SUSTAINABILITY FOR THE FUTURE

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

CALSTRS®

HOW WILL YOU SPEND YOUR FUTURE?

Comprehensive Annual Financial Report

A COMPONENT UNIT OF THE STATE OF CALIFORNIA
FOR THE FISCAL YEAR ENDED JUNE 30, 2017

CALSTRS®

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

A Component Unit of the State of California

Comprehensive Annual Financial Report

for the Fiscal Year Ended June 30, 2017

Prepared by CalSTRS Staff

MISSION

Securing the financial future and sustaining the trust of California's educators

STRATEGIC GOALS

Financial
Ensure a financially sound retirement system.

Member/Employer
Enhance services to members and employers.

Business Transformation
Drive operational excellence.

Workforce Transformation
Grow an engaged, highly skilled and diverse workforce.

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CALSTRS

California State Teachers'
Retirement System
100 Waterfront Place
West Sacramento, CA 95605

December 5, 2017

Sustainability for the Future

The Comprehensive Annual Financial Report issued by the California State Teachers' Retirement System details the system's performance for the fiscal year beginning July 1, 2016, and ending June 30, 2017.

CalSTRS was established more than a century ago in 1913 as the pension plan administrator for California's public school educators. The organization began by representing 120 retired members and 15,000 active members. Over the past 104 years, we have grown to represent more than 930,000 dedicated educators and their beneficiaries by helping them reach their secure retirement future. As of June 30, 2017, CalSTRS employed 1,152 staff statewide at our headquarters in West Sacramento, as well as at our Member Service Centers in Northern and Southern California.

As a global institutional investor with $208.7 billion in portfolio assets as of June 30, 2017, CalSTRS has a fiduciary duty to be principled and effective within our operations in order to meet the financial commitments to our membership for the next century and beyond. By modeling best practices in retirement planning education for our members, adhering to innovative corporate governance principles, and exercising our role as an active shareowner through engagement with portfolio companies, CalSTRS consistently advocates for the importance of corporate sustainability and long-term value creation.

Educating Members on the Importance of Early Planning for Retirement

In keeping with CalSTRS' mission to secure our members' retirement futures, several financial literacy initiatives are interwoven into our business practices to engage and educate members on the importance of retirement planning. Over the course of their careers, from the early years to nearing retirement, members are offered a variety of retirement planning resources and tools, including online calculators, the CalSTRS Pension2 defined contribution supplemental savings plan, financial education workshops and targeted publications based on their life and career priorities. The goal of these educational efforts is to support members in taking the necessary steps toward realizing a rewarding, sustainable and secure retirement.

One reward of a long career in the public teaching profession is a guaranteed defined benefit pension in retirement. On average, CalSTRS members retire after a 25-year career with an average income replacement ratio of approximately 50 to 60 percent of their working salary. In order to maintain their pre-retirement standard of living, CalSTRS provides members with an enhanced understanding of how supplemental savings could be incorporated into their retirement planning process.

This past spring, CalSTRS debuted a redesign of our 403bCompare.com website, the only comprehensive resource in the U.S. providing fee-cost comparisons by product type for 403(b) supplemental savings plans. The site originally launched in 2004 (through legislative authorization) and is available to all employees from California's public schools, community college districts, and county offices of education. The goal of 403bCompare.com is to provide members with financial awareness and retirement planning tools to make their experience less of a gamble and more of a well-thought-out plan to meet their future income needs. This is all connected to the priority CalSTRS places on increasing our members' financial literacy and emphasizing how retirement planning directly connects to steps they can take to ensure their long-term financial sustainability.

Investment Returns and Long-Term Assumption Changes

The 2016–17 fiscal year demonstrated the shifting nature of the global investment markets, with the overall fund earning a 13.4 percent (net of fees) investment return, well above the actuarially assumed rate of 7.25 percent (net) used for funding purposes. This year's returns were driven by strong performance across all markets and asset classes, most notably non-U.S. equity. The successful performance was lauded following single digit returns over the past couple of years. However, in keeping with CalSTRS' long-term focus, the organization intentionally focuses on a 30-year horizon, rather than reactively responding to any given market situations at-hand. Investment performance over time is the true hallmark and measure of success in a mature pension fund like CalSTRS in achieving long-term, sustainable value creation.

CalSTRS' commitment to fiscal sustainability permeates our investment strategies, as evidenced in our increasing focus on risk mitigation and balancing of the portfolio to reflect ongoing market analyses and future trend forecasting to adapt to anticipated shifts and/or changes.

The current year's performance will be a positive contributor to our 30-year investment return assumption of 7.0 percent adopted by the Teachers' Retirement Board for funding purposes in February 2017 as part of the two-year phased-in approach outlined in the actuarial experience study. The adoption of the experience study also included additional changes to various economic and demographic factors, such as inflation assumptions and improved mortality rates. All of these factors, in addition to the investment return assumptions and overall fund performance, work in tandem to make an impact on the forward movement toward the plan funding goal.

Ongoing Progress on Defined Benefit Plan Funding

The funding plan, set into motion in July 2014 via Chapter 47, Statutes of 2014 (Assembly Bill 1469—Bonta), established a predictable schedule of contribution rate increases shared between members, the state and employers over a 32-year span to bring CalSTRS toward full funding by 2046. The funding plan is a model of shared responsibility and it works together with the investment portfolio performance to advance CalSTRS along the path of long-term sustainability.

While CalSTRS continues to deal with a gap between its current assets and the obligations facing the system, known as the unfunded actuarial obligation (or unfunded liability), the system continues to make progress toward reducing the funding shortfall. A snapshot of the Defined Benefit Program's assets and liabilities as reported in the June 30, 2016, actuarial valuation (released in April 2017) reflected an increase of $20.5 billion in the unfunded liability, currently at $96.7 billion. This increase was anticipated and occurred primarily due to the adoption of the lower investment return assumption and the increase in member life expectancies. These changes also caused a decrease in the system's funding ratio—the ratio of the smoothed actuarial value of assets to pension obligations—from 68.5 percent to 63.7 percent. Actuarial experts and consultants expect the funding status will decline again next year, when the investment return assumption is lowered to 7.0 percent as part of the two-year phased in approach adopted in February 2017. Even with the anticipated decline in funding levels next year, an upswing is projected as contributions increase, with a steady ascent toward full funding under the long-term funding plan.

Also, it is important to note that these actuarial valuation numbers are computed differently than the Net Pension Liability (NPL) amounts as defined by Governmental Accounting Standards Board pronouncements, which are reported in the Financial Statements (Note 3–Net Pension Liability of Employers and Nonemployer Contributing Entity) section of this report.

Investor Coalitions and Partnerships Focused on Sustainability

CalSTRS supports and actively partners with organizations that facilitate investor engagement and action on a variety of sustainability issues that are in alignment with our investment beliefs, policies and principles. CalSTRS has advocated for portfolio companies to provide integrated reporting to investors in order to better assess the companies' fiscal sustainability and ensure responsible business practices are in place. To this end, one such example is reflected in CalSTRS' role as a founding board member of the Sustainability Accounting Standards Board (SASB), an innovative organization that encourages companies to report on material environmental, social and governance (ESG) risks that may affect their bottom line and future financial performance.

SASB is an independent nonprofit organization incorporated in July 2011 that sets sustainability accounting standards to help public corporations disclose material, decision-useful information to investors in SEC filings. This is accomplished through a rigorous process, which includes evidence-based research and broad, balanced stakeholder participation. CalSTRS has representatives who serve on both the SASB board as well as the chair of the investor advisory group.

CalSTRS believes that the use of industry-specific sustainability accounting standards, like those developed by SASB, will help public corporations simplify their ESG disclosures, while providing valuable disclosures to investors.

Transforming Sustainability Through Engagement

Moving forward, CalSTRS continues the journey toward transforming to a fully sustainable, global organization. Much of the growth this past year focused on sustainability-focused investments, including a significant commitment of close to $2.5 billion to low-carbon index strategies. Additionally, as an active shareowner, CalSTRS expanded our direct engagement efforts with stakeholders and business partners in order to affect positive change within our portfolio companies. Moreover, CalSTRS regularly engages our non-investment related business partners in surveys to assess levels of sustainable commitment within their organizations. The results continue to be impressively positive, indicating that the shift to embrace sustainable business practices is more than just a trend.

In general, the market showed improved governance, accountability and transparency. Certain companies, however, remain outliers by retaining large executive pay packages, lack of board diversity or archaic governance practices. As a long-term, active shareowner, CalSTRS' duty is to protect assets through the pursuit of good governance and operational accountability, and we are steadfastly pursuing this charge well into the future.

CalSTRS is a long-term, 30-year horizon investor with exposure across global markets, and as such, we recognize that ESG factors can have a significant impact on a company's performance. As organizations like SASB publish standards across all industry sectors detailing ESG risks of material relevance, these standards and related information will greatly enhance investors' abilities to incorporate analyses of those risks into their investment strategies.

Creating Long-Term Value

As with any mature financial services organization, CalSTRS continues to maintain our focus on sustainability for the future by balancing the challenges of managing assets and liabilities, investment gains and losses, and operational growth—all in an effort to ultimately create long-term value.

And just as it is mission-critical for CalSTRS to provide a defined benefit retirement for vested members who dedicated their careers to educating California's youth, we also proactively take steps to provide members with financial tools and resources so they understand the importance of early retirement planning to meet their own personal financial needs well into the future.

For a complete understanding of CalSTRS' performance and sustainability milestones, this CAFR should be reviewed in conjunction with our annual Global Reporting Initiative-based sustainability report titled *Global Stewardship at Work*. This report can be found online at CalSTRS.com/sustainability-reports.

Member Profile

Established 104 years ago, CalSTRS, with a $211.1 billion in net position as of June 30, 2017, is the largest educator-only pension fund in the world. It administers retirement, disability and survivor benefits for California's public school educators and their beneficiaries, from prekindergarten through community college. The Teachers' Retirement Law, part of the California Education Code, established the programs with CalSTRS as the administrator. The law sets required member, employer and state contribution rates. CalSTRS members include employees of approximately 1,745 school districts, community college districts, county offices of education and regional occupational programs during the fiscal year. Our membership spans from the new teacher just starting out to the retired educator enjoying the fruits of decades of teaching in the classroom.

The median CalSTRS pension replaced less than 60 percent of final salary for the members who retired last year. CalSTRS recommends income replacement of 80 percent to 90 percent to maintain a similar lifestyle in retirement. Public educators do not receive Social Security benefits for their CalSTRS service. Moreover, due to the federal Government Pension Offset and Windfall Elimination Provision, retirees who are eligible for Social Security from other work or their spouse often have their Social Security benefits reduced when receiving a CalSTRS benefit. Most retired educators also do not have employer-funded health insurance after age 65.

We continue to reach members in their communities—from Crescent City to San Diego—with online services, benefits planning services and workshops that explain retirement options and stress the need for early savings. With web-based information and more than 40 publications, we strive to be members' trusted guide to retirement.

Financial Statements

The financial statements and notes along with the Management Discussion and Analysis in this report present and analyze the changes in CalSTRS' fiduciary net position for the fiscal year ended June 30, 2017. The markets are dynamic and fluid; any judgment of the financial statements should also consider current market conditions.

Management Responsibility for Financial Reporting and Internal Controls

The financial statements were prepared in accordance with accounting principles generally accepted in the United States. Management is responsible for the integrity and fairness of the information presented in the financial statements, including data that, out of necessity, is based on estimates and judgments. Management is also responsible for establishing and maintaining an effective internal control structure. A system of internal controls provides reasonable, but not absolute, assurance that assets are properly safeguarded and that financial statements are reliable. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and second, the valuation of the cost and benefits requires estimates and judgments by management. We believe that the internal controls currently in place support this purpose, and that the financial statements, accompanying schedules and statistical tables are fairly presented in all material respects.

Investments Overview

The CalSTRS Investment Portfolio is broadly diversified, holding investments ranging from publicly traded short-term bonds to privately held partnerships. The scale and breadth of investments make the management and oversight of these assets highly complex. In light of these factors, CalSTRS has been effective in using our resources in a cost-efficient manner to ensure benefits continue to flow to CalSTRS participants. Over the last year, the CalSTRS portfolio generated a 13.4 percent net one-year return calculated on a time-weighted performance basis.

See the Investments section for more detailed information on the performance of the CalSTRS Investment Portfolio.

Actuarial Reports

A summary of demographic and economic assumptions adopted from experience studies that CalSTRS conducts every four or five years is highlighted in this section. These assumptions are applied to an actuarial valuation that is generally performed on an annual basis. The actuarial valuation provides a picture of the overall funding health of our programs, including the Defined Benefit, Defined Benefit Supplement, Cash Balance Benefit and Medicare Premium Payment programs.

Statistical Reports

This section includes tables that reflect financial trends of the State Teachers' Retirement Plan and demographic characteristics of the Defined Benefit, Defined Benefit Supplement, Cash Balance Benefit, CalSTRS Pension2, and Medicare Premium Payment programs. Also captured in the tables, when applicable, is information comparing the last nine years to the previous fiscal year. This look back reveals overall trends in our programs and membership demographics that help us accurately forecast our future ability to meet our members' retirement needs.

GFOA Award

The Government Finance Officers Association of the U.S. and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to CalSTRS for our comprehensive annual financial report for the year ended June 30, 2016. This is the 22nd consecutive year CalSTRS has received this prestigious award. To be awarded the certificate, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report. Our report must satisfy both generally accepted accounting principles and applicable legal requirements.

PPCC Standards Award Program

The Public Pension Coordinating Council (PPCC) presented CalSTRS with its Recognition Award for Funding and Administration for meeting professional standards for funding and administration as set forth in the Public Pension Standards. The Public Pension Coordinating Council is a coalition of three national associations that represent public retirement systems and administrators. The associations that form the PPCC are the National Association of State Retirement Administrators, National Council on Teacher Retirement and National Conference on Public Employee Retirement Systems. Together, these associations represent more than 500 of the largest pension plans in the U.S.

Acknowledgements

The *2017 Comprehensive Annual Financial Report* demonstrates our commitment to ensure the financial security of California's educators. The accuracy of the financial data reflects CalSTRS' executive leadership and is a duty performed with prudence in perpetuity. The notion that ideas of the future are influenced by the day-to-day interactions teachers have with students today drives the high quality of service we provide. I would like to thank the many staff, advisors and stakeholder organizations dedicated to serving and securing the financial future of our members. CalSTRS is a unique pension system and it is of utmost importance we continue to sustain the trust and financial integrity of our members in their retirement.

Respectfully submitted,

Jack Ehnes
Chief Executive Officer
CalSTRS

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Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

California State Teachers' Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2016

Executive Director/CEO

Public Pension Coordinating Council

Recognition Award for Administration 2017

Presented to

California State Teachers' Retirement System

In recognition of meeting professional standards for
plan 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

TEACHERS' RETIREMENT BOARD (AS OF JUNE 30, 2017)

DANA DILLON
Board Chair
K–12 Classroom Teacher
Term: January 1, 2016 – December 31, 2019

SHARON HENDRICKS
Board Vice Chair
Community College Instructor
Term: January 1, 2016 – December 31, 2019

JOHN CHIANG
State Treasurer
Ex-Officio Member

MICHAEL COHEN
Director of Finance
Ex-Officio Member

JOY HIGA
Public Representative
Term: January 27, 2014 – December 31, 2017

HARRY KEILEY
K–12 Classroom Teacher
Term: January 1, 2016 – December 31, 2019

PAUL ROSENSTIEL
Public Representative
Term: January 1, 2015 – December 31, 2018

TOM TORLAKSON
State Superintendent of Public Instruction
Ex-Officio Member

THOMAS UNTERMAN
Public Representative
Term: January 1, 2016 – December 31, 2019

NORA E. VARGAS
School Board Representative
Term: January 1, 2016 – December 31, 2019

KAREN YAMAMOTO
Retiree Representative
Term: April 17, 2017 – December 31, 2019

BETTY YEE
State Controller
Ex-Officio Member

EXECUTIVE STAFF (AS OF JUNE 30, 2017)

Executive

JACK EHNES
Chief Executive Officer

Investments

CHRISTOPHER AILMAN
Chief Investment Officer

CASSANDRA LICHNOCK
Chief Operating Officer

Financial Services

ROBIN MADSEN
Chief Financial Officer

General Counsel

BRIAN J. BARTOW
General Counsel

Technology Services

ASHISH JAIN
Chief Technology Officer

Public Affairs

GRANT BOYKEN
Public Affairs
Executive Officer

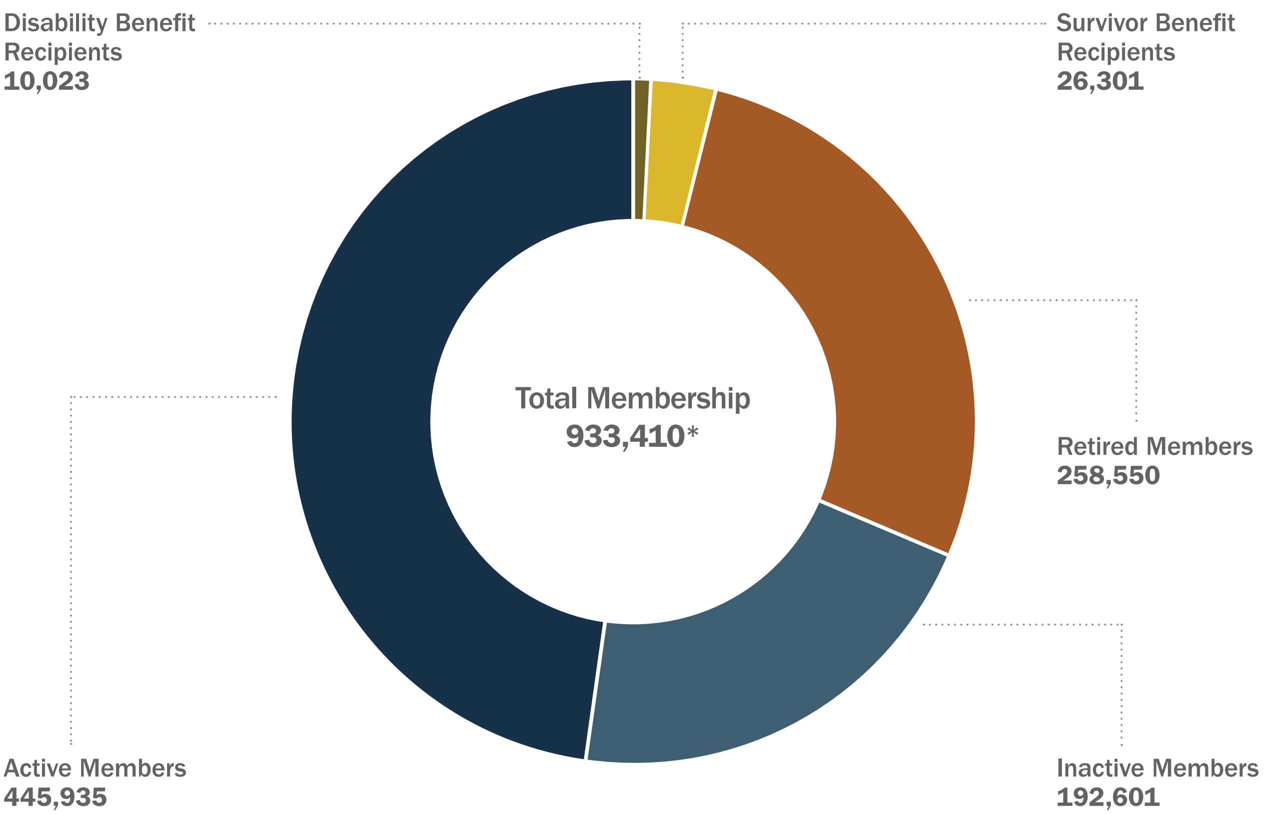
Administrative Services

LISA BLATNICK
Chief of Administrative Services

Benefits and Services

ANDREW ROTH
Benefits and Services
Executive Officer

MEMBERS BY THE NUMBERS



*Due to the timing of when membership numbers were pulled, there will be a difference between the numbers reported in this section and the Financial Section.

Membership

Membership in the CalSTRS Defined Benefit Program includes California public school employees, prekindergarten through community college, who teach or who are involved in selecting and preparing instructional materials, provide vocational or guidance counseling or are supervising people engaged in those activities. Membership is in effect as long as contributions remain on deposit with CalSTRS.

Members are employed in approximately 1,745 public school districts, community college districts, county offices of education, regional occupational centers and programs, and select state agencies. The CalSTRS Defined Benefit Program includes retirement, disability and survivor benefits. Beneficiaries of a retired member who elected an option receive a continuing lifetime benefit upon the member's death.

Benefits to Members and Benefit Recipients

Service Retirement

CalSTRS is committed to providing exceptional service to its retired members. Our staff establishes and maintains timely and accurate benefits.

12,247	Members who retired in fiscal year 2016–17
7.7 percent	Increase from fiscal year 2015–16

Disability Benefits

95 percent	Applications processed within 150 days
667	Applications received in 2016–17
451	Applications approved in 2016–17
11.1 percent	Decrease in number of disability applications received from fiscal year 2015–16

Survivor Benefits

89 percent	Payments processed within 30 days of receiving all necessary information
9,025	Notifications of death received in 2016–17
4.9 percent	Increase in number of notifications from fiscal year 2015–16

Communicating With Our Members and Beneficiaries

Customer Service

Members may contact a CalSTRS Contact Center agent by phone, secured online message or written correspondence.

291,264	Member inquiries answered
54 percent	Member calls answered within 30 seconds
173 seconds	Average wait time to talk with a Contact Center agent
49 percent	Members who received a response to their secure online message within one business day

CalSTRS places great emphasis on customer satisfaction and regularly surveys members to ensure they receive accurate, timely and thorough answers to their questions.

- **74 percent** of members were "highly satisfied" with their Contact Center experience.

Member Communications

CalSTRS communicates with its active and retired members through a variety of channels.

Newsletters

CalSTRS reaches out to members and beneficiaries through the *CalSTRS Connections: Reaching Your Retirement*, *CalSTRS Connections: Your Money Matters* and *Retired Educator* newsletters.

CalSTRS Connections: Reaching Your Retirement is sent in the spring and fall to active and inactive members age 50 and older. It provides information about retirement planning and decisions, workshops and benefits counseling, legislative news and more.

CalSTRS Connections: Your Money Matters is sent in the spring and fall to active and inactive members age 49 and younger. It provides updates on CalSTRS programs and services, articles on retirement benefits, supplemental savings options, financial planning, legislative news and more.

Retired Educator is sent to retired members and beneficiaries in the summer and winter. It provides information on benefits and services, legislation, investments and board updates.

Retirement Progress Report

Every year Defined Benefit members and Cash Balance Benefit participants receive a personalized *Retirement Progress Report* that contains retirement planning information and detailed account information as of June 30 for the fiscal year. For Defined Benefit members age 45 and older, the report includes retirement benefit estimates. The reports are available online in September in the member's *my*CalSTRS account and are mailed in October if requested. Retired members and other benefit recipients do not receive this report.

Member Informational Publications

CalSTRS offers a number of publications to members at various stages in their careers.

The *CalSTRS Member Handbook* is a comprehensive resource on CalSTRS programs and benefits, including descriptions, eligibility requirements and worksheets. The handbook is updated annually.

The *Your Retirement Guide* booklet provides information members need to plan, research and make retirement decisions regarding their defined benefit pension and Defined Benefit Supplement funds. It includes step-by-step instructions for applying for service retirement and what to expect after submitting the retirement application.

CalSTRS Member Kits contain targeted retirement information and are sent annually to three groups of CalSTRS members when they reach a career milestone. The three career milestones—newly vested, mid-career and near retirement—are based on the member's age and years of service credit.

In addition, CalSTRS produces publications that cover specific topics, including:

- *Cash Balance Benefit Program: A Retirement Plan for Part-Time and Adjunct Educators*
- *Community Property Guide*
- *Concurrent Retirement*
- *Introduction to Disability Benefits*
- *Join CalSTRS? Join CalPERS?*
- *myCalSTRS*
- *Pension2 ebook*
- *Purchase Additional Service Credit*
- *Refund: Consider the Consequences*
- *Social Security, CalSTRS and You*
- *Survivor Benefits: Remember Your Loved Ones*
- *Tax Considerations for Rollovers*
- *Understanding the Formula*
- *Uniformed Services Employment and Reemployment Rights Act*
- *Your Disability Benefits Guide*
- *Welcome to CalSTRS*
- *Working After Retirement*

CalSTRS Online

CalSTRS has four websites: CalSTRS.com, *my*CalSTRS, Pension2.com and 403bCompare.com.

CalSTRS.com is the main site for members, board members, employers and other business partners. Features include online calculators to estimate retirement benefits and the cost to purchase service credit or redeposit funds; CalSTRS publications and forms; recent CalSTRS news, an investment overview, and self-scheduling for workshops and benefits planning sessions.

***my*CalSTRS**, CalSTRS' self-service site for members, provides secure and convenient access to members' personal accounts. After registering for *my*CalSTRS, members can view their account balances, complete and submit forms online, keep their contact information current, view their *Retirement Progress Reports*, manage their beneficiary selections, and ask questions and receive prompt answers.

Pension2.com is the website for Pension2, the CalSTRS defined contribution plan that offers 403(b) and 457(b) plans. It also features online enrollment, financial planning tools, webinars and more.

At **403bCompare**, members can easily compare investment fees, performance and services of their employer's 403(b) plans to find the right one for their savings goals. Members can learn about the advantages of a 403(b) account, find their employer's list of approved vendors, compare up to three 403(b)s at a time, side by side, and get information on how to enroll and start contributions. 403bCompare was created by CalSTRS under state legislation.

Members can also stay connected to CalSTRS through its social media presence on Facebook, Twitter, Google+, Instagram, LinkedIn, YouTube and Pinterest.

Benefits Planning Services

CalSTRS has six member service centers: West Sacramento (headquarters), Glendale, Santa Clara, Irvine, Riverside and San Diego.

Member service centers offer educational and benefits planning services, including individual and group benefits planning sessions and financial savings workshops. Existing member service centers serve the greater Sacramento, Los Angeles, Bay Area, Orange County, the Inland Empire and San Diego regions. Offices are open Monday through Friday, 8 a.m. to 5 p.m. and some Saturdays by appointment.

At each center, members have an opportunity to attend educational workshops, meet with CalSTRS benefits specialists by appointment or seek assistance with general information questions on a walk-in basis. Member service center staff also review and receive forms, transmit them to headquarters for processing, and provide CalSTRS forms and publications.

In addition to the member service centers, CalSTRS has one leased office space staffed by CalSTRS staff and seven benefits planning offices located in county offices of education across the state. These offices typically provide workshops, group and individual benefits planning sessions and walk-in assistance, in addition to reviewing and receiving completed forms.

This year, 27,116 members attended group or individual benefits planning sessions or workshops, while 12,862 members took advantage of the opportunity to walk in and receive immediate assistance. An additional 2,208 members received services at outreach events, including job fairs and on-campus presentations.

Another convenient service for members is the estimate-only service, which last year provided 1,739 members with updated retirement benefit estimates without requiring second appointments.

CalSTRS continues to focus on providing services that increase accessibility for members, reflect individual member needs and increase member self-education.

Services to Employers, Member and Client Organizations

CalSTRS staff supports the employer reporting process through education, collaboration and continuous improvement. CalSTRS has enhanced the delivery of information by making it available electronically and on demand for the employer. The Secure Employer Website, SEW, a secure solution for employers to submit their monthly reporting data, includes checks and balances to ensure the data is timely and accurate. In addition, CalSTRS is committed to ensuring our employers have all the information and training necessary to provide the most accurate data reporting.

CalSTRS is committed to preventing pension abuse by automating the review of compensation credited to retirement benefits. The CalSTRS Compensation Review Unit has increased reviews of potential abuse cases through the Pension Abuse Reporting Hotline and online reporting form.

Professional Services

CalSTRS contracts for the services of various independent consultants essential to the effective and professional operation of the system. Milliman, Inc. provides actuarial services and Crowe Horwath LLP is the independent auditor. Lists of investment professionals for investment services and other consultants are provided on Schedules VIII and IX respectively in the Financial Section of this report. Table 9 in the Investments Section also lists entities to whom CalSTRS paid broker commissions during the fiscal year.

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FINANCIAL

CalSTRS is **the largest educator-only pension fund in the world**, with a $211.1 billion in net position as of June 30, 2017.

State Teachers' Retirement Plan Schedules

Basic Financial Statements

Required Supplementary Information (Unaudited)

Other Supplemental Information

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Crowe Horwath LLP
Independent Member Crowe Horwath International

INDEPENDENT AUDITOR'S REPORT

Teachers' Retirement Board of the California
State Teachers' Retirement System
West Sacramento, California

Report on the Financial Statements

We have audited the accompanying financial statements of California State Teachers' Retirement System ("System" or "CalSTRS"), a component unit of the State of California, as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of California State Teachers' Retirement System as of June 30, 2017, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matters

Net Pension Liability of Employers and Nonemployer Contributing Entity

As described in Note 3, based on the most recent actuarial valuation as of June 30, 2016, the System's independent actuaries determined that, at June 30, 2017, the value of the State Teachers' Retirement Plan (STRP) total pension liability exceeded the STRP fiduciary net position by $92.5 billion. The actuarial valuation is sensitive to the underlying actuarial assumptions, including investment rate of return of 7.1%, consumer price inflation of 2.75%, wage growth of 3.5% and custom mortality tables based on CalSTRS most recent Experience Analysis. Our opinion is not modified with respect to this matter.

Fair Value of Investments

As described in Notes 5 and 6, the financial statements include investments valued at approximately $56.4 billion as of June 30, 2017, for which fair value has been estimated by general partners and investment advisors, and reviewed and approved by the System's management, in the absence of readily ascertainable market values. Because of the inherent uncertainty of valuation, the estimate of values may differ from the values that would have been used had a ready market existed for the investment securities, and the differences could be material. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis on pages 28-49 and the Schedule of Changes in Net Pension Liability of Employers and Nonemployer Contributing Entity, Schedule of Net Pension Liability of Employers and Nonemployer Contributing Entity, Schedule of Pension Contributions from Employers and Nonemployer Contributing Entity, Schedule of Money-Weighted Investment Returns for State Teachers' Retirement Plan and Medicare Premium Payment Program, Schedule of Changes in Net OPEB Liability of Employers and Schedule of Net OPEB Liability of Employers on pages 88 – 93 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The Introduction section, Schedule of Administrative Expenses, Schedule of Investment Expenses, Schedule of Consultant and Professional Services Expenses, Investments section, Actuarial section, and Statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

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

The Introduction section, Investments section, Actuarial section, and Statistical section have not been subjected to the auditing procedures applied in the audit of the basic financial statements and accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated September 29, 2017 on our consideration of California State Teachers' Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and other matters. The purpose of that report is 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 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 California State Teachers' Retirement System's internal control over financial reporting and compliance.

Crowe Horwath LLP

Crowe Horwath LLP

September 29, 2017
Sacramento, California

INTRODUCTION

Management's Discussion and Analysis of the California State Teachers' Retirement System's (CalSTRS, "system", "our" or "we") financial performance is intended to fairly and transparently provide an overview of activities for the fiscal year ended June 30, 2017. The discussion and analysis focuses on the year's business events and resulting changes. This discussion is more meaningful when read in conjunction with CalSTRS financial statements and accompanying notes.

In addition to historical information, the discussion and analysis includes some forward-looking statements that involve uncertainties and risks. CalSTRS' actual results, performance and achievements expressed or implied in these statements are subject to changes in interest rates, securities markets, general economic conditions, legislation, regulations and other factors.

MISSION

Since CalSTRS was founded in 1913, we have grown from no assets and 15,000 members to an investment portfolio valued at $208.7 billion[1] serving 933,301 members and beneficiaries as of June 30, 2017. In 1913, the annual benefit was $500; today, the average annual member-only benefit is approximately $48,000. Over the past 104 years, CalSTRS mission has remained the same: to secure the financial future and sustain the trust of California's educators now and for generations to come.

YEAR IN REVIEW

Significant events and changes impacting CalSTRS during fiscal year 2016–17 are described in the paragraphs that follow.

Actuarial Experience Study

CalSTRS engaged our consulting actuary, Milliman, to perform an actuarial experience study for the period starting July 1, 2010, and ending June 30, 2015, to ensure the demographic and economic assumptions adopted by the Teachers' Retirement Board (the "board") are reasonable and reflect the actual experience of the system.

The study evaluated various economic and demographic factors affecting the valuation of CalSTRS' long-term pension liabilities and reflected the need to make changes to various assumptions based on actual experience. The most significant changes were to the long-term investment return rate, mortality tables, inflation and wage growth assumptions for CalSTRS members.

After a thorough review of the results during the February 2017 meeting, the board decided to lower the investment return assumption over a two-year period. The expected return net of all expenses decreased from 7.50 to 7.25 percent for the June 30, 2016, funding actuarial valuations and will decrease from 7.25 to 7.00 percent for the June 30, 2017, funding actuarial valuations. For financial reporting purposes, the board adopted an expected long-term rate of investment return of 7.10 percent, gross of administrative expenses effective June 30, 2017. In addition, the board adopted a revised generational mortality methodology based on the latest trend data, which expects early career members to live two to three years longer than those who retire today. The inflation assumption was lowered from 3.00 to 2.75 percent, and correspondingly, the wage-growth assumption was lowered from 3.75 to 3.50 percent. A copy of the full report is available on www.calstrs.com.

Benefit Adequacy Study

CalSTRS conducted a study in 2017 that compared CalSTRS-only monthly retirement income received by members who retired before 1999 to their estimated monthly minimum living expenses. The study, called the Benefit Adequacy Study, surveyed 28,000 members and found that the CalSTRS benefit structure provides a greater level of adequacy for the long-term educator as compared to those who spent fewer years as an educator. (The study did not include information on income sources other than CalSTRS benefits.) Most retirees who received benefits greater than the estimated minimum living expenses had more than 20 years of service credit. Of the 28,000 members surveyed, 36 percent received benefits lower than the estimated minimum living expenses, most likely as a result of leaving their career as an educator early. Detailed information regarding the study can be found in the board meeting agendas on www.calstrs.com.

Divesting From Coal

During fiscal year 2016–17, the board voted to divest from all non-U.S. thermal coal holdings in the CalSTRS portfolio. Consistent with the CalSTRS Divestment Policy, CalSTRS staff conducted a thorough review of the operations of two

[1] This reflects the value of the investment portfolio as of June 30, 2017. It is presented using common industry practices for investment portfolio management and is not prepared in accordance with U.S. Generally Accepted Accounting Principles.

of CalSTRS' global thermal coal holdings, the non-U.S. thermal coal market and related research materials outlining the impacts of their coal use. Based on their assessment and ongoing shareholder efforts, staff concluded that all engagement options to effect change had been thoroughly exhausted. The board concluded that these holdings were not consistent with the CalSTRS Investment Policy for Mitigating Environmental, Social and Governance Risks (ESG) and were de minimis to the fund. In total, CalSTRS has divested $9.8 million from thermal coal companies worldwide.

The board's action aligns with CalSTRS' long-term global perspective and our fiduciary duty, including consideration of environmental risks – both current and those projected over the next 10 to 25 years or more. Thermal coal burning is a significant producer of greenhouse gases contributing to climate change. CalSTRS annual Green Initiative Task Force Report summarizes our efforts to promote environmental risk management and investment awareness throughout the global financial markets.

Opposing Financial CHOICE Act of 2017

CalSTRS closely monitors legislation considered by the U.S. Congress that may affect our members or CalSTRS' ability to be a proactive investor in the market. Recently, a bill proposing to roll back significant Dodd-Frank investor protections was introduced to the U.S. House of Representatives. The Financial CHOICE Act of 2017 would effectively reduce our ability to influence companies in which we invest by increasing thresholds surrounding the shareholder proposal process. In addition, the CHOICE Act would allow for riskier behavior by public companies and restrict the Securities and Exchange Commission's ability to protect investors.

The board adopted an oppose position on this measure. CalSTRS has written to a ranking member of the House Committee on Financial Services as well as all 55 California members of Congress relaying our position on this legislation. CalSTRS is committed to voicing the concerns of our members and protecting important shareholder rights for our investment portfolio.

Investment Cost Report

The 2015 calendar year investment cost report presented to the board at the November 2016 meeting provided a comprehensive view of investment costs across asset classes and investment strategies. This year, CalSTRS contracted with Pavilion Alternatives Group, LLC, as a project consultant to assist in tracking indirect costs and carried interest for the first time. Indirect costs include general partner management fees and revenues as well as limited partner expenses attributable to the investment of CalSTRS capital.

The annual investment costs presented in the report were 51.8 basis points (bps) of the total net asset value of the portfolio. In 2014, these costs were 30.8 bps. The increase can be attributed, for example, to methodology changes as well as $320 million in netted partnership expenses and other fees not delineated in the 2014 cost report.

The 2015 calendar year report also presented a comparison of CalSTRS investment costs to 15 of our global peers with $72 to $485 billion in assets under management. These comparisons were compiled by third party cost measurement service providers using various methodologies. The results showed that CalSTRS' investment strategies saved approximately $135 million in investment costs. CalSTRS will continue to develop standardized cost reporting practices to enhance the completeness and transparency of our investment management reporting. A copy of the report is available on www.calstrs.com.

New Board Member

In April 2017, Governor Brown appointed Karen Yamamoto to the Teachers' Retirement Board. Ms. Yamamoto served as a second grade teacher for the Washington Unified School District from 1992 to 2007. As a member of the board, she serves on the Appeals Committee, Benefits and Services Committee, Board Governance Committee and the Investment Committee.

FINANCIAL HIGHLIGHTS

State Teachers' Retirement Plan

The State Teachers' Retirement Plan (STRP) is a multiple employer, cost-sharing defined benefit plan comprised of four programs: Defined Benefit (DB) Program, Defined Benefit Supplement (DBS) Program, Cash Balance Benefit (CBB) Program and Replacement Benefits Program. The STRP holds assets for the exclusive purpose of providing benefits to members and beneficiaries of these programs.

The tables that follow present comparative information for the STRP for fiscal years 2016–17 and 2015–16.

Net Position
(Dollars in Thousands)

Assets and Deferred Outflows of Resources	2017	2016	Percent Change
Investment Assets[1]	$229,079,341	$207,541,517	10.4%
Cash	459,456	164,597	179.1%
Investment Receivables	2,349,266	1,280,564	83.5%
Member, Employer and Other Receivables	3,523,160	2,693,178	30.8%
Capital and Other Assets	259,011	231,216	12.0%
Total Assets	**235,670,234**	**211,911,072**	**11.2%**
Deferred Outflows of Resources	**70,934**	**22,756**	**211.7%**
Total Assets and Deferred Outflows of Resources	**235,741,168**	**211,933,828**	**11.2%**
Liabilities and Deferred Inflows of Resources			
Benefits in Process of Payment	234,379	1,188,518	(80.3%)
Investment Liabilities	260,133	169,246	53.7%
Investment Payables	3,270,703	1,403,511	133.0%
Loans Payable	2,824,259	2,129,694	32.6%
Net Pension and OPEB Obligation	323,058	256,069	26.2%
Other	353,766	127,494	177.5%
Securities Lending Obligation	18,184,444	17,530,264	3.7%
Total Liabilities	**25,450,742**	**22,804,796**	**11.6%**
Deferred Inflows of Resources	**526**	**15,545**	**(96.6%)**
Total Liabilities and Deferred Inflows of Resources	**25,451,268**	**22,820,341**	**11.5%**
Net Position	**$210,289,900**	**$189,113,487**	**11.2%**

[1]Includes securities lending collateral of $18.2 billion and $17.5 billion for 2017 and 2016, respectively.

Changes in Net Position
(Dollars in Thousands)

Additions	2017	2016	Percent Change
Member Contributions	$3,440,883	$2,957,473	16.3%
Employer Contributions	4,173,235	3,391,144	23.1%
State of California	2,478,230	1,939,902	27.8%
Net Investment Income[1]	25,165,180	2,337,364	976.6%
Other	72,005	41,519	73.4%
Total Additions	**35,329,533**	**10,667,402**	**231.2%**
Deductions			
Benefit Payments	13,787,035	13,064,557	5.5%
Refunds of Contributions	115,509	84,001	37.5%
Administrative Expenses	182,367	180,056	1.3%
Borrowing Costs[1]	57,958	32,406	78.8%
Other	10,251	15,231	(32.7%)
Total Deductions	**14,153,120**	**13,376,251**	**5.8%**
Net Position Increase (Decrease)	**21,176,413**	**(2,708,849)**	**881.7%**
Beginning Net Position	**189,113,487**	**191,822,336**	**(1.4%)**
Ending Net Position	**$210,289,900**	**$189,113,487**	**11.2%**

[1]Borrowing costs of $32,406 associated with the master facility credit portfolio for the year ended June 30, 2016, were reclassified from Net Investment Income to Deductions to conform to the presentation as of and for the year ended June 30, 2017. The reclassifications had no impact on net position or changes in net position.

- Investment assets increased 10.4 percent or $21.5 billion primarily due to strong market performance resulting in an investment return of 13.4 percent (net of fees) for fiscal year 2016–17.
- Investment receivables increased 83.5 percent or $1.1 billion primarily due to the timing of the settlement of investment sales that occurred near the end of the fiscal year. The increase is also attributable to an increase in interest and dividends receivable.
- Member, employer and other receivables increased 30.8 percent or $829.9 million primarily due to an increase in the master line of credit draws for Real Estate. Additionally, member and employer receivables increased as a result of increase in creditable compensation and member and employer contribution rates in the current fiscal year.
- Benefits in process of payment decreased 80.3 percent or $954.1 million primarily due to the timing of benefit payments in the current year compared to the prior year. In fiscal year 2015–16, the payments for June 2016 were made on the first day of the subsequent month, whereas, for fiscal year 2016–17, the benefit payments for June 2017 were issued prior to the end of the fiscal year.
- Investment liabilities increased 53.7 percent or $90.9 million primarily due to a decrease in valuation fluctuations of forwards and futures as well as additional investments in derivative contracts.
- Investment payables increased 133 percent or $1.9 billion primarily due to the timing of the settlement of investment purchases that occurred near the end of the fiscal year.
- Net Pension and Other Postemployment Benefits (OPEB) obligation increased 26.2 percent or $66.9 million due to the change in CalSTRS' share of, as well as the amount of, the State of California Net Pension Liability (NPL). The increase in proportionate share and increase in the state's NPL also increased deferred outflows and decreased deferred inflows of resources, respectively.
- Member, employer and state contributions increased 21.8 percent or $1.8 billion due to increases in both creditable compensation and contribution rates implemented through Chapter 47, Statutes of 2014 (AB 1469).
- Net investment income increased 976.6 percent or $22.8 billion primarily due to strong market performance resulting in an investment return of 13.4 percent (net of fees) for fiscal year 2016–17.
- Refunds of contributions increased 37.5 percent or $31.5 million primarily due to required minimum distributions of contributions and interest to nonvested members who met the criteria for such payments during fiscal year 2016–17.
- Borrowing costs increased 78.8 percent or $25.6 million primarily due to the increased draws on the master credit facility and the addition of a new credit facility during fiscal year 2016–17.

Pension2 403(b) Plan

CalSTRS Pension2 403(b) Plan is a voluntary defined contribution program that offers low cost and tax deferred 403(b) and Roth 403(b) plans for additional retirement savings.

The tables that follow present comparative information for the Pension2 403(b) Plan for fiscal years 2016–17 and 2015–16.

Net Position
(Dollars in Thousands)

Assets and Deferred Outflows of Resources	2017	2016	Percent Change
Investment Assets	$791,222	$640,243	23.6%
Member, Employer and Other Receivables	15,309	9,567	60.0%
Total Assets	**806,531**	**649,810**	**24.1%**
Deferred Outflows of Resources	-	-	-
Total Assets and Deferred Outflows of Resources	**806,531**	**649,810**	**24.1%**
Liabilities and Deferred Inflows of Resources			
Other	949	1,483	(36.0%)
Total Liabilities	**949**	**1,483**	**(36.0%)**
Deferred Inflows of Resources	-	-	-
Total Liabilities and Deferred Inflows of Resources	**949**	**1,483**	**(36.0%)**
Net Position	**$805,582**	**$648,327**	**24.3%**

Changes in Net Position
(Dollars in Thousands)

Additions	2017	2016	Percent Change
Member Contributions	$121,945	$96,347	26.6%
Employer Contributions	393	377	4.2%
Net Investment Income	77,730	9,548	714.1%
Other	141	120	17.5%
Total Additions	**200,209**	**106,392**	**88.2%**
Deductions			
Distributions and Withdrawals	36,322	32,936	10.3%
Refunds of Contributions	4,657	4,965	(6.2%)
Administrative Expenses	1,975	1,583	24.8%
Total Deductions	**42,954**	**39,484**	**8.8%**
Net Position Increase (Decrease)	**157,255**	**66,908**	**135.0%**
Beginning Net Position	**648,327**	**581,419**	**11.5%**
Ending Net Position	**$805,582**	**$648,327**	**24.3%**

- Investment assets increased 23.6 percent or $150.9 million primarily due to strong market performance, which also resulted in an increase in administrative expenses.
- Member, employer and other receivables increased 60 percent or $5.7 million primarily due to an increase in plan participants (increased by 1,927 to 12,554).
- Member contributions increased 26.6 percent or $25.6 million primarily due to an increase in contributions from new plan participants.
- Net investment income increased 714.1 percent or $68.2 million primarily due to strong market performance.

Pension2 457(b) Plan

CalSTRS Pension2 457(b) Plan is a voluntary defined contribution program that offers low cost and tax deferred 457(b) plans for additional retirement savings.

The tables that follow present comparative information for the Pension2 457(b) Plan for fiscal years 2016–17 and 2015–16.

Net Position
(Dollars in Thousands)

Assets and Deferred Outflows of Resources	2017	2016	Percent Change
Investment Assets	$33,602	$24,651	36.3%
Member, Employer and Other Receivables	625	572	9.3%
Total Assets	**34,227**	**25,223**	**35.7%**
Deferred Outflows of Resources	**-**	**-**	**-**
Total Assets and Deferred Outflows of Resources	**34,227**	**25,223**	**35.7%**
Liabilities and Deferred Inflows of Resources			
Other	23	41	(43.9%)
Total Liabilities	**23**	**41**	**(43.9%)**
Deferred Inflows of Resources	**-**	**-**	**-**
Total Liabilities and Deferred Inflows of Resources	**23**	**41**	**(43.9%)**
Net Position	**$34,204**	**$25,182**	**35.8%**

Changes in Net Position
(Dollars in Thousands)

Additions	2017	2016	Percent Change
Member Contributions	$6,516	$4,898	33.0%
Employer Contributions	44	77	(42.9%)
Net Investment Income	3,338	426	683.6%
Other	8	4	100.0%
Total Additions	**9,906**	**5,405**	**83.3%**
Deductions			
Distributions and Withdrawals	769	905	(15.0%)
Refunds of Contributions	36	266	(86.5%)
Administrative Expenses	79	56	41.1%
Total Deductions	**884**	**1,227**	**(28.0%)**
Net Position Increase (Decrease)	**9,022**	**4,178**	**115.9%**
Beginning Net Position	**25,182**	**21,004**	**19.9%**
Ending Net Position	**$34,204**	**$25,182**	**35.8%**

- Investment assets increased 36.3 percent or $8.9 million primarily due to strong market performance, which also resulted in an increase in administrative expenses.

- Member contributions increased 33 percent or $1.6 million primarily due to an increase in contributions from new plan participants (increased by 126 to 713).

- Net investment income increased 683.6 percent or $2.9 million primarily due to strong market performance.

Medicare Premium Payment Program

CalSTRS administers the Medicare Premium Payment (MPP) Program through the Teachers' Health Benefit Fund (THBF). The MPP Program pays Medicare Part A premiums and Medicare Parts A and B late enrollment surcharges for retired members of the Defined Benefit Plan who meet certain eligibility criteria.

The tables that follow present comparative information for the MPP Program for fiscal years 2016–17 and 2015–16.

Net Position
(Dollars in Thousands)

Assets and Deferred Outflows of Resources	2017	2016	Percent Change
Investment Assets	$606	$590	2.7%
Investment Receivables	2	3	(33.3%)
Total Assets	**608**	**593**	**2.5%**
Deferred Outflows of Resources	**88**	**42**	**109.5%**
Total Assets and Deferred Outflows of Resources	**696**	**635**	**9.6%**
Liabilities and Deferred Inflows of Resources			
Net Pension and OPEB Obligation	625	571	9.5%
Other	18	32	(43.8%)
Total Liabilities	**643**	**603**	**6.6%**
Deferred Inflows of Resources	**12**	**22**	**(45.5%)**
Total Liabilities and Deferred Inflows of Resources	**655**	**625**	**4.8%**
Net Position	**$41**	**$10**	**310.0%**

Changes in Net Position
(Dollars in Thousands)

Additions	2017	2016	Percent Change
Employer Contributions	$29,117	$29,982	(2.9%)
Net Investment Income	11	9	22.2%
Total Additions	**29,128**	**29,991**	**(2.9%)**
Deductions			
Premiums Paid	28,929	29,661	(2.5%)
Administrative Expenses	168	380	(55.8%)
Total Deductions	**29,097**	**30,041**	**(3.1%)**
Net Position Increase (Decrease)	**31**	**(50)**	**162.0%**
Beginning Net Position	**10**	**60**	**(83.3%)**
Ending Net Position	**$41**	**$10**	**310.0%**

- Employer contributions for the MPP Program decreased 2.9 percent or $0.9 million primarily due to a decrease in plan participants. The employer contributions to the plan are limited to the cost of the benefits provided and administrative cost incurred, and as such, a decrease in the number of beneficiaries results in decreased contributions to the plan.

- Premiums paid decreased 2.5 percent or $0.7 million to $28.9 million. The decrease was primarily due to the reduction in plan participants over the prior year as this plan has been a closed plan since June 30, 2012. A total of $28.9 million in premiums were paid in fiscal year 2016–17 as compared to $29.6 million in the prior year.

