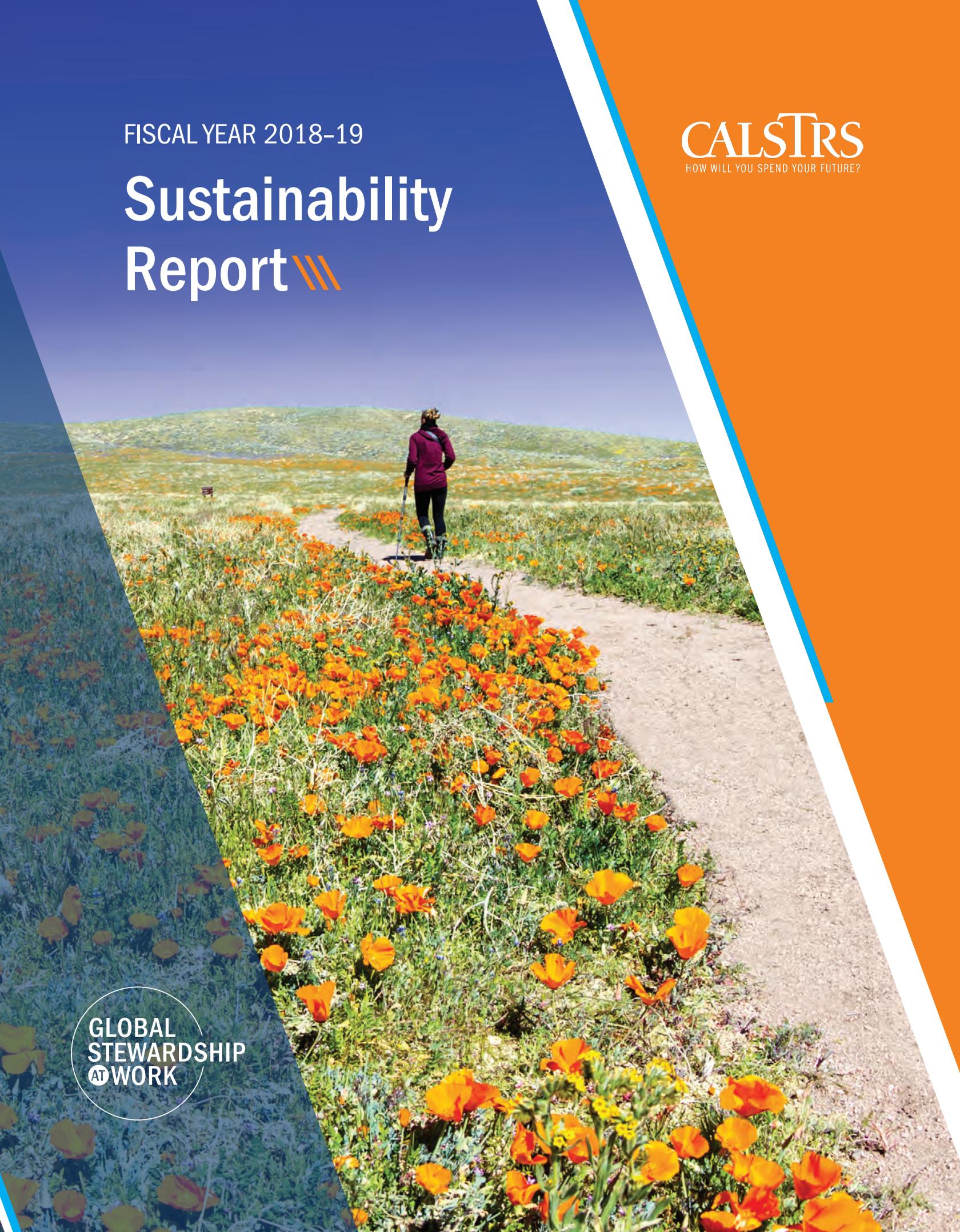


FISCAL YEAR 2018-19

# Sustainability Report

**CALSTRS**  
HOW WILL YOU SPEND YOUR FUTURE?



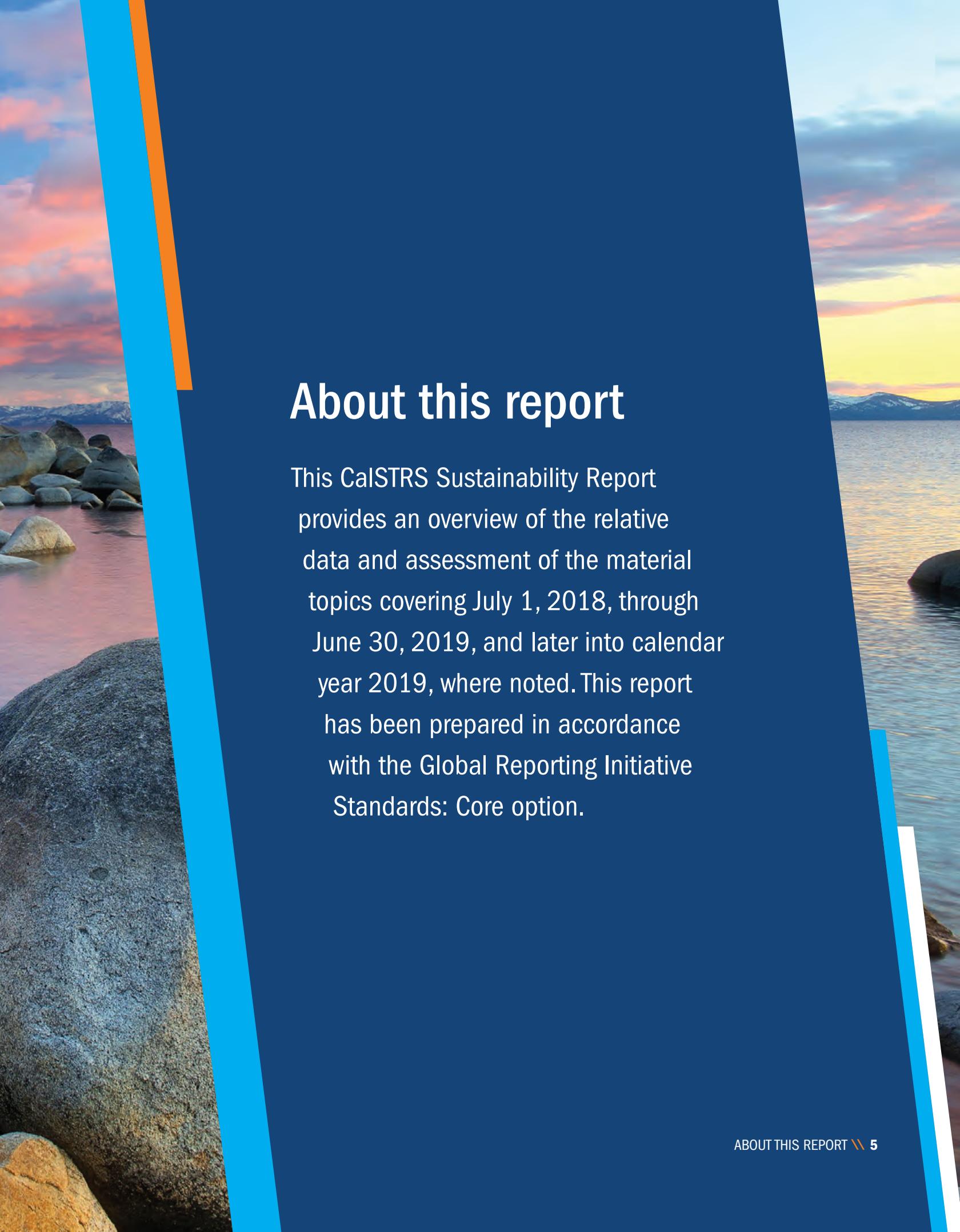
GLOBAL  
STEWARDSHIP  
AT WORK



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# About this report

This CalSTRS Sustainability Report provides an overview of the relative data and assessment of the material topics covering July 1, 2018, through June 30, 2019, and later into calendar year 2019, where noted. This report has been prepared in accordance with the Global Reporting Initiative Standards: Core option.

# Global stewardship at work

As the retirement system for California's public school educators, the California State Teachers' Retirement System serves more than 964,000 members and their beneficiaries. While educators dedicate their energy, time and talent to the growth and development of California's future, CalSTRS is committed to growing a sustainable fund that provides members a secure retirement benefit.

### Global stewardship at work

We take our fiduciary duty seriously with a focus on long-term value creation and responsible investment strategies. Our commitment to corporate sustainability is well adopted throughout our operations and culture. We call this Global Stewardship at Work, a theme that unites a family of CalSTRS reports including our *Comprehensive Annual Financial Report* and *Green Initiative Task Force Annual Report*.

Our long-standing attention to sustainability issues is reflected in this report's material topics: Path to Full Funding, Member Retirement Preparedness and Information Security.

### Path to full funding

Our primary financial goal is to ensure a well-governed, financially sound trust fund. We are focused on achieving full funding of the CalSTRS Defined Benefit Program according to the plan established by the California Legislature in June 2014. The plan is a model of shared responsibility and works with investment portfolio performance to advance the fund along the path of long-term sustainability.



In June 2019, CalSTRS provided the first required report to the California Legislature indicating that the funding plan is working and expected to reach near full funding by 2046.

### Member retirement preparedness

A defined benefit is a value of a lifetime and carries substantial economic and social weight when considering the longevity of the average CalSTRS member. Our members live longer than the average member of the U.S. population—and according to our most recent actuarial experience study, we expect our members to continue living longer in retirement. In fact, the number of CalSTRS members 100 years or older is 362, a 12% increase over the prior year.

On average, members retiring in 2018–19 did so with 24 years of service, which results in a benefit that replaces a little more than half of their working salary. Financial advisers recommend income replacement rates as high as 80% to 90% to maintain

## A WORD FROM CEO JACK EHNES

a pre-retirement lifestyle. We engage and educate members to help them understand their defined benefit and supplemental savings options to meet their retirement income goals.

### Information security

CalSTRS is the trusted repository for member and organizational data. Securing this data is one of our most critical activities. Information security creates and sustains a high-trust environment with all of our stakeholders. CalSTRS focuses significant attention on security processes, and we have several key initiatives underway related to ensuring our policies and technology continue to evolve and protect data and member information.

It is with this same level of purpose and care that we provide benefits and services to California's educators. We recognize our members for their dedication to their students—our future. In turn, I thank the CalSTRS staff, Teachers' Retirement Board, advisers and stakeholder organizations for their commitment to securing the financial future of our members.

Respectfully submitted,



Chief Executive Officer Jack Ehnes

### Report profile

This report's boundary and scope include our West Sacramento headquarters building, eight member service centers located throughout the state and financial information from the State Teachers' Retirement Plan. Most data is aggregated statewide across our California locations, with some data specific to our Northern California headquarters.

Alternative transportation, energy, greenhouse gas emissions, waste diversion and water figures represent our West Sacramento headquarters' performance. Member service centers do not materially affect our energy and water performance as utility usage is controlled primarily by lease agreements.

### Assurance

CalSTRS currently has no policy on the report's external assurance but strives to provide accurate, transparent and internally verified information.

CalSTRS' Internal Audits staff performed an independent and objective review of the information submitted in this report. Our internal audit procedures were designed to obtain a limited level of assurance over the measurable statements and facts.

For questions or comments about this report, contact us at [Sustainability@CalSTRS.com](mailto:Sustainability@CalSTRS.com).

# STAKEHOLDER ENGAGEMENT & MATERIAL TOPIC IDENTIFICATION

We believe it is essential to include the voices of our members and other stakeholders in conversations related to fund sustainability.

CalSTRS staff has developed a comprehensive strategy to communicate with our stakeholders, including financial entities, groups representing our members, the California Governor's administration, legislators, employers, members, labor representatives, our employees, suppliers, contractors and the media.

Staff regularly engages and solicits feedback from our stakeholder groups through board meetings, hosted events, email, online surveys, public meetings and web-based communications. Additionally, we have dedicated stakeholder engagement staff for member benefits and services, public and investor relations, and governance.

CalSTRS conducts an anonymous materiality survey every two years. Our 2018 materiality survey asked stakeholders to prioritize 11 topics based on their importance to CalSTRS in meeting our mission. Those groups surveyed included members, employees and external stakeholders. Select stakeholders were invited to participate based on their commitment to California's public educators, their principles of sustainability related to financial markets, or the direct impact that CalSTRS' actions have on their livelihood and financial future.

The survey was made available through social media, email and on CalSTRS.com. It was open for one month in spring 2018. Almost 600 stakeholders participated in the materiality survey.

## Highest-ranked topics by stakeholder groups

Feedback from employees, members and other stakeholders is summarized in the table below. Each topic is addressed in this report.

For 2018-19, our three material topics are Path to Full Funding, Member Retirement Preparedness and Information Security. Ethics and Compliance (pages 54-56) and Stakeholder Engagement (see above) are addressed as part of our General Disclosures.

Rank	Employees	Members	Other Stakeholders
1	Path to Full Funding	Information Security	Member Retirement Preparedness
2	Member Retirement Preparedness	Path to Full Funding	Stakeholder Engagement
3	Information Security	Member Retirement Preparedness	Ethics and Compliance





## **Mission**

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

## **Vision**

Your Reward—A Secure Retirement  
Our Reward—Getting You There

# About CalSTRS

The California State Teachers' Retirement System is the largest educator-only pension fund in the world and the nation's second largest public pension fund based on market value. CalSTRS serves California's more than 964,000 public school educators and their beneficiaries from the state's approximately 1,700 school districts, county offices of education and community college districts.

