Cassandra Lichnock
Chief Executive Officer

CALSTRS
HOW WILL YOU SPEND YOUR FUTURE?

California State Teachers'
Retirement System
Post Office Box 15275
Sacramento, CA 95851-0275

916.414.2200 Tel
www.calstrs.com

March 2, 2022

Senate Committee on Labor, Public Employment and Retirement
Assembly Committee on Public Employment and Retirement

Dear Committee Members:

Thank you for the opportunity to participate in the joint informational hearing of the Senate Labor, Public Employment and Retirement Committee and the Assembly Public Employment and Retirement Committee.

In addition to our discussion with the committee, CalSTRS has prepared background materials for you regarding CalSTRS' membership, investments and funding. We hope to express, as fiduciaries, the responsibility we have, and the value we provide, to our more than 980,000 members and beneficiaries. We look forward to working together with you this session.

I invite you to review the attached materials and contact Joycelyn Martinez-Wade, Director of Governmental Relations, for further information or assistance. She can be reached at jmwade@calstrs.com or (916) 414-1980.

Sincerely,

C M Lichnock

Cassandra Lichnock
Chief Executive Officer

Attachments

California State Teachers' Retirement System
Cassandra Lichnock, Chief Executive Officer
Christopher Ailman, Chief Investment Officer

Senate Labor, Public Employment and Retirement Committee
Assembly Public Employment and Retirement Committee
Joint Informational Hearing
March 9, 2022

Good morning Chairs Cortese and Cooper and members of the committees,

I am Cassandra Lichnock, Chief Executive Officer of CalSTRS.

WHERE WE ARE TODAY

CalSTRS is the largest educator-only retirement system in the nation. We provide retirement, disability and survivor benefits to California's educators and their families. A few years ago, the fund was projected to run out of assets in about 30 years. However, thanks to the adoption of the CalSTRS Funding Plan in 2014, which incrementally increased contributions among the program's three contributors—CalSTRS members, employers and the State—CalSTRS is financially stronger and better positioned to achieve full funding today.

In fact, CalSTRS is ahead of schedule in its goal of reaching full funding by 2046, the target date established in the CalSTRS Funding Plan. Supplemental payments made by the state the last few years to reduce its share of CalSTRS's unfunded liability, combined with the 27.2% investment return earned by CalSTRS in 2020-21, have put CalSTRS on a path that could lead to full funding prior to 2046. And the state could fully eliminate its share of CalSTRS's unfunded liability within the next two to three years.

UPCOMING CHALLENGES

A key aspect of the funding plan is the limited rate-setting authority it provides the board to adjust the state and employer contribution rates, and as a result, CalSTRS is now financially stronger and better positioned to react to a potential recession and achieve full funding.

However, risks remain. We continually monitor the funding plan and the risks that could prevent us from reaching full funding, with the most significant three being **longevity risk, the risk of a decline in the number of teachers or payroll, and investment-related risk**. The COVID-19 pandemic has impacted all three of these risks in different ways, and it is likely to continue to impact these risks both in the short and long term.

Longevity risk refers to the potential that members live longer than anticipated, and thus, the lifetime benefit they receive lasts longer than expected. Living longer for a retirement system means paying more in benefits. On that front, CalSTRS is unique. Our teachers enjoy a longer lifespan than the average person in California and in the U.S. A female CalSTRS teacher lives on average two to three years longer than the average women living in California and five to six years longer than the average U.S. woman.

The COVID-19 pandemic adds extra uncertainty to CalSTRS' projections of life expectancy. It is not clear whether the pandemic will have long-term or only short-term impacts on mortality. We will not know the full impact for several years.

Since the beginning of the pandemic, CalSTRS has seen a decline of more than 20,000 in the number of active members who participate in the Defined Benefit Program. This reduction in active membership contributed to **lower-than-expected payroll growth** over the last two years. Also contributing to the decline in active membership were the higher-than-expected retirements in 2020-21. Additionally, recent declines in the number of children enrolled in K-12 public schools and projected enrollment declines in the future may result in a need for fewer teachers in California. This could further impact the number of active teachers who participate in the Defined Benefit Program. Thus, there is a growing concern related to the long-term payroll growth assumption of 3.5% that is used in the funding of the system. The rules of the funding plan as well as these issues affecting payroll growth could negatively impact CalSTRS' ability to achieve full funding, thus requiring contribution rate increases, especially for employers.

Of all the risks CalSTRS monitors, **investment-related volatility** remains the greatest risk facing CalSTRS today. This is important because for every $1 we pay in benefits, about 60 to 65 cents come from investment income. Moreover, the combination of a maturing system and the decreasing timeframe of the funding plan only serves to exacerbate this risk. When investment returns are below expectations, the unfunded actuarial obligation increases, which in turn requires additional contributions to bridge the gap. The funding plan provides the board with only limited authority to increase contribution rates for both the state and employers through 2046.

Still, the risk that investment returns could be lower than assumed over a sustained period remains since periods of low returns often occur during recessions. In the past, CalSTRS has experienced both periods of low investment returns combined with significant reductions in the number of active members and payroll. These are the situations that would most stress the funding plan.

Even so, as stated earlier, the 27.2% investment return for fiscal year 2020-21 has significantly changed the outlook for funding levels and the state contribution rate. Assuming the fund earns 7% over the next two years, the state's share of the unfunded obligation is now projected to be eliminated by 2023.

Another important tool in monitoring the funding plan is ensuring the actuarial assumptions we use in the funding of the system remain appropriate and reflect our expectations of the future. Every four years, CalSTRS performs a formal review of the actuarial assumptions. This review is done in conjunction with the review of our asset allocation, which is how we invest our assets and the contributions we receive from our teachers, the school employers and the State. This is one of the most important decisions made by our board and directly impacts our long-term investment return assumption, currently set at 7%. The board last reviewed and adopted actuarial assumptions in January 2020. The next review cycle will begin next fiscal year.

If any events or changes warrant an adjustment to actuarial assumptions, the issue will be brought to the board for discussion, even if such discussion would occur ahead of the normal review cycle. We also will continually monitor the funding plan and the financial health of the fund and provide formal assessments of funding levels and risks to the board twice a year.

I also wanted to touch on one of the specific economic assumptions used in the funding of the CalSTRS Defined Benefit Program—inflation. It's an important assumption that impacts expected payroll growth and the assumed investment return. More importantly, it can also impact our members negatively. As we all know, inflation has been high for the last year. Inflation levels are the highest this country has seen in the last 40 years. When inflation is high, it can be very hurtful to older retirees. In addition to the simple 2% annual benefit adjustment, CalSTRS administers the Supplemental Benefit Maintenance Account (SBMA), which is a program designed to protect retired members against high inflation by helping maintain a certain level of purchasing power protection. This program, funded by contributions from the State, helps our older retired members and their beneficiaries by ensuring their purchasing power does not drop below 85%, the level currently provided by our inflation protection program. This benefit is important to our members, and Senator Cortese is authoring SB 868—a bill that provides additional SBMA benefits to those who began receiving a benefit prior to 1999.

CALSTRS INVESTMENTS

Diversification is an important principle in long-term investing. By diversifying our Investment Portfolio, the fund can better mitigate risk and maximize returns. However, there is growing interest in and calls for divestment from different holdings in our portfolio, including Russian investments and fossil fuels. Divestment, from an entire industry sector, can detract from the ability of a diversification strategy to succeed and could negatively impact the health of the fund. CalSTRS firmly believes that active and direct engagement is the best way to resolve issues.

In light of recent events, it is important to note that CalSTRS stands with the Ukrainian people as they endure a horrific, unprovoked attack. We are following developments and working closely with the Governor to ensure our actions are aligned with the state's position. As always, our goal is to protect the pensions of California's public educators and their beneficiaries. We will continue to follow our investment policy for mitigating environmental, social and governance risk factors, such as war, conflicts and acts of terrorism.

We share the sense of urgency regarding climate change, and we are focused on understanding and responding to the risks it presents, both to the CalSTRS Investment Portfolio and to sustainable economic growth.

The Value of CalSTRS Engagements

As a significant investor with a long-term investment horizon, engagement is a critical tool used to influence changes in public policies and corporate practices that support long-term value creation.

We engage, through meetings, letters, shareholder proposals, investor coalitions and proxy voting, to influence companies to adopt best practices in managing environmental, social and governance issues to create sustainable businesses. We also engage policymakers to codify strong governance practices that improve the financial market landscape for long-term investors and their beneficiaries. Our history of engagement activities has resulted in better relationships and outcomes across global industries. Some examples of successful engagement include:

- We withheld votes for all directors of the Exxon Mobil board at the company's 2020 annual general meeting. Several other large investors also chose to vote against specific directors—sending a strong signal to the company about the urgent need to engage more meaningfully with shareholders and.
- The Thirty Percent Coalition, with which CalSTRS collaborates, reached out to 250 companies in the Russell 3000 Index, resulting in 127 companies appointing women to their boards.

- The California Investors Group, with which CalSTRS also collaborates, reached out to 74 companies in the S&P 500, resulting in 52 companies appointing female and/or racially and ethnically diverse directors.

Net Zero Pledge

CalSTRS agrees that climate change is a pressing issue, and we are aligned with the State of California in combatting climate change and worked closely with the state's Department of Finance in the development of the California Climate Investment Framework. Our efforts to address climate risk are rooted in our promise of a secure retirement for California's public school educators and their beneficiaries. It was with that promise in mind that the Teachers' Retirement Board pledged to have a net zero portfolio by 2050 or sooner.

In September 2021, the board approved a four-part implementation framework to chart the path to net zero, consistent with the United Nations' Race to Zero campaign—the largest global effort to address climate change. The first step was the Net Zero Pledge when CalSTRS committed to achieving a net zero portfolio by 2050 or sooner. The second step is to develop a Net Zero Action Plan that will establish a baseline and milestones for managing emissions-related risks, expand investments in low-carbon solutions, and drive ongoing engagement with companies in the portfolio to promote a responsible net zero transition. The third step is to proceed and establish actions for the next year to ensure clear internal governance structures, appropriate methodologies and frameworks to support net zero commitments, portfolio emissions measurement and interim goals. The fourth step is to publish by providing and encouraging regular reporting on progress toward net zero investments.

Stewardship Priorities

Within the Investments Branch, CalSTRS has a dedicated unit, the Sustainable Investment and Stewardship Strategies Unit, that uses CalSTRS influence as a significant global investor to promote long-term sustainable business practices and public policies. We engage publicly traded companies to support long-term value creation as well as mitigate risk to our portfolio and the financial market.

