

April 8, 2025

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Dear Supervisors:

**ADOPTION OF NEW RETIREMENT CONTRIBUTION RATES
(ALL DISTRICTS) (3 VOTES)**

SUBJECT

Recommendation to adopt revised employer and employee contribution rates as approved by the Los Angeles County Employees Retirement Association (LACERA) Board of Investments in accordance with Government Code Section 31454, to be effective between July 1, 2025 and September 29, 2025.

IT IS RECOMMENDED THAT YOUR BOARD:

1. Adopt the revised employer and employee retirement contribution rates approved by the LACERA Board of Investments in accordance with Government Code Section 31454.
2. Instruct the Auditor-Controller to make the system changes necessary to implement this recommendation.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of these recommendations is to set employer and employee contribution rates at a level sufficient to fund retirement system liabilities identified in the June 30, 2024 Actuarial Valuation of Retirement Benefits Report, referred to as "2024 Actuarial Valuation Report" (attached). On February 12, 2025, the LACERA Board of Investments adopted the employer and employee rates as recommended in the 2024 Actuarial Valuation Report prepared by LACERA's consulting actuary, Milliman.

The County Employees Retirement Law of 1937 requires the LACERA Board of Investments to obtain an actuarial valuation of the retirement system at intervals not to exceed three (3) years and, based on such valuation, to recommend to the Board of Supervisors at least forty-five (45) days prior to the beginning of the succeeding fiscal year, such changes in employer and/or employee contribution rates as may be necessary to properly fund the retirement system. LACERA conducts an actuarial valuation on an annual basis. The Board of Supervisors is required to adopt the contribution rates approved by the LACERA Board of Investments in accordance with Government Code Section 31454.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The adoption of the revised employer and employee contribution rates provided in the recommendation is directly responsive to the Strategic Plan Goal of fiscal responsibility.

FISCAL IMPACT/FINANCING

Adoption of these actuarial valuation recommendations will result in an aggregate employer contribution rate decrease of 0.27% to 25.61%. This will result in a total estimated annual employer retirement cost for the upcoming fiscal year 2025-2026 of \$2.6 billion for all employers, which is an increase of approximately \$91 million compared to the estimated employer retirement cost for the fiscal year 2024-2025. Although the calculated employer contribution rate is decreasing, there was a larger increase in the estimated payroll, which results in this expected increase in the dollar contribution. Note that Los Angeles County (County) provides more than 95% of the employer contributions to LACERA.

New employee contribution rates for General Plan G and Safety Plan C are recommended for the upcoming fiscal year 2025-2026. Employee contribution rates for open plans General Plan G and Safety Plan C, which are not age specific, will increase by 0.02% of pay to 9.30% of pay (General Plan G) and 0.17% of pay to 15.14% of pay (Safety Plan C), as compared to current employee contribution rates adopted for the fiscal year 2024-2025.

There are no recommended changes to employee contribution rates for legacy plans (General Plans A, B, C, and D and Safety Plans A and B) since no new assumptions were adopted with the 2024 Actuarial Valuation. These rates are specific to each retirement plan and the employee's entry age. General Plan E is non-contributory. Average employee contribution rates for all retirement plans are provided in Exhibit 10, page 30 of the 2024 Actuarial Valuation Report.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

1. LEGAL REQUIREMENT FOR PERIODIC ACTUARIAL VALUATIONS AND ADJUSTMENTS IN CONTRIBUTION RATES

Provisions contained in Article XVI, Section 17, of the California Constitution and in the County Employees Retirement Law of 1937 (California Government Code, Sections 31450-31899.10) govern LACERA's actuarial practice.

The California Constitution, in Article XVI, Section 17(e), assigns "the sole and exclusive power to provide for actuarial services" to the governing body of the public retirement system. Such power is granted by the Constitution "in order to assure the competency of the assets of the public pension or retirement system."

Section 31453 of the County Employees Retirement Law requires LACERA to obtain

an actuarial valuation at least once every three (3) years and, based on such valuation and the recommendation of the actuary, to recommend to the Board of Supervisors, at least forty-five (45) days prior to the beginning of the succeeding fiscal year, such changes in employer and/or employee contribution rates as may be necessary to properly fund the retirement system. Government Code Section 7504(a) also requires an actuarial valuation be performed at least every three (3) years.

Section 31454 requires the Board of Supervisors to adjust contribution rates in accordance with LACERA's recommendations no later than ninety (90) days following the beginning of the immediately succeeding fiscal year, which means that the adjustments must be made effective on July 1, 2025, or thereafter, but no later than September 29, 2025.

Section 31454.1 exempts the independent assumptions and calculations of LACERA's actuary from "meet and confer" requirements. This same section also recognizes the "meet and confer" responsibility of the Board of Supervisors in implementing the recommendations contained in the actuarial valuation report.

2. ACTUARIAL VALUATION PROCESS

The cost of a retirement system is ultimately based on the benefit provisions adopted by the system and the actual experience of the system. Actuarial valuations determine the employer and employee contributions rates needed to fund the retirement system over time. The employer contribution rate of a defined benefit retirement system, such as the one administered by LACERA, consists of two (2) components - normal cost and unfunded liability. Normal cost is the amount needed to fund the service credit currently being earned by retirement system members (active members) through their present employment with the County. The unfunded liability component of the employer contribution rate represents the contributions needed to fund liabilities created by past service, which have not been funded by previously collected contributions due to variations of actual experience from the actuarial assumptions.

The employer contribution rates of a retirement system are determined by several economic and non-economic (demographic) factors, referred to as actuarial assumptions and methods, such as the rate of return on assets, the rate of future salary increases, inflation, mortality, disability, and membership terminations. The actuary must make assumptions about the long-range impact of these factors in determining the amount of assets required to fund the cost of the retirement system.

There are three (3) primary sources of revenue for underwriting the cost of a retirement system: employee contributions, employer contributions, and investment earnings. As part of the valuation process, the actuary compares the current assets available to pay retirement benefits with the actuarial liabilities (both current and future) for current members. The main purpose of an actuarial valuation is to determine the amount of future employer and employee contributions and expected investment earnings that will be needed to pay all future benefits and achieve full funding of the retirement system.

3. ACTUARIAL REVIEW

The accuracy of the valuations used to calculate contribution rates are validated periodically as the LACERA Board of Investments authorizes an independent actuarial review of the services performed by Milliman. Actuarial reviews are performed every three (3) years, in the same cycle as the triennial investigation of experience study, and as such, an actuarial review will be performed in conjunction with the June 30, 2025 triennial Experience Study and Actuarial Valuation Report preparation.

4. 2024 ACTUARIAL ASSUMPTION CHANGES

No changes were made to economic and demographic assumptions used to prepare the 2024 Actuarial Valuation Report. The actuarial methods and assumptions adopted for the 2022 Actuarial Valuation Report remain unchanged.

5. 2024 VALUATION RESULTS

Based on Milliman's 2024 Actuarial Valuation Report, the actuarial value of valuation assets totaled \$76.7 billion, and the actuarial accrued liability amounted to \$94.8 billion. As a result, LACERA's June 30, 2024 funded status was 80.9%, compared to 79.9% as of the prior year, June 30, 2023.

Key factors contributing to this change in funded status are summarized as follows:

- \$488 million increase in liabilities due to salary increases greater than expected,
- \$364 million gain on the actuarial value of assets due to recognition of a portion of investment return gains and losses in the current and prior periods under a five-year smoothing process, and
- \$20 million increase in liabilities due to other non-salary related sources, including demographic, mortality, and PEPR Compensation Limit experience different than assumed.

Milliman estimates the funded status would have been 82.1% with a required aggregate employer contribution rate of 24.80% had the actual fair value of assets been used rather than the actuarial value of assets with the smoothing method applied.

In December 2022, LACERA's Board of Investments adopted to exclude the STAR Reserve from Valuation Assets and, as such, it is not used to determine the employer contribution rates for the fiscal year beginning July 1, 2023 and onward. Consistent with the exclusion of the STAR Reserve from Valuation Assets, the liability for any STAR benefits that may be granted in the future is not included in the liability portion of the valuation.

Retirement system demographics reported in the 2024 Actuarial Valuation Report indicate a 1.8% increase in the active member population that totaled 98,683 with an overall average age of 46.7 years. The retired population increased by 2.4% to a total of 74,767 with an average age of 73.2 years. The average retirement benefit payment increased by 3.2% to \$5,147 per month.

6. IMPACT ON EMPLOYER AND EMPLOYEE CONTRIBUTION RATES

As previously stated, LACERA is funded by employer and employee contributions collected and earnings from LACERA’s investment portfolio.

Employees

Employees participating in the open plan tiers (General Plan G and Safety Plan C) contribute using single rates set at one-half the plan's normal cost rate, which includes the cost-of-living adjustment benefit. The recommended contribution rates for General Plan G and Safety Plan C are included on page 27 of the 2024 Actuarial Valuation Report. Milliman is recommending an increase to General Plan G of 0.24% and Safety Plan C of 0.17% to reflect the change in the total normal cost rates as a percentage of pay. The increase in the Safety Plan C rate includes the impact of a change in the underlying compensation data used in the calculations, which now excludes some non-pensionable pay items that were previously included.

Contribution rates for employees participating in the closed (legacy) plan tiers (General Plans A, B, C, and D and Safety Plans A and B) are based on the employee’s age at first membership. These rates are designed to fund: a defined annuity at a specified age; and one-half of the cost-of-living adjustment benefit. Employee age-based annuity contribution rates are affected by salary, investment, and mortality assumption changes and will vary according to the employee’s age at first membership.

Employee Contribution Rates			
(rates shown as a percentage of payroll)	New	Current	% Increase / (Decrease)
<u>PEPRA Plans (all ages):</u>			
Employee General Plan G	9.30%	9.28%	0.02%
Employee Safety Plan C	15.14%	14.97%	0.17%
<u>Sample Legacy Plans (entry age 25):</u>			
Employee General Plan D	7.22%	7.22%	—%
Employee Safety Plan B	13.04%	13.04%	—%

Employee contribution rates for all retirement plans at every entry age (with and without the cost-of-living component) can be found in the 2024 Actuarial Valuation Report's Appendix D which starts on page 109.

Employer

Liabilities not funded through employee contribution rates are the responsibility of the employer. Changes in any of the economic and demographic actuarial assumptions and methods impact the contribution rates. The employer is required to contribute the annual cost of benefits allocated to a valuation year not covered by employee contributions. These contributions are known as the employer normal cost contributions. Milliman has recommended new employer normal cost contribution rates for each retirement plan for the fiscal year beginning July 1, 2025 which result in a decrease in the overall employer normal cost contribution rate from 11.01% to 10.88% of pay.

Employer Contribution Rates			
(rates as a percentage of payroll / \$ in Millions)	New	Current	Increase / (Decrease)
Employer Normal Cost Rate	10.88%	11.01%	(0.13)%
Employer UAAL Rate	14.73%	14.87%	(0.14)%
Total Employer Rate	25.61%	25.88%	(0.27)%
Estimated Employer Contributions	\$2,643	\$2,552	\$91

The employer is also responsible for contributing to cover any shortfall in funding for liabilities accrued in the past. This portion of the employer's contribution rate is known as the unfunded actuarial accrued liability (UAAL) contribution rate. Under the terms of the LACERA Board of Investments' Retirement Benefit Funding Policy, contributions to satisfy an unfunded liability are calculated using a closed twenty (20) year layered amortization period method when LACERA's funded ratio is below 100%. As the funded ratio as of June 30, 2024 is 80.9%, the calculated UAAL contribution rate for all plan tiers is 14.73% first effective between July 1, 2025 and September 29, 2025.

Employer Cost Increase

Applying the 25.61% employer contribution rate to an actuarially estimated covered payroll for fiscal year 2025-2026, which increased approximately 4.7% compared to the estimated covered payroll for fiscal year 2024-2025, Milliman estimates the annual contributions owed by LACERA plan sponsors will increase for Fiscal Year 2025-2026 by approximately \$91 million compared to the prior fiscal year. The County provides over 95% of the contributions to LACERA, so the estimated increase in County contributions would be less than, but close to, the \$91 million estimate.

IMPACT ON CURRENT SERVICES

None.

CONCLUSION

The County has a statutory obligation to prefund the retirement benefits promised to its employees. LACERA has a statutory obligation to calculate employer and employee contribution rates based upon the recommendation of the actuary and communicate the rates to the County's Board of Supervisors by May 15. This provides the County sufficient time to implement the contribution rates by July 1, 2025 but no later than September 29, 2025 in accordance with Government Code Section 31454.

The employer cost for the retirement system benefits is projected to increase in Fiscal Year 2025-2026 by approximately \$91 million, which is primarily due to a higher payroll than the prior year. The aggregate employer contribution rate is 25.61%, a decrease of 0.27% of payroll compared to the employer contribution rate effective in the prior fiscal year, with changes to be effective for the upcoming fiscal year 2025-26. This employer contribution rate results in an annual retirement cost estimate of \$2.6 billion for employers participating in LACERA. Assuming the retirement system's actual experience equals its actuarial assumptions for future years, which may not in fact happen, Milliman forecasts on page 3 of the 2024 Valuation Report that the employer's contribution rate would decrease slightly over the next few years from the 25.61% rate calculated in the valuation.

Respectfully submitted,



SANTOS H. KREIMANN
Chief Executive Officer

SHK:tg
ActVal24BOS2025_Final

Attachment: 2024 Actuarial Valuation of Retirement Benefits Report

- c: Chief Executive Officer, County of Los Angeles
Executive Officer, Board of Supervisors
LACERA Board of Investments (without attachment)
LACERA Board of Retirement (without attachment)



Los Angeles County Employees Retirement Association

Actuarial Valuation of Retirement Benefits

June 30, 2024

Prepared by:

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Craig Glyde, ASA, EA, MAAA
Consulting Actuary

Milliman, Inc.
1301 Fifth Avenue, Suite 3800
Seattle, WA 98101-2605
Tel +1 206 624 7940
milliman.com



1301 Fifth Avenue
Suite 3800
Seattle, WA 98101-2605
USA

Tel +1 206 624 7940

milliman.com

January 27, 2025

Board of Investments
Los Angeles County Employees Retirement Association
300 North Lake Avenue, Suite 820
Pasadena, CA 91101-4199

Re: Los Angeles County Employees Retirement Association as of June 30, 2024

Dear Trustees of the Board:

As part of our engagement with the Los Angeles County Employees Retirement Association (LACERA), we have performed an actuarial valuation of LACERA retirement benefits as of June 30, 2024. This report reflects the benefit provisions and contribution rates in effect as of June 30, 2024 and LACERA's Retirement Benefit Funding Policy that was adopted in December of 2009 and amended as of February 2013, and reflects changes adopted at the Board of Investments December 2022 meeting. It also reflects the Actuarial Funding Policy that supersedes the Retirement Benefit Funding Policy effective July 1, 2024 and was adopted by the Board of Investments at the October 9, 2024 meeting.

The main purposes of this report are:

- to provide the actuarially determined employer and member contribution rates for the fiscal year beginning July 1, 2025;
- to assess the funded position of the Plan as of June 30, 2024; and
- to review the experience under the Plan for the valuation year ending June 30, 2024.

The calculations in this report have been made on a basis consistent with our understanding of LACERA's funding requirements as stated under their Funding Policy. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes. Milliman will provide LACERA financial reporting results relevant to GASB Statements No. 67 and 68 in separate reports.

Actuarial assumptions

Actuarial assumptions, including discount rates, mortality tables, and others identified in this report, and actuarial cost methods were adopted by the LACERA Board of Investments (BOI) at its December 2022 meeting. The BOI is responsible for selecting LACERA's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. LACERA is solely responsible for communicating to Milliman any changes required thereto. All costs, liabilities, rates of interest, and other factors for LACERA have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of LACERA and reasonable expectations); and that, in combination, offer a reasonable estimate of anticipated experience affecting LACERA and are expected to have no significant bias.

Variability of results

This valuation report is only an estimate of LACERA's financial condition as of a single date. It can neither predict LACERA's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of benefits, only the timing of contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement, although for informational purposes we have shown valuation results at +/- 0.5% on the investment return assumption at the end of the Executive Summary.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Investments has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A of this report.

Reliance

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by LACERA's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

No legal duty to third-party recipients

Milliman's work is prepared solely for the internal business use of LACERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) LACERA may provide a copy of Milliman's work, in its entirety, to LACERA's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit LACERA.
- (b) LACERA may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

Models

The valuation results were developed using models employing standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. Reliance on other experts is reflected in Milliman's capital market assumptions, and in Milliman's expected return model maintained by Milliman investment consultants.

Qualifications and Certification

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal, investment, or accounting counsel.

The signing actuaries are independent of the Plan Sponsors. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

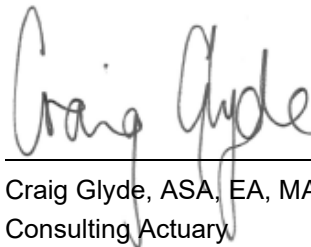
We would like to express our appreciation to members of LACERA staff who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,



Nick Collier, ASA, EA, MAAA
Consulting Actuary



Craig Glyde, ASA, EA, MAAA
Consulting Actuary

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1. Summary of Findings

2024 Valuation Results

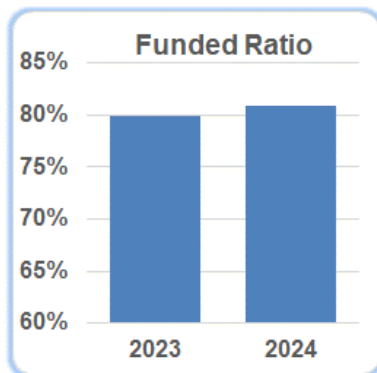
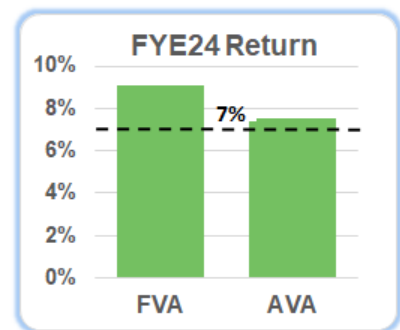
	Valuation Date	
	June 30, 2024	June 30, 2023
Employer Contribution Rate	25.61% ⁽¹⁾	25.88% ⁽²⁾
Funded Ratio	80.9%	79.9%

1. The June 30, 2024 valuation calculates the employer contribution rate effective July 1, 2025.
2. The June 30, 2023 valuation calculates the employer contribution rate effective July 1, 2024.

This report presents the results of the June 30, 2024 actuarial valuation. This valuation determines the member and employer contribution rates payable starting July 1, 2025. Several key points are summarized below:

Investment Returns

For the fiscal year ending in 2024, the fund returned 9.1% on a fair-value (FVA) basis (net of investment expenses). In total, there was a gain on the FVA basis relative to the assumed rate of return of 7.0%. The return on Valuation Assets was 7.5% (equivalent to a gain of \$0.4 billion relative to the assumed 7.0% rate of return), which is less than the return on the FVA basis as a result of deferring a portion of the current year’s investment gains. Effective June 30, 2024 there are deferred investment gains of \$1.1 billion to be recognized over the next four fiscal years.