A hybrid retirement system, CalSTRS administers a combined traditional defined benefit, cash balance and voluntary defined contribution plan, as well as disability and survivor benefits.

Founded in 1913, the CalSTRS mission remains constant: securing the financial future and sustaining the trust of California's educators.

CalSTRS is a component unit of the State of California. The Teachers' Retirement Law (California Education Code section 22000 et seq.), as enacted and amended by the California Legislature and Governor, established these plans and CalSTRS as the administrator. The terms of our plans may be amended through legislation.

## 2018–19 Virtuosos



Employees who consistently exhibit our core values are nominated and selected for our highest honor, the annual Virtuoso award. From left, front row: Patricia Falloon, Rosie Rodriguez, Christina Portugal. Second row: Santie Moller, Jennifer Ellis, Melissa Wiese. Third row: Mindy Selby, Paul Rios, Gabriel Gandara. Back row: Nicole Snyder, Kathleen Holiday, Cassandra Mallett-Beck, Dale Coffey.

The CalSTRS Core Values are a set of attitudes, beliefs and behaviors that define CalSTRS and our employees. Core Values orientation is an important component of our onboarding program and contributes to our sustainability practices.

### **Customer service**

We never compromise on quality as we strive to meet or exceed the expectations of our customers.

### **Accountability**

We operate with transparency and accept responsibility for our actions.

### **Leadership**

We model best practices in our industry and innovate to achieve higher standards.

### **Strength**

We ensure the strength of our system by embracing a diversity of ideas and people.

### **Trust**

We conduct ourselves with integrity, acting ethically in every endeavor.

### **Respect**

We respect the needs of our members, co-workers and others, treating everyone with fairness, honesty and courtesy.

### **Stewardship**

We recognize our fiduciary responsibility as the foundation for all decision-making.

# CALSTRS STRATEGIC PLAN

The CalSTRS *2016–19 Strategic Plan* is designed to maintain the viability of our fund in perpetuity and secure the financial future of California’s educators.

The strategic goals for fiscal years 2016–19 cover four broad areas of focus:



## **Financial** *Ensure a financially sound retirement system.*

Our primary goal is to ensure a financially sound retirement system. We remain focused on achieving full funding of the CalSTRS Defined Benefit Program according to the plan established by the California Legislature in June 2014. We are committed to investing responsibly over the long term, while continuing to add value.

---



## **Member/employer** *Enhance services to members and employers.*

Our vision is to ensure that our members understand their retirement benefits and make smart decisions today to secure their financial futures. We highlight our partners in this responsibility, our members’ employers. Accurate data and complete reporting of member information are just as critical to a secure retirement as the employer’s role in educating employees about their benefits.

---



## **Business transformation** *Drive operational excellence.*

Our priority is to implement and integrate a new pension administration system for CalSTRS, BenefitConnect, to better serve our members, employers and employees. The Pension Solution project prepares our staff, partners, business processes and data for a successful implementation that will be rolled out in a phased approach starting late 2019 and continuing through 2022.

---



## **Workforce transformation** *Grow an engaged, highly skilled and diverse workforce.*

Our goal is to create a workplace that engages employees and helps us deliver optimum service and efficient performance. We know an engaged workforce contributes to engaged members, and initial research indicates a relationship between member engagement and retirement preparedness. We strive to hire the right individuals for the right job at the right time and to provide an engaging and inclusive work environment.

[http://bit.ly/  
StrategicPlan19](http://bit.ly/StrategicPlan19)



CalSTRS regularly updates our *Strategic Plan* to establish the priorities for the organization. In March 2019, the CalSTRS *2019–22 Strategic Plan* was adopted by the Teachers’ Retirement Board.

# EXECUTIVE STAFF



**Jack Ehnes**  
Chief Executive Officer



**Christopher J. Ailman**  
Chief Investment Officer



**Brian J. Bartow**  
General Counsel



**Cassandra Lichnock**  
Chief Operating Officer



**Julie Underwood**  
Chief Financial Officer



**Lisa Blatnick**  
Chief of Administrative Services



**Grant Boyken**  
Public Affairs Executive Officer



**Ashish Jain**  
Chief Technology Officer



**William Perez**  
Benefits and Services Executive Officer

# TEACHERS' RETIREMENT BOARD

As of June 30, 2019



**Sharon Hendricks**  
Board Chair  
Community College Instructor



**Harry M. Keiley**  
Board Vice Chair  
K-12 Classroom Teacher



**Dana Dillon**  
K-12 Classroom Teacher



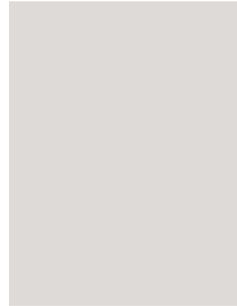
**Karen Yamamoto**  
Retiree Representative



**Joy Higa**  
Public Representative



**William Prezant**  
Public Representative



**Vacant**  
Public Representative



**Nora E. Vargas**  
School Board Representative



**Keely Bosler**  
Director of Finance  
Ex Officio Member



**Betty Yee**  
State Controller  
Ex Officio Member



**Tony Thurmond**  
State Superintendent  
of Public Instruction  
Ex Officio Member



**Fiona Ma**  
State Treasurer  
Ex Officio Member

# TEACHERS' RETIREMENT BOARD

CalSTRS is governed by the 12-member Teachers' Retirement Board which has plenary authority under the California Constitution. The board sets the policy and provides direction for the system and is responsible for ensuring the system pays benefits in accordance with the law. The board has exclusive control over the investment and administration of the Teachers' Retirement Fund and is composed of:



Three member-elected positions representing current educators.



A retired CalSTRS member appointed by the Governor and confirmed by the Senate.



Three public representatives appointed by the Governor and confirmed by the Senate.



A school board representative appointed by the Governor and confirmed by the Senate.



Four members who serve in an ex-officio capacity by virtue of their office:

- Director of Finance
- State Superintendent of Public Instruction
- State Controller
- State Treasurer

## Sharon Hendricks elected as chair

In May 2019, Sharon Hendricks was elected Teachers' Retirement Board chair. Hendricks, a communication studies instructor at Los Angeles City College, was elected in 2011 to the board, where she most recently served as vice chair.

Hendricks has advocated for the development of investment beliefs, transparency on investment fees, and managing environmental, social and governance risks such as climate change, corporate board diversity and fair labor practices.

In 2019, Hendricks was elected to the Principles for Responsible Investment Association Board.

"I'm looking forward to the challenges and opportunities we'll be addressing this coming year, such as the implications of our transition to a low-carbon economy and the development of new investment strategies," Hendricks said.



# TEACHERS' RETIREMENT BOARD'S SIX STANDING COMMITTEES

Committee	Purpose
<b>Appeals</b>	The Appeals Committee provides a dedicated body to hear, deliberate upon and decide appeals of CalSTRS determinations pursuant to the Administrative Procedure Act.
<b>Audits and Risk Management</b>	The Audits and Risk Management Committee assists the board in fulfilling its fiduciary oversight responsibilities for financial reporting, risk management, internal control, compliance, internal audit, external audit of the financial statements and engagements with other external firms.
<b>Benefits and Services</b>	The Benefits and Services Committee develops and oversees the execution of prudent policies relating to levels of benefits and the delivery of services to CalSTRS members, retirees and beneficiaries.
<b>Board Governance</b>	The Board Governance Committee supports the board in promoting the best interests of CalSTRS, its members, retirees and beneficiaries through the implementation of sound board governance policies and practices that enhance good, fair and open decision-making.
<b>Compensation</b>	The Compensation Committee provides oversight to CalSTRS' compensation policies and plan that support the successful recruitment, development and retention of talent to meet the business objectives of CalSTRS.
<b>Investment</b>	The Investment Committee administers all matters relating to the investment of assets and investment management. The committee is charged with administering assets for the exclusive purpose of providing benefits to the participants and their beneficiaries and maximizing the financial stability of CalSTRS in an efficient and cost-effective manner.

Committee charters can be found in the *Teachers' Retirement Board Policy Manual* at [CalSTRS.com/teachers-retirement-board](http://CalSTRS.com/teachers-retirement-board).

Two advisory committees, the Employer Advisory Committee and the Client Advisory Committee, meet throughout the year to provide forums for active participation in providing input to inform CalSTRS policies and procedures.

Additionally, constituent meetings are scheduled every two to three months and provide member representatives, both leaders and staff, an opportunity to discuss topics with board members outside of formal

agendized board meetings. Board member attendance rotates and is limited to two board members per meeting to adhere to the Bagley-Keene Open Meeting Act.

"Constituent meetings provide a valuable opportunity for in-depth discussion of issues that concern our members," said board member Dana Dillon. "The format allows our stakeholders to directly engage with board members in a less formal setting. These discussions have led to clarification of CalSTRS' processes and additional training. As a board member, I truly value the opportunity to work closely with our constituents and staff through these meetings."

# MEMBER PROFILE

## Members and beneficiaries

964,661

Total members and beneficiaries

451,429

**Active Members**

Vested: 316,621  
Non-vested: 134,808

204,593

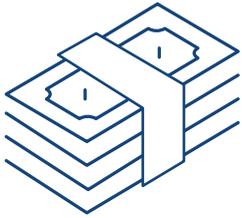
**Inactive Members**

Vested: 41,192  
Non-vested: 163,401

308,639

Retirees and benefit recipients

## Annual retirement statistics *July 1, 2018–June 30, 2019*

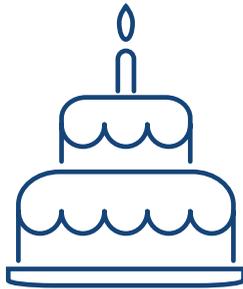


**\$15.2 billion**

Benefit payments which include service retirement benefits, disability benefits, survivor benefits and purchasing power supplemental payments

63.3

Average member age at retirement



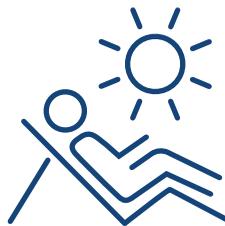
24.1

Average years of member service credit



57%

Percentage of members selecting the Member-Only Benefit



12,331

Number of service retirements during the fiscal year

\$4,547

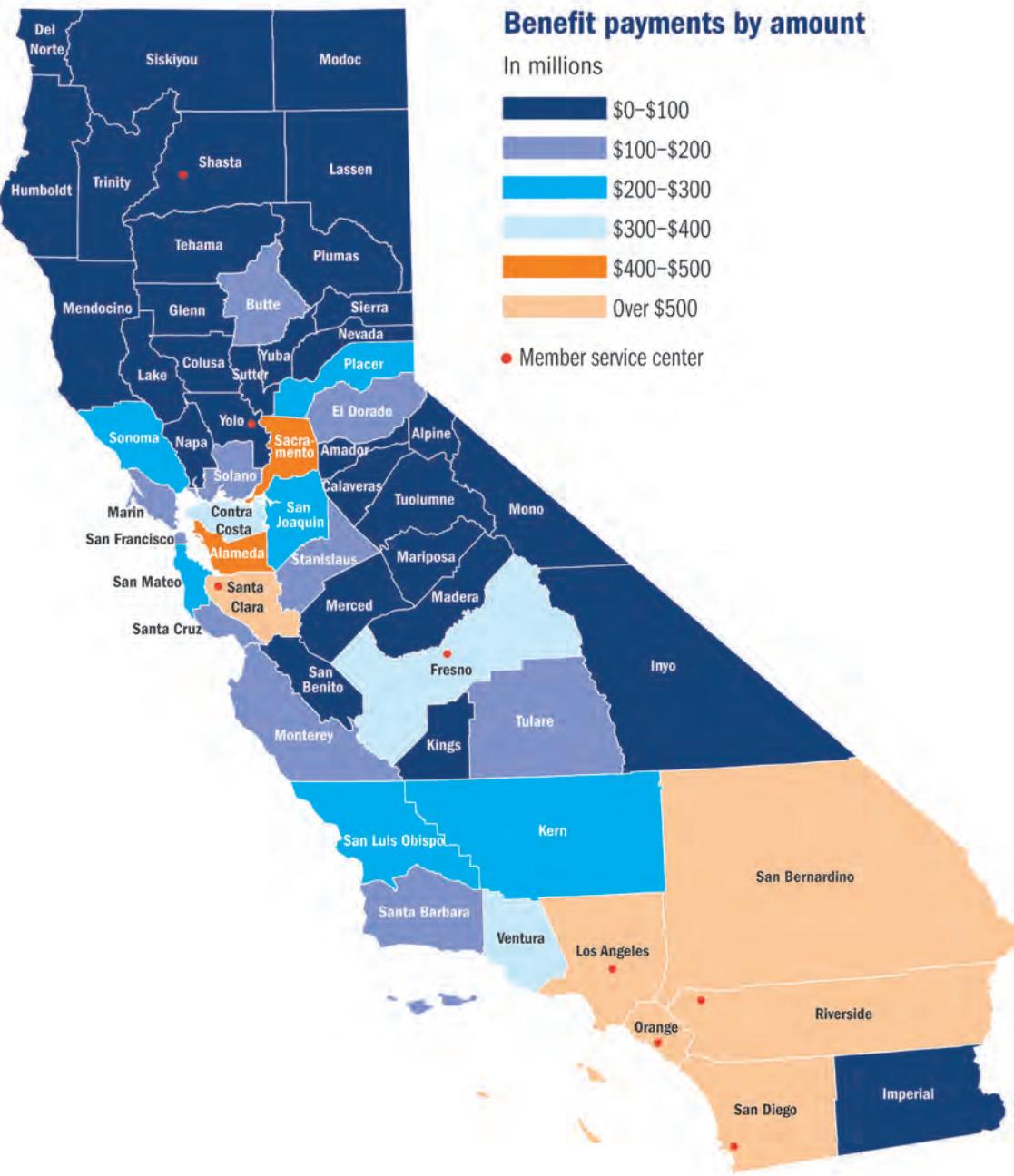
Average monthly Member-Only Benefit



# MEMBER PROFILE

## Retirement benefits fuel local economies

During fiscal year 2018–19, CalSTRS paid an estimated \$12 billion in benefits to 229,546 retirees living in California. This map and chart show the number of retired members living in each county, the amount of benefits paid to those members and the locations of the CalSTRS member service centers.



