Alameda County Employees' Retirement Association
BOARD OF RETIREMENT

ACTUARIAL COMMITTEE/BOARD MEETING NOTICE and AGENDA

ACERA MISSION:
To provide ACERA members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services.

Thursday, June 18, 2026
11:00 a.m.

LOCATION AND TELECONFERENCE	COMMITTEE MEMBERS	
ACERA **C.G. "BUD" QUIST BOARD ROOM** **475 14TH STREET, 10TH FLOOR** **OAKLAND, CALIFORNIA 94612-1900** **MAIN LINE: 510.628.3000** **FAX: 510.268.9574** **The public can observe the meeting and offer public comment by using the below Webinar ID and Passcode after clicking on the below link or calling the below call-in number.** https://zoom.us/join Call-In Number: 1 699 900 6833 Webinar ID: 879 6337 8479 Passcode: 699406 For help joining a Zoom meeting, see:https://support.zoom.us/hc/en-us/articles/201362193	**ROSS CLIPPINGER, CHAIR**	**ELECTED SAFETY**
	OFELIA BASGAL, VICE CHAIR	**APPOINTED**
	SCOTT FORD	**ELECTED GENERAL**
	HENRY LEVY	**TREASURER**
	ELIZABTEH ROGERS	**ELECTED RETIRED**

The Alternate Retired Member votes in the absence of the Elected Retired Member, or, if the Elected Retired Member is present, then votes if both Elected General members, or the Safety Member and an Elected General member, are absent.

This is a meeting of the Actuarial Committee if a quorum of the Actuarial Committee attends, and it is a meeting of the Board if a quorum of the Board attends. This is a joint meeting of the Actuarial Committee and the Board if a quorum of each attends.

Board and Committee agendas and minutes and all documents distributed to the Board or a Committee in connection with a public meeting (unless exempt from disclosure) are posted online at www.acera.org and also may be inspected at 475 14th Street, 10th Floor, Oakland, CA 94612-1900.

Public comments are limited to four (4) minutes per person in total. The order of the items on the agenda is subject to change without notice.

Note regarding accommodations: If you require a reasonable modification or accommodation for a disability, please contact ACERA between 9:00 a.m. and 5:00 p.m. at least 72 hours prior to the meeting at accommodation@acera.org or at 510-628-3000.

ACTUARIAL COMMITTEE/BOARD MEETING

Call to Order: 11:00 a.m.

Roll Call

Public Input

Action Items: Matters for Discussion and Possible Motion by the Committee

None

Information Items: These items are not presented for Committee action but consist of status updates and cyclical reports

1. **Presentation of the deterministic projections as part of the Risk Assessment Report based on the Actuarial Valuation and Review as of December 31, 2025.**

   -Lisa Johnson
   -Eva Yum, Segal
   -Daniel Siblik, Segal

Trustee Input

Future Discussion Items

August

- Segal presentation and discussion of the Triennial Experience for years 2023-2025 and the economic and non-economic assumptions

Establishment of Next Meeting Date

The next meeting is scheduled for Thursday, August 20, 2026, at 11:00 a.m.

Adjournment

MEMORANDUM TO THE ACTUARIAL COMMITTEE

DATE: June 18, 2026

TO: Members of the Actuarial Committee

FROM: Lisa Johnson, Assistant Chief Executive Officer

SUBJECT: Actuarial Standard of Practice No 51 (ASOP No. 51), Risk Assessment, Including Review of Funded Status of the Pension Plan as of December 31, 2025

Executive Summary

On June 18, 2026, staff and Segal will present the results of a deterministic scenario test used to evaluate and address the risk exposure related to ACERA's Actuarial Valuation and Review as of December 31, 2025. In February 2019, staff obtained Board approval for Segal to provide risk reports that satisfy disclosure requirements for ASOP No. 51, effective for a measurement date on or after November 1, 2018 and for ACERA's December 31, 2025 valuation.

The purpose of the Risk Assessment Report is to comply with ASOP 51's requirement for system actuaries to identify, assess and disclose risks that may reasonably be anticipated to significantly affect the plan's future financial condition when measuring pension plan obligations or calculating employer contribution rates as part of the fund valuation. The report provides a quantitative analysis of some significant risks and potential impact, using relevant economic deterministic scenario tests. The report also contains disclosure of plan maturity measures and other historical information that are significant to understanding plan risks, per ASOP 51 requirements.

Deterministic Scenario Tests: Assesses the impact of one or more events on the plan's future financial position. Example: market return that is higher or lower than the assumed 7.00% in the next year.

Recommended Scenario Test for ACERA: Consider the impact of portfolio market return in 2026 at 0.00%, 7.00%, or 14.0% in the Risk Assessment Report based on the December 31, 2025 Actuarial Valuation.

Attachment:

ACERA Risk Assessment, Including Review of Funded Status of the Pension Plan as of December 31, 2025

Alameda County Employees' Retirement Association

Risk Assessment

Based on the Actuarial Valuation and Review of the Pension Plan and SRBR as of December 31, 2025

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Segal

Segal

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June 10, 2026

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 100
Oakland, CA 94612

Dear Board Members:

We are pleased to submit this Risk Assessment based on the Actuarial Valuation and Review for the Alameda County Employees' Retirement Association as of December 31, 2025.

This risk report has been prepared at the request of the Board of Retirement to assist in administering the Pension Plan ("the Plan") and the Supplemental Retiree Benefit Reserve ("the SRBR"). It includes discussion of the key risks that may have an ongoing influence on the Plan's financial health, as well as various projections of future results under different investment return scenarios together with the assumptions adopted for the December 31, 2025 valuation.

The actuarial calculations in this report were completed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary and Mehdi Riazi, FSA, MAAA, FCA, Enrolled Actuary.

The actuarial opinions expressed in this report were prepared by Daniel Siblik, ASA, MAAA, FCA, Enrolled Actuary, Eva Yum, FSA, MAAA, Enrolled Actuary, and Todd Tauzer, FSA, MAAA, FCA, CERA. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

Sincerely,

Todd Tauzer, FSA, MAAA, FCA, CERA
Senior Vice President and Actuary

Daniel Siblik, ASA, MAAA, FCA, EA
Vice President and Actuary

Eva Yum, FSA, MAAA, EA
Vice President and Actuary

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Section 1: Introduction and Executive Summary

Introduction

The purpose of this report is to assist the Board of Retirement, participating employers and members and other stakeholders to better understand and assess the risk profile of the Plan, as well as the particular risks inherent in using a fixed set of actuarial assumptions in preparing the results in our December 31, 2025 funding valuation for the Pension Plan ("the Plan") of the Alameda County Employees' Retirement Association ("ACERA").

The results included in our December 31, 2025 funding valuation report for the Plan were prepared based on a specific set of economic and non-economic actuarial assumptions under the premise that future experience of ACERA would be consistent with those assumptions. While those assumptions are generally reviewed every three years (with the assumptions from the last triennial experience study adopted by the Board of Retirement for use starting with the December 31, 2023 valuation), there is a risk that emerging results may differ significantly as actual experience is fluid and will not completely track current assumptions.

It is important to note that this risk assessment is based on plan assets as of December 31, 2025. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. While it is impossible to determine the market conditions and other demographic experience of the plan in future valuations, the single year investment return scenario test included within this report provides an illustration of the impact of short-term market fluctuations on the plan. Besides the stochastic projection included in this report, Segal is available to prepare other projections of selected potential outcome scenarios upon request.

Actuarial standard of practice on risk assessment

The Actuarial Standards Board approved the Actuarial Standard of Practice No. 51 (ASOP 51) regarding risk assessment when performing a funding valuation and it was effective with ACERA's December 31, 2018 actuarial valuation for benefits provided by the Pension Plan. ASOP 51 requires actuaries to identify and assess risks that "may reasonably be anticipated to significantly affect the plan's future financial condition." Examples of key risks listed that are particularly relevant to ACERA are asset/liability mismatch risk, investment risk, and longevity and other demographic risks. ASOP 51 also requires an actuary to consider if there is any ongoing contribution risk to the plan; however, it does not require the actuary to evaluate the ability or willingness of contributing entities to make contributions when due, nor does it require the actuary to assess the likelihood or consequences of future changes in applicable law.

The actuary's assessment can be strictly a qualitative discussion about potential adverse experience and the possible effect on future results, but it may also include quantitative numerical demonstrations where informative. The actuary is also encouraged to consider a recommendation as to whether a more detailed risk assessment would be significantly beneficial for the intended user to examine particular financial risks. When making that recommendation, the actuary will consider such factors as the plan's design, risk profile, maturity, size, funded status, asset allocation, cash flow, possible insolvency and current market conditions. This report incorporates a more detailed risk assessment as agreed upon with ACERA.

Besides information for the Pension Plan, we have included as part of the Plan design under Article 5.5 of the Statute the amount of "excess earnings" allocated from the Association's total investment portfolio to the Supplemental Retiree Benefit Reserve (SRBR) and the change in the sufficiency periods for benefits paid out of the SRBR. Based on our understanding of the Statute which authorizes the SRBR, the investment return assumption used in the funding valuation has been developed without considering the impact of any future excess earnings allocation to the SRBR. However, for informational purposes, we have included in this report the same disclosure of such allocation that we have previously included in our funding valuation report.

Plan risk assessment

In *Section 2*, we start by discussing some of the historical factors that have caused changes in ACERA's funded status and employer contribution rates. It is important to understand how the combination of decisions and experience has led to the current financial status of the plan.

We follow this with a discussion of the most significant risk factors going forward. Based on our discussions with ACERA, we have provided a more detailed risk assessment that illustrates the impact on the funded status and employer contribution rates using relevant economic scenario tests. These tests illustrate the effect of future investment returns on the Plan's portfolio coming in differently from the current 7.00% annual investment return assumption used in the December 31, 2025 valuation. We have also included a projection of future results based on a stochastic modeling of future investment returns. The stochastic modeling is useful for assessing the distribution of future results based on random variations in actual investment returns each year, and introduces a relative likelihood to the range of potential outcomes.

ASOP 51 also requires disclosure of plan maturity measures and other historical information that are significant to understanding the risks associated with the Pension Plan and this information is included at the end of *Section 2*.

Executive summary

Historical funded status and employer contribution rates

The following table provides a summary of financial changes to the Pension Plan over the last 10 valuations. In the December 31, 2016 through December 31, 2025 valuations, the unfunded actuarial accrued liability (UAAL) and contribution rates decreased primarily as a result of additional voluntary County General, County Safety and Livermore Area Recreation and Park District (LARPD) General contributions made by the two employers to reduce their UAAL and associated contribution rates,[1] expected contributions made by all employers to reduce the UAAL principal, and favorable investment experience, offset somewhat by the strengthening of the actuarial assumptions (which increased the UAAL by $621 million and increased the employer contribution rate by 5.47% of payroll) used in preparing the valuations and non-investment experience. More details on the impact of actuarial assumption changes on the UAAL and the total aggregate employer contribution rates can be found on pages 9 and 14, respectively.

Valuation Date	Funded Status Market Value Basis	UAAL Market Value Basis	Funded Status Valuation Value Basis	UAAL Valuation Value Basis	Total Aggregate Employer Contribution Rate (% of Payroll)
December 31, 2016	74.5%	$2,104 million	78.1%	$1,802 million	25.00%
December 31, 2025	95.6%	$565 million	91.6%	$1,090 million	20.08%

Supplemental Retiree Benefit Reserve

In the 10 valuations from December 31, 2015 to 2024, the assets available in the SRBR have increased from about $858 million to about $1,222 million. We have not included the results from the December 31, 2025 SRBR valuation as the finalized results from that valuation will not be available until later in 2026. During this 10-year period, about $249 million in excess earnings were allocated to the SRBR. In the December 31, 2015 valuation, it was estimated that the assets in the SRBR would be sufficient to pay OPEB SRBR benefits for about 23 years (until around 2038) and non-OPEB SRBR benefits for about 20 years (until around 2035). In the December 31, 2024 valuation, it was estimated that the assets in the SRBR would be sufficient to pay OPEB SRBR benefits for about 21 years (until around 2045) and non-OPEB SRBR benefits for about 24 years (until around 2048).[2]

[1] The County made voluntary County General contributions of $400 million on June 27, 2025 and County Safety contributions of $800 million on June 29, 2021. LARPD also made voluntary LARPD General contributions of $12.611 million on June 29, 2021.

[2] During the past 10 years, the Board took several actions to preserve the sufficiency period to pay benefits from the SRBR. For instance, the Board eliminated the Active Death Equity Benefit and froze the maximum Monthly Medical Allowance for several years. In addition, there was a one-time transfer of $54.2 million in assets as of December 31, 2023 from the OPEB SRBR to the non-OPEB SRBR to equalize the sufficiency periods to pay OPEB and non-OPEB benefits.

Future funded status and employer contribution rates

In this report, we highlight key factors besides assumption changes that may affect the financial profile of the Plan going forward. As investment experience in the past 10 years has had a significant impact on the funded status and employer contribution rates, we have also provided deterministic projections (using select scenarios for illustration) under hypothetical favorable and unfavorable future market experience so that the impact of market performance can be better understood.

The total aggregate employer contribution rate for the Pension Plan is 20.08% of payroll in the December 31, 2025 valuation. Using a deterministic projection, this report shows the effect of unfavorable (0.00%), baseline (7.00%) or favorable (14.00%) hypothetical market returns for 2026 on key valuation results. In particular, the projected changes in the total aggregate employer contribution rate, relative to the total aggregate employer contribution rate of 20.08% in the December 31, 2025 valuation, in the December 31, 2026 valuation and in the December 31, 2031 valuation (after recognizing deferred investment gains or losses under the five-year asset smoothing period) are shown in the following table. These projections assume no further assumption changes or method changes, and no non-investment experience that differs significantly from the assumptions.

Total Aggregate Employer Contribution Rate Change

Valuation Date	0.00% Return for 2026	7.00% Return for 2026	14.00% Return for 2026
December 31, 2026	-2.3% of payroll	-2.3% of payroll	-2.7% of payroll
December 31, 2031	-3.3% of payroll	-9.9% of payroll	-9.9% of payroll

Under the baseline (7.00%) and favorable (14.00%) hypothetical market return scenarios for 2026, the Association would be expected to reach full funding by December 31, 2030 and the total employer contribution rate would be comprised of only normal cost contributions, resulting in a larger relative change from the baseline than the unfavorable (0.00%) hypothetical market return scenario (as provided in *Chart 6*). Furthermore, under all three hypothetical market return scenarios for 2026, the Association would be expected to reach full funding within seven years and the total employer contribution rate would be expected to approach about 10% of payroll.[3] These scenarios illustrate that the Board's funding policy is very effective in achieving the general policy goal of achieving the long-term full funding of the costs of the benefits paid by ACERA.

Using a stochastic projection that models market return over the next 20 years by using expected return, standard deviation and other information about ACERA's asset portfolio, there is a 50% chance that the employer contribution rates would be between 10% and 20% of payroll at the end of 10 years and between 10% and 23% of payroll at the end of 20 years. Furthermore, there is a 57%

[3] This is the estimated normal cost rate for the employer, assuming no further assumption changes, method changes or experience that differs significantly from assumptions.

chance ACERA would be fully funded at the end of 10 years and a 60% chance ACERA would be fully funded at the end of 20 years. The probability that the sufficiency period for the OPEB SRBR would be over 15 years is 69% at the end of 10 years and 71% at the end of 20 years. The probability that the sufficiency period for the non-OPEB SRBR would be over 15 years is 77% at the end of 10 years and 85% at the end of 20 years.

Plan maturity measures

During the past 10 valuations, the Association has become more mature as evidenced by an increase in the ratio of members in pay status (retirees and beneficiaries) to active members (as shown in *Section 2, Chart 19* on page 51) and by an increase in the ratios of plan assets and liabilities to active member payroll for the total plan (as shown in *Section 2, Chart 20* and *Chart 21* on pages 52 and 53). We expect these trends to continue going forward. This is significant for understanding the volatility of both historical and future employer contribution rates because any increase in UAAL due to unfavorable investment and non-investment experience for the relatively larger group of non-active members would have to be amortized and funded over the payroll of the relatively smaller group of active members. Put another way, as a plan grows more mature, its contribution rate becomes more sensitive to investment volatility and liability changes. As ACERA continues to mature with time, its risk profile will continue to evolve in this way and contributions will grow more sensitive to plan experience.

Section 2: Key Plan Risks

Evaluation of historical trends

Funded status and change in unfunded actuarial accrued liabilities

One common measure of ACERA's financial status is the funded ratio. This ratio compares the valuation and market value of assets to the actuarial accrued liabilities (AAL) of ACERA. The overall level of funding of ACERA has increased mainly as a result of additional voluntary County General, County Safety and LARPD General contributions made by the two employers to reduce their UAAL and associated contribution rates, expected contributions made by all employers to reduce the UAAL principal, and favorable investment experience. The strengthening of the economic and non-economic assumptions especially in the last three triennial experience studies has had a somewhat offsetting impact. Those new actuarial assumptions were used starting in the December 31, 2017, 2020, and 2023 valuations. The funded ratios and the unfunded actuarial accrued liabilities for the past 10 valuations from December 31, 2016 to 2025 measured using both actuarial and market value of assets bases are provided in *Chart 1*.

The factors that caused the changes in the UAAL in the past 10 valuations from December 31, 2016 to December 31, 2025 are specified in *Chart 2a.* The results in *Chart 2a* show the impact of the changes in the investment return assumption (from 7.60% to 7.25% in the December 31, 2017 valuation and from 7.25% to 7.00% in the December 31, 2020 valuation) together with the changes in the mortality tables and other assumptions. The changes in the assumptions from the last three triennial experience studies have a relatively large impact on the UAAL for ACERA; however, this impact was more than offset by the additional voluntary County General, County Safety and LARPD General contributions. In particular, the assumption changes included in the last 10 valuations have had the following impact on the UAAL:

UAAL Impact from Assumption Changes

Valuation Date	Total UAAL Change
December 31, 2017	$396 million
December 31, 2020	$322 million
December 31, 2023	$(97) million
Net Change	**$621 million**

Section 2: Key Plan Risks

Chart 2a shows that the investment experience has overall been favorable in the past 10 valuations, while there was unfavorable non-investment experience. *Chart 2a* also shows the strength of the Association's adopted funding policy working to reduce the unfunded liability consistently each year.

Chart 2b displays the aggregate change in unfunded liability by source over the last 10 years. In particular, it shows the continued effort made by ACERA in strengthening the actuarial assumptions. It is important to note that ACERA has taken strides in risk management and resulting long-term plan sustainability. This includes strengthening of assumptions, particularly the expected investment rate of return and mortality assumption (amount-weighted generational mortality tables for the Pension Plan) and adopting a funding policy that eliminates negative amortization and promotes intergenerational equity. Assumptions will continue to be reviewed in future experience studies to reflect the Plan's experience as well as future expectations. Those changes may result in higher contributions in the short term, but in the medium to longer term **avoid** both deferring contributions and allowing unmanaged growth in the UAAL. We believe these actions are essential for ACERA's fiscal health going forward.

