



Report to the Legislature on the Progress of the CalSTRS Funding Plan

June 2024

TABLE OF CONTENTS

Executive summary	1
Introduction	4
History of the Defined Benefit Program and its funding structure	5
CalSTRS Funding Plan	7
Changes since the passage of the CalSTRS Funding Plan	12
Projected funding levels and contribution rates	15
Mitigating risks and strengthening the CalSTRS Funding Plan	17
Conclusion	20

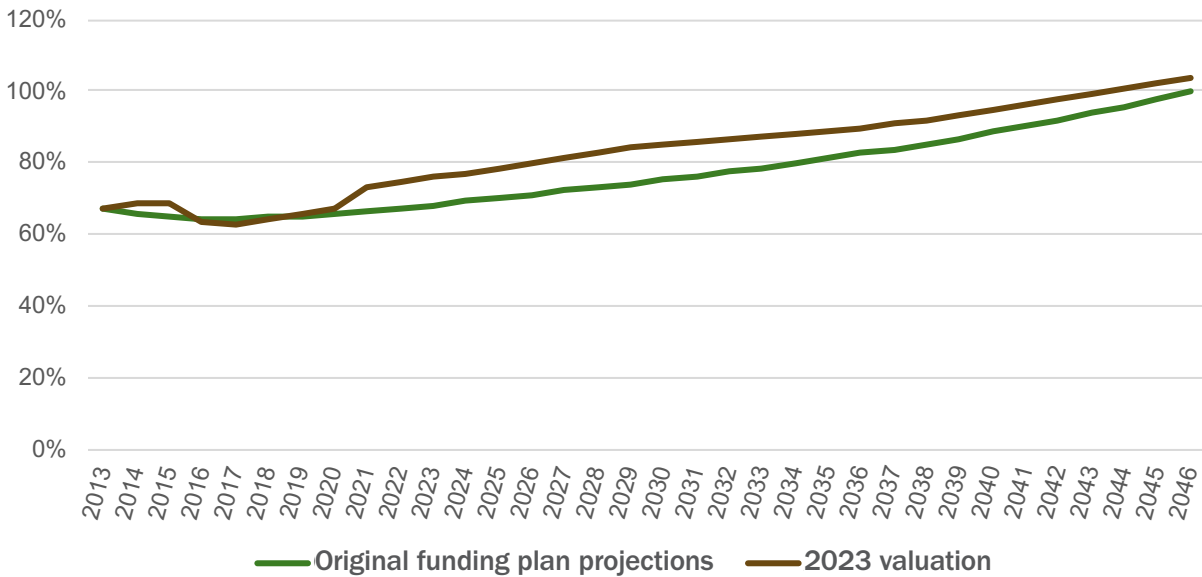
EXECUTIVE SUMMARY

The CalSTRS Funding Plan, enacted in June 2014 by Assembly Bill 1469, was developed through a joint commitment by members, employers and the state to contribute more to CalSTRS to fully fund the Defined Benefit Program by 2046 and to ensure the long-term sustainability of CalSTRS.

When passed, the funding plan established increased contribution rates that were phased in over a three-year period for members and the state and a seven-year period for employers with the goal to fully fund the Defined Benefit Program by 2046. One of the key features of the funding plan is the limited ability it provides to the Teachers' Retirement Board to adjust the employer and state contribution rates. This flexibility began after the end of the phase-in period and has made CalSTRS more resilient, allowing it to react, when necessary, to market volatility and changes in long-term expectations, keeping the funding plan on track to achieve its goal. Prior to the funding plan, the board had only a very limited ability to change the state contribution rate and no ability to adjust the employer contribution rate.

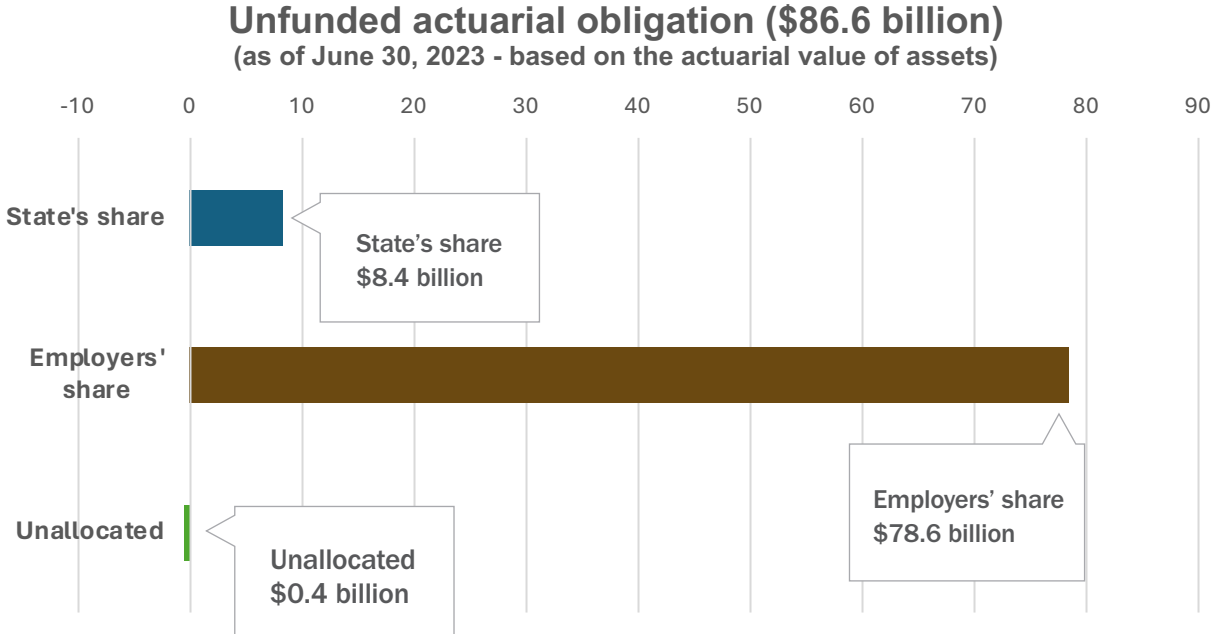
Since the passage of the funding plan, the board has exercised its authority to increase the state contribution rate by 0.5% of payroll on four occasions. The board also elected to keep the employer contribution rate at the level set by the funding plan for each of the last four years, providing rate stability to employers while keeping the funding plan on track. As shown in the chart below, as of June 30, 2023, the date of the most recent actuarial valuation, the Defined Benefit Program is slightly ahead of schedule to reach full funding by 2046. In short, the funding plan is working.

Projected funded status



EXECUTIVE SUMMARY

As of June 30, 2023, the Defined Benefit Program was approximately 76% funded and the unfunded actuarial obligation was \$86.6 billion. The unfunded actuarial obligation can be broken down between the state, the employers and the unallocated portion pursuant to rules set forth in the funding plan. As shown in the following chart, employers are currently responsible for approximately 90% of the entire unfunded actuarial obligation, while the state is responsible for approximately 10%. The unallocated portion of the unfunded actuarial obligation is the portion for which CalSTRS has no authority to assign and adjust contribution rates up or down.



One of the key components of the funding plan is the flexibility it provides the board to adjust contribution rates for the state and employers, if necessary, to keep the funding plan on track and allow the Defined Benefit Program to reach full funding by 2046.

At its May 2024 meeting, the board voted to keep both the state and the employer supplemental contribution rates at existing levels. The table below shows the contribution rates for the Defined Benefit Program in effect for fiscal year 2024–25 and the year in which both the state and the employers are currently projected to eliminate their share of the unfunded actuarial obligation. These projections assume plan experience remains in line with the actuarial assumptions.