Our four over-arching stewardship priorities focus on achieving measurable outcomes through influencing corporate and market accountability; supporting effective corporate boards, which includes human capital management and diversity; transitioning to a low-carbon economy; and addressing firearm safety and responsibility.

Before we decide to engage on a particular issue, we consider three factors: the issue must be relevant to the long-term performance of our portfolio; we must have the capacity to influence meaningful change; and we must be able to deliver measurable outcomes.

In deciding whether an issue will impact the long-term performance, we look to the Sustainable Accounting Standards Board's standards as well as our own Environmental, Social and Governance Risk Factor Policy, which helps guide our decisions. We use tools such as proxy voting and activist stewardship when seeking to influence change and we consider how much time and resources an issue will require.

Additionally, we receive requests from stakeholders, fellow investors and other interested parties to engage on issues that fall outside of the four main priorities established in our Stewardship Plan. For these ad hoc requests, we analyze and evaluate whether taking action on a particular request would be in the best interest of CalSTRS.

Collaborative Model

One initiative that we are moving forward with is the CalSTRS Collaborative Model. The model is an investment strategy to manage more assets internally to reduce costs, control risks and increase expected returns, as well as to leverage our external partnerships to achieve similar benefits. The Collaborative Model's strategy improves the ratio of net assets to net costs in CalSTRS investments and provides savings in both private and public markets.

When fully implemented, the Collaborative Model may produce between $200-300 million in cost savings and increased returns annually over the next 10 to 15 years. Based on our most recent investment business plan, we project that if we continue to grow the Collaborative Model, it could create enough annual savings to keep annual portfolio costs at our current levels 10 years from now, despite a projected 50% portfolio growth.

We are measuring the performance of the model through annual cost reporting, emphasizing transparency and accountability. The first report was presented to the board in November 2021.

Diversity and Inclusion

Building teams that exhibit diversity, equity and inclusion is essential in achieving our financial and return objectives. It's imperative that our internal investment team, as well as our investment partners and the company boards in which we invest, reflect the rich diversity of the members we serve. We continue to take steps to achieve our diversity goals within our organization and in the companies we invest. We build and support a diverse pipeline of investment professionals through our Student Intern Program and our Investment Mentor Program. We have an internal diversity steering committee consisting of leaders across the Investments Branch, whose first task included examining and redefining diversity in investments. We have a diversity-focused investment officer who is responsible for managing and coordinating our investment management diversity and inclusion strategy. We have a long record of promoting gender diversity on corporate boards through our engagements with coalitions of other like-minded investors. In California alone, 20 out of 25 companies engaged by our California coalition appointed their first woman to their board of directors. We are committed to improving corporate board disclosures around diversity and ensuring new board members have skill sets and perspectives that may be absent in corporate board rooms.

We host events with the goal of addressing barriers to promoting diversity and inclusion in the investment workplace. CalSTRS, in partnership with CalPERS, hosted the 2021 Diversity Forum, which covered issues such as the impact of the COVID-19 pandemic on human capital and how bias impacts corporations and financial markets. Each session also discussed different aspects of the investment sector. The event featured more than 25 speakers from pension funds, the financial industry and regulatory agencies, including the New York Stock Exchange, Nasdaq and the CFA Institute, and was attended by more than 500 investment professionals.

We continue to support emerging managers within our portfolio and remain committed to nurturing our relationships with these managers. We intend to equip a diverse pool of investors with the proper tools and experience needed to establish a direct investment relationship with us. Our emerging manager investments represent $15.5 billion—more than 15% of our externally managed investments.

Just recently, at the request of the State Superintendent of Public Instruction, California State University, Sacramento, hosted and moderated the Sustainability Symposium on California Teacher Pensions. This public event was designed to provide a forum for sharing diverse perspectives from teachers, community members and financial experts on what it could mean for teachers' pensions to divest from fossil fuels. Discussion focused on CalSTRS, and speakers explored different topics such as the influences on financial risks and long-term value creation, impacts of CalSTRS continued investments on our climate, our communities' health, social and racial justice issues, economic security for teachers' retirement, and the role of institutional investors in the net zero transition.

In preparation for these challenges and uncertainties, we have initiatives in place that are part of CalSTRS strategies to address risk and strengthen the fund.

UPCOMING OPPORTUNITES – STAFFING PERSPECTIVE

We will continue to build on these efforts and find new ways to strengthen our operations in order to attract highly qualified talent to join our workforce. We know our diversity of thought, experience and talent is what will make us resilient in an ever-changing investment, social and workforce landscape.

CalSTRS welcomes and embraces diversity of thinking, background and experience to enhance our culture and drive business success. By working together to respect, value and include each individual's perspectives, we empower staff to perform their best work toward the fulfillment of our mission. CalSTRS Diversity and Inclusion effort is an initiative to attract and recruit a diversified workforce reflective of California's growing population, while also realizing staff needs to be supported and developed once they are here.

In efforts to maintain the culture of CalSTRS while also adapting to the pandemic, we have designed and implemented CalSTRS Path Forward—a framework for designing our new work environment in response to the global pandemic. This plan outlines CalSTRS COVID-19 prevention plan and identifies strategies to mitigate risks in all work areas. Elements of the plan include guiding principles, timeline, establishment of protocols, written policies, IT resources and equipment support, development of training and change management plan, and drafting of communication plan. Consideration throughout is given to safely expanding capacity in CalSTRS buildings, while defining triggers and strategies should we need to re-exit our buildings. Additionally, focus is on establishing safe, healthy and productive remote work environments for staff. Acknowledging that information about the virus and statistics about the spread in different parts of the state are evolving, the protocols, policy and communication will be evaluated regularly and updated as situations dictate.

UPCOMING OPPORTUNITES – PROJECT PERSPECTIVE

<u>CalSTRS Headquarters Expansion Project</u>

Our headquarters expansion project is an effort to place CalSTRS in a position for success over the long term. It is an investment asset for CalSTRS future, and one we expect will meet the organization's needs over the next 30 years.

Due to increasing complexities in investment markets, the financial services sector and public plan administration, CalSTRS staff has grown since moving into its West Sacramento headquarters in 2009. Since we expect this growth to increase over the next two decades, the board unanimously approved expansion of our headquarters in November 2018.

The expansion will make more than 200,000 square feet of rentable office space available for lease in CalSTRS current riverfront building. Despite pandemic-driven shifts in office space needs, CalSTRS' Headquarters continues to be well positioned as an attractive leasing space for the Sacramento Downtown area, and as such, the potential for third-party lease revenue further increases the investment capital assets of the Teachers' Retirement Fund.

The new building will be the most sustainable in the region, providing environmental benefits and promoting health and community connectivity. We are striving for LEED Platinum-level certification for New Construction and WELL Building Standard certification that encourage environmental and human health. We are also striving to achieve Zero Net Energy and Living Building Challenge Petal certification.

The building is being financed through tax-exempt lease revenue green bonds. In January 2022, due to permitting delays, supply chain shortages and COVID-19 safety measures, the board voted to increase the initial budget of $300 million by $18.5 million, including conservative contingency funds and design simplification savings.

Construction-related expenses will not affect the CalSTRS Funding Plan, contribution rates or the unfunded actuarial obligation of the CalSTRS Defined Benefit Program. Additionally, further implementation of the Collaborative Model will increase internal management of investments and reduce reliance on external managers, which will result in significant annual savings to the fund.

The project timeline has been adjusted to take into account the effects of COVID and permit delays as mentioned, with the new move-in date projected to be the winter of 2023.

Pension Solution Project

We are also well under way with the Pension Solution project, which is a multi-year project to replace our current pension administration and auxiliary systems. The Pension Solution project is one of the most significant IT projects in CalSTRS history. It will help us fulfill our mission of securing the financial future and sustaining the trust of California's educators.

The Pension Solution project aligns with the CalSTRS Strategic Plan and delivers four primary benefits to the organization as well as our customers. It is designed to:

1. Enhance services to members, beneficiaries, staff and employers.
2. Increase ability to respond to customer and business needs.
3. Gain long-term operational efficiencies.
4. Improve internal controls.

The Pension Solution Project will provide members with enhanced myCalSTRS experience, scheduling services and planning tools.

The project is taking more time to complete than originally planned, and we are evaluating options to minimize any further delays.

UPCOMING OPPORTUNITIES – INITIATIVES BENEFITING MEMBERS

Employer Reporting to Final Benefit Project

The project goal is to build better processes so retired members can feel confident and have peace-of-mind as they make decisions and transition out of their teaching careers into retirement. A foundation was created based on an internal scan to assess our programs, business areas, processes and practices, and to sync different perspectives and approaches, as well as data regarding benefit adjustments.

We continue to make progress on piloting concepts related to increasing quality and refining existing conditions related to creditable compensation, creditable service and member appeals arising from an audit. Staff started piloting new processes to monitor employer reporting, researching methods to analyze contribution data for active members to identify potential risk, and implementing a quality management program that will shift the most complex employer inquiries to a dedicated team and perform quality control of responses to other employer inquiries for consistency and adherence to standards. Additionally, we are currently modeling an approach and potential resource requirements for reviewing members' accounts when they apply for retirement to reduce the risk of adjustments due to contribution reporting data changes after retirement.

We share a common goal with member and employer groups of further minimizing changes to a member's benefits with the aim of bringing certainty and consistency to members. To that end, we look forward to continuing to work with the author and stakeholder groups on AB 1667.

Retirement Readiness Member Education and Engagement Efforts

Retirement Readiness has been successful in shifting services and moving into the virtual environment in response to the pandemic. We transitioned our individual benefit planning sessions to telephone and Zoom as well as launched Zoom Group benefit planning sessions. In transitioning to an all-virtual service delivery model, we were able to remain agile and meet member demand throughout the state. The many adaptations to our service delivery model have led to greater operational excellence through lowering administrative costs paired with efficient and effective member services.

Now, in response to our stakeholder's requests, CalSTRS staff have once again started participating in in-person conferences and events held at locations across the state. We remain agile in delivering services and leveraging success to build an enhanced member education and outreach delivery model. We will continue to monitor member and stakeholder requests and satisfaction rates, as well as continue to focus on member engagement levels. We continue to partner with our internal communications division to expand on member engagement through external communication that leverages social media, blog posts and email communications.

In October 2021, we reopened the member service centers for in-person front counter services, and as of January 2022, we are again conducting in-person benefits planning sessions. We plan to begin offering in-person group benefits planning sessions by early spring. As a member service center lease agreement is set to expire, we continue to evaluate each individual center on its own merits and costs to make sound fiduciary decisions on the future member demand and service needs.

CONCLUSION

CalSTRS has been serving California's educators for more than 100 years. Our mission is securing the financial future and sustaining the trust of California's educators. And our priority is for every member's quality of life after retirement to be exactly what they expect it to be—or even better.

