Los Angeles City Employees' Retirement System

Actuarial Experience Study

Analysis of Experience During the Period
July 1, 2022 through June 30, 2025

Segal

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Board of Administration
Los Angeles City Employees' Retirement System
977 N. Broadway
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Dear Board Members:

We are pleased to submit this report of our review of the actuarial experience for Los Angeles City Employees' Retirement System ("LACERS" or "the System"). This study utilizes the census data for the period July 1, 2022 through June 30, 2025 as well as prior periods for certain assumptions, examines other relevant inputs, and provides the recommended actuarial assumptions, both economic and demographic, to be used in the June 30, 2026 valuations.

The actuarial calculations were completed under the supervision of Emily Klare, ASA, MAAA, Enrolled Actuary and Mehdi Riazi, FSA, MAAA, FCA, Enrolled Actuary. 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.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report with you and answering any questions you may have.

Sincerely,

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

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Senior Actuary

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Vice President and Actuary

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Section 1: Introduction and Summary

To project the cost and liabilities of a pension plan and retiree health plan, assumptions are made about all future events that could affect the amount and timing of the benefits to be paid and the assets to be accumulated. Each year actual experience is compared against the projected experience, and to the extent there are differences, the future contribution requirement is adjusted.

If assumptions are modified, contribution requirements are adjusted to take into account a change in the projected experience in all future years. There is a difference in both philosophy and cost impact between recognizing actuarial deviations as they occur annually and changing the actuarial assumptions. Taking into account one year's gains or losses without making a change in the assumptions treats that years' experience as temporary and assumes that, over the long run, experience will return to what was originally assumed. Changing assumptions reflects a fundamental change in thinking about the future and has a much greater effect on the current contribution requirements than recognizing gains or losses as they occur.

The use of realistic actuarial assumptions is important in maintaining adequate funding, while paying the promised benefit amounts to participants already retired and to those near retirement. The actuarial assumptions used do not determine the "actual cost" of the plan. The actual cost is determined solely by the benefits and administrative expenses paid out, offset by investment income received. However, it is desirable to estimate as closely as possible what the actual cost will be so as to permit an orderly method for setting aside contributions today to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

This study was undertaken in order to review the economic and demographic actuarial assumptions and to compare the actual experience with that expected under the current assumptions during the three-year experience period from July 1, 2022 through June 30, 2025. The study was performed in accordance with Actuarial Standard of Practice (ASOP) No. 27 "Selection of Assumptions for Measuring Pension Obligations" and ASOP No. 6 "Measuring Retiree Group Benefit Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions". These Standards of Practice provide guidance for the selection of the various actuarial assumptions utilized in pension and OPEB actuarial valuations. Based on the results of this study and expected future experience, we are recommending various changes in the current actuarial assumptions.

Section 2 provides background on the basic principles and methodology used in the review of the economic and demographic actuarial assumptions. A detailed discussion of each assumption and reasons for the recommended changes is found in *Section 3* for the economic assumptions and *Section 4* for the demographic assumptions. The cost impact of the recommended changes is detailed in *Section 5*. Lastly, a summary of the current actuarial assumptions is provided in *Appendix A*, and a summary of the recommended actuarial assumptions is provided in *Appendix B*.

Summary of recommendations

Page	Actuarial Assumption	Recommendation
11	**Inflation:** Future increases in the Consumer Price Index (CPI), which drives investment returns and active member salary increases.	Maintain the inflation assumption at 2.50% per annum as discussed in *Section 3(A)*.
13	**Cost-of-living adjustment (COLA):** Future increases to a member's retirement benefit.	Maintain the COLA assumption at 2.75% per annum for Tier 1 and Tier 1 Enhanced and 2.00% for Tier 3 as discussed in *Section 3(A)*.
15	**Investment return:** The estimated average net rate of return on current and future assets of the System as of the valuation date. This rate is used to discount liabilities.	Reduce the investment return assumption from 7.00% to 6.75% per annum as discussed in *Section 3(B)*.
23	**Salary increases:** Increases in the salary of a member between the date of the valuation to the date of separation from active service. This assumption has three components: • Inflationary salary increases • Real "across-the-board" salary increases • Merit and promotion increases	Maintain the inflationary salary increase assumption at 2.50% and maintain the real "across-the-board" salary increase assumption at 0.50%. Adjust the merit and promotion salary increases as developed in *Section 3(C)* to reflect past experience. The recommended total salary increases anticipate higher increases than the current assumptions.
26	**Payroll growth:** Used to amortize the UAAL in determining the UAAL contribution rate.	Maintain the payroll growth assumption (combined inflationary and real "across-the-board" salary increases) at 3.00%.

Page	Actuarial Assumption	Recommendation
28	**Mortality rates — healthy:** The probability of dying at each age for non-disabled members. Mortality rates are used to anticipate life expectancies.	**Healthy retirees:** Change base tables from Pub-2010 General Healthy Retiree Amount-Weighted Above-Median mortality tables to Pub-2016 General Healthy Retiree Amount-Weighted Above-Median mortality tables. Adjust the base tables to reflect partial credibility of LACERS' experience. Overall, the recommended assumptions anticipate fewer deaths than previously projected. **Beneficiaries not in pay status:** Change mortality tables to be consistent with the mortality tables recommended for General healthy retirees. **Beneficiaries in pay status:** Change base tables from Pub-2010 Contingent Survivor Amount-Weighted Above-Median mortality tables to Pub-2016 Contingent Survivor Amount-Weighted Above-Median mortality tables. Adjust the base tables to reflect partial credibility of LACERS' experience. Overall, the recommended assumptions anticipate fewer deaths than previously projected. **Pre-retirement mortality:** Change base tables from Pub-2010 General Employee Amount-Weighted Above-Median mortality tables to Pub-2016 General Employee Amount-Weighted Above-Median mortality tables. Adjust the base tables to reflect partial credibility of LACERS' experience. Overall, the recommended assumptions anticipate more deaths than previously projected. **Mortality projection:** Maintain generational mortality improvement projection with Scale MP-2021. **Retiree health:** Use the headcount-weighted versions of the mortality tables used in the pension plan valuation. **Mortality for optional forms and reserves:** A discussion of mortality rates for optional forms and reserves is provided in *Section 4(A)*. **Pre-retirement death type:** Maintain the assumption that 100% of pre-retirement deaths are service connected for Tier 1 Enhanced and Sworn PSO members.
38	**Mortality rates — disabled:** The probability of dying at each age for disabled members. Mortality rates are used to project life expectancies.	**Disabled retirees:** Change base tables from Pub-2010 Non-Safety Disabled Retiree Amount-Weighted mortality tables to Pub-2016 Non-Safety Disabled Retiree Amount-Weighted mortality tables. Adjust the base tables to reflect partial credibility of LACERS' experience. Overall, the recommended assumptions anticipate fewer deaths than previously projected. **Mortality projection:** Maintain generational mortality improvement projection with Scale MP-2021.
42	**Disability incidence rates:** The probability of becoming disabled at each age.	Adjust the disability rates to those developed in *Section 4(C)* to reflect a slightly lower incidence of disability overall.
46	**Termination rates:** The probability of leaving employment at each age and receiving either a refund of member contributions or a deferred vested retirement benefit.	Adjust the termination rates to those developed in *Section 4(D)* to reflect a higher incidence of termination.

Page	Actuarial Assumption	Recommendation
49	**Retirement rates:** The probability of retirement at each age at which participants are eligible to retire. Includes retirement age for deferred vested members.	For active members, adjust the current retirement rates to those developed in *Section 4(E)*. For deferred vested members that work for a reciprocal employer, maintain the assumed retirement age at 59. For deferred vested members that do not work for a reciprocal employer, increase the assumed retirement age from 60 to 61.
58	**Miscellaneous assumptions including:** • Reciprocity • Future benefit accruals • Unreported data for members • Form of payment • Percent with eligible survivor • Eligible survivor age and gender	Maintain the proportion of future deferred vested members expected to be covered by a reciprocal system at 5%. Maintain the current future benefit accrual assumption, assumption for members with unknown gender and the form of payment assumption as outlined in *Section 4(F)*. For active and deferred vested members, decrease the percent with eligible survivor assumption from 76% to 70% for males and decrease from 52% to 50% for females. Maintain the eligible survivor assumptions that male retirees are three years older than their female spouses and that female retirees are two years younger than their male spouses.
61	**Retiree health assumptions:** Assumptions related to the OPEB plan	Adjust the retiree health assumptions to those developed in *Section 4(G)*.

Cost impact summary

We have estimated the impact of the recommended assumption changes as if they were applied to the June 30, 2025 retirement plan and health (OPEB) plan actuarial valuations. The tables below show the impact on key results due to the recommended assumption changes separately for the economic assumptions (including the merit and promotion salary increases) and demographic assumptions. More details can be found in *Section 5*.

Cost Impact on Funded Status
Based on June 30, 2025 Actuarial Valuation

Assumption	Retirement Plan	Health Plan	Total Impact on Funded Status
Changes in economic assumptions	$980.0 million	$94.0 million	$1,074.0 million
Changes in demographic assumptions	(166.7 million)	89.8 million	(76.9 million)
Total increase in UAAL	**$813.3 million**	**$183.8 million**	**$997.1 million**
Change in funded ratio on VVA basis	**(2.14%)**	**(4.80%)**	**(2.41%)**

Cost Impact on Average Employer Contribution
Based on June 30, 2025 Actuarial Valuation (Payable July 15, % of Payroll)

Assumption	Retirement Plan	Health Plan	Total Impact on Employer Contribution
Changes in economic assumptions	4.00%	0.41%	4.41%
Changes in demographic assumptions	(0.72%)	0.01%	(0.71%)
Total increase in average employer contribution rate, payable July 15	**3.28%**	**0.42%**	**3.70%**
Total increase in annual dollar amount[1]	**$96.0 million**	**$12.3 million**	**$108.3 million**

Of the various assumption changes, the most significant rate increase is due to the change in the investment return assumption.

[1] Based on June 30, 2025 projected annual payroll as determined under each set of assumptions.

Section 2: Background and Methodology

In this report, we analyzed both economic and demographic assumptions.

The primary economic assumptions reviewed are inflation, investment return, and salary increases. Demographic assumptions include the probabilities of certain events occurring in the population of members, referred to as "decrements" (e.g., termination from service, disability retirement, service retirement, and death before and after retirement).

In addition to decrements, other demographic assumptions reviewed in this study include the percent of members assumed to go on to work for a reciprocal system, reciprocal salary increases, percentage of members with an eligible spouse or domestic partner, and survivor age difference. This report also includes an analysis of certain assumptions related to the retiree health (OPEB) plan, such as the percentage of eligible retirees who chose to be covered by the health plan, spouse/domestic partner coverage, and spouse/domestic partner age difference.

It should be noted that with the exception of selecting the merit and promotion salary increases, the mortality assumptions for the retirement plan, and the percent married assumption on an amount-weighted or benefit-weighted basis, all the demographic assumptions in this report have been selected on a headcount-weighted basis. A value of "N/A" represents a service or age bucket for which there were no exposures over the time-period measured.

Economic assumptions

Economic assumptions consist of:

- **Inflation:** Increases in the price of goods and services. The inflation assumption reflects the basic return that investors expect from securities markets. It also reflects the expected basic salary increase for active employees and drives increases in the allowances of retired members (if any).
- **Investment return:** Expected long-term rate of return on the System's investments after accounting for certain investment and administrative expenses. This assumption has a significant impact on contribution rates.
- **Salary increases:** In addition to inflationary increases, it is assumed that salaries will also grow by real "across-the-board" pay increases in excess of price inflation. It is also assumed that employees will receive raises above these average increases as they advance in their careers, which are commonly referred to as merit and promotion increases. Payments to amortize any unfunded actuarial accrued liability (UAAL) are calculated to increase each year by the price inflation rate plus any real "across-the-board" pay increases that are assumed.

The setting of the economic assumptions is described in *Section 3*.

Demographic assumptions

To determine the probability of an event occurring, we examine the "decrements" and "exposures" of that event. For example, when considering termination from service, we compare the number of employees who actually terminate in a specific service category/group (the number of "decrements") with those who could have terminated (the number of "exposures"). If there were 500 active employees in the 3–4 years of service category at the beginning of the year and 50 of them left during the year, the probability of termination in that service category is 50 ÷ 500, or 10%.

The reliability of the resulting probability depends heavily on both the number of decrements and the number of exposures. For instance, if there are only a few people in a high service category at the beginning of the year (number of exposures), the probability of termination developed for that service category may be less credible, particularly if it does not align with the pattern shown for the other service categories. Similarly, when considering the death decrement, if an age category has a large number of exposures but very few decrements (actual deaths), then the probability developed for that category would also be considered less reliable.

One reason we use several years of experience for such a study is to enhance statistical reliability by increasing the number of exposures and decrements. Another reason for using several years of data is to smooth out any fluctuations that may occur from one year to the next. Nevertheless, we also calculate the rates on a yearly basis to check for any emerging trends in the recent years.

While we routinely review the experience over the most recent three-year period when setting assumptions, experience from prior periods is also considered and can influence the magnitude of the adjustments that are made. For setting the mortality assumptions, we have used data for a twelve-year period, and for setting the merit and promotion salary increase assumption a nine-year period was used. As noted above, using more years of data tends to smooth out year-to-year fluctuations in the actuarial experience.

The setting of the demographic assumptions is provided in *Section 4*.

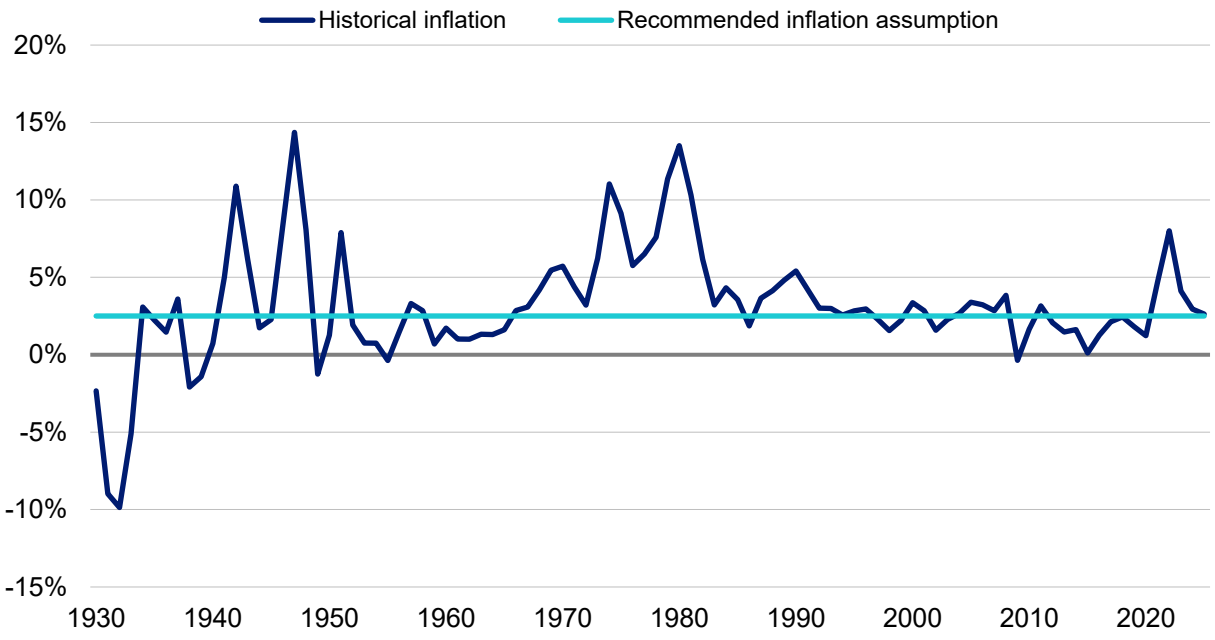
Section 3: Economic Assumptions

A. Inflation

Unless an investment grows at least as fast as prices increase, investors will experience a reduction in the inflation-adjusted value of their investment. There may be times when "riskless" investments return more or less than inflation, but over the long term, investment market forces will generally require an issuer of fixed income securities to maintain a minimum return which protects investors from inflation.

The inflation assumption is long term in nature, so our analysis begins with a review of historical information. The following graph compares historical inflation rates with the recommended inflation assumption of 2.50%. We then proceed with a discussion of other sources of inflation data to provide additional context to our recommendation.

Historical Consumer Price Index (CPI) — 1930 to 2025[2]
(U.S. City Average — All Urban Consumers)



There was a spike in inflation that started in the second quarter of 2021 and continued into 2022. The rate of inflation started to decrease after the Federal Reserve began raising interest rates around the second quarter of 2022. As inflation continued to decrease, the Federal Reserve changed course in late 2024 and reduced interest rates three times. After a period of no changes, the Federal Reserve cut interest rates again three times in late 2025.[3] Based on the most recent data, the change in the CPI from December 2024 to December 2025 was 2.7%.

[2] Source: Bureau of Labor Statistics — Based on CPI for All Items in U.S. city average, all urban consumers, not seasonally adjusted (Series ID: CUUR0000SA0).

[3] As of early 2026, the Federal Reserve's median projection of the interest rate for the year-end target range is 3.25%–3.50%. This target implies one additional 25-basis-point cut in 2026, building on the series of reductions that occurred in late 2024 and 2025.

Section 3: Economic Assumptions

According to the Public Plans Database,[4] the median inflation assumption was 2.50% in the 2024 fiscal year valuations for 243[5] public pension plans across the U.S. In California, CalSTRS and four[6] 1937 Act CERL systems currently use an inflation assumption of 2.75%, while CalPERS and the 16 remaining 1937 Act CERL systems use an assumption of 2.50%.[7]

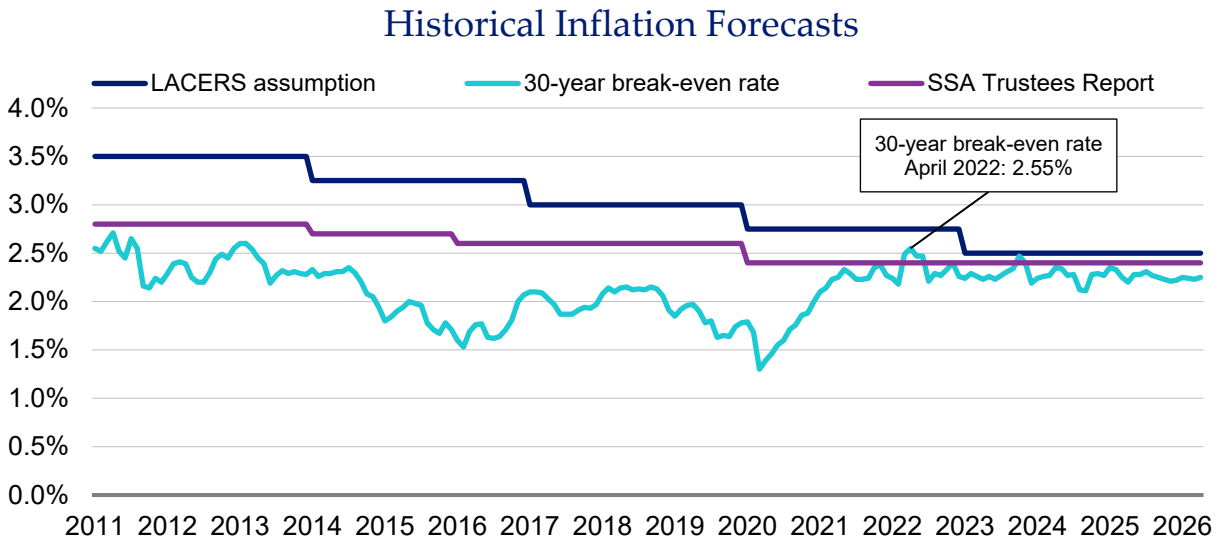
LACERS' investment consultant, NEPC, LLC (formerly known as New England Pension Consultants), anticipates an annual inflation rate of 2.70% over a 30-year horizon.[8] The average inflation assumption provided by NEPC and five other investment advisory firms retained by Segal's California public sector clients, as well as Segal's investment advisory division (Segal Marco Advisors), was 2.49%. The time horizon used by the investment consultants included in our review, with the exception of one investment consultant that uses a one-year horizon, generally ranges from 20 years to 30 years.