- Administrative expense decreased 55.8 percent or approximately $0.2 million primarily due to a decrease in pension expense and a reduction in the use of the services of temporary employees.

Teachers' Deferred Compensation Fund

The Teachers' Deferred Compensation Fund (TDCF) is a trust fund established to account for ancillary activities associated with various deferred compensation plans and programs offered by CalSTRS such as the 403(b) and 457(b) plans.

The tables that follow present comparative information for the TDCF for fiscal years 2016–17 and 2015–16.

Net Position
(Dollars in Thousands)

Assets and Deferred Outflows of Resources	2017	2016	Percent Change
Investment Assets	$1,102	$1,443	(23.6%)
Cash	1	1	0.0%
Investment Receivables	3	2	50.0%
Member, Employer and Other Receivables	132	119	10.9%
Total Assets	**1,238**	**1,565**	**(20.9%)**
Deferred Outflows of Resources	**262**	**81**	**223.5%**
Total Assets and Deferred Outflows of Resources	**1,500**	**1,646**	**(8.9%)**
Liabilities and Deferred Inflows of Resources			
Net Pension and OPEB Obligation	1,212	1,067	13.6%
Other	554	589	(5.9%)
Total Liabilities	**1,766**	**1,656**	**6.6%**
Deferred Inflows of Resources	**2**	**156**	**(98.7%)**
Total Liabilities and Deferred Inflows of Resources	**1,768**	**1,812**	**(2.4%)**
Net Position	**$(268)**	**$(166)**	**61.4%**

Changes in Net Position
(Dollars in Thousands)

Additions	2017	2016	Percent Change
Net Investment Income	$9	$6	50.0%
Other	1,453	1,339	8.5%
Total Additions	**1,462**	**1,345**	**8.7%**
Deductions			
Administrative Expenses	1,542	1,433	7.6%
Other	22	14	57.1%
Total Deductions	**1,564**	**1,447**	**8.1%**
Net Position Increase (Decrease)	**(102)**	**(102)**	**0.0%**
Beginning Net Position	**(166)**	**(64)**	**159.4%**
Ending Net Position	**$(268)**	**$(166)**	**61.4%**

• Other additions increased by 8.5 percent or $0.1 million primarily due to increased sponsor and maintenance fees from vendors based on the increased value of assets in Pension2 (403(b) plan and 457(b) plan).

• Deferred outflows of resources and deferred inflows of resources increased 223.5 percent or $0.2 million and decreased 98.7 percent or $0.2 million, respectively. The changes from the prior year were primarily due to an increase in the State of California NPL.

• Investment assets decreased by 23.6 percent or approximately $0.3 million primarily due to the payment of expenses related to 403(b) Compare website redesign.

• Member, employer and other receivables increased 10.9 percent or approximately $13 thousand primarily due to increased sponsor and maintenance fees from vendors based on the increased value of assets in Pension2 (403(b) plan and 457(b) plan).

• Administrative expenses increased 7.6 percent or approximately $0.1 million primarily due to expenses incurred related to the 403(b) Compare website redesign.

OVERVIEW OF FINANCIAL STATEMENTS

Management's Discussion and Analysis is also an introduction to CalSTRS' basic financial statements. CalSTRS' financial statements include the following components:

1. The Statement of Fiduciary Net Position
2. The Statement of Changes in Fiduciary Net Position
3. Notes to the Basic Financial Statements
4. Required Supplementary Information – Unaudited
5. Other Supplemental Information

THE STATEMENT OF FIDUCIARY NET POSITION

The Statement of Fiduciary Net Position presents information on all of CalSTRS' assets and liabilities, with the difference between the two reported as net position. Over time, the increase or decrease in net position serves as an indicator of CalSTRS' financial condition and our ability to fund future benefit payments.

THE STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

The Statement of Changes in Fiduciary Net Position shows how CalSTRS' net position changed during the fiscal year, reflecting contributions earned, benefit payments made, investment returns and the costs of plan administration.

NOTES TO THE BASIC FINANCIAL STATEMENTS

The Notes to the Basic Financial Statements provide information essential to a full understanding of fiduciary fund financial statements. The type of information provided in each note is as follows:

- Note 1 provides a general description of CalSTRS, as well as a concise description of each of the plans and funds administered by CalSTRS.
- Note 2 provides a summary of significant accounting policies, including the basis of accounting for CalSTRS, management's use of estimates, cash and investment accounting policies, and other significant accounting policies.
- Note 3 provides a summary of the net pension liability of employers and the nonemployer contributing entity for the STRP in accordance with Governmental Accounting Standards Board (GASB) Statement No. 67, Financial Reporting for Pension Plans.
- Note 4 provides a summary of the net OPEB liability of employers for the MPP Program in accordance with GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, which replaced GASB Statement No. 43.

  In June 2015, GASB released Statement No. 74, to address reporting by OPEB plans which administer benefits on behalf of governments. GASB Statement No. 74 improves financial reporting through enhanced note disclosures and schedules of required supplementary information. CalSTRS implemented GASB Statement No. 74 in the current year financial statements. Additional information regarding new GASB statements can be found in Note 9.
- Note 5 provides information related to deposits and investments including disclosures required by GASB Statement No. 28, Accounting and Financial Reporting for Securities Lending Transactions; GASB Statement No. 38, Certain Financial Statement Note Disclosures; GASB Statement No. 40, Deposit and Investment Risk Disclosures; GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments; GASB Statement No. 67, Financial Reporting for Pension Plans; GASB Statement No. 72, Fair Value Measurement and Application and GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. This note discloses information about CalSTRS investment performance and risks related to credit (including custodial credit and concentrations of credit risk), interest rate and foreign currency. In an effort to provide increased visibility to investment holdings, Note 5 also includes a Schedule of Investments that discloses the types of investments within each broad investment category.
- Note 6 provides information related to investment disclosures required by GASB Statement No. 72.
- Note 7 generally describes potential contingencies of CalSTRS.
- Note 8 provides a summary of CalSTRS' significant commitments.
- Note 9 provides a summary of new accounting and financial reporting pronouncements.

REQUIRED SUPPLEMENTARY INFORMATION

The Required Supplementary Information consists of six schedules. These schedules are intended to assist the reader in understanding the net pension liability of the STRP and net OPEB liability of the MPP Program. The information available in the Required Supplementary Information section includes:

- Schedule I – Schedule of Changes in Net Pension Liability of Employers and Nonemployer Contributing Entity
- Schedule II – Schedule of Net Pension Liability of Employers and Nonemployer Contributing Entity
- Schedule III – Schedule of Pension Contributions from Employers and Nonemployer Contributing Entity
- Schedule IV – Schedule of Money-Weighted Investment Returns for State Techers' Retirement Plan and Medicare Premium Payment Program
- Schedule V – Schedule of Changes in Net OPEB Liability of Employers
- Schedule VI – Schedule of Net OPEB Liability of Employers

OTHER SUPPLEMENTAL INFORMATION

Other Supplemental Information includes details on administrative expenses, investment expenses, and consultant and professional services expenses. The schedules available in the Other Supplemental Information section include:

- Schedule VII – Schedule of Administrative Expenses
- Schedule VIII – Schedule of Investment Expenses
- Schedule IX – Schedule of Consultant and Professional Services Expenses

MAJOR BUSINESS COMPONENTS

The sections that follow describe the activities and results of CalSTRS' major business components (investment management and pension administration) for fiscal year 2016–17.

Investment Returns

CalSTRS primary goal is to maintain a financially sound retirement system. CalSTRS investment philosophy is "long-term patient capital" — investing for long-term net cash flows and capital gain potential at a reasonable price.

During the fiscal year 2016–17, the Investment Committee adopted seven investment beliefs. The belief statements describe the authority, responsibility and fiduciary duty CalSTRS has in executing our investment process. The seven belief statements are:

1. Diversification improves the risk-adjusted profile of an investment portfolio
2. The global public investment markets are largely, but not completely, efficient
3. There are long-term benefits to managing investment costs
4. Internal management is a critical capability
5. CalSTRS can potentially capture an illiquidity risk premium
6. Managing short-term drawdown risk can positively impact CalSTRS' ability to meet our long-term financial obligations
7. Responsible corporate governance, including the management of ESG factors, can benefit long-term investors like CalSTRS

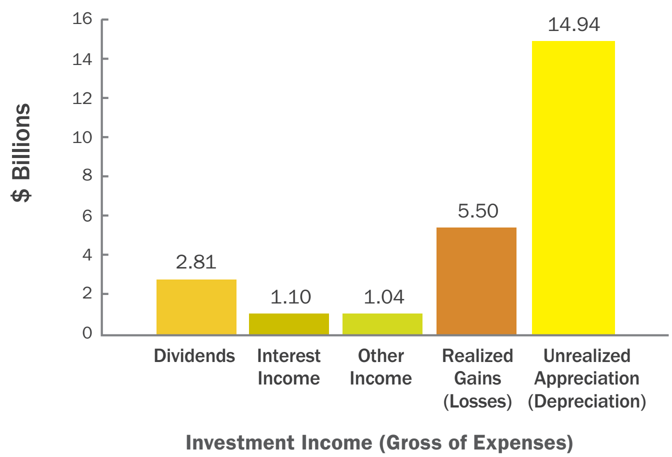
CalSTRS uses a time-weighted return methodology to calculate returns for portfolio performance purposes. For fiscal year 2016–17, CalSTRS earned an approximate 13.4 percent one-year return calculated on a net of fees basis. The resulting one-year performance is above the actuarially assumed 7.25 percent rate of return used for funding purposes. CalSTRS' returns (net of fees) reflect the following longer-term performance:

- 6.3 percent over three years
- 10.1 percent over five years
- 5.0 percent over 10 years
- 6.9 percent over 20 years

The money-weighted return net of all investment expenses based on financial statement values also reflects an approximate 13.4 percent one-year return as of June 30, 2017. The money-weighted return measures the overall performance of the pension plan factoring in the impact of cash flows and is the same as the time-weighted returns for this fiscal year. Historically, the time-weighted and money-weighted returns have been different.

The graph below displays a detailed view of the sources of investment income for the STRP, excluding securities lending income, based on the Statement of Changes in Fiduciary Net Position as of June 30, 2017.

Sources of Investment Income

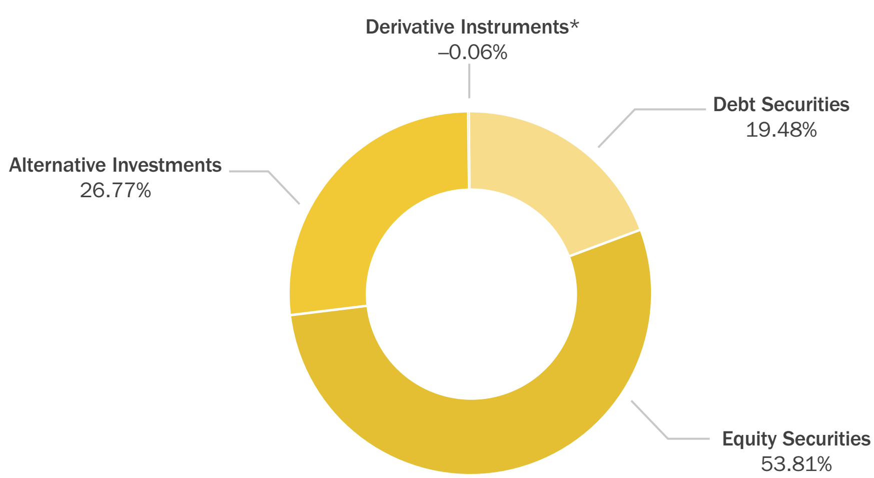


CalSTRS' investments earn income in the form of interest and dividends from holding fixed income securities and various types of equity interests in public companies, limited partnerships and co-investments. Other income consists primarily of distributed income from alternative investments (such as rent), term loans and securities litigation. Realized gains and losses are generally a result of investment sales, write-offs and re-organizations. Unrealized appreciation and depreciation is generated by period over period valuation fluctuations in all types of investments.

Asset Allocation and Performance

The graph below presents STRP net investments, excluding securities lending collateral and obligations, based on investment classifications within the Statement of Fiduciary Net Position as of June 30, 2017.

Statement of Fiduciary Net Position Investment Distribution



*Derivative instruments are reported on a net basis in the graph above. Please refer to the Schedule of Investments in the Notes to the Basic Financial Statements for more information.

The following table displays the distribution of net investments based on the portfolio allocation as compared to the classification within the Statement of Fiduciary Net Position as of June 30, 2017.

Portfolio Allocation versus Financial Statement Classification

Portfolio Allocation		Financial Statement Classification	
Asset Class/Strategy	**Asset Allocation**	**Investments**	**% of Asset Class**
Global Equity	56.4%	Equity Securities	96.0%
		Alternative Investments	2.6%
		Debt Securities	1.1%
		Other*	0.3%
Fixed Income	14.7%	Debt Securities	101.6%
		Other*	(1.6%)
Real Estate	12.6%	Alternative Investments	99.8%
		Debt Securities	0.1%
		Other*	0.1%
Private Equity	8.1%	Alternative Investments	99.6%
		Debt Securities	0.3%
		Other*	0.1%
Liquidity	1.5%	Debt Securities	99.0%
		Other*	1.0%
Inflation Sensitive	1.3%	Alternative Investments	75.7%
		Debt Securities	24.3%
		Derivative Instruments	(0.1%)
		Other*	0.1%
Risk Mitigating Strategies	5.1%	Alternative Investments	61.0%
		Debt Securities	44.3%
		Other*	(5.3%)
Innovative Strategies	0.2%	Alternative Investments	100.0%
Strategic Overlay	0.1%	Equity Securities	158.8%
		Debt Securities	3.2%
		Derivative Instruments	(62.5%)
		Other*	0.5%
Total Fund	**100.0%**		

*Other consists of cash, payables and receivables that are reflected as such on the Statement of Fiduciary Net Position and any investment categories less than 0.1 percent.

Equity Securities

Representing 56.4 percent of total investments as of June 30, 2017, the Global Equity asset class is comprised of equity securities within the U.S., non-U.S. developed countries and emerging markets. Corporate governance funds are included within the Global Equity asset class but are classified as Alternative Investments on the financial statements, as reflected in the table above. Approximately 54 percent of the Global Equity assets are managed internally by CalSTRS investment staff, while the remaining 46 percent are managed by external investment managers.

As of June 30, 2017, the STRP held $113.3 billion in equity securities across all portfolios, an increase of 13.5 percent compared to the prior year.

Global equity markets generated strong returns for the fiscal year. Following the outcome of the U.S. presidential election, equities rallied as expectations for corporate tax reform, increased infrastructure spending and regulatory reform under the new administration boosted investor sentiment. Positive economic data and corporate earnings growth also drove domestic stock prices up in the second half of the year as major U.S. indices reached record highs.

International developed and emerging markets also posted gains, with emerging markets outperforming developed markets fueled by strength in the global economy and positive economic data in several large emerging market countries. European markets increased during the fiscal year driven by positive economic news and reduced political uncertainty – the election of centrist and pro-European Union candidate Emmanuel Macron in the French presidential election improved investor sentiment. Asian markets also generated strong returns – Chinese stocks increased for the fiscal year as positive economic data indicated the country's economic slowdown had stabilized.

CalSTRS has one of the longest standing corporate governance policies in the public pension community, which helps protect our investments through the pursuit of good stewardship and operational accountability. During fiscal year 2016–17, the CalSTRS Corporate Governance team continued to focus on our four primary areas of responsibility: company engagements, proxy voting, portfolio management and legal, regulatory and legislative support. CalSTRS staff engages companies to improve their executive compensation, board diversity, sustainability awareness and risk management practices. CalSTRS staff also worked directly with various regulatory and industry bodies whose rules and regulations can impact CalSTRS. Recent achievements and future objectives are outlined in the fourth Corporate Governance Annual Report, which is available on www.calstrs.com.

In calendar year 2016, CalSTRS staff voted on 76,260 proposals related to director elections, auditor ratifications, compensation plans and other issues for companies in the Global Equity asset class. CalSTRS also participated in 15 diversity related events in the past year and filed one major shareholder proposal to increase diversity in our portfolio companies. In addition to other efforts to engage with companies in our portfolio, CalSTRS engaged 15 gas utility companies to encourage improving disclosures of pipeline infrastructure and maintenance. As a result, nearly all 15 companies indicated they were committed to improve disclosures to their investors, and at one of these companies, a shareholder proposal was put forth to request a report on how the company monitors and manages the level of methane emission resulting from its operations.

Debt Securities

The Fixed Income asset class is composed of U.S. and non-U.S. dollar based investment grade and non-investment grade securities. Approximately 84 percent of the asset class uses an enhanced core strategy. The remaining 16 percent uses broader core plus, high yield and other opportunistic strategies.

Debt securities within Fixed Income and other asset classes increased 2.9 percent from $39.9 billion as of June 30, 2016, to $41.0 billion as of June 30, 2017. Returns were modest for debt securities for the fiscal year. In contrast to the equity markets, debt security values decreased following the presidential election as investors anticipated a rise in inflation and interest rate hikes in 2017. The 10-year Treasury yield rose 20 basis points the day after the election (the largest daily increase in three years) causing a significant sell-off in U.S. government debt. Inflation rose in the first half of the fiscal year, leading to three Federal Reserve interest rate hikes by fiscal year end. Corporate bonds, particularly high-yield bonds, outperformed government bonds. Prices for non-U.S. sovereign bonds, however, increased as a result of the weakening U.S. dollar.

Alternative Investments

Alternative investments include investments in private equity, real estate, corporate governance, inflation sensitive, innovation and risk mitigating strategies. For the year ended June 30, 2017, alternative investments increased 12.6 percent from $50.1 billion to $56.4 billion. The increase was primarily due to the increase in privately held equities and debt attributed to new investments within Risk Mitigating Strategies (RMS). RMS represented 5.1 percent of total investments as of June 30, 2017, and includes strategies that provide protection against equity market downturns.

The Private Equity asset class is composed of limited partnerships and co-investments focusing on commitments to domestic and non-U.S. partnerships as identified in the Private Equity Policy. Types of investment strategies include leveraged buyouts, venture capital, expansion capital, distressed debt and mezzanine investments. The Private Equity asset class generated double-digit returns for the fiscal year. For the industry as a whole, the number of private equity funds has continued to rise through the fiscal year. Capital distributions also continue to exceed capital called by the funds, thus unfunded commitments remain at all-time highs.

Substantial fees and costs are associated with investments in the Private Equity asset class. Consequently, emphasis is placed on negotiating and monitoring the costs of each limited partnership investment.

The Real Estate asset class is comprised of investments in directly held real estate, such as wholly owned properties and joint venture investments and non-directly held real estate, which consists primarily of commingled funds and co-investments. Approximately 7.6 percent of the Real Estate asset class represents non-U.S. assets. To more closely align the interest of CalSTRS and the real estate managers, emphasis is placed on negotiating, monitoring and managing the costs associated with each real estate investment.

Real estate investments increased $17.0 million or 0.1 percent for the fiscal year. Returns for the asset class were positive at the end of the fiscal year primarily due to distributed income, realized gains and unrealized gains within the asset class.

As compared to the broader market, the real estate industry underperformed but still generated positive returns for the fiscal year. Strong labor markets, increasing home prices and moderate supply indicated continued growth within the industry. Mortgage rates rose following the Federal Reserve interest rate hikes; however, demand remained strong. International and emerging markets also performed positively as economic data indicated global economic expansion. Commercial real estate has experienced steady economic growth since 2015 and reflects attractive risk-adjusted returns relative to alternative investments. Valuations remained strong largely driven by healthy demand and positive net operating income from increased rents.

Asset/Liability Study

CalSTRS conducts a full asset/liability (A/L) study once every four years or more frequently if there is a significant change in the assets or liabilities, with the key goal of developing an asset allocation policy that maximizes the likelihood that the investment portfolio's assets will, over the planning horizon, fund plan benefits. The most recent study was completed in 2015–16.

The study, which began in February 2015, occurred over several Investment Committee meetings and concluded at the November 2015 meeting with the adoption of capital market assumptions and strategic asset allocation targets and ranges into the Investment Policy and Management Plan (IPMP).

The Investment Committee agreed to adopt a new strategy, Risk Mitigating Strategies (RMS), to invest in strategies that provide further diversification of CalSTRS overall investment portfolio. The new strategy is designed to provide protection against equity market downturns and has a long-term allocation target of 9 percent of the total fund assets. As of June 30, 2017, RMS represented $10.7 billion, or 5.1 percent of total fund assets.

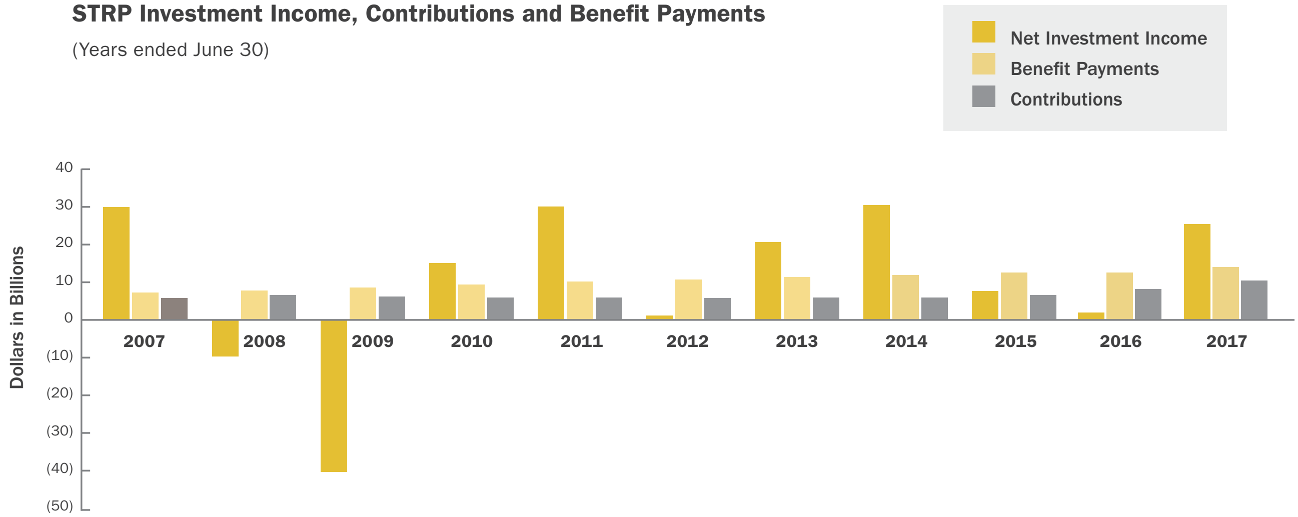
Separately, CalSTRS continues to implement a transition from a U.S. equity bias to global market index weights for U.S. and non-U.S. equities. The shift will be implemented over an extended period of time.

Detailed information regarding the study and the long-term policy targets and ranges can be found in the board meeting agendas on www.calstrs.com.

The following chart is a 10-year comparison of investment income, contributions and benefit payments.

STRP Investment Income, Contributions and Benefit Payments

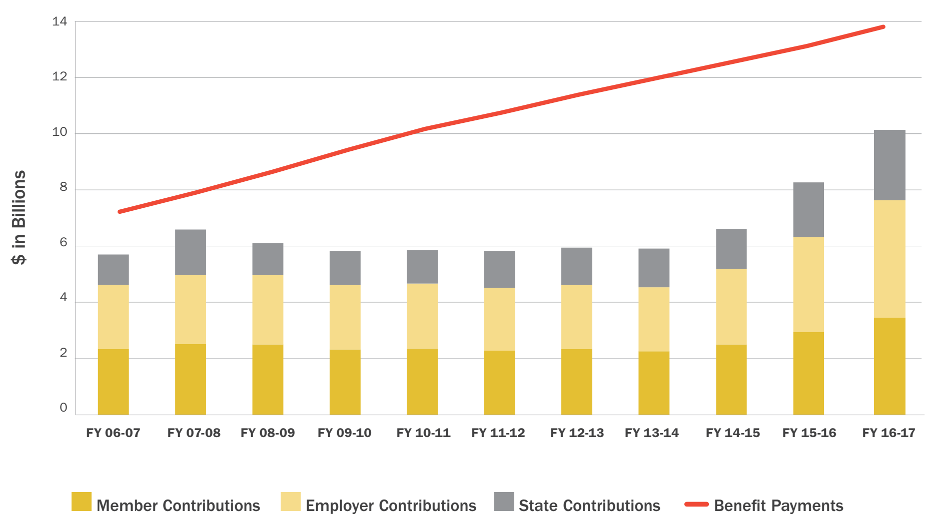
(Years ended June 30)



The chart below shows that prior to the enactment of AB 1469 in June 2014, there had been a growing gap between contributions and benefit payments. During fiscal year 2016–17, the gap narrowed by 22.7 percent.

Contributions will continue to increase according to AB 1469, and the DB Program continues to make progress toward full funding by the year 2046. The experience beyond 2046 may differ.

STRP Contributions and Benefits Payments



Actuarial Valuation

As a result of GASB pronouncements, CalSTRS has separate actuarial valuations performed for funding and financial reporting purposes.

Pension System Financial Reporting Actuarial Valuation

The actuarial valuation for financial reporting focuses on the obligation an employer incurs to employees through the employment-exchange process. The primary purpose of the valuation for financial reporting is to provide a consistent, standardized methodology that allows comparability of data and increased transparency of the pension liability across plans. To achieve this, GASB requires a different approach for determining the reported NPL, as compared to Unfunded Actuarial Accrued Liability (UAAL).

There are considerable differences between the UAAL and NPL. Conceptually, the UAAL is the actuary's measure of the additional amount of assets needed to pay all benefits earned to date by current plan members, while the NPL is an accrual calculation that reflects future benefits earned by plan members through the employment-exchange process in excess of the plan's fiduciary net position.

With the provision of additional member, employer and state contributions effective July 1, 2014, CalSTRS does not project a depletion of assets. CalSTRS discounted all future obligations for the STRP using the long-term assumed rate of return on plan assets gross of administrative costs (currently 7.10 percent). Based on that assumption, the STRP has an NPL of $92.5 billion as of June 30, 2017.

Pension System Funding Actuarial Valuation

The purpose of the actuarial valuations for funding the programs within the STRP is to guide decisions regarding the long-term viability of the programs. Specifically, the purpose is to analyze the sufficiency of future contributions from members, employers and the state to meet current and future obligations. Historically, CalSTRS investment income has contributed approximately 62 percent of the total inflows to the STRP with employer contributions making up 15 percent, member contributions making up 15 percent and state contributions making up 8 percent. These percentages change over time due to fluctuating net investment income as well as the adjustments to required member, employer and state contribution rates due to AB 1469.

Separate funding actuarial valuations are performed for the DB, DBS, CBB programs and the Supplemental Benefit Maintenance Account (SBMA). Currently, the investment rate of return and discount rate assumption for funding actuarial valuations is 7.25 percent (6.75 percent for CBB). The investment return assumption, according to actuarial principles, should be based on an estimated long-term investment yield for the STRP, with consideration given to the nature and mix of current and expected plan investments, and is the basis for determining the actuarial value of assets.

The investment return assumptions are developed by CalSTRS investment and actuarial consultants and are adopted by the board. The actuarial assumptions and methods used in the June 30, 2016, actuarial valuation were based on the 2015 Actuarial Experience Analysis adopted by the board in February 2017.

The most recent actuarial valuation indicates that the DB Program has 63.7 percent of the funds needed to pay the actuarial cost of the benefits accrued as of June 30, 2016, which decreased by 4.8 percent from the June 30, 2015, valuation. Additionally, the valuation indicates that as of June 30, 2016, the DBS Program had a funded ratio of 111.6 percent, compared to the June 30, 2015, funded ratio of 114.5 percent. The actuarial valuation also indicates that as of June 30, 2016, the CBB Program had a funded ratio of 108.8 percent compared to the June 30, 2015, funded ratio of 113.2 percent.

Interest is credited to the nominal DBS and CBB program accounts at the minimum guaranteed annual rate established by the board prior to each plan year, which was 2.88 percent for the fiscal year ended June 30, 2017. The board may credit additional earnings to members' nominal accounts if actual investment earnings exceed the minimum guaranteed annual rate and meet criteria set out by the board. However, as the DBS funded status does not exceed the 115 percent threshold needed to trigger an Additional Earnings Credit (AEC), no AEC was awarded for fiscal year ended June 30, 2017. Furthermore, the CBB funded status also is below the threshold of 113 percent, and as such, no AEC was awarded for fiscal year ended June 30, 2017. Refer to Note 1 for additional information.

Other Postemployment Benefits (OPEB) Financial Reporting Actuarial Valuation

During fiscal year 2016–17, CalSTRS implemented GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other than Pension Plans. GASB Statement No. 74 replaces GASB Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, as amended, and GASB Statement No. 57, OPEB Measurements by Agent Multiple-Employers and Agent Multiple-Employer Plan, which provided financial reporting guidance for OPEB for state and local government OPEB plans.

GASB Statement No. 74 reflects a fundamental overhaul in the standards for accounting and financial reporting for OPEB. This new standard requires the calculation of a liability for OPEB obligations, known as the Net OPEB Liability (NOL) that will be recognized on the balance sheet of the employers participating in the plan. In addition, OPEB expense will be recognized in the income statement of the participating employers. GASB Statement No. 74 also requires OPEB plans such as CalSTRS to present more expansive footnote disclosures and required supplementary information related to the measurement of OPEB liabilities for which assets have been accumulated, including information about annual money-weighted rates of return on plan investments.

For CalSTRS, this standard applies to the MPP Program, which pays for Medicare Part A premiums and Medicare Parts A and B late enrollment surcharges for eligible members. The total OPEB liability for the MPP Program was determined by applying update procedures to the financial reporting actuarial valuation as of June 30, 2016, and rolling forward the total OPEB liability to June 30, 2017. As of June 30, 2017 the NOL for the MPP Program is $420.7 million.

The MPP Program is funded on a pay-as-you-go basis, with contributions generally being made at the same time and in the same amount as benefit payments. As such, the fiduciary net position will not be sufficient to make the projected future benefit payments. Since the MPP Program is essentially unfunded, in accordance with GASB Statement No. 74, the rate used to discount the total OPEB liability represents the yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The discount rate as of June 30, 2017 for the MPP Program OPEB liability is 3.58 percent as measured by the Bond Buyer 20-Bond GO Index as of June 30, 2017.

OPEB Funding Actuarial Valuation

The MPP Program funding actuarial valuation measures the value of DB Program employer contributions that will be available to fund the MPP Program benefits in future periods. This valuation differs from the actuarial valuation for financial reporting for the MPP Program, which focuses on the obligation an employer incurs to employees through the employment-exchange process.

The MPP Program funding actuarial valuation as of June 30, 2016 found that the MPP Program assets, along with MPP allocated funding from future employer contributions are sufficient to finance the future MPP Program obligations of $315 million for both Part A premiums and Part A and B surcharges. The valuation considered the recent actuarial experience study and was based on the assumption that on average Medicare Part A and B premiums and surcharges will continue to annually increase at a rate of 3.7 percent and 4.1 percent, respectively.

Sustainability

CalSTRS believes establishing a corporate environment with sustainable principles leads to a more productive business culture, better environmental and governance practices, and increased long-term viability. Our sustainable strategy focuses not only on delivering profitable, risk-adjusted returns, but also on the everyday business practices encompassing facilities operations, human resources and organizational standards.

CalSTRS released the third annual CalSTRS 2015–16 Sustainability Report: *Global Stewardship at Work*, which was prepared based on the Global Reporting Initiative G4 Guidelines and outlines notable achievements relating to long-term sustainability and stewardship. For example, CalSTRS sent 87 letters to California companies requesting engagement with their nominating and corporate governance committee chairs on improving board diversity. CalSTRS also co-hosted a Diversity Forum where leaders from different industries who have successfully increased diversity presented the key initiatives and activities they undertook to achieve change. CalSTRS accomplished several diversity and inclusion milestones itself which led to the development of a road map for implementing our Diversity and Inclusion: The Power of Difference program.

CalSTRS is also part of a group of leading investors that launched a historic initiative focused on U.S. institutional investor stewardship and corporate governance. The Investor Stewardship Group was formed to develop and sustain a framework of basic standards of investment stewardship and corporate governance for U.S. institutional investor and boardroom conduct. The standards form a framework for promoting long-term value creation for U.S. companies and the broader U.S. economy.

CalSTRS continues to engage with organizations committed to bringing transparency to sustainable practices of companies in the U.S. To this end, CalSTRS is a founding board member of the Sustainability Accounting Standards Board (SASB) and believes that companies should report on material ESG issues that affect their financial performance.

SASB is an independent nonprofit organization incorporated in July 2011 that sets sustainability accounting standards to help public corporations disclose material, decision-useful information to investors in SEC filings. That mission is accomplished through a rigorous process that includes evidence-based research and broad, balanced stakeholder participation. CalSTRS CEO Jack Ehnes serves as a board member of SASB, and CalSTRS CIO Chris Ailman chairs the investor working group of SASB.

The SASB standards encompass a broad range of topics that assist companies and investors to better understand and communicate about the connection between sustainability performance and financial performance. The topics relate to employee incentives and risk taking, employee inclusion, transparent information and fair advice for customers and management of the legal and regulatory environment.

The SASB standards related to employee incentives and risk taking state that incentivized short-term and long-term performance in the asset management industry can lead to aggressive investments in certain asset classes or securities. CalSTRS enforces a strict incentive compensation policy based on both qualitative and quantitative performance objectives designed to align staff interests with the system's. The board meets with the CEO and CIO to establish performance objectives annually. Progress toward these performance objectives is discussed semi-annually. The board evaluates the CEO's and CIO's performance on an annual basis. The CIO evaluates the performance of all investment employees annually. The board has discretion to pay no incentives, reduce the amount of the incentive award or defer all or part of the employee's incentive award for a plan year. This can be done if qualifying events related to investment performance, ethical violation or reputational risk occur.

Below is a summary of incentive awards paid in fiscal year 2016–17 to qualifying employees in comparison to their regular pay. CalSTRS strives to sustain careers of our employees over the long term and awards those high performers who have met the qualitative and quantitative requirements described above.

Incentive Pay Ratio for Qualifying CalSTRS Employees (dollars in thousands)

	TOTAL PAY	INCENTIVE PAY	%*
EXECUTIVE/ SENIOR MANAGERS[1]	15,864	2,639	17%
ALL OTHERS[2]	2,720	114	4%

*Ratio of Incentive Pay to Total Pay

[1]The Executive/Senior Manager category consists of all eligible employees classified as CEO, CIO, Executive, Investment Director, Portfolio Manager and Associate Portfolio Manager.

[2]The All Others Category consists of all employees classified as Investment Officer III.

Additional information regarding percentage of gender and racial/ethnic group representation for Executives/Senior Managers and All Others can be found in the CalSTRS 2015–16 Sustainability Report: *Global Stewardship at Work.*

SASB guidelines related to management of the legal and regulatory environment state that asset managers like CalSTRS have legal obligations and fiduciary duties related to record keeping, operating and marketing, disclosure requirements and prohibitions on fraudulent activities. CalSTRS strives to maintain high ethical standards that support the CalSTRS Core Values and ensure understanding and cooperation among our staff regarding their ethics and compliance responsibilities.

In addition to periodic compliance training and communications, CalSTRS encourages the use of our various compliance programs. CalSTRS Office of Ethics and Compliance independently investigates all reports of unethical conduct reported by CalSTRS employees and members. The Compensation Review Unit reviews reports of fraudulent pension-related activities.

In fiscal year 2016–17, there were no significant instances of unethical conduct reported. Cases of potential compensation spiking were investigated and resolved or referred to the general counsel's office. As a result of our efforts, we have not incurred any material fines or settlements related to our communications, financial fraud or other commercial issues in fiscal year 2016–17.

The SASB standards further state that the management and use of non-financial forms of capital increasingly contribute to market value. As such, asset managers like CalSTRS consider and integrate an analysis of all material issues into investment decisions, including ESG factors. The board considers the ESG issues related to both the corporations and entities in which securities are held. As a prominent investor with a long-term investment goal, CalSTRS understands our investment activities have a direct impact on our member retirement security; we expect entities in which we invest to practice sustainable methods of operations.

The 2016 Green Initiative Task Force Report discusses ESG risk considerations and responses in detail. The report also summarizes our various investment programs, which pursue a "double bottom line" of both competitive returns and sustainable investing through allocations. To mitigate the risks associated with investing a global portfolio in a complex geopolitical environment, CalSTRS has developed processes to follow when faced with major issues as identified in the CalSTRS 21 Risk Factors. These risk factors address a broad range of sustainability related matters such as climate change, human rights and natural resources. We expect our investment managers to consider each of these factors when evaluating any future investment.

Business Transformation

CalSTRS continues to develop as an organization and we reflect our goals, risks and initiatives in a three-year strategic plan and annual business plan.

Fiscal Year 2016–17 Business Plan

The fiscal year 2016–17 Business Plan outlined the allocation of resources and identified key objectives scheduled for completion by the close of the fiscal year. These objectives were related to various aspects of the CalSTRS organization including: Financial, Member/Employer, Business Transformation and Workforce Transformation. CalSTRS staff made significant progress on the initiatives outlined in this report, and the results can be found in the fiscal year 2016–17 Accomplishments Report.

Pension Solution Project

CalSTRS continued efforts on the Pension Solution Project, which involves the replacement of the CalSTRS legacy pension administration system. The project team and the selected vendor, CGI Group, Inc., completed their first year of the project in September 2016. This included fine-tuning project plans and training participating staff, confirming the conceptual design of the framework to drive development and implementation of the project, and procuring and preparing hardware, data storage and firewall protections for the new pension system.

Additionally, the companion Data Prep Project effort is charged with data analysis and cleansing activities related to CalSTRS pension data in preparation for conversion to the new pension system.

Long-Term Space Planning

CalSTRS expects staff to more than double in the next 24 years based on historical trends, increases in future year contributions, the growth of the investment portfolio and our plans to continue to increase the percentage of internally managed assets. During the November 2016 meeting, the board authorized staff to move forward to secure a development manager, architectural firm and general contractor to complete the design and provide cost estimates for the construction of additional headquarters space as the next step in the consideration of one of the options to meet our long-term space needs. In May 2017, CalSTRS issued a request for proposal to procure construction management services to provide estimates for the cost of a new building. CalSTRS will use existing resources to identify costs for both short and long term leasing and other marketplace opportunities to address space needs. A budget could be finalized with more detailed planning for staff growth following the completion of the new building design and other options analysis based on specific business requirements. Staff expects to provide updates to the board for review in 2018.

Legislative Update

H.R. 10 (Hensarling-TX) repeals provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act and changes shareholder proposal thresholds.

H.R. 985 (Goodlatte-VA) makes significant changes to laws governing class action lawsuits, including prohibiting class certification unless "each class member has suffered the same type and scope of injury." Among other provisions, it also limits the amount and timing of attorney's fees and allows defendants to automatically appeal class certifications.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of CalSTRS' finances. For questions concerning the information in this report or for additional information, contact CalSTRS, P.O. Box 15275, Sacramento, CA 95851-0275.

Respectfully submitted,

Robin Madsen

Chief Financial Officer

Basic Financial Statements

STATEMENT OF FIDUCIARY NET POSITION

As of June 30, 2017
(Dollars in Thousands)

	State Teachers' Retirement Plan	Pension2 403(b) Plan	Pension2 457(b) Plan	Medicare Premium Payment Program	Teachers' Deferred Compensation	Total
Assets						
Investments:						
Debt Securities	$41,033,531	$335,141	$12,444	$606	$1,102	$41,382,824
Equity Securities	113,333,185	456,081	21,158	-	-	113,810,424
Alternative Investments	56,383,316	-	-	-	-	56,383,316
Derivative Instruments	138,014	-	-	-	-	138,014
Securities Lending Collateral	18,191,295	-	-	-	-	18,191,295
Total Investment Assets	**229,079,341**	**791,222**	**33,602**	**606**	**1,102**	**229,905,873**
Cash	459,456	-	-	-	1	459,457
Receivables:						
Investments Sold	1,905,812	-	-	-	-	1,905,812
Interest and Dividends	443,454	-	-	2	3	443,459
Member, Employer and State	660,184	11,735	382	-	-	672,301
Loans Receivable	2,819,332	3,574	243	-	-	2,823,149
Other	43,644	-	-	-	132	43,776
Total Receivables	**5,872,426**	**15,309**	**625**	**2**	**135**	**5,888,497**
Other Assets:						
Capital Assets, Net of Accumulated Depreciation	258,764	-	-	-	-	258,764
Other	247	-	-	-	-	247
Total Other Assets	**259,011**	**-**	**-**	**-**	**-**	**259,011**
Total Assets	**235,670,234**	**806,531**	**34,227**	**608**	**1,238**	**236,512,838**
Deferred Outflows of Resources	**70,934**	**-**	**-**	**88**	**262**	**71,284**
Total Assets and Deferred Outflows of Resources	**235,741,168**	**806,531**	**34,227**	**696**	**1,500**	**236,584,122**
Liabilities						
Investments:						
Derivative Instruments	260,133					260,133
Total Investment Liabilities	**260,133**	**-**	**-**	**-**	**-**	**260,133**
Investments Purchased Payable	3,270,703	-	-	-	-	3,270,703
Loans Payable	2,824,259	-	-	-	-	2,824,259
Benefits in Process of Payment	234,379	-	-	-	-	234,379
Net Pension and OPEB Obligation	323,058	-	-	625	1,212	324,895
Other	353,766	949	23	18	554	355,310
Securities Lending Obligation	18,184,444	-	-	-	-	18,184,444
Total Liabilities	**25,450,742**	**949**	**23**	**643**	**1,766**	**25,454,123**
Deferred Inflows of Resources	**526**	**-**	**-**	**12**	**2**	**540**
Total Liabilities and Deferred Inflows of Resources	**25,451,268**	**949**	**23**	**655**	**1,768**	**25,454,663**
Net Position Restricted for Pension/ Other Postemployment Benefits	**$210,289,900**	**$805,582**	**$34,204**	**$41**	**$(268)**	**$211,129,459**

The accompanying notes are an integral part of these statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2017
(Dollars in Thousands)

	State Teachers' Retirement Plan	Pension2 403(b) Plan	Pension2 457(b) Plan	Medicare Premium Payment Program	Teachers' Deferred Compensation	Total
Additions						
Contributions:						
Member	$3,440,883	$121,945	$6,516	$-	$-	$3,569,344
Employer	4,173,235	393	44	29,117	-	4,202,789
State of California	2,478,230	-	-	-	-	2,478,230
Total Contributions	**10,092,348**	**122,338**	**6,560**	**29,117**	**-**	**10,250,363**
Investment Income (Loss):						
Net Appreciation/(Depreciation) in Fair Value of Investments	20,431,830	64,284	2,779	(1)	(1)	20,498,891
Interest, Dividends and Other	4,950,712	13,446	559	12	10	4,964,739
Securities Lending Income	181,622	-	-	-	-	181,622
Less Investment Expenses:						
Cost of Lending Securities	(84,202)	-	-	-	-	(84,202)
Other Investment Expenses	(314,782)	-	-	-	-	(314,782)
Net Investment Income	**25,165,180**	**77,730**	**3,338**	**11**	**9**	**25,246,268**
Other Income	72,005	141	8	-	1,453	73,607
Total Additions	**35,329,533**	**200,209**	**9,906**	**29,128**	**1,462**	**35,570,238**
Deductions						
Retirement, Disability, Death and Survivor Benefits	13,626,306	-	-	-	-	13,626,306
Premiums Paid	-	-	-	28,929	-	28,929
Distributions and Withdrawals	-	36,322	769	-	-	37,091
Purchasing Power Benefits	160,729	-	-	-	-	160,729
Refunds of Member Contributions	115,509	4,657	36	-	-	120,202
Administrative Expenses	182,367	1,975	79	168	1,542	186,131
Borrowing Costs	57,958	-	-	-	-	57,958
Other Expenses	10,251	-	-	-	22	10,273
Total Deductions	**14,153,120**	**42,954**	**884**	**29,097**	**1,564**	**14,227,619**
Net Increase (Decrease) in Net Position	**21,176,413**	**157,255**	**9,022**	**31**	**(102)**	**21,342,619**
Net Position Restricted for Pension/ Other Postemployment Benefits						
Beginning of the Year	189,113,487	648,327	25,182	10	(166)	189,786,840
End of the Year	**$210,289,900**	**$805,582**	**$34,204**	**$41**	**$(268)**	**$211,129,459**

The accompanying notes are an integral part of these statements.

1. DESCRIPTION OF CALSTRS AND CONTRIBUTION INFORMATION

The California State Teachers' Retirement System (CalSTRS) administers a hybrid retirement system consisting of a defined benefit plan, two defined contribution plans, a postemployment benefit plan and a fund used to account for ancillary activities associated with various deferred compensation plans and programs:

- State Teachers' Retirement Plan (STRP)
- CalSTRS Pension2® Program (Pension2)
- Medicare Premium Payment (MPP) Program
- Teachers' Deferred Compensation Fund (TDCF)

CalSTRS provides pension benefits, including disability and survivor benefits, to California full-time and part-time public school teachers from pre-kindergarten through community college and certain other employees of the public school system. The Teachers' Retirement Law (California Education Code Section 22000 et seq.), as enacted and amended by the California Legislature, established these plans and CalSTRS as the administrator. The terms of the plans may be amended through legislation.

CalSTRS is a component unit of the State of California. These financial statements include only the accounts of CalSTRS. The state includes CalSTRS' various plans and funds as fiduciary funds in its financial statements.

The Teachers' Retirement Board (the "board") has exclusive control over the administration of the retirement system plans and the investment of funds, makes rules, sets policies, and has the authority to hear and determine all facts pertaining to application for benefits under the retirement system. It is composed of 12 members:

- Five members appointed by the Governor and confirmed by the Senate: one school board representative, one retired CalSTRS member and three public representatives;
- Four ex-officio members: the Superintendent of Public Instruction, the State Treasurer, the State Controller and the Director of Finance; and
- Three member-elected positions representing current educators.

State Teachers' Retirement Plan

The STRP is a multiple-employer, cost-sharing defined benefit plan composed of four programs: Defined Benefit (DB) Program, Defined Benefit Supplement (DBS) Program, Cash Balance Benefit (CBB) Program and Replacement Benefits (RB) Program. The STRP holds assets for the exclusive purpose of providing benefits to members and beneficiaries of these programs. CalSTRS also uses plan assets to defray reasonable expenses of administering the STRP. Although CalSTRS is the administrator of the STRP, the state is the sponsor and obligor of the trust. In addition, the state is both an employer and nonemployer contributing entity to the STRP.

STRP Defined Benefit Program

As of June 30, 2017, there were 1,745 contributing employers (school districts, community college districts, county offices of education, charter schools and regional occupational programs). Membership is mandatory for all employees meeting certain statutory requirements and optional for all other employees performing creditable service activities. The DB Program provides retirement benefits based on members' final compensation, age and years of service credit. In addition, the retirement program provides benefits to members upon disability and to their survivors or beneficiaries upon the death of eligible members.

As of June 30, 2017, membership consisted of:

Active Members	
Vested	315,808
Nonvested	129,970
Inactive Members	
Vested	39,001
Nonvested	153,687
Retirees and Benefit Recipients	294,835
Total Members, Retirees and Beneficiaries	**933,301**

The DB Program has two benefit formulas:

- CalSTRS 2% at 60: Members first hired on or before December 31, 2012, to perform service that could be creditable to CalSTRS.
- CalSTRS 2% at 62: Members first hired on or after January 1, 2013, to perform service that could be creditable to CalSTRS.

There are several differences between the two benefit formulas, which are noted below.

CalSTRS 2% at 60

- CalSTRS 2% at 60 members are eligible for normal retirement at age 60, with a minimum of five years of credited service. The normal retirement benefit is equal to 2.0 percent of final compensation multiplied by the number of years of credited service. Early retirement options are available at age 55 with five years of credited service or as early as age 50 with 30 years of credited service. The age factor for retirements after age 60 increases with each quarter year of age to a maximum of 2.4 percent at age 63 or older. Members who have 30 years or more of credited service receive an additional increase of up to 0.2 percent to the age factor, up to the 2.4 percent maximum.
- CalSTRS calculates retirement benefits based on one-year final compensation for members with 25 or more years of credited service, or for classroom teachers with fewer than 25 years of credited service if the employer entered into, extended, renewed or amended an agreement prior to January 1, 2014, to elect to pay the additional benefit cost for all of its classroom teachers. One-year final compensation means a member's highest average annual compensation earnable for 12 consecutive months based on the creditable compensation that the member could earn in a school year while employed on a full-time basis. For most members with fewer than 25 years of credited service, final compensation is the highest average annual compensation earnable for any 36 consecutive months based on the creditable compensation that the member could earn in a school year while employed on a full-time basis.
- For fiscal year 2016–17, the limit on compensation that can be counted towards a member's benefit is $265,000, if hired on or after July 1, 1996. The limit is increased based on cost-of-living increases calculated per Internal Revenue Code Section 401(a)(17). No contributions are paid by the member, employer or the state on compensation in excess of the limit, and any compensation beyond the limit is excluded from determining final compensation.
- Final compensation is based on salary and certain other types of remuneration. Other types of compensation, such as allowances, cash in lieu of fringe benefits and compensation for unused accumulated leave are not creditable compensation and do not count toward any CalSTRS benefit program. Limited-period compensation and compensation determined to have been paid to enhance a benefit are creditable to the DBS Program.
- Members who accumulated at least 30 years of credited service by December 31, 2010, receive a longevity bonus of $200, $300 or $400 per month for 30, 31 or 32 or more years of credited service, respectively.