Funded Ratio

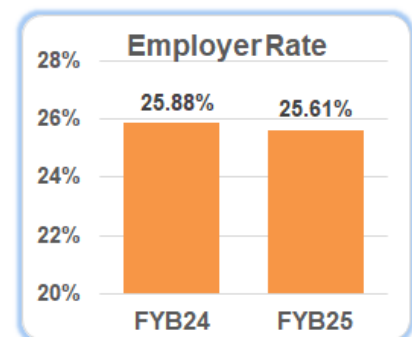
The Funded Ratio increased from 79.9% to 80.9% on an actuarial value of assets basis. Contributions to amortize the Unfunded Actuarial Accrued Liability (UAAL) and investment gains increased the Funded Ratio, while greater than assumed salary increases partially offset the positive factors. On a fair-value basis, the Funded Ratio increased from 80.0% to 82.1%.

The [Analysis of Change – Funded Ratio](#) section that follows later in Section 1 provides an analysis of the sources of change in the Funded Ratio since last year.

Employer Contribution Rate

The total calculated employer contribution rate decreased from the prior valuation by 0.27% of payroll, from 25.88% to 25.61%. This decrease was caused by the recognition of investment gains in Valuation Assets, and the continued increase in the proportion of active employees receiving benefits through the PEPRA plans, which have a lower employer normal cost rate than legacy plans.

The [Analysis of Change – Employer Contribution Rate](#) section provides an analysis of the sources of change in employer contribution rates since last year. In addition, the section “Projected Future Employer Contribution Rates” below shows a 10-year projection of employer contribution rates.

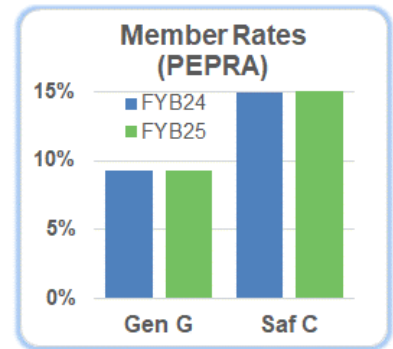


Member Contribution Rates

New member contribution rates are recommended for General Plan G and Safety Plan C (the PEPRA plans) effective July 1, 2025. General Plan G and Safety Plan C member rates are required to be equal to 50% of the Gross Normal Cost rate of the respective plan. The recommended member contribution rates are higher for General Plan G (9.28% increased to 9.30%) and Safety Plan C (14.97% increased to 15.14%) relative to the fiscal year beginning July 1, 2024.

Member contribution rates for the contributory legacy plans (General Plans A to D and Safety Plans A and B) vary based on a member’s entry age to LACERA and the underlying actuarial assumptions. Since no new assumptions were adopted effective with this valuation, there are no recommended changes to member contribution rates for the legacy plans.

Member contribution rates are discussed in Section 5 of this report.

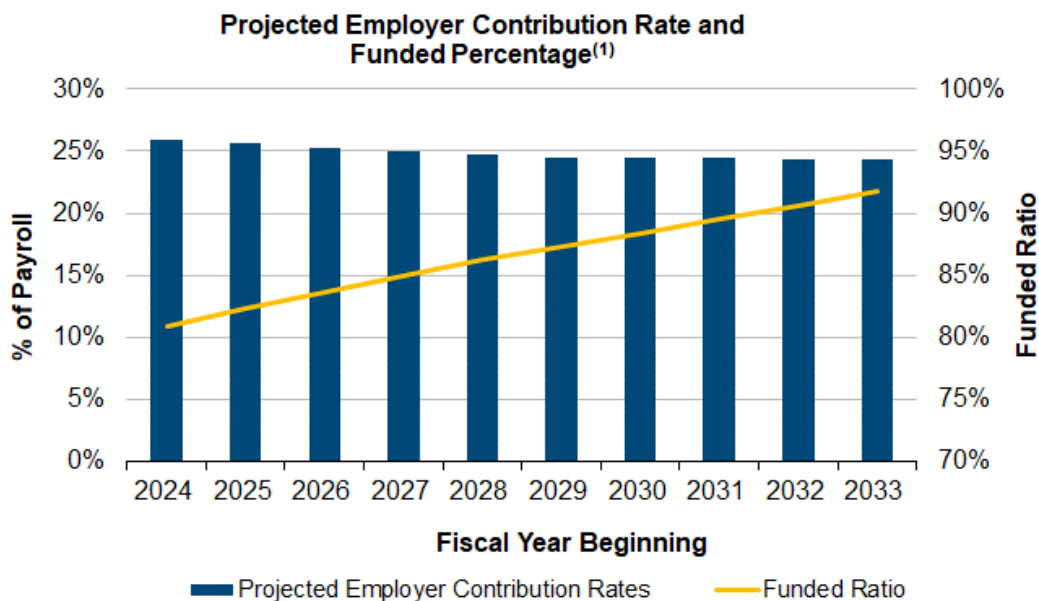


Projected Future Employer Contribution Rates

The employer contribution rate beginning July 1, 2025 is 25.61% of payroll, which is a weighted average for all LACERA plans. The actual percent of payroll to be contributed by the employers varies by plan as shown in Exhibit 11.

The calculated employer contribution rate is effective for the fiscal year beginning July 1, 2025. Changes in employer contribution rates in future years will be largely dependent on actual experience relative to that projected by the actuarial assumptions, particularly the investment return assumption. Additionally, if the assumptions change, this could also have a material impact on future results. Even if all actuarial assumptions are met and there are no changes in the underlying assumptions, we project changes in future employer contribution rates as deferred investment gains are recognized and member demographics change as a higher percentage of active members participate in the PEPRAs plans.

We have performed a 10-year projection of the employer contribution rate and Funded Ratio assuming that all actuarial assumptions are met (including 10 years of investment returns based on fair value of 7.0% per year). This projection is shown in the chart below. It should be noted that actual experience will not exactly match the actuarial assumptions over the period, and a different pattern of future employer contribution rates will likely emerge.

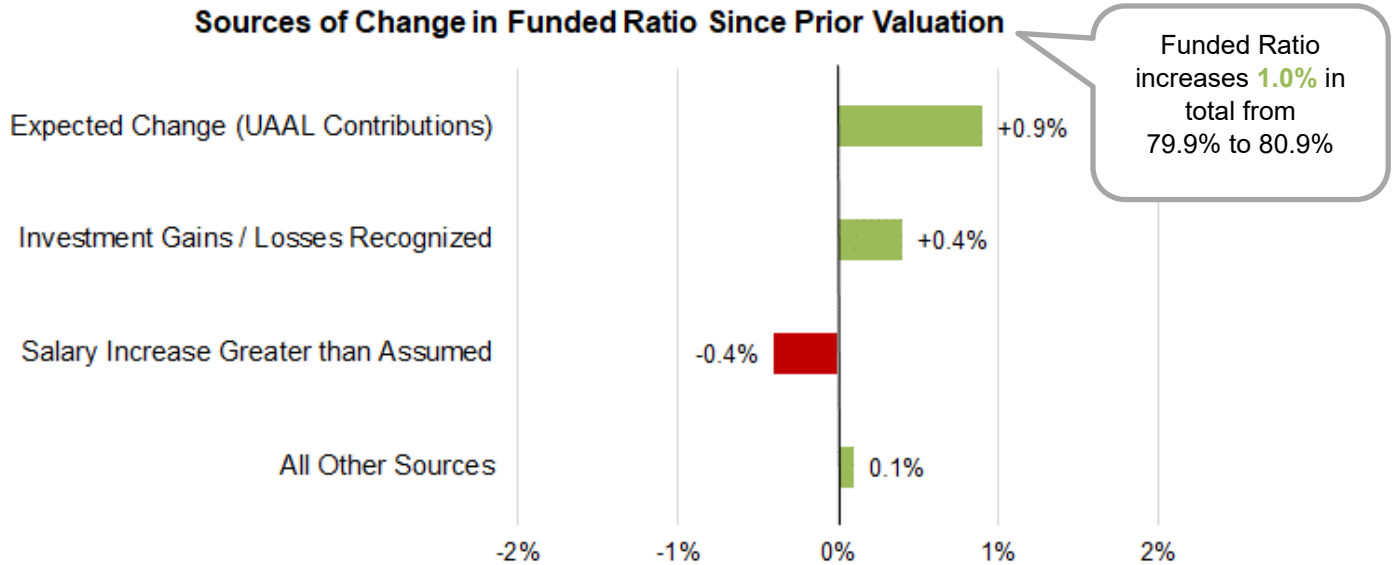


1. Projections assume that actuarial assumptions are met after June 30, 2024, and reflect the scheduled recognition of asset gains and losses currently being deferred.

As shown in the chart above, if all assumptions are met in future years, the employer contribution rate is projected to decrease slightly from the 25.61% rate calculated in this valuation. Under this projection scenario, and assuming future experience is exactly as assumed, the Funded Ratio is projected to be approximately 92% as of June 30, 2033 and approximately 100% as of June 30, 2040. However, future results will vary as actual experience will not exactly meet the assumptions.

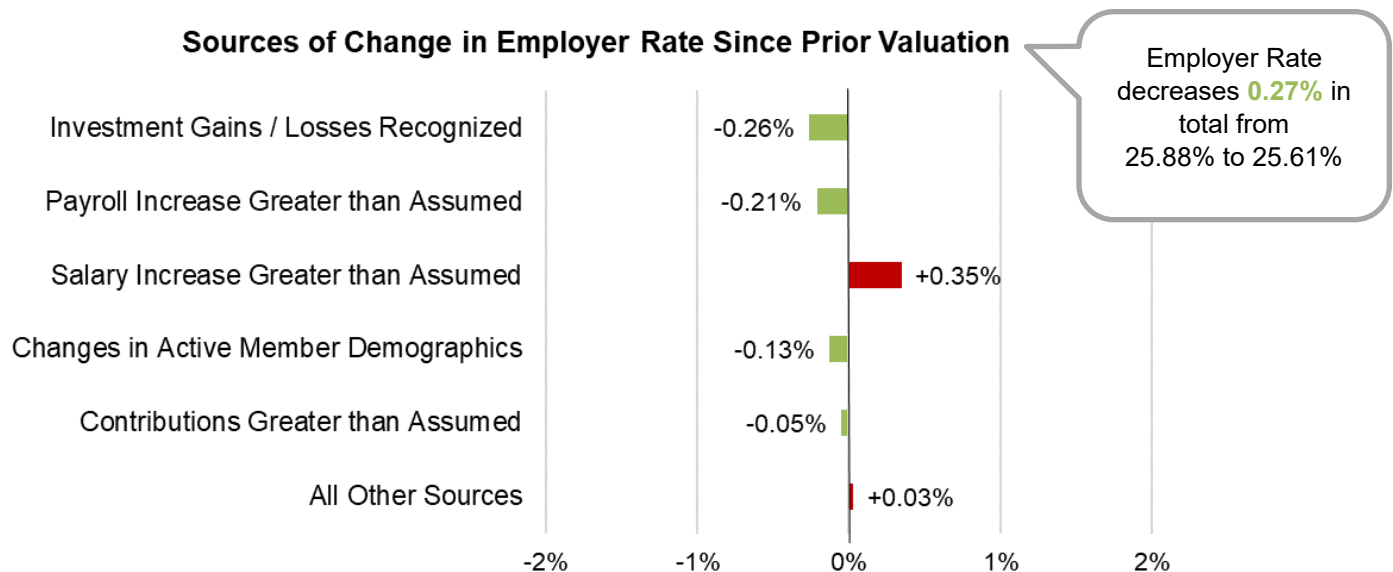
Analysis of Change – Funded Ratio

The following chart shows an analysis of the primary causes of the change in the Funded Ratio since the last valuation. Employer contributions to amortize the unfunded liability were the most significant factor impacting the Funded Ratio.



Analysis of Change – Employer Contribution Rate

The following chart shows an analysis of the primary causes of the change in the employer contribution rate since the last valuation. Investment returns greater than assumed were the most significant factor causing the decrease in the employer contribution rate. Salary increases and payroll growth greater than assumed were also significant factors, although their impact was mostly offsetting.

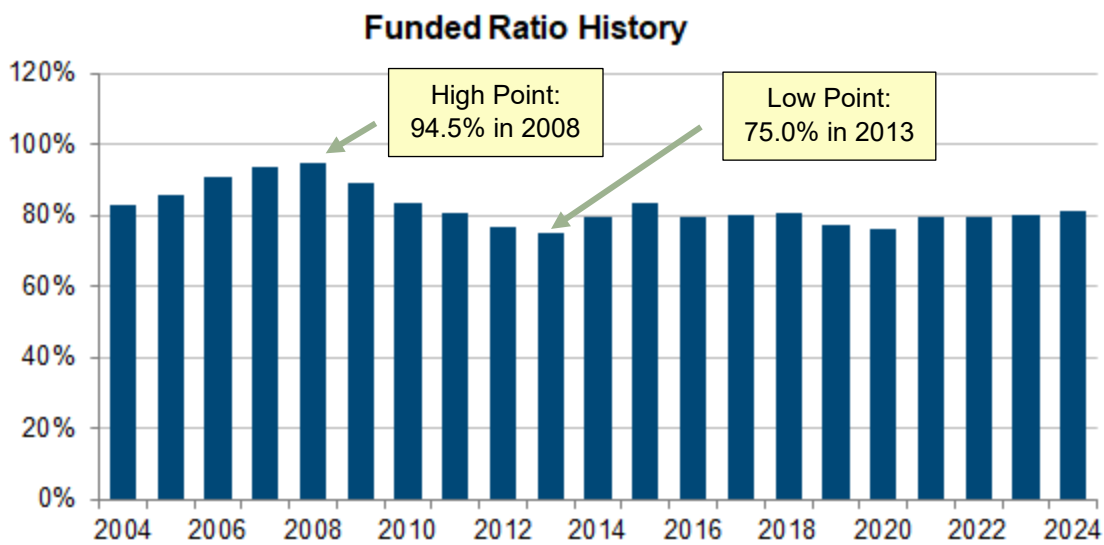


Funding Progress

One measure of the funding adequacy of the system is the Funded Ratio, which compares the Valuation Assets (the actuarial value of assets net of certain non-valuation reserves) to the Actuarial Accrued Liability (AAL). The Funded Ratio shown in this valuation is appropriate for assessing the future contributions needed. Other calculations may be necessary for other purposes, such as assessing the sufficiency of current system assets to satisfy the estimated cost of settling the system’s accrued benefit obligations.

As shown in the graph that follows, the Funded Ratio was 94.5% as of June 30, 2008, but decreased steadily over the five-year period following the economic downturn to a low of 75.0% as of June 30, 2013 as asset losses were gradually recognized. The Funded Ratio has increased slightly since that time, although this increase has been slow as the actuarial assumptions have been strengthened over the period, thereby increasing the AAL and offsetting some of the increase in the Funded Ratio from other sources.

A historical perspective of the Funded Ratio is shown in the following chart.



Assets

On June 30, 2024, the fair value of the fund (including non-valuation reserves) was \$79.2 billion. The actuarial value of assets was \$78.1 billion, split between \$1.4 billion of Non-Valuation Assets and \$76.7 billion of Valuation Assets. The actuarial value of assets is approximately 99% of the fair value of assets.

On a fair-value basis, for the fiscal year ended June 30, 2024, LACERA earned 9.1% net of investment expenses, as reported by LACERA in the June 30, 2024 Annual Comprehensive Financial Report (ACFR). The fair value of assets is used in calculating the actuarial value of assets. Under the actuarial asset method, investment gains and losses are generally recognized (or smoothed in) over a five-year period. Due to the recognition of current and deferred asset gains the return on Valuation Assets for the most recent fiscal year is 7.5% net of investment and administrative expenses, which is higher than the assumed return for the prior year of 7.0%.

Valuation Assets are used in the calculation of the UAAL contribution rate and Funded Ratio. Valuation Assets are equal to the actuarial value of assets less certain non-valuation reserves. The Valuation Assets of \$76.7 billion are equal to 80.9% of the \$94.8 billion AAL.

The non-valuation reserves are set aside for obligations or contingencies and are excluded from the assets used in the funding valuation. They are not used to fund the retirement benefits unless explicitly stated. As of June 30, 2024, the non-valuation reserves include:

- the Contingency Reserve, which is equal to 1% of the fair value of assets, or \$792 million, and
- the STAR Reserve of \$608.6 million.

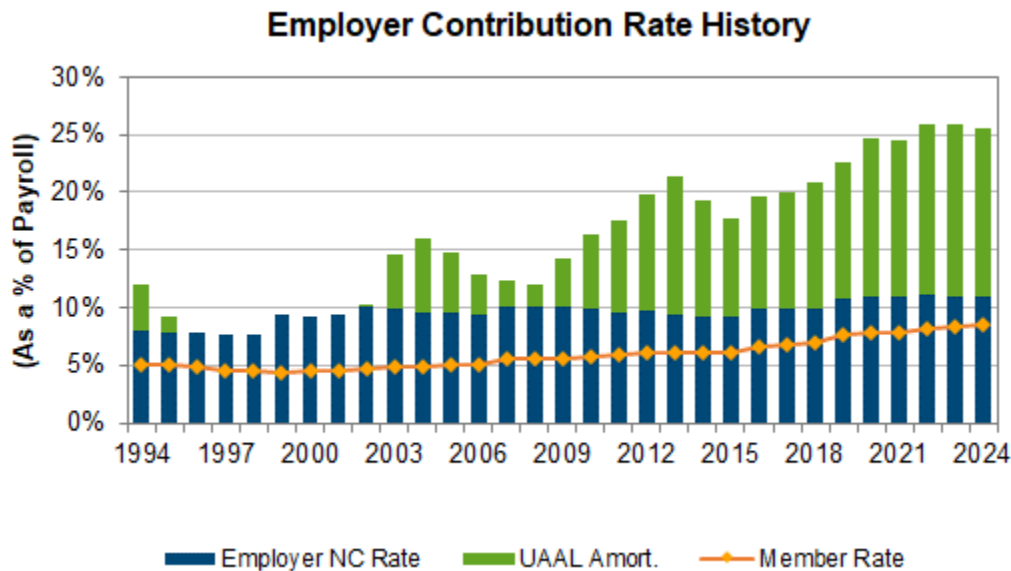
Note that this Contingency Reserve is different than the Contingency Reserve amount determined by LACERA for accounting purposes and included in the ACFR as of June 30, 2024.

Future Impact of Recognition of Deferred Gains/Losses

The smoothing method is currently deferring \$1.1 billion in investment gains. As the currently deferred gains are recognized over upcoming valuations, it is projected there will be decreases in the calculated employer contribution rate. The potential future impact of the recognition of these deferred gains on the projected employer contribution rate is included in the graph on page 3.