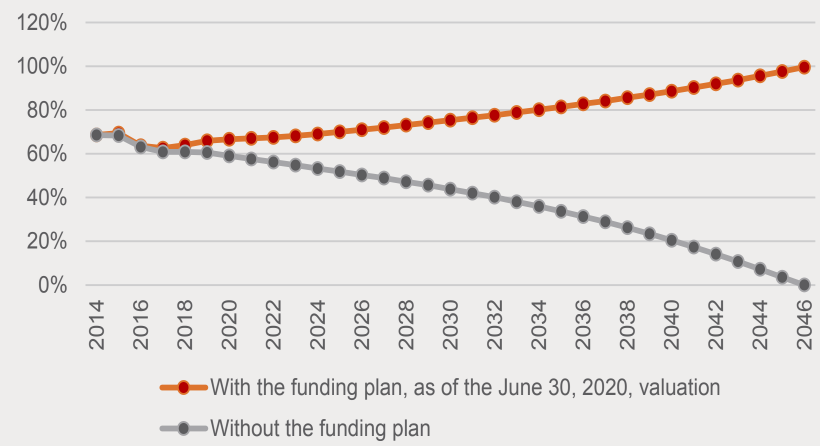
To that end, we will continue our steady focus on executing the CalSTRS Funding Plan and monitoring and adjusting to future risks and challenges that we face. And we remain committed to investing responsibly over the long term while continuing to add value to our portfolio—all for the benefit of California educators and their families.

CalSTRS Funding Plan

The CalSTRS Funding Plan enacted by Chapter 47, Statutes of 2014 (Assembly Bill 1469–Bonta), puts the CalSTRS Defined Benefit Program on the path to full funding by June 30, 2046, through incremental shared contribution increases among the program's three contributors: CalSTRS members, employers and the State of California.

The funding plan gives the Teachers' Retirement Board limited authority to adjust employer and state contribution rates to ensure the Defined Benefit Program remains on track to reach full funding by 2046.

Historical and projected funded status
Impact of the CalSTRS Funding Plan



CalSTRS member contribution rates

Prior to this historic legislation, 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.

Effective date	CalSTRS Funding Plan increases	
	2% at 60 members	2% at 62 members[1]
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%
July 1, 2020	10.25%	10.205%
July 1, 2021	10.25%	10.205%

[1] 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.

Neither CalSTRS members nor their employers contribute to Social Security for CalSTRS-covered service.

CalSTRS employer contribution rates

Increases in the employer contribution rate were phased in over seven years. Starting in 2021–22, the funding plan provides the 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.

In June 2021, the board kept the 2021–22 employer contribution rate at 19.1% of creditable compensation. However, as explained below, the 2021–22 employer contribution rate was reduced by 2.18%. On behalf of employers, the state made supplemental pension payments to CalSTRS in 2019–20 of $2.2 billion to provide short-term rate relief in 2019–20, 2020–21 and 2021–22. As a result, the employer contribution rates for 2019–20 and 2020–21 have been reduced from the rates originally established in the funding plan, and the employer contribution rate for 2021–22 has been reduced from the rate set by the board.

Effective date	CalSTRS Funding Plan increases	
	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	17.10%[2]	0.82%
July 1, 2020	16.15%[3]	-0.95%
July 1, 2021	16.92%[4]	0.77%

[2] In 2019–20, the employer rate reflects a 1.03% reduction from the rate that was originally required in the funding plan.

[3] In 2020–21, the employer rate reflects a 2.95% reduction from the rate that was originally required in the funding plan.

[4] In 2021–22, the employer rate is 2.18% less than the rate set by the board.

State contribution rates

The funding plan maintained the state's base contribution rate of 2.017% and the Supplemental Benefit Maintenance Account (SBMA) contribution of 2.5%. It replaces the portion of the state contribution rate that was formerly dedicated to paying for the 1990 benefit structure with an amount that eliminates the state's share of CalSTRS' unfunded liability by June 30, 2046. The funding plan provides the board limited authority to adjust the state contribution rate; however, the rate cannot be increased by more than 0.5% each year.

The 2020–21 state budget suspended the board's rate-setting authority for 2020–21, and the state rate increase adopted by the board in May 2020 did not go into effect. Instead, the state rate remained at 10.328% in 2020–21. To ensure CalSTRS was made whole, the state transferred $297 million in Proposition 2 revenues to bridge the gap.

In June 2021, the board adopted an increase of 0.5% in the state contribution rate, bringing the total state rate to 10.828% for fiscal year 2021–22. This rate includes the 2.5% contribution to the SBMA.

Other provisions of the CalSTRS Funding Plan

- CalSTRS submitted its first funding status report—*Report to the Legislature on the Progress of the CalSTRS Funding Plan*—to the Legislature in June 2019 and is required to report on the progress of the plan every five years.
- The 2% Annual Benefit Adjustment (also known as the improvement factor) cannot be reduced for members who retire on or after January 1, 2014. For members who retired prior to January 1, 2014, the legislation did not change the benefit.
- Increased contributions under the funding plan are only payable for compensation that is creditable to the Defined Benefit Program.
- Excess contributions received by CalSTRS for service creditable under the Defined Benefit Supplement Program that are also attributable to increases under the funding plan are returned to employers. Employers are responsible for returning excess member contributions to their employees, and the returned pre-tax contributions are considered taxable income in the year they are received by the employee. This occurs regardless of when the contribution was initially paid.

CALSTRS
CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

Fact Sheet

Why Full Funding Matters

The CalSTRS Funding Plan—AB 1469 (Chapter 47, Statutes of 2014), authored by Assemblyman Rob Bonta—puts the CalSTRS Defined Benefit Program on the path to full funding by 2046 through incremental shared contribution increases from members, employers and the state. Prior to the funding plan, CalSTRS was projected to deplete its assets by the mid-2040s.

Contribution rate increases have been phased in over several years since the start of the funding plan. Those contributions are invested to provide retirement, disability and survivor benefits for California's more than 975,000 educators and their families.

CalSTRS supports the funding plan and its objective of 100% funding of the Defined Benefit Program by 2046. The funding plan reinforces CalSTRS mission of securing the financial future and sustaining the trust of California's educators. Full funding is the most financially prudent and responsible way to provide benefits to past, present and future educators in California for the following reasons:

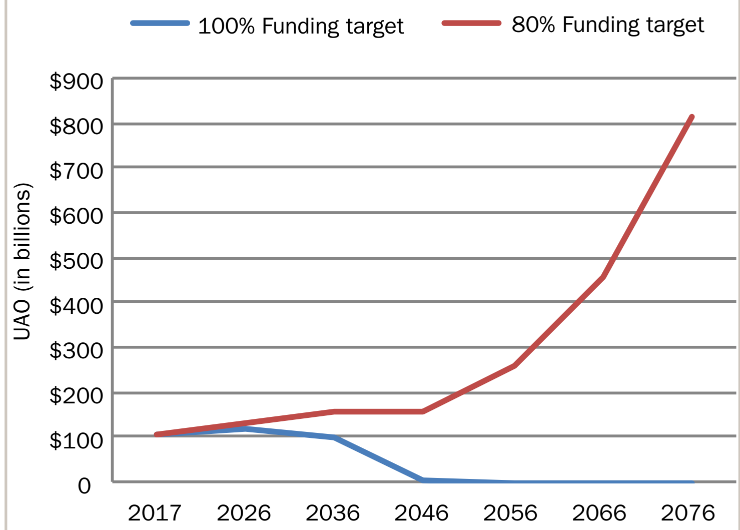
CalSTRS members have a constitutionally vested right to the "permanency of funding" of their promised benefit.
A funding target of less than 100% jeopardizes that right.

A higher funding level protects members' retirement benefits from external market conditions.
Recessions and market corrections are inevitable, and a higher funding level provides more security that CalSTRS' investment portfolio will be able to weather difficult market conditions when they occur and continue to fund member benefits over the long term.

The least expensive time to address the unfunded actuarial obligation is now.
Since the existing obligations will continue to compound, solutions will only become more expensive as time passes.

Targeting a funding level of 100% is the only way to eliminate the existing unfunded actuarial obligation.
A lower funding target passes today's pension obligations to future teachers, administrators and taxpayers and results in an ever-increasing unfunded actuarial obligation. Using an 80% funding target through the end of the funding plan would increase the unfunded actuarial obligation to approximately $160 billion. Then it would continue to grow, more than doubling in size over the 20 years that follow. (See chart below.)

Increase or decrease in UAO based on funding target



Pursuing full funding shields members, employers and the state from additional future costs.
A lower funding target would result in lower contributions for employers and the state temporarily. However, these savings would evaporate after the end of the funding plan, and larger contribution increases would be necessary to sustain the lower funding level.

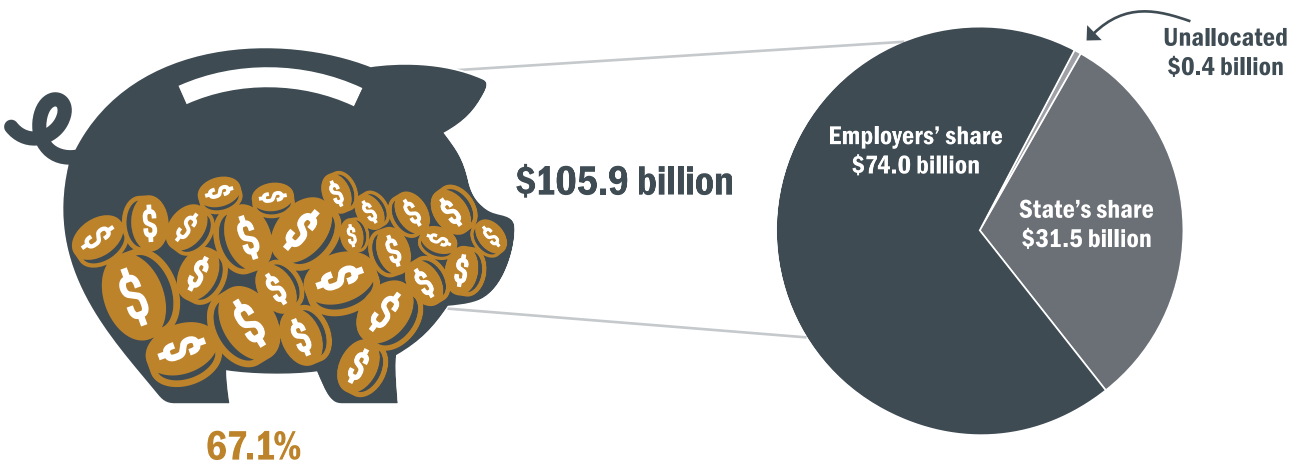
CalSTRS Funding Levels and Contribution Rates

CalSTRS Defined Benefit Program

(as of the June 30, 2020, actuarial valuation)

Funded status
(based on the actuarial value of assets)

Unfunded actuarial obligation
(based on the actuarial value of assets)



CalSTRS funded status and funding plan

The funded status is the ratio of CalSTRS' assets to the value of educators' promised benefits. An unfunded actuarial obligation (UAO) exists when the system's obligations exceed its assets. The CalSTRS Funding Plan—Chapter 47, Statutes of 2014 (AB 1469-Bonta)—was adopted to address the UAO and has put the Defined Benefit Program on the path to full funding by June 30, 2046, through incremental shared contribution increases among the program's three contributors: CalSTRS members, employers and the State of California. The plan also distributes the responsibility to pay down the UAO between the state and employers and gives the Teachers' Retirement Board limited rate-setting authority.