CalSTRS 2% at 62

- CalSTRS 2% at 62 members are eligible for normal retirement at age 62, with a minimum of five years of credited service. The normal retirement benefit is equal to 2.0 percent of final compensation multiplied by the number of years of credited service. An early retirement option is available at age 55. The age factor for retirement after age 62 increases with each quarter year of age to 2.4 percent at age 65 or older.
- All CalSTRS 2% at 62 members have their final compensation based on their highest average annual compensation earnable for 36 consecutive months based on the creditable compensation that the member could earn in a school year while employed on a full-time basis.
- The limit on creditable compensation that can be counted toward a member's benefit is adjusted each fiscal year based on changes in the Consumer Price Index. In fiscal year 2016–17, the limit was $139,320.
- Compensation paid in cash by an employer, pursuant to a publicly available written contractual agreement, for each pay period in which creditable service is performed

is creditable to CalSTRS benefit programs for CalSTRS 2% at 62 members. Other compensation, such as allowances, cash in lieu of fringe benefits, limited-period compensation and compensation determined to have been paid to enhance a benefit, is not creditable to any CalSTRS benefit program.

The following provisions apply to both CalSTRS 2% at 60 and 2% at 62 members:

- After earning five years of credited service, members become vested to receive service retirement benefits.
- After five years of credited service, a member (younger than age 60 if under disability Coverage A, no age limit if under disability Coverage B) is eligible for disability benefits of 50 percent of final compensation plus 10 percent of final compensation for each eligible child, up to a maximum addition of 40 percent. The member must have a disability that can be expected to last continuously for at least 12 months to qualify for a benefit.
- Contributions on compensation for service in excess of one year due to overtime or working additional assignments are credited to the DBS Program at the lowest annual pay rates up to the creditable compensation limit.
- A family benefit is available if an active member dies and has at least one year of credited service.
- Members' accumulated contributions are refundable with interest upon separation from CalSTRS. The board determines the credited interest rate each fiscal year. For the fiscal year ending June 30, 2017, the rate of interest credited to members' accounts was 0.72 percent.
- There is a postretirement annual benefit increase of 2 percent per year on a simple (rather than compound) basis. This benefit is vested for members who pay the higher contribution rates enacted in AB 1469 or retired in 2014.
- The member's benefit is reduced dollar for dollar, regardless of age, for the first 180 days after retirement if the member performs activities in the public schools that could be creditable to CalSTRS, unless the governing body of the school district takes specified actions with respect to a member who is above normal retirement age.
- There is an annual limitation on earnings from activities that could be creditable to CalSTRS for retired members. The member's benefit is reduced dollar for dollar by the amount of any earnings in excess of $41,732 in 2016–17.
- Any enhancements to the CalSTRS DB Program made on or after January 1, 2013, apply only to service performed on or after the effective date of the enhancement.
- A CalSTRS member who is convicted of committing a felony in the course of his or her official duties, including specifically a felony involving a child with whom the member had contact as part of the member's official duties, forfeits a right to any benefits accrued beginning with the commission of the felony.

Purchasing Power Protection

Purchasing power protection is provided to members of the DB Program through annual distributions (in quarterly payments) to retired and disabled members and beneficiaries to restore purchasing power up to 85 percent of the initial monthly allowance. Funding for purchasing power protection is from School Lands Revenue generated from the use of school lands (land granted to California by the federal government to support schools) and in lieu lands (properties purchased with the proceeds from the sale of school lands) and from the Supplemental Benefit Maintenance Account (SBMA).

Public Resources Code Section 6217.5 allocates School Lands Revenue to the Teachers' Retirement Fund for purchasing power protection. In addition, Education Code Section 22954 provides a continuous appropriation from the state's General Fund to the SBMA in an amount equal to 2.5 percent of the total creditable compensation of the fiscal year ending in the immediately preceding calendar year, reduced by $72 million. Through June 30, 2017, school lands revenue was $5.2 million, and the amount contributed to the SBMA was $649 million.

Contributions

The parameters for member, employer and state contribution rates are set by the California Legislature and Governor and detailed in the Teachers' Retirement Law.

A summary of statutory contribution rates and other sources of contributions to the DB Program are as follows:

Members — Pursuant to AB 1469, the CalSTRS member contribution rates effective for fiscal year 2016–17 and beyond are summarized in the table below:

Effective Date	2% at 60 Members	2% at 62 Members
July 01, 2016	10.25%	9.205%*

*According to current law, the contribution rate for CalSTRS 2% at 62 members is adjusted if the normal cost increases or decreases by more than 1 percent since the last time the member contribution rate was set. Based on the June 30, 2016, valuation adopted by the board on April 6, 2017, the increase in normal cost was less than 1 percent. Therefore, this rate will remain unchanged for fiscal year 2017-18.

Employers — Pursuant to AB 1469, CalSTRS employer contribution rate increases effective for fiscal year 2016–17 through fiscal year 2045–46 are summarized in the table below:

Effective Date	Pre AB 1469 Rate	Increase	Total
July 01, 2016	8.25%	4.33%	12.58%
July 01, 2017	8.25%	6.18%	14.43%
July 01, 2018	8.25%	8.03%	16.28%
July 01, 2019	8.25%	9.88%	18.13%
July 01, 2020	8.25%	10.85%	19.10%
July 01, 2021 to June 30, 2046	8.25%	*	*
July 01, 2046	8.25%	Increase from prior rate ends in 2046-47	

*The board cannot adjust the employer rate by more than 1 percent in a fiscal year, and the increase to the contribution rate above the 8.25 percent base contribution rate cannot exceed 12 percent for a maximum of 20.25 percent.

State — Also as a result of AB 1469, the additional state appropriation required to fully fund the benefits in effect as of 1990 by 2046 is specified in subdivision (b) of Education Code Section 22955.1. The increased contributions end as of fiscal year 2046–47. The CalSTRS state contribution rates effective for fiscal year 2016–17 and beyond are summarized in the table below.

As shown in the subsequent table, the state rate will increase to 4.811 percent on July 1, 2017, to continue paying down the unfunded liabilities associated with the benefits structure that was in place in 1990 prior to certain enhancements in benefits and reductions in contributions.

Effective Date	Base Rate	AB 1469 Increase For 1990 Benefit Structure	SBMA Funding[1]	Total
July 01, 2016	2.017%	4.311%	2.50%	8.828%
July 01, 2017	2.017%	4.811%[2]	2.50%	9.328%
July 01, 2018 to June 30, 2046	2.017%	[3]	2.50%	[3]
July 01, 2046 and thereafter	2.017%	[3]	2.50%	4.517%[3]

[1]This rate does not include the $72 million reduction in accordance with Education Code Section 22954. Refer to Note 1, Purchasing Power Protection section, for further discussion.

[2]During its April 2017 meeting, the board exercised its limited authority to increase the state contribution rate by 0.5 percent of the payroll effective July 1, 2017.

[3]The board has limited authority to adjust state contribution rates from July 1, 2017, through June 2046 in order to eliminate the remaining unfunded actuarial obligation associated with the 1990 benefit structure. The board cannot increase the rate by more than 0.50 percent in a fiscal year, and if there is no unfunded actuarial obligation, the contribution rate imposed to pay for the 1990 benefit structure would be reduced to 0 percent. Rates in effect prior to July 1, 2014, are reinstated if necessary to address any remaining 1990 unfunded actuarial obligation from July 1, 2046, and thereafter.

Benefit Enhancements

A school employer may provide, at the employer's cost, an additional two years of service credit to increase the amount of the member's monthly retirement benefit. This may be paid for by the employer in installments not to exceed eight years. If the employer chooses to pay in installments, the employer is charged interest on the unpaid balance at the actuarially assumed rate of return on investments for the DB Program (currently 7.25 percent). As of June 30, 2017, the outstanding balance of receivables for benefit enhancements was $14.7 million.

STRP Defined Benefit Supplement Program

The DBS Program, established pursuant to Chapter 74, Statutes of 2000 (AB 1509), is a cash balance defined benefit pension program that operates within the STRP. All members of the DB Program who make contributions to CalSTRS on creditable compensation earned on or after January 1, 2001, have an account under the DBS Program and are eligible to receive a DBS benefit based on the amount of funds contributed to the DBS account. Membership in the DBS Program is mandatory.

Interest is credited to the nominal DBS Program accounts at the minimum guaranteed annual rate established by the board prior to each plan year, which was 2.88 percent for the fiscal year ending June 30, 2017. The board may credit additional earnings to members' nominal accounts if actual investment earnings exceed the minimum guaranteed annual rate and meet criteria set out in the board policy. In April 2017, the board elected to not award Additonal Earnings Credit (AEC) as the criteria set out in the board policy was not met.

Contributions

Beginning July 1, 2002, for creditable service performed by DB members in excess of one year of service credit within one fiscal year, member contributions of 8 percent and employer contributions of 8 percent are credited to the members' nominal DBS Program account (up to the compensation cap for 2% at 62 members). Also, member contributions of 8 percent and employer contributions of 8 percent for compensation as a result of retirement incentives or limited-term enhancements are credited to the members' DBS Program accounts for CalSTRS 2% at 60 members.

STRP Cash Balance Benefit Program

The CBB Program, established under Chapter 592, Statutes of 1995 (AB 1298), and subsequently merged into the STRP by Chapter 1048, Statutes of 1998 (SB 2085), is a cash balance defined benefit pension program. The CBB Program is designed for employees of California's public schools who are hired to perform creditable service for less than 50 percent of the full-time equivalent for a position in a school district or county office of education or on a part-time or temporary basis for not more than 67 percent of a full-time position in a community college district. Participation in the CBB Program is optional; a school district, community college district, county office of education or regional occupational program may elect to offer the CBB Program. Under such election, the program will automatically cover each eligible employee, unless the employee elects to participate in the DB Program or an alternative plan provided by the employer within 60 days of hire or the election period determined by the employer. As of June 30, 2017, there were 30 contributing school districts and 39,053 contributing participants.

Interest is credited to nominal CBB Program accounts at the minimum guaranteed annual rate established by the board prior to each plan year, which was 2.88 percent for the fiscal year ending June 30, 2017. The board may credit additional earnings to members' nominal accounts if actual investment earnings exceed the minimum guaranteed annual rate and meet criteria set out in the board policy. In April 2017, the board elected to not award AEC as the criteria set out in the board policy was not met.

Contributions

A summary of statutory contribution rates for the CBB Program is as follows:

Participants — 4.0 percent of applicable participant earnings

Employers — 4.0 percent of applicable participant earnings

Employers may enter into a collective bargaining agreement to pay different rates if certain minimum conditions are met.

STRP Replacement Benefits Program

The STRP RB Program is an excess benefits arrangement for DB Program members that is administered as a qualified excess benefit arrangement through a separate pension program apart from the other three STRP programs. It is established in accordance with Internal Revenue Code (IRC) Section 415(m). 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 limit for individual CalSTRS 2% at 60 members varies based on the age at which they retire. For calendar year 2017, the federal dollar limit applicable to a 65-year-old CalSTRS member is $183,781. CalSTRS 2% at 62 members will not receive any benefits in excess of the IRC Section 415(b) limit.

The program is funded as needed. Contributions that would otherwise be credited to the DB Program each month are instead credited to the RB Program to fund monthly program costs. Monthly employer contributions are received and paid to members in amounts equivalent to the benefits not paid as a result of IRC Section 415(b), subject to withholding for any applicable income or employment taxes. As of June 30, 2017, there were 347 retirees, beneficiaries and non-member spouses receiving benefits from the RB Program.

CalSTRS Pension2 Program

Pursuant to Chapter 291, Statutes of 1994 (AB 3064), CalSTRS Pension2 (Pension2) was established to include two tax-deferred defined contribution plans under the IRC Sections 403(b) and 457(b). Voya Financial and Teachers Insurance and Annuity Association (TIAA) are responsible for administrative services, including custody and record-keeping, while CalSTRS performs the investment management functions of determining, monitoring and maintaining the plans' investments.

The IRC 403(b) plan and the IRC 457(b) plan, respectively, had 12,554 and 713 plan participants, and 868 and 54 participating employers (school districts) with account balances, as of June 30, 2017. Pension2 is available to all full-time California pre-kindergarten through community college district and county office of education employees. Part-time employees' eligibility is determined by their employers. Enrollment in the 457(b) plan is by employer adoption only. Employee contributions to the plans are voluntary and require no minimum limitations; however, the IRC imposes an annual maximum amount that can be contributed to the plans. Pension2 is not directly affected by the California Public Employees' Pension Reform Act of 2013 (PEPRA). However, according to PEPRA, employers may provide a contribution to a defined contribution plan, such as Pension2, for 2% at 62 member compensation in excess of the compensation cap.

The Pension2 investments are composed of a selection of mutual funds with underlying investments that include stocks, bonds and real estate investments and guaranteed annuity contracts, which are participant-directed. The Pension2 benefits are the accumulation of contributions and investment earnings credited to the member's account.

Medicare Premium Payment Program

The MPP Program is a cost-sharing multiple-employer other postemployment benefit plan (OPEB) established pursuant to Chapter 1032, Statutes of 2000 (SB 1435). CalSTRS administers the MPP Program, through the Teachers' Health Benefit Fund (THBF). The MPP Program pays Medicare Part A premiums and Medicare Parts A and B late enrollment surcharges for eligible members of the DB Program who were retired or began receiving a disability allowance prior to July 1, 2012, and were not eligible for premium-free Medicare Part A. The MPP Program is closed to new entrants as members who retire on or after July 1, 2012, are not eligible for coverage under the MPP Program.

For the year ending June 30, 2017, 6,271 retirees participated in the MPP Program. The number of retired members who will participate in the program in the future is unknown because eligibility cannot be pre-determined.

The MPP Program is funded on a pay-as-you go basis from a portion of monthly employer contributions. In accordance with California Education Code Section 25930, contributions that would otherwise be credited to the DB Program each month are instead credited to the MPP Program to fund monthly program and administrative costs. Total redirections to the MPP Program are monitored to ensure that total incurred costs do not exceed the amount initially identified as the cost of the program.

Teachers' Deferred Compensation Fund

The TDCF was established pursuant to Chapter 655, Statutes of 2006 (SB 1466), and is used to account for ancillary activities associated with various deferred compensation plans and programs offered by CalSTRS to enhance the tax-deferred financial options for the members and their beneficiaries.

The TDCF is funded by the fee revenues received by CalSTRS from deferred compensation plans, a vendor registration program and an employer compliance assistance program.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

CalSTRS maintains our accounting records using the accrual basis of accounting. We recognize member contributions in the period in which the contributions are required by statute. Furthermore, CalSTRS recognizes employer and state contributions when required by statute and the employer or state has made a formal commitment to provide the contributions. Also, CalSTRS recognizes benefits when due and payable in accordance with our retirement and benefits programs. Purchases and sales of investments are recorded on the trade date. Interest income is recorded on an accrual basis. Dividends are recorded on the ex-dividend date.

Use of Estimates in the Preparation of Financial Statements

The preparation of CalSTRS' financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect certain amounts and disclosures. The most significant estimates made by management in the accompanying financial statements include the estimates related to contribution revenues, the total pension liability and the fair value of certain alternative investments. Refer to Notes 3 and 6 respectively for further discussion of these estimates. Actual results could differ from those estimates.

Cash

Cash held by CalSTRS includes foreign currency, deposits with the State Treasury and master custodian and cash held at commercial banks for operational purposes.

Investments

Under the California Constitution, Article 16, Section 17, the board has the sole and exclusive fiduciary responsibility over the assets of the retirement system and to administer the system in a manner that will assure prompt delivery of benefits and related services to the members and their beneficiaries. As a public pension fund, CalSTRS is not subject to the Employee Retirement Income Security Act (ERISA), which governs corporate pension plans. However, the CalSTRS investment decision-making criteria are based on the "prudent investor" standard, for which the ERISA standards serve as a basis.

Additionally, the California Constitution, Article 16, Section 17, and the California Education Code, Part 13, Chapter 4, Section 22250 require the diversification of investments so as to minimize the risk of loss and maximize the rate of return, unless, under the circumstances, it is clearly not prudent to do so. The CalSTRS Investment Policy and Management Plan is established, and may be amended, by a majority vote of the board. It allows for investments consisting of debt and equity securities, alternative investments and derivative instruments. See Note 5 regarding the Schedule of Investments.

In the Statement of Changes in Fiduciary Net Position, CalSTRS presents the net appreciation (depreciation) in the fair value of its investments, which consists of the realized gains and losses on securities sold and the unrealized appreciation (depreciation) on those investments still held in the portfolio.

The value and performance of CalSTRS investments are subject to various risks, including credit risk, interest rate risk, concentration of credit risk, custodial credit risk and foreign currency risk, which are in turn affected by economic and market factors impacting certain industries, sectors or geographies. See Note 5 for disclosures related to these risks.

Most investments are reported at fair value. The diversity of the investment types held by CalSTRS requires a wide range of valuation techniques to determine fair value. See Note 6 for disclosures related to fair value.

Investment Risk Management

CalSTRS enters into currency forwards and option contracts to protect the value of non-U.S. investments against foreign currency fluctuation. CalSTRS could be exposed to risk if the counterparties to the forward and option contracts are unable to meet the terms of their contracts. CalSTRS also enters into futures contracts, swaps and options to hedge risks in the equity and fixed income markets. CalSTRS seeks to minimize risk from counterparties by establishing minimum credit quality standards and the use of master trading agreements, which require a daily exchange of collateral to offset mark-to-market counterparty risk. See Note 5 for disclosures related to these risks.

Capital Assets

Capital assets held by CalSTRS, which consist of land, building, equipment and intangible assets, are recorded at cost and reflected on the Statement of Fiduciary Net Position, net of accumulated depreciation/amortization. The capitalization threshold is $1 million. Depreciation/amortization is charged to operations using the straight-line method on the estimated useful life of the related asset and is included in administrative expenses on the Statement of Changes in Fiduciary Net Position. Estimated useful lives range from one to five years for equipment, 40 years for buildings and a minimum of five years for amortizable intangible assets. As of June 30, 2017, accumulated depreciation/amortization was $75.9 million, and depreciation/amortization expense was $9.6 million. CalSTRS reviews our capital assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. As of June 30, 2017, there has been no impairment of capital assets.

Administrative Expenses

The cost of administering the CalSTRS system is financed through contributions and investment earnings. Schedule VII (Schedule of Administrative Expenses) provides a listing of administrative expenses by type.

Income Taxes

The STRP and MPP Program are organized as tax-exempt retirement plans under the IRC. Pension2, which includes IRC 403(b) and 457(b) plans, is organized as a tax-deferred supplemental program under the IRC. CalSTRS management believes that it has operated these funds and programs within the constraints imposed by federal tax law.

Investment Expenses

Expenses directly associated with investment management, operations and servicing, as well as foreign taxes, have been included as Other Investment Expenses in the Statement of Changes in Fiduciary Net Position. Schedule VIII (Schedule of Investment Expenses) provides a listing of investment expenses by type. Broker commissions for securities trades and private asset fees are capitalized, with the exception of certain equity and derivative securities for which they are expensed.

Securities Lending Transactions

CalSTRS reports securities lent, reinvested cash collateral and the related liabilities resulting from securities lending transactions on the Statement of Fiduciary Net Position. CalSTRS also reports the income earned and costs of lending securities as investment income and expenses on the Statement of Changes in Fiduciary Net Position.

Reserves

CalSTRS maintains accounts within the net position restricted for pension/other postemployment benefits as reserve accounts for various operating purposes. These include four reserve accounts for the DBS Program, four reserve accounts for the CBB Program, one reserve account for the SBMA and other reserves not legally required for disclosure.

Defined Benefit Supplement Annuitant Reserve

Section 25002 of the Education Code formed the DBS Annuitant Reserve to establish and maintain a segregated account for expenditures on annuities payable under the DBS Program. The DBS Program is a cash balance pension plan that provides a supplemental benefit in addition to the regular DB Program benefit. During a member's career, credits and interest accumulate in the DBS Program's Contribution and Accumulated Interest reserves, respectively. When a member retires, the reserve funds are either paid out as a lump sum or transferred to the DBS Annuitant Reserve if the participant elects to receive their benefit as an annuity.

Defined Benefit Supplement Gain and Loss Reserve

Section 25001 of the Education Code established the DBS Gain and Loss Reserve, which represents a segregated account that may be used to: 1) credit interest to member

DBS accounts at the minimum interest rate for plan years in which the obligation cannot be met from the plan's investment earnings, 2) make additional earnings credits to DBS accounts upon a decision by the board to allocate excess investment earnings, or 3) provide additions to the DBS Annuitant Reserve for annuities payable under the DBS Program.

Cash Balance Annuitant Reserve
Section 26204 of the Education Code established the CBB Annuitant Reserve for the payment of monthly annuities with respect to the CBB Program. The CBB Program is an optional cash balance pension plan for part-time certified educators available to CalSTRS employers as an alternative to the CalSTRS DB Program, Social Security and other retirement plans. During a participant's career, credits and interest accumulate in the Cash Balance Active Contribution and Accumulated Interest reserves, respectively, as described in the table below. When a participant retires, the reserve funds are either paid out as a lump sum or transferred to the Cash Balance Annuitant Reserve if the participant elects to receive their benefit as an annuity.

Cash Balance Gain and Loss Reserve
Section 26202 of the Education Code established the CBB Gain and Loss Reserve, which may be used to: 1) credit interest to participants' accounts at the minimum interest rate during years in which CalSTRS investment earnings with respect to the CBB Program are not sufficient for that purpose, 2) make additional earnings credits to participants' accounts upon a decision by the board to allocate excess investment earnings, or 3) where necessary, to provide additions to the CBB Annuitant Reserve for monthly annuity payments.

Supplemental Benefit Maintenance Account
Section 22400 of the Education Code established the SBMA to separately maintain and manage the annual supplemental payments disbursed in quarterly installments to all benefit recipients whose purchasing power has fallen below 85 percent of the purchasing power of the initial allowance, as long as funds are available. The SBMA is primarily funded by contributions from the state, School Lands monies and the interest earned on the SBMA reserve balance credited at the actuarially assumed interest rate.

Other Reserves Not Legally Required For Disclosure
These reserves represent accumulated changes in operations reflecting contributions earned, benefit payments made, investment returns and the costs of plan administration for the STRP, Pension2, MPP Program and TDCF.

The reserve balances as of June 30, 2017, are summarized in the table below:

Reserve Type	Reserve Balance (Dollars in Thousands)
Defined Benefit Supplement Contribution Reserve	$6,387,180
Defined Benefit Supplement Accumulated Interest Reserve	2,392,652
Defined Benefit Supplement Annuitant Reserve	591,850
Defined Benefit Supplement Gain and (Loss) Reserve	3,158,534
Cash Balance Active Contribution Reserve	186,859
Cash Balance Accumulated Interest Reserve	58,465
Cash Balance Annuitant Reserve	5,475
Cash Balance Gain and (Loss) Reserve	58,872
Supplemental Benefit Maintenance Account Reserve	14,235,909
Other Reserves Not Legally Required for Disclosure	184,053,663
Total	**$211,129,459**

3. NET PENSION LIABILITY OF EMPLOYERS AND NONEMPLOYER CONTRIBUTING ENTITY

The components of the net pension liability (NPL) of the STRP for participating employers and the State of California (nonemployer contributing entity) as of June 30, 2017, are as follows (dollars in millions):

	June 30, 2017
Total pension liability	$302,769
Less: STRP fiduciary net position	$210,289[1]
NPL of employers and the State of California	$92,480
STRP fiduciary net position as a percentage of the total pension liability	**69%**

[1] This schedule is rounded for presentation purposes. The STRP fiduciary net position is $210,289,900,000 on the financial statements.

Actuarial Methods and Assumptions

The total pension liability for the STRP was determined by applying update procedures to the financial reporting actuarial valuation as of June 30, 2016 and rolling forward the total pension liability to the June 30, 2017. In determining the total pension liability, the financial reporting actuarial valuation used the following actuarial methods and assumptions[1,2]:

	June 30, 2017
Valuation Date	June 30, 2016
Experience Study	July 1, 2010, through June 30, 2015
Actuarial Cost Method	Entry age normal
Investment Rate of Return[3]	7.1%
Consumer Price Inflation	2.75%
Wage Growth	3.5%
Postretirement Benefit Increases	2% simple for DB (annually) Maintain 85% purchasing power level for DB Not applicable for DBS/CBB

[1]For the purpose of determining the total pension liability, the assumptions used in the June 30, 2016, financial reporting actuarial valuation, were applied to all periods prior to July 1, 2017. The assumptions applied to those periods on and after July 1, 2017 are reflected in the table above.

[2]The assumptions for investment rate of return, wage growth and inflation used in the June 30, 2016 financial reporting actuarial valuation were 7.60 percent, 3.75 percent and 3.00 percent, respectively.

[3]Net of investment expenses but gross of administrative expenses.

CalSTRS changed the mortality assumptions based on the July 1, 2010, through June 30, 2015, experience study adopted by the board in February 2017. CalSTRS uses a generational mortality assumption, which involves the use of a base mortality table and projection scales to reflect expected annual reductions in mortality rates at each age, resulting in increases in life expectancies each year into the future. The base mortality tables are CalSTRS custom tables derived to best fit the patterns of mortality among our members. The projection scale was set equal to 110 percent of the ultimate improvement factor from the Mortality Improvement Scale (MP-2016) table, issued by the Society of Actuaries.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. The best-estimate ranges were developed using capital market assumptions from CalSTRS general investment consultant (Pension Consulting Alliance–PCA) as an input to the process. The actuarial investment rate of return assumption was adopted by the board in February 2017 in conjunction with the most recent experience study. For each future valuation, CalSTRS consulting actuary (Milliman) reviews the return assumption for reasonableness based on the most current capital market assumptions. Best estimates of 20-year geometrically-linked real rates of return and the assumed asset allocation for each major asset class for the year ended June 30, 2017, are summarized in the following table:

Asset Class	Assumed Asset Allocation	Long-Term Expected Real Rate of Return[1]
Global Equity	47%	6.30%
Fixed Income	12	0.30
Real Estate	13	5.20
Private Equity	13	9.30
Absolute Return/Risk Mitigating Strategies	9	2.90
Inflation Sensitive	4	3.80
Cash/Liquidity	2	(1.00)

[1]20-year average.

Discount Rate

The discount rate used to measure the total pension liability was 7.1 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and employers are made at statutory contribution rates in accordance with the rate increases as disclosed in Note 1. Projected inflows from investment earnings were calculated using the long-term assumed investment rate of return (7.1 percent) and assuming that contributions, benefit payments and administrative expenses occur midyear. Based on those assumptions, the STRP's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term assumed investment rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

Presented below is the NPL of employers and the state using the current discount rate of 7.1 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1 to 3 percent lower or 1 to 3 percent higher than the current rate:

Discount Rate	NPL of Employers and Nonemployer Contributing Entity (Dollars in Millions)
3% Decrease (4.1%)	$260,128
2% Decrease (5.1%)	$190,555
1% Decrease (6.1%)	$135,790
Current Discount Rate (7.1%)	$92,480
1% Increase (8.1%)	$57,331
2% Increase (9.1%)	$28,321
3% Increase (10.1%)	$4,271

4. NET OTHER POSTEMPLOYMENT BENEFIT (OPEB) LIABILITY OF EMPLOYERS

The components of the net OPEB liability of the MPP Program for participating employers as of June 30, 2017, are as follows (dollars in thousands):

	June 30, 2017
Total OPEB liability	$420,749
Less: MPP Program fiduciary net position	$41
Net OPEB liability of employers	$420,708
MPP Program fiduciary net position as a percentage of the total OPEB liability	**0.01%**

Actuarial Methods and Assumptions

The total OPEB liability for the MPP Program as of June 30, 2017 was determined by applying update procedures to the financial reporting actuarial valuation as of June 30, 2016, and rolling forward the total OPEB liability to June 30, 2017 using the assumptions listed below.

	June 30, 2017
Valuation Date	June 30, 2016
Experience Study	July 1, 2010, through June 30, 2015
Actuarial Cost Method	Entry age normal
Investment Rate of Return	3.58%
Medicare Part A Premium Costs Trend Rate[1]	3.70%
Medicare Part B Premium Costs Trend Rate[1]	4.10%

[1] The assumed increases in the Medicare Part A and Part B Cost Trend Rates vary by year, however; the increases are approximately equivalent to a 3.7 percent and 4.1 percent increase each year for Medicare Part A and Part B, respectively.

In addition, assumptions were made about future participation (enrollment) into the MPP Program because CalSTRS is unable to determine which members not currently participating meet all eligibility criteria for enrollment in the future. Assumed enrollment rates were derived based on past experience and are stratified by age with the probability of enrollment diminishing as the members' age increases. This estimated enrollment rate was then applied to the population of members who may meet criteria necessary for eligibility and are not currently enrolled in the MPP Program. Based on this, the estimated number of future enrollments used in the financial reporting valuation was 571 or an average of 0.32 percent of the potentially eligible population (177,763).

CalSTRS changed the mortality assumptions based on the July 1, 2010, through June 30, 2015, experience study adopted by the board in February 2017. CalSTRS uses a generational mortality assumption, which involves the use of a base mortality table and projection scales to reflect expected annual reductions in mortality rates at each age, resulting in increases in life expectancies each year into the future. The base mortality tables are CalSTRS custom tables derived to best fit the patterns of mortality among our members. The projection scale was set equal to 110 percent of the ultimate improvement factor from the Mortality Improvement Scale (MP-2016) table, issued by the Society of Actuaries.

The MPP Program is funded on a pay-as-you-go basis with contributions generally being made at the same time and in the same amount as benefit payments and expenses coming due. Any funds within the MPP Program as of the June 30, 2017, were to manage differences between estimated and actual amounts to be paid and were invested in the Surplus Money Investment Fund, which is a pooled investment program administered by the State Treasurer.

Discount Rate

The discount rate used to measure the total OPEB liability was 3.58 percent. The MPP Program is funded on a pay-as-you-go basis as described in Note 1, and under the pay-as-you-go method, the OPEB plan's fiduciary net position was not projected to be sufficient to make projected future benefit payments. Therefore, a discount rate of 3.58 percent, which is the Bond Buyer 20-Bond GO Index from Bondbuyer.com as of June 30, 2017, was applied to all periods of projected benefit payments to measure the total OPEB liability.

Presented below is the net OPEB liability of employers using the current discount rate as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1 percent lower or 1 percent higher than the current rate:

Discount Rate	Net OPEB Liability of Employers (Dollars in Thousands)
1% Decrease (2.58%)	$465,753
Current Discount Rate (3.58%)	$420,708
1% Increase (4.58%)	$376,892

Medicare Costs Trend Rate

The June 30, 2016, valuation uses the 2017 Medicare Part A and Part B premiums as the basis for future premium calculations. Future premiums are assumed to increase with a medical trend rate that varies by year, as shown in the following table:

	Trend Assumption Assumed Annual Increase	
Years [1]	Part A	Part B
2017-2026	3.4%	4.0%
2027-2036	4.6%	5.2%
2037-2046	4.1%	4.7%
2047 & Later	3.9%	4.5%

[1] Trend rates indicate medical inflation in the specific year and, therefore, affect the premiums for the following years. For example, the projected 2018 premium is the 2017 premium increased by the assumed 2017 trend rate.

The Part A trend is approximately equivalent to assuming a fixed 3.7 percent increase each year. The Part B trend is approximately equivalent to assuming a fixed 4.1 percent increase each year.

Presented below is the net OPEB liability of employers using the current Medicare costs trend rates, as well as what the net OPEB liability would be if it were calculated using Medicare costs trend rates that are 1 percent lower and 1 percent higher than the current rate:

Medicare Costs Trend Rate	Net OPEB Liability of Employers (Dollars in Thousands)
1% Decrease (2.7% Part A and 3.1% Part B)	$380,174
Current Rates (3.7% Part A and 4.1% Part B)	$420,708
1% Increase (4.7% Part A and 5.1% Part B)	$460,837

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts (for example, Medicare premiums) and assumptions about the probability of occurrence of events far into the future (for example, mortality, disabilities and retirees eligible for the program). Actuarially determined amounts are subject to continual review and potential modifications, as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan and include the types of benefits provided at the time of each valuation and the historical pattern of benefit costs. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations.

Actuarial calculations reflect a long-term perspective and take into account the premiums and surcharges paid after termination of employment until the death of the employee. In many cases, actuarial calculations reflect several decades of payments after termination of employment.

5. DEPOSITS AND INVESTMENTS

Money-Weighted Rate of Return

For the period ended June 30, 2017, the money-weighted rate of return on STRP investments, net of pension plan investment expenses, was 13.4 percent. While the MPP Program is funded on a pay-as-you-go basis, any excess funds are held in the Surplus Money Investment Fund (SMIF). The money-weighted rate of return on MPP Program investments, net of OPEB plan investment expenses, was 0.9 percent. The money-weighted rate of return expresses investment performance, taking into account the impact of cash infusion into and disbursements from the pension plan or OPEB plan.

Schedule of Investments

CalSTRS is authorized to invest and reinvest the monies to meet the objectives of the Investment Policy and Management Plan as established by the board.

The following table represents the detailed investments by type within debt securities, equity securities, alternative investments and derivative instruments presented in the Statement of Fiduciary Net Position.

Schedule of Investments
As of June 30, 2017, CalSTRS investments are as follows:
(Dollars in Thousands)

Investments	State Teachers' Retirement Plan	Pension2 403(b) Plan	Pension2 457(b) Plan	Medicare Premium Payment Program	Teachers' Deferred Compensation	Total
Assets:						
Debt Securities						
Asset-Backed Securities	$429,710	$-	$-	$-	$-	$429,710
Corporate Bonds	11,147,940	-	-	-	-	11,147,940
Foreign Government Issues	970,591	-	-	-	-	970,591
Mortgage-Backed Securities	8,452,786	-	-	-	-	8,452,786
Municipal Securities	198,506	-	-	-	-	198,506
U.S. Government and Agency Obligations	15,589,380	-	-	-	-	15,589,380
Short-Term Securities	4,244,618	4,698	174	606	1,102	4,251,198
Mutual Funds-Bond Funds	-	57,892	2,495	-	-	60,387
Guaranteed Annuity Contracts	-	272,551	9,775	-	-	282,326
Total Debt Securities	**41,033,531**	**335,141**	**12,444**	**606**	**1,102**	**41,382,824**
Equity Securities						
Common Stocks	105,731,011	-	-	-	-	105,731,011
Depository Receipts	2,842,502	-	-	-	-	2,842,502
Mutual Funds-Stock Funds	1,235,851	456,081	21,158	-	-	1,713,090
Preferred Stocks	424,990	-	-	-	-	424,990
Real Estate Investment Trusts	3,098,831	-	-	-	-	3,098,831
Total Equity Securities	**113,333,185**	**456,081**	**21,158**	-	-	**113,810,424**
Alternative Investments						
Debt-Privately Held	2,263,850	-	-	-	-	2,263,850
Equity-Privately Held	27,369,585	-	-	-	-	27,369,585
Real Estate-Directly Held	16,951,450	-	-	-	-	16,951,450
Real Estate-Non-Directly Held	9,798,431	-	-	-	-	9,798,431
Total Alternative Investments	**56,383,316**	-	-	-	-	**56,383,316**
Derivative Instruments						
Forwards	113,909	-	-	-	-	113,909
Futures	7,651	-	-	-	-	7,651
Options	7,932	-	-	-	-	7,932
Rights and Warrants	2,246	-	-	-	-	2,246
Swaps	6,276	-	-	-	-	6,276
Total Derivative Instruments	**138,014**	-	-	-	-	**138,014**
Securities Lending Collateral	**18,191,295**	-	-	-	-	**18,191,295**
Total Investment Assets	**229,079,341**	**791,222**	**33,602**	**606**	**1,102**	**229,905,873**
Liabilities:						
Derivative Instruments						
Forwards	240,823	-	-	-	-	240,823
Futures	13,207	-	-	-	-	13,207
Options	2,882	-	-	-	-	2,882
Swaps	3,221	-	-	-	-	3,221
Total Derivative Instruments	**260,133**	-	-	-	-	**260,133**
Total Investment Liabilities	**260,133**	**-**	**-**	**-**	**-**	**260,133**
Total Net Investments	**$228,819,208**	**$791,222**	**$33,602**	**$606**	**$1,102**	**$229,645,740**

Debt Securities

Debt securities consist primarily of long-term investments issued by the U.S. government and U.S. government-sponsored agencies, municipal securities, foreign governments, corporations, securitized offerings backed by residential and commercial mortgages, and inflation-indexed bonds (also known as inflation-linked bonds). Debt securities also consist of short-term securities that by definition typically have maturities of less than one year. Investments in Pension2 include debt securities such as bond mutual funds and guaranteed annuity contracts.

Short-term investments consist of money market funds, certificates of deposits and similar instruments with maturities and/or holding periods generally of less than one year. Deposits in the Pooled Money Investment Account (classified under short-term securities), administered by the State Treasurer, represent various investments with approximately 194 average days to maturity. The State Treasury pools these monies with those of other state agencies for investing in short-term securities. The monies are available for withdrawal at any time. Deposits in Short-Term Investment Fund, administered by State Street Bank, represent various investments with approximately 24 average days to maturity.

Pension2 offers bond mutual funds and annuity contracts to the individual participants. The annuity contracts offered guarantee a specified minimum interest rate, which is subject to change at any time.

Equity Securities

Equity securities consist primarily of domestic and international common stocks, preferred stocks, depository receipts, real estate investment trusts (REITs), exchange-traded funds (ETFs) and stock mutual funds.

Alternative Investments

Alternative investments consist primarily of limited partnership structures invested in privately held debt, including distressed and mezzanine debt, or privately held equity, including venture capital, buyouts, co-investments and equity expansion, as well as investments in real estate and infrastructure. They include investments held within the private equity, real estate, global equity, inflation sensitive, risk mitigating and innovative asset classes/strategies.

Alternative investments are generally long-term and illiquid in nature. As a result, investors are subject to redemption restrictions, which generally limit distributions and restrict the ability of limited partners to exit a partnership investment prior to its dissolution.

Investments in real estate directly held assets are in separate accounts and joint ventures, which are primarily composed of retail, office, industrial and multi-family properties. Real estate non-directly held investments primarily include commingled limited partnership investments in which CalSTRS does not have a controlling interest.

Corporate governance funds employ specific investment strategies and co-investments, including, but not limited to, publicly traded equity securities of companies on U.S., Canadian and European exchanges.

Derivative Instruments

CalSTRS holds investments in futures, foreign currency forward contracts, options, swaps, rights and warrants.

CalSTRS invests in futures and foreign currency forward contracts. A futures contract is an exchange-traded contract whereby the purchaser agrees to buy an asset at a stated price on a specific future date. A foreign currency forward contract is a customized, bilateral agreement to exchange a specified currency at a specified future settlement date at a forward price agreed to on the trade date.

CalSTRS invests in exchange-traded options and over-the-counter options. An option is a contract that entitles the holder to purchase or sell a specific amount of contracts or notional amount at a specified price (strike price). The underlying asset, quantity of the underlying or notional amount, expiration date and strike price are standardized for exchange-traded options and are customized for over-the-counter options.

Swaps are derivative instruments in which two parties agree to exchange one stream of cash flows against another stream or a guarantee. These streams are called the legs of the swap and usually at least one leg has a rate that is variable. The variable leg can depend on a reference rate, the total return of asset or an economic statistic. Cash flows are calculated based on a notional amount, which are usually not exchanged between counterparties.

Rights and warrants held by CalSTRS are typically acquired through corporate actions. A right is a privilege granted to shareholders of a corporation to subscribe to shares of a new issue of common stock before it is offered to the public. A warrant is a certificate entitling the holder to buy or sell a specific amount of securities at a specific price, usually one higher than the stock price at time of issue.

Securities Lending

State of California statutes and the board policies permit CalSTRS to make short-term, collateralized loans of its securities to broker-dealers and other entities in order to earn incremental income. CalSTRS has contracted with our custodian (State Street Bank), third-party securities lending agents and their respective custodians to lend global equity and debt securities. The majority of the security loans can be terminated on demand by either CalSTRS or the borrower. The underlying securities on loan are reported as assets on the Statement of Fiduciary Net Position. Collateral in the form of cash or other securities is required for 102 percent and 105 percent of the fair value of domestic and international securities loaned, respectively. For non-U.S. debt securities loaned, CalSTRS follows market practice which requires collateral of 102 percent of the fair value of the loaned securities. Since the majority of loans are terminable at will, their duration does not generally match the duration of the investments made with the cash collateral. As of June 30, 2017, the weighted duration difference between the investments and these loans was 30 days.

As of June 30, 2017, the fair value of the securities on loan was $20.0 billion. The securities lending cash collateral obligations were $18.2 billion. The fair value of the re-invested cash collateral was $18.2 billion, the non-cash collateral was $2.4 billion, and the calculated mark (collateral adjustment requested for the next business day) was $(3.1) million. The invested collateral and corresponding obligation are reflected in the Statement of Fiduciary Net Position as assets and liabilities, respectively. The re-invested cash collateral securities in this program are typically held to maturity and expected to mature at par.

In accordance with GASB Statement No. 28, *Accounting and Financial Reporting on Securities Lending Transactions*, the non-cash collateral of $2.4 billion is not reported in the Statement of Fiduciary Net Position because CalSTRS is not permitted to pledge or sell these collateral securities received unless the borrower defaults. The contracts with the securities lending agents require them to indemnify CalSTRS if the borrowers fail to return the securities (or if the collateral is not sufficient to replace the securities lent) or if the borrowers fail to pay CalSTRS for income distributions by the securities' issuers while the securities are on loan.

Real Estate Debt Service

Real estate investments are classified as investments in accordance with GASB Statement No. 72, *Fair Value Measurement and Application*. Certain real estate investments are leveraged through partnerships using a combination of equity contributions from CalSTRS and other investors and through the utilization of debt. CalSTRS engages real estate advisors and operating partners who are responsible for managing a portfolio's day-to-day activities, performance and reporting. As of June 30, 2017, the estimated fair value of real estate investments (net of all outstanding debt) totaled approximately $26.7 billion. The CalSTRS share of outstanding debt is $9.0 billion, excluding obligations of limited partnership interests in commingled funds. The CalSTRS portion of real estate debt service requirements includes both recourse and nonrecourse loans.

The chart below details the repayment of real estate debt, excluding obligations of limited partnership interests in commingled funds, as of June 30, 2017:

Real Estate Debt Service Requirements
(Dollars in Thousands)

	Principal	Interest	Total
Year Ended June 30, 2018	$2,924,694	$266,681	$3,191,375
2019	1,262,035	196,231	1,458,266
2020	1,652,233	149,680	1,801,913
2021	866,616	113,109	979,725
2022	667,068	75,687	742,755
2023 - 2027	1,433,402	157,673	1,591,075
2028 - 2032	79,879	38,858	118,737
2033 - 2037	82,747	25,229	107,976
2038 - 2042	10,782	3,769	14,551
2043 - Thereafter	15,726	1,033	16,759
Total	**$8,995,182**	**$1,027,950**	**$10,023,132**

This table includes $2.1 billion of loans for CalSTRS interest in real estate investments from the Master Credit Facility Portfolio discussed further below.

Real estate debt currently bears interest at fixed and variable rates ranging from 0.59 to 8.75 percent and 1.82 to 10.00 percent, respectively.

CalSTRS Master Credit Facility Portfolio consists of three separate unsecured credit facilities and one secured loan. The proceeds from the Master Credit Facility Portfolio provide the source of funds for managing capital flows of investment strategies. As of June 30, 2017, the total available lines of credit in the Master Credit Facility Portfolio were $3.45 billion. The total principal amount borrowed was $2.82 billion, and the remaining amount available was approximately $630 million. These credit facilities will mature between October 2017 and December 2019.

The CalSTRS Real Estate Investment Policy states that leverage shall be used to enhance investment returns. Careful consideration is given to the impact of leverage on investment and portfolio risks. Leverage within each segment of the asset class is regularly monitored and reported to the board for compliance. As of June 30, 2017, the loan to value on the Real Estate asset class, excluding obligations of limited partnership interests in commingled funds was 35.4 percent. CalSTRS does not have any debt obligations under the real estate limited partnership interests held in commingled funds.

Investment Risk Schedules

In accordance with GASB Statement No. 40, the following investment risk schedules disclose CalSTRS investments that are subject to certain types of risks, including credit risk, interest rate risk, concentration of credit risk, custodial risk and foreign currency risk. The policies addressing each risk, discussed in more detail below, are contained within the Investment Policy and Management Plan reviewed and approved annually by the board.

CalSTRS has no investment (other than those issued or explicitly guaranteed by the U.S. government) in any one organization that represents 5 percent or more of the STRP's fiduciary net position as of June 30, 2017.

Credit Risk

Credit risk is the risk that an issuer or other counterparty to a debt instrument will not fulfill its obligations. This is measured by the assignment of ratings by nationally recognized statistical rating organizations.

CalSTRS Investment Guidelines require that, at the time of purchase, at least 95 percent of the market value of the corporate securities comprising the credit portion of the core fixed income portfolio be rated investment grade as defined by the Bloomberg Barclays U.S. Aggregate Bond Index. The ratings used to determine the quality of the individual securities in the table below are the ratings provided by S&P McGraw Hill Financial. Obligations issued or guaranteed by the U.S. federal government or government-sponsored agencies are eligible without limit. Furthermore, the total position of the outstanding debt of any non-agency mortgage-backed, asset-backed and commercial mortgage-backed securities issuer shall be limited to 10 percent of the market value of the portfolio, on the basis of each separate trust (pool of assets), at the time of purchase. Obligations of other issuers are not to exceed 5 percent per issuer, at the time of purchase, of the market value of any individual portfolio. The Investment Guidelines also include an allocation to opportunistic strategies, which allows for the purchase of bonds rated below investment grade. Limitations on the amount of debt of any one issuer each investment manager may hold are negotiated on a manager-by-manager basis.

CalSTRS may invest in an unrated security if the security is comparable in quality to other rated securities that are eligible for purchase. The notation NR represents those securities that are not rated, and NA represents those securities for which the rating disclosure requirements are not applicable such as obligations of the U.S. government and obligations explicitly guaranteed by the U.S. government.

As of June 30, 2017, the credit ratings of all debt securities and securities lending collateral are as follows:

Debt Securities
(Dollars in Thousands)

Ratings	Asset-Backed Securities	Corporate Bonds	Foreign Government Issues	Mortgage-Backed Securities	Municipal Securities	U.S. Government and Agency Obligations	Short-Term Securities	Mutual Funds - Bond Funds	Guaranteed Annuity Contracts	Total
Long-term Ratings										
AAA	$247,686	$320,897	$154,668	$113,126	$31,127	$-	$-	$12,602	$-	$880,106
AA	11,112	833,901	81,275	53,865	133,881	1,630,555	-	18,545	-	2,763,134
A	1,706	2,733,233	96,726	25,476	23,411	-	-	-	-	2,880,552
BBB	3,861	4,477,249	184,532	4,856	10,087	-	-	-	-	4,680,585
BB	7,289	1,073,670	67,491	13,052	-	-	-	-	-	1,161,502
B	2,960	1,101,102	7,717	8,986	-	-	-	-	-	1,120,765
CCC	2,071	208,528	1,450	9,789	-	-	-	-	-	221,838
CC	4,674	3,819	-	-	-	-	-	-	-	8,493
D	1,074	3,065	-	10,057	-	-	-	-	-	14,196
NR	147,277	392,476	376,732	6,338,497	-	2,373	-	-	282,326	7,539,681
NA	-	-	-	1,875,082	-	13,956,452	-	29,240	-	15,860,774
Short-term Ratings										
A-1	-	-	-	-	-	-	25,030	-	-	25,030
NR	-	-	-	-	-	-	4,032,020	-	-	4,032,020
NA	-	-	-	-	-	-	194,148	-	-	194,148
Total	**$429,710**	**$11,147,940**	**$970,591**	**$8,452,786**	**$198,506**	**$15,589,380**	**$4,251,198**	**$60,387**	**$282,326**	**$41,382,824**

Securities Lending Collateral
(Dollars in Thousands)

Ratings	Asset-Backed Securities	Corporate Bonds	Mortgage-Backed Securities	Short-Term Securities	Total
Long-term Ratings					
AAA	$1,508,965	$48,014	$31,208	$-	$1,588,187
AA	-	1,372,420	-	-	1,372,420
A	-	786,871	6,814	-	793,685
BB	170	-	-	-	170
CC	328	-	-	-	328
D	-	-	6,232	-	6,232
NR	808,956	60,095	2,741	-	871,792
Short-term Ratings					
A-1	-	-	-	219,241	219,241
NA	-	-	-	49,715	49,715
NR	-	-	-	13,263,576	13,263,576
Total	**$2,318,419**	**$2,267,400**	**$46,995**	**$13,532,532**	**$18,165,346**

Cash and accruals totaling $25,949 (in thousands) are not included in the total above but are included in the Securities Lending Collateral line item in the Statement of Fiduciary Net Position.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment.

Investments may contain terms that increase the sensitivity of their fair values to increasing and decreasing interest rates. Although CalSTRS has investments that have an inherent prepayment risk as well as caps, floors and step-up features, these are mitigated through the diversification of asset classes, security selection, maturity and credit quality.

The Investment Guidelines allow the core long-term investment grade portfolios the discretion to deviate the average duration of the portfolio within a range of +/- 20 percent (80 to 120 percent) of the weighted average effective duration of the performance benchmark.

The table below represents the net asset values and duration of the long-term Fixed Income Portfolios as of June 30, 2017.

Long-Term Fixed Income Duration
(Dollars in Thousands)

Investment Type (by portfolio)	Portfolio Net Asset Value	Effective Duration	Benchmark Duration	Difference
Core Portfolio				
Commercial Mortgage-Backed Securities	$560,160	5.41	5.37	0.04
Credit Obligations	8,169,977	6.70	6.91	(0.21)
Mortgage-Backed Securities	6,740,341	4.27	4.19	0.08
U.S. Government and Agency Obligations	9,584,751	6.02	5.84	0.18
Debt Opportunistic				
Corporate High Yield	1,603,390	3.48	3.72	(0.24)
Debt Core Plus	3,173,090	5.42	5.48	(0.06)
Leveraged Loans	765,124	0.43	0.25	0.18
Special Situations	42,326	0.10	5.57	(5.47)
Total	**$30,639,159**	**5.37**	**5.57**	**(0.20)**

Global inflation-linked securities, the CalSTRS Home Loan Program and long-duration U.S. treasury securities are not included in the table above. The global inflation-linked securities had a net asset value of $573.6 million with an effective duration of 12.52 compared to the benchmark duration of 12.54. The Home Loan Program had a net asset value of $74.1 million with a weighted average maturity of 22.0 years. The long duration U.S. treasury securities had a net asset value of $4.2 billion with an effective duration of 17.6. Cash and accruals totaling $(159.9) million and swaps and other collateral totaling $2.5 million are included in the total net asset value within the Fixed Income asset class but are not included in debt securities on the Statement of Fiduciary Net Position.