Employer Contribution Rate History

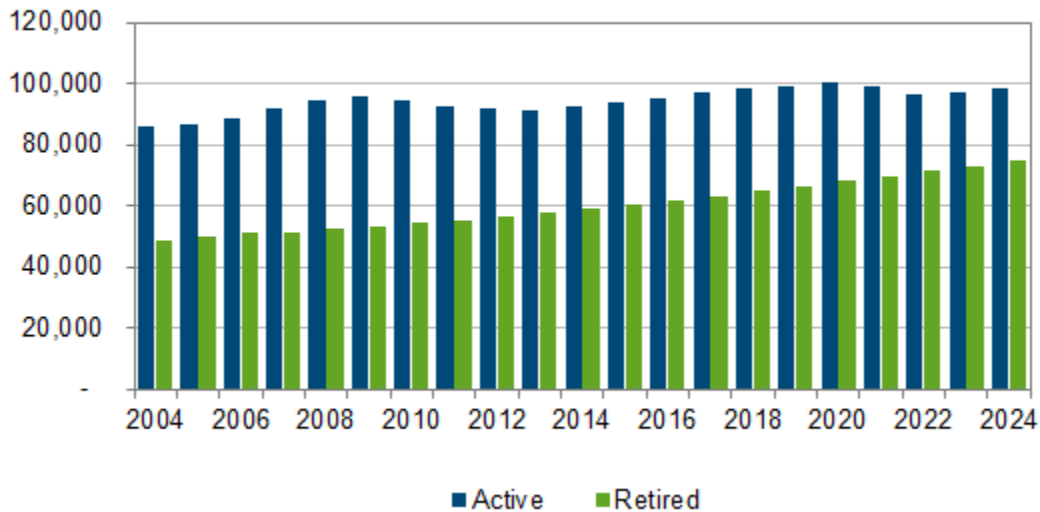
Based on the results of the valuation, the calculated employer contribution rate will decrease for the fiscal year beginning in 2025 to a rate of 25.61% of pay, compared to 25.88% for the fiscal year beginning in 2024. A historical perspective of the employer contribution rates is shown in the following chart.



Member Information

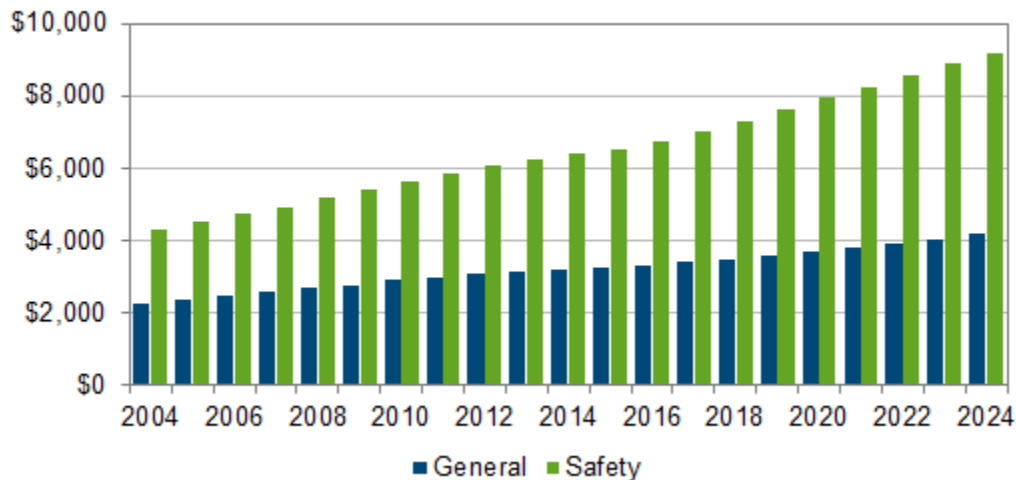
Active payroll and active membership have both increased since 2024. As of June 30, 2024, the annualized payroll is \$10.0 billion for 98,683 active members. This reflects a 4.7% increase in total payroll and a 1.8% increase in the number of active members. Average members pay increased by 2.8% over the period.

Membership Count



Retired member counts and average retirement benefit amounts continue to increase steadily. For 2024, there were 74,767 retired members and beneficiaries with an average benefit of \$5,147 per month. This represents a 2.4% increase in count and a 3.2% increase in the average monthly benefit.

Average Monthly Retirement Benefit



The charts show that over the last 20 years the number of retired members has grown faster than the number of active members, and the average monthly benefit of retired members and beneficiaries has roughly doubled. This is typical of a maturing retirement system. The increasing number of retirees and average monthly benefit is a key driver of the increasingly negative cashflows (contributions paid in less than benefits paid out) experienced over

the last few decades, and that are projected to continue growing. Cashflow history and projections are shown and described in more detail in Section 8.

Analysis of Change in Member Population

The following table summarizes the year-to-year change in member population.

	Active Members	Inactive Members	Service Retired Members	Disabled Retired Members	Beneficiaries in Pay	Total
As of June 30, 2023	96,905	20,414	52,409	10,737	9,862	190,327
New Members	6,939	351	11		805	8,106
Status Change:						
to Active	290	(290)	-			-
to Inactive	(1,923)	1,923				-
to Service Retirement	(2,748)	(396)	3,144			-
to Disabled Retirement	(305)	(11)	(314)	630		-
Refunds	(302)	(466)				(768)
Terminated non-vested	(5)					(5)
Benefits Expired			(16)		(7)	(23)
Deaths	(168)	(251)	(1,638)	(318)	(538)	(2,913)
As of June 30, 2024	98,683	21,274	53,596	11,049	10,122	194,724

Note: Inactive Members include non-vested former employees who have not taken a refund of their contributions.

Sensitivity to Investment Return Assumption

The valuation results are projections based on the actuarial assumptions. Actual experience will differ from these assumptions, either increasing or decreasing the ultimate cost. Of the assumptions, the investment return generally has the biggest impact. The following table provides a simple analysis on how the short-term costs are affected by the investment return assumption. Note that the long-term cost of the Plan will be largely driven by actual investment returns and other experience; the assumptions used in the valuation impact the timing of the contributions over the long term.

	Investment Return Assumption		
	Current 7.00%	+0.5% 7.50%	-0.5% 6.50%
Employer Contribution Rate	25.61%	20.55%	30.86%
Change		-5.06%	5.25%
Funded Ratio	80.9%	85.8%	76.0%
Change		4.9%	-4.9%

Risk Discussion

Additional risks to the Plan are described in more detail in Section 9: Risk Disclosure. Some key points that can be seen in this report are:

- **Maturity:** As previously discussed, LACERA continues to mature as a system. One example of the impact of this maturity is that the employer contribution rate is becoming more sensitive to investment gains or losses and other experience. This sensitivity is measured by the asset and liability volatility ratios discussed in Section 9.
- **Risk Factors:** We believe investment returns are the greatest potential risk to future valuation results of LACERA. One way to measure the potential impact is using the Asset Volatility Ratio (AVR), which is a measure of the level of assets to payroll. LACERA's AVR of 7.8 implies that a 10% investment gain or loss relative to the assumed 7% investment return (that is, an investment return of -3% or +17%) is projected to ultimately result in a 5.5% of pay increase (or decrease) in the employer contribution rate (after investment gains or losses are smoothed in).

Payroll growth lower than assumed by the assumptions is another potential risk as it will result in increases in the employer contribution rate. Although the employer contribution rate may increase, total employer contributions may not be as significantly impacted as the higher rates would be applied to a smaller payroll base.

- **Variation:** Although we believe the actuarial assumptions provide a reasonable estimate of future experience, it is almost certain that future results will vary from those projected by the actuarial assumptions, either better or worse. One way to assess the potential future variation is to look at the past. The Funding Progress and Employer Contribution Rate History subsections above provide a historical perspective of LACERA's Funded Ratios and the employer contribution rate. These both show noticeable year-to-year variation, both up and down, over the last 20 years.

Summary Valuation Results

Exhibit 1 on the following page presents a summary of key valuation elements as of June 30, 2024 and June 30, 2023 and shows the relative change over the past year. More detail on each of these elements can be found in the following sections and exhibits of this report.

Exhibit 1
Summary of Significant Valuation Results

	June 30, 2024	June 30, 2023	Percentage Change
Total Membership			
A. Active Members	98,683	96,905	1.8%
B. Retired Members & Beneficiaries	74,767	73,008	2.4%
C. Vested Former Members ⁽¹⁾	21,274	20,414	4.2%
D. Total	<u>194,724</u>	<u>190,327</u>	2.3%
Pay Rate as of valuation date			
A. Annual Total (\$millions)	\$ 9,996	\$ 9,548	4.7%
B. Monthly Average per Active Member	8,441	8,211	2.8%
Average Monthly Benefit Paid to Retirees and Beneficiaries			
A. Service Retirement	4,949	4,824	2.6%
B. Disability Retirement	7,442	7,094	4.9%
C. Surviving Spouse and Dependents	3,695	3,554	4.0%
D. Total	5,147	4,986	3.2%
Actuarial Accrued Liability (\$millions)			
A. Active Members	39,870	38,535	3.5%
B. Retired Members	53,255	50,528	5.4%
C. Vested Former Members	1,678	1,588	5.7%
D. Total	<u>94,803</u>	<u>90,651</u>	4.6%
Assets			
A. Fair Value of Fund (\$millions)	79,202	73,852	7.2%
B. Actuarial Value (\$millions)			
1. Valuation Reserves	76,664	72,415	5.9%
2. Non-valuation Reserves	1,401	1,350	3.7%
C. Annual Investment Return			
1. Fair Value Basis (Net Return)	9.1%	6.4%	n/a
2. Valuation (Actuarial) Basis	7.5%	7.2%	n/a
Unfunded Actuarial Accrued Liability (\$ millions)	\$ 18,139	\$ 18,236	(0.5)%
Employer contribution rate for all plans combined as a percent of total payroll			
A. Gross Normal Cost	19.34%	19.38%	(0.2)%
B. Member Contributions ⁽²⁾	(8.46)%	(8.37)%	1.1%
C. Employer Normal Cost	10.88%	11.01%	(1.2)%
D. UAAL Amortization	14.73%	14.87%	(0.9)%
E. Employer Contribution Rate	<u>25.61%</u>	<u>25.88%</u>	(1.0)%
Funded Ratio	80.9%	79.9%	1.3%
Results Based on Fair Value (Informational Purposes Only)			
Calculated Contribution Rate	24.80%	25.82%	(3.9)%
Funded Ratio (excluding non-valuation reserves)	82.1%	80.0%	2.6%

1. Includes non-vested former employees with contributions on deposit.

2. Includes non-contributory members. The average rate for contributory plans increased from 9.54% to 9.56%.

2. Scope of the Report

This report presents the actuarial valuation of the Los Angeles County Employees Retirement Association as of June 30, 2024. This valuation was requested by the Board of Investments. Section 31453 of the County Employees Retirement Law of 1937 (the CERL) requires an actuarial valuation to be performed at least every three years for the purpose of setting contribution rates. The 2024 valuation meets this requirement. Under LACERA's Funding Policy, annual valuations determine the employer contribution rates each year. Member contribution rates for all plans except General Plan G and Safety Plan C are set in years in which relevant actuarial assumptions are altered. For members of General Plan G and Safety Plan C, member contribution rates are recalculated each year, based on one-half of the Plan's normal cost rate.

A summary of the findings resulting from this valuation is presented in the previous section.

Section 3 describes the assets and investment experience of the Plan.

- The assets and investment income are presented in Exhibits 2-4.
- Exhibit 5 develops the actuarial value of assets as of June 30, 2024.
- Exhibit 6 develops the Valuation Assets used for funding benefits.

Section 4 describes the benefit obligations of LACERA.

- Exhibit 7 is the Actuarial Balance Sheet.
- Exhibit 8a analyzes the change in UAAL, and Exhibit 8b shows a history of these changes.

Section 5 discusses the member contribution rates.

Section 6 discusses the employer contributions rates.

Section 7 discloses supplemental information for use in the Annual Comprehensive Financial Report (ACFR). Milliman provides LACERA financial reporting information relevant to GASB Statements No. 67 and 68 in separate reports.

Section 8 shows the estimated cash flow of the Plan, including a projection of both contributions and benefit payments.

Section 9 provides a discussion of the risks to the Plan. A more comprehensive analysis of risks was provided as part of Milliman's Risk Assessment based on the June 30, 2023 actuarial valuation.

This report includes several appendices:

Appendix A Summary of the actuarial procedures and assumptions used to estimate liabilities and contributions.

Appendix B Summary of the current benefit structure, as determined by the provisions of governing law, on June 30, 2024.

Appendix C Schedules of valuation data classified by various categories of plan members.

Appendix D Member contribution rates by plan.

Appendix E Historical information.

Appendix F A glossary of actuarial terms used in this report.

3. Assets

This section of the report focuses on the assets accumulated to pay retirement benefits when due to all current members of LACERA as of the valuation date. These assets are also used to determine the amount of contributions required for funding purposes. A historical summary of the Plan's assets is presented below (dollar amounts in billions).

	Fair Value of Total Assets	Actuarial Value		Total Fund Return (%) ⁽¹⁾
		Non-Valuation Reserves	Valuation Assets	
2015	\$ 48.8	\$ 0.5	\$ 47.3	4.1
2016	47.8	0.5	49.4	0.8
2017	52.7	0.5	52.2	12.7
2018	56.3	0.6	55.2	9.0
2019	58.3	0.6	57.6	6.4
2020	58.5	0.6	59.8	1.8
2021	73.0	0.7	64.9	25.2
2022	70.3	1.3	68.7	0.1
2023	73.9	1.4	72.4	6.4
2024	79.2	1.4	76.7	9.1

1. As reported in the Investment Section of LACERA's ACFR for the fiscal year ended June 30, 2024. All returns are shown net of investment expenses and calculated on a time-weighted basis.

On June 30, 2024, the total fair value of assets restricted for pension benefits was \$79.2 billion, and the actuarial value of assets was \$78.1 billion, including the non-valuation reserves. The average total investment return for the last 10 years is 7.3% net of fees, as reported by LACERA.

Financial Exhibits

Exhibit 2 presents a Statement of Fiduciary Net Position and Exhibit 3 presents a Statement of Changes in Fiduciary Net Position. Exhibit 4 describes the allocation of LACERA's assets by the various reserve values determined for accounting purposes as disclosed in the audited financial statements.

Exhibits 2-4 are taken directly from data furnished to us by LACERA in its annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them both for the prior year and the current year for reasonableness and consistency with previous reports.

Actuarial Asset Method

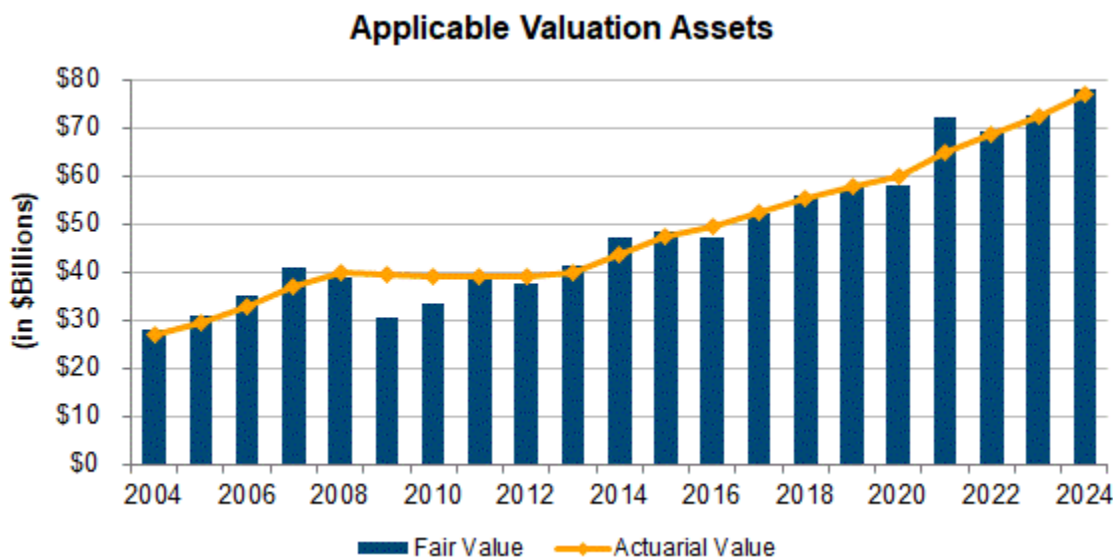
The actuarial asset method projects the expected fair value of assets based on the prior year's fair value of assets, the actual cash flow of contributions and benefit payments, and the assumed investment rate of return. For the previous year, the assumed rate of return was 7.0%, net of all expenses. The difference between the actual fair value and the expected fair value is recognized (or "smoothed") over a five-year period.

Effective with the June 30, 2022 valuation all deferred investment gains and losses were combined into one single amount such that the actuarial asset value was unchanged from the prior method. Beginning with the period

immediately following the June 30, 2022 valuation, offsetting of current period gains or losses against prior period gains or losses occur, as follows: to the extent there is an investment loss for the year and there are unrecognized investment gains from previous years, or to the extent that there is an investment gain for the year and there are unrecognized investment losses from previous years, the gain or loss for the year shall be used to offset unrecognized gains or losses from previous years in the order of oldest to most recent. Any remaining gain or loss for the year is recognized over a five-year period. With this modification to the actuarial asset method, in any given valuation only investment gains or losses will be present, which is expected to result in a less volatile actuarial value of assets.

Actuarial Value of Assets

The development of the actuarial value of assets is shown in Exhibit 5. As of June 30, 2024 there are \$1.1 billion of unrecognized investment gains, which means that the actuarial value of assets is \$1.1 billion less than the fair value of assets. These unrecognized investment gains will be recognized in the actuarial value of assets in the coming years. The following graph shows a historical comparison of the actuarial and fair value of assets used for valuation purposes.



Funding Policy

Under LACERA’s Retirement Benefit Funding Policy adopted on December 9, 2009 and amended effective February 13, 2013, and in effect as of the valuation date, a Funded Ratio equal to or greater than 100% is the Funding Goal. Note that although the allocation of assets used in the actuarial valuation is similar to the process LACERA uses for accounting purposes, there are some differences, including the earnings considered for interest crediting purposes. Effective July 1, 2024 LACERA’s Actuarial Funding Policy adopted on October 9, 2024 supersedes the Retirement Benefit Funding Policy and outlines a principles-based approach to funding. Under this policy the Funding Goal is a Funded Ratio equal to 100% or greater over the long-term with progress towards that goal being achieved through a reasonable and equitable allocation of the cost over time.

For funding purposes and for setting employer contributions rates, recognized earnings for a plan year is determined by the actuarial asset method and includes both unrealized income and net realized income.

Valuation Assets

Valuation Assets are the actuarial value of the fund less the value of any Non-Valuation Reserves. Non-Valuation Reserves include Contingency Reserves (minimum of 1% of the Fiduciary Net Position for Pension Benefits), STAR Reserves, and other reserves that have been set aside for current liabilities and special benefits to be funded outside of the actuarially determined contribution rates. Valuation Assets are used to determine employer contribution rates.

The Non-Valuation Reserves shown in Exhibit 6 for funding purposes are different from those shown in the audited financial statements and in Exhibit 4.