Section 2: Key Plan Risks

Chart 1

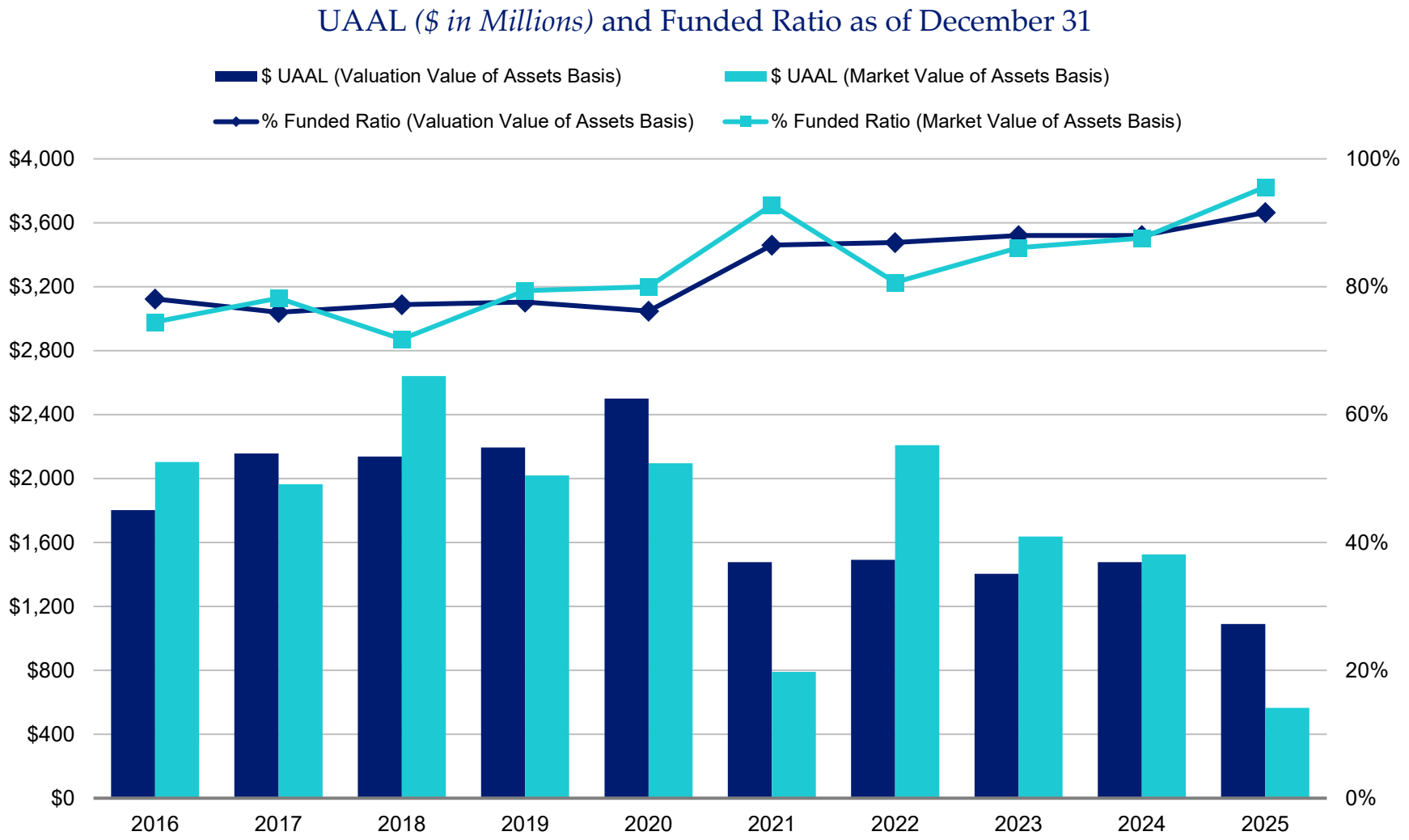


Chart 2a

Factors that Changed UAAL for Year Ended December 31

($ in Millions)

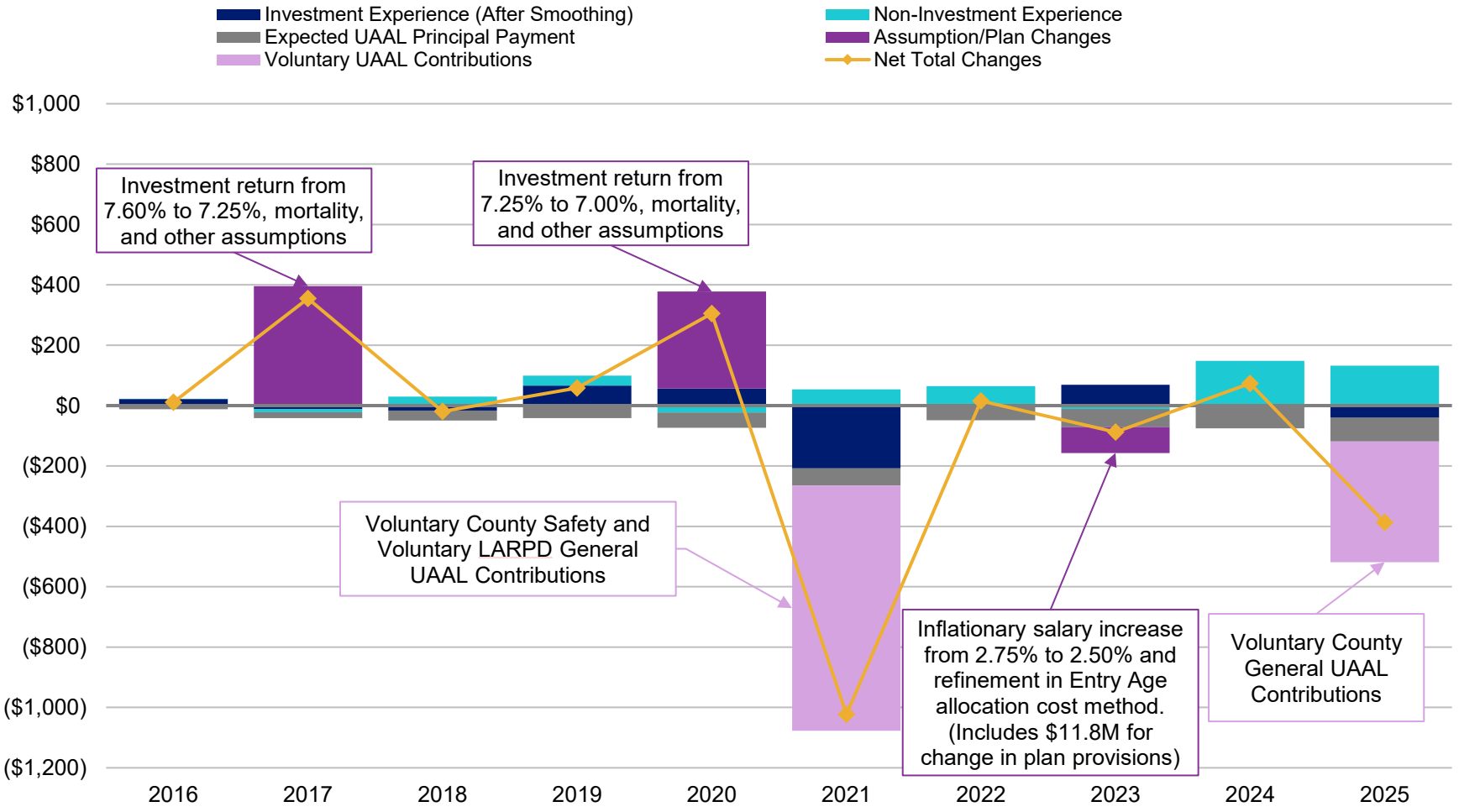
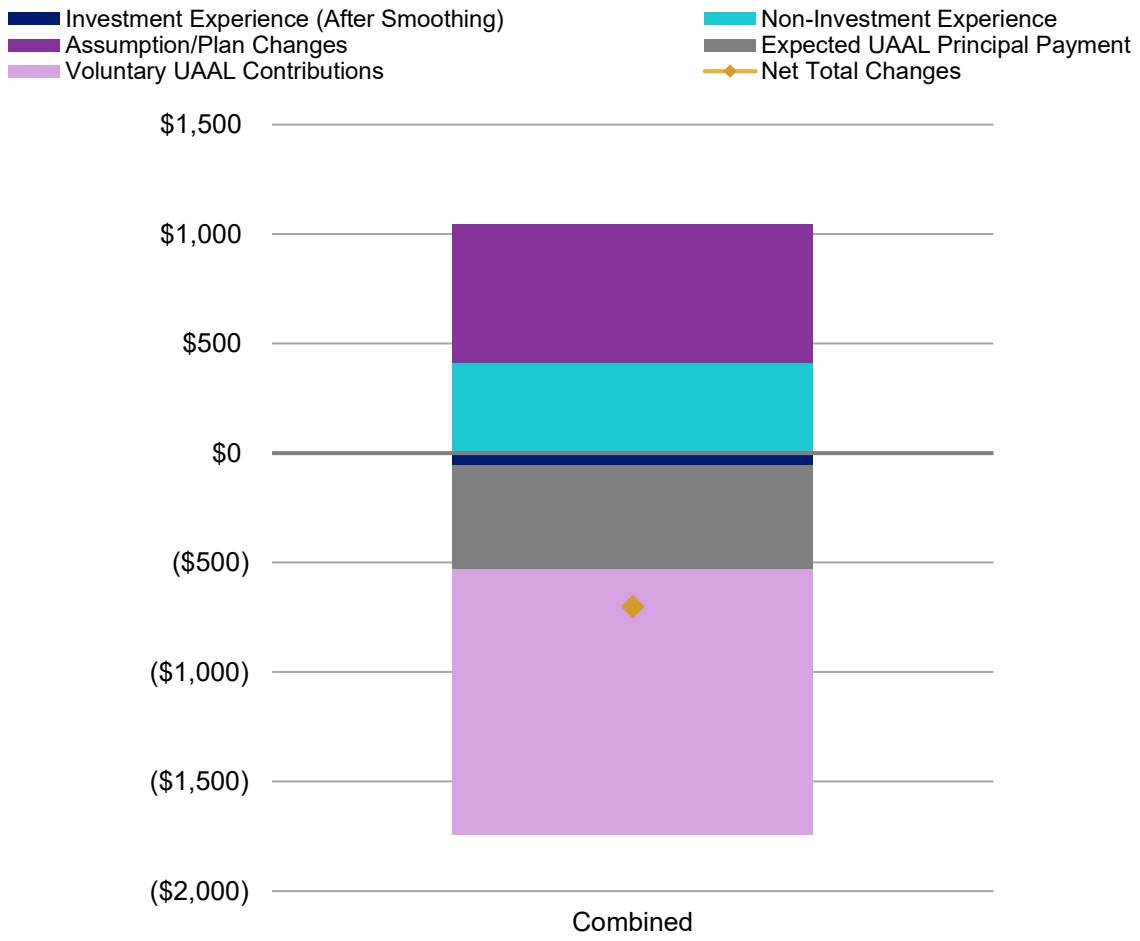


Chart 2b

Combined Factors that Changed UAAL in the December 31, 2016 to 2025 Valuations

($ in Millions)



Note: This summation of UAAL changes by source does not account for the timing of when they occurred nor any resulting compounding effects. Also, the investment experience shown is investment returns after asset smoothing compared to the expected returns.

Employer contribution rates

The total (normal cost plus UAAL payment) aggregate employer contribution rates[4] determined in the December 31, 2016 to December 31, 2025 valuations are provided in *Chart 3*. The factors that caused the changes in the total aggregate employer rates are provided in *Chart 4.*

The employer's aggregate normal cost rates in *Chart 3* have stayed relatively flat during the last 10 years. There had been increases in the employer's normal cost rates due to the changes in the actuarial assumptions. However, those increases were offset to some degree by the plan changes under the Public Employees' Pension Reform Act of 2013 (PEPRA) as new members have been enrolled in the lower cost PEPRA benefit tiers starting on January 1, 2013. *Chart 4* shows that the changes in the investment return assumption (from 7.60% to 7.25% in the December 31, 2017 valuation and from 7.25% to 7.00% in the December 31, 2020 valuation), mortality tables and other assumptions from the last three triennial experience studies have by far the most impact on increasing the UAAL contribution rates for the employers. These UAAL rate increases were more than offset by the effect of the additional voluntary County General, County Safety and LARPD General contributions.

Employer Contribution Rate Impact from Assumption Changes

Valuation Date	Total Aggregate Employer Contribution Rate Change
December 31, 2017	3.49% of payroll
December 31, 2020	2.44% of payroll
December 31, 2023	-0.46% of payroll
Net Change	**5.47% of payroll**

[4] There are separate contribution rates determined in the valuation for the General and Safety membership groups and for the different benefit tiers and employers. The aggregate contribution rates have been calculated based on an average of those rates weighted by the payrolls of the active members reported in those valuations.

Chart 3

Employer Contribution Rates Calculated as of December 31

(% of Payroll)

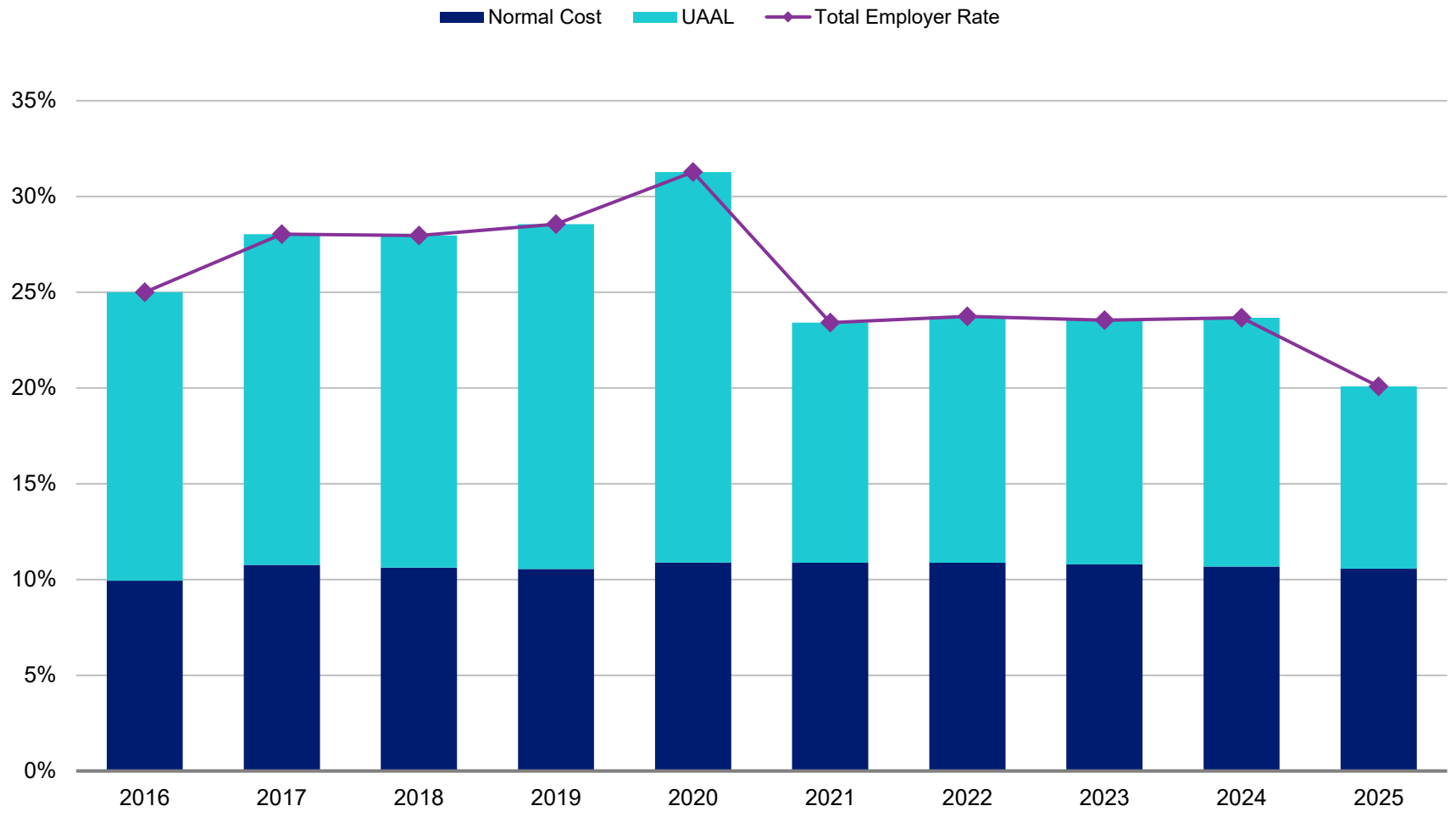
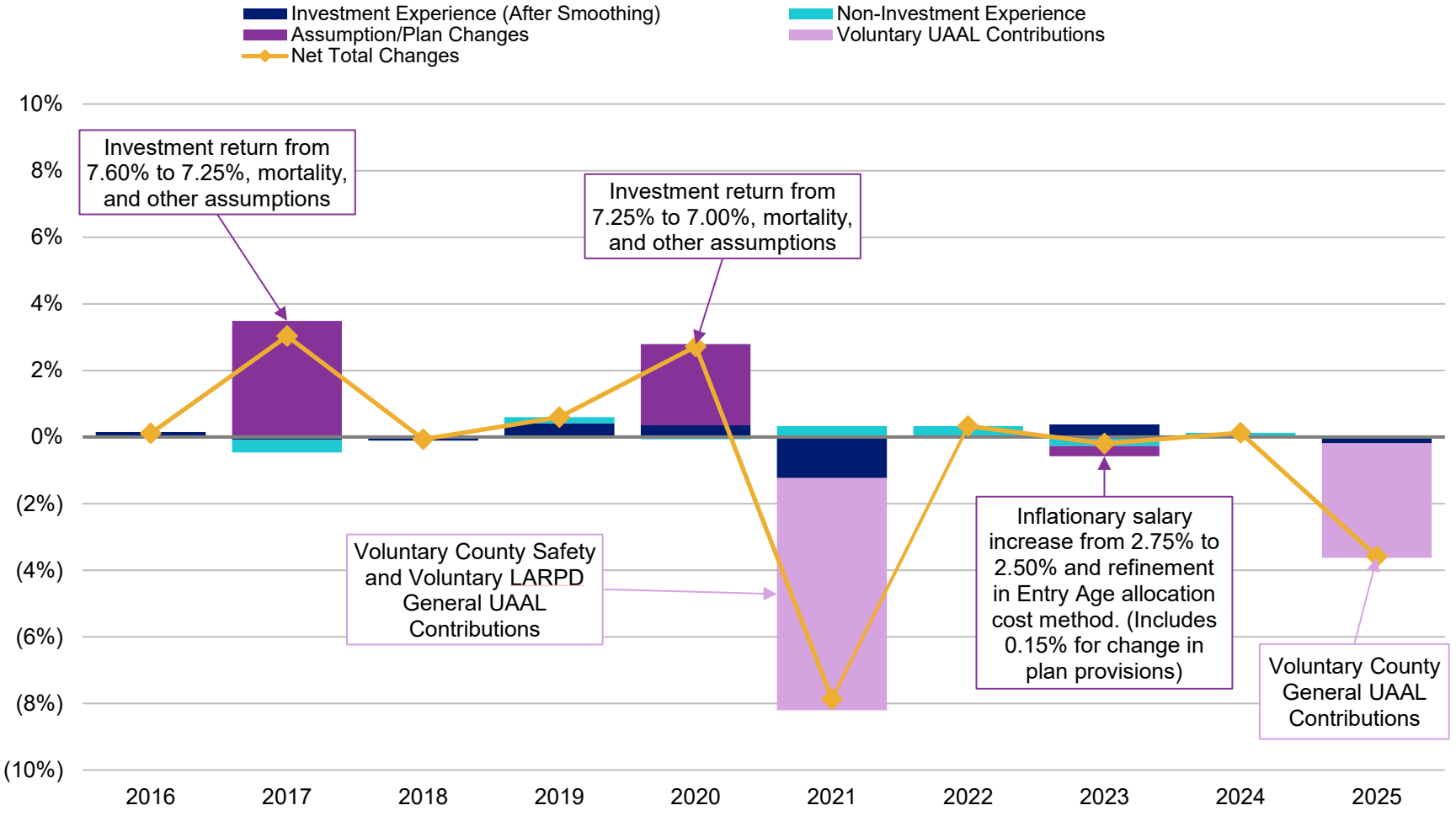


Chart 4

Factors that Affected Employer Contribution Rates Calculated as of December 31

(% of Payroll)



Supplemental Retiree Benefit Reserve

As part of the Plan design, under Article 5.5 of the Statute, excess earnings[5] are allocated from the Association's total investment portfolio to the SRBR. As a result, besides paying benefits from the Pension Plan, ACERA also provides benefits using assets available in the SRBR. In the most recent actuarial study for the SRBR as of December 31, 2024, there was about $1,222 million in assets available at the Board's discretion to provide non-vested retiree health subsidies[6] (other postemployment benefits or OPEB) and pension benefits[7] (non-OPEB). We have not included the results from the December 31, 2025 SRBR valuation as the finalized results from that valuation will not be available until later in 2026.