As of June 30, 2017, the segmented time distribution for the short-term securities based upon the expected maturity and/or first reset dates are as follows:

Short-Term Fixed Income Segmented Time Distribution
(Dollars in Thousands)

Investment Type	0–30 days	31–90 days	91–120 days	121–180 days	181–365 days	366+ days	Total
Asset-Backed Securities	$105,042	$43,556	$9,136	$-	$-	$-	$157,734
Corporate Bonds	95,187	198,777	-	-	-	-	293,964
Money Market Securities	1,775,051	1,074,016	94,737	25,002	-	-	2,968,806
Mortgage-Backed Securities	685	129	-	-	-	-	814
Pooled Money Investment Account	149,249	-	-	-	-	-	149,249
Short-Term Investment Fund	308,545	-	-	-	-	-	308,545
U.S. Government and Agency Obligations	635,943	367,690	229,391	169,293	115,344	34,851	1,552,512
Total	**$3,069,702**	**$1,684,168**	**$333,264**	**$194,295**	**$115,344**	**$34,851**	**$5,431,624**
Weightings	**56.52%**	**31.00%**	**6.14%**	**3.58%**	**2.12%**	**0.64%**	**100.00%**

The primary investment objective for the short-term investments is to seek the preservation of capital and liquidity and to generate the highest possible current income consistent with a prudent level of risk. The above table includes $1.2 billion debt securities that are managed within the short-term fixed income portfolio but may have original maturities of over a year. The Investment Guidelines of the short-term portfolio state that the average maturity of the investments shall be managed such that it will not exceed 180 days.

As of June 30, 2017, the segmented time distribution based upon the expected maturity and/or first reset date for the invested Securities Lending Cash Collateral are as follows:

Securities Lending Collateral Segmented Time Distribution
(Dollars in Thousands)

Investment Type	0–1 days	2–6 days	7–29 days	30–59 days	60–89 days	90+ days	TOTAL
Asset-Backed Securities	$-	$-	$2,241,900	$-	$21,699	$54,820	$2,318,419
Corporate Bonds	-	105,181	475,146	1,016,502	670,571	-	2,267,400
Mortgage-Backed Securities	-	-	12,642	-	34,353	-	46,995
Short-Term Securities	1,283,515	3,460,971	4,280,170	1,734,725	1,710,947	1,062,204	13,532,532
Total	**$1,283,515**	**$3,566,152**	**$7,009,858**	**$2,751,227**	**$2,437,570**	**$1,117,024**	**$18,165,346**
Weightings	**7.06%**	**19.63%**	**38.59%**	**15.15%**	**13.42%**	**6.15%**	**100.00%**

Cash and accruals totaling $25,949 (in thousands) are not included in the total above but are included in the Securities Lending Collateral line item in the Statement of Fiduciary Net Position.

The invested Securities Lending Cash Collateral is diversified among different asset classes with the maximum remaining effective maturity of any instrument being three years at the time of purchase. The fund must remain liquid to meet collateral returns.

Pension2

The primary objectives of Voya Fixed Plus III and TIAA Traditional Annuity/Annuities are the guarantee of principal and a guaranteed minimum interest rate of 1.0 percent for the life of the contract. The interest rate guarantees under the contracts are subject to Voya Retirement Insurance and Annuity Company (VRIAC) and TIAA's claim paying abilities.

As of June 30, 2017, the weighted average maturity of investments for the Pension2 IRC 403(b) and 457(b) plans on the Statement of Fiduciary Net Position are as follows:

Pension2 Weighted Average Maturity
(Dollars in Thousands)

Investment Type	Maturity	Fair Value
Federated U.S. Treasury Cash	50 days	$4,758
Money Market Securities	49 days	114
Vanguard Inflation Protected Securities Fund Institutional	8.6 years	29,239
Vanguard Short-Term Bond Index Fund Institutional	2.9 years	18,546
Vanguard Total Bond Market Index Fund	8.4 years	12,602
Total		**$65,259**

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of CalSTRS' investment in a single issuer. As of June 30, 2017, CalSTRS has no single issuer that exceeds 5 percent of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools and other pooled investments are excluded. The CalSTRS Investment Policy and Management Plan states that no more than 3 percent of the total fund shall be invested or exposed to any one security or corporation, with the exception of U.S. Treasury or Agency Obligations.

Custodial Credit Risk

Custodial credit risk is the risk that if a depository institution or counterparty fails, CalSTRS would not be able to recover the value of our deposits, investments or collateral securities. As of June 30, 2017, all of CalSTRS non-cash investments are not exposed to custodial credit risk because they are held in CalSTRS name. Demand and time deposits held by the various financial institutions and the state banks are insured up to $250,000 by the Federal Deposit Insurance Corporation (FDIC) or by collateral held by the State Treasurer's Office or an agency of that office in the state's name. CalSTRS does not have a general policy relating to custodial credit risk.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. As of June 30, 2017, CalSTRS investments in foreign currencies are as follows:

Foreign Currency Risk
(Dollars in Thousands)
(In U.S. Dollar Equivalents)

Currency Name	Cash	Equity	Fixed Income	Spot Contracts	Forward Contracts	Total Exposure
Argentine Peso	$220	$-	$2,569	$-	$(313)	$2,476
Australian Dollar	15,921	2,216,122	21,239	3	(1,210)	2,252,075
Brazilian Real	1,712	715,975	20,738	1	(3,066)	735,360
Canadian Dollar	33,429	3,232,492	40,858	257	534	3,307,570
Chilean Peso	382	36,621	-	-	(1,102)	35,901
Colombian Peso	69	6,697	-	21	(2,864)	3,923
Czech Koruna	11	167	-	(53)	5,216	5,341
Danish Krone	1,257	697,319	-	-	-	698,576
Egyptian Pound	11	1,315	-	-	-	1,326
Euro Currency	89,575	13,359,030	246,681	(416)	(128,275)	13,566,595
Hong Kong Dollar	15,843	3,199,662	(186,720)	-	(105)	3,028,680
Hungarian Forint	238	70,201	-	-	(2,616)	67,823
Indian Rupee	1,930	978,428	-	15	520	980,893
Indonesian Rupiah	1,533	269,383	27,696	4	47	298,663
Japanese Yen	179,770	8,610,464	11,632	181	4,799	8,806,846
Malaysian Ringgit	1,092	174,927	13,634	-	(2)	189,651
Mexican Peso	5,242	256,587	22,111	-	4,937	288,877
New Israeli Sheqel	504	104,787	(15,774)	-	(3,160)	86,357
New Taiwan Dollar	3,482	1,287,893	(11,682)	-	(615)	1,279,078
New Zealand Dollar	1,287	85,400	46,364	-	(2,308)	130,743
Norwegian Krone	897	285,485	-	(7)	(489)	285,886
Pakistan Rupee	-	29,970	-	-	-	29,970
Peruvian Nouveau Sol	4	-	-	-	352	356
Philippine Peso	177	71,760	-	81	3	72,021
Polish Zloty	648	70,230	12,616	-	2,220	85,714
Pound Sterling	44,787	6,471,319	220,504	245	(3,807)	6,733,048
Qatari Rial	164	36,354	-	-	-	36,518
Russian Ruble	729	-	9,543	-	(5,270)	5,002
Singapore Dollar	5,026	508,227	-	9	(1,281)	511,981
South African Rand	1,488	667,630	16,114	86	2,884	688,202
South Korean Won	12,445	1,930,524	(75,723)	(40)	4,314	1,871,520
Swedish Krona	4,431	1,017,051	5,362	162	(1,476)	1,025,530
Swiss Franc	3,999	2,578,092	-	(1)	(2,772)	2,579,318
Thailand Baht	1,104	229,800	6,779	(8)	344	238,019
Turkish Lira	615	286,091	16,417	2	7,620	310,745
UAE Dirham	1,051	70,905	-	-	-	71,956
Yuan Renminbi	13,150	39,377	3,991	93	27	56,638
Total	**$444,223**	**$49,596,285**	**$454,949**	**$635**	**$(126,914)**	**$50,369,178**

CalSTRS investments denominated in foreign currencies are reported within derivative instruments and investment receivables or payables on the Statement of Fiduciary Net Position.

Foreign currency is composed of international investment proceeds and income to be repatriated into U.S. dollars and funds available to purchase international securities. Foreign currency is held temporarily in foreign accounts until it is able to be repatriated or expended.

In accordance with the Investment Policy and Management Plan, CalSTRS has established a strategic allocation to non-dollar public and private equity assets (i.e. private equity investments and real estate). Considering this commitment to non-dollar assets and the impact currency fluctuations can have on the total return of dollar-based investors, CalSTRS has recognized the need to implement strategies designed to address the management of currency risk. CalSTRS believes that our Currency Management Program should emphasize the protection of the value of its non-dollar public and private equity assets against a strengthening U.S. dollar first, yet recognizes that there also exists opportunities for alpha generation (the ability to derive a return in excess of a market return) within the currency markets.

CalSTRS Fixed Income staff has management and/or oversight responsibilities for the Currency Management Program. The position range has been designed to allow for some degree of symmetry around the underlying exposure to the foreign denominated assets within CalSTRS in order to both protect the translation value of the assets against a strengthening U.S. dollar and to enhance returns in a declining U.S. dollar environment.

As of June 30, 2017, the Pension2 403(b) and 457(b) plans do not expose CalSTRS to foreign currency risk.

Derivative Instruments

As of June 30, 2017, the derivative instruments held by CalSTRS are considered investments and not hedges for accounting purposes. The term hedging, as it is used elsewhere in the notes to these financial statements, denotes an economic activity and not an accounting method. The gains and losses arising from this activity are recognized as incurred in the Statement of Changes in Fiduciary Net Position.

All investment derivatives discussed below are included within the Investment Risk Schedules, which precede this section. Investments in derivative instruments are disclosed separately to provide a comprehensive view of this activity and its impact on the overall investment portfolio.

The table below presents the related net appreciation (depreciation) in fair value, the fair value amounts and the notional amounts of derivative instruments outstanding as of June 30, 2017.

Investment Derivative Disclosure
(Dollars in Thousands)

	Net Appreciation (Depreciation) in Fair Value of Investments through June 30, 2017		Fair Value as of June 30, 2017		
	Classification	Amount	Amount	Notional (Amount/Shares)	
Investment Derivatives Instruments					
Credit Default Swaps	Investment Income / (Loss)	$(7,643)	$202	47,358	
Interest Rate Swaps	Investment Income / (Loss)	7,428	2,648	223,270	
Total Return Swaps	Investment Income / (Loss)	32,613	205	(329,500)	
Foreign Currency Forwards	Investment Income / (Loss)	60,027	(126,914)	13,704,860	
Futures (Domestic and Foreign)	Investment Income / (Loss)	303,142	(5,556)	(79,572)	
Options[1]	Investment Income / (Loss)	(45,023)	5,050	704,687	
Rights	Investment Income / (Loss)	10,600	2,243	4,856	Shares
Warrants	Investment Income / (Loss)	(1,775)	3	485	Shares
Total Derivative Instruments		**$359,369**	**$(122,119)**		

[1]The total options amount of $5,050 is composed of options bought and options written of $7,932 and $(2,882), respectively (dollars in thousands).

Counterparty Credit Risk

The table below depicts the counterparty credit ratings of CalSTRS non-exchange traded investment derivative instruments outstanding and subject to loss as of June 30, 2017.

Counterparty Credit Rating[1]
(Dollars in Thousands)

S&P Rating	Credit Default Swaps	Interest Rate Swaps	Total Return Swaps	Foreign Currency Forwards	Total
AA	$-	$-	$-	$7,468	$7,468
A	39	-	-	10,043	10,082
BBB	423	2,836	479	869	4,607
Subtotal Investments in Asset Position	**$462**	**$2,836**	**$479**	**$18,380**	**$22,157**
Investments in Liability Position	(260)	(188)	(274)	(145,294)	(146,016)
Total Investments in Asset / (Liability) Position	**$202**	**$2,648**	**$205**	**$(126,914)**	**$(123,859)**

[1]The counterparty credit exposure for similar instruments with the same counterparty is netted for presentation purposes.

The ratings used to determine the quality of the individual counterparty are S&P ratings. The aggregate fair value of investment derivative instruments in an asset position subject to counterparty credit risk as of June 30, 2017, was $22.2 million. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted. However, master agreements exist that call for daily exchange of collateral for the mark-to-market to minimize this risk.

CalSTRS may enter into a master netting arrangement with a counterparty. In the event of default or early termination, the master agreement permits the non-defaulting party the right to close-out all transactions in a single net settlement to one net amount payable by one counterparty to the other.

As of June 30, 2017, there were assets of $11.1 million, including cash collateral held by CalSTRS, and liabilities of $17.9 million from non-exchange traded derivatives subject to master netting agreements. As of June 30, 2017, CalSTRS did not have any significant exposure to counterparty credit risk with any single party.

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. As of June 30, 2017, all of CalSTRS investments in derivative instruments are held in CalSTRS name or CalSTRS nominee's name and are not exposed to custodial credit risk as of June 30, 2017.

Interest Rate Risk

As of June 30, 2017, CalSTRS is exposed to interest rate risk on its derivative instruments described below by maturity period.

Investment Maturities
(Dollars in Thousands)

		Investment Maturities (in years)			
Investment Type	**Fair Value**	**Less Than 1**	**1–5**	**6–10**	**More than 10**
Credit Default Swaps	$202	$99	$71	$32	$-
Interest Rate Swaps	2,648	-	(656)	3,304	-
Total Return Swaps	205	205	-	-	-
Total	**$3,055**	**$304**	**$(585)**	**$3,336**	**$-**

The table below shows swaps that are highly sensitive to changes in interest rates. The table below details the reference rate, fair value and notional amount of these derivative instruments:

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

Investment Type	Reference Rate	Fair Value	Notional
Interest Rate Swap	Pay Fixed 1.897%, Receive Variable 3M LIBOR	$143	$41,600
Interest Rate Swap	Pay Fixed 1.9%, Receive Variable 3M LIBOR	311	64,728
Interest Rate Swap	Pay Fixed 1.58%, Receive Variable 3M LIBOR	999	18,380
Interest Rate Swap	Pay Fixed 1.26653%, Receive Variable 3M LIBOR	1,850	43,392
Interest Rate Swap	Receive Fixed 1.185%, Pay Variable 3M LIBOR	(467)	18,420
Interest Rate Swap	Receive Fixed 1.0345%, Pay Variable 3M LIBOR	(188)	36,750
Interest Rate Swaps Total		**$2,648**	**$223,270**
Total Return Swap	Receive MSCI Daily TR NET Brazil USD, Pay 1D Overnight Brazil Interbank Deposit (CETIP)	(51)	7,464
Total Return Swap	Receive MSCI Daily TR NET EM Poland USD, Pay 6M Poland Warsaw Interbank Offer Rate (WIBOR)	(11)	10,338
Total Return Swap	Receive MSCI Daily Net EM Mexico, Pay 28D Mexican Interbank Rate (TIIE)	(3)	190
Total Return Swap	Receive MSCI Daily TR NET Brazil USD, Pay 1D Overnight Brazil Interbank Deposit (CETIP)	(5)	383
Total Return Swap	Receive MSCI Daily TR NET EM Poland USD, Pay 6M Poland Warsaw Interbank Offer Rate (WIBOR)	15	1,769
Total Return Swap	Receive MSCI Daily TR NET EM Turkey USD, Pay 3M Bank Assoc of Turkey offer rate (TRLIBOR)	(24)	2,696
Total Return Swap	Receive MSCI Daily TR NET EM South Africa USD, Pay ZAR 3M Johannesburg Interbank Agreed Rate (JIBAR)	273	15,570
Total Return Swap	Receive MSCI Daily TR NET EM South Africa USD, Pay ZAR 3M Johannesburg Interbank Agreed Rate (JIBAR)	(4)	544
Total Return Swap	Receive NIFTY 50 Index, Pay 3M LIBOR	37	19,132
Total Return Swap	Receive MSCI Daily TR NET EM Turkey USD, Pay 3M Bank Assoc of Turkey offer rate (TRLIBOR)	-	13,721
Total Return Swap	Receive MSCI Daily TR NET EM Poland USD, Pay 6M Poland Warsaw Interbank Offer Rate (WIBOR)	5	509
Total Return Swap	Receive NIFTY 50 Index, Pay 3M LIBOR	(274)	(99,644)
Total Return Swap	Receive KOPSI 200 Index, Pay KRW 3M Ceritificate of Deposit Rate (KWCDC)	1,193	(75,723)
Total Return Swap	Receive MSCI Daily TR NET Hong Kong Local, Pay HKD - 3M Hong Kong Interbank Offer Rate (HIBOR)	80	(14,213)
Total Return Swap	Receive NIFTY 50 Index, Pay 3M LIBOR	114	(11,682)
Total Return Swap	Receive MSCI Daily TR NET Hong Kong Local, Pay HKD - 3M Hong Kong Interbank Offer Rate (HIBOR)	193	(21,802)
Total Return Swap	Receive MSCI Daily TR NET Hong Kong Local, Pay HKD - 3M Hong Kong Interbank Offer Rate (HIBOR)	(1,223)	(148,667)
Total Return Swap	Receive NIFTY 50 Index, Pay 3M LIBOR	(97)	(12,273)
Total Return Swap	Receive MSCI Israel Index, Pay 3M Tel Aviv Interank Offer Rate (TELBOR)	-	(15,774)
Total Return Swap	Receive MSCI Daily TR NET Hong Kong Local, Pay HKD - 3M Hong Kong Interbank Offer Rate (HIBOR)	(13)	(2,038)
Total Return Swaps Total		**$205**	**$(329,500)**

Foreign Currency Risk

As of June 30, 2017, CalSTRS is exposed to foreign currency risk on its investments in derivative instruments.

Foreign Currency Risk
(Dollars in Thousands)
(In U.S. Dollar Equivalents)

						Currency Forward Contracts		
Currency Name	Futures	Options	Rights	Swaps	Warrants	Investment Asset	Investment Liability	Total Exposure
Argentine Peso	$-	$-	$-	$-	$-	$-	$(313)	$(313)
Australian Dollar	247	364	171	-	-	2,478	(3,688)	(428)
Brazilian Real	-	-	-	(57)	-	1,166	(4,232)	(3,123)
Canadian Dollar	(749)	-	-	-	-	12,514	(11,980)	(215)
Chilean Peso	-	-	-	-	-	27	(1,129)	(1,102)
Colombian Peso	-	-	-	-	-	972	(3,836)	(2,864)
Czech Koruna	-	-	-	-	-	12,114	(6,898)	5,216
Euro Currency	(873)	2,878	2,035	(20)	-	17,789	(146,064)	(124,255)
Hong Kong Dollar	(343)	-	-	(962)	-	21	(126)	(1,410)
Hungarian Forint	-	-	-	-	-	854	(3,470)	(2,616)
Indian Rupee	-	-	-	-	-	913	(393)	520
Indonesian Rupiah	-	-	-	-	-	244	(197)	47
Japanese Yen	1,091	-	-	-	-	16,398	(11,599)	5,890
Malaysian Ringgit	(25)	-	-	-	-	64	(66)	(27)
Mexican Peso	(69)	-	-	(3)	-	5,884	(947)	4,865
New Israeli Sheqel	-	-	20	-	-	115	(3,275)	(3,140)
New Taiwan Dollar	-	-	-	114	-	181	(796)	(501)
New Zealand Dollar	-	-	6	-	-	1,563	(3,871)	(2,302)
Norwegian Krone	-	-	-	-	-	1,357	(1,846)	(489)
Peruvian Nouveau Sol	-	-	-	-	-	564	(212)	352
Philippine Peso	-	-	-	-	-	647	(644)	3
Polish Zloty	-	-	-	9	-	2,280	(60)	2,229
Pound Sterling	(2,176)	10	-	-	-	10,653	(14,460)	(5,973)
Russian Ruble	-	-	-	-	-	751	(6,021)	(5,270)
Singapore Dollar	(13)	-	-	-	3	949	(2,230)	(1,291)
South African Rand	9	-	-	268	-	3,498	(614)	3,161
South Korean Won	411	-	-	1,193	-	5,233	(919)	5,918
Swedish Krona	-	-	-	-	-	1,401	(2,877)	(1,476)
Swiss Franc	-	-	-	-	-	4,733	(7,505)	(2,772)
Thailand Baht	(1)	-	-	-	-	580	(236)	343
Turkish Lira	-	-	-	(24)	-	7,820	(200)	7,596
Yuan Renminbi	-	-	-	-	-	146	(119)	27
Total	**$(2,491)**	**$3,252**	**$2,232**	**$518**	**$3**	**$113,909**	**$(240,823)**	**$(123,400)**

As of June 30, 2017, the net unrealized loss on the foreign currency forward contracts was $(126.9) million.

Investment Allocation Policy

In accordance with GASB Statement No. 67 for pension plans and GASB Statement No.74 for OPEB plans, CalSTRS discloses investment policies pertaining to asset allocation and changes to any significant Investment policies. The board approves the allocation of investment assets as described in the board policy manual. The key goal of the asset allocation process is to develop an asset allocation policy that maximizes the likelihood that the investment portfolio's assets will, over the planning horizon, fund plan benefits. CalSTRS conducts an asset allocation study every three years, or more frequently if there is a significant change in the liabilities or assets. The asset allocation study involves a comprehensive review of the financial condition of the plan, including the actuarial requirements of the plan, such as future benefit payments and expected cash flow of contributions. In conjunction with the long-term strategic target, a range for each asset class is established to provide flexibility designed to reduce rebalancing costs and adapt to changing market conditions. The board approved changes to asset allocation ranges effective June 30, 2017.

The following table displays the previous and current board-approved target allocation, the policy range and the actual allocation for the STRP per the portfolio allocation and management structure as of June 30, 2017.

Asset Class / Strategy	Previous Target Allocation as of June 30, 2016	Current Target Allocation as of June 30, 2017	Policy Range	Actual Allocation as of June 30, 2017
Global Equity	55.0%	55.0%	+/- 6%	56.4%
Fixed Income	17.0%	15.0%	+/- 3%	14.7%
Real Estate	13.0%	12.0%	+/- 3%	12.6%
Private Equity	13.0%	8.0%	+/- 3%	8.1%
Cash / Liquidity	1.0%	2.0%	+/- 3%	1.5%
Inflation Sensitive	1.0%	2.0%	+/- 3%	1.3%
Risk Mitigating Strategies	0.0%	6.0%	+/- 3%	5.1%
Innovative Strategies	0.0%	0.0%	+/- 3%	0.2%
Strategic Overlay	0.0%	0.0%		0.1%
Total Asset Allocation	**100.0%**	**100.0%**		**100.0%**

All excess monies from the MPP Program and TDCF are invested into the SMIF, which is a pooled investment program administered by the State Treasurer.

6. FAIR VALUE MEASUREMENTS

The fair value of a financial instrument is the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (the exit price). Fair value is a market-based measurement, not a CalSTRS-specific measurement; hence, valuation assumptions reflect those that market participants would use to price assets and liabilities at the measurement date.

U.S. General Accepted Accounting Principles (GAAP) establishes a hierarchy that prioritizes and ranks the inputs to valuation techniques used to measure fair value based on observability. Market price observability may be affected by a number of factors, including the investment type, the investment-specific characteristics, the state of the marketplace and the existence and transparency of transactions between market participants.

CalSTRS follows the fair value measurement and disclosure guidance under U.S. GAAP, which establishes a hierarchical disclosure framework. This framework prioritizes and ranks the level of market price observability used in measuring investments at fair value. U.S. GAAP also allows investments to be valued at cost or Net Asset Value (NAV). The Fair Value Leveling Hierarchy table that follows presents CalSTRS investments at their fair value level but also includes certain investments at cost or NAV.

Investments with readily available active quoted prices or for which fair value can be measured from actively quoted prices in an orderly market generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. In all cases, an instrument's level within the hierarchy is based upon the market pricing transparency of the instrument and does not necessarily correspond to CalSTRS' perceived risk or the liquidity of the instrument.

Assets and liabilities measured at fair value are classified into one of the following categories:

Level 1 – Fair value is determined using unadjusted quoted prices in active markets for identical assets or liabilities accessible on the measurement date.

Level 2 – Fair value is determined using quoted prices in inactive markets or significant observable inputs (including, but not limited to, quoted prices for similar investments, interest rates, foreign exchange rates, volatility and credit spreads), either directly or indirectly. These inputs may be derived principally from, or corroborated by, observable market data through correlation or by other means.

Level 3 – Fair value is determined using unobservable inputs, including situations where there is little market activity, if any, for the asset or liability.

The fair value hierarchy level within which a fair value measurement falls is determined based on the lowest level input that is significant to the fair value measurement. The availability of valuation techniques and observable inputs may vary and is affected by factors such as the type of security, whether the security is established in the marketplace and market liquidity. Inputs used to measure fair value may require significant judgment or estimation, and CalSTRS may use models or other valuation methodologies to estimate fair value. Accordingly, the degree of judgment exercised by CalSTRS in estimating fair value is greatest for assets and liabilities categorized in Level 3.

Fair Value Leveling Hierarchy
(Dollars in Thousands)

		Fair Value Measurements Using		
	June 30, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Investments by Fair Value Level				
Debt Securities				
Asset-Backed Securities	$429,710	$-	$356,324	$73,386
Corporate Bonds	11,147,940	-	11,124,214	23,726
Foreign Government Issues	970,591	-	970,591	-
Mortgage-Backed Securities	8,452,786	-	8,449,926	2,860
Municipal Securities	198,506	-	198,506	-
U.S. Government and Agency Obligations	15,589,380	-	15,589,380	-
Short-Term Securities	3,849,394	313,418	3,535,976	-
Mutual Funds-Bond Funds	60,387	60,387	-	-
Guaranteed Annuity Contracts	282,326	-	-	282,326
Total Debt Securities	**40,981,020**	**373,805**	**40,224,917**	**382,298**
Equity Securities				
Common Stocks	105,731,011	105,377,097	342,099	11,815
Depository Receipts	2,842,502	2,834,749	-	7,753
Mutual Funds-Stock Funds	1,713,090	1,713,090	-	-
Preferred Stocks	424,990	420,411	4,579	-
Real Estate Investment Trusts	3,098,831	3,084,687	14,144	-
Total Equity Securities	**113,810,424**	**113,430,034**	**360,822**	**19,568**
Alternative Investments				
Debt-Privately Held	8,204	-	-	8,204
Equity-Privately Held	181,942	-	-	181,942
Real Estate-Directly Held	16,951,450	-	-	16,951,450
Total Alternative Investments	**17,141,596**	**-**	**-**	**17,141,596**
Derivative Instruments				
Forwards	113,909	-	113,909	-
Futures	7,651	7,651	-	-
Options	7,932	-	7,932	-
Rights and Warrants	2,246	1,137	1,109	-
Swaps	6,276	-	6,276	-
Total Derivative Instruments	**138,014**	**8,788**	**129,226**	**-**
Securities Lending Collateral	**14,814,442**	**973,195**	**13,841,247**	**-**
Total Investment Assets Recorded at Fair Value	**$186,885,496**	**$114,785,822**	**$54,556,212**	**$17,543,462**
Investments Measured at Cost				
Short-Term Securities	401,804			
Securities Lending Collateral	3,376,853			
Total Investments Measured at Cost	**3,778,657**			
Investments Measured at NAV				
Debt-Privately Held	2,255,646			
Equity-Privately Held	27,187,643			
Real Estate-Non-Directly Held	9,798,431			
Total Investments Measured at NAV	**39,241,720**			
Total Investment Assets	**$229,905,873**			
Liabilities:				
Investments by Fair Value Level				
Derivative Instruments				
Forwards	240,823	-	240,823	-
Futures	13,207	13,207	-	-
Options	2,882	-	2,882	-
Swaps	3,221	-	3,221	-
Total Derivative Instruments	**260,133**	**13,207**	**246,926**	**-**
Total Investment Liabilities Recorded at Fair Value	**$260,133**	**$13,207**	**$246,926**	**$-**
Total Net Investments	**$229,645,740**			

Level 1 measurements are generally valued at the official closing price (usually the last trade price) or the last bid price on the security's primary exchange. Such investments generally include common stock, REITs, depository receipts, and mutual funds.

Level 2 measurements are generally valued using indicative prices from vendors, brokers or ask prices. These indicative measurements often use matrix pricing, the Black-Scholes-Merton model or a lattice model and incorporate observable inputs such as yield, prepayment speeds, credit spreads, volatility curves or currency curves. Such investments generally include debt securities, bonds and over-the-counter derivatives. Other factors such as infrequent trading, inactive market or adjusted quoted prices may also result in Level 2 measurements.

Level 3 measurements are generally valued using significant inputs that are unobservable to the marketplace. This may occur if an investment is illiquid or is internally estimated. For CalSTRS, such investments primarily include directly held real estate. Properties are appraised using discounted cash flows, income capitalization, adjusted comparable sales and replacement cost (if recent) methods. The method chosen is the one most relevant to how an investor would assess a property as a potential buyer.

Debt Securities

Certain debt securities have an active market for identical securities and are valued using the close or last traded price on a specific date. Debt securities that are not as actively traded are valued by pricing vendors using modeling techniques that include market observable inputs as well as unobservable inputs required to develop a fair value. Typical inputs include recent trades, yields, price quotes, cash flows, maturity, credit ratings and other assumptions based upon the specifics of the investment type.

Short-term investments are reported at fair value or at cost or amortized cost. For those investments which are reported at fair value, the investments are valued using similar methodologies as debt securities traded in active markets.

Bond mutual funds offered by Voya and TIAA are open-ended funds that are priced daily at NAV based generally upon the exchange traded official closing price of the securities held by the funds. CalSTRS allocation in the Voya annuity contracts is carried at contract value, which approximates fair value.

Equity Securities

The majority of equity securities held by CalSTRS are actively traded on major stock exchanges. These exchanges make information on trades of securities available daily on a last trade or official close basis. If such information is not available, other pre-established means are used to determine a price. Stock mutual funds, held in the STRP and Pension2, are open-ended funds that are priced daily at NAV by the fund sponsor based generally upon the exchange traded official closing price of the securities held by the fund.

Alternative Investments

Partnership interests are valued using their respective NAV calculated in accordance with the general partner's fair valuation policy as of the measurement date and are audited annually. The most significant input into the NAVs of such an entity is the fair value of its investment holdings, which are typically valued on a quarterly or semi-annual basis by the general partners. The valuation assumptions are based upon the nature of the investment and the underlying business. The valuation techniques vary by investment type and involve a certain degree of expert judgment.

Corporate Governance funds structured as limited partnerships have been valued using the NAV of the entity, with the most significant input into the NAV being the value of its investment holdings. The general partners obtain prices for their holdings in a manner similar to that described above for CalSTRS Global Equity holdings.

Investments in real estate directly held assets are subject to independent third-party appraisals performed annually in accordance with the Uniform Standards of Professional Appraisal Practice. On a quarterly basis, fair values are estimated by the third-party advisor or operating partner using general market and property-specific assumptions, which are reviewed by CalSTRS valuation consultant. Leverage may be used to enhance investment returns as set forth in the CalSTRS Real Estate Investment Policy. See Note 5 regarding the disclosure relating to Real Estate leverage.

Real estate investments in non-directly held limited partnership interests in commingled funds are valued by CalSTRS using the NAV of the partnership provided by the general partner. The most significant input into the NAV of such an entity is the fair value of its investment holdings. These holdings are valued using the general partners' fair valuation policy on a continuous basis, audited annually and periodically appraised by an independent third-party as directed by the governing document for each commingled fund investment. The valuation assumptions use both market and property-specific inputs.

Derivative Instruments

The fair value of exchange-traded derivative instruments such as futures, options, rights and warrants are determined based on the quoted market prices or mean prices. The fair value of derivative instruments that are not exchange-traded such as swaps is determined by external pricing services.

Futures contracts are exchange-traded financial instruments that derive their value from underlying securities, indices or reference rates and are marked-to-market at the end of each day. The fair value of futures variation margins are accounted for as unrealized appreciation or depreciation until the contract is closed.

The fair value of the foreign currency forward contracts is the unrealized gain or loss calculated based on the difference between the specified exchange rate and the closing forward rate as of June 30, 2017.

Investment in Certain Entities that Calculate Net Asset Value Per Share

CalSTRS measures certain investments that do not have a readily determinable fair value using NAV as a practical expedient. These investments are generally structured as limited partnerships with an investment manager and are created by raising pools of capital from investors that will be invested according to one or more specific investment strategies. Investors commit capital to the fund, and as the investment manager identifies investment opportunities, the committed capital is called to purchase the investments.

NAV is calculated using measurement principles similar to investment companies. CalSTRS updates the NAV for cash contributions, cash distributions and changes in the fair value of the underlying investments using capital account statements and estimates if the NAV is not updated as of the reporting date. CalSTRS does not currently have any plans to sell any of these investments before their stated term.

The following table displays information regarding investments that use NAV per share (or equivalent) as their fair value measurement:

NAV Practical Expedient
(Dollars in Thousands)

	Fair Value June 30, 2017	Total Unfunded Commitments	Redemption Frequency if Currently Eligible	Redemption Notice Period
Debt-Privately Held[1]	$2,255,646	$1,325,468	N/A	N/A
Equity-Privately Held				
Private Equity Funds[2]	16,505,084	9,911,025	N/A	N/A
Corporate Governance Funds[3]	3,104,610	237,251	N/A, Annually	60-120 days
Other[4]	7,577,949	30,000	Monthly, Quarterly	2-90 days
Real Estate-Non-Directly Held				
Real Estate Funds[5]	6,626,748	3,295,937	N/A	N/A
Other[6]	3,171,683	61,453	Quarterly, Annually	30-90 days
Total Investments Measured at NAV	**$39,241,720**	**$14,861,134**		

[1]This category includes private equity funds that invest in privately held debt, such as distressed debt and mezzanine debt. CalSTRS investment in each fund is generally not subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying assets over a weighted-average period of approximately nine years as of June 30, 2017.

[2]This category includes private equity funds that invest in nonmarketable securities of private companies, which ultimately may become public in the future and whose strategies include leveraged buyouts, expansion capital and venture capital. Generally, CalSTRS investment in each fund in this category may not be subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying assets over a weighted-average period of approximately nine years as of June 30, 2017.

[3]This category includes funds that invest strategically in publicly traded equities of companies on U.S. and non-U.S. exchanges to achieve capital appreciation and income. The funds in this category are generally subject to a lockup period before redemption is permissable. Investments representing 11.3 percent and 75.3 percent of the value of the investments in this category can be redeemed annually and at the end of a three-year or rolling three-year period, respectively. The remaining 13.4 percent of the value of the investments in this category is not subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying assets.

[4]This category includes funds that invest primarily in equities, fixed income securities, opportunistic and other funds. Investments representing 92.8 percent and 7.2 percent in this category can be redeemed monthly and quarterly, respectively, upon written notice.

[5]This category includes funds that invest directly in real estate and real estate related assets, including retail, industrial, office, residential and hotels. Generally, CalSTRS investment in each fund in this category may not be subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying assets over a weighted-average period of approximately five years as of June 30, 2017.

[6]This category includes open-ended funds that invest directly in real estate and real estate related assets, including retail, industrial, office, residential and hotels. Investments representing 93.1 percent and 6.9 percent in this category can be redeemed quarterly and annually, respectively, upon written notice.

7. CONTINGENCIES

CalSTRS is involved in litigation relating to various matters. In the opinion of management, after consultation with legal counsel, the outcome of these matters is not expected to have a material adverse effect on CalSTRS financial statements.

8. COMMITMENTS

In connection with the purchase of partnership interests under various investment portfolios, CalSTRS has remaining unfunded commitments of approximately $25.0 billion as of June 30, 2017.

The following table depicts the unfunded commitments by asset strategy:

Asset Class / Strategy	Unfunded Commitments (Dollars in Thousands)
Global Equity (Corporate Governance)	$237,251
Inflation Sensitive (Infrastructure)	1,218,068
Innovative Strategies	239,932
Private Equity	13,878,530
Real Estate	9,445,273
Total	**$25,019,054**

These unfunded commitments include agreements for acquisition not yet initiated, which are not included in the NAV Practical Expedient table. Real Estate unfunded commitments include joint ventures, which are directly held investments. Real Estate's total unfunded commitment amount of $9.4 billion is composed of discretionary and non-discretionary amounts of $5.3 billion and $4.1 billion, respectively. Discretionary contractual arrangements provide CalSTRS the ability to cancel or redirect its investment commitment.

Medicare Premium Payment Program

Under current board policy, assets are set aside from the future employer contributions to the DB Program to fund the MPP Program. The assets set aside are equal to the actuarial obligation of the MPP Program less the value of any assets already in the program. As of June 30, 2016, the future employer contributions committed to funding the MPP Program totaled $315 million, which equals the projected cost of the program.

This amount is a funding measure that assumes the value of these contributions will be available to fund the MPP Program benefits in future periods, as the assets currently in the program are not sufficient to fund the projected future benefits. This differs from the net OPEB liability as of June 30, 2017, of $420.7 million, which was measured in accordance with GASB Statement No. 74 and represents the actuarial present value of projected benefit payments that is attributable to the MPP Program participants.

9. NEW ACCOUNTING PRONOUNCEMENTS

GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, addresses reporting by OPEB plans that administer benefits on behalf of governments. This statement replaces GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. GASB Statement No. 74 improves financial reporting primarily through enhanced note disclosures and schedules of required supplementary information presented by OPEB plans within its scope. The new information enhances the decision-usefulness of the financial reports of these OPEB plans, their value for assessing accountability, and their transparency by providing information about measures of net OPEB liabilities and explanations of how and why those liabilities changed from year to year. The provisions of this statement have been implemented in the financial statements for the year ended June 30, 2017.

GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, addresses reporting by governments that provide OPEB to their employees and for governments that finance OPEB for employees of other governments. GASB Statement No. 75 replaces the requirements of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. This statement requires governments to report a liability on the face of the financial statements for the OPEB that they provide by reporting, according to specified criteria, either a net OPEB liability, their proportionate share of the collective OPEB liability or the total OPEB liability related to their employees. GASB Statement No. 75 requires governments in all types of OPEB plans to present more extensive note disclosures and required supplementary information about their OPEB liabilities. The provisions in this statement are effective for fiscal years beginning after June 15, 2017. Management is evaluating the impact of the adoption of this standard on our financial statements.

GASB Statement No. 80, *Blending Requirements for Certain Component Units—an amendment of GASB Statement No. 14*, improves financial reporting by clarifying the financial statement presentation requirements for certain component units. The requirements of this statement are effective for reporting periods beginning after June 15, 2016. Management evaluated GASB Statement No. 80 and determined it does not have an effect on CalSTRS' financial reporting.

GASB Statement No. 81, *Irrevocable Split-Interest Agreements*, improves accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. The requirements of this statement are effective for reporting periods beginning after December 15, 2016. Management is evaluating GASB Statement No. 81 and its impact to CalSTRS financial reporting and, if applicable, will implement it in the financial statements for the fiscal year ending June 30, 2018.

GASB Statement No. 83, *Asset Retirement Obligations* (AROs), addresses accounting and financial reporting for certain AROs. An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. GASB Statement No. 83 establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for AROs. Recognition is required to occur when the liability is both incurred and reasonably estimable. The requirements of this statement are effective for reporting periods beginning after June 15, 2018. Management is evaluating GASB Statement No. 83 and its impact to CalSTRS financial reporting and, if applicable, will implement it in the financial statements for the fiscal year ending June 30, 2019.

GASB Statement No. 84, *Fiduciary Activities*, establishes criteria that determine whether a government is controlling the assets of the fiduciary activity and the beneficiaries with whom a fiduciary relationship exists. The requirements of this statement are effective for reporting periods beginning after December 15, 2018. Management is evaluating GASB Statement No. 84 and its impact to CalSTRS financial reporting and, if applicable, will implement it in the financial statements for the fiscal year ending June 30, 2020.

GASB Statement No. 85, *Omnibus 2017*, specifically addresses timing of the measurement of pension or OPEB liabilities and expenditures recognized in financial statements prepared using the current financial resources measurement focus, recognizing on-behalf payments for pensions or OPEB in employer financial statements, presenting payroll-related measures in required supplementary information for purposes of reporting by OPEB plans and employers that provide OPEB, and various other topics. The requirements of this statement are effective for reporting periods beginning after June 15, 2017. Management is evaluating GASB Statement No. 85 and its impact to CalSTRS financial reporting and, if applicable, will implement it in the financial statements for the fiscal year ending June 30, 2018.

GASB Statement No. 86, *Certain Debt Extinguishment Issues*, improves consistency in accounting and financial reporting for elimination of reported debt by providing guidance for transactions in which cash and other monetary assets previously acquired are placed in an irrevocable trust for the sole purpose of extinguishing debt. The requirements of this statement are effective for reporting periods beginning after June 15, 2017. Management is evaluating GASB Statement No. 86 and its impact to CalSTRS financial reporting and, if applicable, will implement it in the financial statements for the fiscal year ending June 30, 2018.

GASB Statement No. 87, *Leases*, increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities that previously were classified as operating leases. The requirements of this statement are effective for reporting periods beginning after December 15, 2019. Management is evaluating GASB Statement No. 87 and its impact to CalSTRS financial reporting and, if applicable, will implement it in the financial statements for the fiscal year ending June 30, 2021.

Required Supplementary Information (Unaudited)

SCHEDULE OF CHANGES IN NET PENSION LIABILITY OF EMPLOYERS AND NONEMPLOYER CONTRIBUTING ENTITY

(Dollars in Millions) **Schedule I**

State Teachers' Retirement Plan

Year ended June 30[1]	2017	2016	2015	2014
Total Pension Liability				
Service Cost	$6,064	$5,874	$5,556	$5,338
Interest	20,227	19,332	18,556	17,822
Differences between expected and actual experience	399	(1,209)	(1,312)	-
Changes of assumptions[6]	19,988	-	-	-
Benefit payments, including refunds of member contributions	(13,903)	(13,149)	(12,565)	(12,035)
Net Change in Total Pension Liability	32,775	10,848	10,235	11,125
Beginning Total Pension Liability	**269,994**	**259,146**	**248,911**	**237,786**
Ending Total Pension Liability (a)	**302,769**	**269,994**	**259,146**	**248,911**
Plan Fiduciary Net Position				
Member Contributions	3,441	2,957	2,510	2,264
Employer Contributions	4,173	3,391	2,678	2,272
State Contributions	2,478	1,940	1,426	1,383
Net Investment Income	25,165	2,305	7,612	30,402
Other Income	72	42	4	2
Benefit Payments, including Refunds of Member Contributions	(13,903)	(13,149)	(12,565)	(12,035)
Administrative Expense	(182)	(180)	(145)	(154)
Borrowing Costs	(58)[4]	-	-	-
Other Expenses	(10)	(15)	(10)	(9)
Net Change in Plan Fiduciary Net Position	**21,176**	**(2,709)**	**1,510**	**24,125**
Beginning Plan Fiduciary Net Position (as previously stated)	**189,113**	**191,822**	**190,474**	**166,349**
Adjustment For Application of GASB 68[2]	**-**	**-**	**(162)**	-
Beginning Plan Fiduciary Net Position (as adjusted)	**189,113**	**191,822**	**190,312**	**166,349**
Ending Plan Fiduciary Net Position (b)	**210,289[5]**	**189,113**	**191,822**	**190,474**
Ending Net Pension Liability of Employers and the State (a) - (b)[3]	**$92,480**	**$80,881**	**$67,324**	**$58,437**

[1]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2013–14. Years will be added to this schedule in future fiscal years until 10 years of information is available.

[2]An adjustment was made to the STRP due to the implementation of GASB Statement No. 68, which resulted in a decrease in the beginning net position for fiscal year 2014-15.

[3]The Net Pension Liability for fiscal year 2013–14 does not include a $161.9 million reduction to the net position as a result of CalSTRS implementation of GASB Statement No. 68.

[4] Borrowing costs of $58 million associated with the master credit facility portfolio, which were previously recorded within Net Investment Income, have been reclassified for the year ended June 30, 2017.

[5]This schedule is rounded for presentation purposes. The STRP fiduciary net position is $210,289,900,000 on the financial statements.

[6] The assumptions used in determining the Total Pension Liability of the STRP changed as a result of the actuarial experience study for the period starting July 1, 2010 and ending June 30, 2015. The assumption changes were to price inflation, wage growth, discount rate and the mortality tables.

SCHEDULE OF NET PENSION LIABILITY OF EMPLOYERS AND NONEMPLOYER CONTRIBUTING ENTITY

(Dollars in Millions) **Schedule II**

State Teachers' Retirement Plan

Year Ended June 30[1]	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	NPL of Employers and the State (a - b)	Plan Fiduciary Net Position as a Percentage of Total Pension Liability (b/a)	Covered Payroll (c)	NPL of Employers and the State as a Percentage of Covered Payroll (a-b)/c
2017	$302,769[5]	$210,289[4]	$92,480	69%	$34,126	271%
2016	269,994	189,113	80,881	70%	31,910	253%
2015	259,146	191,822	67,324	74%	32,026[2]	210%
2014	248,911	190,474	58,437[3]	77%	27,486	213%

[1]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2013–14. Years will be added to this schedule in future fiscal years until 10 years of information is available.

[2]In fiscal year 2013–14, CalSTRS reported pensionable compensation as part of GASB Statement No. 67 implementation. In fiscal year 2014–15, GASB clarified the requirement to be covered-employee payroll, which includes both pensionable and non-pensionable compensation. In fiscal year 2015–16, GASB No. Statement 82 was issued, which amended GASB Statements No. 67 and 68, to instead require the presentation of covered payroll, which is pensionable compensation. The covered payroll amount for fiscal year 2014–15 is $30.5 billion.

[3]The Net Pension Liability for fiscal year 2013–14 does not include a $161.9 million reduction to the net position as a result of CalSTRS' implementation of GASB Statement No. 68.

[4]This schedule is rounded for presentation purposes. The STRP fiduciary net position is $210,289,900,000 on the financial statements.

[5] The assumptions used in determining the Total Pension Liability of the STRP changed as a result of the actuarial experience study for the period starting July 1, 2010 and ending June 30, 2015. The assumption changes were to price inflation, wage growth, discount rate and the mortality tables.

SCHEDULE OF PENSION CONTRIBUTIONS FROM EMPLOYERS AND NONEMPLOYER CONTRIBUTING ENTITY

(Dollars in Millions) **Schedule III**

The information presented in this schedule for the STRP is required for defined benefit pension plans.

State Teachers' Retirement Plan

Year Ended June 30(1)	Actuarially Determined Contributions (a)	Legally Required Contributions for Employers and the State	Employer Contributions(2)(3) (b)	State Contributions(4) (c)	Total Contributions (b + c)	Contribution Deficiency (excess) a - (b + c)	Covered Payroll (d)	Contributions as % of Covered Payroll (b + c)/d
2017	$7,959	$6,651	$4,173	$2,478	$6,651	$1,308	$34,126	19%
2016	7,748	5,318	3,378	1,940	5,318	2,430	31,910	17%
2015	7,707	4,093	2,667	1,426	4,093	3,614	32,026(5)	13%
2014	7,158	3,641	2,258	1,383	3,641	3,517	27,486	13%

[1]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2013–14. Years will be added to this schedule in future fiscal years until 10 years of information is available.

[2]Excludes $13.3 million, $13.5 million, $12.5 million and $14.5 million for fiscal years 2016–17, 2015–16, 2014–15 and 2013–14, respectively, in contributions to separately finance specific liabilities, such as benefit enhancements, of an individual employer.

[3]Includes employer contributions under Education Code Sections 22711, 22713, 22905, 22950, 22951, 24260 and 26503.

[4]Includes state contributions under Education Code Sections 22954 and 22955, as well as Public Resources Code Section 6217.

[5]In fiscal year 2013–14, CalSTRS reported pensionable compensation as part of GASB Statement No. 67 implementation. In fiscal year 2014–15, GASB clarified the requirement to be covered-employee payroll, which includes both pensionable and non-pensionable compensation. In fiscal year 2015–16, GASB Statement No. 82 was issued, which amended GASB Statements No. 67 and 68, to instead require the presentation of covered payroll, which is pensionable compensation. The covered payroll amount for fiscal year 2014–15 is $30.5 billion.

Methods and Assumptions Used in Calculations of Actuarially Determined Contributions

The actuarially determined contribution (ADC) for the STRP for 2017 presented in this Schedule of Pension Contributions from Employers and Nonemployer Contributing Entity was determined based on the assumptions used in the June 30, 2015 actuarial valuation. The following actuarial methods and assumptions were used to determine the ADC:

	State Teachers' Retirement Plan[1]
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Payroll Basis
Amortization Period	Closed/Open[2]
Remaining Amortization Period	30 years
Asset Valuation Method	Adjustment to market value
Actuarial Assumptions:	
Investment Rate of Return	7.50%[3]
Interest on Accounts	4.50%
Wage Growth	3.75%
Consumer Price Inflation	3.00%
Postretirement Benefit Increases	2.00% simple

[1]The assumptions shown above are for the ADC of the DB Program. For the portion of the STRP ADC attributable to the DBS, CBB and SBMA programs, contributions recognized on an accrual basis for the current year have been used.

[2]The actuarial gains/losses and the unfunded actuarial obligation are amortized over a closed period for the DB Program, in contrast to the use of an open amortization period for the DBS and CBB programs.

