California Public Employees' Retirement System

2018-19 Approved Annual Budget



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A Message from the Chief Executive Officer

The Total Budget for the California Public Employees' Retirement

System (CalPERS) for Fiscal Year (FY)2018-19 represents ongoing process
improvements to reach our goals while striving to contain costs.

With continued fiscal prudence, the organization will continue to make
every effort to deliver budget requirements that meet or exceed expectations.

The CalPERS Total Budget is designed to provide significant information about planning processes, annual performance, forecasting, and financial planning. It represents the financial resources needed to help us achieve our strategic priorities and initiatives for the organization and for those who serve California. The budget demonstrates our commitment to reduce and control costs in a collaborative effort that also aligns with our long-term strategies.

The FY 2018-19 Approved Budget of \$1,680.6 million includes the following highlights:

- Reductions in Investment External Management Fees (\$10.5 million).
- Reductions in the enterprise's discretionary costs, including temporary help and benefits, overtime, and operating expenses and equipment (\$3.5 million).
- No new proposed positions. The organization will continue to address resource needs through the redirection of existing positions.
- An enterprise-wide reduction in blanket positions; from 347 positions in 2013, to 21 positions in 2018.

- Completion of the my|CalPERS Business
 Optimization project in FY 2017-18. The
 maintenance and operation costs for the
 my|CalPERS system will move to the Operating
 Budget in FY 2018-19.
- Continuation of the Actuarial Valuation System (AVS) Redesign project to provide information that meets actuarial practices and supports new Governmental Accounting Standards Board (GASB) reporting requirements.
- Replacement of the current Human Resources
 Management System with a modern cloud-based
 system that will meet CalPERS business needs and
 requirements.
- Transition of the CalPERS Customer Contact Center platform to a cloud-based platform to reduce the complexity of the current multi-vendor contact center application.

The FY 2018-19 CalPERS Total Budget continues to demonstrate CalPERS' mission and the priorities of the enterprise and our stakeholders in a transparent manner, while delivering a value-based, managedrisk perspective.

Marcie Frost

Chief Executive Officer

GFOA Distinguished Budget Presentation Award FY 2017-18



The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to CalPERS for its annual budget for the fiscal year beginning July 1, 2017. To receive this award, a governmental unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device. This award is valid for a period of one year.

Introduction & Overview

CalPERS Organization

CalPERS is the largest defined benefit fund in the United States and is dedicated to providing world-class retirement and health benefit services to more than 1.9 million retirement system members, 1.4 million health plan members, and 2,945 public school, local agency, and state employers.

Headquartered in Sacramento, California, CalPERS also operates eight regional offices located in Fresno, Glendale, Orange, Sacramento, San Diego, San Bernardino, San Jose, and Walnut Creek.

The Board of Administration (Board) consists of 13 member-elected, appointed, and ex officio members. CalPERS membership (as of June 2017) consists of 1,257,400 active and inactive members, and 668,059 retirees, beneficiaries, and survivors from state, school, and public agencies.

Established by legislation in 1931, the CalPERS System (System) became operational in 1932 for the purpose of providing a secure retirement to state employees. In 1939, new legislation allowed public agency and classified school employees to join the System for retirement benefits. CalPERS began administering health benefits for state employees in 1962, and five years later, public agencies joined the Health Program on a contractual basis. (The following page illustrates CalPERS historical milestones.)

As a defined benefit retirement plan, CalPERS provides retirement benefits based on a member's years of service, age, and compensation, which includes benefits in the event of a member's disability or death. CalPERS also provides health benefits to its active and retired members along with access to long-term care insurance, deferred compensation programs, and a prefunding program called Other Postemployment Benefits (OPEB).

Serving Those Who Serve California

CalPERS is part of the fabric of California. For more than eight decades, we've built retirement and health security for people who invest their lifework in the state. Their contributions to services in education, transportation, safety, and the environment help move all of us forward. As stewards of the System, we ensure that their benefits and earned retirements are as enduring as the state they maintain.

To support our employers, members, and their beneficiaries, we also invest in the health and infrastructure of California, building portfolios that bolster local business and funding enterprises that directly influence and stimulate our state economy. We help create equity for future generations.

We are proud to serve those who serve California.

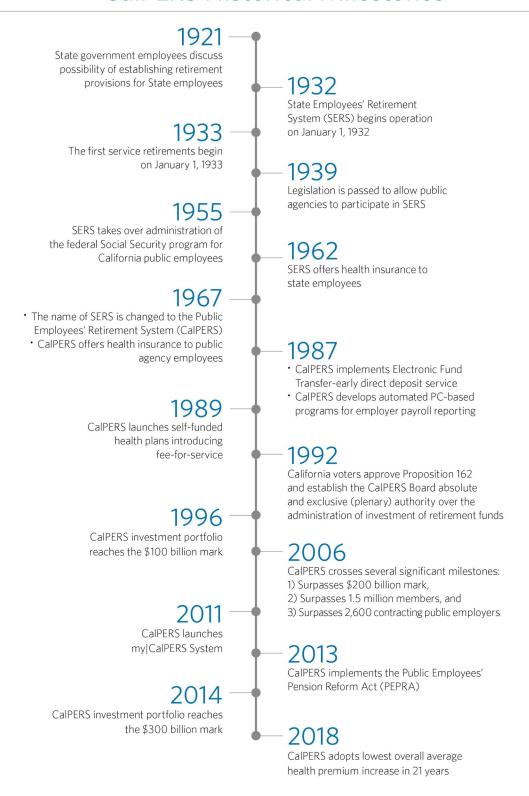
CalPERS Investments

CalPERS is the nation's largest public pension fund, with assets totaling approximately \$326.4 billion (as of June 2017). CalPERS investments span domestic and international markets.

The CalPERS Board has investment authority and sole fiduciary responsibility for the management of CalPERS assets. With the Board's guidance, the CalPERS Investment Committee and Investment Office carry out the daily activities of the investment program.

CalPERS has generated sustainable long-term returns by effectively managing investments to achieve the highest possible return at an acceptable level of risk. The CalPERS portfolio is diversified into several asset classes, so any weakness in one area is offset by gains in another. The Board follows a strategic asset allocation policy that targets the percentage of funds invested in each asset class.

CalPERS Historical Milestones



CalPERS at a Glance | Figures as of June 30, 2017 unless othewise noted

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

The information presented in this document provides a statistical outline of our retirement and health programs and a breakdown of our investment profile and Fund performance. (rev.2017.12)

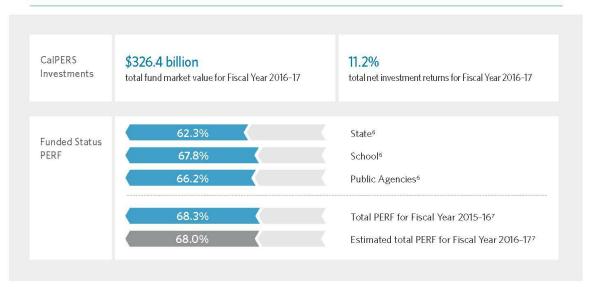
Pension Program

Members PERF ¹	1.9 million members total retirement	887,220 / 46% active members	668,059/35% retirees & beneficiaries	370,180 /19% inactive members ²
	plan membership	604,556/31% state members	726,029 /38% school members	594,874/31% public agency members
Employers	2,945 employers total employers in retirement program	1 State of California \$3,428 average monthly service retirement ³	1,366 School Districts \$1,613 average monthly service retirement ³	1,578 Public Agencies \$3,674 average monthly service retirement ³
Economic Impact	\$21.4 billion in benefits paid ⁴	\$25.6 billion economic activity generated through California investments ⁵	262,500 jobs in private markets supported by CalPERS investments in California ⁵	\$24.7 billion invested in California-based companies and projects
Shared Responsibility	Every dollar paid to CalPERS retirees comes from three sources:	THE UNITED STATE THE LANGE OF THE PROPERTY OF	N PRINCESSALL 12	51¢ Investment earnings 6¢ CaIPERS employers 3¢ CaIPERS members

We serve those who serve California.



Pension Funding



Health & Other Programs

Health	1.4 million	7 HMOs + 3 PPOs	
Program	total lives covered (employees, re	healthcare providers	
Long-Term	\$4.4 billion in assets	\$306.3 million	128,276
Care Program		annual premiums received	total active participants
Deferred Compensation Plan	\$1.4 billion in assets	785 contracting agencies	28,337 total participants
CERBT ⁸ Program	\$7.1 billion in assets	524 participating agencies	700,000+ total plan members

- Public Employees' Retirement Fund (PERF)
 No longer working for CalPERS employer with service credit on account
 Averages for service retiree members as of June 30, 2017, excludes beneficiaries and survivors
 Benefits paid from the PERF

- Benefits paid from the PERF
 Investment figures from CalPERS for California 2016 report
 Based on a 7.0% discount rate; does not include the 11.2% return for FY 2016-17
 Based on a 7.0% discount rate; includes the 11.2% return for FY 2016-17
 California Employers' Retiree Benefit Trust Fund for post employment retiree benefits

California Public Employees' Retirement System www.calpers.ca.gov

Produced by CalPERS Communications and Stakeholder Relations

Strategic and Business Plans

CalPERS' strategic plan applies the mission, vision, and core values of the organization over a five-year period to align the enterprise budget structure with the organization's strategic goals. This is done in an effort to provide responsible and efficient stewardship of the System, deliver promised retirement and health benefits, and promote wellness and retirement security for members and beneficiaries.

Strategic Planning

In February 2017 the Board adopted the CalPERS 2017-22 Strategic Plan that guides the development of the business plan. This comprehensive business plan supports and helps CalPERS accomplish its strategic goals. The plan:

- Strengthens the long-term sustainability of the pension fund
- Transforms health care purchasing and delivery to achieve affordability
- Reduces complexity across the enterprise
- Cultivates a risk-intelligent organization
- Promotes a high-performing and diverse workforce

Strategic planning is the key to assuring that CalPERS is prepared for the challenges of tomorrow and is an essential first step in the development of a results-based planning process. With a focus on the long term, the strategic plan's goals and objectives provide direction, continuity, and an opportunity to influence the future.

Business Planning

The 2017-18 Business Plan, which began July 1, 2017, outlines the work of the organization in the first year of the new strategic plan. The business plan initiatives are intended to sharpen organizational focus to provide and sustain pension and health programs, enhance customer service, strengthen the internal organization, and advance policy development.

The business plan provides a systematic method to anticipate and adapt to expected changes, set the operational direction, and continue to align the organization's work with the 2017-22 Strategic Plan goals and objectives.

The business plan development process is an organization-wide approach to establishing enterprise priorities and initiatives to focus the organization's efforts. The business plan is reviewed and updated annually and includes assessment of various performance measures for success in meeting established goals.

CalPERS' Core Values of Quality, Respect, Accountability, Integrity, Openness, and Balance guide the organization's work and help direct future planning. Using these values, executive leadership identified specific, achievable, and measurable initiatives that play a fundamental role in accomplishing strategic goals. Ultimately, these goals, objectives, and measures translate into the work of CalPERS through the 2017-18 Business Plan.

The following pages detail CalPERS' strategic goals, objectives, and initiatives:

Aligning Strategic, Business and Budget Planning

Strategic Planning

- » Long-term, 5-year plan (2017-22)
- » Foundation for 2017-18 Business Plan

Business Planning

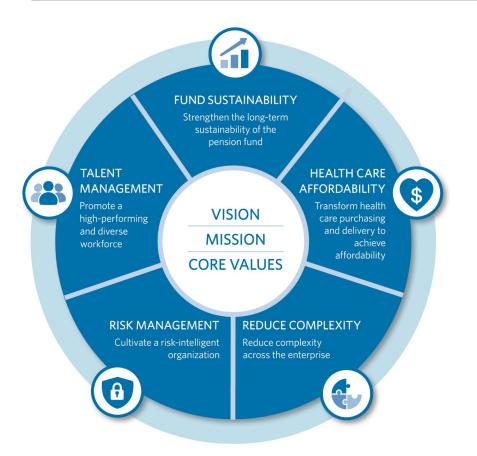
- » 1-year plan
- » Formulation of initiatives
- » Approved by Board

Forecasting/Mid-Year Requests

- » Monthly management and status reporting
- » Quarterly forecasting
- » Budget transfers

Budget Planning

- » Identification of resourcing needs
- » Formulation of formal budget requests



2017-22

Strategy Map

Our Vision

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

Our Mission

Deliver retirement and health care benefits to members and their beneficiaries

Our Core Values

Quality Respect Accountability Integrity Openness Balance

Strategic Goals and Objectives

Strategic Goal	Objectives	Initiatives
Fund Sustainability	Fund the System through an integrated view of	Alignment of Asset Liability Management – Incorporates elements of funding risk from both an asset and liability perspective to ensure the sustainability of the fund
Strengthen the	pension assets and liabilities	Employer Contracting and Collection Reporting – Develop and implement a report for identifying agency collection issues and contract terminations
long-term sustainability of the pension fund		*Redesign and Enhance the Actuarial Valuation System – Increase capabilities, streamline processes, and create a more flexible and scalable valuation system
F	Mitigate the risk of significant investment loss	*Investment Risk Management and Performance Attribution – Build effective investment risk and performance attribution review and decision processes within and across asset classes to ensure risks are fully understood, intended, and compensated
	Deliver target risk- adjusted investment returns	*Enhance Capital Allocation Framework – Enhance the Capital Allocation framework through improved risk factor modeling and greater understanding and ownership of trust-level investment risk and performance
		*Enhance Investment Platform and Controls – Enhance the investment platform and internal controls environment to achieve optimum efficiency
		*Investment Program Long-Term Planning – Explore long-term planning considerations including the private assets business model, talent management, and office locations
	Educate employers, members, and stakeholders on system risks and mitigation strategies	Stakeholder Education on System Risks & Mitigation – Identify, develop, and implement training, education, and outreach opportunities to educate members, employers, and stakeholders on system risks, mitigation strategies, and compliance enhancements
	Integrate environmental, social, and governance (ESG) considerations into investment decision making	*Investment Beliefs and ESG Risk Integration – Develop a framework for the integration of CalPERS Investment Beliefs and ESG risk considerations into the investment decision-making process
Healthcare Affordability	Restructure benefit design to promote high-value health care	Value-Based Insurance Design: Feasibility – Research and develop health benefit design strategies to improve member health, and value of care, while decreasing costs in Preferred Provider Organization (PPO) plans
Transform health care purchasing and delivery to		*Site of Care Management – Leverage current Integrated Health Care and Population Health delivery models to contain health care costs in PPO plans for possible expansion to Health Maintenance Organizations
achieve affordability		*Pharmacy Benefit Design Pilot – Develop and implement strategies to align our pharmacy benefit manager with our reference pricing model
		*Reference Pricing Expansion – Leverage existing efforts to reduce health care costs by expanding the use of reference pricing for routine non-emergency procedures with price variation in the PPOs
	Improve the health status of our employees, members and their	*Population Health Alignment with Let's Get Healthy California Taskforce Report Dashboard – Provide employers with aggregate health care data to identify major health care costs and enhance Population Health Management (PHM)
	families, and the communities where they live	*Partner with Health Plans to Engage in Community Activities – Collaborate with health plans to positively impact the health of our members by engaging in community activities which create a culture of good health
	Reduce the overuse of ineffective or unnecessary medical care	*Statewide Collaboration Through Smart Care California – Partner with Covered California and Department of Health Care Services through Smart Care California coalition to promote safe, affordable care in the area of opioid use, caesarean sections, and spinal/back disorders
		*Review and Update Shared Savings Accountable Care Organizations Cost and Quality Targets – Research, analyze, and update shared savings cost and quality targets and expand the use of evidence-based medicine in improving outcomes while decreasing costs
		*Research and Expand Evidence-Based Medicine – Apply outcome-based medical strategies to provide affordable and high value care

 $[\]hbox{* Multi-year initiative(s) continuing from prior business plan}\\$

Reduc	e
Comp	lexity

Reduce complexity across the enterprise

Simplify programs to improve service and/or reduce cost

CEM Complexity Score Reduction – Assess current complexity score and identify target areas of complexity reduction

Customer Satisfaction – Actionable Feedback – Identify actionable feedback from customer satisfaction surveys and implement systems to monitor and facilitate reasonable improvements to enhance customer service

Improve Pension Benefit Payments Timeliness – Identify current issues impacting benefit payment timeliness and mitigate constraints to increase service levels more consistently towards the goal or accept the current level of service

Implement Digital Communication Strategy – Enhance digital communications capabilities to support outreach and communication to members, employers, and other stakeholders

*External Manager Monitoring, Expectations, and Reduction Strategy – Develop enhanced governance and protocols to improve efficiencies and controls in assessing and engaging external managers and migrating additional asset types in house

Streamline operations to gain efficiencies, improve productivity, and reduce costs

*Develop and Implement Continuous Process Improvement Framework – Develop and implement a framework to identify and support continuous process improvement opportunities that increase efficiency and reduce complexity throughout the enterprise

Reduce System Costs and Improve Efficiencies – Identify cost drivers and assess enterprise-wide cost savings for proposed areas of improvement to reduce costs and improve efficiencies to the System

*Enhance Business Effectiveness, Resource Allocation, and Efficiency of Investment Programs – Enhance cost effectiveness, resource allocation, and efficiency of the investment program to increase net returns on assets

Risk Management

Cultivate a risk-intelligent organization

Enhance compliance and risk functions throughout the enterprise

*Enterprise Data Management – Create/enhance policies and processes to strengthen appropriately defined data-driven decisions, ensure intent is understood, and improve the consistency of data use across the enterprise which includes people, process, technology and culture dimensions

*Increase Enterprise-Wide Risk Awareness – Develop enterprise-wide risk communication and training plans to increase risk awareness, and strengthen and expand risk capabilities

*Increase Enterprise-Wide Compliance Awareness – Develop compliance communication and training plans to increase awareness throughout the enterprise

Continue to evolve cyber security program

Enterprise Business Continuity Plan, Phase II - Develop a comprehensive Enterprise Business Continuity Plan that identifies operational needs, business functions, procedures and applications needed for all business operations beginning 31 days post disaster through full resumption

*Information Security Roadmap – Advance the cyber security strategy and roadmap to mitigate cyber security risks

Talent Management

Promote a high-performing and diverse workforce Recruit and empower a broad range of talents to meet organization priorities Develop and Implement an Expanded Recruitment Strategy – Develop and implement a plan to increase the number of channels used to broadcast open positions

Develop and Administer Team Member Engagement Surveys – Develop a plan and implement a new engagement survey(s) to continually improve our culture and preserve our reputation as a destination employer

Expand Diversity and Inclusion Program – Develop and begin implementing a plan to expand the Diversity and Inclusion Program to recruit and empower a broad range of talents to meet organizational priorities

* Emerging Leader Pilot Program – Implement and evaluate a journey-level training program to prepare non-supervisory employees for future leadership roles

Cultivate leadership competencies and develop succession plans across the enterprise Develop 2017-22 Workforce Plan – Develop a plan to implement a phased approach to address workforce planning that includes: recruitment, retention, development, empowerment, and succession planning

Enterprise Core Competencies – Adopt core competencies for team members that align with expected behaviors to promote a high performing and diverse workforce

^{*} Multi-year initiative(s) continuing from prior business plan

CalPERS Beliefs

CalPERS Beliefs provide guidance for strategic planning and management of the CalPERS pension fund and investment portfolio.

Investment Beliefs

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

Investment Belief 1

Liabilities must influence the asset structure.

Investment Belief 2

A longtime investment horizon is a responsibility and an advantage.

Investment Belief 3

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

Investment Belief 4

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

Investment Belief 5

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

Investment Belief 6

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

Investment Belief 7

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

Investment Belief 8

Costs matter and need to be effectively managed.

Investment Belief 9

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

Investment Belief 10

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

Pension Beliefs

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

Pension Belief 1

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

Pension Belief 2

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

Pension Belief 3

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

Pension Belief 4

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

Pension Belief 5

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

Pension Belief 6

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

Pension Belief 7

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

Pension Belief 8

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

Pension Belief 9

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

Pension Belief 10

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

Pension Belief 11

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

Health Beliefs

In April 2018, the CalPERS Board of Administration adopted a set of six Health Beliefs to provide guidance for the health benefits program. The goal is to improve long-term health benefit sustainability by ensuring high quality, accessible, and affordable health benefits.

Health Program Sustainability

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

High Quality Care

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

Affordability

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

Comprehensive Care

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

Competitive Plan Choice

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

Quality Program Administration

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

Short-Term Organizational Factors

The objective of the budget process is to address the immediate needs of the organization, such as preserving the current level of service to CalPERS members while making progress toward the implementation of CalPERS' long-term goals.

Incorporated into the FY 2018-19 CalPERS Total Budget are the following assumptions and factors that guided the development of the budget to meet the needs of the organization, which include:

- Resources to support the 2017-18 Business Plan initiatives
- Temporary staffing cost reduction of \$1.7 million
- A targeted vacancy factor of 4.0 percent
- An increase in the statewide central service agencies' (Pro-Rata) administrative assessment (\$1.8 million)
- Increases in employee compensation per collective bargaining unit agreements and estimated adjustments
- Reductions in investment external management fees

The approved budget provides the annual financial plan for FY 2018-19 and supports the CalPERS 2017-22 Strategic Plan. The CalPERS team has taken steps to consider the impacts of enterprise risks that may threaten the achievement of strategic plan goals throughout the annual budget process. The strategic plan and associated enterprise risks have been aligned, and current mitigation measures have been identified and evaluated for effectiveness.

This document compiles the financial data needed to support CalPERS' goals and is based on the departmental review of operations. In alignment with the CalPERS strategic goals and initiatives in the 2017-18 Business Plan, five key areas of focus were identified for the FY 2018-19 Total Budget:

- Innovative approaches to improve benefit services and continued customer focus
- Effective information technology solutions
- · Cost efficiencies and workload capacity
- Effective risk management and compliance
- Sound management practices and leadership development

Enterprise Priorities and Risks

The FY 2018-19 Total Budget is focused on core business needs critical to CalPERS' long-term strategy and furthering the mission of building retirement and health security for those who serve California. The initiatives comprised in the budget will be implemented to achieve efficiencies, identify and implement cost-saving measures, manage risks, and deliver quality customer service and strong affordable health care programs to effectively deliver retirement and health security for CalPERS members.