To find a forecast of inflation based on a longer time horizon, we referred to the Social Security Administration's (SSA) 2025 report on the financial status of the Social Security program.[9] The projected average increase in the CPI over the next 75 years under the intermediate cost assumptions used in that report was 2.40%, which the SSA has maintained for several years. The SSA report also includes alternative projections using lower and higher inflation assumptions of 1.80% and 3.00%, respectively.

Finally, we also compared the yields on the 30-year inflation indexed U.S. Treasury bonds to comparable traditional U.S. Treasury bonds.[10] This "break-even rate" is commonly regarded as a market-based gauge of future inflation expectations. While this measure can be quite volatile, it is worth noting that during the peak of the most recent inflation spike this break-even rate exceeded 2.50% in only a single month, April 2022 (2.55%). As of May 2026, the difference in yields was 2.30%.

The following graph shows LACERS' historical and recommended inflation assumptions as well as the two metrics just discussed. In effect, this compares LACERS' assumption to two separate independent forecasts, one based on market observations and one developed by economists at the SSA. The graph shows that over the observed period, LACERS' assumption has been gradually decreasing as it converges with the other metrics and seems to be in a stable place at this point in time.

[4] Public Plans Data is produced by the Center for Retirement Research at Boston College in partnership with the MissionSquare Research Institute, National Association of State Retirement Administrators, and the Government Finance Officers Association.
[5] Among 253 large public retirement funds, the 2024 fiscal year inflation assumption was not available for 10 of the public retirement funds in the survey data as of March 2026.
[6] We note that none of these four 1937 Act CERL Systems are served by Segal.
[7] Eight of these 1937 Act CERL systems use a 2.50% inflation assumption with a 2.75% COLA assumption.
[8] The annual inflation assumption used by NEPC is 2.50% over a 10-year horizon.
[9] Source: "Social Security Administration: The 2025 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds."
[10] Source: Board of Governors of the Federal Reserve System.



The setting of the inflation assumption using the information outlined above is a somewhat subjective process, and Segal does not apply a specific weight to each of the metrics in determining our recommended inflation assumption. Based on a consideration of all the above metrics, beginning in 2021 we have been recommending the same 2.50% inflation assumption in our experience studies for our California public retirement system clients.

We recommend maintaining the annual inflation assumption at 2.50%.

Crediting rate for employee contributions

We note that the interest crediting to employee contributions is based on the average rates of a five-year U.S. Treasury Note. Currently, an assumption of 2.50% is used to approximate that crediting rate based on the inflation assumption.

We recommend maintaining the assumed interest crediting rate for employee contributions at 2.50%.

Retiree cost-of-living increases

In our last experience study as of June 30, 2022, the Board maintained the recommended cost-of-living adjustments (COLA) assumption of 2.75% for Tier 1 and Tier 1 Enhanced and a 2.00% COLA assumption for Tier 3. The assumption of 2.75% for Tier 1 and Tier 1 Enhanced included a 0.25% margin above the recommended inflation assumption, to reflect the experience from the annual CPI for the Los Angeles-Long Beach-Anaheim Area that is used by the Board to set COLAs. The table below shows the change in Annual Average CPI for the Los Angeles Area and the U.S. City Average for the most recent 5, 10, and 20-year periods ending December 31, 2025.

Section 3: Economic Assumptions

Comparison of Changes in Annual Average CPI

Most Recent Period	Change in Annual Average CPI for Los Angeles-Long Beach-Anaheim Area	Change in Annual Average CPI for U.S. City Average
5-Year Period	4.23%	4.46%
10-Year Period	3.43%	3.11%
20-Year Period	2.68%	2.53%

We recommend maintaining the retiree COLA assumption of 2.75% per year for Tier 1 and Tier 1 Enhanced, which includes a 0.25% margin above our recommended inflation assumption to mitigate actuarial losses which may arise from future COLA increases greater than the inflation assumption, and maintaining the COLA assumption of 2.00% per year for Tier 3.

B. Investment return

The investment return assumption is comprised of two primary components, inflation and real rate of return, with adjustments for certain expenses and risk.

Real rate of return

This component represents the portfolio's expected incremental investment market returns over inflation. Generally, when an investor takes on greater investment risk, the return on the investment is expected to also be greater, at least in the long run.[11] This additional risk and return is expected to vary by asset class and empirical data supports that expectation. For that reason, real rate of return assumptions are developed for each asset class and the resulting assumption for a retirement plan's portfolio will vary based on the Board's asset allocation.

The System's target asset allocation and corresponding real rate of return assumptions (net of investment management expenses) are shown in the following table. The first column of returns are determined by reducing NEPC's nominal 30-year arithmetic return assumptions by their assumed 2.70% inflation rate. The second column of returns shows the average real rate of return assumptions provided to us by NEPC, five other investment advisors to Segal's California public sector retirement clients and Segal Marco Advisors. We believe these averages are a reasonable consensus of long-term future market returns in excess of inflation.

[11] However, an argument can also be made that taking on more risk in the portfolio could justify a greater risk margin in the actuarial assumption used, to help manage that risk.

Section 3: Economic Assumptions

LACERS' Asset Allocation and Arithmetic Real Rate of Return Assumptions

Asset Class	LACERS' Target Asset Allocation	NEPC's Real Rate of Return Assumption	Average Real Rate of Return Assumption from Seven Investment Firms
Large cap U.S. equity	17.00%	5.37%	5.33%
Small/mid cap U.S. equity	6.00%	6.15%	6.23%
Developed international equity	13.00%	5.44%	5.88%
Emerging markets equity	7.00%	8.33%	7.36%
U.S. core fixed income	10.25%	2.73%	2.48%
High yield bonds	2.00%	5.30%	4.38%
Bank loans	2.00%	4.14%	4.16%
TIPS	3.60%	2.48%	2.15%
Emerging market external debt	1.50%	5.35%	4.55%
Emerging market local currency debt	1.50%	3.50%	3.85%
Real estate - core	4.20%	4.63%	4.57%
Cash	1.00%	0.77%	0.85%
Private equity	16.00%	10.11%	9.18%
Private credit	5.75%	6.97%	5.98%
REITs	1.40%	6.70%	6.70%[12]
Real estate – non core	2.80%	8.04%	8.04%[12]
Infrastructure	5.00%	5.18%	5.18%[12]
Total	**100.00%**	**6.06%**	**5.78%**

Generally, the above are representative of "indexed" returns for securities that are publicly traded, returns net of fees for securities that are non-publicly traded and do not include any additional returns ("alpha") from active management. Consideration of returns without alpha is consistent with the Actuarial Standard of Practice No. 27, Section 3.7.3.d, which states:

> "Investment Manager Performance — Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). The actuary should not assume that superior or inferior returns will be achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy unless the actuary believes, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period."

The following are some observations about the returns provided above:

- The investment consultants and Segal's investment advisory division included in our sample provided us with their expected real rates of return for each asset class over time horizons that varied from 1-year to 30-years. In general, the time horizon used by an individual

[12] There is a larger disparity in returns for this asset class among the firms surveyed, so NEPC's assumption is applied in lieu of the average to more closely reflect the underlying investments made specifically for LACERS.

investment consultant is not necessarily consistent with the time horizon of the actuarial assumption, which is used to discount cashflows over the expected lifetime of each plan member.

- Using an average of real rate of return assumptions allows LACERS' investment return assumption to reflect a broad range of capital market information and to help reduce year to year volatility in the investment return assumption.
- We recommend the 5.78% portfolio net real rate of return, as calculated above, be used in the determination of LACERS' investment return assumption.
  - This return is 0.49% lower than the 6.27% net return that was used three years ago in the review of the recommended investment return assumption for the June 30, 2023 valuation.
  - The 0.49% decrease in the portfolio net real rate of return since 2023 is due to changes in the real rate of return assumptions provided by the investment advisory firms (-0.53% under the 2023 asset allocation), changes in LACERS' target asset allocation (-0.12%) and the interaction effect between these changes (+0.16%).
  - Even though there is a reduction in the real rates of return between the 2023 study and the current study, it is worth noting that the real rates of return provided in the capital market assumptions in the current study are generally higher than those in the ten-year period following the Global Financial Crisis, and so altogether should be used with caution in selecting a long-term investment return assumption.

System expenses

For funding purposes, the real rate of return assumption for the portfolio needs to be adjusted for investment expenses expected to be paid from investment income. As the investment consultants discussed in the prior section provide us with real rates of return that are net of expected investment manager fees, we only need to make adjustments for investment consulting fees, custodian fees and other miscellaneous investment expenses.

Current practice for LACERS also reduces the real rate of return for expected administrative expenses. This approach implicitly funds administrative expenses through future investment returns. An alternative approach taken by some California public retirement systems is to calculate the expected investment return **gross** of administrative expenses and include an explicit charge for administrative expenses when setting the contribution rate.

The following table shows the investment and administrative expenses as a percentage of the beginning of year actuarial value of assets.

Investment and Administrative Expenses as a Percentage of Actuarial Value of Assets ($ in '000s)

Year Ended June 30	Actuarial Value of Assets[13]	Investment Expenses[14]	Admin. Expenses	Investment Expenses as %	Admin. Expenses as %	Total %
2023	$21,218,952	$9,049	$33,292	0.04%	0.16%	0.20%
2024	22,239,264	11,842	39,402	0.05%	0.18%	0.23%
2025	23,404,150	20,333	44,424	0.09%	0.19%	0.28%

Investment and Administrative Expenses Averages and Assumptions

Averaging Period and Assumption	Total Expense Percentage
Current assumption	0.20%
Three-year average (2023–2025)	0.24%
Six-year average (2020–2025)	0.22%
Recommended assumption	**0.22%**

We recommend increasing the investment and administrative expense assumption from 0.20% to 0.22%.

Adjustment to expected geometric real rate of return

The recommended 5.78% real rate of return assumption was based on expected arithmetic average returns. A retirement system using an expected arithmetic average return as the discount rate in a funding valuation is expected, over long periods of time, to have no surplus or asset shortfall relative to its expected obligations assuming all other actuarial assumptions are met in the future.[15]

Beginning with our last experience study as of June 30, 2022, we have converted the portfolio's arithmetic average return to a geometric average return. A retirement system using a geometric average return as the discount rate in a funding valuation will, over long periods of time, have an equal likelihood of having a surplus or asset shortfall relative to its expected obligations assuming all actuarial assumptions are met in the future.[16] The majority of public plans across the United States use the geometric average return to determine the expected return on assets.

For any given asset portfolio, the geometric average return will be less than the arithmetic average return.[17] The difference depends on the variability of the portfolio as measured by its standard deviation. Based on the portfolio's standard deviation of 15.21% provided by NEPC, the adjustment to a geometric average return reduces the expected return by 1.08%.

[13] As of beginning of plan year.
[14] Equals the sum of investment consulting fees, miscellaneous investment expenses, and investment related administrative expenses. Excludes investment manager fees.
[15] The mathematical terminology for this is that the mean (or average) surplus or asset shortfall is expected to be zero.
[16] The mathematical terminology for this is that over time the median surplus or asset shortfall is expected to be zero.
[17] This is because the expected geometric average return reflects expected median outcomes, while the expected arithmetic average return reflects expected average or mean outcomes. Expected median outcomes are lower than expected average outcomes because they are less affected by the possibility of extraordinary ("outlier") favorable outcomes.

Risk adjustment

The real rate of return assumption for the portfolio is further adjusted to reflect the potential risk of shortfalls in the return assumptions. LACERS' asset allocation determines this portfolio risk, since risk levels are driven by the variability of returns for the various asset classes and the correlation of returns among those asset classes. This portfolio risk is incorporated into the real rate of return assumption through a risk adjustment.

The purpose of the risk adjustment (as measured by the corresponding confidence level) is to increase the likelihood of achieving the actuarial investment return assumption in the long term.[18] It also acknowledges that investment results carry significant volatility over time, and yet the recommended assumption is a static number that does not explicitly convey this risk or its ramifications. The practice of including a risk adjustment helps mitigate some of this risk and is consistent with our experience that retirement plan fiduciaries would generally prefer that returns exceed the assumed rate more often than not.

The confidence level associated with a particular risk adjustment represents a relative likelihood that future investment earnings would equal or exceed the assumed earnings over a 15-year period. The 15-year time horizon represents an approximation of the "duration" of the fund's liabilities, where the duration of a liability represents the sensitivity of that liability to interest rate variations.

The confidence level associated with developing the investment return assumption for Segal's public sector California clients generally ranges from 51% to 67%, with an average confidence level of 57% at the time each investment return assumption was respectively adopted. While these figures are helpful in evaluating where a particular system lies amongst its peers, it is important to keep in mind that the measurement of the confidence level is dependent upon the underlying capital market assumptions and the portfolio's standard deviation, both of which may vary from year to year.

Three years ago, the Board adopted an investment return assumption of 7.00%. That return implied a risk adjustment of 0.54%, corresponding to a 15-year confidence level of 56%, based on an annual portfolio return standard deviation of 14.90% provided by NEPC in 2023.

If we use the same 56% 15-year confidence level from our last study to set this year's risk adjustment, based on the current annual portfolio return standard deviation of 15.21% provided by NEPC, the corresponding risk adjustment would be 0.58%. Together with the other investment return components, this would result in an investment return assumption of 6.40%, which is lower than the current assumption of 7.00%.

Based on Segal's general practice of using one-quarter percentage point increments for economic assumptions, we considered an investment return assumption of 6.75% which would produce a risk adjustment of 0.23% and a corresponding confidence level of 52%. For comparison, the current net investment return assumption of 7.00% would have a confidence level of slightly less than 50% under this model.

[18] This type of risk adjustment is referred to in the Actuarial Standards of Practice as a "margin for adverse deviation."

Recommended investment return assumption

The following table summarizes the components of the recommended investment return assumption. For comparison purposes, we have also included similar values from the last study.

Recommended Investment Return Assumption

Assumption Component	June 30, 2026 Recommended Value	June 30, 2023 Adopted Value
Inflation	2.50%	2.50%
Arithmetic real rate of return	5.78%	6.27%
Expense adjustment	(0.22%)	(0.20%)
Geometric return adjustment	(1.08%)	(1.03%)
Risk adjustment	(0.23%)	(0.54%)
Total	**6.75%**	**7.00%**
Confidence level	**52%**	**56%**

We recommend reducing the investment return assumption from 7.00% to 6.75% per annum.

Comparison with historical assumptions

The table below shows LACERS' recommended investment return assumption and the corresponding risk adjustment and confidence level compared to similar values from prior studies.

Adopted for the Valuation as of[19]	Investment Return	Risk Adjustment	Confidence Level
June 30, 2011	7.75%	0.57%	57%
June 30, 2014	7.50%	0.74%	59%
June 30, 2017[20]	7.25%	0.62%	57%
June 30, 2018[21]	7.25%	0.47%	55%
June 30, 2020	7.00%	0.85%	59%
June 30, 2023	7.00%	0.54%	56%
June 30, 2026 (Recommended)	**6.75%**	**0.23%**	**52%**

As we have discussed in prior experience studies, the risk adjustment model and associated confidence level are most useful as a means for comparing how LACERS has positioned itself

[19] Based on expected geometric average returns starting in 2023.
[20] From a study evaluating only the economic assumptions for the June 30, 2017 valuation. Following that report, the risk adjustment and confidence level were provided in our letter dated August 10, 2017.
[21] The risk adjustment and confidence level are based on the capital market assumptions used in our experience study report for the June 30, 2018 valuation, applied to the investment return assumption of 7.25% that was adopted for that valuation.

relative to risk over periods of time.[22] The use of a 52% confidence level should be considered in context with other factors, including:

- As noted above, the confidence level is more of a relative measure than an absolute measure, and so can be reevaluated and reset for future comparisons. This is particularly true when comparing confidence levels developed using different models, as we have shown above between 2020 and 2023 when we transitioned from the arithmetic model to the geometric model.
- The confidence level is based on the standard deviation of the portfolio that is determined and provided to us by NEPC. The standard deviation is a statistical measure of the future volatility of the portfolio and so is itself based on assumptions about future portfolio volatility and can be considered somewhat of a "soft" number.
- We have not taken into account any additional returns ("alpha") that might be earned on active management. If active management generates enough alpha to cover its related expenses, returns would increase.
- As with any model, the results of the risk adjustment model should be evaluated for reasonableness and consistency. This is discussed in the later section on "Comparison with other public retirement systems."

Comparison with alternative model

To maintain a robust analytical framework, we have employed an alternative model for comparison by evaluating the recommended 6.75% assumption based on the expected geometric return for the entire portfolio net of investment management expenses, but using a fully stochastic approach and a different source for capital market assumptions.

Under this alternative model, over a 15-year period, there is a 62% likelihood that future average geometric returns will meet or exceed 6.75%[23] developed using the capital market assumptions compiled by Horizon Actuarial Services based on their most recent survey published in August 2025. This 62% likelihood of achieving a 6.75% return is higher than the corresponding likelihood of 55% (for achieving a 7.00% return) that we observed in this comparison during the assumption review in 2023. Note that the likelihood of 55% we calculated in the prior study was based on the capital market assumptions provided in the Horizon Survey updated through August 2022.

Comparison with other public retirement systems

One final review of the recommended investment return assumption is to compare it against those used by other public retirement systems, both in California and nationwide.

An investment return of 6.75% or lower is becoming more common among California public sector retirement systems. Of the twenty 1937 Act CERL systems, one uses a 7.25%

[22] In particular, it would not be appropriate to use this type of risk adjustment as a measure of determining an investment return rate that is "risk-free."

[23] We performed this stochastic simulation using the capital market assumptions included in the 2025 survey prepared by Horizon Actuarial Services. That simulation was performed using 10,000 trial outcomes of future market returns, using assumptions from 20-year arithmetic returns, standard deviations and correlation matrix that were found in the 2025 survey that included responses from 41 investment advisors.

investment assumption, six use 7.00%, eight use 6.75%, four use 6.50%, and one uses 6.25%. Furthermore, CalSTRS currently uses a 7.00% investment return assumption, CalPERS uses a 6.80% investment return assumption, while the San Jose and San Diego City retirement systems use investment return assumptions of 6.625% and 6.50%, respectively.

The following table compares LACERS' recommended investment return assumption against those of the 239[24] large public retirement funds in their 2024 fiscal year valuations based on information found in the Public Plans Database[25], which is produced in partnership with NASRA.

Assumption	LACERS	Public Plan Data Low	Public Plan Data Median	Public Plan Data High
Investment return	6.75%	4.31%	7.00%	7.50%

The detailed survey results show that 72% of the systems have reduced their investment return assumption from 2017 to 2024. State systems outside of California tend to change their economic assumptions less frequently and so may lag behind emerging practices in this area. NCPERS also conducts an annual survey of public plans nationwide, and their 2026 survey reports an average investment return assumption of 6.67%.

[24] Among 246 large public retirement funds, the 2024 fiscal year investment return assumption was not available for 7 of the public retirement funds in the Public Plans Database as of March 2026.
[25] Public Plans Data website — Produced in partnership with the National Association of State Retirement Administrators (NASRA).

C. Salary increases

Salary increases impact plan costs in two ways:

1. Increasing members' benefits (since benefits are a function of the members' highest average pay) and future normal cost collections; and
2. Increasing total active member payroll which in turn generates lower UAAL contribution rates as a percent of payroll.

As an employee progresses through his or her career, increases in pay are expected to come from three sources, inflation, real "across-the-board" increases and merit and promotion increases. Each of these assumptions is discussed in more detail below.