In the 10 valuations from December 31, 2015 to 2024, the assets available in the SRBR have increased from about $858 million to about $1,222 million. During this 10-year period, about $249 million in excess earnings were allocated to the SRBR. In the December 31, 2015 valuation, it was estimated that the assets in the SRBR would be sufficient to pay OPEB SRBR benefits for about 23 years (until around 2038) and non-OPEB SRBR benefits for about 20 years (until around 2035). In the December 31, 2024 valuation, it was estimated that the assets in the SRBR would be sufficient to pay OPEB SRBR benefits for about 21 years (until around 2045) and non-OPEB SRBR benefits for about 24 years (until around 2048).[8]

[5] In general, under the Board's interest crediting policy, earnings at one-half of the assumed annual valuation rate is credited every six months to reserves for the Pension Plan and the SRBR. After accumulating a 1% Contingency Reserve, any remaining earnings (excess earnings) are allocated on a 50/50 basis between the Pension Plan and the SRBR.

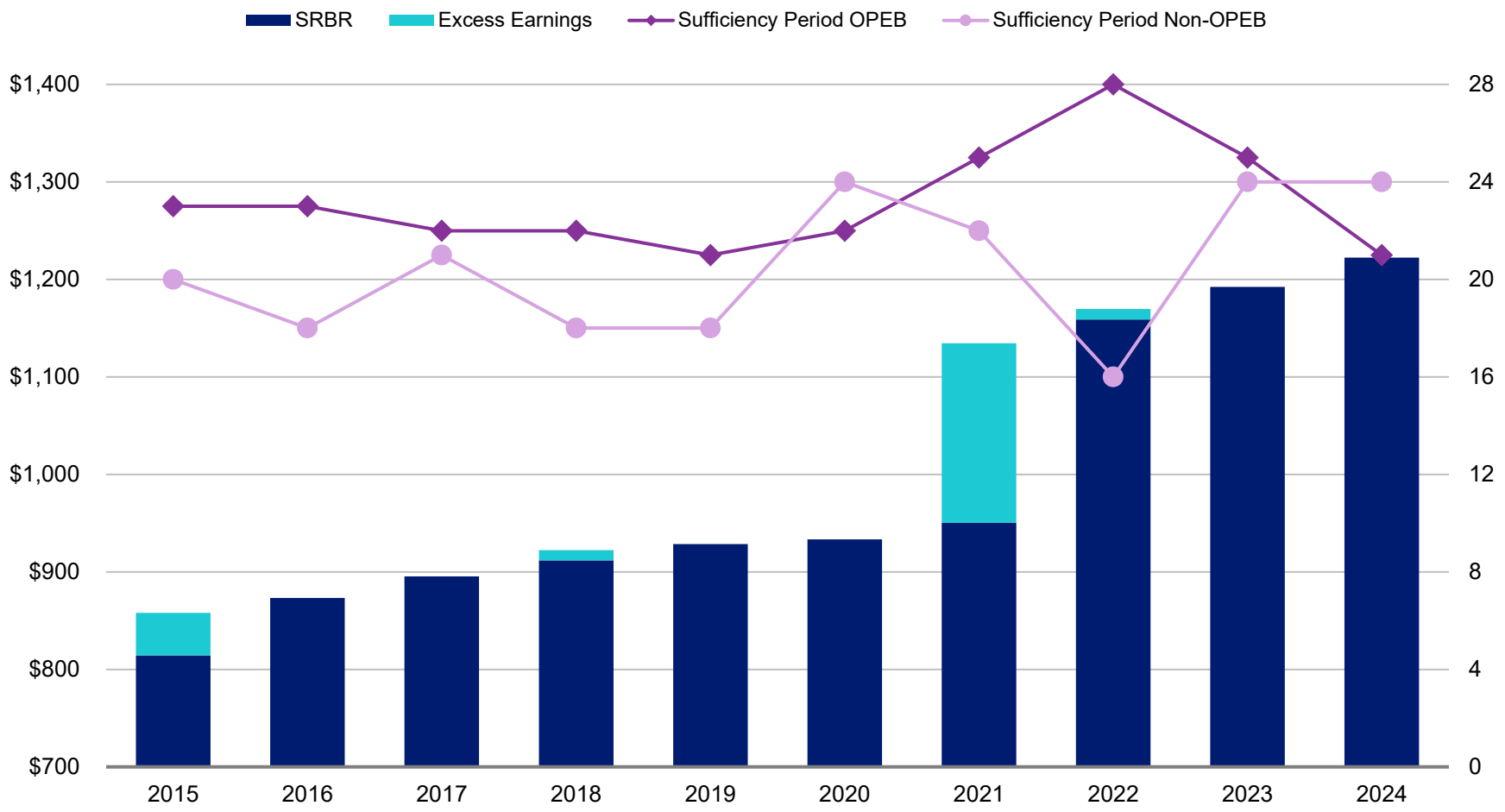
[6] The non-vested OPEB benefits include the Monthly Medical Allowance, reimbursement for premiums required for dental, vision and enrollment in Medicare Part B program.

[7] The non-vested pension benefits include supplemental COLAs and $1,000 lump sum retiree death benefits.

[8] During the past 10 years, the Board took several actions to preserve the sufficiency period to pay benefits from the SRBR. For instance, the Board eliminated the Active Death Equity Benefit and froze the maximum Monthly Medical Allowance for several years. In addition, there was a one-time transfer of $54.2 million in assets as of December 31, 2023 from the OPEB SRBR to the non-OPEB SRBR to equalize the sufficiency periods to pay OPEB and non-OPEB benefits.

Chart 5

SRBR Assets *($ in Millions)* and Periods Benefits Can be Paid In December 31, 2015 to 2024 Valuations



Note: There was a one-time transfer of $54.2 million in assets as of December 31, 2023 from the OPEB SRBR to non-OPEB SRBR to equalize the sufficiency period to pay OPEB and non-OPEB benefits.

Assessment of primary risk factors going forward

As discussed under the evaluation of historical trends section, the funded ratios and the employer contribution rates have changed mainly as a result of additional voluntary County General, County Safety and LARPD General contributions made by the two employers to reduce their UAAL and associated contribution rates, expected contributions made by all employers to reduce the UAAL principal, and favorable investment experience, offset somewhat by the changes in actuarial assumptions and non-investment experience.

In general, we anticipate the following risk factors to have an ongoing influence on those metrics in our future valuations:

- **Asset/liability mismatch risk** – the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge.

  The most significant asset/liability mismatch risk to ACERA is investment risk, as defined below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first mismatch is evident in annual valuations; when asset values deviate from assumptions, those changes are typically independent from liability changes. The second mismatch can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any change in the expected experience of asset growth rates.

  Asset/liability mismatch can also be caused by longevity and other demographic assumption risks, which affect liabilities but have no impact on asset levels. These risks are also discussed below.

  It may be informative to use the asset volatility and liability volatility ratios and associated contribution rate impacts provided in the following plan maturity measures section when discussing with the employers the effect of unfavorable or favorable actuarial experience on the assets and the liabilities of ACERA.

- **Investment risk** – the potential that future market returns will be different from the current expected 7.00% annual return assumption.

  The investment return assumption is a long-term, deterministic assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. We have included deterministic scenario tests later in this section so that ACERA can better understand the risk associated with earning either less or more than the assumed rate.

  The Board has a policy of reviewing the investment return and the other actuarial assumptions generally every three years, with the next triennial experience study (recommending assumptions for the December 31, 2026 actuarial valuations) scheduled to be performed later this year. Based on our prior discussions with ACERA, we have included for illustrative purposes only, the funded ratio and the employer and employee contribution rates if the Board were to lower the investment return assumptions as part of our sensitivity tests of one of the most important economic assumptions.

Section 2: Key Plan Risks

- **Longevity and other demographic risks** – the potential that mortality or other demographic experience will be different than expected.

  The move to using generational amount-weighted mortality tables that reflect data from public sector retirement plans was made in the 2020 experience study for use in the December 31, 2020 valuations. As can be observed from *Chart 2a, Chart 2b*, and *Chart 4*, there has been a relatively small impact on the UAAL and employer contribution rates due to non-investment related experience relative to the assumptions used in the last 10 valuations. Future mortality risks should be further mitigated by the updated tables.

- **Plan design considerations** – the potential SRBR excess earnings allocations and the impact to investment return for the Pension Plan.

  As we have previously disclosed in the funding valuation report, the 7.00% investment return assumption used in the valuation for the Pension Plan has been developed without considering the impact of any future 50/50 excess earnings allocation to the SRBR. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest credit. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.

  Using a "stochastic" projection approach, we estimated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits in the Pension Plan) that would average approximately 0.75% of assets over time. We note that the amount of deferred and unrecognized investment gains/losses as of the date of the valuation could have an impact on the measurement of the 50/50 allocation of excess earnings in the short term. However, as the amount of deferred and unrecognized investment gains/losses has fluctuated over time[9], we have continued to disregard those deferred and unrecognized investment gains/losses in measuring the 0.75% of assets impact.[10]

  For informational purposes only, when we applied the results of our stochastic model to the December 31, 2025 valuation, we have estimated the approximate 0.75% of assets annual outflow would increase the actuarial accrued liability in that valuation using a 7.00% investment return assumption by $1.20 billion and would increase the employer's UAAL contribution rate by about 5.5% - 6.0% of payroll.

- **Contribution risk** – the potential that actual future contributions will be different from expected future contributions.

  ASOP 51 does not require the actuary to evaluate the ability or willingness of the plan sponsor or other contributing entity to make contributions to the plan when due. However, it does require the actuary to consider the potential for actual contributions deviating from expected in the future. ACERA's employers have a well-established practice of making the actuarially determined contribution

[9] For instance, there were deferred and unrecognized investment **gains** of $762 million as of December 31, 2025 and deferred and unrecognized **losses** of $83 million as of December 31, 2024.

[10] The impact of the 50/50 allocation of future excess earnings will be updated when we perform the next triennial experience study recommending assumptions for use starting with the December 31, 2026 valuation.

(ADC) determined in the annual actuarial valuations, based on the Board of Retirement's Actuarial Funding Policy. As a result, in practice ACERA has essentially no contribution risk.

Furthermore, when ADCs determined in accordance with ACERA's Actuarial Funding Policy are made in the future by the employers (and contributions required by the statute are made by the employees), it is anticipated that the Association would have enough assets to provide all future benefits promised to the current members enrolled in the Association, if all of the actuarial assumptions used in the valuation are met.

ASOP 51 also lists interest rate risk as an example of a potential risk to consider. However, the valuations of the Plans' liabilities are not linked directly to market interest rates, so the resulting interest rate risk exposure is minimal.

Scenario tests: Deterministic projections

Since the funded ratio, UAAL and the employer contribution rates have fluctuated as a result of deviations in investment experience in the last 10 valuations, in this section we have examined this risk for ACERA using projections under a deterministic approach.

To measure such risk, we have included scenario tests to study the change in the UAAL and employer contribution rates if ACERA were to earn a market return higher or lower than the assumed rate of 7.00% in the year following the December 31, 2025 valuation. In *Charts 6*, *7,* and *8*, we show the total aggregate employer contribution rates, funded ratios, and UAAL, respectively, for the Plan, assuming the Plan's portfolio market return in 2026 will be as follows:

- Scenario 1: 0.00% market return for 2026
- Scenario 2: 7.00% market return for 2026 (baseline)
- Scenario 3: 14.00% market return for 2026

All other assumptions used in the projections can be found in *Appendix A*, including the assumption that ACERA will earn the assumed 7.00% market return per year beginning January 1, 2027 under all three scenarios.

The following table summarizes the projected total aggregate employer contribution rate changes for the Plan, relative to the total aggregate employer contribution rate of 20.08% in the December 31, 2025 valuation, in the next valuation (i.e., December 31, 2026) as well as in the December 31, 2031 valuation after recognizing deferred investment gains and losses in the (smoothed) actuarial value of assets. These results assume no further assumption changes, method changes or experience that differs significantly from the assumptions.

Total Aggregate Employer Contribution Rate Change

Valuation Date	0.00% Return for 2026	7.00% Return for 2026	14.00% Return for 2026
December 31, 2026	-2.3% of payroll	-2.3% of payroll	-2.7% of payroll
December 31, 2031	-3.3% of payroll	-9.9% of payroll	-9.9% of payroll

Under the baseline (7.00%) and favorable (14.00%) hypothetical market return scenarios for 2026, the Association would be expected to reach full funding by December 31, 2030 and the total employer contribution rate would be comprised of only normal cost contributions, resulting in a larger relative change from the baseline than the unfavorable (0.00%) hypothetical market return scenario (as provided in *Chart 6*). Furthermore, under all three hypothetical market return scenarios for 2026, the Association would be expected to reach full funding within seven years and the total employer contribution rate would be expected to approach about 10% of payroll.[11] These scenarios illustrate that the Board's funding policy is very effective in achieving the general policy goal of achieving the long-term full funding of the costs of the benefits paid by ACERA.

While we have not assigned a probability on the 2026 market return coming in at these rates, the Board and other stakeholders monitoring ACERA can use these results to interpolate in order to estimate the funded status and employer contribution rates for the December 31, 2026 and next several valuations as the actual investment experience for the 2026 year becomes available. Additionally, comparable experience in upcoming future years is likely to have a similar impact on the Association absent any significant plan or assumption changes.

Surplus management considerations

Depending on the actuarial experience, ACERA could surpass 100% funded in less than 10 years, which would put ACERA "in surplus." It is important to keep in mind that in an actuarial funding context, surplus differs from the common dictionary definition of "an amount left over after all requirements are met" and instead means that a plan is at or ahead of its funding schedule at a specific measured point in time. In other words, surplus indicates that current assets are sufficient to cover all costs associated with members' past service.

The Government Finance Officers Association (GFOA) recommends that every public plan's funding policy include a specific section on surplus, described as a "surplus management policy."[12] This surplus management policy would be "a proactive policy that helps guide the system in the prudent management of potential surplus, including considerations for items such as contribution levels, risk

[11] This is the estimated normal cost rate for the employer, assuming no further assumption changes, method changes or experience that differs significantly from assumptions.
[12] See GFOA's Best Practice on "Core Elements of a Funding Policy for Governmental Pension and OPEB Plans."

reduction opportunities, stabilization reserves and benefit levels." ACERA's funding policy does anticipate the possibility of surplus and requires any surplus over 120% (and after other conditions in PEPRA are met) to be amortized over a rolling 30-year period, which is considered an industry model practice.[13] In addition to the amortization of surplus, the following considerations are recommended by the GFOA:

- Consider current actuarial assumptions and the level of risk inherent in those assumptions.
- Evaluate possible risk reduction strategies, including the risk-reward tradeoff in the current asset portfolio, along with the plan's current funding policies.
- Consider how to mitigate contribution rate volatility in surplus, including buffers[14] above 100% funded before amortizing surplus as a credit, and mechanisms such as smoothing in contribution rate reductions related to surplus.
- Work with the employer to ensure an understanding of what surplus is (and is not) and establish clear guard rails around acceptable conditions for possible benefit enhancements, especially permanent ones.

Generally, Segal agrees that before reaching 100% funded is the ideal time to consider establishing a surplus management policy which considers future contribution volatility mitigation and other potential risk mitigation strategies. Following our preliminary discussions with the Board of Retirement on August 15, 2024 and with the Joint Board of Retirement and Board of Supervisors on October 22, 2024, we would continue to follow up with ACERA staff in exploring an opportune time to further solidify some of those strategies that if approved by the Board of Retirement could further stabilize the employers' contribution rates as the Plan approaches 100% funded status. We are available to continue to work with the Board on any surplus management considerations that may be desired.

SRBR sufficiency projection

We also provided in *Charts 9*, *10* and *11* the projection of the SRBR assets as well as the sufficiency period under each of the hypothetical market return Scenarios 1, 2 and 3, respectively. These projections are based on the preliminary results of the SRBR preview letter as of December 31, 2025. In that letter, it was estimated that the assets in the SRBR would be sufficient to pay OPEB SRBR benefits for about 19 years (until around 2044) and non-OPEB SRBR benefits for about 23 years (until around 2048), which, after accounting for the one year of benefit payments made in 2025, is approximately 0.92 fewer years of sufficiency for the OPEB benefits and approximately 0.42 fewer years of sufficiency for the non-OPEB benefits compared to the prior year's valuation. The main reasons for the decrease to the OPEB sufficiency period were the updated estimates of the plan's implicit subsidies, new health care trend assumptions and the Medicare Exchange Monthly Medical Allowance (MMA) benefit enhancement. The main reason for

[13] See the Conference of Consulting Actuaries' white paper on "Actuarial Funding Policies and Practices for Public Pension Plans."
[14] As previously mentioned, ACERA's funding policy already includes a buffer of 20% (along with other conditions in PEPRA being met), before any surplus can be amortized.

the decrease to the non-OPEB sufficiency period was the higher-than-expected actual inflation in the Bay Area for 2025. Further details can be found in the December 31, 2025 SRBR preview letter.