Budget Highlights

These five key areas of focus were used to identify the budgetary need for the fiscal year. Some of the major highlights of the FY 2018-19 Total Budget include:

- Reductions in Investment External Management Fees (\$10.5 million).
- Reductions in the enterprise's discretionary costs, which includes temporary help and benefits, overtime, and operating expenses and equipment (\$3.5 million).
- No new proposed positions. The organization will continue to address resource needs through the redirection of existing positions as a result of an enterprise position pooling concept.
- Reduction in the number of blanket positions throughout the enterprise from 347 in 2013, to 21 in 2018.
- Completion of the my|CalPERS Business
 Optimization Project in FY 2017-18. Maintenance
 and operation costs for the my|CalPERS system will
 move to the Operating Budget in FY 2018-19.
- Continuation of the Actuarial Valuation System (AVS)
 Redesign Project to provide information that meets
 actuarial best practices and supports new
 Governmental Accounting Standards Board (GASB)
 reporting requirements.
- Replacement of the current Human Resources
 Management System with a modern cloud-based
 system that will meet CalPERS' business needs and
 requirements.
- Transition of the CalPERS Customer Contact Center platform to a cloud-based platform to reduce the complexity of the current multi-vendor contact center application.

In the previous FY 2017-18 Budget, the organization met key priorities, including:

- An Asset Liability Management Workshop in November 2017, which led to the selection of a strategic asset allocation for the PERF by the Board.
- Finalization of Phase 1 of the AVS redesign and enhancement; established the development and test environments, and released a new user interface to interact with system functionality.
- Development and implementation of webinars to educate stakeholders on system risks, costs, and risk mitigation efforts.
- An innovative value-based insurance design for the PERS Select basic (non-Medicare) Preferred Provider Organization health plan that will encourage members to receive care through a personal physician, provide incentives to improve their health, and reduce their annual deductible costs starting January 1, 2019.
- An updated actuarial amortization policy to eliminate positive or negative unfunded liabilities in a manner that minimizes substantial variations in employer contribution rates.

Budget Overview

The CalPERS Total Budget focuses on the organization's five strategic goals:

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

Total Budget Summary

The approved FY 2018-19 CalPERS Total Budget is \$1,680.6 million, which represents an increase of \$4.8 million (0.3 percent) compared to the approved FY 2017-18 Budget of \$1,675.9 million. This represents:

- A decrease of \$13.1 million (57.8 percent) in enterprise project costs
- A decrease of \$10.5 million (1.4 percent) in investment external management fees
- A decrease of \$2.7 million (9.9 percent) in headquarters building costs
- A decrease of \$0.2 million (0.1 percent) in third-party administrator fees
- An increase of \$31.3 million (5.6 percent) in administrative and investment operating costs

FY 2018-19 CalPERS Total Budget (in thousands)

				Budget to	. Rudaet	FY 20 Budget to	
	FY 2017-18 Approved Budget ¹	FY 2017-18 Forecast	FY 2018-19 Approved Budget	\$ Change Incr / (Decr)	% Change Incr / (Decr)	\$ Change Incr / (Decr)	% Change Incr / (Decr)
Administrative Operating Costs	\$468,402	\$451,744	\$497,557	29,155	6.2%	(\$16,658)	(3.6%)
Salary & Benefits	350,104	334,397	370,991	20,887	6.0%	(15,706)	(4.5%)
Discretionary	118,298	117,346	114,756	(3,543)	(3.0%)	(952)	(0.8%)
Baseline Admin. FBRs			8,174	8,174			
One-time Admin. FBRs			3,636	3,636			
Investment Operating Costs ²	91,236	91,236	93,421	2,185	2.4%	_	—%
Investment External Management Fees	777,518	777,518	767,009	(10,509)	(1.4%)	_	—%
Third-Party Administrator Fees ³	288,911	288,911	288,686	(225)	(0.1%)	_	—%
Total, Operating Costs	\$1,626,067	\$1,609,409	\$1,646,672	\$20,606	1.3%	(\$16,658)	(1.0%)
Enterprise Project Costs	22,738	22,179	9,591	(13,147)	(57.8%)	(559)	(2.5%)
Headquarters Building Costs	27,046	27,046	24,372	(2,674)	(9.9%)	0	—%
CalPERS Total Budget	\$1,675,851	\$1,658,633	\$1,680,636	\$4,785	0.3%	(\$17,218)	(1.0%)
Total Positions	2,875.0		2,875.0	0.0	-%		

¹FY 2017-18 Mid-Year Budget approved by the CalPERS Board of Administration on December 19, 2017.

² Investment Operating expenses are not part of CalPERS Administrative Operating Costs; therefore, should not be included in the CalPERS Pro-Rata assessment.

³ The Third-Party Administrator Fees include initial proposals from health insurance carriers and may change, as they are negotiated each year during the health plan rate development process.

Note: Numbers may not add exactly due to rounding of budget detail.

Key changes in the FY 2018-19 CalPERS Total Budget include an overall net increase of \$4.8 million (increase of \$34.8 million offset by a decrease of \$30.0 million) from the FY 2017-18 Approved Total Budget.

Cost decreases of \$30.0 million are associated with:

Cost decreases (in millions)

,	
Administrative operating costs	\$3.5
Investment external management fees	\$10.5
Enterprise project costs	\$13.1
Headquarters building costs	\$2.7
Third party administrator fees	\$0.2
Total	\$30.0

These cost decreases are offset by increases of \$34.8 million associated with:

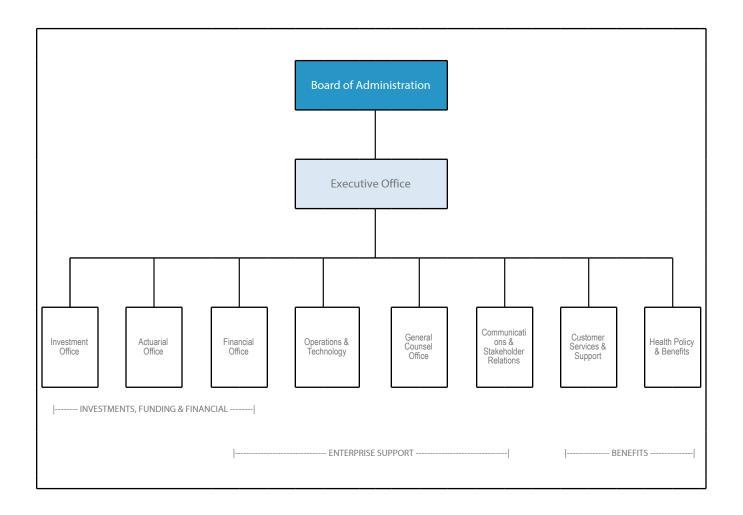
Cost increases (in millions)

Total · · · · · · · · · · · · · · · · · · ·	\$34.8
Investment operating costs	\$2.1
Administrative operating costs	\$32.7

Each budget area will be covered separately and detailed to provide analysis of the historical trending and current proposal of the costs.

Financial Structure, Policy, and Process

CalPERS Organizational Chart



Expanded Organizational Chart

Operations & Actuarial Office Financial Office Investment Office Technology Actuarial Office Investment Compliance & Financial Reporting & Information Technology Services Branch Operational Risk **Accounting Services** Investment Manager Financial Planning, Policy & **Technology Business Engagement Programs** Budgeting Management Division Investment Risk & **Enterprise Solutions** Treasury Management Performance Development Division **Enterprise** Investment Servicing Enterprise Risk Technology Infrastructure Division **Compliance Office** Management Services Division **Private Asset Analytics** Pension Contracts & Information Security Office Enterprise Compliance Policy & Program **Prefunding Programs Global Equity** Enterprise Strategy & Performance Division Global Fixed Income **Human Resources** Division Global Governments & Operations Support Services Opportunistic Strategies Policy Research & Data Analytics **Private Equity** Real Assets Sustainable Investments Trust Level Portfolio Management ------ INVESTMENTS, FUNDING & FINANCIAL ----------- ENTERPRISE SUPPORT -----**General Counsel Communications & Customer Services & Health Policy &** Office **Stakeholder Relations Support Benefits** Legal Office Office of Public Affairs **Benefit Services Division** Health Plan Administration Office of Audit Services Health Policy Research Stakeholder Relations Customer Service & Outreach Division Division Legislative Affairs Division **Employer Account Health Accounts** Management Division Management Division Member Account Health Benefits Management Division Administrative Support ----- ENTERPRISE SUPPORT -----BENEFITS -----

Fund Description and Structure

CalPERS has five budgetary funds that are approved by the CalPERS Board and funded at the beginning of each fiscal year, a 12-month period beginning every July 1 and ending June 30. The Board approves fund balances for purposes specific to that fund. Any appropriated and allotted funds that are not expended the course of the 12-month fiscal year are no longer accessible after the fiscal year ends. The five budgetary funds are independent of each other and appropriations cannot be commingled or transferred among them. Authority for these budgetary funds is based on internal CalPERS policies or statutorily appropriated by the State of California's Constitution or Government Code.

CalPERS Budgetary Funds

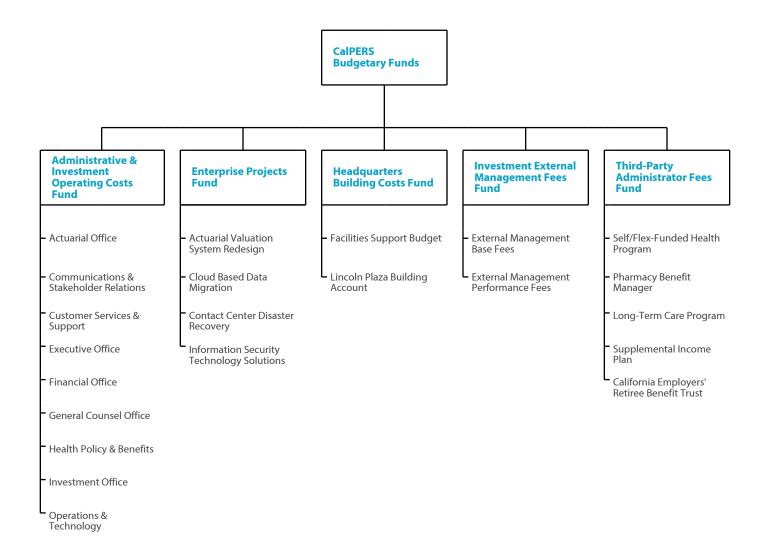
- Administrative & Investment Operating Costs
 Fund The Administrative & Investment
 Operating Costs Fund is statutorily authorized per
 the California Constitution, Article XVI, section 17. It
 allows for the budget to fund all functional cost
 centers within the CalPERS enterprise.
- 2. **Enterprise Projects Fund** The Enterprise Projects Fund is statutorily authorized per the California Constitution, Article XVI, section 17. It allows for the budget to fund special projects that are temporary in nature.

- 3. **Headquarters Building Costs Fund** The Headquarters Building Costs Fund is statutorily appropriated in California state law per the Government Code, section 20199. It provides for the purchase and maintenance of facilities that CalPERS owns and manages.
- 4. Investment External Management Fees Fund The Investment External Management Fees Fund is statutorily appropriated in California state law per the Government Code, sections 20172, 20208, and 20210. The Investment External Management Fees Fund provides for expenditures related to external investment advisors and other investment-related expenses.
- 5. **Third-Party Administrator Fees Fund** The Third-Party Administrator Fees Fund is statutorily authorized per the California Constitution, Article XVI, section 17. This budget tracks expenses for programs that provide benefits to members of CalPERS, which includes the Self-Funded Health Program, Long-Term Care Program, and Supplemental Income Plan.

Department/Fund Relationship

Budget Fund Structure

The diagram below provides a breakdown of CalPERS departments within each of the budget fund structures:



Administrative & Investment Operating Costs Fund

The Administrative & Investment Operating Costs Fund is the primary operating fund for departments within the enterprise and is used to account for financial transactions and resources of the organization. Costs are covered by revenues derived from the trust funds per Board approval of the annual budget. The operations and expense centers in this fund include:

- Actuarial Office
- Communications & Stakeholder Relations
- Customer Services & Support
- Executive Office
- · Financial Office
- General Counsel Office
- · Health Policy & Benefits
- Investment Office
- Operations & Technology

Expense types for these areas include:

- Personnel services, which is broken out into base salaries and wages, benefits, temporary help, overtime, and incentive compensation.
- Operating expenses, including office supplies, subscriptions, software, printing, postage, travel, training, consulting and professional services, audit services, communications, data processing, equipment, and other general operating expenses.
- Investment operating costs, primarily technology expenses for data, analytics, trading or portfolio management systems, and business operations tools; investment consultant and system consulting fees; portfolio management services and subscriptions; and legal, appraisal, and tax advisory services.

Enterprise Projects Fund

The Enterprise Projects Fund accounts for special projects (predominately technology-related) and one-time operations deemed temporary in nature. The projects may be completed in one budget cycle, or may need to be funded over multiple budget cycles. Expenses are primarily related to temporary staff, training, consulting and professional services, hardware, and software. Costs are covered by revenues derived from the trust funds per Board approval of the annual budget. At the conclusion of a special project, the ongoing maintenance and operational costs, if any, are transitioned to the Administrative & Investment Operating Costs Fund.

Headquarters Building Costs Fund

The Headquarters Building Costs Fund provides for the purchase and maintenance of facilities that CalPERS owns and manages. It accounts for costs to maintain CalPERS' main campus, an emergency operations center.

Costs consist of operating expenses related to:

- Building support for expenditures on items such as insurance, maintenance, and improvements.
- Lincoln Plaza Building costs to maintain the buildings that house CalPERS staff and provide support services such as utilities, security, landscaping, janitorial, maintenance, and engineering.

Headquarters building costs are partially funded by outside rental income, and the remaining costs are covered by revenues derived from the trust funds per Board approval of the annual budget.

Investment External Management Fees Fund

The Investment External Management Fees Fund accounts for costs related to external management of CalPERS investment portfolios, including base and performance fees. Costs are covered by revenues derived from the trust fund appropriations set by the Board in the formal budget process.

Third-Party Administrator Fees Fund

The Third-Party Administrator Fees Fund accounts for fees paid to third-party administrators that manage programs providing health care and benefits to the members of CalPERS. This includes the self-funded health care programs, pharmacy benefit management, the Long-Term Care Program, Supplemental Income Plans for two defined contribution programs, and the California Employers' Retiree Benefit Trust Fund Program. By contracting with health maintenance organizations to manage health benefits, the program allows CalPERS members ease of use, and inherent cost savings for these benefits. Recent increases in the number of health providers allows for more choice, and thus, additional member participation in the program. Costs are covered by revenues derived from the trust fund appropriations set by the Board in the formal budget process.

Basis of Accounting and Budgeting

The term "basis of accounting" is used to describe the timing of recognition, that is, when the effects of transactions or events should be recognized. The basis of accounting used for purposes of financial reporting in accordance with Generally Accepted Accounting Principles (GAAP) is not necessarily the same basis used in preparing the budget document. Explaining the major differences between the basis of accounting used in the budget document and the basis of accounting used in the GAAP financial statements helps stakeholders better understand and interpret the numbers presented in both documents.

The Governmental Accounting Standards Board (GASB) establishes GAAP used in the United States. GASB has jurisdiction over accounting and financial reporting by governmental entities and seeks to ensure that government organizations provide

accurate and reliable information to end users who are typically tax-paying citizens who want information about financial transactions made by the government.

Accounting

The CalPERS accounting and financial reports are managed and prepared in accordance with the guidelines of GASB. In government, the basic objective is service to the public and not the realization of net profit. However, under the GASB's authoritative guidance, governmental financial statements are to be presented using the full accrual method to help users assess the finances of government, including the year's operating results, in a manner similar to private sector (for profit) company reports.

The full accrual method allows the performance of an organization to be measured by recognizing revenues when the activity that generates them occurs, not necessarily when actual payments are received. Expenses are also recognized at the time they are incurred, not necessarily after actual payments are made. This generates financial statements that more accurately describe the current financial situation of the organization.

Budgeting

At CalPERS, the basis of budgeting differs from the basis of accounting because the basis of accounting is the full accrual method and the basis of budgeting is the modified accrual method.

The modified accrual method reflects revenues when payments are actually received, unlike the full accrual method. However, expenses are recorded using the full accrual method and are recognized at the time they are incurred, not necessarily when actual payments are made.

Financial Policies

The following policies reflect the overall framework that CalPERS uses. These policies are reviewed annually and updated as required, and are adopted by the Board or approved by senior executives.

Governance Policies

- Global Governance Policy Provides CalPERS with a system of policies and structure by which the long-term goals and strategic plans are guided. The global governance structure specifies the distribution of authority and accountability among different levels of the organization. It details best practices and guiding principles for making decisions throughout the organization and provides a mechanism for accountability. Good governance ensures that CalPERS' funds are used for the sole benefit of its members to produce the long-term, risk-adjusted returns that pay pensions.
- Regulations Analysis Policy Allows CalPERS to advocate for its members and stakeholders by providing information and in-depth policy analyses to state and federal governmental entities; educating CalPERS about relevant changes in state and federal laws; and working with members and stakeholders to ensure the integrity of the CalPERS Trust Funds.

General Policies

- Authorized Position Policy Defines CalPERS' internal controls, and team roles and responsibilities when establishing, tracking, and approving new authorized positions for the organization. All proposals are presented to the Board, whose authority it is to review and approve the proposals to begin the process of establishing new positions. Position control resides with the Financial Office.
- Bill Analysis Policy Provides analysis of legislative bills or the effects of proposed measures or amendments and the fiscal impact affecting the organization. The purpose of bill analysis is to provide the organization with information concerning the probable programmatic and fiscal effects of pending legislation. CalPERS puts forth a

position when the organization supports or rejects proposed legislation that creates an impact to CalPERS.

- Contract and Amendments Policy Provides transparency and ensures there is awareness of significant contracts, gives the executive team the opportunity to participate in significant contract decisions before being finalized, and assists in monitoring responsibilities regarding contract decisions. Certain contracts and purchases that exceed a threshold of \$1 million or more will be reported on a prospective basis to the Board.
- Pro Rata Policy Defines CalPERS' established guidelines determined by the California Department of Finance to identify statewide central administrative services costs paid from the General Fund that are chargeable to, and can be recovered from, special funds. CalPERS has control processes in place to ensure the Pro Rata assessment charges are allowable and reasonable.

Fiscal Control and Operating Budget Policies

- Accounting Policy Requires CalPERS to establish and maintain its accounting systems according to GAAP, and standards promulgated by the GFOA, GASB, and the Financial Accounting Standards Board (FASB).
- Administrative Budget Policy Allows CalPERS to develop the administrative budget plan for the upcoming fiscal year and submit the plan to the CalPERS Board for review and approval, and to the California Department of Finance for inclusion in the Governor's Budget. The primary purpose is to develop a plan to operate within authorized budgeted levels and to comply with any restrictions or limitations enacted by the Legislature.
- Annual and Mid-Year Budget Development
 Policy Defines how the annual and mid-year operating plans and budgets are developed within timeframes for review by the Board. In conducting these formal budgeting processes, CalPERS ensures the timely distribution of the annual budget for the operation of the organization and provides a means for modification mid-year when projections reflect potential pressures or new opportunities.

- **Budget Policy** Ensures CalPERS' budgeting practices are in accordance with responsible fiscal management for the allocation and utilization of resources to meet the organization's mission, vision, and values. The policy sets out the budgeting principles for the preparation of the budget, the process for the budget formulation, and the responsibilities in the preparation, approval, and implementation of a total balanced budget.
- Budget Change Proposal Policy Budget Change Proposals (BCP) are traditional decision documents which propose a change to the existing budget levels, subject to legislative approval. BCPs are submitted to the California Department of Finance for review and analysis. This policy ensures consistency, provides guidelines when proposing a change to the level of service or funding sources for activities authorized by the Legislature to establish a new program that is not currently authorized, or to delete an existing program.
- Budget Check Error Policy Verifies funding and appropriation availability in the accounting system when expenditures are posted against funding sources or an established encumbrance. Daily checks implement the control and notification of funds and encumbrance availability in a timely manner to both the accounting and budget teams. This policy assures a balanced budget within the authorized budget funds.
- Budget-to-Actual Reconciliation Policy The budget reconciliation process serves as a control to confirm transactions were authorized, accurate, and complete. The authorization and approval processes for transactions serve as initial components of the budget reconciliation.
- Budget Transfer Policy Establishes roles, responsibilities, and guidelines to request and approve budget transfers between a division's budget line items, from one division's budget to another, and to and from the Unallocated Reserve Account to cover unanticipated business needs.
- Cost Allocation Policy Identifies allowable direct and indirect organizational costs, and communicates the methodology used to participants and stakeholders.
- Legislative Budget Hearings Policy Defines roles and responsibilities in attending the California

- State Legislature's policy and fiscal committees. The majority of measures and proposed programmatic or public policy changes are sent to the policy committee for review. Measures that could have a fiscal impact on the state are also sent to a fiscal committee to measure financial implications.
- Position Pooling Policy This policy is currently in the approval process; however, once approved, it will allow CalPERS to reallocate vacant positions (that meet specific criteria) to other areas in need of resources. Additionally, this policy will assist the organization in its efforts to reduce temporary blanket positions.
- Quarterly Projections Policy Explains the
 comparison of quarterly expenditure projections
 using actuals against budget, and identifies the
 methodology used and the total amount of
 anticipated expenditures. The remaining months of
 the fiscal year are used to identify divisions'
 spending; if they fall under, over, or on budget; and
 to identify specific budget item concerns.
- Quarterly Reporting Policy Details requirements so data is captured quarterly to develop reports displaying projected and actual expenditure activity and investment information to present to the CalPERS Board.
- Provides a comprehensive overview of all relocation expense reimbursement-related policies and guidelines established by CalPERS. This policy defines which new or current employees, under specific circumstances, will meet the California Code of Regulations requirements or fall under applicable bargaining unit contracts, and are allowed to be reimbursed for relocation expenses incurred as a result of accepting or maintaining employment with CalPERS. This policy also allows CalPERS the ability to recruit and retain qualified employees and to recruit for "hard-to-fill" positions that fall under this policy. Each reimbursement request is assessed on a case-by-case basis.
- Revenue and Expenditure Analysis Policy Compares revenue and expenditure projections against actuals to identify fiscal year surpluses and/or deficits within the organization. Ensures divisional funding is adequate and funding sources do not exceed the appropriation levels.