Exhibit 2
Statement of Fiduciary Net Position
As of June 30, 2024 and June 30, 2023

	2024	2023
Assets		
Cash and Short-Term Investments	\$ 3,149,007,337	\$ 2,222,256,792
Cash Collateral on Loaned Securities	2,359,152,208	1,869,432,645
Receivables		
Contributions Receivable	139,949,575	127,192,052
Accounts Receivable - Sale of Investments	154,062,713	233,150,293
Accrued Interest and Dividends	197,731,062	220,243,947
Accounts Receivable - Other	6,420,395	5,940,399
Notes Receivable - Sale of Investments	1,149,152,646	-
Total Receivables	<u>1,647,316,390</u>	<u>586,526,691</u>
Investments at Fair Value		
Equity	29,462,195,615	27,130,122,428
Fixed Income	19,855,303,644	17,921,556,526
Private Equity	13,057,191,539	13,894,495,311
Real Estate	4,406,608,766	5,109,454,330
Hedge Funds	4,875,299,857	4,890,856,047
Real Assets	3,359,136,955	2,514,132,334
Total Investments	<u>75,015,736,377</u>	<u>71,460,616,976</u>
Total Assets	<u>82,171,212,312</u>	<u>76,138,833,103</u>
Liabilities		
Accounts Payable - Purchase of Investments	517,077,120	332,063,234
Retiree Payroll and Other Payables	2,829,681	2,259,401
Accrued Expenses	30,427,606	29,343,832
Tax Withholding Payable	45,366,983	43,525,048
Obligations under Securities Lending Program	2,359,152,208	1,869,432,645
Accounts Payable - Other	14,133,298	10,322,874
Total Liabilities	<u>2,968,986,896</u>	<u>2,286,947,034</u>
Fiduciary Net Position Restricted For Pension Benefits	<u>\$ 79,202,225,416</u>	<u>\$ 73,851,886,070</u>

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Exhibit 3
Statement of Changes in Fiduciary Net Position
For the Fiscal Years Ended June 30, 2024 and 2023

	2024	2023
Additions		
Contributions		
Employer	\$ 2,509,071,263	\$ 2,301,705,589
Member ⁽¹⁾	861,041,933	793,244,127
Total Contributions	<u>3,370,113,196</u>	<u>3,094,949,716</u>
Investment Income		
From Investing Activities:		
Net Appreciation/(Depreciation) in Fair Value of Investments	2,834,757,417	1,943,782,733
Investment Income/(Loss)	3,943,478,965	3,087,891,275
Total Investing Activity Income	<u>6,778,236,382</u>	<u>5,031,674,008</u>
Less Expenses From Investing Activities	<u>(184,366,891)</u>	<u>(189,483,833)</u>
Net Investing Activity Income	6,593,869,491	4,842,190,175
From Securities Lending Activities:		
Securities Lending Income	134,662,625	63,652,080
Less Expenses From Securities Lending Activities:		
Borrower Rebates	(114,314,764)	(47,869,289)
Management Fees	(2,233,061)	(1,687,343)
Total Expenses from Securities Lending Activities	<u>(116,547,825)</u>	<u>(49,556,631)</u>
Net Securities Lending Income	<u>18,114,799</u>	<u>14,095,448</u>
Total Net Investment Income	<u>6,611,984,290</u>	<u>4,856,285,624</u>
Miscellaneous	5,334,164	5,009,033
Total Additions	<u>9,987,431,650</u>	<u>7,956,244,372</u>
Deductions		
Retiree Payroll	4,470,099,259	4,234,600,092
Administrative Expenses	101,832,468	97,014,656
Investment Expenses	16,795,787	15,135,017
Refunds	43,665,970	43,412,068
Lump Sum Death Benefits	4,372,334	3,351,047
Miscellaneous	326,486	457,778
Total Deductions	<u>4,637,092,304</u>	<u>4,393,970,658</u>
Net Increase/(Decrease)	5,350,339,346	3,562,273,714
Fiduciary Net Position Restricted For Pension Benefits		
Beginning of Year	73,851,886,070	70,289,612,355
End of Year	<u>\$ 79,202,225,416</u>	<u>\$ 73,851,886,070</u>

1. Member contributions include employer pick-up contributions.

Exhibit 4
Allocation of Assets by Accounting Reserve Amounts

(Dollars in Thousands)

	June 30, 2024	June 30, 2023
1. Member Reserves		
a. Active Members	\$ 28,180,342	\$ 26,932,000
b. Unclaimed Deposits	<u>-</u>	<u>-</u>
c. Total Member Reserves	28,180,342	26,932,000
2. Employer Reserves		
a. Actual Employer Contributions	33,774,629	32,504,476
b. Advanced Employer Contributions	<u>-</u>	<u>-</u>
c. Total Employer Contributions	33,774,629	32,504,476
3. County Contribution Credit Reserve	-	-
4. STAR Reserve	608,631	611,544
5. Contingency Reserve	<u>-</u>	<u>-</u>
6. Total Reserves at Book Value	62,563,602	60,048,020
7. Unrealized Investment Portfolio Appreciation	16,638,623	13,803,866
8. Total Reserves at Fair Value	<u><u>\$ 79,202,225</u></u>	<u><u>\$ 73,851,886</u></u>

Note: These amounts were determined by LACERA for accounting purposes and are reported in the ACFR for the fiscal year ended June 30, 2024.

Exhibit 5
Five-Year Smoothing of Gains and Losses on Fair Value

(Dollars in Thousands)

June 30, 2024 Valuation									
Plan Year Ending	Contributions	Benefit Payments	Expected Fair Value	Actual Fair Value	Investment Gain / (Loss)	(a) Investment Gain / (Loss) Excluded in Prior Year	(b) Prior Year Investment Gain / (Loss) Offset in Current Year	(c) Investment Gain / (Loss) Recognized in Current Year	(d) Investment Gain / (Loss) Excluded in Current Year (a) - (b) - (c)
06/30/2024	\$ 3,370,113	\$ 4,518,138	\$ 77,833,992	\$ 79,202,225	\$ 1,368,233	\$ 0	\$ 0	\$ 273,647	\$ 1,094,586
06/30/2023	3,094,950	4,281,363	73,982,650	73,851,886	(130,764)	0	0	0	0
06/30/2022	2,958,521	4,044,567	76,999,453	70,289,612	(6,709,841)	0	0	0	0
06/30/2021	2,773,871	3,814,262	61,529,948	73,012,026	11,482,078	86,887	0	43,444	43,443
06/30/2020	2,459,433	3,606,340	61,189,106	58,510,408	(2,678,698)	0	0	0	0
						(A) Total Excluded Gain / (Loss) = \$ 1,138,029			
						(B) Total Fair Value of Assets = \$ 79,202,225			
						(C) Total Actuarial Value of Assets [(B) - (A)] = \$ 78,064,196			

Column (c) for all years except current year = { 20% x [(a) - (b)] } / { 100% - 20% x [Valuation Year - Plan Year Ending] }

Total Actuarial Value of Assets = Total Fair Value of Assets less the Total Excluded Gain / (Loss) amount. Excluded amounts will be recognized in future years.

Projected Recognition of Actuarial Asset Gains / (Losses) in Future Valuations

	2025 Val	2026 Val	2027 Val	2028 Val	Total
Amount to be Recognized	\$ 317,090	\$ 273,647	\$ 273,647	\$ 273,645	\$ 1,138,029

Exhibit 6
Allocation of Valuation and Non-Valuation Assets

(Dollars in Thousands)

	June 30, 2024	June 30, 2023
1. Total Fair Value of Assets	\$ 82,171,212	\$ 76,138,833
2. Current Liabilities	<u>2,968,987</u>	<u>2,286,947</u>
3. Net Assets Held in Trust for Pension Benefits	79,202,225	73,851,886
4. Market Stabilization Reserve ⁽¹⁾	<u>1,138,029</u>	<u>86,887</u>
5. Actuarial Value of Assets	78,064,196	73,764,999
6. Non-Valuation Reserves ⁽²⁾		
a. Contingency Reserve	792,022	738,519
b. Advanced Employer Contributions	-	-
c. County Contribution Credit Reserve	-	-
d. Reserve for STAR Program	<u>608,631</u>	<u>611,544</u>
e. Total Non-Valuation Reserves	1,400,653	1,350,063
7. Actuarial Value of Assets <i>minus</i> Non-Valuation Reserves	<u>\$ 76,663,543</u>	<u>\$ 72,414,936</u>
8. Valuation Assets ⁽²⁾		
a. Member Reserves	28,180,342	26,932,000
b. Employer Reserves for Funding Purposes	<u>48,483,201</u>	<u>45,482,936</u>
c. Total Valuation Assets	<u>\$ 76,663,543</u>	<u>\$ 72,414,936</u>

1. The Market Stabilization Reserve represents the difference between the Fair Value of the fund less Current Liabilities, and the Actuarial Value of the fund as determined in Exhibit 5.

2. The values used for funding purposes for all reserves are based on the Board's Funding Policy. Amounts used for funding purposes may differ from those reported in the audited financial statements as shown in Exhibit 4.

4. Actuarial Liabilities

This section of the report focuses on the commitments of LACERA for retirement benefits, which are referred to as its actuarial liabilities.

LACERA's liabilities are the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member this includes benefits already earned and future benefits projected to be earned. For all members, active and inactive, the liability extends over the rest of their lives and for the lives of any surviving beneficiaries.

All liabilities reflect the benefits effective through June 30, 2024. This includes permanent STAR benefits that have been adopted and are in effect as of the valuation date, but does not include any STAR benefits that have been adopted but are not effective until after the valuation date nor any STAR benefits that may be granted in the future.

The actuarial assumptions used to determine the liabilities are based on the results of the 2022 Investigation of Experience study for the period ended June 30, 2022 which were adopted by the Board of Investments at its January 2023 meeting, as recommended by Milliman. These assumptions are shown in Appendix A and will next be reviewed in detail as part of the 2025 Investigation of Experience study.

Actuarial Balance Sheet

The Actuarial Balance Sheet compares the Present Value of Future Benefits (PVFB) for retired, inactive and active members to the resources available to meet them. For the purpose of the Actuarial Balance Sheet, LACERA's resources are equal to the sum of:

- (a) Assets currently available to pay benefits and considered for funding purposes (Valuation Assets),
- (b) The present value of future contributions expected to be made by current active members, and
- (c) The present value of future Normal Cost contributions expected to be made by the employer.

The amount of any difference is called the Unfunded Actuarial Accrued Liability (UAAL).

Exhibit 7 contains an analysis of the PVFB for inactive members (both retired members and former (not retired) employees) and active members, and is shown by class of membership, by plan and by type of benefit. The Actuarial Balance Sheet for each plan, as well as its UAAL, is based on an estimated allocation of total LACERA Valuation Assets. The allocation is based on the relative value of each plan's employer and member reserves as reported to us by LACERA. These allocations are shown for illustrative purposes only, as the UAAL contribution rates are paid by the employer based on the valuation results in aggregate.

June 30, 2024 Present Value of Benefits (in \$Billions)

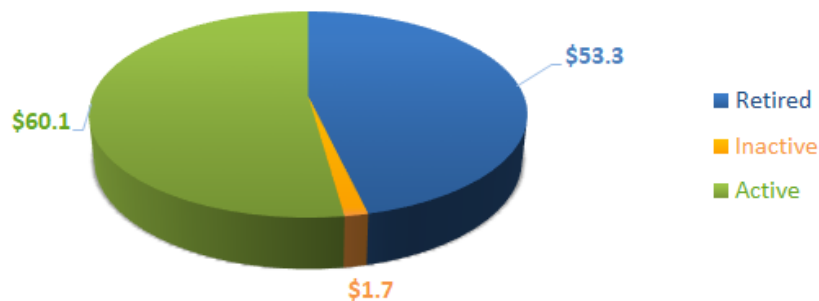


Exhibit 7
Actuarial Balance Sheet – June 30, 2024

(Dollars in Millions)

	General						Safety			All Plans
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Plan A	Plan B	Plan C	
LIABILITIES										
Present Value of Benefits - Inactives										
- Retirees and Beneficiaries	\$ 9,476	\$ 448	\$ 281	\$ 15,516	\$ 6,085	\$ 99	\$ 6,358	\$ 14,959	\$ 33	\$ 53,255
- Vested Former	3	1	0	829	438	196	0	180	31	1,678
- Inactive Total	9,479	449	281	16,345	6,523	295	6,358	15,139	64	54,933
Present Value of Benefits - Actives										
- Service Retirement	46	13	18	23,869	6,203	10,956	0	8,946	2,440	52,491
- Transfer Service (prior LACERA plan)	0	0	0	254	385	21	0	13	0	673
- Disability Retirement	0	0	0	782	N/A	710	0	2,815	1,225	5,532
- Death	0	0	0	280	N/A	193	0	59	35	567
- Termination	0	0	0	113	57	541	0	25	104	840
- Active Total	46	13	18	25,298	6,645	12,421	0	11,858	3,804	60,103
Total Actuarial Liabilities	\$ 9,525	\$ 462	\$ 299	\$ 41,643	\$ 13,168	\$ 12,716	\$ 6,358	\$ 26,997	\$ 3,868	\$ 115,036
ASSETS										
Valuation Assets	(7,709)	253	238	39,878	16,990	7,459	(4,607)	22,425	1,737	76,664
PV Future Member Contributions	0	0	0	2,431	N/A	4,535	0	915	1,461	9,342
PV Future Employer Normal Cost Contributions	1	0	0	2,807	890	4,184	0	1,627	1,382	10,891
UAAL or (Surplus Funding)	17,233	209	61	(3,473)	(4,712)	(3,462)	10,965	2,030	(712)	18,139
Total Current and Future Assets	\$ 9,525	\$ 462	\$ 299	\$ 41,643	\$ 13,168	\$ 12,716	\$ 6,358	\$ 26,997	\$ 3,868	\$ 115,036

Actuarial Accrued Liability

As noted above, the PVFB is the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this includes benefits already earned and future benefits to be earned. For active members, future benefits are expected to be funded by employee contributions and employer Normal Cost contributions (collectively, Normal Cost contributions).

The Actuarial Accrued Liability (AAL) is the PVFB less the present value of expected future Normal Cost contributions. That is, it is the liability for all benefits earned as of the valuation date, as allocated by the actuarial cost method. The difference between the AAL and Valuation Assets is referred to as the Unfunded Actuarial Accrued Liability (UAAL). A summary of the results for all LACERA plans in aggregate is shown below:

(Dollars in millions)	2024	2023	Percent Change
A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors	\$ 115,036	\$ 109,965	4.6%
B. Actuarial present value of total future normal costs for current members	20,233	19,314	4.8%
C. Actuarial accrued liability [A-B]	94,803	90,651	4.6%
D. Valuation Assets	76,664	72,415	5.9%
E. UAAL or (Surplus Funding) [C-D]	18,139	18,236	-0.5%
F. Funded Ratio [D/C]	80.9%	79.9%	1.3%

Unfunded Actuarial Accrued Liability

The difference between the AAL and the Valuation Assets is the UAAL. If a UAAL exists, it usually resulted from prior years' benefit or assumption changes and the net effect of accumulated gains and losses. If the employer had always contributed the current Normal Cost, and if there were no prior benefit or assumption changes, and if actual experience exactly matched the actuarial assumptions, then the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

Exhibit 8a provides an analysis of the change in the UAAL since the prior valuation date.

The 2024 actuarial valuation reflects a decrease in the UAAL of approximately \$0.1 billion since the prior year. A summary of these factors is:

- Investment Returns: The return on Valuation Assets was 7.5% compared to the assumed return of 7.0%. This resulted in an actuarial asset gain of \$364 million.
- Active Member Experience (non-salary): This includes gains and losses from termination, service retirement, disability retirement, and death different than assumed. This resulted in an actuarial gain of \$33 million.
- Salary Increases: Individual salaries for continuing active members increased at a higher rate than expected by the valuation assumptions. This resulted in an actuarial loss of \$488 million.
- Mortality Experience: An actuarial loss due to mortality generally indicates that retired members are living longer than the current assumption predicts. Similarly, an actuarial gain on mortality indicates that retired members are not living as long as predicted. This year, there was an actuarial loss of \$56 million due to mortality experience for retirees and beneficiaries.
- Other Experience: Examples of this are gains and losses from retirement and mortality experience of inactive members, reciprocity, unexpected benefit amount changes, and transfers between plans. These factors combined resulted in an actuarial gain of \$3 million.

Change in Unfunded Actuarial Accrued Liability – History

Exhibit 8b shows the sources of change in the UAAL over the past five valuations. The single biggest source of annual change in most years, when there are no changes in the assumptions, is the return on investments being either greater than or less than the assumption.

Funding Adequacy

A key consideration in determining the adequacy of the funding of LACERA is how the UAAL is being funded. Under LACERA's amortization method, a new UAAL "layer" is established each year when the Funded Ratio is less than 100%. All new UAAL layers are amortized over 20-year periods.

If future experience is significantly more favorable than expected based on the actuarial assumptions, then LACERA's UAAL may be eliminated. Conversely, if experience is less favorable, a larger UAAL will develop.

Exhibit 8a
Analysis of Change in Unfunded Actuarial Accrued Liability

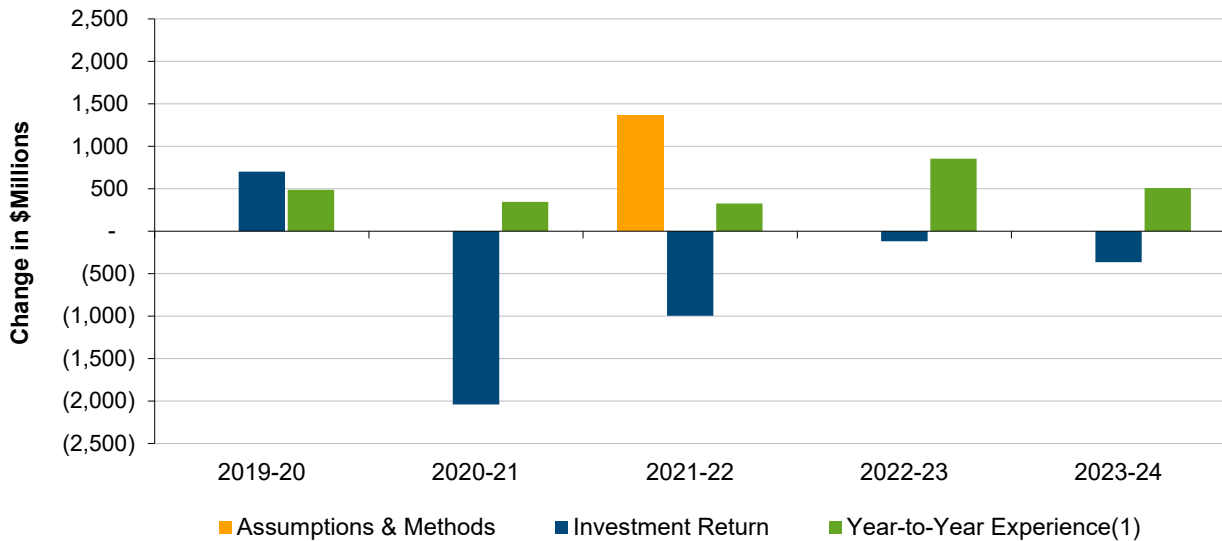
(Dollars in Millions)

	Amount	As a Percent of June 30, 2024 Actuarial Accrued Liability
Unfunded Actuarial Accrued Liability - June 30, 2023	\$ 18,236	19.24%
Interest Accrued	1,285	1.36%
Benefits Accrued (Normal Cost)	1,844	1.95%
<u>Contributions</u>		
Employer - Cash	\$ (2,509)	-2.65%
Member	(861)	-0.91%
Total	(3,370)	-3.55%
Expected Unfunded Actuarial Accrued Liability - June 30, 2024	\$ 17,995	18.98%
Sources of Change:		
<u>Asset (Gains) and Losses</u>		
(Gain) / Loss due to Investment Income	(364)	-0.38%
<u>Liability (Gains) and Losses</u>		
Active Member Experience (non salary)	\$ (33)	-0.03%
Salary Increases Greater than Expected	488	0.51%
Mortality Experience	56	0.06%
All Other Experience	(3)	0.00%
Total	508	0.54%
Total Changes	\$ 144	0.15%
Unfunded Actuarial Accrued Liability - June 30, 2024	\$ 18,139	19.13%

Exhibit 8b
History of Changes in Unfunded Actuarial Accrued Liability

(Dollars in Millions)

	2019-20	2020-21	2021-22	2022-23	2023-24	2019-24
Prior Valuation UAAL	\$ 17,018	\$ 18,512	\$ 16,989	\$ 17,608	\$ 18,236	\$ 17,018
Increase in UAAL due to:						
Expected Increase / (Decrease)	306	171	(76)	(108)	(241)	52
■ Asset (Gains) and Losses	701	(2,039)	(996)	(118)	(364)	(2,816)
■ Changes in Assumptions	-	-	750	-	-	750
■ Changes in Methods	-	-	614	-	-	614
■ Salary Increases	388	484	(21)	771	488	2,110
■ Retiree COLA Increases	43	(73)	355	-	-	325
■ Mortality Experience	1	(96)	(36)	(13)	56	(88)
■ All Other Experience	55	30	29	96	(36)	174
Total Increase / (Decrease)	1,494	(1,523)	619	628	(97)	1,121
Valuation UAAL	\$ 18,512	\$ 16,989	\$ 17,608	\$ 18,236	\$ 18,139	\$ 18,139
Funded Ratio	76.3%	79.3%	79.6%	79.9%	80.9%	80.9%



1. Year-to-Year Experience includes changes due to Salary, Retiree COLA, Mortality and Other Experience.

5. Member Contributions

Normal Contributions for Legacy Plans

Member contributions are of two types: Normal contributions and cost-of-living contributions.

