914
Interest	7,216,728	6,904,699	6,563,541	6,165,715	5,719,835
Changes of Assumptions	—	—	—	450,064	4,649,299
Differences Between Expected and Actual Experience	(63,915)	452,461	1,398,796	1,852,902	531,862
Benefit Payments, Including Refunds of Member Contributions	(4,932,395)	(4,671,357)	(4,347,426)	(4,053,119)	(3,724,910)
Net Change in Total Pension Liability	**$4,567,816**	**$4,988,680**	**$5,841,708**	**$6,588,258**	**$9,208,000**
Total Pension Liability – Beginning	$102,289,672	$97,300,992	$91,459,284	$84,871,026	$75,663,026
Total Pension Liability – Ending (a)	**$106,857,488**	**$102,289,672**	**$97,300,992**	**$91,459,284**	**$84,871,026**
Plan Fiduciary Net Position:					
Contributions – Employer	$2,972,220	$2,866,144	$2,527,726	$2,070,832	$1,783,736
Contributions – Member	1,019,154	1,047,983	1,014,070	952,979	897,438
Contributions – Nonemployer	—	904,000	—	—	—
Total Net Investment Income	15,928,499	3,398,535	4,212,090	5,095,064	6,211,781
Benefit Payments, Including Refunds of Member Contributions	(4,932,395)	(4,671,357)	(4,347,426)	(4,053,119)	(3,724,910)
Net Plan-to-Plan Resource Movement	—	164	304	2	(134)
Administrative Expenses	(71,018)	(95,614)	(46,159)	(92,448)	(82,489)
Net Change in Plan Fiduciary Net Position	**$14,916,460**	**$3,449,855**	**$3,360,605**	**$3,973,310**	**$5,085,422**
Plan Fiduciary Net Position – Beginning	$71,606,596	$68,156,741	$64,796,136	$60,998,387	$55,912,965
Adjustments[2]	—	—	—	(175,561)	—
Total Adjusted Plan Fiduciary Net Position – Beginning	71,606,596	68,156,741	64,796,136	60,822,826	55,912,965
Plan Fiduciary Net Position – Ending (b)	86,523,056	71,606,596	68,156,741	64,796,136	60,998,387
Net Pension Liability (a) - (b)	**$20,334,432**	**$30,683,076**	**$29,144,251**	**$26,663,148**	**$23,872,639**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**81.0%**	**70.0%**	**70.0%**	**70.8%**	**71.9%**
Covered Payroll	$14,885,212	$14,447,159	$13,819,881	$13,252,995	$12,643,354
Net Pension Liability as a Percentage of Covered Payroll	**136.6%**	**212.4%**	**210.9%**	**201.2%**	**188.8%**

(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 post-employment benefit obligations.

NOTES TO SCHEDULE

Change of Assumptions and Methods

In Fiscal Year 2020-21 there were no changes to actuarial assumptions or methods.

The CalPERS Board of Administration adopted a new amortization policy effective with the June 30, 2019, actuarial valuation. The 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 Unfunded Accrued Liability (UAL) bases attributable to assumption changes, investment gains/losses, and non-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 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.

2016	2015	2014
7.65%	**7.65%**	**7.50%**
$1,716,677	$1,624,993	$1,576,667
5,441,918	5,152,519	4,820,116
—	(1,217,974)	—
400,103	1,119,011	—
(3,546,836)	(3,334,081)	(3,139,923)
$4,011,862	**$3,344,468**	**$3,256,860**
$71,651,164	$68,306,696	$65,049,836
$75,663,026	**$71,651,164**	**$68,306,696**
$1,434,632	$1,323,090	$1,203,071
851,133	773,580	744,437
—	—	—
297,514	1,272,365	8,625,601
(3,546,836)	(3,334,081)	(3,139,923)
10	(71,460)	—
(34,554)	(64,124)	(72,167)
($998,101)	**($100,630)**	**$7,361,019**
$56,911,066	$57,011,696	$49,650,677
—	—	—
56,911,066	57,011,696	49,650,677
55,912,965	56,911,066	57,011,696
$19,750,061	**$14,740,098**	**$11,295,000**
73.9%	**79.4%**	**83.5%**
$11,747,602	$10,964,872	$10,120,248
168.1%	**134.4%**	**111.6%**

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 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.

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

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

	2021	2020	2019	2018	2017
Discount Rate Assumption	**7.15%**	**7.15%**	**7.15%**	**7.15%**	**7.15%**
Total Pension Liability:					
Service Cost	$947,349	$912,529	$878,707	$844,273	$820,583
Interest	3,123,532	2,954,008	2,798,484	2,629,157	2,506,761
Changes of Benefit Terms	1,390	900	1,283	668	2,119
Changes of Assumptions	—	—	—	(248,318)	2,122,413
Differences Between Expected and Actual Experience	615,793	453,273	705,149	313,467	(18,554)
Benefit Payments, Including Refunds of Member Contributions[2]	(2,216,053)	(2,044,232)	(1,902,025)	(1,755,740)	(1,630,602)
Net Change in Total Pension Liability	**$2,472,011**	**$2,276,478**	**$2,481,598**	**$1,783,507**	**$3,802,720**
Total Pension Liability – Beginning	$43,702,931	$41,426,453	$38,944,855	$37,161,348	$33,358,628
Adjustment to Beginning Amount	—	—	—	—	—
Total Adjusted Pension Liability – Beginning	**$43,702,931**	**$41,426,453**	**$38,944,855**	**$37,161,348**	**$33,358,628**
Total Pension Liability – Ending (a)	**$46,174,942**	**$43,702,931**	**$41,426,453**	**$38,944,855**	**$37,161,348**
Plan Fiduciary Net Position:					
Contributions – Employer[2]	$1,921,032	$1,594,811	$1,333,559	$1,182,686	$980,359
Contributions – Member[2]	395,130	381,786	357,159	334,140	317,024
Total Net Investment Income[2]	7,523,678	1,565,953	1,935,939	2,308,558	2,774,321
Benefit Payments, Including Refunds of Member Contributions[2]	(2,210,327)	(2,044,232)	(1,902,025)	(1,755,740)	(1,630,602)
Net Plan-to-Plan Resource Movement[2]	348,384	188,629	167,308	116,550	134,513
Administrative Expenses	(33,744)	(43,860)	(21,115)	(41,980)	(37,052)
Net Change in Plan Fiduciary Net Position	**$7,944,153**	**$1,643,087**	**$1,870,825**	**$2,144,214**	**$2,538,563**
Plan Fiduciary Net Position – Beginning	$32,822,501	$31,179,414	$29,308,589	$27,244,095	$24,705,532
Adjustments[3]	—	—	—	(79,720)	—
Total Adjusted Plan Fiduciary Net Position – Beginning	32,822,501	31,179,414	29,308,589	27,164,375	24,705,532
Plan Fiduciary Net Position – Ending (b)	40,766,654	32,822,501	31,179,414	29,308,589	27,244,095
Net Pension Liability (a) - (b)	**$5,408,288**	**$10,880,430**	**$10,247,039**	**$9,636,266**	**$9,917,253**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**88.3%**	**75.1%**	**75.3%**	**75.3%**	**73.3%**
Covered Payroll	$4,371,563	$4,155,772	$3,949,226	$3,793,609	$3,631,919
Net Pension Liability as a Percentage of Covered Payroll	**123.7%**	**261.8%**	**259.5%**	**254.0%**	**273.1%**

(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) May not agree to the Basic Financial Statements in 2021 and 2020 as a result of adjustments made in both years.
(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
In Fiscal Year 2020-21, no changes have occurred to the actuarial assumptions in relation to financing reporting.

The CalPERS Board of Administration adopted a new amortization policy effective with the June 30, 2019, actuarial valuation. The 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 policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes, investment gains/losses, and non-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

2016	2015	2014
7.65%	**7.65%**	**7.50%**
$712,307	$698,416	$713,731
2,399,259	2,285,565	2,169,786
1,478	—	—
—	(543,686)	—
(6,333)	(5,678)	—
(1,519,301)	(1,423,756)	(1,335,871)
$1,587,410	**$1,010,861**	**$1,547,646**
$31,800,055	$30,789,194	$29,241,548
(28,837)	—	—
$31,771,218	**$30,789,194**	**$29,241,548**
$33,358,628	**$31,800,055**	**$30,789,194**
$882,991	$859,456	$747,694
300,135	278,529	291,772
127,043	548,097	3,770,935
(1,519,301)	(1,423,756)	(1,335,871)
22,621	(267,581)	—
(15,263)	(27,967)	(31,550)
($201,774)	**($33,222)**	**$3,442,980**
$24,907,306	$24,940,528	$21,497,548
—	—	—
24,907,306	24,940,528	21,497,548
24,705,532	24,907,306	24,940,528
$8,653,096	**$6,892,749**	**$5,848,666**
74.1%	**78.3%**	**81.0%**
$3,472,950	$3,356,312	$3,248,018
249.2%	**205.4%**	**180.1%**

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.

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

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

	2021	2020	2019	2018	2017
Discount Rate Assumption	**5.25%**	**5.25%**	**5.25%**	**5.25%**	**5.25%**
Total Pension Liability:					
Service Cost	$101	$100	$268	$542	$639
Interest	4,749	4,885	4,871	4,987	5,291
Changes of Assumptions	—	—	—	(2,529)	7,857
Differences Between Expected and Actual Experience	(732)	2,320	(427)	(2,061)	(5,998)
Benefit Payments, Including Refunds of Member Contributions	(6,761)	(6,939)	(7,349)	(6,918)	(7,249)
Net Change in Total Pension Liability	**($2,643)**	**$366**	**($2,637)**	**($5,979)**	**$540**
Total Pension Liability – Beginning	$94,510	$94,144	$96,781	$102,760	$102,220
Adjustment to Beginning Amount	—	—	—	—	—
Total Adjusted Pension Liability – Beginning	**$94,510**	**$94,144**	**$96,781**	**$102,760**	**$102,220**
Total Pension Liability – Ending (a)	**$91,867**	**$94,510**	**$94,144**	**$96,781**	**$102,760**
Plan Fiduciary Net Position:					
Contributions – Employer	$92	$98	$250	$467	$516
Contributions – Member	21	22	91	82	94
Total Net Investment Income	15,098	7,013	7,860	5,486	5,048
Benefit Payments, Including Refunds of Member Contributions	(6,761)	(6,939)	(7,349)	(6,918)	(7,249)
Administrative Expenses	(450)	(550)	(324)	(671)	(575)
Net Change in Plan Fiduciary Net Position	**$8,000**	**($356)**	**$528**	**($1,554)**	**($2,166)**
Plan Fiduciary Net Position – Beginning	$114,048	$114,404	$113,876	$116,884	$119,050
Adjustments[2]	—	—	—	(1,454)	—
Total Adjusted Plan Fiduciary Net Position – Beginning	114,048	114,404	113,876	115,430	119,050
Plan Fiduciary Net Position – Ending (b)	122,048	114,048	114,404	113,876	116,884
Net Pension Asset (a) - (b)	**($30,181)**	**($19,538)**	**($20,260)**	**($17,095)**	**($14,124)**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**132.9%**	**120.7%**	**121.5%**	**117.7%**	**113.7%**
Covered Payroll	$267	$278	$655	$1,242	$1,360
Net Pension Asset as a Percentage of Covered Payroll	**(11,303.7%)**	**(7,028.1%)**	**(3,093.1%)**	**(1,376.4%)**	**(1,038.5%)**

(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 2020-21, there were no changes to the actuarial assumptions in relation to financial reporting. 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 policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes, investment gains/losses, and non-investment gains/losses. These changes will apply only to new UAL bases established on or after June 30, 2019.

In Fiscal Year 2018-19, CalPERS implemented a new actuarial valuation software system for the June 30, 2018, valuation. This system 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

2016	2015	2014
6.00%	**6.00%**	**5.75%**
$608	$769	$732
5,978	6,427	6,465
—	(2,655)	—
(3,530)	(4,246)	—
(7,407)	(9,086)	(7,482)
($4,351)	**($8,791)**	**($285)**
$106,730	$115,521	$115,806
(159)	—	—
$106,571	**$115,521**	**$115,806**
$102,220	**$106,730**	**$115,521**
$549	$590	$565
97	105	113
4,545	(94)	15,372
(7,407)	(9,086)	(7,482)
(203)	(400)	(362)
($2,419)	**($8,885)**	**$8,206**
$121,469	$130,354	$122,148
—	—	—
121,469	130,354	122,148
119,050	121,469	130,354
($16,830)	**($14,739)**	**($14,833)**
116.5%	**113.8%**	**112.8%**
$1,313	$1,545	$1,470
(1,281.8%)	**(954.0%)**	**(1,009.0%)**

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.

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

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

	2021	2020	2019	2018	2017
Discount Rate Assumption	**1.92%**	**2.45%**	**3.13%**	**3.62%**	**3.56%**
Total Pension Liability:					
Service Cost	$17,861	$17,026	$20,073	$19,131	$22,733
Interest	64,480	79,719	99,428	109,395	115,067
Changes of Assumptions	179,421	218,683	153,651	(20,879)	(107,670)
Differences Between Expected and Actual Experience	40,007	(41,794)	86,873	(121,259)	(366,200)
Benefit Payments, Including Refunds of Member Contributions	(210,951)	(213,233)	(221,954)	(207,823)	(200,440)
Net Change in Total Pension Liability	**$90,818**	**$60,401**	**$138,071**	**($221,435)**	**($536,510)**
Total Pension Liability – Beginning	$3,235,471	$3,175,070	$3,036,999	$3,258,434	$3,794,944
Adjustment to Beginning Amount	—	—	—	—	—
Total Adjusted Pension Liability – Beginning	**$3,235,471**	**$3,175,070**	**$3,036,999**	**$3,258,434**	**$3,794,944**
Total Pension Liability – Ending (a)	**$3,326,289**	**$3,235,471**	**$3,175,070**	**$3,036,999**	**$3,258,434**
Plan Fiduciary Net Position:					
Contributions – Employer and General Fund[2]	$225,824	$243,131	$195,903	$199,241	$204,475
Contributions – Member	2,146	2,843	2,679	3,062	3,398
Total Net Investment Income	2,625	3,087	3,942	3,378	2,819
Benefit Payments, Including Refunds of Member Contributions	(210,951)	(213,233)	(221,954)	(207,823)	(200,440)
Administrative Expenses	(1,731)	(2,270)	(10,032)	(2,106)	(1,771)
Net Change in Plan Fiduciary Net Position	**$17,913**	**$33,558**	**($29,462)**	**($4,248)**	**$8,481**
Plan Fiduciary Net Position – Beginning	$43,727	$10,169	$39,631	$48,275	$39,794
Adjustments[3]	—	—	—	(4,396)	—
Total Adjusted Plan Fiduciary Net Position – Beginning	43,727	10,169	39,631	43,879	39,794
Plan Fiduciary Net Position – Ending (b)	61,640	43,727	10,169	39,631	48,275
Net Pension Liability (a) - (b)	**$3,264,649**	**$3,191,744**	**$3,164,901**	**$2,997,368**	**$3,210,159**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**1.9%**	**1.4%**	**0.3%**	**1.3%**	**1.5%**
Covered Payroll	$20,808	$22,875	$31,945	$35,507	$39,413
Net Pension Liability as a Percentage of Covered Payroll	**15,689.4%**	**13,953.0%**	**9,907.3%**	**8,441.6%**	**8,144.9%**

(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 2020-21, the discount rate used to measure the total pension liability was 1.92 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 1.92 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, 2021, 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 relation to financial reporting.

In Fiscal Year 2019-20, the discount rate used to measure the total pension liability was 2.45 percent. There were no other changes to assumptions or methods in relation to financing reporting.

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

2016	2015	2014
2.85%	**3.82%**	**4.25%**
$29,314	$25,372	$27,581
107,515	127,074	140,256
384,306	167,036	—
(59,421)	57,568	—
(199,349)	(201,868)	(193,935)
$262,365	**$175,182**	**($26,098)**
$3,532,394	$3,357,212	$3,383,310
185	—	—
$3,532,579	**$3,357,212**	**$3,383,310**
$3,794,944	**$3,532,394**	**$3,357,212**
$192,287	$180,910	$191,148
3,559	3,877	4,724
2,762	2,286	2,583
(199,349)	(201,868)	(193,935)
(642)	(1,227)	(1,141)
($1,383)	**($16,022)**	**$3,379**
$41,177	$57,199	$53,820
—	—	—
41,177	57,199	53,820
39,794	41,177	57,199
$3,755,150	**$3,491,217**	**$3,300,013**
1.0%	**1.2%**	**1.7%**
$34,301	$41,378	$54,649
10,947.6%	**8,437.4%**	**6,038.6%**

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 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 a 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.

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

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

	2021	2020	2019	2018	2017
Discount Rate Assumption	**6.65%**	**6.65%**	**6.65%**	**6.65%**	**6.65%**
Total Pension Liability:					
Service Cost	$116,782	$114,486	$103,791	$95,843	$97,678
Interest	126,948	115,517	103,889	91,419	85,654
Changes of Assumptions	—	—	—	(41,763)	69,233
Differences Between Expected and Actual Experience	(10,975)	(2,797)	30,291	(26,876)	(26,382)
Benefit Payments, Including Refunds of Member Contributions	(61,994)	(34,547)	(36,204)	(31,795)	(22,406)
Net Change in Total Pension Liability	**$170,761**	**$192,659**	**$201,767**	**$86,828**	**$203,777**
Total Pension Liability – Beginning	$1,892,581	$1,699,922	$1,498,155	$1,411,327	$1,207,550
Adjustment to Beginning Amount	—	—	—	—	—
Total Adjusted Pension Liability – Beginning	**$1,892,581**	**$1,699,922**	**$1,498,155**	**$1,411,327**	**$1,207,550**
Total Pension Liability – Ending (a)	**$2,063,342**	**$1,892,581**	**$1,699,922**	**$1,498,155**	**$1,411,327**
Plan Fiduciary Net Position:					
Contributions – Employer	$84,147	$91,147	$84,099	$79,699	$67,102
Contributions – Member	34,094	35,796	31,376	27,513	25,076
Total Net Investment Income	463,478	80,074	106,781	101,820	115,057
Benefit Payments, Including Refunds of Member Contributions	(61,994)	(34,547)	(36,204)	(31,795)	(22,406)
Administrative Expenses	(1,703)	(2,552)	(1,477)	(2,370)	(1,683)
Net Change in Plan Fiduciary Net Position	**$518,022**	**$169,918**	**$184,575**	**$174,867**	**$183,146**
Plan Fiduciary Net Position – Beginning	$1,880,007	$1,710,089	$1,525,514	$1,356,099	$1,172,953
Adjustments[2]	—	—	—	(5,452)	—
Total Adjusted Plan Fiduciary Net Position – Beginning	1,880,007	1,710,089	1,525,514	1,350,647	1,172,953
Plan Fiduciary Net Position – Ending (b)	2,398,029	1,880,007	1,710,089	1,525,514	1,356,099
Net Pension Liability/(Asset) (a) - (b)	**($334,687)**	**$12,574**	**($10,167)**	**($27,359)**	**$55,228**
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	**116.2%**	**99.3%**	**100.6%**	**101.8%**	**96.1%**
Covered Payroll	$361,108	$352,700	$318,827	$299,396	$291,097
Net Pension Liability/(Asset) as a Percentage of Covered Payroll	**(92.7%)**	**3.6%**	**(3.2%)**	**(9.1%)**	**19.0%**

(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 2020-21, no changes have occurred to the actuarial assumptions in relation to financing reporting.

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 policy does not utilize a five-year ramp-up and ramp-down on UAL bases attributable to assumption changes, investment gains/losses, and non-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 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

2016	2015	2014
7.15%	**7.15%**	**7.00%**
$86,635	$81,679	$78,670
78,412	70,389	61,044
—	(14,883)	—
(4,546)	(17,319)	—
(21,704)	(14,040)	(8,950)
$138,797	**$105,826**	**$130,764**
$1,073,788	$967,962	$837,198
(5,035)	—	—
$1,068,753	**$967,962**	**$837,198**
$1,207,550	**$1,073,788**	**$967,962**
$65,839	$65,629	$57,027
24,598	22,242	20,413
20,810	(2,401)	150,168
(21,704)	(14,040)	(8,950)
(732)	(1,127)	(785)
$88,811	**$70,303**	**$217,873**
$1,084,142	$1,013,839	$795,966
—	—	—
1,084,142	1,013,839	795,966
1,172,953	1,084,142	1,013,839
$34,597	**($10,354)**	**($45,877)**
97.1%	**101.0%**	**104.7%**
$280,879	$259,133	$249,248
12.3%	**(4.0%)**	**(18.4%)**

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 June 30, 2016, valuation reports. The funding discount rate includes a 15 basis-point reduction for administrative expenses, and the remaining decrease is consistent with the change in the financial reporting discount rate.

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

SCHEDULES OF PLAN CONTRIBUTIONS

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

	2021	2020	2019	2018	2017
PERF B:					
Actuarially Determined Contribution	$2,969,799	$2,759,835	$2,501,770	$2,048,531	$1,767,813
Contributions in Relation to the Actuarially Determined Contribution	2,969,799	3,663,835	2,501,770	2,048,531	1,767,813
Contribution Excess	**$0**	**$904,000**	**$0**	**$0**	**$0**
Covered Payroll	$14,885,212	$14,447,159	$13,819,881	$13,252,995	$12,643,354
Contributions as a Percentage of Covered Payroll	20.0%	25.4%	18.1%	15.5%	14.0%
PERF C:					
Actuarially Determined Contribution	$1,921,032	$1,597,137	$1,333,559	$1,182,686	$858,954
Contributions in Relation to the Actuarially Determined Contribution[2]	2,504,112	1,971,737	1,586,007	1,418,316	956,558
Contribution Excess	**$583,080**	**$374,600**	**$252,448**	**$235,630**	**$97,604**
Covered Payroll	$4,371,563	$4,155,772	$3,949,226	$3,793,609	$3,631,919
Contributions as a Percentage of Covered Payroll	57.3%	47.4%	40.2%	37.4%	26.3%
LRF:					
Actuarially Determined Contribution[3]	$78	$98	$250	$20	$0
Contributions in Relation to the Actuarially Determined Contribution[4]	78	98	250	467	516
Contribution Excess	**$0**	**$0**	**$0**	**$447**	**$516**
Covered Payroll	$267	$278	$655	$1,242	$1,360
Contributions as a Percentage of Covered Payroll	29.2%	35.3%	38.2%	37.6%	37.9%
JRF:					
Actuarially Determined Contribution[5]	$366,446	$414,849	$415,110	$438,156	$448,636
Contributions in Relation to the Actuarially Determined Contribution[6]	225,824	243,131	195,903	199,241	204,475
Contribution Deficiency	**$140,622**	**$171,718**	**$219,207**	**$238,915**	**$244,161**
Covered Payroll	$20,808	$22,875	$31,945	$35,507	$39,413
Contributions as a Percentage of Covered Payroll	1,085.3%	1,062.9%	613.3%	561.1%	518.8%
JRF II:					
Actuarially Determined Contribution	$84,147	$91,147	$84,099	$79,699	$67,102
Contributions in Relation to the Actuarially Determined Contribution	84,147	91,147	84,099	79,699	67,102
Contribution Excess	**$0**	**$0**	**$0**	**$0**	**$0**
Covered Payroll	$361,108	$352,700	$318,827	$299,396	$291,097
Contributions as a Percentage of Covered Payroll	23.3%	25.8%	26.4%	26.6%	23.1%

(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) Does not agree to Basic Financial Statements due to an adjustment in 2021.
(4) 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.
(5) The actuarially determined contributions 2016 and beyond are based on a 10-year amortization period, while the 2015 and 2014 actuarially determined contributions are based on a two-year amortization period.
(6) Contributions to the JRF are made on the pay-as-you-go basis.