Contribution rates

Below is a table showing the contribution rates for the state, employers and members that have been in place since the adoption of the funding plan. Projected rates in shaded areas are estimates that do not reflect the 2020–21 investment performance. They also do not reflect the 2020–21 investment performance. They also could be affected by future actual investment performance, demographic changes and actuarial assumption changes. Changes in the contribution rates from the 2019–20, 2020–21 and 2021–22 state budgets are also included. The Teachers' Retirement Board is expected to adopt new contribution rates for fiscal year 2022–23 for the state and for employers at its May 2022 meeting.

Fiscal year begin	State[1]	Employers[2]	2% at 60 members	2% at 62 members[3]
2014	3.54%	8.88%	10.25%	8.15%
2015	4.891%	10.73%	10.25%	8.56%
2016	6.328%	12.58%	10.25%	9.205%
2017	6.828%	14.43%	10.25%	9.205%
2018	7.328%	16.28%	10.25%	10.205%
2019	7.828%	17.10%	10.25%	10.205%
2020	7.828%	16.15%	10.25%	10.205%
2021	8.328%	16.92%	10.25%	10.205%
2022	8.8%	≈19%	10.25%	10.205%
2023	9.3%	≈19%	10.25%	10.205%
2024	9.8%	≈19%	10.25%	10.205%

On behalf of employers, the state made supplemental pension payments to CalSTRS in 2019–20 and re-directed approximately $1.6 billion of the supplemental payments for short-term rate relief in 2020–21 and 2021–22. As a result, the employer contribution rates for 2019–20 and 2020–21 were reduced from the rates originally established in the funding plan by 1.03% and 2.95%, respectively. Furthermore, in 2021–22, the rate is reduced by 2.18% from the rate that was set by the board in June 2021.

The 2020–21 state budget suspended the board's rate-setting authority for the state contribution rate for 2020–21, and the rate increase adopted by the board in May 2020 did not go into effect. Instead, the state rate remained at 7.828% in 2020–21. To ensure CalSTRS was made whole, the state has transferred a total of $881 million using General Fund and Proposition 2 revenues to bridge the gap and to further reduce the state's share of CalSTRS UAO. The state contribution rate is expected to increase each year until reaching about 10%. It is important to note the state contribution rate could be materially impacted by the investment performance for 2020–21.

1 Additionally, the state contributes 2.5% to the Supplemental Benefit Maintenance Account.

2 Employer contribution rates are set in statute through 2020–21, and starting in 2021–22, the funding plan provides the board with limited employer rate-setting authority.

3 The contribution rate for 2% at 62 members is equal to one half of the normal cost pursuant to the Public Employees' Pension Reform Act of 2013 (PEPRA) plus 1.205% and could change if the normal cost increases or decreases by more than 1% from the normal cost as of the June 30, 2017, actuarial valuation.

EXECUTIVE SUMMARY

The California State Teachers' Retirement System was founded in 1913 with 120 retired members and 15,000 active members. More than 100 years later, CalSTRS remains committed to its mission to secure the financial future and sustain the trust of California's educators and to provide retirement, disability and survivor benefits to them and their families.

To that end, CalSTRS has come a long way. Prior to the 2014 adoption of the funding plan, the CalSTRS Defined Benefit Program was expected to run out of assets in about 30 years. Thanks to the funding plan and the limited rate-setting authority it provides the board to adjust the state and employer contribution rates, CalSTRS is now financially stronger and better positioned to react to a potential recession and achieve full funding.

CalSTRS continually monitors the funding plan and the financial health of the fund and provides formal assessments of funding levels and risks to the board twice a year. These formal assessments are presented in the spring through the annual actuarial valuation report and in the fall through the *Review of Funding Levels and Risks* report. In addition to these two formal reports, CalSTRS provides updates to the board on the status of various funding-related risks as part of the semi-annual enterprise risk management report. These semi-annual reports are generally presented in September and March of each year. CalSTRS will continue to monitor the current COVID-19 situation closely since it has the potential for affecting the three main risks identified in this report.

CalSTRS is also required by statute to provide a report to the Legislature every five years on the progress of the funding plan. The first progress **report** was completed and provided to the Legislature in June 2019. The next progress report is due in June 2024.

As shown in this year's *Review of Funding Levels* and Risks report, the 27.2% investment return earned by CalSTRS in 2020–21 has significantly improved projected funding levels. CalSTRS now expects the Defined Benefit Program to reach full funding prior to 2046 under current actuarial assumptions. As a result of the rules set forth in the funding plan, the state and the employers will not share equally the impact of this better-than-expected investment return. For more details, please refer to the "Path to full funding" section.

Key results and findings of this report include:

- The state's share of the CalSTRS unfunded actuarial obligation is now projected to be eliminated by June 30, 2023, well ahead of schedule.
- Long-term contribution levels for employers are expected to be higher than previously estimated in the most recent actuarial valuation.
- Anticipated decreases in enrollment in K-12 public schools could lead to future declines in the size of the active membership, resulting in lower than anticipated payroll growth. This could negatively impact CalSTRS' ability to achieve full funding, requiring contribution rate increases, especially for employers.
- The largest risk facing CalSTRS' ability to reach full funding remains investment-related risk, especially considering the Defined Benefit Program continues to mature, which will increase the system's sensitivity to investment experience. The state's share of the unfunded actuarial obligation could quickly increase and re-appear if CalSTRS were to experience a year in which the investment return is significantly below the assumed rate of return.
- A recession resulting in a period of low investment returns and a decline in the size of the active membership could hurt CalSTRS' ability to reach full funding. However, by having a funding plan in place, CalSTRS is better positioned today than it was 10 years ago to be able to react to and absorb the impact of a recession.
- The ability of the funding plan to allow CalSTRS to reach full funding is dependent on CalSTRS meeting its current actuarial assumptions over the long term. Uncertainty around inflation and payroll growth combined with the fact interest rates remain at historical low levels could put pressure on CalSTRS' ability to meet some of its long-term actuarial assumptions.

CALSTRS

CalSTRS perspective on fossil fuel divestment

CalSTRS acknowledges there are interested parties and stakeholders calling for fossil fuel divestment. Divestment is a last resort action that can have a lasting negative impact on the health of the Teachers' Retirement Fund, while also severely limiting our ability to shape corporate behavior for long-term sustainable growth.

We share this sense of urgency regarding climate change and are focused on understanding and responding to the risks it presents both to the CalSTRS Investment Portfolio and to sustainable economic growth. That's why it's imperative we continue to use our influence with policy makers and companies—including the fossil fuel industry—to help ensure an equitable, prosperous and low-carbon world for future generations.

Our engagement with companies, bolstered by partnerships with the world's largest global investors, continues to result in more companies committing to and monitoring carbon emissions reductions. We must prudently and responsibly address risks from both the physical impacts of a changing climate and the transition to a low-carbon economy.

Our low-carbon economy transition work plan positions our portfolio to be resilient in this changing world. We consider multiple factors when reviewing risk and return as it relates to our investments in fossil fuel companies, including:

Diversification

Diversification is an important principle in long-term investing to reduce risk and maximize returns by allocating investments among various financial instruments, industries, regions and sectors. Divestment, from a whole industry or sector, can detract from the ability of a diversification strategy to succeed, and could negatively impact the health of the fund. By diversifying our Investment Portfolio, the fund can better mitigate risk as diverse sectors react differently to economic, social and political events. The energy sector is historically less correlated with other industries, which can provide protection in recessionary markets. Furthermore, divestment from an entire sector fails to distinguish that there are significant differences in individual company strategies, even within the same sector and sub-sector.

Global fossil fuel demand

A rising global population and increasing economic progress in less developed countries and emerging markets are historically correlated to increases in energy demand. The most trusted economic models, such as the International Energy Agency, indicate the world will continue to rely on some forms of fossil energy for several decades, despite significant increases in renewable energy. Additionally, fossil fuel will continue to be relied upon by emerging economies to reduce poverty by helping the population attain a basic level of services and a higher standard of living.

As the demand for energy continues to grow, it's important that long-term investors, such as CalSTRS, actively engage fossil fuel companies and the sectors that currently rely on fossil fuels, such as utilities and transportation, to transition their business models to cleaner forms of energy and minimize the environmental impacts of their operations and products. It's not plausible to meet the world's growing energy demand immediately from renewable sources.

Scaling of emerging technologies

Biofuels, hydrogen use, nuclear, energy storage capabilities, and carbon capture and removal are among some of the emerging technologies that a low-carbon future depends on. As consumer preferences and demand shifts, fossil fuel companies must adapt by continuing to develop these emerging technologies until they are scalable and economically viable. Significant infrastructure improvements are required to enable and support these emerging technologies. Investors recognize that companies must change course in order to sustain their businesses and remain resilient over the long term. As such, investors are engaging fossil fuel companies to use their technical expertise, personnel, existing infrastructure, capital and scale to support the realization and adoption of these essential technologies.

Geopolitics and the role of state-owned oil and gas companies

The Organization of the Petroleum Exporting Countries (OPEC) is an intergovernmental organization that includes members from some of the world's most oil-rich countries. When talking about divesting from 'big oil', understand that the majority of the world's oil supply is produced by state-owned enterprises, which are predominantly owned by countries rather than institutional investors. However, well-known, publicly traded companies, such as BP, Shell, Chevron and Total, have traditionally developed new technologies and practices that influence the entire industry, including state-owned oil producers. This makes it vital for investors to continue to engage publicly traded energy companies in order to influence change across the entire industry.

Climate change affects all sectors of the global economy

While the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global greenhouse gas emissions, representing 25%, another 24% comes from agriculture, forestry and other land uses. We believe it's essential to take a comprehensive view of how climate change is impacting multiple sectors. A narrow focus on the fossil fuel industry only captures a portion of the much larger carbon emissions challenge and detracts from developing a broader understanding of how the low-carbon transition affects the global economy and the fund's investment universe.