- Transferring Investment Expenses Policy —
 Maintains consistent reporting of investment costs
 to the Joint Legislative Budget Committee and the
 Legislative Analyst's Office. It also identifies
 investment–related expenses in the Administrative
 & Investment Operating Costs Budget that should
 be more appropriately charged to the Investment
 External Management Fees Budget.
- Treasury Management Policy Defines CalPERS' responsibilities, structure, and approach for the Treasury Management Program. The policy ensures the payment of member benefits and organizational obligations without interruption, provides an integrated oversight structure, maintains the appropriate coverage and reserve levels for programs and the enterprise, and manages enterprise liquidity risk.
- Treasury Management Reserve Policy The
 Treasury Management Program will establish and
 manage treasury reserves to ensure the payment of
 member benefits and other obligations without
 interruption while optimizing the use of fund assets.

CalPERS Budget Process

The CalPERS budget is a financial plan for the spending and allocation of resources needed to meet the organization's mission, vision, and values. It is necessary to build and maintain retirement and health security for members that serve the State of California, in accordance with the California Constitution, Article XVI, section 17. The budget reflects CalPERS Core Values and priorities. It is the basis in determining how resources will be used for the approved period.

Prior to building the budget, enterprise priorities are determined through a business planning process. The five-year strategic plan and one-year business plan are approved by the CalPERS Board. The strategic goals of the enterprise, the mission of CalPERS, and the priorities of stakeholders are incorporated into the budget process.

CalPERS has two budget processes during the fiscal year — the annual and mid-year budget processes.

Annual Budget Process

The annual budget process is designed to review the organization's existing resources and requests for new resources required to meet the CalPERS mission, strategic plan, and business plan priorities. The process begins in October of each year with submission of the CalPERS Financial Office's annual memorandum to enterprise management. The memo provides a universal message detailing instructions, budget policy direction, communication of expectations, and objectives for the budget process.

In the annual budget process, divisions' operational budgets are reviewed to determine core operational budget needs to maintain current service levels. Additionally, divisions requiring additional resources for new services, initiatives, and projects submit detailed formal budget request documents for review and are prioritized during the budget process. The executive team and Financial Office work collaboratively with divisions through this process and in the recommended allocation of funding based on enterprise priorities.

The proposed budget is reviewed by the CalPERS Board in an open public forum in April and May, as first and second readings, respectively. The Board approves and adopts the annual budget in May with the annual budget effective on July 1 of the new fiscal year.

Mid-Year Budget Process

The purpose of the mid-year budget process is to amend the approved annual budget with up to six months of funding in the current year for Board-directed, critical, emergency, or unforeseen circumstances that arise after the start of the new fiscal year. The process begins in late August and the proposed mid-year budget is reviewed by the Board in an open public forum in November and December, as first and second readings, respectively. The Board approves and adopts the mid-year budget in December with the mid-year budget effective on January 1 of the current fiscal year.

CalPERS Budget Process

Annual Budget

- » One-year funding source
- » Board approval in May of each year
- » Budget approval effective July 1-June 30

Mid-Year Budget

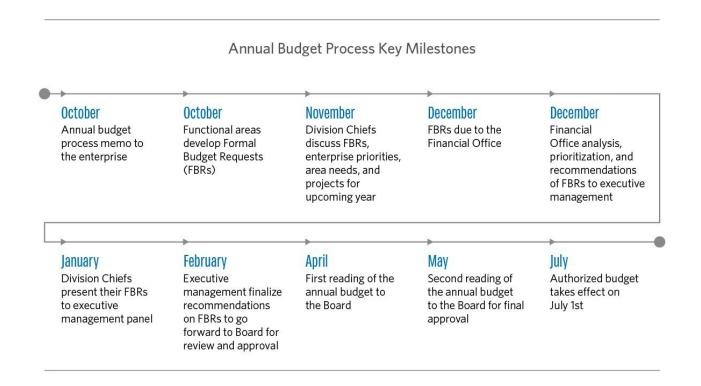
- 6-month funding source for Board-directed, unanticipated, and emergency needs only
- » Board approval in December of each year
- » Budget approval effective January 1-June 30 of each year, if needed

State Budget Process

In addition to the CalPERS budget processes, CalPERS is required to go through the State of California budget process for resource needs related to the Health Benefits Program. Resource requests for programs funded from the Contingency Reserve Fund and Health Care Fund require approval through the annual state budget process, which requires review and approval from the Government Operations Agency (GOA), CalPERS' parent agency.

- The state budget cycle begins in June with the development of Budget Change Proposal (BCP)
 Concepts. These concepts are submitted to the CalPERS Financial Office for consideration in May.
- All submissions are reviewed and discussed with the budget team, senior management, and executive leadership prior to submitting to the GOA for review and approval.

- Concepts approved by the GOA in June can be developed into BCPs and submitted to the GOA for signature in August, and to the Department of Finance (DOF) for review and consideration in September.
- BCPs approved by DOF are included in the Governor's proposed annual budget, along with the budget bill.
- Once the Governor's proposed annual budget is released in January, legislative budget hearings are held to discuss and consider BCPs.
- BCPs approved by the Legislature are included in the budget bill, then signed by the Governor and become effective July 1 of the new fiscal year.



Enterprise Risk Assessment, Strategic Resource Planning & Budget Development Timeline



Business Planning (Future Year)
Call Letter to Develop Initiatives — September
Second Reading — April

Annual Budget Process (Future Year)
Annual Budget Call Letter — October
Second Reading — May

Mid-Year Budget Process (Current Year)
Mid-Year Budget Call Letter — August
Process Memo — June/July
Second Reading — December

State Budget Process (Future Year)
Budget Change Proposal Concepts — June/July
May Revision — April/May
Governor's Budget Enactment (Budget Act) — July

Financial Summaries

FY 2018-19 Annual Financial Plan

The following budget provides the annual financial plan for FY 2018-19. CalPERS is committed to maintaining efficient and effective administration that is accountable and transparent to its stakeholders. This document compiles the financial data needed to support CalPERS' goals as outlined in the 2017-22 CalPERS Strategic Plan, and is based on the departmental review of operations.

The approved FY 2018-19 CalPERS Total Budget of \$1,680.6 million consists of five budgetary funds:

- Administrative & Investment Operating Costs
- Investment External Management Fees
- Third-Party Administrator Fees
- Enterprise Projects Costs
- Headquarters Building Costs

FY 2018-19 CalPERS Total Budget (in thousands)

	FY 2017-18		EV 2010 10	Budget to	Budget	FY 20 Budget to	18-19 Forecast
	Approved Budget ¹	FY 2017-18 Forecast	FY 2018-19 Approved Budget	\$ Change Incr / (Decr)	% Change Incr / (Decr)	\$ Change Incr / (Decr)	% Change Incr / (Decr)
Administrative Operating Costs	\$468,402	\$451,744	\$497,557	\$29,155	6.2%	(\$16,658)	(3.6%)
Salary & Benefits	350,104	334,397	370,991	20,887	6.0%	(15,706)	(4.5%)
Discretionary	118,298	117,346	114,756	(3,543)	(3.0%)	(952)	(0.8%)
Baseline Admin. FBRs			8,174	8,174			
One-time Admin. FBRs			3,636	3,636			
Investment Operating Costs ²	91,236	91,236	93,421	2,185	2.4%	_	%
Investment External Management Fees	777,518	777,518	767,009	(10,509)	(1.4%)	_	%
Third-Party Administrator Fees ³	288,911	288,911	288,686	(225)	(0.1%)	_	—%
Total, Operating Costs	\$1,626,067	\$1,609,409	\$1,646,672	\$20,606	1.3%	(\$16,658)	(1.0%)
Enterprise Project Costs	22,738	22,179	9,591	(13,147)	(57.8%)	(559)	(2.5%)
Headquarters Building Costs	27,046	27,046	24,372	(2,674)	(9.9%)	_	—%
CalPERS Total Budget	\$1,675,851	\$1,658,633	\$1,680,636	\$4,785	0.3%	(\$17,218)	(1.0%)
Total Positions	2,875.0		2,875.0	_	-%		

¹The FY 2018-19 Mid-Year Budget was approved by the CalPERS Board of Administration on December 19, 2017.

Investment operating expenses are not part of CalPERS Administrative Operating Costs; therefore, should not be included in the CalPERS Pro-Rata assessment.

³ The Third-Party Administrator Fees include initial proposals from health insurance carriers and may change, as they are negotiated each year during the health plan rate development process.

Note: Numbers may not add exactly due to rounding of budget detail.

CalPERS Total Budget

The approved FY 2018-19 CalPERS Total Budget is \$1,680.6 million, which is an increase of \$4.8 million (0.3 percent) compared to the approved FY 2017-18 Budget of \$1,675.9 million, which represents::

- A decrease of \$13.1 million (57.8 percent) in enterprise project costs
- A decrease of \$10.5 million (1.4 percent) in investment external management fees

- A decrease of \$2.7 million (9.9 percent) in headquarters building costs
- A decrease of \$0.2 million (0.1 percent) in third-party administrator fees
- An increase of \$31.3 million (5.6 percent) in administrative & investment operating costs

FY 2018-19 CalPERS Budget by Branch (in thousands)

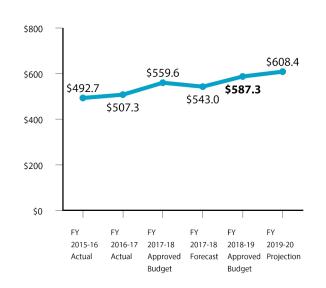
	FY 2017-18	FY 2018-19	Budget to	Budget
	Approved Approved		\$ Change Incr / (Decr)	% Change Incr /(Decr)
Administrative & Investment Operating Costs				
Actuarial Office	\$10,275	\$11,352	\$1,077	10.5%
Communications & Stakeholder Relations	15,172	15,467	295	1.99
Customer Services & Support	97,288	103,783	6,495	6.79
Enterprise Compliance Office	3,094	3,185	91	2.99
Executive Office	6,712	6,575	(137)	(2.09
Financial Office	31,013	31,817	803	2.60
General Counsel	27,641	28,532	891	3.2
Health Policy & Benefits Branch	30,827	32,350	1,522	4.9
Investment Office	162,492	168,852	6,360	3.9
Operations & Technology	150,711	162,870	12,159	8.1
Pro-Rata Assessment	24,411	26,195	1,784	7.3
Subtotal, Administrative & Investment Operating Costs	\$559,638	\$590,978	\$31,339	5.6
Investment External Management Fees	777,518	767,009	(10,509)	(1.49
Third-Party Administrator Fees	288,911	288,686	(225)	(0.1
Enterprise Projects Costs	22,738	9,591	(13,147)	(57.8
Headquarters Building Costs	27,046	24,372	(2,674)	(9.9
CalPERS Total Budget	\$1,675,851	\$1,680,636	\$4,785	0.3

Note: Numbers may not add exactly due to rounding of budget detail.

Administrative & Investment Operating Costs

The approved FY 2018-19 Total Administrative & Investment Operating Costs are \$591.0 million (the chart does not reflect one-time Formal Budget Requests of \$3.6 million that expire at the end of FY 2018-19), compared to \$559.6 million in the approved FY 2017-18 Budget. This represents an increase of \$31.3 million (5.6 percent), as detailed below:

Total Administrative & Investment Operating Costs (in millions)



(in millions)	\$ Change	% Change
FY 2017-18 Administrative & Investment Operating Costs	\$559.6	
Cost Increases:		
Personnel Services	20.9	3.7%
Baseline Formal Budget Requests	8.2	1.5%
One-Time Formal Budget Requests	3.6	0.6%
Investment Operating Costs	2.1	0.4%
Total Increases	34.8	6.2%
Cost Decreases:		
Discretionary Administrative Operating Costs	(3.5)	(0.6%)
Total Decreases	(3.5)	(0.6%
Net Increase	31.3	5.6%
FY 2018-19 Administrative & Investment Operating Costs · · · · · · · · · · · · · · · · · ·	\$590.9	

Line Items of Expense (Financial Schedule)

The following pages highlight each notable change for the expense items within the Administrative & Investment Operating Costs.

Line Item of Expenses (in thousands)

		FY 2017-18	FY 2018-19 -	Budget to	Budget
	FY 2016-17 Actual	Approved Budget	Approved Budget	\$ Change Incr / (Decr)	% Change Incr / (Decr)
Administrative & Investment Operating Costs					
[1] PERSONNEL SERVICES					
Salaries & Wages	\$216,474	\$246,504	\$255,546	\$9,042	3.7%
Temporary Help	9,939	9,009	7,315	(1,694)	(18.8%
Overtime	1,960	2,370	2,100	(270)	(11.4%)
Benefits	102,244	129,293	135,987	6,694	5.2%
Subtotal Personnel Services	\$330,618	\$387,176	\$400,948	\$13,771	3.6%
Vacancy Savings		(26,627)	(18,738)	7,889	
Total Personnel Services	\$330,618	\$360,549	\$382,209	\$21,660	6.0%
[2] OPERATING EXPENSES & EQUIPMENT					
General Expense [2.1]	\$6,648	\$8,808	\$9,552	\$744	8.4%
Fund Administrative Services/Subscriptions	2,816	3,126	2,898	(228)	(7.3%
Software [2.2]	905	2,046	2,205	159	7.8%
Printing	1,762	1,951	1,963	12	0.6%
Postage [2.3]	2,613	3,667	3,336	(331)	(9.0%
Communications	1,742	1,907	1,816	(91)	(4.7%
Data Processing Services [2.4]	17,648	17,128	15,802	(1,326)	(7.7%
Travel	2,484	3,393	3,257	(136)	(4.0%)
Training	1,199	1,660	1,730	70	4.2%
Medical Exam/Disability Travel	1,801	1,908	1,916	8	0.4%
Facilities Operations	5,315	5,665	5,464	(201)	(3.5%
Central Administrative Services (Pro-Rata) [2.5]	24,709	24,411	26,195	1,784	7.3%
University Enterprises, Inc. (Contracted Students) [2.6]	_	25	415	390	1,560.1%
External Legal Counsel [2.7]	7,912	13,189	11,807	(1,382)	(10.5%
Professional Services [2.8]	6,809	5,101	5,993	892	17.5%
Consultants [2.9]	18,751	18,261	21,946	3,685	20.2%
Consultants - Investments	11,758	19,501	19,501	_	%
Audit Services	1,246	1,305	1,400	95	7.3%
Master Custodian Fees [2.10]	5,103	4,490	7,657	3,167	70.5%
Appraisal Fees/Tax Advisory Services [2.11]	9,708	10,781	11,200	419	3.9%
Federal Legislative Representatives [2.12]	889	900	600	(300)	(33.3%
Administrative Hearings	1,517	1,300	1,300	_	—%
Other Investment Expenses	1,031	1,164	1,190	26	2.2%
Consolidated Data Centers	66	90	90	_	—%
Trading & Portfolio Management Systems	21,540	24,847	24,692	(155)	(0.6%
Data/Analytics [2.13]	12,049	17,015	17,600	585	3.4%
Business Operations Tool/Other Technology [2.14]	1,531	2,608	2,178	(430)	(16.5%
Equipment (Includes EDP) [2.15]	7,124	2,841	5,064	2,223	78.3%
Total Operating Expenses & Equipment	\$176,677	\$199,089	\$208,768	\$9,679	4.9%
Total Administrative & Investment Operating Costs	\$507,295	\$559,638	\$590,978	\$31,339	5.6%

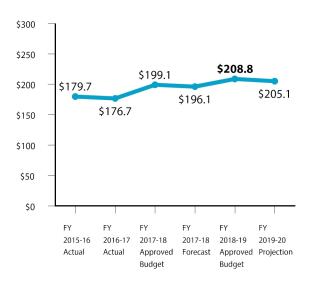
[1] Personnel Services

Information provided in the Position Summary Schedule page 61.

[2] Operating Expenses & Equipment

The approved FY 2018-19 Operating Expenses and Equipment costs of \$208.8 million represent an increase of \$9.7 million (4.9 percent) from the approved FY 2017-18 Budget of \$199.1 million.

Operating Expenses & Equipment Costs (in millions)



[2.1] General Expense

General Expense costs are estimated to increase by \$0.7 million primarily due to various executive recruitment subscription services.

[2.2] Software

Software costs are estimated to increase by \$0.2 million. Software costs of \$0.7 million for the new Human Resources Management Solution project, will be offset by reductions of legal software costs of \$0.3 million, and various software purchases that have shifted to Data Processing Services of \$0.2 million.

[2.3] Postage

Postage costs are estimated to decrease by \$0.3 million due to an increase in the use of internet resources to disseminate information.

[2.4] Data Processing Services

Data Processing costs are estimated to decrease by \$1.3 million due to the ongoing management and negotiation of maintenance contracts.

[2.5] Central Administrative Services (Pro-Rata)

Central Administrative Services (Pro-Rata) are expected to increase by \$1.8 million due to increased assessments by central service agencies.

[2.6] University Enterprises, Inc. (UEI) (Contracted Students)

Contracted Students costs are estimated to increase by \$0.4 million as costs have shifted from temporary help to the UEI line item for FY 2018-19 related to the CalPERS internship program, which includes the City of Sacramento Thousand Strong Internship Program.

[2.7] External Legal Counsel

External Legal Counsel costs are anticipated to decrease by \$1.4 million based on a three-year average projection.

[2.8] Professional Services

Professional Services costs are estimated to increase by \$0.9 million due to an increase in training courses and State Controller's Office warrants processed.

[2.9] Consultants

Consultants costs are estimated to increase by \$3.7 million primarily due to the my|CalPERS maintenance and operation expenses shifting from the enterprise projects budget to the operating budget (\$4.3 million).

[2.10] Master Custodian Fees

Master Custodian Fees are projected to increase by \$3.2 million due to a newly negotiated contract that includes increased services. The scope of work will include updates for compliance services, and integration with the Artemis and Short-Term Investment Fund projects.

[2.11] Appraisal Fees/Tax Advisory Services

Appraisal Fees are estimated to increase by \$0.4 million due to an increase of trading in emerging and international markets.

[2.12] Federal Legislative Representatives

Federal Legislative Representatives costs are estimated to decrease by \$0.3 million due to a reduction in reliance on federal lobbyists and work being completed in-house.

[2.13] Data/Analytics

Data/Analytics costs are estimated to rise by \$0.6 million due to increased data needs for internally managed portfolios.

[2.14] Business Operations Tool/Other Technology

Technology costs are estimated to decrease by \$0.4 million based on current purchase orders and additional initiatives.

[2.15] Equipment (includes EDP)

Equipment costs are estimated to have a net increase of \$2.2 million, primarily due to hardware refresh funding of \$3.9 million to replace hardware that is reaching the end of its useful life.

Investment External Management Fees Fund

The approved FY 2018-19 Investment External Management Fees Budget of \$767.0 million is made up of \$577.4 million for External Management Base Fees and \$189.6 million for External Management Performance Fees. This is an overall decrease of \$10.5 million (1.4 percent) from the approved FY 2017-18 Budget. The Total External Management Base Fees are increasing by \$20.1 million (3.6 percent), and the total External Management Performance Fees are decreasing by \$30.6 million (13.9 percent) from the approved FY 2017-18 Budget.

Investment External Management Fees Budget (in thousands)

		FY 2017-18	FY 2018-19	Budget to Bu	dget
	FY 2016-17 Actual	Approved Budget	Approved Budget	\$ Change incr/(decr)	% Change incr/(decr)
Global Equity [3.0]	\$80,546	\$87,974	\$93,000	\$5,026	5.7%
Fixed Income	10,781	10,003	10,003	_	—%
Real Assets ¹	187,068	184,742	185,201	458	0.2%
Absolute Return Strategy	675	800	332	(468)	(58.5%)
Private Equity ²	234,494	260,000	258,000	(2,000)	(0.8%)
Activist Funds [3.2]	6,513	5,362	_	(5,362)	(100%)
Multi-Asset Class [3.3]	8,194	8,467	30,900	22,433	264.9%
External Management Base Fees	\$528,270	\$557,349	\$577,436	\$20,087	3.6%
Global Equity [3.0]	\$23,043	\$71,071	\$84,896	\$13,824	19.5%
Fixed Income	2,915	3,336	2,908	(428)	(12.8%)
Real Assets ¹ [3.1]	56,592	142,865	100,969	(41,896)	(29.3%)
Absolute Return Strategy	2,689	_	800	800	100%
Activist Funds	_	_	_	_	—%
Multi-Asset Class	_	2,896	_	(2,896)	(100%)
External Management Performance Fees ²	\$85,239	\$220,169	\$189,573	(\$30,596)	(13.9%)
Total, External Management Fees	\$613,509	\$777,518	\$767,009	(\$10,509)	(1.4%)

¹ Real Assets include Forestland/Infrastructure.

Profit sharing for Private Equity is deducted from the net returns earned in that asset class. Note: Numbers may not add exactly due to rounding of budget detail.

The following are the main variances from the previous year:

[3.0] Global Equity Base and Performance Fees are estimated to increase by \$5.0 million as the remaining activist fund manager is now included in the international portfolio and the Global Equity external manager base fee line item. Performance fees are estimated to increase by \$13.8 million due to projected performance payouts based on the average market value and increased portfolio fund size.

[3.1] Real Assets Performance Fees are estimated to decrease by \$41.9 million due to market analysis from external managers and projected payments being netted from prior year accruals.

The following table shows the total projected costs for investment administrative costs, operating costs, and external management fees:

[3.2] Activist Funds Base Fees are no longer estimated under activist funds. The remaining external manager is included in Global Equity as this strategy no longer exists.

[3.3] Multi-Asset Class (MAC) Base Fees are estimated to increase by \$22.4 million. This asset class received Board approval for additional managers. Last year, only two managers existed for MAC funds. A total of six managers are projected for FY 2018-19.