[3]The actuarially determined contribution for the fiscal year ending June 30, 2017 was calculated based on the economic and demographic assumptions in place for the funding actuarial valuation as of June 30, 2015. This valuation was performed using a 7.50 percent assumed investment rate of return, net of investment and administrative expenses. For financial reporting purposes, the Net Pension Liability (shown in Note 3) was calculated using new actuarial assumptions adopted in 2017 which included an assumed rate of return of 7.10 percent, net of investment expenses but gross of administrative expenses.

SCHEDULE OF MONEY-WEIGHTED INVESTMENT RETURNS FOR STATE TEACHERS' RETIREMENT PLAN AND MEDICARE PREMIUM PAYMENT PROGRAM

Schedule IV

State Teachers' Retirement Plan

Year Ended June 30[1]	Money-Weighted Rate of Return, Net of Investment Expenses
2017	13.4%
2016	1.2%
2015	4.1%
2014	18.6%

[1]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2013–14. Years will be added to this schedule in future fiscal years until 10 years of information is available.

Medicare Premium Payment Program[1]

Year Ended June 30[2]	Money-Weighted Rate of Return, Net of Investment Expenses
2017	0.9%

[1]The funds within the MPP Program as of the June 30, 2017, were to manage differences between estimated and actual amounts to be paid and were invested in the Surplus Money Investment Fund, which is a pooled investment program administered by the State Treasurer.

[2]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2016–17. Years will be added to this schedule in future fiscal years until 10 years of information is available.

SCHEDULE OF CHANGES IN NET OPEB LIABILITY OF EMPLOYERS

(Dollars in Thousands) **Schedule V**

Medicare Premium Payment Program

Year ended June 30[1]	2017
Total OPEB Liability	
Interest	$12,928
Differences Between Expected and Actual Experience	(41)
Changes of Assumptions	(31,240)
Benefit Payments, including Refunds of Member Contributions	(28,929)
Net Change in Total OPEB Liability	(47,282)
Total OPEB liability—beginning	468,031
Total OPEB liability—ending (a)	420,749
Plan Fiduciary Net Position	
Employer Contributions	29,117
Net Investment Income	11
Premiums Paid	(28,929)
Administrative Expense	(168)
Net Change in Plan Fiduciary Net Position	31
Beginning Plan Fiduciary Net Position	10
Ending Plan Fiduciary Net Position (b)	41
Ending Net OPEB Liability of Employers (a) - (b)	**420,708**

[1]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2016–17. Years will be added to this schedule in future fiscal years until 10 years of information is available.

SCHEDULE OF NET OPEB LIABILITY OF EMPLOYERS

(Dollars in Thousands) **Schedule VI**

Medicare Premium Payment Program

Year Ended June 30[1]	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability of Employers (a - b)	Plan Fiduciary Net Position as a Percentage of Total OPEB Liability (b/a)	Covered Payroll[2] (c)	Net OPEB Liability of Employers as a Percentage of Covered Payroll (a-b)/c
2017	$420,749	$41	$420,708	0.01%	N/A	N/A

[1]This is a 10-year schedule. However, the information in this schedule is not available for periods prior to fiscal year 2016–17. Years will be added to this schedule in future fiscal years until 10 years of information is available.

[2]As of June 30, 2012, active members are no longer eligible for future enrollment in the MPP Program; therefore, the covered payroll disclosure is not applicable.

Other Supplemental Information

SCHEDULE OF ADMINISTRATIVE EXPENSES

(Dollars in Thousands) **Schedule VII**

	State Teachers' Retirement Plan	Pension2 IRC 403(b) Plan	Pension2 IRC 457(b) Plan	Medicare Premium Payment Program	Teachers' Deferred Compensation	Totals
Personnel Services:						
Salaries and Wages	$64,102	$-	$-	$150	$467	$64,719
Staff Benefits	13,697	-	-	40	164	13,901
Accrued Pension and OPEB Expense	20,245	-	-	36	(69)	20,212
Total Personnel Services	**98,044**	**-**	**-**	**226**	**562**	**98,832**
Operating Expenses and Equipment:						
General	1,167	-	-	(70)	95	1,192
Depreciation/Amortization	9,573	-	-	-	-	9,573
Printing	602	-	-	-	9	611
Communications	962	-	-	-	-	962
Postage	912	-	-	-	-	912
Insurance	303	-	-	-	-	303
Travel	856	-	-	-	22	878
Training	781	-	-	-	-	781
Facilities Operations	15,456	-	-	-	-	15,456
Consultants and Professional Services	27,971	1,975	79	-	800	30,825
Information Technology	11,697	-	-	-	-	11,697
Indirect State Central Services	9,317	-	-	12	54	9,383
Equipment	4,595	-	-	-	-	4,595
Other	131	-	-	-	-	131
Total Operating Expenses and Equipment	**84,323**	**1,975**	**79**	**(58)**	**980**	**87,299**
Total	**$182,367**	**$1,975**	**$79**	**$168**	**$1,542**	**$186,131**

SCHEDULE OF INVESTMENT EXPENSES

(Dollars in Thousands) **Schedule VIII**

	Contract Start Date	Amount
Investment Management Fees		
Aberdeen Asset Management, Inc.	12/15/06	$2,413
AGF Investments America, Inc.	3/19/07	934
Analytic Investors, LLC	9/1/14	451
AQR Capital Management Holdings, LLC	12/1/14	13,181
Arrowstreet Capital, Ltd.	8/1/15	5,177
Baillie Gifford Overseas, Ltd.	1/15/06	6,319
Bivium Capital Partners, LLC	2/15/08	2,469
BlackRock Financial Management, Inc.	3/12/07	6,100
BlackRock Institutional Trust, N.A.	10/27/98	2,040
Capital Prospects, LLC	2/15/08	(149)
Chicago Equity Partners	11/1/98	377
Columbia Management Investment Advisers, LLC	10/1/11	1,195
Credit Suisse Asset Management, LLC	9/1/11	1,491
Delaware Investment Advisors	11/1/98	2,096
FDO Partners, LLC	1/1/10	2,744
Fidelity Institutional Asset Management Trust Co.	2/1/00	2,583
First Quadrant, LP	11/1/98	740
FIS Group, Inc.	2/27/04	2,501
Gateway Investment Advisers, LLC	12/1/14	229
Generation Investment Management	3/19/07	25,129
Geneva Capital Management, LLC	5/1/16	1,194
JP Morgan Investment Management, Inc	1/1/14	4,298
Lazard Asset Management, LLC	5/18/99	12,104
Leading Edge Investment Advisors, LLC	2/15/08	2,214
Lee Overlay Partners, Ltd.	10/15/09	2,762
LM Capital Group, LLC	12/1/06	867
Lyxor Asset Management, Inc.	8/1/16	3,544
Millennium Global Investments, Ltd.	7/1/10	3,750
Mondrian Investment Partners, Ltd.	5/13/99	12,960
Northern Trust Global Advisors, Inc.	1/23/04	(158)
Oechsle International Advisors, LLC	5/19/99	2,768
Parametric Portfolio Associates, LLC	12/1/14	316
Post Advisory Group, LLC	1/31/02	1,612
Progress Investment Management	2/15/08	2,808
Pzena Investment Management, LLC	7/1/15	3,217
QS Investors, LLC	5/11/99	1,558
Sasco Capital, Inc.	10/30/98	775
Schroder Investment Management	9/1/14	5,754
Silvercrest Asset Management	7/1/11	1,428
State Street Bank & Trust Co	12/1/00	4,533
Sterling Capital Management, LLC	3/11/04	1,693
T. Rowe Price Associates, Inc.	1/15/06	5,977
Templeton Asset Management, Ltd.	5/18/99	3,403
UBS Global Asset Management (Americas)	5/12/99	(9)

SCHEDULE OF INVESTMENT EXPENSES

(Dollars in Thousands) **Schedule VIII (Continued)**

	Contract Start Date	Amount
Western Asset Management Co.	10/30/06	$3,589
Miscellaneous	N/A	5
Total Investment Management Fees		**$160,982**
Advisors and Consultants		
Altus Group U.S., Inc.	7/1/15	609
Bard Consulting, LLC	9/20/07	990
Bickmore Risk Services and Consulting	12/1/14	117
Callan Associates	9/20/07	197
Cambridge Associates, LLC	5/31/14	2,826
Courtland Partners, Ltd.	9/20/07	53
Crosswater Realty Advisors, LLC	6/1/16	37
David L. Bonuccelli & Associates, Inc.	9/20/07	2,276
Lyxor Asset Management, Inc.	8/1/11	1,300
Meketa Investment Group, Inc.	1/1/12	1,003
ORG Portfolio Management, LLC	5/1/16	19
Pavilion Alternatives Group, LLC	1/1/12	1,186
Pension Consulting Alliance, LLC	6/1/14	637
The Townsend Group, Inc.	3/1/13	365
Valuation Research Corporation	8/1/01	195
Total Advisors and Consultants		**$11,810**
External Services-Legal and Attorney Fees		
BLA Schwartz, PC	11/1/13	498
Covington & Burling, LLP	4/20/11	149
Cox, Castle & Nicholson, LLP	11/30/09	3,079
Girard Gibbs, LLP	1/1/11	20
Grant & Eisenhofer	9/1/10	16
Jackson Walker, LLP	7/30/15	540
Morgan, Lewis & Bockius, LLP	12/9/10	520
Pepper Hamilton, LLP	4/1/11	74
Proskauer, LLP	3/9/11	827
Reed Smith, LLP	7/1/15	346
Sheppard Mullin Richter & Hampton, LLP	4/5/10	161
Miscellaneous	N/A	9
Total External Services-Legal and Attorney Fees		**$6,239**
Master Custodian		
State Street Bank & Trust Co	7/1/01	3,002
Total Master Custodian		**$3,002**
Research and Rating Services		
Accounting Research & Analytics, LLC	1/1/17	25
Activist Insight, Ltd.	9/1/16	15

(Dollars in Thousands) **Schedule VIII (Continued)**

	Contract Start Date	Amount
CEM Benchmarking, Inc.	1/1/16	$ 70
Cornerstone Macro, LP	1/1/17	69
CoStar Portfolio Strategy, Inc.	7/1/16	68
CPR & CDR Alpha, LLC	3/1/17	60
Creditsights, Inc.	12/30/16	26
Equilar, Inc.	7/1/16	42
eVestment Alliance, LLC	8/1/16	29
FactSet Research System, Inc.	7/1/16	716
Glass Lewis & Co., LLC	6/1/17	255
GNA Services, LLC	1/1/17	25
ICE Benchmark Administration	7/1/16	16
IdealsWork, Inc.	7/1/16	12
Informa Investment Solutions	1/12/17	24
Institutional Shareholder Services	7/20/16	87
KDP Investment Advisors, Inc.	10/1/16	37
London Stock Exchange PLC	1/1/16	64
Management CV, Inc.	2/1/17	15
Moody's Investors Service	1/1/17	252
MSCI ESG Research, Inc.	10/1/15	120
MSCI, Inc.	7/1/16	218
PEI Media, Ltd.	3/28/17	14
Preqin Limited	5/31/16	58
Real Estate Research Corporation	7/1/15	138
Russell Investment Group	7/1/16	40
Standard & Poor's	7/1/16	485
Strategas Securities, LLC	7/1/16	63
Style Research, Inc.	5/15/17	101
Sustainable Investments Institute	7/1/16	29
Sustainalytics U.S., Inc.	1/1/17	10
Technical Analysis Group, LLC	2/3/17	28
Thomson Reuters Markets, LLC	7/1/16	147
Trepp, LLC	7/1/16	86
Trucost PLC	7/1/16	59
Miscellaneous	N/A	16
Total Research and Rating Services		**$3,519**
Risk Management Systems		
Barclays Bank PLC	7/1/16	112
BlackRock Financial Management, Inc.	7/1/06	6,126
MSCI, Inc. d/b/a Barra, LLC	4/1/17	104
Total Risk Management Systems		**$6,342**
Trading Systems		
Bloomberg, LP	3/1/16	919
Fixed Income Clearing Corporation	7/1/16	11

SCHEDULE OF INVESTMENT EXPENSES

(Dollars in Thousands) **Schedule VIII (Continued)**

	Contract Start Date	Amount
Intex Solutions, Inc.	9/1/16	$160
IPC Systems, Inc	9/15/16	29
Market Axess Corporation	7/1/16	16
Markit N.America Inc. / Markit Group	7/1/13	186
Omgeo, LLC	11/1/09	20
Miscellaneous	N/A	19
Total Trading Systems		**$1,360**
Operating Expenses		
Administrative Costs		34,803
Aon Risk Insurance		1,339
Council of Institutional Investors		30
Total Operating Expenses		**$36,172**
Subtotal		**$229,426**
Other Investment Expenses		
Foreign Tax Withheld		52,776
Real Estate		407
Broker Commissions		25,051
Miscellaneous		7,122
Total Other Investment Expenses		**$85,356**
Total		**$314,782**

SCHEDULE OF CONSULTANT AND PROFESSIONAL SERVICES EXPENSES

(Dollars in Thousands) **Schedule IX**

Individual or Firm	Commission/Fee	Nature of Services
State Teachers' Retirement Plan		
Cheiron, Inc.	$150	
Milliman, Inc.	572	
Segal Consulting	169	
	$891	**Actuarial Services**
Crowe Horwath, LLP	2,310	
KPMG, LLP	309	
Macias, Gini & O'Connell, LLP	152	
	$2,771	**Auditing Services**
22nd Century Technologies, Inc.	94	
Acuity Technical Solutions	135	
Advologix.com, LLC	24	
Agile Global Solutions, Inc.	31	
Aon Hewitt Invest Consulting, Inc.	104	
Background Profiles, Inc.	15	
Business Advantage Consulting, Inc.	194	
CEB, Inc.	83	
CEM Benchmarking Inc.	45	
CGI Technologies and Solutions Inc.	30,377	
Ciber, Inc.	2,606	
Cloud Services Integrators, Inc.	150	
Daniel J. Edelman, Inc.	130	
Deloitte & Touche, LLP	2,459	
Deloitte Consulting, LLP	705	
Department Of General Services	31	
Department Of Human Resources	29	
Digital Deployment, Inc.	65	
Dr. Robert Yetman	91	
Entisys 360, Inc.	143	
ePlus Technology, Inc.	274	
Estrada Consulting Inc	146	
Eventus Solutions Group, LLC	52	
ExamWorks, Inc.	71	
Forrester Research, Inc.	389	
Gartner, Inc.	246	
GoldLink Pacific, Inc.	589	
GovDelivery, LLC	88	
Government Operations Agency	170	
Grant Thornton, LLP	618	
Guardian Protection Force, Inc.	54	
Image Access Corp	15	
Infinite Solutions Inc.	13	
InfoCap Networks, LLC	129	

SCHEDULE OF CONSULTANT AND PROFESSIONAL SERVICES EXPENSES

(Dollars in Thousands) **Schedule IX (Continued)**

Individual or Firm	Commission/Fee	Nature of Services
Infojini, Inc.	$137	
IntelliSurvey	95	
International Network Consulting	476	
Iron Mountain	11	
Jaykumar Maistry	169	
KPMG, LLP	494	
LexisNexis	18	
Linea Solutions, Inc.	241	
Macias, Gini & O'Connell, LLP	190	
Mailing Systems, Inc.	46	
MaritzCX Research, LLC	25	
Matthew Bender & Company, Inc.	17	
Maximus Human Services, Inc.	2,483	
McLagan Partners, Inc.	159	
MG Systems and Software, LLC	424	
Montridge Consulting	161	
Morningstar, Inc.	11	
Natl Disability Evaluations, Inc.	75	
Nexus IS, Inc.	37	
NTT DATA, Inc.	375	
O.C. Tanner Recognition Company	39	
Oak Technical Services, LLC	330	
OnCore Consulting, LLC	270	
Pension Benefit Information, Inc.	24	
Pinnacle Consulting	229	
Providence Technology Group	436	
R Systems Inc.	156	
Sierra Metrics, Inc.	128	
Sirsi Corporation	17	
SouthTech Systems, Inc.	14	
State Controller's Office	1,500	
State Personnel Board	27	
SupportFocus, Inc.	186	
Thomas V. Ennis Consulting	180	
Thomas/Ferrous, Inc.	135	
University Enterprises, Inc.	186	
Vasquez & Company, LLP	187	
Vector Consulting, Inc.	121	
Visionary Integration Professionals	1,167	
	$51,341	**Consulting Services**
California Department Of Justice	664	
Hogan Lovells US, LLP	240	
Kaplan & Walker LLP	12	
Klinedinst, PC	59	

SCHEDULE OF CONSULTANT AND PROFESSIONAL SERVICES EXPENSES

(Dollars in Thousands) **Schedule IX (Continued)**

Individual or Firm	Commission/Fee	Nature of Services
Murphy Austin Adams Schoenfeld, LLP	$110	
Olson, Hagel & Fishburn, LLP	17	
Pillsbury Winthrop Shaw Pittman LLP	71	
Reed Smith, LLP	32	
Shaw Law Group, PC	11	
Shaw Valenza, LLP	11	
Sheppard Mullin Richter & Hampton	1,748	
	$2,975	**Legal Services**
Fresno County Office Of Education	317	
Humboldt County Office Of Education	40	
Kern County Office of Education	181	
Placer County Office Of Education	107	
San Diego County Office Of Education	150	
Santa Barbara County Office of Education	140	
Santa Cruz County Office of Education	152	
	$1,087	**Regional Counseling Services**
Others	69	
	$69	**Various Services Under $10K**
Gross Consulting and Professional Services	**$59,134**	
Less: Amounts Capitalized	31,163	
Consulting and Professional Services Net of Amounts Capitalized:	**$27,971**	
IRC 403(b) Plan		
TIAA	34	
Voya Institutional Plan	1,941	
Consulting and Professional Services:	**$1,975**	**Administrative Services**
IRC 457(b) Plan		
TIAA	1	
Voya Institutional Plan	78	
Consulting and Professional Services:	**$79**	**Administrative Services**
Teachers' Deferred Compensation Fund		
22nd Century Technologies, Inc.	19	
Jem Resource Partners, LP	461	
Meridian Wealth Management	11	
MG Systems and Software, LLC	3	
Morningstar, Inc.	61	
OnCore Consulting, LLC	245	
Consulting and Professional Services:	**$800**	**Consulting Services**

INVESTMENTS

The CalSTRS Investment Portfolio generated **13.4 percent return** net of fees on its investments for the fiscal year ending June 30, 2017.

Investments

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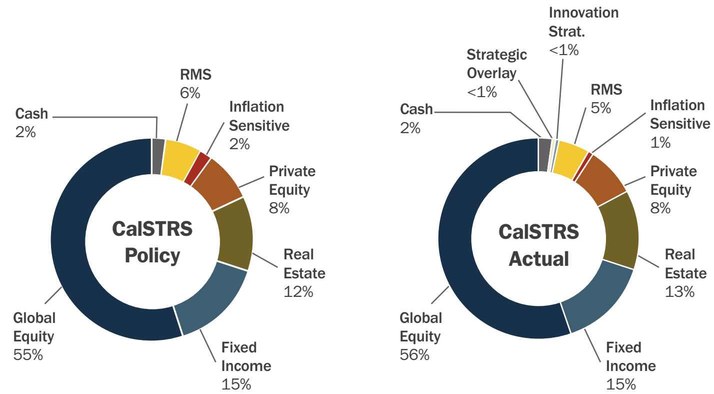
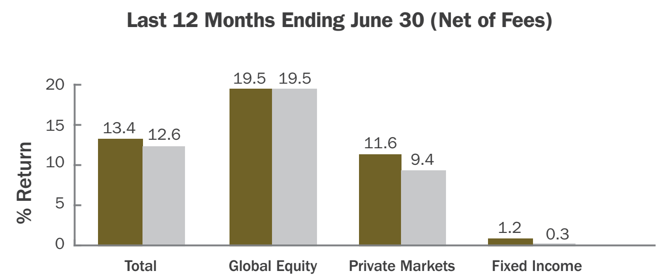
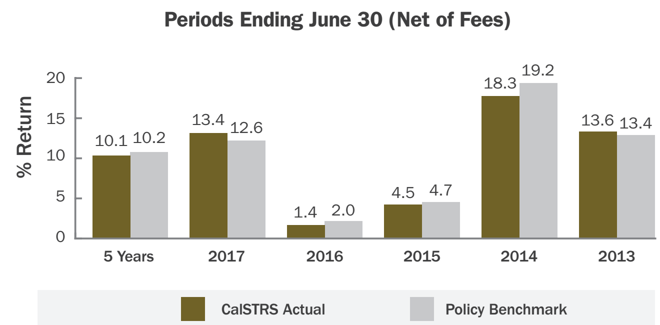
PCA PENSION CONSULTING ALLIANCE

The CalSTRS Investment Portfolio produced a strong positive absolute return over the latest fiscal year, besting its benchmark return and the median fund return. The portfolio increased by $20.0 billion over the past 12 months, ending with a value of $208.7 billion on June 30, 2017, despite significant net cash outflows during the year. As highlighted below, the CalSTRS portfolio is broadly diversified, holding investments ranging from publicly traded short-term bonds to privately held partnerships. Clearly, the scale and breadth of investments make the management and oversight of these assets highly complex. In light of these factors, CalSTRS has been effective in utilizing its resources in a cost-efficient manner to ensure that benefits continue to flow to CalSTRS participants.



(Allocations may not sum to 100% due to rounding)





Investment Allocation

The Teachers' Retirement Board adopts long-term strategic allocation targets to be implemented over several years. The fiscal year-end report reflects strategic allocation guidelines for the 2016-17 fiscal year as adopted by the board (see left pie chart). The portfolio's actual allocation was slightly different from policy (see right pie chart). As of June 30, 2017, the Global Equity class was slightly overweighted, while the Inflation Sensitive and RMS classes were slightly underweighted. All of these were, however, within policy ranges. Moreover, the Fixed Income, Private Equity, Real Estate, and Cash classes were in-line with policy.

Investment Results (Net of Fees)

Over the last year, the CalSTRS Investment Portfolio produced an absolute return of 13.4 percent, ranking in the first quartile among its large public pension fund peers[1]. During this period, the CalSTRS portfolio results bested the policy benchmark[2] return by 80 basis points (top bar chart). Relative outperformance by the Private Markets, Inflation Sensitive, and Fixed Income classes aided relative performance.

During the last three years, the CalSTRS portfolio generated a 6.3 percent average annual return, ranking in the first quartile among peer funds. Over the last five years, the CalSTRS portfolio produced an average annual return of 10.1 percent, trailing its policy benchmark by 10 basis points per year (bottom bar chart). Due in large part to the benchmark not fully reflecting the opportunity set, the Private Equity strategic class was the primary contributor to the relative underperformance over this period. Overall, these total portfolio results were in-line with the CalSTRS actuarial rate of return. Previous fiscal year periods are presented here as well. The CalSTRS Investment Portfolio outperformed its policy benchmark (net of fees) in two of the last five fiscal years[3].

Pension Consulting Alliance, Inc.

[1] Per Wilshire TUCS Universe of Master Trust Public Funds with assets in excess of $10 billion.

[2] The policy benchmark consists of passively managed strategic class portfolios weighted by CalSTRS policy allocations. The difference between actual results and the benchmark are due to two factors: i) deviations from policy, and ii) active decisions on the part of CalSTRS and its investment managers.

[3] CalSTRS investment performance is calculated using a daily time-weighted return geometrically linked to calculate a monthly return. Periods longer than one month are geometrically linked to calculate annualized "time-weighted" rates of return.

M E K E T A   I N V E S T M E N T   G R O U P

BOSTON MA
CHICAGO IL
MIAMI FL
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2017 CALSTRS Investment Review

The value of CalSTRS' investments increased from $188.7 at the previous fiscal year end to $208.7 billion as of June 30, 2017. During the year, a positive investment return of 13.44% (net of fees) more than offset the cash outflows to pay for benefits in excess of contributions. We highlight below the portfolio allocation, performance, and investment attribution. The investment portfolio remains well diversified by asset type and geography, in a mix of private and public investments in the United States and abroad.

Asset Allocation

During fiscal year 2016-17, the Teachers' Retirement Board and staff spent considerable time moving assets systematically toward the new Asset Allocation Policy that was adopted during the previous fiscal year.

Most asset class allocations were very close to interim targets at fiscal year-end, with 56.4% of assets in Global Equity, 14.7% in Fixed Income, 8.1% in Private Equity, 12.6% in Real Estate, 5.1% in Risk Mitigating Strategies, 1.5% in Cash, 1.3% in Inflation Sensitive, and 0.2% in Innovative Strategies. The Strategic Overlay represented 0.1% at fiscal year-end.

Investment Performance

The one year period ending June 30, 2017 was marked by very strong returns from risk assets, including equities in the U.S. and abroad, and very modest returns from core fixed income assets. CalSTRS returned 13.44%, net of fees, for the most recent fiscal year, outperforming the policy benchmark by 83 basis points. On a gross of fees basis, the CalSTRS return of 13.73% outperformed the TUCS peer universe median by 80 basis points, and ranked well within the top quartile of public fund peers. Global Equity outperformed its benchmark during the period by 7 basis points, while Fixed Income outpaced its benchmark by 91 basis points. Private Equity outperformed its custom benchmark by 457 basis points. The new Risk Mitigating asset class underperformed during the risk-on period by 77 basis points. Over the past three years, the CalSTRS Investment Portfolio returned 6.32% annualized, and over the past five years it returned 10.05%. The five year trailing return was above the (newly adopted) actuarial assumed rate of 7.25%. The portfolio has outperformed its assumed rate of return in five of the past ten fiscal years.

Sincerely,

Stephen P. McCourt, CFA
Managing Principal

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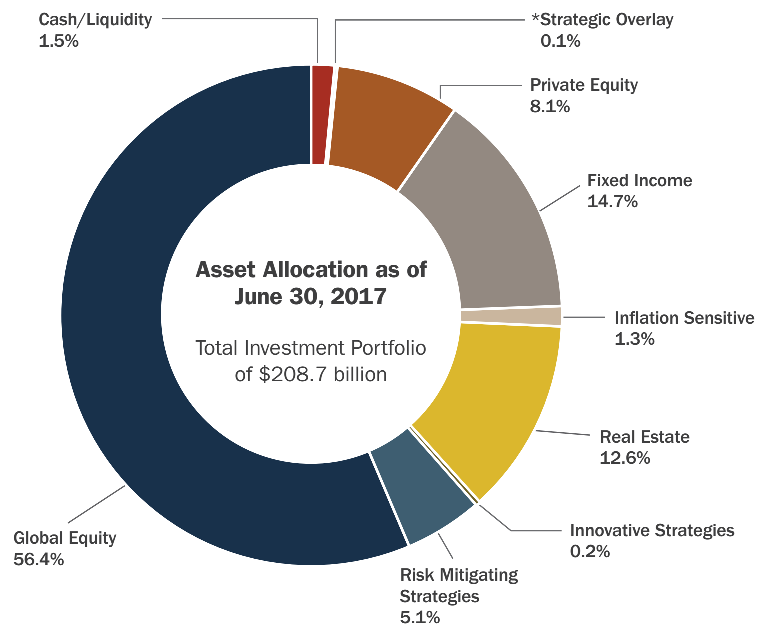
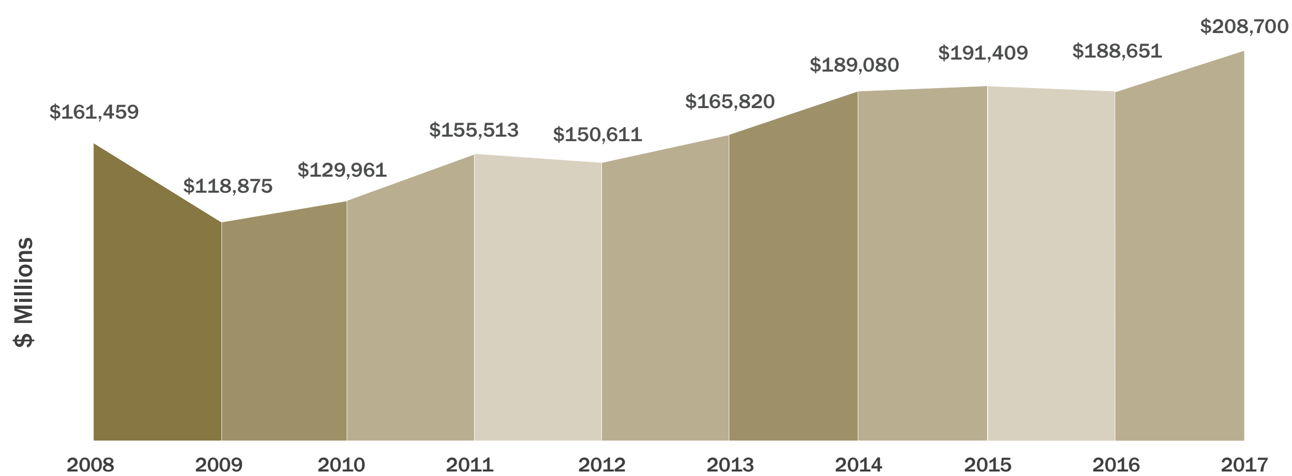
INVESTMENTS

Investment values and the related returns for the CalSTRS Investment Portfolio (Total Fund) are presented differently within the Investments and Financial sections of the CAFR for various reasons; therefore, the reader needs to understand the methodology presented in each section. In the following pages, news releases and on the internet, the investment values and related returns are presented using common industry practices that reflect the way in which CalSTRS manages its investment portfolio. The presentation based on industry practices provides timely information that is easily compared to benchmarks and peer results. Within the Financial Section, the same information is reported in accordance with Generally Accepted Accounting Principles. The primary difference between the presentations is the categorization of the investments. Additional differences result from the timing of recognition of performance for certain investments in the portfolio. In accordance with investment industry practices, private asset performance is reported with a quarter lag; for financial reporting purposes, adjustments were made to bring results current. Both sets of numbers are relevant but reflect different methodologies and serve different purposes.



*Strategic Overlay consists of the Currency Management Program and Derivative Overlay.

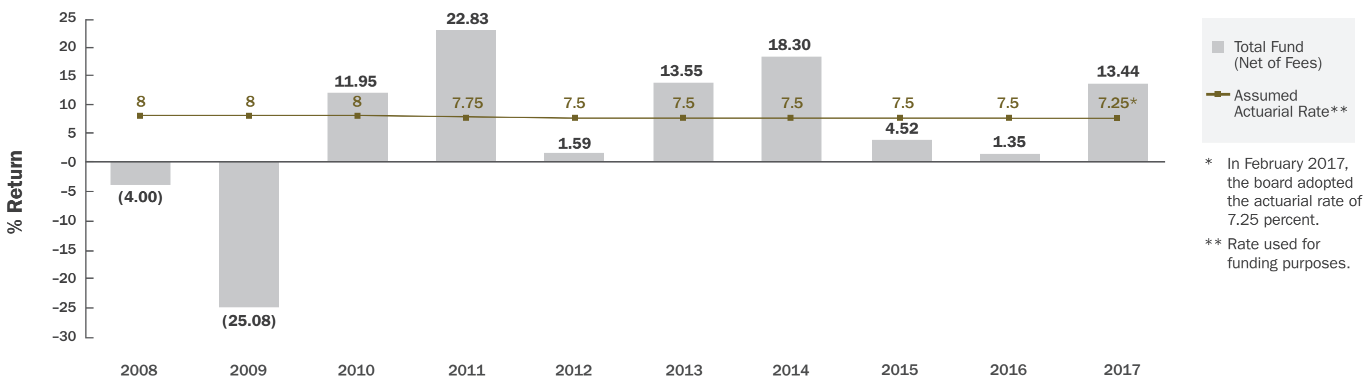
Table 1 Market Value of Investments (Fiscal years ended June 30)



Performance information in this section is reported net of fees and is calculated using a time-weighted return methodology. Also, the investment information on the CalSTRS website is reported consistent with investment industry standards and is comparable to the global financial markets and other pension plans and institutional investors. For more information, see CalSTRS.com.

CalSTRS Investment Portfolio performed above standards due to a very strong second half of the fiscal year and shifts to a more global portfolio. In the 2016–17 fiscal year, CalSTRS generated 13.44 percent return net of fees, well above the 7.25 percent actuarial rate of return for funding purposes, above the policy benchmark of 12.61 percent, and near the top of all public pension plans in the U.S.; however, one year is a very short time period when you have a 30-year investment horizon. As a long-term investor it is

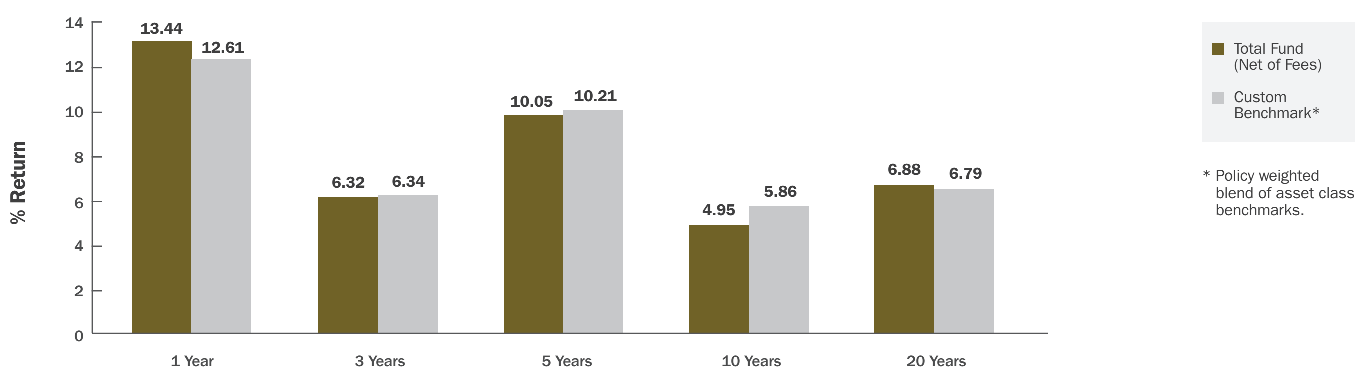
Table 2 10 Years of Time-Weighted Annual Returns (Fiscal years ended June 30)



* In February 2017, the board adopted the actuarial rate of 7.25 percent.

** Rate used for funding purposes.

Table 3 Time-Weighted Returns (As of June 30, 2017)



* Policy weighted blend of asset class benchmarks.

much more meaningful to review the CalSTRS investment performance over longer time periods. At June 30, 2017, the investment portfolio generated 6.32 percent return net of fees over the past three years, 10.05 percent over the last five years and 6.88 over the past 20 years. Compared to other U.S. public pensions plans, CalSTRS investment returns ranked in the top quartile over three and five years ending June 30, 2017.

While this annual report provides a significant amount of information regarding the CalSTRS Investment Portfolio, it only represents one point in time: June 30, 2017. It is difficult to compare this time measurement to the movement and complexity of the investment portfolio in this highly dynamic global financial market. For more current investment information, as well as videos detailing key aspects of the investment portfolio, see CalSTRS.com.

Table 4 Time-Weighted Returns Net of Fees by Portfolio Types (As of June 30, 2017)

Portfolio Type/Associated Index (1)	1 Yr	3 Yr	5 Yr	10 Yr
Global Equity	**19.55**	**6.34**	**12.27**	**5.20**
Global Equity Custom Index (2)	19.48	6.27	12.17	5.17
U.S. Equity	**18.43**	**8.87**	**14.61**	**7.00**
Russell 3000 Custom Index	18.53	8.94	14.57	7.13
Non-U.S. Equity	**21.35**	**1.45**	**7.78**	**1.61**
MSCI All Country World Index ex-U.S. Custom Investable Market Index	20.79	0.78	7.24	1.04
Fixed Income	**1.21**	**2.97**	**3.10**	**5.06**
U.S. Debt Custom Index (3)	0.30	2.58	2.44	4.66
Real Estate	**8.12**	**10.34**	**11.24**	**1.37**
Real Estate Custom Index (4)	7.36	10.77	11.11	6.92
Private Equity	**17.20**	**9.56**	**12.38**	**8.61**
Private Equity Custom Index (5)	12.63	8.28	13.62	10.30
Inflation Sensitive	**9.09**	**2.69**	**4.11**	**—**
Inflation Sensitive Custom Index (6)	4.56	3.18	4.37	—
Risk Mitigating Strategies (7)	**(8.90)**	**(0.92)**	**1.19**	**—**
Risk Mitigating Strategies Custom Index (8)	(8.13)	(1.64)	(1.33)	—
Innovative Strategies (9)	**5.91**	**2.34**	**1.46**	**—**
Innovative Strategies Custom Index (10)	11.42	4.45	3.10	—
Cash/Liquidity (11)	**0.92**	**0.83**	**1.01**	**0.43**
Bloomberg Barclays Capital 3-Month Treasury Bill	0.50	0.25	0.19	0.61

CalSTRS' investment performance is calculated using a daily time-weighted return geometrically linked to calculate a monthly return. Periods longer than one month are geometrically linked to calculate annualized 'time-weighted' rates of return. Custom public indices are updated quarterly in accordance with CalSTRS restricted securities list. Russell and Bloomberg Barclays indices exclude tobacco, illegal California firearms, geopolitical and U.S. thermal coal companies. MSCI indices exclude tobacco, illegal California firearms and geopolitical companies.

(1) Index benchmarks are as of June 30, 2017, and are subject to be updated based on changes within the portfolio policies.

(2) Custom weighted blend of MSCI All Country World Index ex-U.S. Investable Market and Russell 3000 custom indices.

(3) 95% Bloomberg Barclays U.S. Aggregate + 5% Bloomberg Barclays U.S. High Yield 2% Issuer Capped custom indices.

(4) NCREIF ODCE Value Weighted Index net of fees qtr lag. Previously NCREIF Property Index qtr lag through June 2013.

(5) Private Equity Custom Index weighted based on sub-asset allocation targets. Previously, Russell 3000 Custom Index qtr lag + 3% from July 2008 through June 2014. Prior to July 2008, Russell 3000 Custom Index qtr lag + 5% + Barclays Capital 3-Month Treasury Bill.

(6) Weighted blend of Bloomberg Barclays Global Inflation Linked Series L Index, Alerian MLP Daily Index and CPI+4% qtr lag. Previously, a weighted blend of Bloomberg Barclays Global Inflation Linked Series L Index and CPI+4% qtr lag from 07/01/14 to 4/30/16. Prior to 7/01/14, weighted blend of Bloomberg Barclays Global Inflation Linked Series L Index and CPI+5% qtr lag.

(7) New asset class approved by the board in November 2015 and established in July 2016. Prior to July 2016, the assets in this program were part of Absolute Return Portfolio.

(8) Weighted blend of Bloomberg Barclays U.S. Treasury 20+year Total Return Index, SG Trend Index, HFRI Macro: Discretionary Thematic Index.

(9) Prior to July 2016, this investment strategy was part of Absolute Return Portfolio. Returns prior to the restructure reflects the historical Absolute Return Portfolio performance.

(10 Weighted blend of 60% MSCI EAFE + Canada/ 40% BarCap U.S. blended, Custom Tactical index and Bloomberg Barclays Capital 3-Month Treasury Bill. Returns prior to July 2016 reflect Absolute Return Portfolio historical performance.

(11) Includes the Securities Lending Program loss incurred in FY 2008–2009 and subsequent income earned through December 2013.

Global Equity

For the fiscal year ending June 30, 2017, the $117.7 billion Global Equity Portfolio represented 56.4 percent of the Total Fund. During the year, staff began transitioning the portfolio's U.S. and non-U.S. exposures to global equity market index weights, reducing an overweight exposure to U.S. equity relative to the market index and increasing the non-U.S. exposure. As of June 30, 2017, the portfolio had 54 percent of its assets in U.S. equity and 46 percent in non-U.S. equity. Approximately half the assets of the Global Equity Portfolio are managed by internal staff in passively implemented index strategies. The majority of the remaining assets are active strategies and are managed by external investment managers.

As shown on Table 4, the Global Equity Portfolio generated a 19.55 percent one year return net of fees and outperformed its policy benchmark by 7 basis points. The relative outperformance was driven by the non-U.S. equity segment of the portfolio, with particularly strong performance from the emerging markets strategies.

Table 5 lists the largest public equity holdings as of June 30, 2017, which represents 8.2 percent of the Global Equity Portfolio.

For more information about the Global Equity Portfolio, please refer to the Investments section of the CalSTRS website.

Table 5 Largest Public Equity Holdings as of June 30, 2017
(CalSTRS maintains a complete list of portfolio holdings)

Security Name	Shares	Market Value
APPLE INC	11,697,597	$1,684,687,920
ALPHABET INC	1,405,308	1,292,631,689
MICROSOFT CORP	17,079,790	1,177,309,925
AMAZON.COM INC	968,455	937,464,440
JOHNSON + JOHNSON	6,630,724	877,178,478
FACEBOOK INC A	5,526,688	834,419,354
EXXON MOBIL CORP	9,561,705	771,916,445
BERKSHIRE HATHAWAY INC CL B	4,454,962	754,536,914
JPMORGAN CHASE + CO	7,948,226	726,467,856
BANK OF AMERICA CORP	24,451,844	593,201,735

Corporate Governance

For the fiscal year ending June 30, 2017, the Corporate Governance Portfolio had $5.5 billion of assets under management, which include the governance and sustainability funds and Low Carbon Index within the Global Equity Portfolio. The governance funds invest in companies with poor governance structures and engage management to improve governance and enhance long-term shareholder value. The sustainability funds integrate sustainability factors into their long-term investment strategy to deliver market outperformance. Lastly, the low carbon strategies managed internally focus on an index designed to have significantly lower exposures to carbon emissions and to fossil fuel reserves than the broad market. The Corporate Governance Portfolio had a one year return net of fees of 18.1 percent.

CalSTRS believes the execution of proxies is an important fundamental shareholder right, and staff always seeks to exercise our rights in a manner consistent with the interests of our beneficiaries, California public school teachers. We believe we can use our proxy votes to support certain corporate directors or shareholder proposals to affect necessary changes designed to enhance the company's long-term shareholder value. Over the course of each year, CalSTRS anticipates voting over 7,800 proxies, with more than half of them being voted during proxy season, which occurs in the months of April, May and June.

When voting proxies, CalSTRS uses analysis and judgment in conjunction with our Corporate Governance Principles, which can be found at CalSTRS website. These principles consider best corporate governance practices on topics such as the board of directors, auditors, executive and director compensation, compensation plans and governance structure, and serve as guidelines for our proxy voting.

During fiscal year 2016-17, CalSTRS voted on more than 79,782 proposals at 7,889 meetings held by companies in our Global Equity Portfolio, which represented 3.6 percent increase from the 76,995 proposals voted in the prior year. Of the proposals CalSTRS voted on, 33 percent of the proposals were from U.S. companies, and the remaining 67 percent were from global companies. For the meetings considered, 38 percent were U.S. meetings, and 62 percent were global meetings. These meetings resulted in CalSTRS voting on proposals covering a variety of topics, including director elections, auditor ratifications, advisory votes on executive compensation, compensation plans, mergers and acquisitions, and shareholder proposals.

CalSTRS believes the market overall has shown improved governance as many large companies have adopted governance best practices, such as proxy access, and are engaging shareholders on various issues, including executive compensation, board composition, and ESG issues during the proxy off-season. However, there are companies that continue to have excessive executive compensation and poor governance practices, which diminish shareholder rights and more importantly the value of our investment. CalSTRS will continue to use our proxy votes to support certain corporate directors, corporate actions and shareholder proposals at the companies to improve their governance and enhance their long-term shareholder value.

For additional information on the Corporate Governance program, please refer to the Corporate Governance section on the CalSTRS website.

Fixed Income

For the fiscal year ending June 30, 2017, the Fixed Income Portfolio had total assets of $30.7 billion representing 14.7 percent of the Total Fund. The Fixed Income Unit operates a hybrid model portfolio that takes advantage of the benefits and efficiencies of both internal and external asset management. Eighty-four percent of the portfolio's assets are managed by internal staff using enhanced core and high yield strategies with a moderate level of risk. The remaining 16 percent is managed by external managers using broader opportunistic strategies which assume a higher level of risk and therefore a higher level of expected return.

As shown on table 4, the Fixed Income Portfolio generated 1.21 percent one year return net of fees, outperforming its benchmark by 91 basis points. The three, five and 10 year net returns were positive and have outperformed the benchmark by 39, 66 and 40 basis points, respectively. The portfolios overweight to credit, both investment grade and high yield, accounted for much of the outperformance.

Table 6 lists the largest fixed income holdings as of June 30, 2017, which represents 9.4 percent of the Fixed Income Portfolio.

The Fixed Income Unit manages two additional programs: Securities Lending and Currency Management discussed in the next two sections. For more information about the Fixed Income Portfolio, refer to the Investments section of the CalSTRS website.

Table 6 Largest Fixed Income Holdings as of June 30, 2017
(CalSTRS maintains a complete list of portfolio holdings)

Security Name	Maturity Date	Interest Rate	Par Value	Market Value
US TREASURY N/B	12/31/23	2.250%	320,000,000	$323,190,429
US TREASURY N/B	2/15/27	2.250	322,467,800	321,032,818
US TREASURY N/B	5/15/20	1.500	320,000,000	319,689,600
US TREASURY N/B	2/15/20	1.375	300,000,000	299,087,997
US TREASURY N/B	2/28/21	1.125	295,000,000	289,064,597
US TREASURY N/B	2/15/47	3.000	279,180,300	288,072,187
US TREASURY N/B	5/15/44	3.375	245,000,000	270,773,993
US TREASURY N/B	6/30/20	1.625	270,000,000	270,526,500
US TREASURY N/B	4/30/22	1.875	258,106,300	258,080,484
US TREASURY N/B	10/31/18	0.750	250,000,000	248,107,490

Securities Lending Program

The Securities Lending Program is a low-risk strategy that allows the fund to use its existing asset base and lending expertise to generate additional income. For the fiscal year ended June 30, 2017, the Securities Lending Program earned approximately $97.4 million in additional net income for the fund, which increased more than $8.6 million over the previous year. The increase in earnings is attributed to several factors: increased relative utilization of higher margin equity versus fixed income trades over the past year, improved intrinsic loan rates year over year, and improved cash collateral spreads relative to the benchmark year over year. For additional information on the Securities Lending Program, refer to the Investments section of the CalSTRS website.

Currency Management Program

The Currency Management Program, managed by the Fixed Income unit, is designed to address the global nature of all the fund's assets and attempts to add value on a fund-wide basis. The currency markets are some of the most liquid and volatile markets CalSTRS operates within. The internally managed core strategy underperformed by roughly a basis point for the year ending June 30, 2017, while the opportunistic external strategy outperformed by over 61 basis points for the same period. Some of the improved returns can be attributed to a general outperformance of carry and commodity currencies along with the managers generally shorting a strong depreciating Yen for most of the year. Since inception, the Currency Management Program has added nearly 48 basis points on an annualized basis to the value of the Total Fund.

Home Loan Program

The CalSTRS Home Loan Program was established by legislation in 1984 and provided home ownership to qualified participants, which attributed to CalSTRS' investment mortgage asset objectives. New home loan origination activity was suspended by the board on October 1, 2011. Staff continues to manage the existing assets of $74.1 million for the fiscal year ending June 30, 2017, within the Fixed Income Portfolio.

Private Equity

The Private Equity Portfolio ended the June 30, 2017, fiscal year with a market value of $16.9 billion or 8.1 percent of the Total Fund. The portfolio consists primarily of investments in limited partnerships, which accounts for 92.4 percent of the allocation with the remaining assets consisting of co-investments.

As shown in Table 4, the Private Equity Portfolio generated 17.20 percent one-year return net of fees and 9.56 percent three-year return net of fees, outperforming its policy benchmark by 457 and 128 basis points, respectively. The portfolio has underperformed its benchmark for the five-year and 10-year periods, primarily due to the reasons described in the following paragraph.

Private Equity is difficult to benchmark; the CalSTRS Private Equity Portfolio benchmark has changed twice over the past decade. Regarding the longer term performance metrics, the benchmark for these periods includes a large component linked to public equity market performance plus a spread. Given the abnormally strong performance of public equity markets in the wake of the global financial crisis of 2008, it is neither surprising nor atypical that the CalSTRS Private Equity Portfolio is underperforming such a benchmark. Regarding the short-term performance metrics, the Private Equity Portfolio has substantially increased its investment pace over the past two years and therefore J-curve affects are influencing performance.

For current information on the CalSTRS Private Equity Portfolio, please refer to the Investments section of the CalSTRS website.

Real Estate

The Real Estate Portfolio ended fiscal year 2016–17 with a market value of $26.2 billion or 12.6 percent of the Total Fund. Over the last several years, staff has emphasized an increase in joint ventures, separate accounts and open ended funds in order to increase internal management control and lower fees. As of June 30, 2017, these strategies combined made up 73 percent of the Real Estate Portfolio. In addition, staff has emphasized an increase in investments in core and value add strategies. The core strategy has reached its policy target of 60 percent.

Real Estate is a long-term asset with performance results influenced by various factors. As shown on table 4, the Real Estate Portfolio generated 8.12 percent one year return net of fees outperforming its policy benchmark by 76 basis points. The 10-year underperformance is due to a historical over weight in pre-crisis higher risk strategies. The bulk of those investments have been liquidated. Staff is focused on increasing investments in higher control vehicles with low to moderate leverage and risk. Investments that staff has recommended since the global financial crisis of 2008 have outperformed the benchmark in all time periods.

For current information on the CalSTRS Real Estate Portfolio, please refer to the Investments section of the CalSTRS website.

Inflation Sensitive

For the fiscal year ending June 30, 2017, the $2.8 billion Inflation Sensitive Portfolio represented 1.3 percent of the Total Fund. Global Inflation Securities (Linkers) represent 21 percent of this asset class with the remaining balance consisting of Infrastructure investments. The long-term allocation target, as set by the board in April 2016, for the Inflation Sensitive Portfolio is 4 percent allocated between Linkers and Infrastructure investments.