County	Retirees
Alameda	7,676
Alpine	13
Amador	434
Butte	2,220
Calaveras	591
Colusa	122
Contra Costa	7,641
Del Norte	248
El Dorado	2,252
Fresno	6,434
Glenn	138
Humboldt	1,395
Imperial	827
Inyo	163
Kern	4,378
Kings	613
Lake	490
Lassen	234
Los Angeles	43,604
Madera	1,357
Marin	2,349
Mariposa	276
Mendocino	1,132
Merced	1,544
Modoc	93
Mono	189
Monterey	3,129
Napa	1,437
Nevada	1,642
Orange	21,380
Placer	4,377
Plumas	331
Riverside	13,009
Sacramento	9,263
San Benito	320
San Bernardino	9,612
San Diego	21,412
San Francisco	2,932
San Joaquin	4,037
San Luis Obispo	4,345
San Mateo	3,745
Santa Barbara	2,996
Santa Clara	9,379
Santa Cruz	2,859
Shasta	1,658
Sierra	71
Siskiyou	606
Solano	3,053
Sonoma	4,523
Stanislaus	3,193
Sutter	764
Tehama	730
Trinity	140
Tulare	3,090
Tuolumne	682
Ventura	6,912
Yolo	1,150
Yuba	356
<b>Total</b>	<b>229,546</b>

# OFFICE LOCATIONS AND EMPLOYEES

CalSTRS member service centers are located in Fresno, Glendale, Irvine, Redding, Riverside, Santa Clara, San Diego and at our headquarters in West Sacramento.

Member service centers provide personalized services to help our members plan, manage and enjoy their retirement. Members can schedule benefit planning sessions by appointment, pick up CalSTRS publications and forms, attend financial education and retirement preparedness workshops, and receive general walk-in assistance.

## 2019 additions

Member outreach was expanded by opening new member service centers in Fresno and Redding, providing statewide reach with educational products and services for members in the regions in which they live and work.

Fresno serves more than 93,000 active and retired members across six counties.

Redding services the greater Northern California area.

## CalSTRS workforce profile

As of June 30, 2019

1,218

Total CalSTRS employees



59%

Female



41%

Male

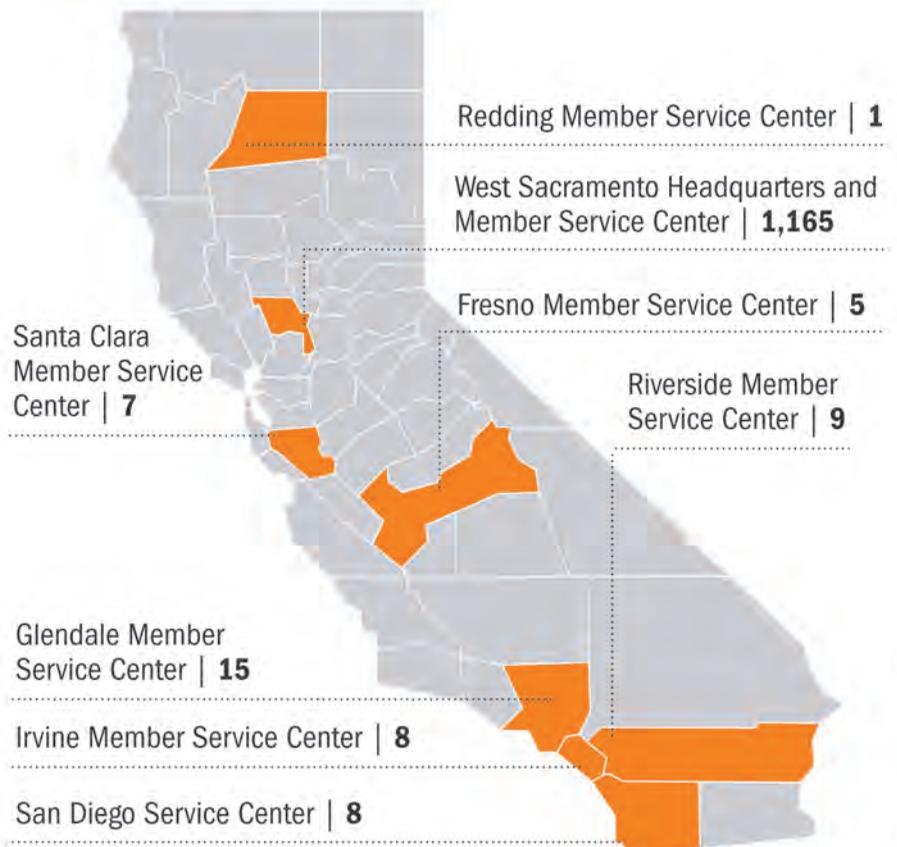
98%

Full-time employees; 2% are part-time or intermittent

67.5%

Percentage of all staff covered by bargaining units

## Total workforce by region



## FINANCIAL PERFORMANCE HIGHLIGHTS

For fiscal year 2018–19, CalSTRS posted a 6.8% return (net of fees).

The CalSTRS Funding Plan, enacted in 2014, is a model of shared responsibility between CalSTRS members, employers and the State of California.

CalSTRS is a long-term investor with a goal of achieving an average 7% return over a multiyear horizon to meet pension obligations for current and future retirees. Therefore, we look beyond the immediate effects of any single year's returns.

The 3-year, 10-year and 25-year fund performance are all above the 7% investment return assumption, at 9.7%, 10.1% and 8.0%, respectively.

The 5-year fund performance is 6.9% and the 20-year fund performance is 6.2%.



# \$240 billion

Total net position of the State Teachers' Retirement Plan as of June 30, 2019



<http://bit.ly/CAFR19>

### Comprehensive Annual Financial Report

For full information on the system's performance, refer to the CalSTRS *Comprehensive Annual Financial Report* for fiscal year 2018–19.

The CalSTRS basic financial statements and related notes have been externally audited by an independent auditor.

**“It was a roller coaster year and a very challenging environment in which to generate returns. Thanks to the in-house expertise of our investment team, we were able to come very close to our assumed rate of return despite the instability of the market.”**

—CIO Christopher J. Ailman





## Our sustainable values

“As shareholders, we are engaging with companies about their emissions and how their boards and their business plans are preparing them for a carbon-constrained future. We need the governments of the world to implement the Paris Agreement and regulate emissions on a clear timeline so businesses know what the interim targets are and the timeline for their action.”

—CEO Jack Ehnes

## Guiding Beliefs

CalSTRS Guiding Beliefs shape our organization's environmental, social and governance actions and interactions with our stakeholders.

1. CalSTRS supports sustainability programs that build environmental, social and governance principles into our core business and investment practices.
2. CalSTRS responsibly manages risk for the long-term financial strength of CalSTRS, to the benefit of our members, stakeholders and the environment.
3. CalSTRS engages with our stakeholders, business partners and our community on environmental, social and governance issues and principles to understand their insights and perspectives.
4. CalSTRS considers the global impact of our business practices in the use of natural resources within our facilities and through the procurement of goods and services.
5. All CalSTRS investments should seek to responsibly manage and disclose economic, social and environmental criteria in order to deliver sustainable and profitable, risk-adjusted returns.
6. CalSTRS encourages procurement of goods and services with contractors and supply chain vendors who incorporate sustainability and environmental, social and governance criteria into their business practices.

### Our Sustainability Vision

CalSTRS advances sustainability practices that promote long-term value creation, responsible investment strategies, stewardship of our natural resources and engagement with our stakeholder community.

7. CalSTRS believes in providing a supportive work environment where employees are encouraged to develop and achieve their full career potential.
8. CalSTRS recognizes plan assets will contribute to and be affected by climate change and that appropriate risk mitigation must occur in order to deliver profitable, risk-adjusted returns.
9. CalSTRS discloses material sustainability issues and sustainable performance data.

## LEADING THE DIRECTION IN SUSTAINABLE FINANCE

CalSTRS executives and senior-level staff provide leadership to vital organizations that drive strategic direction within the sphere of corporate sustainability and responsible long-term investing.

Members of our staff proudly serve in the following strategic leadership and membership roles:



### **CEO Jack Ehnes**

- Ceres Board, Member
- Financial Industry Regulatory Authority (FINRA), Public Governor
- FTSE Green Industries Advisory Committee, Chair
- FTSE Sustainable Investment Advisory Committee, Vice Chair
- Global Reporting Initiative (GRI) Board, Vice Chair
- National Council on Teacher Retirement Board, Member
- Sustainability Accounting Standards (SASB) Foundation Board, Member
- Sacramento Downtown/Riverfront Streetcar Policy Steering Committee, Member



### **CIO Christopher J. Ailman**

- 300 Club North American Chapter, Co-Chair
- Bloomberg ESG Advisory Group, Member
- CFA Institute Diversity and Inclusion Steering Committee, Member
- EDHEC-Risk Institute Board, Member
- Institutional Investor Roundtable for Public Funds Advisory Board, Member
- MSCI Barra Index Editorial Advisory Board, Member
- Milken Global Capital Markets Advisory Council, Co-Chair
- Principles for Responsible Investment Asset Owners Advisory Committee, Member
- Robert Toigo Foundation Advisory Board, Member
- Sustainability Accounting Standards (SASB) Investor Advisory Group, Chair

### **Recognition**

- CIO Industry Innovation Award, Public Defined Benefit Plan Above \$100 Billion, December 2018
- CIO of the Year, CIO Magazine, December 2018

# Sustainable investing and stewardship strategies

The financial security of our members depends on well-managed, long-term financial performance. As the trusted fiduciary of the fund, CalSTRS must derive the most value from the investments we make.

CalSTRS has well-established, thoroughly vetted investment strategies grounded in the board's investment beliefs. ESG risks, as articulated in the CalSTRS ESG Risk Policy, are taken into consideration to the extent that such factors influence the financial advisability of the investment, are a material risk to the fund or weaken the trust of a significant portion of our members.

All CalSTRS internal and external investment managers use the ESG Risk Policy to identify and assess the risks associated with an investment and to define areas of focus as they manage the portfolio and engage to affect change. All external active managers agree to adhere to the CalSTRS ESG Risk Policy and annually certify their adherence to the policy as they buy and sell securities for CalSTRS.

In January 2019, CalSTRS rebranded the Corporate Governance unit to Sustainable Investment and

**CalSTRS recognizes plan assets will contribute to and be affected by climate change and that appropriate risk mitigation must occur in order to deliver profitable, risk-adjusted returns.** —Guiding Belief No. 8

Stewardship Strategies. This reflects the expanded scope of CalSTRS' ESG-related investment and stewardship activities supporting long-term value creation.

As part of CalSTRS' stewardship activities, the SISS team continues to engage portfolio companies to promote greater diversity on corporate boards. These engagements concentrated on companies—in both the S&P 500 and Russell 3000—with either no women or only one woman on their board. In collaboration with other investors, we engaged companies regarding their board diversity. In fiscal year 2018–19, 131 companies appointed 154 new women to their boards.

## SISS director joins CalSTRS

Director of Sustainable Investment and Stewardship Strategies Kirsty Jenkinson joined CalSTRS in January 2019.

“The Sustainable Investment and Stewardship Strategies team builds on CalSTRS' long legacy of expertise in corporate governance,” Jenkinson said. “We seek to be a catalyst in transforming the financial markets to take a long-term view that fully integrates sustainability considerations in order to create long-term returns for the educators we serve.”

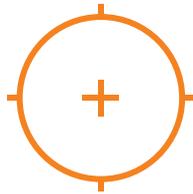


In 2018–19, CalSTRS took additional steps to update and expand ESG-related activities.

## Principles for a Responsible Civilian Firearms Industry

November 2018

**What:** Engaged with 12 other institutional investors with combined assets of more than \$4.83 trillion to create the Principles for a Responsible Civilian Firearms Industry.

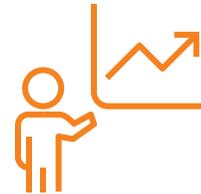


**Objective:** Provides a framework for institutional investors seeking to improve engagement with public and private companies globally to address gun safety issues and reduce investment risk.

## ESG integration in the investment process

June 2019

**What:** Selected three new global equity partners to manage \$750 million through intensive ESG integration in the investment process.



**Objective:** Leverages partner expertise in understanding how sustainability-related trends, like the low-carbon transition and resource efficiency, create investment risks and opportunities.

CalSTRS firmly believes that active and direct engagement is the best way to understand and mitigate ESG risks in the investment portfolio. If engagement fails to resolve ESG risks sufficiently, the CalSTRS chief investment officer will bring the issue before the board Investment Committee for consideration and extensive analysis relating to divestment.