Final reflections

CalSTRS has the responsibility to continue to take a holistic approach to addressing climate-related risks across our entire portfolio. Divestment from fossil fuel companies fails to address the myriad issues that contribute to climate change. As a global institutional investor with a long-term focus, we remain committed to understanding how climate risk affects our investment portfolios. This information guides how we invest and how we use our influence as a significant global investor to engage companies and policy makers to curb emissions and support an orderly low-carbon transition.

View our summary of the factors we consider when investing in and engaging fossil fuel companies.

Stewardship Priorities

Why we engage

The CalSTRS Sustainable Investment and Stewardship Strategies unit uses our influence as a significant global investor to promote long-term sustainable business practices and public policies. We engage publicly traded companies in order to support long-term value creation as well as mitigate risk to our portfolio and the financial market as a whole.

Stewardship priorities

Our four over-arching priorities focus on achieving measurable outcomes through influencing corporate and market accountability, supporting effective corporate boards, transitioning to a low-carbon economy and addressing firearm safety and responsibility.

CORPORATE AND MARKET ACCOUNTABILITY

Encourage regulators, standard-setters and policy makers to promote sustainable markets.

- Shareholder rights
- Audit integrity
- ESG disclosure

BOARD EFFECTIVENESS

Influence good governance with effective boards overseeing long-term strategies.

- Shareholder rights
- Executive compensation
- Human capital management and diversity

LOW-CARBON TRANSITION

Focus on supportive public policies and resilient companies in a low-carbon economy.

- Influence public policies
- Engage portfolio companies

RESPONSIBLE FIREARMS

Address gun safety issues and aim to reduce investment risk.

- Manufacturers
- Retailers
- Technology

Why do we prioritize specific stewardship activities

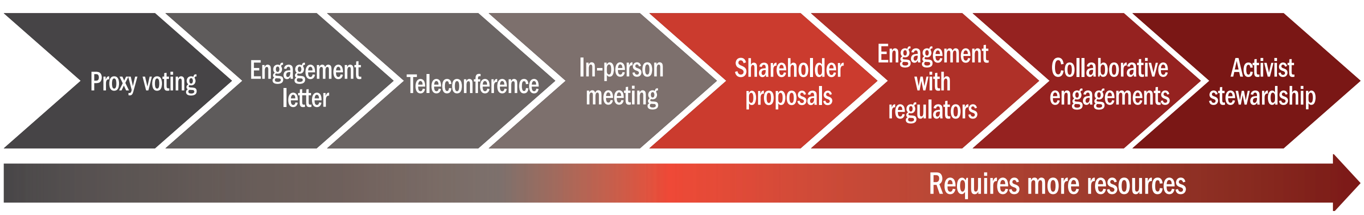
Before we decide to engage on a particular issue, we consider three factors: the issue must be relevant to the long-term performance of our portfolio, we must have the capacity to influence meaningful change and we must be able to deliver measurable outcomes.

Determine long-range relevance

In order to decide whether an issue will impact the long-term performance of the fund, we initially look to the Sustainable Accounting Standards Board's set of standards which assist investors in understanding the issues most important across the environmental, social and governance spectrum. Our ESG Risk Factor Policy also guides our decisions and we look through systemic and idiosyncratic risk lenses to determine how an issue might affect the long-term performance of the fund.

Ability to influence change

We use tools such as proxy voting and activist stewardship when seeking to influence change. We consider how much time and resources an issue will require when deciding whether to engage.



Ability to deliver outcomes

We focus on tracking outcomes related to:

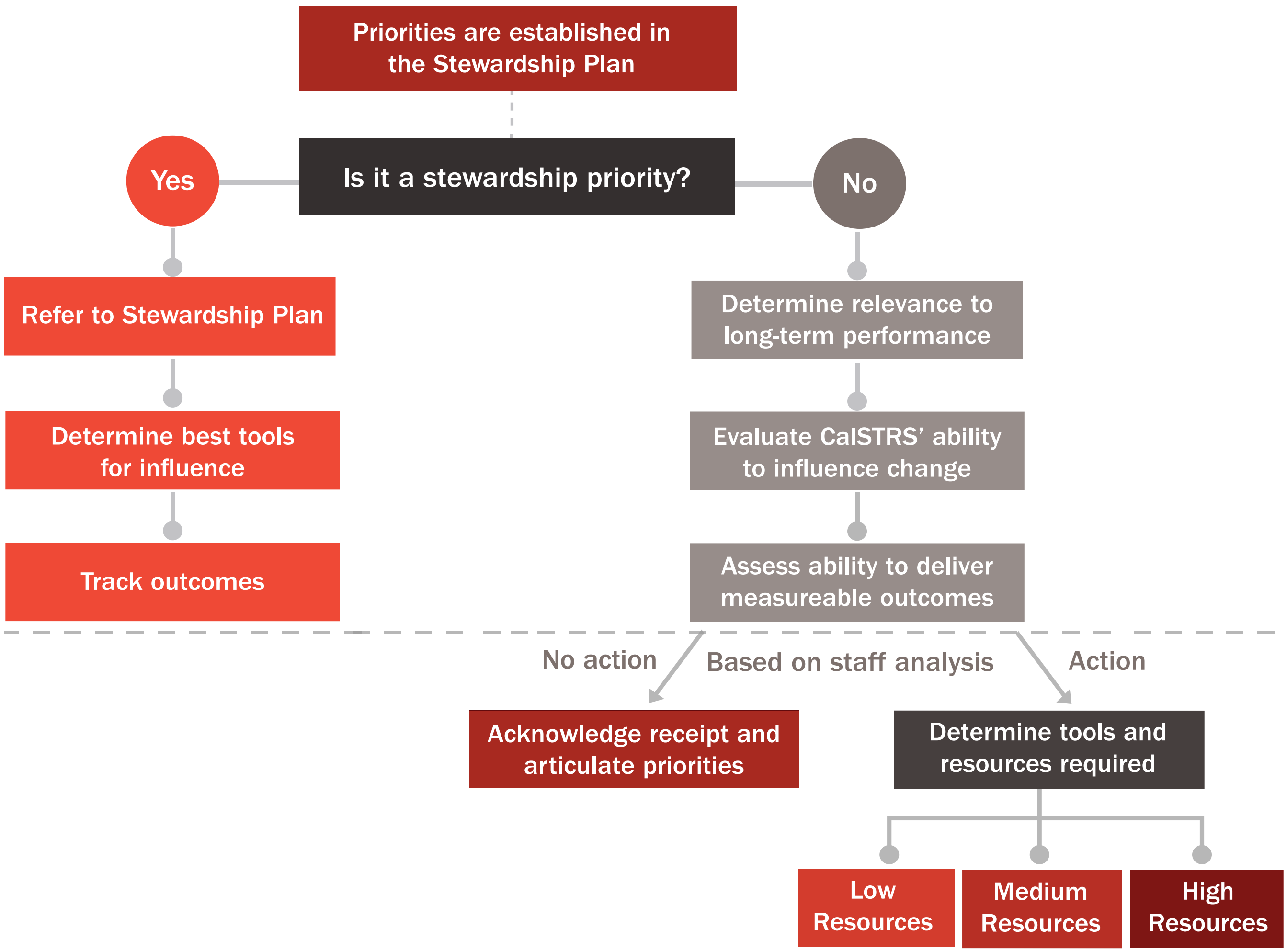
Companies implementing changes to their disclosures, processes and practices.

Market participants influenced by our thought leadership.

Regulators responding to our concerns.

Ad-hoc requests

In addition, Teachers' Retirement Board members and staff receive requests from stakeholders, fellow investors and other interested parties to engage on particular issues that fall outside of the four main priorities established in our Stewardship Plan. These ad-hoc requests are analyzed based on the framework below to evaluate whether it's in our best interest to take action on a particular request. In circumstances where it's determined that engagement should not be pursued, we will notify the requesting party to acknowledge the inquiry and articulate CalSTRS engagement priorities.



To learn more about our stewardship efforts, see these CalSTRS reports and guiding principles:

Green Initiative Task Force Report
CalSTRS.com/report/green-initiative-task-force

Corporate Governance Principles
CalSTRS.com/corporate-governance-principles

Diversity in the Management of Investments Report
CalSTRS.com/report/diversity-management-investments

Firearms Principles
firearmsprinciples.com

Stewardship Priorities

Why we engage

The CalSTRS Sustainable Investment and Stewardship Strategies unit uses our influence as a significant global investor to promote long-term sustainable business practices and public policies. We engage publicly traded companies in order to support long-term value creation as well as mitigate risk to our portfolio and the financial market as a whole.

Stewardship priorities

Our four over-arching priorities focus on achieving measurable outcomes through influencing corporate and market accountability, supporting effective corporate boards, transitioning to a low-carbon economy and addressing firearm safety and responsibility.

CORPORATE AND MARKET ACCOUNTABILITY

Encourage regulators, standard-setters and policy makers to promote sustainable markets.

- Shareholder rights
- Audit integrity
- ESG disclosure

BOARD EFFECTIVENESS

Influence good governance with effective boards overseeing long-term strategies.

- Shareholder rights
- Executive compensation
- Human capital management and diversity

NET ZERO TRANSITION

Focus on supportive public policies and influencing companies on the path to a net zero economy.

- Influence public policies
- Engage portfolio companies

RESPONSIBLE FIREARMS

Address gun safety issues and aim to reduce investment risk.

- Manufacturers
- Retailers
- Technology

Why do we prioritize specific stewardship activities

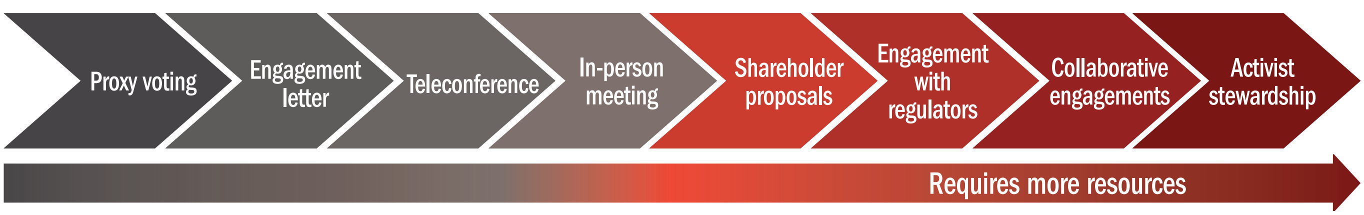
Before we decide to engage on a particular issue, we consider three factors: the issue must be relevant to the long-term performance of our portfolio, we must have the capacity to influence meaningful change and we must be able to deliver measurable outcomes.