Net Decrease in Investment Costs (in millions)

		F)/ 0.047 4.0	FV.0040.40	Budget to	Budget
	FY 2016-17 Actual	FY 2017-18 Approved Budget	FY 2018-19 Approved Budget	\$ Change incr/(decr)	% Change incr/(decr)
Investment Costs					
Administrative	\$65.4	\$73.7	\$75.4	\$1.7	2.3%
Investment Operating Costs	69.5	91.2	93.4	2.2	2.4%
External Management Base and Performance Fees	613.5	777.5	767.0	(10.5)	(1.4%)
Total	\$748.4	\$942.5	\$935.9	(\$6.6)	(0.7%)

Note: Numbers may not add exactly due to rounding of budget detail.

Basis Points Trend

The expense ratio reflects Investment Expenses in relation to the value of the portfolio, also known as the net position. The following chart displays External Management Fees, and Investment Administrative & Operating Costs in relation to the net position of assets under management. In summary, there has been a decrease in expenses relative to the net position from FY 2014-15.

The decrease in basis points from FY 2015-16 Actual Total Investment Expenses to FY 2016-17 is due to the decrease in external management fees in comparison to an increased net position and lower payouts in both base and performance fees.

The expense ratio of the approved FY 2018-19 Budget is anticipated to be 24.64 basis points. This assumes a downward trend as team members continue to negotiate more favorable portfolio management terms, and the Investment Office continues to manage assets internally.

CalPERS Investment Expenses/Net Position (in basis points)



Note: For FY 2017-18, FY 2018-19, and FY 2019-20, the forecasted net positions are based on the average assets under management from the past five years.

Enterprise Projects Fund

The FY 2018-19 Approved Enterprise Project Costs of \$9.6 million represent a decrease of \$13.1 million (57.8 percent) from the FY 2017-18 Approved Budget of \$22.7 million. Compared with the FY 2017-18 Forecast of \$22.2 million, the FY 2018-19 Approved Budget of \$9.6 million represents a decrease of \$12.6 million (56.8 percent). The Enterprise Projects are detailed further in the Capital Expenditures section on page 59.

The concentration of projects for FY 2018-19 is centered around the following:

- Continuing the redesign of the Actuarial Valuation System
- Replacement of the current Human Resources system with a modern cloud-based system
- Newer technology to address security risks and replace obsolete technology that is no longer providing adequate protection
- Transitioning the CalPERS Customer Contact Center platform to the cloud to enable full disaster recovery for contact center applications

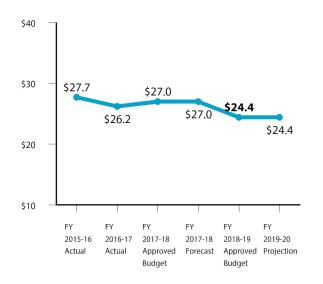
Enterprise Projects Costs (in millions)



Headquarters Building Costs Fund

The approved FY 2018-19 Headquarters Building Costs Budget is \$26.9 million, reduced by \$2.6 million in rent revenues, creating a net cost of \$24.4 million. Costs include operating expenses of \$18.5 million (utilities, engineering services, janitorial, security, etc.) and non-operating expenses of \$8.4 million (structural improvements, staff moves, insurance, etc.).

Headquarters Building Costs (in millions)



Operating expenses in the FY 2018-19 Approved Budget of \$18.5 million are reduced by \$1.0 million from the FY 2017-18 Approved Budget of \$19.5 million.

Non-operating expenses in the FY 2018-19 Approved Budget of \$8.4 million are reduced by \$2.3 million from the FY 2017-18 Approved Budget of \$10.7 million. The major variances between the two fiscal years are related to:

- · Reductions in furniture and fixtures
- Owner improvements
- Operating costs from the recent sale of the Thomson-Diggs and Ramos Buildings
- Rent revenue

The decrease in costs of \$2.6 million is detailed as follows:

Description to Increases/Decreases: (in millions) Utilities - Reduction due to new Sacramento Municipal Utility District (SMUD) SolarShares agreement (\$0.2) Engineering Services - Increase due to new union contract 0.3 Janitorial - Increase based on new contract rates 0.3 General Maintenance - Reduction in outside services, painting and decorating, and door/hardware repairs (0.2)Property Mgmt. & Administrative Fees - Increase in additional Contracts Administrator position (with salaries and benefits)...... 0.2 Café Plaza - Reduction due to contract renegotiation (0.2)Operating Other - Reduction in HVAC, sewage pump repairs, and cost of Green Energy Program...... (0.7)Owner Improvements - Reduction in cable installation salaries, wire plant/voice, wire plant/data, and warehouse storage (0.6)Building Improvements - Increase in building improvement projects 0.3 (2.0)Miscellaneous - Net impact of other changes (0.4)(\$3.2)Total Change in Costs 0.6 Budget Decrease from FY 2017-18 to FY 2018-19..... (\$2.6)

Headquarters Building Costs by Category (in thousands)

		FY 2017-18	FY 2018-19 —	Budget to B	udget
	FY 2016-17 Actual	Approved Budget	Approved Budget	\$ Change incr/(decr)	% Change incr/(decr)
Operating Costs				,	
Utilities	\$2,374	\$2,534	\$2,291	(\$242)	(9.6%)
Engineering Services	2,698	3,110	3,372	262	8.4%
Janitorial	2,942	3,030	3,288	258	8.5%
Landscaping	815	858	855	(3)	(0.3%)
General Maintenance	2,326	1,620	1,447	(173)	(10.7%)
Security	2,154	2,756	2,598	(159)	(5.8%)
Property Management & Administrative Fees	1,594	1,354	1,509	155	11.4%
Café Plaza	326	382	176	(206)	(53.9%)
Front St. Parking/Warehouse	582	726	642	(84)	(11.6%)
Emergency Operations Center ¹	528	512	455	(57)	(11.1%)
Operating Other ²	2,261	2,575	1,860	(715)	(27.7%)
Total Operating Costs	\$18,600	\$19,456	\$18,493	(\$962)	(4.9%)
Non-Operating Costs					
Owner Improvements ³	\$5,203	\$4,472	\$3,919	(\$553)	(12.4%)
Building Improvements ⁴	4,014	3,028	3,338	310	10.2%
Furniture & Fixtures	1,062	2,598	563	(2,035)	(78.3%)
Building Insurance	397	610	610	_	—%
Total Non-Operating Costs	\$10,676	\$10,707	\$8,429	(\$2,278)	(21.3%)
Subtotal Costs	\$29,275	\$30,163	\$26,923	(\$3,240)	(10.7%)
Rent Revenue Offset ⁵	(3,046)	(3,117)	(2,550)	566	(18.2%)
Total Headquarters Building Costs	\$26,230	\$27,046	\$24,372	(\$2,674)	(9.9%)

Note: Numbers may not add exactly due to rounding of budget detail.

Emergency Operations Center includes utilities, janitorial, security, landscaping, and generator maintenance.
Includes ongoing expense categories such as electrical, HVAC, plumbing, waste removal, property taxes, child care center, and parking garage.

Non-Operating Owner Improvements include CalPERS operational enhancements and support for the movement of divisions, units and/or staff within CalPERS.

Non-Operating Building Improvements are improvements made to the building structure or common areas.

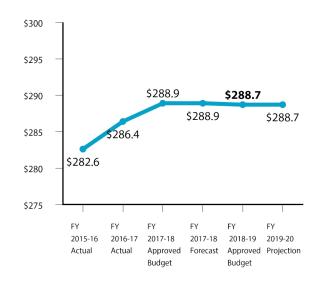
The Headquarters Building Account receives rent revenue that is used to offset the annual expenses.

Third-Party Administrator Fees Fund

Third-Party Administrator Fees cover administration, recordkeeping, and participant communication services for the CalPERS Health Program, Long-Term Care Program, Supplemental Income Plan Program, and California Employers' Retiree Benefit Trust Fund Program. Establishing strong partnerships to support delivery of health and pension services continues to strengthen the focus on improving long-term health and pension benefit sustainability for its members.

The approved FY 2018-19 Total Third-Party Administrator Fees Budget is \$288.7 million, a decrease of \$0.2 million (0.1 percent) from the approved FY 2017-18 Budget of \$288.9 million. The following details each of the program areas:

Third-Party Administrator Fees (in millions)



Third-Party Administrator Fees (in thousands)

		FY 2017-18	FY 2018-19	Budget to I	Budget
	FY 2016-17 Actual	Approved Budget	Approved Budget	\$ Change incr/ (decr)	% Change incr/ (decr)
Health Benefits Program ¹	\$240,361	\$239,991	\$239,991	_	—%
Health Benefits Program - State Controller's Office	4,233	2,800	2,941	141	5.0%
Subtotal Health	\$244,595	\$242,791	\$242,933	\$141	0.1%
Pharmacy Benefit Manager	17,696	21,213	21,325	112	0.5%
Total Health	\$262,290	\$264,004	\$264,257	\$253	0.1%
Long-Term Care Program (LTCG)	20,814	21,479	20,732	(748)	(3.5%)
Supplemental Income Plan (Voya)	3,297	3,326	3,585	259	7.8%
California Employers' Retiree Benefit Trust (Northeast	_	101	112	11	10.8%
Retirement Services)					
Total Third-Party Administrator Fees	\$286,401	\$288,911	\$288,686	(\$225)	(0.1%)

¹The Third-Party Administrator Fees include initial proposals from health insurance carriers and may change, as they are negotiated each year during the health plan rate development process.

Note: Numbers may not add exactly due to rounding of budget detail.

Health Benefits Program

More than 1.4 million members and their families are enrolled in CalPERS health plans. Coverage extends to all active and retired California State employees, as well as active and retired employees of local agencies and school districts in California. Health coverage providers whose third-party administration fees are calculated separate from premiums include Anthem Blue Cross, Blue Shield of California, Health Net, Sharp, UnitedHealthcare, and Western Health Advantage.

The approved FY 2018-19 Budget of \$264.3 million for the CalPERS Health Benefits Program represents a net increase of \$0.3 million (0.1 percent) from the approved FY 2017-18 Budget of \$264.0 million. The Administrative Services Fees (ASF) in this report are initial proposals from health insurance carriers. These ASFs may change, as they are negotiated each year during the Health Benefits Program's health plan rate development process. The projected FY 2018-19 expenses are estimated to be the same as the approved FY 2017-18 Budget.

Health Benefits Program (in millions)



Supplemental Income Plan

Long-Term Care Program (in millions)

Supplemental Income Plans (in millions)





The Long-Term Care Program, as administered by the Long Term Care Group, Inc., provides comprehensive, personal, non-medical assistance to its members. Coverage includes care at home, adult care centers, assisted living facilities, and nursing homes. Administrator fees include underwriting costs, billing and banking, care advisory services, claims administration, reports, and customer service.

The approved FY 2018-19 Budget of \$20.7 million represents a decrease of \$0.7 million (3.5 percent) from the approved FY 2017-18 Budget. This decrease is attributed to a continued decline in program membership. The FY 2017-18 Forecast is estimated to be \$0.2 million lower than the approved FY 2017-18 Budget due to a decrease in program participants. The program lost a net of 1,751 participants in the first half of FY 2017-18, primarily due to the death of participants. The FY 2019-20 Projection is estimated to be the same as the approved FY 2018-19 Budget.

The Supplemental Income Plans (SIP) program provides deferred compensation and defined contribution plans for employees of participating public agencies, schools, and the State of California. The Voya Group is the third-party administrator responsible for providing recordkeeping and administrative services for the SIP program.

The approved FY 2018-19 Budget of \$3.6 million represents an increase of \$0.3 million (7.8 percent) from the approved FY 2017-18 Budget. This increase is due to the market value performance as the administrative fees are asset-based driven.

Consolidated Financial Schedule

FY 2018-19 Consolidated Financial Schedule (in thousands)

Inve	Administrative & estment Operating Costs Fund	Enterprise Projects Fund	HQ Building Costs Fund	Investment External Mgmt Fees Fund	Third-Party Administrator Fees Fund	CalPERS Total for FY 2018–19
Total Revenues ¹	\$590,978	\$9,591	\$24,372	\$767,009	\$288,686	\$1,680,636
Expenditures						
Personnel	\$372,795	\$—	\$ —	\$ —	\$ —	\$372,795
Temporary Help & Overtime	9,414	_	_	_	_	\$9,414
General Expense	9,552	_	_	_	_	\$9,552
Communications	1,816	_	_	_	_	\$1,816
Data Processing Services	15,802	_	_	_	_	\$15,802
Facilities Operations	5,464	_	_	_	_	\$5,464
Travel & Training	4,987	_	_	_	_	\$4,987
Central Administrative Services (Pro-Rata)	26,195	_	_	_	_	\$26,195
Professional Services	6,408	_	_	_	_	\$6,408
Consultants	41,447	_	_	_	_	\$41,447
External Legal Counsel & Audit Services	13,207	_	_	_	_	\$13,207
Trading & Portfolio Management Systems	24,692	_	_	_	_	\$24,692
Data/Analytics	17,600	_	_	_	_	\$17,600
Other Investment Operating Costs	25,123	_	_	_	_	\$25,123
Other Administrative Costs	11,411	_	_	_	_	\$11,411
Equipment	5,064	_	_	_	_	\$5,064
Enterprise Projects	_	9,591	_	_	_	\$9,591
Headquarters Building Costs	_	_	24,372	_	_	\$24,372
External Management Base Fees	_	_	_	577,436	_	\$577,436
External Management Performance Fees	_	_	_	189,573	_	\$189,573
Health Program Administrative Fees	_	_	_	_	242,933	\$242,933
Pharmacy Services	_	_	_	_	21,325	\$21,325
Long-Term Care Program	_	_	_	_	20,732	\$20,732
Supplemental Income Plan	_	_	_	_	3,585	\$3,585
California Employers' Retiree Benefit Trust (CERBT)	_	_	_	_	112	\$112
Total Expenditures	\$590,978	\$9,591	\$24,372	\$767,009	\$288,686	\$ 1,680,636

 $^{^{\}rm 1}$ The CalPERS program receives revenue for expenditures through allocation from the Trust Funds.

Three-Year Consolidated & Fund Financial Schedules

Three-Year Consolidated Financial Sources & Uses (in thousands)

	FY 2016–17 Actual	FY 2017-18 Approved Budget	FY 2018-19 Approved Budget
Revenues			
Administrative & Investment Operating Costs Fund	\$507,295	\$559,638	\$590,978
Enterprise Projects Fund	34,088	22,738	9,591
Headquarters Building Costs Fund	26,230	27,046	24,372
Investment External Management Fees Fund	613,509	777,518	767,009
Third-Party Administrator Fees Fund	286,401	288,911	288,686
Total Revenues ¹	\$1,467,523	\$1,675,851	\$1,680,636
Expenditures			
Personnel	\$330,618	\$360,549	\$382,209
Data Processing Services	17,648	17,128	15,802
Central Administrative Services (Pro-Rata)	24,709	24,411	26,195
Consultant & Professional Services	37,319	42,888	47,855
External Legal Counsel & Audit Services	9,158	14,494	13,207
Equipment	7,124	2,841	5,064
Other Administrative Operating Costs	26,942	33,295	33,230
Investment Operating Costs	53,778	64,031	67,415
Enterprise Projects	34,088	22,738	9,591
Headquarters Building Costs	26,230	27,046	24,372
External Management Base Fees	528,270	557,349	577,436
External Management Performance Fees	85,239	220,169	189,573
Health Program Administrative Fees	244,595	242,791	242,933
Pharmacy Services	17,696	21,213	21,325
Long-Term Care Program	20,814	21,479	20,732
Supplemental Income Plan	3,297	3,326	3,585
California Employers' Retiree Benefit Trust (CERBT)	_	101	112
Total Expenditures	\$1,467,523	\$1,675,851	\$1,680,636

¹ The CalPERS program receives revenue for expenditures through allocation from the Trust Funds.

Trust Fund Balances

In accordance with the California Constitution, Article XVI, Section 17, "The assets of a public pension or retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries and defraying reasonable expenses of administering the System."

Fund condition statements for the CalPERS Trust Funds are presented below and include beginning balances, revenues, expenditures, and ending balances for three years. Changes from year to year are described in the footnotes for each fund and are primarily based on membership and enrollment forecasts, and investment return estimates. The administrative expenses identified in each fund are comprised of administrative and investment operating costs, investment external management fees, enterprise project costs, headquarters building costs, and third-party administrator fees, as applicable.

Annuitants' Health Care Coverage Fund (AHCCF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$5,122,188	\$6,790,501	\$8,205,842
Prior Year Adjustment	(\$323)	\$0	\$0
Adjusted Beginning Balance	\$5,121,865	\$6,790,501	\$8,205,842
REVENUES			
Investment Income ¹	\$519,518	\$467,885	\$569,619
Contributions ²	\$1,249,221	\$1,055,213	\$1,522,020
TOTAL REVENUES	\$1,768,739	\$1,523,098	\$2,091,639
EXPENDITURES			
Employer Health Reimbursement Expenses for Retirees	\$95,946	\$102,806	\$110,157
Administrative Expenses	\$4,157	\$4,951	\$5,683
TOTAL EXPENDITURES	\$100,103	\$107,757	\$115,840
ENDING BALANCE	\$6,790,501	\$8,205,842	\$10,181,641

¹ 2017-18 and 2018-19 estimates are based on projected rate of return. ² 2017-18 and 2018-19 estimates are based on percentage of salaries.

Public Employees' Contingency Reserve Fund (CRF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$10,595	\$12,297	\$13,839
Prior Year Adjustment	(\$485)	\$0	\$0
Adjusted Beginning Balance	\$10,110	\$12,297	\$13,839
REVENUES			
Investment Income ¹	\$2,064	\$2,511	\$2,787
Contributions ²	\$27,448	\$29,863	\$21,337
Retiree Drug Subsidy ³	\$4,600	\$4,600	\$4,200
TOTAL REVENUES	\$34,112	\$36,974	\$28,324
EXPENDITURES			
Retiree Drug Subsidy Payments	\$4,600	\$4,600	\$4,200
Administrative Expenses	\$27,325	\$30,832	\$32,160
TOTAL EXPENDITURES	\$31,925	\$35,432	\$36,360
ENDING BALANCE	\$12,297	\$13,839	\$5,803

Deferred Compensation Fund (DCF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$1,290,347	\$1,444,343	\$1,501,241
Prior Year Adjustment	(\$516)	\$0	\$0
Adjusted Beginning Balance	\$1,289,831	\$1,444,343	\$1,501,241
REVENUES			
Investment Income ¹	\$137,580	\$115,126	\$126,353
Contributions ¹	\$206,578	\$222,687	\$214,633
Contribution Refunds	(\$182,156)	(\$272,243)	(\$227,200)
TOTAL REVENUES	\$162,002	\$65,570	\$113,786
EXPENDITURES			
Benefit Payments ¹	\$2,694	\$3,636	\$3,165
Administrative Expenses	\$4,796	\$5,037	\$5,280
TOTAL EXPENDITURES	\$7,490	\$8,673	\$8,445
ENDING BALANCE	\$1,444,343	\$1,501,240	\$1,606,582

²⁰¹⁷⁻¹⁸ estimates are based on preliminary trial balance reports, and 2018-19 estimates are based on prior year averages

¹2017-18 and 2018-19 estimates are based on prior year return percentage ² 2017-18 and 2018-19 estimates are based on annual health premiums multiplied by the administrative rate ³ Pass-through subsidy from Centers for Medicare and Medicaid Services; based on eligible enrollees

Public Employees' Health Care Fund (HCF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$303,705	\$144,729	\$88,712
Prior Year Adjustment	\$10,595	\$0	\$0
Adjusted Beginning Balance	\$314,300	\$144,729	\$88,712
REVENUES			
Investment Income ¹	\$4,851	\$5,094	\$5,348
Contributions ²	\$4,399,342	\$3,844,486	\$4,049,126
TOTAL REVENUES	\$4,404,193	\$3,849,580	\$4,054,474
EXPENDITURES			
Benefit Payments ²	\$4,272,592	\$3,597,213	\$3,711,561
Administrative Expenses	\$301,172	\$308,384	\$310,547
TOTAL EXPENDITURES	\$4,573,764	\$3,905,597	\$4,022,108
ENDING BALANCE	\$144,729	\$88,712	\$121,078

¹2017-18 and 2018-19 estimates are based on a 5 percent increase over prior year ² 2017-18 and 2018-19 estimates are based on projected enrollment counts

Judges' Retirement Fund (JRF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$39,675	\$48,275	\$47,273
Prior Year Adjustment	\$0	\$0	\$0
Adjusted Beginning Balance	\$39,675	\$48,275	\$47,273
REVENUES			
Investment Income	\$424	\$516	\$505
Contributions ¹	\$210,268	\$204,658	\$201,674
Contribution Refunds	\$0	(\$71)	(\$71)
TOTAL REVENUES	\$210,692	\$205,103	\$202,108
EXPENDITURES			
Pension Benefit Payments ²	\$200,440	\$204,267	\$212,578
Administrative Expenses	\$1,652	\$1,838	\$2,547
TOTAL EXPENDITURES	\$202,092	\$206,105	\$215,125
ENDING BALANCE	\$48,275	\$47,273	\$34,256

¹ 2017-18 and 2018-19 estimates are based on a rolling three-year average ² 2017-18 and 2018-19 estimates are based on projected annual pension benefit payouts

Judges' Retirement Fund II (JRF II)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$1,173,137	\$1,355,989	\$1,574,931
Prior Year Adjustment	\$0	\$0	\$0
Adjusted Beginning Balance	\$1,173,137	\$1,355,989	\$1,574,931
REVENUES			
Investment Income	\$115,058	\$133,002	\$154,487
Contributions ¹	\$92,178	\$106,816	\$107,661
Contribution Refunds	(\$81)	(\$85)	(\$85)
TOTAL REVENUES	\$207,155	\$239,733	\$262,063
EXPENDITURES			
Pension Benefit Payments ²	\$22,326	\$18,400	\$22,470
Administrative Expenses	\$1,977	\$2,391	\$3,132
TOTAL EXPENDITURES	\$24,303	\$20,791	\$25,602
ENDING BALANCE	\$1,355,989	\$1,574,931	\$1,811,392

Legislators' Retirement Fund (LRF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$119,050	\$116,877	\$114,041
Prior Year Adjustment	(\$5)		
Adjusted Beginning Balance	\$119,045	\$116,877	\$114,041
REVENUES			
Investment Income ¹	\$5,047	\$4,955	\$4,835
Contributions ²	\$611	\$651	\$636
Contribution Refunds	(\$289)	(\$787)	(\$485)
TOTAL REVENUES	\$5,369	\$4,819	\$4,986
EXPENDITURES			
Pension Benefit Payments	\$6,960	\$7,045	\$7,264
Administrative Expenses	\$577	\$610	\$600
TOTAL EXPENDITURES	\$7,537	\$7,655	\$7,864
ENDING BALANCE	\$116,877	\$114,041	\$111,163

¹ 2017-18 and 2018-19 estimates are based on a rolling three-year average ² 2017-18 and 2018-19 estimates are based on projected annual pension benefit payouts

¹ 2017-18 and 2018-19 estimates assume a 5 percent rate of return ² 2017-18 and 2018-19 estimates are based on a rolling three-year average

Long-Term Care Fund (LTCF)

(in thousands)	Actual 2016-17	tual 2016-17 Estimate 2017-18	
Beginning Balance	\$624,277	\$302,692	\$418,399
Prior Year Adjustment	(\$353,810)	\$0	\$0
Adjusted Beginning Balance	\$270,467	\$302,692	\$418,399
REVENUES			
Investment Income ¹	\$67,170	\$175,710	\$121,440
Contributions ¹	\$306,303	\$296,323	\$301,313
TOTAL REVENUES	\$373,473	\$472,033	\$422,753
EXPENDITURES			
Benefit Payments ¹	\$314,383	\$328,100	\$321,242
Administrative Expenses	\$26,865	\$28,226	\$27,264
TOTAL EXPENDITURES	\$341,248	\$356,326	\$348,506
ENDING BALANCE	\$302,692	\$418,399	\$492,646

¹2017-18 estimates are based on preliminary trial balance reports, and 2018-19 estimates are based on prior year averages.