	Current contribution rate (Defined Benefit Program only)	Are rate increases projected beyond 2024–25?	Year share is projected to be eliminated
State	8.328% ¹	No	2028
Employers	19.100%	No	2044

¹The state contributes an additional 2.5% of payroll to fund the Supplemental Benefit Maintenance Account (SBMA) that is used to provide inflation protection to CalSTRS retirees and their beneficiaries. Pursuant to Education Code section 22954, the state contribution to the SBMA is reduced by \$72 million each fiscal year.

EXECUTIVE SUMMARY

As can be seen in the previous table, existing contribution rates for the state and employers remain sufficient and no increases are projected at this time beyond 2024–25. However, adverse events, such as investment returns below expectation, could result in the need for future rate increases. This is why continuous monitoring of the funding plan is important to identify and address trends that could impact long-term funding in a timely manner. If a situation were to develop under which the funding plan was no longer expected to allow the Defined Benefit Program to achieve full funding, it would be extremely important to act quickly to minimize long-term costs to members, employers and the state.

CalSTRS regularly monitors the progress of the funding plan in various ways. The **annual actuarial valuations**, which are completed in May each year, provide a point in time measurement of the funding levels, determine the sufficiency of contributions, and recommend any necessary changes to contribution rates within the parameters of the funding plan. Each year in November, CalSTRS also presents the annual **Review of Funding Levels and Risks report**, which provides a forward-looking and holistic view of risks that could threaten the ability of the plan to reach full funding by 2046. In addition to these two formal reports, CalSTRS provides updates on the status of various funding-related risks as part of the semiannual enterprise risk management report.

The funding plan also requires CalSTRS to provide a report to the Legislature every five years on the progress of the plan. The **first report to the Legislature** was provided in June 2019. This is the second report on the progress of the funding plan. Existing statute requires that the report compare the funding levels and projected contribution rates at the time the funding plan was enacted to those based on the most recent actuarial valuation. The report must also indicate whether additional contributions are needed to reach full funding by 2046.

The purpose of this report is to fulfill this legislative requirement and assist stakeholders, policymakers and the public in assessing the soundness and sustainability of the Defined Benefit Program. This report is also intended to promote a better understanding of how the funding plan operates and how it is expected to achieve its goal of full funding over the next few decades.

Even though the funding plan as structured is working, and the Defined Benefit Program is slightly ahead of the original funding schedule and is projected to reach full funding by 2046, it is important to remember that significant risks to funding the system remain.

The three main risks facing the Defined Benefit Program are longevity risk, risk of declines in the active membership, and investment risk. Although the risks related to longevity and active membership decline are real and important, the largest risk facing CalSTRS is investment risk. This risk will continue to increase over time due to the natural maturing of the system and the scheduled end date of the funding plan in 2046.

As noted in this report, these risks could be reduced by strengthening certain features of the funding plan, which include:

- The funding plan's end date of 2046.
- No funding source to address the unallocated portion of the unfunded actuarial obligation, if needed.
- Flexibility in setting the state contribution rate.

CalSTRS is committed to the long-term sustainability of the fund on behalf of California's public educators.

INTRODUCTION

This is the second report to the Legislature on the progress of the CalSTRS Funding Plan. This report fulfills the statutory requirement to provide an update to the Legislature on the progress of the funding plan every five years. The first **report** was provided to the Legislature in June 2019. The purpose of this report is to assist the Legislature, stakeholders and the public in assessing the soundness and sustainability of the Defined Benefit Program, to promote a better understanding of how the funding plan operates, and to outline how the funding plan is expected to achieve its goal of full funding by 2046.

This report is based on the June 30, 2023, annual actuarial valuation and does not reflect year-to-date investment experience for fiscal year 2023–24. The focus of this report is on the following topics:

- A history of the Defined Benefit Program, its funding structure and the development of the funding plan.
- Details regarding what changes were made as part of the funding plan and a discussion of the complexities and intricacies of how the plan operates.
- A reconciliation of why funding levels and contribution rates have changed since the adoption of the funding plan and a discussion of some of the significant events that have impacted funding levels.
- Current projections of funding levels and contribution rates and how the funding plan is expected to achieve its goal of full funding by 2046.
- A discussion of risks that could prevent CalSTRS from reaching full funding and how these risks could be reduced by further strengthening the funding plan.

HISTORY OF THE DEFINED BENEFIT PROGRAM AND ITS FUNDING STRUCTURE

The membership and the funding of the Defined Benefit Program has changed substantially in the more than 100 years since CalSTRS was established by law in 1913. When CalSTRS was founded, it had 120 retired members and 15,000 active members. Over time, the total membership has grown to over one million active and retired members and their beneficiaries.

Today, CalSTRS is the largest educator-only pension fund in the world. CalSTRS provides retirement, disability and survivor benefits for full-time and part-time California public school educators through a hybrid retirement system consisting of the Defined Benefit, Defined Benefit Supplement and Cash Balance Benefit programs, as well as a voluntary defined contribution plan called CalSTRS Pension2®.

The adoption of the funding plan in 2014 was a key event that put CalSTRS in a stronger financial position. It has made CalSTRS more resilient, allowing it to react, when necessary, to market volatility and changes in long-term expectations by authorizing the board to adjust contribution rates for employers and the state, subject to certain limits, to keep the funding plan on track to achieve its goal. Historically, the board did not have this ability. In fact, for most of its history, contributions to CalSTRS were fixed in statute.

In 1913, what is now the Defined Benefit Program had only two sources of contributions: a \$12 annual contribution from each active member and a state contribution equal to 5% of the revenue generated by the state's inheritance tax. Employers did not make contributions to CalSTRS until 1935 when they began to make a \$12 annual contribution per active member. The members' contribution increased to \$24 per year at the same time.

The next significant change in the funding structure occurred nine years later, in 1944, when the member contribution amount changed from a flat dollar amount to a percentage of compensation, which also varied depending on the age and gender of the member. The member contribution rate ranged between 2.53% and 4.85% of compensation. At the same time, the state's contribution changed from a percentage of inheritance tax revenue to a pay-as-you-go payment, with the state paying the difference between the resources available and the cost of benefits in a given year. The member's contribution rate continued to be based on the member's age and gender and was adjusted several times between 1944 and 1972.

In 1956, the employer contribution of \$12 per member per year was augmented by a 3% of salary contribution, with

a limitation that contributions could not exceed specified percentages of the assessed value of properties within the school district. In 1971, the employer contribution rate averaged about 2% of salary.

Until 1972, the funding structure did not allow CalSTRS to prefund the retirement benefits promised to California educators and was instead funded using a pay-as-you-go approach, with the state responsible for bridging any shortfalls.

The funding structure changed to a prefunding basis in 1972 with the adoption of the E. Richard Barnes Act. The member contribution rate, which averaged 7.4%, was changed to a fixed 8% of salary. The member contribution rate stayed at this level until the adoption of the funding plan in 2014. The employer contribution rate was also increased in 1972. Increases were phased in over time. The rate was initially set to a flat 3.2% of earnings effective with fiscal year 1972-73 and was increased gradually over the balance of the decade until it reached 8% in 1978-79, matching the contribution rate paid by members.

The payment made by the state also changed in 1972. Instead of being responsible for bridging the funding gap on a pay-as-you-go basis, the state started contributing a flat dollar amount of \$135 million per year, which was intended to bridge the funding shortfall in place at the time over a 30-year period. This flat dollar amount was modified a few times throughout the 1970s as CalSTRS' funding situation also changed. By 1990, the state's annual contribution had increased to about \$400 million. Additional state contributions, based on a percentage of pay, were also enacted in the 1980s to fund specific benefit enhancements.

In 1986, the financial responsibility of funding the crediting of unused sick leave service credit was transferred from the state to employers, resulting in an increase of 0.25% of salary in the employer contribution rate. This increase brought the total employer contribution rate to 8.25% of salary. This rate remained unchanged for employers until the passage of the funding plan in 2014.