2016	2015	2014
$1,421,289	$1,303,162	$1,201,125
1,421,289	1,303,162	1,201,125
$0	**$0**	**$0**
$11,747,602	$10,964,872	$10,120,248
12.1%	11.9%	11.8%
$789,103	$691,602	$732,142
881,767	691,602	732,142
$92,664	**$0**	**$0**
$3,472,950	$3,356,312	$3,248,018
25.4%	20.6%	22.5%
$141	$260	$33
549	590	565
$408	**$330**	**$532**
$1,313	$1,545	$1,470
41.8%	38.2%	38.4%
$463,073	$1,884,555	$1,569,630
192,287	180,910	191,148
$270,786	**$1,703,645**	**$1,378,482**
$34,301	$41,378	$49,287
560.6%	437.2%	387.8%
$65,839	$63,193	$55,538
65,839	63,193	55,538
$0	**$0**	**$0**
$280,879	$259,133	$249,248
23.4%	24.4%	22.3%

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

	2020-21	2019-20	2018-19	2017-18
PERF B				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll (pre-2019 bases), Level Dollar (2019 and later bases), 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
Remaining Amortization Periods[1]	10-29 years	11-30 years	12-30 years	13-30 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value
Inflation	2.50%	2.63%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.00%	7.25%	7.38%	7.50%
PERF C				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing
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
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value
Inflation	2.50%	2.63%	2.75%	2.75%
Salary Increases	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service	Varies, Based on Entry Age and Service
Investment Rate of Return	7.00%	7.25%	7.38%	7.50%
LRF				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Dollar 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
Remaining Amortization Periods[1]	N/A	N/A	30 years	30 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value
Inflation	2.50%	2.50%	2.50%	2.75%
Salary Increases	2.75%	2.75%	2.75%	3.00%
Investment Rate of Return	5.00%	5.00%	5.00%	5.00%
JRF				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Dollar	Level Dollar	Level Dollar	Level Dollar
Remaining Amortization Periods	10 years	10 years	10 years	10 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value
Inflation	2.50%	2.50%	2.50%	2.75%
Salary Increases	2.75%	2.75%	2.75%	3.00%
Investment Rate of Return	3.00%	3.00%	3.00%	3.25%
JRF II				
Actuarial Cost Method	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
Amortization Method	Level Dollar	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing
Remaining Amortization Periods[1]	5 years	5-30 years	2-30 years	20-30 years
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value
Inflation	2.50%	2.50%	2.50%	2.75%
Salary Increases	2.75%	2.75%	2.75%	3.00%
Investment Rate of Return	6.50%	6.50%	6.50%	6.50%

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

	2016-17	2015-16	2014-15	2013-14
PERF B				
	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
	14-30 years	15-30 years	16-30 years	17-30 years
	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
	2.75%	2.75%	2.75%	2.75%
	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
	7.50%	7.50%	7.50%	7.50%
PERF C				
	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
	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
	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
	2.75%	2.75%	2.75%	2.75%
	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
	7.50%	7.50%	7.50%	7.50%
LRF				
	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
	63 years	29-30 years	30 years	30 years
	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
	2.75%	2.75%	2.75%	2.75%
	3.00%	3.00%	3.00%	3.00%
	5.75%	5.75%	5.75%	5.75%
JRF				
	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
	Level Dollar	Level Dollar	Level Dollar	Level Dollar
	10 years	10 years	2 years	2 years
	Fair Value	Fair Value	Fair Value	Fair Value
	2.75%	2.75%	2.75%	2.75%
	3.00%	3.00%	3.00%	3.00%
	4.25%	4.25%	4.25%	4.25%
JRF II				
	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal	Individual Entry Age Normal
	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll and Direct Rate Smoothing	Level Percentage of Payroll	Level Percentage of Payroll
	30 years	30 years	16-30 years	17-30 years
	Fair Value	Fair Value	Smoothing of Fair Value	Smoothing of Fair Value
	2.75%	2.75%	2.75%	2.75%
	3.00%	3.00%	3.00%	3.00%
	7.00%	7.00%	7.00%	7.00%

SCHEDULE OF INVESTMENT RETURNS

Annual Money-Weighted Rate of Return, Net of Investment Expense – Eight-Year Review[1]

Plan	2021 Rate of Return	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	22.4%	5.0%	6.5%	8.4%	11.2%	0.5%	2.2%	17.7%
PERF B								
Schools Cost-Sharing	22.4%	5.0%	6.5%	8.4%	11.2%	0.5%	2.2%	17.7%
PERF C								
Public Agency Cost-Sharing	22.4%	5.0%	6.5%	8.4%	11.2%	0.5%	2.2%	17.7%
LRF	13.4%	6.2%	7.0%	4.8%	4.3%	3.8%	(0.1%)	12.9%
JRF	0.3%	2.3%	3.2%	1.9%	1.0%	0.5%	0.2%	0.1%
JRF II	24.3%	4.1%	6.9%	7.4%	9.6%	1.9%	(0.2%)	18.3%
CERBTF[2]	25.6%	4.0%	6.5%	7.3%	10.0%	1.6%	—%	—%
CEPPTF[3]	14.4%	—%	—%	—%	—%	—%	—%	—%

(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.
(3) Information in this schedule is not available prior to 2021.

PUBLIC EMPLOYEES' HEALTH CARE FUND

Schedule of Claims Development Information (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
1) Net Earned Required Premium and Investment Revenues	$3,949,155	$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
2) Unallocated Expenses	$304,990	$331,235	$299,053	$304,408	$312,924	$355,779	$371,916	$192,987	$105,154	$96,043
3) Estimated Incurred Claims and Expenses, End of Policy Year	$3,750,063	$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
4) Paid (Cumulative) as of:										
End of Policy Year	$3,267,719	$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
One Year Later	—	3,475,051	3,620,210	3,380,649	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Two Years Later	—	—	3,627,419	3,386,762	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Three Years Later	—	—	—	3,386,762	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Four Years Later	—	—	—	—	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Five Years Later	—	—	—	—	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Six Years Later	—	—	—	—	—	—	3,802,277	2,678,906	1,796,587	1,788,135
Seven Years Later	—	—	—	—	—	—	—	2,678,906	1,796,587	1,788,135
Eight Years Later	—	—	—	—	—	—	—	—	1,796,587	1,788,135
Nine Years Later	—	—	—	—	—	—	—	—	—	1,788,135
5) Re-Estimated Incurred Claims Expenses:										
End of Policy Year	$3,750,063	$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
One Year Later	—	3,475,051	3,620,210	3,380,649	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Two Years Later	—	—	3,627,419	3,386,762	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Three Years Later	—	—	—	3,386,762	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Four Years Later	—	—	—	—	3,395,673	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Five Years Later	—	—	—	—	—	3,406,016	3,802,277	2,678,906	1,796,587	1,788,135
Six Years Later	—	—	—	—	—	—	3,802,277	2,678,906	1,796,587	1,788,135
Seven Years Later	—	—	—	—	—	—	—	2,678,906	1,796,587	1,788,135
Eight Years Later	—	—	—	—	—	—	—	—	1,796,587	1,788,135
Nine Years Later	—	—	—	—	—	—	—	—	—	1,788,135
6) Increase (Decrease) in Estimated Incurred Claims and Expenses From End of Policy Year	$—	($94,157)	($39,177)	($189,319)	$4,490	($18,131)	$370,175	($69,915)	($125,370)	($28,110)

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.

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FINANCIAL SECTION

Other Supplementary Information

Other Supplementary Information

ADMINISTRATIVE EXPENSES – ALL FUNDS (DOLLARS IN THOUSANDS)

	2021
PERSONAL SERVICES	
Salaries & Wages	$189,070
Employee Benefits	100,343
Accrued Pension & OPEB Expense	(14,117)
Total Personal Services	**$275,296**
CONSULTANT & PROFESSIONAL SERVICES	
State of California Agencies	$4,797
External Consultants	22,988
Retiree Benefit Trust Management Fees	90
Pension Prefunding Trust Management Fees	12
Deferred Compensation Management/Custody Fees	3,230
Health Plan Administrator Fees	266,684
Long-Term Care Administrator Fees	19,791
Total Consultant & Professional Services	**$317,592**
OPERATING EXPENSES & EQUIPMENT	
General Expense	$3,971
Software	1,340
Printing	235
Building	19,207
Postage	1,390
Communications	1,236
Data Processing Services	14,459
Travel	93
Training	290
Medical Examiners	1,339
Facilities Operation	2,322
Central Administrative Services	21,246
Administrative Hearings	1,318
Consolidated Data Center	338
CSUS Foundation - Students	170
Equipment	820
Total Operating Expenses & Equipment	**$69,774**
OTHER EXPENSES & ADJUSTMENTS	
Depreciation Expense	$17,558
Increase in Paid Absence Obligation	7,248
Amortization	71,658
Miscellaneous	6,488
Total Other Expenses & Adjustments	**$102,952**
TOTAL ADMINISTRATIVE EXPENSES — ALL FUNDS	**$765,614**

The total pension administration cost in Fiscal Year 2019-20 (most recent available) was $217 per active member and annuitant.

INVESTMENT EXPENSES – ALL FUNDS

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

	Fees
Equity Managers	
Arrowstreet Capital, LP	$14,565
Baillie Gifford Overseas, Ltd.	950
Hamilton Lane Advisors, LLC	233
J.P. Morgan Investment Management, Inc.	61
Lazard Asset Management, LLC	353
Legato Capital Management Investments, LLC	2,584
State Street Global Advisors	6,151
Strategic Investment Management, LP	20
Wellington Management Company, LLP	3,490
Total Equity Managers	**$28,407**
Fixed Income Managers	
Columbia Management Investment Advisers	$5,211
Nomura	5,779
Total Fixed Income Managers	**$10,990**
Private Equity Managers[3,4]	
57 Stars Global Opportunities Fund 2 (CalPERS), LLC	$812
57 Stars Global Opportunities Fund, LLC	463
Aberdare Ventures IV, LP	5
Advent International GPE IX Limited Partnership	8,250
Advent International GPE V-D, LP	80
Advent International GPE VI-A, LP	812
Advent International GPE VII-C, LP	3,137
Advent International GPE VIII-B Limited Partnership	6,397
Advent Latin America Private Equity Fund IV-D, LP	312
Advent Latin America Private Equity Fund V-H, LP	647
Advent Latin American Private Equity Fund III-D, LP	90
AlpInvest Secondaries Fund (onshore) VII, LP	3,735
Apollo Investment Fund IX, LP	5,439
Apollo Investment Fund VII, LP	142
Apollo Investment Fund VIII, LP	1,507
Apollo Special Opportunities Managed Account, LP	290
Ares Corporate Opportunities Fund V, LP	4,973
ASF VIII B, LP	7,424
Asia Alternatives Capital Partners II, LP	66
Avatar North America Investors, LP	16
Baring Vostok Private Equity Fund IV, LP	4
BDC III C, LP	1,213
BDC IV D, LP	958
BE VI 'H' LP	5,410
Birch Hill Equity Partners (US) IV, LP	761
Blackstone Capital Partners VI, LP	1,255
Blackstone Capital Partners VII, LP	4,322
Blackstone Capital Partners VIII, LP	4,194
Blackstone Tactical Opportunities Fund - C, LP	2,660
Blackstone Tactical Opportunities Fund (KG Co-Invest), LP	453
Blackstone Tactical Opportunities Fund (T4U Co-Invest), LP	142

	Fees
Blackstone Tactical Opportunities Fund II - C, LP	$2,457
Blackstone Tactical Opportunities Fund III - C (Surge), LP	493
Blackstone Tactical Opportunities Fund III - C, LP	1,635
Bridgepoint Europe IV 'B', LP	104
Bridgepoint Europe IV 'D', LP	395
Bridgepoint Europe V	2,524
California Asia Investors, LP	151
California Emerging Ventures IV, LLC	275
California Mezzanine Investment Fund, LP	313
Capital Link Fund I, LLC	382
Capital Link Fund II, LLC	380
Carlyle Asia Growth Partners IV, LP	132
Carlyle Asia Partners III, LP	262
Carlyle Asia Partners V, LP	3,250
Carlyle Europe Partners III, LP	(40)
Carlyle Europe Partners V, S.C.Sp	4,025
Carlyle Japan Partners II, LP	8
Carlyle Partners V, LP	(74)
Carlyle Partners VI, LP	2,645
Carlyle Partners VII, LP	6,620
Carlyle Strategic Partners II, LP	22
Carlyle Strategic Partners IV, LP	1,651
Carlyle U.S. Equity Opportunities II, LP	1,709
CDH Fund V, LP	2,554
Centerbridge Capital Partners III, LP	1,231
Cerberus CAL II Partners, LP	1,869
Cerberus CAL III Partners, LP	3,696
Cerberus CP Partners, LP	(777)
Cerberus Institutional Partners V, LP	94
Clayton, Dubilier & Rice Fund X, LP	734
Clayton, Dubilier & Rice Fund XI, LP	3,001
Clearlake Capital Partners III, LP	190
Clearlake Capital Partners IV, LP	504
Clearlake Capital Partners V, LP	508
Clearlake Opportunities Partners (P), LP	609
Clearwater Capital Partners Fund II Holdings, LP	9
CVC Capital Partners Asia V, LP	2,707
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	7,550
CVC Capital Partners VI, LP	4,459
CVC Capital Partners VII (A), LP	7,461
CVC Credit Strategic Investment A, LP	1
EMAlternatives Investments, LP	200
EQT IX (No.2) USD SCSp	4,582
Essex Woodlands Health Ventures Fund VIII, LP	469
EW Healthcare Partners Acquisition Fund, LP	56
First Reserve Fund XIII, LP	1,635
Francisco Partners Agility II, LP	545
Francisco Partners III, LP	398
Francisco Partners VI, LP	1,692

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

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

	Fees
GCM Grosvenor DEM II, LP	$634
GCM Grosvenor DEM III, LP	1,594
GCM Grosvenor DEM, LP	314
GPE IX Forescout Co-Investment, LP	34
GPE IX TKE Co-Investment, LP	13
Green Equity Investors V, LP	(73)
Green Equity Investors VIII, LP	1,482
GSO Capital Opportunities Fund II, LP	393
GSO Capital Solutions Fund II, LP	1,114
GSO Energy Partners-C II, LP	1,351
GSO Energy Partners-C, LP	1,717
H&F ARROW 1, LP	15
Hellman & Friedman Capital Partners IX, LP	2,762
Hellman & Friedman Capital Partners VII	392
Hellman & Friedman Capital Partners VIII, LP	3,330
Insight Partners XI, LP	6,996
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	3,033
Insight Venture Partners IX, LP	1,673
Insight Venture Partners X, LP	3,769
Ithaca, LP	—
Jade Equity Investors, LP	1,694
Khosla Ventures III, LP	1,093
Khosla Ventures Seed, LP	600
KKR 2006 Fund, LP	(69)
KKR Asian Fund II, LP	1,448
KKR Asian Fund IV SCSp	2,529
KKR Asian Fund, LP	15
KKR European Fund II, LP	11
KKR European Fund III, LP	138
KKR European Fund V (USD) SCSp	1,046
KM Corporate Partners Fund II, LP	231
Lime Rock Partners V, LP	20
Lindsay Goldberg IV, LP	1,077
Lindsay Goldberg V, LP	1,545
Lion Capital Fund II, LP	71
LongRange Capital Fund I, LP	5,546
Madison Dearborn Capital Partners VIII, LP	6,000
MHR Institutional Partners III, LP	419
New Mountain Partners VI, LP	4,268
Newbridge Asia IV, LP	97
Oak Hill Capital Partners III, LP	103
Oaktree Latigo Investment Fund, LP	882
Oaktree Opportunities Fund VIIIb, LP	1,183
OHA Black Bear Fund, LP	2,059
Onex Partners IV, LP	1,565
Onex Partners V (B), LP	8,254
PAG Asia I, LP	451
PAG Asia III, LP	6,650

	Fees
Palladium Equity Partners III, LP	($1,517)
Palladium Equity Partners V, LP	1,305
Patria Brazilian Private Equity Fund V, LP	2,506
Permira Growth Opportunities I, LP 1	2,500
Permira V, LP	2,176
Permira VI, LP 1	4,179
Permira VII, LP 1	8,360
RFG Private Equity Limited Partnership No. 1A, 1B and 1C	—
Riverstone Global Energy and Power Fund V, LP	2,406
Riverstone Global Energy and Power Fund VI, LP	7,094
Riverstone/Carlyle Global Energy and Power Fund IV, LP	346
Riverstone/Carlyle Renewable & Alternative Energy Fund II, LP	405
Riverwood Capital Partners (Parallel - A), LP	288
SAIF Partners III, LP	574
SAIF Partners IV, LP	1,151
Samson Brunello 1, LP	1
Samson Hockey 1, LP	26
Sankaty Managed Account (CalPERS), LP	1,127
Silver Lake Partners III, LP	(35)
Silver Lake Partners IV, LP	2,019
Silver Lake Partners V, LP	2,737
Silver Lake Partners VI, LP	7,401
Siris Partners III, LP	894
Siris Partners IV, LP	1,676
SL SPV-1, LP	381
SL SPV-2, LP	280
Tailwind Capital Partners II, LP	407
Tailwind Capital Partners III, LP	1,391
TCV X, LP	3,063
TCV XI, LP	75
The Central Valley Fund II SBIC, LP	149
The Rise Fund (A), LP	662
TowerBrook Investors III, LP	7
TowerBrook Investors IV (Onshore), LP	2,417
Towerbrook Investors V (Onshore), LP	5,616
Towerbrook Structured Opportunities Fund (Onshore), LP	1,769
Towerbrook Structured Opportunities Fund II (Onshore), LP	1,096
TPG Asia VII (A), LP	4,202
TPG Growth IV, LP	1,025
TPG Growth V, LP	1,668
TPG Healthcare Partners, LP	1,272
TPG Partners VIII, LP	6,362
Trident VI	2,139
Trident VII, LP	3,618
Trident VIII, LP	5,953
Triton Fund IV, LP	895
Triton Fund V, LP	3,681
T-VI Co-Invest-A, LP	(91)

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

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

	Fees
Valor Equity Partners IV, LP	$1,158
VantagePoint Venture Partners 2006 (Q), LP	361
Vicente Capital Partners Growth Equity Fund, LP	(5)
VIP IV, LP	2,531
Vista Equity Partners Fund VII-Z, LP	5,774
WCAS XIII, LP	5,431
Wellspring Capital Partners V, LP	235
Welsh, Carson, Anderson & Stowe XI, LP	46
Welsh, Carson, Anderson & Stowe XII, LP	2,629
Wigmore Street (BDC III), LP	1
Wigmore Street Co-investment No.1, LP	1
Wigmore Street VI Co-Investment No.1, LP	102
Total Private Equity Managers	**$334,654**
Real Asset Managers	
Alinda Infrastructure Fund II, LP	$293
ARA China Long Term Hold	6,905
Archmore International Infrastructure Fund II (B), LP	412
Archmore International Infrastructure Fund II (C), LP	874
Blackstone BioMed Life Science Real Estate, LP	1,603
Blackstone Property Partners Europe, LP	7,406
CalEast Solstice - Base	11,950
CalEast Solstice - DT Land	480
CalEast Solstice - DT Other	2,071
CalWest CalPERS GIP	80
Canyon Catalyst Fund II, LLC	1,358
CCF II Industrial	387
CCF III Industrial	737
CCF III, LLC	1,109
CCP 2020	2,113
CIM Fund III, LP	4,091
CIM Infrastructure Fund, LP	2,757
Fairmont Residential Owner, LLC	152
FSP - Base	26,550
FSP - DT 2012 and Beyond	162
Global Infrastructure Partners II, LP (GIP II)	2,554
Global Infrastructure Partners IV-A/B, LP	6,047
Golden Reef Infrastructure Trust	4,678
Gotham Office Realty Partnership	719
GRI - Base	17,987
GRI - DT 2012 and Beyond	128
Harbert Gulf Pacific Power, LLC (HGPP)	5,776
Harbert Infrastructure Fund VI, LP	917
Harbert Power Fund V, LP (HPF V)	1,013
HC Green Development Fund, LP	406
HC LTH, LLC	4,992
HCC Interests, LP	39
IHP Investment Fund III, LP	1,000
IMI - Base	23,173
IMP - Base	28,037

	Fees
IMP - DT 2012 and Beyond	$2,151
IMP - ICMI	3,470
IMP Abaca	594
IMP Fairmont Residential Owner, LLC	91
Institutional Logistics Partners, LLC	6,580
JP Morgan Infrastructure Investments Fund, LP	1,875
KC 2011, LLC	91
Land Management Company Resmark	2,931
Land Management Company, LLC	6
Lincoln Timber, LP	3,292
North Haven Infrastructure Partners II, LP	1,631
Pacific Multifamily Investors, LLC	6,554
PMI Tactical	371
Sacramento Venture - Base	110
Sacramento Venture - DT	106
Sacramento Venture Hines Base	444
Sacramento Venture Hines DT	432
Stockbridge Hollywood Park Co-Investors, LP	314
Stockbridge Real Estate Fund II - B, LP	33
Strategic Property Fund Asia SCSP	1,338
Sylvanus, LLC	1,938
TechCore 2019	502
TechCore, LLC	9,351
Tower Bridge Infrastructure Partners, LP	5,698
Whitney Ranch Resmark	148
Total Real Asset Managers	**$219,007**
Other Investment Management Fees	
Antares Credit Opportunities CA, LLC	$265
AQR	917
Ares Capital Europe V (D) Levered	215
Blackstone Real Estate Debt Strategies IV - C LP	1,254
Brookside Capital Partners Fund, LP	2
Federated Redwood Trade Finance Fund, LP	65
FIAM Fidelity Investments	—
Oaktree Gilead Investment Fund, LP - Series A	360
OZ Eureka Fund, LP	38
PIMCO DISCO Fund III Onshore Feeder, LP	280
Sixth Street Fundamental Strategies Partners (A), LP	74
TSSP Adjacent Opportunities Partners (B), LP	760
West Street Co-Investment Partners (C), LP	50
West Street Strategic Solutions Fund I, LP	841
Total Other Investment Management Fees	**$5,121**
Total Management Fees	**$598,179**

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Performance Fees[5] (Dollars in Thousands)

	Fees
Equity Managers	
Baillie Gifford Overseas, Ltd.	$16,875
Total Equity Managers	**$16,875**
Fixed Income Managers	
Pacific Investment Management Co., LLC	$435
Total Fixed Income Managers	**$435**
Real Asset Managers	
Blackstone BioMed Life Science Real Estate, LP	$2,698
Blackstone Property Partners Europe, LP	11,277
Canyon Catalyst Fund II, LLC	(2,756)
Canyon Johnson Urban Fund, III	(1)
CCF II Industrial	679
CIM Infrastructure Fund, LP	10,340
CIM Urban Real Estate Fund, LP	(1,134)
FSP - Base	17,523
FSP - DT 2012 and Beyond	(622)
Global Infrastructure Partners II, LP (GIP II)	8,680
GRI - Base	10,970
Harbert Gulf Pacific Power, LLC (HGPP)	7,747
Harbert Power Fund V, LP (HPF V)	1,700
HC Green Development Fund, LP	(1,735)
IMI - Base	(4,075)
IMP - Base	18,008
IMP - DT 2012 and Beyond	(2,819)
IMP - ICMI	2,811
IMP Abaca	389
Institutional Logistics Partners, LLC	5,294
Ivy Investment Vehicle LDC	24
KC 2011, LLC	1,498
ORA Multifamily Investments I, LLC	(1,009)
ORA Residential Investments I, LP	1,292
Pacific Multifamily Investors, LLC	2,148
Sacramento Venture - Base	96
Sacramento Venture - DT	107
TechCore 2019	251
TechCore, LLC	16,776
Total Real Asset Managers	**$106,157**
Other Investment Managers	
Brookside Capital Partners Fund, LP	$1
Total Other Investment Managers	**$1**
Total Performance Fees	**$123,468**
Total Management and Performance Fees	**$721,647**

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,5] (Dollars in Thousands)