Determine long-range relevance

In order to decide whether an issue will impact the long-term performance of the fund, we initially look to the Sustainable Accounting Standards Board's set of standards which assist investors in understanding the issues most important across the environmental, social and governance spectrum. Our ESG Risk Factor Policy also guides our decisions and we look through systemic and idiosyncratic risk lenses to determine how an issue might affect the long-term performance of the fund.

Ability to influence change

We use tools such as proxy voting and activist stewardship when seeking to influence change. We consider how much time and resources an issue will require when deciding whether to engage.



Ability to deliver outcomes

We focus on tracking outcomes related to:

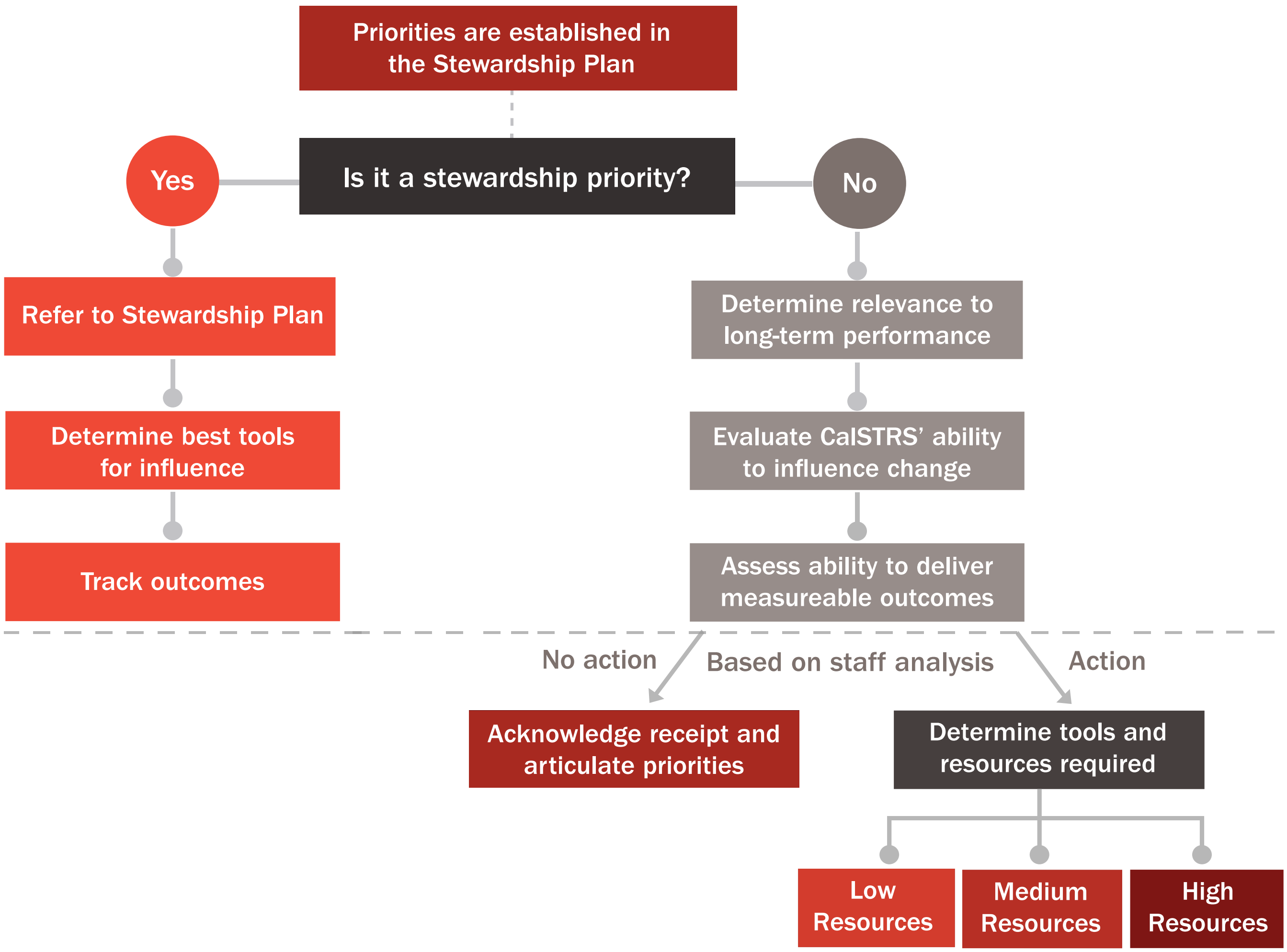
Companies implementing changes to their disclosures, processes and practices.

Market participants influenced by our thought leadership.

Regulators responding to our concerns.

Ad-hoc requests

In addition, Teachers' Retirement Board members and staff receive requests from stakeholders, fellow investors and other interested parties to engage on particular issues that fall outside of the four main priorities established in our Stewardship Plan. These ad-hoc requests are analyzed based on the framework below to evaluate whether it's in our best interest to take action on a particular request. In circumstances where it's determined that engagement should not be pursued, we will notify the requesting party to acknowledge the inquiry and articulate CalSTRS engagement priorities.



To learn more about our stewardship efforts, see these CalSTRS reports and guiding principles:

Green Initiative Task Force Report
CalSTRS.com/report/green-initiative-task-force

Corporate Governance Principles
CalSTRS.com/corporate-governance-principles

Diversity in the Management of Investments Report
CalSTRS.com/report/diversity-management-investments

Firearms Principles
firearmsprinciples.com

CalSTRS

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

CalSTRS Collaborative Model

The CalSTRS Collaborative Model is an investment strategy to manage more assets internally—to reduce costs, control risks and increase expected returns—and leverage our external partnerships to achieve similar benefits.

Reduce costs

Control portfolio risks

Increase expected returns

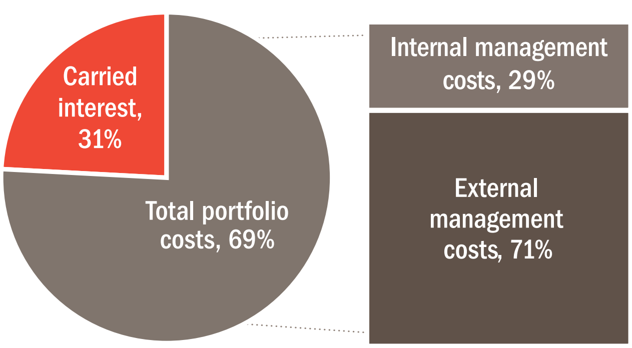
The CalSTRS Investment Portfolio applies this model across all asset classes with varying methods due to the distinct market forces, regulatory environments, and competitive advantages and challenges affecting each of them.

Cost savings

The Collaborative Model strategy improves the ratio of net assets to net costs in CalSTRS investments and provides savings in both private and public markets.

In 2020, external management accounted for 36% of total assets with costs of approximately $1.1 billion, while internal management accounted for 64% of assets with costs of $436 million.

Internal management costs primarily represent our staff managing assets in public markets and private investments where we have collaborated with external industry partners.



Carried interest is a performance-based fee paid to external fund managers

Examples

- With the Collaborative Model, CalSTRS saved more than $781 million since 2017, with an average annual savings of $195 million.
- Private Equity generated savings of $157.9 million in 2020 – $95.6 million of this amount is attributable to savings on carried interest paid.
- The Collaborative Model saved the Total Fund roughly $309 million, adding an estimated 0.12% (12 basis points) to the 2020 net return.

Long-term impact

If fully implemented, the Collaborative Model may produce between $200 to $300 million in cost savings and increased returns annually over the next 10 to 15 years.

The present value of future savings through 2046 is estimated to be about $3.5 billion.

Based on our most recent investment business plan, we project that if we continue to grow the Collaborative Model, it could create enough annual savings to keep annual portfolio costs at our current levels 10 years from now, despite a projected 50% portfolio growth.

Next steps for implementing the Collaborative Model

The Collaborative Model guides us in determining the appropriate balance between managing assets internally and collaborating with external industry leaders to identify higher-return, lower-cost strategies.

We are implementing policy solutions to improve the efficiency of procurement procedures that can impact investment transactions and enable us to reduce opportunity costs incurred during the existing procurement process.

Implementing the Collaborative Model requires specialized knowledge and expertise. We continue to focus on increasing operational flexibility by recruiting and retaining world-class talent, leveraging technology and maintaining robust policies and guidelines for prudent decision-making.

We have a multiyear internal investment management plan in place to fund a total of 109 positions phased in over the next five years to support the Collaborative Model. The new positions will result in higher costs in the short term. Over the long term, savings from managing assets internally, including management fees and carried interest, will outweigh the position costs.

We measure the performance of the Collaborative Model through annual reporting on costs and savings with an emphasis on transparency and accountability.

Collaborative Model across asset classes

Public Equity and Fixed Income: Expanding internal asset management capabilities and leveraging our existing trading desks and experienced asset management teams to bring more assets in house.

Real Estate: Purchasing real estate operating companies and forming joint ventures with regional and national property experts to access robust opportunities, high levels of control and attractive fee structures.

Private Equity: Establishing collaborative arrangements with global co-investment firms to provide significant knowledge share, increase speed of decision-making, expand co-investment reach and improve CalSTRS' desirability as a co-investment partner.

Inflation Sensitive: Collaborating closely with global institutional investors across multiple investments and vehicles to allow for beneficial informational exchanges, tailored portfolio construction and a wider view of the marketplace with increased investment opportunities.

CALSTRS
CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

CalSTRS Investment Beliefs

Legal Framework

Under California Constitution, Article 16, Section 17, and the California Education Code, Part 13 Teachers Retirement Law, Chapter 4, Section 22250:

The board has plenary authority and fiduciary responsibility for investment of moneys of the retirement system, and the sole and exclusive fiduciary responsibility over the assets of the retirement system. The board shall also have sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the members and their beneficiaries.