Inflation

Unless pay grows at least as fast as consumer prices grow, employees will experience a reduction in their standard of living. There may be times when pay increases lag or exceed inflation, but over the long term, labor market forces may require an employer to maintain its employees' standards of living.

As discussed earlier in this report, we recommend maintaining the annual inflation assumption at 2.50%.

Real "across-the-board" pay increases

These increases are typically termed productivity increases since they are considered to be derived from the ability of an organization or an economy to produce goods and services in a more efficient manner. As that occurs, at least some portion of the value of these improvements can provide a source for pay increases. These increases are typically assumed to extend to all employees "across the board." The State and Local Government Workers Employment Cost Index produced by the Department of Labor provides evidence that real "across-the-board" pay increases have averaged about 0.1%–0.4% annually during the last ten to twenty years.

We also referred to the annual report on the financial status of the Social Security program published in June 2025. In that report, real "across-the-board" pay increases are forecast to be 1.13% per year under the intermediate assumptions.

The real pay increase assumption is generally considered a more "macroeconomic" assumption that is not necessarily based on individual plan experience. However, the following table compares LACERS' recent salary experience to the change in CPI over the three-year and six-year period ending June 30, 2025.

Valuation Date	Actual Average[26] Wage Inflation	Annual Average Change in CPI[27]
June 30, 2020	6.44%	1.62%
June 30, 2021	0.67%	3.83%
June 30, 2022	1.24%	7.45%
June 30, 2023	7.10%	3.48%
June 30, 2024	5.00%	3.30%
June 30, 2025	4.20%	3.16%
Three-year average (2023–2025)	**5.43%**	**3.31%**
Six-year average (2020–2025)	**4.11%**	**3.81%**

Based on the above information, we recommend maintaining the real "across-the-board" salary increase assumption at 0.50%.

Merit and promotion increases

As the name implies, these increases come from an employee's career advancement. This form of pay increase differs from the previous two, since it is specific to the individual. For LACERS, we continue to recommend service-specific merit and promotion increase assumptions.

The annual merit and promotion increases are determined by measuring the actual increases received by members over the experience period, net of the assumed inflationary and real "across-the-board" pay increases. This is accomplished by:

1. Measuring each continuing member's actual salary increase over each year of the experience period;
2. Excluding any members with increases of more than 50% or decreases of more than 25% during any particular year;
3. Categorizing these increases into groups by years of service;
4. Removing the assumed inflation and real "across-the-board" increases each year;
5. Averaging these annual increases over the experience period on a salary-weighted basis, with higher weights assigned to experience from members with larger salaries; and
6. Modifying current assumptions to reflect some portion of these measured increases reflective of their "credibility."

To be consistent with the other economic assumptions, these merit and promotion assumptions should be used in combination with the total 3.00% assumed inflation and real "across-the-board" increases recommended in this study.

[26] Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year. It does not reflect the average salary increases received by members who worked the full year.

[27] Based on the change in the annual average CPI index for the Los Angeles-Long Beach-Anaheim Area compared to the prior year.

Section 3: Economic Assumptions

Due to the high variability of the actual salary increases, we have analyzed this assumption using data for the past nine years. We believe that when the experience from the current study is combined with the prior six-years' experience, it provides a more reasonable representation of potential future merit and promotion salary increases over the long term.

While preparing the recommended merit and promotion increase assumptions, we took into account that the most recent three-year period included significant salary adjustments, likely in response to the high inflationary period after COVID. Therefore, we have generally not increased the rates by as much as the most recent three-year period may seem to imply. We will continue to monitor the rates and reevaluate in the next experience study if the higher salary adjustments continue over a longer period of time.

The following table shows the actual average merit and promotion increases by years of service over the three-year period from July 1, 2022 through June 30, 2025. As mentioned above, we have also included the actual average increases based on the past nine years (July 1, 2016 through June 30, 2025). These actual increases were reduced by the assumed inflation plus "across-the-board" increase. The current and recommended assumptions are also shown.

Merit and Promotion Salary Increases

Years of Service	Current Expected Increase	Actual 3-Year Average	Actual 9-Year Average	Recommended Expected Increase
Less than 1	6.00%	7.31%	5.84%	6.00%
1 – 2	5.90%	7.50%	5.96%	5.90%
2 – 3	5.40%	7.83%	5.61%	5.50%
3 – 4	4.20%	7.92%	5.29%	4.80%
4 – 5	3.50%	6.91%	5.04%	4.30%
5 – 6	2.80%	6.35%	4.61%	3.80%
6 – 7	2.50%	5.68%	4.35%	3.40%
7 – 8	2.10%	5.03%	3.69%	2.90%
8 – 9	1.80%	4.57%	3.31%	2.50%
9 – 10	1.60%	4.12%	2.47%	2.10%
10 – 11	1.50%	4.11%	2.33%	1.90%
11 – 12	1.40%	4.35%	1.99%	1.70%
12 – 13	1.30%	4.39%	1.66%	1.60%
13 – 14	1.20%	3.95%	1.48%	1.50%
14 – 15	1.10%	4.35%	1.59%	1.40%
15 and over	1.00%	3.36%	1.69%	1.30%
Actual / Expected (9 Years)	**100.7%**			**100.4%**

We recommend increasing the assumed merit and promotion salary increases for most service categories.

Chart 1 on page 27 compares the actual merit and promotion increase experience with the current and recommended assumptions.

Total payroll growth

Projected increases in active member payroll are used to develop the UAAL contribution rate. Future values are determined as a product of the number of employees in the workforce and the average pay for all employees. The average pay for all employees increases only by inflation and real "across-the-board" pay increases. The merit and promotion increases are not included, because this average pay is not specific to an individual.

Under the Board's current practice, the UAAL contribution rate is developed by assuming the number of active members will remain about the same, so that the total payroll for all active members will increase annually over the amortization periods at the same assumed rates of inflation plus real "across-the-board" salary increase assumptions as are used to project the members' future benefits. Note again that this does not include the assumed merit and promotion increases, because longer service members are assumed to be replaced by new members.

As part of reviewing the current practice, we have summarized in the table below how the number of active members and total payroll has changed over the last six valuations.

Active Members and Projected Payroll[28]

Year Ended June 30	Number of Active Members	Projected Payroll ($ in '000s)
2020	27,490	$2,445,017
2021	25,176	2,254,165
2022	24,917	2,258,725
2023	25,875	2,512,179
2024	26,782	2,730,282
2025	27,000	2,868,029
Average Annual Rate of Increase	**(0.36)%**	**3.24%**

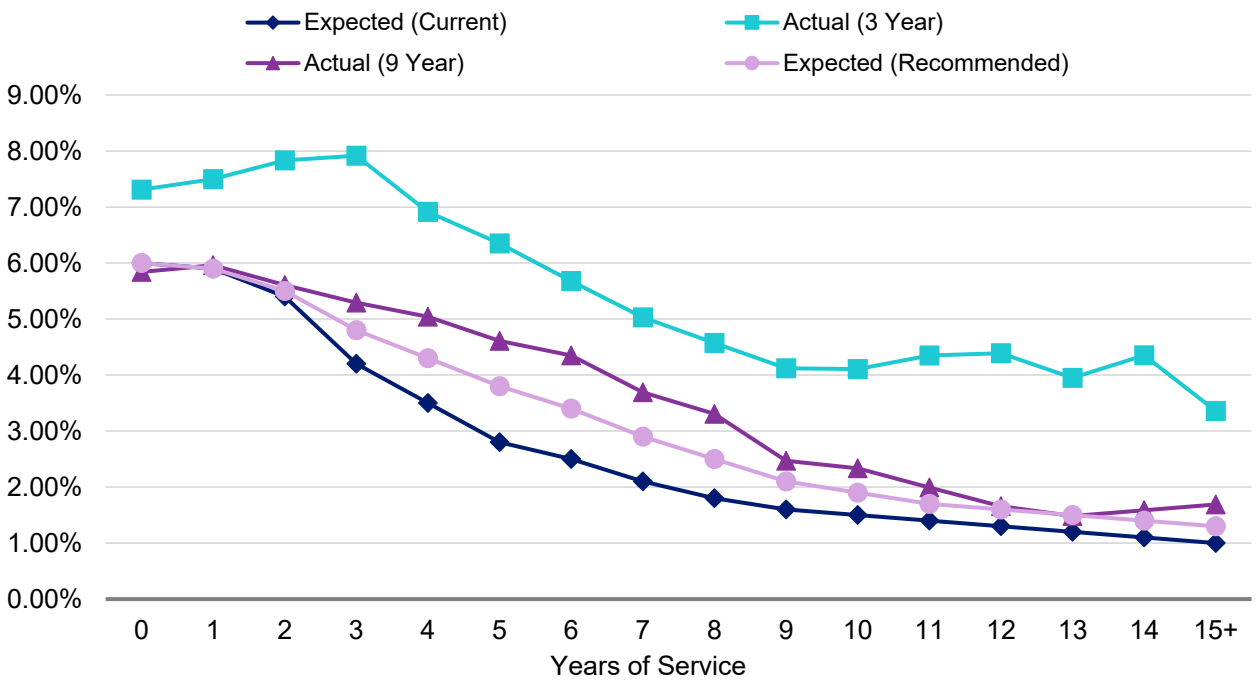
As can be observed from the above table, the average annual rate of increase in the projected payroll during the above period was 3.24% before accounting for the (0.36)% average annual change in the total active workforce (and 3.60% after netting out the impact due to the change in the active workforce).

After considering the above factors and experience, we recommend maintaining the payroll growth assumption at 3.00% annually (consistent with the combined recommended inflation and real "across-the-board" salary increase assumptions).

[28] Projected payroll is used to develop the UAAL contribution rate in the actuarial valuation.

Section 3: Economic Assumptions

Chart 1: Merit and Promotion Salary Increases



Section 4: Demographic Assumptions

A. Mortality rates — Healthy

The "healthy" mortality rates project the life expectancy of a member who retires from service (i.e., who did not retire on a disability pension). Also, the "healthy" pre-retirement (employee) mortality rates project what proportion of members will live to retirement.

In 2019, the Retirement Plans Experience Committee (RPEC) of the SOA published the first family of mortality tables based exclusively on public sector pension plan experience in the United States referred to as the Pub-2010 Public Retirement Plans Mortality Tables (Pub-2010). In 2025, RPEC published an updated family of mortality tables, referred to as the Pub-2016 Public Retirement Plans Mortality Tables (Pub-2016).[29]

Within the Pub-2010 and Pub-2016 family of mortality tables, there are separate tables by job categories of General, Safety and Teachers. Included with the mortality tables is the analysis prepared by RPEC that continues to observe that benefit amount for healthy retirees and salary for employees are the most significant predictors of mortality differences within the job categories. Therefore, Pub-2010 and Pub-2016 include mortality rates developed on an "amount-weighted" basis, with higher credibility assigned to experience from annuitants and employees receiving larger benefits and salaries, respectively.

We recommend the "amount-weighted" tables from the Pub-2016 family of mortality tables be used (adjusted for LACERS experience as discussed herein), as well as using the "above-median" tables where applicable.

A generational mortality table provides dynamic projections of mortality experience for each cohort of 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 and is now the established practice within the actuarial profession.

RPEC has historically published annual updates to their mortality improvement scale. However, the mortality data observed during 2020 was severely impacted by the COVID-19 pandemic and RPEC has not released a new mortality improvement scale that incorporates the substantially higher rate of mortality experience from 2020. Therefore, Scale MP-2021 remains the most recent mortality improvement scale published as of the date of this report.

We recommend continuing to apply Scale MP-2021 generationally where each future year has its own mortality table that reflects the forecasted improvements.

In order to reflect more LACERS experience in our analysis of the mortality assumption, we have used experience over a twelve-year period by using data from the current experience

[29] The Pub-2016 family of mortality tables have been developed without experience from the COVID-19 pandemic.

study period (from July 1, 2022 through June 30, 2025) and the last four experience studies covering the periods from July 1, 2011 through June 30, 2022. For the previous experience study, LACERS provided us with information on the number of COVID-19 related deaths during the fiscal years ended June 30, 2021 and June 30, 2022, and based on the relatively higher number of COVID-19 related and other deaths during that period, we decided to exclude that mortality experience. Accordingly, we are recommending mortality assumptions using LACERS experience for a twelve-year period from July 1, 2011 through June 30, 2025, omitting the two aforementioned years.

In 2008, the SOA published an article recommending that mortality assumptions include an adjustment for credibility. Under this approach, the number of deaths needed for full credibility for a headcount-weighted mortality table is just over 1,000,[30] where full credibility means a 90% confidence that the actual experience will be within 5% of the expected value. For LACERS, the number of actual deaths differs for each cohort and varies from 98 deaths for disabled retiree females to 4,063 deaths for healthy retiree males over the 12-year period studied. In our recommended assumptions, we have adjusted the Pub-2016 mortality tables to fit LACERS' experience based on the partial credibility for the given retiree group.

Post-retirement mortality (service retirements) – retirement plan

The current mortality tables used for post-retirement mortality for the retirement plan are as follows:

- Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and unadjusted for females, projected generationally with Scale MP-2021.

The following table shows the observed benefit-weighted deaths for heathy retired members based on the actual experience during the 12-year period. Also shown are the expected benefit-weighted deaths under the current and recommended assumptions.

Healthy Retiree Mortality — Benefit-Weighted Deaths ($ in millions)

Gender	Current Expected	Actual	Recommended Expected
Male	$16.15	$15.84	$15.60
Female	4.09	4.07	4.12
Total	**$20.24**	**$19.91**	**$19.72**
Actual / Expected	**98.4%**		**100.9%**[31]

Notes

1. Experience shown above is weighted by monthly benefit amounts for deceased members.

[30] The number of deaths needed for full credibility for an "amount" weighted mortality table is generally higher and based on the dispersion of the benefit amount for a given retiree group.

[31] If we used the benchmark Pub-2016 General Healthy Retiree table without any adjustment, the recommended actual to expected ratio would be 105%.

2. Expected amounts under the current and recommended generational mortality tables are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
3. Results may not add due to rounding.

As shown in the table above, the recommended mortality table has an actual to expected ratio of about 101% after adjustments for partial credibility. In future years, the ratios should remain around this level as long as actual mortality improves at the same rates as anticipated by the generational mortality table.

We recommend updating the retirement plan's post-retirement mortality assumptions for service retirements to the following:

- Pub-2016 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with Scale MP-2021.

Chart 2 on page 37 compares the actual to expected deaths on an amount-weighted basis for service retirement members over the 12-year period for the current and recommended assumptions.

Chart 3 on page 37 shows the life expectancies (i.e., expected future lifetime) under the current and recommended tables for service retirement members on an amount-weighted basis. Life expectancies under the current and recommended generational mortality rates are based on age in 2026. In practice, assumed life expectancies will increase in accordance with the mortality improvement scale.

Post-retirement mortality (service retirements) – health plan

The above mortality tables developed on a benefit-weighted basis are recommended for use in the valuation for the retirement plan. As health benefits provided by LACERS are not dependent on the level of retirement income received by the retirees or beneficiaries, mortality tables developed on a headcount-basis are recommended for use in the valuation for the health plan. In particular, we recommend using the same rate adjustments from the benefit-weighted basis table that we recommended for the retirement plan valuation.

The current mortality tables used for post-retirement mortality for the health plan are as follows:

- Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and unadjusted for females, projected generationally with Scale MP-2021.

The following table shows the observed headcount-weighted deaths for healthy retired members based on the actual experience during the 12-year period. Also shown are the expected deaths under the current and recommended assumptions.

Healthy Retiree Mortality — Headcount-Weighted Deaths

Gender	Current Expected	Actual	Recommended Expected
Male	4,052	4,063	3,917
Female	1,328	1,383	1,350
Total	**5,380**	**5,446**	**5,267**
Actual / Expected	**101.2%**		**103.4%**

Notes

1. Expected amounts under the current and recommended generational mortality tables are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
2. Results may not add due to rounding.

We recommend updating the health plan's post-retirement mortality assumptions for service retirements to the following:

- Pub-2016 General Healthy Retiree Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with Scale MP-2021.

Beneficiary mortality – retirement plan

The current mortality tables used for beneficiary mortality are as follows:

- **Beneficiaries not in pay status as of valuation**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and unadjusted for females, projected generationally with Scale MP-2021.
- **Beneficiaries in pay status as of valuation**
  - Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 10% for females, projected generationally with Scale MP-2021.

The Pub-2016 Contingent Survivor mortality tables (as well as the Pub-2010 Contingent Survivor mortality tables) are developed based only on beneficiary data after the death of the member. This is consistent with the data that we have available for LACERS beneficiaries and we have confirmed that the Pub-2016 Contingent Survivor mortality rates are comparable to LACERS' actual mortality experience for beneficiaries.

Because the Contingent Survivor mortality tables reflect beneficiary mortality experience only **after** the death of the member, in the prior study we recommended the use of two separate mortality tables for beneficiaries, based on the pay status of the beneficiary. In particular, we recommended that the General Healthy Retiree mortality tables be used for beneficiary mortality (both before and after the **expected** death of the member) when calculating the liability for the continuance to a beneficiary of a surviving member. Upon the **actual** death of the member

(i.e., for all beneficiaries in pay status as of the valuation date), we recommended that the Contingent Survivor mortality tables, adjusted for LACERS experience, be used. We note that the use of different mortality tables (before and after the death of the member) has been found by the RPEC to be reasonable.

The following table shows the observed benefit-weighted deaths for beneficiaries based on actual experience during the 12-year period. Also shown are the expected benefit-weighted deaths under the current and recommended assumptions.

Beneficiary Mortality — Benefit-Weighted Deaths ($ in millions)

Gender	Current Expected	Actual	Recommended Expected
Male	$0.32	$0.36	$0.35
Female	4.90	4.94	4.85
Total	**$5.22**	**$5.30**	**$5.20**
Actual / Expected	**101.5%**		**101.9%**[32]

Notes

1. Experience shown above is weighted by monthly benefit amounts for deceased beneficiaries.
2. Expected amounts under the current and recommended generational mortality table are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
3. Results may not add due to rounding.

As shown in the table above, the recommended mortality table has an actual to expected ratio of about 102% after adjustments for partial credibility. In future years, the ratios should remain around this level as long as actual mortality improves at the same rates as anticipated by the generational mortality tables.

The recommended mortality tables reflect current experience to the extent that the experience is credible based on standard statistical theory. For many plans, including LACERS, there is less data available for beneficiaries than there is for healthy retirees, so it is given relatively less credibility and the recommended tables are adjusted by less than they would be if the experience for beneficiaries had full credibility.

We recommend updating the retirement plan's beneficiary mortality assumptions to the following:

- **Beneficiaries not in pay status as of valuation**
  - Pub-2016 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with Scale MP-2021

[32] If we used the benchmark Pub-2016 Contingent Survivor table without any adjustment, the recommended actual to expected ratio would be 107%.

- **Beneficiaries in pay status as of valuation**
  - Pub-2016 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 5% for females, projected generationally with Scale MP-2021.

Beneficiary mortality – health plan

The current mortality tables used for beneficiary mortality for the health plan are as follows:

- **Beneficiaries not in pay status as of valuation**
  - Pub-2010 General Healthy Retiree Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and unadjusted for females, projected generationally with Scale MP-2021.
- **Beneficiaries in pay status as of valuation**
  - Pub-2010 Contingent Survivor Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 10% for females, projected generationally with Scale MP-2021.

The following table shows the observed headcount-weighted deaths for beneficiaries in pay status based on actual experience during the 12-year period. Also shown are the expected deaths under the current and recommended assumptions.

Beneficiary Mortality — Headcount-Weighted Deaths

Gender	Current Expected	Actual	Recommended Expected
Male	200	217	220
Female	2,351	2,320	2,303
Total	**2,551**	**2,537**	**2,524**
Actual / Expected	**99.5%**		**100.5%**

Notes

1. Expected amounts under the current and recommended generational mortality tables are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
2. Results may not add due to rounding.