Chart 6

Projected Employer Contribution Rates Under Hypothetical Market Return Scenarios for 2026

(% of Payroll)

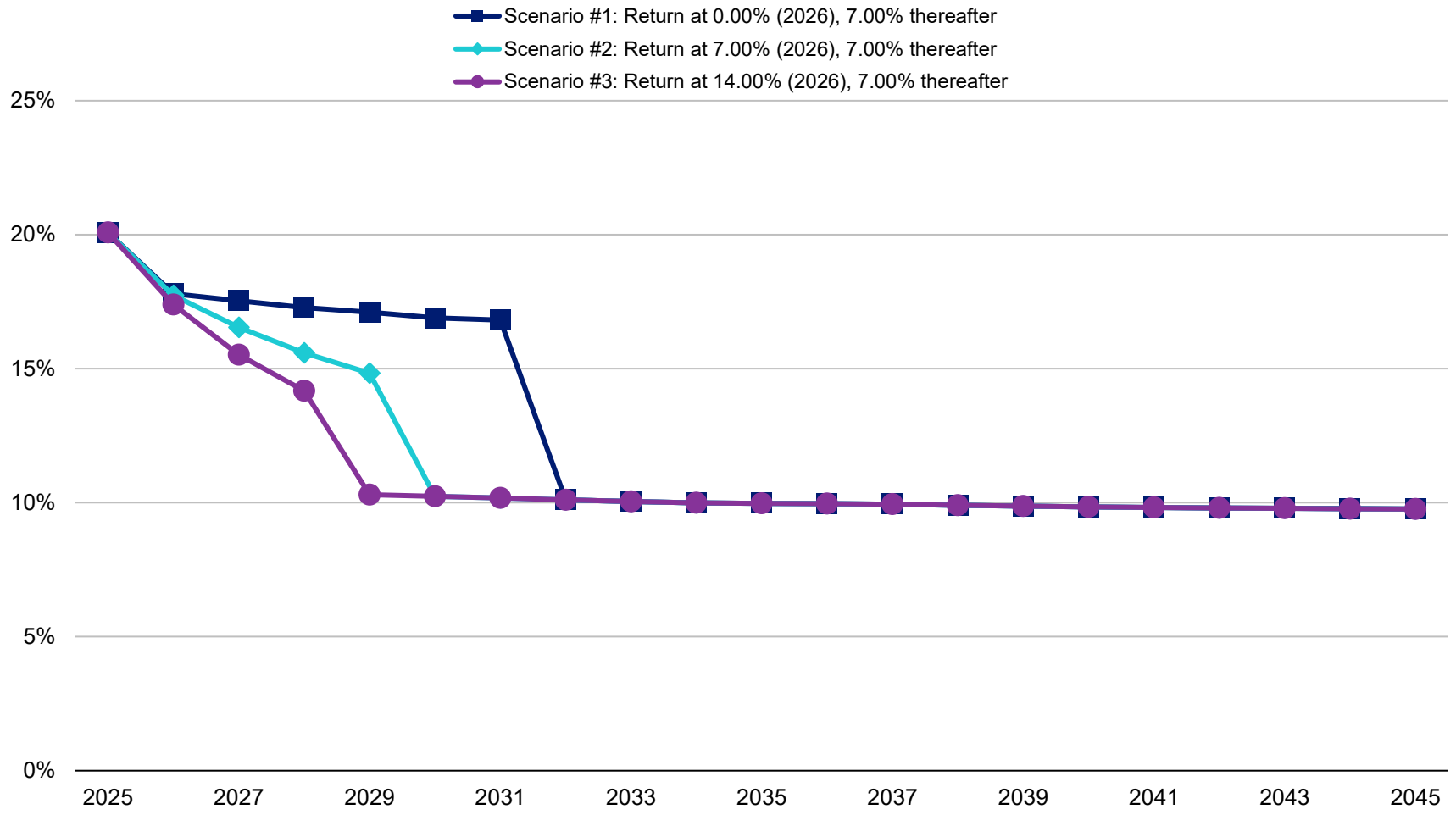


Chart 7

Projected Funded Ratios Under Hypothetical Market Return Scenarios for 2026
(Valuation Value of Assets Basis)

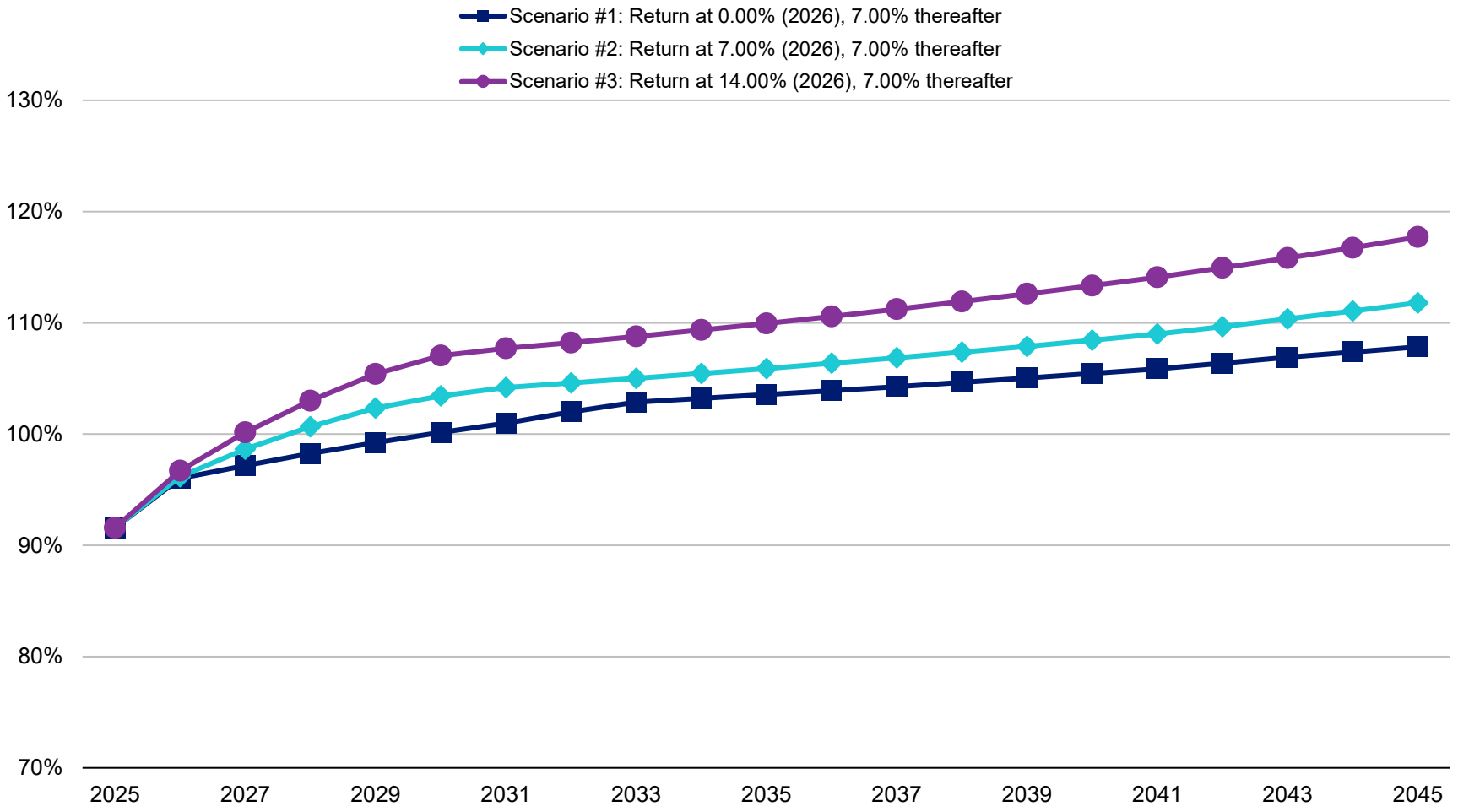


Chart 8

Projected UAAL Under Hypothetical Market Return Scenarios for 2026

(Valuation Value of Assets Basis – $ in Millions)

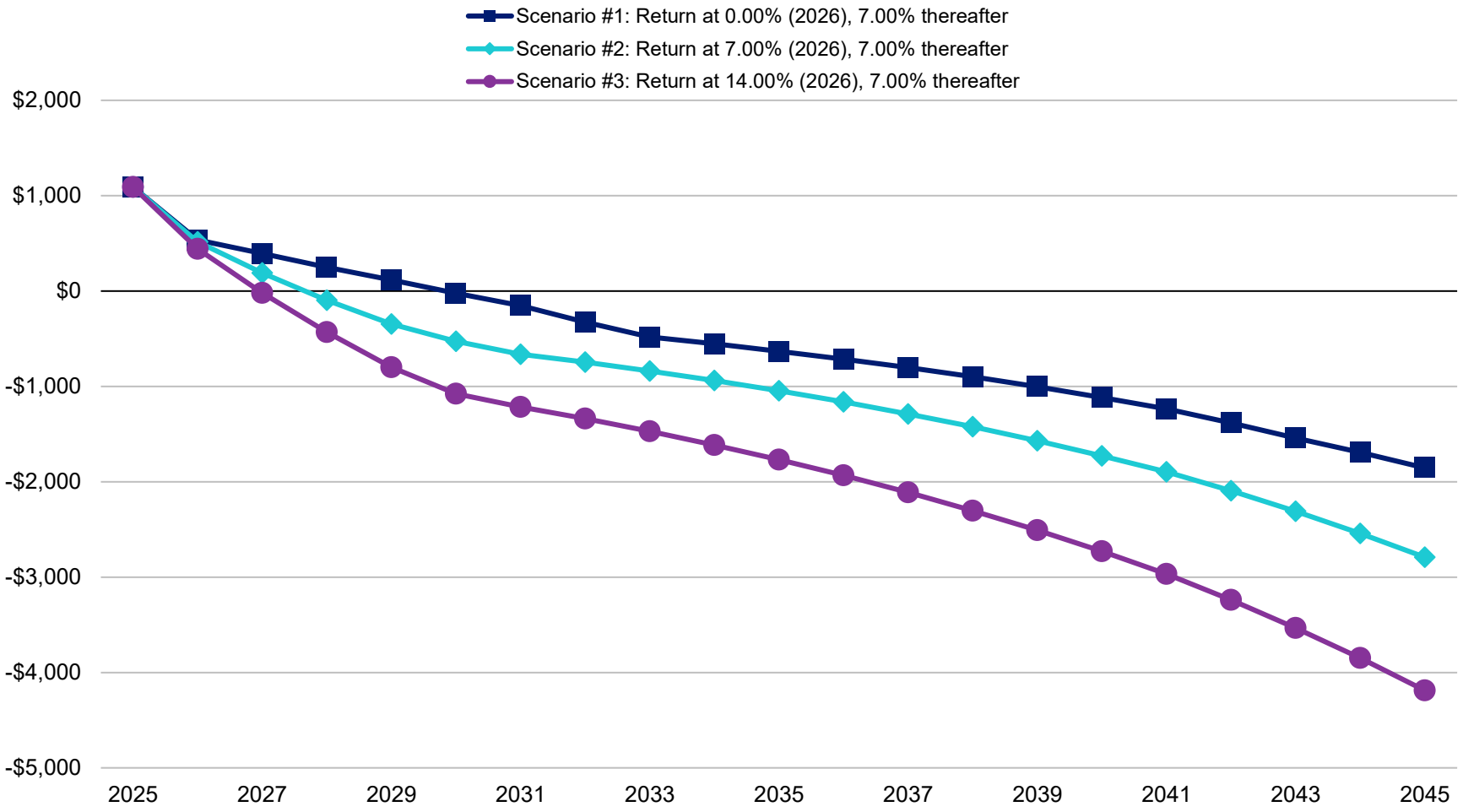
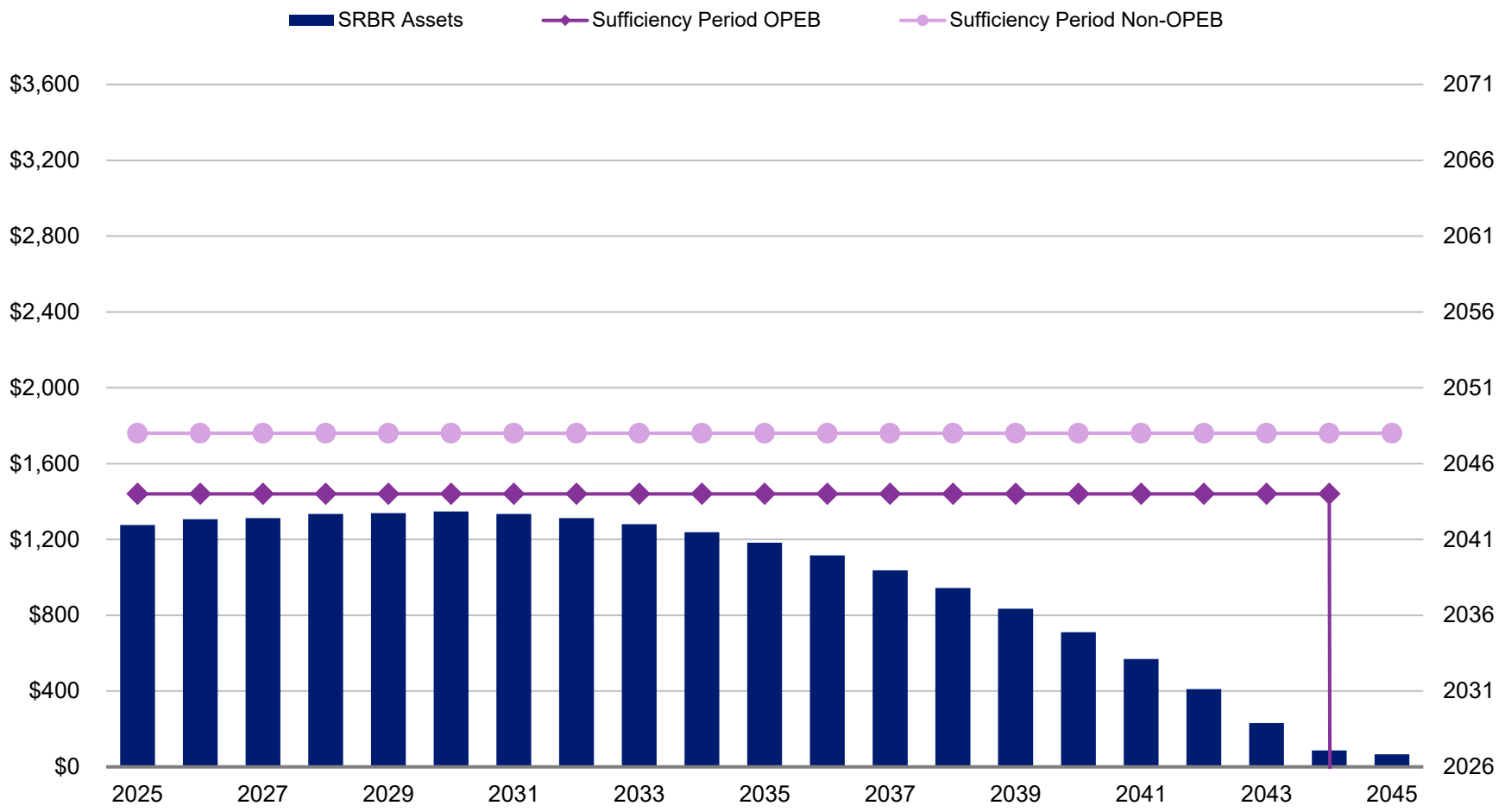


Chart 9

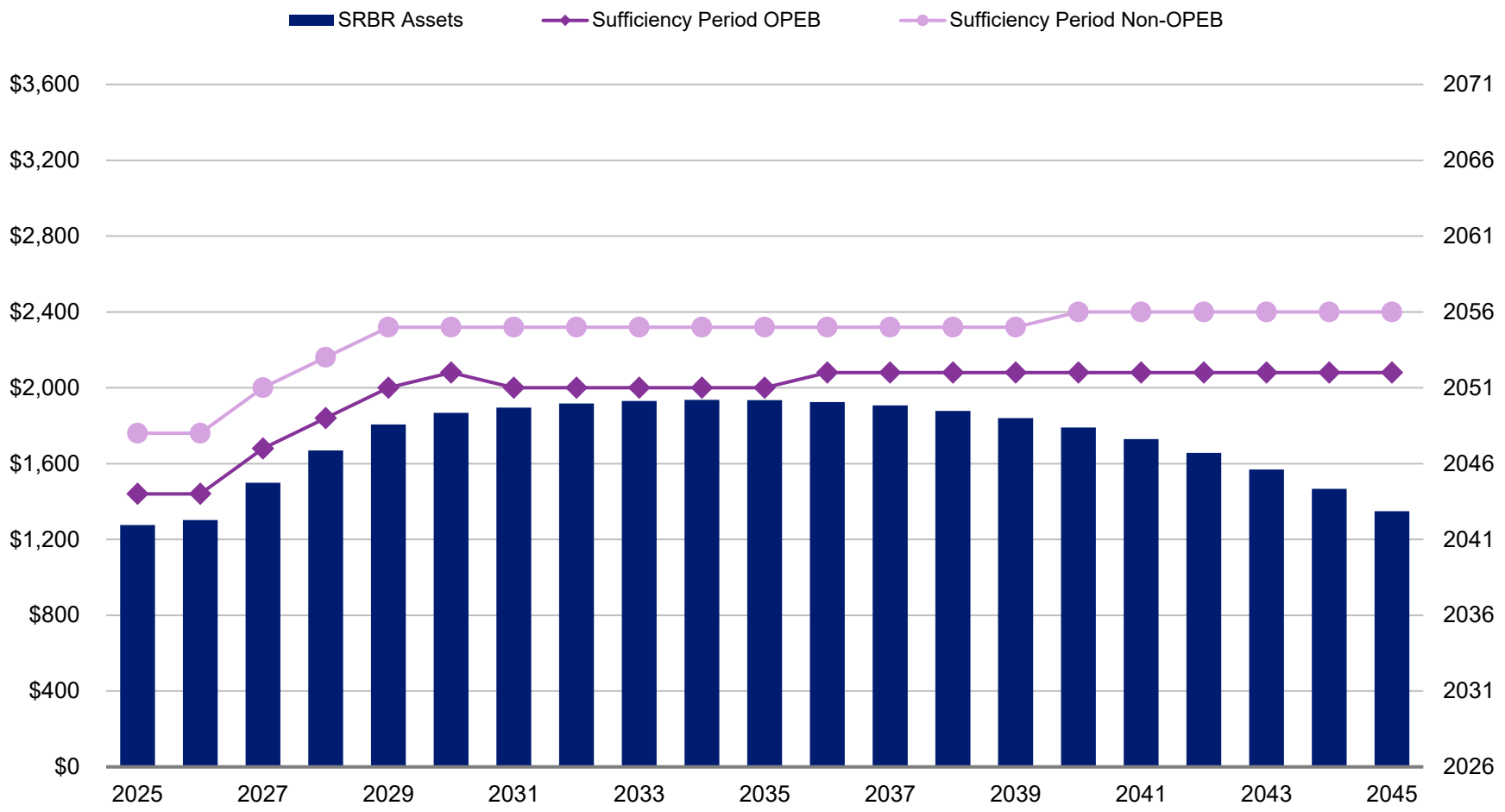
Projected SRBR Assets *($ in Millions)* Sufficiency Period Under Hypothetical Market Return Scenario #1 (Return at 0.00% for 2026)



Note: Without any future excess earnings after 2029 (when the net deferred investment gains are fully recognized), assets in the SRBR would only be sufficient to pay OPEB benefits through 2044 and non-OPEB benefits through 2048.