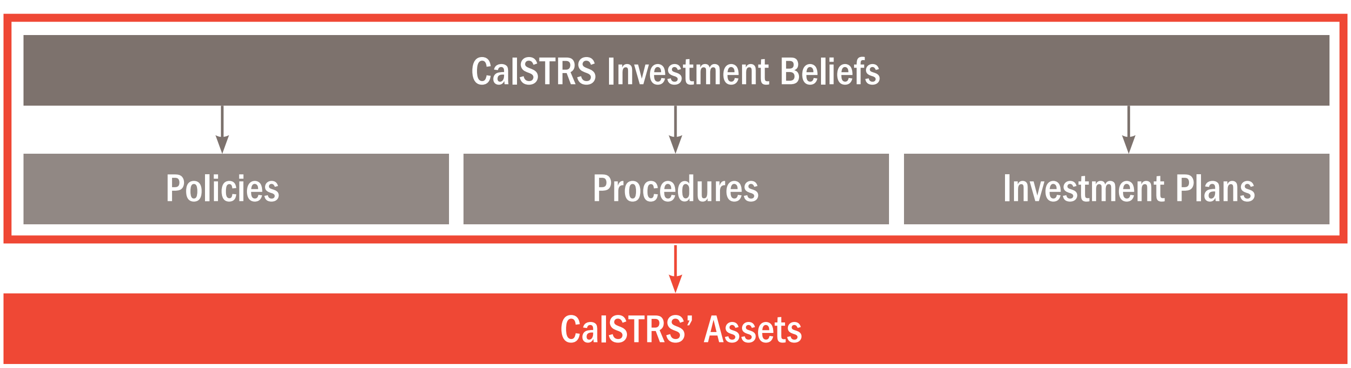
The assets of the retirement system are trust funds and shall be held for the exclusive purposes of providing benefits to participants in the pension or retirement system and their beneficiaries, minimizing employer contributions, and defraying reasonable expenses of administering the system.

The board shall discharge its duties with respect to the system with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims. The board shall diversify the investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so.

The board's duty to its members and their beneficiaries shall take precedence over any other duty.

Preamble

Consistent with these Constitutional and statutory prescriptions, CalSTRS has broad discretion over the investment of the assets of the fund. These Investment Beliefs provide a foundational framework for all of CalSTRS' investment decision-makers to invest in a manner that reflects CalSTRS' unique view of the global investment markets and its vision for participating in these markets to accomplish its fiduciary goal. In this respect, these Investment Beliefs should help guide CalSTRS' policy leaders and other decision makers to develop appropriate policies, procedures, and investment plans for CalSTRS' assets.



Belief Statements

CALSTRS

Belief 1 **Diversification strengthens the fund.**	Diversification improves the risk-adjusted profile of an investment portfolio.
Belief 2 **The Global public investment markets are largely, but not completely, efficient.**	Historically, a large percentage of the CalSTRS portfolio has been passively or semi-passively managed, approximately 80% of which are publicly-traded assets. In today's internet era, in the major market segments, information is processed rapidly at very low cost and acted upon quickly by millions of market players, making it very difficult to add value. However, there are certain segments of the markets where information processing is more challenging and costly. In these areas astute and well-resourced investors, such as CalSTRS, can utilize unique investment styles and methods to generate net-of-fee returns in excess of those available to a passive buy-and-hold market exposure.
Belief 3 **Managing investment costs yields long-term benefits.**	Investment costs, if not managed appropriately, can have a significant (rather than frictional) impact upon overall portfolio performance. CalSTRS, as a large-scale investor, should focus on measuring, monitoring, and minimizing all relevant investment costs.
Belief 4 **Internal management is a critical capability.**	In contrast to other investors, CalSTRS commands significant resource flexibility and ability to execute its investment activities internally. Where feasible, CalSTRS should utilize internal management to best harness and direct its resources.
Belief 5 **CalSTRS can potentially capture an illiquidity risk premium.**	Illiquid investments offer investors a return premium due to the inability to quickly buy, sell or convert them to cash as quickly as liquid or freely traded assets. CalSTRS believes it can capture this risk premium by investing in real estate, private equity and other similar assets.
Belief 6 **Managing short-term drawdown risk can positively impact CalSTRS' ability to meet its long-term financial obligations.**	As a system, CalSTRS is in a deficit funding position , experiencing ongoing negative cash outflows as benefits paid out exceed contributions received during a fiscal year. Given this status, the system is particularly sensitive to periods when its investments produce negative returns. In such situations, CalSTRS may be required to sell assets—due to its negative cash outflow status—when asset values are declining. In contrast, plans that exhibit positive cash inflows can purchase at a discount during such periods. As a result of this sensitivity, periods of significant negative asset returns will actually impair CalSTRS' chances of achieving its long-term funding objectives, even assuming investment markets recover in later periods. Therefore, CalSTRS must attentively manage short-term drawdown risk when developing the long-term asset allocation and when shifting or rebalancing the portfolio.
Belief 7 **Responsible corporate governance, including the management of environmental, social and governance (ESG) factors, can benefit long-term investors like CalSTRS.**	CalSTRS believes that, in addition to traditional financial metrics, timely consideration of material environmental, social, and governance (ESG), factors in the investment process for every asset class, has the potential, over the long-term, to positively impact investment returns and help to better manage risks. Proxy rights attached to shareholder interests in public companies are additional "plan assets" of the system. As a largely long-term investor, CalSTRS can enhance the value of its plan assets by taking a leadership role through voting proxies.
Belief 8 **Alignment of financial interests between CalSTRS and its advisors is critical.**	In keeping with existing policies, guidelines, and procedures, CalSTRS is best served when there is contractual alignment and transparency of financial interests with its external investment advisors and managers.
Belief 9 **Investment risks associated with climate change and the related economic transition—physical, policy and technology driven—materially impact the value of CalSTRS' investment portfolio.**	CalSTRS believes that public policies, technologies and physical impacts associated with climate change are driving a transition to a lower carbon economy. As a prudent fiduciary and diversified global investor, CalSTRS needs to understand the transition's impacts on companies, industries and countries and consider actions to mitigate risk and identify investment-related opportunities. CalSTRS recognizes the critical role that carbon pricing frameworks may play in integrating the costs of carbon emissions into the global economy to accelerate an orderly low-carbon transition and avoid exacerbating economic inequality and related geopolitical risks.

CALSTRS

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

CalSTRS Headquarters Expansion

Due to increasing complexities in investment markets, the financial services sector and public plan administration, CalSTRS staff has grown since moving into its West Sacramento headquarters in 2009 and will continue to increase over the next two decades. For this reason, the Teachers' Retirement Board unanimously approved expansion of CalSTRS' Headquarters in November 2018.

CalSTRS strives to make deliberative decisions that will position the system for success over the long term. The headquarters expansion is an investment asset for CalSTRS' future, one we expect to meet the organization's needs over the next 30 years.

Leasing opportunity

The expansion will make more than 200,000 square feet of rentable office space available for lease in CalSTRS' current riverfront LEED Platinum, zero-waste-certified building. Despite pandemic-driven shifts in office space needs, CalSTRS' Headquarters continues to be well positioned as an attractive leasing space for the Sacramento downtown area. The potential for third-party lease revenue further increases the investment capital assets of the Teachers' Retirement Fund.

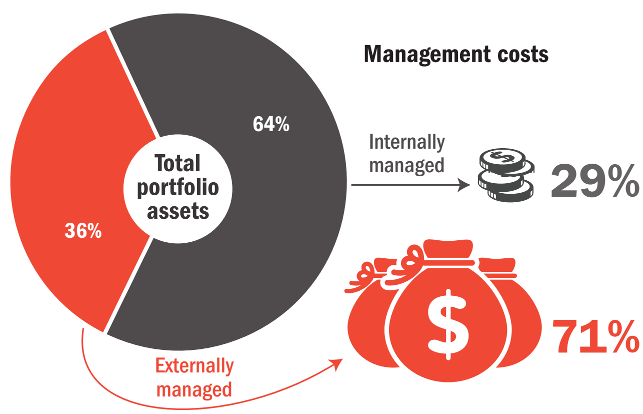
Cost

The building is being financed using tax-exempt lease revenue green bonds. Due to permitting delays, supply chain shortages and COVID-19 safety measures, the board voted to increase the initial budget of $300 million by $18.5 million, including conservative contingency funds and design simplification savings, in January 2022.

Construction-related expenses will not affect the CalSTRS Funding Plan, contribution rates or the unfunded actuarial obligation of the CalSTRS Defined Benefit Program.

Savings for the fund

Further implementation of the CalSTRS Collaborative Model for Investments will increase internal management of investments and reduce reliance on external managers. Implementation of the Collaborative Model has yielded CalSTRS an average annual savings of $195 million since 2017.



Commitment to sustainability

The expansion building will be the most sustainable in the region, providing environmental benefits and promoting health and community connectivity. CalSTRS is striving for:

- LEED Platinum-level certification for New Construction and WELL Building Standard certification that encourage environmental and human health.

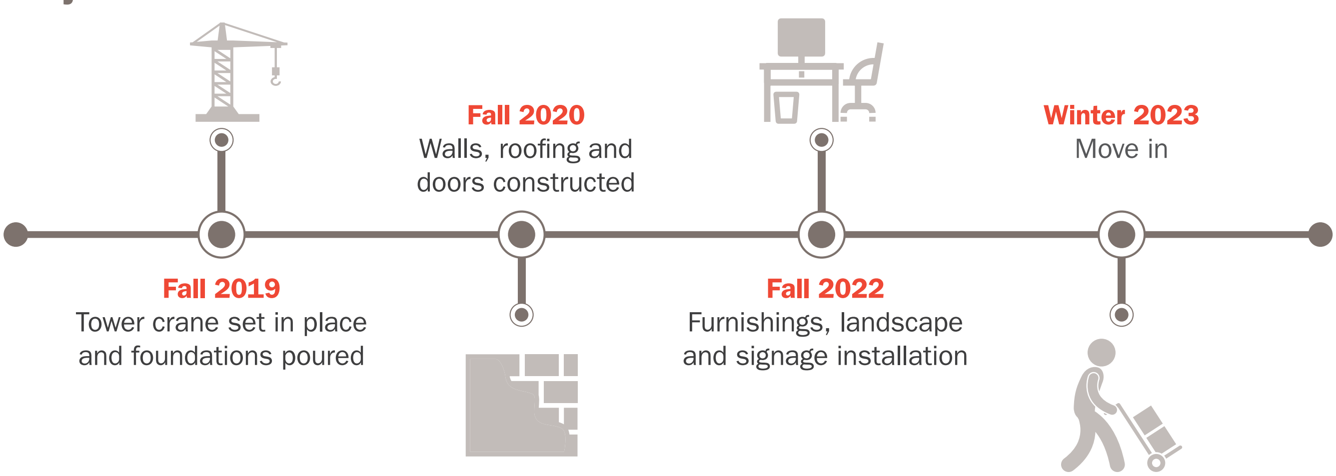
(continued on next page)

- Living Building Challenge Petal certification that applies a sustainable design framework to produce a regenerative space that operates within the site's resource limits.
- Zero net energy, which holistically considers occupant well-being, operational and first costs, materials and environmental factors. Zero net energy buildings lend themselves to maximizing efficient mechanical, electrical and plumbing systems while minimizing maintenance costs for the building.