Normal contributions for each of the legacy plans (all plans except General Plan G and Safety Plan C) are defined in the following sections of the CERL:

Plan	CERL	
	Reference	Formula
General A	31621.3	1/240th of FAC at age 55
General B	31621.1	1/120th of FAC at age 55
General C	31621	1/120th of FAC at age 60
General D	31621	1/120th of FAC at age 60
General E	N/A	Plan E is non-contributory
Safety A	31639.5	1/200th of FAC at age 50
Safety B	31639.25	1/100th of FAC at age 50

Note: FAC = Final Average Compensation

Normal member contributions are determined using the Entry Age Cost Method and actuarial assumptions for the expected rate of return on assets, individual salary increase rate (wage growth + merit), and mortality for members on service retirement.

We are not recommending changes to the member contribution rates for legacy plans for the fiscal year beginning July 1, 2025 because new assumptions were not adopted for the 2024 valuation. A sample of the member contribution rates is shown in Exhibit 9. All member contribution rates are shown in Appendix D.

Member contribution rates for General Plan G and Safety Plan C are discussed below.

Cost-of-Living Contributions for Legacy Plans

The determination of the member cost-of-living (COLA) contributions is based on Section 31873 of the CERL. This section requires that the cost of the COLA benefit be shared equally between members and the employer. Unlike the member normal contributions, these rates are based on the actuarial cost of the benefits and reflect all assumptions used in the valuation of liabilities.

We are not recommending changes in the member cost-of-living contribution rates for the fiscal year beginning July 1, 2025 because new assumptions were not adopted for the 2024 valuation. The current cost-of-living contribution rates, expressed as a percentage of the normal member contribution rates, are as follows:

Plan	COLA %
General A	82.08%
General B	26.10%
General C	26.19%
General D	26.59%
General E	0.00%

Plan	COLA %
Safety A	87.15%
Safety B	33.43%

The relative magnitude of these amounts reflects the differences in the normal contribution rates for each plan and the different cost-of-living benefits offered by the different plans. The rate for Plan E is 0.00% since it is non-contributory.

A sample of the current member contribution rates (normal plus cost-of-living) can be found in Exhibit 9.

Full disclosure of the member rates showing both the normal and the total (normal plus cost-of-living) contribution rates can be found in Appendix D.

Member Contribution Rates for General Plan G and Safety Plan C (PEPRA Plans)

Members of the two plans developed in compliance with the California Public Employees’ Pension Reform Act of 2013 (PEPRA) contribute a flat rate (i.e., does not vary by entry age) based on whether they are in the General or Safety plan. This rate is set equal to one-half of the total Normal Cost rate for the respective plan. We are recommending changes to the member contribution rates for these plans, as shown below, to reflect the Plan’s Normal Cost rates for the 2024 valuation.

	General Plan G	Safety Plan C
All Ages: Recommended	9.30%	15.14%
All Ages: Current	9.28%	14.97%
Ratio (Recommended / Current)	100.2%	101.1%

Note that the member contribution rates for these plans are further split for purposes of this report into a “Normal” and “Cost of Living” component. The cost-of-living component for these members, as shown in Exhibit 9 on the following page, represents one-half of the cost of the COLA for these plans.

Based on a review of salary data provided to us for valuations, it was determined by LACERA staff that prior years’ individual salary data for General Plan G and Safety Plan C members included certain non-pensionable amounts. Effective with this valuation, those non-pensionable amounts have been removed from the individual data provided to us by LACERA and thus from the valuation calculations. This data refinement reduces the present value of future pensionable salary (PVFS) more than the present value of future benefits (PVFB). Since the Normal Cost rate, which the member contribution rate is based upon, equals the ratio of PVFB to PVFS, this causes an increase in the rate (as the denominator is reduced more than numerator). The impact of the data refinement is in an increase of 0.12% of pensionable salary in the Safety Plan C member contribution rate which is included with other factors in the increase of 0.17% of pensionable salary shown in the table above. Note that if the revised salary data had been used in prior valuations, this would have meant that Safety Plan C members would have contributed at a higher rate in those years.

This refinement does not cause any change in the General Plan G member contribution rate and does not materially affect the overall funding of LACERA.

Average Member Rates

The average member contribution rate for only those active members in contributory plans at June 30, 2024 is 9.56% of covered payroll, compared to 8.46% of covered payroll for all active members including non-contributory members. The 8.46% offsets the gross normal cost to yield the employer normal cost rate. Note that covered payroll does not include pay for PEPRA plan members that is above the PEPRA compensation limit.

Exhibit 9
Sample Member Contribution Rates

<u>Recommended Rates (Based on 2024 Valuation)</u>						
	Entry Age	Normal	Cost of Living	Total as a % of Pay	Current Rate (Total)	Ratio (New / Current)
General Members						
Plan A	25	3.33%	2.73%	6.06%	6.06%	100.0%
	35	4.06%	3.33%	7.39%	7.39%	100.0%
	45	4.86%	3.99%	8.85%	8.85%	100.0%
	55	5.16%	4.24%	9.40%	9.40%	100.0%
Plan B	25	6.65%	1.74%	8.39%	8.39%	100.0%
	35	8.12%	2.12%	10.24%	10.24%	100.0%
	45	9.73%	2.54%	12.27%	12.27%	100.0%
	55	10.32%	2.69%	13.01%	13.01%	100.0%
Plan C	25	5.70%	1.49%	7.19%	7.19%	100.0%
	35	6.96%	1.82%	8.78%	8.78%	100.0%
	45	8.44%	2.21%	10.65%	10.65%	100.0%
	55	9.74%	2.55%	12.29%	12.29%	100.0%
Plan D	25	5.70%	1.52%	7.22%	7.22%	100.0%
	35	6.96%	1.85%	8.81%	8.81%	100.0%
	45	8.44%	2.24%	10.68%	10.68%	100.0%
	55	9.74%	2.59%	12.33%	12.33%	100.0%
Plan G	All Ages	7.53%	1.77%	9.30%	9.28%	100.2%
Safety Members						
Plan A	25	4.89%	4.26%	9.15%	9.15%	100.0%
	35	5.69%	4.96%	10.65%	10.65%	100.0%
	45	6.70%	5.84%	12.54%	12.54%	100.0%
	55	6.70%	5.84%	12.54%	12.54%	100.0%
Plan B	25	9.77%	3.27%	13.04%	13.04%	100.0%
	35	11.37%	3.80%	15.17%	15.17%	100.0%
	45	13.40%	4.48%	17.88%	17.88%	100.0%
	55	13.41%	4.48%	17.89%	17.89%	100.0%
Plan C	All Ages	11.78%	3.36%	15.14%	14.97%	101.1%

Note: A portion of some of the member contribution rates is paid for (“picked up”) by the employer and is not considered part of the member’s contribution account for refund purposes. Such contributions are referred to as the surcharge amount and are subject to change each year. The rates shown in the table above are prior to any surcharge payments.

6. Employer Contributions

Calculated Employer Contribution Rate

Contributions to LACERA are determined using the Entry Age Cost Method. The portion of the actuarial present value of retirement benefits allocated to a valuation year by the actuarial cost method is called the Normal Cost. These amounts are usually expressed as a percentage of payroll and called the Normal Cost Contribution Rate. Exhibit 10 illustrates the Normal Cost Contribution Rate by type of benefit and for each plan based on this valuation. A comparison with last year is also shown.

Under the Actuarial Funding Policy, the total contribution rate is set equal to the Normal Cost Contribution Rate plus a payment by the employer towards the UAAL. The calculation of the UAAL contribution rate is shown in Exhibit 12. A portion of the Normal Cost contribution is funded by member contributions. The remainder is paid for by the employer.

The total calculated employer contribution rates for each plan, along with a comparison to the prior year's calculated rates, can be found in Exhibit 11. These results are expressed as a percentage of payroll and annual contribution dollars. Note that LACERA's UAAL contribution rate is not determined separately for each plan but is funded evenly as a percentage of pay over salaries for all members.

For the fiscal year beginning in 2025, the total calculated employer contribution rate decreases to 25.61% from the current fiscal year rate of 25.88%. This is equal to the aggregate employer Normal Cost Contribution Rate of 10.88% based on the 2024 valuation, plus the layered UAAL amortization payment, shown in Exhibit 12.

(All values as a % of Payroll)

Employer Normal Cost Contribution Rate	10.88%
Layered Amortization of UAAL	<u>14.73%</u>
Calculated Employer Contribution Rate	25.61%

Employers may reduce their contribution to reflect any benefits they pay directly to members from a Replacement Benefit Plan (RBP) for benefits greater than the maximum allowed under IRC Section 415. Specifically, it is our understanding that Los Angeles County follows this approach. The benefit amounts provided by LACERA for this valuation include the aggregate benefits paid by LACERA and the Los Angeles County RBP, so the calculated employer contribution rate reflects funding for the benefits below the 415 limit and the benefits paid from the RBP. Therefore, we believe this approach of contributing an employer contribution rate reduced by the amount of RBP payments is actuarially reasonable and is not expected to adversely impact the funding of LACERA, provided that the employers do not reduce their contributions (as a result of RBP payments) below those necessary to fund their portion of the normal cost.

Exhibit 10
Calculated Normal Cost Contribution Rates – June 30, 2024

	General							Safety				Grand Total
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Total	Plan A ⁽¹⁾	Plan B	Plan C	Total	
A. Normal Cost Contribution Rate												
Service Retirement	19.23%	19.84%	13.69%	14.95%	10.21%	15.94%	14.71%	19.77%	19.77%	18.40%	19.31%	15.51%
Disability Retirement	0.92%	1.23%	0.70%	1.06%	0.00%	1.26%	1.00%	9.30%	9.30%	10.58%	9.73%	2.54%
Death	0.24%	0.31%	0.23%	0.31%	0.00%	0.30%	0.26%	0.33%	0.33%	0.30%	0.32%	0.27%
Termination	0.48%	0.42%	0.40%	1.10%	0.64%	1.10%	1.03%	0.84%	0.84%	1.00%	0.89%	1.01%
Total	20.87%	21.80%	15.02%	17.42%	10.85%	18.60%	17.00%	30.24%	30.24%	30.28%	30.25%	19.34%
B. Member Contributions	(5.53)%	(10.16)%	(7.28)%	(8.14)%	0.00%	(9.30)%	(7.49)%	(11.95)%	(11.95)%	(15.14)%	(13.02)%	(8.46)%
C. Net Employer Normal Cost as of June 30, 2024 (A) - (B)	15.34%	11.64%	7.74%	9.28%	10.85%	9.30%	9.51%	18.29%	18.29%	15.14%	17.23%	10.88%
D. Net Employer Normal Cost as of June 30, 2023	16.70%	11.25%	7.74%	9.36%	11.02%	9.28%	9.58%	18.36%	18.36%	14.97%	17.30%	11.01%
E. Increase (Decrease) as a Percentage of Payroll (C) - (D)	(1.36)%	0.39%	0.00%	(0.08)%	(0.17)%	0.02%	(0.07)%	(0.07)%	(0.07)%	0.17%	(0.07)%	(0.13)%
F. Estimated Payroll for fiscal year beginning July 1, 2025 ⁽²⁾	\$ 5	\$ 2	\$ 2	\$ 3,757	\$ 1,206	\$ 3,515	\$ 8,486	\$ -	\$ 1,219	\$ 615	\$ 1,835	\$ 10,321
G. Estimated Total Normal Cost Contribution in Dollars (A x F) ⁽³⁾	\$ 1	\$ -	\$ -	\$ 655	\$ 131	\$ 654	\$ 1,443	\$ -	\$ 369	\$ 186	\$ 555	\$ 1,998

- As of the valuation date there are no active members in Safety Plan A. Normal Cost rates are set equal to Safety Plan B rates.
- Estimated Payroll based upon annualized salary rate as of June 30, 2024 increased by 3.25% wage inflation. Dollar figures in millions.
- The timing of the Normal Cost shown in this exhibit is spread over the entire year and corresponds to payroll timing.

Exhibit 11
Total Employer Contributions

	General							Safety				All Plans
	Plan A	Plan B	Plan C	Plan D	Plan E	Plan G	Total	Plan A ⁽¹⁾	Plan B	Plan C	Total	
A. Net Employer Normal Cost												
1. Basic Benefits	12.27%	9.47%	6.22%	7.62%	8.98%	7.53%	7.78%	14.60%	14.60%	11.78%	13.65%	8.81%
2. Cost-of-Living Benefits	3.07%	2.17%	1.52%	1.66%	1.87%	1.77%	1.73%	3.69%	3.69%	3.36%	3.58%	2.07%
3. Total June 30, 2024	15.34%	11.64%	7.74%	9.28%	10.85%	9.30%	9.51%	18.29%	18.29%	15.14%	17.23%	10.88%
B. UAAL Contribution Rate	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%	14.73%
C. Total June 30, 2024 Contribution Rate (A) + (B)	30.07%	26.37%	22.47%	24.01%	25.58%	24.03%	24.24%	33.02%	33.02%	29.87%	31.96%	25.61%
D. Total June 30, 2023 Contribution Rate	31.57%	26.12%	22.61%	24.23%	25.89%	24.15%	24.45%	33.23%	33.23%	29.84%	32.17%	25.88%
E. Estimated Payroll for fiscal year beginning July 1, 2025 ⁽²⁾	\$ 5	\$ 2	\$ 2	\$ 3,757	\$ 1,206	\$ 3,515	\$ 8,486	\$ -	\$ 1,219	\$ 615	\$ 1,835	\$10,321
F. Est. Employer NC Contribution	\$ 1	\$ -	\$ -	\$ 349	\$ 131	\$ 327	\$ 807	\$ -	\$ 223	\$ 93	\$ 316	\$ 1,123
G. Est. UAAL Contribution	\$ 1	\$ -	\$ -	\$ 553	\$ 177	\$ 518	\$ 1,250	\$ -	\$ 180	\$ 91	\$ 270	\$ 1,520
H. Estimated Annual Contribution (C x E)	\$ 2	\$ -	\$ -	\$ 902	\$ 308	\$ 845	\$ 2,057	\$ -	\$ 403	\$ 184	\$ 586	\$ 2,643
I. Last Year's Estimated Annual Contribution	\$ 2	\$ -	\$ -	\$ 922	\$ 316	\$ 721	\$ 1,962	\$ -	\$ 418	\$ 172	\$ 590	\$ 2,552
J. Increase / (Decrease) in Annual Contribution	\$ -	\$ -	\$ -	\$ (20)	\$ (8)	\$ 124	\$ 95	\$ -	\$ (15)	\$ 12	\$ (4)	\$ 91

1. As of the valuation date there are no active members in Safety Plan A. Normal Cost rates are set equal to Safety Plan B rates.
2. Estimated Payroll based upon annualized salary rate as of June 30, 2024 increased by 3.25% wage inflation. Dollar figures in millions.

Exhibit 12
Unfunded Actuarial Accrued Liability Detail

(Dollars in Millions)

Unfunded Actuarial Accrued Liability - Amortization Detail								
Date Established	Description	Balance as of June 30, 2024	Interest on Balance	Amortization Payment on June 30, 2025 ⁽¹⁾	Balance as of June 30, 2025 ⁽²⁾	Remaining Period as of June 30, 2025 ⁽⁵⁾	July 1, 2025 Amortization Payment	
June 30, 2009	Initial UAAL	\$ 5,359.0	\$ 375.1	\$ 484.9	\$ 5,249.1	14 Years	\$ 477.1	
June 30, 2010	(Gain) / Loss ⁽³⁾	2,963.9	207.5	255.6	2,915.9	15 Years	251.4	
June 30, 2011	(Gain) / Loss ⁽³⁾	1,486.4	104.0	122.6	1,467.8	16 Years	120.6	
June 30, 2012	(Gain) / Loss ⁽³⁾	2,455.7	171.9	194.3	2,433.3	17 Years	191.2	
June 30, 2013	(Gain) / Loss ⁽³⁾	1,388.4	97.2	109.9	1,375.7	17 Years	108.1	
June 30, 2014	(Gain) / Loss	(2,571.0)	(180.0)	(203.5)	(2,547.5)	17 Years	(200.2)	
June 30, 2015	(Gain) / Loss	(2,008.6)	(140.6)	(159.0)	(1,990.3)	17 Years	(156.4)	
June 30, 2016	(Gain) / Loss ⁽³⁾	3,859.4	270.2	305.4	3,824.1	17 Years	300.5	
June 30, 2017	(Gain) / Loss	(20.9)	(1.5)	(1.7)	(20.8)	17 Years	(1.6)	
June 30, 2018	(Gain) / Loss	60.4	4.2	4.8	59.8	17 Years	4.7	
June 30, 2019	(Gain) / Loss ⁽³⁾	3,827.4	267.9	330.0	3,765.3	15 Years	324.6	
June 30, 2020	(Gain) / Loss	1,434.4	100.4	118.3	1,416.5	16 Years	116.4	
June 30, 2021	(Gain) / Loss	(1,732.9)	(121.3)	(137.1)	(1,717.1)	17 Years	(134.9)	
June 30, 2022	(Gain) / Loss ⁽³⁾	859.3	60.2	65.5	854.0	18 Years	64.4	
June 30, 2023	(Gain) / Loss	665.6	46.6	48.9	663.3	19 Years	48.1	
June 30, 2024	(Gain) / Loss	112.5	7.9	34.7	85.8	20 Years	6.0	
Total Amortization Payment July 1, 2025:							\$ 1,520.0	
Projected Payroll July 1, 2025:							\$ 10,320.8	
UAAL as of June 30, 2024:		\$ 18,139.0	UAAL Contribution Rate (as a % of Payroll) FYB July 1, 2025:				14.73%	

Explanatory Notes:

- Amortization Payments are based on a fixed schedule that increases by the payroll assumption each year.
- The assets and liabilities used in the calculation of the UAAL are as of June 30, 2024, whereas the contribution rates are not effective until July 1, 2025. Therefore, the UAAL is projected to June 30, 2025 based on the actual contribution rate for the period, with the projected UAAL as of June 30, 2025 equaling \$17,835 million.
- (Gain) / Loss layers include the impact of assumption and method changes in these years.
- The amortization of UAAL does not begin until July 1, 2025; therefore, the UAAL amount is adjusted by one year to reflect the actual July 1, 2024 contribution rate.
- Effective with the June 30, 2019 valuation, all new UAAL layers are amortized over a 20-year period, beginning with the date the contribution is first expected to be made.