	Fees
Advisory Fees	
Goldman Sachs Asset Management, LP	$79
Legato Capital Management Investments, LLC	1,750
Principal Life Insurance Company	841
TOBAM SAS	50
Total Advisory Fees	**$2,720**
Appraisal Fees	
RERC, LLC	$7,015
Total Appraisal Fees	**$7,015**
Auditor Fees	
Conrad, LLP	$120
KPM & Associates, LLP	91
Total Auditor Fees	**$211**
Company Expense	
Federated Redwood Trade Finance Fund, LP	$114
FIS CalBear Fund, LLC	2
Legato Capital Management Investments, LLC	241
LEIA GEM Investment, LLC	46
PIMCO DISCO Fund III Onshore Feeder, LP	187
Strategic Investment Group, LLC	56
Universa Investments, LP	(10)
Total Company Expense	**$636**
Fund Administration Fees	
State Street Bank and Trust Company	$3,355
Total Fund Administration Fees	**$3,355**
Investment Consultant Fees	
Bard Consulting, LLC	$385
BDO USA, LLP	26
Callan, LLC	841
Crosswater Advisors, LLC	32
Funston Advisory Services, LLC	(142)
Greenhill & Co., LLC	(1)
HHS Technology Group, LLC	52
Mckinsey & Company, Inc.	999
Mercer Investments, LLC	134
MSys International Inc.	182
Nxtis, Inc.	233
Performance Technology Partners, LLC	60
Propoint Technology, Inc.	2,299
Pyramid Technical Consultants, Inc.	333
RCLCO Fund Advisors, LLC	26
Real Estate Fiduciary Services, LLC	98
SPS Consulting Services, LLC	218
SRI InfoTech, Inc.	184
Technology Crest Corporation	200
The Spaulding Group	87

	Fees
Trinity Technology Group, Inc.	($3)
Wellington Management Company, LLP	125
Total Investment Consultant Fees	**$6,368**
Legal Fees	
Berman Tabacco	$10
Cox, Castle & Nicholson, LLP	47
DLA Piper, LLP	505
Downey Brand, LLP	1
Durie Tangri, LLP	(2)
Foster Pepper, PLLC	396
Hogan Lovells, US LLP	122
K & L Gates, LLP	242
Katten Muchin Rosenman, LLP	—
Morgan, Lewis & Bockius, LLP	270
Nixon Peabody, LLP	—
Nossaman, LLP	41
Orrick Herrington & Sutcliffe, LLP	13
Pennington, LLP	(8)
Pillsbury Winthrop Shaw Pittman, LLP	544
Reed Smith, LLP	8
Seward & Kissel, LLP	—
Stoel Rives, LLP	—
Wilson Sonsini Goodrich & Rosati	11
Total Legal Fees	**$2,200**
Master Custodian Fees	
State Street Bank and Trust Company	$8,940
Total Master Custodian Fees	**$8,940**
Tax Advisory Fees	
Ernst & Young, LLP	$638
Total Tax Advisory Fees	**$638**
Technology Expenses	
13D Research, Inc.	$70
A.M. Best Company, Inc.	3
Abel Noser Solutions, LLC	24
Acadiasoft, Inc.	9
Altus Group US, Inc.	340
Axioma, Inc.	355
Babelfish Analytics, Inc.	35
Barra, LLC	2,527
BCA Research	267
BDO USA, LLP	24
BlackRock Financial Management, Inc.	9,912
Bloomberg Index Services Limited	216
Bloomberg, LP	3,663
Broadridge Investor Communications	16
Cambridge Associates, LLC	21
Carahsoft Technology Corp.	867

INVESTMENT EXPENSES – ALL FUNDS (CONTINUED)

Other Investment Expenses[1,5] (Dollars in Thousands) (continued)

	Fees
CDP Europe Services	$7
CEM Benchmarking, Inc.	65
Charles River Systems, Inc.	4,312
Clarity Solutions Group, LLC	85
Convergence, Inc.	25
Copyright Clearance Center, Inc.	51
Cornerstone Macro, LLC	140
CoStar Realty Information, Inc.	186
Creditsights	165
DTCC ITP, LLC	160
eFront Financial Solutions, Inc.	1,525
eMBS, Inc.	9
Empirical Research Partners, LLC	435
Equilar, Inc.	32
Eurasia Group	148
Euromoney Trading Limited	20
eVestment Alliance	39
Factset Research Systems, Inc.	2,497
Fan Asset Management, LLC	41
Fitch Solutions, Inc.	479
Frank Russell Company	32
FTSE	805
Gartner, Inc.	239
Gavekal Capital Management Limited	46
Glass Lewis & Co., LLC	506
Global Investor Collaboration Services, LLC	5
Green Street Advisors	155
Haver Analytics, Inc.	133
ICE Benchmark Administration Limited	16
Ice Data Derivatives UK, Limited	37
IHS Global, Inc	21
Institutional Shareholder Services, Inc.	185
Intercontinental Exchange Holdings, Inc.	—
Intex Solutions, Inc.	228
Investment Property Databank	74
IPC Systems, Inc.	300
Kyriba Corporation	79
London Stock Exchange PLC	45
Longtail Research, LLC	100
Markit Indices Limited	30
Markit North America, Inc.	104
Microsoft Services	(3)
Moody's Analytics, Inc.	458
Mountainview Analytics, LLC	10
MRI Software, LLC	102
MSCI, Inc.	1,962
MUFG Capital Analytics, LLC	6,159
NYSE Market, Inc.	3
Option Research & Technology Services, LLC	56
Options Price Reporting Authority	2
Oxford Economics USA, Inc.	32
Preqin Limited	45
Radianz Americas, Inc.	$218
Real Capital Analytics, Inc.	99
Refinitiv US, LLC	165
RIMES Technologies Corporation	292
RiskVal Financial Solutions, LLC	60
Ryedale Europe Limited	730
S & P Global Market Intelligence, LLC	1,271
S&P Dow Jones Indices, LLC	61
SWIFT	28
SASB Foundation	2
State Street Bank and Trust Company	1,519
StepStone Group, LP	225
Stone & Kanto, LLC	6
STOXX Ltd.	17
The Burgiss Group, LLC	133
The Depository Trust & Clearing Corp	17
The Mathworks, Inc.	90
The Statestore, Inc.	12
The Yield Book, Inc.	278
Tradeweb, LLC	168
Trend Macrolytics, LLC	17
TRGRP, Inc.	271
TriOptima AB	29
TSX, Inc.	43
Viola Risk Advisors, LLC	10
Wellington Management Company, LLP	125
William O'Neil & Company	23
Wood Mackenzie, Inc.	229
Workato, Inc.	63
Yardeni Research, Inc.	19
Total Technology Expenses	**$46,956**
Internal Investment Personnel and Administrative Expenses	
Internal Investment Personnel and Administrative Expenses	$95,431
Total Internal Investment Personnel and Administrative Expenses	**$95,431**
Miscellaneous Investment Expense Fees	
Miscellaneous Investment Expense Fees	$379
Transaction Fees	122,385
Total Miscellaneous Investment Expense Fees	**$122,764**
Total Other Investment Fees and Expenses	**$297,234**
Total Investment Expenses - All Funds	**$1,018,881**

(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, review 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.

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES[1] – ALL FUNDS (DOLLARS IN THOUSANDS)

Individual or Firm	Fees	Nature of Services
AgreeYa Solutions, Inc.	$246	Information Technology, Consulting and Support Services
American Unit, Inc.	165	Information Technology, Consulting and Support Services
Anthem Blue Cross	122,015	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
BDO USA, LLP	3,022	Auditor Services
Belmonte Enterprises, LLC	239	Application Development
Berman Tabacco	(381)	Succession and Workforce Planning
Blue Shield of California	50,942	Medical Claims Administration, Account management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
BM Associates, Inc.	244	Network Architecture Services
Buck Global, LLC	478	Actuarial Services
Capio Group	866	Application Development
CogentTec, LLC	191	Consulting Services for myCalPERS Support
Cornerstone Fitness, Inc.	105	Employee Training and Development
Delegata Corporation	160	Application Development
Department of Human Resources	156	Legal Services, Selection Services Online System Costs, Administrative Fees
Department of Industrial Relations	34	Workers Compensation and Fraud Assessments, Subsequent Injury Benefits Trust Fund and Other Assessments
Department of Justice	147	Legal and Paralegal Services, External Investigative Services
Dore Partnership, LLC	137	Executive Search and Advisory
Durie Tangri, LLP	2,799	Legal Services
Elegant Enterprise Wide Solutions, Inc.	132	Information Technology, Consulting and Support Services
Elite Tech Solutions	198	Actuarial Valuation Systems Support
Elynview Corporation	205	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Employment Development Department	358	Print and Mailing of 1099R
Equanim Technologies	397	Business Process Re-engineering, Project Management Services, Technical Writing
Faegre Drinker Biddle & Reath, LLP	26	Legal Services
First Data Merchant Services Corporation	102	Banking Services
Global Governance Advisors, LLC	76	Board Compensation Consultant
Government Operations Agency	354	Operations and Strategic Business Planning
Health Net of California	14,630	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Health Services Advisory Group, Inc.	284	Health Care Survey Services
inContact, Inc.	(64)	Information Technology Services, New Solution for the Contact Center
Innovative Software Technologies, Inc.	87	Specialized IT Support Services for Actuarial Systems/Business
Integrity Voting Systems (IVS)	120	Board Election Services
J & K Court Reporting, LLC	62	Legal Services
JLynn Consulting, Inc.	650	Information Services
K&L Gates, LLP	434	Legal Services
KearnFord Application Systems Design	226	Business Transformation/Transition, Information Services, Release Management/Quality Assurance/ Configuration Management
King & Spalding, LLP	724	Legal Services
Kong Consulting, Inc.	541	Systems Analysis, Design, Implementation, Maintenance and Support
Long Term Care Group, Inc.	19,340	Billing, Banking, Claims Administration, Care Advisory, Enrollment, Customer and Specialist, Reporting, Data Feed Services, IT Services, Marketing Consultant, Third-Party Member Record Keeper
Matrix Software Services	34	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
Mellon Bank	337	Banking Services
Mercer Health and Benefits	529	Health Care and Actuarial Consulting
Michael Scales Consulting, LLC	212	Application Development
Milliman, Inc.	2,797	Project Management Services

CONSULTANT AND PROFESSIONAL SERVICES EXPENSES[1] – ALL FUNDS (DOLLARS IN THOUSANDS) (CONTINUED)

Individual or Firm	Fees	Nature of Services
Mulkey Consulting, LLC	$31	Health Care Consulting
National Association Corporate Directors	20	Board Evaluations
Northeast Retirement Services	102	Third-Party Member Record Keeper
Nossaman, LLP	59	Legal Services
Olson Remcho, LLP	252	Election Services
OptumRx	19,024	Pharmacy Claims Administration, Account Management, Eligibility, Retail and Other Reporting Services
Orrick Herrington & Sutcliffe, LLP	244	Legal Services
Pasanna Consulting Group, LLC	1,058	Application Development, Data Base Administration, IT Architecture, Systems Analysis, Design, Implementation, Maintenance and Support
Perspecta State and Local, Inc.	183	Data Base Administration, Systems Analysis, Design, Implementation, Maintenance and Support
QualApps, Inc.	679	Application Development, IT Architecture
Randle Communications, LLC	420	Media Training, Writing, Editorial, Marketing, and Crisis Communication Services
Recon Distribution, Inc.	28	Exhibition Management
RS3 Consulting	199	Information Services, Application Development
RSC Insurance Brokerage, Inc.	506	Actuarial Consulting Services
Runyon Saltzman, Inc.	21	Writing, Editorial and Marketing Services
Saba Software, Inc.	85	Employee Training and Development
Sard Verbinnen & Co, LLC	461	Communication Consulting Services
Sharp Health Plan	7,991	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Skadden, Arps, Slate, Meagher & Flom, LLP	65	Legal Services
Slalom, LLC	43	Information Technology Services, Applications Migration
Sophus Consulting	150	Legal Services
SPH Analytics	88	Medical Consulting Services
State Controller's Office	5,442	Account Management, Information Technology, Other Post Employment Benefits, General Administrative Services, and Premium Remittance Services
State Personnel Board	88	Compliance Review, Audit, and Processing of Appeals and Complaints
State Treasurer's Office	24	Money Wiring Services
Steptoe & Johnson, LLP	259	Legal Services
T5 Consulting	610	Application Development, Information Services, IT Architecture
Take 1 Productions	81	Video and Multimedia Production Services
The Highlands Consulting Group, LLC	29	Project Management Services
The RAND Corporation	25	Reference Based Pricing Drug Program
The Regents of the University of California	795	Organizational and Leadership Development
Toppan Merrill, LLC	64	Printing of Open Enrollment Materials and Dissemination
Trinity Technology Group, Inc.	438	Application Development, Business Intelligence and Reporting, Information Services
United HealthCare	44,539	Medical Claims administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Vantage Consulting Group, Inc.	454	Application Development
Voya	3,230	Third-Party Member Record Keeper
West Advanced Technologies, Inc.	199	Information Technology, Systems Analysis, Design, Implementation, Consulting and Support Services
Western Health Advantage	4,983	Medical Claims Administration, Account Management, Behavioral, Provider Network, Audit, Innovation and Development, Wellness, Prevention and Disease Management Services
Wolfsdorf Rosenthal, LLP	48	Legal Services
Worktank Enterprises, LLC	55	Video and Multimedia Production Services, Web Event Services
Various	164	
Total Consultant and Professional Services Expenses	**$317,592**	

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

INVESTMENT SECTION

CHIEF INVESTMENT OFFICER'S LETTER

November 19, 2021

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, 2021. The CalPERS Public Employees' Retirement Fund (PERF) earned a time-weighted net rate of return of 21.3 percent this fiscal year, with the ending fair value of investments at $485 billion. Drivers of the returns included the private equity program, which generated a 43.8 percent net return, followed by public equity with a net return of 36.3 percent. CalPERS claims compliance with the Global Investment Performance Standards (GIPS).[1] These strong fiscal year returns are reflective of our investment strategy and our talented and dedicated team. Team members, working from their home offices during these unprecedented times, managed current holdings and identified new investment opportunities. We capitalized on the growth in the public markets and deployed capital into private markets including private equity and opportunistic strategies.

In response to the pandemic and state's financial hardship, we also worked to reduce costs related to investment operations. We implemented one-off cost cuts with several of our vendors, which resulted in approximately $1.1 million in savings to the fund.

Our strong investment returns triggered the CalPERS Funding Risk Mitigation Policy. This policy, approved by the CalPERS Board of Administration in 2015, is triggered automatically when returns exceed the current discount rate by more than two percentage points. The goal of the policy is to lower the discount rate in years of strong investment returns. The long-term goal is to reduce the volatility of investment returns and thereby increase the long-term sustainability of the fund. This marks the first time the policy has been triggered since its adoption and results in the discount rate moving from 7 percent to 6.8 percent.

While the Funding Risk Mitigation Policy was triggered, which would automatically reduce the discount rate to 6.8 percent, we also began the Asset Liability Management process during the second half of this fiscal year. This process, which takes place every four years, will continue throughout Fiscal Year 2021-22. It is an integrated review of CalPERS' assets (investments) and liabilities (retirement obligations) to inform decisions on how to achieve the discount rate and long-term sustainability of the Fund. Based on the Capital Market Assumptions, which project the expectations of future investment returns, the CalPERS Board will set the new asset allocation for our portfolio. This portfolio, and the coinciding discount rate, will set a course for our investment portfolio for the next four years.

In addition to investment and portfolio work, our team was also very active on the engagement front. As active owners, we regularly engage with the companies in which we invest to increase their chances of success and mitigate risks, which improves our investment returns. Notable wins during the 2021 proxy season included board refreshment at Exxon Mobil that resulted in three new board members added to the company's board, winning climate-related proposals at numerous companies, and continuing to advocate for pay-for-performance alignment, which ensures corporate executives aren't overpaid when their companies are underperforming. CalPERS also continued to collaborate with other institutional investors on improving corporate board diversity and asking companies for disclosure of data around their diversity efforts, an important step beyond simply asking companies to adopt diversity, equity, and inclusion policies.

This year, CalPERS, along with CalSTRS, hosted a Diversity Forum on June 22, 2021. The forum featured exceptional speakers within the investment field, including Securities and Exchange Commission (SEC) Commissioner Allison Herren Lee and New York Stock Exchange President Stacey Cunningham.

CalPERS is committed to the success and sustainability of our system. The Investment Office continues to implement our vision to work as one team, with a culture of trust, respect, and accountability, to effectively manage one total fund. We are pleased with our accomplishments throughout the 2020-21 fiscal year and look forward to building on this success and staying focused on our mission to manage the CalPERS investment portfolio in an efficient and risk aware manner to generate returns to sustainably pay benefits.

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

[1] GIPS® 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 PERFORMANCE – PUBLIC EMPLOYEES' RETIREMENT FUND (PERF)

Summary of Investments – PERF – As of June 30, 2021 (Dollars in Thousands)

Category	Book Value	Fair Value	% of Investments at Fair Value
Short-Term Investments	$24,358,295	$24,311,494	5%
Public Equity	163,470,743	238,939,352	49%
Fixed Income	125,834,120	129,929,381	27%
Real Assets	31,222,280	47,207,101	10%
Private Equity/Debt	39,256,295	44,830,727	9%
TOTAL INVESTMENT VALUE	**$384,141,733**	**$485,218,055**	**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	**21.3%**	**10.7%**	**10.3%**	**8.5%**	Total Fund Policy Benchmark[1]	21.7%	10.8%	10.5%	8.5%
					Trust Universe Comparison Service (TUCS) Public Fund Median	25.8%	11.4%	10.8%	8.7%
					Wilshire Large Fund Universe Median	27.4%	11.8%	11.6%	9.3%
Public Equity[4]	36.3%	13.3%	14.2%	10.1%	CalPERS Custom Public Equity Benchmark[2]	36.0%	13.2%	14.2%	10.0%
Private Equity[5]	43.8%	13.7%	14.2%	12.0%	Custom FTSE All World, All Cap Equity +150bps, Quarter Lag	61.1%	14.3%	16.3%	13.4%
Income[4]	(0.1%)	7.2%	4.4%	5.1%	CalPERS Custom Global Fixed Income Benchmark[3]	(0.8%)	6.8%	3.8%	4.6%
Real Assets[5]	2.6%	3.6%	5.2%	8.1%	MSCI/PREA U.S. ACOE Quarterly Property Fund Index (Unfrozen)	1.3%	3.9%	5.1%	8.0%
Total Fund									
Opportunistic	13.1%	—%	—%	—%	Absolute 7.0%	7.0%	—%	—%	—%
Low Liquidity Enhanced Return	4.0%	2.8%	3.0%	—%	LIBOR 1 Month Rate	0.1%	0.9%	0.9%	—%
Financing & Liquidity									
Liquidity[6]	0.1%	1.4%	1.3%	1.2%	30-Day Treasury Bill	0.1%	1.2%	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 Global Benchmark 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) Public Equity and Income includes exposure from derivatives and repo borrowing used for Trust level leverage and liquidity.
(5) Private assets reflect valuations as of March 31, 2021 and are cash adjusted through June 30, 2021.
(6) Liquidity reflects net asset value of the Liquidity Segment. Trust Level Financing reflects derivatives financing and repo borrowing in trust level Synthetic Cap Weighted and Synthetic Treasury portfolios.

PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

Asset Allocation – PERF

Asset Class	Current Allocation	Current Policy Target Weight (as of 6/30/2021)	Prior Policy Target Weight (as of 6/30/2020)
Public Equity[1]	**51.4%**	**50.0%**	**50.0%**
Private Equity	**8.3%**	**8.0%**	**8.0%**
Income[1]	**29.8%**	**28.0%**	**28.0%**
Real Assets	**9.6%**	**13.0%**	**13.0%**
Total Fund[2]	**2.5%**	**—%**	**—%**
Opportunistic	0.4%	—%	—%
Low Liquidity Enhanced Return	2.0%	—%	—%
Financing & Liquidity[3]	**(1.6%)**	**1.0%**	**1.0%**
Trust Level Financing	(2.7%)	—%	—%
Liquidity	1.0%	1.0%	1.0%
TOTAL FUND	**100.0%**	**100.0%**	**100.0%**

(1) Public Equity and Income includes exposure from derivatives and repo borrowing used for Trust Level leverage and liquidity.
(2) Subtotal and totals may not sum due to rounding.
(3) Trust Level Financing reflects derivatives financing and repo borrowing in Trust Level Synthetic Cap Weighted and Synthetic Treasury portfolios. Liquidity reflects net asset value of the Liquidity Segment.

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

California Investments	Fair Value	Cost
Public Equity[1]	$34,073,899	$17,057,355
Global Fixed Income[2]	8,980,139	8,668,417
Real Assets[3]	13,150,079	8,745,356
Private Equity[3]	2,451,944	1,117,951
TOTAL CALIFORNIA INVESTMENTS	**$58,656,061**	**$35,589,079**

(1) Includes listed public equities corporate bonds.
(2) Fixed Income also includes a portion of MBS & ABS, which have significant geographical exposure to CA, and MHLP.
(3) Real assets and private equity as of March 31, 2021.

PUBLIC EMPLOYEES' RETIREMENT FUND (CONTINUED)

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

Rank	Security Name	Shares	Fair Value
1	Microsoft Corporation	19,194,311	$5,199,739
2	Apple Incorporated	35,485,554	4,860,101
3	Amazon.com Incorporated	1,119,216	3,850,282
4	Johnson & Johnson	11,867,787	1,955,099
5	Facebook Incorporated Class A	5,545,709	1,928,298
6	Alphabet Incorporated Class A	734,427	1,793,317
7	Taiwan Semiconductor Manufacturing Company Limited	82,543,998	1,762,716
8	Roche Holding AG Genusscheine	4,555,734	1,717,857
9	Alphabet Incorporated Class C	683,998	1,714,318
10	Tencent Holdings Limited	21,612,401	1,625,275

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	2.000%	7/14/2051	$3,907,348	$3,945,200
2	United States Treasury	2.250%	5/15/2041	3,112,310	3,238,748
3	United States Treasury	1.625%	5/15/2031	3,138,400	3,187,438
4	United States Treasury	2.375%	5/15/2051	2,580,000	2,754,553
5	United States Treasury	0.875%	11/15/2030	1,754,700	1,668,884
6	Federal National Mortgage Association	2.500%	7/14/2051	1,409,475	1,457,816
7	United States Treasury	1.375%	11/15/2040	1,525,000	1,369,879
8	United States Treasury	1.625%	11/15/2050	1,523,500	1,367,817
9	United States Treasury	4.375%	5/15/2040	750,800	1,048,305
10	United States Treasury	1.875%	2/15/2041	1,008,400	987,444

A complete list of portfolio holdings is available upon request.