Chart 10

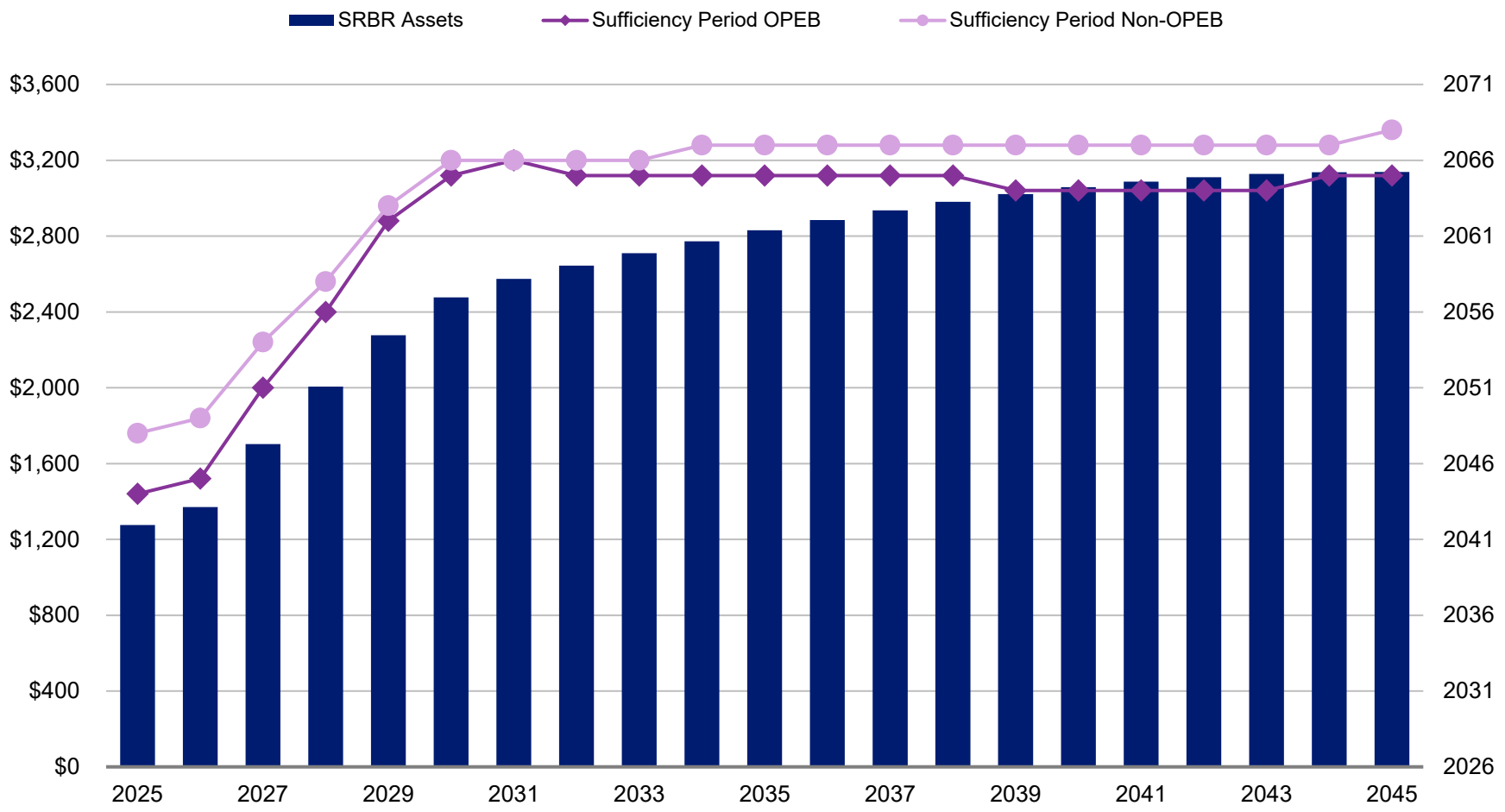
Projected SRBR Assets *($ in Millions)* Sufficiency Period Under Hypothetical Market Return Scenario #2 (Return at 7.00% for 2026)



Note: Without any future excess earnings after 2030 (when the deferred investment gains and losses are fully recognized), assets in the SRBR would only be sufficient to pay OPEB benefits through 2052 and non-OPEB benefits through 2056.

Chart 11

Projected SRBR Assets *($ in Millions)* Sufficiency Period Under Hypothetical Market Return Scenario #3 (Return at 14.00% for 2026)



Note: Without any future excess earnings after 2031 (when the deferred investment gains and losses are fully recognized), assets in the SRBR would only be sufficient to pay OPEB benefits through 2065 and non-OPEB benefits through 2068.

Scenario tests: Stochastic projections

Based on our prior discussions with ACERA, we have also supplemented the deterministic Scenario Tests with another analysis that shows the range of possible changes in funded status and contribution rates under a statistical distribution of potential market returns for 20 years following the December 31, 2025 valuation. We have accomplished the stochastic modeling of future market returns by using the expected return, standard deviation and other information about ACERA's asset portfolio as provided in the Appendix of this report, assuming no future assumption, method or benefit changes to the plan. Because the 7.0% investment return assumption used in the December 31, 2025 valuation has been developed without reflecting changes made to the asset allocation in 2024 (and reviewed in early 2026 with no recommended changes), we have continued to use that asset allocation in preparing our stochastic projection.

In *Chart 12*, we summarize the cumulative compounded rate of return of ACERA's investment portfolio over the next 20 years based on performing 10,000 trial outcomes of future market returns. The projected funded ratios for those trials are provided in *Chart 13*. The UAAL and the resultant employer contribution rates are provided in *Charts 14* and *15*, respectively.

At the end of 20 years, there is a 50% chance[15] that the annual return of ACERA's investment portfolio would average between 5.4% and 9.2%, the funded ratio would be between 88% and 147% and the corresponding UAAL would be between $2.8 billion and a surplus (or a negative UAAL) of $11.1 billion.

The funded ratio is about 92% in the December 31, 2025 valuation. There is a 57% chance ACERA would be fully funded at the end of 10 years and a 60% chance ACERA would be fully funded at the end of 20 years. The probabilities that the funded ratio would fall below 50%, 60% or 70% at any point in the next 20 years as projected in the current analysis as of December 31, 2025 and the prior analysis as of December 31, 2022 are as follows:

Probability of Various Funded Ratios In Next 20 Years

Line Description	Below 50%	Below 60%	Below 70%
Current (12/31/2025) Analysis Probability	2%	7%	19%
Prior (12/31/2022) Analysis Probability	5%	19%	42%

At the end of 10 years (i.e., at the December 31, 2035 valuation), there is a 50% chance that the employer contribution rates would be between 10% and 20% of payroll. At the end of 20 years (i.e., the December 31, 2045 valuation), there is a 50% chance that the employer contribution rates would be between 10% and 23% of payroll. 10% of payroll is about the level of the employer normal cost

[15] This is based on the 25th to the 75th percentile results.

rate. For purposes of this illustration, we have not offset the normal cost by any available actuarial surplus even when the projected funded ratio exceeds 120%.

The total employer contribution rate is about 20% of payroll in the December 31, 2025 valuation. The probabilities that the total employer contribution rate would increase by at least 5%, 10% or 15% of payroll at any point in the next 20 years as projected in the current analysis as of December 31, 2025 and the prior analysis as of December 31, 2022 are as follows:

Probability of Total Employer Increases In Next 20 Years

Line Description	5% of Payroll (to 25% of Payroll)	10% of Payroll (to 30% of Payroll)	15% of Payroll (to 35% of Payroll)
Current (12/31/2025) Analysis Probability	37%	26%	17%
Prior (12/31/2022) Analysis Probability[16]	70%	56%	42%

Finally, the probabilities that the total employer contribution rate would increase by 3%, 5% or 7% of payroll in any single year during the next 20 years as projected in the current analysis as of December 31, 2025 and the prior analysis as of December 31, 2022 are as follows:

Probability of Total Employer Increases in a Single Year during Next 20 Years

Line Description	3% of Payroll	5% of Payroll	7% of Payroll
Current (12/31/2025) Analysis Probability	8%	3%	1%
Prior (12/31/2022) Analysis Probability	14%	4%	1%

[16] The total employer contribution rate is about 24% of payroll in the December 31, 2022 valuation. The probabilities shown are for the employer contribution rate increases by at least 5%, 10% or 15% of payroll and rate increases from 24% of payroll to 29%, 34% and 39% of payroll, respectively.

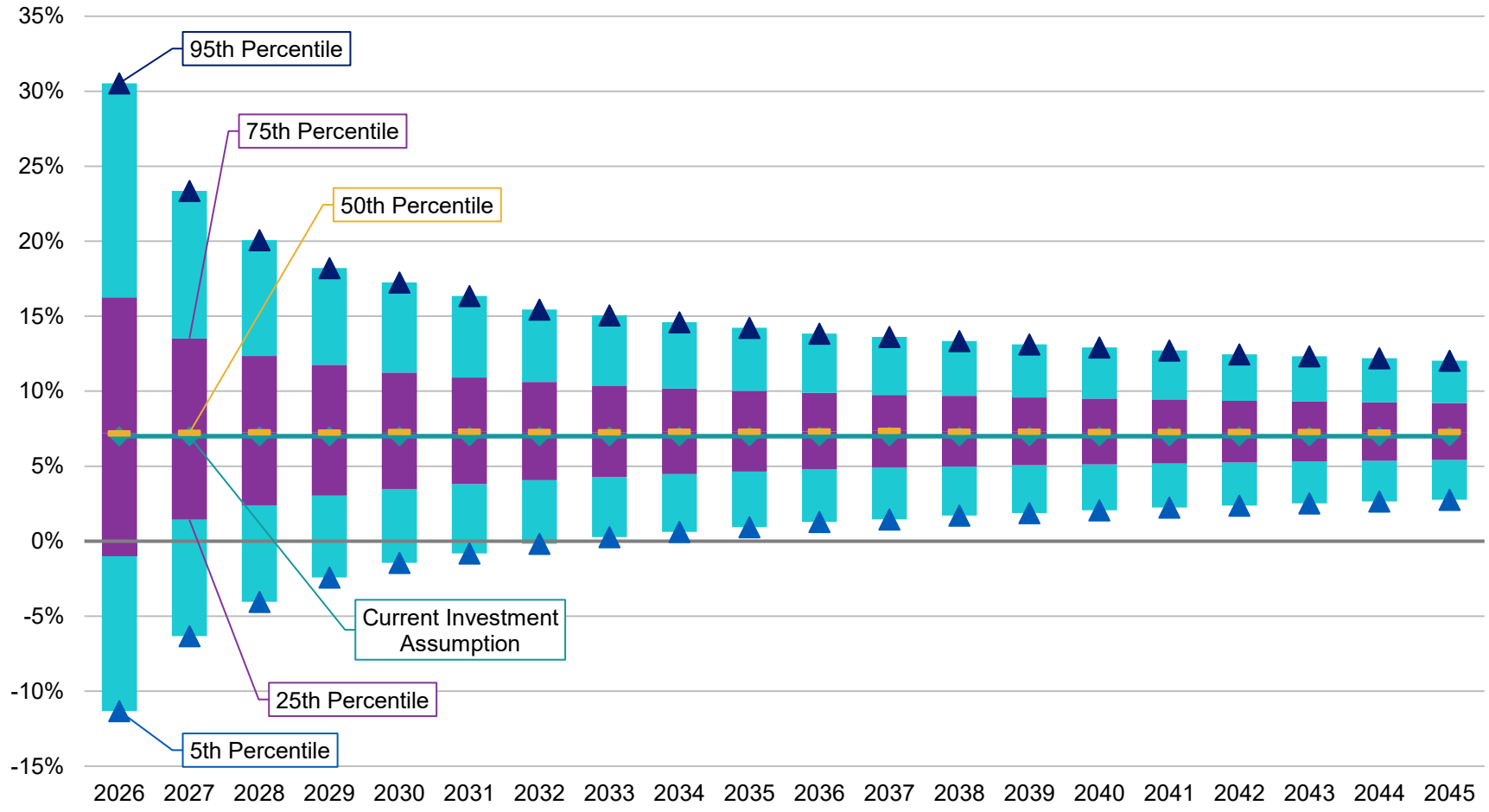
SRBR sufficiency projection

In *Chart 16*, we summarize the projected SRBR reserves over the next 20 years based on performing 10,000 trial outcomes of future market returns. In *Charts 17* and *18*, the sufficiency years for the OPEB and non-OPEB SRBR, respectively, are provided.

The probability that the sufficiency period for the OPEB SRBR would be over 15 years is 69% at the end of 10 years and 71% at the end of 20 years. The probability that the sufficiency period for the non-OPEB SRBR would be over 15 years is 77% at the end of 10 years and 85% at the end of 20 years. When reviewing the results at the end of 20 years, it could be observed that the Board's current SRBR Policy would remain effective in controlling costs to pay medical subsidies and other benefits and achieving ACERA's long term goal of sustaining future benefit payments for at least 15 years following the date of the future valuations.

Chart 12

Projected Cumulative Investment Return for Plan Years Ending December 31



A corresponding table of results can be found on the next page.

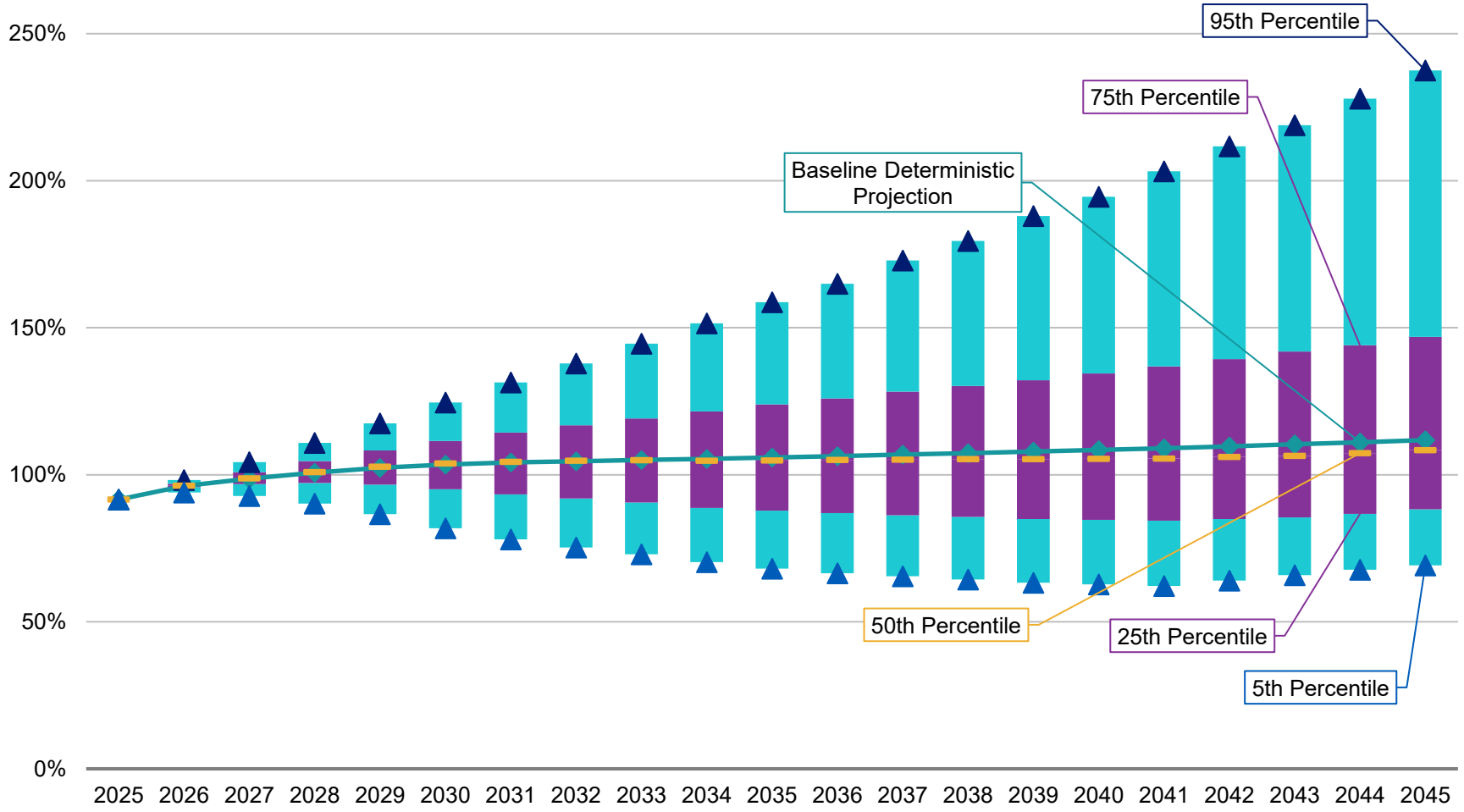
Section 2: Key Plan Risks

Projected Cumulative Investment Return for Plan Years Ending December 31

Year	Current Assumption	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
2026	7.0%	-11.3%	-1.0%	7.2%	16.3%	30.5%
2027	7.0%	-6.3%	1.4%	7.2%	13.5%	23.4%
2028	7.0%	-4.0%	2.4%	7.3%	12.4%	20.1%
2029	7.0%	-2.4%	3.0%	7.2%	11.8%	18.2%
2030	7.0%	-1.4%	3.5%	7.3%	11.3%	17.2%
2031	7.0%	-0.8%	3.8%	7.3%	10.9%	16.3%
2032	7.0%	-0.2%	4.1%	7.3%	10.6%	15.5%
2033	7.0%	0.3%	4.3%	7.3%	10.4%	15.1%
2034	7.0%	0.6%	4.5%	7.3%	10.2%	14.6%
2035	7.0%	0.9%	4.6%	7.3%	10.0%	14.2%
2036	7.0%	1.3%	4.8%	7.3%	9.9%	13.8%
2037	7.0%	1.5%	4.9%	7.3%	9.8%	13.6%
2038	7.0%	1.7%	5.0%	7.3%	9.7%	13.3%
2039	7.0%	1.9%	5.1%	7.3%	9.6%	13.1%
2040	7.0%	2.1%	5.1%	7.3%	9.5%	12.9%
2041	7.0%	2.2%	5.2%	7.3%	9.5%	12.7%
2042	7.0%	2.4%	5.3%	7.3%	9.4%	12.5%
2043	7.0%	2.5%	5.3%	7.3%	9.3%	12.3%
2044	7.0%	2.7%	5.4%	7.2%	9.3%	12.2%
2045	7.0%	2.8%	5.4%	7.3%	9.2%	12.0%

Chart 13

Projected Funded Ratios (on Valuation Value of Assets Basis) as of December 31



A corresponding table of results can be found on the next page.