Public Employees' Retirement Fund (PERF)

(in thousands)	Actual 2016-17	5-17 Estimate 2017-18 Estimat	
Beginning Balance	\$298,704,002	\$326,419,369	\$355,446,759
Prior Year Adjustment	\$574,705	\$0	\$0
Adjusted Beginning Balance	\$299,278,707	\$326,419,369	\$355,446,759
REVENUES			
Investment Income ¹	\$33,131,510	\$35,533,544	\$38,109,726
Contributions ²	\$16,544,416	\$17,777,481	\$17,777,481
Contribution Refunds	(\$222,275)	(\$238,390)	(\$255,673)
TOTAL REVENUES	\$49,453,651	\$53,072,635	\$55,631,534
EXPENDITURES			
Pension Benefit Payments ²	\$21,215,888	\$22,754,040	\$24,403,708
Administrative Expenses	\$1,097,101	\$1,291,205	\$1,290,521
TOTAL EXPENDITURES	\$22,312,989	\$24,045,245	\$25,694,229
ENDING BALANCE	\$326,419,369	\$355,446,759	\$385,384,064

¹ 2017-18 and 2018-19 estimates are based on the projected fund balance and actuarial rates ² 2017-18 and 2018-19 estimates are based on the historical trend of annual percentage increases

Replacement Benefit Custodial Fund (RBF)

(in thousands)	Actual 2016-17	al 2016-17 Estimate 2017-18 Est	
Beginning Balance	\$0	\$0 \$1,564	
REVENUES			
Investment Income ¹	\$272	\$606	\$439
Contributions ¹	\$21,880	\$22,488	\$22,184
TOTAL REVENUES	\$22,152	\$23,094	\$22,623
EXPENDITURES			
Benefit Payments ¹	\$20,573	\$22,488	\$22,184
Administrative Expenses	\$15	\$450	\$450
TOTAL EXPENDITURES	\$20,588	\$22,938	\$22,634
ENDING BALANCE	\$1,564	\$1,720	\$1,709

¹ 2017-18 estimates are based on preliminary trial balance reports, and 2018-19 estimates are based on prior year averages

Supplemental Contributions Program Fund (SCPF)

(in thousands)	Actual 2016-17	Estimate 2017-18	Estimate 2018-19
Beginning Balance	\$124,354	\$120,751	\$116,622
Prior Year Adjustment	(\$25)	\$0	\$0
Adjusted Beginning Balance	\$124,329	\$120,751	\$116,622
REVENUES			
Investment Income ¹	\$7,482	\$4,980	\$6,231
Contributions ¹	\$231	\$252	\$242
Contribution Refunds	(\$10,765)	(\$8,805)	(\$9,785)
TOTAL REVENUES	(\$3,052)	(\$3,573)	(\$3,312)
EXPENDITURES			
Benefit Payments ¹	\$90	\$129	\$110
Administrative Expenses	\$436	\$428	\$392
TOTAL EXPENDITURES	\$526	\$557	\$502
ENDING BALANCE	\$120,751	\$116,621	\$112,808

¹2017-18 estimates are based on preliminary trial balance reports, and 2018-19 estimates are based on prior year averages

Revenues

CalPERS has 11 trust funds that provide 100 percent funding of the budget needs for the enterprise and do not incur debt to fund system costs. The Board has authority under the California Constitution, Article XVI, Section 17, which states, "the retirement board of a public pension or retirement system shall have plenary authority and fiduciary responsibility for investment of moneys and administration of the System..."

The Contingency Reserve Fund and the Health Care Fund are exceptions to the above-described authority. The mechanism to secure funding for administration of the health benefits program is through the annual California state budget process.

Consolidated Financial Schedule (in thousands)

		FY 2017-18	FY 2018-19	Budget to E	Budget
	FY 2016-17 Actual	Approved Budget	Approved Budget	\$ Change incr/(decr)	% Change incr/(decr)
Budget by Fund					
Public Employees' Retirement Fund (PERF)	\$1,097,101	\$1,291,205	\$1,290,521	(\$684)	(0.1%)
Public Employees' Contingency Reserve Fund (CRF)	27,325	30,832	32,160	1,328	4.3%
Public Employees' Health Care Fund (HCF)	301,172	308,384	310,547	2,163	0.7%
Long-Term Care Fund (LTCF)	26,865	28,226	27,264	(962)	(3.4%)
Annuitants' Health Care Coverage Fund (AHCCF)	4,157	4,951	5,683	732	14.8%
Deferred Compensation Fund (DCF)	4,796	5,037	5,280	243	4.8%
Supplemental Contributions Program Fund (SCPF)	436	427	392	(35)	(8.2%)
Judges' Retirement Fund (JRF)	1,652	1,838	2,547	709	38.6%
Judges' Retirement Fund II (JRF II)	1,977	2,391	3,132	741	31.0%
Legislators' Retirement Fund (LRF)	577	610	600	(10)	(1.6%)
Replacement Benefit Custodial Fund (RBF)	15	450	450	0	0.0%
Subtotal	\$1,466,073	\$1,674,351	\$1,678,576	\$4,225	0.3%
Reimbursements ¹	1,450	1,500	2,060	560	37.3%
CalPERS Total	\$1,467,523	\$1,675,851	\$1,680,636	\$4,785	0.3%

Amounts received by CalPERS for services rendered. These reimbursements are from actuarial valuations prepared for public agencies that qualify for reimbursement, the cost of photocopies/postage related to the Public Records Act requests, annual employer conferences costs, and administrative assessments for employers' delinquent payroll.

CalPERS Revenue Sources and Allocation by Fund

PERF	Public Employees' Retirement Fund	80.1 %
CRF ¹	Contingency Reserve Fund	6.5 %
HCF ¹	Health Care Fund	9.3 %
LTCF	Long-Term Care Fund	1.1 %
AHCCF	Annuitants' Health Care Coverage Fund	0.9 %
DCF	Deferred Compensation Fund	0.3 %
SCP	Supplemental Contributions Program Fund	0.1 %
JRF	Judges' Retirement Fund	0.5 %
JRF II	Judges' Retirement Fund II	0.6 %
LRF	Legislators' Retirement Fund	0.1 %
RBF	Replacement Benefit Custodial Fund	0.1 %
REIMB	Reimbursements	0.4 %
	ect action taken by the California Legislature th program funding in both the CRF and the HCF.	100 %

The 11 trust funds that provide revenue sources for the CalPERS Budget are described as follows:

- Public Employees' Retirement Fund (PERF) is the main trust fund from which nearly all CalPERS retirement benefits are paid to State of California and other California public agency employees. The PERF benefits are funded by member contributions, employer contributions, and investment income.
- Public Employees' Health Care Fund (HCF)
 accounts for the activities of the CalPERS
 self-insured health care programs. Health premiums
 are collected from employers and members, and
 funding is used to directly pay for medical services
 and pharmaceutical usage. The HCF is funded by
 premium revenues. In addition, HCF receives
 Employer Group Waiver Plan (EGWP) subsidies.
 Under the EGWP, CalPERS contracts with federal
 prescription drug programs through the Pharmacy
 Benefit Manager (PBM) as the EGWP administrator.
 The PBM manages all federal interaction.
 Investments of the HCF are a non-operational use of
 reserves until needed for claims.

- Public Employees' Contingency Reserve Fund (CRF) was established to fund administrative costs related to the CalPERS health care programs and to provide a contingency reserve for potential increases in future health care premium rates or health care benefit costs. The CRF is funded by administrative fees. The administrative fees that are collected are a composite of three items: enrollment, premium rates, and public agency health payments and remittances to contracted health care providers. Investments of the CRF include only liquid, short-term securities, as investment balances are used to fund operating cash flows.
- Public Employees' Long-Term Care Fund (LTCF)
 provides long-term care insurance to participating
 members and is funded through premium revenues
 and investment income.
- Annuitants' Health Care Coverage Fund (AHCCF) is referred to as the California Employers' Retiree Benefit Trust Fund (CERBTF). It is an Other Postemployment Benefit (OPEB) fund for the pre-funding by employers of health, dental, and other non-pension benefits promised to employees when they retire. Funding to the CERBTF includes employer contributions and investment income.
- Deferred Compensation Fund (DCF) provides
 CalPERS members with two defined contribution
 plans to help save for retirement:
 - » The Board is the trustee for public agency participant assets in the **Public Agency Deferred Compensation Plan** (Internal Revenue Code [IRC] 457). Funding to the IRC 457 Plan consists of member contributions and investment income. The CalPERS Supplemental Income 457 Plan (457 Deferred Compensation Plan) is available to employees of public agencies and school districts within the State of California. Plan participation is voluntary to employees of contracting public agencies and school districts. Members may contribute up to IRC limits.
 - » The Supplemental Contributions Plan was established in March 2015 to provide supplemental retirement benefits to State of California employees who are members of CalPERS. Program participation is voluntary and consists of member contributions and investment income. Originally established January 1, 2000, the State Peace Officers' &

Firefighters' Supplemental Plan (SCP-POFF) was an employer-provided benefit for state peace officers and firefighters in certain bargaining units and was terminated effective March 2015, as directed by statute. Funds remaining in the plan after termination were rolled over into the Supplemental Contributions Plan as pretax SCP-POFF rollover accounts.

- Judges' Retirement Fund (JRF) is a closed retirement system that provides retirement benefits to California Supreme and Appellate Court Justices and Superior Court Judges appointed or elected before November 9, 1994. Funding to the JRF includes employer contributions, member contributions and investment income. The JRF is a "pay-as-you-go" system that requires the State of California to address the difference between available contributions and benefit payments annually, pursuant to state statute.
- Judges' Retirement Fund II (JRF II) provides retirement benefits to California Supreme and Appellate Court Justices and Superior Court Judges appointed or elected on or after November 9, 1994. Funding to the JRF II includes employer contributions, member contributions, and investment income.

- Legislators' Retirement Fund (LRF) provides retirement benefits to California Legislators elected to office before November 7, 1990, and to constitutional, legislative, and statutory officers elected or appointed before January 1, 2013. The Public Employees' Pension Reform Act of 2013 (PEPRA) closed enrollment for new participants to this fund. The number of LRF members has been declining in the last decade as eligible incumbents leave office and are replaced by those ineligible to participate in the LRF. Actuarially determined contributions will continue to be made by the State of California to supplement the existing assets until all benefit obligations have been fulfilled.
- Replacement Benefit Fund (RBF) provides benefits to members of the PERF, LRF, JRF, and JRF II whose retirement allowances exceed the IRC 415(b) limits. The IRC 415(b) imposes a dollar limit on the annual retirement benefits an individual may receive from a qualified defined benefit pension plan. The RBF is funded on a "pay-as-you-go" basis. The employer is invoiced for amounts payable to its former employees in the calendar year, and upon receipt of payment by the employers, CalPERS remits the replacement benefit to the retirees.

CalPERS Pension Buck

The CalPERS Pension Buck illustrates the sources of income that fund public employee pensions. Pension fund income over the last 20 years (as of June 2017) shows that investment earnings account for 61 cents of each dollar paid in pensions, 26 cents from employers, and 13 cents from employees.

Pensions are jointly funded by employer and employee contributions, which are invested so that pension fund dollars grow over time. Workers contribute up to 15.25 percent of their take-home pay to help fund their own pensions.

Every dollar paid to CalPERS retirees comes from three sources:



61¢ Investment earnings

26¢ CalPERS employers

13¢ CalPERS members

Debt

CalPERS has 11 trust funds that provide 100 percent recovery of the costs for the enterprise and does not incur debt to fund the budget. There is no borrowed principal and/or related interest payments for any budget year. Expenditures are initially paid from the PERF and from the remaining 10 funds (as described on pages 47-52) that are appropriated by the Board; therefore, there are no formally established debt limits.

Long-Term Financial Plans

CalPERS will continue through its five-year 2017-22 Strategic Plan, which will drive budget proposals in future years. Due to the anticipated large number of baby boomer retirees over the next few years, not only will the retirement processing workload increase for the organization, but continued focus on the funded status of the system will be a high priority. For the health care program, efforts to identify cost savings and measures will also take precedence. In the area of information security, the constant and more sophisticated threats to data require continued investment in cybersecurity solutions.

To offset cost increases described above, the organization will continue to identify cost savings and efficiencies. The success of the mylCalPERS Optimization efforts assists in this initiative by improving the technological infrastructure and workload processing times. Further, as CalPERS continues to build a robust in-house investment management group, expensive external manager fees will continue to decrease. Process improvement efforts and monitoring of expenses will ensure further opportunities for ongoing cost savings.

In December 2016, the Board voted to lower the discount rate, also known as the assumed rate of return, from 7.5 percent to 7.0 percent. This vote came after an extensive review by the Board on the current funded status, projected investment return rates over the next decade, an overview of CalPERS assets and liabilities, and discussions with stakeholders.

Although lowering the discount rate will increase employers' normal costs and unfunded actuarial liabilities, it's a crucial step to ensure the long-term sustainability of the fund. By lowering the discount rate incrementally over three fiscal years, employers will have more time to prepare for the changes in their contribution costs.

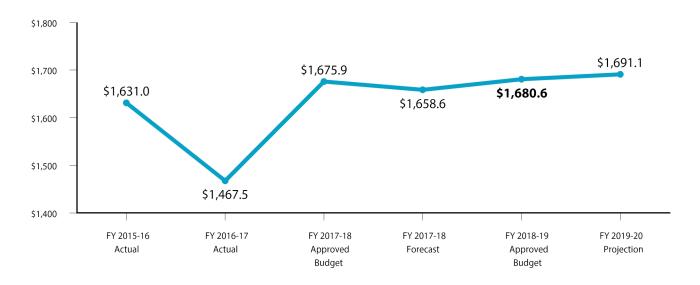
FY 2019-20 Budget Projection

The FY 2019-20 projection will represent the third year of the five-year 2017-22 Strategic Plan. The FY 2019-20 projection estimates an increase of \$10.5 million (0.6 percent) from the FY 2018-19 Approved Budget, as follows:

- Estimated increase in administrative operating costs by \$17.5 million (3.5 percent); includes estimated collective bargaining, benefit and merit salary increases in personnel services for the CalPERS team.
- Anticipated decrease in the enterprise project costs by \$7.0 million (72.9 percent). A proposed budget of \$2.6 million for the FY 2019-20 projection is for multi-year projects currently undertaken by the organization.

- No additional positions. The organization is committed to managing vacancies and redirecting positions when appropriate through the enterprise position-pooling process.
- No projected changes for the investment external management fees and investment operating costs. As these are likely to change, projections are unavailable.
- No anticipated changes to the Headquarters Building Costs and Third-Party Administrator Fees.

CalPERS Total Budget Forecast/Projection(in millions)



Note: The decrease in actual expenditures from FY 2015-16 to FY 2016-17 is mainly due to investment office external management base and performance fees, and investment operating expenses.

FY 2020-21 Budget Projection

The FY 2020-21 Projection will represent the fourth year of the five-year 2017-22 Strategic Plan and assumes CalPERS' overall strategic direction will remain the same. The FY 2020-21 Projection estimates an increase of \$11.6 million (0.7 percent) from the FY 2019-20 Projection. This increase is due to estimated benefit and merit salary increases in personnel services for the CalPERS team. The FY 2020-21 Projection features the following:

 No additional positions. The organization is committed to managing vacancies and redirecting positions, when appropriate, through the enterprise position-pooling process.

- The projection for the Investment External Management Fees and the Investment Operating Costs are unchanged; while both are likely to change, projections are unavailable.
- No changes to the projection for Third-Party Administrator Fees. While it is likely to change based on increases in membership and strong rate negotiations, projections are unavailable.
- No changes to the projection for Headquarters Building Costs.

Capital Expenditures and Enterprise Projects

Capital Expenditures

Capital expenditures are incurred when capital assets purchased exceed an initial individual cost of \$5,000 or more, or \$1 million or more for intangible assets, and have an estimated useful life in excess of one year.

Enterprise Projects

Capital expenditures are budgeted and captured in the Enterprise Projects Fund. The FY 2018-19 Approved Enterprise Project Costs of \$9.6 million represent a decrease of \$13.1 million (57.8 percent) from the FY 2017-18 Approved Budget of \$22.7 million. Compared with the FY 2017-18 Forecast of \$22.2 million, the FY 2018-19 Approved Budget of \$9.6 million represents a decrease of \$12.6 million (56.8 percent).

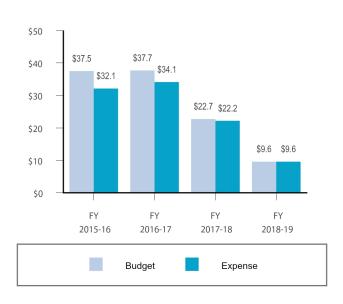
The concentration of projects for FY 2018-19 are centered around the following:

- Transitioning the CalPERS Customer Contact Center platform to the cloud to enable full disaster recovery for contact center applications
- Adoption of newer technology to address security risks and replace obsolete technology that is no longer providing adequate protection
- Continuing the redesign of the Actuarial Valuation System
- Replacement of the current system used by Human Resources with a modern cloud-based system

Contact Center Applications — Migration to the Cloud

CalPERS Customer Contact Center technology, in place for 15 years, is a multi-vendor solution that has been tightly integrated and is highly complex. This new technology will deliver a more stable contact center platform, reduce technology systems support costs, and enable full disaster recovery for the contact center applications with a zero-hour recovery time objective.

Enterprise Project Budget and Expenditures (in millions)



Information Security Technology Solutions

In support of the CalPERS Strategic Objective, "continue to evolve our cybersecurity program," CalPERS is investing in new solutions to secure our members' data and mitigate ever-changing threats to the data security landscape. Funding for this project will be allocated across three different areas: software, new equipment, and consulting and professional services.

Actuarial Valuation System Redesign

The current Actuarial Valuation System (AVS) has been in existence for over 20 years and no longer meets evolving actuarial practices, such as including changes required for employers to comply with new standards implemented by the Governmental Accounting Standards Board (GASB). The investment to redesign the AVS will provide the capabilities needed to keep current with evolving practices and comply with GASB. This is a multi-year project.

Phase 1 was completed and identified business process requirements to develop a concept for the new database model. Phase 2 is on schedule and is due to be completed in October 2018, which includes developing a logical data model while

implementing the physical data model as the new AVS application is integrated to the new AVS database.

The next steps in FY 2018-19 are to write and implement AVS features, such as data analytics, document management, reporting, financing, and workflow. In addition, other activities include:

- Procurement of application hardware and software
- Continued system configuration and data integration
- User acceptance testing and training will be performed
- Transition of primary support functions from project consultants to CalPERS team members.

The completion of this project is anticipated in FY 2019-20.

Human Resources Management Solutions (HRMS)

The current HRMS system is hosted in-house and maintained by CalPERS team members with ongoing consulting support. It poses numerous challenges including high costs to maintain and enhance, and difficulty in interfacing with other systems. Also, skilled team members are in high demand and often difficult to attract and retain. One-time funding will be used to replace the current system with a modern cloud-based system that will meet CalPERS' business needs and requirements.

Impact of Capital Expenditures in Enterprise Projects Budget on Administrative Operating Budget

The one-time and ongoing costs associated with capital expenditures in the Enterprise Projects Fund are analyzed for their:

- Return on investment
- Savings to the organization
- Improved business processes leveraged through technology
- Cost-benefit analysis to determine if the project is a prudent investment of resources.

Anticipated operating costs associated with significant non-recurring capital investments are addressed during the operational budget planning phase as part of the process to build the annual budget. Forecasting helps determine the expected operational needs to migrate costs from the Enterprise Projects Fund to the Total Administrative & Investment Operating Costs Fund.

Potential ongoing operational needs are assessed when a Formal Budget Request (FBR) proposes a new project, and reassessed annually when a new FBR is submitted. Projects previously budgeted through the Enterprise Projects Fund are re-evaluated annually for adjustments to anticipated maintenance or staffing costs when the scope of the project changes from a project cost to an ongoing operational cost.