Schedule of Commissions & Fees (Dollars in Thousands)

Broker	Number of Shares Traded	Base Commission & Fees Amount
ABN Amro Clearing Bank N.V.	8,690,998	$14
Bank of America Securities, Inc.	287,104,452	1,840
Barclays Capital	5,745,789	28
Barclays Capital Inc, LE	35,443,620	258
Bernstein Autonomous, LLP	692,289,034	41
BMO Capital Markets	1,220,950	14
BNP Paribas Securities Services	7,419,964	9
Bradesco S.A. CTVM	7,950,700	12
BTIG	3,656,236	27
BTIG, LLC	36,101,045	208
Canadian Imperial Bank of Commerce	770,313	8
Capital Institutional Services, Inc.	34,175,674	211
Citigroup Global Market Korea Secs., Ltd.	960,245	16
Citigroup Global Markets CME	9,543	19
Citigroup Global Markets Europe AG	6,655,906	94
Citigroup Global Markets India	28,121,161	51
Citigroup Global Markets, Inc.	1,036,395,915	1,834
Citigroup Global Markets, Inc. Salomon Brothers	556,028	981
Citigroup Global Markets, Ltd.	37,975,416	237
CLSA (UK), Ltd.	35,587,261	57
CLSA Australia Pty., Ltd.	21,917,923	31
CLSA Singapore Pte., Ltd.	164,554,313	455
Cowen and Company, LLC	10,675,045	93
Cowen Execution Services, LLC	2,607,367	11
Credit Lyonnais Securities (Asia)	797,169,637	374
Credit Suisse First Boston	305,276,031	163
Credit Suisse Securities (Europe), Ltd.	10,050,826	54
Credit Suisse Securities (USA), LLC	1,155,402,290	1,312
Credit Suisse Securities India Pvt., Ltd.	76,918,304	40
Exane S.A.	10,048,641	51
Goldman Sachs (India)	8,333,377	8
Goldman Sachs and Company, LLC	5,347,979,830	992
Goldman Sachs Do Brasil Corretora	9,118,322	22
Goldman Sachs International	6,863,358	72
Guzman and Company	22,309,996	123
HSBC Bank, PLC	362,467,845	213
HSBC Brokerage (USA), Inc.	3,738,868	24
HSBC Securities (USA), Inc.	1,258,671,168	1,090
HSBC Securities India Holdings	4,213,649	18
ICICI Brokerage Services, Ltd.	2,587,982	8
Instinet	48,942,753	209
Instinet Pacific, Ltd.	119,249,609	80
Instinet U.K., Ltd.	146,611,455	733
Instinet, LLC	13,455,207	75
Investment Technology Group, Inc.	15,599,605	115
ITG Australia, Ltd.	20,193,739	70
Jefferies International, Ltd.	111,885,476	32
Jefferies, LLC	15,769,913	129
JMP Securities	327,690	13
Joh Berenberg Gossler and Company, KG	2,663,150	34
Jones Trading Institutional Services, LLC	39,752,770	$249
JP Morgan Broking Hong Kong, Ltd.	247,300	10
JP Morgan India Private, Ltd.	27,881,374	65
JP Morgan Securities (Far East), Ltd. Seoul	240,433	23
JP Morgan Securities Asia Pacific, Ltd.	196,797,786	91
JP Morgan Securities Australia, Ltd.	6,956,065	10
JP Morgan Securities, Inc.	141,594,453	126
JP Morgan Securities, LLC	64,387,397	313
JP Morgan Securities, Ltd.	17,140,945	201
JP Morgan Securities, PLC	708,163,918	846
Leerink Partners, LLC	242,845	10
Liquidnet, Inc.	19,586,057	128
Loop Capital Markets	14,555,457	90
Macquarie Bank, Ltd.	665,955,698	419
Macquarie Capital Securities	1,635,672,955	662
Macquarie Securities (India) Private, Inc.	48,008,289	96
Macquarie Securities (Korea), Ltd.	7,767,116	189
Macquarie Securities New Zealand, Ltd.	9,795,877	8
Merrill Lynch International	427,289,845	807
Morgan Stanley (Taiwan), Ltd.	20,513,000	19
Morgan Stanley and Company International	1,112,583	15
Morgan Stanley and Company International, PLC	12,679,788	37
Morgan Stanley and Company, Inc.	281,201,755	923
Penserra Securities, LLC	41,827,697	255
Pershing, LLC	42,061,680	224
Pershing Securities, Ltd.	3,628,487	21
Piper, Jaffray and Company	50,039,040	319
Raymond James and Associates, Inc.	251,837	10
RBC Capital Markets, LLC	5,512,434	56
RBC Dominion Securities, Inc.	41,626,645	217
Royal Bank of Canada Europe, Ltd.	93,970,084	288
Sanford C Bernstein and Company, LLC	19,291,435	94
SG Americas Securities, LLC	21,187,705	81
SG Securities Hong Kong, Ltd.	13,598,144	76
Societe Generale	60,658,702	234
UBS Ag	166,501,007	461
UBS Ag London Branch	3,093,044	48
UBS Securities Asia, Ltd.	614,869,506	294
UBS Securities Canada, Inc.	1,912,879	16
UBS Securities India Pvt., Ltd.	9,511,986	44
UBS Securities Pte., Ltd.	31,080,687	28
UBS Securities Pte.,Ltd., Seoul	5,459,072	20
UBS Securities, LLC	56,031,147	308
Virtu Americas, LLC	27,830,815	179
Virtu ITG Europe, Ltd	150,370,298	499
XP Investimentos CCTVM SA	7,925,500	13
Various[1]	160,381,378	149
TOTAL	**18,318,598,534**	**$21,874**

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

Private Equity and Debt 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	($148)	$812	$0
57 Stars Global Opportunities Fund, LLC	463	—	463	—
Aberdare Ventures IV, LP	91	(86)	5	—
Advent International GPE IX Limited Partnership	8,250	—	8,250	—
Advent International GPE V-D, LP	80	—	80	—
Advent International GPE VI-A, LP	816	(4)	812	729
Advent International GPE VII-C, LP	3,152	(15)	3,137	16,777
Advent International GPE VIII-B Limited Partnership	6,399	(2)	6,397	22,217
Advent Latin America Private Equity Fund IV-D, LP	312	—	312	—
Advent Latin America Private Equity Fund V-H, LP	647	—	647	—
Advent Latin American Private Equity Fund III-D, LP	90	—	90	—
Affinity Asia Pacific Fund III, LP	—	—	—	1,487
Aisling Capital III, LP	—	—	—	288
AlpInvest Secondaries Fund (onshore) VII, LP	3,735	—	3,735	—
Apollo Credit Opportunity Fund I, LP	2	(2)	—	—
Apollo Investment Fund IX, LP	6,325	(886)	5,439	—
Apollo Investment Fund VII, LP	395	(253)	142	—
Apollo Investment Fund VIII, LP	2,105	(598)	1,507	1,687
Apollo Special Opportunities Managed Account, LP	290	—	290	—
Ares Corporate Opportunities Fund III, LP	—	—	—	8,405
Ares Corporate Opportunities Fund V, LP	4,982	(9)	4,973	—
Ares Corporate Opportunities Fund VI, LP	1,210	(1,210)	—	—
ASF VIII B, LP	7,424	—	7,424	—
Asia Alternatives Capital Partners II, LP	66	—	66	642
Asia Alternatives Capital Partners, LP	—	—	—	21
Avatar North America Investors, LP	16	—	16	—
Baring Vostok Private Equity Fund IV, LP	5	(1)	4	—
BDC III C, LP	2,033	(820)	1,213	—
BDC IV D, LP	958	—	958	—
BE VI 'H', LP	6,149	(739)	5,410	—
Birch Hill Equity Partners (US) IV, LP	802	(41)	761	5,194
Blackstone Capital Partners IV, LP	—	—	—	372
Blackstone Capital Partners V, LP	—	—	—	289
Blackstone Capital Partners VI, LP	1,556	(301)	1,255	19,082
Blackstone Capital Partners VII, LP	4,322	—	4,322	—
Blackstone Capital Partners VIII, LP	4,194	—	4,194	—
Blackstone Tactical Opportunities Fund - C, LP	2,664	(4)	2,660	5,052
Blackstone Tactical Opportunities Fund (KG Co-Invest), LP	453	—	453	721
Blackstone Tactical Opportunities Fund (T4U Co-Invest), LP	142	—	142	1,902
Blackstone Tactical Opportunities Fund II - C, LP	2,888	(431)	2,457	6,422
Blackstone Tactical Opportunities Fund III - C (Surge), LP	493	—	493	769
Blackstone Tactical Opportunities Fund III - C, LP	1,635	—	1,635	1,661
Bridgepoint Europe II 'A', LP	—	—	—	95
Bridgepoint Europe II 'C', LP	—	—	—	15
Bridgepoint Europe IV 'B', LP	103	1	104	—
Bridgepoint Europe IV 'D', LP	391	4	395	—
Bridgepoint Europe V	2,627	(103)	2,524	—
California Asia Investors, LP	151	—	151	1,843
California Emerging Ventures III, LLC	—	—	—	16
California Emerging Ventures IV, LLC	275	—	275	2,765
California Mezzanine Investment Fund, LP	313	—	313	—

Private Equity and Debt 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	$382	$0	$382	$437
Capital Link Fund II, LLC	380	—	380	927
Carlyle Asia Growth Partners IV, LP	132	—	132	—
Carlyle Asia Partners III, LP	262	—	262	—
Carlyle Asia Partners V, LP	3,250	—	3,250	—
Carlyle Europe Partners III, LP	—	(40)	(40)	—
Carlyle Europe Partners V, S.C.Sp	4,225	(200)	4,025	—
Carlyle Europe Technology Partners II, LP	—	—	—	48
Carlyle Japan Partners II, LP	17	(9)	8	—
Carlyle Mexico Partners, LP	—	—	—	(1,027)
Carlyle Partners V, LP	34	(108)	(74)	1,087
Carlyle Partners VI, LP	3,294	(649)	2,645	16,585
Carlyle Partners VII, LP	7,200	(580)	6,620	—
Carlyle Realty Partners III, LP	—	—	—	268
Carlyle Strategic Partners II, LP	29	(7)	22	—
Carlyle Strategic Partners IV, LP	1,706	(55)	1,651	—
Carlyle U.S. Equity Opportunities II, LP	2,541	(832)	1,709	—
Carlyle/Riverstone Global Energy and Power Fund II	—	—	—	(365)
CDH Fund V, LP	2,554	—	2,554	—
Centerbridge Capital Partners III, LP	1,985	(754)	1,231	10,329
Cerberus CAL II Partners, LP	2,439	(570)	1,869	—
Cerberus CAL III Partners, LP	3,750	(54)	3,696	—
Cerberus CP Partners, LP	1,164	(1,941)	(777)	—
Cerberus Institutional Partners V, LP	378	(284)	94	—
Clayton, Dubilier & Rice Fund X, LP	1,605	(871)	734	1,958
Clayton, Dubilier & Rice Fund XI, LP	3,383	(382)	3,001	—
Clearlake Capital Partners III, LP	271	(81)	190	4,630
Clearlake Capital Partners IV, LP	810	(306)	504	5,734
Clearlake Capital Partners V, LP	1,310	(802)	508	564
Clearlake Opportunities Partners (P), LP	745	(136)	609	—
Clearwater Capital Partners Fund II Holdings, LP	9	—	9	—
Coller International Partners V-A, LP	—	—	—	552
CVC Capital Partners Asia V, LP	3,008	(301)	2,707	—
CVC Capital Partners Strategic Opportunities Compounding Capital, LP	7,550	—	7,550	—
CVC Capital Partners VI, LP	4,772	(313)	4,459	—
CVC Capital Partners VII (A), LP	8,785	(1,324)	7,461	—
CVC Credit Strategic Investment A, LP	1	—	1	—
CVC European Equity Partners V (B), LP	—	—	—	6,736
EMAlternatives Investments, LP	200	—	200	—
EQT IX (No.2) USD SCSp	4,582	—	4,582	—
Essex Woodlands Health Ventures Fund VIII, LP	469	—	469	—
EW Healthcare Partners Acquisition Fund, LP	56	—	56	—
First Reserve Fund XIII, LP	1,716	(81)	1,635	—
Francisco Partners Agility II, LP	616	(71)	545	—
Francisco Partners II, LP	—	—	—	(2,575)
Francisco Partners III, LP	446	(48)	398	6,626
Francisco Partners VI, LP	1,692	—	1,692	—
GCM Grosvenor DEM II, LP	634	—	634	—
GCM Grosvenor DEM III, LP	1,594	—	1,594	—
GCM Grosvenor DEM, LP	314	—	314	—
Golden State Investment Fund, LLC	—	—	—	8,761
GPE IX Forescout Co-Investment, LP	34	—	34	—

Private Equity and Debt 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]
GPE IX TKE Co-Investment, LP	$13	$0	$13	$0
Green Equity Investors IV, LP	—	—	—	22
Green Equity Investors V, LP	—	(73)	(73)	(24,876)
Green Equity Investors VIII, LP	4,254	(2,772)	1,482	—
GSO Capital Opportunities Fund II, LP	393	—	393	—
GSO Capital Solutions Fund II, LP	1,114	—	1,114	—
GSO Energy Partners-C II, LP	1,351	—	1,351	—
GSO Energy Partners-C, LP	1,717	—	1,717	—
H&F ARROW 1, LP	15	—	15	—
Hellman & Friedman Capital Partners IX, LP	9,750	(6,988)	2,762	—
Hellman & Friedman Capital Partners VI	—	—	—	(713)
Hellman & Friedman Capital Partners VII	398	(6)	392	80,518
Hellman & Friedman Capital Partners VIII, LP	3,346	(16)	3,330	3,527
Insight Partners XI, LP	7,000	(4)	6,996	—
Insight Venture Partners Growth-Buyout Coinvestment Fund (B), LP	3,215	(182)	3,033	59,310
Insight Venture Partners IX, LP	1,701	(28)	1,673	6,864
Insight Venture Partners X, LP	3,771	(2)	3,769	4,476
Ithaca, LP	—	—	—	—
Jade Equity Investors, LP	2,282	(588)	1,694	2,353
Khosla Ventures III, LP	1,093	—	1,093	—
Khosla Ventures Seed, LP	600	—	600	—
KKR 2006 Fund, LP	(69)	—	(69)	6,400
KKR Asian Fund II, LP	1,448	—	1,448	—
KKR Asian Fund IV SCSp	2,650	(121)	2,529	—
KKR Asian Fund, LP	15	—	15	—
KKR European Fund II, LP	11	—	11	—
KKR European Fund III, LP	138	—	138	—
KKR European Fund V (USD) SCSp	3,472	(2,426)	1,046	—
KM Corporate Partners Fund II, LP	231	—	231	(8)
KPS Special Situations Fund III, LP	—	—	—	169
Lime Rock Partners V, LP	21	(1)	20	—
Lindsay Goldberg IV, LP	1,428	(351)	1,077	5,966
Lindsay Goldberg V, LP	2,057	(512)	1,545	—
Lion Capital Fund II, LP	71	—	71	—
LongRange Capital Fund I, LP	5,546	—	5,546	—
Madison Dearborn Capital Partners V, LP	—	—	—	4,752
Madison Dearborn Capital Partners VIII, LP	6,000	—	6,000	—
MHR Institutional Partners III, LP	421	(2)	419	—
New Mountain Partners III, LP	1,790	(1,790)	—	28,455
New Mountain Partners VI, LP	4,268	—	4,268	—
Newbridge Asia IV, LP	97	—	97	—
Oak Hill Capital Partners III, LP	103	—	103	(1,962)
Oaktree Latigo Investment Fund, LP	882	—	882	—
Oaktree Opportunities Fund VIIIb, LP	1,223	(40)	1,183	—
OHA Black Bear Fund, LP	2,064	(5)	2,059	—
Onex Partners IV, LP	1,718	(153)	1,565	—
Onex Partners V (B), LP	8,256	(2)	8,254	—
PAG Asia I, LP	451	—	451	14,544
PAG Asia III, LP	6,650	—	6,650	—
Palladium Equity Partners III, LP	—	(1,517)	(1,517)	2,696
Palladium Equity Partners V, LP	1,500	(195)	1,305	—

Private Equity and Debt 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]
Patria Brazilian Private Equity Fund V, LP	$2,620	($114)	$2,506	$0
Permira Growth Opportunities I, LP 1	2,500	—	2,500	—
Permira IV, LP 2	—	—	—	1,634
Permira V, LP	2,225	(49)	2,176	40,352
Permira VI, LP 1	4,730	(551)	4,179	—
Permira VII, LP 1	8,392	(32)	8,360	—
Polish Enterprise Fund V, LP	—	—	—	6
Polish Enterprise Fund VI, LP	—	—	—	4,457
RFG Private Equity, LP No. 1A, 1B and 1C	—	—	—	—
Riverstone Global Energy and Power Fund V, LP	2,470	(64)	2,406	—
Riverstone Global Energy and Power Fund VI, LP	7,191	(97)	7,094	—
Riverstone/Carlyle Global Energy and Power Fund IV, LP	382	(36)	346	—
Riverstone/Carlyle Renewable&Alternative Energy Fund II, LP	505	(100)	405	—
Riverwood Capital Partners (Parallel - A), LP	289	(1)	288	—
Sacramento Private Equity Partners, LP	—	—	—	2,938
SAIF Partners III, LP	574	—	574	—
SAIF Partners IV, LP	1,151	—	1,151	—
Samson Brunello 1, LP	1	—	1	—
Samson Hockey 1, LP	26	—	26	—
Samson Shield 1, LP	—	—	—	7,958
Sankaty Managed Account (CalPERS), LP	1,211	(84)	1,127	—
Silver Lake Partners III, LP	42	(77)	(35)	5,349
Silver Lake Partners IV, LP	2,116	(97)	2,019	8,456
Silver Lake Partners V, LP	4,211	(1,474)	2,737	7,375
Silver Lake Partners VI, LP	7,401	—	7,401	—
Siris Partners III, LP	921	(27)	894	—
Siris Partners IV, LP	1,750	(74)	1,676	—
SL SPV-1, LP	381	—	381	—
SL SPV-2, LP	280	—	280	—
Summit Partners Growth Equity Fund X-A, LP	4,055	(4,055)	—	—
Tailwind Capital Partners (PP), LP	—	—	—	50
Tailwind Capital Partners II, LP	855	(448)	407	—
Tailwind Capital Partners III, LP	2,500	(1,109)	1,391	—
TCV X, LP	3,063	—	3,063	—
TCV XI, LP	541	(466)	75	—
The Central Valley Fund II SBIC, LP	179	(30)	149	—
The Rise Fund (A), LP	662	—	662	—
Thomas H. Lee Equity Fund VI, LP	—	—	—	2,003
TowerBrook Investors III, LP	7	—	7	(3,605)
TowerBrook Investors IV (Onshore), LP	2,417	—	2,417	1,636
Towerbrook Investors V (Onshore), LP	9,000	(3,384)	5,616	—
Towerbrook Structured Opportunities Fund (Onshore), LP	1,834	(65)	1,769	—
Towerbrook Structured Opportunities Fund II (Onshore), LP	3,125	(2,029)	1,096	—
TPG Asia V, LP	—	—	—	1,457
TPG Asia VII (A), LP	4,202	—	4,202	—
TPG Biotechnology Partners II, LP	—	—	—	637
TPG Biotechnology Partners III, LP	117	(117)	—	10,518
TPG Growth IV, LP	1,025	—	1,025	—
TPG Growth V, LP	1,668	—	1,668	—
TPG Healthcare Partners, LP	1,272	—	1,272	364
TPG Partners VI, LP	—	—	—	13,156

Private Equity and Debt 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]
TPG Partners VIII, LP	$6,362	$0	$6,362	$0
Trident VI	2,325	(186)	2,139	5,031
Trident VII, LP	4,219	(601)	3,618	—
Trident VIII, LP	6,000	(47)	5,953	—
Triton Fund IV, LP	895	—	895	—
Triton Fund V, LP	4,907	(1,226)	3,681	—
T-VI Co-Invest-A LP	—	(91)	(91)	—
Valor Equity Partners IV, LP	1,184	(26)	1,158	—
VantagePoint Venture Partners 2006 (Q), LP	361	—	361	—
Vicente Capital Partners Growth Equity Fund, LP	—	(5)	(5)	189
VIP IV, LP	2,531	—	2,531	—
Vista Equity Partners Fund VII-Z, LP	6,000	(226)	5,774	7
W Capital Partners II, LP	—	—	—	324
WCAS XIII, LP	5,700	(269)	5,431	347
Wellspring Capital Partners V, LP	471	(236)	235	8,919
Welsh, Carson, Anderson & Stowe XI, LP	46	—	46	—
Welsh, Carson, Anderson & Stowe XII, LP	2,630	(1)	2,629	15,125
Wigmore Street (BDC III), LP	1	—	1	—
Wigmore Street Co-investment No.1, LP	1	—	1	—
Wigmore Street VI Co-Investment No.1, LP	102	—	102	—
Yucaipa American Alliance Fund II, LP	780	(780)	—	4,603
Private Equity Total	**$387,149**	**($52,495)**	**$334,654**	**$491,505**

Private Debt Fund Name	Gross Management Fees	Net Offsets, Waivers, and Rebates[2, 3]	Net Management Fees	Profit Sharing Paid[4, 5]
Oaktree Gilead Investment Fund, LP - Series A	**$—**	**$—**	**$—**	**$149**
TSSP Adjacent Opportunities Partners (B), LP	**$—**	**$—**	**$—**	**$171**
Private Debt Total	**$—**	**$—**	**$—**	**$320**
TOTAL	**$387,149**	**($52,495)**	**$334,654**	**$491,825**

(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 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	**13.6%**	**9.0%**	**7.2%**	Total Fund Policy Benchmark	13.4%	8.8%	7.0%
Public Equity	41.3%	14.7%	15.2%	MSCI All Country World Index IMI (Net)	40.9%	14.2%	14.9%
Fixed Income	(2.0%)	6.9%	4.2%	Bloomberg Barclays Long Liability Index	(2.0%)	6.9%	3.8%
TIPS	6.5%	6.6%	4.2%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%	6.5%	4.2%
REITs	34.7%	7.5%	6.0%	FTSE EPRA/NAREIT Developed Index	33.6%	6.5%	5.5%
Commodities	57.3%	(2.2%)	2.1%	S&P GSCI Total Return Daily	57.4%	(2.7%)	1.7%

LRF Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
Public Equity	21.9%	22.0%
Fixed Income	49.1%	49.0%
TIPS	16.0%	16.0%
REITs	7.9%	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	**24.4%**	**11.6%**	**10.3%**	Total Fund Policy Benchmark	24.2%	11.2%	10.0%
Public Equity	41.4%	14.7%	15.2%	MSCI All Country World Index IMI (Net)	40.9%	14.2%	14.9%
Fixed Income	(2.0%)	6.9%	4.2%	Bloomberg Barclays Long Liability Index	(2.0%)	6.9%	3.8%
TIPS	6.5%	6.5%	4.2%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%	6.5%	4.2%
REITs	34.8%	7.5%	6.1%	FTSE EPRA/NAREIT Developed Index	33.6%	6.5%	5.5%
Commodities	57.3%	(2.6%)	1.9%	S&P GSCI Total Return Daily	57.4%	(2.7%)	1.7%

JRF II Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
Public Equity	51.9%	52.0%
Fixed Income	32.1%	32.0%
TIPS	5.0%	5.0%
REITs	7.9%	8.0%
Commodities	3.1%	3.0%
Total Fund	**100.0%**	**100.0%**

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

CEPPTF Strategy 1 Portfolio Comparisons[1] (Time-Weighted Rates of Return)

Category	1-Year Return	Index	1-Year Return
Total Fund	**18.2%**	CEPPT Strategy 1 Policy Index	18.1%
Public Equity	41.2%	MSCI All Country World Index IMI (Net)	40.9%
Fixed Income	(0.4%)	Bloomberg Barclay U.S. Aggregate Bond Index	(0.3%)
TIPS	6.4%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%
REITs	34.7%	FTSE EPRA/NAREIT Developed Index	33.6%

1) CEPPTF Strategy 1 has an inception date of October 1, 2019.

CEPPTF Strategy 2 Portfolio Comparisons[1] (Time-Weighted Rates of Return)

Category	1-Year Return	Index	1-Year Return
Total Fund	**7.9%**	CEPPT Strategy 2 Policy Index	7.8%
Public Equity	41.2%	MSCI All Country World Index IMI (Net)	40.9%
Fixed Income	(0.4%)	Bloomberg Barclay U.S. Aggregate Bond Index	(0.3%)
TIPS	6.5%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%
REITs	34.6%	FTSE EPRA/NAREIT Developed Index	33.6%

1) CEPPTF Strategy 2 has an inception date of January 1, 2020.