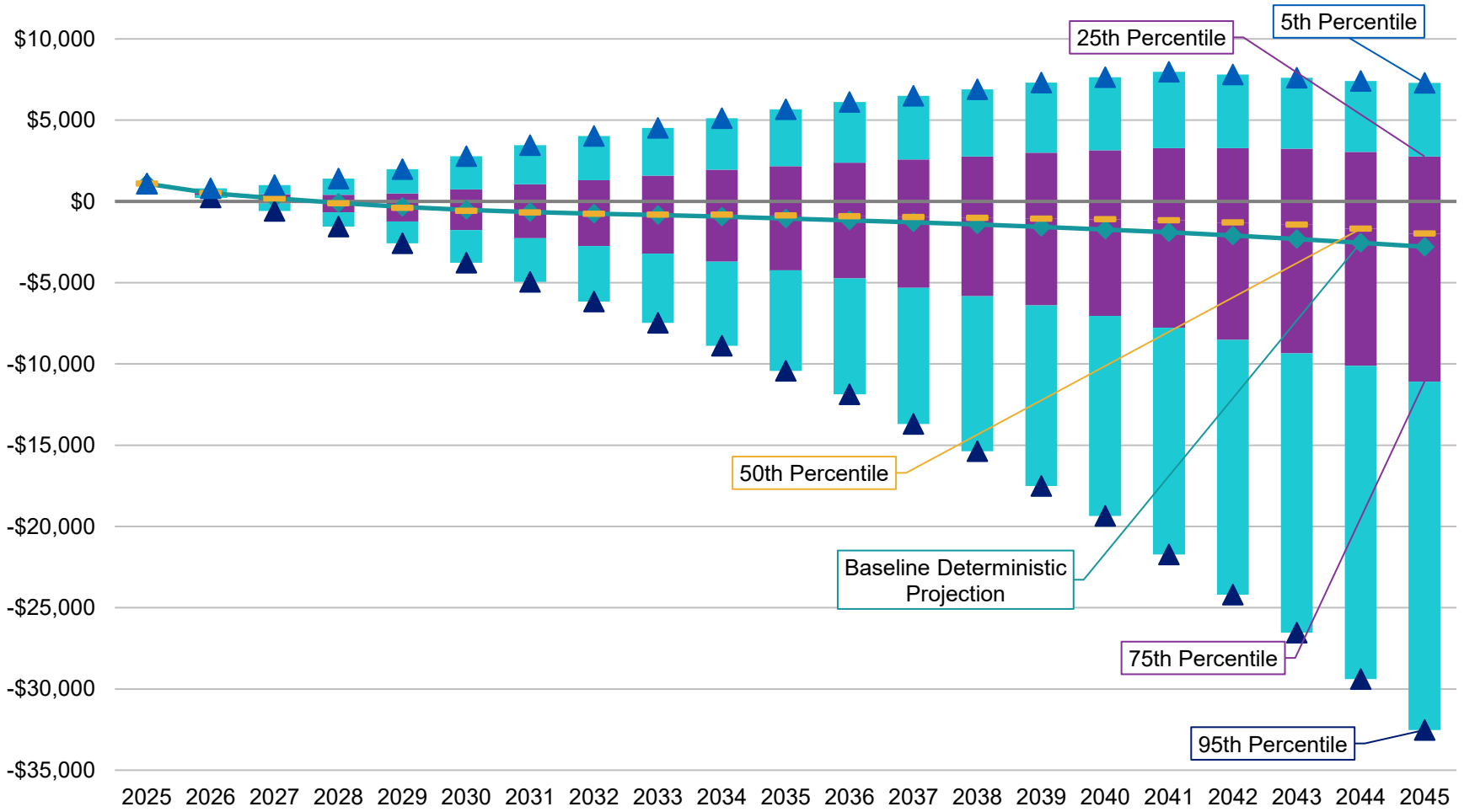
Projected Funded Ratios (on Valuation Value of Assets Basis) as of December 31

Year	Baseline Deterministic Projection	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
2025	91.6%	91.6%	91.6%	91.6%	91.6%	91.6%
2026	96.2%	94.0%	95.8%	96.2%	97.0%	98.2%
2027	98.6%	92.8%	96.8%	98.8%	100.9%	104.3%
2028	100.7%	90.2%	97.2%	100.8%	104.7%	110.8%
2029	102.3%	86.6%	96.7%	102.7%	108.3%	117.4%
2030	103.4%	81.8%	95.1%	103.9%	111.5%	124.6%
2031	104.2%	78.1%	93.3%	104.4%	114.3%	131.4%
2032	104.6%	75.3%	92.0%	104.8%	116.9%	137.8%
2033	105.0%	73.0%	90.6%	104.9%	119.2%	144.6%
2034	105.4%	70.3%	88.7%	104.8%	121.5%	151.5%
2035	105.9%	68.1%	87.8%	104.9%	123.9%	158.7%
2036	106.4%	66.5%	86.9%	105.0%	125.9%	165.0%
2037	106.9%	65.5%	86.3%	105.1%	128.3%	172.9%
2038	107.4%	64.3%	85.7%	105.3%	130.2%	179.5%
2039	107.9%	63.2%	84.9%	105.3%	132.2%	188.0%
2040	108.4%	62.7%	84.7%	105.4%	134.4%	194.6%
2041	109.0%	62.1%	84.4%	105.5%	136.9%	203.2%
2042	109.7%	64.0%	84.9%	106.0%	139.3%	211.7%
2043	110.3%	65.9%	85.5%	106.4%	141.9%	218.9%
2044	111.1%	67.7%	86.7%	107.3%	144.0%	227.9%
2045	111.8%	69.2%	88.3%	108.4%	146.9%	237.5%

Chart 14

Projected UAAL (on Valuation Value of Assets Basis) as of December 31

($ in Millions)



A corresponding table of results can be found on the next page.

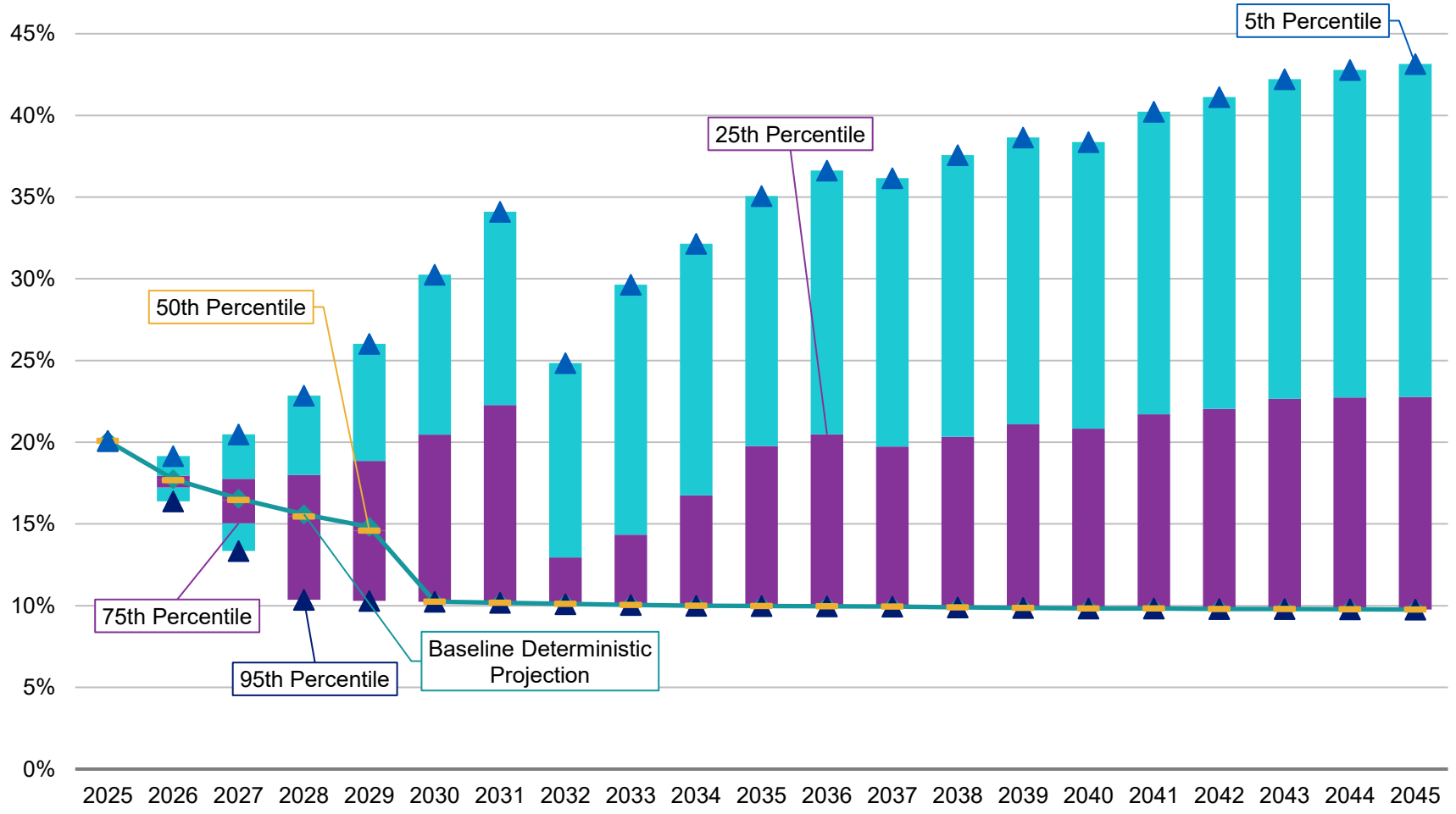
Projected UAAL (on Valuation Value of Assets Basis) as of December 31

($ in Millions)

Year	Baseline Deterministic Projection	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
2025	$1,090	$1,090	$1,090	$1,090	$1,090	$1,090
2026	515	806	564	504	409	237
2027	189	999	444	173	-121	-595
2028	-95	1,407	408	-122	-674	-1,552
2029	-347	1,982	492	-404	-1,230	-2,586
2030	-526	2,783	746	-590	-1,761	-3,767
2031	-662	3,463	1,059	-696	-2,263	-4,956
2032	-746	4,018	1,308	-775	-2,745	-6,158
2033	-839	4,531	1,580	-825	-3,213	-7,472
2034	-939	5,120	1,951	-824	-3,710	-8,884
2035	-1,047	5,671	2,161	-869	-4,244	-10,430
2036	-1,163	6,116	2,387	-920	-4,737	-11,875
2037	-1,288	6,495	2,583	-962	-5,312	-13,699
2038	-1,424	6,895	2,766	-1,020	-5,836	-15,380
2039	-1,570	7,314	2,999	-1,061	-6,400	-17,515
2040	-1,727	7,637	3,137	-1,102	-7,050	-19,360
2041	-1,896	7,973	3,279	-1,168	-7,766	-21,732
2042	-2,094	7,806	3,272	-1,305	-8,526	-24,207
2043	-2,309	7,614	3,239	-1,432	-9,345	-26,532
2044	-2,540	7,416	3,048	-1,687	-10,109	-29,390
2045	-2,791	7,295	2,767	-1,986	-11,086	-32,524

Chart 15

Projected Employer Contribution Rates as of December 31



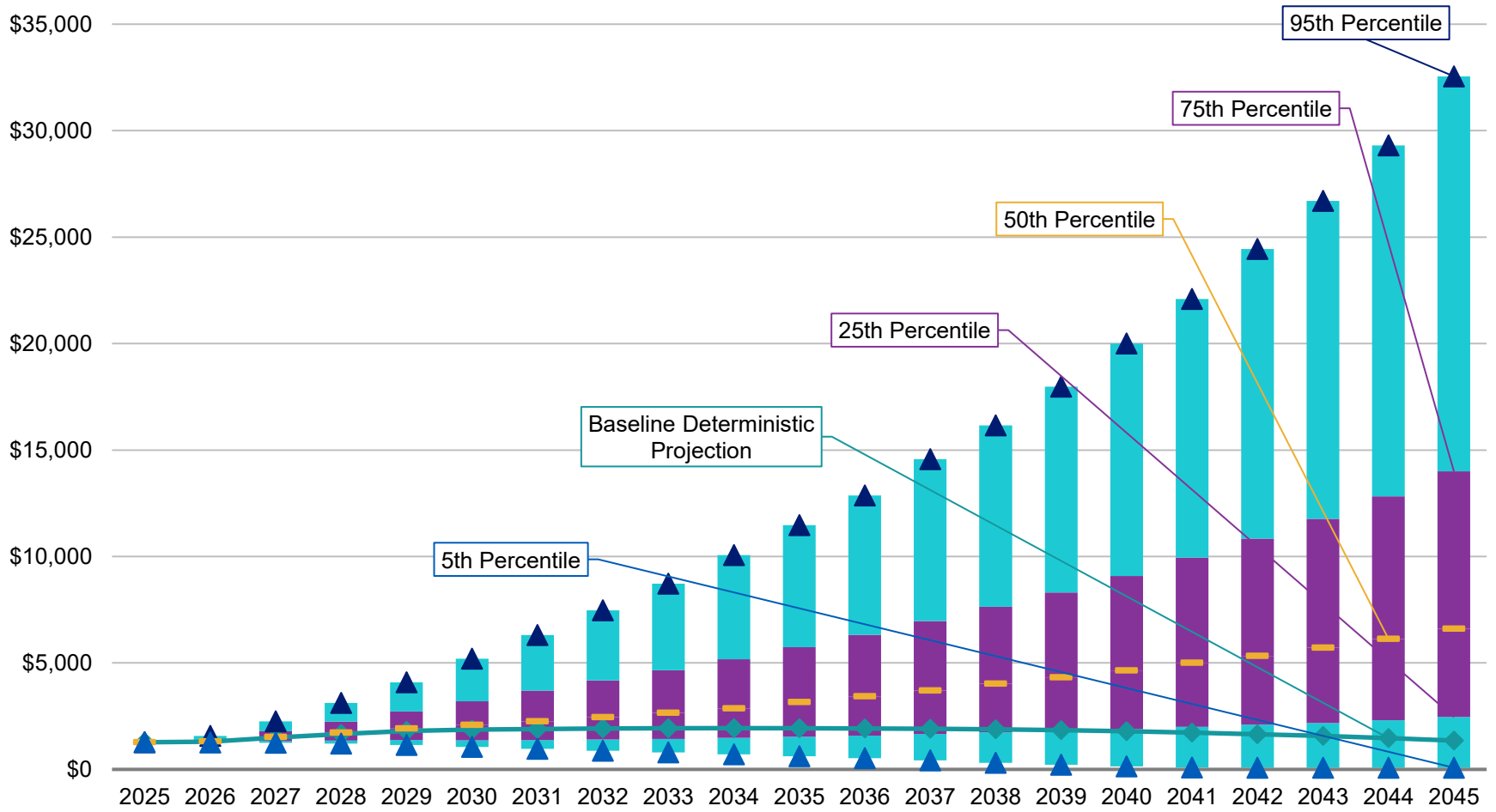
A corresponding table of results can be found on the next page.

Projected Employer Contribution Rates as of December 31

Year	Baseline Deterministic Projection	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
2025	20.1%	20.1%	20.1%	20.1%	20.1%	20.1%
2026	17.7%	19.2%	17.9%	17.7%	17.2%	16.4%
2027	16.5%	20.5%	17.8%	16.5%	15.0%	13.3%
2028	15.6%	22.9%	18.0%	15.5%	10.4%	10.4%
2029	14.8%	26.0%	18.9%	14.6%	10.3%	10.3%
2030	10.2%	30.2%	20.5%	10.2%	10.2%	10.2%
2031	10.2%	34.1%	22.3%	10.2%	10.2%	10.2%
2032	10.1%	24.8%	12.9%	10.1%	10.1%	10.1%
2033	10.0%	29.6%	14.3%	10.0%	10.0%	10.0%
2034	10.0%	32.1%	16.8%	10.0%	10.0%	10.0%
2035	10.0%	35.1%	19.8%	10.0%	10.0%	10.0%
2036	10.0%	36.6%	20.5%	10.0%	10.0%	10.0%
2037	9.9%	36.2%	19.7%	9.9%	9.9%	9.9%
2038	9.9%	37.6%	20.3%	9.9%	9.9%	9.9%
2039	9.9%	38.7%	21.1%	9.9%	9.9%	9.9%
2040	9.8%	38.4%	20.8%	9.8%	9.8%	9.8%
2041	9.8%	40.2%	21.7%	9.8%	9.8%	9.8%
2042	9.8%	41.1%	22.0%	9.8%	9.8%	9.8%
2043	9.8%	42.2%	22.7%	9.8%	9.8%	9.8%
2044	9.8%	42.8%	22.7%	9.8%	9.8%	9.8%
2045	9.8%	43.1%	22.8%	9.8%	9.8%	9.8%

Chart 16

Projected Supplemental Retiree Benefit Reserve as of December 31
($ in Millions)



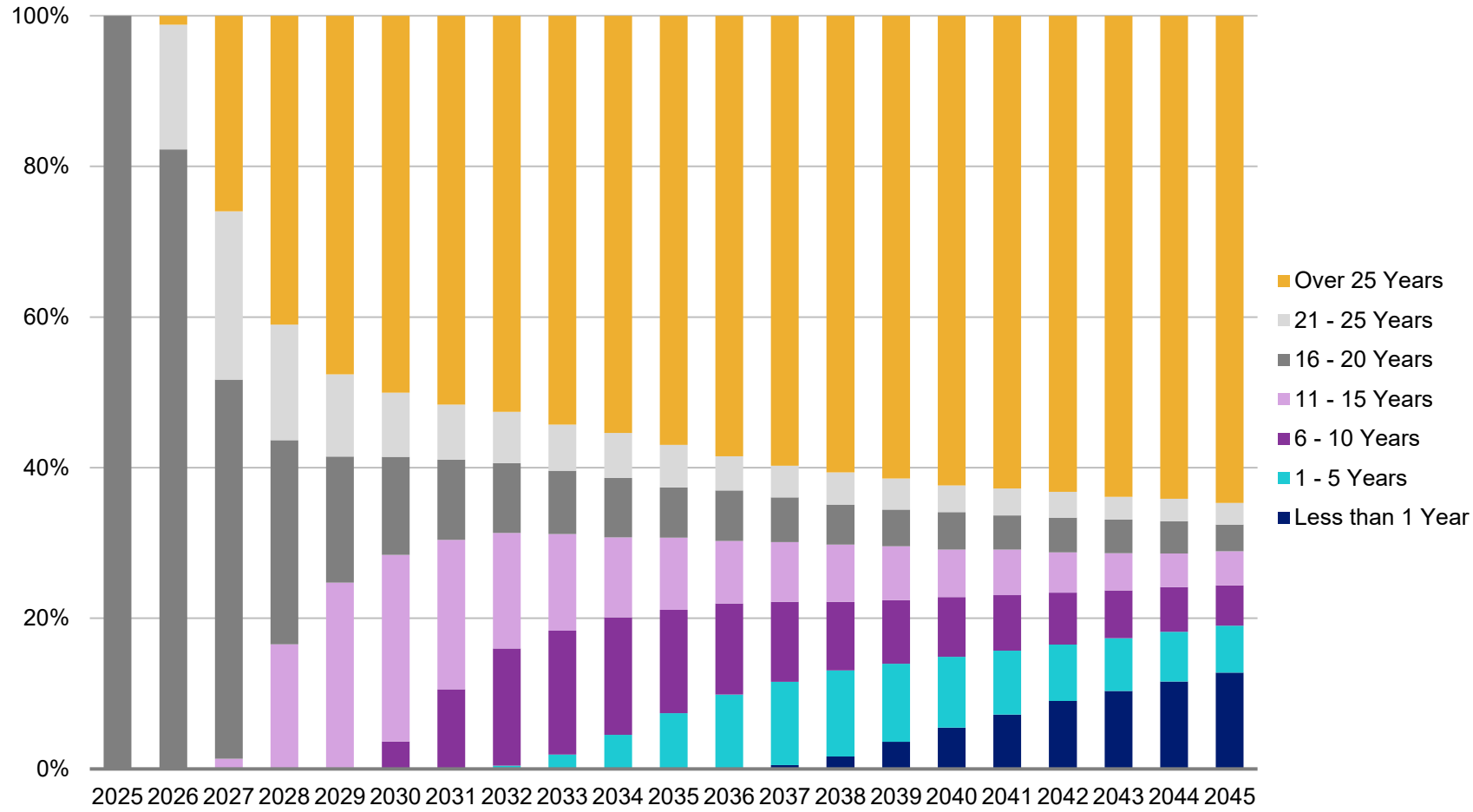
A corresponding table of results can be found on the next page.