7. Supplemental Information

Governmental Accounting Standards Board (GASB) Statement 67 sets out requirements for defined benefit pension plan reporting and disclosures. GASB Statement 68 sets out requirements for accounting by state and local government employers.

Milliman provides LACERA with results relevant to Statements 67 and 68 in separate stand-alone financial reporting valuation reports.

For informational purposes, we have provided the following exhibits in this report that LACERA may use in the audited financial statements:

- Exhibit 13: Schedule of Funding Progress
- Exhibit 14: Schedule of Employer Contributions
- Exhibit 15: Funded Liabilities by Type
- Exhibit 16: Actuarial Analysis of Financial Experience
- Exhibit 17: Retirants and Beneficiaries added to / removed from Retiree Payroll

Exhibit 13, Schedule of Funding Progress, compares actuarial assets and liabilities of the Plan, based on the actuarial funding method used.

Exhibit 14, Schedule of Employer Contributions, compares the employer contributions required based on the actuarial valuation with the employer contributions actually made. Information shown in this exhibit comes from LACERA's audited financial statements.

Exhibit 15 compares the Actuarial Value of Valuation Assets to the types of Actuarial Accrued Liabilities, applying them first to Active Member contributions, then to retirees and beneficiaries, and then the remaining amount to the Active Members benefits.

Exhibit 16 shows the changes in actual versus expected UAAL from year to year.

Exhibit 17 reconciles the retired members and beneficiaries who have been added to and removed from the retiree payroll.

Exhibit 13
Schedule of Funding Progress

(Dollars in Thousands)

Actuarial Valuation Date	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liabilities	(b-a) Unfunded Actuarial Accrued Liabilities (UAAL)	(a/b) Funded Ratio	(c) Covered Payroll ⁽¹⁾	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 2015	\$ 47,328,270	\$ 56,819,215	\$ 9,490,945	83.3%	\$ 6,948,738	136.6%
June 30, 2016 ⁽²⁾	49,357,847	62,199,214	12,841,367	79.4%	7,279,777	176.4%
June 30, 2017	52,166,307	65,310,803	13,144,496	79.9%	7,637,032	172.1%
June 30, 2018	55,233,108	68,527,354	13,294,246	80.6%	7,957,981	167.1%
June 30, 2019 ⁽²⁾	57,617,288	74,635,840	17,018,552	77.2%	8,370,050	203.3%
June 30, 2020	59,762,991	78,275,175	18,512,184	76.3%	8,724,151	212.2%
June 30, 2021	64,909,377	81,898,044	16,988,667	79.3%	9,062,051	187.5%
June 30, 2022 ⁽²⁾	68,711,610	86,320,151	17,608,541	79.6%	9,100,791	193.5%
June 30, 2023	72,414,936	90,651,092	18,236,156	79.9%	9,425,690	193.5%
June 30, 2024	76,663,543	94,803,237	18,139,694	80.9%	9,860,647	184.0%

1. Covered Payroll includes compensation paid to all active employees on which contributions are calculated, as reported by LACERA. Covered Payroll differs from the Active Member Valuation Payroll shown in Table C-1, which is an annualized compensation of only those members who were active on the actuarial valuation date.

2. Assumption and method changes.

Exhibit 14
Schedule of Contributions from the Employer

(Dollars in Thousands)

Fiscal Year Ending	Actuarially Determined Employer Contribution	Actual Employer Contributions			Percentage of Actuarially Determined Contribution Contributed
		Cash Payment	Transfer from Reserve Accounts	Total	
June 30, 2015	\$ 1,494,975	\$ 1,494,975	\$ -	\$ 1,494,975	100%
June 30, 2016	1,443,130	1,443,130	-	1,443,130	100%
June 30, 2017 ⁽¹⁾	1,392,813	1,370,922	21,891	1,392,813	100%
June 30, 2018	1,564,284	1,564,284	-	1,564,284	100%
June 30, 2019	1,708,122	1,708,122	-	1,708,122	100%
June 30, 2020	1,800,137	1,800,137	-	1,800,137	100%
June 30, 2021	2,012,877	2,012,877	-	2,012,877	100%
June 30, 2022	2,199,889	2,199,889	-	2,199,889	100%
June 30, 2023	2,301,706	2,301,706	-	2,301,706	100%
June 30, 2024	2,509,071	2,509,071	-	2,509,071	100%

1. The County Contribution Reserve was used to offset the contribution required from the Courts in the fiscal year ended June 30, 2017.

Exhibit 15
Funded Liabilities by Type

(Dollars in Millions)

Actuarial Valuation Date	Actuarial Value of Valuation Assets	Actuarial Accrued Liabilities for			Portion of Actuarial Accrued Liabilities Covered by Assets		
		Active Member Contributions (A)	Retirees and Beneficiaries ⁽¹⁾ (B)	Active Members (Employer Financed Portion) (C)	(A)	(B)	(C)
June 30, 2015	\$ 47,328	\$ 8,805	\$ 32,734	\$ 15,280	100%	100%	38%
June 30, 2016	49,358	8,767	35,316	18,116	100%	100%	29%
June 30, 2017	52,166	9,482	37,077	18,752	100%	100%	30%
June 30, 2018	55,233	9,882	39,192	19,453	100%	100%	32%
June 30, 2019	57,617	10,210	42,235	22,190	100%	100%	23%
June 30, 2020	59,763	10,650	44,500	23,125	100%	100%	20%
June 30, 2021	64,909	11,115	46,774	24,009	100%	100%	29%
June 30, 2022	68,712	11,029	49,637	25,654	100%	100%	31%
June 30, 2023	72,415	11,930	52,116	26,605	100%	100%	31%
June 30, 2024	76,664	12,446	54,933	27,424	100%	100%	34%

1. Includes vested and non-vested former employees.

Notes:

For the purpose of this exhibit, Valuation Assets are allocated, in order, to active member contribution accounts (A), the Actuarial Accrued Liability for retirees and beneficiaries (B) and the employer financed portion of active member liabilities (C). Active member contributions are always assumed to be 100% funded. Assets are then allocated to the Actuarial Accrued Liability for retirees and beneficiaries until that category is 100% funded, and then any remaining Valuation Assets are allocated to the employer financed portion of active member liabilities. The employer's UAAL contributions are based on a percentage of active member salaries and those contributions are projected to eliminate any unfunded liability in that category over the scheduled amortization period.

Exhibit 16
Actuarial Analysis of Financial Experience

(Dollars in Millions)

	Valuation as of June 30						
	2018	2019	2020	2021	2022	2023	2024
Unfunded Actuarial Accrued Liability	\$13,145	\$13,294	\$17,018	\$18,512	\$16,989	\$17,608	\$18,236
Expected Increase/(Decrease) from Prior Valuation	146	25	306	171	(76)	(108)	(241)
Salary Increases Greater/(Less) than Expected	223	486	388	484	(21)	771	488
Retiree COLA Greater/(Less) than Expected	45	44	43	(73)	355	-	-
Change in Assumptions / Methods	-	2,528	-	-	1,364	-	-
Asset Return Less/(Greater) than Expected	(411)	477	701	(2,039)	(996)	(118)	(364)
All Other Experience	146	164	56	(66)	(7)	83	20
Ending Unfunded Actuarial Accrued Liability	\$13,294	\$17,018	\$18,512	\$16,989	\$17,608	\$18,236	\$18,139

Exhibit 17
Retirees and Beneficiaries added to and removed from Retiree Payroll

(Dollars in Thousands)

Valuation Date	Added to Rolls		Removed from Rolls		Rolls at End of Year		% Increase in Retiree Allowance	Average Annual Allowance
	Member Count	Annual Allowance ⁽¹⁾⁽²⁾	Member Count	Annual Allowance ⁽¹⁾	Member Count ⁽³⁾	Annual Allowance ⁽¹⁾		
June 30, 2015	3,501	\$ 180,549	(2,124)	\$ (80,028)	60,606	\$ 2,812,601	3.71%	\$ 46.4
June 30, 2016	3,479	220,632	(2,171)	(80,881)	61,914	2,952,352	4.97%	47.7
June 30, 2017	3,721	245,915	(2,311)	(89,624)	63,324	3,108,643	5.29%	49.1
June 30, 2018	3,826	276,118	(2,270)	(89,033)	64,880	3,295,728	6.02%	50.8
June 30, 2019	3,978	302,022	(2,351)	(97,840)	66,507	3,499,910	6.20%	52.6
June 30, 2020	3,930	311,206	(2,425)	(104,914)	68,012	3,706,202	5.89%	54.5
June 30, 2021	4,350	327,745	(2,865)	(132,185)	69,497	3,901,762	5.28%	56.1
June 30, 2022	4,796	378,343	(2,722)	(130,089)	71,571	4,150,016	6.36%	58.0
June 30, 2023	4,071	347,718	(2,634)	(129,276)	73,008	4,368,458	5.26%	59.8
June 30, 2024	4,276	379,365	(2,517)	(129,488)	74,767	4,618,335	5.72%	61.8

1. Annual allowance is the monthly benefit allowance annualized for those members counted as of June 30.

2. Includes COLAs that occurred during the fiscal year and therefore were not included in the previous years' Annual Allowance totals.

3. For the actuarial valuation year, Member Count includes retirees who due to timing at year end, are not yet included in the total Retired Members count disclosed in Note A - Plan Description of LACERA's ACFR for the fiscal year ended June 30, 2024.

8. Cash Flow History and Projections

Exhibits 18a and 18b contain tables and graphs that illustrate both the cash flow history for the past 10 years and a projection on the valuation basis for the next 10 years.

Contributions include both employer and member contributions. Exhibit 18a shows that net cash outflow has gradually increased over the last ten years. In future years, the cash flow is expected to become increasingly negative. This is a typical pattern for a mature retirement plan where it is expected that contributions will be less than benefits and that the Plan will begin drawing on the fund that has been built up over prior years.

Note that the actual cash contributions do not reflect the transfers made between reserve funds, but only cash coming into the Plan. We are assuming no further transfers, only full cash contributions. In addition, LACERA will receive dividends and interest payments from its investments. These types of payments are not considered for this analysis, which focuses solely on comparing contributions with benefit payments and administrative expenses.

The projected cash flows include contributions, statutory benefits, and administrative expenses only. They are based on the actuarial assumptions as stated in Appendix A of this valuation report. The total employer contribution rate is assumed to be 25.88% for the first year and 25.61% for the second year; total employer contributions for the remainder of the period reflect the expected recognition of asset gains and losses currently being deferred. The aggregate member rate is assumed to stay at the calculated rate for June 30, 2024 of 8.46% of payroll. Expenses are based on the expenses for the year ended June 30, 2024, increased annually with the actuarial inflation assumption of 2.75%.

Any increases or reductions in future contribution rates will increase or decrease the net cash flow. The projected cash flows do not include:

- Projected STAR benefits that have not yet been granted and STAR benefits that have been adopted but are not effective until after the valuation date.
- Projected benefits payable under certain insurance contracts for a group of retired members. These payments are netted against the total expected retiree benefits.

Exhibit 18a
Cash Flow History and Projections – Dollars

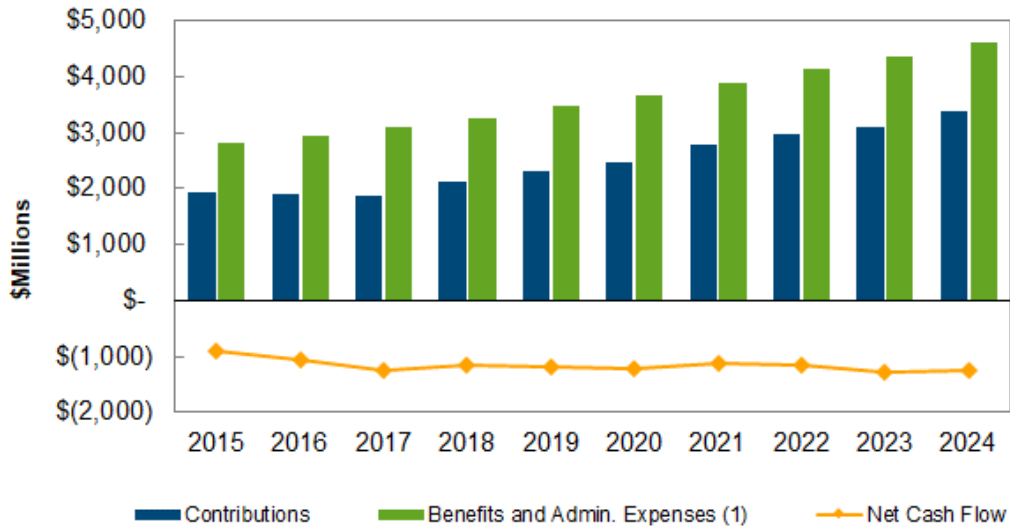
Cash Flow History				
Plan Year Ending	Total Contributions	Benefits & Administrative Expenses ⁽¹⁾	Net Cash Flow	Net Cash Flow as a Percent of Fair Value of Assets
2015	\$ 1,936	\$ 2,829	\$ (893)	-1.9%
2016	1,902	2,954	(1,052)	-2.2%
2017	1,858	3,094	(1,236)	-2.6%
2018	2,116	3,268	(1,152)	-2.2%
2019	2,304	3,475	(1,171)	-2.1%
2020	2,459	3,676	(1,217)	-2.1%
2021	2,774	3,886	(1,112)	-1.9%
2022	2,959	4,126	(1,167)	-1.6%
2023	3,095	4,375	(1,280)	-1.8%
2024	3,370	4,616	(1,246)	-1.7%

Cash Flow Projections⁽²⁾				
Plan Year Ending	Total Contributions	Benefits & Administrative Expenses ⁽¹⁾	Net Cash Flow	Net Cash Flow as a Percent of Fair Value of Assets
2025	\$ 3,479	\$ 5,115	\$ (1,636)	-2.1%
2026	3,573	5,184	(1,611)	-1.9%
2027	3,649	5,433	(1,784)	-2.0%
2028	3,739	5,681	(1,942)	-2.1%
2029	3,831	5,935	(2,104)	-2.2%
2030	3,928	6,197	(2,269)	-2.3%
2031	4,051	6,466	(2,415)	-2.3%
2032	4,176	6,740	(2,564)	-2.4%
2033	4,307	7,018	(2,711)	-2.4%
2034	4,441	7,296	(2,854)	-2.4%

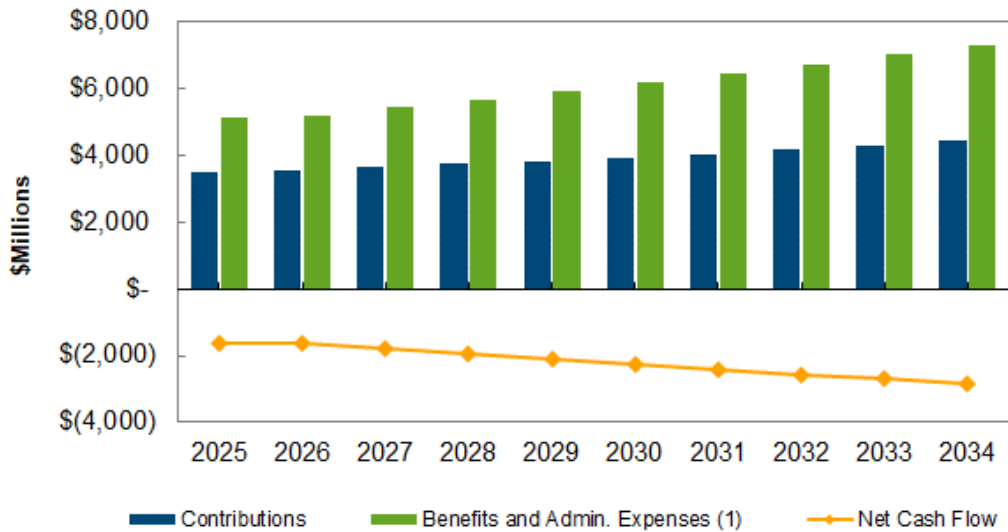
1. Investment expenses are assumed to be covered by investment return.
2. Future contributions reflect the expected impact of asset gains and losses currently being deferred.

Exhibit 18b
 Cash Flow History and Projections – Graphs

Cash Flow History



Cash Flow Projections⁽²⁾



1. Investment expenses are assumed to be covered by investment return.
2. Future contributions reflect the expected impact of asset gains and losses currently being deferred.

9. Risk Discussion

Please refer to the Risk Assessment report dated May 24, 2024 (which is based on the June 30, 2023 valuation) for a detailed analysis of the main risks applicable to LACERA. That report includes detailed identification and assessment of risks.

Overview

The results of any actuarial valuation are based on one set of reasonable assumptions. Although we believe the current assumptions provide a reasonable estimate of future expectations, it is almost certain that future experience will differ from the assumptions to some extent. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the Plan, or of the Plan's members.

Actuarial Standard of Practice 51 (ASOP 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the Plan.
- Assess the risks identified as significant to the Plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the Plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the Plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

In addition, the California Actuarial Advisory Panel (CAAP) has adopted a set of model disclosure elements for actuarial valuation reports of public retirement systems in California. Most of these elements are included in other areas of this report. The remaining CAAP-recommended disclosures are as follows:

Disclosure Element	Description	Value
Gross Normal Cost \$ ¹	Normal Cost allocated to valuation year, paid at mid-year.	\$ 1,964.4
Statutory Contribution \$ ¹	Expected Employer Contribution paid at mid-year.	\$ 2,628.6
Asset Smoothing Ratio	Actuarial Value of Assets divided by Fair Value of Assets	98.6%
Asset Volatility Ratio	Fair Value of Assets divided by Payroll	7.8
Liability Volatility Ratio	Actuarial Accrued Liability divided by Payroll	9.5

1. Amounts shown in millions of dollars.

This Section 9 uses the framework of ASOP 51 and the Asset and Liability Volatility Ratios shown above to communicate important information about: significant risks to the Plan, the Plan's maturity, and relevant historical plan data.

Factors Affecting Future Results

There are a number of factors that affect future valuation results. To the extent actual experience for these factors varies from the assumptions, this will likely cause either increases or decreases in the Plan's future funding level and employer contribution rates (ECR). The factors that can have the most significant impact on LACERA's valuation results are:

- Investment returns
To the extent that actual investment returns differ from the assumed investment return, the Plan's future assets, ECR, and funded status may differ significantly from those presented in this valuation. Additional discussion of the impact of variance of investment returns is included below.
- Compensation increases
Individual member retirement benefits are linked to that member's compensation. As such, assumptions need to be made as to a member's future compensation increases. Higher future compensation increases will generally result in larger retirement benefits, liabilities, ECRs, and a lower funded status. Conversely, lower compensation increases than assumed will generally result in smaller retirement benefits, liabilities, ECRs, and a higher funded status.
- Payroll variation
In the valuation, an assumption is made for the overall rate of payroll growth of LACERA from year-to-year. To the extent that the overall rate of payroll growth is greater than assumed, the ECR may decrease since the UAAL will be amortized over a larger payroll base. If the overall rate of payroll growth is less than assumed, the ECR is expected to increase since the UAAL will be amortized over a smaller payroll base.