In July 2018, CalSTRS staff initiated engagement with two U.S. publicly-held companies that operate private prisons. This resulted in productive dialogue surrounding

their business practices, including visits to various detention facilities and face-to-face meetings with senior management concerning operational processes and risk management efforts.

Staff subsequently presented their research, and the board consulted with expert investment advisers. In November 2018, the board voted to direct investment staff to remove the fund's holdings in the two companies that operate private prisons. The exclusion of the securities was completed in the 2018 calendar year.

## Transition to a low-carbon economy

The links between climate change, business and investment are increasingly evident. Climate change presents both:

- Physical risks that arise from the physical impacts of a changing climate.

- Transition risks that arise from the transition to a low-carbon economy, such as policy shifts and technological transformations.

Significant investment opportunities also exist in helping the global economy mitigate and adapt to a changing climate.

## Climate policy engagement

CalSTRS is committed to influencing public policies, engaging with companies in our portfolio and investing to promote an orderly transition to a low-carbon economy that benefits all.

In May 2019, the CalSTRS Investment Committee took action to approve new policy language related to the low-carbon transition within the Corporate Governance Principles:

CalSTRS believes that how the world responds to the risks associated with climate change, as detailed by peer reviewed scientific reports, including those from the Intergovernmental Panel on Climate Change, will materially impact the value of our investment portfolio. CalSTRS recognizes that public policies, technological advances and physical impacts associated with concerns about climate change are already driving the transition to a lower-carbon economy. As a diversified global investor, we need to understand the transition's potential impacts and consider actions we can take to mitigate risk and identify related investment opportunities. How we engage companies and vote our proxies will also reflect our understanding of the low-carbon economic transition.



## SUSTAINABLE INVESTING

In June 2019, CalSTRS supported several significant investor initiatives related to climate change and the low-carbon transition including:

### Global Investor Statement to Governments on Climate Change

This statement was signed by 477 global investors managing over \$34 trillion in assets. The statement calls on world governments to:

- Achieve the Paris Agreement’s goals
- Accelerate private sector investment into the low-carbon transition
- Commit to improve climate-related financial reporting

### Vatican climate action statements

CalSTRS joined leading global investors and oil and gas industry executives in a collective commitment to accelerate action to avoid the worst consequences of climate change. Teachers’ Retirement Board members Harry M. Keiley and State Controller Betty Yee signed the statements.

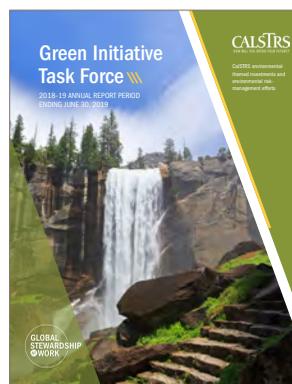
**“As the largest educator-only pension fund and a global investor, we have a role to play in promoting the global economy’s transition to a low carbon future. The Teachers’ Retirement Board recognizes that climate change poses existential and financial risks, and we are committed to addressing them.”**



—Harry M. Keiley, vice chair CalSTRS Teacher’ Board and chair Investment Committee

## CalSTRS Green Team Initiative Task Force

The CalSTRS Green Initiative Task Force, known as the Green Team, creates an annual report detailing Investments Branch activities relating to broader environmental risk management and investment opportunities. This report reflects CalSTRS’ recognition that environmental issues affect the performance of the CalSTRS Investment Portfolio across companies, sectors, regions and asset classes.



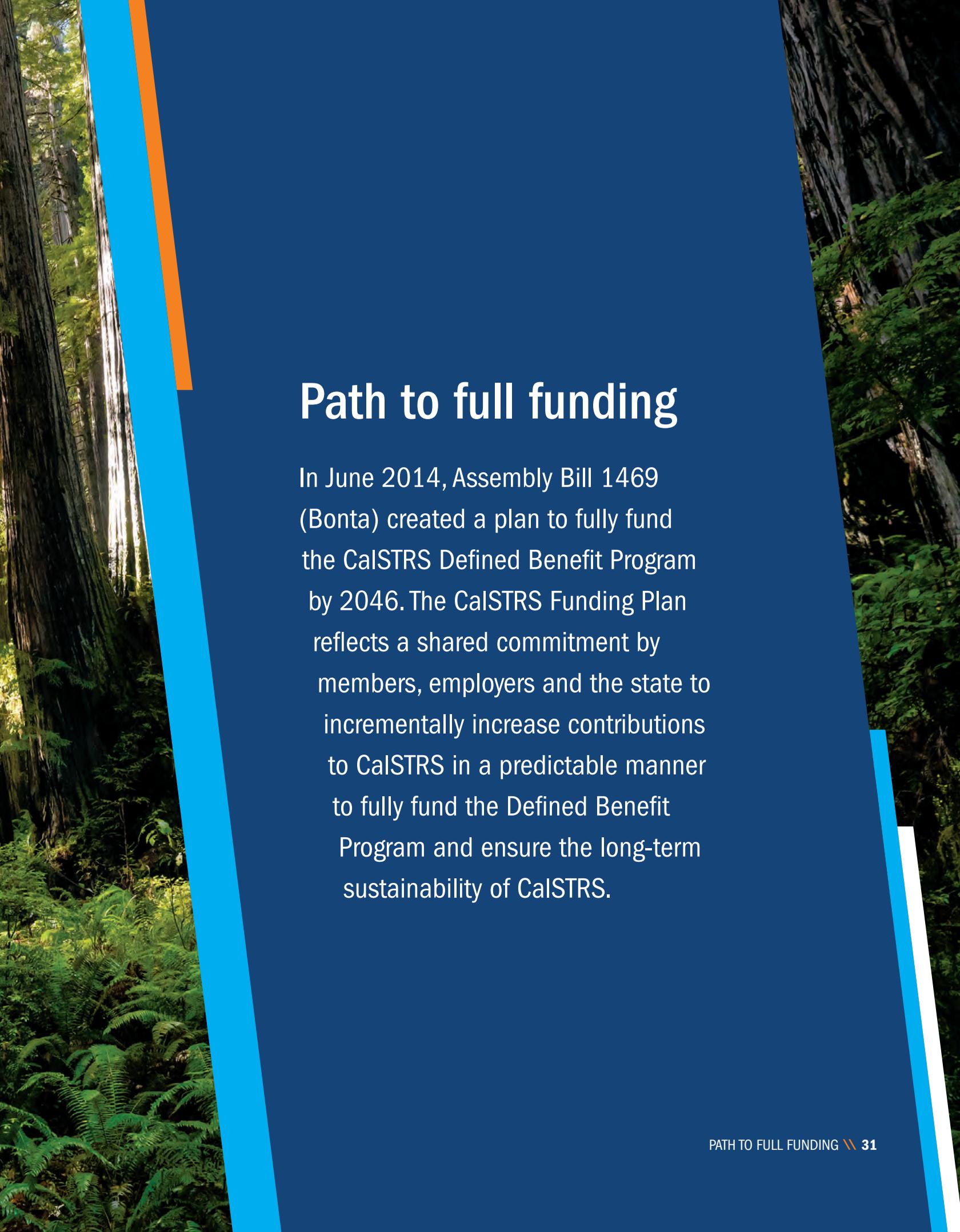
### Green Initiative Task Force 2018–19 Annual Report

View the full *Green Initiative Task Force 2018–19 Annual Report* for more information.



<http://bit.ly/CalSTRSGreenReport19>





# Path to full funding

In June 2014, Assembly Bill 1469 (Bonta) created a plan to fully fund the CalSTRS Defined Benefit Program by 2046. The CalSTRS Funding Plan reflects a shared commitment by members, employers and the state to incrementally increase contributions to CalSTRS in a predictable manner to fully fund the Defined Benefit Program and ensure the long-term sustainability of CalSTRS.

# LEGISLATIVE PLAN

The funding plan provides the Teachers' Retirement Board with limited authority to increase or decrease both the state and employer contribution rates to ensure the plan remains on track and is able to respond, as necessary, to unexpected changes in CalSTRS' economic and demographic situations.

Prior to the adoption of the funding plan, the Defined Benefit Program was expected to run out of assets by 2046. Today the plan is expected to reach near full funding by 2046.

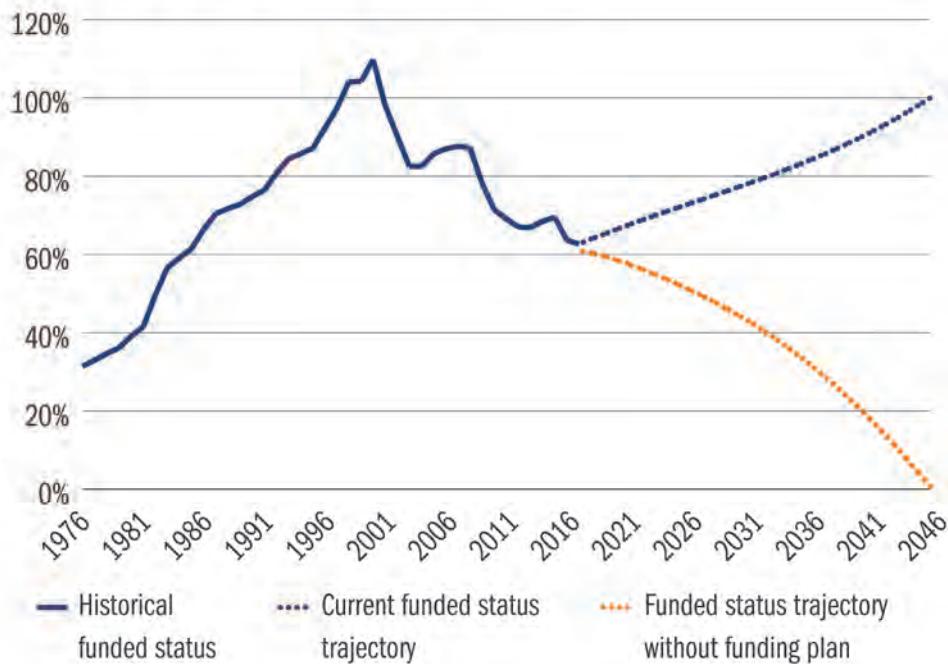
## State of California contributions

As of July 1, 2019, the state contribution rate is 10.328%.

The Teachers' Retirement Board has limited authority to adjust the state's contribution rate upward by 0.5% from year to year, based on the funding status of the plan. In accordance with the plan, the system adopted an increase in the state's contribution rate effective July 1, 2019. This increase was anticipated and was included in the proposed 2019-20 state budget.

## Historical and projected funded status

Based on the June 30, 2018, actuarial valuation



# LEGISLATIVE PLAN

## Member contributions

As of July 1, 2019, member contribution rates remain unchanged from 2018:

- 10.25% for 2% at 60 members
- 10.205% for 2% at 62 members (who were hired to perform service that could be credited to the Defined Benefit Program on or after January 1, 2013)

Prior to AB 1469, the contribution rate for members was 8% and had not been increased since 1972. Member contribution rate increases were phased in as shown in the table below. The contribution rate for 2% at 62 members was increased by 1% effective July 1, 2018, per a requirement set by the Public Employees' Pension Reform Act of 2013.

### Member contribution rates

Effective date	2% at 60 members	2% at 62 members*
July 1, 2014	8.15%	8.15%
July 1, 2015	9.20%	8.56%
July 1, 2016	10.25%	9.205%
July 1, 2017	10.25%	9.205%
July 1, 2018	10.25%	10.205%
July 1, 2019	10.25%	10.205%

\* The contribution rate for CalSTRS 2% at 62 members is based, in part, on the normal cost of benefits and may increase or decrease in future years.

## Employer contributions

As of July 1, 2019, the employer contribution rate is 17.1%.

Increases in the employer contribution rate are still being phased in through 2020–21 following the schedule set in statute.

Starting in 2021–22, the funding plan provides the Teachers' Retirement Board limited authority to adjust the employer contribution rate, if necessary, to fully fund the remaining unfunded liability by 2046. Those adjustments are limited to 1% annually, not to exceed 20.25% of creditable compensation.

### Employer contribution rates

Effective date	Employer rate	Year-over-year change
July 1, 2013	8.25%	No increase since 1986
July 1, 2014	8.88%	0.63%
July 1, 2015	10.73%	1.85%
July 1, 2016	12.58%	1.85%
July 1, 2017	14.43%	1.85%
July 1, 2018	16.28%	1.85%
July 1, 2019	17.1%*	0.82%

\* Prior to Gov. Gavin Newsom's 2019–20 budget, the July 1, 2019, rate was set in statute at 18.13%.

## 2019–20 STATE BUDGET SUPPLEMENTAL PENSION PAYMENTS

The 2019–20 state budget provides additional contributions to CalSTRS on behalf of employers and the state over several years, which is to lower short- and long-term contribution rates through the remainder of the funding plan.

### State

The 2019–20 state budget provides an estimated \$2.9 billion from Proposition 2 debt payment funding to CalSTRS over four fiscal years, including:

- \$1.1 billion in 2019–20 toward the state’s share of the unfunded actuarial obligation.
- \$1.8 billion estimated to be paid in 2020–21 through 2022–23 toward the state’s share of the unfunded actuarial obligation.