Projected Supplemental Retiree Benefit Reserve as of December 31
($ Millions)

Year	Baseline Deterministic Projection	5th Percentile	25th Percentile	50th Percentile	75th Percentile	95th Percentile
2025	$1,276	$1,276	$1,276	$1,276	$1,276	$1,276
2026	1,302	1,268	1,297	1,317	1,402	1,567
2027	1,499	1,253	1,321	1,516	1,798	2,261
2028	1,669	1,212	1,352	1,723	2,244	3,117
2029	1,806	1,148	1,374	1,924	2,720	4,086
2030	1,867	1,055	1,369	2,093	3,194	5,193
2031	1,895	968	1,376	2,260	3,705	6,313
2032	1,916	881	1,405	2,447	4,176	7,471
2033	1,931	798	1,434	2,662	4,653	8,722
2034	1,937	709	1,481	2,868	5,171	10,064
2035	1,935	619	1,531	3,155	5,741	11,466
2036	1,925	521	1,589	3,427	6,327	12,865
2037	1,906	424	1,663	3,703	6,968	14,570
2038	1,878	309	1,745	4,030	7,639	16,151
2039	1,840	218	1,819	4,320	8,313	17,976
2040	1,790	139	1,895	4,639	9,078	20,008
2041	1,729	90	1,997	5,001	9,954	22,094
2042	1,656	70	2,098	5,325	10,840	24,438
2043	1,569	75	2,185	5,715	11,763	26,697
2044	1,467	71	2,313	6,130	12,831	29,310
2045	1,349	79	2,457	6,601	13,997	32,551

Chart 17

OPEB SRBR Projected Sufficiency as of December 31
(Percentage of Trials)



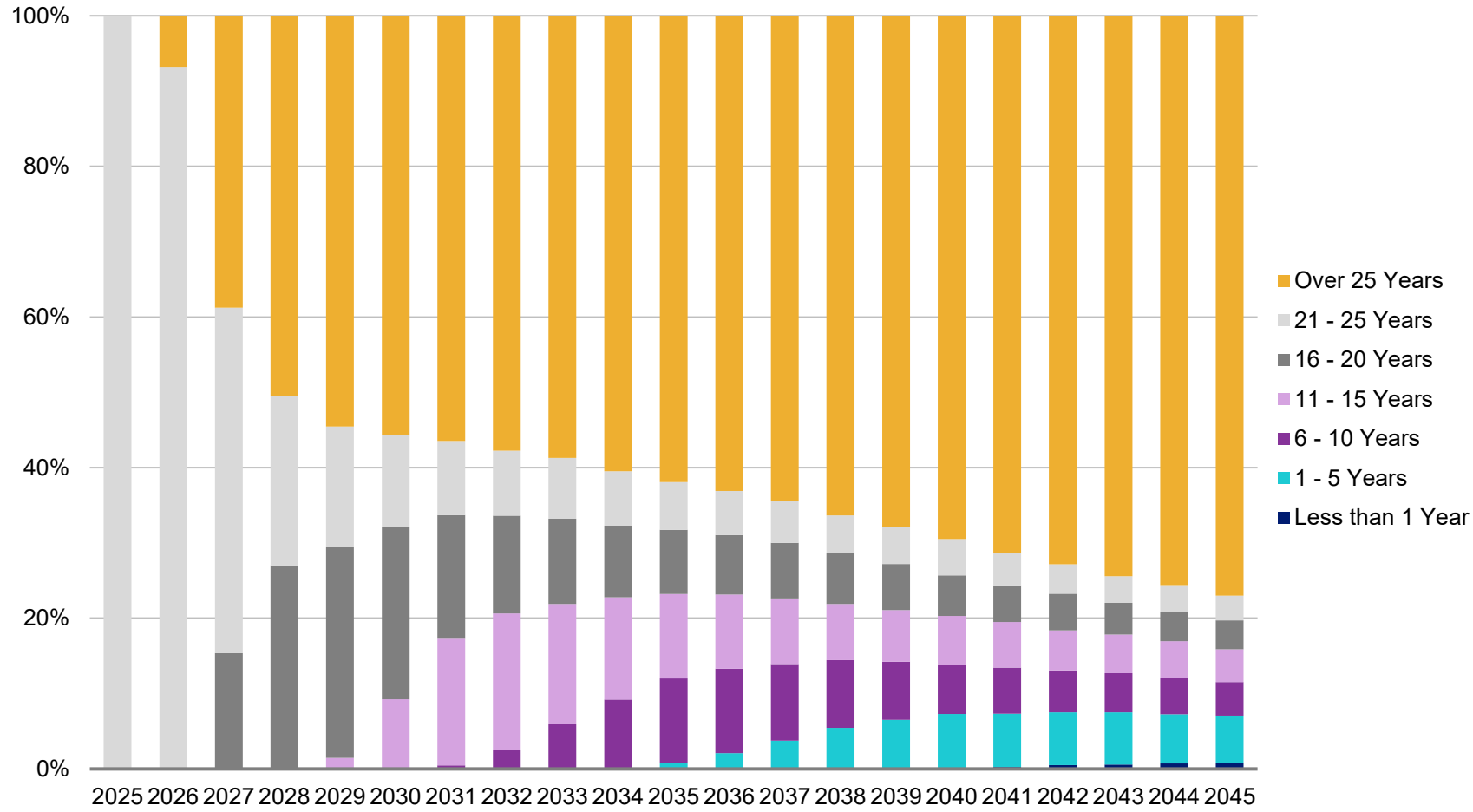
A corresponding table of results can be found on the next page.

OPEB SRBR Projected Sufficiency as of December 31
(Percentage of Trials)

Year	Less than 1 Year	1 - 5 Years	6 - 10 Years	11 - 15 Years	16 - 20 Years	21 - 25 Years	Over 25 Years
2025	0%	0%	0%	0%	100%	0%	0%
2026	0%	0%	0%	0%	82%	17%	1%
2027	0%	0%	0%	1%	50%	22%	27%
2028	0%	0%	0%	17%	27%	15%	41%
2029	0%	0%	0%	25%	17%	11%	47%
2030	0%	0%	4%	25%	13%	9%	49%
2031	0%	0%	11%	20%	11%	7%	51%
2032	0%	0%	16%	15%	9%	7%	53%
2033	0%	2%	16%	13%	8%	6%	55%
2034	0%	5%	16%	11%	8%	6%	54%
2035	0%	7%	14%	10%	7%	6%	56%
2036	0%	10%	12%	8%	7%	5%	58%
2037	1%	11%	11%	8%	6%	4%	59%
2038	2%	11%	9%	8%	5%	4%	61%
2039	4%	10%	8%	7%	5%	4%	62%
2040	6%	9%	8%	6%	5%	4%	62%
2041	7%	9%	7%	6%	5%	4%	62%
2042	9%	7%	7%	5%	5%	3%	64%
2043	10%	7%	6%	5%	4%	3%	65%
2044	12%	7%	6%	4%	4%	3%	64%
2045	13%	6%	5%	5%	4%	3%	64%

Chart 18

Non-OPEB SRBR Projected Sufficiency as of December 31
(Percentage of Trials)



A corresponding table of results can be found on the next page.

Non-OPEB SRBR Projected Sufficiency as of December 31
(Percentage of Trials)

Year	Less than 1 Year	1 - 5 Years	6 - 10 Years	11 - 15 Years	16 - 20 Years	21 - 25 Years	Over 25 Years
2025	0%	0%	0%	0%	0%	100%	0%
2026	0%	0%	0%	0%	0%	93%	7%
2027	0%	0%	0%	0%	15%	46%	39%
2028	0%	0%	0%	0%	27%	23%	50%
2029	0%	0%	0%	1%	28%	16%	55%
2030	0%	0%	0%	9%	23%	12%	56%
2031	0%	0%	0%	17%	16%	10%	57%
2032	0%	0%	2%	18%	13%	9%	58%
2033	0%	0%	6%	16%	11%	8%	59%
2034	0%	0%	9%	14%	9%	7%	61%
2035	0%	1%	11%	11%	9%	6%	62%
2036	0%	2%	11%	10%	8%	6%	63%
2037	0%	4%	10%	9%	7%	6%	64%
2038	0%	5%	9%	7%	7%	5%	67%
2039	0%	6%	8%	7%	6%	5%	68%
2040	0%	7%	7%	6%	5%	5%	70%
2041	0%	7%	6%	6%	5%	4%	72%
2042	1%	7%	6%	5%	5%	4%	72%
2043	1%	7%	5%	5%	4%	4%	74%
2044	1%	7%	5%	5%	4%	4%	74%
2045	1%	6%	4%	4%	4%	3%	78%

Sensitivity tests

The Board has a policy of reviewing the investment return and the other actuarial assumptions every three years, with the next triennial experience study (recommending assumptions for the December 31, 2026 actuarial valuation) scheduled to be performed later this year. Even though the economic assumptions included in our sensitivity analysis might not correspond to the final investment return assumption that we would recommend to the Board at the next triennial experience study, the results from this analysis could still provide the stakeholders some insight of the approximate financial impact of such changes in assumptions.

The following table summarizes the resulting impact of a 0.25% reduction in the investment return assumption.

Increase/Decrease from Baseline Results in the December 31, 2025 Valuation due to Change in Investment Return Assumption

Inflation/Investment Assumptions	2.50% / 7.00% (baseline)	2.50% / 6.75%	No change/Decrease
COLA Assumptions	2.75% COLA for Tiers 1 and 3 and 2.00% COLA for other tiers	2.75% COLA for Tiers 1 and 3 and 2.00% COLA for other tiers	No change
Employee Contribution Rate	9.8% of payroll	10.3% of payroll	+0.5% of payroll
Employer Contribution Rate	20.1% of payroll	22.4% of payroll	+2.3% of payroll
UAAL	$1,090 million	$1,469 million	+$379 million
Funded Ratio	91.6%	89.0%	-2.6%

Plan maturity measures that affect primary risks

The annual actuarial valuation considers the number and demographic characteristics of covered members, including active members and non-active members (inactive members, retirees and beneficiaries). Over the past 10 valuations from December 31, 2016 to December 31, 2025, ACERA has become more mature as indicated by the overall increase in the ratio of non-active to active members covered by the Association as shown in *Chart 19*. This chart also shows the ratio of members in pay status (retirees and beneficiaries) to active members. This ratio excludes the inactive members who have relatively smaller liabilities. The increase in the ratios is significant because any increase in UAAL due to unfavorable future investment and non-investment experience for a plan with a relatively larger group of non-active members would have to be amortized and funded using the payroll of a relatively smaller group of active members.

Another indicator of a more mature plan is relatively large amounts of assets and/or liabilities compared to active member payroll, which leads to increasing volatility in the level of required contributions. The **Asset Volatility Ratio (AVR)**, which is equal to the market value of assets divided by total payroll, provides an indication of contribution sensitivity to changes in the current level of assets and is detailed in *Chart 20*. The **Liability Volatility Ratio (LVR)**, which is equal to the actuarial accrued liability divided by payroll, provides an indication of the contribution sensitivity to changes in the current level of liability and is also detailed in *Chart 21*. Over time, the AVR should approach the LVR because when a plan is fully funded the assets will equal the liabilities. As such, the LVR also indicates the long-term contribution sensitivity to the asset volatility, as the plan approaches full funding.

In particular, ACERA's AVR was 8.0 as of December 31, 2025. This means that a 1% asset gain or loss in 2026 (relative to the assumed investment return) would amount to 8.0% of one year's payroll. Similarly, ACERA's LVR was 8.4 as of December 31, 2025, so a 1% liability gain or loss in 2026 would amount to 8.4% of one year's payroll.[17] Based on ACERA's policy to amortize actuarial experience over a period of 20 years, there would be a 0.6% of payroll decrease or increase in the required contribution rate for each 1% asset gain or loss, respectively, and a 0.6% of payroll decrease or increase in the required contribution rate for each 1% liability gain or loss, respectively.

It is also informative to note that the AVR and LVR for ACERA's Safety and General (LARPD) groups are higher than for the General (non-LARPD) groups. This means that both investment volatility and assumption changes will have a greater impact on the contribution rates of the Safety and General (LARPD) groups than on the contribution rates of the General (non-LARPD) groups. This is illustrated in the following table:

[17] The 8.0 and 8.4 are the AVR and LVR, respectively, for the entire Association. There are considerable differences in those ratios for the General and Safety membership groups.

Section 2: Key Plan Risks

Plan	AVR	10% Investment Loss Compares to	LVR	10% Liability Change Compares to
General (non-LARPD)	6.7	67% of payroll	7.1	71% of payroll
General (LARPD)	20.7	207% of payroll	20.1	201% of payroll
Safety	15.2	152% of payroll	15.3	153% of payroll
Combined	**8.0**	**80% of payroll**	**8.4**	**84% of payroll**

Chart 19

Ratio of Retirees and Beneficiaries (Pay Status) to Active Members and Ratio of Inactive Members, Retirees and Beneficiaries (Non-Active) to Active Members as of December 31