Building facts

Building amenities	Function	Approx. size in square feet
Parking garage	Secured parking for CalSTRS employees, tenants and visiting members. Portion of parking to be made available for after-hours public parking.	243,500
Lobby	Active public lobby space to include front desk, secured tower access and staircase for CalSTRS employees.	9,500
Assembly	Three large, flexible meeting rooms for public and CalSTRS use. Rooms will be divisible and provide a total capacity of 255.	7,500
Child care	Child care for CalSTRS staff, tenants and public. Secured facility with day care services for infants, toddlers and preschool. Dedicated child care drop-off zones within parking garage and on street level.	14,200
Cafe	Food service for CalSTRS employees, tenants and visiting members.	5,200

Project timeline



The Value of a Defined Benefit for California's Educators

A defined benefit retirement plan is a form of deferred compensation—teachers forgo a percentage of today's salary for the security of a lifetime retirement benefit in the future. In contrast, a defined contribution 401(k)-style plan builds up a lump sum, including contributions and accrued interest, which may or may not provide income throughout the worker's lifetime.

CalSTRS' defined benefit plan is the cornerstone of retirement savings for educators in California.

California's educators do not contribute to Social Security, so they rely much more on their defined benefit pension than other types of public sector workers. On average, the CalSTRS retirement benefit replaces 50% to 60% of a career educator's salary. The majority of classroom teaching in California is performed by career educators, and for six out of seven teachers, a defined benefit plan provides a larger and more secure retirement income than a defined contribution plan.

Defined benefit plans serve as an important recruitment and retention tool for public educators.

The security of a lifetime retirement benefit helps attract and retain qualified educators. Because of the structure of a defined benefit plan, teachers are incentivized to stay in the classroom, which helps retain seasoned educators and is correlated to higher student achievement.

Retaining highly qualified and effective teachers is also beneficial for employers and taxpayers. According to a 2017 report, defined benefit plans helped retain 30,000 teachers nationwide, which saved school districts between $130.7 million and $284.4 million in teacher turnover costs. In California specifically, the cost of teacher turnover was estimated to be over $100 million, and the cost savings associated with the defined benefit plan was between $10.7 million and $23.3 million.

Defined benefit plans provide disability, death and survivor benefits, which are less common in defined contribution plans.

In addition to providing lifetime benefits in retirement, defined benefit plans also provide income protection to teachers and their beneficiaries through disability and survivor benefits, which are less common within defined contribution plans. If a member is eligible for disability retirement, CalSTRS provides educators with half of their final compensation, and dependent children may also receive a benefit if the member is unable to perform creditable service. California's retired educators also have the peace of mind knowing that their beneficiaries will be provided for through optional survivor benefits.

Employees under a defined contribution plan may not have a safety net if they suffer a long-term disability. In addition to a loss of income, employees are also no longer able to contribute to their defined contribution plan. When a defined contribution plan does provide disability benefits, it usually gives participants a lump-sum payment, which is more often used for immediate health care costs rather than future needs.

For 6 out of 7 teachers, a defined benefit plan provides a larger and more secure retirement than a defined contribution plan.

It is less expensive to administer a defined benefit plan than a defined contribution plan.

Pensions can provide the same benefit as a 401(k) retirement account at about half the administrative cost, and studies have shown that investment returns on defined benefit plans outperform defined contribution plans. As a result, defined benefit plans are less expensive to administer due to cost savings from pooling longevity risk, optimal asset allocation, and higher returns and lower fees.

While contribution rates for members, employers and the state have increased over the past several years under the CalSTRS Funding Plan, investment returns have historically accounted for about 60% of the resources necessary to fund CalSTRS benefits.

Defined benefit plans provide a more secure retirement than a defined contribution plan.

Compared to defined contribution plans, defined benefit plans are able to pool investment and longevity risks over a longer period of time and a greater number of people, protecting educators from those risks. Defined benefit plans are also structured to shield educators from the risks of investment because their retirement benefit is set by a formula, not by the amount of contributions provided by the member. On average, CalSTRS members deplete the contributions they made to their account within three to four years of retirement.

A member cannot outlive their savings in a defined benefit plan because it is guaranteed over the course of the member's life. In contrast, in a defined contribution plan, each individual must plan for their maximum life expectancy to avoid running out of money during retirement. The guarantee of a lifetime stream of income relieves stress and uncertainty in retirement and may reduce the utilization of social services later in life.

Defined benefit plans can provide the same benefit as a 401(k) plan at about half the cost.

Source for each benefit dollar

Defined benefit plans are better equipped to engage in shareholder activism than individual investors.

CalSTRS and other institutional investors have a unique ability to exercise their shareholder voice where individuals cannot. Institutional investors hold about 80% of U.S. equities in the stock market and are long-term investors, which gives them the ability to influence business practices, vote on leadership and drive change within the companies they invest. Individual shareholders in defined contribution plans do not have the necessary backing and clout to drive change in publicly traded or private companies.

CALSTRS
HOW WILL YOU SPEND YOUR FUTURE?

Executive staff*

Cassandra Lichnock *Chief Executive Officer*
Christopher J. Ailman *Chief Investment Officer*
Brian Bartow *General Counsel*
Lisa Blatnick *Chief Operating Officer*
Scott Chan *Deputy Chief Investment Officer*
Ashish Jain *Chief Technology Officer*
Melissa Norcia *Chief Administrative Officer*
William Perez *Chief Benefits Officer*
Teresa Schilling *Chief Public Affairs Officer*
Julie Underwood *Chief Financial Officer*

*As of January 1, 2022

Teachers' Retirement Board

The Teachers' Retirement Board administers CalSTRS and sets policies and rules to ensure benefits are paid according to the law.

The 12-member board is composed of:

- Three active CalSTRS members elected by current educators.
- One retired CalSTRS member appointed by the Governor and confirmed by the Senate.
- Three public representatives appointed by the Governor and confirmed by the Senate.
- One school board representative appointed by the Governor and confirmed by the Senate.
- Four board members who serve in an ex officio capacity by virtue of their office: Director of Finance, State Controller, State Superintendent of Public Instruction and State Treasurer.

The board appoints a chief executive officer to administer CalSTRS consistent with the board's policies and rules and selects a chief investment officer to direct the CalSTRS Investment Portfolio in accordance with board policy.

Find more financial, actuarial and statistical information in our *Annual Comprehensive Financial Report* at **CalSTRS.com/publications**.

CalSTRS resources

WEB

CalSTRS.com
Click *Contact Us* to email

myCalSTRS.com

403bCompare.com

Pension2.com

CALL

Monday through Friday
8 a.m. to 5 p.m.

800-228-5453
Calls within the U.S.

916-414-1099
Calls from outside the U.S.

888-394-2060
CalSTRS Pension2®
Personal wealth plan

844-896-9120 (toll free)
CalSTRS Compliance and Ethics Hotline
CalSTRShotline.ethicspoint.com

WRITE

Postal mail
CalSTRS
P.O. Box 15275
Sacramento, CA 95851-0275

Overnight delivery to CalSTRS Headquarters
100 Waterfront Place
West Sacramento, CA 95605

VISIT

Find your nearest CalSTRS office at
CalSTRS.com/localoffices

Call ahead to verify the hours and services of your local office.

FAX

916-414-5040

STAY CONNECTED

COM 141 (rev 1/22)

CALSTRS

FAST FACTS

Fiscal year ended June 30, 2021

CALSTRS

FAST FACTS

Fiscal year ended June 30, 2021

Membership

	6/30/21	6/30/20
Active members	429,681	448,419
Inactive members	230,770	213,056
Total	**660,451**	**661,475**
Service retirements	281,302	276,070
Disability benefits	9,973	10,095
Survivor benefits	29,138	28,353
Total	**320,413**	**314,518**
Total members and beneficiaries	980,864	975,993
Total benefits and refunds	**$16.71 billion**	**$16.02 billion**

Members retiring in fiscal year 2020–21

Number retiring	12,785
Median age at retirement	62.6
Median service credit	25.5
Average monthly Member-Only Benefit	$4,813

Administration

CalSTRS operating budget (in millions)	$341.6
Employees	1,272

CalSTRS Pension2® member data

	6/30/21		6/30/20	
	403(b)	457(b)	403(b)	457(b)
Contributing	13,378	1,179	11,643	872
Non-contributing	9,705	393	7,761	324
Total	**23,083**	**1,572**	**19,404**	**1,196**

Investments

	Market value (in billions)	Time-weighted return net of fees
2012	150.61	1.6%
2013	165.82	13.6%
2014	189.08	18.3%
2015	191.41	4.5%
2016	188.65	1.4%
2017	208.70	13.4%
2018	223.83	9.0%
2019	236.94	6.8%
2020	246.03	3.9%
2021	308.56	27.2%

Asset allocation	Market value (in billions)	Percent of total
Public Equity	$153.29	49.7%
Fixed Income	32.23	10.4%
Real Estate	37.86	12.3%
Private Equity	37.00	12.0%
Risk Mitigating Strategies	26.65	8.7%
Inflation Sensitive	11.53	3.7%
Innovative Strategies	1.55	0.5%
Cash/Liquidity	8.14	2.6%
Strategic Overlay	0.31	0.1%
Total Portfolio	**$308.56**	

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

Net position of programs administered by CalSTRS

Defined Benefit Program (in billions)	$292.09
Defined Benefit Supplement Program (in billions)	17.73
Cash Balance Benefit Program (in millions)	481.50
CalSTRS Pension2 (in billions)	1.77

Defined Benefit funding

Funding status (as of last valuation, for year ended June 30, 2020)	
Normal cost rate	20.294%
Unfunded actuarial accrued liability	$105.9 billion
Actuarial assets as percentage of actuarial accrued liability	67%

2020–21 source of contributions (percent of member creditable earnings)	
Member	
2% at 60	10.25%
2% at 62	10.205%
Employer	16.15%*
State (2018–19 fiscal year earnings)	7.828%**

Purchasing power protection:
The state also provides a contribution based on 2.5% of members' creditable earnings, minus $72 million, to protect retirees' purchasing power.

* *The 2020–21 state budget redirected the supplemental payment paid by the state on behalf of employers as part of the 2019–20 state budget. The supplemental payment is now solely being used to reduce the contribution rate for employers for fiscal years 2019–20, 2020–21 and 2021–22.*

** *In response to the COVID-19 pandemic and concerns over its impact on the economy, the Governor and the Legislature adopted the 2020–21 state budget that froze, for one year, the state contribution rate at the 2019–20 level. Thus, for fiscal year 2020–21, the state paid a base rate of 2.017% plus 5.811% additional contributions.*