We recommend updating the health plan's beneficiary mortality assumptions to the following:

- **Beneficiaries not in pay status as of valuation**
  - Pub-2016 General Healthy Retiree Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with Scale MP-2021.

- **Beneficiaries in pay status as of valuation**
  - Pub-2016 Contingent Survivor Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 5% for females, projected generationally with Scale MP-2021.

Pre-retirement mortality – retirement plan

The current mortality tables used for pre-retirement mortality for the retirement plan are as follows:

- Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected generationally with Scale MP-2021.

The table below shows the observed salary-weighted deaths for active members based on the actual experience during the 12-year period. Also shown are the expected salary-weighted deaths under the current and recommended assumptions.

Pre-Retirement Mortality — Salary-Weighted Deaths ($ in millions)

Gender	Current Expected	Actual	Recommended Expected
Male	$28.92	$34.62	$31.91
Female	9.76	12.07	10.58
Total	**$38.69**	**$46.69**	**$42.49**
Actual / Expected	**120.7%**		**109.9%**[33]

Notes

1. Experience shown above is weighted by annual salary for deceased members.
2. Expected amounts under the current and recommended generational mortality table are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
3. Results may not add due to rounding.

As shown in the table above, the recommended mortality table has an actual to expected ratio of about 110% after adjustments for partial credibility. In future years, the ratios should remain around this level as long as actual mortality improves at the same rates as anticipated by the generational mortality tables.

The recommended mortality tables reflect current experience to the extent that the experience is credible based on standard statistical theory. For many plans, including LACERS, there is less mortality experience available for actives than there is for healthy retirees, so it is given relatively less credibility and the recommended tables are adjusted by less than they would be if the experience for actives had full credibility.

[33] If we used the benchmark Pub-2016 General Employee table without any adjustment, the recommended actual to expected ratio would be 125%.

We recommend updating the retirement plan's pre-retirement mortality assumption to the following:

- Pub-2016 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 15% for males and increased by 10% for females, projected generationally with Scale MP-2021.

Currently, our assumption for Tier 1 Enhanced and Sworn Public Safety Officers (PSO) members is that 100% of pre-retirement deaths are service connected.

Due in part to the limited actual experience, we recommend maintaining the current assumption that 100% of pre-retirement deaths for Tier 1 Enhanced and Sworn PSO members are service connected.

Pre-retirement mortality – health plan

The current mortality tables used for pre-retirement mortality for the health plan are as follows:

- Pub-2010 General Employee Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected generationally with Scale MP-2021.

The table below shows the observed headcount-weighted deaths for active members based on actual experience during the 12-year period. Also shown are the expected deaths under the current and recommended assumptions.

Pre-Retirement Mortality — Headcount-Weighted Deaths

Gender	Current Expected	Actual	Recommended Expected
Male	351	427	383
Female	129	172	139
Total	**480**	**599**	**522**
Actual / Expected	**124.8%**		**114.7%**

Notes

1. Expected amounts under the current and recommended generational mortality tables are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
2. Results may not add due to rounding.

We recommend updating the health plan's pre-retirement mortality assumption to the following:

- Pub-2016 General Employee Headcount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 15% for males and increased by 10% for females, projected generationally with Scale MP-2021.

Mortality table for determining optional forms and annuity benefits

Given that our current and recommended post-retirement mortality assumptions include a generational mortality improvement scale, there are some administrative issues that may need to be resolved with LACERS and its vendor (LRS) maintaining the pension administration software (PensionGold) before we could recommend a comparable generational scale to anticipate future mortality improvement. When we issued our January 17, 2024 letter regarding actuarial assumptions for determining optional forms and annuity benefits for the period from July 1, 2024 through June 30, 2027, we understood that LRS was still in the process of incorporating generational mortality improvement into the PensionGold program. Additionally, we understood that PensionGold could not accommodate more than one beneficiary mortality table at that time and that a change to the program to accommodate multiple mortality tables would be made after generational mortality was implemented.

Accordingly, we propose that after the potential adoption of the assumptions in this report, Segal engage in discussions with LRS regarding PensionGold's current capabilities on generational mortality improvement and multiple mortality tables. Then, we would follow up in a letter to LACERS with our recommendation on the actuarial assumptions to use for determining optional forms and annuity benefits for the period from July 1, 2027 through June 30, 2030.

Section 4: Demographic Assumptions

Chart 2: Service Retired Benefit-Weighted Deaths ($ in millions)

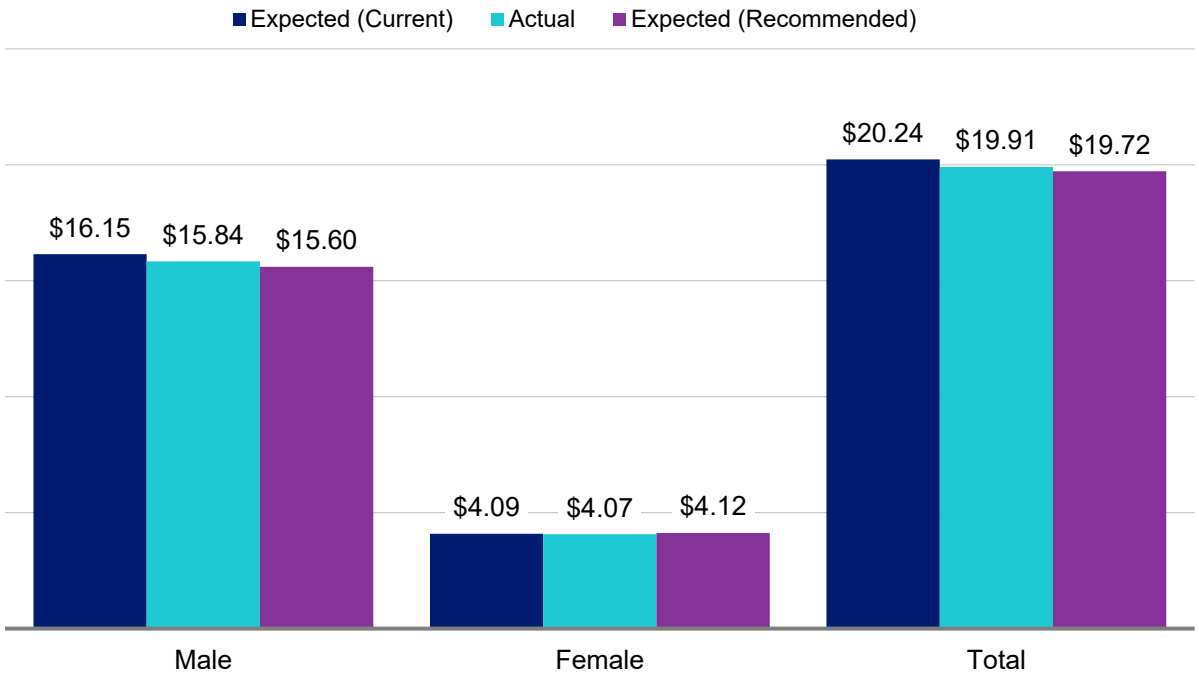
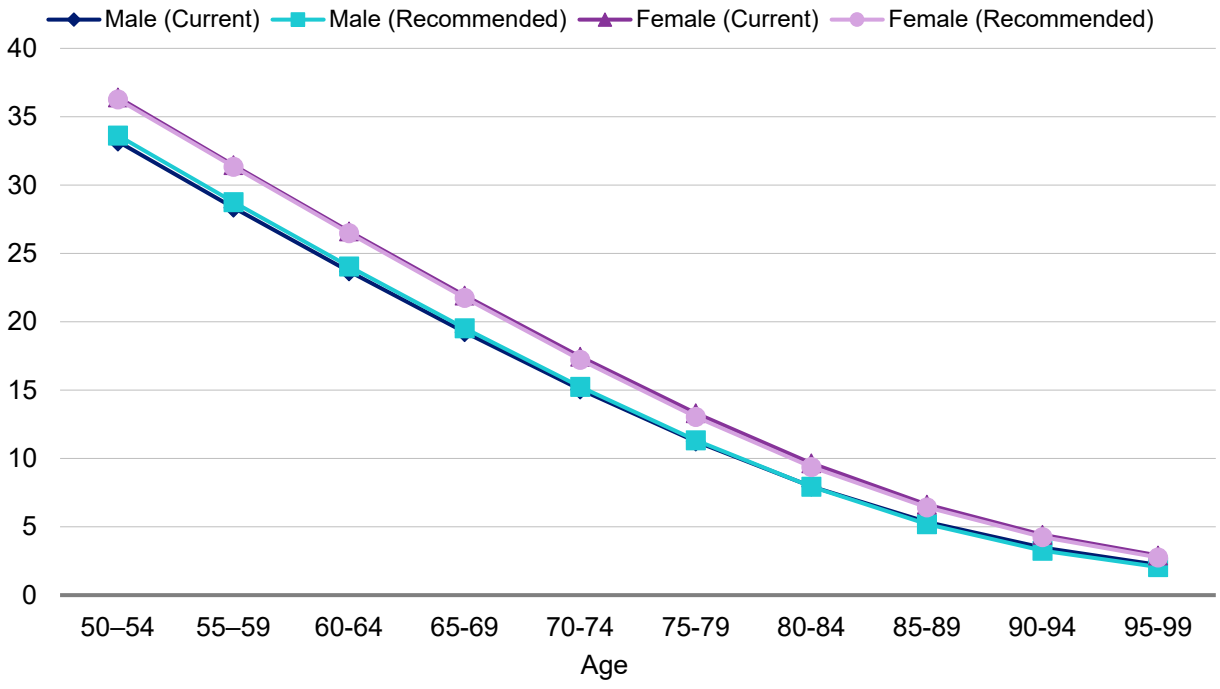


Chart 3: Service Retired Benefit-Weighted Life Expectancies in 2026



B. Mortality rates — Disabled

Since mortality rates for disabled members can vary from those of healthy members, a different mortality assumption is often used.

Retirement plan

The current mortality tables used for disabled mortality for the retirement plan are as follows:

- Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 5% for males and decreased by 5% for females, projected generationally with Scale MP-2021.

The following table shows the observed benefit-weighted deaths for disability retired members based on the actual experience during the 12-year period. Also shown are the expected benefit-weighted deaths under the current and recommended assumptions.

Disabled Retiree Mortality — Benefit-Weighted Deaths ($ in millions)

Gender	Current Expected	Actual	Recommended Expected
Male	$0.45	$0.47	$0.42
Female	0.16	0.15	0.15
Total	**$0.62**	**$0.62**	**$0.56**
Actual / Expected	**100.1%**		**109.9%**[34]

Notes

1. Experience shown above is weighted by monthly benefit amounts for deceased members.
2. Expected amounts under the current and recommended generational mortality table are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
3. Results may not add due to rounding.

As shown in the table above, the recommended mortality tables have an actual to expected ratio of 110% after adjustments for partial credibility. In future years, the ratio should remain around this level as long as actual mortality improves at the same rates as anticipated by the generational mortality tables.

Similar to mortality rates for service retirees, the recommended mortality tables reflect current experience to the extent that the experience is credible based on standard statistical theory. For many plans, including LACERS, there is less data available for disabled retirees, so it is given relatively less credibility and the recommended tables are adjusted by less than they would be if the experience for disabled retirees had full credibility.

[34] If we used the benchmark Pub-2016 Non-Safety table without any adjustment, the recommended actual to expected ratio would be 122%.

We recommend updating the retirement plan's post-retirement mortality assumptions for disability retirements to the following:

- Pub-2016 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 15% for males and unadjusted for females, projected generationally with Scale MP-2021.

Chart 4 on page 41 compares the actual to expected deaths on an amount-weighted basis for disabled retirement members over the 12-year period for the current and recommended assumptions.

Chart 5 on page 41 shows the life expectancies (i.e., expected future lifetime) under the current and recommended tables for disabled retirement members, on an amount-weighted basis. Life expectancies under the current and recommended generational mortality rates are based on age in 2026. In practice, assumed life expectancies will increase in accordance with the mortality improvement scale.

Health plan

The current mortality table used for disability mortality for the health plan is as follows:

- Pub-2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table (separate tables for males and females) with rates increased by 5% for males and decreased by 5% for females, projected generationally with Scale MP-2021.

The following table shows the observed headcount-weighted deaths for disabled retired members based on the actual experience during the 12-year period. Also shown are the expected deaths under the current and recommended assumptions.

Disabled Retiree Mortality — Headcount-Weighted Deaths

Gender	Current Expected	Actual	Recommended Expected
Male	303	283	288
Female	111	98	94
Total	**415**	**381**	**383**
Actual / Expected	**91.8%**		**99.6%**

Notes

1. Expected amounts under the current and recommended generational mortality tables are based on mortality rates from the base year projected with mortality improvements to the year the death occurred (or was expected to occur).
2. Results may not add due to rounding.

Section 4: Demographic Assumptions

We recommend updating the health plan's post-retirement mortality assumptions for disability retirement to the following:

- Pub-2016 Non-Safety Disabled Retiree Headcount-Weighted Mortality Table (separate tables for males and females) with rates increased by 15% for males and unadjusted for females, projected generationally with Scale MP-2021.

Chart 4: Disability Retired Benefit-Weighted Deaths ($ in millions)

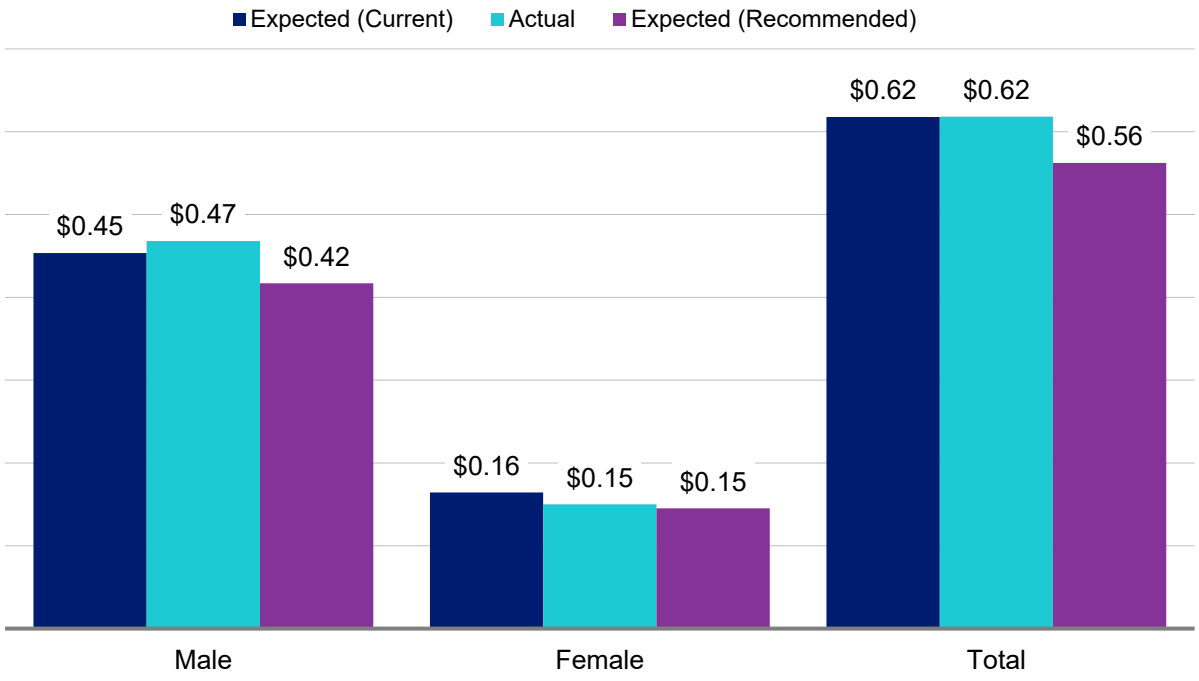
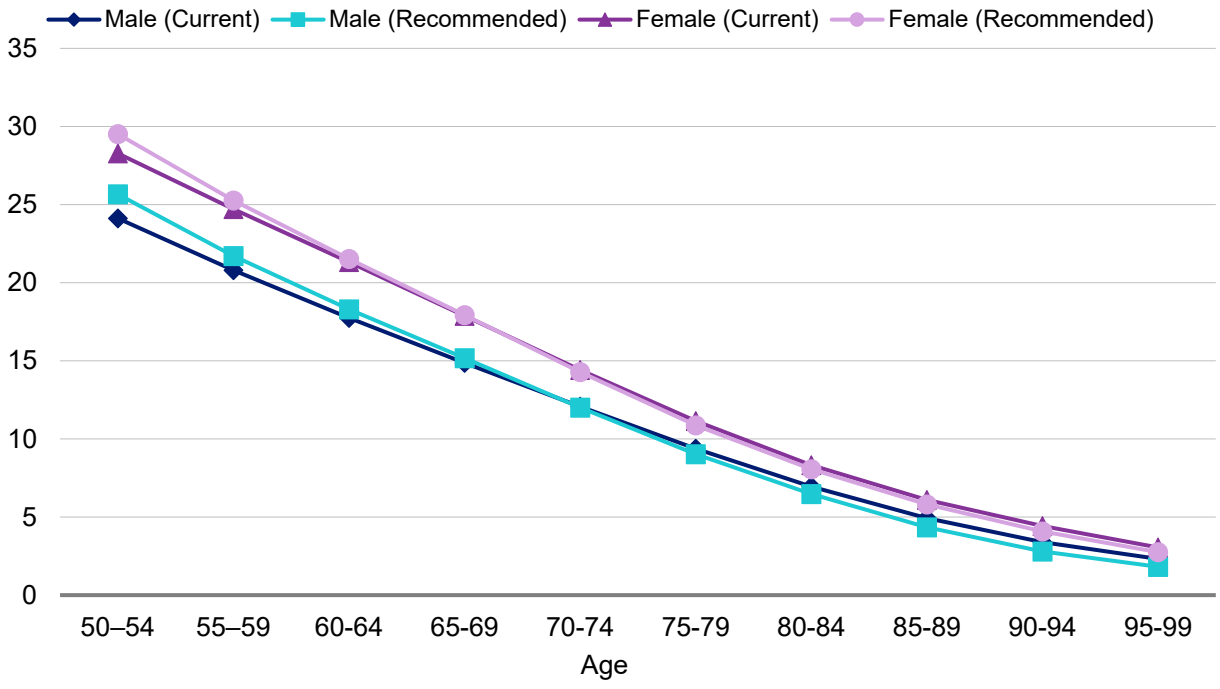


Chart 5: Disability Retired Benefit-Weighted Life Expectancies in 2026



C. Disability incidence rates

When a Tier 1 or Tier 3 member becomes disabled, he or she is generally entitled to a monthly benefit equal to 1/3 of their final average monthly compensation. For Tier 1 Enhanced and Sworn PSO members, their disability benefits will differ based on the type of disability (service-connected or non-service-connected) as well as the severity of the disability.

Under current assumptions, there is an overall incidence of disability assumed based on the member's age. This is combined with an assumption that a Tier 1 Enhanced or Sworn PSO member will either receive a service-connected disability or a non-service-connected disability, as well as an assumption for the level of the disability benefit.

We recommend maintaining the current structure of the disability incidence rate assumption.

The following tables show the observed overall rate of disability incidence based on actual experience during the three-year period from July 1, 2022 through June 30, 2025 for all disabilities.[35] Also shown are the current and recommended assumptions.[36]

Disability Incidence Rates[37]

Age	Current Expected Rate	Actual Rate	Recommended Expected Rate
20 – 24	0.00%	0.00%	0.00%
25 – 29	0.01%	0.00%	0.01%
30 – 34	0.02%	0.03%	0.02%
35 – 39	0.03%	0.02%	0.03%
40 – 44	0.07%	0.01%	0.06%
45 – 49	0.12%	0.08%	0.10%
50 – 54	0.15%	0.13%	0.14%
55 – 59	0.15%	0.11%	0.14%
60 – 64	0.16%	0.13%	0.16%
65 – 69	0.23%	0.12%	0.20%
Actual / Expected	**70.5%**		**76.8%**

We recommend decreasing the disability incidence assumption at some ages.