For the fiscal year ending June 30, 2017, the Inflation Sensitive Portfolio generated 9.09 percent one year return net of fees outperforming its policy benchmark return of 4.56 percent by 453 basis points. The outperformance was due to assets becoming operational, in terms of their asset management plans, thus positively contributing to portfolio performance. There were also a select number of asset disposals that enhanced performance. Finally, the Master Limited Partnership (MLP) Portfolio recovered as oil prices stabilized and rose over the fiscal year. The Linkers Portfolio had a net return of 0.96 percent besting its benchmark by 5 basis points, while the Infrastructure portfolio returned a net 12.29 percent beating its benchmark by 615 basis points. Over the previous three-years, the Inflation Sensitive Portfolio underperformed its benchmark by 49 basis points.

Short-term results for the Infrastructure Portfolio are not particularly significant, as performance expectations will be better measured over the long term as investments mature and achieve their full cash flow potential. The Infrastructure Portfolio has begun to enter a more mature phase and is beginning to achieve greater cash flow potential. For more information about the Inflation Sensitive Portfolio, refer to the Investments section of the CalSTRS website.

Risk Mitigating Strategies

For the fiscal year ending June 30, 2017, the Risk Mitigating Strategies (RMS) Portfolio had total assets of $10.7 billion representing 5.1 percent of the Total Fund. The RMS Portfolio was established on July 1, 2016, with a long-term target allocation of 9 percent of the Total Fund. Prior to this, the assets in this program were part of Absolute Return Portfolio. The RMS Portfolio invests in strategies that further diversify CalSTRS' overall investment portfolio and primarily its significant equity exposure. These strategies include trend following, long-duration U.S. Treasuries, global macro, systematic risk premia and other strategies to be identified in the future. Rather than focusing on achieving a specific return objective, the RMS Portfolio is expected to help the Total Fund achieve its return objective by protecting capital during equity downturns or volatile periods.

The RMS portfolio generated a negative 8.90 percent one-year return net of fees for the fiscal year ending June 30, 2017, underperforming its policy benchmark by 77 basis points. The underperformance is due to trend following and long-duration U.S. Treasuries and partially offset by positive net performance from global macro. The expectation of RMS portfolio returns to exhibit low correlation to equity markets was demonstrated as equities generally experienced a strong run up over the same timeframe. In addition to low correlation to equity markets, the long-term returns for the RMS portfolio are expected to be positive.

For more information about the RMS Portfolio, refer to the Investments section of the CalSTRS website.

Innovative Strategies

For the fiscal year ending June 30, 2017, the $413.1 million Innovative Strategies Portfolio represented 0.2 percent of the Total Fund. The objective of this portfolio is to help mitigate the plan's dependency on economic growth and low inflation to meet long-term expectations. This is achieved by incubating and graduating new strategies expected to diversify the risk of the Total Fund while providing attractive real returns over a market cycle. The framework will help improve CalSTRS' investment process and provide tools to mitigate the impact of a severe macroeconomic or market event. As shown on Table 4, for the fiscal year ending June 30, 2017, the Innovative Strategies Portfolio generated a

5.91 percent one-year return net of fees underperforming its policy benchmark of 11.42 percent. With the graduation of RMS into its own asset class in July 2016, returns longer than one year reflects the historical Absolute Return Portfolio performance. For more information about the Innovative Strategies Portfolio, refer to the Investments section on the CalSTRS website.

Cash Balance Benefit Program

The Cash Balance Benefit Program contributions were invested into pooled funds within the State Teacher's Retirement Plan from inception in February 1997 through June 2001. During that period, 60 percent of the contributions were allocated to the S&P 500 Portfolio and 40 percent to the Government Index Portfolio. In July 2001, the contributions were invested throughout the State Teacher's Retirement Plan, excluding Private Equity and Real Estate investments. As of June 30, 2017, the market value was approximately $331.9 million, and the rate of return gross of fees for the Cash Balance Benefit Program for the fiscal year was 14.13 percent.

Defined Benefit Supplemental Program

The Defined Benefit Supplement Program contributions were invested in the State Teacher's Retirement Plan, excluding Private Equity and Real Estate investments from January 2001 through June 2011. In July 2011, the contributions were invested throughout the State Teacher's Retirement Plan. As of June 30, 2017, the market value was approximately $12.4 billion, and the rate of return gross of fees for the Defined Benefit Supplement Program for the fiscal year was 13.73 percent.

For further information on the Cash Balance Benefit Program or the Defined Benefit Supplement Program, please see the supplemental program information on CalSTRS website.

Table 7 represents the investment summary by portfolio type and the comparative totals between current and prior year.

Table 7 Investment Summary for the Current and Previous Fiscal Year
(Dollars in Millions)

	June 30, 2016		June 30, 2017			
Portfolio Type[1]	Book Value	Net Asset Value	Book Value	Net Asset Value	% of Net Asset Value	Net Value Change
Global Equity	$89,568	$104,326	$91,730	$117,746	56.4%	$13,420
Fixed Income	31,112	31,968	30,818	30,725	14.7	(1,243)
Private Equity	19,319	16,337	19,558	16,911	8.1	574
Real Estate	27,285	26,172	27,056	26,230	12.6	58
Inflation Sensitive	1,880	1,916	2,615	2,760	1.3	844
Risk Mitigating Strategies	1,767	1,836	11,697	10,657	5.1	8,821
Innovative Strategies	427	505	317	413	0.2	(92)
Strategic Overlay	72	102	301	200	0.1	98
Cash/Liquidity	5,492	5,489	3,054	3,058	1.5	(2,431)
PORTFOLIO TOTAL	**$176,922**	**$188,651**	**$187,146**	**$208,700**	**100%**	**$20,049**
Adjustments:						
Securities Lending Collateral		17,524		18,191		
Accruals		1,362		2,387		
Cash & Cash Equivalent		(165)		(459)		
STRS PLAN ASSETS-INVESTMENTS		**$207,372**		**$228,819**		

[1] Some reclassifications made to the comparative totals for the fiscal year ended 2016 to conform to the presentation for the fiscal year ended 2017. Risk Mitigating Strategies, Innovative Strategies, Strategic Overlay, Stabilized Equity and Stable Return were previously part of Absolute Return Portfolio. Stabilized Equity and Stable Return were reclassified to the Global Equity Portfolio and Fixed Income Portfolio respectively. The reclassifications had no impact on the portfolio total.

Table 8 summarizes the investment expenses by portfolio types as of June 30, 2017.

Table 8 Investment Expenses
July 1, 2016, through June 30, 2017 **(Dollars in Thousands)**

Portfolio Type	Net Asset Value	Investment Expenses*	Basis Points
Global Equity	$117,746,117	$167,417	14.2
Fixed Income	30,724,606	20,343	6.6
Private Equity	16,911,025	7,650	4.5
Real Estate	26,230,283	15,546	5.9
Inflation Sensitive	2,759,411	706	2.6
Risk Mitigating Strategies	10,657,049	7,569	7.1
Innovative Strategies	413,065	106	2.6
Strategic Overlay	200,351	9,307	**
Cash/Liquidity	3,057,919	782	2.6
Total Assets And Expenses	**$208,699,826**	**$229,426**	**11.0**

* Investment Expenses reflected in this table generally represent direct costs associated with investing. Certain expenses including carried interest and management fees related to private assets are not included; however, they are reflected within the net asset value.

** Strategic Overlay calculates basis points using notional values instead of net asset values.

Table 9 summarizes the broker commissions as of June 30, 2017.

Table 9 Broker Commissions
July 1, 2016, through, June 30, 2017

Broker Name	Commission	Shares	Commission Per Share (Avg)
STATE STREET BANK AND TRUST COMPANY	$2,640,438	746,991,050	$0.004
CITIGROUP	2,504,830	364,315,996	0.007
MERRILL LYNCH	2,062,788	536,087,225	0.004
GOLDMAN SACHS	1,849,549	378,693,293	0.005
INSTINET	1,727,814	544,457,685	0.003
MORGAN STANLEY	1,648,186	518,797,413	0.003
CREDIT SUISSE FIRST BOSTON	1,463,365	372,633,475	0.004
J P MORGAN	1,346,274	635,507,064	0.002
UBS	1,019,856	213,552,612	0.005
BARCLAYS CAPITAL	758,230	108,339,463	0.007
ALL OTHER BROKERS	8,029,430	1,616,183,680	0.005
TOTAL COMMISSIONS	**$25,050,760**	**6,035,558,956**	**$0.004**

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ACTUARIAL

CalSTRS administers retirement, disability and survivor **benefits for California's 933,410 public school educators** (from pre-kindergarten through community college) and their beneficiaries.

Defined Benefit Program and Schedules

Defined Benefit Supplement Program and Schedules

Cash Balance Benefit Program and Schedules

Medicare Premium Payment Program and Schedules

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November 14, 2017

Teachers' Retirement Board
California State Teachers' Retirement System

Re: Valuation of the Defined Benefit Program

Dear Members of the Board:

The basic financial goal of the Defined Benefit Program of the California State Teachers' Retirement System (CalSTRS) is to establish contributions which fully fund the obligations and which, as a percent of payroll, remain level for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

CalSTRS measures its funding status as the Funded Ratio of the actuarial value of valuation assets over the actuarial accrued liabilities. The funding status based on the past three actuarial valuations is shown below:

Valuation Date	Funded Ratio
June 30, 2014	69%
June 30, 2015	69%
June 30, 2016	64%

Based on the June 30, 2016 actuarial valuation, the scheduled income from member, employer, and State contributions is projected to finance the DB Program on an actuarially sound basis. CalSTRS is projected to reach approximately a 100% Funded Ratio in 2046.

The June 30, 2016 valuation results are based on the membership data and the asset information provided by CalSTRS. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes, although we have not audited the data at the source. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is found to be materially inaccurate or incomplete, our calculations will need to be revised.

Milliman did not prepare the summaries or schedules shown in the Financial and Actuarial Sections. However, the actuarial information contained in the Financial Section and in this Actuarial Section was derived from our June 30, 2016 actuarial valuation report for funding and our 2017 GASB 67/68 report which communicated the actuarial results for financial reporting for June 30, 2017.

The actuarial computations presented in the valuation report are for purposes of determining the recommended funding amounts for CalSTRS consistent with our understanding of their funding requirements and goals. The liabilities are determined by using the entry age normal funding method. The actuarial assets are determined by using a one-third smoothed recognition method of the difference between the actual market value to the expected actuarial value.

Milliman

Teachers' Retirement Board
November 14, 2017
Page 2

The valuation is based on our understanding of the current benefit provisions of the DB Program and the actuarial assumptions adopted by the Board. The assumptions are reviewed annually for reasonableness, with a detailed experience analysis completed every four or five years. The last detailed experience analysis was completed in February of 2017 when the Board adopted the current assumptions. The assumptions will be reviewed in detail again for use in the June 30, 2020 funding valuation and the GASB 67/68 valuation for reporting date June 30, 2021. The assumptions and methods used for financial reporting under GASB 67/68 are the same as the funding valuation assumptions with the following exceptions:

1. The discount rate of 7.10% is gross of administrative expenses; and
2. The market value of assets is used for the Fiduciary Net Position.

For financial reporting purposes, all programs within the State Teachers' Retirement Plan are reported in aggregate.

We believe the actuarial assumptions and methods are internally consistent, reasonable and meet the parameters of Governmental Accounting Standards Board Statement Numbers 67, 68 and 82 for fulfilling financial reporting requirements and meet the parameters set forth in the relevant Actuarial Standards of Practice (ASOPs). Nevertheless, the emerging costs will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements as presented in the valuation report due to many factors. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Our valuation report and this letter have been prepared exclusively for CalSTRS for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning CalSTRS operations, and uses CalSTRS data, which Milliman has not audited. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on these assignments are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

We certify that the June 30, 2016 valuation was performed in accordance with the Actuarial Standards Board (ASB) standards of practice and by qualified actuaries. We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Respectfully submitted,

Mark C. Olleman

Nick Collier

Mark C. Olleman, FSA, EA, MAAA
Principal and Consulting Actuary

Nick J. Collier, ASA, EA, MAAA
Principal and Consulting Actuary

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Summary of Actuarial Assumptions and Methods

CalSTRS, through its consulting actuary, performs an experience study every four or five years to determine appropriate demographic and economic assumptions. These assumptions are then applied when the consulting actuary performs an actuarial valuation to monitor the funding status of the Defined Benefit (DB) Program.

The most recent experience study for 2010–2015 was completed as of June 30, 2015. The most recent actuarial valuation was completed as of June 30, 2016, and adopted by the Teachers' Retirement Board on April 6, 2017.

The following summary and tables were prepared by CalSTRS staff. All of the assumptions used in the June 30, 2016, actuarial valuation were based on the 2016 Actuarial Experience Analysis adopted by the board in February 2017.

The following is a summary of the assumptions and methods adopted by the board for funding this program:

- For the June 30, 2016, actuarial valuation, the investment return rate and discount rate is 7.25 percent, net of investment and administrative expenses. Beginning with the June 30, 2017, actuarial valuation, the investment return rate and discount rate will be 7.00 percent, net of investment and administrative expenses.
- Method used to value program assets for actuarial valuation purposes: expected actuarial value adjusted for one-third of the difference between actual market value and expected actuarial value.
- Assumption for general wage increase is 3.50 percent, of which 2.75 percent is due to inflation, and 0.75 percent is due to expected gains in productivity.
- The actuarial cost method used by the program is the entry age normal actuarial cost method, with the actuarial gains/losses and the unfunded actuarial obligation amortized over a closed period ending June 30, 2046.
- The extent to which benefits are expected to increase as a result of cost-of-living type adjustments is an annual 2 percent increase to the initial benefit beginning on September 1 following the first anniversary of the effective date of the benefit. Since 1972, this increase is applied to all eligible continuing benefits.

Actuarial Cost Method

For funding purposes, the entry age normal cost method was selected for the DB Program, which is the most common cost method among public sector pension plans. The advantage to using this method is that the cost over time tends to remain fairly level as a percentage of overall payroll. This is well-suited to most public systems, which tend to contribute as a percentage of pay and which benefit from a stable contribution rate for budgeting and planning purposes.

Financial Reporting

Under GASB 67, financial reporting for the State Teachers' Retirement Plan (STRP) includes the DB, Defined Benefit Supplement (DBS), Cash Balance Benefit (CBB), Supplemental Benefit Maintenance Account (SBMA) and Teachers' Replacement Benefits programs.

Actuarial method and assumptions for GASB 67 financial reporting

- The discount rate is 7.10 percent, net of investment expenses but gross of administrative expenses.
- The actuarial cost method is the entry age normal cost method.
- General wage increase is 3.50 percent, of which 2.75 percent is due to inflation.
- Postretirement benefit increases of 2.00 percent simple for DB Program and 85 percent purchasing power level for SBMA program. Not applicable for CBB and DBS programs.

As required by GASB 67, the discount rate used for financial reporting of 7.10 percent is net of investment expenses but gross of administrative expenses. The 7.25 percent investment return rate used for funding and administrative purposes is net of investment and administrative expenses. The 2016 CalSTRS mortality tables were used in both financial reporting valuation and the funding valuation. Table 7 provides more details of the mortality assumptions. For the valuation used for funding and administrative purposes, the DB Program actuarial value of assets ("smoothed value") is used in the determination of the Unfunded Actuarial Obligation. For financial reporting, the aggregate assets for all programs in the State Teachers' Retirement Plan on a market basis are used in the determination of the Net Pension Liability.

Changes to the plan: Effective January 1, 2013, Chapter 296, Statutes of 2012 (AB 340-Furutani), was enacted in 2012. The law, known as the California Public Employees' Pension Reform Act (PEPRA) of 2013, reduces retirement benefits for educators who were hired after 2012. Specifically, for members subject to PEPRA (CalSTRS 2% at 62 members), the key provisions of the law are:

1) the benefit factors at all ages less than age 65 are reduced;
2) final compensation is based on a 36-month period;
3) the definition of creditable compensation is restricted; and
4) compensation for benefit purposes is limited to no more than 120 percent of the Social Security taxable wage base adjusted annually based on the Consumer Price Index for all Urban Consumers: U.S. City Average. Additional changes that do not directly affect the calculated retirement benefits apply to all members.

Funding: The board had no authority to set contribution rates and had to rely upon remedy from the Legislature and the Governor, who enacted a responsible funding plan in 2014. AB 1469, enacted in Chapter 47, Statutes of 2014, is projected to significantly fund the DB Program by June 30, 2046, through shared contribution increases among CalSTRS members, employers and the State of California. Member contributions of 8 percent (pre-AB 1469 rate) increased by an additional 2.25 percent of payroll for CalSTRS 2% at 60 members and an additional 1.205 percent for CalSTRS 2% at 62 members in fiscal year 2016–17. Employer contributions will increase to a total of 19.1 percent by fiscal year 2020–21. State contributions increased to a total of 6.328 percent in fiscal year 2016–17. AB 1469 grants the board limited rate-setting authority to adjust up or down the state and employer contribution rates.

Actuarial Assumptions

The actuarial valuation utilizes various methods and two different types of assumptions: economic and demographic. Economic assumptions are related to the general economy and its impact on CalSTRS or to the operation of the membership. Demographic assumptions predict the future experience of the membership with respect to eligibility and benefits and are directly related to the specific experience of CalSTRS members.

Economic assumptions: The two major economic assumptions are investment return and wage growth, and each is affected by the underlying assumed rate of inflation. Table 6 provides economic actuarial assumptions for this program as reflected in the most recent actuarial valuation as of June 30, 2016.

Demographic assumptions: Tables 1–5 and 7–8 provide demographic assumption information for this program as reflected in the most recent actuarial valuation as of June 30, 2016.

Actuarial Methods

The asset smoothing method projects an Expected Value of Assets using the assumed rate of investment return, then one-third of the difference between the Expected Value and the Market Value is recognized in the Actuarial Value of Assets. There were no revisions to either the Actuarial Cost Method or the Asset Valuation Method for this actuarial valuation.

Valuation Results

CalSTRS contracts for many actuarial services. The current contractor, Milliman, has been the program's actuary since January 15, 2000.

Tables 9–13 provide summaries of the valuation results. The data displayed in Table 9 is as of June 30 of the specified year. Other information, specifically annual payroll amounts, reported in the Financial Section of this report will generally not be consistent with this data. The reason for this is that the financial data reflects payroll for all individuals who were active during the year, while Table 10 only includes those individuals who are active as of June 30. It does not include those individuals who were active at some point during the year but not as of June 30.

Amounts provided in Table 10 represent the status of the population as of June 30 of the indicated year. The information provided in "The Removed From Rolls" and "Rolls End of Year" columns include the application of the annual postretirement 2 percent not-compounded cost-of-living adjustment.

The data provided for each year-end in Table 10 is a snapshot of the population taken following year-end closing for the indicated period. It is likely adjustments will be made subsequent to this closing. No attempt is made to update the data in Table 10 for these adjustments.

The most recent actuarial valuation of the system as of June 30, 2016, determined there is an unfunded actuarial obligation for this program. The prior actuarial valuation as of June 30, 2015, also indicated there was an unfunded actuarial obligation.

With one exception, actuarial valuations have been performed every year since June 30, 1997, to analyze the sufficiency of the statutory contributions to meet the current and future obligations of the program. By using the actuarial methods and assumptions adopted by the board, the actuarial valuation provides the best estimate of the program's long-term financing.

Comparing the unfunded actuarial obligation as of two valuation dates does not provide enough information to determine if there were actuarial gains or losses. The correct comparison is between the unfunded actuarial obligation on the valuation date and the expected unfunded actuarial obligation projected from the prior valuation date using the actuarial assumptions in effect for the period of comparison.

Actuarial gains reduce the unfunded actuarial obligation as of the valuation date, and actuarial losses increase the unfunded actuarial obligation. Most actuarial gains and losses are a result of short-term fluctuations in experience or changes in actuarial assumptions. Because of the long-term nature of actuarial assumptions, future patterns of emerging experience may offset these short-term fluctuations.

The following significant plan changes have taken place during the time depicted in Table 11. These program amendments include:

Effective January 1, 2008

Allowed members applying for disability benefits, who were eligible to retire for service, to submit a new Service Retirement During Evaluation of Disability Application and receive a service retirement allowance pending determination of their disability claim.

Effective September 30, 2008

Increased the SBMA purchasing power benefit from 80 percent to 85 percent of the benefit's original value, subject to regulations promulgated by the board.

Effective January 1, 2009

Effective with fiscal year 2009–10 through fiscal year 2012–13, payment of previously withheld contributions and interest of $56,979,949 will be made each fiscal year to the SBMA Program.

Effective July 1, 2010

Reduced members' retirement benefit by the amount earned in CalSTRS-covered employment for six calendar months immediately following their retirement effective date or until their 60th birthday, whichever is sooner.

Effective July 17, 2012

Changed the postretirement earnings limit to be one half of the median final compensation of all members who retired for service during the fiscal year ending in the previous calendar year.

Effective January 1, 2013

For CalSTRS members first hired on or after January 1, 2013

- Placed a cap equal to 120 percent of the 2013 Social Security wage base on compensation earnable adjusted each fiscal year based on the changes in the Consumer Price Index for All Urban Consumers: U.S. City Average.
- Changed the normal retirement age from 60 to 62 with a 2 percent age factor.
- Changed the maximum age factor from 2.4 percent at age 63 to 2.4 percent at age 65.
- Changed the age factor for early retirement at age 55 from 1.4 percent to 1.16 percent.
- Eliminated the ability of newly hired members to retire as early as age 50 with 30 years of service.
- Eliminated the career factor.
- Based final compensation on 36–month period.

Effective July 1, 2014

Increased contribution rates for members, employers and the state to fully fund the DB Program by June 30, 2046.

Independent Actuarial Review

Actuarial services for CalSTRS are provided under contract by a qualified independent actuarial firm, with additional review provided by the actuarial staff.

Through the competitive bid process, the work of a prior actuary will be verified in a subsequent actuarial valuation performed by a new contract actuary. Should the same actuarial firm continue for a period of 10 years, provision is made for an independent review of that firm's work through an actuarial audit completed by another firm. These audit services are acquired using the competitive bid process.

An audit of the 2016 Actuarial Experience Analysis of the DB Program was performed by the firm, Cheiron. The result of the audit was reported to the board on February 1, 2017.

An audit of the 2015 Actuarial Valuation of the DB Program was performed by the firm, The Segal Company. The result of the audit was reported to the board on April 6, 2017.

The current actuarial consultant was retained on January 15, 2000—and in 2006, 2012 and 2016—as a result of the competitive bid process.

Summary of Defined Benefit Program Provisions

The following summary and tables were prepared by CalSTRS staff. All information was considered in the June 30, 2016, actuarial valuation.

Normal Retirement

Eligibility Requirement

CalSTRS 2% at 60 Members: Age 60 with five years of credited service.

CalSTRS 2% at 62 Members: Age 62 with five years of credited service.

Benefit

2 percent of final compensation for each year of credited service.

Benefit Factors

Credited Service—For each year of membership, credited service is granted based on the ratio of creditable compensation earned to compensation earnable. No more than one full year of service credit is allowed during any school year; however, the contributions for any service in excess of one year are deposited to the member and employer contribution accounts within the DBS Program.

Contributions received for DBS compensation that are attributable to increases under AB 1469 will be returned to school district employers. School district employers return excess member contributions to their employees, and the returned pre-tax contributions will be considered taxable income in the year they are received by the employee.

Final Compensation—CalSTRS 2% at 60 Members: Highest average annual compensation earnable for 36 consecutive months of credited service. For members with 25 years of service, the calculation is based on the highest average annual compensation earnable for 12 consecutive months.

CalSTRS 2% at 62 Members: Final compensation is based on the highest average annual compensation earnable for 36 consecutive months. Compensation is limited to 120 percent of the Social Security wage base in effect January 1, 2013, adjusted each fiscal year based on the changes in the Consumer Price Index for All Urban Consumers: U.S. City Average.

IRC Section 401(a)(17)

Compensation is limited under IRC section 401(a)(17) and assumed to increase at the rate of inflation.

Sick Leave Service Credit—Credited service is granted for unused sick leave at the time of retirement. Up to 0.2 years of credited service for sick leave may be used for eligibility for one-year final compensation or to attain the career factor or the longevity bonus for eligible members.

Career Factor—If a CalSTRS 2% at 60 member has 30 years of credited service, the age factor is increased by 0.2 percent. However, the maximum age factor is 2.4 percent. The career factor does not apply to CalSTRS 2% at 62 members.

Longevity Bonus—For CalSTRS 2% at 60 members attaining 30 years of service by January 1, 2011, a longevity bonus of $200 per month is added to the Member-Only Benefit. The bonus is increased to $300 per month with 31 years of service and $400 per month with 32 or more years of service. The longevity bonus does not apply to CalSTRS 2% at 62 members.

Postretirement Benefit Adjustment

Benefit Improvement Factor—Two percent simple increase on September 1 following the first anniversary of the effective date of the benefit, applied to all continuing benefits.

IRC Section 415(b)

For CalSTRS 2% at 60 members, benefits are subject to limits imposed under section 415(b). However, no limits are imposed in the valuation of the DB Program in order to address the potential pay-as-you-go funding needs of the Teachers' Replacement Benefits Program Fund. CalSTRS 2% at 62 members will not receive any benefits in excess of the federal limit.

Early Retirement

Eligibility Requirement—CalSTRS 2% at 60 Members: Age 55 with five years of credited service, or age 50 with 30 years of credited service.

CalSTRS 2% at 62 Members: Age 55 with five years of credited service.

Benefit Reduction—CalSTRS 2% at 60 Members: A 0.50 percent reduction in the normal retirement allowance for each full month or partial month the member is younger than age 60, plus a reduction of 0.25 percent for each full month or partial month the member is younger than age 55.

CalSTRS 2% at 62 Members: A 0.50 percent reduction in the normal retirement allowance for each full month or partial month the member is younger than age 62.

Late Retirement

Benefit—CalSTRS 2% at 60 Members: For members who continue to earn additional service credit after age 60. The 2 percent age factor increases by 0.033 percent for each quarter year of age that the member is over age 60, up to a maximum of 2.4 percent.

CalSTRS 2% at 62 Members: For members who continue to earn additional service credit after age 62, the 2 percent age factor increases by 0.033 percent for each quarter year of age that the member is over age 62, up to a maximum of 2.4 percent.

Deferred Retirement

Benefit—Any time after satisfying the minimum service requirement, a member may cease active service, leave the accumulated contributions on deposit, and later retire upon attaining the minimum age requirement.

Disability Allowance—Coverage A

Eligibility Requirement—Member has five years of credited California service and has not attained age 60, or if a member has earned one year of creditable service and is disabled due to an unlawful act of bodily harm committed by another person while performing creditable service.

Benefit—Fifty percent of final compensation.

- or -

Five percent of final compensation for each year of service credit if over age 45 with fewer than 10 years of service credit.

Children's Benefit—Ten percent for each eligible dependent child, up to a maximum of 40 percent of final compensation. The increment for each eligible child continues until the child marries or attains age 22.

Offsets—Benefit, including children's increment, is reduced by disability benefits payable under Social Security, workers' compensation and employer-paid income protection plan.

Disability Allowance—Coverage B

Eligibility Requirement—Member has five years of credited California service, or if a member has earned one year of creditable service and is disabled due to an unlawful act of bodily harm committed by another person while performing creditable service.

Benefit—Fifty percent of final compensation, regardless of age and service credit.

Children's Benefit—Ten percent for each eligible child up to four children, for a maximum of 40 percent of final compensation. The increment for each child continues until the child attains age 21, regardless of student, marital or employment status.

Offsets—The member's benefit is reduced by disability benefits payable under workers' compensation.

Death Before Retirement—Coverage A

Eligibility Requirement—One or more years of service credit for active members or members receiving a disability benefit.

Lump-Sum Payment—The one-time death benefit recipient receives a $6,163 lump-sum payment.

Benefit—The surviving spouse or registered domestic partner with eligible children will receive a family benefit of 40 percent of final compensation for as long as there is at least one eligible child. An additional 10 percent of final compensation is payable for each eligible child up to a maximum benefit of 90 percent.

If there is no surviving spouse or registered domestic partner, a benefit of 10 percent of final compensation is payable to eligible children up to a maximum benefit of 50 percent.

When there are no eligible children, the spouse or registered domestic partner may elect to receive one-half of a 50 percent joint and survivor benefit projected to age 60 or take a lump-sum payment of the remaining contributions and interest.

Death Before Retirement—Coverage B

Eligibility—One or more years of service credit for active members.

Lump-Sum Payment—The one-time death benefit recipient receives a $24,652 lump-sum payment.

Benefit—A lump-sum payment of the contributions and interest.

- or -

One-half of a 50 percent joint and survivor benefit, beginning on the member's 60th birthday or immediately with a reduction based on the member's age and that of the spouse or registered domestic partner at the time the benefit begins.

If the surviving spouse or registered domestic partner elects a monthly benefit, or there is no surviving spouse, each eligible child would receive 10 percent of the member's final compensation, with a maximum benefit of 50 percent.

Death After Retirement

Lump-Sum Payment—The one-time death benefit recipient receives a $6,163 lump-sum payment.

Members of retirement age may make a preretirement election of an option to designate a beneficiary.

Annuity Form—If the retired member had elected one of the joint and survivor options, the retirement benefit would be reduced in accordance with the option elected.

If no option had been elected, payment of the unpaid contributions and interest, if any, remaining in the member's account will be made to the beneficiary, if one is named, or to the deceased member's estate.

Termination From CalSTRS

Refund—Refund of the member's contributions with interest as credited to the member's account to date of withdrawal. A refund terminates membership and all rights to future benefits from the program.

Re-entry After Refund—Former members who re-enter the program may redeposit all amounts previously refunded plus regular interest. The member must earn one year of credited service after re-entry before becoming eligible for program benefits.

Funding

Member Contribution—CalSTRS 2% at 60 Members: For fiscal year ended June 30, 2017, 10.25 percent of creditable compensation.

CalSTRS 2% at 62 Members: Equal to one-half of the Normal Cost rate determined in the valuation rounded to the nearest quarter percent, plus a supplemental amount. Member rates only change when the Normal Cost rate changes by 1 percent of pay as compared to the initial Normal Cost rate (or at the time of the last adjustment). For fiscal year ended June 30, 2017, the member contribution rate is equal to 9.205 percent of creditable compensation.

Employer Contribution—For fiscal year ended June 30, 2017, 12.33 percent of the total creditable compensation on which member contributions are based. In addition, funding for the Teachers' Health Benefits Fund and Teachers' Replacement Benefits Fund is directed as needed from the employer contributions on a pay-as-you-go basis.

- plus -

0.25 percent of the total creditable compensation on which members' contributions are based to pay costs for unused sick leave service credit.

State Contribution—For fiscal year ended June 30, 2017, the state pays 6.328 percent of the total creditable compensation of the fiscal year ending in the immediately preceding calendar year upon which members' contributions are based, calculated annually on October 1 and updated on or before the subsequent April 15 and paid in four equal quarterly payments.

- plus -

2.5 percent of members' creditable earnings to protect retirees' purchasing power.

Changes in Defined Benefit Program Provisions

See Discussion of recent changes on page 124.

All demographic assumptions used in the funding actuarial valuation were adopted by the board when the experience study was adopted on February 1, 2017. Following are the assumptions adopted by the board for this program.

Table 1 Postretirement Mortality for Sample Ages

	Male	Female
Age	2016	2016
50	0.243%	0.124%
55	0.358	0.213
60	0.480	0.283
65	0.682	0.427
70	1.091	0.704
75	1.958	1.294
80	3.592	2.482
85	6.907	4.950
90	13.297	10.051
95	22.668	18.791

Table 2 Probabilities of Retirement for Sample Ages[1]

		2% at 60 Members			2% at 62 Members
	Age	1990 Benefits	Under 30 years	30 or More Years	All Years
Male	55	5.8%	2.7%	6.0%	3.0%
	60	25.0	6.3	25.0	9.0
	65	20.0	14.0	32.5	30.0
	70	100.0	12.0	25.0	20.0
	75	100.0	100.0	100.0	100.0
Female	55	7.0%	3.5%	8.0%	4.0%
	60	22.0	7.0	29.0	9.0
	65	18.0	17.0	37.5	30.0
	70	100.0	14.0	30.0	20.0
	75	100.0	100.0	100.0	100.0

[1]Probabilities of retirement are adjusted for members with service between 25 and 30 years.

Table 3 Probabilities of Withdrawal from Active Service Before Age and Service Retirement for Sample Duration in Years

Male	
Duration	
1	11.0%
2	8.5
3	6.3
4	4.0
5	3.5
10	1.8
15	1.2
20	0.9
25	0.7
Female	
Duration	
1	9.0%
2	7.0
3	5.5
4	4.0
5	3.0
10	1.8
15	1.2
20	0.9
25	0.7

Table 4 Probabilities of Refund by Sample Duration in Years of Members and Sample Entry Ages

	Entry Ages				
Duration	Under 25	25–29	30–34	35–39	40+
Male					
Under 5	100%	100%	100%	100%	100%
5	60	60	60	56	45
10	46	46	38	36	36
15	38	38	31	21	—
20	31	31	15	—	—
25	15	15	—	—	—
Female					
Duration	**Under 25**	**25–29**	**30–34**	**35–39**	**40+**
Under 5	100%	100%	100%	100%	100%
5	60	60	60	52	35
10	34	34	32	32	29
15	27	24	24	24	—
20	19	14	14	—	—
25	10	10	—	—	—

Table 5 Assumption for Pay Increases Due to Promotions and Longevity for Sample Ages in Years
(Exclusive of the assumed general wage increase, which includes inflation)

	Entry Ages					
Duration	Under 25	25–29	30–34	35–39	40–44	45+
1	6.4%	5.8%	5.3%	4.8%	4.5%	3.7%
5	5.2	4.8	4.3	3.9	3.8	2.8
10	3.7	3.4	3.0	2.7	2.5	1.8
20	1.3	1.2	1.2	0.8	0.8	0.6
30	0.9	0.8	0.7	0.5	—	—
40	0.8	0.7	—	—	—	—

Table 6 Economic Assumptions

Consumer Price Inflation	2.75%
Investment Yield (Net of Expenses)	7.25
Wage Inflation	3.50
Interest on Member Accounts	3.00

Table 7 Mortality Assumptions

	Retired Members[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Active Members
Male	RP-2014 White Collar Employee Male set back 2 years
Female	RP-2014 White Collar Employee Female set back 2 years
	Beneficiaries[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Disabled[1,2]
Male	RP-2014 Disabled Retiree Male set back 2 years
Female	RP-2014 Disabled Retiree Female set back 2 years

[1]For futue years, the projected improvement is based on 110% of the MP-2016 Ultimate Projection Scale.

[2]Select rates in first three years for both Males and Females.

Table 8 Disability Rates for Sample Ages

Coverage A		
Male	25	0.018%
	30	0.027
	35	0.045
	40	0.072
	45	0.099
	50	0.144
	55	0.189
Female	50	0.018%
	30	0.027
	35	0.054
	40	0.081
	45	0.099
	50	0.198
	55	0.252

Coverage B		
Male	25	0.010%
	30	0.020
	35	0.030
	40	0.060
	45	0.100
	50	0.140
	55	0.245
	60	0.365
	65	0.400
	70	0.400
Female	25	0.020%
	30	0.020
	35	0.040
	40	0.070
	45	0.110
	50	0.185
	55	0.300
	60	0.380
	65	0.400
	70	0.400

Table 9 Schedule of Active Member Valuation Data

		Active Members			
Date (as of June 30)	Number of Participating Employers*	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
2007	1,356	455,693	$25,905,691,360	$56,849	6.3%
2008	1,428	461,378	27,118,230,762	58,777	3.4
2009	1,472	459,009	27,327,386,616	59,536	1.3
2010	1,514	441,544	26,274,889,981	59,507	—
2011	1,587	429,600	25,576,008,636	59,534	—
2012	1,660	421,499	25,388,209,920	60,233	1.2
2013	1,670	416,643	25,479,056,693	61,153	1.5
2014	1,690	420,887	26,469,883,008	62,891	2.8
2015	1,724	429,460	28,013,191,853	65,229	3.7
2016	1,739	438,537	29,826,149,337	68,013	4.3

*Based on employers who submit the last contribution line for the active member in the target fiscal year.

Table 10 Schedule of Retired Members and Beneficiaries Added to and Removed From Rolls

	Added to Rolls		Removed from Rolls		Rolls – End of Year			
Date (as of June 30)	Number	Annual Allowances[1]	Number	Annual Allowances[1]	Number	Annual Allowances[1]	% Increase in Annual Allowances	Average Annual Allowances
2008	13,246	$626,567	6,419	$147,966	223,968	$7,711,132	8.9%	$34,430
2009	13,420	657,984	6,163	149,998	228,969	8,340,671	8.2	36,427
2010	16,201	777,293	6,499	165,404	243,796	9,171,309	10.0	37,619
2011	14,559	671,868	6,938	181,927	253,041	9,802,995	6.9	38,741
2012	14,316	635,935	6,860	187,271	262,039	10,458,555	6.7	39,912
2013	12,377	555,751	7,119	205,779	269,429	11,091,944	6.1	41,168
2014	11,383	507,801	7,299	221,733	275,627	11,624,220	4.8	42,173
2015	11,952	558,655	7,759	247,766	282,100	12,197,828	4.9	43,239
2016	12,014	591,902	7,871	262,170	288,195	12,792,104	4.9	44,387
2017	12,823	649,503	8,381	289,955	294,874	13,439,239	5.1	45,576

[1]Dollars in thousands.

Table 11 Solvency Test

	Aggregate Accrued Liabilities for (in Millions)				Funding of Liabilities		
Valuation Date (as of June 30)	(1) Active Member Contributions on Deposit	(2) Future Benefits to Benefit Recipients	(3) Service Already Rendered by Active Members (Financed by Employer)	Actuarial Value of Assets	(1)	(2)	(3)
2007	$25,895	$75,612	$65,622	$148,427	100.0%	100.0%	71.5%
2008	26,881	81,984	68,869	155,215	100.0	100.0	67.3
2009	27,477	88,927	69,279	145,142	100.0	100.0	41.5
2010	27,105	99,135	70,075	140,291	100.0	100.0	20.1
2011	27,038	109,984	71,383	143,930	100.0	100.0	9.7
2012	27,245	116,475	71,469	144,232	100.0	100.0	0.7
2013	27,683	121,714	72,884	148,614	100.0	99.4	—
2014	28,290	126,235	76,688	158,495	100.0	100.0	5.2
2015	28,935	131,451	81,367	165,553	100.0	100.0	6.4
2016	30,046	145,108	91,550	169,976	100.0	96.4	—

Table 12 Analysis of Financial Experience

(Gains and losses in unfunded actuarial obligation resulting from differences between assumed and actual experience) (Dollars in Millions)

	Actuarial Valuation as of June 30	
	2016	2015
Actuarial Obligation at June 30	$241,753	$231,213
Normal Cost	5,463	5,155
Benefit Payments	(12,608)	(12,039)
Expected Interest	17,869	17,088
Expected Actuarial Obligation at June 30	252,477	241,417
Expected Actuarial Value of Assets at June 30	172,251	163,721
Expected UAO at June 30	80,226	77,696
Actuarial (Gains) or Losses		
Change in Assumptions	13,227	—
Investment Return Assumptions	2,590	(1,659)
Demographic Assumptions	1,000	336
Net Change Other Sources	(315)	(173)
Total Actuarial (Gains) & Losses	16,502	(1,496)
Unfunded Actuarial Obligation at June 30	96,728	76,200
Funded Ratio	64%	69%

Table 13 Schedule of Funding Progress

(Dollars in Millions)

Actuarial Valuation Date as of June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (Funding Excess) (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2008	$155,215	$177,734	$22,519	87%	$27,118	83%
2009	145,142	185,683	40,541	78	27,327	148
2010	140,291	196,315	56,024	71	26,275	213
2011	143,930	208,405	64,475	69	26,592	242
2012	144,232	215,189	70,957	67	26,404	269
2013	148,614	222,281	73,667	67	26,483	278
2014	158,495	231,213	72,718	69	26,398	275
2015	165,553	241,753	76,200	68	28,640	266
2016	169,976	266,704	96,728	64	30,324	319
2017	(1)	(1)	(1)	(1)	(1)	(1)

[1]Actuarial valuation as of June 30, 2017, are expected to be available by April 2018.

Note: Information of actuarially determined and actual contributions for the State Teachers' Retirement Plan is provided in the Financial Section, Schedule III, Contributions of Employer and Nonemployer Contributing Entity table.

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November 14, 2017

Teachers' Retirement Board
California State Teachers' Retirement System

Re: Valuation of the Defined Benefit Supplement Program

Dear Members of the Board:

The basic financial goal of the Defined Benefit Supplement (DBS) Program of the California State Teachers' Retirement System (CalSTRS) is to maintain sufficient resources to fully fund the obligations. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

CalSTRS measures its funding status as the Funded Ratio of the actuarial value of valuation assets over the actuarial accrued liabilities. The funding status based on the past three actuarial valuations is shown below:

Valuation Date	Funded Ratio
June 30, 2014	116%
June 30, 2015	115%
June 30, 2016	112%

The actual return was less than the assumed return for the fiscal year ended in 2016 which, combined with other factors, caused a decrease in the Funded Ratio. As of June 30, 2016, the Market Value of Assets for the DBS Program exceeds the Actuarial Obligation. No additional interest credits were granted based on the Program's funded level as of June 30, 2016.

The June 30, 2016 valuation results are based on the membership data and the asset information provided by CalSTRS. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes, although we have not audited the data at the source. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is found to be materially inaccurate or incomplete, our calculations will need to be revised.

Milliman did not prepare the summaries or schedules shown in the Financial and Actuarial Sections. However, the actuarial information contained in the Financial Section and in this Actuarial Section was derived from our June 30, 2016 actuarial valuation report for funding and our 2017 GASB 67/68 report which communicated the actuarial results for financial reporting for June 30, 2017.

The actuarial computations presented in the valuation report are for purposes of determining the recommended funding amounts for CalSTRS consistent with our understanding of their funding requirements and goals. The liabilities are determined by using the traditional unit credit funding method. The actuarial assets are equal to fair market value.

Milliman

Teachers' Retirement Board
November 14, 2017
Page 2

The funding valuation is based on our understanding of the current benefit provisions of the DBS Program and the actuarial assumptions adopted by the Board. The assumptions are reviewed annually for reasonableness, with a detailed experience analysis completed every four or five years. The last detailed experience analysis was completed in February of 2017 when the Board adopted the current assumptions. The assumptions will be reviewed in detail again for use in the June 30, 2020 funding valuation and the GASB 67/68 valuation for reporting date June 30, 2021. The assumptions and methods used for financial reporting under GASB 67/68 are the same as the funding valuation assumptions with the following exceptions:

1. The discount rate of 7.10% is gross of administrative expenses; and
2. The individual entry age normal cost method is used.

For financial reporting purposes, all programs within the State Teachers' Retirement Plan are reported in aggregate.

We believe the actuarial assumptions and methods are internally consistent, reasonable and meet the parameters of Governmental Accounting Standards Board Statement Numbers 67, 68 and 82 for fulfilling financial accounting requirements and meet the parameters set forth in the relevant Actuarial Standards of Practice (ASOPs). Nevertheless, the emerging costs will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements as presented in the valuation report due to many factors. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Our valuation report and this letter have been prepared exclusively for CalSTRS for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning CalSTRS operations, and uses CalSTRS data, which Milliman has not audited. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on these assignments are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

We certify that the June 30, 2016 valuation was performed in accordance with the Actuarial Standards Board (ASB) standards of practice and by qualified actuaries. We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Respectfully submitted,

Mark C Olleman   Nick Collier   Julie D. Smith

Mark Olleman, FSA, EA, MAAA
Principal and Consulting Actuary

Nick Collier, ASA, EA, MAAA
Principal and Consulting Actuary

Julie Smith, FSA, EA, MAAA
Valuation Actuary

Summary of Actuarial Assumptions and Methods

CalSTRS, through its consulting actuary, performs an experience study at least every four or five years to determine appropriate demographic and economic assumptions. These assumptions are then applied every year when the consulting actuary performs an actuarial valuation to monitor the funding status of the Defined Benefit Supplement (DBS) Program.

The most recent actuarial valuation was completed as of June 30, 2016, and adopted by the Teachers' Retirement Board April 6, 2017. The following summary and tables were prepared by CalSTRS staff. All information is considered in the June 30, 2016, actuarial valuation.

The DBS Program was established January 1, 2001. The DB Program and DBS Program share the same population, so it is reasonable to use most of the same assumptions for both programs. All of the assumptions used in the June 30, 2016, actuarial valuation were based on the 2016 Actuarial Experience Analysis adopted by the board in February 2017. Following are the assumptions adopted by the board for funding this program:

- For the June 30, 2016, actuarial valuation the investment return rate and discount rate is 7.25 percent, net of investment and administrative expenses. Beginning with the June 30, 2017, actuarial valuation the investment return rate and discount rate will be 7.00 percent, net of investment and administrative expenses.
- Method used to value plan assets for actuarial valuation purposes: Fair market value.
- Assumption for general wage increase is 3.50 percent, of which 2.75 percent is due to inflation, and 0.75 percent is due to expected gains in productivity.
- The actuarial cost method used by the program is the traditional unit credit cost method.
- The DBS Program does not provide cost-of-living adjustments for benefit recipients.

Actuarial Cost Method

For funding purposes, the traditional unit credit cost method was selected for the Defined Benefit Supplement Program since the projected benefits of each individual member are allocated by a consistent formula to valuation years. As a result, the actuarial obligation is equal to the accumulated account balances, and the normal cost is equal to the total annual contribution.

Financial Reporting

Under GASB 67 financial reporting, the State Teachers' Retirement Plan (STRP) includes the DB, DBS, CBB, SBMA and Teachers' Replacement Benefits programs.

Actuarial method and assumptions for GASB 67 financial reporting

- The discount rate is 7.10 percent, net of investment expenses but gross of administrative expenses.
- The actuarial cost method is the entry age normal cost method.
- General wage increase is 3.50 percent, of which 2.75 percent is due to inflation.
- Postretirement benefit increases of 2.00 percent simple for DB Program and 85 percent purchasing power level for SBMA program. Not applicable for CBB and DBS.

As required by GASB 67, the discount rate used for financial reporting of 7.10 percent is net of investment expenses but gross of administrative expenses. The 7.25 percent investment return rate used for funding and administrative purposes is net of investment and administrative expenses. GASB 67 also specifies using the entry age normal cost method to calculate pension liability for financial reporting. The traditional unit credit method is used for funding. In addition, the 2016 CalSTRS mortality tables were used in both financial reporting and funding calculations. Table 6 provides more details of the mortality assumptions.

Discussion of recent changes in:

The nature of the program—The DBS Program was established January 1, 2001. All provisions of the program were considered when completing the most recent actuarial valuation.

Actuarial Assumptions

The following assumptions were used to complete the valuation for this program.

The assumptions for this program will have minimal impact under the traditional unit credit cost method or only have significance when participants elect to annuitize the account balance. Under the program, a member must have at least

$3,500 in his or her account to elect to annuitize the account balance.

The actuarial methods used for the program's actuarial valuation as of June 30, 2016, result in an actuarial surplus of $1,138,769,000.

CalSTRS contracts for many actuarial services. The current contractor, Milliman, has been CalSTRS actuary from the program's inception.

Independent Actuarial Review

Actuarial services for CalSTRS are provided under contract by a qualified independent actuarial firm, with additional review provided by the actuarial staff.

Through the competitive bid process, the work of a prior actuary will be verified in a subsequent actuarial valuation performed by a new contract actuary. Should the same actuarial firm continue for a period of 10 years, provision is made for an independent review of that firm's work through an actuarial audit completed by another firm. These audit services are acquired using the competitive bid process.

An audit of the 2016 Actuarial Experience Analysis of the DBS Program was performed by the firm, Cheiron. The result of the audit was reported to the board on February 1, 2017.

The current actuarial consultant was retained on January 15, 2000—and in 2006, 2012 and 2016—as a result of the competitive bid process.

Summary of Defined Benefit Supplement Program Provisions

The following tables and summary were prepared by CalSTRS staff. All information is considered in the June 30, 2016, actuarial valuation.

Membership

Eligibility Requirement—All members of the DB Program who perform creditable service and earn creditable compensation after December 31, 2000, have a DBS account.

Member—An eligible employee with creditable service subject to coverage who has contributions credited in the program or is receiving an annuity from the program.

Account Balance

Account Balance—Nominal accounts are established for the purpose of determining DBS benefits payable to the member. Accounts are credited with contributions, interest at the minimum interest rate and, if applicable, additional earnings credits.

Contributions—Member and employer contributions are credited to the member's DBS account for service greater than one year during a single school year, and for CalSTRS 2% at 60 members, compensation for limited-term payments and retirement incentives are credited.

Minimum Interest Rate—Annual rate determined for the plan year by the board in accordance with federal laws and regulations. The minimum interest rate is equal to the average of the yields on 30-year Treasury Notes for the twelve months ending in February preceding the beginning of the plan year, rounded to the next highest basis point. The minimum interest rate is not less than the rate at which interest is credited under the DB Program.

Additional Earnings Credit—Annual rate determined for the plan year by the board based on the actual earnings during the plan year but only to the extent the earnings are sufficient to credit the minimum interest rate and provide any additions to the gain and loss reserve deemed warranted by the board. The board adopted no additional earnings credit for the fiscal year ending June 30, 2016.

Normal Retirement

Eligibility Requirement—Receipt of a corresponding benefit under the DB Program.

Benefit—The account balance at the benefit effective date subject to limits imposed under IRC section 415.

Form of Payment—The normal form of payment is a lump-sum distribution. Annuity options are available if the account balance is at least $3,500.

DEFINED BENEFIT SUPPLEMENT PROGRAM

Early Retirement

Eligibility Requirement—Same as Normal Retirement.

Benefit and Form of Payment—Same as Normal Retirement.

Late Retirement

Benefit and Form of Payment—Same as Normal Retirement.