CEPPTF Asset Allocation[1]

	Strategy 1		Strategy 2	
Asset Class	Current Allocation	Policy Target Weight	Current Allocation	Policy Target Weight
Public Equity	39.8%	40.0%	13.9%	14.0%
Fixed Income	46.8%	47.0%	72.7%	73.0%
TIPS	5.0%	5.0%	5.0%	5.0%
REITs	7.9%	8.0%	7.9%	8.0%
Cash Equivalents	0.5%	—%	0.5%	—%
Total Fund	**100.0%**	**100.0%**	**100.0%**	**100.0%**

1) 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	**27.5%**	**11.9%**	**10.8%**	Total Fund Policy Benchmark	27.3%	11.7%	10.5%
Public Equity	41.2%	14.6%	14.9%	MSCI All Country World Index IMI (Net)	40.9%	14.2%	14.5%
Fixed Income	(2.0%)	6.9%	4.2%	Bloomberg Barclays Long Liability Index	(2.0%)	6.9%	3.8%
TIPS	6.5%	6.5%	4.2%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%	6.5%	4.2%
REITs	34.8%	7.6%	5.7%	FTSE EPRA/NAREIT Developed Index	33.6%	6.5%	4.8%
Commodities	57.3%	(2.6%)	1.9%	S&P GSCI Total Return Daily	57.4%	(2.7%)	1.7%

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

Category	1-Year Return	3-Year Return	5-Year Return	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	**19.7%**	**10.5%**	**9.0%**	Total Fund Policy Benchmark	19.5%	10.3%	8.7%
Public Equity	41.2%	14.5%	14.9%	MSCI All Country World Index IMI (Net)	40.9%	14.2%	14.5%
Fixed Income	(2.0%)	6.9%	4.2%	Bloomberg Barclays Long Liability Index	(2.0%)	6.9%	3.8%
TIPS	6.5%	6.5%	4.2%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%	6.5%	4.2%
REITs	34.7%	7.5%	5.7%	FTSE EPRA/NAREIT Developed Index	33.6%	6.5%	4.8%
Commodities	57.3%	(2.4%)	2.0%	S&P GSCI Total Return Daily	57.4%	(2.7%)	1.7%

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

Category	1-Year Return	3-Year Return	5-Year Return	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	**13.6%**	**9.0%**	**7.1%**	Total Fund Policy Benchmark	13.4%	8.8%	6.9%
Public Equity	41.2%	14.5%	14.9%	MSCI All Country World Index IMI (Net)	40.9%	14.2%	14.5%
Fixed Income	(2.0%)	6.9%	4.2%	Bloomberg Barclays Long Liability Index	(2.0%)	6.9%	4.2%
TIPS	6.5%	6.5%	4.2%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%	6.5%	4.2%
REITs	34.7%	7.6%	5.7%	FTSE EPRA/NAREIT Developed Index	33.6%	6.5%	4.8%
Commodities	57.3%	(2.2%)	2.2%	S&P GSCI Total Return Daily	57.4%	(2.7%)	1.7%

CERBTF Asset Allocation

	Strategy 1		Strategy 2		Strategy 3	
Asset Class	Current Allocation	Policy Target Weight	Current Allocation	Policy Target Weight	Current Allocation	Policy Target Weight
Public Equity	58.9%	59.0%	39.9%	40.0%	21.9%	22.0%
Fixed Income	25.0%	25.0%	43.0%	43.0%	49.1%	49.0%
TIPS	5.0%	5.0%	5.0%	5.0%	16.0%	16.0%
REITs	7.9%	8.0%	7.9%	8.0%	8.0%	8.0%
Commodities	3.0%	3.0%	4.0%	4.0%	5.0%	5.0%
Cash Equivalents	0.2%	—	0.2%	—	—%	—
Total Fund	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

INVESTMENT PERFORMANCE – HEALTH CARE FUND (HCF)

HCF Portfolio Comparisons (Time-Weighted Rates of Return)

Category	1-Year Return	3-Year Return	5-Year Return	Benchmark	1-Year Return	3-Year Return	5-Year Return
Total Fund	**(0.4%)**	**5.4%**	**3.1%**	Bloomberg Barclays U.S. Aggregate Bond Index	(0.3%)	5.3%	3.0%

HCF Asset Allocation

Asset Class	Current Allocation	Policy Target Weight
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	**13.0%**	**8.2%**	**6.0%**	Total Fund Policy Benchmark	12.3%	8.2%	6.0%
Public Equity	41.2%	14.5%	14.9%	MSCI All Country World Index IMI (Net)	40.9%	14.2%	14.5%
Fixed Income	(2.0%)	6.9%	3.9%	Bloomberg Barclays Long Liability Index	(2.0%)	6.9%	3.8%
TIPS	6.5%	6.5%	4.2%	Bloomberg Barclays U.S. TIPS Index, Series L	6.5%	6.5%	4.2%
REITs	34.6%	7.5%	5.7%	FTSE EPRA/NAREIT Developed Index	33.6%	6.5%	4.8%
Commodities	57.2%	(2.7%)	1.7%	S&P GSCI Total Return Daily	57.4%	(2.7%)	1.7%

LTCF Asset Allocation[1]

Asset Class	Current Allocation	Policy Target Weight
Public Equity	17.6%	15.0%
Fixed Income	57.4%	60.0%
TIPS	5.5%	6.0%
REITs	10.6%	11.0%
Commodities	8.9%	8.0%
Total Fund	**100.0%**	**100.0%**

1) The Board approved new policy weights in March 2021, however, implementation will take place in Fiscal Year 2021-22. The Investment Policy will be updated to reflect the newly approved weights in the month that the new strategic asset allocation is implemented.

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ACTUARIAL SECTION

ACTUARIAL CERTIFICATIONS

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

July 2021

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, 2020.

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 Annual Comprehensive Financial Report (ACFR).

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

LEGISLATORS' RETIREMENT SYSTEM

February 2021

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, 2020, 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

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 2021

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, 2020, 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, 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.

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

Stuart Bennett, ASA, MAAA
Senior Pension Actuary, CalPERS

Tony Cuny, ASA, MAAA
Associate Pension Actuary, CalPERS

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

JUDGES' RETIREMENT SYSTEM II

February 2021

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, 2020, provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. In our opinion, this valuation has been performed in accordance with generally accepted actuarial principles, and in accordance with the standards of practice prescribed by the Actuarial Standards Board. The assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employee's Retirement Law.

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

David Clement, ASA, MAAA, EA
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 that 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 following tables:

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

	Bases Created June 30, 2019 or Later				
	(Gain)/Loss				
Driver	Investment	Non-Investment	Assumption/ Method Change	Benefit Change	Golden Handshake
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

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, 2020, 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 values 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, 2020, (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. The following is a summary of economic assumptions:

Economic Assumptions	Public Agencies	State	Schools
June 30, 2020 Funding Valuations			
Contribution Year	2022-23	2021-22	2021-22
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 2020-21 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, 2020 Funding Valuations			
Contribution Year	2021-22	2021-22	2021-22
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 2020-21 Financial Reporting			
Discount Rate	1.92%	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) 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 143 in Exhibit E.

CHANGES SINCE PRIOR VALUATION

Changes in Actuarial Assumptions
There were no changes to actuarial assumptions for the PERF. 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 2.45 percent to 1.92 percent for Fiscal Year 2020-21.

Assumptions Changes	Public Agencies	State	Schools
June 30, 2020 Funding Valuations			
Contribution Year	2022-23	2021-22	2021-22
Discount Rate/ Investment Return (net of expenses)	No change	No change	No change
Expenses	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
Fiscal Year 2020-21 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

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

SUMMARY OF FUNDING PROGRESS

UNFUNDED LIABILITY & FUNDED RATIOS

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

While no 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 130 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 132 demonstrates System solvency as measured using the System's own assumptions and liability calculation methods.

INDEPENDENT REVIEW

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

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

Actuarial Valuation Date	Actuarial Value of Assets (1)	Actuarial Accrued Liability (AAL) (Entry Age) (2)	Unfunded AAL (UAAL)/ Surplus (AVA Basis) (3) = (2) - (1)	Funded Ratio (Actuarial Value of Assets Basis) (4) = (1) / (2)	Annual Covered Payroll (5)	UAAL/ Surplus as a % of Covered Payroll (6) = (3) / (5)	Market Value of Assets (MVA) (7)	Unfunded AAL (UAAL)/ Surplus (MVA Basis) (8) = (2) - (7)	Funded Ratio (Market Value of Assets Basis) (9) = (7) / (2)
PERF (Dollars in Millions)									
06/30/20	$391,381	$554,679	$163,298	70.6%	$58,606	278.6%	$391,381	$163,298	70.6%
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%
LRF (Dollars in Thousands)									
06/30/20	$115,538	$96,348	($19,190)	119.9%	$283	(6,780.9%)	$115,538	($19,190)	119.9%
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%
JRF (Dollars in Thousands)									
06/30/20	$48,020	$3,105,001	$3,056,981	1.5%	$29,137	10,491.7%	$48,020	$3,056,981	1.5%
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%
JRF II (Dollars in Thousands)									
06/30/20	$1,885,404	$1,913,088	$27,684	98.6%	$351,443	7.9%	$1,885,404	$27,684	98.6%
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%

(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 132 for solvency test related to PERF, LRF, JRF, and JRF II.

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)								
6/30/20	$62,752	$331,654	$160,273	$554,679	$391,381	100.0%	99.1%	0.0%
6/30/19	60,326	322,055	148,785	531,166	372,778	100.0%	97.0%	—%
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%
LRF (Dollars in Thousands)								
6/30/20	$190	$95,019	$1,139	$96,348	$115,538	100.0%	100.0%	1,784.8%
6/30/19	158	97,980	992	99,130	115,796	100.0%	100.0%	1,780.0%
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%
JRF (Dollars in Thousands)								
6/30/20	$48,829	$2,830,672	$225,500	$3,105,001	$48,020	98.3%	0.0%	0.0%
6/30/19	51,927	2,860,638	260,664	3,173,229	14,081	27.1%	—	—
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%	—	—
JRF II (Dollars in Thousands)								
6/30/20	$466,344	$444,022	$1,002,722	$1,913,088	$1,885,404	100.0%	100.0%	97.2%
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%

(1) Includes accrued interest on member contributions.

EXHIBIT C: SAMPLE PAY INCREASE ASSUMPTIONS FOR INDIVIDUAL MEMBERS

Annual Percentage Increases by Duration of Service[1]

Duration of	State Miscellaneous First & Second Tier			State Industrial First & Second Tier			State Safety		
Services	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	**State Peace Officer/Firefighter**			**California Highway Patrol**			**School**		
Services	**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	**Public Agency Miscellaneous**			**Public Agency Fire**			**Public Agency Police**		
Services	**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	Public Agency County Peace Officer		
Services	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 wage 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:

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

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

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

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

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

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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:

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

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

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

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

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

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

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

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

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

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

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

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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:

	Termination with Refund		Termination with Vested Deferred Benefits	Service Retirement		Non-Industrial Death		Non-Industrial Disability	Industrial Death	Industrial Disability
YRS[1]	Vary by Service	AGE[2]	5 Years	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.

EXHIBIT D: SAMPLE NON-ECONOMIC ASSUMPTIONS (CONTINUED)

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

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

EXHIBIT E: SINGLE LIFE RETIREMENT VALUES

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

	Schools					Public Agencies and State					
	Service Retirement		Non-Industrial Disability Retirement			Service Retirement		Non-Industrial Disability Retirement		Industrial Disability Retirement	
AGE	Male	Female	Male	Female	AGE	Male	Female	Male	Female	Male	Female
50	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
6/30/2020	861,976	$58,606	$67,990	3.7%	2,890
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

EXHIBIT G: MEMBERS IN VALUATION

State Miscellaneous First & Second Tier – By Attained Age & Years of Service – June 30, 2020

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	2,912	7	—	—	—	—	2,919	$121,749,441
25-29	11,400	1,365	6	—	—	—	12,771	662,189,972
30-34	12,495	6,327	1,045	23	—	—	19,890	1,239,029,552
35-39	10,088	7,040	4,422	850	68	2	22,470	1,615,316,282
40-44	7,304	5,553	4,935	3,090	1,078	80	22,040	1,700,929,877
45-49	5,722	4,482	4,633	4,106	3,185	930	23,058	1,869,988,646
50-54	4,725	3,883	4,247	4,364	3,945	4,135	25,299	2,117,942,380
55-59	3,972	3,471	3,653	3,694	3,663	6,055	24,508	2,065,969,081
60-64	2,400	2,520	2,658	2,657	2,426	3,917	16,578	1,381,277,542
65 & up	1,308	1,482	1,644	1,504	1,176	1,981	9,095	758,418,215
Total	**62,326**	**36,130**	**27,243**	**20,288**	**15,541**	**17,100**	**178,628**	**$13,532,810,988**

(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, 2020

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	251	1	—	—	—	—	252	$9,318,793
25-29	920	122	1	—	—	—	1,043	46,625,316
30-34	958	389	145	1	—	—	1,493	83,207,374
35-39	749	454	404	53	—	—	1,660	102,681,468
40-44	542	361	416	147	52	2	1,520	103,004,025
45-49	485	342	392	199	159	49	1,626	114,591,100
50-54	368	319	418	221	204	154	1,684	121,912,384
55-59	268	270	371	181	173	158	1,421	99,869,553
60-64	160	143	235	114	92	74	818	56,277,487
65 & up	57	93	95	59	48	30	382	27,896,259
Total	**4,758**	**2,494**	**2,477**	**975**	**728**	**467**	**11,899**	**$765,383,759**

(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, 2020

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	415	1	—	—	—	—	416	$18,941,266
25-29	1,613	174	—	—	—	—	1,787	103,304,694
30-34	2,210	958	169	3	—	—	3,340	238,133,684
35-39	1,954	1,212	621	95	2	—	3,884	299,588,914
40-44	1,547	1,086	972	280	35	—	3,920	327,218,265
45-49	1,388	1,050	1,120	509	151	12	4,230	381,604,538
50-54	1,201	937	1,037	585	300	87	4,147	373,384,611
55-59	939	783	955	537	258	107	3,579	319,571,099
60-64	473	607	745	429	200	101	2,555	244,723,610
65 & up	186	286	475	266	163	73	1,449	161,384,888
Total	**11,926**	**7,094**	**6,094**	**2,704**	**1,109**	**380**	**29,307**	**$2,467,855,569**

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

EXHIBIT G: MEMBERS IN VALUATION (CONTINUED)

California Highway Patrol – By Attained Age & Years of Service – June 30, 2020

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	83	—	—	—	—	—	83	$7,993,607
25-29	573	68	—	—	—	—	641	70,856,078
30-34	420	296	246	—	—	—	962	115,513,636
35-39	219	234	768	115	—	—	1,336	170,044,064
40-44	24	119	550	541	185	1	1,420	190,210,952
45-49	1	34	266	511	620	231	1,663	234,718,044
50-54	—	1	17	179	334	251	782	115,038,734
55-59	1	1	2	5	47	84	140	21,562,176
60-64	—	—	—	—	—	—	—	—
65 & up	—	—	—	—	—	—	—	—
Total	**1,321**	**753**	**1,849**	**1,351**	**1,186**	**567**	**7,027**	**$925,937,291**

(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.

State Peace Officer/Firefighter – By Attained Age & Years of Service – June 30, 2020

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	1,376	2	—	—	—	—	1,378	$66,765,837
25-29	4,139	908	—	—	—	—	5,047	343,409,316
30-34	3,225	2,192	403	—	—	—	5,820	455,748,293
35-39	1,677	1,630	2,940	531	3	—	6,781	616,545,308
40-44	804	892	2,309	2,221	662	4	6,892	679,052,223
45-49	450	546	1,607	1,885	2,274	601	7,363	772,966,983
50-54	245	297	981	1,120	1,360	844	4,847	519,089,381
55-59	121	169	566	602	574	434	2,466	257,258,544
60-64	37	70	201	230	228	183	949	98,563,266
65 & up	7	24	54	63	45	51	244	25,217,604
Total	**12,081**	**6,730**	**9,061**	**6,652**	**5,146**	**2,117**	**41,787**	**$3,834,616,755**

(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, 2020

Attained Age	Distribution of Active Members by Age & Service Years of Service at Valuation Date						Total	Total Valuation Payroll[1]
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 & up		
15-24	11,163	74	—	—	—	—	11,237	$299,636,814
25-29	26,257	2,495	15	—	—	—	28,767	949,670,572
30-34	23,487	8,025	1,700	45	—	—	33,257	1,325,965,104
35-39	19,764	8,878	5,659	1,771	78	—	36,150	1,614,941,946
40-44	17,403	8,040	6,561	4,670	1,604	43	38,321	1,785,937,913
45-49	15,725	8,400	6,678	5,515	3,612	868	40,798	1,914,919,011
50-54	13,556	9,059	7,922	6,375	4,571	3,096	44,579	2,122,441,936
55-59	10,451	8,587	8,836	7,557	5,421	5,190	46,042	2,223,210,893
60-64	6,083	5,788	6,600	6,069	4,475	4,002	33,017	1,561,841,041
65 & up	3,074	2,930	3,256	2,829	2,027	1,971	16,087	688,259,250
Total	**146,963**	**62,276**	**47,227**	**34,831**	**21,788**	**15,170**	**328,255**	**$14,486,824,480**

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

EXHIBIT G: MEMBERS IN VALUATION (CONTINUED)

Public Agency Miscellaneous – By Attained Age & Years of Service – June 30, 2020

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	5,044	28	—	—	—	—	5,072	$214,049,952
25-29	16,154	1,698	18	—	—	—	17,870	972,214,737
30-34	18,121	6,495	1,421	65	3	—	26,105	1,693,708,018
35-39	14,862	7,741	5,317	1,637	97	3	29,657	2,221,876,577
40-44	11,220	6,334	5,851	4,364	1,381	97	29,247	2,402,754,620
45-49	8,689	5,049	5,324	5,027	3,332	996	28,417	2,463,592,364
50-54	7,043	4,416	4,761	4,955	3,946	3,568	28,689	2,575,279,100
55-59	5,394	3,817	4,284	4,325	3,331	4,466	25,617	2,285,462,529
60-64	3,052	2,458	2,772	3,015	2,278	2,945	16,520	1,434,015,216
65 & up	1,342	1,200	1,350	1,426	1,060	1,352	7,730	628,705,659
Total	**90,921**	**39,236**	**31,098**	**24,814**	**15,428**	**13,427**	**214,924**	**$16,891,658,772**

(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, 2020

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	1,600	6	—	—	—	—	1,606	$109,194,402
25-29	5,715	850	—	—	—	—	6,565	558,179,815
30-34	4,707	3,039	702	2	—	—	8,450	828,137,653
35-39	2,365	2,472	3,265	782	4	—	8,888	994,479,117
40-44	1,037	1,141	2,633	3,040	594	4	8,449	1,038,055,671
45-49	544	542	1,500	2,640	2,485	585	8,296	1,096,927,428
50-54	311	276	634	1,213	1,497	1,283	5,214	722,199,928
55-59	177	107	185	383	487	644	1,983	267,414,248
60-64	56	38	66	110	89	186	545	67,652,849
65 & up	20	22	21	16	17	57	153	18,434,501
Total	**16,532**	**8,493**	**9,006**	**8,186**	**5,173**	**2,759**	**50,149**	**$5,700,675,612**

(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: Number	Added to Rolls: Annual Allowances	Removed from Rolls: Number	Removed from Rolls: Annual Allowances	Rolls – End of Year: Number	Rolls – End of Year: Annual Allowances	% Increase/ (Decrease) in Annual Allowances	Average Annual Allowance
PERF								
6/30/21	49,198	$1,936,346,603	25,664	$677,349,858	763,483	$25,826,988,570	5.1%	$33,828
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
LRF								
6/30/21	6	$211,612	15	$468,508	174	$6,158,637	(4.0%)	$35,394
6/30/20	5	150,301	22	558,470	183	6,415,533	(6.0%)	35,058
6/30/19	14	482,883	14	314,651	200	6,823,702	2.5%	34,119
6/30/18	—	—	8	293,767	200	6,655,470	(4.2%)	33,277
6/30/17[1]	8	342,858	16	592,323	208	6,949,237	(3.5%)	33,410
6/30/16[1]	3	86,709	8	250,007	216	7,198,702	(2.2%)	33,327
6/30/15[1]	6	233,438	9	592,552	221	7,362,000	0.9%	33,312
6/30/14[2]	1	13,000	10	434,000	224	7,297,000	(5.0%)	32,576
6/30/13[2]	2	133,000	14	587,000	233	7,680,000	(2.4%)	31,347
JRF								
6/30/21	60	$5,667,505	100	$11,241,363	1,726	$161,646,252	(3.3%)	$93,654
6/30/20	42	4,015,220	73	8,207,420	1,766	167,220,110	(2.4%)	94,689
6/30/19	66	6,271,344	84	15,446,222	1,797	171,412,310	(5.1%)	95,388
6/30/18	74	7,011,721	96	9,836,577	1,815	180,587,188	(1.5%)	99,497
6/30/17[1]	83	6,500,928	106	11,047,170	1,837	183,412,044	(2.4%)	99,843
6/30/16[1]	68	4,719,741	80	8,389,989	1,860	187,958,286	0.6%	101,053
6/30/15[1]	102	9,011,281	84	7,820,995	1,872	186,768,000	2.4%	99,769
6/30/14[2]	55	6,608,000	68	6,696,000	1,854	182,464,000	(1.3%)	98,416
6/30/13[2]	49	6,082,000	74	7,383,000	1,867	184,952,000	1.7%	99,064
JRF II								
6/30/21	88	$10,134,604	12	$1,328,180	373	$36,744,116	31.5%	$98,510
6/30/20	41	4,827,219	6	570,590	297	27,937,692	18.0%	94,066
6/30/19	55	6,043,661	4	536,208	262	23,681,063	30.3%	90,386
6/30/18	57	6,710,581	3	231,646	211	18,173,610	55.4%	86,131
6/30/17[1]	41	4,654,642	1	125,977	157	11,694,675	63.2%	74,488
6/30/16[1]	30	2,479,659	3	260,218	117	7,166,010	49.9%	61,248
6/30/15[1]	27	2,551,990	2	164,980	90	4,779,000	35.7%	53,100
6/30/14[2]	20	1,648,000	3	378,000	65	3,522,700	13.9%	54,195
6/30/13[2]	13	1,172,000	2	232,000	48	3,093,000	43.9%	64,438

(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 B[1] (Dollars in Millions)

	2020	2019
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$31,351	$27,225
b) Expected Payment on the UAL	1,627	1255
c) Interest	2,139	1,929
d) Expected UAL Before Other Changes [1a - 1b + 1c]	**$31,863**	**$27,899**
e) Change Due to Plan Changes	$0	$0
f) Change Due to Assumption Changes	—	2,598
g) Expected UAL After All Changes	**$31,863**	**$30,497**
h) Actual UAL as of June 30	$32,662	$31,351
i) Total (Gain)/Loss [1h - 1g]	**$799**	**$854**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$4,144	$3,466
b) Actual Contributions	4,952	3,509
c) Contributions (Gain)/Loss [2a - 2b]	**($808)**	**($43)**
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	$68,177	$64,846
b) Prior Fiscal Year Receivables	(106)	(104)
c) Current Fiscal Year Receivables	105	106
d) Contributions Received	4,787	3,509
e) Benefits and Refunds Paid	(4,671)	(4,347)
f) Transfers and Miscellaneous Adjustments	32	31
g) Expected Interest	4,770	4,665
h) Expected Assets as of June 30 [3a + 3b + 3c + 3d + 3e + 3f + 3g]	**$73,094**	**$68,706**
i) Market Value of Assets as of June 30	$71,400	$68,177
j) Asset (Gain)/Loss [3h - 3i]	**$1,694**	**$529**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	$799	$854
b) Contribution (Gain)/Loss (2c)	(808)	(43)
c) Asset (Gain)/Loss (3j)	1,694	529
d) Liability (Gain)/Loss [4a - 4b - 4c]	**($87)**	**$368**

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

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

PERF C[1] (Dollars in Millions)

	2020	2019
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$11,274	$10,893
b) Expected Payment on the UAL	1,032	771
c) Interest	754	736
d) Expected UAL Before Other Changes [1a - 1b + 1c]	**$10,996**	**$10,858**
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	2	1
h) Transfers Into Risk Pool	144	82
i) Change Due to Assumption Change	—	—
j) Change Due to Method Change	—	—
k) Change Due to Excessive Liability	1	1
l) Expected UAL After All Other Changes [1d + 1e + 1f + 1g + 1h + 1i + 1j + 1k]	**$11,144**	**$10,943**
m) Actual UAL as of June 30	$12,060	$11,274
n) Total (Gain)/Loss [1m-1l]	**$916**	**$331**
2) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	$31,383	$29,500
b) Transfers Out of Pool	—	—
c) Transfers Into Pool	361	185
d) Adjusted MVA at Beginning of Year [2a + 2b + 2c]	**$31,744**	**$29,685**
e) Receivables Prior Year	($42)	($45)
f) Receivables Current Year	39	42
g) Contributions Received	1,985	1,678
h) Benefits and Refunds Paid	(2,077)	(1,908)
i) Transfers and Miscellaneous Adjustments	(8)	18
j) Expected Interest	2,216	2,067
k) Expected Assets as of June 30 [2d + 2e + 2f + 2g + 2h + 2i + 2j]	**$33,857**	**$31,537**
l) Market Value of Assets as of June 30	$33,075	$31,383
m) Asset (Gain)/Loss [2k - 2l]	**$782**	**$154**
3) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1n)	$916	$331
b) Asset (Gain)/Loss (2m)	782	154
c) Liability (Gain)/Loss [3a - 3b]	**$134**	**$177**

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

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

LRF[1] (Dollars in Thousands)

	2020	2019
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	($16,666)	($16,558)
b) Expected Payment on the UAL	15	9
c) Interest	(833)	(828)
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	**($17,514)**	**($17,395)**
e) Change Due to Revised Actuarial Methods	$0	$0
f) Change Due to New Actuarial Assumptions	—	—
g) Expected UAL After All Changes [1d + 1e + 1f]	**($17,514)**	**($17,395)**
h) Actual UAL as of June 30	($19,190)	($16,666)
i) Total (Gain)/Loss [1h - 1g]	**($1,676)**	**$729**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$119	$299
b) Interest on Expected Contributions	3	7
c) Actual Contributions	120	341
d) Interest on Actual Contributions	3	8
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	**($1)**	**($43)**
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	$115,796	$115,484
b) Contributions Received	120	341
c) Benefits and Refunds Paid and Administrative Costs	(6,939)	(7,350)
d) Transfers, SCP Payments and Interest, and Miscellaneous Adjustments	2	—
e) Expected Interest	5,621	5,601
f) Expected Assets as of June 30 [3a + 3b + 3c + 3d + 3e]	**$114,600**	**$114,076**
g) Market Value of Assets as of June 30	$115,538	$115,796
h) Asset (Gain)/Loss [3f - 3g]	**($938)**	**($1,720)**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	($1,676)	$729
b) Contribution (Gain)/Loss (2e)	(1)	(43)
c) Asset (Gain)/Loss (3h)	(938)	(1,720)
d) Liability (Gain)/Loss [4a - 4b - 4c]	**($737)**	**$2,492**

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

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

JRF[1] (Dollars in Thousands)

	2020	2019
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$3,159,148	$3,276,038
b) Expected Pay as You Go Excluding Normal Cost	191,392	187,408
c) Interest	91,924	95,491
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	**$3,059,680**	**$3,184,121**
e) Change Due to Revised Actuarial Methods	—	—
f) Change Due to New Actuarial Assumptions	—	—
g) Expected UAL After All Changes [1d + 1e + 1f]	**$3,059,680**	**$3,184,121**
h) Actual UAL as of June 30	$3,056,981	$3,159,148
i) Total (Gain)/Loss [1h - 1g]	**($2,699)**	**($24,973)**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$210,046	$209,653
b) Interest on Expected Contributions	3,127	3,121
c) Actual Contributions	245,974	198,582
d) Interest on Actual Contributions	3,662	2,957
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	**($36,463)**	**$11,235**
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	$14,081	$44,491
b) Contributions Received	245,974	198,582
c) Benefits and Refunds Paid and Administrative Costs	(213,234)	(232,934)
d) Transfers, SCP, and Miscellaneous Adjustments	2,202	2,776
e) Expected Interest	943	865
f) Expected Assets as of June 30 [3a + 3b + 3c + 3d + 3e]	**$49,966**	**$13,780**
g) Market Value of Assets as of June 30	$48,020	$14,081
h) Asset (Gain)/Loss [3f - 3g]	**$1,946**	**($301)**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	($2,699)	($24,973)
b) Contribution (Gain)/Loss (2e)	(36,463)	11,235
c) Asset (Gain)/Loss (3h)	1,946	(301)
d) Liability (Gain)/Loss [4a - 4b - 4c]	**$31,818**	**($35,907)**

(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.