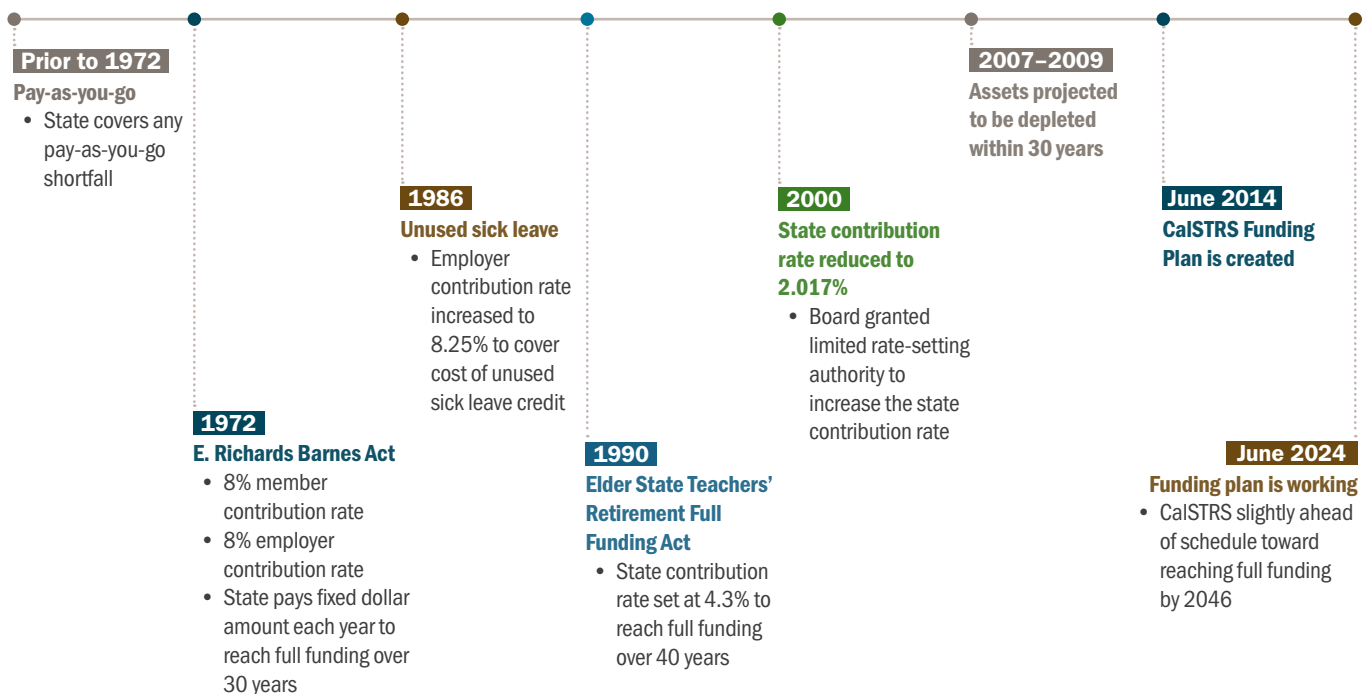
The next significant change in program funding occurred in 1990 with the passage of Senate Bill 1370 (Green), the Elder State Teachers' Retirement Full Funding Act. The flat dollar contribution paid by the state was replaced with a contribution rate equal to 4.3% of a member's compensation to eliminate the funding shortfall in place at the time over the next 40 years.

HISTORY OF THE DEFINED BENEFIT PROGRAM AND ITS FUNDING STRUCTURE

As CalSTRS' funding situation improved in the late 1990s and early 2000s, the state's contribution rate was modified several times to adjust for the improved funding levels. By 2003, the state's base contribution rate had been reduced to 2.017% of creditable compensation of the fiscal year ending in the prior calendar year. The board was also given the ability to set a supplemental contribution rate for the state above the base contribution rate to eliminate any unfunded liability associated with the 1990 benefit structure. State law limited the annual increase for the state supplemental contribution rate to 0.25% with a maximum supplemental rate of 1.505%.

This was the first time in CalSTRS history that the board was given the authority to adjust the state contribution rate. However, the rate-setting authority did not provide sufficient flexibility in the state contribution rate to be able to react to changing conditions and to withstand even minor investment losses. Following the financial crisis and market downturn of 2008, the funding situation of the Defined Benefit Program deteriorated to the point that contributions were not enough to prevent it from running out of assets in about 30 years. A different funding structure was needed to address the situation.

Guided by its board, CalSTRS committed to promote the development of a comprehensive strategy to address the long-term funding needs of the system. After years of focused discussions, stakeholder outreach, legislative visits and hearings, the Legislature adopted AB 1469 in June 2014, creating the CalSTRS Funding Plan.



CALSTRS FUNDING PLAN

The funding plan, enacted by AB 1469 in 2014, put the Defined Benefit Program on the path to full funding by 2046 through incremental contribution increases shared among the program's three contributors: CalSTRS members, employers and the state.

Member contribution increases

AB 1469 increased member contributions on compensation that is creditable to the Defined Benefit Program. The member contribution rate had not increased beyond 8% since 1972. Below is a table showing the increases in the member contribution rate since 2014.

Fiscal year	Pre-CalSTRS Funding Plan member contribution rate		Post-CalSTRS Funding Plan member contribution rate	
	2% at 60 members ²	2% at 62 members ²	2% at 60 members ²	2% at 62 members ²
2014-15	8%	8%	8.15%	8.15%
2015-16	8%	8%	9.20%	8.56%
2016-17	8%	8%	10.25%	9.205%
2017-18	8%	8%	10.25%	9.205%
2018-29 through 2024-25	8%	9%	10.25%	10.205%

² 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. The contribution rate for 2% at 60 members is set in statute.

In exchange for increased contributions to the Defined Benefit Program as part of the funding plan, CalSTRS members who performed creditable service on or after January 1, 2014, are now guaranteed a 2% annual benefit adjustment, also referred to as the improvement factor. The 2% improvement factor is provided to members once they have been retired for at least one year and is a component of the purchasing power protections provided by their CalSTRS benefit. Prior to the funding plan, the improvement factor was not guaranteed for any member. For members who retired prior to January 1, 2014, the improvement factor is not guaranteed since the Legislature reserved the right to adjust the improvement factor as economic conditions dictate, as it had with regards to all members prior to the enactment of the funding plan.

In 2012, the Legislature enacted Assembly Bill 340 (Furutani), the Public Employees' Pension Reform Act (PEPRA), which was effective on January 1, 2013. PEPRA requires members subject to the CalSTRS 2% at 62 benefit formula to pay at least one-half of the normal cost of their benefit and that their contribution rate be adjusted if the plan's normal cost changes by more than 1% of salary. Effective July 1, 2018, CalSTRS 2% at 62 members were required to contribute an additional 1% of creditable compensation to CalSTRS as a result of an increase in the plan's normal cost. This increase was driven by a change in actuarial assumptions adopted by the board to reflect longer life expectancies for CalSTRS members and lower investment return expectations in the future.

CALSTRS FUNDING PLAN

Employer contribution increases

The funding plan provided for increases in the employer contribution rate, which were phased in over seven years. After the initial seven years, starting in fiscal year 2021–22, the board was provided limited authority to adjust the employer supplemental contribution rate, if necessary, to fully fund the employers' share of the unfunded actuarial obligation by 2046. These adjustments are limited to 1% annually, and the total employer contribution rate cannot exceed 20.25% of creditable compensation. Prior to the funding plan, the employer contribution rate had not increased since 1986. Since having the authority, the board has voted to keep the employer contribution rate at existing levels for each of the last four years. The following table shows the employer contribution rate since the adoption of the funding plan.