[35] The Tier 1 (including Tier 1 Enhanced and Sworn PSO) experience shown above reflects actual disabilities from the prior years' status of mostly inactive membership.

[36] We understand that the majority of the Tier 1 Enhanced and Sworn PSO active members have transferred to LAFPP after the three-year experience study period. This transfer may result in plan demographics for the remaining group that differ from those in the three-year experience study period. However, given the low overall incidence of disability, we do not believe the changes in demographics would have a material impact on the recommended disability assumptions. We will continue to monitor this assumption in future studies.

[37] Total rates for all disabilities. (For Tier 1 and Tier 3 members, the disability benefits are the same for service-connected or non-service-connected, whereas they differ between service-connected and non-service-connected for Tier 1 Enhanced and Sworn PSO members.)

Chart 6 on page 45 compares the number of actual disabilities over the past three years to the current and recommended assumptions.

Chart 7 on page 45 compares the actual disability incidence experience with the current and recommended assumptions.

Service-connected vs. non-service-connected disability

The following table shows the observed percent of new Tier 1 Enhanced and Sworn PSO disabled members that received a service-connected disability based on the actual experience over the past three years. Also shown are the current and recommended assumptions.

Disabled Members Receiving a Service-Connected Disability – Tier 1 Enhanced and Sworn PSO

Line Description	Percentage
Current assumption	90%
Actual percentage	67%
Recommended assumption	**80%**

We recommend decreasing the assumption for future disabled Tier 1 Enhanced and Sworn PSO members receiving a service-connected disability from 90% to 80%. The remaining 20% are assumed to be non-service-connected disabilities.

Level of disability benefit

For Tier 1 Enhanced and Sworn PSO members, the level of disability benefit provided by LACERS (expressed as a percentage of final average monthly compensation) is dependent on the severity of disability.

For the twelve members who began receiving a disability benefit during the last three years, we estimated the disability benefit amounts expressed as a percentage of final average monthly compensation, based upon the data provided to us by LACERS for the annual valuations, and excluded one member receiving a benefit based on the service retirement formula.

Non-Service-Connected Disability Benefits – Tier 1 Enhanced and Sworn PSO
(as a % of Final Average Monthly Compensation)

Line Description	Percentage
Number of disabilities	3
Current assumption	40%
Estimated average actual percentage	47%
Recommended assumption	**40%**

We recommend maintaining the level of disability benefit assumption for future disabled Tier 1 Enhanced and Sworn PSO members receiving a non-service-connected disability.

Service-Connected Disability Benefits – Tier 1 Enhanced and Sworn PSO

(as a % of Final Average Monthly Compensation)

Line Description	Less than 20 Years of Service	20 – 30 Years of Service	30 or More Years of Service
Number of disabilities	5	2	1
Current assumption	55%	65%	75%
Estimated average actual percentage	70%	73%	72%
Recommended assumption	**60%**	**65%**	**75%**

We recommend increasing the level of disability benefit assumption for future disabled Tier 1 Enhanced and Sworn PSO members receiving a service-connected disability with less than 20 years of service and maintaining the assumption for service-connected disabilities with 20 or more years of service.

Section 4: Demographic Assumptions

Chart 6: Actual Number of Disabilities Compared to Expected

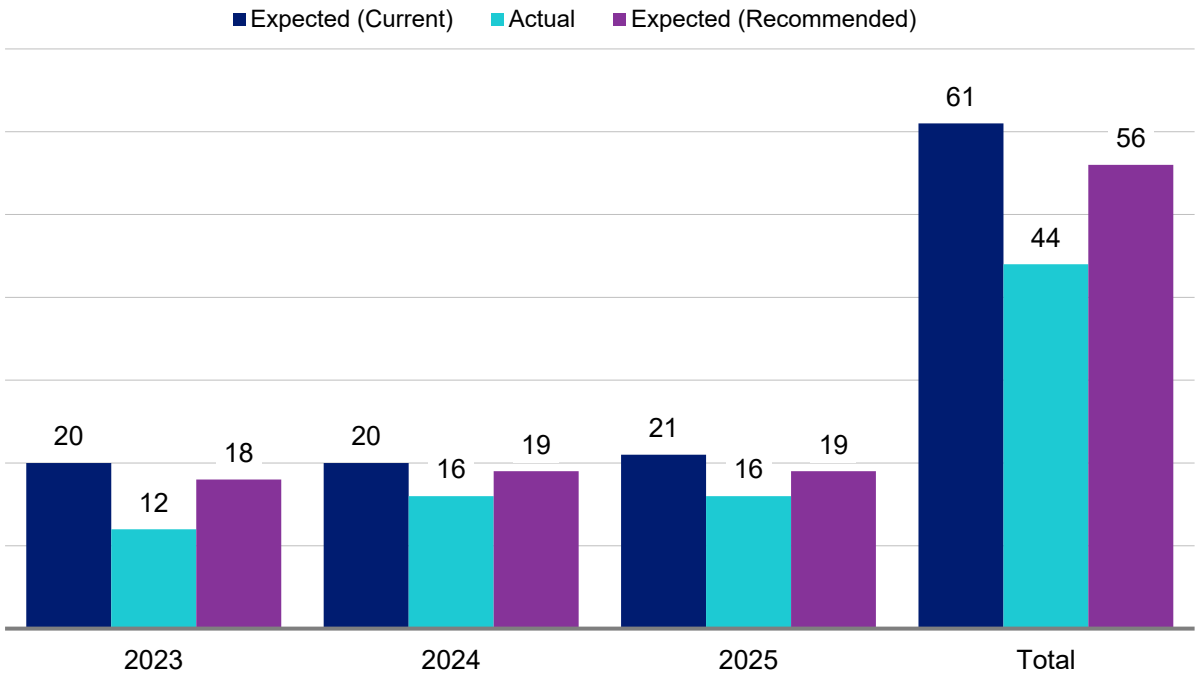
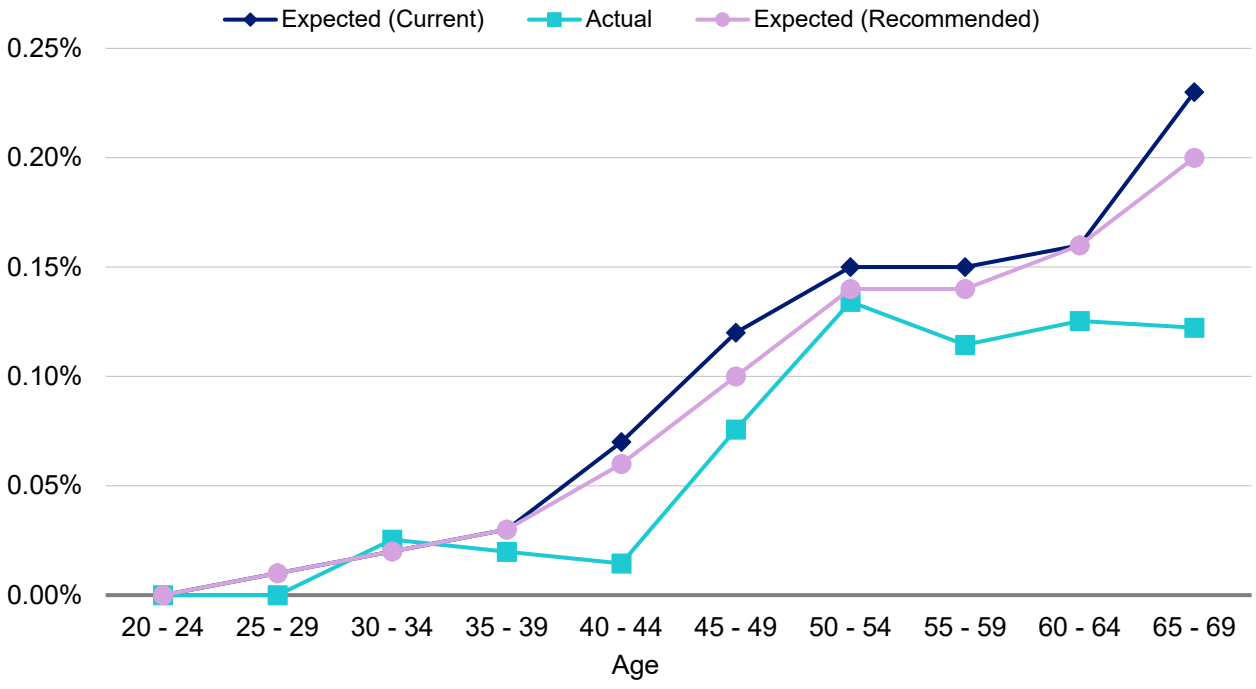


Chart 7: Disability Rates



D. Termination rates

Termination rates include all terminations for reasons other than death, disability, or retirement. Additionally, when a member terminates from service, they can choose between receiving an immediate refund of member contributions or they may leave their contributions on deposit if they are eligible for a deferred vested benefit.

Under current assumptions, members who have at least five years of service at termination are assumed to choose between a refund of contributions or a deferred vested benefit, whichever option is more valuable. Members who do not have at least five years of service at termination are assumed to receive an immediate refund of contributions.

We recommend maintaining this structure of the termination rate assumption.

The current termination rates are applied until the member is first assumed to retire. That is, we assume that members eligible to retire at termination will retire in accordance with the retirement rate assumptions rather than terminate and defer their benefit.

We recommend maintaining the assumption that members who are eligible to retire will elect to receive their retirement benefit in lieu of a deferred vested benefit.

The following tables show the observed overall rate of termination based on actual experience during the three-year period from July 1, 2022 through June 30, 2025. Also shown are the current and recommended assumptions.

Section 4: Demographic Assumptions

Termination Rates

Years of Service	Current Expected Rate	Actual Rate	Recommended Expected Rate
Less than 1	10.50%	12.21%	11.00%
1 – 2	10.00%	8.30%	9.50%
2 – 3	9.00%	9.36%	9.25%
3 – 4	7.75%	9.15%	8.50%
4 – 5	6.25%	7.02%	6.75%
5 – 6	5.25%	6.50%	6.00%
6 – 7	5.00%	4.96%	5.00%
7 – 8	4.75%	4.00%	4.50%
8 – 9	4.50%	3.35%	4.25%
9 – 10	4.25%	3.58%	4.25%
10 – 11	4.00%	4.52%	4.00%
11 – 12	3.75%	4.70%	4.00%
12 – 13	3.50%	3.65%	3.50%
13 – 14	3.00%	4.35%	3.25%
14 – 15	2.75%	4.68%	3.00%
15 and over	2.50%	2.10%	2.25%
Actual / Expected	**103.9%**		**101.9%**

We recommend increasing the termination rates at certain service categories while decreasing the termination rates at other service categories. Overall, the recommended rates represent a slight increase from the current rates.

Chart 8 on page 48 compares the number of actual terminations over the past three years to the current and recommended assumptions.

Chart 9 on page 48 compares the actual termination experience with the current and recommended assumptions.

Chart 8: Actual Number of Terminations Compared to Expected

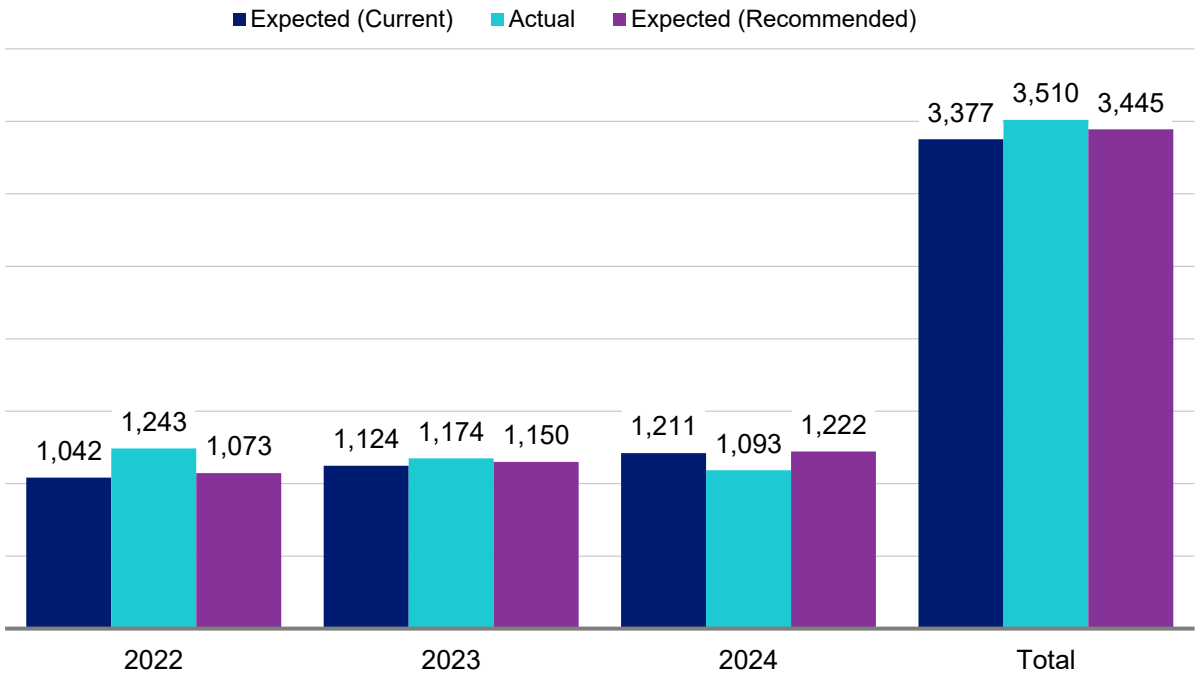
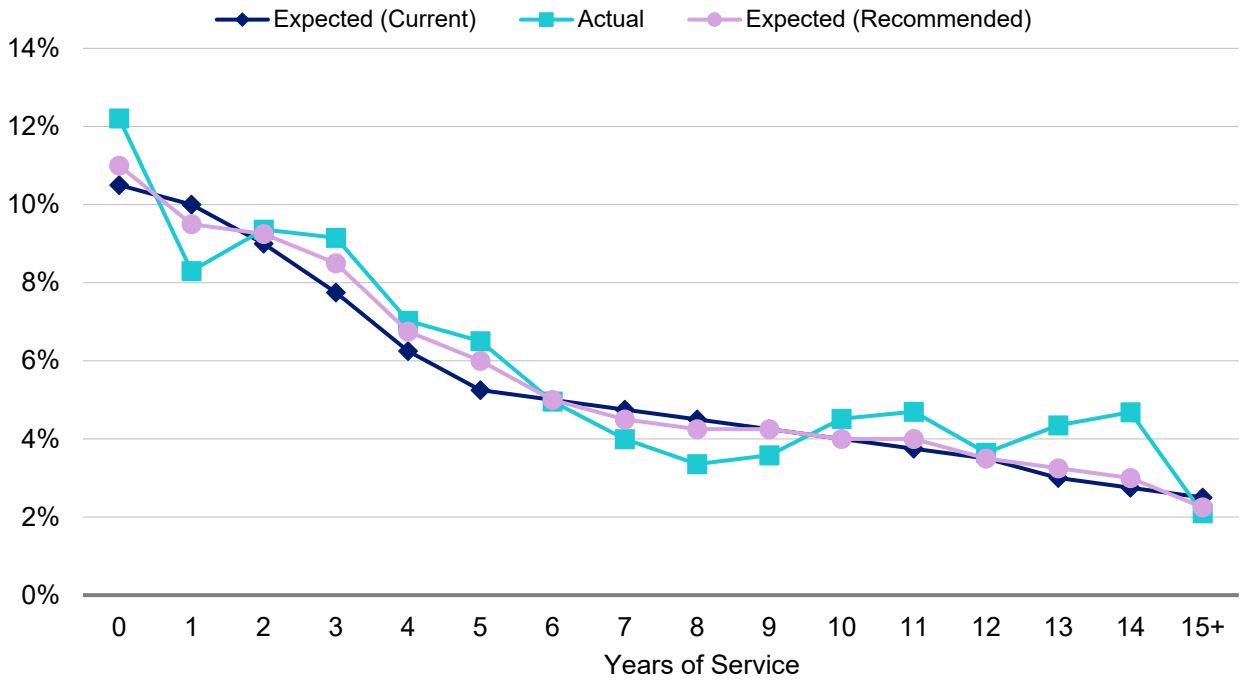


Chart 9: Termination Rates



E. Retirement rates

The age at which a member retires from service will affect both the amount of benefits that will be paid to that member as well as the period over which funding must take place.

The current retirement assumptions, separately for Tier 1, Tier 1 Enhanced, and Tier 3, are bifurcated for those members who are age 55 or older and with 30 or more years of service ("55/30"), and for those who do not meet both of those age and service thresholds ("non-55/30").

We recommend maintaining this structure of the retirement rate assumption. For Tier 3, the rates are now shown simply for those who have less than 30 years of service and those who have 30 or more years of service.

Over the recent three-year experience study period, we only observed 6 Tier 3 service retirements from active service. Even though there is very limited experience available for Tier 3, we are recommending adjustments in the Tier 3 retirement assumptions to maintain consistency with the changes we are recommending for Tier 1, as the rates for Tier 3 were initially developed based, in part, on the benefit level comparisons to Tier 1.

The following tables show the observed service retirement rates based on actual experience during the three-year period from July 1, 2022 through June 30, 2025. Also shown are the current and recommended assumptions.

Section 4: Demographic Assumptions

Tier 1 — Retirement Rates

Age	Non-55/30 Current Expected Rate	Non-55/30 Actual Rate	Non-55/30 Recomm. Expected Rate	55/30 Current Expected Rate	55/30 Actual Rate	55/30 Recomm. Expected Rate
50	5.00%	0.00%	3.00%	0.00%	0.00%	0.00%
51	3.00%	0.00%	2.00%	0.00%	0.00%	0.00%
52	3.00%	1.15%	2.00%	0.00%	0.00%	0.00%
53	3.00%	1.78%	2.00%	0.00%	0.00%	0.00%
54	18.00%	19.74%	19.00%	0.00%	0.00%	0.00%
55	6.00%	5.63%	5.00%	27.00%	31.30%	29.00%
56	6.00%	3.32%	5.00%	18.00%	14.38%	17.00%
57	6.00%	4.56%	5.00%	18.00%	16.06%	17.00%
58	6.00%	3.81%	5.00%	18.00%	13.59%	17.00%
59	6.00%	3.66%	5.00%	18.00%	15.31%	17.00%
60	9.00%	6.35%	8.00%	18.00%	16.97%	17.00%
61	9.00%	5.68%	8.00%	18.00%	12.00%	17.00%
62	9.00%	6.64%	8.00%	18.00%	15.81%	17.00%
63	9.00%	8.46%	8.00%	18.00%	15.42%	17.00%
64	9.00%	5.72%	8.00%	18.00%	16.15%	17.00%
65	16.00%	7.89%	13.00%	21.00%	15.67%	18.00%
66	16.00%	11.89%	13.00%	21.00%	13.82%	18.00%
67	16.00%	12.73%	13.00%	21.00%	18.75%	18.00%
68	16.00%	9.40%	13.00%	21.00%	12.63%	18.00%
69	16.00%	11.56%	13.00%	21.00%	8.97%	18.00%
70 and over	100.00%	11.17%	100.00%	100.00%	15.88%	100.00%
Actual / Expected[38]	**71.4%**		**83.6%**	**85.6%**		**90.3%**

We recommend decreasing the retirement rates overall for Tier 1 members.

Chart 10 on page 54 compares the number of actual retirements for Tier 1 members over the past three years to the current and recommended assumptions.

Chart 12 on page 55 compares the actual retirement experience with the current and recommended assumptions for Tier 1 non-55/30 members.