Contributions and earnings may continue to be credited to the account balance.

Deferred Retirement

Benefit—A member must receive a DBS Program benefit when the corresponding benefit is received under the DB Program.

Disability Benefit

Eligibility Requirement—Receipt of a corresponding benefit under the DB Program.

Benefit—The account balance at the date the disability benefit becomes payable.

Form of Payment—Same as Normal Retirement. An annuity benefit is discontinued upon termination of the corresponding DB Program benefit.

Death Before Retirement

Eligibility Requirement—Deceased member has an account balance.

Benefit—The account balance at the date of death payable to the designated beneficiary.

Form of Payment—Similar to Normal Retirement.

Death After Retirement

Eligibility Requirement—The deceased member was receiving an annuity.

Benefit—According to the terms of the annuity elected by the member.

Termination from the Program

Eligibility Requirement—Termination of all CalSTRS-covered employment.

More than five years has elapsed since the most recent termination benefit, if any, has been paid.

Benefit and Form of Payment—Lump-sum distribution of the account balance as of the date of distribution.

Changes in Defined Benefit Supplement Program Provisions

There have been no program amendments that would affect an actuarial valuation of the DBS Program since the last CalSTRS annual financial report was issued. All program provisions were considered in the completion of the June 30, 2016, actuarial valuation.

DEFINED BENEFIT SUPPLEMENT PROGRAM

All of the assumptions used in the funding actuarial valuation were adopted by the board when the experience study was adopted on February 1, 2017. Following are the assumptions adopted by the board for this program. Tables 2, 3, 4 and 8 are used in the GASB 67 financial reporting valuation and not for funding valuation.

Table 1 Postretirement Mortality for Sample Ages

	Male	Female
Age	2016	2016
50	0.243%	0.124%
55	0.358	0.213
60	0.480	0.283
65	0.682	0.427
70	1.091	0.704
75	1.958	1.294
80	3.592	2.482
85	6.907	4.950
90	13.297	10.051
95	22.668	18.791

Table 2 Probabilities of Retirement for Sample Ages[1]

			2% at 60 Members		2% at 62 Members
	Age	1990 Benefits	Under 30 years	30 or More Years	All Years
Male	55	5.8%	2.7%	6.0%	3.0%
	60	25.0	6.3	25.0	9.0
	65	20.0	14.0	32.5	30.0
	70	100.0	12.0	25.0	20.0
	75	100.0	100.0	100.0	100.0
Female	55	7.0%	3.5%	8.0%	4.0%
	60	22.0	7.0	29.0	9.0
	65	18.0	17.0	37.5	30.0
	70	100.0	14.0	30.0	20.0
	75	100.0	100.0	100.0	100.0

[1]Probabilities of retirement are adjusted for members with service between 25 and 30 years.

Table 3 Probabilities of Withdrawal from Active Service Before Age and Service Retirement for Sample Ages Duration in Years

Male		Female	
Duration		Duration	
1	11.0%	1	9.0%
2	8.5	2	7.0
3	6.3	3	5.5
4	4.0	4	4.0
5	3.5	5	3.0
10	1.8	10	1.8
15	1.2	15	1.2
20	0.9	20	0.9
25	0.7	25	0.7
30	0.6	30	0.6

Table 4 Assumption for Pay Increases Due to Promotions and Longevity for Sample Ages in Years

(Exclusive of the assumed general wage increase, which includes inflation)

	Entry Ages					
Duration	Under 25	25–29	30–34	35–39	40–44	45+
1	6.4%	5.8%	5.3%	4.8%	4.5%	3.7%
5	5.2	4.8	4.3	3.9	3.8	2.8
10	3.7	3.4	3.0	2.7	2.5	1.8
20	1.3	1.2	1.2	0.8	0.8	0.6
30	0.9	0.8	0.7	0.5	—	—
40	0.8	0.7	—	—	—	—

Table 5 Economic Assumptions

Consumer Price Inflation	2.75%
Investment Yield	7.25
Wage Inflation	3.50
Interest on Member Accounts	7.25

Table 6 Mortality Assumptions

	Retired Members[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Active Members
Male	RP-2014 White Collar Employee Male set back 2 years
Female	RP-2014 White Collar Employee Female set back 2 years
	Beneficiaries[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Disabled[1,2]
Male	RP-2014 Disabled Retiree Male set back 2 years
Female	RP-2014 Disabled Retiree Female set back 2 years

[1]For futue years, the projected improvement is based on 110% of the MP-2016 Ultimate Projection Scale.

[2]Select rates in first three years for both Males and Females.

Table 7 Disability Rates—Coverage B for Sample Ages

Coverage A		
Male	25	0.018%
	30	0.027
	35	0.045
	40	0.072
	45	0.099
	50	0.144
	55	0.189
Female	25	0.018%
	30	0.027
	35	0.054
	40	0.081
	45	0.099
	50	0.198
	55	0.252

Coverage B		
Male	25	0.010%
	30	0.020
	35	0.030
	40	0.060
	45	0.100
	50	0.140
	55	0.245
	60	0.365
	65	0.400
	70	0.400
Female	25	0.020%
	30	0.020
	35	0.040
	40	0.070
	45	0.110
	50	0.185
	55	0.300
	60	0.380
	65	0.400
	70	0.400

Table 8 Schedule of Active Member Valuation Data

		Active Members			
Date (as of June 30)	Number of Participating Employers*	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
2007	1,356	455,453	$27,076,457,044	$59,450	5.5%
2008	1,428	460,961	28,574,701,507	61,989	4.3
2009	1,472	458,736	28,763,266,744	62,701	1.1
2010	1,514	441,326	27,340,840,174	61,952	(1.2)
2011	1,587	423,366	26,758,301,370	63,204	2.0
2012	1,660	403,117	26,556,820,635	65,879	4.2
2013	1,670	390,465	26,444,290,250	67,725	2.8
2014	1,690	386,766	27,582,572,209	71,316	5.3
2015	1,724	388,314	29,306,186,224	75,470	5.8
2016	1,739	391,636	31,253,254,759	79,802	5.7

*Based on employers who submit the last contribution line for the active member in the target fiscal year.

Table 9 Schedule of Retired Members and Beneficiaries Added to and Removed from Annuity Rolls

	Added to Rolls*		Removed from Rolls		Rolls - End of Year			
Date (as of June 30)	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
2008	5,404	$14,810,571	1,113	$3,006,699	17,900	$37,308,946	47.0%	$2,084
2009	6,668	22,090,439	1,582	4,948,230	23,010	55,237,098	48.1	2,401
2010	8,796	31,707,577	1,816	6,612,662	30,048	80,571,112	45.9	2,681
2011	8,811	31,693,536	343	1,329,718	36,110	103,087,388	27.9	2,855
2012	8,257	32,650,936	2,386	11,666,909	42,055	124,148,784	20.4	2,952
2013	7,425	30,392,875	2,657	13,354,982	47,014	141,044,393	13.6	3,000
2014	6,753	27,678,797	3,115	16,285,428	50,963	153,375,082	8.7	3,010
2015	7,097	31,304,181	3,423	18,040,255	54,901	167,972,370	9.5	3,060
2016	7,324	35,828,397	3,335	17,497,131	59,075	187,434,597	11.6	3,173
2017	7,813	39,827,784	3,444	18,242,423	63,653	209,657,263	11.9	3,294

*The DBS Program was established January 1, 2001. As of June 30, 2003, all members who had retired or became disabled had elected a lump-sum distribution.

[1]Revised in 2007.

Table 10 Solvency Test

	Aggregate Accrued Liabilities for				Funding of Liabilities		
Valuation Date (as of June 30)	(1) Active Member Contributions on Deposit[1]	(2) Future Benefits to Benefit Recipients	(3) Service Already Rendered by Active Members (Financed by Employer)	Actuarial Value of Assets	(1)	(2)	(3)
2007	$4,498,170,000	$123,876,000	0	$5,381,585,000	100.0%	100.0%	—
2008	5,434,171,000	193,173,000	0	5,636,113,000	100.0	100.0	—
2009	6,316,154,000	283,161,000	0	5,145,981,000	81.5	—	—
2010	7,012,291,000	444,151,000	0	6,412,180,000	91.4	—	—
2011	7,196,652,000	577,115,000	0	8,054,962,000	100.0	100.0	—
2012	7,280,977,000	710,586,000	0	8,042,090,000	100.0	100.0	—
2013	7,641,488,000	850,275,000	0	8,983,919,000	100.0	100.0	—
2014	8,077,762,000	942,945,000	0	10,493,062,000	100.0	100.0	—
2015	8,532,216,000	1,021,092,000	0	10,940,917,000	100.0	100.0	—
2016	8,604,042,000	1,200,485,000	0	10,943,296,000	100.0	100.0	—

[1]Includes contributions of inactive members who have not yet retired.

Table 11 Analysis of Financial Experience

(Gains and losses in unfunded actuarial obligation resulting from differences between assumed and actual experience)
(Dollars in Thousands)

	Actuarial Valuation as of June 30	
	2016	2015
Actuarial Obligation at June 30	$9,553,308	$9,020,707
Expected Changes:		
Contributions	251,393	216,128
Benefits Paid	(352,606)	(319,531)
Expected Earnings/Credits	712,703	672,675
Expected Actuarial Obligation at June 30	10,164,798	9,589,979
Expected Actuarial Value of Assets at June 30	11,656,477	11,172,761
Expected UAO at June 30	(1,491,679)	(1,582,782)
Actuarial (Gains) or Losses		
(Gain) on Actuarial Obligation	(360,271)	(360,887)
(Gain) on Assets	713,181	231,844
Total Actuarial (Gains) & Losses	352,910	(129,043)
Additional Earnings Credit	0	324,216
Unfunded Actuarial Obligation (Surplus) at June 30	(1,138,769)	(1,387,609)
Funded Ratio	112%	115%

Table 12 Schedule of Funding Progress

(Dollars in Millions)

Actuarial Valuation Date as of June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (Funding Excess) (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll[1] (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2008	$5,636	$5,627	($9)	100%	$27,118	—
2009	5,146	6,599	1,453	78%	28,763	5%
2010	6,412	7,456	1,044	86%	27,340	4%
2011	8,055	7,774	(281)	104%	27,666	(1%)
2012	8,042	7,992	(50)	101%	27,407	—
2013	8,984	8,492	(492)	106%	27,461	(2%)
2014	10,493	9,021	(1,472)	116%	27,396	(5%)
2015	10,941	9,553	(1,388)	115%	29,991	(5%)
2016	10,943	9,805	(1,138)	112%	31,894	(4%)
2017	(2)	(2)	(2)	(2)	(2)	(2)

[1]For the June 30, 2008, valuation, covered payroll excludes limited-term incentive pay and extra service credit pay in order to present the payroll based most relevant to the funding of any unfunded actuarial accrued liabilities of the DBS Program.

[2]Actuarial Valuation as of June 30, 2017, are expected to be available by April 2018.

Note: Information of actuarially determined and actual contributions for the State Teachers' Retirement Plan is provided in the Financial Section, Schedule III, Contributions of Employer and Nonemployer Contributing Entity table.

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November 14, 2017

Teachers' Retirement Board
California State Teachers' Retirement System

Re: Valuation of the Cash Balance Benefit Program

Dear Members of the Board:

The basic financial goal of the Cash Balance Benefit (CBB) Program of the California State Teachers' Retirement System (CalSTRS) is to maintain sufficient resources to fully fund the obligations. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

CalSTRS measures its funding status as the Funded Ratio of the actuarial value of valuation assets over the actuarial accrued liabilities. The funding status based on the past three actuarial valuations is shown below:

Valuation Date	Funded Ratio
June 30, 2014	117%
June 30, 2015	113%
June 30, 2016	109%

The actual return was less than the assumed return for the fiscal year ended in 2016 which, combined with other factors, caused a decrease in the Funded Ratio. As of June 30, 2016, the Market Value of Assets for the CBB Program exceeds the Actuarial Obligation. No additional interest credits were granted based on the Program's funded level as of June 30, 2016.

The June 30, 2016 valuation results are based on the membership data and the asset information provided by CalSTRS. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes, although we have not audited the data at the source. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is found to be materially inaccurate or incomplete, our calculations will need to be revised.

Milliman did not prepare the summaries or schedules shown in the Financial and Actuarial Sections. However, the actuarial information contained in the Financial Section and in this Actuarial Section was derived from our June 30, 2016 actuarial valuation report for funding and our GASB 67/68 report which communicated the actuarial results for financial reporting for June 30, 2017.

The actuarial computations presented in the valuation report are for purposes of determining the recommended funding amounts for CalSTRS consistent with our understanding of their funding requirements and goals. The liabilities are determined by using the traditional unit credit funding method. The actuarial assets are equal to fair market value.

Milliman

Teachers' Retirement Board
November 14, 2017
Page 2

The funding valuation is based on our understanding of the current benefit provisions of the CBB Program and the actuarial assumptions adopted by the Board. The assumptions are reviewed annually for reasonableness, with a detailed experience analysis completed every four or five years. The last detailed experience analysis was completed in February of 2017 when the Board adopted the current assumptions. The assumptions will be reviewed in detail again for use in the June 30, 2020 funding valuation and the GASB 67/68 valuation for reporting date June 30, 2021. The assumptions and methods used for financial reporting under GASB 67/68 are the same as the funding valuation assumptions with the following exceptions:

1. The discount rate of 7.10% is gross of administrative expenses; and
2. The individual entry age normal cost method is used.

For financial reporting purposes, all programs within the State Teachers' Retirement Plan are reported in aggregate.

We believe the actuarial assumptions and methods are internally consistent, reasonable and meet the parameters of Governmental Accounting Standards Board Statement Numbers 67, 68 and 82 for fulfilling financial accounting requirements and meet the parameters set forth in the relevant Actuarial Standards of Practice (ASOPs). Nevertheless, the emerging costs will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements as presented in the valuation report due to many factors. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Our valuation report and this letter have been prepared exclusively for CalSTRS for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning CalSTRS operations, and uses CalSTRS data, which Milliman has not audited. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on these assignments are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

We certify that the June 30, 2016 valuation was performed in accordance with the Actuarial Standards Board (ASB) standards of practice and by qualified actuaries. We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Respectfully submitted,

Mark C Olleman   Nick Collier   Julie D. Smith

Mark Olleman, FSA, EA, MAAA Principal and Consulting Actuary	Nick Collier, ASA, EA, MAAA Principal and Consulting Actuary	Julie Smith, FSA, EA, MAAA Valuation Actuary

Summary of Actuarial Assumptions and Methods

CalSTRS, through its consulting actuary, will perform an experience study at least every four or five years to determine appropriate demographic and economic assumptions. These assumptions are then applied every year when the consulting actuary performs an actuarial valuation to monitor the funding status of the Cash Balance Benefit (CBB) Program. The most recent actuarial valuation was completed as of June 30, 2016, and adopted by the board on April 6, 2017. The following summary and tables were prepared by CalSTRS staff. All information is considered in the June 30, 2016, actuarial valuation.

The CBB Program was established July 1, 1996. All of the assumptions used in the June 30, 2016, actuarial valuation were based on the 2016 Actuarial Experience Analysis adopted by the board in February 2017. Following are the assumptions adopted by the board for funding this program:

- For the June 30, 2016, actuarial valuation the investment return rate and discount rate is 6.75 percent, net of investment and administrative expenses. Beginning with the June 30, 2017, actuarial valuation the investment return rate and discount rate will be 6.50 percent, net of investment and administrative expenses.
- Method used to value plan assets for actuarial valuation purposes: Fair market value.
- Assumption for general wage increase is 3.50 percent, of which 2.75 percent is due to inflation, and 0.75 percent is due to expected gains in productivity.
- The actuarial cost method used by the program is the traditional unit credit cost method.
- The CBB Program does not provide cost-of-living adjustments for benefit recipients.

Actuarial Cost Method

For funding purposes, the traditional unit credit cost method was selected for the CBB Program since the projected benefits of each individual member are allocated by a consistent formula to valuation years. As a result, the actuarial obligation is equal to the accumulated account balances, and the normal cost is equal to the total annual contribution.

Financial Reporting

Under GASB 67 financial reporting, the State Teachers' Retirement Plan (STRP) includes the DB, DBS, CBB, SBMA and Teachers' Replacement Benefits programs.

Actuarial method and assumptions for GASB 67 financial reporting

- The discount rate is 7.10 percent, net of investment expenses but gross of administrative expenses.
- The actuarial cost method is the entry age normal cost method.
- General wage increase is 3.50 percent, of which 2.75 percent is due to inflation.
- Postretirement benefit increases of 2.00 percent simple for DB Program and 85 percent purchasing power level for SBMA program. Not applicable for CBB and DBS programs.

As required by GASB 67, the discount rate used for financial reporting of 7.10 percent is the expected return for all programs in the State Teachers' Retirement Plan and is net of investment expenses but gross of administrative expenses. The 6.75 percent investment return rate used for funding purposes is for CBB Program assets only and is net of investment and administrative expenses. GASB 67 also specifies using the entry age normal cost method to calculate pension liability for financial reporting. The traditional unit credit method is used for funding. In addition, the 2016 CalSTRS mortality tables were used in both financial reporting and funding calculations. Table 6 provides more details of the mortality assumptions.

Discussion of recent changes in:

The nature of the program—The CBB Program was established July 1, 1996.

Program amendments include:

Effective January 1, 2006

- Reduced the one-year waiting period for the receipt of termination benefits to six months.
- Extended eligibility to members hired by a community college district to perform creditable service on a part-time or temporary basis (semester to semester) or for not more than 60 percent of the hours per week considered a regular full-time assignment.

CASH BALANCE BENEFIT PROGRAM

Actuarial Assumptions

The following assumptions were used to complete the valuation for this program.

The assumptions for this program will have minimal impact under the traditional unit credit cost method or only have significance when participants elect to annuitize the account balance. Under the program, a participant must have at least $3,500 in his or her account to elect to annuitize the account balance.

The actuarial methods used for the program's actuarial valuation as of June 30, 2016, result in an actuarial surplus of $20,837,000.

CalSTRS contracts for many actuarial services. The current contractor, Milliman, has been the CalSTRS actuary since January 15, 2000.

There are no other specific assumptions that have a material impact on valuation results for this program.

Independent Actuarial Review

Actuarial services for CalSTRS are provided under contract by a qualified independent actuarial firm, with additional review provided by the actuarial staff. The current actuarial consultant was retained on January 15, 2000—and in 2006, 2012 and 2016—as a result of the competitive bid process.

Through the competitive bid process, the work of a prior actuary will be verified in a subsequent actuarial valuation performed by a new contract actuary. Should the same actuarial firm continue for a period of 10 years, provision is made for an independent review of that firm's work through an actuarial audit completed by another firm. These audit services are acquired using the competitive bid process.

An audit of the 2016 Actuarial Experience Analysis of the CBB Program was performed by the firm, Cheiron. The result of the audit was reported to the board on February 1, 2017.

Summary of Cash Balance Benefit Program Provisions

The following tables and summary were prepared by CalSTRS staff. All information is considered in the June 30, 2016, actuarial valuation.

Membership

Eligibility Requirement—Membership if employed at less than 50 percent of a full-time position for a California school district, community college district or county office of education that has elected to offer the Cash Balance Benefit Program.

Extended eligibility to members hired by a community college district to perform creditable service on a part-time or temporary basis (semester to semester) or for not more than 60 percent of the hours per week considered a regular full-time assignment.

Participant—An eligible employee with creditable service subject to coverage who has contributions credited in the program or is receiving an annuity from the program.

Account Balance

Account Balance—Nominal accounts established for the purpose of determining benefits payable to the participant. Accounts are credited with contributions, minimum interest rate and additional earnings credits.

Contributions—Generally, participant contributions are 4 percent of salary, and employer contributions are 4 percent of salary.

Rules for contribution rates may differ for participants covered by a collective bargaining agreement, but the sum of the participant and employer contributions must equal or exceed 8 percent of salary. The employer contribution rate cannot be less than 4 percent of salary and the participant rate cannot be less than the employers rate.

The board may adjust employer contributions for a fixed number of years, but the adjustment shall not exceed 0.25 percent of salaries in any plan year.

Minimum Interest Rate—Annual rate determined for the plan year by the board in accordance with federal laws and regulations. The minimum interest rate is equal to the average of the yields on 30-year Treasury Notes for the

12 months ending in February preceding the beginning of the plan year, rounded to the next highest basis point.

Additional Earnings Credit—Annual rate determined for the plan year by the board based on the actual earnings during the plan year, but only to the extent the earnings are sufficient to credit the minimum interest rate and provide any additions to the gain and loss reserve deemed warranted by the board. The board adopted no additional earnings credit for the fiscal year ending June 30, 2016.

Normal Retirement

Eligibility Requirement—Age 60.

Benefit—The account balance at the retirement date subject to limits imposed under IRC section 415. For participants hired on or after January 1, 2013, salary credited to CalSTRS from all employers is capped at $139,320 for 2016–17 fiscal year. The limit is adjusted each fiscal year based on the changes in the Consumer Price Index for all Urban Consumers: U.S. City Average.

Form of Payment—The normal form of payment is a lump-sum distribution. Annuity options are available if the sum of the employer and employee accounts equals or exceeds $3,500.

Early Retirement

Eligibility Requirement—Age 55.

Benefit and Form of Payment—Same as Normal Retirement.

Late Retirement

Benefit and Form of Payment—Same as Normal Retirement. Contributions and interest continue to be credited to the account balances until distributed.

Deferred Retirement

Benefit—A participant may cease active service, leave the accumulated account balance on deposit and later retire upon attaining the minimum age requirement.

Disability Benefit

Eligibility Requirement—Determination by the board that the participant has a total and permanent disability.

Benefit—The account balance at the date of disability. An annuity benefit is discontinued if the participant is re-employed before age 60 and performs service creditable under the program.

Form of Payment—Same as Normal Retirement.

Death Before Retirement

Eligibility Requirement—Deceased participant has an account balance.

Benefit—The account balance at the date of death payable to the designated beneficiary.

Form of Payment—Normal distribution is a lump-sum benefit. A participant's beneficiary may elect to receive the benefit in the form of a period-certain annuity if the sum of the balance of credits to the participant's employee and employer accounts is $3,500 or more.

Death After Retirement

Eligibility Requirement—The deceased participant was receiving an annuity.

Benefit—According to the terms of the annuity elected by the participant.

Termination from the Program

Eligibility Requirement—More than five years has elapsed since the most recent termination benefit, if any, has been paid.

Benefit and Form of Payment—Lump-sum distribution of the account balance as of the date of distribution. The benefit is payable six months from the termination of creditable service.

Changes in Cash Balance Benefit Program Provisions

There have been no program amendments that would affect an actuarial valuation of the CBB Program since the last CalSTRS annual financial report was issued. All program provisions were considered in the completion of the June 30, 2016, actuarial valuation.

CASH BALANCE BENEFIT PROGRAM

All demographic assumptions used in the actuarial valuation were adopted by the board when the experience study was adopted on February 1, 2017. The following are the assumptions adopted by the board for this program. Tables 2, 3, 4 and 8 are used in the GASB 67 financial reporting valuation and not for funding valuation.

Table 1 Postretirement Mortality for Sample Ages

	Male	Female
Age	2016	2016
50	0.243%	0.124%
55	0.358	0.213
60	0.480	0.283
65	0.682	0.427
70	1.091	0.704
75	1.958	1.294
80	3.592	2.482
85	6.907	4.950
90	13.297	10.051
95	22.668	18.791

Table 2 Probabilities of Retirement for Sample Ages[1]

			2% at 60 Members		2% at 62 Members
	Age	1990 Benefits	Under 30 Years	30 or More Years	All Years
Male	55	5.8%	2.7%	6.0%	3.0%
	60	25.0	6.3	25.0	9.0
	65	20.0	14.0	32.5	30.0
	70	100.0	12.0	25.0	20.0
	75	100.0	100.0	100.0	100.0
Female	55	7.0%	3.5%	8.0%	4.0%
	60	22.0	7.0	29.0	9.0
	65	18.0	17.0	37.5	30.0
	70	100.0	14.0	30.0	20.0
	75	100.0	100.0	100.0	100.0

[1]Probabilities of retirement are adjusted for members with service between 25 and 30 years.

Table 3 Probabilities of Withdrawal from Active Service Before Age and Service Retirement for Sample Duration Ages in Years

Male		Female	
Duration		Duration	
1	11.0%	1	9.0%
2	8.5	2	7.0
3	6.3	3	5.5
4	4.0	4	4.0
5	3.5	5	3.0
10	1.8	10	1.8
15	1.2	15	1.2
20	0.9	20	0.9
25	0.7	25	0.7

Table 4 Assumption for Pay Increases Due to Promotions and Longevity for Sample Ages in Years

(Exclusive of the assumed general wage increase, which includes inflation)

	Entry Ages					
Duration	Under 25	25–29	30–34	35–39	40–44	45+
1	6.4%	5.8%	5.3%	4.8%	4.5%	3.7%
5	5.2	4.8	4.3	3.9	3.8	2.8
10	3.7	3.4	3.0	2.7	2.5	1.8
20	1.3	1.2	1.2	0.8	0.8	0.6
30	0.9	0.8	0.7	0.5	—	—
40	0.8	0.7	—	—	—	—

Table 5 Economic Assumptions

Consumer Price Inflation	2.75%
Investment Yield	6.75
Wage Inflation	3.50
Interest on Member Accounts	6.75

Table 6 Mortality Assumptions

	Retired Members[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Active Members
Male	RP-2014 White Collar Employee Male set back 2 years
Female	RP-2014 White Collar Employee Female set back 2 years
	Beneficiaries[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Disabled[1,2]
Male	RP-2014 Disabled Retiree Male set back 2 years
Female	RP-2014 Disabled Retiree Female set back 2 years

[1]For future years, the projected improvement is based on 110% of the MP-2016 Ultimate Projection Scale.

[2]Select rates in first three years for both Males and Females.

Table 7 Disability Rates—Coverage B for Sample Ages

Coverage A		
Male	25	0.018%
	30	0.027
	35	0.045
	40	0.072
	45	0.099
	50	0.144
	55	0.189
Female	25	0.018%
	30	0.027
	35	0.054
	40	0.081
	45	0.099
	50	0.198
	55	0.252

Coverage B		
Male	25	0.010%
	30	0.020
	35	0.030
	40	0.060
	45	0.100
	50	0.140
	55	0.245
	60	0.365
	65	0.400
	70	0.400
Female	25	0.020%
	30	0.020
	35	0.040
	40	0.070
	45	0.110
	50	0.185
	55	0.300
	60	0.380
	65	0.400
	70	0.400

Table 8 Schedule of Active Participant Valuation Data

		Active Members			
Date (as of June 30)	Number of Participating Employers	Number	Annual Payroll	Annual Average Pay	% Increase In Average Pay
2007	30	10,579	$144,516,000	$13,661	10.2%
2008	33	11,627	181,104,000	15,576	14.0
2009	33	11,332	182,871,332	16,138	3.6
2010	33	10,378	163,248,119	15,730	(2.5)
2011	33	9,923	158,501,388	15,973	1.5
2012	33	9,273	151,284,621	16,315	2.1
2013	31	9,129	151,281,260	16,572	1.6
2014	32	9,955	175,058,251	17,585	6.1
2015	33	10,416	193,075,185	18,536	5.4
2016	30	10,676	211,259,529	19,788	6.8

Table 9 Schedule of Retired Participants and Beneficiaries Added to and Removed from Annuity Rolls

	Added to Rolls		Removed from Rolls		Rolls–End of Year			
Date (as of June 30)	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
2008	7	$21,650	—	—	23	$56,788	61.6%	$2,469
2009	12	29,184	2	$4,104	33	81,935	44.3	2,483
2010[1]	18	55,193	5	23,079	46	114,047	39.2	2,479
2011	24	66,664	2	6,899	68	173,813	52.4	2,556
2012	42	139,297	5	18,110	105	294,000	69.1	2,800
2013	30	132,912	8	26,578	127	401,112	36.4	3,158
2014	42	212,087	10	43,746	159	568,682	41.8	3,577
2015	52	164,451	11	74,583	200	658,550	15.8	3,293
2016[2]	62	261,067	10	43,035	252	841,230	27.7	3,338
2017	80	430,331	22	87,768	310	1,223,947	45.5	3,948

*The Cash Balance Benefit Program was established July 1, 1996.

[1]Revised add count for 2010 as a result subsequent years' end counts changed in 2015.

[2]Revised add count for 2016 in 2017.

Table 10 Solvency Test

	Aggregate Accrued Liabilities for				Funding of Liabilities		
Valuation Date (as of June 30)	(1) Active Member Contributions on Deposit	(2) Future Benefit to Benefit Recipients	(3) Service Already Rendered by Active Members (Financed by Employer)	Actuarial Value of Assets	(1)	(2)	(3)
2007	$79,691,000	$191,000	0	$93,182,000	100.0%	100.0%	—
2008	97,802,000	229,000	0	98,892,000	100.0	100.0	—
2009	114,338,000	354,000	0	91,793,000	80.2	—	—
2010	129,065,000	509,000	0	114,418,000	88.7	—	—
2011	143,695,000	767,000	0	151,248,000	100.0	100.0	—
2012	156,600,000	1,386,000	0	158,020,000	100.0	100.0	—
2013	174,171,000	1,952,000	0	188,551,000	100.0	100.0	—
2014	194,792,000	3,061,000	0	231,671,000	100.0	100.0	—
2015	215,851,000	3,843,000	0	248,699,000	100.0	100.0	—
2016	230,864,000	4,974,000	0	256,675,000	100.0	100.0	—

Table 11 Analysis of Financial Experience

(Gains and losses in unfunded actuarial obligation resulting from differences between assumed and actual experience)
(Dollars in Thousands)

	Actuarial Valuation as of June 30	
	2016	2015
Actuarial Obligation at June 30	$219,694	$197,853
Expected Changes:		
Contributions	16,021	15,861
Benefits Paid	(7,045)	(6,333)
Expected Earnings/Credits	15,693	14,183
Expected Actuarial Obligation at June 30	244,363	221,564
Expected Actuarial Value of Assets at June 30	275,398	257,749
Expected UAO at June 30	(31,035)	(36,185)
Actuarial (Gains) or Losses		
(Gain) on Actuarial Obligation	(8,525)	(7,422)
(Gain) on Assets	18,723	9,050
Total Actuarial (Gains) & Losses	10,198	1,628
Additional Earnings Credit	0	5,552
Unfunded Actuarial Obligation (Surplus) at June 30	(20,837)	(29,005)
Funded Ratio	109%	113%

Table 12 Schedule of Funding Progress

(Dollars in Millions)

Actuarial Valuation Date as of June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (Funding Excess) (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
2007	$93	$80	($13)	116%	145	(9%)
2008	99	98	(1)	101	181	(1%)
2009	92	115	23	80	182	13%
2010	114	130	16	88	163	10%
2011	151	144	(7)	105	158	(4%)
2012	158	158	0	100	151	—
2013	189	176	(13)	107	151	(9%)
2014	232	198	(34)	117	174	(20%)
2015	249	220	(29)	113	192	(15%)
2016	257	236	(21)	109	209	(10%)
2017	(1)	(1)	(1)	(1)	(1)	(1)

[1]Actuarial Valuation as of June 30, 2017, are expected to be available by April 2018.

Note: Information of actuarially determined and actual contributions for the State Teachers' Retirement Plan is provided in the Financial Section, Schedule III, Schedule of Pension Contributions from Employers and Nonemployer Contributing Entity.

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November 14, 2017

Teachers' Retirement Board
California State Teachers' Retirement System

Re: GASB 74 Reporting for the Medicare Premium Payment Program

Dear Members of the Board:

The basic financial goal of the Medicare Premium Payment (MPP) Program of the California State Teachers' Retirement System (CalSTRS) is to maintain sufficient resources to fully fund the obligations. Actuarial valuations used for GASB 74 reporting are performed every two years and measure the progress toward this goal, as well as test the adequacy of the contribution rates. The most recent valuation was as of June 30, 2016.

The MPP Program is essentially funded on a pay-as-you-go basis with a portion of contributions to the DB Program diverted to the Teachers' Health Benefit Fund to make MPP Program payments. As of June 30, 2016, $315 million of future employer contributions to the DB Program have been allocated to pay the MPPP benefits; however, this amount is not included as an asset for GASB 74 reporting. This gives the appearance that the MPP Program is significantly underfunded in the GASB 74 results. However, based on the commitment to transfer a portion of future contributions from the DB Program to fund the MPP Program, it is our opinion that the MPP Program continues in sound financial condition as of June 30, 2016.

The June 30, 2016 valuation results are based on the membership data and the asset information provided by CalSTRS. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes, although we have not audited the data at the source. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is found to be materially inaccurate or incomplete, our calculations will need to be revised.

Milliman did not prepare the summaries or schedules shown in the Financial and Actuarial Sections. However, the actuarial information contained in the Financial Section and in this Actuarial Section was derived from our June 30, 2016 actuarial valuation report.

The valuation is based on our understanding of the current benefit provisions of the MPP Program and the actuarial assumptions which were last reviewed and adopted by the Board at the February 2017 meeting.

We believe the actuarial assumptions and methods are internally consistent, reasonable and meet the parameters of Governmental Accounting Standards Board Statement No. 74 for fulfilling financial accounting requirements and meet the parameters set forth in the relevant Actuarial Standards of Practice (ASOPs). It should be noted that we relied on advice from Milliman's health actuaries on our recommendations of assumptions specific to health costs. Nevertheless, the emerging costs will vary from those presented in our report to the extent that actual experience differs from that projected by the actuarial assumptions. Future actuarial measurements may differ significantly from the current measurements as presented in the

Milliman

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valuation report due to many factors. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Our valuation report and this letter have been prepared exclusively for CalSTRS for a specific and limited purpose. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. It is a complex, technical analysis that assumes a high level of knowledge concerning CalSTRS operations, and uses CalSTRS data, which Milliman has not audited. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on these assignments are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel. The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

In conclusion, the results presented in this report satisfy GASB 74 reporting purposes. Based on the current actuarial assumptions used for financial reporting purposes, the current assets of the MPP Program fund 0.01% of the accrued liabilities. It should be noted that these calculations do not include $315 million of future employer contributions to the DB Program that has been allocated to pay the MPPP benefits.

We certify that the June 30, 2016 valuation was performed in accordance with the Actuarial Standards Board (ASB) standards of practice and by qualified actuaries. We are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems.

Respectfully submitted,

Mark C Olleman   Nick Collier   Daniel Wade

Mark Olleman, FSA, EA, MAAA Principal and Consulting Actuary Actuary	Nick Collier, ASA, EA, MAAA Principal and Consulting Actuary	Daniel Wade, FSA, EA, MAAA Principal and Consulting

Summary of Actuarial Assumptions and Methods

CalSTRS, through its consulting actuary, will perform an experience study at least every four or five years to determine appropriate demographic and economic assumptions. These assumptions are then applied every two years when the consulting actuary performs a funding valuation of the CalSTRS Medicare Premium Payment (MPP) Program. The most recent funding valuation was completed as of June 30, 2016, and adopted by the board on April 6, 2017. The following tables and summary were prepared by CalSTRS staff.

The MPP Program was established January 1, 2001. Assumptions specific to the MPP Program were adopted by the board on February 1, 2017. The economic and demographic assumptions were based on those adopted for the Defined Benefit Program by the board on February 1, 2017. Assumptions specific to the MPP Program (participation rates and medical trend rates) were also adopted on that date. Following are the assumptions adopted by the board for funding this program:

- Investment return rate and discount rate is 7.25 percent, net of investment and administrative expenses.
- The program assets are valued as the allocated value of DB Program assets. This figure is equal to the actuarial obligation of the MPP Program benefits.
- Assumption for future inflation is 2.75 percent.
- The MPP Program obligations are funded on a pay-as-you-go basis.

Actuarial method and assumptions for GASB 74 financial reporting

- The discount rate is 3.58 percent, effective June 30, 2017, net of investment expenses but gross of administrative expenses.
- The actuarial cost method used for GASB 74 reporting purposes is Individual Entry Age Normal.
- Method used to value program assets for GASB 74 reporting purposes is fair value.

Discussion of recent changes in:

The nature of the program—The MPP Program was established January 1, 2001. All provisions of the program as of June 2016 were considered when producing GASB 74 reporting information.

Actuarial Assumptions—There have been several changes to the assumptions since the June 30, 2014, valuation. The most significant changes were the reductions in the probabilities of enrollment in the MPP Program, the reduced investment return assumption and an increase in life expectancies. The following assumptions were used to complete the valuation for this program.

Actuarial Methods

Actuarial Cost Method

Pay-as-you-go basis

Asset Valuation Method

Assets are valued as the allocated value of DB Program Assets.

The actuarial method used for the program's funding valuation as of June 30, 2016, result in an actuarial liability of $314.9 million.

CalSTRS contracts for many actuarial services. The current contractor, Milliman, has been the CalSTRS actuary since the program's inception.

Independent Actuarial Review

Actuarial services for CalSTRS are provided under contract by a qualified independent actuarial firm, with additional review provided by the actuarial staff.

Through the competitive bid process, the work of a prior actuary will be verified in a subsequent actuarial valuation performed by a new contract actuary. Should the same actuarial firm continue for a period of 10 years, provision is made for an independent review of that firm's work through an actuarial audit completed by another firm. These audit services are acquired using the competitive bid process.

An audit of the 2016 Actuarial Experience Analysis of the MPP Program was performed by the firm Cheiron. The result of the audit was reported to the board on February 1, 2017.

Summary of Medicare Premium Payment Program Provisions

The following tables and summary were prepared by CalSTRS staff. All information is considered for valuation purposes as of June 30, 2016.

Membership

Eligibility requirement—Part A

DB Member—satisfies either:

1) Retired or disabled prior to January 1, 2001; age 65 or above; enrolled in Medicare Part A and Part B; and not eligible for Part A without premium payment.

- or -

2) Meet all above requirements, except retired or disabled before July 1, 2012; district completed a Medicare Division election prior to retirement; and active member was less than 58 years of age at the time of the election.

Spouse eligibility—Spouses of members are not eligible to participate in the program.

The MPP Program is closed to new entrants as members who retire after July 1, 2012, are not eligible for coverage under the MPP Program.

Eligibility requirement—Part B

Only those currently enrolled are eligible.

Benefits Paid

Premium payments are made directly to the Centers for Medicare and Medicaid Services (CMS) on a monthly basis. Medicare Part A premium rates for fiscal year 2016–17 were as follows:

Medicare Part A Premium Rate[1]	
July 1, 2016 to December 31, 2016	$411
January 1, 2017 to June 30, 2017	413

[1]Individuals with 30–39 quarters of Medicare covered employment pay a reduced monthly premium rate, which was $226 and $227 for the period of July 1, 2016 to December 31, 2016 and January 1, 2017 to June 30, 2017, respectively.

Part A and B late enrollment penalties are generally 10 percent of the respective monthly premiums rates, however, the fees charged to individual participants may be higher based on certain income thresholds.

Based on the published premium rates during fiscal year 2016–17, Part A late enrollment surcharges were $41.10 and $41.30 for the period of July 1, 2016 to December 31, 2016 and January 1, 2017 to June 30, 2017, respectively. Part B late enrollment surcharges were $12.18 and $13.40 for the period of July 1, 2016 to December 31, 2016 and January 1, 2017 to June 30, 2017, respectively.

Changes in the Medicare Premium Payment Program Provisions

There have been no program amendments that would affect an actuarial valuation of the MPP Program since the last CalSTRS annual financial report was issued. All program provisions were considered in the completion of the June 30, 2017, actuarial valuation.

MEDICARE PREMIUM PAYMENT PROGRAM

Demographic assumptions used in the actuarial valuation were adopted by the board when the experience study was adopted on February 1, 2017. Assumptions specific to the MPP Program were also adopted on that date. Following are assumptions adopted by the board for this program.

Table 1 Postretirement Mortality for Sample Ages

	Male	Female
Age	**2016**	**2016**
50	0.243%	0.124%
55	0.358	0.213
60	0.480	0.283
65	0.682	0.427
70	1.091	0.704
75	1.958	1.294
80	3.592	2.482
85	6.907	4.950
90	13.297	10.051
95	22.668	18.791

Table 2 Probabilities of Retirement for Sample Ages

NOT APPLICABLE

Table 3 Probabilities of Withdrawal from Active Service Before Age and Service Retirement for Sample Ages

NOT APPLICABLE

MEDICARE PREMIUM PAYMENT PROGRAM

Table 4 Probability of Refund

NOT APPLICABLE

Table 5 Economic Assumptions

Investment Yield (Net of Expenses)	7.25%
Medical Inflation (Varies by Year—average percentage below)	
Part A Premiums	3.70%
Part B Premiums	4.10%

Table 6 Mortality Assumptions

	Retired Members
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Active Members
Male	RP-2014 White Collar Employee Male set back 2 years
Female	RP-2014 White Collar Employee Female set back 2 years
	Beneficiaries[1]
Male	2016 CalSTRS Retired Male
Female	2016 CalSTRS Retired Female
	Disabled[1,2]
Male	RP-2014 Disabled Retiree Male set back 2 years
Female	RP-2014 Disabled Retiree Female set back 2 years

[1]For future years, the projected improvement is based on 110% of the MP-2016 Ultimate Projection Scale.

[2]Select rates in first three years for both Males and Females

Table 7 Service Retirement for Sample Ages

NOT APPLICABLE

Table 8 Disability Rates for Sample Ages

NOT APPLICABLE

Table 9 Schedule of Medicare Part A Enrollment Rates

Assumption	Best Estimate	
	Male	Female
% of Under 65 Retirees Enrolling (Retired On or After 2001)	2.50%	2.50%
% of Under 65 Retirees Enrolling (Retired Before 2001)	3.50	3.50
% of Over 65 Retirees Enrolling (For Those Not Currently Enrolled) at Age:		
65	0.60	0.60
66	0.06	0.06
67	0.04	0.04
68	0.03	0.03
69	0.03	0.03
70–84	0.02	0.02
85 & above	—	—

Table 10 Schedule of Retired Members Added to and Removed From Medicare Part A Premium Rolls

	Added to Rolls[1]		Removed From Rolls		Rolls-End of Year			
Date (as of June 30)	Number	Annual Allowances[2]	Number	Annual Allowances[2]	Number	Annual Allowances[2]	% Increase in Annual Allowances	Average Annual Allowances
2008	389	$1,296	213	$608	6,300	$31,328	5.8%	$4,973
2009	399	1,489	208	604	6,431	35,814[3]	14.3	5,569
2010	347	1,215	220	660	6,475	34,015	(5.0)	5,253
2011	537	2,202	231	695	6,709	34,677	1.9	5,169
2012	359	1,177	218	634	6,742	33,708	(2.8)	5,000
2013*	305	1,009	212	641	6,770	33,663	(0.1)	4,972
2014	235	751	259	703	6,684	32,047	(4.8)	4,795
2015	178	443	254	772	6,474	29,729	(7.2)	4,592
2016	166	404	264	768	6,324	28,345	(4.7)	4,482
2017	102	211	273	766	6,124	27,632	(2.5)	4,512

[1]The MPP Program was established July 1, 2001.

[2]Dollars in thousands.

[3]This does not include the $8.04 million credit adjustments and deletions. If the credit adjustments and deletions were included, the Total Annual Allowance would be $28.3 million; the percentage decrease in annual allowance would be 9.6% and the average annual allowance would be $4,402.

*Numbers revised in 2014.

Table 11 Solvency Test[1]

Aggregate Accrued Liabilities for (in millions)					Funding of Liabilities		
Valuation Date (as of June 30)	(1) Active Member Contributions on Deposit	(2) Future Benefit to Benefit Recipients	(3) Service Already Rendered by Active Members	Actuarial Value of Assets	(1)	(2)	(3)
2006	$0	$527.6	0	$2.7	100%	0.5%	—
2008	0	629.7	0	4.2	100	0.7	—
2010	0	601.8	0	0.6	100	0.1	—
2012	0	424.2	0	0.4	100	0.1	—
2014	0	341.7	0	0.9	100	0.3	—
2016	0	314.9	0	0.01	100	0.0	—

[1] Restated values based on funding valuations. Previous reported numbers were based on GASB 43 reporting information.

Table 12 Analysis of Financial Experience

(Gains and losses in unfunded actuarial obligation resulting from differences between assumed and actual experience)
(Dollars in Thousands)

	Reporting as of June 30	
	2016	2014
Actuarial Obligation at June 30		
Expected Changes:		
Eligibility Extended	not calculated	not calculated
Benefits Paid	($30.0)	($33.0)
Interest	not calculated	not calculated
Expected Actuarial Obligation at June 30	not calculated	not calculated
Expected Actuarial Value of Assets at June 30	not calculated	not calculated
Expected UAO at June 30	not calculated	not calculated
Actuarial (Gains) or Losses		
(Gain) on Medical Trend Assumption	not calculated	not calculated
(Gain) on Premium/Penalty	not calculated	not calculated
(Gain) on Part B Premium for higher earners	not calculated	not calculated
(Gain) other sources	not calculated	not calculated
Total Actuarial Gains & Losses	not calculated	not calculated
Unfunded Actuarial Obligation (Surplus) at June 30	$314.9	$341.7
Funded Ratio	0.0%	0.3%

STATISTICAL

In fiscal year 2016–17, CalSTRS members, on average, retired at age 63 after about 25 years of service with **a pension replacing less than 60 percent of their highest salary**.

State Teachers' Retirement Plan Schedules

Defined Benefit Program Schedules

Defined Benefit Supplement Program Schedules

Cash Balance Benefit Program Participating Employers

Programs Administered or Overseen by the Retirement System (Pension2)

Medicare Premium Payment Program

Teachers’ Deferred Compensation Fund

STATISTICAL

The Statistical Section presents additional detailed information to assist users of basic financial statements, notes to basic financial statements and required supplementary information in assessing the economic condition of CalSTRS. The section provides financial trend information for the State Teachers' Retirement Plan (STRP), which includes Defined Benefit (DB), Defined Benefit Supplement (DBS), Cash Balance Benefit (CBB) and Replacement Benefits programs, as well as operating information for the Pension2, Medicare Premium Payment (MPP) Program and Teachers' Deferred Compensation Fund. Financial trend information for the DB, DBS and CBB programs has been consolidated and presented as the STRP to be consistent with the basic financial statements. Operating information for STRP programs continues to be presented separately because consolidation would not provide meaningful information due to the unique characteristics of those programs.

The financial trend schedules assist users in understanding and assessing how the system's financial position has changed over time and include:

- Changes in Fiduciary Net Position
- Benefit and Refund Deductions From Net Position by Type

The operating information schedules provide data about the system's operations and resources to assist users in understanding CalSTRS benefits and services and include:

- Members and Benefit Recipient Statistics
- Participating Employers Statistics

The information in this section was derived from the Financial Section and the CalSTRS pension administration system, START, except where noted.

Notes:

Supplemental statistical tables are available on request by calling CalSTRS at **800-228-5453**.

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Table 1 Changes in Fiduciary Net Position[1]

(Dollars in Millions)

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions										
Member Contributions	$3,440.9	$2,957.5	$2,509.7	$2,263.6	$2,336.8	$2,279.9	$2,355.9	$2,331.5	$2,500.6	$2,511.8
Employer Contributions	4,173.2	3,391.1	2,677.8	2,272.2	2,283.3	2,238.0	2,310.2	2,286.3	2,464.2	2,453.3
State of California/ Federal Government[2]	2,478.2	1,939.9	1,425.8	1,383.5	1,328.3	1,302.5	1,193.3	1,221.6	1,140.4	1,629.6
Net Investment Income[4]	25,165.2	2,305.0	7,611.6	30,401.9	20,682.4	1,071.3	30,030.3	15,089.3	(40,357.7)	(9,655.1)
Other Income	72.0	41.5	3.9	2.1	1.2	4.1	6.5	7.7	7.5	213.1
Total Additions	**$35,329.5**	**$10,635.0**	**$14,228.8**	**$36,323.3**	**$26,632.0**	**$6,895.8**	**$35,896.2**	**$20,936.4**	**$(34,245.0)**	**$(2,847.3)**
Deductions										
Benefit Payments to Members[3]	$13,626.3	$12,892.3	$12,284.1	$11,725.3	$11,133.3	$10,442.5	$9,854.5	$9,085.3	$8,256.2	$7,591.7
Refunds of Member Contributions	115.5	84.0	87.7	107.6	105.0	108.1	116.1	100.2	105.8	101.8
Purchasing Power Benefits	160.7	172.3	192.8	202.2	221.5	234.6	237.6	272.6	348.1	229.8
Administrative Expenses	182.4	180.1	145.2	154.2	136.9	138.4	110.4	140.2	113.2	109.4
Other Expenses	10.2	15.2	8.8	8.8	4.4	—	—	—	—	(0.2)
Borrowing Costs[4]	58.0									
Total Deductions	**$14,153.1**	**$13,343.9**	**$12,718.6**	**$12,198.1**	**$11,601.1**	**$10,923.6**	**$10,318.6**	**$9,598.3**	**$8,823.3**	**$8,032.5**
Change in Fiduciary Net Position	**$21,176.4**	**$(2,708.9)**	**$1,510.2**	**$24,125.2**	**$15,030.9**	**$(4,027.8)**	**$25,577.6**	**$11,338.1**	**$(43,068.3)**	**$(10,879.8)**

There may be immaterial rounding differences between the figures presented in this table and in the Statement of Changes in Fiduciary Net Position.

[1]Includes the Replacement Benefits Program beginning in 2009, the year the Replacement Benefits Program began being reported as part of the STRP.

[2]Includes Elder Full Funding, SBMA contributions and School Lands revenue.

[3]Includes member elected administrative transfers to purchase service credit in the DB Program.

[4]Borrowing costs associated with the master facility credit portfolio, which were previously reported in Net Investment Incomes were reclassified to Deductions for financial reporting purposes for the year ended June 30, 2017.