Fiscal year	Base employer contribution rate	Employer supplemental contribution rate ³	Rate relief	Total employer contribution rate
2014–15	8.25%	0.63%	N/A	8.88%
2015–16	8.25%	2.48%	N/A	10.73%
2016–17	8.25%	4.33%	N/A	12.58%
2017–18	8.25%	6.18%	N/A	14.43%
2018–19	8.25%	8.03%	N/A	16.28%
2019–20	8.25%	9.88%	(1.03%)	17.10%
2020–21	8.25%	10.85%	(2.95%)	16.15%
2021–22	8.25%	10.85% ⁴	(2.18%)	16.92%
2022–23 through 2024–25	8.25%	10.85%	N/A	19.10%

³ The funding plan included a set schedule of employer supplemental rate increases through fiscal year 2020–21.

⁴ Beginning in fiscal year 2021–22, the employer supplemental contribution rate was set by the board.

As part of the 2019–20 California budget, the state made a supplemental pension payment of \$2.2 billion to CalSTRS on behalf of employers. It was used to provide short-term rate relief in fiscal years 2019–20, 2020–21 and 2021–22. As a result, the net effective rates paid by employers were reduced from the rates established by the funding plan and adopted by the board, as illustrated in the table above. Specifically, in fiscal year 2019–20, the total employer contribution rate was reduced by 1.03%, resulting in an effective rate of 17.10%. Then, in fiscal year 2020–21, the total employer contribution rate was reduced by 2.95%, resulting in an effective rate of 16.15%. Finally, in fiscal year 2021–22, the total employer contribution rate was reduced by 2.18%, resulting in an effective rate of 16.92%.

The current employer contribution rate of 19.1% is projected to be sufficient to eliminate the employers' share of the unfunded actuarial obligation by 2046, and no increases to this rate are anticipated at this time.

CALSTRS FUNDING PLAN

State contribution increases

As described earlier in this report, prior to the adoption of the funding plan, the board had the ability to set a supplemental contribution rate for the state, in addition to the base rate of 2.017%, to eliminate any unfunded actuarial associated with the 1990 benefit structure. State law limited the annual increase for the state supplemental contribution rate to 0.25% with a maximum supplemental rate of 1.505%.

The funding plan maintained the state's base contribution rate of 2.017% to the Defined Benefit Program. The funding plan increased the supplemental rate dedicated to paying for the 1990 benefit structure. The increases in the state supplemental rate were phased in over three years, reaching 4.311% of payroll effective July 1, 2016, for a total contribution rate of 6.328% to the Defined Benefit Program. This contribution rate was anticipated to eliminate the state's share of the unfunded liability by 2046.

The funding plan also provided the board limited authority to adjust the state's contribution rate to eliminate the state's share of the unfunded liability by 2046, with increases limited to 0.5% each year. Since the adoption of the funding plan, the board has exercised its authority to increase the state supplemental contribution rate by 0.5% of payroll four times. The following table shows the state contribution rate since the adoption of the funding plan.

Fiscal year	Base state contribution rate	State supplemental contribution rate ⁵	Total state contribution rate
2014-15	2.017%	1.437%	3.454%
2015-16	2.017%	2.874%	4.891%
2016-17	2.017%	4.311%	6.328%
2017-18	2.017%	4.811% ⁶	6.828%
2018-19	2.017%	5.311%	7.328%
2019-20	2.017%	5.811%	7.828%
2020-21	2.017%	5.811%	7.828%
2021-22 through 2024-25	2.017%	6.311%	8.328%

⁵ The funding plan included a set schedule of state supplemental rate increases through fiscal year 2016-17.

⁶ Beginning in fiscal year 2017-18, the state supplemental contribution rate was set by the board.

Note that the 2020-21 state budget suspended the board's rate-setting authority for the state contribution rate for fiscal year 2020-21, and the rate increase adopted by the board in May 2020 did not go into effect. Instead, the state contribution rate remained at 7.828% in 2020-21. To ensure CalSTRS was made whole, the state transferred a total of \$881 million using General Fund and Proposition 2 revenues to bridge the gap and further reduce the state's share of CalSTRS' unfunded actuarial obligation.

The state is currently ahead of the original funding plan schedule to eliminate its share of the unfunded actuarial obligation, and no increases to the state contribution rate are projected to be necessary to reach full funding by 2046. Under current projections, assuming the actuarial assumptions are met in all future years, the state will eliminate its share of the unfunded actuarial obligation by 2028 if the current contribution rate is maintained. Note that future investment and demographic experience could impact this estimate.

CALSTRS FUNDING PLAN

As mentioned, the funding plan places a limit on increases to the state supplemental contribution rate of 0.5% per year. The funding plan does not place a limit on decreases to the state's supplemental contribution rate. However, the board has adopted a policy of also restricting decreases by 0.5% per year. Despite this policy, the funding plan has a provision that requires the state's supplemental rate to drop to 0% once the state's share of the unfunded actuarial obligation is eliminated. If this were to occur before the end of the funding plan, as it currently is projected to do, CalSTRS would be limited in its ability to address any unfunded actuarial obligation that may develop in the future. This risk is discussed in greater detail later in this report.

In addition to the contribution rate to the Defined Benefit Program, the state also contributes 2.5% of payroll toward the Supplemental Benefit Maintenance Account, CalSTRS' inflation protection program. Pursuant to Education Code section 22954, the state contribution to this program is reduced by \$72 million each fiscal year.

Allocation of the unfunded actuarial obligation

In addition to increasing the contribution rates, the funding plan established a complex structure that allocates portions of the unfunded actuarial obligation to employers and the state based on various benefit structures and periods of service. The unfunded actuarial obligation is not allocated to members. The unfunded actuarial obligation of a pension plan is the difference between the actuarial obligation, which is the present value of the benefits that have already been accrued, and the actuarial value of assets. The way the unfunded

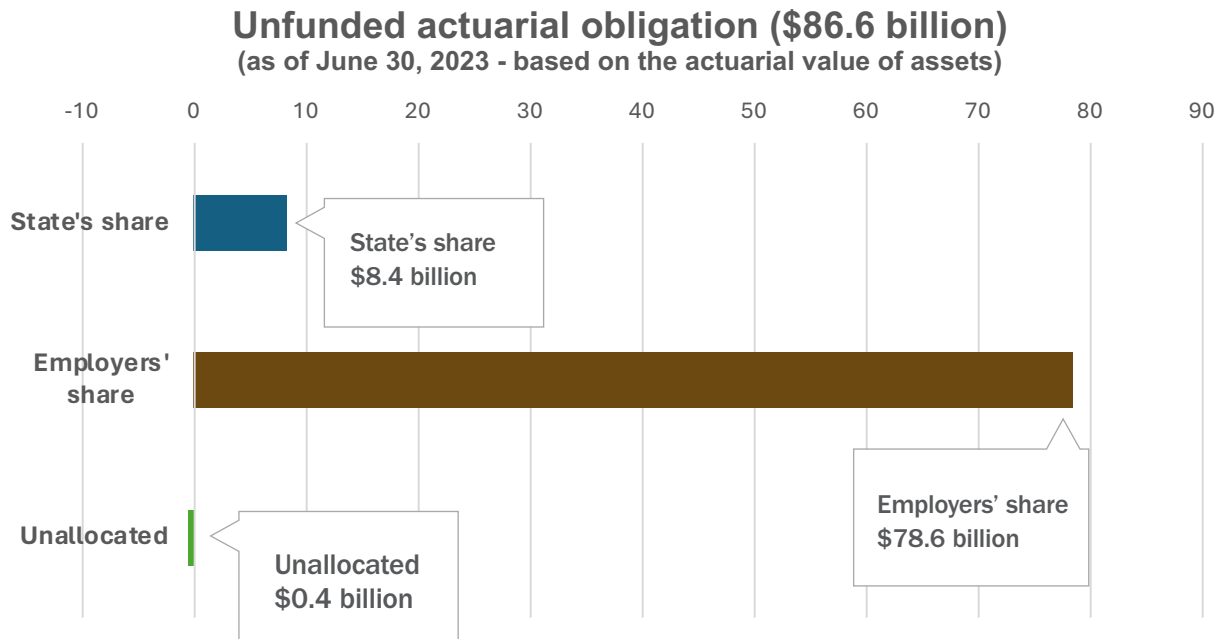
actuarial obligation is allocated impacts how the supplemental contributions rates are calculated for both the state and employers, how sensitive those contribution rates are to volatility in investment returns or changes in assumptions, and whether contributions can be adjusted to pay down the entire unfunded actuarial obligation by 2046.