### Employers

The 2019–20 state budget provides a \$2.246 billion one-time, non-Proposition 98 General Fund payment to CalSTRS to be allocated as follows:

- \$356 million to reduce the 2019–20 employer contribution rate by 1.03 percentage points.
- \$250 million to reduce the employer contribution rate by 0.7 percentage points.
- \$1.64 billion toward the employers’ share of the unfunded actuarial obligation, which is expected to reduce the out-year contribution rate by approximately 0.3 percentage points.

## \$7.4 billion

The estimated amount the state will save through 2046 as a result of CalSTRS receiving \$2.9 billion in supplemental payments over the next four years, according to Department of Finance.

## \$5 billion

The estimated amount employers will save through 2046 as a result of a supplemental payment of \$2.246 billion, according to Department of Finance.

# FUNDING REPORTS

As trusted fiduciaries, CalSTRS continually monitors the financial health of the fund by assessing funding levels and risk twice a year, once in the spring through the annual actuarial valuation process and again in the fall through the annual *Review of Funding Levels and Risks* report. Every five years, we present a formal funding report to the Legislature. Continuous monitoring of funding plan risk is key to timely identification of trends that could impact the long-term funding of the system.

## Funding levels and risks

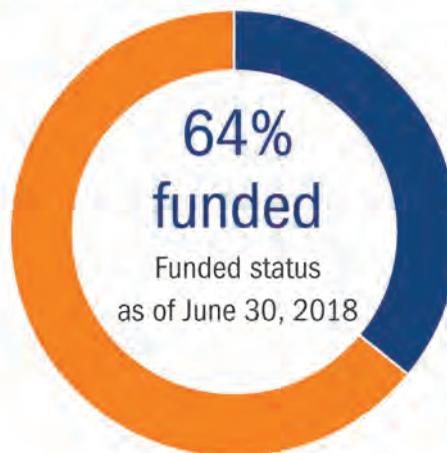
The CalSTRS 2019 *Review of Funding Levels and Risks* report, based on the June 30, 2018, annual valuation, indicates CalSTRS is slightly better positioned today than last year. This is thanks in part to additional supplemental contributions the State of California committed as part of the 2019–20 budget.

Report highlights:

- Additional supplemental contributions by the state have improved projected funding levels and mitigated some of the expected increases in the state and employer contribution rates.
- The CalSTRS Defined Benefit Program continues to mature, which increases the system’s sensitivity to investment volatility, especially for the state contribution rate.
- The largest risk facing CalSTRS’ ability to reach full funding is risk from investment volatility.
- Decreases in the size of the active membership or lower than anticipated increases in future payroll could put significant strain on CalSTRS’ ability to achieve full funding, especially if combined with a period of lower investment returns.

## Spring 2019 annual actuarial valuation

In May 2019, the board adopted the actuarial valuation based on June 30, 2018, data. The funding ratio—the amount of assets on hand to pay for obligations—improved from 62.6% at the June 30, 2017, valuation to 64% as of the June 30, 2018, valuation.



### CalSTRS Funding Plan report to the Legislature

As required by statute, CalSTRS must present a report to the Legislature every five years on the progress of the funding plan, with an update on how the funding plan is working.

The report was finalized and provided to the Legislature in June 2019 based on the June 30, 2018, actuarial valuation. This was the first report since the enactment of the funding plan.

Report highlights:

- The funding plan is working. The CalSTRS Defined Benefit Program is expected to reach near full funding by 2046. The risk of a low-funded status or even running out of money has been considerably reduced with the adoption of the funding plan.
- The state bears most of the risk and financial responsibility for changes in the unfunded actuarial obligation caused by investment

performance, demographic changes and actuarial assumption changes.

- The employer contribution rate is minimally impacted by investment performance, and when impacted, it generally moves in the opposite direction of the state contribution rate.
- A recession resulting in both a decline in active membership and a period of lower investment returns would put significant strain on the state and employers and would challenge CalSTRS' ability to achieve full funding.

The next formal report on the progress of the funding plan will be provided to the Legislature in 2024, based on the June 30, 2023, actuarial valuation. Until then, CalSTRS will continue to monitor the funding plan and our progress every year through CalSTRS' annual actuarial valuation process in the spring and again in the fall through the board's annual *Review of Funding Levels and Risks* report.

# THE VALUE OF INVESTMENTS

Under the CalSTRS Funding Plan and current assumptions, we expect investment returns to be the largest contributor to our ability to pay benefits and reach full funding over the next 30 years and beyond for California's more than 964,000 educators and their beneficiaries.

State, member and employer contributions comprise approximately 39% of the projected funding source. Investment returns are projected to make up for the remaining 61% of the resources necessary to fund CalSTRS benefits.

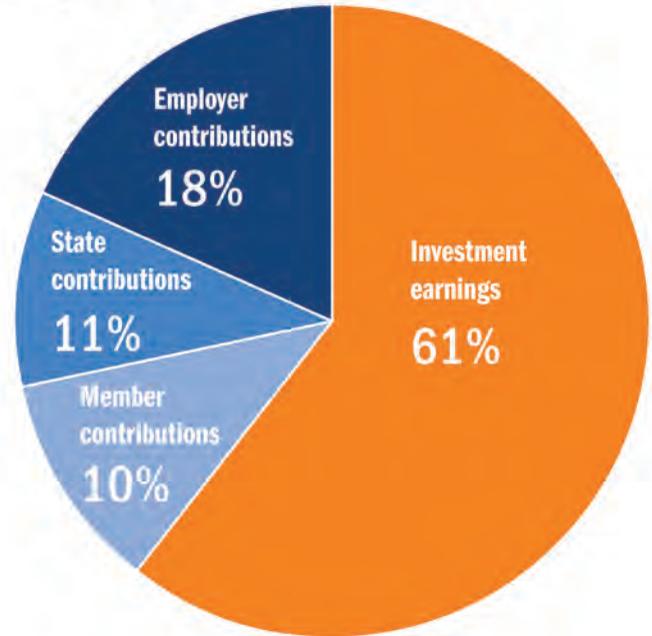
Stewardship at CalSTRS includes implementing responsible investment strategies. As a long-term investor, we take steps to balance risk with opportunity to preserve the integrity and strength of the fund. Managing an investment portfolio exceeding \$236 billion requires thoughtful diligence to monitor investment performance, analyze projections and take necessary actions to ensure a stable, risk-adjusted return profile.

## Asset Liability Management Study

Every four years an Asset Liability Management Study is conducted to help the Investment Committee adopt an asset allocation that meets the fund's pension liabilities. The study ensures responsible investment practices and strategies are used in recommending investment allocations.

## CalSTRS projected benefit funding sources

Through 2046



Note: Based on an expected investment return of 7% each year.

In 2019, the ALM Study timeline aligned with the review of the fund's Actuarial Experience Study and valuations for the first time. This change means the ALM Study uses the same assumptions for both assets and liabilities and employs the latest financial and demographic assumptions.



<http://bit.ly/ALMStudy19>



Watch CalSTRS CIO Christopher J. Ailman and Public Affairs Stakeholder Engagement Liaison Mindy Selby discuss the Asset Liability Management Study in one of our *Inside CalSTRS Investments* videos. This series explains how member contributions are invested to create a secure retirement for California's educators.

# THE VALUE OF INVESTMENTS

## The importance of asset allocation

Fund sustainability requires careful management of and decision making for asset class allocation. Setting the asset allocation is the responsibility of the Teachers' Retirement Board Investment Committee. This decision is one of the committee's most important functions and key to achieving full funding.

The strategy behind the asset allocation directs how staff invests CalSTRS' assets. For example, it directs how much CalSTRS invests in stock or bond markets versus real estate. Asset allocation decisions are considered essential to the fund as an estimated 93% of variation in investment returns over time can be directly attributed to the asset allocation of the fund's portfolio.

The allocation decision process weighs our pension liabilities and the assets needed to fund CalSTRS members' pensions over the long term.

The year-long process leading up to the allocation decision is comprehensive, involving thorough collaboration among staff from the Investments Branch, Actuarial Resources and Financial Services, along with the board's Investment Committee and the board's external consultants.

In February 2020, CalSTRS will update the Investment Policy & Management Plan with strategic class weights, discuss the new asset allocation implementation plan and adopt new actuarial assumptions.

## 2019 allocation decision timeline



**“Setting the target policy allocation is the most important investment decision the Investment Committee makes over a full investment cycle.”**

—Stephen P. McCourt, Board Consultant, Meketa Investment Group







# Member retirement preparedness

To prepare for retirement, our members must consider their future income needs and how much their defined benefit pension will provide toward those needs. Other important factors for retirement planning include career longevity, Social Security considerations, member life expectancy and other income sources.

## CAREER LONGEVITY AND INCOME SOURCES

The longer a member works, the greater their retirement benefit will be. For the average member, the CalSTRS benefit replaces a little more than half of their pre-retirement salary. Members at all career stages are encouraged to understand the need for supplemental savings.

### **Social Security considerations**

California's public school educators do not pay into Social Security for CalSTRS-covered employment.

Social Security is a federal program, and neither CalSTRS nor the State of California has control over eligibility requirements or benefit calculations.

Members need to be aware that if they expect to receive a Social Security benefit through other employment or their spouse, two federal rules—the Windfall Elimination Provision and the Government Pension Offset—may leave them with a smaller Social Security benefit or possibly no benefit at all.



**Living long and living well is most realistic for those who adopt healthy behaviors, are financially secure and are socially engaged.**

— Stanford's Center for Longevity, The Sightlines Project

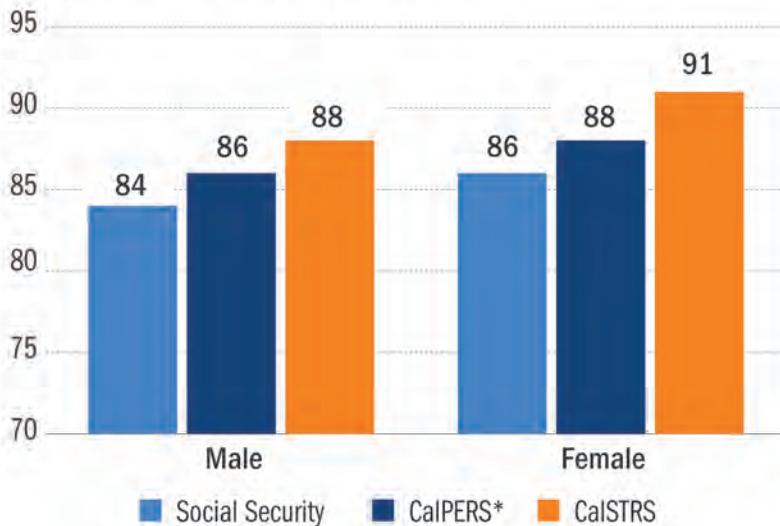


[longevity.stanford.edu/  
the-sightlines-project/](https://longevity.stanford.edu/the-sightlines-project/)

## Life expectancy for CalSTRS members

### CalSTRS members live longer than recipients of other systems

Expected age at death for members of Social Security, CalPERS\* and CalSTRS who retired at age 62 in 2019.



\*Includes some county, city and safety retirement systems and state employees.

### Member life expectancy

CalSTRS members are expected to live longer than the average Social Security retirement recipient and longer than the average California Public Employees' Retirement System member.

In our communications to our members, we underscore the importance of considering an increased life expectancy when planning a financial future. This includes encouraging members to evaluate the impact of

### CalSTRS sustains long relationships with members

Data as of June 30, 2019



working longer and contributing to supplemental savings early in their careers. In addition to financial security, the Stanford Center on Longevity cites healthy living and social engagement as factors in living well with increased life expectancy.

While an educator's career may span two to three decades, CalSTRS will typically share a 60- to 70-year relationship with the member and their beneficiaries. Our commitment to sustainability ensures we provide benefits throughout those extended years.

# CALSTRS HYBRID RETIREMENT SYSTEM

CalSTRS administers a hybrid retirement system consisting of traditional defined benefit, cash balance and voluntary defined contribution plans:

## Traditional defined benefit plan

The CalSTRS traditional defined benefit plan is a guaranteed lifetime benefit based on a formula set by law that calculates a member's age at retirement, service credit and final compensation.

The CalSTRS retirement benefit is a strong foundation. On average, the benefit replaces 50% to 60% of the average educator's salary. According to financial professionals, members may need 80% to 90% of their final salary to retire comfortably.



## The CalSTRS Defined Benefit Plan formula



CalSTRS provides additional plans to help members prepare financially and meet their retirement goals.

## Cash balance plans

### Defined Benefit Supplement Program

CalSTRS Defined Benefit members have a Defined Benefit Supplement account that provides additional income for their retirement. Since members cannot earn more than one year of service credit in a school year, contributions on earnings in excess of one year of service, up to the compensation cap, are credited to this account instead of the Defined Benefit Program.

Full-time educators build their Defined Benefit Supplement accounts when they take on extra-pay assignments such as summer school or coaching. Contributions earn a guaranteed interest rate, and members can choose at retirement to receive the funds as an annuity or lump sum.

### Cash Balance Benefit Program for part-time and adjunct educators

The Cash Balance Benefit Program, an Internal Revenue Code 401(a) defined benefit plan, is an optional program designed specifically for part-time educators and adjunct faculty.

The Cash Balance Benefit Program is a hybrid retirement program that can be an alternative to the CalSTRS Defined Benefit Program, Social Security and other retirement plans. It accumulates funds based on dollars contributed by the employee and the employer plus interest, similar to a defined contribution program.

Generally, employees and employers each contribute 4% of the employee's gross salary.

Like a defined benefit program, it offers a guaranteed benefit—as a lump sum, or in monthly annuity payments if the balance is at least \$3,500.