Department Information

Position Summary

FY 2018-19 Positions by Branch

	FY 2017-18 Authorized Positions (as of 2/28/17)	FY 2018-19 Authorized Positions	% Change
Actuarial Office	58.0	58.0	_
Communications & Stakeholder Relations	79.0	79.0	_
Customer Services & Support	865.5	865.5	_
Enterprise Compliance	26.0	26.0	_
Executive Office	16.0	16.0	_
Financial Office	218.0	218.0	_
General Counsel	140.0	140.0	_
Health Policy & Benefits	211.0	211.0	_
Investment Office	350.0	350.0	_
Operations & Technology	911.5	911.5	
TOTAL	2,875.0	2,875.0	-%

Salaries and Wages

The FY 2018-19 Approved Budget of \$382.2 million for salaries and wages represents a \$21.7 million net increase (6.0 percent) over the FY 2017-18 Approved Budget of \$360.5 million, as follows:

- Increased salaries and benefits negotiated during the statewide collective bargaining process, as well as anticipated increases for non-represented employees (\$15.8 million).
- Decrease in temporary staffing and overtime costs (\$2.0 million).
- During FY 2017-18, a one-time reduction of \$7.5 million for additional vacancy savings was approved during the Mid-Year Budget Process based on the vacancy trend at that time. For FY 2018-19, \$7.9 million is being restored. It is anticipated that vacancies will decline as divisions continue to manage existing vacancies through workforce planning efforts.

An overall vacancy savings target of 4.0 percent for FY 2018-19 recognizes the impact of vacancies on the cost of personnel services. This savings reduces costs by \$18.7 million, decreasing the net cost of \$400.9 million to \$382.2 million. The current year-to-date vacancy rate is 6.1 percent.

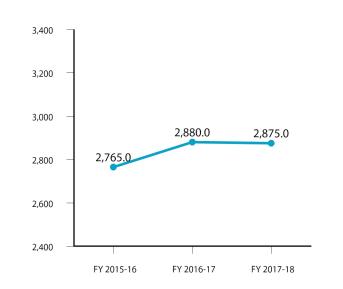
Personnel Services Cost Trend (in millions)



Position History

Over the three-year period through FY 2018-19, authorized positions grew from 2,765 at the end of FY 2015-16 to 2,875, with an increase of 110 positions (4.0 percent).

Position History



Three-Year Position History

Position History Per Fiscal Year by Branch

	Annual Position Changes					Three-Year % Increase
	FY 2016–17	FY 2017–18	FY 2018-19	Three-Year Total	FY 2018-19 Total Positions	to FY 2018-19 Position
Actuarial Office	1.0	_	_	1.0	58.0	1.8 %
Communications & Stakeholder Relations	2.0	_	_	2.0	79.0	2.6 %
Customer Services & Support	87.0	(5.0)	_	82.0	865.5	10.5 %
Enterprise Compliance	_	_	_	_	26.0	— %
Executive Office	_	_	_	_	16.0	— %
Financial Office	2.0	_	_	2.0	218.0	0.9 %
General Counsel	_	_	_	_	140.0	— %
Health Policy & Benefits	1.0	_	_	1.0	211.0	0.5 %
Investment Office	19.0	_	_	19.0	350.0	5.7 %
Operations & Technology	3.0	_	_	3.0	911.5	0.3 %
CalPERS TOTAL POSITIONS	115.0	(5.0)	_	110.0	2,875.0	4.0%

Performance Measures

Strategic performance measures build a framework that enables CalPERS to evaluate progress in meeting the goals of the strategic plan, and provide the linkage from business strategy to execution.

In February 2017, the CalPERS Board of Administration approved the CalPERS 2017-22 Strategic Plan. The new strategic plan is the result of a year-long collaborative process between the Board and executive team. The goal was to build a thoughtful and relevant plan for the future that began on July 1, 2017. The Strategic Measures continue to use an iterative approach to develop the measures.

When the five goals within this plan were developed, CalPERS went through an extensive process to gain an understanding of the major risks and opportunities facing the organization. The team gathered valuable information and feedback from a variety of internal and external stakeholders. After analyzing this input, the team assessed where it was and where it needed to go. The end result included five goals, each with its own set of objectives and performance measures for success, that will guide CalPERS for the next half decade. The strategic plan is not meant to be a detailed roadmap, but a guide to steer CalPERS over the next several years.

CalPERS is developing and evaluating the corporate performance measures listed on the following page. Over the past year, measurements have begun to be captured and analyzed. Some measurements are still in progress, so data is not yet available.

Corporate Performance Measures for Each Strategic Goal

Goal A: Fund Sustainability

- A1 Probability of PERF falling below 50 percent funded over the next 30 years
- A2 Probability of sharp single-year increase in contribution rates
- A3 Probability of high employer contribution rates
- A4 Funded status
- A5 Projected funded status
- A6 1-year total expected fund volatility
- A7 Annualized (5-year) excess investment returns relative to total fund policy benchmark
- A8 Stakeholder assessment survey risk
- A9 Investment managers' policies and procedures for ESG factor integration

Goal B: Health Care Affordability

- B1 Rating of health care
- B2 Access to health care
- B3 Health care cost annual increase
- B4 Adult obesity
- B5 Adult diabetes
- B6 Diabetes self-management
- B7 Mental health and well-being
- B8 Self-reported overall health status
- B9 Opioids dose
- B10 Opioids duration
- B11 C-section rate
- B12 Hospital readmissions

Goal C: Reduce Complexity

- C1 CEM pension complexity score
- C2 Benefit payment timeliness
- C3 Customer satisfaction
- C4 External investment manager reduction strategy
- C5 CEM cost per member
- C6 Total overhead cost
- C7 5-year net value added

Goal D: Risk Management

- D1 Stakeholder assessment survey compliance and risk
- D2 Risk and compliance employee awareness survey
- D3 Risk and compliance program maturity assessment
- D4 Composite security health score within range

Goal E: Talent Management

- E1 Increase diverse recruitment channels
- E2 Workforce diversity and inclusion
- E3 Employee engagement survey
- E4 Proficiency in CalPERS leadership competencies
- E5 Internal candidates selected to fill senior and executive recruitments

The following are examples of some of CalPERS' key performance measures:

A1) Measure: Probability of PERF falling below 50 percent funded over the next 30 years

This measure represents the likelihood of the Public Employees' Retirement Fund falling below 50 percent funded over the next 30 years. Low funding levels represent risk to the employers and the members and result in either high contributions or further deterioration of the funding levels leading to contribution requirements that are beyond the employer's ability to pay and a risk to the members that benefits will not be paid in full when due.

Target: Decrease in the probability of the PERF funded status falling below 50 percent over a 30-year time frame

Baseline:

• State Miscellaneous: 6 percent

• Schools: 3 percent

• Public Agency Miscellaneous: 5 percent

• CHP: 15 percent

State POFF: 6 percent

• Public Agency Safety: 9 percent

Performance data will be available in August 2018. Each year a model is used to estimate the probability that the funding levels will fall below 50 percent at some point in the next 30 years. The measure is calculated separately for six subsets of the PERF: State Miscellaneous, Schools, Public Agency Miscellaneous, CHP, State POFF, and Public Agency Safety.

It is desirable for these probabilities to be low, but they will never be zero. The probability decreases when investment returns cause the funding level to increase and vice versa, but many other factors affect this metric. For example, a more aggressive funding policy such as shorter amortization periods, a lower amortization payment escalation rate (or level dollar amortization), or shorter "ramp" would decrease (improve) this probability, but would have a negative impact on other strategic measures.

More conservative assumptions can have a negative impact on this measure initially but a positive impact in the long run. For example, reducing the discount rate lowers the current funding levels and can increase this probability for a plan that is already close to 50 percent funded. However, if a lower discount rate means a lower likelihood of actuarial losses in the future, this probability would be expected to decrease (improve) later.

One action that causes an immediate improvement in this metric is when an employer makes an additional payment towards the unfunded liability. Public agencies continue to make additional payments and this year the State contributed \$6 billion above the required contribution.

A2) Measure: Probability of sharp single-year increase in employer contribution rates

This measure represents the likelihood of sharp single year increases in contribution rates. Sharp increases in contribution rates can impose financial strain on employers and may increase the risk that employers fail to make their required contributions.

Target: Low probability of a single year employer contribution rate increase of 5 percent of payroll for miscellaneous or 7 percent of payroll for safety

Baseline:

• State Miscellaneous: 0 percent

Schools: 0 percent

Public Agency Miscellaneous: 0 percent

CHP: 1 percent

State POFF: 0 percent

• Public Agency Safety: 0 percent

Performance data will be available in August 2018. Annually a model will be used to estimate the probability that the employer contribution rates will increase by 5 percent of payroll (7 percent for Safety plans) in a single year at some point in the next 30 years. It is desirable for these probabilities to be low, but the goal is not for these probabilities to be zero. There will always be a chance that future extraordinary

and/or successive actuarial losses will require a sharp increase in employer contribution rates.

Increases in employer contribution rates can occur when actuarial losses (particularly investment losses) occur, or there are changes in actuarial assumptions. Unfunded liabilities from these events are amortized over extremely long periods (30 years for losses and 20 years for assumption changes) precisely to avoid sharp increases in contribution rates.

There is also a 5 year ramp up and ramp down built into the amortization schedules, which further smooths the contribution rates. Increases in employer contribution rates can also occur with a change in actuarial methodology such as shortening the amortization period. The impact on employer contribution rates would be thoroughly analyzed before making any such change.

A3) Measure: Probability of high employer contribution rates

This measure represents the likelihood of high employer contribution rates. High employer contribution rates impose significant financial stress and may increase the risk the employers will default and be unable to make their required contributions.

Target: Decrease in the probability of employer contribution rates exceeding 35 percent of payroll for miscellaneous or 55 percent of payroll for safety

Baseline:

State Miscellaneous: 73 percent

Schools: 4 percent

Public Agency Miscellaneous: 11 percent

CHP: 100 percent

State POFF: 69 percent

• Public Agency Safety: 78 percent

Performance data will be available in August 2018. Each year a model is used to estimate the probability that the employer contribution rates will exceed 35 percent of payroll (55 percent for Safety plans) at some point in the next 30 years. It is desirable for these probabilities to be low, but they will never be zero. The

probability decreases when investment returns cause the contribution rates to decrease and vice versa, but many other factors affect this metric.

A more aggressive funding policy such as shorter amortization periods can have a negative impact on this measure initially but a positive impact in the long run. For example, amortizing gains and losses over 10 years could cause this probability to increase, because a future loss would cause a larger increase in the employer contribution rate. Eventually though, in any given year the employer would only be paying for the previous 10 years of gains and losses rather than the previous 30 years.

One action that causes an immediate improvement in this metric is when an employer makes an additional payment towards the unfunded liability. Public agencies continue to make additional payments and this year the State contributed \$6 billion above the required contribution.

A4) Measure: Funded status

A key aspect of sustainability is the funded status of the pension fund; therefore, the ratio of assets to accrued liabilities is an important measure to monitor. Funded status is a measure of a pension system's health and is determined by dividing the market value of assets by the actuarial accrued liability.

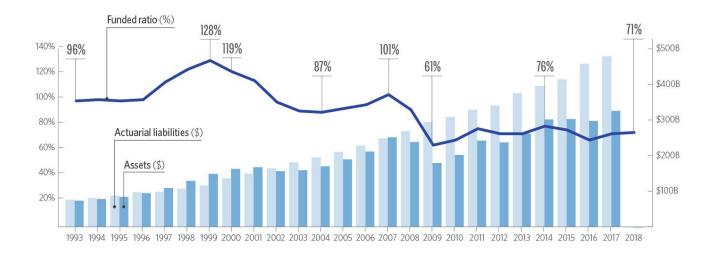
Target: Long-term funded status of 100 percent to be achieved over 30 years

This measure evaluates overall funded status for the Public Employees' Retirement Fund (PERF). The inputs for this metric are influenced by five main factors:

- Payment of unfunded liabilities
- Actual vs. expected investment returns
- Change in actuarial methods and assumptions
- Benefit changes
- Actuarial experience

The current estimated funded status of 71 percent reflects CalPERS' preliminary fiscal year investment return of 8.6 percent as of June 30, 2018. This shows an increase from previous estimated funded status of 68 percent, based on an investment return of 11.2 percent.

Key to the return was a globally diversified portfolio, which performed well across most asset classes, with the strongest return coming from private and public equity portfolios. As part of the CalPERS Asset Liability Management cycle, the Board will examine the current funded status of the system and make decisions with the goal of strengthening the long-term sustainability of the pension fund. CalPERS is also focused on reducing complexity and system costs which will contribute positively to the funded status of the PERF.



A5) Measure: Projected funded status

This measure monitors the actual vs. projected Funded Status of the PERF to determine if CalPERS' goal of 100 percent funding is on track.

Target: Meet or exceed projected funded status based on actuarial valuation reports.

Baseline:

• PERF: 68 percent

• State: 66 percent

• Schools: 70 percent

• Public Agencies: 69 percent

Performance data will be available in August 2018. The inputs for this metric are influenced by five main factors:

- Payment of unfunded liabilities
- Actual vs. expected investment returns
- Change in actuarial methods and assumptions
- Benefit changes
- Actuarial experience

Annually, the Actuarial Office produces valuation reports for the State, Schools, and Public Agency employers to determine minimum employer contribution requirements and the Funded Status of each plan. Because Funded Status changes slowly over time, it is important to monitor performance trends to indicate if long-term funding goals are on track.

A6) Measure: 1-year total expected fund volatility

Identifying and measuring investment risk is a key step when deciding what assets to invest in. The riskiness of investments can be considered equivalent to the volatility of returns. Barra Risk Factor Analysis incorporates factors in its model that can be used to predict and control risk.

Target: Achieve total expected fund volatility of 8 percent or less.

Baseline: The current Barra volatility estimate for PERF is 8.3 percent, per the June 30, 2016 Asset Liability Management Process, which is set every four years. Effective July 1, 2018, a new target was set as part of the November 2017 ALM Cycle.

The next annual update on the performance data will be available September 2018.

A7) Measure: Annualized (5-year) excess investment returns relative to total fund policy benchmark

This measure calculates annualized 5-year excess investment returns relative to the total fund policy benchmark established by the CalPERS Board of Administration. Reported on a fiscal year-end basis, the metric will measure effectiveness in meeting the objective of achieving superior investment performance relative to relevant targets.

Target: Meet or exceed the total fund policy benchmark.

Baseline: As of June 30, 2017, the Public Employees' Retirement Fund outperformed the total fund policy benchmark by 23 basis points, for the 5-year period.

Relative to the policy benchmark, the Public Employees' Retirement Fund generated solid returns over the five-year period, 8.83 percent which exceeded the actuarial target of 7.5 percent, and a total net rate return of 8.83 which exceeded the policy benchmark by 23 basis points. The next update on the performance data will be available in September 2018.

A8) Measure: Stakeholder assessment survey — risk

The measure scores the overall stakeholder perception of CalPERS' success in explaining and mitigating risks to the System. Data is gathered through the annual Stakeholder Perception Survey in response to the statement "I understand the risks inherent in the System and I am confident CalPERS is taking steps to reduce the risks."

Target: Five-year goal: achieve a score of 5.43 out of 7; a 5 percent increase from the baseline. annual increases of 1 percent (0.05 points). This target will be

met through continued stakeholder engagement, proactive communications with our various member/employer/retiree populations, and through focused efforts to share our risks and risk mitigation strategies. **Baseline:** 5.17 out of 7 possible points

The score decreased from 5.17 to 5.01.

Segment	Mean
Active Members	4.94
Employers	4.60
Retired Members	5.38
Employer Leaders	4.15
Inactive Members	4.68
Stakeholder Leaders	5.00
Total (ALL)	5.01

A9) Measure: Investment managers' policies and procedures for ESG factor integration

This measure will utilize an annual survey to determine the percentage of internal and external managers that have policies and procedures articulating how environmental, social, and governance (ESG) risk and opportunity considerations are incorporated into investment processes and decisions.

Target: 100 percent of internal and external investment managers have policies and procedures in place to integrate ESG factors into investment decisions.

Baseline: Baseline will be established at the end of FY 2017-18

B1) Measure: Rating of health care

This measure reflects the percentage of CalPERS members who rate all their health care in the past 12 months at 8 or higher on a 0 to 10 scale, with 10 being the best health care possible. Factors that can influence this measure include enforcement of contractual requirements and collaborative efforts with CalPERS health plan partners.

Target: 90 percent

Baseline: 80.3 percent

Performance data will be available August 2018.

B2) Measure: Access to health care

This metric represents the perception of CalPERS members' access to care when needed. A higher percentage of CalPERS members responding that they received routine care as soon as they needed it in the last 12 months is considered good. Factors that can influence this measure include enforcement of contractual requirements and collaborative efforts with CalPERS health plan partners.

Target: 90 percent

Baseline: 86.0 percent (survey conducted in 2016 covering experience in 2015)

Performance data will be available August 2018.

B3) Measure: Health care cost annual increase

This measure assesses the annual overall percent increase in CalPERS health care premiums compared to the US health care inflation rate. Factors that can influence this measure include member utilization, unit costs, and contract negotiations. Innovations and efficiencies such as promoting efficient hospital plan networks, value-based purchasing, and integrated health models, help mitigate medical trend increases.

Target: Below 5.51 percent for 2018. The goal is to keep annual overall increase in CalPERS health care premiums below change in medical care CPI plus 3 percent. These amounts change annually.

Baseline: The US Health Care inflation rate, measured by change in the Consumer Price Index (CPI) for medical care. The baseline for 2017 is 2.51 percent.

CalPERS exceeded the target by holding the annual overall percent increase in health care premiums for 2018 below 5.51 percent. The percent increase in health care premiums for 2018 is 2.33 percent.

B4) Measure: Adult obesity

This measure assesses the percent of adult members who have a Body Mass Index (BMI) of 30 or above based on self-reported weight and height in the annual CalPERS Health Plan Member Survey. A lower percentage is considered good. Factors that can influence this measure include:

- Provider and member behavior (e.g., diet and exercise).
- Enforcement of contractual requirements and collaborative efforts with CalPERS health plan partners. For example, obese members who have prediabetes may be eligible for diabetes prevention programs that can help them to lose weight.

Target: 11 percent

Baseline: 28.3 percent (survey conducted in 2016 covering experience in 2015)

Performance data will be available August 2018.

B5) Measure: Adult diabetes

This measure assesses the prevalence of diagnosed diabetes per 100 adults. This metric represents diabetes specific diagnosis codes reported by the health plans for Basic members (non-Medicare). Lowering this metric is considered good. Factors that can influence this measure include:

- Provider and member behavior (e.g., diet and exercise)
- Enforcement of contractual requirements and collaborative efforts with CalPERS health plan partners. For example, members who have prediabetes may be eligible for Diabetes Prevention Programs that can help them prevent the onset of diabetes.

Target: 7.0 percent

Baseline: 13.3 percent (based on 2016 data)

Performance data will be available August 2018.

B6) Measure: Diabetes self-management

This measure assesses the proportion of diabetics who report that they check their blood glucose or sugar at least once a day, based on the annual CalPERS Health Plan Member Survey. A higher percentage is considered good. Factors that can influence this measure include:

• Provider and member behavior.

• Enforcement of contractual requirements and collaborative efforts with CalPERS health plan partners. For example, many health plans have disease management programs through which members receive advice and coaching on diabetes by telephone.

Target:: 70 percent

Baseline: 67.3 percent (survey conducted in 2016 covering experience in 2015)

Performance data will be available August 2018.

B7) Measure: Mental health and well-being

This measure reflects the percentage of CalPERS members who answered "usually" or "always" to the annual Health Plan Member Survey question, "In the last 12 months, how often was it easy to get the treatment or counseling you needed through your health plan?" Access to mental health services can impact a variety of mental illnesses, such as depression, schizophrenia, bipolar disorder, Attention Deficit Hyperactivity Disorder (ADHD), Post Traumatic Stress Disorder (PTSD), anorexia, and bulimia.

Target: 80 percent. There are no known standardization benchmarks for the question; therefore, this target was chosen with the objective to exceed current and past results (63.1 percent in 2016 and 71.1 percent in 2015). The lower threshold was chosen at 10 percent less than the target.

Baseline: 72.2 percent (2017 data covering member experience in 2016)

Performance data will be available August 2019.

B8) Measure: Self-reported overall health status

This measure assesses the proportion of CalPERS member who rate their overall health as good, very good, or excellent on the annual Health Plan Member survey. A higher percentage is considered good. Factors that can influence this measure include enforcement of contractual requirements and collaborative efforts with CalPERS health plan partners.

Target: 90 percent

Baseline: 88.4 percent (survey conducted in 2016 covering experience in 2015)

Performance data will be available August 2018.

B9) Measure: Opioids — dose

Measure Description: Morphine milligram equivalents (MME) per capita on an incurred year basis for Basic (non-Medicare) plans.

Target: Below 288

Baseline: 317.46 for 2017

Performance data will be available April 2019.

Prior to 2018, the original target for this measure was tentatively the national average (640) because CalPERS was unable to perform MME analyses. The federal Centers for Disease Control and Prevention (CDC) reported that the average daily morphine milligram equivalents (MME) of opioids prescribed per capita in the United States increased from 180 in 1999 to 782 in 2010, then decreased to 640 in 2015. The California MME per capitais 467.0, as reported by amfAR (The Foundation for AIDS Research). As CalPERS team members discovered that CalPERS is already much better than national and California averages, we are shifting to a target of 45 percent of the national average as a "stretch" goal, and 50 percent of the national average as "red zone."

B10) Measure: Opioids — duration

Prescription opioid misuse is a public health problem that can lead to long-term health consequences, including death.

Target: Measure under development with an estimated completion date of January 2019.

Baseline: This measure is under development with an estimated completion date of January 2019. CalPERS team members are currently researching the feasibility of calculating this measure using Healthcare Effectiveness Data and Information Set (HEDIS) methodology. The only known relevant nationally-accepted, common measure is the HEDIS measure

"Use of Opioids at High Dosage." A new HEDIS measure for 2018, this is defined as "For members 18 years and older, the rate per 1,000 receiving prescription opioids for greater than or equal to 15 days during the measurement year at a high dosage (average morphine milligram dose greater than 120mg). As the measure is new, national comparative data to establish a target and thresholds will not be available till 2019.

B11) Measure: C-section rate

This measure determines the percent of in-network hospitals providing obstetric services to CalPERS members that have a NTSV ("nulliparous" [i.e., first time], "term" [i.e., not preterm or post-term], "single" [i.e., not twins, triplets, etc.], and "vertex" [i.e., not breech]) cesarean section rate of 23.9 percent or less.