This effect often will offset somewhat with individual compensation increases, discussed above.
- Longevity and other demographic risks
The liabilities reported in this valuation have been calculated by assuming that members will follow specific patterns of demographic experience (e.g., mortality, retirement, termination, disability) as described in Appendix A. To the extent that actual demographic experience is different than is assumed to occur, future liabilities, ECRs, and funded status may differ from that presented in this valuation.

All of these assumptions are reviewed in detail during the triennial Investigation of Experience study, and are also reviewed annually during the valuation process. Changes in assumptions are generally recommended as part of the triennial Investigation of Experience if actual experience has been materially different than assumed or forecasts have changed significantly. Additionally, changes may be recommended and discussed at each valuation if they are deemed to be appropriate at that time.

Discussion of Investment Return Risk

Of these factors, we believe the factor with the greatest potential risk to impact future valuation results for LACERA is future investment returns. For example, if actual returns fall short of the current assumption of 7.0% per year, this will cause an increase in the ECR and a decrease in the Funded Ratio, all other things being equal. Conversely, if actual returns exceed the current assumption of 7.0% per year, this will cause a decrease in the ECR and an increase in the Funded Ratio.

The magnitude of the increase or decrease in the ECR is affected by the maturity level, and specifically, the asset volatility ratio. LACERA has accumulated a significant amount of assets relative to its payroll and by several measures is considered a mature plan. Accumulating assets to pay for future benefit obligations is responsible funding, but it does mean that changes in the investment markets can have a significant impact on the ECR.

Low-Default-Risk Obligation Measure (LDRM)

Actuarial Standard of Practice 4 (ASOP 4) states that when performing a funding valuation, the actuary should calculate and disclose a low-default-risk obligation measure (LDRM) of the benefits earned or accrued under the actuarial cost method used as of the measurement date. The actuary should select a discount rate derived from low-default-risk fixed income securities. We have used the Bond Buyer General Obligation 20-Bond Municipal Bond Index. The index is a 20-year high quality AA municipal bond rate and, based on Section 3.11.c. of ASOP 4, we believe this index meets the requirements for a discount rate for the LDRM. The index was 3.93% as of June 30, 2024.

This required disclosure shows significantly higher plan liabilities and a lower funded ratio than under the funding valuation assumption, as shown in the following chart. It provides the Plan Sponsors and other interested parties with additional funding metrics of the Plan for informational purposes, but does not impact the funding of the Plan which is based on the valuation assumptions.

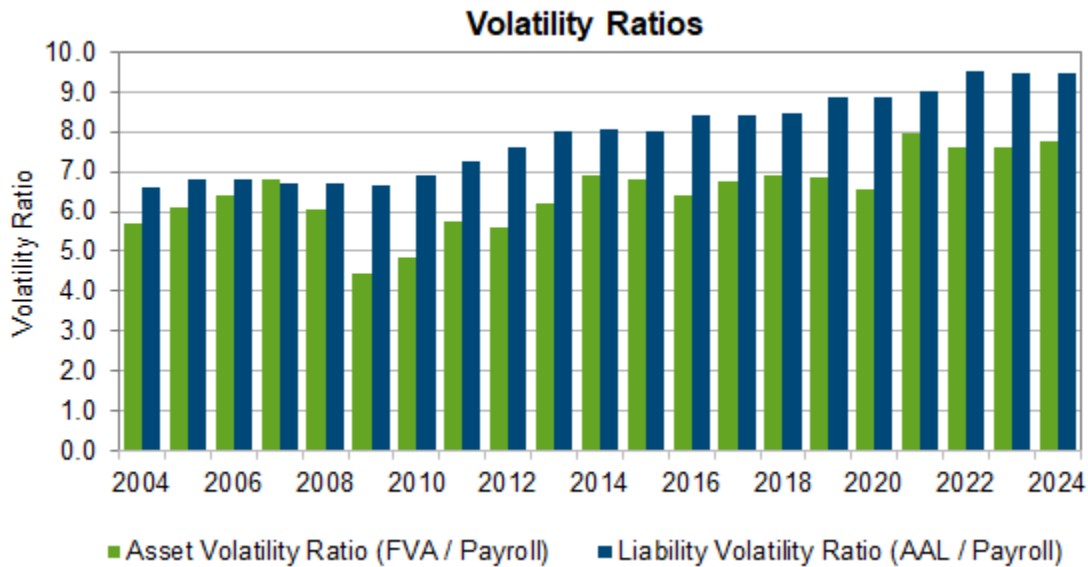
	Bond Buyer Index ¹	Valuation Assumption
Discount Rate	3.93%	7.00%
Actuarial Accrued Liability as of June 30, 2024 ²	\$143.5	\$94.8
Funding Ratio - Valuation Assets	53.4%	80.9%
Funding Ratio - Fair Value of Assets	54.2%	82.1%

- 1. Calculated using the same actuarial assumptions and methods as used for this valuation, except for the discount rate.
- 2. Amounts in billions of dollars.

LACERA’s investment policy and strategy is complex, and its target asset allocation reflects a balance of risk and return. The expected return based on LACERA’s target allocation, and consequently the investment return assumption, is significantly higher than the discount rate based on the Bond Buyer Index. Investing in asset classes with a low default risk would be expected to reduce future investment returns and therefore increase future contributions needed and lower the current Funded Ratio. However, the lower investment risk levels would be expected to result in lower year-to-year volatility in the ECR, and a portfolio with a lower default risk might provide more benefit security for members if the associated liabilities are adequately funded. Conversely, investing in asset classes with higher expected returns and volatility would be expected to decrease future contributions and increase the current Funded Ratio, but it would increase the year-to-year volatility of the ECR and could provide less benefit security for members. A change away from the current return-seeking-with-reasonable-risk investment strategy is not being considered by LACERA.

Asset and Liability Volatility Ratios

Asset and Liability Volatility Ratios are a measure of the level of assets (or liabilities) to payroll. In general, a higher ratio means that the employer contribution rates (ECR) are more sensitive to changes in levels of assets or liabilities. Asset and Liability Volatility Ratios are shown below, and in Exhibit E-4.



As shown above, in the current valuation LACERA has an Asset Volatility Ratio of 7.8 and a Liability Volatility Ratio of 9.5. These ratios have increased over time as LACERA has matured.

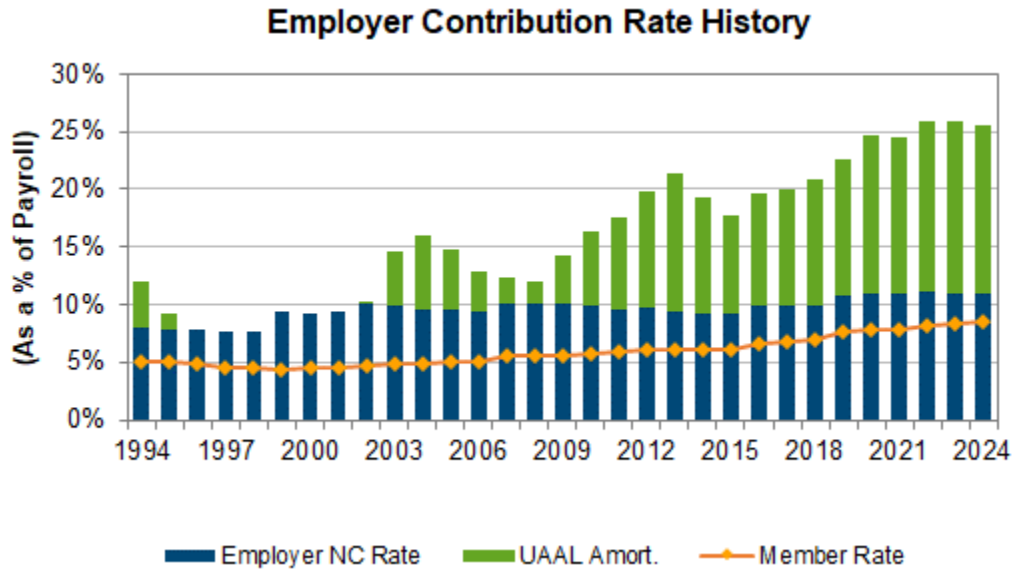
LACERA has accumulated a significant amount of assets relative to its payroll and by several measures is considered a mature plan. Accumulating assets to pay for future benefit obligations is responsible funding, but it does mean changes in the investment markets can have a significant impact on the ECR.

For LACERA, 7.8 Asset Volatility Ratio means that a 10% investment gain or loss relative to the assumed 7.0% investment return assumption (that is, an investment return of -3.0% or of 17.0%) translates to a 5.5% of pay increase (or decrease) in the ECR, all other things being equal. Since LACERA uses actuarial smoothing, the increase would not be immediate, but would occur gradually over five years and could potentially be offset, or further increased, by future investment gains or losses or other factors.

The Liability Volatility Ratio measures the sensitivity of the ECR to changes in the level of liabilities, all else being equal. With a liability volatility ratio of 9.5 an increase (or decrease) in the investment return assumption of 0.5% translates to a decrease (or increase) in the ECR of approximately 5.2% of pay for LACERA.

Historical Variation in Employer Contribution Rate

One way to assess future risks is to look at historical measurements. The following graph shows how the ECR has varied over the last 30 years under various investment return and assumption environments.



Appendix A Actuarial Procedures and Assumptions

The actuarial procedures and assumptions used in this valuation are described in this section. The assumptions were reviewed and changed for the June 30, 2022 actuarial valuation as a result of the 2022 triennial Investigation of Experience Study.

The actuarial assumptions used in the valuations are intended to estimate the future experience of the members of LACERA and of LACERA itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of LACERA's benefits.

Table A-1 summarizes the assumptions.

Tables A-2 and A-3 show how members are expected to leave retired status due to death.

Table A-4 presents the probability of refund of contributions upon termination of employment while vested.

Table A-5 presents the expected annual percentage increase in salaries.

Tables A-6 to A-13 presents the probabilities that a member will leave the System for various reasons.

Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age).

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL).

For members who transferred between plans, entry age is based on original entry into the System.

For General Plan G and Safety Plan C, the normal cost rate is rounded up to the nearest 0.02%.

Amortization Method

The original UAAL as of June 30, 2009 is amortized as a level percentage of the projected salaries of present and future members of LACERA over a closed 30-year period. As of the June 30, 2019 valuation, all amortization layers with periods greater than 22 years as of July 1, 2020 were amortized over a 22-year period. Future changes in the UAAL due to actuarial gains and losses and assumption changes are amortized over new closed 20-year periods, beginning with the date the contribution is first expected to be made. This is referred to as "layered" amortization. For increases in the UAAL due to changes in benefit provisions, the increase is amortized over a 10-year period.

Records and Data

The data used in this valuation consists of financial information and the age, service, and income records for active and inactive members and their survivors. All of the data were supplied by LACERA and are accepted for valuation purposes without audit. Certain data edits were made, as follows:

- Blank birth date (retirees and beneficiaries) – assumed to be age 61 at the valuation date.
- Undefined and non-binary gender – Members of General plans are assumed to be female, and members of Safety plans are assumed to be males. Beneficiaries of General plan members are assumed to be male, and beneficiaries of Safety plan members are assumed to be female.

Replacement of Active Employees

The ages and relative salaries at entry of future members are assumed to follow a new entrant distribution based on the pattern of current members. The normal cost rates for active members within an individual plan will remain fairly stable in future years unless there are changes in the governing law, the actuarial assumptions, or the pattern of the new entrants.

Growth in Membership

For benefit determination purposes, no growth in the membership of LACERA is assumed. For funding purposes, if amortization is required, the total payroll of covered members is assumed to grow due to the combined effects of future wage increases of current active members and the replacement of the current active members by new employees. No growth or decline in the total number of active members is assumed.

Payroll Growth

Total payroll is expected to grow at 3.25% per year.

Internal Revenue Code Section 415 Limit

The Internal Revenue Code (IRC) Section 415 maximum benefit limitation is not explicitly reflected in the valuation for funding purposes.

Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes.

Government Code Section 7522.10

The maximum compensation limit under Government Code Section 7522.10 is reflected in the valuation for funding purposes.

Employer Contributions

The employer contribution rate is set by the Board of Investments based on actuarial valuations.

Member Contributions

The member contribution rates of contributory legacy plans (all plans except General Plans E and G and Safety Plan C) vary by entry age and are described in the law. Code references are shown in Appendix B of the valuation report. The methods and assumptions used are detailed later in this section. The individual member rates by entry age, plan, and class are illustrated in Appendix D of the valuation report.

The member contribution rates of the two PEPRA plans are flat rates (i.e., do not vary by entry age) based on whether they are in the General or Safety plan. This rate is set equal to one-half of the total Normal Cost rate for the respective plan. These rates are illustrated in Appendix D of the valuation report.

Valuation of Assets

The assets are valued using a five-year smoothed method based on the difference between the expected fair value and the actual fair value of the assets as of the valuation date. The expected fair value is the prior year's fair value increased with the net increase in the cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption. To the extent that there is a loss for the year and there are unrecognized gains from previous years, or to the extent that there is a gain for the year and there are unrecognized losses from previous years, the gain or loss for the year shall be used to offset unrecognized gains or losses from previous years in the order of oldest to most recent. Any remaining gain or loss for the year is recognized over a five-year period. Valuation Assets exclude the statutory Contingency Reserve and the STAR Reserve. The five-year smoothing valuation basis for all assets was adopted effective June 30, 2009, and the offsetting methodology and STAR Reserve treatment were adopted effective June 30, 2022.

Price Inflation (Local and National)

The price inflation assumption is used in the determination of assumptions for individual salary increases, overall wage growth, postretirement benefit increases, and PEPRA compensation limit increases. Both the local and national price inflation assumptions are 2.75% per year.

Investment Earnings and Expenses

The future investment earnings of the assets of LACERA are assumed to accrue at an annual rate of 7.00% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2019.

Postretirement Benefit Increases

Postretirement increases are assumed for the valuation in accordance with the benefits provided as described in Appendix B. These adjustments vary by plan and are assumed payable each year in the future but are limited to not exceed the expected local inflation of 2.75% per year, with the exception that any COLA accumulation banks for Plan A members are reflected in the valuation. The local inflation rate used for the postretirement benefit assumptions was adopted June 30, 2016.

Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 7.00% compounded semi-annually for an annualized rate of 7.12%. This rate was adopted effective June 30, 2019.

Future Salaries

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.25% per annum rate of increase in the general wage level of the membership. These rates were adopted June 30, 2022.

Increases are assumed to occur mid-year (i.e., January 1st) and only apply to base salary, excluding megaflex compensation. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year.

For plans with a one-year final average compensation period, actual average annual compensation is used. For Plan E, Plan G and Safety Plan C, the monthly rate as of June of the valuation year was annualized. Due to irregular compensation payments included as pensionable earnings, actual annual pay is preferred over annualizing a single monthly payment amount.

Social Security Wage Base

Plan E members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 3.25% per year. Note that statutory provisions describe exactly how to compute the offset for purposes of determining a member's offset amount at time of termination or retirement. This rate was adopted June 30, 2016.

Note also, that it is assumed all Plan E members born after 1950 have less than 10 years of Social Security-covered service and, therefore, do not have their benefit offset.

General Plan G and Safety Plan C members have their compensation limited to approximately 120% of the Social Security Wage Base. The limit for 2024 is \$181,734 (after applying the 120% factor) and is projected to increase at the assumed national CPI rate of 2.75%. This rate of future increase was adopted effective June 30, 2016.

Retirement

Members in General Plans A-D may retire at age 50 with 10 years of service, or any age with 30 years of service, or age 70 regardless of the number of years of service. General Plan G members are eligible to retire at age 52 with 5 years of service, or age 70 regardless of the number of years of service. Non-contributory Plan E members may retire at age 55 with 10 years of service. Members of Safety Plans A and B may retire at age 50 with 10 years of service, or any age with 20 years of service. Safety Plan C members are eligible to retire at age 50 with 5 years of County service. Retirement probabilities vary by age and are shown by plan in Tables A-6 through A13.

All General members who attain or have attained age 75 in active service and all Safety members who attain or have attained age 65 in active service are assumed to retire immediately (except for Safety Plan C members who have not yet attained 5 years of service).

Vested former employees are assumed to retire at the later of their current age and the assumed retirement age specified as follows:

Assumption for Deferred Commencement	
Plan	Age at Commencement
GA	62
GB	62
GC	62
GD	59
GE	62
GG	57
SA	55
SB	50
SC	50

The assumptions regarding termination of employment, early retirement, and unreduced service retirement are treated as a single set of decrements in regard to a particular member. For example, a General Plan D member hired at age 30 has a probability of withdrawing from LACERA due to death, disability or other termination of employment until age 50. After age 50, the member can withdraw due to death, disability, or retirement. Thus, in no year during the member's projected employment would the member be eligible for both a probability of other termination of employment and a probability of retirement.

The retirement probabilities were adopted June 30, 2022.

Disability

The probabilities of disability used in the valuation are also illustrated in Tables A-6 through A-13. These probabilities were adopted June 30, 2019.

Postretirement Mortality – Other Than Disabled Members

The same postretirement mortality probabilities are used in the valuation for members retired for service and beneficiaries. These probabilities are illustrated in Table A-2. Current beneficiary mortality is assumed to be the same as for healthy members of the same sex. Future beneficiaries are assumed to be of the opposite sex and have the same mortality as General members. The amount-weighted Pub-2010 mortality tables are used. These probabilities were adopted June 30, 2019.

Note that these assumptions include a projection for expected future mortality improvement. The new projection scale was adopted June 30, 2022.

Males: General members: PubG-2010 Healthy Retiree Mortality Table for Males, with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Males multiplied by 85%, with MP-2021 Ultimate Projection Scale.

Females: General members: PubG-2010 Healthy Retiree Mortality Table for Females multiplied by 110%, with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Females, with MP-2021 Ultimate Projection Scale.

Postretirement Mortality – Disabled Members

For members retired for disability, the mortality probabilities used in the valuation are illustrated in Table A-3. The amount-weighted Pub-2010 mortality tables are used. These probabilities were adopted June 30, 2019.

Note that these assumptions include a projection for expected future mortality improvement. The new projection scale was adopted June 30, 2022.

Males: General members: Average of PubG-2010 Healthy Retiree Mortality Table for Males and PubG-2010 Disabled Retiree Mortality Table for Males, both projected with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Males, with MP-2021 Ultimate Projection Scale.

Females: General members: Average of PubG-2010 Healthy Retiree Mortality Table for Females and PubG-2010 Disabled Retiree Mortality Table for Females, both projected with MP-2021 Ultimate Projection Scale.

Safety members: PubS-2010 Healthy Retiree Mortality Table for Females, with MP-2021 Ultimate Projection Scale.

Mortality while in Active Status

For active members, the mortality probabilities used in the valuation are illustrated in Tables A-6 through A-13. The amount-weighted Pub-2010 mortality tables are used. These mortality tables were adopted June 30, 2019.

Class	Gender	Mortality Table
General	Male	PubG-2010 (120%) Employee Male ⁽¹⁾
General	Female	PubG-2010 (130%) Employee Female ⁽¹⁾
Safety	Male	PubS-2010 (100%) Employee Male ⁽¹⁾
Safety	Female	PubS-2010 (100%) Employee Female ⁽¹⁾

1. Projected using the MP-2021 Ultimate projection scale.

These assumptions include a projection for expected future mortality improvement, which was adopted June 30, 2022.