The funding plan rules result in a three-way split to the unfunded actuarial obligation:

- The state is responsible for any unfunded actuarial obligation related to CalSTRS benefits that were in effect on July 1, 1990, which for this report, is referred to as the 1990 benefit structure. This responsibility applies to all service performed by CalSTRS members.
- The employers are responsible for any unfunded actuarial obligation that can be attributed to benefit changes that occurred after July 1, 1990, which for this report, is referred to as the post-1990 benefit structure. The employers' responsibility is limited to service accrued by members before July 1, 2014.
- There is a portion of the unfunded actuarial obligation that is attributed to benefit changes that occurred after July 1, 1990, and for service that accrued on and after July 1, 2014. This portion is referred to as the unallocated unfunded actuarial obligation because it was not addressed by the funding plan. It was not assigned to either the state or employers, and no contributions were allocated to ensure this portion is paid down.

CALSTRS FUNDING PLAN

The following chart illustrates the breakdown of the unfunded actuarial obligation as of June 30, 2023.



As illustrated above, employers are currently responsible for more than 90% of the entire unfunded actuarial obligation for the Defined Benefit Program. This is the main reason why the employer contribution rate is greater than the state contribution rate and is projected to remain at current levels for longer. The state's share is currently a little under 10% of the total unfunded actuarial obligation but is the most volatile portion, increasing and decreasing the most in response to volatility in investment returns or changes in actuarial assumptions. Finally, the unallocated portion is currently in a surplus status, meaning the funding plan allocates more actuarial assets to this portion of the actuarial obligation than the obligation itself.

As discussed, the state is responsible for funding the unfunded actuarial obligation for the 1990 benefit structure. Recall that the unfunded actuarial obligation is the difference between the actuarial obligation for the plan and the actuarial value of assets. Although the state's share of the unfunded actuarial obligation is less than 10% of the total, the actuarial obligation associated with the 1990 benefit structure is more than 80% of the total actuarial obligation for the Defined Benefit Program. Furthermore, the state is allocated a share of the actuarial value of assets that exceeds the actuarial value of assets for the entire plan. As a result, the state's share of the unfunded actuarial obligation is highly sensitive to changes in actuarial assumptions and volatility in investment returns or demographic experience. This sensitivity extends to the contribution rate, which is why flexibility in adjusting the state's supplemental contribution rates is key to the success of the funding plan.

In contrast, the employers' share of the unfunded actuarial obligation is relatively stable in response to changes in the actuarial assumptions and volatility in investment returns. This stability extends to the employers' contribution rate, which provides some measure of predictability to districts' budgets.

When the funding plan was adopted, there was no unallocated unfunded actuarial obligation. Over time, an unallocated portion developed and fluctuated to a deficit ranging between \$200 million to \$500 million until the record investment return in fiscal year 2020-21, which resulted in the unallocated portion becoming a small surplus. Today, the unallocated portion is estimated to be a surplus of about \$400 million. This portion of the unfunded actuarial obligation is expected to continue to fluctuate, and if CalSTRS experiences a period of investment returns less than the assumed 7%, it could again become a deficit. Since the funding plan does not provide authority to collect contributions on this portion, it could prevent the plan from reaching full funding were this to occur.

CHANGES SINCE THE PASSAGE OF THE CALSTRS FUNDING PLAN

When the funding plan was adopted by the Legislature in 2014, it was based on the CalSTRS annual actuarial valuation as of June 30, 2013, which was the most recent actuarial valuation available at the time. It is important to remember that the funding plan was developed based on the actuarial assumptions in place at that time, which included a long-term investment return assumption of 7.5%.

Since the passage of the funding plan, the board has taken steps to further strengthen the funding of the system. In 2015, the board recognized the importance of protecting against equity market downturns by creating and investing in a Risk Mitigating Strategies asset class. In 2017, the board adopted new actuarial assumptions, reflecting lower future investment earnings and longer life expectancies. The long-term investment return assumption was lowered from 7.5% to 7.0% over a two-year period, while the assumed life expectancy of CalSTRS members was increased by two to three years through the adoption of updated mortality assumptions.

Since fiscal year 2017–18, the first year the board was given the authority to set the state contribution rate, the board increased the state contribution rate by 0.5% of payroll on four occasions to keep the funding plan on track. The board also voted to keep the employer contribution rate at 19.1% for the last four years to keep the employers on track to eliminate their share of CalSTRS' unfunded actuarial obligation by 2046.

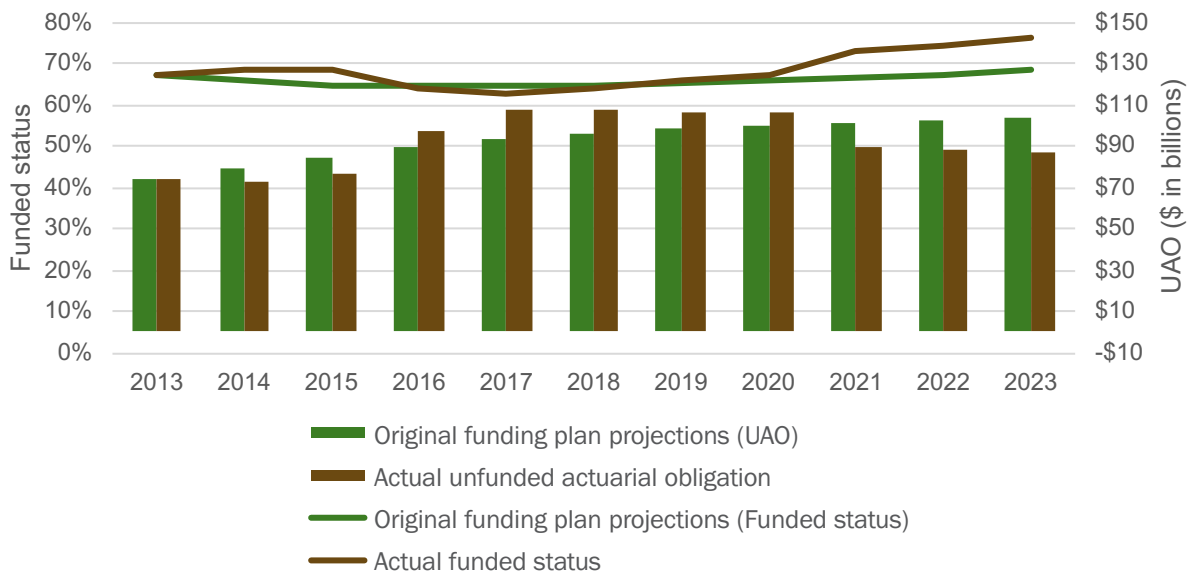
During the COVID-19 pandemic, CalSTRS experienced significant volatility in its investment returns and active membership. In fiscal year 2020–21, CalSTRS earned the

highest return in its history at 27.2%, which was followed in the next fiscal year by the system's first negative return since the great recession. During this time, CalSTRS experienced a decrease in active membership of almost 20,000 members in a single year. In the two subsequent years, that number rebounded back to near an all-time high, reaching slightly more than 458,000 active members as of June 30, 2023.

CalSTRS monitors enrollment levels in K–12 public schools as an indicator of possible future changes in the number of active teachers in California. Over the past four years, enrollment has declined by more than 5%. Furthermore, as per projections released in October 2023, the Department of Finance projects that the number of children enrolled in K–12 public schools will continue to decline for the next 20 years. The most recent projection anticipates a decline of approximately 11% over the next 10 years and 15% over the next 20 years. In response to these declines and projections, the board, as part of the most recent review of actuarial assumptions in January 2024, decided to reduce the assumed rate of growth in CalSTRS payroll from 3.5% per year to 3.25% per year. With this change, CalSTRS now projects the size of active membership will decline slightly over the long term.