Chart 13 on page 55 compares the actual retirement experience with the current and recommended assumptions for Tier 1 55/30 members.

[38] The Actual / Expected ratio is based on ages below 70. If the experience for ages 70 and over were included in the ratio, it would have increased from 38.3% to 40.1% for non-55/30, and from 60.4% to 62.5% for 55/30 as a result of the recommended assumptions.

Tier 1 Enhanced — Retirement Rates

Age	Non-55/30 Current Expected Rate	Non-55/30 Actual Rate	Non-55/30 Recomm. Expected Rate	55/30 Current Expected Rate	55/30 Actual Rate	55/30 Recomm. Expected Rate
50	6.00%	0.00%	5.00%	0.00%	0.00%	0.00%
51	5.00%	0.00%	4.00%	0.00%	0.00%	0.00%
52	5.00%	0.00%	4.00%	0.00%	0.00%	0.00%
53	5.00%	0.00%	4.00%	0.00%	0.00%	0.00%
54	18.00%	0.00%	14.00%	0.00%	0.00%	0.00%
55	10.00%	12.50%	10.00%	30.00%	53.85%	36.00%
56	10.00%	8.33%	10.00%	22.00%	0.00%	21.00%
57	10.00%	19.05%	10.00%	22.00%	33.33%	21.00%
58	10.00%	7.14%	10.00%	22.00%	25.00%	21.00%
59	10.00%	0.00%	10.00%	22.00%	20.00%	21.00%
60	11.00%	11.11%	11.00%	22.00%	0.00%	21.00%
61	11.00%	25.00%	11.00%	22.00%	0.00%	21.00%
62	11.00%	0.00%	11.00%	22.00%	N/A	21.00%
63	11.00%	0.00%	11.00%	22.00%	N/A	21.00%
64	11.00%	0.00%	11.00%	22.00%	N/A	21.00%
65	20.00%	33.33%	20.00%	26.00%	0.00%	25.00%
66	20.00%	N/A	20.00%	26.00%	0.00%	25.00%
67	20.00%	N/A	20.00%	26.00%	0.00%	25.00%
68	20.00%	N/A	20.00%	26.00%	N/A	25.00%
69	20.00%	N/A	20.00%	26.00%	N/A	25.00%
70 and over	100.00%	N/A	100.00%	100.00%	0.00%	100.00%
Actual / Expected[39]	**83.8%**		**87.3%**	**106.9%**		**103.4%**

We recommend decreasing the retirement rates overall for Tier 1 Enhanced non-55/30 members and increasing the retirement rates overall for Tier 1 Enhanced 55/30 members.

Chart 11 on page 54 compares the number of actual retirements for Tier 1 Enhanced members over the past three years to the current and recommended assumptions.

Chart 14 on page 56 compares the actual retirement experience with the current and recommended assumptions for Tier 1 Enhanced non-55/30 members.

[39] The Actual / Expected ratio is based on ages below 70. If the experience for ages 70 and over were included in the ratio, it would have increased from 83.8% to 87.3% for non-55/30 (same as shown above), and decreased from 85.8% to 83.5% for 55/30 as a result of the recommended assumptions.

Section 4: Demographic Assumptions

Chart 15 on page 56 compares the actual retirement experience with the current and recommended assumptions for Tier 1 Enhanced 55/30 members.

Due to the lack of actual experience for Tier 3, the following table only shows the current assumed rates and the rates we propose for that tier.

Tier 3 — Retirement Rates

Age	Less Than 30 Years Current Expected Rate	Less Than 30 Years Recomm. Expected Rate	30 or More Years Current Expected Rate	30 or More Years Recomm. Expected Rate
50	0.00%	0.00%	5.00%	3.00%
51	0.00%	0.00%	3.00%	2.00%
52	0.00%	0.00%	3.00%	2.00%
53	0.00%	0.00%	3.00%	2.00%
54	0.00%	0.00%	17.00%	18.00%
55	0.00%	0.00%	26.00%	28.00%
56	0.00%	0.00%	17.00%	16.00%
57	0.00%	0.00%	17.00%	16.00%
58	0.00%	0.00%	17.00%	16.00%
59	0.00%	0.00%	17.00%	16.00%
60	8.00%	7.00%	17.00%	16.00%
61	8.00%	7.00%	17.00%	16.00%
62	8.00%	7.00%	17.00%	16.00%
63	8.00%	7.00%	17.00%	16.00%
64	8.00%	7.00%	17.00%	16.00%
65	15.00%	12.00%	20.00%	17.00%
66	15.00%	12.00%	20.00%	17.00%
67	15.00%	12.00%	20.00%	17.00%
68	15.00%	12.00%	20.00%	17.00%
69	15.00%	12.00%	20.00%	17.00%
70 and over	100.00%	100.00%	100.00%	100.00%
Actual / Expected	**N/A**	**N/A**	**N/A**	**N/A**

We recommend decreasing the retirement rates overall for Tier 3 members.

Chart 16 on page 57 compares the actual retirement experience with the current and recommended assumptions for Tier 3 members with less than 30 years of service.

Chart 17 on page 57 compares the actual retirement experience with the current and recommended assumptions for Tier 3 members with 30 or more years of service.

Deferred vested members

Under the current assumptions, members retiring from deferred status are assumed to retire at age 60, and members retiring from reciprocal status are assumed to retire at age 59.

The following table shows the observed deferred vested retirement age based on the actual experience over the past three years, separately for those who went on to work at a reciprocal retirement system and those who did not. Also shown are the current and recommended assumptions.

Deferred Vested Retirement Age

Line Description	Non-Reciprocal Members	Reciprocal Members
Current assumption	60.0	59.0
Actual experience	61.3	59.8
Recommended assumption	**61.0**	**59.0**

We recommend increasing the retirement age assumption from 60 to 61 for non-reciprocal members and maintaining the retirement age assumption of 59 for reciprocal members.

Chart 10: Actual Number of Retirements Compared to Expected
Tier 1 Members[40]

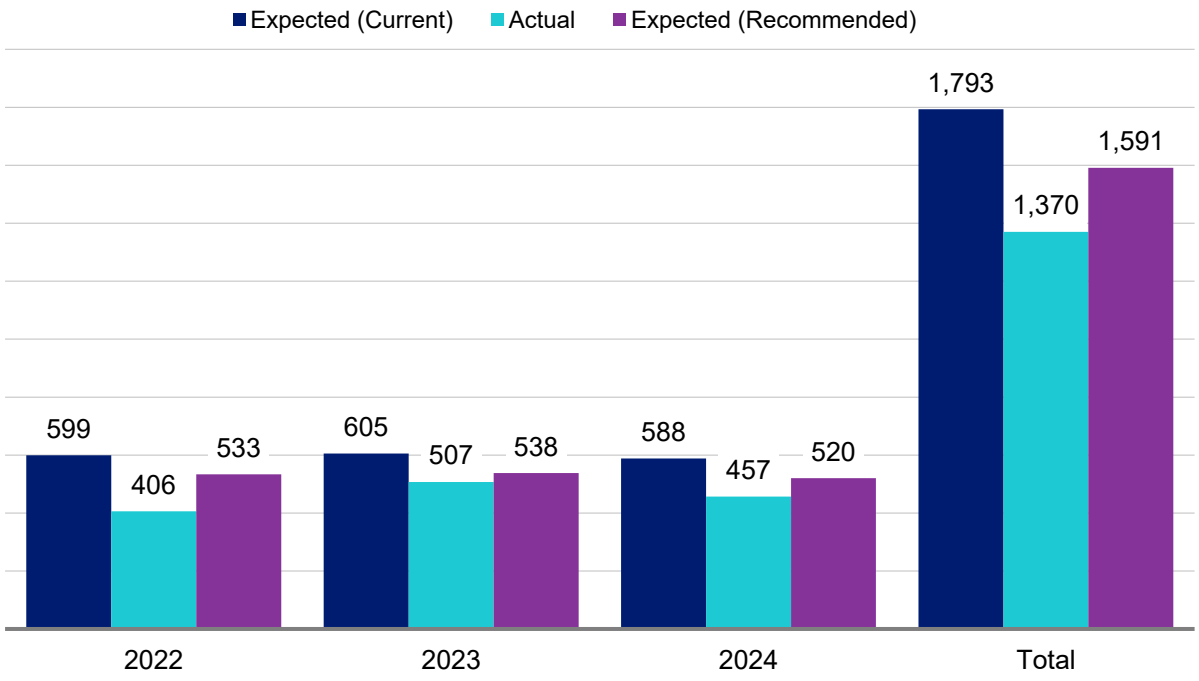
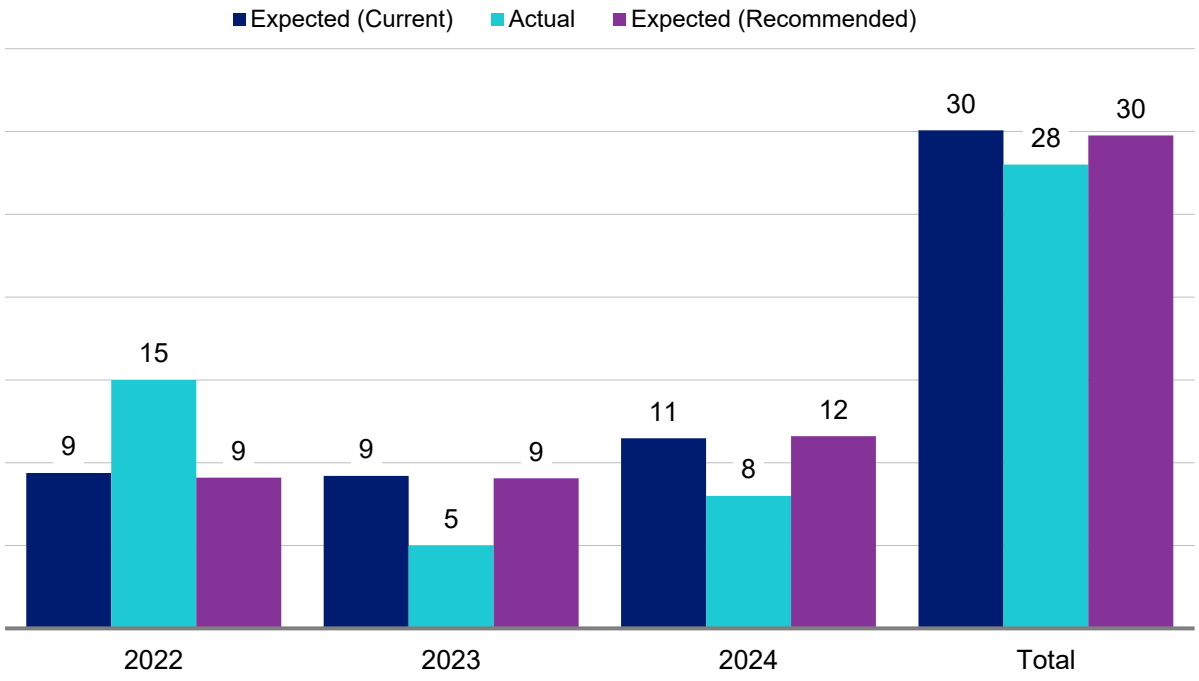


Chart 11: Actual Number of Retirements Compared to Expected
Tier 1 Enhanced Members[40]



[40] The actual retirements, and the expected retirements under the current and recommended assumptions, are shown for ages below 70.