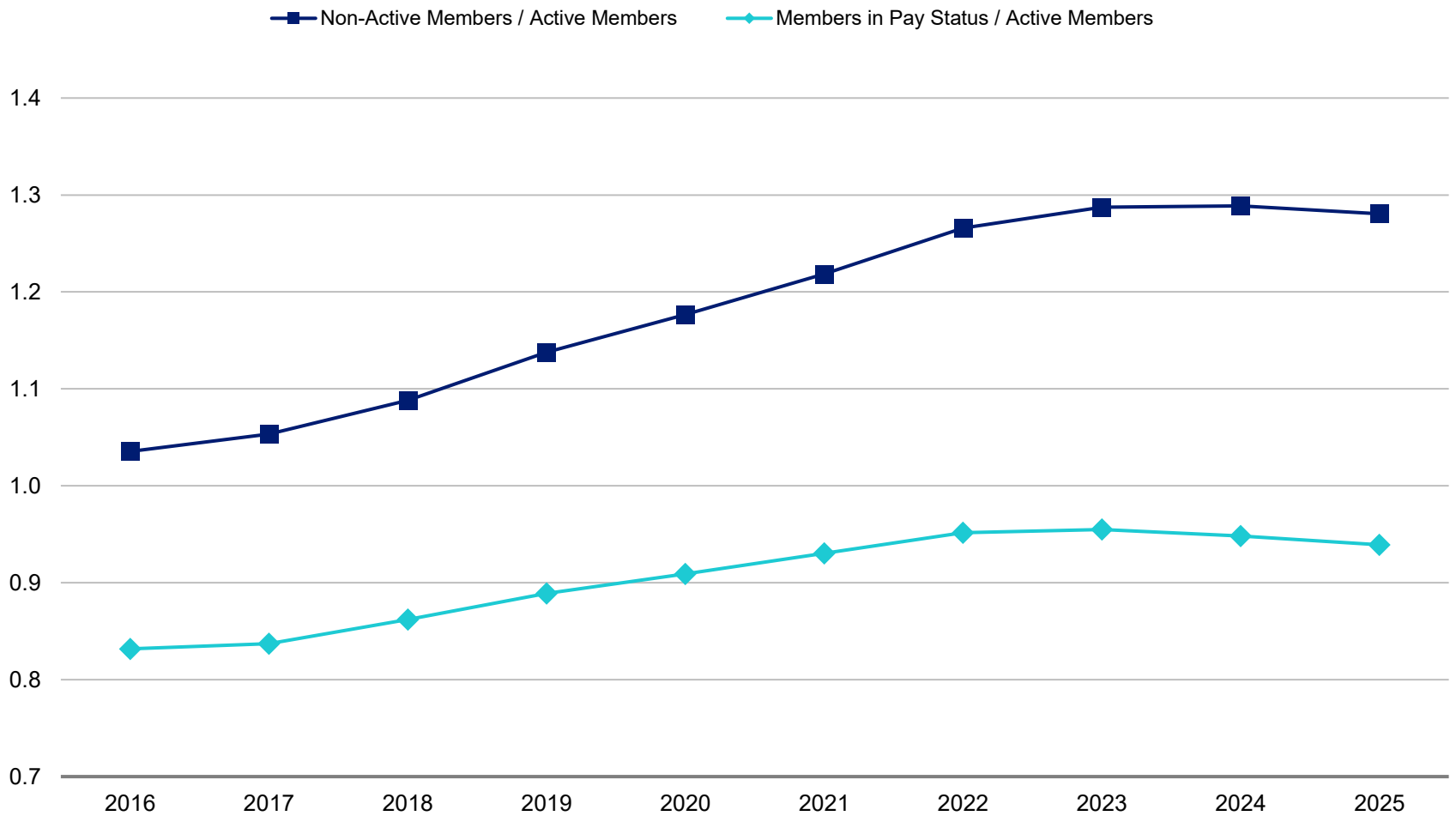


Chart 20

Asset Volatility Ratios as of December 31

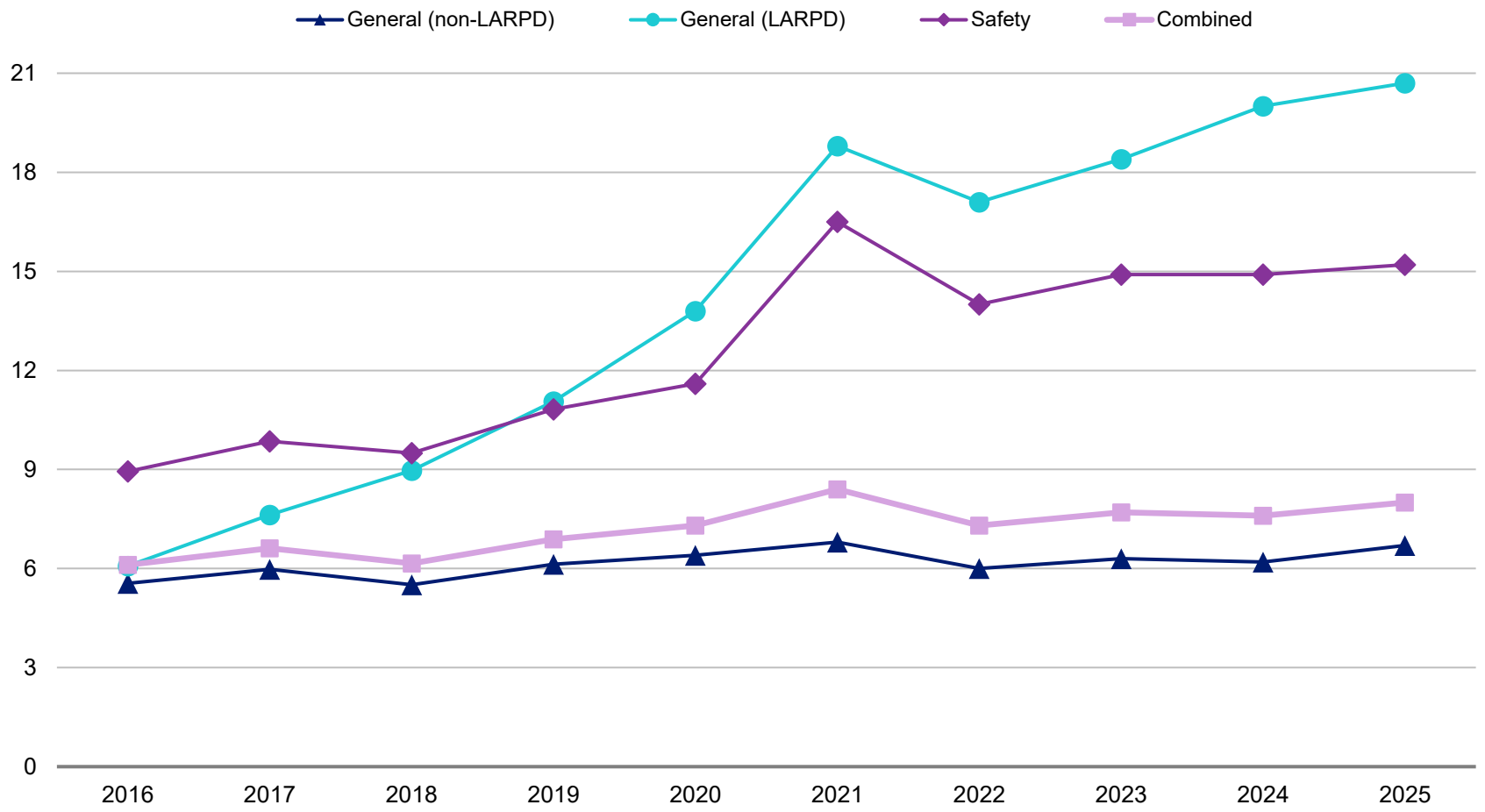
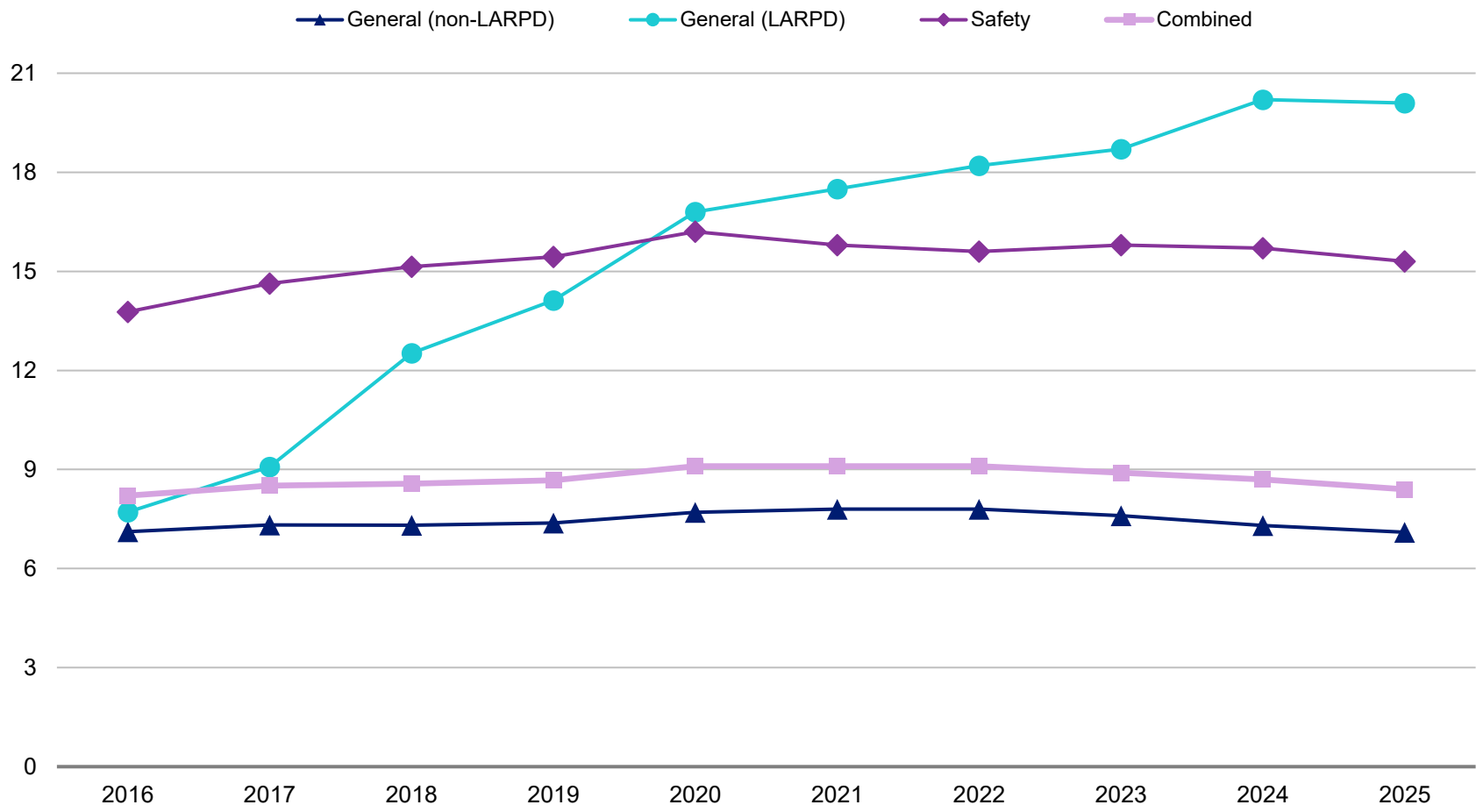


Chart 21

Liability Volatility Ratios as of December 31



Appendix A: Actuarial Assumptions and Methods

Unless otherwise noted, the results included in this report have been prepared based on the assumptions and methods used in preparing the December 31, 2025 actuarial valuation.

Deterministic projection

In addition, we have prepared the deterministic projection using the following assumptions and methods applied in the December 31, 2025 actuarial valuation:

- Non-economic assumptions will remain unchanged.
- Retirement benefit formulas will remain unchanged.
- 1937 Act and PEPRA statutes will remain unchanged.
- UAAL amortization method will remain unchanged (i.e., 20-year layers for actuarial gains/losses and assumption changes, 15-year layers for plan changes, and level percent of pay).
- Economic assumptions will remain unchanged, including the annual 7.00% investment earnings and 3.00% active payroll growth assumptions.
- Deferred investment gains and losses will be recognized over a five-year period.
- All other actuarial assumptions used in the December 31, 2025 actuarial valuations will be realized.

Stochastic Projection

Besides the assumptions and methods discussed above for the deterministic projection, the following additional assumptions or parameters are used in projecting ACERA's investment portfolio over the next 20 years based on performing 10,000 trial outcomes of future market returns.

Appendix A: Actuarial Assumptions and Methods

Target Asset Allocation

The target asset allocation is based on that provided by ACERA at the last triennial experience study and used by Segal to set the investment return assumption of 7.00% that was applied in the December 31, 2023, 2024 and 2025 valuations.[18] That target asset allocation is as follows:

Asset Class	Target Allocation
US large cap equity	21.60%
US small cap equity	2.40%
International developed equity	16.30%
International small cap equity	2.90%
Emerging markets equity	4.80%
Core fixed income	10.50%
High yield bonds	1.50%
Global fixed income	2.00%
Private equity	11.00%
Core real estate	6.30%
Value added real estate	1.80%
Opportunistic real estate	0.90%
Commodities	0.90%
Private credit	4.00%
Absolute return	8.00%
Infrastructure	5.10%
Total	**100.00%**

Simulation of future returns

In preparing the 10,000 trial outcomes of future market returns, we performed simulations using assumptions regarding the 20-year arithmetic returns, standard deviations and correlation matrix that were found in the 2025 survey prepared by Horizon Actuarial

[18] We will apply the new target asset allocation approved by the Board in 2024 when we perform the next triennial experience study recommending assumptions for use starting with the December 31, 2026 valuation.

Appendix A: Actuarial Assumptions and Methods

Services that was released around August 2025. We used the assumptions that were closest to the asset classes found in ACERA's investment portfolio.

A summary of the 20-year arithmetic returns, standard deviations and correlation matrix for each of the different asset classes used in the modeling is as follows:[19]

20-Year Arithmetic Return and Standard Deviation

Asset Class	20-Year Arithmetic Return	Standard Deviation
US Equity – Large Cap	8.29%	16.54%
US Equity – Small/Mid Cap	9.35%	20.44%
Non-US Equity – Developed	8.96%	18.20%
Non-US Equity – Emerging	10.63%	23.43%
US Corporate Bonds – Core	5.28%	6.22%
US Corporate Bonds – High Yield	6.82%	9.77%
Non-US Debt – Developed	4.29%	7.48%
Real Estate	7.59%	16.24%
Hedge Funds	6.57%	7.97%
Commodities	6.37%	17.83%
Infrastructure	8.65%	14.86%
Private Equity	12.14%	22.18%
Private Debt	8.71%	11.75%

[19] While the 2025 Horizon Survey included responses from 41 investment advisors, including ACERA's investment advisor at NEPC, only 27 investment advisors provided long-term (e.g. 20-year) capital market assumptions. These returns are gross of inflation and before any adjustment for administrative and investment expenses. The returns shown were further adjusted by Segal to reflect the difference between the annual inflation assumption used in the actuarial valuation, 2.50%, and the annual inflation assumption based on the Horizon Survey of 2.40%, as well as an adjustment to reflect the ACERA-specific administrative expense assumption of 0.30%, and an adjustment of -0.14% to estimate anticipated lower capital market assumptions for 2026 compared to the 2025 capital market assumptions reflected in the 2025 Horizon Survey.

Appendix A: Actuarial Assumptions and Methods

Correlation Matrix

Asset Class	1	2	3	4	5	6	7	8	9	10	11	12	13
1. US Equity – Large Cap	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2. US Equity – Small/Mid Cap	0.89	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3. Non-US Equity – Developed	0.82	0.77	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4. Non-US Equity – Emerging	0.71	0.67	0.80	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5. US Corporate Bonds – Core	0.32	0.28	0.32	0.29	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. US Corporate Bonds – High Yield	0.68	0.68	0.66	0.63	0.53	1.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7. Non-US Debt – Developed	0.24	0.22	0.35	0.30	0.62	0.33	1.00	N/A	N/A	N/A	N/A	N/A	N/A
8. Real Estate	0.55	0.55	0.48	0.42	0.27	0.47	0.20	1.00	N/A	N/A	N/A	N/A	N/A
9. Hedge Funds	0.71	0.70	0.69	0.67	0.29	0.63	0.20	0.42	1.00	N/A	N/A	N/A	N/A
10. Commodities	0.33	0.34	0.41	0.42	0.07	0.37	0.12	0.24	0.41	1.00	N/A	N/A	N/A
11. Infrastructure	0.65	0.64	0.67	0.61	0.34	0.59	0.36	0.48	0.57	0.42	1.00	N/A	N/A
12. Private Equity	0.76	0.74	0.68	0.64	0.21	0.57	0.16	0.48	0.64	0.31	0.57	1.00	N/A
13. Private Debt	0.58	0.58	0.57	0.54	0.22	0.68	0.12	0.41	0.61	0.38	0.51	0.63	1.00

Other considerations

This risk report has been prepared for the exclusive use and benefit of ACERA, based upon information provided by ACERA and ACERA's other service providers or otherwise made available to Segal at the time this document was created. The results presented in this report are intended to provide insight into key plan risks that can inform financial preparation and future decision making. However, Segal makes no representation or warranty as to the accuracy of any forward-looking statements and does not guarantee any particular outcome or result. The modeling projections are intended to serve as illustrations of future financial outcomes that are based on the information available to us at the time the modeling is undertaken and completed, and the agreed-upon assumptions and methodologies described herein. Emerging results may differ significantly if the actual experience proves to be different from these assumptions or if alternative methodologies are used. Actual experience may differ due to such variables as demographic experience, the economy, stock market performance and the regulatory environment.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements.

Appendix A: Actuarial Assumptions and Methods

Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprising of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

This document should only be copied, reproduced, or shared with other parties in its entirety as necessary for the proper administration of the Plan. This document does not constitute legal, tax or investment advice or create or imply a fiduciary relationship. ACERA is encouraged to discuss any issues raised with ACERA's legal, tax and other advisors before taking, or refraining from taking, any action.

Appendix B: Detailed Scenario Test

The following page contains an illustration of projected employer contribution rates and projected employer actuarially determined contribution amounts under the deterministic projections.

In addition to the assumptions outlined in *Appendix A* of this report, we have used the following market return assumptions to model three hypothetical market return scenarios:

Scenario 1: Assumed market return of 0.00% for 2026, 7.00% market return thereafter

Scenario 2: Assumed market return of 7.00% for 2026, 7.00% market return thereafter

Scenario 3: Assumed market return of 14.00% for 2026, 7.00% market return thereafter

While we have not assigned a probability on the 2026 market return coming in at these rates, the Association can use these results to interpolate in order to estimate the employer contribution rates and amounts for the December 31, 2026 and next several valuations as the actual investment experience for 2026 becomes available. Additionally, comparable experience in upcoming future years is likely to have a similar impact on the Plan absent any significant plan or assumption changes.

Appendix B: Detailed Scenario Test

Illustration of Projected Employer Contribution Rates and Amounts *($ in Millions)*

Valuation Date	Employer Rate Scenario 1	Employer Rate Scenario 2	Employer Rate Scenario 3	Calendar Year	Employer Contributions Scenario 1	Employer Contributions Scenario 2	Employer Contributions Scenario 3
December 31, 2025	20.1%	20.1%	20.1%	2026	$352	$352	$352
December 31, 2026	17.8%	17.7%	17.4%	2027	310	310	309
December 31, 2027	17.5%	16.5%	15.5%	2028	290	286	277
December 31, 2028	17.3%	15.6%	14.2%	2029	295	275	256
December 31, 2029	17.1%	14.8%	10.3%	2030	300	268	229
December 31, 2030	16.9%	10.2%	10.2%	2031	305	245	184
December 31, 2031	16.8%	10.2%	10.2%	2032	311	188	188
December 31, 2032	10.1%	10.1%	10.1%	2033	287	193	193
December 31, 2033	10.0%	10.0%	10.0%	2034	197	197	197
December 31, 2034	10.0%	10.0%	10.0%	2035	202	202	202
December 31, 2035	10.0%	10.0%	10.0%	2036	207	207	207
December 31, 2036	10.0%	10.0%	10.0%	2037	213	213	213
December 31, 2037	9.9%	9.9%	9.9%	2038	219	219	219
December 31, 2038	9.9%	9.9%	9.9%	2039	225	225	225
December 31, 2039	9.9%	9.9%	9.9%	2040	231	231	231
December 31, 2040	9.8%	9.8%	9.8%	2041	237	237	237
December 31, 2041	9.8%	9.8%	9.8%	2042	259	259	259
December 31, 2042	9.8%	9.8%	9.8%	2043	267	267	267
December 31, 2043	9.8%	9.8%	9.8%	2044	275	275	275
December 31, 2044	9.8%	9.8%	9.8%	2045	284	284	284
December 31, 2045	9.8%	9.8%	9.8%	2046	293	293	293

Note: The employer contribution rate is effective about six months after the valuation date. Therefore, the dollar contribution for a calendar year is based on the 12/31 valuations right before that calendar year and the 12/31 valuation two years before the calendar year. For example, the contribution for the first six months of calendar year 2026 is based on the December 31, 2024 valuation and the contribution for the last six months of calendar year 2026 is based on the December 31, 2025 valuation.

Appendix C: Definition of Pension Terms

The following list defines certain technical terms as they relate to ACERA for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Single-sum present value of the lifetime benefits expected to be paid to the existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial value of assets	The value of the Plan's assets that is equal to the market value of assets less unrecognized returns in each of the last 10 six-month interest crediting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value and are recognized semi-annually over a five-year period.
Employer normal cost	The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.
Funded ratio	The ratio of the actuarial value of assets to the actuarial accrued liability. Plans sometimes also calculate a market funded ratio, using the market value of assets, rather than the actuarial value of assets.
Generational mortality	A generational mortality table provides dynamic projections of mortality experience for each cohort of current and future retirees. For example, the mortality rate for someone who is 65 next year will be slightly less than for someone who is 65 this year. In general, using generational mortality anticipates increases in the cost of the Plan over time as participants' life expectancies are projected to increase. This is in contrast to updating a static mortality assumption with each experience study as we had proposed in experience studies prior to 2017.
Normal cost	The amount of contributions required to fund the portion of the level cost of the member's projected retirement benefit that is allocated to the current year of service.
Unfunded actuarial accrued liability	The excess of the actuarial accrued liability over the actuarial value of assets. This value may be negative, in which case it may be expressed as a negative unfunded actuarial accrued liability, also called the funding surplus or an overfunded actuarial accrued liability.
Valuation value of assets	The actuarial value of assets reduced by the value of non-valuation reserves.

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