Target: 45 percent of in-network hospitals meet the NTSV C-section rate of 23.9 percent

Baseline: 36.96 percent. That is, out of the 257 innetwork hospitals that provided obstetric services to CalPERS members in 2017, 95 (36.96 percent) had an NTSV C-section rate of 23.9 percent or less.

Performance data available August 2018.

Although cesarean births can be lifesaving and medically optimal, far too many are performed for non-medical reasons. This measure originally involved total C-section rates; however, both nationally and in California (e.g., under Let's Get Healthy California), the preferred measure for C-sections is the NTSV rate, and the NTSV C-section target rate is 23.9 percent or less. Calculating the overall NTSV C-section rates among CalPERS membership would require linkage to external data sources, which would be administratively difficult. In contrast, it is simple to determine from each health plan which contracted hospitals provide obstetric services to CalPERS members.

B12) Measure: Hospital Readmissions

This measure assesses the rate of adult acute inpatient stays that were followed by an unplanned readmission within 30 days after discharge.

Target: 8.0 percent for Preferred Provider Organization (PPO) plans and 8.0 percent for Health Maintenance Organization (HMO) plans.

Baseline: For plan all-cause readmissions for Basic (non-Medicare) members, the 2016 PPO baseline was 9.51 percent, and the 2016 HMO baseline was 9.79 percent.

Reducing hospital readmissions is important because they are associated with unfavorable patient outcomes and high financial costs. Nevertheless, a measure must be chosen carefully because not all readmissions should be interpreted as a negative outcome. This strategic measure is consistent with the "plan all-cause readmissions" measure in the Healthcare Effectiveness Data and Information Set (HEDIS®).

C1) Measure: CEM pension administration benchmarking survey — pension complexity score

The total Cost Effectiveness Measurement (CEM) complexity score represents the weighted average of CEM's complexity measure by cause, before scaling, from the annual CEM Pension Administration Benchmarking Survey.

Target: Reduce the weighted average CEM complexity score by 3 percent

Baseline: A score of 71 (weighted average from 2016)

This strategic measure reflects the achievement of our goal to reduce CalPERS CEM Complexity Score, based on the 2017 CEM Benchmarking draft report approved in April. After remaining steady at 71, our weighted average complexity score before relative scaling was reduced to 69. This decrease was driven primarily by the simplification of our pension payment options, achieved through legislative changes CalPERS initiated.

While CalPERS remains the most complex system in CEM's global database, we were able to achieve higher service levels and a total service score above the peer average despite our complex plan design. We remain committed to assessing and identifying opportunities to reduce complexity in our business processes to gain efficiency in the services we provide to our members and business partners.

C2) Measure: Benefit payment timeliness

This measure captures the timeliness of four payment types: Service Retirement, Refunds, Disability Retirement, and Survivor Benefits (Lump Sum and ASAP payments).

Target: Issue 95 percent of benefit payments within service level timeframes.

Baseline: FY 2017-18, Quarter 1: 95 percent

This metric performed well with a score of 95 percent for the third quarter of 2017-18. Survivor benefits payment timeliness improved significantly, due to mitigations implemented to address the sustained workload increase for these payments.

C3) Measure: Customer satisfaction

This metric reflects data from our customer satisfaction surveys. Collecting satisfaction data through surveys allows us to utilize the full value of customer feedback and increases our flexibility and responsiveness to their needs.

Target: Achieve an overall satisfaction rate of 90 percent, reflecting a positive customer experience across core business processes.

Baseline: FY 2017-18, Quarter 1: 86 percent

This metric performed well with a score of 92 percent for the third quarter of 2017-18. This performance reflects an increase of one percentage point from the previous quarter, demonstrating sustained high customer satisfaction rates with our benefit payment processes.

C4) Measure: External investment manager reduction strategy

This metric examines the total population of strategic and transition external managers retained to manage assets on behalf of CalPERS.

Target: 100 or fewer external strategic and transition managers

Baseline: 151 external strategic and transition managers

Considerable progress has been made over the last year. As of September 2017, the Investment Office is on track to decrease 5 or more managers for FY 2017-18, with the current count at 147 (-4 from the baseline measurement). Transparent, robust, fair, and competitive ongoing evaluation processes are driving this metric. An update on the performance data will be available in May 2018.

C5) Measure: CEM pension administration benchmarking survey — cost per member

This measure is taken from the annual CEM Pension Administration Benchmarking Survey which calculates the reduction to the pension administration cost per member.

Target: Reduce by 2 percent annually

Baseline: \$207 cost per member for FY 2016-17*

The total cost per member is calculated by taking the total members divided by the total pension overhead operating costs. There are several variables that impact the increase or decrease of these costs, including those that are out of CalPERS' control. For example, if membership numbers go down, and operating costs remain the same, costs per member will go up.

Employee salary increases drive up the costs per member, determined by collective bargaining. In efforts to reduce costs per member, process improvement efforts are being developed to increase efficiencies. CalPERS team members will identify enterprise cost drivers for the organization and produce a baseline report. Based on the report, the executive team can look at assessing the members return on investment for the customer service provided and identify possible ways to reduce costs.

*Preliminary results are subject to change.

C6) Measure: Total overhead cost

Total overhead costs calculated for pension administration and health.

Target: Reduce by 1.5-2 percent annually

Baseline: Baseline data will be available August 2018.

The CalPERS team will work to identify enterprise cost drivers for the organization and produce a baseline report. Cost drivers can vary in significance of impact. Once a baseline is established, a root cause analysis will be conducted to determine the main drivers impacting overhead costs and a priority analysis will be used to determine which ones the enterprise will address first. By identifying and prioritizing, efforts can be made to minimize those selected cost drivers to strive for this measure's target. Data will be available in FY 2017-18, Quarter 4.

C7) Measure: 5-year net value added

This measure is the analysis of INVO's cost drivers and cost structure vs. United States' (U.S.) peers.

Target: Exceed the median U.S. peer on investment cost and returns

Baseline: 5-year net value-added relative to an appropriate U.S. peer universe median return, adjusted for composition of asset allocation and after expenses, is 0 percent. CalPERS is cost advantaged vs. our peers by 7 basis points.

Each year, INVO participates in a CEM Benchmarking (CEM) survey which independently analyzes costs against a customized peer group. The most recent data available indicates CalPERS did exceed the U.S. peer median.

INVO is cost-advantaged compared to its U.S. peers, primarily due to:

- Internal management of public assets
- Index-oriented management of two-thirds of equity portfolio
- Lower private asset fees

Continued focus on delivering more value for cost through effective management of portfolios, resources, and technology. This includes renegotiation of external management fees and reduction of consulting and other related operating costs.

D1) Measure: Stakeholder assessment survey — compliance and risk

The measure scores the overall stakeholder perception of CalPERS' success in implementing functions and programs that support compliance and risk. Data is gathered through the annual Stakeholder Perception Survey in response to the statement "CalPERS has effective functions and programs to address compliance and risk."

Target: Five-year goal: 5.43 out of 7; a 5 percent increase from the baseline. Annual increases of 1 percent (0.05 points). This target will be met through continued stakeholder engagement and the consistent demonstration of our commitment to a culture of compliance and risk as an organization and as a system.

Baseline: 5.16 out of 7 possible points

The score for this measure declined from 5.16 to 5.04 from the previous year.

Segment	Mean
Active Members	4.98
Employers	4.87
Retired Members	5.34
Employer Leaders	4.42
Inactive Members	4.70
Stakeholder Leaders	5.50
Total (ALL)	5.04

Employer and inactive member scores declined significantly from the previous year. A number of CalPERS policy decisions during the year likely impacted these lower scores, particularly amongst the employer cohorts. These policy decisions were:

- Shortening the amortization policy
- The affirmation of the lowered discount rate at the conclusion of the Asset Liability Management policy
- Projections of steep employer contribution increases over the coming 6 years

D2) Measure: Risk and compliance employee awareness survey

This measure will be based on two survey questions focused on risk and compliance.

- Risk Annual Employee survey example question: "I am aware of CalPERS' risk program. I incorporate risk functions into my daily work."
- Compliance Annual employee survey example question: "I am aware of CalPERS' compliance program. I incorporate compliance functions into my daily work." Annual employee survey.

Target:

- Risk Target Incrementally increase the baseline by 2 percent annually (8 percent by 2022), with a target of 86 percent.
- Compliance Target Maintain 90 percent or greater positive response rate to the compliance survey question through June 2022.

Baseline:

- Risk Baseline Based on the 2018 CalPERS
 Compliance & Risk Annual survey, 78 percent
 of respondents answered "Yes" to the question,
 "I am aware of CalPERS risk program. I
 incorporate risk functions into my daily work."
- Compliance Baseline Based on the 2018 CalPERS Compliance & Risk Annual survey,
- 87 percent of respondents answered "Yes" to the question, "I am aware of CalPERS' compliance program. I incorporate compliance functions into my daily work."

Performance data will be available in February 2019.

Compliance Narrative Status - ECOM had the highest affirmation rate at 100 percent and CSR followed at 94 percent. OPT at 81 percent provides the greatest educational opportunity. Comparing All CalPERS respondent scores for Team Leaders (91 percent) to Team Members (83 percent) shows additional educational efforts could improve these groups. To increase enterprise-wide compliance awareness, ECOM will continue ongoing education efforts. To

reinforce these efforts, the ECOM 2018-19 Annual Plan has the following goals: "Promote a culture of integrity," "Measure Organizational Culture," and "Measure and report program effectiveness." These goals will serve to increase compliance awareness and help incorporate compliance functions into CalPERS team members' daily work.

D3) Measure: Risk and compliance program maturity assessment

These metrics are annual maturity scores for both CalPERS' risk management program and compliance program. Maturity is defined here as the degree to which risk and compliance processes have been formalized, implemented, and integrated into an organization's operations.

Target: CalPERS risk management and compliance maturity assessment scores are targeted to increase one point by 2021-22, from the baseline scores set in FY 2017-18.

Baseline: The Fiscal Year 2017-18 baseline for Enterprise Compliance (ECOM) is a 2+ and Enterprise Risk Management (ERMD) is a 3 on a scale of 1 (low) to 5 (high).

Performance data will be available in January 2019.

Maturity for compliance is measured on a scale ranging from 1 (low) to 5 (high). Maturity scores are refined with a (+) or (-) to indicate intermediate levels of maturity (e.g. 1, 1+, 2-, 2, 2+, etc.). Maturity for risk is solely measured on a scale of 1 (low) to 5 (high; no plus or minus intermediate ratings). It should be noted that the maturity assessments for compliance and risk are separate surveys and therefore the results are not comparable.

CalPERS implements annual plans to enhance and mature compliance and risk functions across CalPERS based on best practices, annual risk assessments, and recommendations from a five-year compliance plan. Additionally, CalPERS has a three lines of defense model to define assurance roles and responsibilities and an embedded compliance and risk framework that guide the implementation of new and enhanced compliance and risk functions throughout the organization.

D4) Measure: Composite security health score within range

Due to the sensitive nature of this performance measure, it is not released to the public. The measure is reported to the CalPERS Board of Administration in closed session meetings.

E1) Measure: Increase diverse recruitment channels

Increase the number of diverse channels used to broadcast open positions throughout the enterprise.

Target: Increase diverse recruitment channels by 25 percent

Baseline: As of July 1, 2017, the Human Resources Division actively engages in seven distinct recruitment channels:

- Online Job Board
- Social Networks
- CalPERS Brand
- Search Firms
- Print Advertisements
- Outreach Activities
- Job Notifications

Performance data available in July 2018.

To attract the most diverse and qualified applicant pool to CalPERS and engage prospective applicants in new ways, two new recruitment channels have been established.

CalPERS has collaborated with the "Honor a Hero, Hire a Vet" organization in the past and wants to expand to additional partnerships. CalPERS continually increases the number of veteran recruitment partnerships and in 2017 has connected with four additional veteran organizations in the effort to increase recruitment channels. CalPERS will continue to reach out and increase the number of veteran organization partnerships participating in career fairs and promoting CalPERS job openings.

In addition to our Veteran recruitment partnerships, CalPERS has also established four LinkedIn Recruiter seats. This recruitment channel allows us to actively search and reach out to top qualified candidates on LinkedIn. By expanding the usage of LinkedIn Recruiter seats, CalPERS will be able to actively seek out additional candidates for hard-to-recruit positions. These LinkedIn recruitment seats will be used to search for qualified candidates for vacancies throughout the enterprise.

E2) Measure: Workforce diversity and inclusion

This measure focuses on CalPERS' efforts to help foster a culture of inclusion that welcomes diversity of thought, experience, and background. Diversity within an inclusive working environment enhances the relevance of our work, increases productivity, and improves the value of services we provide. The annual Employee Engagement Survey (EES) has several specific questions aimed at gauging the success of our diversity and inclusion (D&I) efforts.

Target: Increase the EES score average related to D&l by 2 percent annually (8 percent by 2022).

Baseline: 66 percent (2017) D&I Driver EES results.

Performance data will be available December 2018. Previous baseline utilized a different methodology. New EES methodology and baseline established 2017 will provide consistent comparison each year.

The next survey will be administered September 2018, and will provide data to refresh this measure.

E3) Measure: Employee engagement survey

This measure focuses on our annual Employee Engagement Survey which supports our efforts to foster a culture of engagement at CalPERS. The questions in the survey correspond to engagement and retention drivers, such as manager relationships, learning and development, culture, and organization potential.

Target: High performing status of > 59 percent

Baseline: 59.5 percent

Performance data available December 2018.

E4) Measure: Proficiency in CalPERS leadership competencies

This measure will be used to determine proficiency in CalPERS leadership competencies and inform future steps to cultivate these competencies and develop succession plans throughout the enterprise. This measure is being implemented through a phased-in approach.

Target: Will be established in August 2018 for Year 1 evaluated leaders.

Baseline: Will be established in August 2018 when Year 1 efforts conclude.

- Year 1 performance data will be available following the 2017-18 Career Executive Assignment Incentive Compensation calibration (July/August 2018).
- Year 2 data, including Career Executive
 Assignments and Investment Office leaders,
 will be available following the January 2019
 incentive compensation mid-year calibration.
- Year 3 data will include all CalPERS leaders.
- Year 4 beginning data will be the all-inclusive baseline.

E5) Measure: Internal candidates selected to fill senior and executive recruitments

This measure assesses the percentage of senior and executive recruitments filled by internal candidates who participate in the competitive recruitment process.

Target: In accordance with industry best practices, 67 percent of recruitments should be filled by internal candidates. The target of this measure is based on the 67/33 build/buy ratio from Korn Ferry's Real World Leadership Study, which commissioned a comprehensive, global survey of views on leadership development with broad representation from a variety of international markets.

Baseline: In FY 2016-17, 75 percent of senior and executive recruitments were filled by internal

candidates.

Performance data available August 2018.

The merit process limits what we can do to affect change to this measure. The Succession Planning Program and Leadership Development programs are internal factors that can contribute to the measure. Annual reporting, as a result of completed recruitments, will be available in August 2018.

Department Descriptions, Unit Goals, and Objectives

The following charts are measures applied throughout the enterprise that include the percentage of expenses to budget, program staffing levels, and percentages of vacant positions. This section also expands on each program area's purpose and individual objectives that have been achieved for past years and are anticipated for FY 2018-19.

Measure: Percentage of budget expended

Target: 100 percent or less Budget Funds (in millions)

	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18 ¹
ADMINISTRATIVE & INVESTMENT OPERATING COSTS				
Approved Budget	\$498.9	\$527.7	\$548.3	\$559.6
Expenditures	\$479.1	\$494.1	\$507.3	\$543.0
Percentage Expended	96.0 %	93.6 %	92.5 %	97.0 %
ENTERPRISE PROJECTS				
Approved Budget	\$24.9	\$37.5	\$37.7	\$22.7
Expenditures	\$22.9	\$32.1	\$34.1	\$22.2
Percentage Expended	92.0 %	85.5 %	90.3 %	97.5 %
HEADQUARTERS BUILDING COSTS				
Approved Budget	\$32.7	\$30.3	\$31.3	\$27.0
Expenditures	\$29.3	\$27.7	\$26.2	\$27.0
Percentage Expended	89.8 %	91.2 %	83.8 %	100.0 %
INVESTMENT EXTERNAL MANAGEMENT FEES				
Approved Budget	\$1,016.5	\$930.7	\$896.7	\$777.5
Expenditures	\$1,333.1	\$794.5	\$613.5	\$777.5
Percentage Expended	131.2 %	85.4 %	68.4 %	100.0 %
THIRD-PARTY ADMINISTRATOR FEES				
Approved Budget	\$285.3	\$281.4	\$272.8	\$288.9
Expenditures	\$287.8	\$282.6	\$286.4	\$288.9
Percentage Expended	100.9 %	100.4 %	105.0 %	100.0 %
TOTAL BUDGET				
Approved Budget	\$1,858.2	\$1,807.6	\$1,786.9	\$1,675.9
Expenditures	\$2,152.3	\$1,631.0	\$1,467.5	\$1,658.6
Percentage Expended	115.8 %	90.2 %	82.1 %	99.0 %

 $^{^{\}rm 1}$ Expenditures based on recent projections. Fiscal year-end close data not yet available.

The total budget expended in FY 2017-18 is 99.0 percent and represents an estimate, since year-end is not finalized. This is just below the benchmark of 100 percent. In FY 2016-17, the 82.1 percent expended was below the benchmark of 100 percent. Improved forecasting and budget processes, as well as tighter spending controls, ensure that budgets are a more accurate reflection of actual expenditures.

Measure: Vacancies as a percent of total personnel years

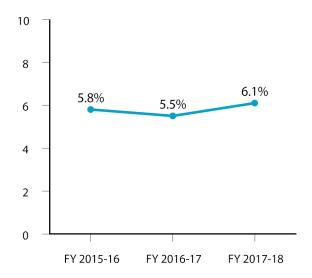
Target: 4.0 percent

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Performance Tracking & Reporting	Benchmark	2015-16	2016-17	2017-18	Average
Authorized Positions – Enterprise-wide	_	2,765.0	2,880.0	2,875.0	2,790.7
Percentage of Position Vacancy	4.0%	5.8%	5.5%	6.1%	5.7%

The CalPERS vacancy rate slightly increased from 5.8 percent in 2015-16 to 6.1 percent in 2017-18. The number of specialized positions within the Financial, Legal, Actuarial, and Investment Offices contributes to the vacancy rate, as there may be difficulties recruiting qualified candidates to fill positions. We anticipate the vacancy rate to decrease as we implement the CalPERS Position-Pooling Policy. However, there will always be a certain number of vacancies in an organization this large with diverse business lines.

Vacancy Rate by Year



Actuarial Office

CalPERS Actuarial Office (ACTO) team members prepare actuarial valuations for the State of California, school employers, and contracting public agencies (cities, counties, municipalities, etc.). The valuations are based on the benefits adopted, actuarial methods and assumptions set by the Board, and the membership and financial data for each plan. The contribution rates employers pay to fund their employees' retirements are based on these actuarial valuations.

Recent Accomplishments:

- Produced over 3,900 public agency valuation reports, helping these employers establish the contribution requirements necessary to properly fund benefits.
- Performed a comprehensive study of all actuarial assumptions, and implemented board-approved changes for the June 30, 2017 valuations.
- Facilitated the CalPERS Board of Administration adoption of a newly shortened amortization period designed to improve benefit security and intergenerational equity for actuarial gains and losses on new pension liabilities.

Measure	Strategic Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	58.0	58.0	58.0	58.0
Vacant Positions	_	3.0	3.0	4.0	2.0
Percentage of Vacant Positions	_	5%*	5.2%	6.9%	3.4%
Approved Budget (in thousands)	D	\$11,352	\$10,275	\$8,248	\$7,684
Expenditures (in thousands)	D	\$11,352*	\$9,816	\$7,958	\$7,647
Percentage of Budget Expended	_	100%*	95.5%	96.5%	99.5%
Retirement Plan Employer Contribution Rate Valuation	А	3997	3,935	3,821	3,642
Reports Requested					
Retirement Plan Employer Contribution Rate Valuation	Α	3997	3,935	3,821	3,642
Reports Completed					
Percentage of Reports Completed	_	100%*	100.0%	100.0%	100.0%

Goal A: Strengthen the long-term sustainability of the pension fund

^{*} Target

Communications & Stakeholder Relations

The Communications & Stakeholder Relations (CSR) Branch is responsible for monitoring and communicating CalPERS' position on issues that may impact its stakeholders. CSR directs and supports internal and external communications, including the overall communications strategy for the www.calpers.ca.gov and www.mycalpers.ca.gov websites. CSR also maintains and fosters relationships with key stakeholders and oversees state and federal legislation.

Recent Accomplishments:

- Performed a series of communication efforts pertaining to CalPERS consideration of new private equity program models.
- Launched a series of short videos on social media with the theme "We Serve CA" that showcased public employees emphasizing the value of public service.
- Achieved completion of a comprehensive communication plan informing CalPERS employees of a new employee engagement survey which contributed to a high level of employee participation.

	Strategic				
Measure	Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	79.0	79.0	79.0	60.0
Vacant Positions	_	3.0	4.0	4.0	4.0
Percentage of Vacant Positions	_	0.04	5.1%	5.1%	6.7%
Approved Budget (in thousands)	D	\$15,467	\$15,172	\$11,585	\$11,430
Expenditures (in thousands)	D	\$15,467*	\$15,048	\$10,486	\$11,116
Percentage of Budget Expended	_	100%*	99.2%	90.5%	97.3%
Total CalPERS Facebook Followers	D	_	15,687	14,483	12,606
Total CalPERS Social Media Followers	D	5%**	47,306	40,301	30,232

^{*} Target

^{**} Increase

Customer Services & Support

Customer Services & Support (CSS) provides the first point of contact for CalPERS employers and members at eight Regional Offices throughout the State of California and the main customer contact center. CSS handles retirement account management for employers and members, calculates and manages benefit payments to members, retirees and beneficiaries, as well as provides employer and member education.