Chart 12: Retirement Rates
Tier 1 Non-55/30 Members

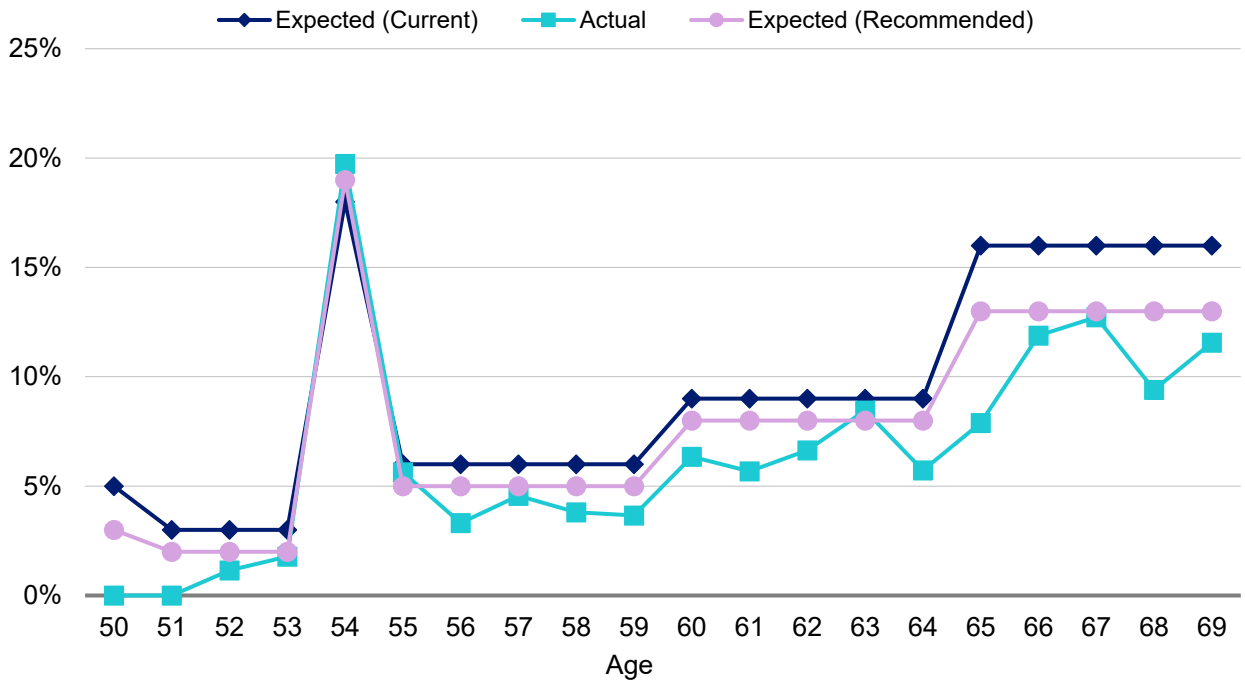


Chart 13: Retirement Rates
Tier 1 55/30 Members

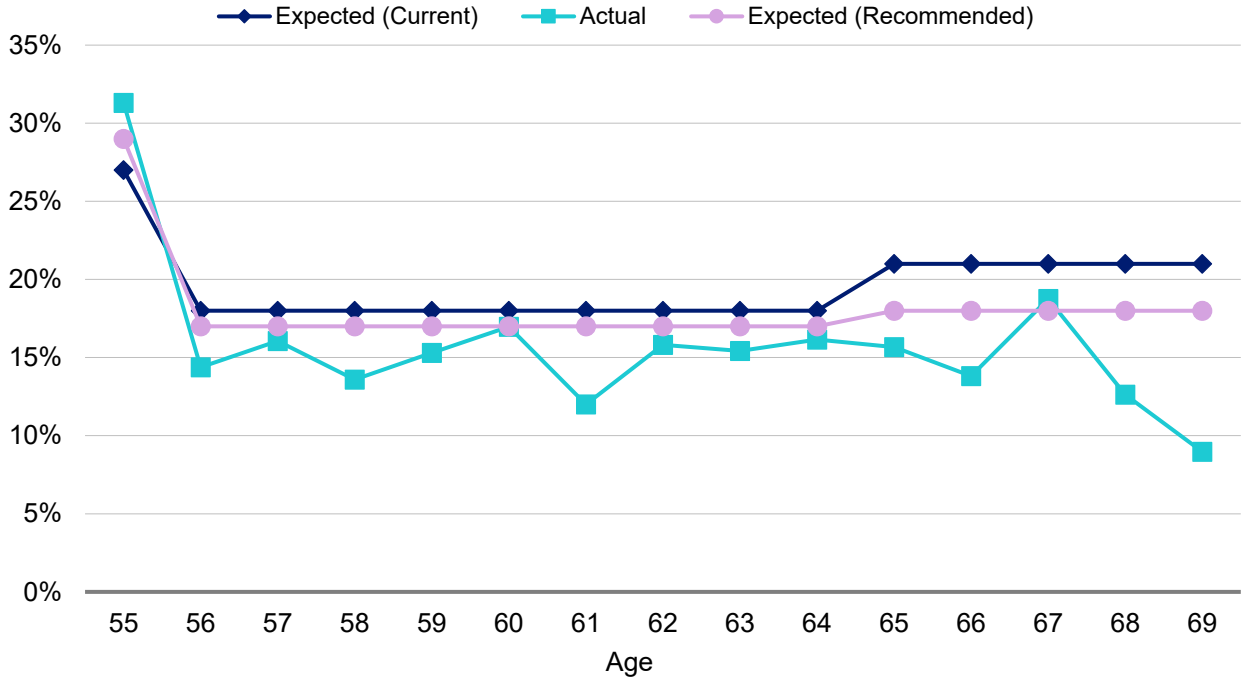


Chart 14: Retirement Rates
Tier 1 Enhanced Non-55/30 Members

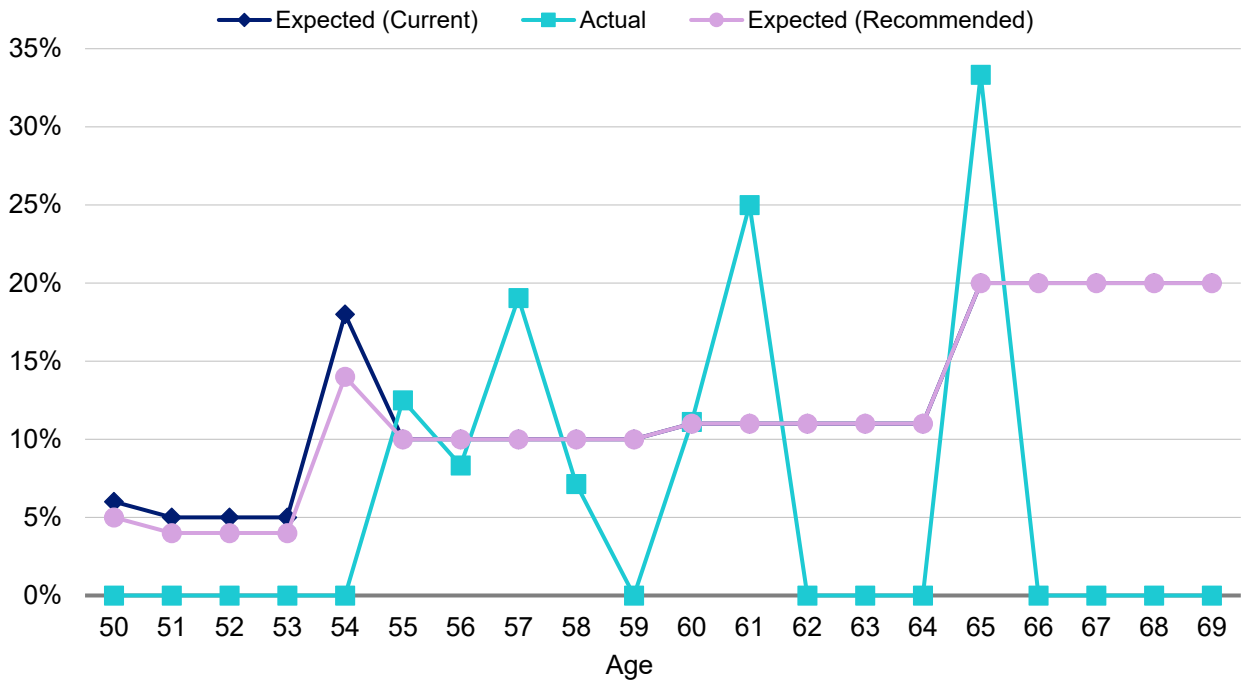


Chart 15: Retirement Rates
Tier 1 Enhanced 55/30 Members

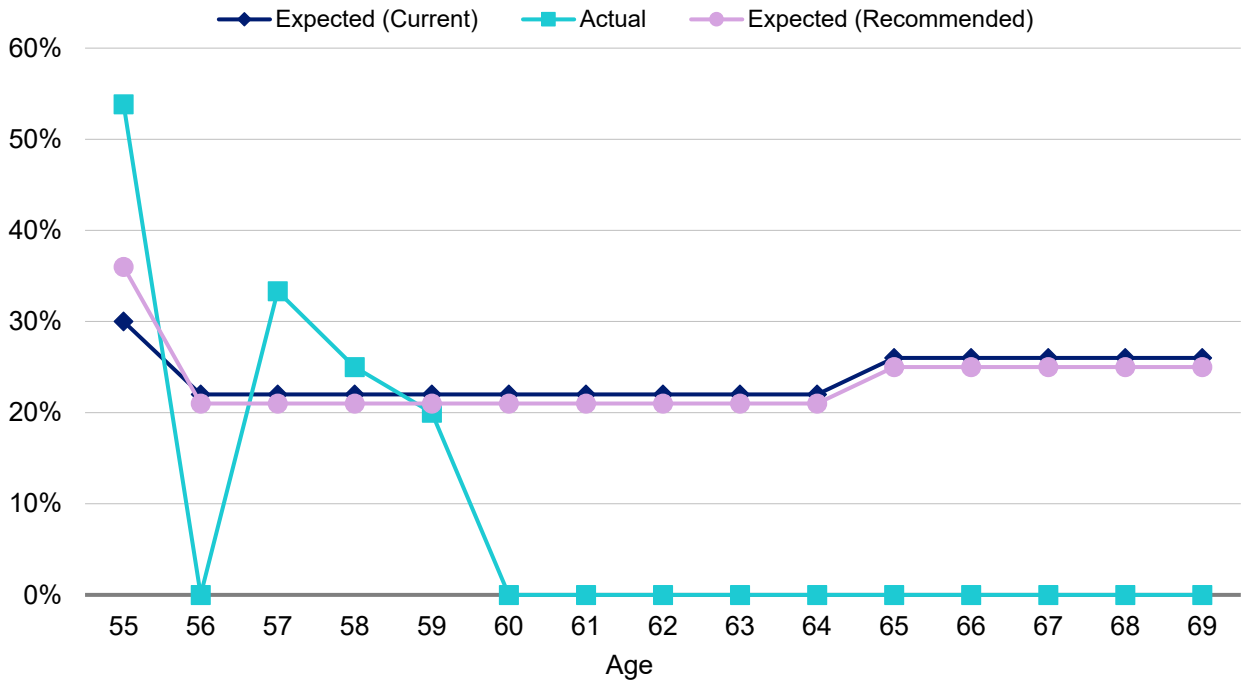


Chart 16: Retirement Rates

Tier 3 Members with Less Than 30 Years of Service

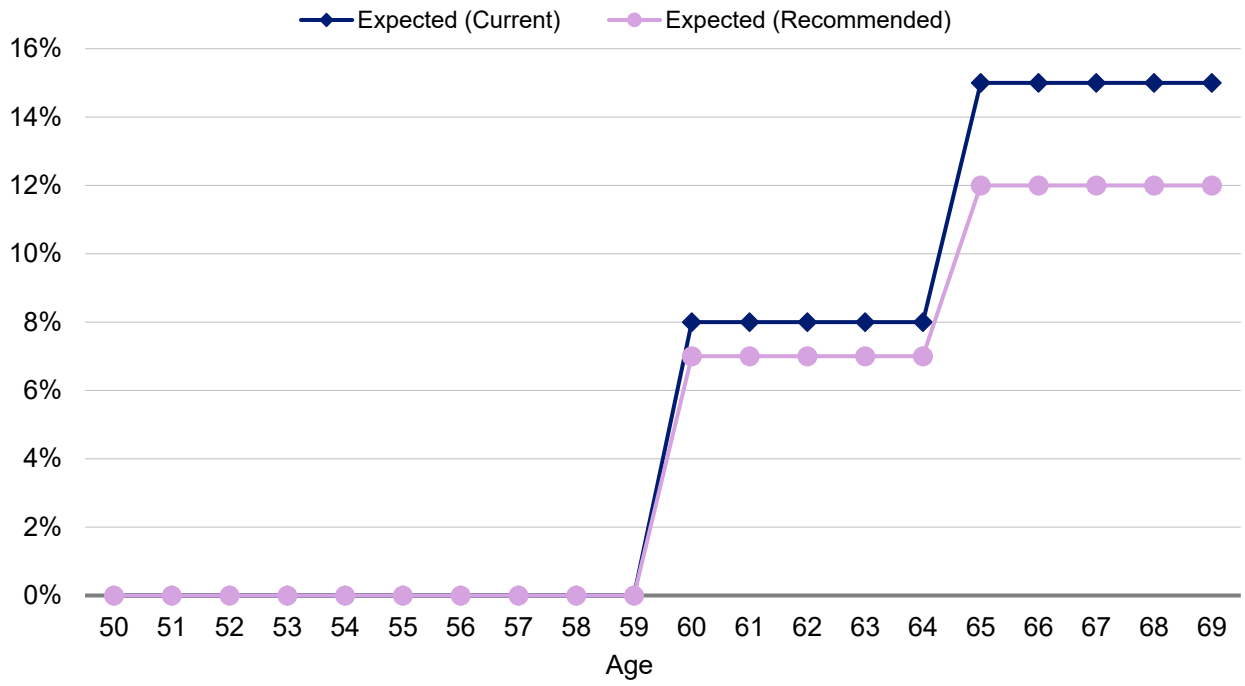
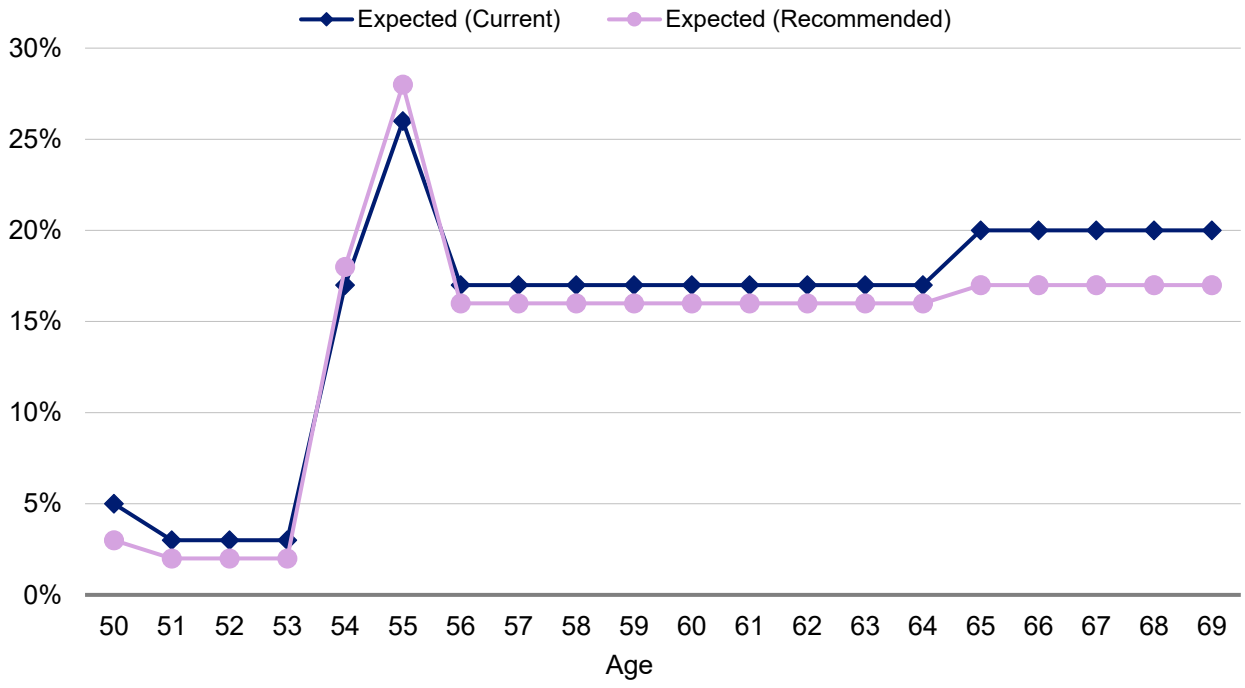


Chart 17: Retirement Rates

Tier 3 Members with 30 or More Years of Service



F. Miscellaneous assumptions

Reciprocity

Under the current assumptions, a percentage of future deferred vested members are assumed to be covered by a reciprocal retirement system.

Unlike other assumptions, we do not review only new deferred vested members during the three-year period because there is typically a lag between a member's date of termination and the time that it is known that they are covered by a reciprocal system. Therefore, the following table shows the observed reciprocity percent based on the actual experience of all deferred vested members as of June 30, 2025. Also shown are the current and recommended assumptions.

Percent of Inactive Members at Reciprocal System as of June 30, 2025

Line Description	Percent Reciprocal
Current assumption	5.0%
Actual experience	3.9%
Recommended assumption	**5.0%**

Based on data available from current inactive vested participants, there is a much lower incidence of members who went to work for a reciprocal system when compared to that observed at our other California public retirement systems. We will continue to monitor this assumption in future studies and discuss with the staff at LACERS if any additional reciprocity data is available after a member has retired to aid in our review.

We recommend maintaining the reciprocity assumption of 5% for the June 30, 2026 valuation.

Under the current assumptions, we assume reciprocal members will receive annual salary increases from the date of termination to the expected date of retirement, at a rate of 4.00% per year, consisting of inflation at 2.50%, "across-the-board" salary increase at 0.50%, and the current ultimate merit and promotion salary increase assumption of 1.00%.

We recommend increasing the reciprocal salary assumption to 4.30% per year, consisting of inflation at 2.50%, "across-the-board" salary increase at 0.50%, and the recommended ultimate merit and promotion salary increase assumption of 1.30%.

Future benefit accruals

Benefits are based on the years of service and compensation earned by the member. In order to project benefits and determine the liabilities, an assumption about the amount of service earned by members each year is necessary.

We recommend maintaining the current assumption that employees accrue 1.0 year of service annually.

Unreported data for members

When various elements of valuation data are not available, an assumption must be made in order to project benefits and determine liabilities.

The following table shows the gender of active members based on actual experience as of June 30, 2025. Also shown are the current and recommended assumptions for members with unreported gender.

Assumption for Unreported Gender

Line Description	Male Member	Female Member
Current assumption	100.0%	0.0%
Actual percent with reported gender as of June 30, 2025	59.5%	40.5%
Recommended assumption	**100.0%**	**0.0%**

We recommend maintaining the assumption that members with unreported gender are male.

We note that this assumption does not have a significant impact as we generally receive gender information for almost all member records from LACERS.

Percent with eligible survivor

The value of a member's retirement, disability, or death benefit depends on the percentage of members who are assumed to have an eligible spouse or domestic partner.

The following table shows the observed percentage of new retirees under the unmodified option, weighted by benefit amounts, who were reported with an eligible spouse or domestic partner at the time of retirement based on the actual experience over the past three years. Also shown are the current and recommended assumptions.

New Retirees with Eligible Spouse or Domestic Partner

Line Description	Male Member	Female Member
Current assumption	76.0%	52.0%
Actual percent	66.0%	48.9%
Recommended assumption	**70.0%**	**50.0%**

We recommend decreasing the percent with eligible survivor assumption for male members to 70% and decreasing the assumption for female members to 50%.

Eligible survivor age and gender

Since the present value of the survivor's automatic continuance benefit is dependent on the survivor's age and gender, we must also have assumptions for these demographics of the survivor.

The following table shows the member's age as compared to the survivor's age for new retirees under the unmodified option with an eligible spouse or domestic partner at the time of retirement based on the actual experience over the past three years. Also shown are the current and recommended assumptions.

Member's Age as Compared to Survivor's Age

Line Description	Male Retiree	Female Retiree
Current assumption	3 years older	2 years younger
Actual experience	3.4 years older	2.5 years younger
Recommended assumption	**3 years older**	**2 years younger**

We recommend maintaining the survivor assumptions that male retirees are three years older than their survivor and that female retirees are two years younger than their survivor.

We also recommend maintaining the survivor assumption that male retirees have a female survivor, and female retirees have a male survivor.

While we do not receive eligible survivor gender information from LACERS for members in pay status, this recommendation is consistent with the actual experience we have seen in recent studies done for other similar retirement systems, even with the inclusion of domestic partners.

G. Retiree health assumptions

Retiree medical participation

The member's retiree health subsidy amount varies depending on whether the retiree enrolls in a Board approved health carrier, the coverage tier elected, and the service level attained at retirement. Therefore, we make assumptions regarding health plan participation based on a member's service at retirement. The election rates shown below are based on all retirees reported in the valuation as of June 30, 2025. Also shown are the current and recommended assumptions.

Eligible Retirees who Elected Medical

Service Range	Current Rate	Actual Rate	Proposed Rate
10 – 14	60%	56.1%	60%
15 – 19	80%	77.3%	80%
20 – 24	90%	88.4%	90%
25 and over	95%	93.8%	95%

We recommend maintaining the current participation assumptions for all service ranges.

Spouse/domestic partner coverage

The retiree medical subsidy amount varies depending on whether retirees receiving a medical subsidy elect to cover their spouse or domestic partner.

The following table shows the observed percentage of new retirees receiving a medical subsidy who were reported with a covered spouse or domestic partner based on the actual experience over the past four years. Also shown are the current and recommended assumptions.

New Retirees with Spouse/Domestic Partner Coverage

Line Description	New Male Retiree	New Female Retiree
Current Assumption	60%	35%
Actual Experience	55%	29%
Recommended Assumption	**57%**	**30%**

We recommend lowering the spousal coverage assumptions from 60% to 57% for new male retirees and from 35% to 30% for new female retirees.

Covered spouse/domestic partner age difference

The following tables show the observed spouse's age for new retirees who elected to cover their spouse based on the actual experience over the past three years. Also shown are the current and recommended assumptions.

Covered Spouse/Domestic Partner's Age Compared to the Member's Age

Line Description	New Male Retiree	New Female Retiree
Current Assumption	4 years younger	2 years older
Actual Experience	3.4 years younger	1.8 years older
Recommended Assumption	**3 years younger**	**2 years older**

We recommend lowering the current spouse/domestic partner age difference assumption for new male retirees from four years younger to three years younger and maintaining the two years older assumption for new female retirees.

Retirees without Medicare Part A (Part B only retirees)

A subset of the plan's membership is not eligible for free Medicare Part A. These retirees are referred to as Part B only retirees. Because of the lack of integration with Medicare Part A, Part B only retiree premiums are higher than the premiums for retirees enrolled in Parts A and B. At LACERS, the maximum health subsidy for retirees without Medicare Part A is the same as those for non-Medicare retirees. In the prior valuation, Part B only retirees were valued similar to the Medicare retirees enrolled in Parts A and B. Because retirees who are currently under the age of 65 are assumed to be eligible for Parts A and B upon reaching the age of 65, the Part B only retirees are expected to be a declining population over time. While the liability for this group is expected to decline over time, including their unique premiums and subsidies represents an improvement in the current measurements.

We recommend valuing the subsidy on the census data record for current Part B only retirees.

MAPD premiums without age-specific assumptions

ASOP 6, *Measuring Retiree Group Benefit Obligations and Determining Retiree Group Benefits Program Periodic Costs or Actuarially Determined Contributions*, generally requires actuaries to use age-specific costs in the development of per capita costs. However, exceptions are provided for cases where the use of age-adjusted costs may not be appropriate. The American Academy of Actuaries released a Practice Note for ASOP 6 that discussed these exceptions and specifically discussed Medicare Advantage plans and Part D prescription drug plans. These plans receive a risk-adjusted federal subsidy that is intended to address cost differences due to age, gender and health status. As such, the cost curve for these plans is flattened after federal payments, which indicates that it is reasonable to model the per-capita costs for the Medicare Advantage Prescription Drug (MAPD) plans using the same monthly premium rate for all ages.

We recommend valuing the per-capita claims costs for the MAPD plans using the respective plan premiums without any adjustments for differences in age or gender.

Health care trend assumptions

Due to the dynamic nature of the health care marketplace, Segal provides the Board recommendations for the health care trend assumptions on an annual basis. Although no

specific health care trend assumptions are being recommended as part of this experience study, we are including background on our general methodology for establishing health care trend rates, which are key assumptions in the retiree health valuation.

The process of setting trend assumptions begins with the selection of an initial (first-year) trend rate, followed by the development of a pattern that grades the trend downward over time to an ultimate long-term rate.

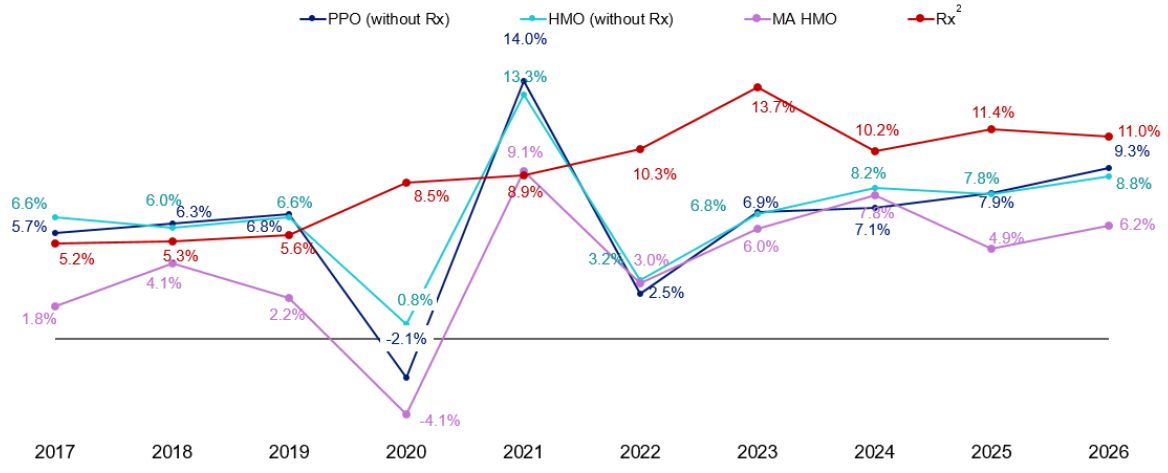
Initial Trend Rates

The initial year health care trend assumptions are developed using a nationwide perspective, with specific consideration given to recent and historical premium changes under the Los Angeles City Employees' Retirement System (LACERS) health plans. This combined approach reflects both broad health care cost expectations and plan-specific experience.

Segal's National Health Care Practice develops health care trend standards annually. These standards are informed by Segal's Health Plan Cost Trend Survey, which collects data from insurers, pharmacy benefit managers (PBMs), and managed care organizations across the country. As part of this process, Segal analyzes historical trends by comparing projected health care cost increases to actual results, evaluating the variation in experience and fitting those results to the differences observed between projected and realized trends.

The following graph provides a summary of historical trends through 2024, and projected 2025 and 2026 trend rates from Segal's 2026 Health Plan Cost Trend Survey.

Ten-Year Summary of Selected Medical and Rx Trends: *2017–2024 Actual and 2025 and 2026 Projected*[1]



Source: 2026 *Segal Health Plan Cost Trend Survey*
[1] All trends are illustrated for actives and non-Medicare retirees, except for MA HMOs.
[2] Prescription drug trend is combined for retail and mail order delivery channels.

For LACERS, the recommended health care trend assumptions also reflect the plan's recent premium history and renewal experience. In particular, premium changes over the past six years and the rate renewals presented at the August Board meetings are incorporated into the

selection of the first-year trend rates. This ensures that the assumptions reflect not only national expectations but also the characteristics and recent experience of the LACERS health plans, along with analysis provided by the Plan's health consultant.