EXHIBIT I: ANALYSIS OF FINANCIAL EXPERIENCE (CONTINUED)

JRF II[1] (Dollars in Thousands)

	2020	2019
1) Total (Gain)/Loss for the Year		
a) Unfunded Accrued Liability (UAL) as of June 30	$10,821	$22,805
b) Expected Payment on the UAL	2,827	211
c) Interest	613	1,476
d) Expected UAL Before All Other Changes [1a - 1b + 1c]	**$8,607**	**$24,070**
e) Change Due to Revised Actuarial Methods	$0	$0
f) Change Due to New Actuarial Assumptions	—	—
g) Expected UAL After All Changes [1d + 1e + 1f]	**$8,607**	**$24,070**
h) Actual UAL as of June 30	$27,684	$10,821
i) Total (Gain)/Loss [1h - 1g]	**$19,077**	**($13,249)**
2) Contribution (Gain)/Loss for the Year		
a) Expected Contributions	$120,415	$107,882
b) Interest on Expected Contributions	3,852	3,451
c) Actual Contributions	126,943	115,475
d) Interest on Actual Contributions	4,061	3,694
e) Contributions (Gain)/Loss [(2a + 2b) - (2c + 2d)]	**($6,737)**	**($7,836)**
3) Asset (Gain)/Loss for the Year		
a) Market Value of Assets as of June 30	$1,715,056	$1,531,543
b) Contributions Received	126,943	115,475
c) Benefits and Refunds Paid and Administrative Costs	(34,547)	(36,205)
d) Expected Interest	114,434	102,086
e) Expected Assets as of June 30 [3a + 3b + 3c + 3d]	**$1,921,886**	**$1,712,899**
f) Market Value of Assets as of June 30	$1,885,404	$1,715,056
g) Asset (Gain)/Loss [3e - 3f]	**$36,482**	**($2,157)**
4) Liability (Gain)/Loss for the Year		
a) Total (Gain)/Loss (1i)	$19,077	($13,249)
b) Contribution (Gain)/Loss (2e)	(6,737)	(7,836)
c) Asset (Gain)/Loss (3g)	36,482	(2,157)
d) Liability (Gain)/Loss [4a - 4b - 4c]	**($10,668)**	**($3,256)**

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

STATISTICAL SECTION

Statistical Section

INTRODUCTION

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

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

The information in this section is obtained from annual comprehensive 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, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Member	$4,757,000	$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
Employer	20,034,757	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
Nonemployer Contribution	—	904,000	—	—	—	—	—	—	—	—
Investment Income/(Loss)	88,059,909	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)
Plan-to-Plan Resource Movement	348,384	185,907	167,612	116,552	134,661	49,803	469,688	—	—	—
Miscellaneous Income	113,411	109,104	111,079	121,573	153,008	149,494	123,978	126,223	7,176	7,070
TOTAL ADDITIONS	**$113,313,461**	**$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**
DEDUCTIONS										
Benefit Payments	$27,415,194	$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
Refund of Contributions	287,556	323,180	280,266	286,979	222,275	238,821	240,623	236,968	242,595	218,082
Administrative Expenses	392,119	524,451	252,558	505,513	441,283	184,426	340,880	381,497	426,077	380,404
Plan-to-Plan Resource Movement	348,384	185,907	167,612	116,552	134,661	49,803	469,688	—	—	—
TOTAL DEDUCTIONS	**$28,443,253**	**$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**
CHANGE IN NET POSITION	**$84,870,208**	**$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)**
NET POSITION										
Beginning of Year	**$392,452,541**	**$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**
End of Year	**$477,322,749**	**$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**

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

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

LRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Member	$21	$22	$91	$82	$94	$97	$105	$113	$31	$0
Employer	92	98	250	467	516	549	590	565	80	—
Investment Income/(Loss)	15,098	7,011	7,860	5,458	5,006	4,511	(125)	15,332	6,974	7,761
Miscellaneous Income	—	2	—	28	42	34	31	40	—	—
TOTAL ADDITIONS	**$15,211**	**$7,133**	**$8,201**	**$6,035**	**$5,658**	**$5,191**	**$601**	**$16,050**	**$7,085**	**$7,761**
DEDUCTIONS										
Benefit Payments	$6,761	$6,939	$7,005	$6,918	$6,960	$7,028	$7,393	$7,482	$7,548	$7,659
Refund of Contributions	—	—	344	—	289	379	1,693	—	—	202
Administrative Expenses	450	550	324	671	575	203	400	362	418	347
TOTAL DEDUCTIONS	**$7,211**	**$7,489**	**$7,673**	**$7,589**	**$7,824**	**$7,610**	**$9,486**	**$7,844**	**$7,966**	**$8,208**
CHANGE IN NET POSITION	**$8,000**	**($356)**	**$528**	**($1,554)**	**($2,166)**	**($2,419)**	**($8,885)**	**$8,206**	**($881)**	**($447)**
NET POSITION										
Beginning of Year	**$114,048**	**$114,404**	**$113,876**	**$115,430**[1]	**$119,050**	**$121,469**	**$130,354**	**$122,148**	**$123,029**	**$123,476**
End of Year	**$122,048**	**$114,048**	**$114,404**	**$113,876**	**$116,884**	**$119,050**	**$121,469**	**$130,354**	**$122,148**	**$123,029**

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

JRF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Member	$2,146	$2,843	$2,679	$3,062	$3,398	$3,559	$3,877	$4,724	$4,909	$5,796
Employer	225,824	243,131	195,903	199,241	204,475	192,287	180,910	191,148	161,945	196,402
Investment Income	163	885	1,166	845	424	194	88	54	76	80
Miscellaneous Income	2,462	2,202	2,776	2,533	2,395	2,568	2,198	2,529	2,694	2,877
TOTAL ADDITIONS	**$230,595**	**$249,061**	**$202,524**	**$205,681**	**$210,692**	**$198,608**	**$187,073**	**$198,455**	**$169,624**	**$205,155**
DEDUCTIONS										
Benefit Payments	$210,951	$212,775	$221,954	$207,815	$200,440	$199,271	$201,734	$193,925	$187,084	$185,428
Refund of Contributions	—	458	—	8	—	78	134	10	—	17
Administrative Expenses	1,731	2,270	10,032	2,106	1,771	642	1,227	1,141	1,413	1,163
TOTAL DEDUCTIONS	**$212,682**	**$215,503**	**$231,986**	**$209,929**	**$202,211**	**$199,991**	**$203,095**	**$195,076**	**$188,497**	**$186,608**
CHANGE IN NET POSITION	**$17,913**	**$33,558**	**($29,462)**	**($4,248)**	**$8,481**	**($1,383)**	**($16,022)**	**$3,379**	**($18,873)**	**$18,547**
NET POSITION										
Beginning of Year	**$43,727**	**$10,169**	**$39,631**	**$43,879**[1]	**$39,794**	**$41,177**	**$57,199**	**$53,820**	**$72,693**	**$54,146**
End of Year	**$61,640**	**$43,727**	**$10,169**	**$39,631**	**$48,275**	**$39,794**	**$41,177**	**$57,199**	**$53,820**	**$72,693**

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

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

JRF II Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Member	$34,094	$35,796	$31,376	$27,513	$25,076	$24,598	$22,242	$20,413	$18,819	$18,757
Employer	84,147	91,147	84,099	79,699	67,102	65,839	65,629	57,027	54,025	53,711
Investment Income/(Loss)	463,478	80,074	106,781	101,244	114,331	20,213	(2,863)	149,679	79,214	13,947
Miscellaneous Income	—	—	—	576	726	597	462	489	—	—
TOTAL ADDITIONS	**$581,719**	**$207,017**	**$222,256**	**$209,032**	**$207,235**	**$111,247**	**$85,470**	**$227,608**	**$152,058**	**$86,415**
DEDUCTIONS										
Benefit Payments	$61,613	$34,547	$36,045	$31,745	$22,326	$21,549	$14,024	$8,865	$10,518	$3,536
Refund of Contributions	381	—	159	50	80	155	16	85	58	2,604
Administrative Expenses	1,703	2,552	1,477	2,370	1,683	732	1,127	785	899	725
TOTAL DEDUCTIONS	**$63,697**	**$37,099**	**$37,681**	**$34,165**	**$24,089**	**$22,436**	**$15,167**	**$9,735**	**$11,475**	**$6,865**
CHANGE IN NET POSITION	**$518,022**	**$169,918**	**$184,575**	**$174,867**	**$183,146**	**$88,811**	**$70,303**	**$217,873**	**$140,583**	**$79,550**
NET POSITION										
Beginning of Year	**$1,880,007**	**$1,710,089**	**$ 1,525,514**	**$1,350,647**[1]	**$1,172,953**	**$1,084,142**	**$1,013,839**	**$795,966**	**$655,383**	**$575,833**
End of Year	**$2,398,029**	**$1,880,007**	**$1,710,089**	**$1,525,514**	**$1,356,099**	**$1,172,953**	**$1,084,142**	**$1,013,839**	**$795,966**	**$655,383**

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

DCF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Member	$127,135	$150,108	$251,102	$112,586	$110,258	$106,072	$106,272	$131,900	$99,977	$104,333
Employer	—	—	—	977	962	909	783	698	455	80
Investment Income	479,324	71,266	92,546	108,821	132,305	7,541	32,735	164,384	114,471	4,872
Miscellaneous Income	6,212	7,192	6,590	6,306	5,583	5,354	6,260	5,258	—	225
TOTAL ADDITIONS	**$612,671**	**$228,566**	**$350,238**	**$228,690**	**$249,108**	**$119,876**	**$146,050**	**$302,240**	**$214,903**	**$109,510**
DEDUCTIONS										
Participant Withdrawals	$205,540	$128,159	$156,796	$168,064	$90,333	$164,362	$88,973	$97,388	$82,587	$73,025
Administrative Expenses	4,466	5,217	4,202	5,296	4,576	4,677	4,320	4,101	3,467	3,131
TOTAL DEDUCTIONS	**$210,006**	**$133,376**	**$160,998**	**$173,360**	**$94,909**	**$169,039**	**$93,293**	**$101,489**	**$86,054**	**$76,156**
CHANGE IN NET POSITION	**$402,665**	**$95,190**	**$189,240**	**$55,330**	**$154,199**	**($49,163)**	**$52,757**	**$200,751**	**$128,849**	**$33,354**
NET POSITION										
Beginning of Year	**$1,780,176**	**$1,684,986**	**$1,495,746**	**$1,440,416**[1]	**$1,290,407**	**$1,339,570**	**$1,286,813**	**$1,086,062**	**$957,213**[1]	**$947,062**
End of Year	**$2,182,841**	**$1,780,176**	**$1,684,986**	**$1,495,746**	**$1,444,606**	**$1,290,407**	**$1,339,570**	**$1,286,813**	**$1,086,062**	**$980,416**

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

CHANGES IN FIDUCIARY NET POSITION – RETIREMENT PROGRAMS (CONTINUED)

SCPF Changes in Fiduciary Net Position, for the fiscal year ended June 30, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Member	$343	$254	$251	$252	$246	$269	$127,833	$160	$164	$208
Investment Income	22,713	5,495	5,360	4,362	6,890	416	1,058	2,077	2,051	3
Miscellaneous Income	87	93	337	619	628	668	305	111	—	—
TOTAL ADDITIONS	**$23,143**	**$5,842**	**$5,948**	**$5,233**	**$7,764**	**$1,353**	**$129,196**	**$2,348**	**$2,215**	**$211**
DEDUCTIONS										
Participant Withdrawals	$5,484	$6,137	$7,749	$9,046	$11,041	$16,130	$15,751	$1,013	$1,448	$1,219
Administrative Expenses	264	327	283	398	373	330	135	62	58	63
TOTAL DEDUCTIONS	**$5,748**	**$6,464**	**$8,032**	**$9,444**	**$11,414**	**$16,460**	**$15,886**	**$1,075**	**$1,506**	**$1,282**
Interfund Transfer In	$0	$0	$0	$0	$0	$5,582	$0	$0	$0	$0
CHANGE IN NET POSITION	**$17,395**	**($622)**	**($2,084)**	**($4,211)**	**($3,650)**	**($9,525)**	**$113,310**	**$1,273**	**$709**	**($1,071)**
NET POSITION										
Beginning of Year	**$113,429**	**$114,051**	**$116,135**	**$120,346**[1]	**$124,354**	**$133,879**	**$20,569**	**$19,296**	**$18,587**	**$19,658**
End of Year	**$130,824**	**$113,429**	**$114,051**	**$116,135**	**$120,704**	**$124,354**	**$133,879**	**$20,569**	**$19,296**	**$18,587**

(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, 2021 – 2-Year Review[1] (Dollars in Thousands)

	2021	2020
ADDITIONS		
Employer	$45,764	$10,523
Investment Income	2,995	502
Miscellaneous Income	53	10
TOTAL ADDITIONS	**$48,812**	**$11,035**
DEDUCTIONS		
Employer Withdrawals	$1,707	$0
Administrative Expenses	16	96
TOTAL DEDUCTIONS	**$1,723**	**$96**
CHANGE IN NET POSITION	**$47,089**	**$10,939**
NET POSITION		
Beginning of Year	**$10,939**	**$0**
End of Year	**$58,028**	**$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, 2021 – 10-Year Review (Dollars in Thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
ADDITIONS										
Employer	$4,079,904	$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
Investment Income/ (Loss)	3,091,811	402,609	568,801	530,189	559,967	76,638	(13,988)	515,507	237,710	8,066
Miscellaneous Income	11,704	9,094	7,490	6,985	5,599	4,048	4,932	4,483	—	—
TOTAL ADDITIONS	**$7,183,419**	**$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**
DEDUCTIONS										
OPEB Reimbursements & Employer Withdrawals	$3,244,257	$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
Administrative Expenses	4,544	5,161	1,882	3,862	3,014	1,559	2,044	1,786	2,062	1,910
TOTAL DEDUCTIONS	**$3,248,801**	**$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**
CHANGE IN NET POSITION	**$3,934,618**	**$1,888,634**	**$1,521,133**	**$1,511,868**	**$1,669,101**	**$629,844**	**$603,584**	**$1,178,333**	**$632,193**	**$211,546**
NET POSITION										
Beginning of Year	**$11,703,939**	**$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**
End of Year	**$15,638,557**	**$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) 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, 2021 – 5-Year Review[1] (Dollars in Thousands)

	2021	2020	2019	2018	2017
ADDITIONS					
Replacement Benefits	$35,594	$29,125	$25,756	$22,487	$20,573
Investment Income	85	276	301	163	168
Miscellaneous Income	—	256	482	444	239
TOTAL ADDITIONS	**$35,679**	**$29,657**	**$26,539**	**$23,094**	**$20,980**
DEDUCTIONS					
Replacement Benefit Payments	$35,594	$29,125	$25,756	$22,487	$20,573
Administrative Expenses	605	246	450	450	239
TOTAL DEDUCTIONS	**$36,199**	**$29,371**	**$26,206**	**$22,937**	**$20,812**
CHANGE IN NET POSITION	**($520)**	**$286**	**$333**	**$157**	**$168**
NET POSITION					
Beginning of Year	**$944**	**$658**	**$325**	**$168**	**$0**[2]
End of Year	**$424**	**$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, 2021 – 3-Year Review[1] (Dollars in Thousands)

	2021	2020	2019
ADDITIONS			
Investment Income	$11	$21	$1
Other Income	2,344	2,012	—
TOTAL ADDITIONS	**$2,355**	**$2,033**	**$1**
DEDUCTIONS			
Administrative Expenses	$508	$1,178	$667
TOTAL DEDUCTIONS	**$508**	**$1,178**	**$667**
CHANGE IN NET POSITION	**$1,847**	**$855**	**($666)**
NET POSITION			
Beginning of Year	**$1,892**	**$1,037**	**$0**
Adjustments	$0	$0	$1,703
End of Year	**$3,739**	**$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 – Seven-Year Review

	2021	2020	2019	2018	2017	2016	2015
ACTIVE & INACTIVE MEMBERS							
STATE MEMBERS							
State Miscellaneous – Classic	172,118	181,136	189,514	200,645	216,008	216,647	233,574
State Miscellaneous – PEPRA	117,158	104,049	90,313	76,222	59,617	44,057	29,009
State Safety – Classic	53,433	57,897	60,807	64,165	68,086	68,020	64,167
State Safety – PEPRA	39,870	35,783	30,786	26,540	22,051	16,991	11,054
Total State Members	**382,579**	**378,865**	**371,420**	**367,572**	**365,762**	**345,715**	**337,804**
PUBLIC AGENCY MEMBERS							
School – Miscellaneous – Classic	302,943	318,039	332,074	348,372	376,546	396,832	422,114
School – Miscellaneous – PEPRA	240,629	224,606	200,455	167,654	137,356	102,550	67,363
Public Agency – Miscellaneous – Classic	183,830	194,781	204,679	216,445	231,458	241,605	269,528
Public Agency – Miscellaneous – PEPRA	154,258	140,641	123,966	103,226	84,913	64,234	46,091
Public Agency – Safety – Classic	38,575	41,121	43,263	45,704	48,596	50,372	54,825
Public Agency – Safety – PEPRA	23,863	21,500	18,397	15,345	12,769	9,601	6,896
Total Public Agency Members	**944,098**	**940,688**	**922,834**	**896,746**	**891,638**	**865,194**	**866,817**
TOTAL ACTIVE & INACTIVE MEMBERS[1]	**1,326,677**	**1,319,553**	**1,294,254**	**1,264,318**	**1,257,400**	**1,210,909**	**1,204,621**
BENEFIT RECIPIENTS							
Retired							
Classic	648,773	631,344	614,257	595,483	576,228	557,679	530,725
PEPRA	3,530	2,125	1,145	534	284	166	90
Survivors and Beneficiaries							
Classic	98,045	98,897	96,570	98,457	91,488	90,774	80,250
PEPRA	270	163	143	96	59	26	13
TOTAL BENEFIT RECIPIENTS[2]	**750,618**	**732,529**	**712,115**	**694,570**	**668,059**	**648,645**	**611,078**
TOTAL MEMBERS AND BENEFIT RECIPIENTS	**2,077,295**	**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.

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

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

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

(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 Benefit[1] – For State Members in Bargaining Units Contracting for this Benefit
Not Eligible to Retire, With 20 Years or More of State Service Credit – a monthly allowance payable to a surviving spouse or registered domestic partner until death, then to children under age 18. It is calculated similarly to pre-retirement Option 2W (if the beneficiary is a spouse or registered domestic partner), or like a 1957 Survivor Benefit (if the beneficiary is a minor child), as though the member had been old enough to retire. A spouse or registered domestic partner or minor child may receive continued health and dental insurance with the Alternate Death Benefit. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Pre-Retirement Option 2W Benefit[1] – For All State Members, Married, or Registered Domestic Partnership
A monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to 100 percent of the option portion had the member retired on their date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit[1] – For All State Members, Not Married, or No Registered Domestic Partnership
For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1959 Survivor Benefit – State Members
A monthly benefit paid to survivors of deceased members who died prior to retirement. This benefit is similar to the Social Security Survivor Benefit and is paid in addition to any other applicable pre-retirement survivor benefit, except the Special Death Benefit.

Special Death Benefit[1] – Survivors of State, State Industrial, State Peace Officer/Firefighter Members, State Miscellaneous[2]
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 Benefit[3] – 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 Benefit[1] – School Members, Married, or Registered Domestic Partnership
For all members eligible to retire who are married or in a registered domestic partnership, a monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit – For All School Members, Not Married, or No Registered Domestic Partnership
For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.
(2) The 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 Benefit[1] – Local Agency Members, Married, or Registered Domestic Partnership

For all members eligible to retire who are married or in a registered domestic partnership, a monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1957 Survivor Benefit – For All Local Agency Members, Not Married, or No Registered Domestic Partnership

For members eligible to retire who are not married or in a registered domestic partnership, a monthly allowance payable to the unmarried surviving minor children until age 18, equal to one-half of the highest allowance (unmodified) the member would have received had they retired on the date of death. Once allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

1959 Survivor Benefit – Local Agency Members Not Coordinated With Social Security by Contract Option Amendment

A monthly benefit paid to survivors of deceased members who died prior to retirement. This benefit is similar to the Social Security Survivor Benefit and is paid in addition to any other applicable pre-retirement death benefit, except the Special Death Benefit.