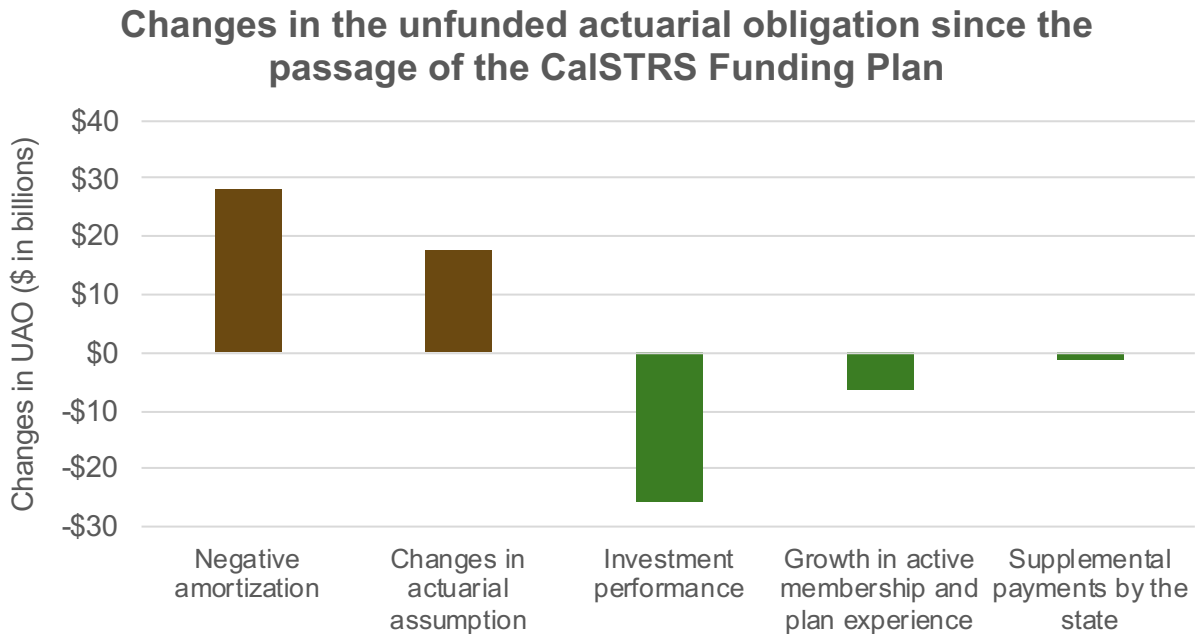
Combined, these changes and events have had a positive impact on funding levels and contribution rates. CalSTRS is now ahead of the original schedule that was produced when the funding plan was adopted. As shown in the chart below, the funded status is higher today than was originally anticipated by the funding plan, and the unfunded actuarial obligation is lower than originally anticipated.

Original projections versus actual results



CHANGES SINCE THE PASSAGE OF THE CALSTRS FUNDING PLAN

As shown in the previous chart, the funded status has increased from 66.5% as of June 30, 2013, to 75.9% as of June 30, 2023. This increase is greater than originally anticipated when the funding plan was adopted. At the time, it was projected that the funded status as of June 30, 2023, would be 68.3%, 7.6% less than the actual funded status. Even though the unfunded actuarial obligation is \$86.6 billion as of June 30, 2023, an increase of about \$12.9 billion since June 30, 2013, it is lower than originally anticipated when the funding plan was adopted. The unfunded actuarial obligation was originally projected to be \$104.1 billion as of June 30, 2023. The chart below illustrates the major factors that have led to the changes in the unfunded actuarial obligation since the passage of the funding plan.



As illustrated, the unfunded actuarial obligation increased by more than \$28 billion as a result of negative amortization. When a pension plan is less than 100% funded, contributions toward the unfunded actuarial obligation must exceed the interest on the unfunded actuarial obligation to prevent it from increasing over time. Failing to contribute an amount greater than the interest will result in an increase of the unfunded actuarial obligation from year to year. This is referred to as negative amortization. For CalSTRS to avoid negative amortization, payments toward the unfunded actuarial obligation must be more than 7% of the unfunded actuarial obligation. With the phased in approach of the increases established through the funding plan, it was anticipated that contributions would not be sufficient to prevent the unfunded actuarial obligation from increasing during the first few years. Note that contributions now exceed the interest on the unfunded actuarial obligation. In fiscal year 2022–23, contributions by the state and employers exceeded the interest on the unfunded actuarial obligation by more than \$1 billion, further reducing the unfunded actuarial obligation and helping keep the funding plan on track.

Changes in actuarial assumptions have resulted in an increase of approximately \$17.5 billion in the unfunded actuarial obligation. Even if they resulted in a one-time increase in the unfunded actuarial obligation, the changes in actuarial assumptions have put CalSTRS in a stronger financial position long term.

Several factors helped mitigate the increases in the unfunded actuarial obligation. Positive plan experience, mainly investment performance and growth in the active membership, combined with the supplemental payments made by the state to reduce their share of CalSTRS' unfunded actuarial obligation, have resulted in a total decrease of approximately \$33 billion in the unfunded actuarial obligation.

CHANGES SINCE THE PASSAGE OF THE CALSTRS FUNDING PLAN

Contribution rates have also been affected by the same changes and events that took place in the last few years. Today, the state contribution rate is higher than projected when the funding plan was adopted. It is currently 8.328%, which is 2% higher than originally projected in the funding plan. However, as mentioned, the state is ahead of schedule in eliminating its share of the unfunded actuarial obligation. The employer contribution rate is currently 19.1%, which is equal to the rate that was projected by the funding plan. For the past four years, the board has elected to maintain both the state and employer contribution rates at these levels to provide contribution rate stability and ensure the funding plan stays on track and is well positioned to react to potential future volatility.

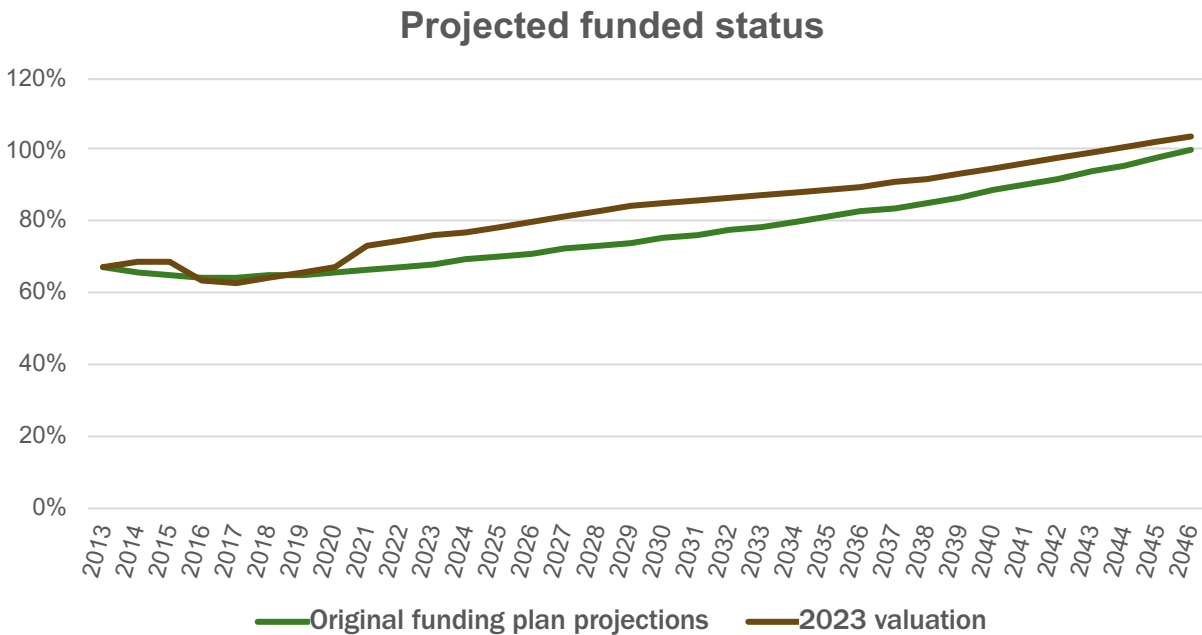
The next section provides more details on projected funding levels and the contribution rates needed to eliminate both the state's share and the employers' share of the unfunded actuarial obligation.