Long-Term Trend and Grading Pattern

Retiree health care valuations typically project benefit payments over very long time horizons, in some cases extending 70 to 80 years into the future. Accordingly, the selection of ultimate trend rates and the grading pattern from the initial trend to the ultimate level is an important component of the assumption-setting process.

Segal's Office of the Chief Actuary has established internal standards governing the development of post–first-year trends. Under these standards, health care trends are assumed to decrease gradually from the initial level until reaching an ultimate long-term rate, reflecting expectations that health care cost growth will moderate over time relative to near-term levels.

The selected ultimate trend assumptions are developed with reference to several health economics frameworks. The ultimate trend rates also consider guidance in Actuarial Standard of Practice No. 6 (Measuring Retiree Group Benefits Obligations), "the actuary should consider relevant long-term economic factors such as projected growth in per capita gross domestic product (GDP), projected long-term wage inflation, and projected health care expenditures as a percentage of GDP." In this context, long-term per capita GDP growth estimates published by the Congressional Budget Office (CBO) are considered in evaluating the reasonableness of the ultimate trend assumptions. As noted in the CBO's March 2025 publication, The Long-Term Budget Outlook: 2025 to 2055, "On a per-person basis, real GDP is expected to increase at an average annual rate of 1.3 percent over the 2025 - 2055 period —more slowly than the average annual growth rate of 1.7 percent seen over the past 30 years." Using a 2.50% inflation assumption, the CBO's real per-capita GDP growth assumption of 1.30% translates to a 3.80% nominal per-capita GDP increase assumption. Our current 4.50% ultimate trend rate is higher than expected long-term nominal per-capita GDP increases as health care trend is expected to outpace GDP growth for most of the health plan's duration.

Medicare Part B

The trend assumptions for Medicare Part B premiums are based mainly on projections in the Medicare Trustees reports, which are updated annually.

Section 5: Cost Impact

This section presents the estimated impact of the recommended economic assumptions from *Section 3* and the recommended demographic assumptions from *Section 4*. The cost impact is estimated by recalculating the June 30, 2025 actuarial valuation using the recommended assumptions. The actual impact of the recommended assumptions will be measured as of the June 30, 2026 valuation.

Cost Impact on Funded Status
Based on June 30, 2025 Actuarial Valuation

Assumption	Retirement Plan	Health Plan	Total Impact on Funded Status
Changes in economic assumptions	$980.0 million	$94.0 million	$1,074.0 million
Changes in demographic assumptions	(166.7 million)	89.8 million	(76.9 million)
Total increase in UAAL	**$813.3 million**	**$183.8 million**	**$997.1 million**
Change in funded ratio on VVA basis	**(2.14%)**	**(4.80%)**	**(2.41%)**

Cost Impact on Average Employer Contribution Rates
Based on June 30, 2025 Actuarial Valuation (Payable July 15, % of Payroll)

Assumption	Retirement Plan	Health Plan	Total Impact on Employer Contribution
Changes in economic assumptions	4.00%	0.41%	4.41%
Changes in demographic assumptions	(0.72%)	0.01%	(0.71%)
Total increase in average employer contribution rate, payable July 15	**3.28%**	**0.42%**	**3.70%**
Total increase in annual dollar amount[41]	**$96.0 million**	**$12.3 million**	**$108.3 million**

Of the various assumption changes, the most significant rate increase is due to the change in the investment return assumption.

The tables below show the total impact on the employer contribution rate, payable on July 15, and the funded ratio due to the recommended assumptions.

[41] Based on June 30, 2025 projected annual payroll as determined under each set of assumptions.

Section 5: Cost Impact

Employer Contribution Rates by Membership Group (Payable July 15, % of Payroll)

Plan and Tier	Current Assumptions	Recommended Assumptions	Incremental Change
Retirement Plan			
Tier 1	30.14%	33.62%	3.48%
Tier 3	25.77%	28.77%	3.00%
Total Retirement Plan	**28.40%**	**31.68%**	**3.28%**
Retiree Health Plan			
Tier 1	3.49%	4.02%	0.53%
Tier 3	3.73%	3.99%	0.26%
Total Retiree Health Plan	**3.59%**	**4.01%**	**0.42%**

Funded Ratios on a Valuation Value of Assets Basis

Plan	Current Assumptions	Recommended Assumptions	Incremental Change
Retirement Plan	74.60%	72.46%	(2.14%)
Health Plan	105.77%	100.97%	(4.80%)

Section 5: Cost Impact

Incremental Change in Employer Contribution Rate (Payable July 15, % of Payroll)

Tier and Component	Retirement Plan	Retiree Health Plan	Total Employer Contribution
Tier 1			
Normal cost	1.88%	0.17%	2.05%
UAAL	1.60%	0.36%	1.96%
Total	**3.48%**	**0.53%**	**4.01%**
Tier 3			
Normal cost	1.40%	(0.10%)	1.30%
UAAL	1.60%	0.36%	1.96%
Total	**3.00%**	**0.26%**	**3.26%**
Total Plan			
Normal cost	1.68%	0.06%	1.74%
UAAL	1.60%	0.36%	1.96%
Total	**3.28%**	**0.42%**	**3.70%**

Appendix A: Current Actuarial Assumptions

Economic assumptions

Net investment return

7.00%, net of administrative and investment expenses.

Employee contribution crediting rate

Based on average of 5-year Treasury note rate. An assumption of 2.50% is currently used to approximate that crediting rate.

Inflation

2.50% per year.

Cost-of-Living Adjustment (COLA)

Retiree COLA increases of 2.75% per year for Tier 1 and 2.00% per year for Tier 3. For Tier 1 members with COLA banks, withdrawals from the bank are assumed to increase the retiree COLA up to 3.00% per year until their COLA banks are exhausted.

Increase in Internal Revenue Code Section 401(a)(17) compensation limit

Increase of 2.50% per year from the valuation date.

Payroll growth

Inflation of 2.50% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.

Appendix A: Current Actuarial Assumptions

Salary increases

The annual rate of compensation increase includes inflation of 2.50%, “across-the-board” increase of 0.50%, and a merit and promotion increase that varies by service.

Merit and Promotion Salary Increases (%)

Years of Service	Rate
Less than 1	6.00
1 – 2	5.90
2 – 3	5.40
3 – 4	4.20
4 – 5	3.50
5 – 6	2.80
6 – 7	2.50
7 – 8	2.10
8 – 9	1.80
9 – 10	1.60
10 – 11	1.50
11 – 12	1.40
12 – 13	1.30
13 – 14	1.20
14 – 15	1.10
15 and over	1.00

Demographic assumptions

Mortality

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Post-retirement mortality rates

- **Service retirees**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Appendix A: Current Actuarial Assumptions

- **Disabled retirees**
  - Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 5% for males and decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries**
  - **Not in pay status as of valuation**
    - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
  - **In pay status as of valuation**
    - Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-retirement mortality rates

- Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-Retirement Mortality Rates (%) — Before Generational Projection from 2010

Age	Male	Female
20	0.04	0.01
25	0.03	0.01
30	0.03	0.01
35	0.05	0.02
40	0.06	0.04
45	0.09	0.06
50	0.14	0.08
55	0.21	0.12
60	0.30	0.19
65	0.45	0.30

For Tier 1 Enhanced and Sworn PSO, 100% of pre-retirement death benefits are assumed to be service-connected.

Appendix A: Current Actuarial Assumptions

Disability incidence

Disability Incidence Rates (%)

Age	Rate
25	0.01
30	0.02
35	0.03
40	0.05
45	0.10
50	0.14
55	0.15
60	0.16
65	0.20

Type of Future Disability – Tier 1 Enhanced and Sworn PSO

Disability Type	Percentage
Service-connected	90%
Non-service-connected	10%

Level of Future Disability Benefits – Tier 1 Enhanced and Sworn PSO

Disability Type and Years of Service	Disability Benefit
Service-connected	
Less than 20	55% of final average salary
20 – 30	65% of final average salary
30 or more	75% of final average salary
Non-service-connected	
5 or more	40% of final average salary

Appendix A: Current Actuarial Assumptions

Termination

Termination Rates (%)

Years of Service	Rate
Less than 1	10.50
1 – 2	10.00
2 – 3	9.00
3 – 4	7.75
4 – 5	6.25
5 – 6	5.25
6 – 7	5.00
7 – 8	4.75
8 – 9	4.50
9 – 10	4.25
10 – 11	4.00
11 – 12	3.75
12 – 13	3.50
13 – 14	3.00
14 – 15	2.75
15 and over	2.50

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Appendix A: Current Actuarial Assumptions

Retirement rates

Retirement Rates (%)

Age	Tier 1: Non-55/30	Tier 1: 55/30	Tier 1 Enhanced: Non-55/30	Tier 1 Enhanced: 55/30	Tier 3: Non-55/30	Tier 3: 55/30
50	5.0	0.0	6.0	0.0	5.0	0.0
51	3.0	0.0	5.0	0.0	3.0	0.0
52	3.0	0.0	5.0	0.0	3.0	0.0
53	3.0	0.0	5.0	0.0	3.0	0.0
54	18.0	0.0	18.0	0.0	17.0	0.0
55	6.0	27.0	10.0	30.0	0.0[42]	26.0
56	6.0	18.0	10.0	22.0	0.0[42]	17.0
57	6.0	18.0	10.0	22.0	0.0[42]	17.0
58	6.0	18.0	10.0	22.0	0.0[42]	17.0
59	6.0	18.0	10.0	22.0	0.0[42]	17.0
60	9.0	18.0	11.0	22.0	8.0	17.0
61	9.0	18.0	11.0	22.0	8.0	17.0
62	9.0	18.0	11.0	22.0	8.0	17.0
63	9.0	18.0	11.0	22.0	8.0	17.0
64	9.0	18.0	11.0	22.0	8.0	17.0
65	16.0	21.0	20.0	26.0	15.0	20.0
66	16.0	21.0	20.0	26.0	15.0	20.0
67	16.0	21.0	20.0	26.0	15.0	20.0
68	16.0	21.0	20.0	26.0	15.0	20.0
69	16.0	21.0	20.0	26.0	15.0	20.0
70 and over	100.0	100.0	100.0	100.0	100.0	100.0

[42] Not eligible to retire under the provisions of the Tier 3 plan at these ages with less than 30 years of service. If a member has at least 30 years of service at these ages, they would be subject to the "55/30" rates.

Appendix A: Current Actuarial Assumptions

Retirement age and benefit for inactive members

Pension benefit paid at the later of age 60 or the current attained age for members retiring from deferred status and at the later of age 59 and the current attained age for members retiring from reciprocal status. For reciprocals, 4.00% compensation increases per annum.

Other reciprocal service

5% of future inactive members will work at a reciprocal system.

Service

Benefit service is used for benefit calculation purposes. For eligibility determination purposes, employment service is used for currently active members and vesting service is used for currently inactive members.

Future benefit accruals

1.0 year of service credit per year.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Form of payment

All active and inactive Tier 1 and Tier 3 members who are assumed to be married or with domestic partners at retirement are assumed to elect the 50% Joint and Survivor Cash Refund Annuity. For Tier 1 Enhanced, the continuance percentage is 70% for service retirement and non-service-connected disability, and 80% for service-connected disability. For Sworn PSO, the continuance percentage is 70% for non-service-connected disability and 80% for service-connected disability. Those members who are assumed to be un-married or without domestic partners are assumed to elect the Single Cash Refund Annuity.

Percent married/domestic partner

For all active and inactive members, 76% of male participants and 52% of female participants are assumed to be married or with domestic partner at pre-retirement death or retirement.

Age and gender of spouse

For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

Retiree health assumptions

Spouse/domestic partner coverage

For all active and inactive members, 60% of male participants and 35% of female participants who receive a retiree health subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage. Of these covered spouses/domestic partners, 100% are assumed to continue coverage if the retiree predeceases the spouse/domestic partner.

Male retirees are assumed to be 4 years older than their female spouses/domestic partners. Female retirees are assumed to be 2 years younger than their male spouses/domestic partners.

Participation

Retiree Medical and Dental Coverage Participation (%)

Service Range (Years)	Percent Covered
10–14	60
15–19	80
20–24	90
25 and over	95

For deferred vested members, we assume an election percent of 50% of these rates.

Mortality Tables

Headcount weighted versions of the mortality tables are used for the health valuation.

Appendix B: Recommended Actuarial Assumptions

Economic assumptions

Net investment return

6.75%, net of administrative and investment expenses.

Employee contribution crediting rate

Based on average of 5-year Treasury note rate. An assumption of 2.50% is currently used to approximate that crediting rate.

Inflation

2.50% per year.

Cost-of-Living Adjustment (COLA)

Retiree COLA increases of 2.75% per year for Tier 1 and 2.00% per year for Tier 3. For Tier 1 members with COLA banks, withdrawals from the bank are assumed to increase the retiree COLA up to 3.00% per year until their COLA banks are exhausted.

Increase in Internal Revenue Code Section 401(a)(17) compensation limit

Increase of 2.50% per year from the valuation date.

Payroll growth

Inflation of 2.50% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.

Appendix B: Recommended Actuarial Assumptions

Salary increases

The annual rate of compensation increase includes inflation of 2.50%, “across-the-board” increase of 0.50%, and a merit and promotion increase that varies by service.

Merit and Promotion Salary Increases (%)

Years of Service	Rate
Less than 1	6.00
1 – 2	5.90
2 – 3	5.50
3 – 4	4.80
4 – 5	4.30
5 – 6	3.80
6 – 7	3.40
7 – 8	2.90
8 – 9	2.50
9 – 10	2.10
10 – 11	1.90
11 – 12	1.70
12 – 13	1.60
13 – 14	1.50
14 – 15	1.40
15 and over	1.30

Demographic assumptions

Mortality

The Pub-2016 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Post-retirement mortality rates

- **Service retirees**
  - Pub-2016 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with Scale MP-2021.

Appendix B: Recommended Actuarial Assumptions

- **Disabled retirees**
  - Pub-2016 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 15% for males and unadjusted for females, projected generationally with Scale MP-2021.
- **Beneficiaries**
  - **Not in pay status as of valuation**
    - Pub-2016 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with Scale MP-2021.
  - **In pay status as of valuation**
    - Pub-2016 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 5% for females, projected generationally with Scale MP-2021.

Pre-retirement mortality rates

- Pub-2016 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 15% for males and increased by 10% for females, projected generationally with Scale MP-2021.

Pre-Retirement Mortality Rates (%) — Before Generational Projection from 2016

Age	Male	Female
20	0.03	0.01
25	0.04	0.01
30	0.04	0.02
35	0.05	0.03
40	0.07	0.04
45	0.10	0.06
50	0.15	0.09
55	0.22	0.14
60	0.34	0.20
65	0.51	0.32

For Tier 1 Enhanced and Sworn PSO, 100% of pre-retirement death benefits are assumed to be service-connected.

Appendix B: Recommended Actuarial Assumptions

Disability incidence

Disability Incidence Rates (%)

Age	Rate
25	0.01
30	0.02
35	0.03
40	0.05
45	0.08
50	0.12
55	0.14
60	0.15
65	0.18

Type of Future Disability – Tier 1 Enhanced and Sworn PSO

Disability Type	Percentage
Service-connected	80%
Non-service-connected	20%

Level of Future Disability Benefits – Tier 1 Enhanced and Sworn PSO

Disability Type and Years of Service	Disability Benefit
Service-connected	
Less than 20	60% of final average salary
20 – 30	65% of final average salary
30 or more	75% of final average salary
Non-service-connected	
5 or more	40% of final average salary

Appendix B: Recommended Actuarial Assumptions

Termination

Termination Rates (%)

Years of Service	Rate
Less than 1	11.00
1 – 2	9.50
2 – 3	9.25
3 – 4	8.50
4 – 5	6.75
5 – 6	6.00
6 – 7	5.00
7 – 8	4.50
8 – 9	4.25
9 – 10	4.25
10 – 11	4.00
11 – 12	4.00
12 – 13	3.50
13 – 14	3.25
14 – 15	3.00
15 and over	2.25

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

Appendix B: Recommended Actuarial Assumptions

Retirement rates

Retirement Rates (%)

Age	Tier 1: Non-55/30	Tier 1: 55/30	Tier 1 Enhanced: Non-55/30	Tier 1 Enhanced: 55/30	Tier 3: Less Than 30 Years	Tier 3: 30 or More Years
50	3.0	0.0	5.0	0.0	0.0	3.0
51	2.0	0.0	4.0	0.0	0.0	2.0
52	2.0	0.0	4.0	0.0	0.0	2.0
53	2.0	0.0	4.0	0.0	0.0	2.0
54	19.0	0.0	14.0	0.0	0.0	18.0
55	5.0	29.0	10.0	36.0	0.0	28.0
56	5.0	17.0	10.0	21.0	0.0	16.0
57	5.0	17.0	10.0	21.0	0.0	16.0
58	5.0	17.0	10.0	21.0	0.0	16.0
59	5.0	17.0	10.0	21.0	0.0	16.0
60	8.0	17.0	11.0	21.0	7.0	16.0
61	8.0	17.0	11.0	21.0	7.0	16.0
62	8.0	17.0	11.0	21.0	7.0	16.0
63	8.0	17.0	11.0	21.0	7.0	16.0
64	8.0	17.0	11.0	21.0	7.0	16.0
65	13.0	18.0	20.0	25.0	12.0	17.0
66	13.0	18.0	20.0	25.0	12.0	17.0
67	13.0	18.0	20.0	25.0	12.0	17.0
68	13.0	18.0	20.0	25.0	12.0	17.0
69	13.0	18.0	20.0	25.0	12.0	17.0
70 and over	100.0	100.0	100.0	100.0	100.0	100.0

Appendix B: Recommended Actuarial Assumptions

Retirement age and benefit for inactive members

Pension benefit paid at the later of age 61 or the current attained age for members retiring from deferred status and at the later of age 59 and the current attained age for members retiring from reciprocal status. For reciprocals, 4.30% compensation increases per annum.

Other reciprocal service

5% of future inactive members will work at a reciprocal system.

Service

Benefit service is used for benefit calculation purposes. For eligibility determination purposes, employment service is used for currently active members and vesting service is used for currently inactive members.

Future benefit accruals

1.0 year of service credit per year.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Form of payment

All active and inactive Tier 1 and Tier 3 members who are assumed to be married or with domestic partners at retirement are assumed to elect the 50% Joint and Survivor Cash Refund Annuity. For Tier 1 Enhanced, the continuance percentage is 70% for service retirement and non-service-connected disability, and 80% for service-connected disability. For Sworn PSO, the continuance percentage is 70% for non-service-connected disability and 80% for service-connected disability. Those members who are assumed to be un-married or without domestic partners are assumed to elect the Single Cash Refund Annuity.

Percent married/domestic partner

For all active and inactive members, 70% of male participants and 50% of female participants are assumed to be married or with domestic partner at pre-retirement death or retirement.

Age and gender of spouse

For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

Retiree health assumptions

Spouse/domestic partner coverage

For all active and inactive members, 57% of male participants and 30% of female participants who receive a retiree health subsidy are assumed to be married or have a qualified domestic partner and elect dependent coverage. Of these covered spouses/domestic partners, 100% are assumed to continue coverage if the retiree predeceases the spouse/domestic partner.

Male retirees are assumed to be 3 years older than their female spouses/domestic partners. Female retirees are assumed to be 2 years younger than their male spouses/domestic partners.

Participation

Retiree Medical and Dental Coverage Participation (%)

Service Range (Years)	Percent Covered
10–14	60
15–19	80
20–24	90
25 and over	95

For deferred vested members, we assume an election percent of 50% of these rates.

Mortality Tables

Headcount weighted versions of the mortality tables are used for the health valuation.

MAPD premiums without age-specific assumptions

The per-capita costs for the Medicare Advantage Prescription Drug (MAPD) plans are modeled using premiums without any adjustments for differences in age and gender.

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