Alternate Death Benefit for Firefighters – Local Agencies by Contract With 20 Years or More of Total Service Credit

A monthly non-job-related allowance payable to a surviving spouse or registered domestic partner until death, then to children under age 18. It is calculated similarly to Pre-Retirement Option 2W (if the beneficiary is a spouse or registered domestic partner, even if the agency does not contract separately for the Pre-Retirement Option 2W benefit), or like a 1957 Survivor Benefit (if the beneficiary is a minor child), as though the member had either been old enough to retire (if the member died before reaching retirement age), or based on the member's actual age if the member was eligible to retire at the time of death. This benefit applies to all service credit earned by the member, including service that may have been earned with a local agency that does not contract for the Alternate Death Benefit, as long as the member was employed at the time of death by a local agency that provides this benefit in their contract. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

Pre-Retirement Option 2W Benefit – Local Agencies by Contract, Married, or Registered Domestic Partnership

A monthly allowance payable to the surviving spouse or registered domestic partner until death, then to children under age 18, equal to 100 percent of the option portion had the member retired on their date of death. Once the allowance stops, the total allowance paid is compared with the Basic Death Benefit amount, and any difference is paid in a lump sum to all of the member's surviving children.

(1) The surviving spouse or registered domestic partner of other than a state member, or a guardian of a minor child, may elect the Basic Death Benefit or the 1957 Survivor Benefit. The surviving spouse or registered domestic partner of a state member may elect the Basic Death Benefit or the Pre-Retirement Option 2W Death Benefit.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Special Death Benefit[1] – Survivors of Patrol, Local Safety & Local Miscellaneous by Contract Amendment[2]
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 Benefit[3] – 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 retirement[4] or terminate membership by electing to take a refund of member contributions plus interest (compounded annually). With a refund election, CalPERS is required to deduct federal withholding of 20 percent from the untaxed portion of the refund, unless the taxable portion is directly rolled over to a qualified plan or Individual Retirement Account (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.

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, 2021

Employer/Category	Plan Type	Active[1]	Inactive	Retired[2]	Survivors & Beneficiaries[3]	Total
STATE						
Miscellaneous – Classic[4]	PERF A	103,954	68,164	158,593	27,534	358,245
Miscellaneous – PEPRA[4]	PERF A	93,243	23,915	895	9	118,062
Safety – Classic[5]	PERF A	43,539	9,894	67,207	8,219	128,859
Safety – PEPRA[5]	PERF A	34,096	5,774	317	4	40,191
Pre-Retirement Death – Classic	PERF A	—	—	—	3,089	3,089
Pre-Retirement Death – PEPRA	PERF A	—	—	—	37	37
TOTAL STATE		**274,832**	**107,747**	**227,012**	**38,892**	**648,483**
SCHOOL						
Miscellaneous – Classic	PERF B	159,395	143,548	206,038	28,267	537,248
Miscellaneous – PEPRA	PERF B	164,905	75,724	876	10	241,515
Pre-Retirement Death – Classic	PERF B	—	—	—	1,224	1,224
Pre-Retirement Death – PEPRA	PERF B	—	—	—	111	111
TOTAL SCHOOL		**324,300**	**219,272**	**206,914**	**29,612**	**780,098**
PUBLIC AGENCY						
Miscellaneous – Classic	PERF A	87,641	66,294	138,258	17,691	309,884
Miscellaneous – PEPRA	PERF A	92,119	35,888	947	7	128,961
Safety – Classic	PERF A	21,169	5,097	38,437	5,063	69,766
Safety – PEPRA	PERF A	13,023	2,337	110	—	15,470
Pre-Retirement Death – Classic	PERF A	—	—	—	1,503	1,503
Pre-Retirement Death – PEPRA	PERF A	—	—	—	75	75
Miscellaneous – Classic	PERF C	15,359	14,536	23,088	2,772	55,755
Miscellaneous – PEPRA	PERF C	18,189	8,062	303	2	26,556
Safety – Classic	PERF C	8,570	3,739	17,152	2,275	31,736
Safety – PEPRA	PERF C	6,828	1,675	82	—	8,585
Pre-Retirement Death – Classic	PERF C	—	—	—	408	408
Pre-Retirement Death – PEPRA	PERF C	—	—	—	15	15
TOTAL PUBLIC AGENCY		**262,898**	**137,628**	**218,377**	**29,811**	**648,714**
TOTAL BENEFIT RECIPIENTS AND MEMBERS		**862,030**	**464,647**	**652,303**	**98,315**	**2,077,295**

(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.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

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

Category	2021	2020	2019	2018	2017	2016	2015
Service Retirement	$24,292,900,750	$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	648,971,739	647,385,586	640,390,289	629,909,937	621,706,049	614,204,683	599,845,301
Industrial Disability Retirement	2,249,389,340	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]	9,799,332	11,482,597	12,956,146	14,739,908	17,399,875	21,742,842	25,792,689
Total	**$27,201,061,161**	**$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	$42,764,996	$41,489,834	$42,184,086	$45,353,650	$36,354,849	$37,528,299	$25,652,204
1957 Survivor Benefit	115,198,670	111,565,097	107,503,062	103,212,410	99,140,672	95,869,358	92,157,432
1959 Survivor Benefit	33,923,153	34,472,004	33,431,530	33,515,158	33,448,316	33,770,778	33,886,098
Industrial Death Allowance	58,226,946	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	37,997,957	40,068,528	41,755,031	44,705,434	30,796,681	36,775,082	55,058,746
Adjustments[2]	(73,978,940)	(62,792,096)	(55,684,211)	(65,438,104)	(76,521,097)	(60,714,425)	(51,360,036)
Total	**$214,132,782**	**$220,303,762**	**$222,484,790**	**$211,390,024**	**$171,901,770**	**$190,964,938**	**$201,047,504**
Total Retirement and Death Payments	**$27,415,193,943**	**$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	287,555,810	323,180,050	280,265,587	286,978,986	222,274,594	238,821,624	240,623,206
GRAND TOTAL	**$27,702,749,753**	**$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.

PUBLIC EMPLOYEES' RETIREMENT FUND PROGRAM DATA (CONTINUED)

Program Data – PERF – Average Benefit Payments – As of June 30, 2021 – 10-Year Review

	Years of Service Credit						
Retirement Effective Dates	**0 - 5**	**6 - 10**	**11 - 15**	**16 - 20**	**21 - 25**	**26 - 30**	**31+**
2020-21							
Average Monthly Allowance[1]	$650	$1,080	$1,980	$2,866	$4,232	$5,983	$6,522
Average Final Compensation	$6,927	$5,603	$6,131	$6,627	$7,639	$8,818	$8,513
Number of Recipients[1]	1,461	4,506	5,824	6,502	6,966	6,102	6,516
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

(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, 2021, 1,563 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 1,012 districts and other public agencies. The 57 county offices of education contracts provide benefits for 1,329 school districts and charter schools, bringing the total number of public agency employers to 2,892.

During Fiscal Year 2020-21, four additional agencies contracted with CalPERS for retirement, death, and survivor benefits. The new contracting agencies are:

New Contracts

Effective Date	Public Agency	Misc. Member Formula	Safety Member Formula
2/1/2021	Foothill-De Anza Community College District	N/A	2.7% @ 57
3/1/2021	Graton Fire Protection District	N/A	2.7% @ 57
5/10/2021	Buckingham Park County Water District	2% @ 62	N/A
6/27/2021	Utica Water and Power Authority	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 2020-21, 53 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	34
Add or Remove Exclusions	5
Section 20903 – Two Years Additional Service	5
Add 1959 Survivor Benefits: 4th Level	1
Add New Category: Safety Fire	3
Add New Category: MISC	2
Add Social Security (218 Agreement)	2
Merger	1

Mergers

- Russian River Fire Protection District merged into Sonoma County Fire District – Effective Date June 15, 2020

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.

- Oroville Mosqutio Abatement District, effective June 30, 2021

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	2021 Number of Employees[1]	% of Total System
1	State of California	274,832	31.88%
2	Los Angeles County Schools	44,648	5.18%
3	Los Angeles Unified School District	26,861	3.12%
4	San Diego County Schools	25,995	3.01%
5	Orange County Schools	25,561	2.96%
6	Riverside County Schools	21,524	2.50%
7	County of Riverside	21,197	2.46%
	All Other	421,412	48.89%
	Total Covered Employees	**862,030**	**100.00%**

(1) Number of Employees includes only active members.

Largest Participating Employers – Nine Years Prior

Rank	Employer	2012 Number of Employees[1]	% of Total System
1	State of California	326,109	27.46%
2	Los Angeles County Office of Education	105,470	8.88%
3	Los Angeles Unified School District	42,958	3.62%
4	San Diego County Office of Education	36,499	3.07%
5	Orange County Office of Education	32,311	2.72%
6	County of Riverside	24,985	2.10%
7	San Bernardino County Office of Education	24,514	2.07%
8	Riverside County Office of Education	23,066	1.94%
	All Other	571,669	48.14%
	Total Covered Employees	**1,187,581**	**100.00%**

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

PUBLIC AGENCY EMPLOYERS (CONTINUED)

County Offices of Education (57)

	Active PERF B		Active PERF B
Alameda	10,585	Orange	25,533
Alpine	28	Placer	3,184
Amador	224	Plumas	284
Butte	2,471	Riverside	21,517
Calaveras	423	Sacramento	12,301
Colusa	395	San Benito	552
Contra Costa	7,531	San Bernardino	19,970
Del Norte	263	San Diego	25,927
El Dorado	1,605	San Joaquin	7,679
Fresno	12,151	San Luis Obispo	2,327
Glenn	427	San Mateo	5,023
Humboldt	1,617	Santa Barbara	4,180
Imperial	2,574	Santa Clara	12,798
Inyo	206	Santa Cruz	2,185
Kern	12,454	Shasta	2,133
Kings	1,517	Sierra	42
Lake	634	Siskiyou	630
Lassen	353	Solano	3,232
Los Angeles	44,594	Sonoma	3,774
Madera	1,660	Stanislaus	7,137
Marin	1,613	Sutter	1,030
Mariposa	151	Tehama	891
Mendocino	1,293	Trinity	196
Merced	3,836	Tulare	6,649
Modoc	196	Tuolumne	436
Mono	147	Ventura	7,204
Monterey	4,772	Yolo	1,691
Napa	1,278	Yuba	1,064
Nevada	614	**Total**	**295,181**

School District Offices[1] (4)

	Active		
	PERF A	PERF B	Total
Los Angeles Unified School District	267	26,594	26,861
Los Angeles Community College District	—	2,525	2,525
Los Angeles County Office of Education	1,131	—	1,131
San Diego County Office of Education	705	—	705
Total	**2,103**	**29,119**	**31,222**

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

Counties (37 total)

	Active		
	PERF A	PERF C	Total
Alpine	—	85	85
Amador	287	97	384
Butte	2,239	—	2,239
Calaveras	492	102	594
Colusa	301	59	360
Del Norte	363	63	426
El Dorado	1,781	—	1,781
Glenn	430	29	459
Humboldt	2,109	—	2,109
Inyo	365	38	403
Kings	1,487	—	1,487
Lake	857	—	857
Lassen	327	55	382
Madera	1,481	—	1,481
Mariposa	357	68	425
Modoc	195	23	218
Mono	231	79	310
Monterey	5,371	—	5,371
Napa	1,304	115	1,419
Nevada	739	69	808
Placer	2,678	—	2,678
Plumas	318	29	347
Riverside	21,197	—	21,197
San Benito	420	86	506
San Joaquin	—	—	—
Santa Clara	19,577	—	19,577
Santa Cruz	2,496	—	2,496
Shasta	2,008	—	2,008
Sierra	—	113	113
Siskiyou	527	99	626
Solano	2,998	—	2,998
Sutter	962	—	962
Tehama	750	—	750
Trinity	244	51	295
Tuolumne	531	128	659
Yolo	1,614	—	1,614
Yuba	836	—	836
Total	**77,872**	**1,388**	**79,260**

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (452)

	Active		
City/Town	PERF A	PERF C	Total
Adelanto	—	21	21
Agoura Hills	—	33	33
Alameda	496	—	496
Albany	—	99	99
Alhambra	405	—	405
Aliso Viejo	—	28	28
Alturas	—	19	19
American Canyon	—	72	72
Anaheim	2,179	—	2,179
Anderson	—	58	58
Angels	—	35	35
Antioch	213	116	329
Apple Valley	—	107	107
Arcadia	303	—	303
Arcata	—	108	108
Arroyo Grande	—	92	92
Artesia	—	39	39
Arvin	—	48	48
Atascadero	—	138	138
Atherton	—	46	46
Atwater	—	76	76
Auburn	—	70	70
Avalon	—	54	54
Avenal	—	47	47
Azusa	223	58	281
Bakersfield	1,643	—	1,643
Baldwin Park	138	57	195
Banning	144	31	175
Barstow	—	133	133
Beaumont	—	160	160
Bell	—	99	99
Bell Gardens	—	143	143
Bellflower	—	82	82
Belmont	—	123	123
Belvedere	—	20	20
Benicia	163	65	228
Berkeley	1,366	—	1,366
Beverly Hills	850	—	850
Biggs	—	8	8
Bishop	—	36	36
Blue Lake	—	11	11
Blythe	—	58	58
Bradbury	—	3	3
Brawley	—	118	118
Brea	178	95	273
Brentwood	246	64	310
Brisbane	—	98	98
Buellton	—	21	21
Buena Park	167	86	253
Burbank	1,285	—	1,285
Burlingame	198	38	236
Calabasas	—	77	77
Calexico	—	154	154
California City	—	98	98
Calimesa	—	11	11
Calipatria	—	12	12
Calistoga	—	62	62
Camarillo	135	—	135
Campbell	122	45	167
Canyon Lake	—	9	9
Capitola	—	72	72
Carlsbad	745	—	745
Carmel-By-The-Sea	—	61	61
Carpinteria	—	32	32
Carson	374	—	374
Cathedral City	—	173	173
Cerritos	235	—	235
Chico	375	—	375
Chino	335	116	451
Chowchilla	—	75	75
Chula Vista	1,070	—	1,070
Citrus Heights	—	185	185
Claremont	129	35	164
Clayton	—	25	25
Clearlake	—	59	59
Cloverdale	—	40	40
Clovis	646	—	646
Coachella City	—	68	68
Coalinga	—	87	87
Colfax	—	10	10
Colma	—	41	41
Colton	201	88	289
Colusa	—	34	34
Commerce	132	—	132
Compton	216	59	275
Concord	358	—	358
Corcoran	—	65	65
Corning	—	42	42
Corona	540	99	639
Coronado	174	77	251
Corte Madera	—	41	41
Costa Mesa	471	81	552
Cotati	—	39	39
Covina	113	53	166
Crescent City	—	58	58
Cudahy	—	20	20
Culver City	641	—	641
Cupertino	186	—	186
Cypress	—	123	123
Daly City	433	—	433
Dana Point	—	60	60
Davis	254	96	350
Del Mar	—	53	53
Del Rey Oaks	—	13	13
Delano	—	47	47
Desert Hot Springs	—	89	89
Diamond Bar	—	61	61
Dinuba	—	136	136
Dixon	—	122	122
Dos Palos	—	29	29
Downey	423	—	423
Duarte	—	48	48
Dublin	—	96	96
Dunsmuir	—	13	13
East Palo Alto	—	105	105
Eastvale	—	33	33
El Cajon	376	—	376
El Centro	175	80	255
El Cerrito	—	160	160
El Monte	281	—	281
El Segundo	169	97	266
Elk Grove	—	368	368
Emeryville	—	37	37
Encinitas	164	67	231
Escalon	—	37	37
Escondido	804	—	804
Etna	—	13	13
Eureka	171	45	216
Exeter	—	35	35
Fairfax	—	34	34
Fairfield	533	—	533
Farmersville	—	33	33
Fillmore	—	35	35
Firebaugh	—	39	39
Folsom	440	—	440
Fontana	697	—	697
Fort Bragg	—	50	50
Fortuna	—	68	68
Foster City	124	36	160
Fountain Valley	—	206	206
Fowler	—	28	28
Fremont	916	—	916
Fullerton	497	—	497
Galt	114	28	142
Garden Grove	554	—	554
Gardena	293	86	379
Gilroy	221	—	221
Glendale	1,792	—	1,792
Glendora	150	52	202
Goleta	—	77	77
Gonzales	—	55	55
Grand Terrace	—	14	14
Grass Valley	—	94	94

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (continued)

City/Town	Active PERF A	Active PERF C	Total	City/Town	Active PERF A	Active PERF C	Total	City/Town	Active PERF A	Active PERF C	Total
Greenfield	—	79	79	Lakewood	285	—	285	Moreno Valley	290	—	290
Gridley	—	41	41	Lancaster	260	—	260	Morgan Hill	148	40	188
Grover Beach	—	63	63	Larkspur	—	32	32	Morro Bay	—	88	88
Guadalupe	—	41	41	Lathrop	—	85	85	Mountain View	619	—	619
Gustine	—	28	28	Lawndale	—	47	47	Mt. Shasta	—	38	38
Half Moon Bay	—	39	39	Lemon Grove	—	57	57	Murrieta	—	299	299
Hanford	202	88	290	Lemoore	—	103	103	Napa	434	—	434
Hawaiian Gardens	—	61	61	Lincoln	—	160	160	National City	303	—	303
Hawthorne	175	90	265	Lindsay	—	41	41	Needles	—	51	51
Hayward	802	—	802	Live Oak	—	23	23	Nevada City	—	26	26
Healdsburg	—	133	133	Livermore	312	83	395	Newark	116	52	168
Hemet	260	—	260	Livingston	—	63	63	Newman	—	44	44
Hercules	—	68	68	Lodi	387	—	387	Newport Beach	818	—	818
Hermosa Beach	—	144	144	Loma Linda	—	85	85	Norco	—	74	74
Hesperia	—	104	104	Lomita	—	41	41	Norwalk	225	—	225
Hidden Hills	—	4	4	Lompoc	277	67	344	Novato	138	51	189
Highland	—	38	38	Long Beach	4,812	—	4,812	Oakdale	—	85	85
Hillsborough	—	87	87	Loomis	—	14	14	Oakland	3,929	—	3,929
Hollister	—	183	183	Los Alamitos	—	41	41	Oakley	—	77	77
Hughson	—	14	14	Los Altos	—	138	138	Oceanside	879	—	879
Huntington Beach	945	—	945	Los Altos Hills	—	20	20	Ojai	—	34	34
Huntington Park	—	133	133	Los Banos	—	168	168	Ontario	1,055	—	1,055
Imperial	—	78	78	Los Gatos	120	37	157	Orange	626	—	626
Imperial Beach	—	76	76	Lynwood	106	—	106	Orange Cove	—	31	31
Indian Wells	—	29	29	Madera	157	69	226	Orland	—	40	40
Indio	178	68	246	Malibu	—	82	82	Oroville	—	99	99
Industry	—	24	24	Mammoth Lakes	—	79	79	Oxnard	1,064	113	1,177
Inglewood	605	—	605	Manhattan Beach	234	89	323	Pacific Grove	—	91	91
Ione	—	18	18	Manteca	279	119	398	Pacifica	118	56	174
Irvine	952	—	952	Marina	—	100	100	Palm Desert	97	—	97
Irwindale	—	100	100	Martinez	—	122	122	Palm Springs	442	—	442
Jackson	—	31	31	Marysville	—	69	69	Palmdale	237	—	237
Kerman	—	69	69	Maywood	—	21	21	Palo Alto	888	—	888
King City	—	33	33	Mendota	—	28	28	Palos Verdes			
Kingsburg	—	64	64	Menifee	—	223	223	Estates	—	43	43
La Canada Flintridge	—	43	43	Menlo Park	208	42	250	Paradise	—	65	65
La Habra	239	66	305	Merced	449	—	449	Paramount	—	89	89
La Habra Heights	—	23	23	Mill Valley	—	147	147	Parlier	—	56	56
La Mesa	244	—	244	Millbrae	—	81	81	Pasadena	1,757	—	1,757
La Mirada	—	77	77	Milpitas	389	—	389	Paso Robles	135	74	209
La Palma	—	55	55	Mission Viejo	146	—	146	Patterson	—	123	123
La Puente	—	39	39	Modesto	1,107	—	1,107	Perris	—	106	106
La Quinta	—	88	88	Monrovia	142	84	226	Petaluma	332	—	332
La Verne	—	157	157	Montague	—	8	8	Pico Rivera	136	—	136
Laguna Beach	167	96	263	Montclair	—	150	150	Piedmont	—	98	98
Laguna Hills	—	32	32	Monte Sereno	—	7	7	Pinole	—	97	97
Laguna Niguel	—	79	79	Montebello	435	—	435	Pismo Beach	—	92	92
Laguna Woods	—	8	8	Monterey	240	128	368	Pittsburg	182	80	262
Lake Elsinore	—	92	92	Monterey Park	302	—	302	Placentia	—	145	145
Lake Forest	—	70	70	Moorpark	—	58	58	Placerville	—	76	76
Lakeport	—	45	45	Moraga	—	36	36	Pleasant Hill	—	107	107

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Cities & Towns (continued)

City/Town	Active PERF A	Active PERF C	Total
Pleasanton	411	78	489
Pomona	508	—	508
Port Hueneme	—	110	110
Porterville	210	118	328
Portola	—	11	11
Portola Valley	—	15	15
Poway	173	50	223
Rancho Cordova	—	91	91
Rancho Cucamonga	366	—	366
Rancho Mirage	—	86	86
Rancho Palos Verdes	—	92	92
Rancho Santa Margarita	—	21	21
Red Bluff	—	104	104
Redding	820	—	820
Redlands	326	132	458
Redondo Beach	450	—	450
Redwood City	552	—	552
Reedley	—	113	113
Rialto	338	—	338
Richmond	610	—	610
Ridgecrest	—	108	108
Rio Vista	—	33	33
Ripon	—	21	21
Riverbank	—	52	52
Riverside	2,089	—	2,089
Rocklin	135	97	232
Rohnert Park	151	69	220
Rolling Hills	—	7	7
Rolling Hills Estates	—	23	23
Rosemead	—	58	58
Roseville	1,322	—	1,322
Ross	—	22	22
Sacramento	3,943	—	3,943
Salinas	434	85	519
San Anselmo	—	34	34
San Bernardino	854	—	854
San Bruno	156	73	229
San Carlos	—	80	80
San Clemente	162	5	167
San Dimas	—	90	90
San Fernando	—	93	93
San Francisco[1]	662	—	662
San Gabriel	—	177	177
San Jacinto	—	59	59
San Joaquin	—	13	13
San Jose	—	12	12
San Leandro	253	78	331
San Luis Obispo	325	97	422
San Marcos	173	67	240
San Marino	—	114	114
San Mateo	461	—	461
San Pablo	—	152	152
San Ramon	207	66	273
Sand City	—	23	23
Sanger	—	108	108
Santa Ana	1,114	—	1,114
Santa Barbara	876	94	970
Santa Clara	995	—	995
Santa Clarita	465	—	465
Santa Cruz	659	137	796
Santa Fe Springs	116	48	164
Santa Maria	376	183	559
Santa Monica	1,869	—	1,869
Santa Paula	—	98	98
Santa Rosa	1,137	—	1,137
Santee	—	128	128
Saratoga	—	59	59
Sausalito	—	63	63
Scotts Valley	—	44	44
Seal Beach	—	100	100
Seaside	—	151	151
Sebastopol	—	42	42
Selma	—	110	110
Shafter	—	113	113
Shasta Lake	—	52	52
Sierra Madre	—	87	87
Signal Hill	—	98	98
Simi Valley	477	—	477
Solana Beach	—	70	70
Soledad	—	65	65
Solvang	—	23	23
Sonoma	—	40	40
Sonora	—	42	42
South El Monte	—	50	50
South Gate	249	80	329
South Lake Tahoe	118	77	195
South Pasadena	—	162	162
South San Francisco	442	—	442
St. Helena	—	67	67
Stanton	—	43	43
Stockton	1,563	—	1,563
Suisun City	—	82	82
Sunnyvale	881	—	881
Susanville	—	60	60
Sutter Creek	—	14	14
Taft	—	50	50
Tehachapi	—	71	71
Temecula	198	—	198
Temple City	—	45	45
Thousand Oaks	339	—	339
Tiburon	—	37	37
Torrance	1,313	—	1,313
Tracy	497	—	497
Truckee	—	123	123
Tulare	235	111	346
Tulelake	—	8	8
Turlock	199	120	319
Tustin	215	94	309
Twentynine Palms	—	36	36
Ukiah	149	41	190
Union City	162	67	229
Upland	148	66	214
Vacaville	556	—	556
Vallejo	505	—	505
Ventura	632	—	632
Vernon	146	43	189
Victorville	340	51	391
Villa Park	—	7	7
Visalia	602	—	602
Vista	194	84	278
Walnut	—	45	45
Walnut Creek	276	74	350
Wasco	—	63	63
Waterford	—	17	17
Watsonville	300	102	402
Weed	—	29	29
West Covina	254	—	254
West Hollywood	221	—	221
West Sacramento	278	125	403
Westlake Village	—	16	16
Westminster	140	76	216
Whittier	347	—	347
Wildomar	—	23	23
Williams	—	35	35
Willits	—	42	42
Willows	—	12	12
Windsor	—	109	109
Winters	—	37	37
Woodlake	—	30	30
Woodland	293	—	293
Woodside	—	22	22
Yorba Linda	124	—	124
Yountville	—	32	32
Yreka	—	57	57
Yuba City	173	116	289
Yucaipa	—	52	52
Yucca Valley	—	43	43
Total	**93,624**	**24,529**	**118,153**

(1) San Francisco has both City and County employees; however, it is listed only in the "total" count of the Cities & Towns category.