PROJECTED FUNDING LEVELS AND CONTRIBUTION RATES

A key component of CalSTRS' mission is to ensure a financially sound retirement system for California's educators. Progress toward this goal was made possible in 2014 with the passage of the funding plan, which provided limited authority to the board to adjust the employer and state contribution rates to ensure funding of the plan remains on schedule. As shown in this section, the funding plan is working, and the Defined Benefit Program is slightly ahead of schedule to reach full funding by 2046.

Projected funding levels

The following chart compares projected funding levels that were expected when the funding plan was adopted in 2014 to the actual funding levels realized from 2014 through 2023 along with current projected levels as of the June 30, 2023, actuarial valuation, the most recent one available.



As illustrated, CalSTRS is ahead of the original funding plan schedule and is expected to remain ahead of schedule through 2046. In short, the funding plan is working.

Note that these projections assume all actuarial assumptions will be met in the future. Specifically, the projections assume the fund will earn 7% each year and that payroll will grow at 3.25% over the long term. A period of low investment returns could have a material impact on future funding levels.

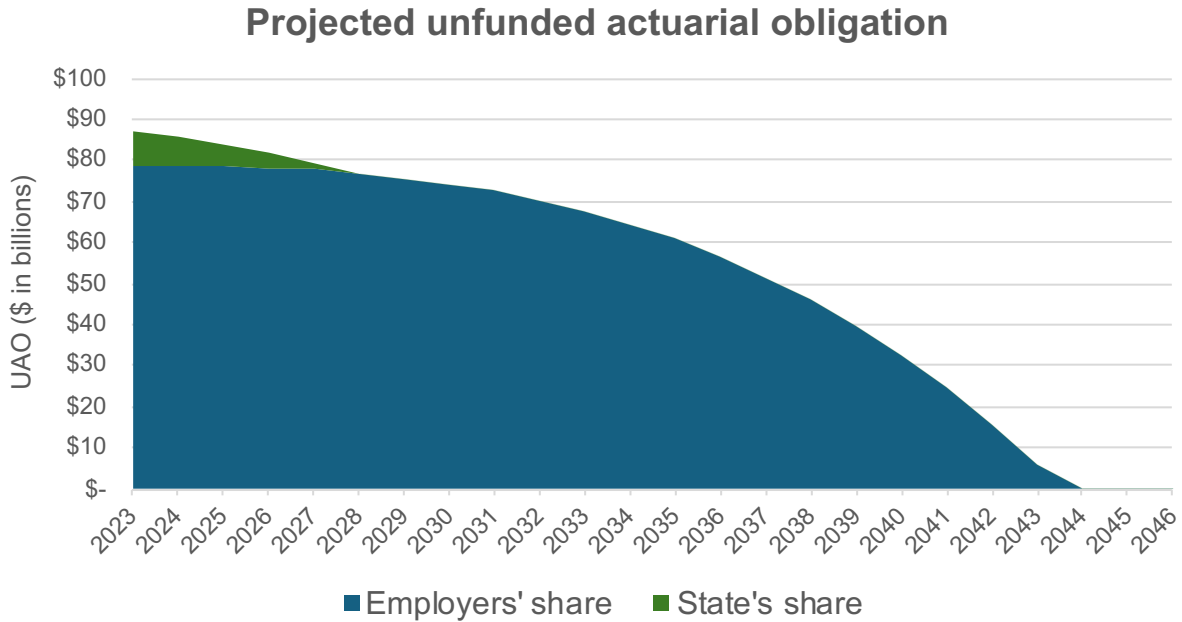
Projected unfunded actuarial obligation

Although the system is currently on a path to reach full funding, it is important to understand how the unfunded actuarial obligation and its components are expected to evolve over time.

Pursuant to the rules of the funding plan, the unfunded actuarial obligation is divided between the state, the employers and the unallocated portion. The unallocated portion of the unfunded actuarial obligation is the portion for which the funding plan did not provide any authority to CalSTRS to adjust contribution rates to pay it down.

PROJECTED FUNDING LEVELS AND CONTRIBUTION RATES

The following chart illustrates how the unfunded actuarial obligation is expected to change over time. As can be seen, the total unfunded actuarial obligation is projected to decline each year in the future and be eliminated by 2044, two years before 2046. Note that the unallocated portion is not depicted in this chart as it is currently in a surplus position.



The employers' share of the unfunded actuarial obligation is projected to be relatively stable for the next few years before entering a period of steady decline and is expected to significantly decrease in the last 10 years of the funding plan. The employers' share is expected to be eliminated by 2044 if the employer contribution rate remains at current levels and plan experience is in line with the actuarial assumptions.

The state's share of the unfunded actuarial obligation is expected to decrease quickly over the next few years and is expected to be eliminated by 2028 if the state contribution rate remains at current levels and plan experience is in line with the actuarial assumptions. However, the state's share remains extremely sensitive to investment performance. If CalSTRS were to experience a year with an investment return well below its 7% assumed return, the state's share could be materially impacted.

As noted above, the unallocated portion is currently in a surplus position. If plan experience remains in line with the actuarial assumptions, this unallocated surplus is expected to grow over time and reach \$2 billion by 2046. The unallocated portion could also quickly become unfunded again if CalSTRS were to have a year in which the investment return is well below 7%.

Projected contribution rates

Since the enactment of the funding plan, the authority to increase the state's contribution rate has been exercised by the board four times. For the last four years, the board has elected to keep both the state and employer contribution rates at existing levels.

With the funding plan being slightly ahead of schedule, contribution rates could have been lowered. However, the board elected to keep both the state and employer contribution rates at existing levels, providing predictability for employer budgets and strengthening the funding plan by reducing the risk the state and employers may not be able to eliminate their shares of the unfunded actuarial obligation.

Going forward, CalSTRS is committed to continue to provide rate stability. To the extent plan experience remains in line with the actuarial assumptions, the state and employer contribution rates are expected to remain at existing levels until the state's and employers' shares of the unfunded actuarial obligation are eliminated.

MITIGATING RISKS AND STRENGTHENING THE CALSTRS FUNDING PLAN

Defined benefit plans are a very efficient way to provide retirement security for educators. This efficiency is achieved by pooling investment, inflation and longevity risks, which has the effect of spreading the cost of adverse experience associated with these risks over a large group of people and longer periods of time than for defined contribution plans. While these risks are minimized under a defined benefit plan, they cannot be fully eliminated.

To address these risks, it is important for a retirement system to have a funding structure that targets full funding and provides enough flexibility to respond to fluctuations caused by demographic and economic experience.

With the adoption of the funding plan, CalSTRS has a funding structure in place that targets full funding and provides flexibility to respond to year-over-year changes in funding levels. As implemented, the funding plan is working. CalSTRS is currently slightly ahead of schedule in its goal of reaching full funding by 2046 and is in a favorable position to withstand significant recession scenarios within the next few years and make meaningful progress to improve funding levels. The rate-setting authority granted to the board has considerably reduced the risk of a low-funded status or even running out of money.

However, risks remain that could impact CalSTRS' ability to achieve full funding by 2046. The three main risks facing the Defined Benefit Program are longevity risk, risk of declines in membership and investment risk. Since the implementation of the funding plan, CalSTRS has regularly monitored the funding plan and these risks by providing annual updates to the board through the **Review of Funding Levels and Risks report**, which provides a forward-looking and holistic view of risks that could threaten the ability of the plan to reach full funding by 2046.