Recent Accomplishments:

- Simplified retirement options in order to reduce the complexity of the program for retiring members.
- Met targeted timeliness for benefit payments, demonstrating strong core workload performance.
- Achieved satisfaction rates in excess of 90 percent on customer surveys, indicating an overall positive experience in customer service interactions.

	Strategic				
Measure	Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	866.5	866.5	867.5	907.5
Vacant Positions	_	35.0	31.5	16.0	41.5
Percentage of Vacant Positions	_	4.0%*	3.6%	1.8%	4.6%
Approved Budget (in thousands)	D	\$103,783	\$97,288	\$105,489	\$103,888
Expenditures (in thousands)	D	\$103,783*	\$91,991	\$102,178	\$100,383
Percentage of Budget Expended	_	100%*	94.6%	96.9%	96.6%
Members Added to Service Retirement Roll	C, D	_	33,504	32,492	30,844
Service Retirements Paid (within 45 days of retirement	C, D	95%*	99.0%	96.6%	96.8%
date or application receipt)					
Members Added to Disability Retirement Roll	C, D	_	1,025	1,232	1,324
Disability Retirements Paid (within 45 days of retirement	C, D	95%*	98.0%	94.7%	95.8%
or disability approval date)					
Death Benefit Cases Completed	C, D	_	17,438	13,462	14,876
Death Benefit Cases Paid (within 45 days of	C, D	95%*	68.0%	61.2%	87.3%
documentation receipt)					
Call Wait Time (in minutes) - Target	C, D	1 or less*	1 or less	1 or less	1 or less
Call Wait Time (in minutes) - Actual	C, D	_	0.9	1.3	1.5

Goal C: Reduce complexity across the enterprise Goal D: Cultivate a risk-intelligent organization

^{*} Target

Enterprise Compliance Office

The Enterprise Compliance Office (ECOM) is committed to ensuring CalPERS' compliance with the letter and spirit of all applicable laws, regulations, and policies in partnership with program areas. ECOM is responsible for developing consistency in program area compliance activities, as well as ongoing monitoring and reporting. ECOM oversees, manages, and assists with policy and delegation development and is involved in many aspects and business areas of CalPERS where compliance with mandatory procedures is required.

Recent Accomplishments:

- Transitioned from within the Financial Office to reporting directly to the chief executive officer, allowing for improved communication, visibility, and influence for compliance efforts.
- Implemented regular monitoring of Investment decision-making materials and incorporated reporting of investment policy violations to the Risk & Audit Committee
- Conducted targeted compliance reviews and compliance monitoring of program areas

	Strategic				
Measure	Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	26.0	16.0	0.0	0.0
Vacant Positions	_	1.0	1.0	0.0	0.0
Percentage of Vacant Positions	_	4.0	6.3%	0.0%	0.0%
Approved Budget (in thousands)	D	\$3,185	\$3,094	\$0	\$0
Expenditures (in thousands)	D	\$3,185	\$2,787	\$0	\$0
Percentage of Budget Expended	_	100%*	90.1%	0.0%	0.0%

^{*} Target

Executive Office

The Executive Office (EXEO) provides stewardship of the System to deliver promised retirement and health benefits, while promoting wellness and retirement security for members and beneficiaries. The EXEO team is responsible for managing and executing all of CalPERS' ongoing programs and services.

Recent Accomplishments:

- Implemented a framework for expansion of Lean and Lean Six Sigma across the organization to build a culture of continuous process improvement.
- Developed an Enterprise Performance Management system for ongoing monitoring and reporting of strategic and operational performance metrics.
- CalPERS Chief Executive Officer, Marcie Frost, authored opinion-editorial piece "Taking Action: Exploring a New Private Equity Model."

Measure	Strategic Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	16.0	16.0	15.0	18.0
Vacant Positions	_	1.0	1.0	1.0	1.0
Percentage of Vacant Positions	_	4.0%*	6.3%	6.7%	5.6%
Approved Budget (in thousands)	D	\$6,575	\$6,712	\$7,450	\$5,112
Expenditures (in thousands)	D	\$6,575*	\$6,041	\$6,535	\$4,149
Percentage of Budget Expended	_	100%*	90.0%	87.7%	81.2%

^{*} Target

Financial Office

The Financial Office (FINO) is responsible for CalPERS financial management through coordination and centralization of all CalPERS finance activities. This includes managing and directing all accounting and budgeting activities for each of the funds and programs administered by CalPERS. Risk management, treasury management, pension contract management and prefunding programs also fall under the responsibility of FINO.

Recent Accomplishments:

- Worked with the Actuarial and Legal Offices to make changes to the amortization policy and enhance management of employer contracts. This will assist employers to pay their unfunded liabilities more quickly and strengthen the sustainability of the fund.
- Awarded the Government Finance Officers
 Association Certificate of Achievement for Excellence in Financial Reporting for the FY 2016-17
 Comprehensive Annual Financial Report.
- Awarded the Government Finance Officers
 Association Distinguished Budget Presentation
 Award for FY 2017-18.

	Strategic				
Measure	Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	218.0	218.0	245.0	216.0
Vacant Positions	_	9.0	32.0	17.0	14.0
Percentage of Vacant Positions	_	4.0%*	14.7%	6.9%	6.5%
Approved Budget (in thousands)	D	\$31,817	\$31,013	\$28,575	\$24,105
Expenditures (in thousands)	D	\$31,817*	\$23,364	\$26,899	\$22,149
Percentage of Budget Expended	_	100%*	75.3%	94.1%	91.9%
Achieve CAFR Certification of Excellence in Financial Reporting	A, D	Receive GFOA Award*	TBD	Yes	Yes
Achieve Government Finance Officers Association (GFOA) Excellence in Budgeting Award	A, C, D	Receive GFOA Award*	Yes	Yes	Yes
Receive Unqualified or Unmodified (clean) Audit Opinion on the CAFR	A, D	Receive Clean Audit Opinion*	TBD	Yes	Yes

Goal A: Strengthen the long-term sustainability of the pension fund

Goal C: Reduce complexity across the enterprise

Goal D: Cultivate a risk-intelligent organization

* Target

General Counsel Office

The General Counsel Office (GCO) provides legal advice to the Board, Executive Office, and CalPERS team. The GCO coordinates the use of external legal counsel, and analyzes and drafts legislation. It represents CalPERS at hearings, appeal boards, court cases, and other legal actions. The GCO also administratively oversees internal auditing of CalPERS operations and programs in concert with an external auditor engaged by the Board.

Recent Accomplishments:

- Completed configuration and implementation of TeamMate audit management software modules to improve efficiency and effectiveness of audit operations.
- Participated in stakeholder outreach events, such as the Employer Educational Forum, and co-hosted an Association of Public Pension Fund Auditors conference.
- Prepared for and attended 266 hearings, made 44 court appearances, and presented 190 agenda items to the Board.

Measure	Strategic Goal	2018-19	2017-18	2016-17	2015-16
Measure	GOal	2010-19	2017-10	2010-17	2013-10
Authorized Positions	_	140.0	140.0	140.0	137.0
Vacant Positions	_	6.0	6.0	8.0	10.0
Percentage of Vacant Positions	_	4.0%*	4.3%	5.7%	7.3%
Approved Budget (in thousands)	D	\$28,532	\$27,641	\$26,545	\$26,405
Expenditures (in thousands)	D	\$28,532*	\$24,503	\$24,186	\$24,544
Percentage of Budget Expended	_	100%*	88.6%	91.1%	93.0%
Public Agency Audit Reviews Planned	A, D	240*	240	240	126
Public Agency Audit Reviews Completed	A, D	240*	257	160	125
Percentage of Public Agency Completed Audits	_	100%*	107.1%	66.7%	99.2%
Internal Audits Planned	A, C, D	58*	38	28	35
Internal Audits Completed	A, C, D	58*	27	27	32
Percentage of Internal Completed Audits	_	100%*	71.1%	96.4%	91.4%

Goal A: Strengthen the long-term sustainability of the pension fund

Goal C: Reduce complexity across the enterprise

Goal D: Cultivate a risk-intelligent organization

^{*} Target

Health Policy & Benefits

The Health Policy & Benefits Branch manages research, design, implementation and maintenance of innovative products, services, and programs related to sustainable health offerings for CalPERS members. The HPBB monitors health industry trends, raises the visibility of CalPERS within the health field to impact policy, ensures competitive benefit programs are provided, and develops improvements to health benefit design.

Recent Accomplishments:

- Successfully negotiated 2019 health care premium increases in a challenging environment, maintaining a 1.16 percent overall average increase among all plans.
- Completed the second Health Benefits Program
 Annual Report designed to assist employers and
 other stakeholders in making informed decisions by
 providing a comprehensive look at health care cost
 trends, health cost drivers, population health, and
 overall health program design.
- Adopted CalPERS' Health Belief statements to provide a basis for strategic management of the health benefits program to achieve long-term objectives.

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Measure	Strategic Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	211.0	211.0	211.0	157.0
Vacant Positions	_	8.0	15.0	15.0	10.0
Percentage of Vacant Positions	_	4.0%*	7.1%	7.1%	6.4%
Approved Budget (in thousands)	D	\$32,350	\$30,827	\$25,941	\$26,460
Expenditures (in thousands)	D	\$32,350*	\$27,131	\$23,683	\$23,372
Percentage of Budget Expended	_	100%*	88.0%	91.3%	88.3%

^{*} Target

Investment Office

Under the general direction of the CalPERS Board, Investment Committee, and the Executive Office, the Investment Office (INVO) is responsible for the successful investment of the CalPERS funds. Individual investment decisions are made by an internal advisory team, as well as external equity managers on behalf of the Board. Trading decisions are governed by policies established by the Investment Committee in accordance with applicable law and are reported to the Investment Committee on a monthly basis.

Recent Accomplishments:

- Created a new "Direct Investment Model" for Private Equity that is anticipated to invest billions of dollars in the future.
- Exceeded the expected rate of return on investments due to robust performance in the private and public equity portfolios.
- High investment returns assisted in increasing the funded status of the overall Public Employees' Retirement Fund to an estimated 71 percent, an increase of 3 percentage points from the previous fiscal year.

Measure:	Strategic Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	350.0	350.0	352.0	335.0
Vacant Positions	_	14.0	34.0	43.0	31.0
Percentage of Vacant Positions	_	4.0%*	9.7%	12.2%	9.3%
Approved Budget (in thousands)	D	\$75,432	\$71,256	\$70,618	\$66,701
Expenditures (in thousands)	D	\$75,432*	\$68,971	\$65,446	\$64,538
Percentage of Budget Expended	_	100%*	96.8%	92.7%	96.8%
Net Investment Return as of June 30 (State / Public	А	7.25% / 7.375%*	8.6%**	11.2%	0.6%

Agencies)

Goal A: Strengthen the long-term sustainability of the pension fund Goal D: Cultivate a risk-intelligent organization

^{*} Target

^{**} Estimate

Operations & Technology

Operations & Technology (OPT) performs system analysis, design, programming, testing, implementation, and maintains CalPERS computer systems and databases. OPT also provides technical support and training for personal computers, local area networks, and office automation facilities. In support of innovation, OPT conducts research, evaluation, and development of new information technology services that support the CalPERS mission. In addition, OPT has jurisdiction over human resources, building maintenance contracts, procurement, strategic planning, diversity inclusion, and equal employment opportunity.

Recent Accomplishments:

- Awarded the 2018 Excellence in Greenhouse Gas
 Management by the Center for Climate and Energy
 Solutions and the Climate Registry for reducing
 absolute greenhouse gas emissions by 76 percent
 during the goal period.
- Automated indexing of incoming faxes through electronic forwarding to a file server with enhanced image resolution for data recognition of bar codes, form numbers, member names, and identification numbers. The new process resulted in cost savings, improved customer service, and streamlined business processing.
- Completed implementation of a single repository for all contracts and solicitation data, which resulted in enhanced reporting capabilities and a significant reduction in data entry errors.

Operations:

	Strategic				
Measure	Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions	_	310.5	310.5	312.5	277.5
Vacant Positions	_	12.0	18.5	14.5	20.0
Percentage of Vacant Positions	_	4.0%*	6.0%	4.6%	7.2%
Approved Budget (in thousands)	D	\$47,950	\$45,696	\$41,153	\$38,933
Expenditures (in thousands)	D	\$47,950*	\$45,801	\$39,417	\$36,746
Percentage of Budget Expended	_	100%*	100.2%	95.8%	94.4%
Workflow documents processed within 24 hours	D	100%*	100.0%	98.0%	98.0%

Goal D: Cultivate a risk-intelligent organization

Technology:

Measure	Strategic Goal	2018-19	2017-18	2016-17	2015-16
Authorized Positions		600.0	600.0	600.0	599.0
Vacant Positions	_	24.0	29.0	35.0	26.0
Percentage of Vacant Positions	_	4.0%*	4.8%	5.8%	4.3%
Approved Budget (in thousands)	D	\$114,921	\$105,015	\$105,063	\$104,892
Expenditures (in thousands)	D	\$114,921*	\$100,732	\$104,012	\$99,803
Percentage of Budget Expended	_	100%*	95.9%	99.0%	95.1%
Service Availability Uptime for mylCalPERS	D	100%*	100.0%	99.9%	99.9%
Application					

^{*} Target

^{*} Target

Glossary

Allocation

A distribution of funds or costs from one account or appropriation to one or more accounts or appropriations.

Allotment

The approved portion of an amount (usually of an appropriation) to be expended for a particular purpose during a specified time period.

Appropriation

Legal authorization to make expenditures or incur obligations for specific purposes.

Augmentation

An authorized increase to a previously authorized appropriation or allotment.

Baseline Adjustment

A change from the approved budget necessary to maintain the current level of service or activities in the current year or in a future year.

Baseline Budget

The anticipated costs of carrying out the current level of service or activities as authorized by the CalPERS Board or the California Legislature.

Board

The CalPERS Board of Administration is responsible for the management and control of CalPERS. The Board has exclusive control of the administration and investment of CalPERS' funds. The Board consists of 13 member-elected, appointed, and ex officio members.

Budget

A plan of operation expressed in terms of financial or other resource requirements for a specific period of time.

Budget Act

An annual statute authorizing state departments to expend appropriated funds for the purposes stated in the Governor's Budget and amended by the Legislature.

Budget Bill

An annual legislative bill that accompanies the Governor's proposed budget for the next fiscal year. The Budget Bill is prepared by the Department of Finance and submitted to each house of the Legislature by January 10. The California Constitution requires the Legislature to pass the Budget Bill and send it by June 15 each year to the Governor for signature. The Budget Bill becomes the Budget Act upon signature by the Governor, after any line-item vetoes.

Budget Change Proposal

A proposal to change the level of service or funding sources for activities authorized by the California Legislature, to propose new program activities not currently authorized, or to delete existing programs.

Budget Committees/Subcommittee

Assigned Senate and Assembly Budget Committees further divided into Subcommittees to address specific subject areas to discuss the Budget Bill and other fiscal matters.

Budget-To-Actual Reports

A series of CalPERS system reports that include a budget-to-actual report (consists of the annual budget, month and year-to-date expenses, and encumbrance balance), encumbrance query, voucher expenditures query, and the online expense query.

California Department of Finance

The State of California's fiscal control agency. The Director of Finance is appointed by the Governor and serves as the chief fiscal policy advisor. The Director

also sits as a member of the Governor's cabinet and senior staff.

California Legislative Analyst's Office (LAO)

A nonpartisan government agency that has provided fiscal and policy advice to the California Legislature since 1941. It is known for its fiscal and programmatic expertise and nonpartisan analysis of the state budget. The office serves as the "eyes and ears" for the Legislature to ensure that the executive branch is implementing legislative policy in a cost-efficient and effective manner.

California Public Records Act (PRA)

A law passed by the California State Legislature and signed by the Governor in 1968 requiring inspection and/or disclosure of governmental records to the public upon request, unless exempted by law (Statutes of 1968, Chapter 1473; currently codified as California Government Code sections 6250 through 6276.48).

Continuous Appropriation

Permanent constitutional or statutory expenditure authorization that is automatically renewed each year without further CalPERS Board or legislative action.

Encumbrance

The commitment of part or all of an appropriation by a governmental unit for goods and services not yet received. These commitments are expressed by such documents as purchase orders, contracts, and future salaries; and cease to be encumbrances when they are paid or otherwise canceled.

Emergency Operations Center (EOC)

CalPERS off-site center that houses backup information technology data.

Financial Accounting Standards Board (FASB)

A private, non-profit organization market regulator whose primary purpose is to establish and improve generally accepted accounting principles within the United States in the public's interest. The Securities and Exchange Commission designated the FASB as the organization responsible for setting accounting standards for public companies in the U.S.

Fiscal Year (FY)

The period beginning July 1 and continuing through the following year ending June 30.

Formal Budget Request (FBR)

A CalPERS proposal to change the level of service or funding sources for activities authorized by the CalPERS Board to propose new program activities not currently authorized, or to delete existing programs.

Fund

A legal entity that segregates monies or other resources for obligations in accordance with specific restrictions or limitations.

Generally Accepted Accounting Principles (GAAP)

The standard framework of guidelines for financial accounting. They are the common set of accounting principles, standards, and procedures that companies use to compile their financial statements, and are the commonly accepted ways of recording and reporting accounting information.

Governmental Accounting Standards Board (GASB)

The source of GAAP used by state and local governments in the U.S.

Governor's Budget

The recommendations and estimates for the state's financial operations for the ensuing fiscal year that the Governor presents to the Legislature by January 10 of each year. This document also displays the actual revenues and expenditures of the state for the immediate past year, updates estimates for the current year revenues and expenditures, and projects for the upcoming budget year revenues and expenditures.

Health Maintenance Organization (HMO)

An organization that provides or arranges managed care for health insurance, self-funded health care benefit plans, individuals, and other entities in the US and acts as a liaison with health care providers (hospitals, doctors, etc.) on a prepaid basis. The Health Maintenance Organization Act of 1973 required employers with 25 or more employees to offer federally certified HMO options if the employer offers traditional health care options. Unlike traditional

indemnity insurance, an HMO covers care rendered by doctors and other professionals who have agreed by contract to treat patients in accordance with the HMO's guidelines and restrictions in exchange for a steady stream of customers. HMOs cover emergency care regardless of the health care provider's contracted status.

Indirect Costs (cost allocation)

Costs which cannot be readily associated with a specific organization unit or program, such as general administrative expenses. Indirect costs are prorated to the organizational unit(s) or program(s) which are affected.

May Revision

An annual expenditure and revenue update to the Governor's Budget including revised current and budget fiscal years. Also includes any proposals to adjust expenditures to reflect updated revenue estimates.

Merit Salary Adjustment (MSA)

A cost factor resulting from the periodic increase in salaries paid to personnel occupying authorized positions. The increase is equivalent to one step in the salary range, provided the rate does not exceed the maximum of the salary rate for the classification.

Object of Expenditure (Line Item)

A classification of expenditures based on the type of goods or services received. For example, the budget category of personnel services includes the objects of salaries and wages, and staff benefits.

One-Time Cost

A proposed or actual expenditure that is non-recurring (usually only in one annual budget) and not permanently included in baseline expenditures.

Operating Expenses and Equipment (OE&E)

A category of a support appropriation which includes general expenses, printing, communication, travel, data processing, equipment, and accessories for the equipment.

Other Postemployment Benefits (OPEB)

An accounting concept created by GASB by pronouncements designed to address expenses that entities may or may not be legally bound to pay, but pay as a moral obligation. GASB pronouncements apply to governmental entities, public benefit entities, public employee retirement systems, and public utilities, hospitals and other healthcare providers, and colleges and universities.

Performance Measures

Indicators which are used to assess how well objectives have been accomplished.

Personnel Services

A category of expenditure which includes payment of salaries and wages, the state's contribution to the PERF, insurance premiums for workers' compensation, the state's share of employees' health insurance, and the state's share of Social Security.

Personnel Year (PY)

The actual or estimated portion of a position expended for the performance of work. For example, a full-time position that was filled by an employee for half of a year would result in an expenditure of 0.5 PY. This may also be referred to as a PY equivalent. A PY is currently calculated using 1,776 annual working hours. Non-working hours related to vacation, sick leave, and holidays have been factored into this number.

Preferred Provider Organization (PPO)

In health insurance in the U.S., a PPO is a managed care organization of medical doctors, hospitals, and other health care providers who have agreed with an insurer or a third-party administrator to provide health care at reduced rates to the insurer's or administrator's clients.

Pro-Rata

Represents General Fund recoveries of statewide general administrative costs (i.e., indirect costs incurred by central service agencies) from special funds (California Government Code, sections 11010, and 11270 through 11277). The Pro-Rata assessment apportions the costs of providing central administrative services to all state departments that benefit from these services. This apportioned amount

is further allocated to each state department's funding sources based on the percentage of total expenditures in each fund.

Program

A group of related functions or activities designed to achieve one or more common objectives.

Proposition 162

An initiative approved by the voters in 1992. It gives the CalPERS Board absolute and exclusive authority over the administration and investment of pension funds.

Public Agency Audit Reviews (PAAR)

Audits of public agencies that participate in CalPERS.

Public Employees' Pension Reform Act (PEPRA)

Effective January 2013, PEPRA changes the way CalPERS retirement and health benefits are applied, and places compensation limits on members. The greatest impact is felt by new CalPERS members. All members that do not fall into the definition of new members are considered classic members, who will retain the existing benefit levels for future service with the same employer.

Reimbursements

An amount received as payment for the cost of services performed, or of other expenditures made for, or on behalf of, another entity (reimbursements represent the recovery of an expenditure).

Return on Investment (ROI)

A performance measure used to evaluate the efficiency of an investment or to compare the efficiency of a number of different investments.

Revolving Fund

An agency or office revolving fund (ORF) is not a fund but an advance from an appropriation. Agencies may use the cash advance to disburse ORF checks. The cash account is subsequently replenished by a State Controller's Office warrant which records the expenditure and reduces the balance of the appropriation.

Service Employees International Union (SEIU) Local

A labor union representing approximately 96,000 California state employees with nine different bargaining units. Local 1000 deals with issues such as salaries, benefits, working conditions, and contract negotiations.

Staff Benefits

An object of expenditure representing the state costs of contributions for employees' retirement, state disability insurance, health and welfare benefits, and non-industrial disability leave benefits.

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