PUBLIC AGENCY EMPLOYERS (CONTINUED)

Other Public Agencies that Contract with CalPERS for Retirement Benefits (1,012)

Other Public Agency	Active PERF A	Active PERF C	Total
Academic Senate for California Community Colleges	—	11	11
Access Services Incorporated	—	67	67
Agoura Hills and Calabasas Community Center	—	—	—
Alameda Alliance for Health	349	—	349
Alameda Corridor Transportation Authority	—	9	9
Alameda County Fire Department	346	79	425
Alameda County Law Library	—	6	6
Alameda County Mosquito Abatement District	—	18	18
Alameda County Schools Insurance Group	—	3	3
Alameda County Transportation Commission	—	39	39
Alameda County Waste Management Authority	—	45	45
Alameda County Water District	223	—	223
Alliance of Schools for Cooperative Insurance Programs	—	47	47
Alpine Fire Protection District	—	15	15
Alpine Springs County Water District	—	4	4
Alta California Regional Center, Inc.	481	—	481
Alta Irrigation District	—	16	16
Altadena Library District	—	21	21
Amador County Transportation Commission	—	4	4
Amador Transit	—	20	20
Amador Water Agency	—	42	42
American Canyon Fire Protection District	—	17	17
American River Flood Control District	—	10	10
Anderson Cemetery District	—	—	—
Anderson Fire Protection District	—	9	9
Angiola Water District	—	5	5
Antelope Valley Mosquito and Vector Control District	—	7	7
Antelope Valley Schools Transportation Agency	202	—	202
Antelope Valley Transit Authority	—	60	60
Apple Valley Fire Protection District	—	54	54
Aptos/La Selva Fire Protection Agency	—	39	39
Arbuckle-College City Fire Protection District	—	4	4
Arcade Creek Recreation and Park District	—	2	2
Arcata Fire Protection District	—	18	18
Area 12 Agency on Aging	—	17	17
Aromas Water District	—	6	6
Arrowbear Park County Water District	—	6	6
Arroyo Grande District Cemetery	—	3	3
Associated Students California State University San Bernardino	—	4	4
Associated Students Inc., California State University, Fullerton	—	61	61
Associated Students Incorporated of California State University East Bay	—	6	6
Associated Students Incorporated of California State University Stanislaus	—	6	6
Associated Students of California State University, Chico	—	76	76
Association of California Water Agencies	—	37	37
Association of California Water Agencies - Joint Powers Insurance Authority	—	50	50
Association of Monterey Bay Area Governments	—	12	12
Atascadero Cemetery District	—	3	3
Auburn Area Recreation and Park District	—	48	48
Auburn Public Cemetery District	—	6	6
Avila Beach Community Services District	—	1	1
Aztec Shops, Ltd.	—	37	37
Baldwin Park Unified School District	—	7	7
Bard Water District	—	19	19
Bardsdale Cemetery District	—	1	1
Barstow Cemetery District	—	5	5
Bay Area Air Quality Management District	384	—	384
Bay Area Water Supply and Conservation Agency	—	9	9
Beach Cities Health District	—	66	66
Bear Mountain Recreation and Park District	—	5	5
Bear Valley Community Services District	—	37	37
Beaumont District Library	—	10	10
Beaumont-Cherry Valley Recreation and Park District	—	13	13
Beaumont-Cherry Valley Water District	—	36	36
Bella Vista Water District	—	25	25
Belmont Fire Protection District	—	—	—
Belmont-San Carlos Fire Department	—	—	—
Belvedere-Tiburon Library Agency	—	15	15
Benicia City Housing Authority	—	8	8
Berkeley Housing Authority	—	11	11
BETA Healthcare Group Risk Management Authority	—	160	160
Big Bear Area Regional Wastewater Agency	—	15	15
Big Bear City Airport District	—	8	8
Big Bear City Community Services District	—	38	38
Big Bear Municipal Water District	—	13	13
Bighorn-Desert View Water Agency	—	9	9
Black Gold Cooperative Library System	—	5	5
Blanchard/Santa Paula Public Library District	—	6	6
Blue Lake Fire Protection District	—	1	1
Bodega Bay Fire Protection District	—	12	12
Bolinas Community Public Utility District	—	7	7
Bolinas Fire Protection District	—	3	3
Bonita-Sunnyside Fire Protection District	—	14	14
Boron Community Services District	—	4	4

PUBLIC AGENCY EMPLOYERS (CONTINUED)

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

Other Public Agency	Active PERF A	Active PERF C	Total
Borrego Springs Fire Protection District	—	14	14
Borrego Water District	—	13	13
Boulder Creek Fire Protection District	—	1	1
Branciforte Fire Protection District	—	7	7
Brannan-Andrus Levee Maintenance District	—	2	2
Broadmoor Police Protection District	—	9	9
Brooktrails Township Community Services District	—	11	11
Browns Valley Irrigation District	—	11	11
Buckingham Park County Water District	—	3	3
Buena Park Library District	—	18	18
Burney Basin Mosquito Abatement District	—	1	1
Burney Fire District	—	5	5
Burney Water District	—	7	7
Butte County Air Quality Management District	—	10	10
Butte County Association of Governments	—	12	12
Butte County Fair Association	—	3	3
Butte County In-Home Supportive Services Public Authority	—	—	—
Butte County Mosquito and Vector Control District	—	18	18
Butte Local Agency Formation Commission	—	4	4
Butte Schools Self-Funded Programs	—	2	2
Butte-Glenn Community College District	—	3	3
Byron-Bethany Irrigation District	—	6	6
Cabrillo College Foundation	—	5	5
Cachuma Operation and Maintenance Board	—	14	14
Cal Poly Corporation	244	—	244
Cal Poly Pomona Foundation, Inc.	—	159	159
Calaveras Council of Governments	—	4	4
Calaveras County Water District	—	69	69
Calaveras Public Utility District	—	8	8
California Association for Park and Recreation Indemnity	—	3	3
California Authority of Racing Fairs	—	4	4
California Bear Credit Union	—	18	18
California Central Valley Flood Control Association	—	2	2
California Fair Services Authority	—	18	18
California Fairs Financing Authority	—	7	7
California Firefighter's Joint Apprenticeship Committee	—	24	24
California Intergovernmental Risk Authority	—	4	4
California Interscholastic Federation, Central Coast Section	—	4	4
California Interscholastic Federation, Central Section	—	2	2
California Interscholastic Federation, North Coast Section	—	6	6

Other Public Agency	Active PERF A	Active PERF C	Total
California Interscholastic Federation, Northern Section	—	1	1
California Interscholastic Federation, Sac-Joaquin Section	—	4	4
California Interscholastic Federation, San Diego Section	—	4	4
California Interscholastic Federation, Southern Section	—	16	16
California Interscholastic Federation, State Office	—	8	8
California Joint Powers Insurance Authority	—	30	30
California Joint Powers Risk Management Authority	—	6	6
California Maritime Academy Foundation, Inc.	—	—	—
California Municipal Utilities Association	—	8	8
California Pines Community Services District	—	6	6
California Redevelopment Association Foundation	—	—	—
California School Boards Association	—	103	103
California Special Districts Association	—	29	29
California State University, Bakersfield Foundation	—	1	1
California State University, East Bay Foundation, Inc.	—	—	—
California State University, Fresno Athletic Corporation	—	51	51
California State University, Stanislaus Auxiliary and Business Services	—	—	—
California State University-Fresno Association, Inc.	—	42	42
Callayomi County Water District	—	5	5
Calleguas Municipal Water District	—	67	67
Camarillo Health Care District	—	24	24
Cambria Cemetery District	—	1	1
Cambria Community Healthcare District	—	16	16
Cambria Community Services District	—	41	41
Cameron Park Community Services District	—	17	17
Camrosa Water District	—	23	23
Capitol Area Development Authority	—	39	39
Carmel Area Wastewater District	—	28	28
Carmel Highlands Fire Protection District of Monterey County	—	—	—
Carmichael Water District	—	26	26
Carpinteria Sanitary District	—	15	15
Carpinteria Valley Water District	—	17	17
Casitas Municipal Water District	—	75	75
Castro Valley Sanitary District	—	22	22
Castroville Community Services District	—	6	6
Cawelo Water District	—	12	12
Cayucos Sanitary District	—	8	8
Cayucos-Morro Bay Cemetery District	—	4	4
Centerville Community Services District	—	5	5

PUBLIC AGENCY EMPLOYERS (CONTINUED)

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

Other Public Agency	Active PERF A	Active PERF C	Total
Central Basin Municipal Water District	—	8	8
Central Calaveras Fire and Rescue Protection District	—	2	2
Central Coast Water Authority	—	29	29
Central Contra Costa Solid Waste Authority	—	6	6
Central Contra Costa Transit Authority	224	—	224
Central County Fire Department	—	86	86
Central Fire Protection District of Santa Cruz County	—	63	63
Central Marin Fire Authority	—	39	39
Central Marin Police Authority	—	45	45
Central Marin Sanitation Agency	—	49	49
Central Sierra Child Support Agency	—	27	27
Central Valley Regional Center, Inc.	457	—	457
Central Water District	—	4	4
Channel Islands Beach Community Services District	—	8	8
Chester Public Utility District	—	11	11
Chico Area Recreation and Park District	—	51	51
Children and Families Commission of San Luis Obispo County	—	4	4
Chino Basin Water Conservation District	—	17	17
Chino Basin Watermaster	—	10	10
Chino Valley Independent Fire District	—	138	138
Citrus Heights Water District	—	34	34
City/County Association of Governments of San Mateo County	—	2	2
Clear Creek Community Services District	—	9	9
Clearlake Oaks County Water District	—	16	16
Cloverdale Citrus Fair	—	2	2
Cloverdale Fire Protection District	—	11	11
Clovis Cemetery District	—	8	8
Coachella Valley Association of Governments	—	21	21
Coachella Valley Mosquito and Vector Control District	—	61	61
Coachella Valley Public Cemetery District	—	4	4
Coachella Valley Water District	551	—	551
Coalinga/Huron Unified School District Library District	—	10	10
Coalinga-Huron Cemetery District	—	1	1
Coalinga-Huron Recreation and Park District	—	11	11
Coast Life Support District	—	17	17
Coastal Developmental Services Fdn DBA Westside Regional Center	234	—	234
Coastside County Water District	—	20	20
Coastside Fire Protection District	—	—	—
Colfax Cemetery District	—	2	2
College of The Canyons Foundation	—	1	1
Colusa County One-Stop Partnership	—	7	7
Colusa Mosquito Abatement District	—	3	3
Community College League of California	—	25	25

Other Public Agency	Active PERF A	Active PERF C	Total
Community Development Commission of Mendocino County	—	20	20
Compass Community Credit Union	—	19	19
Compton Creek Mosquito Abatement District	—	1	1
Compton Unified School District	—	17	17
Conejo Recreation and Park District	148	—	148
Consolidated Mosquito Abatement District	—	20	20
Contra Costa Community College District	—	21	21
Contra Costa County Law Library	—	3	3
Contra Costa County Schools Insurance Group	—	31	31
Contra Costa Transportation Authority	—	18	18
Cooperative Organization for the Development of Employee Selection Procedures	—	6	6
Cooperative Personnel Services	118	—	118
Copperopolis Fire Protection District	—	9	9
Cordelia Fire Protection District of Solano County	—	3	3
Cordova Recreation and Park District	—	52	52
Corning Water District	—	3	3
Costa Mesa Sanitary District	—	18	18
Cosumnes Community Services District	383	—	383
Cottonwood Fire Protection District	—	2	2
Cottonwood Water District	—	3	3
CRA/LA, a Designated Local Authority	—	5	5
Crescent City Harbor District	—	8	8
Crescenta Valley Water District	—	26	26
Crestline Lake Arrowhead Water Agency	—	10	10
Crestline Village Water District	—	13	13
Crockett Community Services District	—	3	3
Cucamonga Valley Water District	124	—	124
Cutler Public Utility District	—	5	5
Cutler-Orosi Joint Powers Wastewater Authority	—	1	1
Cuyama Valley Recreation District	—	1	1
Dairy Council of California	—	41	41
Davis Cemetery District	—	5	5
De Luz Community Services District	—	5	5
Del Norte County Library District	—	2	2
Del Paso Manor Water District	—	4	4
Del Puerto Water District	—	6	6
Del Rey Community Services District	—	4	4
Delano Mosquito Abatement District	—	9	9
Delta Diablo	—	74	74
Delta Vector Control District	—	17	17
Denair Community Services District	—	7	7
Desert Water Agency	—	83	83
Diablo Water District	—	18	18
Diamond Springs/El Dorado Fire Protection District	—	20	20

PUBLIC AGENCY EMPLOYERS (CONTINUED)

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

Other Public Agency	Active PERF A	Active PERF C	Total
Dixon Public Library District	—	—	—
Donald P. And Katherine B. Loker University Student Union, Inc.	—	10	10
Dougherty Regional Fire Authority	—	—	—
Downey Cemetery District	—	—	—
Dublin San Ramon Services District	—	117	117
Durham Mosquito Abatement District	—	1	1
East Bay Dischargers Authority	—	3	3
East Bay Regional Park District	652	75	727
East Contra Costa Irrigation District	—	19	19
East County Schools Federal Credit Union	—	17	17
East Orange County Water District	—	13	13
East Palo Alto Sanitary District	—	8	8
East Quincy Services District	—	4	4
East Valley Water District	—	66	66
Eastern Municipal Water District	618	—	618
Eastern Sierra Transit Authority	—	48	48
Ebbetts Pass Fire Protection District	—	27	27
Edgemont Community Services District	—	1	1
El Dorado County Fire Protection District	—	70	70
El Dorado County Resource Conservation District	—	2	2
El Dorado County Transit Authority	—	54	54
El Dorado County Transportation Commission	—	5	5
El Dorado County Water Agency	—	2	2
El Dorado Hills Community Services District	—	29	29
El Dorado Hills County Water District	—	72	72
El Dorado Irrigation District	225	—	225
El Dorado Local Agency Formation Commission	—	2	2
Encina Wastewater Authority	—	70	70
Esparto Community Services District	—	7	7
Esparto Fire Protection District	—	2	2
Exeter District Ambulance	—	24	24
Fair Oaks Recreation & Park District	—	20	20
Fair Oaks Water District	—	27	27
Fairfield-Suisun Sewer District	—	57	57
Fall River Valley Community Services District	—	5	5
Fallbrook Public Utility District	—	61	61
Far Northern Coordinating Council on Developmental Disabilities	200	—	200
Feather River Air Quality Management District	—	11	11
Feather River Recreation and Park District	—	14	14
Feather Water District	—	2	2
Felton Fire Protection District	—	2	2
Fern Valley Water District	—	5	5
Florin County Water District	—	10	10
Florin Resource Conservation District Elk Grove Water District	—	28	28
Fontana Unified School District	—	16	16

Other Public Agency	Active PERF A	Active PERF C	Total
Foothill Municipal Water District	—	9	9
Foothill-De Anza Community College District	—	9	9
Foresthill Public Utility District	—	8	8
Forestville Fire Protection District	—	8	8
Forestville Water District	—	6	6
Fort Bragg Fire Protection Authority	—	4	4
Foundation for California Community Colleges	—	411	411
Foundation for Grossmont and Cuyamaca Colleges	—	65	65
Fresno City Housing Authority	108	—	108
Fresno County Housing Authority	107	—	107
Fresno County Law Library	—	3	3
Fresno Westside Mosquito Abatement District	—	9	9
Fruitridge Fire Protection District	—	—	—
Fulton-El Camino Recreation and Park District	—	9	9
Garden Valley Fire Protection District	—	11	11
Georgetown Divide Public Utility District	—	22	22
Georgetown Divide Resource Conservation District	—	2	2
Georgetown Fire Protection District	—	12	12
Gilsizer County Drainage District	—	—	—
Glendale College, Associated Students of	—	1	1
Glendale Community College District	—	8	8
Glenn County Mosquito and Vector Control District	—	2	2
Gold Coast Transit	189	—	189
Gold Ridge Fire Protection District	—	21	21
Gold Ridge Resource Conservation District	—	9	9
Golden Gate Bridge Highway and Transportation District	430	—	430
Golden Hills Community Services District	—	10	10
Golden Sierra Job Training Agency	—	14	14
Goleta Sanitary District	—	33	33
Goleta Water District	—	61	61
Goleta West Sanitary District	—	7	7
Granada Community Services District	—	2	2
Graton Community Services District	—	2	2
Graton Fire Protection District	—	6	6
Great Basin Unified Air Pollution Control District	—	24	24
Greater Anaheim Special Education Local Plan Area	—	54	54
Greater Los Angeles County Vector Control District	—	93	93
Greater Vallejo Recreation District	—	54	54
Green Valley County Water District	—	4	4
Gridley Biggs Cemetery District	—	4	4
Grossmont Healthcare District	—	11	11
Groveland Community Services District	—	21	21
Gualala Community Services District	—	4	4

PUBLIC AGENCY EMPLOYERS (CONTINUED)

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

	Active		
Other Public Agency	PERF A	PERF C	Total
Hacienda La Puente Unified School District	—	5	5
Hamilton Branch Fire Protection District	—	—	—
Happy Camp Sanitary District	—	—	—
Happy Homestead Cemetery District	—	2	2
Happy Valley Fire District	—	3	3
Hayward Area Recreation and Park District	120	—	120
Health Plan of San Joaquin	—	388	388
Heartland Communications Facility Authority	—	20	20
Heber Public Utility District	—	12	12
Helendale Community Services District	—	16	16
Helix Water District	142	—	142
Henry Miller Reclamation District No. 2131	—	32	32
Heritage Ranch Community Services District	—	6	6
Herlong Public Utility District	—	5	5
Hesperia Fire Protection District	—	—	—
Hesperia Unified School District	—	9	9
Hesperia Water District	—	51	51
Hidden Valley Lake Community Services District	—	14	14
Hi-Desert Water District	—	42	42
Higgins Area Fire Protection District	—	18	18
Hilton Creek Community Services District	—	1	1
Hopland Public Utility District	—	—	—
Housing Authority of the City of Alameda	—	50	50
Housing Authority of the City of Calexico	—	16	16
Housing Authority of the City of Eureka	—	18	18
Housing Authority of the City of Livermore	—	13	13
Housing Authority of the City of Los Angeles	728	—	728
Housing Authority of the City of Madera	—	20	20
Housing Authority of the City of San Buenaventura	—	62	62
Housing Authority of the City of San Luis Obispo	—	66	66
Housing Authority of the City of South San Francisco	—	3	3
Housing Authority of the County of Butte	—	36	36
Housing Authority of the County of Kern	164	—	164
Housing Authority of the County of Santa Cruz	—	55	55
Hub Cities Consortium	—	22	22
Human Rights/Fair Housing Commission of the City and County of Sacramento	—	1	1
Humboldt Bay Fire Joint Powers Authority	—	60	60
Humboldt Bay Harbor Recreation and Conservation District	—	12	12
Humboldt Bay Municipal Water District	—	28	28
Humboldt Community Services District	—	21	21
Humboldt County Association of Governments	—	5	5
Humboldt Transit Authority	—	47	47
Humboldt Waste Management Authority	—	32	32
Idyllwild Fire Protection District	—	10	10

	Active		
Other Public Agency	PERF A	PERF C	Total
Independent Cities Association, Inc.	—	—	—
Indian Wells Valley Water District	—	32	32
Inland Counties Regional Center, Inc.	761	—	761
Inland Empire Health Plan	2,423	—	2,423
Inland Empire Resource Conservation District	—	19	19
Inland Empire Utilities Agency	277	—	277
Intelecom Intelligent Telecommunications	—	6	6
Intergovernmental Training and Development Center	—	8	8
Inverness Public Utility District	—	6	6
Ironhouse Sanitary District	—	27	27
Irvine Child Care Project	—	—	—
Irvine Ranch Water District	401	—	401
Isla Vista Recreation and Park District	—	11	11
Jackson Valley Irrigation District	—	3	3
Jamestown Sanitary District	—	3	3
Joshua Basin Water District	—	23	23
June Lake Public Utility District	—	7	7
Jurupa Area Recreation and Park District	—	21	21
Jurupa Community Services District	—	154	154
Kaweah Delta Water Conservation District	—	23	23
Kelseyville Fire Protection District	—	18	18
Kensington Community Services District	—	8	8
Kentfield Fire Protection District	—	14	14
Kenwood Fire Protection District	—	5	5
Kern County Council of Governments	—	17	17
Kern County Local Agency Formation Commission	—	3	3
Kern Health Systems	—	423	423
Kern River Valley Cemetery District	—	2	2
Kern-Tulare Water District	—	9	9
Kettleman City Community Services District	—	4	4
Kings County Area Public Transit Agency	—	6	6
Kings County Association of Governments	—	4	4
Kings County In-Home Supportive Services Public Authority	—	—	—
Kings Mosquito Abatement District	—	17	17
Kings Waste and Recycling Authority	—	18	18
Kinneloa Irrigation District	—	8	8
Kirkwood Meadows Public Utility District	—	16	16
Konocti County Water District	—	6	6
La Habra Heights County Water District	—	10	10
La Puente Valley County Water District	—	14	14
Laguna Beach County Water District	—	38	38
Lake Arrowhead Community Services District	—	53	53
Lake County Fire Protection District	—	26	26
Lake County Vector Control District	—	8	8
Lake Don Pedro Community Services District	—	5	5
Lake Hemet Municipal Water District	—	48	48

PUBLIC AGENCY EMPLOYERS (CONTINUED)

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

Other Public Agency	Active PERF A	PERF C	Total
Lake Oroville Area Public Utility District	—	9	9
Lake Shastina Community Services District	—	15	15
Lake Valley Fire Protection District	—	28	28
Lakeport County Fire Protection District	—	13	13
Lakeside Fire Protection District	—	55	55
Lakeside Water District	—	11	11
Lamont Public Utility District	—	11	11
Las Gallinas Valley Sanitary District of Marin County	—	22	22
Las Virgenes Municipal Water District	112	—	112
Lassen County Waterworks District No. 1	—	1	1
League of California Cities	—	71	71
Leucadia Wastewater District	—	19	19
Levee District No. 1 of Sutter County	—	3	3
Linda County Water District	—	16	16
Linda Fire Protection District	—	20	20
Linden-Peters Rural County Fire Protection District	—	13	13
Lindsay Strathmore Public Cemetery District	—	5	5
Little Lake Fire Protection District	—	4	4
Littlerock Creek Irrigation District	—	7	7
Live Oak Cemetery District	—	3	3
Livermore/Amador Valley Transit Authority	—	16	16
Local Agency Formation Commission of Monterey County	—	3	3
Local Agency Formation Commission of Solano County	—	3	3
Local Government Services Authority, a Joint Powers Authority	—	—	—
Long Beach City College Associated Student Body Enterprises	—	—	—
Long Beach State University, Associated Students	—	57	57
Long Beach State University, Forty-Niner Shops, Inc.	—	35	35
Los Alamos Community Services District	—	7	7
Los Angeles County Area 'E' Civil Defense and Disaster Board	—	1	1
Los Angeles County Development Authority	542	—	542
Los Angeles County Law Library	—	34	34
Los Angeles County Sanitation District No. 2	1,626	—	1,626
Los Angeles County West Vector Control District	—	38	38