Table 2 Benefit and Refund Deductions from Fiduciary Net Position by Type[1]

(Dollars in Millions)

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Type of Benefit										
Age & Service Benefits										
Retired Members[2]	$12,537.8	$11,869.3	$11,305.8	$10,821.1	$10,280.6	$9,703.8	$9,167.4	$8,356.8	$7,609.0	$6,965.1
Survivors	686.2	634.0	591.0	547.3	527.9	502.8	464.8	503.9	443.6	426.6
Death	66.1	62.7	75.9	57.0	73.6	31.0	35.3	42.8	37.0	39.3
Purchasing Power Benefits	160.7	172.3	192.8	202.2	221.5	234.6	237.6	272.6	348.1	229.8
Disability Benefits										
Retired Members	336.2	326.3	311.4	299.9	251.2	204.9	187.1	181.8	166.5	160.8
Total Benefits	**$13,787.0**	**$13,064.6**	**$12,476.9**	**$11,927.5**	**$11,354.8**	**$10,677.1**	**$10,092.2**	**$9,357.9**	**$8,604.2**	**$7,821.6**
Type of Refund										
Separation	$115.5	$84.0	$87.7	$107.6	$105.0	$108.1	$116.1	$100.2	$105.8	$101.8
Total Refunds	**$115.5**	**$84.0**	**$87.7**	**$107.6**	**$105.0**	**$108.1**	**$116.1**	**$100.2**	**$105.8**	**$101.8**

There may be immaterial rounding differences between the figures presented in this table and in the Statement of Changes in Fiduciary Net Position.

[1]Includes the Replacement Benefit Program beginning in 2009, the year the Replacement Benefit Program began being reported as part of the STRP.

[2]Includes member elected administrative transfers to purchase service credit and DB Program.

Table 1 Active Member Characteristics

Fiscal Year Ending June 30	Count[2]	Average Earnable Compensation[1]	Average Age	Average Service Credit	Average Service Projected to Age 60
2008	461,378	$63,281	44.7	10.8	26.2
2009	459,009	64,044	44.8	11.0	26.2
2010	441,544	64,156	45.1	11.3	26.3
2011	429,600	64,069	45.3	11.7	26.3
2012	421,499	64,743	45.5	11.9	26.5
2013	416,643	65,571	45.6	12.2	26.6
2014	420,887	67,276	45.6	12.3	26.6
2015	429,460	69,597	45.5	12.2	26.7
2016	438,537	72,550	45.4	12.1	26.7
2017	445,935	74,346	45.3	12.1	26.8

[1]Average salary that would be paid if members worked full-time basis.

[2]Due to the timing of when membership numbers were pulled, there will be a difference between the members reported in this section and the Financial Section.

Table 2 Members Retired for Service During Fiscal Year 2016–17, Classified by Unmodified Allowance[1]

Monthly Unmodified Allowance[2]	Count	Average Age at Retirement[3]	Average Service Credit[3]	Average Final Compensation[3*]	Average Allowance Payable[4]
Less than $500	401	63.1	5.2	$3,683	$311
500–1000	609	63.2	9.0	4,292	748
1000–1500	540	62.7	12.2	5,386	1,252
1500–2000	600	62.5	14.8	6,050	1,758
2000–2500	714	62.6	17.2	6,522	2,256
2500–3000	898	63.2	19.0	6,881	2,753
3000–3500	1,026	63.5	21.0	7,200	3,251
3500–4000	898	63.5	23.2	7,435	3,741
4000–4500	828	63.4	25.5	7,601	4,252
4500–5000	889	63.4	27.4	7,771	4,752
5000–5500	885	63.2	29.4	7,930	5,255
5500–6000	868	63.3	30.7	8,163	5,752
6000 & Greater	3,091	63.5	35.1	9,494	7,869
Total	**12,247**	**63.3**	**24.6**	**$7,527**	**$4,475**

[1]Does not include formerly disabled members.

[2]As of the June 30, 2004, population report the longevity bonus is included in the unmodified allowance.

[3]Overall averages.

[4]Includes cumulative application of annual 2 percent benefit improvement factor.

*Excludes new retirees with no final compensation data.

Table 3 Members Retired for Service During Fiscal Year 2016–17[1], Classifed by Age and Joint & Survivor Option Elected[2]

			Option types							
Age	**Total**	**Unmodified**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Under 55	26	16	—	—	—	—	4	1	1	4
55	414	282	—	—	—	—	82	19	3	28
56	298	193	—	—	—	—	65	26	1	13
57	321	195	—	—	—	—	64	36	4	22
58	401	231	—	—	—	—	81	51	6	32
59	571	314	—	—	—	—	124	65	5	63
60	990	522	—	—	—	—	201	147	13	107
61	1,387	703	—	—	—	—	304	191	26	163
62	1,492	735	—	—	—	—	332	213	29	183
63	1,436	756	—	—	—	—	273	220	38	149
64	1,028	554	1	—	—	—	201	139	26	107
65	967	534	1	—	1	—	179	142	16	94
66	706	408	1	—	—	—	128	85	18	66
67	560	318	1	—	—	—	102	68	20	51
68	419	262	2	1	1	—	63	39	11	40
69	339	200	9	—	—	—	54	41	4	31
70	322	212	4	—	—	—	43	36	3	24
71	154	94	1	—	—	—	23	17	5	14
72	100	70	1	—	1	—	13	6	1	8
73	85	50	3	—	1	—	12	11	2	6
74	62	39	—	—	—	—	13	4	3	3
75 and over	169	112	4	—	—	—	24	11	9	9
Age Unknown	—	—	—	—	—	—	—	—	—	—
Total	**12,247**	**6,800**	**28**	**1**	**4**	**—**	**2,385**	**1,568**	**244**	**1,217**
% of Total	100%	56%	0%	0%	0%	0%	19%	13%	2%	10%

[1]Does not include formerly disabled members.

[2]Option Elected:

Option 2 - Beneficiary receives 100% of member's modified allowance.
Option 3 - Beneficiary receives 50% of member's modified allowance.
Option 4 - Beneficiary receives 2/3 of member's modified allowance.
Option 5 - Survivors receive 50% of member's modified allowance, upon death of either member of beneficiary.
Option 6 - Beneficiary receives 100% of member's modified allowance. If beneficiary pre-deceases the member, the allowance pops up to the unmodified amount.
Option 7 - Beneficiary receives 50% of member's modified allowance. If beneficiary pre-deceases the member, the allowance pops up to the unmodified amount.
Option 8 - Compound option that allows the member to provide for more than one beneficiary.
Option 9 - Beneficiary receives 75% of member's modified allowance. If beneficiary pre-deceases the member, the allowance pops up to the unmodified amount.

Table 4 Characteristics of Members Going on Disability During Target Fiscal Year

Fiscal Year Ending June 30	Count	Average Disability Allowance Payable	Average Service Credit	Average Final Compensation	Average Age at Disability
2008	510	$2,660	14.1	$5,478	54.5
2009	511	2,728	13.9	5,567	53.8
2010	498	2,825	14.5	5,827	55.3
2011	504	2,784	14.3	5,781	55.0
2012	488	2,825	14.3	5,823	55.4
2013	571	2,788	14.8	5,742	54.9
2014	494	2,875	15.0	5,967	55.1
2015	503	2,899	15.2	6,002	54.3
2016	455	2,936	14.9	6,081	54.1
2017	394	3,056	16.0	6,365	54.4

Table 5 Total Number of Benefit Recipients by Type of Benefit

Fiscal Year Ending June 30	Service Retirement	Disability Benefits	Benefits for Survivors	Total Benefit Recipients
2008	195,960	8,170	19,838	223,968
2009	203,649	8,380	20,588	232,617
2010	213,952	8,581	21,263	243,796
2011	222,222	8,813	22,006	253,041
2012	230,278	9,036	22,724	262,038
2013	236,487	9,374	23,413	269,274
2014	241,920	9,604	24,103	275,627
2015	247,353	9,848	24,899	282,100
2016	252,672	9,940	25,583	288,195
2017	258,550	10,023	26,301	294,874

Table 6 Members Retired for Service Characteristics[1] by Year of Retirement

Effective Date of Retirement by Service Credit	Number of Retirements	Average Service Credit	Average Unmodified Allowance	Average Final Compensation	Average Age at Retirement
7/1/2007 thru 6/30/2008[2]					
0–5	129	2.6	$286	$5,393	61.5
5–10	1,038	7.3	643	4,213	62.2
10–15	1,093	12.4	1,307	5,090	61.6
15–20	1,324	17.7	2,148	5,822	61.6
20–25	1,463	22.2	2,902	6,203	61.7
25–30	1,408	27.0	4,000	6,921	62.1
30–35	3,203	32.5	5,526	7,315	60.9
35–40	2,443	37.3	6,908	7,685	61.4
40 & over	467	42.0	8,242	7,990	64.6
Total	**12,568**	**26.3**	**$4,239**	**$6,612**	**61.6**
7/1/2008 thru 6/30/2009[2]					
0–5	126	2.4	$291	$5,814	62.4
5–10	1,022	7.4	668	4,236	62.8
10–15	1,145	12.4	1,336	5,140	62.1
15–20	1,323	17.7	2,235	5,995	61.8
20–25	1,535	22.3	3,116	6,537	62.1
25–30	1,406	27.1	4,125	7,076	62.2
30–35	3,161	32.4	5,687	7,506	61.1
35–40	2,574	37.2	7,122	7,866	61.7
40 & over	461	42.2	8,594	8,316	64.9
Total	**12,753**	**26.3**	**$4,396**	**$6,796**	**61.6**
7/1/2009 thru 6/30/2010[2]					
0–5	148	2.3	$289	$5,535	61.4
5–10	1,356	7.4	686	4,287	63.0
10–15	1,436	12.6	1,446	5,385	62.4
15–20	1,663	17.6	2,326	6,138	62.3
20–25	2,323	22.4	3,236	6,658	62.4
25–30	1,885	27.1	4,231	7,165	62.5
30–35	3,620	32.4	5,665	7,478	61.2
35–40	2,481	37.2	7,228	7,999	61.6
40 & over	581	42.3	8,759	8,409	65.4
Total	**15,493**	**25.5**	**$4,256**	**$6,800**	**62.2**

[1]Does not include formerly disabled members.

[2]The average unmodified allowance for this fiscal year includes the longevity bonus.

Table 6 Members Retired for Service Characteristics[1] by Year of Retirement (continued)

Effective Date of Retirement by Service Credit	Number of Retirements	Average Service Credit	Average Unmodified Allowance	Average Final Compensation	Average Age at Retirement
7/1/2010 thru 6/30/2011[2]					
0–5	194	2.4	$305	$6,182	62.0
5–10	1,388	7.3	663	4,187	62.9
10–15	1,506	12.5	1,487	5,491	62.7
15–20	1,571	17.5	2,320	6,191	62.2
20–25	2,005	22.4	3,278	6,729	62.5
25–30	1,834	27.1	4,237	7,186	62.4
30–35	2,874	32.4	5,693	7,508	61.3
35–40	2,068	37.2	7,313	8,091	61.8
40 & over	456	42.3	9,037	8,738	65.6
Total	**13,896**	**24.5**	**$4,088**	**$6,763**	**62.3**
7/1/2011 thru 6/30/2012[2]					
0–5	167	2.4	$310	$6,013	63.0
5–10	1,497	7.3	676	4,224	63.2
10–15	1,659	12.5	1,437	5,315	62.7
15–20	1,743	17.4	2,316	6,122	62.7
20–25	1,962	22.5	3,350	6,788	62.6
25–30	1,878	27.1	4,318	7,212	62.8
30–35	2,547	32.5	5,750	7,550	61.4
35–40	1,770	37.2	7,364	8,093	61.9
40 & over	396	42.1	9,487	9,113	65.2
Total	**13,619**	**23.7**	**$3,936**	**$6,670**	**62.5**
7/1/2012 thru 6/30/2013[2]					
0–5	132	2.5	$311	$6,092	62.8
5–10	1,017	7.2	710	4,540	63.1
10–15	1,298	12.6	1,521	5,528	63.1
15–20	1,678	17.4	2,392	6,272	63.0
20–25	1,760	22.6	3,367	6,802	62.8
25–30	1,817	27.2	4,319	7,169	62.7
30–35	2,150	32.5	5,700	7,528	61.6
35–40	1,522	37.2	7,329	8,038	61.8
40 & over	271	42.3	8,924	8,439	65.6
Total	**11,645**	**24.1**	**$3,980**	**$6,769**	**62.6**

[1]Does not include formerly disabled members.

[2]The average unmodified allowance for this fiscal year includes the longevity bonus.

Table 6 Members Retired for Service Characteristics[1] by Year of Retirement (continued)

Effective Date of Retirement by Service Credit	Number of Retirements	Average Service Credit	Average Unmodified Allowance	Average Final Compensation	Average Age at Retirement
7/1/2013 thru 6/30/2014[2]					
0–5	144	2.2	$268	$5,994	62.9
5–10	950	7.4	721	4,463	63.2
10–15	1,176	12.6	1,533	5,553	63.1
15–20	1,604	17.4	2,425	6,286	63.2
20–25	1,593	22.4	3,334	6,743	62.9
25–30	1,845	27.2	4,443	7,367	63.0
30–35	1,814	32.3	5,607	7,532	61.6
35–40	1,374	37.2	7,295	7,973	61.9
40 & over	236	42.2	9,197	8,741	65.5
Total	**10,736**	**23.8**	**$3,939**	**$6,774**	**62.7**
7/1/2014 thru 6/30/2015[1,2,3]					
0–5	168	2.2	$275	$6,195	62.6
5–10	855	7.4	736	4,517	63.7
10–15	1,125	12.6	1,554	5,597	63.4
15–20	1,764	17.6	2,520	6,467	63.4
20–25	1,585	22.4	3,415	6,883	63.0
25–30	2,069	27.2	4,603	7,576	63.3
30–35	1,948	32.1	5,709	7,787	62.0
35–40	1,482	37.1	7,490	8,207	62.2
40 & over	282	42.4	9,539	9,166	65.8
Total	**11,278**	**24.2**	**$4,142**	**$7,013**	**63.0**
7/1/2015 thru 6/30/2016[2,3]					
0–5	170	2.4	$314	$6,438	62.7
5–10	793	7.4	754	4,637	63.9
10–15	1,046	12.6	1,608	5,792	63.5
15–20	1,751	17.6	2,612	6,664	63.6
20–25	1,652	22.2	3,534	7,149	63.4
25–30	2,152	27.3	4,861	7,928	63.4
30–35	2,034	32.1	5,899	8,108	62.0
35–40	1,467	37.2	7,836	8,624	62.4
40 & over	309	42.5	9,666	9,215	66.4
Total	**11,374**	**24.5**	**$4,369**	**$7,329**	**63.2**

[1]Does not include formerly disabled members.

[2]The average unmodified allowance for this fiscal year includes the longevity bonus.

[3]Excludes retirees with no final comp data.

Table 6 Members Retired for Service Characteristics[1] by Year of Retirement (continued)

Effective Date of Retirement by Service Credit	Number of Retirements	Average Service Credit	Average Unmodified Allowance	Average Final Compensation[3]	Average Age at Retirement
7/1/2016 thru 6/30/2017[2,3]					
0–5	155	2.2	$306	$6,402	63.6
5–10	837	7.4	773	4,709	63.9
10–15	1,075	12.6	1,628	5,861	63.5
15–20	1,836	17.7	2,701	6,857	63.7
20–25	1,932	22.2	3,628	7,326	63.6
25–30	2,246	27.3	4,955	8,082	63.5
30–35	2,423	32.2	6,126	8,438	62.1
35–40	1,414	37.3	7,807	8,711	62.4
40 & over	329	42.6	10,267	9,986	66.4
Total	**12,247**	**24.6**	**$4,475**	**$7,527**	**63.3**

[1]Does not include formerly disabled members.
[2]The average unmodified allowance for this fiscal year includes the longevity bonus.
[3]Excludes retirees with no final comp data.

Table 7 Members Retired for Service Characteristics[1]

Fiscal Year Ending June 30	Average Age at Retirement	Average Years of Service Credit	Average Final Compensation	Average Current Allowance Payable
2008	60.8	26.3	$4,620	$3,021
2009	60.8	26.4	4,798	3,164
2010	60.9	26.3	4,983	3,302
2011	61.0	26.3	5,138	3,417
2012	61.1	26.2	5,271	3,517
2013	61.1	26.1	5,385	3,609
2014	61.2	26.0	5,487	3,694
2015	61.3	25.9	5,597	3,786
2016	61.3	25.8	5,716	3,884
2017	61.4	25.7	5,846	3,985

[1]Does not include formerly disabled members.

Table 8 Retired Members by Type of Benefit and Option Elected

		Type of Benefit[1]			Option Elected[2]								
Monthly Unmodified Allowance[4]	Total	1[3]	2	3	Unmodified	2	3	4	5	6	7	8	9
Less than $500	17,084	14,783	78	2,223	12,495	1,231	394	62	74	1,835	646	107	240
500–1000	24,958	21,631	532	2,795	16,863	1,726	874	103	98	3,095	1,505	128	566
1000–1500	25,642	21,420	911	3,311	15,209	2,182	1,191	185	145	3,534	2,310	128	758
1500–2000	27,843	22,894	1,546	3,403	15,546	2,185	966	416	168	3,951	3,452	159	1,000
2000–2500	28,867	23,223	2,191	3,453	15,108	2,112	897	358	195	4,637	4,159	220	1,181
2500–3000	26,196	21,253	2,092	2,851	13,274	1,697	588	271	123	4,745	4,056	218	1,224
3000–3500	22,738	18,832	1,716	2,190	11,426	1,253	382	235	67	4,296	3,560	255	1,264
3500–4000	18,036	15,991	644	1,401	8,775	891	275	161	53	3,533	3,055	198	1,095
4000–4500	16,517	15,259	188	1,070	7,827	768	231	98	39	3,231	3,025	237	1,061
4500–5000	15,967	14,961	66	940	7,278	713	208	66	29	3,428	2,913	253	1,079
5000–5500	15,774	14,989	34	751	7,019	672	175	65	20	3,465	2,919	254	1,185
5500–6000	13,969	13,391	10	568	6,147	589	152	59	17	3,112	2,497	237	1,159
6000 & Greater	41,283	39,923	15	1,345	15,820	2,094	338	144	44	10,715	6,980	1,136	4,012
Total	**294,874**	**258,550**	**10,023**	**26,301**	**152,787**	**18,113**	**6,671**	**2,223**	**1,072**	**53,577**	**41,077**	**3,530**	**15,824**

[1]Type of Benefit: 1) Service Retirement 2) Disability Benefits 3) Survivor Benefits

[2]Option Selected: Option 2 - Beneficiary receives 100% of member's modified allowance.
Option 3 - Beneficiary receives 50% of member's modified allowance.
Option 4 - Beneficiary receives 2/3 of member's modified allowance.
Option 5 - Survivors receive 50% of member's modified allowance, upon death of either member of beneficiary.
Option 6 - Beneficiary receives 100% of member's modified allowance. If beneficiary pre-deceases the member, the allowance increases up to the unmodified amount.
Option 7 - Beneficiary receives 50% of member's modified allowance. If beneficiary pre-deceases the member, the allowance increases up to the unmodified amount.
Option 8 - Compound option that allows the member to provide for more than one beneficiary.
Option 9 - Beneficiary receives 75% of member's modified allowance. If beneficiary pre-deceases the member, the allowance increases up to the unmodified amount.

[3]Does not include formerly disabled members.

[4]As of the June 30, 2004, population report the longevity bonus is included in the unmodified allowance.

Table 9 Principal Participating Defined Benefit and Defined Benefit Supplement Employers for Current Year and Nine Years Ago

2016–2017

Rank	Participating Employers	*Covered Employees	Percentage of Total System
1	Los Angeles Unified School District	37,632	7.95%
2	San Diego Unified School District	8,410	1.78
3	Long Beach Unified School District	5,704	1.21
4	Fresno Unified School District	5,398	1.14
5	San Francisco Unified School District	5,158	1.09
6	Elk Grove Unified School District	4,324	0.91
7	San Bernardino City Unified School District	4,092	0.86
8	Corona-Norco Unified School District	3,531	0.75
9	Oakland Unified School District	3,509	0.74
10	Los Angeles Community College District	3,275	0.69
11	Sacramento City Unified School District	3,172	0.67
12	Santa Ana Unified School District	3,141	0.66
	Top 12 Total	87,346	18.46
	All Other	385,802	81.54
	Total Covered Employees	**473,148**	**100.00**

*Covered employees are calculated as all employees for whom an employer reports service credit during the fiscal year. Covered employees in this table are counted more than once if they are reported by multiple employers. They are also counted if their employer reports service credit for a retired employee from prior fiscal years. Therefore, the total number of covered employees in this table is higher than the number of active members shown in Table 10 on page 132 of the Actuarial Section under the DB Program.

2007–2008

Rank	Participating Employers	Covered Employees	Percentage of Total System
1	Los Angeles Unified School District	52,521	9.76%
2	San Diego Unified School District	11,390	2.12
3	Long Beach Unified School District	7,608	1.41
4	Fresno Unified School District	6,013	1.12
5	Elk Grove Unified School District	4,445	0.83
6	San Francisco Unified School District	4,330	0.80
7	San Bernardino City Unified School District	4,319	0.80
8	Santa Ana Unified School District	3,755	0.70
9	Sacramento City Unified School District	3,674	0.68
10	Oakland Unified School District	3,652	0.68
	Top 10 Total	101,707	18.91
	All Other	436,197	81.09
	Total Covered Employees	**537,904**	**100.00**

Table 10 Average Allowance Purchasing Power for Fiscal Year 2016–17

Calendar Year of Benefit Effective Date	CCPI Increases Since Benefit Effective Date	Average Allowance Increases Since Benefit Effective Date	Average Purchasing Power of Current Allowance	Average Increase Needed to Restore Full Purchasing Power	Average Annual Supplemental Increase
(1)	(2)	(3)	(4)	(5)	(6)
Prior to 1956	894.5%	286.9%	38.9%	157.0%	$4,006
1956	875.5	299.0	40.9	144.5	4,473
1957	843.1	205.0	32.3	209.2	4,765
1958	No retiree with benefit effective date in calendar years 1958 & 1959				
1959					
1960	778.3	132.8	26.5	277.3	6,256
1961	766.4	131.8	26.8	273.8	5,134
1962	751.9	121.9	26.0	283.9	8,810
1963	746.3	131.3	27.3	265.9	5,245
1964	729.8	87.2	22.6	343.3	5,722
1965	708.8	109.9	25.9	285.3	6,328
1966	696.2	118.8	27.5	263.9	5,219
1967	676.8	117.4	28.0	257.3	7,832
1968	645.1	106.9	27.8	260.1	7,144
1969	609.9	108.7	29.4	240.2	8,369
1970	574.3	98.6	29.4	239.5	7,552
1971	548.7	105.9	31.7	215.1	7,101
1972	531.1	101.8	32.0	212.7	11,617
1973	498.5	101.6	33.7	196.9	13,526
1974	442.6	92.7	35.5	181.6	11,702
1975	391.5	89.7	38.6	159.1	11,346
1976	363.0	85.6	40.1	149.5	10,882
1977	329.5	82.2	42.4	135.7	10,664
1978	295.6	79.3	45.3	120.6	10,114
1979	260.0	76.4	49.0	104.1	9,410
1980	206.8	74.0	56.7	76.3	6,904
1981	183.7	71.4	60.4	65.5	6,059
1982	159.5	68.7	65.0	53.8	5,133
1983	157.9	66.8	64.7	54.6	5,716
1984	146.7	64.7	66.8	49.8	5,293
1985	135.8	61.9	68.7	45.6	4,977
1986	127.8	59.3	69.9	43.0	4,958

Explanation of source and/or calculation of data in columns 3, 4 and 5:

Column 3—Increases from all sources as a percentage of initial allowance. Obtained by dividing total current allowance by total initial allowance and adjusting to a percentage.

Column 4—Purchasing power as of June 2016. Obtained by dividing total current allowance payable by full CCPI adjusted allowance. Based on totals for all benefit types by calendar year of effective date.

Column 5—Percentage increase in current allowance payable required to restore full 100 percent purchasing power as of June 2016. Obtained by dividing the fully adjusted CCPI allowance factor (column 2) by the percentage increase to date (column 3) and adjusting to a percentage.

Example: (894.5 + 100) / (286.9 + 100) = 2.570 x 100 = 257.0 – 100 = 157.0 percent.

Table 10 Average Allowance Purchasing Power for Fiscal Year 2016–17 (continued)

Calendar Year of Benefit Effective Date	CCPI Increases Since Benefit Effective Date	Average Allowance Increases Since Benefit Effective Date	Average Purchasing Power of Current Allowance	Average Increase Needed to Restore Full Purchasing Power	Average Annual Supplemental Increase
(1)	(2)	(3)	(4)	(5)	(6)
1987	119.8%	57.6%	71.7%	39.5%	$4,705
1988	110.0	55.2	73.9	35.3	3,988
1989	99.4	53.9	77.2	29.6	2,834
1990	90.3	52.0	79.9	25.2	1,901
1991	82.4	51.4	83.0	20.5	802
1992	76.0	49.1	84.7	18.0	102
1993	71.6	47.1	85.7	16.7	—
1994	69.6	45.3	85.7	16.7	—
1995	65.7	43.3	86.5	15.6	—
1996	63.2	41.0	86.4	15.7	—
1997	59.7	39.2	87.2	14.7	—
1998	56.2	37.5	88.0	13.6	—
1999	52.3	34.8	88.5	13.0	—
2000	46.9	32.8	90.4	10.6	—
2001	39.5	32.6	95.0	5.2	—
2002	37.5	30.2	94.7	5.6	—
2003	34.6	28.0	95.1	5.2	—
2004	30.5	25.6	96.3	3.9	—
2005	27.0	23.6	97.3	2.8	—
2006	21.2	21.4	100.1	(0.2)	—
2007	17.6	19.1	101.3	(1.3)	—
2008	11.9	16.9	104.5	(4.3)	—
2009	13.6	14.7	101.0	(1.0)	—
2010	12.5	12.5	100.0	—	—
2011	9.6	10.3	100.7	(0.6)	—
2012	7.5	8.1	100.6	(0.6)	—
2013	5.6	6.0	100.4	(0.4)	—
2014	3.4	4.0	100.6	(0.6)	—
2015	2.1	1.9	99.8	0.2	—
2016	—	—	100.0	—	—

Explanation of source and/or calculation of data in columns 3, 4 and 5:

Column 3—Increases from all sources as a percentage of initial allowance. Obtained by dividing total current allowance by total initial allowance and adjusting to a percentage.

Column 4—Purchasing power as of June 2016. Obtained by dividing total current allowance payable by full CCPI adjusted allowance. Based on totals for all benefit types by calendar year of effective date.

Column 5—Percentage increase in current allowance payable required to restore full 100 percent purchasing power as of June 2016. Obtained by dividing the fully adjusted CCPI allowance factor (column 2) by the percentage increase to date (column 3) and adjusting to a percentage.

Example: (894.5 + 100) / (286.9 + 100) = 2.570 x 100 = 257.0 – 100 = 157.0 percent.

Table 11 Restoration of Allowance Purchasing Power Through Supplemental Benefit Payments

Retirees' Purchasing Power Protection Account Payments

				Income Source		
Year	Purchasing Power	Count	Total $ Paid	School Lands	Investment Earnings	General Fund
83–84	58.4%	35,654	$21,394,183	$n/a	$894,183	$20,500,000
84–85	62.4	57,189	54,306,976	10,119,124	2,426,456	41,761,396
85–86	65.5	56,811	85,675,243	7,770,757	3,994,458	73,910,028
86–87	68.2	57,343	122,275,289	4,167,970	5,511,448	112,595,871
87–88	68.2	59,092	128,231,357	6,083,374	5,317,456	116,830,527
88–89	68.2	58,037	143,061,285	4,479,266	5,956,019	132,626,000
89–90	68.2	55,971	158,274,048	2,751,075	n/a	155,522,973[1]

Supplemental Benefit Payments

				Income Source		
Year	Purchasing Power	Count	Total $ Paid	School Lands	Teachers' Retirement Fund	SBMA
90–91	68.2%	52,199	$168,922,827	$2,964,211	$111,103,596	$54,855,020
91–92	68.2	48,650	178,057,887	2,913,338	56,985,521	118,159,028
92–93	68.2	54,029	184,551,442	6,658,800	—	177,892,642
93–94	68.2	49,113	178,886,980	4,225,808	—	174,661,172
94–95	68.2	46,459	168,359,918	4,973,687	—	163,386,231
95–96	68.2	41,703	168,517,183	1,171,779	—	167,345,404
96–97	68.2	38,939	159,786,521	1,870,825	—	157,915,696
97–98	68.2[2]/75.0	44,887	179,308,000	2,586,920	—	176,721,080
98–99	75.0	42,624	197,860,324	4,168,363	—	193,691,961
99–00	75.0	41,048	190,478,334	2,704,171	—	187,774,163
00–01	75.0	44,699	189,388,495	4,023,007	—	185,365,488
01–02[3]	80.0	60,428	256,976,205	7,967,992	—	249,008,212
02–03	80.0	58,591	233,814,578	3,543,362	—	230,271,216
03–04	80.0	55,779	223,501,415	2,922,844	—	220,578,571
04–05	80.0	57,079	221,271,471	3,318,095	—	217,953,375
05–06	80.0	54,360	215,257,813	4,301,959	—	210,955,854
06–07	80.0	56,002	230,336,755	6,205,860	—	224,130,894
07–08	80.0	53,122	229,860,350	6,522,856	—	223,337,493
08–09	85.0[4]	89,142	348,105,380	7,036,201	—	341,069,179
09–10	85.0	63,949	272,579,523	6,334,670	—	266,244,852
10–11	85.0	53,870	237,572,962	1,929,606	—	235,643,356
11–12	85.0	57,337	234,612,294	5,227,046	—	229,385,248
12–13	85.0	54,847	221,451,056	10,277,064	—	211,173,992
13–14	85.0	50,331	202,231,779	10,297,864	—	191,933,914
14–15	85.0	52,474	192,831,168	4,386,099	—	188,445,068
15–16	85.0	47,764	172,292,149	5,256,886	—	167,035,262
16–17	85.0	49,519	160,729,279	4,675,196	—	156,054,084

[1]The 1989–90 appropriation was from the Teachers' Retirement Fund. This amount plus regular interest was repaid from General Fund contributions to the SBMA.
[2]Percentage changed to 75 percent effective January 1, 1998, and payable April 1, 1998 (Chapter 939, Statutes of 1997).
[3]Percentage changed to 80 percent effective January 1, 2002, and payable October 1, 2001 (Chapter 840, Statutes of 2001).
[4]Percentage changed to 85 percent effective September 30, 2008, and payable October 1, 2008 (Chapter 751, Statutes of 2008).

Table 1 Members Retired for Service During Fiscal Year 2016–17[1], Classified by Age and Option Elected

		Regular Annuity				Period Certain							
Age	Total	Single Life with Cash	100% Joint and Survivor	75% Joint and Survivor	50% Joint and Survivor	10 Years	9 Years	8 Years	7 Years	6 Years	5 Years	4 Years	3 Years
Under 55	24	10	3	2	—	2	—	—	1	—	2	2	2
55	295	98	41	9	13	60	5	1	9	11	18	5	25
56	186	55	20	2	4	36	3	4	6	5	26	5	20
57	189	55	19	5	6	32	6	6	2	4	22	7	25
58	257	53	41	6	10	60	8	6	9	7	28	11	18
59	399	94	60	10	31	81	5	3	10	19	57	11	18
60	685	167	77	27	51	137	12	6	13	19	110	22	44
61	883	191	139	24	49	179	23	21	16	27	102	53	59
62	864	196	114	30	56	164	8	17	32	28	104	36	79
63	752	188	96	26	46	151	12	6	31	15	77	16	88
64	591	154	81	25	39	115	13	4	12	20	71	8	49
65	546	167	60	22	30	106	7	5	11	6	71	23	38
66	374	102	38	10	34	65	9	8	3	4	50	11	40
67	298	107	37	3	18	55	1	1	6	9	35	7	19
68	232	76	25	9	13	42	4	3	2	4	34	1	19
69	190	67	21	5	11	40	4	—	1	5	16	6	14
70	152	52	19	1	7	40	—	1	4	3	9	4	12
71	92	38	8	1	6	13	1	1	1	1	14	—	8
72	49	10	6	1	4	18	—	2	—	—	7	—	1
73	51	17	8	—	2	8	—	—	3	2	6	—	5
74	33	10	5	—	—	8	1	—	1	2	3	—	3
75 and over	80	18	6	2	5	18	—	1	1	2	9	4	14
Age Unknown	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	**7,222**	**1,925**	**924**	**220**	**435**	**1,430**	**122**	**96**	**174**	**193**	**871**	**232**	**600**

[1]Does not include formerly disabled members.

Table 2 Characteristics of All Members Retired for Service and Receiving an Annuity

Fiscal Year Ending June 30	Count	Average Monthly Retirement Annuity	Average Accumulated Credits[1]	Average Age at Retirement
2008	17,517	$176	$7,636	61.4
2009	22,474	203	9,019	61.6
2010	29,261	227	10,651	61.7
2011	34,917	241	12,004	61.9
2012	40,493	250	13,133	62.0
2013	45,110	254	14,088	62.1
2014	48,745	255	14,848	62.2
2015	52,335	259	15,659	62.3
2016	56,238	269	16,590	62.4
2017	60,505	280	23,873	62.5

[1]Neither service credit nor final compensation are factors in determining a benefit from the DBS Program and, therefore, are not included in this table.

Table 3 Characteristics of All Members Retired for Disability and Receiving an Annuity

Fiscal Year Ending June 30	Count	Average Monthly Disability Annuity	Average Accumulated Credits[1]	Average Age at Retirement
2008	175	$129	$5,332	55.2
2009	236	163	6,308	54.8
2010	336	201	7,673	55.6
2011	575	239	9,436	55.4
2012	747	239	10,404	55.5
2013	977	244	11,495	55.6
2014	1,123	239	12,407	55.8
2015	1,263	245	13,237	55.6
2016	1,340	239	13,953	55.5
2017	1,428	246	19,793	55.3

[1]Neither service credit nor final compensation are factors in determining a benefit from the DBS Program and, therefore, are not included in this table.

Table 4 Retired Members by Type of Benefit and Option Elected
(as of June 30, 2017)

	Monthly Unmodified Allowance					
Type of Benefit	**Less than $250**	**$250–500**	**$500–750**	**$750–1,000**	**$1,000 & Greater**	**Total**
Retirement	36,213	16,329	5,104	1,670	1,189	60,505
Disability	989	299	93	27	20	1,428
Survivors	1,001	307	95	41	39	1,483
Total	**38,203**	**16,935**	**5,292**	**1,738**	**1,248**	**63,416**
Type of Payment						
Regular Annuity						
Single Life Without Cash	1,064	1	—	—	—	1,065
Single Life With Cash	17,800	2,751	298	75	32	20,956
100% J&S	9,458	1,875	250	49	47	11,679
75% J&S	1,373	345	55	7	10	1,790
50% J&S	3,151	699	103	25	13	3,991
Period Certain Annuity						
10 Year	4,352	7,080	1,172	303	192	13,099
9 Year	207	593	118	22	25	965
8 Year	88	415	95	23	19	640
7 Year	91	612	241	56	40	1,040
6 Year	81	494	334	56	39	1,004
5 Year	342	1,577	1,801	453	271	4,444
4 Year	55	188	400	149	86	878
3 Year	141	305	425	520	474	1,865
Total	**38,203**	**16,935**	**5,292**	**1,738**	**1,248**	**63,416**

Table 1 Participants Retired for Service During the 2016–17 Fiscal Year[1] Classified by Age and Type of Annuity Elected

		Regular Annuity				Period Certain Annuity							
Age	Total	Participant Only[2]	100% Beneficiary[3]	75% Beneficiary[4]	50% Beneficiary[5]	10 Years	9 Years	8 Years	7 Years	6 Years	5 Years	4 Years	3 Years
Under 55	2	—	1	—	—	—	—	—	—	—	1	—	—
55	—	—	—	—	—	—	—	—	—	—	—	—	—
56	1	—	—	—	—	—	—	—	—	1	—	—	—
57	3	—	—	—	—	1	—	—	—	—	—	—	2
58	2	2	—	—	—	—	—	—	—	—	—	—	—
59	3	—	1	—	—	—	—	—	—	—	1	—	1
60	—	—	—	—	—	—	—	—	—	—	—	—	—
61	2	1	—	—	—	—	1	—	—	—	—	—	—
62	1	—	1	—	—	—	—	—	—	—	—	—	—
63	3	2	—	—	—	1	—	—	—	—	—	—	—
64	7	3	—	—	1	—	—	—	—	—	—	1	2
65	5	3	1	—	—	—	—	—	—	—	—	—	1
66	2	1	—	—	—	1	—	—	—	—	—	—	—
67	2	1	1	—	—	—	—	—	—	—	—	—	—
68	1	—	—	—	—	—	—	—	—	—	—	—	1
69	8	5	1	—	—	1	—	—	—	—	—	1	—
70	11	2	2	—	1	1	1	1	—	—	2	—	1
71	6	1	1	—	2	—	—	—	—	—	—	—	2
72	2	1	—	—	—	—	—	—	—	—	—	1	—
73	1	1	—	—	—	—	—	—	—	—	—	—	—
74	2	—	—	—	1	1	—	—	—	—	—	—	—
75 & Over	12	5	2	1	1	1	—	—	—	—	—	1	1
Total	**76**	**28**	**11**	**1**	**6**	**7**	**2**	**1**	**—**	**1**	**4**	**4**	**11**

[1]Does not include formerly disabled members.

[2]Formerly known as the Single Life Annuity with Cash Refund.

[3]Formerly known as the 100% Joint and Survivor Annuity.

[4]New option available for selection effective January 1, 2007.

[5]Formerly known as the 50% Joint and Survivor Annuity.

CASH BALANCE BENEFIT PROGRAM

Table 2 Characteristics of All Members Retired for Service and Receiving an Annuity

Fiscal Year Ending June 30	Average Age At Retirement	Average Annuitant Reserve	Average Monthly Annuity
2008	67.2	$12,400	206
2009	67.3	13,054	201
2010	68.1	12,701	204
2011	67.8	13,388	215
2012	67.7	15,945	233
2013	67.1	18,442	263
2014	67.5	20,365	281
2015	67.6	20,815	251
2016	67.9	21,700	270
2017	68.0	26,501	308

Table 3 All Participants Receiving an Annuity by Type of Benefit and Type of Annuity Elected

	Monthly Unmodified Allowance					
Type of Benefit	**Less than $250**	**$250–500**	**$500–750**	**$750–1,000**	**$1,000 & Greater**	**Total**
Retirement	182	65	25	11	13	296
Disability	—	1	—	—	1	2
Survivors	4	4	—	3	1	12
Total	**186**	**70**	**25**	**14**	**15**	**310**
Type of Payment						
Regular Annuity						
Single Life With Cash	2	—	—	—	—	2
Single Life Without Cash	2	—	—	—	—	2
Participant Only	83	27	9	3	1	123
100% Beneficiary Annuity	35	4	1	1	—	41
75% Beneficiary Annuity	1	1	1	—	—	3
50% Beneficiary Annuity	7	4	1	—	1	13
Period-Certain Annuity						
10 Year	33	11	4	—	—	48
9 Year	1	3	—	—	—	4
8 Year	1	2	—	—	—	3
7 Year	—	3	1	—	—	4
6 Year	—	2	2	—	1	5
5 Year	6	2	5	4	2	19
4 Year	4	2	—	3	2	11
3 Year	11	9	1	3	8	32
Total	**186**	**70**	**25**	**14**	**15**	**310**

Table 4 Principal Participating Employers for the Cash Balance Benefit Program, Current Year and Nine Years Ago

2016–2017			
Rank	Participating Employers	*Covered Employees	Percentage of Total System
1	Los Angeles Community College District	5,740	14.37%
2	Contra Costa Community College District	2,657	6.65
3	Peralta Community College District	2,459	6.15
4	West Contra Costa Unified School District	2,114	5.29
5	City College Of San Francisco	2,019	5.05
6	San Jose/Evergreen Community College District	1,926	4.82
7	Foothill De Anza Community College District	1,841	4.61
8	Chabot-Las Positas Community College District	1,743	4.36
9	Glendale Community College District	1,661	4.16
10	Santa Rosa Junior College	1,568	3.92
	Top 10 Total	23,728	59.39
	All Other	16,225	40.61
	Total Covered Employees	**39,953**	**100.00**

*Covered employees are calculated as all employees for whom an employer reports service credit during the fiscal year. Covered employees in this table are counted more than once if they are reported by multiple employers. They are also counted if their employer reports service credit for a retired employee from prior fiscal years.

2007–2008			
Rank	Participating Employers	Covered Employees	Percentage of Total System
1	Los Angeles Community College District	3,272	11.17%
2	Contra Costa Community College District	2,063	7.05
3	Peralta Community College District	1,933	6.60
4	West Contra Costa Unified School District	1,904	6.50
5	City College Of San Francisco	1,824	6.23
6	Chabot-Las Positas Community College District	1,593	5.44
7	San Jose/Evergreen Community College District	1,503	5.13
8	Santa Rosa Junior College	1,285	4.39
9	Glendale Community College District	1,169	3.99
10	Ventura Community College District	1,119	3.82
	Top 10 Total	17,665	60.33
	All Other	11,616	39.67
	Total Covered Employees	**29,281**	**100.00**

PROGRAMS ADMINISTERED OR OVERSEEN BY THE RETIREMENT SYSTEM (PENSION2)

Table 1A Changes in Fiduciary Net Position for Pension2 IRC 403(b) Plan

(Dollars in Thousands)[2]

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions										
Participant Contributions	$122,338	$96,724	$72,343	$66,545	$57,273	$53,111	$47,181	$53,536	$42,966	$26,289
Net Investment Income	77,730	9,548	19,363	66,002	43,151	6,132	43,782	17,175	(28,479)	(12,569)
Other Income	141	120	91	179	269	188	225	—	—	17
Total Additions	**$200,209**	**$106,392**	**$91,797**	**$132,726**	**$100,693**	**$59,431**	**$91,188**	**$70,711**	**$14,487**	**$13,737**
Deductions										
Distributions and Withdrawals[1]	$36,322	$32,936	$32,648	$22,173	$25,727	$19,978	$16,690	$11,892	$8,644	$9,570
Refunds of Participant Contributions	4,657	4,965	7,753	2,523	—	—	—	—	—	—
Administrative Expenses	1,975	1,583	1,405	1,146	754	606	538	374	278	526
Total Deductions	**$42,954**	**$39,484**	**$41,806**	**$25,842**	**$26,481**	**$20,584**	**$17,228**	**$12,266**	**$8,922**	**$10,096**
Change in Fiduciary Net Position	**$157,255**	**$66,908**	**$49,991**	**$106,884**	**$74,212**	**$38,847**	**$73,960**	**$58,445**	**$5,565**	**$3,641**

[1]Distributions and Withdrawals reflects the Benefit Payments to Participant and Refunds of Participant Contributions combined for fiscal year 2006–07 through 2012–13.

[2]Certain reclassifications have been made to the totals for fiscal years 2007–08 and 2008–09.

Table 1B Changes in Fiduciary Net Position for Pension2 IRC 457(b) Plan

(Dollars in Thousands)

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009
Additions									
Participant Contributions	$6,560	$4,975	$4,096	$3,230	$2,591	$6,877	$1,289	$674	$37
Net Investment Income	3,338	426	547	1,934	1,081	219	155	60	1
Other Income	8	4	2	51	37	37	42	—	—
Total Additions	**$9,906**	**$5,405**	**$4,645**	**$5,215**	**$3,709**	**$7,133**	**$1,486**	**$734**	**$38**
Deductions									
Distributions and Withdrawals[1]	$769	$905	$807	$358	$530	$19	$82	—	—
Refunds of Participant Contributions	36	266	—	45	—	—	—	—	—
Administrative Expenses	79	56	47	36	22	8	2	—	—
Total Deductions	**$884**	**$1,227**	**$854**	**$439**	**$552**	**$27**	**$84**	—	—
Change in Fiduciary Net Position	**$9,022**	**$4,178**	**$3,791**	**$4,776**	**$3,157**	**$7,106**	**$1,402**	**$734**	**$38**

The Pension2 IRC 457(b) Plan began in fiscal year 2008–09.

[1]Distributions and withdrawals reflects the benefit payments to participant and refunds of participant contributions combined for fiscal year 2006–07 through 2012–13.

Table 2 Largest Participating Employers for CalSTRS Pension2, Current Year and Nine Years Ago

2017			
Rank	Participating Employers	Covered Employees	Percentage
1	Los Angeles Unified School District	2,742	13.70%
2	Los Angeles Community College District	443	2.21
3	San Diego Unified School District	436	2.18
4	San Francisco Unified School District	285	1.42
5	Fremont Unified School District	285	1.42
6	Elk Grove Unified School District	259	1.29
7	Long Beach Unified School District	211	1.05
8	City College Of San Francisco	202	1.01
9	Sacramento City Unified School District	180	0.90
10	San Juan Unified School District	160	0.80
	Top 10 Total	5,203	26.00
	All Other	14,806	74.00
	Total (1,056 Employers)*	**20,009**	**100.00**

2008			
Rank	Participating Employers	Covered Employees	Percentage
1	Los Angeles Unified School District	787	18.20%
2	San Diego Unified School District	92	2.13
3	Long Beach Unified School District	72	1.66
4	San Francisco Unified School District	68	1.57
5	San Juan Unified School District	63	1.46
6	Mt. Diablo Unified School District	60	1.39
7	Sacramento City Unified School District	56	1.29
8	Los Angeles County Office of Education	56	1.29
9	Capistrano Unified School District	48	1.11
10	Elk Grove Unified School District	44	1.02
	Top 10 Total	1,346	31.12
	All Other	2,979	68.88
	Total (640 Employers)*	**4,325**	**100.00**

*If employers offer a 403(b) or 457(b), they are counted twice; totals also include all accounts with or without balances.

MEDICARE PREMIUM PAYMENT PROGRAM

Table 1 Changes in Fiduciary Net Position
(Dollars in Thousands)

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions										
Employer Contributions	$29,117	$29,982	30,527	$33,395	$35,022	$34,614	$36,145	$31,749	$29,962	$33,239
Net Investment Income	11	9	—	10	6	8	10	33	106	205
Total Additions	**$29,128**	**$29,991**	**$30,527**	**$33,405**	**$35,028**	**$34,622**	**$36,155**	**$31,782**	**$30,068**	**$33,444**
Deductions										
Premiums Paid	$28,929	$29,661	$30,615	$32,632	$34,702	$34,412	$35,785	$35,421	$29,415	$32,689
Administrative Expenses	168	380	360	327	340	370	345	309	316	334
Total Deductions	**$29,097**	**$30,041**	**$30,975**	**$32,959**	**$35,042**	**$34,782**	**$36,130**	**$35,730**	**$29,731**	**$33,023**
Change in Fiduciary Net Position	**$31**	**($50)**	**($448)**	**$446**	**($14)**	**($160)**	**$25**	**($3,948)**	**$337**	**$421**

Table 2 Benefit and Refund Deductions from Changes in Fiduciary Net Position by Type
(Dollars in Thousands)

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Type of Benefit										
Age & Service Benefits										
Retired Members	$28,929	$29,661	$30,615	$32,632	$34,702	$34,412	$35,785	$35,421	$29,415	$32,689
Total Benefits	**$28,929**	**$29,661**	**$30,615**	**$32,632**	**$34,702**	**$34,412**	**$35,785**	**$35,421**	**$29,415**	**$32,689**

MEDICARE PREMIUM PAYMENT PROGRAM

Table 3 Retired Members Enrolled in Medicare Premium Payment Program During Fiscal Year 2016–17 Classified by Age at Retirement

Age	Total
<55	2
55–56	9
56–57	12
57–58	13
58–59	15
59–60	12
60–61	34
61–62	5
62–63	—
63–64	—
64–65	—
65–66	—
66–67	—
67–68	—
68–69	—
69–70	—
70–71	—
71–72	—
72–73	—
73–74	—
74–75	—
≥75	—
GrandTotal	**102**

Table 4 Characteristics of All Retired Members Enrolled in Medicare Premium Payment Program

Fiscal Year Ending June 30	Average Age at Retirement	Average Monthly Medicare Premium
2008	60.4	$414
2009	60.3	464
2010	60.3	438
2011	60.3	431
2012	60.3	417
2013	60.3	413
2014	60.3	400
2015	60.2	383
2016	60.2	374
2017	60.2	376

TEACHERS' DEFERRED COMPENSATION FUND

Table 1 Changes in Fiduciary Net Position for Teachers' Deferred Compensation Fund

(Dollars in Thousands)

Fiscal Year Ending June 30	2017	2016	2015	2014	2013	2012 (1)	2011 (1)	2010	2009	2008
Additions										
Net Investment Income	$9	$6	$1	$4	$3	$3	$4	$5	$16	$26
Other Income	1,453	1,339	1,072	1,241	563	767	497	539	386	604
Total Additions	**$1,462**	**$1,345**	**$1,073**	**$1,245**	**$566**	**$770**	**$501**	**$544**	**$402**	**$630**
Deductions										
Administrative Expenses	1,542	1,433	996	874	600	698	569	414	532	404
Other Expenses	22	14	14	15	30	—	—	—	—	—
Total Deductions	**$1,564**	**$1,447**	**$1,010**	**$889**	**$630**	**$698**	**$569**	**$414**	**$532**	**$404**
Transfers										
Transfers In	—	—	—	—	—	—	—	—	—	$157
Transfers Out	—	—	—	—	—	—	—	—	—	$(245)
Total Transfers	—	—	—	—	—	—	—	—	—	**$(88)**
Change in Fiduciary Net Position	**$(102)**	**$(102)**	**$63**	**$356**	**$(64)**	**$72**	**$(68)**	**$130**	**$(130)**	**$138**

The Teachers' Deferred Compensation Fund began in fiscal year 2007–08.

[1]Certain reclassifications have been made to the additions for fiscal years 2010–11 and 2011–12.

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