## Defined contribution plan

CalSTRS Pension2, a voluntary defined contribution plan, is an important piece of the CalSTRS hybrid retirement system. Pension2 403(b) and 457(b) retirement savings plans are designed to help members fill any gap between their monthly retirement benefit and their retirement income goal. With Pension2, members belong to a plan with low and transparent costs—there are no commissions, no load fees and no surrender charges—along with flexible investment options that match all levels of investment ability.

### Pension2 growth

In 2018–19, we increased the access our membership has to information regarding defined contribution accounts. Each member service center is staffed with a Defined Contribution Benefit Specialist who is able to educate our members about defined benefit and defined contribution options. Additionally, all CalSTRS member service centers offer a Pension2 workshop.

In August 2018, Pension2 crossed the billion-dollar threshold in assets. As of June 30, 2019, total assets under management in Pension2 stood at \$1.018 billion with more than 18,000 participants.

### 403bCompare

403bCompare is a website provided by CalSTRS that gives members an easy and transparent way to compare investment fees, performance and services for the 403(b) plans their district offers.

Using 403bCompare, members can:

- Learn about the advantages of a 403(b) account.
- Find an employer’s approved list of 403(b) vendors.
- Compare 403(b) products side by side.
- Understand how to enroll and start easy contributions from their paycheck.

## Fees matter

All 403(b) products charge fees and expenses. But not all 403(b) plan providers charge fees the same way. In addition, there can be commissions, surrender charges and other restrictions to accessing savings.

CalSTRS is committed to transparency and ensuring members are aware of the fees they are paying for their supplemental savings accounts. Over time, even 1% can make a big difference.

Consider a one-time investment of \$10,000 with no additional contributions that earns an average of 5% over 30 years. Investment fees usually range from 0.5% to 1.5% a year.

Paying 1% less in fees after 30 years would net the investor an additional \$10,000—37% more in savings than an account charging 1.5% in fees each year.



## HELPING OUR MEMBERS PREPARE

CalSTRS offers various services to help members learn about their CalSTRS benefits and plan for their retirement.

Our products and outreach focus on ensuring members of all career stages have an understanding of the value of a defined benefit plan. Many of our educational efforts emphasize the need for members to save early in a defined contribution account to limit the income gap members could encounter in retirement.

These services include new educator events, financial awareness workshops, individual and group benefits planning sessions, and career stage-specific member kits and workbooks to assist with targeted activities for early career, midcareer and near retirement planning.

Members learn strategies to:

- Project their retirement income and expenses.
- Withdraw their invested dollars.
- Mitigate common retirement savings obstacles like inflation and rising health care costs.

### Engagement with retirement planning

Survey results indicate that members who are more engaged report higher levels of retirement preparedness. This compels us to continually expand and deepen our engagement efforts and partnership with important stakeholders so we can increase the number of early touchpoints with our members.

To help our younger members understand their benefits, CalSTRS launched an Early Career webpage which features a *Welcome to CalSTRS* video for new teachers and links highlighting the following topics:

- Sign up for *myCalSTRS*
- Know Your Benefits
- Name a One-Time Death Benefit Recipient
- Attend a Workshop
- Learn About Pension2
- Estimate Your Retirement Benefit

### CalSTRS benefit helps recruit and retain quality educators

In 2019, staff engaged with educational organizations to highlight the value of a defined benefit plan to recruit and retain quality educators. CalSTRS partnered with the California Commission on Teacher Credentialing and California Department of Education to examine ways to recruit and retain quality educators. As a result, we developed materials emphasizing CalSTRS Defined Benefit Program membership as a substantial benefit of a career in education.

Additionally, CalSTRS created a recruitment and retention toolkit comprised of educational videos, publications and modules for human resources, union representatives and administrators to use as part of the onboarding process for new employees or employees considering a career change. Multiple districts and union representatives are scheduled to pilot the modules and materials throughout the state during the 2019–20 academic year. CalSTRS is also partnering with EdJoin, an education job site, to incorporate the modules in the launch of their new digital onboarding platform.

**CalSTRS offers more than 40 unique publications and four websites—[CalSTRS.com](http://CalSTRS.com), [myCalSTRS](http://myCalSTRS), [Pension2.com](http://Pension2.com) and [403bCompare.com](http://403bCompare.com)—to support member interactions and active involvement in retirement planning.**

# 2019 ANNUAL MEMBER SURVEY

CalSTRS values our educators as stakeholders and partners in their own retirement preparedness. We conduct intensive research to understand our members' satisfaction and retirement preparedness experiences, which helps us provide members with useful products and services.

As part of the 2019 Annual Member survey, CalSTRS assessed retirement preparedness activities and how those activities relate to members' sense of financial preparedness. This research was designed in collaboration with Dr. Douglas Hershey, director of the Retirement Planning Research Laboratory at Oklahoma State University.

## Retirement preparation activities

We asked active and retired members a series of questions to assess retirement preparation activities.

Active members:

- 53% of active members reported managing a financial budget often or constantly.

Retired members:

- 72% reported paying off debt other than their primary residence as important or very important to plan to live comfortably in retirement.
- 70% reported investing in a supplemental retirement account as important or very important to plan to live comfortably in retirement.

## Perceived retirement preparedness

We assessed active members' perceived level of financial preparedness for retirement, including:

- The degree active members have evaluated their finances for retirement.

- The extent active members feel they are on track in reaching their retirement income goal.
- The level of confidence of active members that they will have enough money to live comfortably throughout their retirement.

## Relationship between retirement preparation activities and perceived preparedness:

Age and service credit contribute significantly to active members' report of financial preparedness. The following activities have strong positive relationships to feelings of being financially prepared:

- Assessing net worth.
- Discussing retirement goals with:
  - » Financial professionals.
  - » Family or friends.
- Reading articles or brochures on investing or financial planning.
- Gathering or organizing financial records.

## Survey highlights:

For active members:

- 49% feel financially well prepared for retirement.
- Feelings of preparedness increase with each life stage.
- 78% age 60+ feel well prepared financially.

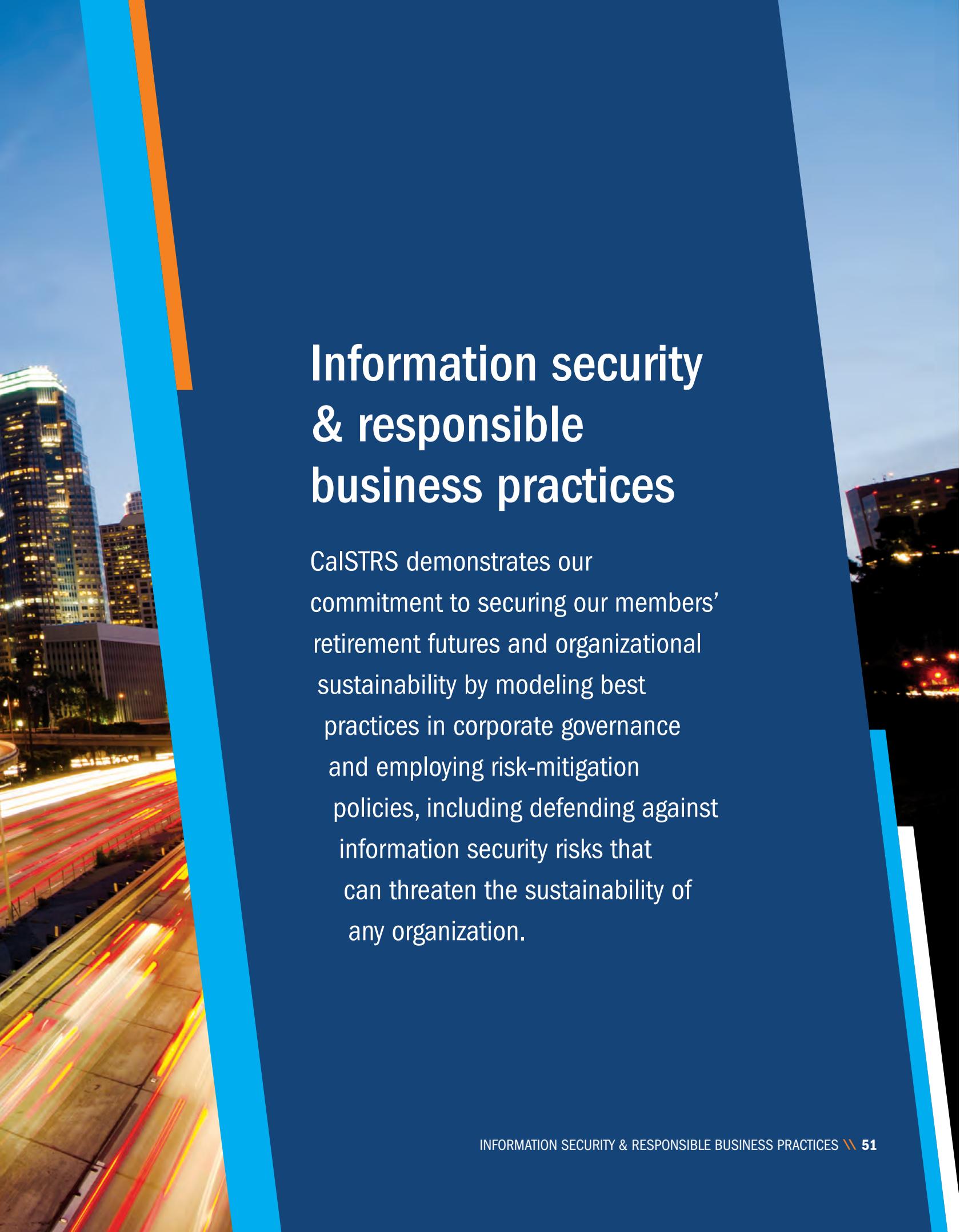
For retired members:

- 77% feel financially well prepared for retirement.
- 3% do not feel financially prepared.

CalSTRS plans to incorporate learnings into member workshops and educational materials and to continue this line of research in the coming years.





A nighttime cityscape with light trails from traffic on a highway in the foreground. The background shows illuminated buildings against a dark sky. The page has a dark blue background with a light blue diagonal stripe on the left and a white diagonal stripe on the right.

# Information security & responsible business practices

CalSTRS demonstrates our commitment to securing our members' retirement futures and organizational sustainability by modeling best practices in corporate governance and employing risk-mitigation policies, including defending against information security risks that can threaten the sustainability of any organization.

# INFORMATION SECURITY AT CALSTRS

Information security risks can threaten the sustainability of any organization. We remain vigilant in detecting threats, proactively mitigating identified risks and adapting to the rapidly evolving nature of the information security landscape. These responsible business practices demonstrate our commitment to sustaining high standards in the protection of member and information assets that support business objectives.

Staff reports to executives and the board on CalSTRS' information security posture, including awareness, prevention and detection. Data security and confidentiality is a responsibility shared equally by members and staff. CalSTRS has intricate internal controls in place for staff, including annual training, ongoing system and network monitoring, robust password

protection procedures, and secure destruction of confidential documents. Member-focused messaging encourages protection of passwords and other confidential data.

CalSTRS recognizes the changing and ever-growing threat that information security presents to data contained within the CalSTRS organization. Staff continually reviews threats by breaking them down into component parts to address those areas where we have a lower maturity and potential vulnerability.

We inform members of our security processes in our communications with them. We also advise members to take an active role in keeping their information private and secure.

## Information Security Office staff responsibilities

- Develop and update information security policies
- Educate employees and CalSTRS members
- Ensure compliance with policies, standards, strategies and industry best practices
- Perform ongoing monitoring and vulnerability assessments
- Maintain high-level expertise in the discipline of computer and network security, virus detection, vulnerability assessment and hacking methodologies
- Respond to actual threats and prepare for anticipated threats
- Advise the board on information security mitigation strategies

## Security is a shared responsibility

At CalSTRS, we understand that every employee is our first line of defense and shares responsibility to protect the confidentiality, integrity and availability of CalSTRS' information assets. One of the most important lines of information security defense is arming employees with tools and the knowledge necessary to detect suspicious activities and minimize the chance for security incidents.

### Employee awareness and education

- Mandatory onboarding and annual training
- Dedicated intranet site security resources
- National Cybersecurity Awareness month participation

### Employee compliance

- Clear expectations
- Strong internal controls
- Signed Confidentiality, Non-Disclosure and Acceptable Use Agreement
- Annual ISO audits of security policies, systems and accesses

### Assessing information security

CalSTRS partners with an outside information security firm to assess the security infrastructure, identify gaps and make recommendations to remediate them. Annual third-party assessments are part of our measurements to test and validate the effectiveness of current security

### 2018-19 statistics

100%

Employees reviewed and signed Confidentiality, Non-Disclosure and Acceptable Use Agreement

100%

Employees completed annual mandatory training

100%

High-risk findings addressed within the approved timeframe

0

Substantiated complaints concerning breaches of customer privacy

measures. The primary goal of performing assessments is to ensure we have a robust security program designed to protect the confidentiality of member data as well as protect assets.

### A culture of ethics and integrity

CalSTRS employees are subject to various policies, statutes and regulations that relate to ethical conduct, with the responsibility to understand and abide by them all. Statutes dictate:

- Public servants are required to serve the public's interest and may not use their employment to serve private or political interests.
- Public officials who conduct themselves according to a standard that exceeds the minimum requirements set in the ethics laws help to maintain the public's faith in government.

CalSTRS' goal is not to simply comply with the laws, regulations, policies and standards that apply to our business—we want all our employees to act with the highest standards of business ethics in service to the public and our members.