Longevity risk is the risk that CalSTRS members will live longer than currently assumed. Compared to investment risk, in which a shock in a single year can have a significant and lasting impact, longevity risk is a slowly developing demographic phenomenon that could potentially take decades before it is recognized. Longevity improvements have historically occurred with incremental improvements in public health and advancements in medical technologies, and these changes take time to impact whole populations.

Despite the slow nature of longevity risk, it is important that it is not ignored. In February 2017, the board took an important step by adopting actuarial assumptions that recognize that educators' life expectancies have been increasing over time and will most likely continue to do so. CalSTRS implemented an approach to set actuarial assumptions for mortality called "generational mortality," which anticipates future improvements in life expectancy. With generational mortality, CalSTRS is more accurately anticipating future improvements in life expectancy in the funding of the system. This assumption has strengthened the ability of CalSTRS to reach full funding by 2046 by recognizing potential improvements in life expectancy before they materialize.

The risks associated with the number of active members and the growth of their overall payroll is another area that can have an impact on both funding levels and contribution rates. CalSTRS assumes the Defined Benefit Program payroll will grow by 3.25% annually over the long term. This assumption was lowered to 3.25% in January 2024 to reflect the projected K-12 enrollment decline in California and its potential impact on the number of teachers. This assumption is key in determining contribution rates and whether the funding plan will successfully eliminate the current unfunded actuarial obligation by 2046 since CalSTRS collects contributions as a percentage of payroll. If the payroll declines or fails to grow as assumed, CalSTRS' ability to make progress toward full funding could be at risk.

The largest risk facing CalSTRS' ability to reach full funding is investment risk, specifically, not meeting the assumed investment return of 7%. While the employer contribution rate is minimally impacted by investment returns, not meeting the assumed investment return is the biggest risk to the state contribution rate, followed by the risk of a decline in membership. Since the state contribution rate is most impacted by investment performance, investment returns significantly below the assumed 7% could result in a large increase in the state's share of the unfunded actuarial obligation, pushing out the year the state is expected to pay it off. Depending on the severity of such investment decline, it could even result in the need for the board to increase the state's contribution rate by the maximum 0.5% of payroll every year through 2046 and still not achieve full funding.

MITIGATING RISKS AND STRENGTHENING THE CALSTRS FUNDING PLAN

To evaluate investment risk and demonstrate how the funding plan has strengthened the funding of the Defined Benefit Program, risk measures related to funding levels are provided each year in the *Review of Funding Levels and Risks report*. These risk measures are developed using stochastic scenarios calibrated to simulate possible future investment returns reflecting the asset allocation and capital market assumptions that were adopted by the board.

As shown in the most recent report and in the chart below, the funding plan has greatly increased the probability of reaching full funding. The probability of reaching full funding has increased to 58% with the funding plan, compared to only 12% had the funding plan not been adopted. Similarly, the funding plan has greatly reduced the probability of CalSTRS running out of money. Today that probability is minimal at about 0.1%, while it would be about 25% today without the funding plan.



Investment risk is further exacerbated by the maturing of the Defined Benefit Program, which will increase the system’s sensitivity to investment experience. As the funding plan end date of 2046 gets closer, investment volatility will be more challenging to react to as there will be less time remaining to pay down any new unfunded actuarial obligations that may arise later in the funding plan.

Under existing statute, on June 30, 2046, the funding plan will sunset along with the limited rate-setting authority provided to the board. Even if everything goes according to the funding plan and the Defined Benefit Program is 100% funded on June 30, 2046, the fund would again be at significant risk of seeing declining funding levels following a recession or a period of low investment returns. The previous structure did not provide sufficient flexibility in the contribution rates to withstand even minor investment losses. These risks could be reduced by addressing the end date of the funding plan. Retaining some or all of the current rules put in place to improve plan funding could also reduce risks.

It is also important to point out the funding plan does not provide the board with authority to address the entire unfunded actuarial obligation. The funding plan established a complex structure for paying down the unfunded actuarial obligation with rules that determine how much of the unfunded actuarial obligation is allocated to the state and employers, leaving an unallocated portion. The funding plan does not provide any source of funding for this portion. The unallocated unfunded actuarial obligation is currently in a surplus position but could quickly become unfunded if CalSTRS were to experience investment returns below 7%. Assigning responsibility for the entire unfunded actuarial obligation, including the unallocated portion, could reduce risks and help CalSTRS achieve full funding.

In addition, there is a provision within the funding plan that requires the state supplemental contribution rate to be reduced immediately to zero if the state’s share of the unfunded actuarial obligation is ever eliminated. At that point, the state would only contribute at the base contribution rate of 2.017%. The state is currently expected to eliminate its share of the unfunded actuarial obligation in five years. In fiscal year 2024–25, the state currently pays 8.328% to the Defined Benefit Program. The state supplemental rate is expected to be eliminated in five years, which would reduce the state contribution rate to the Defined Benefit Program to 2.017% in fiscal year 2029–30.

MITIGATING RISKS AND STRENGTHENING THE CALSTRS FUNDING PLAN

CalSTRS has highlighted the fact that the state's contribution rate is most sensitive to volatility in investment returns and to changes in demographic trends. If a new unfunded actuarial obligation were to develop after the state contribution rate has been reduced to 2.017%, for example, due to lower-than-expected investment returns, the board would only be able to increase the state supplemental rate by 0.5% per year starting from the base rate of 2.017%, limiting CalSTRS' ability to eliminate any possible future unfunded actuarial obligation. If the state contribution rate needed to return to today's level, it would take 12 years, potentially resulting in a situation where the state can no longer eliminate its share of the unfunded liability by 2046. Additional flexibility in relation to the state contribution rate could reduce risks and maintain the long-term sustainability of the fund.

CONCLUSION

CalSTRS 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 of California's educators and provide retirement, disability and survivor benefits to them and their families. These educators are found in every community throughout the state, preparing the next generation to contribute and make a difference in our society.

To ensure CalSTRS can fulfill its mission, it is important to focus on long-term sustainability. CalSTRS demonstrates its commitment to securing its members' retirement futures and organizational sustainability in various ways. First and foremost, CalSTRS is committed to ensuring that member benefits are secure with an adequate funding structure in place.

To that end, CalSTRS has come a long way. Prior to the adoption of the funding plan, CalSTRS was projected to run out of assets. Today, CalSTRS is financially stronger and better positioned to achieve full funding thanks to the adoption of the funding plan through AB 1469 in 2014.

As discussed in this report, the funding plan is working as intended. CalSTRS has a funding structure in place that is focused on full funding and provides flexibility to respond to fluctuations caused by demographic and economic experience. CalSTRS is currently slightly ahead of schedule in its goal of reaching full funding by 2046 and is in a favorable position to withstand significant recession scenarios and make meaningful progress to improve funding levels.

However, risks remain that could prevent the system from reaching full funding by 2046. While the risks related to longevity and decline in membership are real and important, the fact remains that the largest risk facing CalSTRS is investment-related risk. Investment risk will continue to increase over time simply due to the natural maturing of the Defined Benefit Program. CalSTRS is committed to managing and monitoring these risks.

As noted in this report, these risks could be reduced by strengthening certain features of the funding plan, which include:

- The funding plan's end date of 2046.
- No funding source to address the unallocated portion of the unfunded actuarial obligation, if needed.
- Flexibility in setting the state contribution rate.

This is the second funding plan progress report, and as required by statute, the next report will be provided no later than July 1, 2029. CalSTRS will continue to monitor the financial health of the fund by regularly assessing funding levels and risks and the progress of the funding plan. CalSTRS is and remains committed to the long-term sustainability of the fund on behalf of all California's educators.



P.O. Box 15275
Sacramento, CA 95851-0275
800-228-5453
CalSTRS.com
06/2024