The CalSTRS Compliance Program serves as a foundation of good corporate governance, providing each staff member with a clear, consistent set of practices and expectations for appropriate personal and professional conduct.

The Code of Ethics and Business Conduct serves as the cornerstone of the enterprise compliance program. The code applies to our employees, contractors and board. The principles contained in this code serve as guidelines for making sound decisions and conducting business ethically, sustaining CalSTRS over the long term.

All staff are encouraged to report to their managers, executive staff or Human Resources any activity that

#### 2018 NCPERS Certificate of Transparency

CalSTRS was recognized with a Certificate of Transparency by the National Conference on Public Retirement Systems which seeks to further open disclosure, data collection and encourage the public's understanding of public retirement systems.

may harm CalSTRS' reputation. Allowing confidential and anonymous avenues for our staff to report suspicious activities increases the chance of uncovering allegations that may go otherwise unreported and potentially affect our reputation. Complaints submitted to the Ethics Hotline are investigated by the CalSTRS Office of the General Counsel and Human Resources.

#### Maintaining and extending trust

CalSTRS has an excellent reputation, protected by vigilant attention to ethical practices. Members of the CalSTRS executive team take their role seriously in modeling ethical behavior and supporting the ethics and compliance program.

Responsibility for ethical, compliant practices creates organization sustainability, maintaining and extending trust within CalSTRS and with the members we serve.

# ETHICS AND COMPLIANCE POLICIES AND TRAINING

To ensure full understanding and accountability, CalSTRS requires new hires to review specific policies on the date of hire, and all employees are subject to a mandatory policy recertification process each year. CalSTRS employees in certain designated positions listed in the conflict of interest code are required to file

the *Statement of Economic Interests* (Form 700) upon assuming their position, annually thereafter and when leaving office.

In addition, certain policies, statutes and regulations require disclosure filings and acknowledgments described in the following table.

Subject	Summary/Action
<b>Gift Policy</b>	Employees review the Gift Policy and sign an attestation stating compliance with the policy annually.
<b>Policy Prohibiting Insider Trading</b>	Employees review the Policy Prohibiting Insider Trading and sign an attestation stating compliance with the policy annually.
<b>Incompatible Activities Agreement</b>	Employees review and sign the Incompatible Activities Agreement annually.
<b>Confidentiality, Non-Disclosure and Acceptable Use Agreement</b>	Employees review and sign the Confidentiality, Non-Disclosure and Acceptable Use Agreement annually.
<b>Internet Access Policy</b>	Employees review and sign the Internet Access Policy and Acknowledgment annually.
<b>Statement of Economic Interests (Form 700)</b>	CalSTRS employees in designated positions file a <i>Statement of Economic Interests</i> (Form 700) annually and upon assuming and leaving office.
<b>State Ethics Training</b>	CalSTRS employees and contractors in designated positions participate in ethics training biennially.

## RESPONSIBLE CONTRACTORS AND SUPPLIERS

CalSTRS is committed to socially and environmentally responsible business practices. We acquire goods and services in the best interest of CalSTRS, our members and their beneficiaries. We seek opportunities to understand the environmental, social and governance positions of our contractors and suppliers to ensure alignment with CalSTRS' principles.

Our competitive purchasing process follows California state law. We provide our contractors with a set of environmental and social standards for all contracted business services which includes anti-discrimination clauses, human rights regulations, and fair labor and environmental compliances. These social and environmental mandates were established by the

State of California, and CalSTRS has the responsibility to ensure that we do business only with contractors that are in compliance.

The CalSTRS Responsible Contractor Policy seeks to monitor the use of labor in the development and management of real estate investments. The goal is to ensure that pension fund capital is funding projects that pay a fair wage and benefit for all work and services related to the construction and management of the assets. The CalSTRS Real Estate Investment Office has overseen this policy since its inception in the 1990s and has been successful in reaching goals with participation at almost 100% by respective real estate managers.

**The California State Teachers' Retirement System has a deep interest in the condition of workers employed by CalSTRS and our advisers.**





# Headquarters' environmental performance

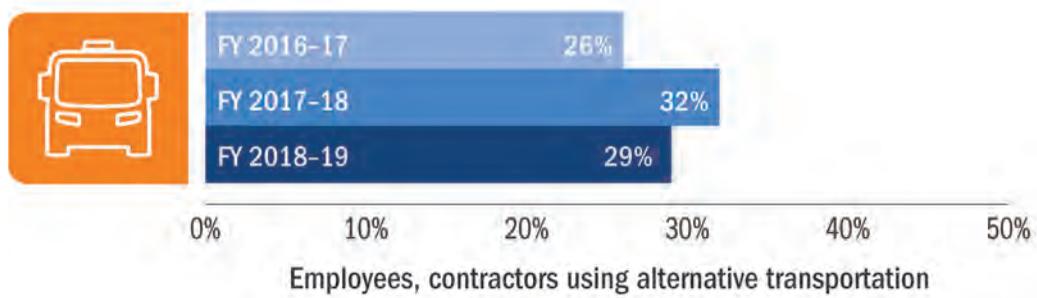
CalSTRS employs components of an environmental management system based on the International Organization for Standardization 14001 environmental management standards. These include executive-level planning, employee engagement and the plan-do-check-act cycle of continuous improvement for alternate transportation, energy, environmentally preferred purchasing, greenhouse gas emissions, waste diversion and water.

We established our targets in alignment with the LEED building certification standards and Executive Order B-18-12 for state facilities. Staff regularly monitors performance and communicates results internally within CalSTRS and to the State of California. Our CalSTRS employee-driven Green Rangers team engages staff in our environmental efforts.

## Alternative transportation

We encourage and support alternative transportation options for our employees and contractors to reduce traffic congestion and impact on the environment. In addition to saving on fuel costs, maintenance and parking, employees may be reimbursed for a portion of alternate commuting expenses.

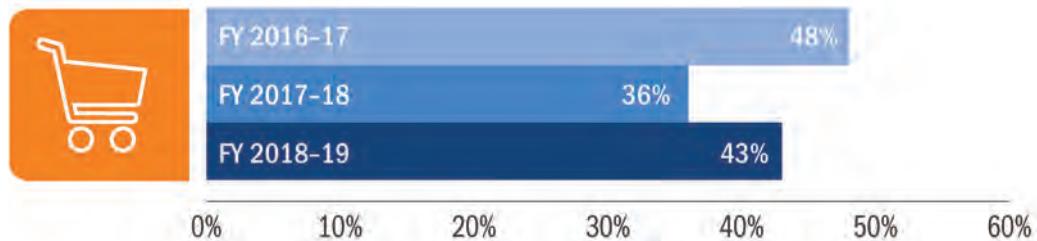
Alternative transportation usage contributes to our LEED Platinum rating.



## Environmentally preferred purchasing

Purchasing sustainably made goods and services from environmentally conscientious suppliers—locally when possible—reduces waste and emissions and saves natural resources. We strive to purchase Energy Star-certified products, such as electronics, appliances or other equipment, locally manufactured and distributed products, and desk supplies with pre- and post-consumer recycled content.

Our green procurement initiative calls for increasing the percentage of sustainably preferred purchases and includes increased employee education and training, revisions to purchasing processes and procedures, and monitoring of our progress in meeting LEED purchasing standards.



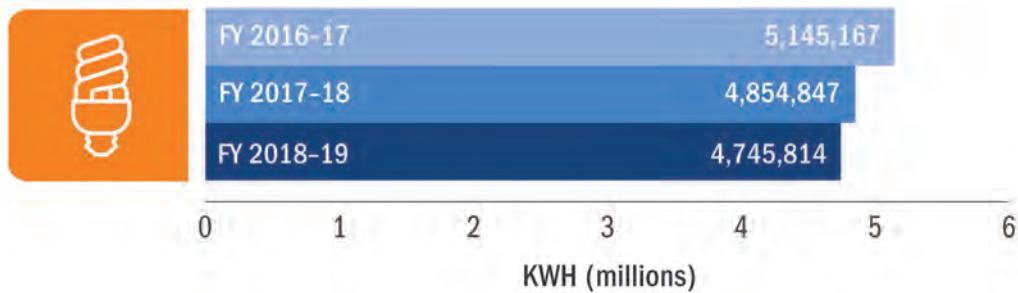
## Energy

### Electricity

In 2018-19, CalSTRS' Headquarters' electricity usage decreased slightly.

We participate in the Pacific Gas and Electric Automated Demand Response program, which automatically relieves stress on the electrical grid when PG&E asks enrolled users to reduce energy consumption. As a result of our participation in this program, our headquarters' energy use was reduced during the peak demand hours of 2 p.m.-6 p.m. during the summer months, and ultimately throughout the year.

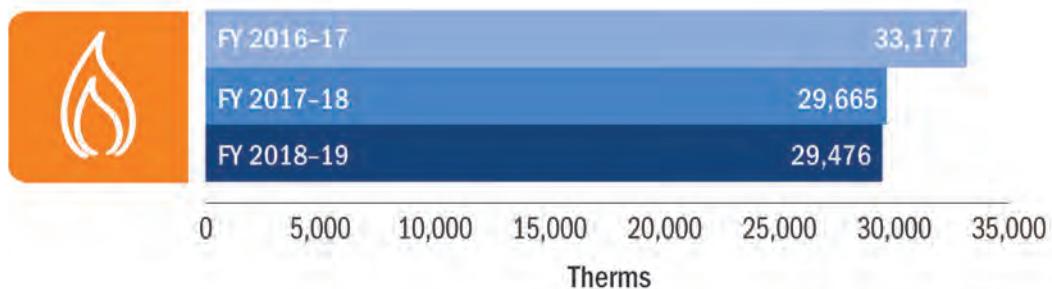
Engineering staff continues to operate the building at optimal efficiency contributing to our LEED Platinum rating.



### Natural gas

In 2018-19, CalSTRS' Headquarters' natural gas usage decreased slightly.

Engineering staff continues to operate the building at optimal efficiency contributing to our LEED Platinum rating.



## Greenhouse gas emissions

### Scope 1 and Scope 2 emissions

Since 2005, CalSTRS has been reporting headquarters' greenhouse gas emissions to The Climate Registry, a North American nonprofit organization. We report emissions annually for the prior calendar year.

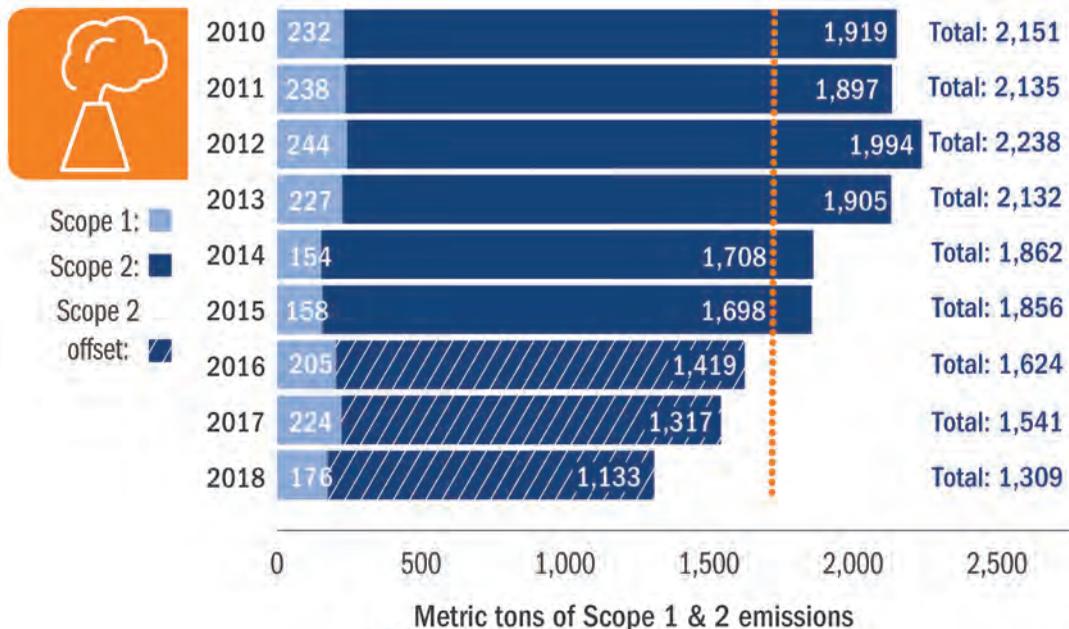
CalSTRS decreased Scope 1 and 2 emissions each year since 2012. In 2016, 2017 and 2018, we reached the goal set by Executive Order B-18-12 to reduce combined Scope 1 and 2 emissions by 20% by year 2020 compared to calendar year 2010, prior to applying offsets.

**CalSTRS accounts for six greenhouse gases:**

- Carbon dioxide (CO<sub>2</sub>)
- Methane (CH<sub>4</sub>)
- Nitrous oxide (N<sub>2</sub>O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur hexafluoride (SF<sub>6</sub>)

**Scope 1 and Scope 2**

- Scope 1 Direct Emissions: natural gas, mobile combustion and fugitives, which includes stored refrigerants
- Scope 2 Indirect Emissions: purchased electricity



**Target for overall reduction by 2020:**  
 Reduce our combined scope 1 and 2 emissions to achieve a 20% reduction from 2010 calendar year emissions by 2020 (1,720.8).

# HEADQUARTERS' ENVIRONMENTAL PERFORMANCE

## Scope 2 emissions offset

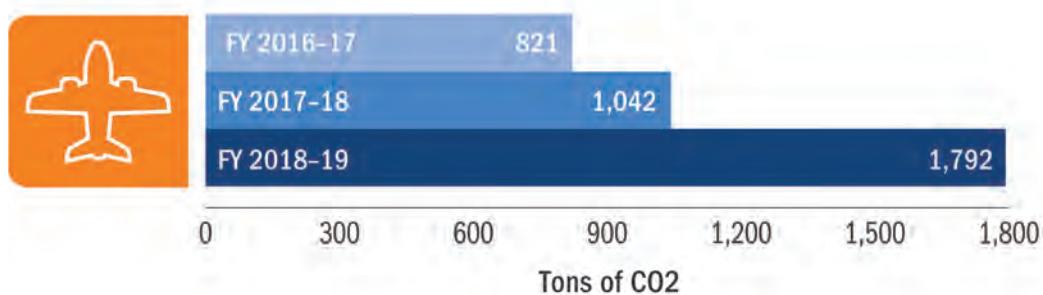
We regularly review greenhouse gas emissions performance and work toward reducing carbon emissions and increasing renewable energy use. In 2018, we purchased renewable energy credits in the amount of 4,726 megawatt hours from Blackwell Wind Farm, a renewable energy windfarm located in Oklahoma. The purchase of renewable energy credits helps to advance the development of global clean energy choices while simultaneously contributing to reduced emissions, improved air quality and a shift toward a carbon-free economy.

Year	Scope 1 (direct emissions)	Scope 2 (indirect emissions)	Scope 2 emissions offset by renewable energy credits	Total net emission
2016	205 metric tons	1,419 metric tons	-1,419 metric tons	205 metric tons
2017	224 metric tons	1,317 metric tons	-1,317 metric tons	224 metric tons
2018	176 metric tons	1,133 metric tons	-1,133 metric tons	176 metric tons

## Scope 3 emissions

Scope 3 emissions encompass all indirect business-related emissions outside of Scope 2. We monitor and report emissions from airline flight travel and rental car usage and use the California Green Lodging Directory of green-certified hotels.

Scope 3 emissions are expected to fluctuate over the next five years as we grow our Investments Branch staff in support of the CalSTRS Collaborative Model. Currently, reduction in travel does not strategically align with the CalSTRS near-term business plans but will be reevaluated in the future.



## Waste diversion

The Total Resource Use and Efficiency certification system enables facilities to define, pursue and achieve zero waste goals, cut their carbon footprint and support public health. The TRUE certification system promotes processes that consider the entire lifecycle of products and helps facilities quantify their performance and determine additional methods of improving their progress toward zero waste.

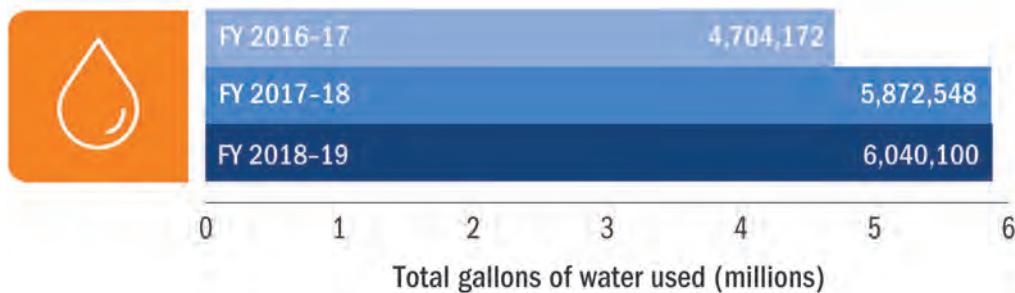
For 2018-19, the CalSTRS Headquarters building in West Sacramento maintained its TRUE Zero Waste certification by successfully diverting more than 87% of office waste from landfills, incinerators and the environment.

As of January 2019, more accurate methods of measuring our waste stream were implemented by our waste management vendor. As a result, we will be using the 2019-20 diversion rate to establish a new baseline measurement.



## Water

CalSTRS reached the goal to reduce water usage by 20% by year 2020 compared to calendar year 2013. To remain within usage targets, we continue our conservation processes and encourage water-mindful behaviors as we increase staff size.



## Green Janitor program



Back row, from left: Brian Baltzley from Ableserve, CalSTRS CEO Jack Ehnes, instructor Sergi Bach, Christian Jimenez, Francisco Vargas, Marvin Mongalo, Cesar Rueda, Irma Lopez and Sylvia Romo from Building Skills Partnerships. Front row: Maria Leal, Teresa Abarca, Maria Dolores Mira, Maria Zarazua, Miriam Aguilar and Audel Hermosillo.

In 2018, CalSTRS participated in the Green Janitor program to bring to the forefront an important contributor to a clean, sustainable environment—the janitorial staff.

The green education program trains janitors in cleaning and sustainability topics including energy and water conservation, waste management and the LEED certification process. Upon completion of the 15-week course, the participants receive official certification as Green Janitors

from the U.S. Green Building Council. This is the only training and certification program of its kind in the country, and the graduating class at CalSTRS was the first in Sacramento.

The program represented a unique cross-sector collaboration between the statewide nonprofit Building Skills Partnership, the SEIU-USWW, Able Services and CalSTRS to promote the value of investing in the janitorial workforce.



# Global Reporting Initiative Content Index

## GRI Standard: 2016 Core option

GRI Disclosure Number	Description	Response
<b>GRI 102: GENERAL DISCLOSURES (VERSION: 2016)—ORGANIZATIONAL PROFILE</b>		
102-1	Name of the organization	CalSTRS, the California State Teachers' Retirement System
102-2	Activities, brands, products and services	Page 6–7, A word from CEO Jack Ehnes Page 11, About CalSTRS Page 41–48, Member retirement preparedness
102-3	Location of headquarters	100 Waterfront Place West Sacramento, CA 95605
102-4	Location of operations	Page 20, Office locations and employees
102-5	Ownership and legal form	Page 11, About CalSTRS
102-6	Markets served	Page 6–7, A word from CEO Jack Ehnes Page 11, About CalSTRS Page 18–19, Member profile
102-7	Scale of the organization	Page 11, About CalSTRS Page 20, Office locations and employees Page 21, Financial performance highlights Page 18–19, Member profile See <i>CalSTRS Comprehensive Annual Financial Report</i> FY 2018–19 for detailed financial information. <ul style="list-style-type: none"> <li>• Page 24–26, Independent auditor's report</li> <li>• Page 29–31, Financial highlights</li> <li>• Page 45–46, Statement of fiduciary net position</li> </ul>
102-8	Information on employees and all other workers	Page 20, Office locations and employees A record of employee information is stored in the CalSTRS Demographics Database.
102-9	Supply chain	Page 56, Responsible contractors and suppliers <i>CalSTRS Comprehensive Annual Financial Report</i> FY 2018–19 <ul style="list-style-type: none"> <li>• Page 93–96, Schedule of investment expenses</li> <li>• Page 97–100, Schedule of consultant and professional services expenses</li> </ul>
102-10	Significant changes to the organization and its supply chain	Page 20, Office locations and employees CalSTRS opened new member service centers in Redding and Fresno.
102-11	Precautionary Principle or approach	Page 23, Our sustainable values Page 24, Sustainability Vision and Guiding Beliefs Page 25, Leading the direction in sustainable finance Page 26–29, Sustainable investing Page 59–65, Headquarters' environmental performance
102-12	External initiatives	Page 25, Leading the direction in sustainable finance Page 26–29, Sustainable investing
102-13	Membership of associations	Page 25, Leading the direction in sustainable finance

GRI Disclosure

Number	Description	Response
<b>GRI 102: GENERAL DISCLOSURES (VERSION: 2016)—STRATEGY</b>		
102-14	Statement from senior decision-maker	Page 6–7, A word from CEO Jack Ehnes
<b>GRI 102: GENERAL DISCLOSURES (VERSION: 2016)—ETHICS AND INTEGRITY</b>		
102-16	Values, principles, standards and norms of behavior	Page 12, Core Values Page 23, Our sustainable values Page 24, Sustainability Vision and Guiding Beliefs Page 54, A culture of ethics and integrity Page 55, Ethics and compliance policies and training Page 56, Responsible contractors and suppliers
<b>GRI 102: GENERAL DISCLOSURES (VERSION: 2016)—GOVERNANCE</b>		
102-18	Governance structure	Page 15–16, Teachers’ Retirement Board Page 17, Teachers’ Retirement Board’s six standing committees
<b>GRI 102: GENERAL DISCLOSURES (VERSION: 2016)—STAKEHOLDER ENGAGEMENT</b>		
102-40	List of stakeholder groups	Page 8, Stakeholder engagement and material topic identification
102-41	Collective bargaining agreements	Page 20, Office locations and employees
102-42	Identifying and selecting stakeholders	Page 8, Stakeholder engagement and material topic identification
102-43	Approach to stakeholder engagement	Page 8, Stakeholder engagement and material topic identification Page 17, Teachers’ Retirement Board’s six standing committees Page 48, 2019 Annual Member Survey
102-44	Key topics and concerns raised	Page 8, Stakeholder engagement and material topic identification Page 48, 2019 Annual Member Survey
<b>GRI 102: GENERAL DISCLOSURES (VERSION: 2016)—REPORTING PRACTICE</b>		
102-45	Entities included in the consolidated financial statements	<i>CalSTRS Comprehensive Annual Financial Report FY 2018–19</i>
102-46	Defining report content and topic Boundaries	Page 8, Stakeholder engagement and material topic identification
102-47	List of material topics	Page 6–7, A word from CEO Jack Ehnes Page 8, Stakeholder engagement and material topic identification
102-48	Restatements of information	Not applicable for this report period.
102-49	Changes in reporting	Not applicable for this report period.
102-50	Reporting period	Page 5, About this report
102-51	Date of most recent report	May 2019
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding this report	Sustainability@CalSTRS.com
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.
102-55	GRI content index	The GRI Content Index adheres to the requirements of this disclosure.
102-56	External assurance	Page 7, Assurance

## Material topics

GRI Disclosure		
Number	Description	Response
<b>MATERIAL TOPIC: PATH TO FULL FUNDING—GRI 103: MANAGEMENT APPROACH (VERSION: 2016)</b>		
103-1	Explanation of the material topic and its Boundary	Page 8, Stakeholder engagement and material topic identification Page 31, Path to full funding
103-2	The management approach and its components	Page 31, Path to full funding
103-3	Evaluation of the management approach	Page 35–36, Funding reports Page 37–38, The value of investments
<b>MATERIAL TOPIC: PATH TO FULL FUNDING—GRI 201: ECONOMIC PERFORMANCE (VERSION: 2016)</b>		
201-1	Direct economic value generated and distributed	Page 18–19, Member profile Page 21, Financial performance highlights <i>CalSTRS Comprehensive Annual Financial Report FY 2018–19</i>
201-4	Financial assistance received from government	Page 32, Legislative plan Page 34, 2019–20 state budget supplemental pension payments
<b>MATERIAL TOPIC: RETIREMENT PREPAREDNESS—GRI 103: MANAGEMENT APPROACH (VERSION: 2016)</b>		
103-1	Explanation of the material topic and its Boundary	Page 8, Stakeholder engagement and material topic identification
103-2	The management approach and its components	Page 41–46, Member retirement preparedness Page 47, Helping our members prepare
103-3	Evaluation of the management approach	Page 48, 2019 Annual Member Survey
<b>MATERIAL TOPIC: RETIREMENT PREPAREDNESS—GRI 201: ECONOMIC PERFORMANCE (VERSION: 2016)</b>		
201-1	Direct economic value generated and distributed	Page 18–19, Member profile <i>CalSTRS Comprehensive Annual Financial Report FY 2018–19</i>
<b>MATERIAL TOPIC: INFORMATION SECURITY—GRI 103: MANAGEMENT APPROACH (VERSION: 2016)</b>		
103-1	Explanation of the material topic and its Boundary	Page 8, Stakeholder engagement and material topic identification Page 51, Information security and responsible business practices
103-2	The management approach and its components	Page 52–53, Information security at CalSTRS
103-3	Evaluation of the management approach	Page 53, Assessing information security Page 53, 2018–19 statistics
<b>MATERIAL TOPIC: DIGITAL AND PHYSICAL SECURITY—GRI 418: CUSTOMER PRIVACY (VERSION: 2016)</b>		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Zero substantiated complaints concerning breaches of customer privacy and losses of customer data

## Additional disclosures

GRI Disclosure		
Number	Description	Response
<b>ENERGY—GRI 302 ENERGY (VERSION: 2016)</b>		
302-1	Energy consumption within the organization	Page 61, Energy
302-4	Reduction of energy consumption	Page 61, Energy
<b>WATER—GRI 303: WATER (VERSION: 2016)</b>		
303-1	Water withdrawal by source	Page 64, Water
<b>EMISSIONS—GRI 305 EMISSIONS (VERSION: 2016)</b>		
305-1	Direct (Scope 1) GHG emissions	Page 62–63, Greenhouse gas emissions
305-2	Energy (Scope 2) GHG emissions	Page 62–63, Greenhouse gas emissions
305-3	Other indirect (Scope 3) GHG emissions	Page 63, Scope 3 emissions
<b>EFFLUENTS AND WASTE—GRI 306 EFFLUENTS AND WASTE (VERSION: 2016)</b>		
306-2	Waste by type and disposal method	Page 64, Waste diversions



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