Note that Safety members have an additional service-connected mortality probability of 0.01% per year.

Other Employment Terminations

Tables A-6 to A-13 show, for all ages, the probabilities assumed in this valuation for future termination from active service other than for death, disability, or retirement. These probabilities do not apply to members eligible for service retirement. These probabilities were adopted June 30, 2022.

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with LACERA. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work, or may remain inactive until becoming eligible to receive a retirement benefit under either LACERA or a reciprocal retirement system. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately. It is assumed that all terminating members will not be rehired in the future.

Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability that remaining members will elect a deferred vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions. These probabilities were adopted June 30, 2022.

Probability of Eligible Survivors

For members not currently in pay status, 77% of all males and 48% of all females are assumed to have eligible survivors (spouses or qualified domestic partners). Survivors are assumed to be three years younger than male members and two years older than female members. Survivors are assumed to be of the opposite gender as the member. There is no explicit assumption for children’s benefits. We believe the survivor benefits based on this assumption are sufficient to cover children’s benefits as they occur. These probabilities were adopted June 30, 2022.

Valuation of Vested Former Employees

The deferred retirement benefit is calculated based on the member's final compensation and service at termination. The compensation amount is projected until the assumed retirement age for members who are assumed to be employed by a reciprocal agency. For members who are missing compensation data, Final Compensation is estimated as the average amount for all members who terminated during the same year and had a valid compensation amount. The greater of the present value of the calculated benefit and the employee's current contribution balance is valued for future deferred vested members.

Reciprocal Employment

17% of General and 36% of Safety current and future vested former employees are assumed to work for a reciprocal employer. These probabilities were adopted June 30, 2022.

Current vested reciprocal members are assumed to receive annual salary increases of 4.25%. Future reciprocal vested members are assumed to receive the same salary increases they would have received if they had stayed in active employment with LACERA and retired at the assumed retirement age.

Other Technical Assumptions

Decrements are assumed to occur mid-year, except that if the retirement rate is 100% at a given age then the member is assumed to retire at the beginning of the year at that age.

Decrement rates shown are probabilities and are non-competing.

Termination rates are assumed to be 0% if the member is eligible for service retirement.

Valuation of Annuity Purchases

Over 30 years ago, LACERA purchased single life annuities from two insurance companies for some retired members (currently less than 1% of the retired population). The total liability for these members is calculated and then offset by the expected value of the benefit to be paid by the insurance companies.

For affected members, the insurance companies are responsible for:

1. Straight life annuity payments
2. Statutory COLAs

LACERA is responsible for:

1. Benefit payments payable to any beneficiary
2. STAR COLAs

Member Contribution Rate Assumptions

The following assumptions summarize the procedures used to compute member contribution rates based on entry age:

In general, the member rate is determined by the Present Value of the Future Benefit (PVFB) payable at retirement age, divided by the present value of all future salaries payable between age at entry and retirement age. For these purposes, per the CERL:

- A. The Annuity factor used for General members is based on a 35% / 65% blend of the male and female valuation mortality tables and projection scale, with a static projection to 2044. For Safety members, it is based on an 85% / 15% blend of the male and female annuity factors determined using the same mortality tables as used for service-retired members.
- B. The annuity factor used in determining the present value of future benefits (PVFB) at entry age is equal to the life only annuity factor at 7.00%.
- C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age.
- D. Example: For a General Plan C Member who enters at age 59 or earlier, the Final Compensation at retirement (age 60) will be the monthly average of the annual salaries during age 59.
- E. Member Rates are assumed to increase with entry age. There are a few exceptions at the higher entry ages where the calculated rate is less than the previous entry age. In these cases the member contribution rate is adjusted so that it is no less than the value for the previous entry age.

Table A-1
Summary of Valuation Assumptions as of June 30, 2024

- I. Economic assumptions
 - A. Payroll / General wage increases 3.25%
 - B. Investment earnings 7.00%
 - C. Growth in membership 0.00%
 - D. Postretirement benefit increases (varies by plan) Plan COLA not greater than local price inflation assumption⁽¹⁾
 - E. National price inflation assumption 2.75%
 - F. Local price inflation assumption 2.75%

- II. Demographic assumptions
 - A. Salary increases due to service Table A-5
 - B. Retirement Tables A-6 to A-13
 - C. Disability Tables A-6 to A-13
 - D. Mortality during active employment Tables A-6 to A-13
 - E. Mortality for active members after termination and service retired members⁽²⁾ Table A-2

Class	Gender	
General	Male	PubG-2010 (100%) Healthy Retiree Male
General	Female	PubG-2010 (110%) Healthy Retiree Female
Safety	Male	PubS-2010 (85%) Healthy Retiree Male
Safety	Female	PubS-2010 (100%) Healthy Retiree Female

- F. Mortality among disabled members⁽²⁾ Table A-3

Class	Gender	
General	Male	Avg of: PubG-2010 (100%) Healthy Retiree Male PubG-2010 (100%) Disabled Retiree Male
General	Female	Avg of: PubG-2010 (100%) Healthy Retiree Female PubG-2010 (100%) Disabled Retiree Female
Safety	Male	PubS-2010 (100%) Healthy Retiree Male
Safety	Female	PubS-2010 (100%) Healthy Retiree Female

- G. Mortality for beneficiaries⁽¹⁾ Table A-2
 Basis – Beneficiaries are assumed to have the same mortality as a General member of the opposite gender who has taken a service retirement.
- H. Other terminations of employment Tables A-6 to A-13
- I. Refund of contributions on vested termination Table A-4

1. To account for existing Plan A COLA accumulation balances, retirees and beneficiaries with a retirement date prior to April 1, 2024 are assumed to receive 3.00% annual COLAs.

2. All mortality probabilities are projected using the MP-2021 Ultimate projection scale.

Table A-2
Mortality for Members Retired for Service⁽¹⁾

<u>Age</u>	<u>Safety Male</u>	<u>Safety Female</u>	<u>General Male</u>	<u>General Female</u>
20	0.0520%	0.0210%	0.0740%	0.0380%
25	0.0470%	0.0260%	0.0560%	0.0260%
30	0.0520%	0.0350%	0.0720%	0.0440%
35	0.0590%	0.0470%	0.0940%	0.0680%
40	0.0750%	0.0640%	0.1320%	0.1060%
45	0.1037%	0.0870%	0.1960%	0.1650%
50	0.1632%	0.1490%	0.2980%	0.2442%
55	0.2601%	0.2580%	0.4310%	0.3146%
60	0.4318%	0.4460%	0.6150%	0.4224%
65	0.7489%	0.7700%	0.9130%	0.6743%
70	1.3328%	1.3290%	1.5260%	1.1693%
75	2.4021%	2.2950%	2.6710%	2.0713%
80	4.3376%	3.9620%	4.7740%	3.6960%
85	7.7648%	6.8420%	8.5910%	6.8255%
90	13.4810%	11.8150%	14.6720%	12.6357%

Mortality Improvement Scale

<u>Age</u>	<u>All Groups</u>
60 & Less	1.350%
61	1.350%
62	1.350%
63	1.340%
64	1.320%
65	1.310%
70	1.240%
75	1.170%
80	1.100%
85	0.870%
90	0.630%
95	0.400%
100	0.300%
105	0.200%
110	0.100%
115	0.000%

1. Mortality probabilities are those applicable for the fiscal year beginning in 2010. Annual projected improvements are assumed in the following years under the schedule shown. For example, the annual mortality probability for an 85-year old Safety male in fiscal year beginning in 2024 is 6.8707% calculated as follows:

$$\begin{aligned} \text{Age 85 probability in 2024} &= \text{Age 85 probability in 2010 with 14 years improvement} \\ &= 7.7648\% \times (100.0\% - 0.87\%)^{14} = 6.8707\% \end{aligned}$$

Table A-3
Mortality for Members Retired for Disability⁽¹⁾

Age	Safety Male	Safety Female	General Male	General Female
20	0.0610%	0.0210%	0.2430%	0.1340%
25	0.0550%	0.0260%	0.1670%	0.0940%
30	0.0610%	0.0350%	0.2130%	0.1485%
35	0.0700%	0.0470%	0.2760%	0.2315%
40	0.0880%	0.0640%	0.3885%	0.3625%
45	0.1220%	0.0870%	0.6015%	0.5675%
50	0.1920%	0.1490%	0.9515%	0.8525%
55	0.3060%	0.2580%	1.2725%	1.0140%
60	0.5080%	0.4460%	1.5590%	1.1700%
65	0.8810%	0.7700%	1.9785%	1.4345%
70	1.5680%	1.3290%	2.7135%	1.9625%
75	2.8260%	2.2950%	3.9315%	2.9430%
80	5.1030%	3.9620%	6.0610%	4.6835%
85	9.1350%	6.8420%	9.7030%	7.7680%
90	15.8600%	11.8150%	15.4625%	12.5760%

1. Mortality probabilities are those applicable for the fiscal year beginning in 2010. Annual projected improvements are assumed in the following years under the schedule shown on the preceding page.

Table A-4
Immediate Refund of Contributions upon Termination of Employment
(Excludes Plan E)

Years of Service	General	Safety
0	100%	100%
1	100%	100%
2	100%	100%
3	100%	100%
4	100%	100%
5	30%	30%
6	30%	30%
7	30%	30%
8	29%	28%
9	28%	26%
10	28%	24%
11	28%	22%
12	28%	20%
13	27%	18%
14	26%	16%
15	26%	14%
16	25%	12%
17	24%	10%
18	22%	9%
19	21%	8%
20	19%	7%
21	18%	6%
22	16%	5%
23	14%	4%
24	12%	3%
25	10%	2%
26	8%	2%
27	6%	2%
28	4%	2%
29	2%	2%
30 & Up	0%	0%

Table A-5
Annual Increase in Salary⁽¹⁾

Years of Service	General	Safety
<1	6.00%	9.00%
1	5.25%	8.50%
2	4.75%	7.50%
3	4.10%	5.75%
4	3.50%	4.25%
5	3.00%	3.00%
6	2.50%	2.50%
7	2.00%	2.10%
8	1.60%	1.70%
9	1.45%	1.45%
10	1.30%	1.30%
11	1.15%	1.20%
12	1.00%	1.10%
13	0.90%	1.00%
14	0.85%	0.90%
15	0.80%	0.90%
16	0.75%	0.90%
17	0.70%	0.90%
18	0.65%	0.90%
19	0.60%	2.25%
20	0.55%	0.90%
21	0.50%	0.90%
22	0.45%	0.90%
23	0.40%	0.90%
24	0.40%	3.00%
25	0.40%	0.90%
26	0.40%	0.90%
27	0.40%	0.90%
28	0.40%	0.90%
29	0.40%	3.00%
30 or More	0.40%	0.90%

1. The total expected increase in salary includes both merit (shown above) and the general wage increase assumption of 3.25% per annum increase. The total result is compounded rather than additive. For example, the total assumed increase for General members for service less than one year is 9.45%.

Appendix A Probabilities of Separation from Active Service Tables A-6 to A-13

A schedule of the probabilities of termination of employment due to the following causes can be found on the following pages:

Service Retirement:	Member retires after meeting age and service requirements for reasons other than disability.
Withdrawal:	Member terminates and elects a refund of member contributions, or a deferred vested retirement benefit.
Service Disability:	Member receives disability retirement; disability is service related.
Ordinary Disability:	Member receives disability retirement; disability is not service related.
Service Death:	Member dies before retirement; death is service related.
Ordinary Death:	Member dies before retirement; death is not service related.

Each of these represents the probability that a member will separate from service at each age due to the particular cause. For example, a probability of 0.0300 for a member's service retirement at age 50 means we assume that 30 out of 1,000 members who are age 50 will retire at that age.

Each table represents the detailed probabilities needed for each LACERA plan by gender:

Table A-6: General Plan A, B & C – Males	A-10: General Plan E – Males
A-7: General Plan A, B & C – Females	A-11: General Plan E – Females
A-8: General Plan D & G – Males	A-12: Safety Plan A, B & C – Males
A-9: General Plan D & G – Females	A-13: Safety Plan A, B & C – Females

Table A-6
Probability of Separation from Active Service for General Members
Plans A, B & C – Male

Age	Service Retirement	Other Terminations	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.00000	0.00500	0.00010	0.00010	N/A	0.00043
19	0.00000	0.00500	0.00010	0.00010	N/A	0.00046
20	0.00000	0.00500	0.00010	0.00010	N/A	0.00044
21	0.00000	0.00500	0.00010	0.00010	N/A	0.00043
22	0.00000	0.00500	0.00010	0.00010	N/A	0.00040
23	0.00000	0.00500	0.00010	0.00010	N/A	0.00037
24	0.00000	0.00500	0.00010	0.00010	N/A	0.00035
25	0.00000	0.00500	0.00010	0.00010	N/A	0.00034
26	0.00000	0.00500	0.00010	0.00010	N/A	0.00036
27	0.00000	0.00500	0.00010	0.00010	N/A	0.00037
28	0.00000	0.00500	0.00010	0.00010	N/A	0.00040
29	0.00000	0.00500	0.00010	0.00010	N/A	0.00041
30	0.00000	0.00500	0.00010	0.00020	N/A	0.00043
31	0.00000	0.00500	0.00010	0.00020	N/A	0.00046
32	0.00000	0.00500	0.00010	0.00020	N/A	0.00048
33	0.00000	0.00500	0.00016	0.00020	N/A	0.00050
34	0.00000	0.00500	0.00022	0.00020	N/A	0.00053
35	0.00000	0.00500	0.00028	0.00020	N/A	0.00056
36	0.00000	0.00500	0.00034	0.00020	N/A	0.00060
37	0.00000	0.00500	0.00040	0.00020	N/A	0.00064
38	0.00000	0.00500	0.00048	0.00020	N/A	0.00068
39	0.00000	0.00500	0.00056	0.00020	N/A	0.00073
40	0.03000	0.00500	0.00064	0.00020	N/A	0.00079
41	0.03000	0.00500	0.00072	0.00020	N/A	0.00085
42	0.03000	0.00500	0.00080	0.00020	N/A	0.00092
43	0.03000	0.00500	0.00084	0.00024	N/A	0.00100
44	0.03000	0.00500	0.00088	0.00028	N/A	0.00108
45	0.03000	0.00500	0.00092	0.00032	N/A	0.00118
46	0.03000	0.00500	0.00096	0.00036	N/A	0.00128
47	0.03000	0.00500	0.00100	0.00040	N/A	0.00139
48	0.03000	0.00500	0.00104	0.00044	N/A	0.00152
49	0.03000	0.00500	0.00108	0.00048	N/A	0.00166
50	0.03000	0.00500	0.00112	0.00052	N/A	0.00179
51	0.03000	0.00500	0.00116	0.00056	N/A	0.00194
52	0.03000	0.00500	0.00120	0.00060	N/A	0.00210
53	0.03000	0.00500	0.00156	0.00064	N/A	0.00227
54	0.06000	0.00500	0.00192	0.00068	N/A	0.00244
55	0.10000	0.00500	0.00228	0.00072	N/A	0.00263
56	0.12000	0.00500	0.00264	0.00076	N/A	0.00283
57	0.17000	0.00500	0.00300	0.00080	N/A	0.00306
58	0.26000	0.00500	0.00330	0.00084	N/A	0.00330
59	0.26000	0.00500	0.00360	0.00088	N/A	0.00355
60	0.30000	0.00500	0.00390	0.00092	N/A	0.00383
61	0.30000	0.00500	0.00420	0.00096	N/A	0.00413
62	0.30000	0.00500	0.00450	0.00100	N/A	0.00445
63	0.30000	0.00500	0.00450	0.00104	N/A	0.00481
64	0.30000	0.00500	0.00450	0.00108	N/A	0.00520
65	0.30000	0.00500	0.00450	0.00112	N/A	0.00562
66	0.22000	0.00500	0.00450	0.00116	N/A	0.00607
67	0.22000	0.00500	0.00450	0.00120	N/A	0.00658
68	0.22000	0.00500	0.00450	0.00124	N/A	0.00713
69	0.22000	0.00500	0.00450	0.00128	N/A	0.00775
70	0.22000	0.00500	0.00450	0.00132	N/A	0.00844
71	0.22000	0.00500	0.00450	0.00136	N/A	0.00920
72	0.22000	0.00500	0.00450	0.00140	N/A	0.01004
73	0.22000	0.00500	0.00450	0.00144	N/A	0.01098
74	0.22000	0.00500	0.00450	0.00148	N/A	0.01201
75	1.00000	0.00000	0.00000	0.00000	N/A	0.01315

This work product was prepared solely for LACERA for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Table A-7
Probability of Separation from Active Service for General Members
Plans A, B & C – Female

Age	Service Retirement	Other Terminations	Service Disability	Ordinary Disability	Service Death	Ordinary Death
18	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
19	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
20	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
21	0.00000	0.00500	0.00015	0.00010	N/A	0.00016
22	0.00000	0.00500	0.00015	0.00010	N/A	0.00014
23	0.00000	0.00500	0.00015	0.00010	N/A	0.00013
24	0.00000	0.00500	0.00015	0.00010	N/A	0.00012
25	0.00000	0.00500	0.00015	0.00010	N/A	0.00012
26	0.00000	0.00500	0.00015	0.00010	N/A	0.00013
27	0.00000	0.00500	0.00015	0.00010	N/A	0.00014
28	0.00000	0.00500	0.00015	0.00010	N/A	0.00016
29	0.00000	0.00500	0.00015	0.00010	N/A	0.00017
30	0.00000	0.00500	0.00015	0.00010	N/A	0.00020
31	0.00000	0.00500	0.00015	0.00010	N/A	0.00021
32	0.00000	0.00500	0.00015	0.00010	N/A	0.00023
33	0.00000	0.00500	0.00020	0.00010	N/A	0.00025
34	0.00000	0.00500	0.00025	0.00010	N/A	0.00027
35	0.00000	0.00500	0.00030	0.00010	N/A	0.00030
36	0.00000	0.00500	0.00035	0.00010	N/A	0.00033
37	0.00000	0.00500	0.00040	0.00010	N/A	0.00036
38	0.00000	0.00500	0.00042	0.00014	N/A	0.00039
39	0.00000	0.00500	0.00044	0.00018	N/A	0.00043
40	0.03000	0.00500	0.00046	0.00022	N/A	0.00047
41	0.03000	0.00500	0.00048	0.00026	N/A	0.00052
42	0.03000	0.00500	0.00050	0.00030	N/A	0.00056
43	0.03000	0.00500	0.00060	0.00032	N/A	0.00061
44	0.03000	0.00500	0.00070	0.00034	N/A	0.00066
45	0.03000	0.00500	0.00080	0.00036	N/A	0.00073
46	0.03000	0.00500	0.00090	0.00038	N/A	0.00079
47	0.03000	0.00500	0.00100	0.00040	N/A	0.00086
48	0.03000	0.00500	0.00110	0.00042	N/A	0.00092
49	0.03000	0.00500	0.00120	0.00044	N/A	0.00100
50	0.03000	0.00500	0.00130	0.00046	N/A	0.00108
51	0.03000	0.00500	0.00140	0.00048	N/A	0.00117
52	0.03000	0.00500	0.00150	0.00050	N/A	0.00126
53	0.03000	0.00500	0.00156	0.00052	N/A	0.00137
54	0.06000	0.00500	0.00162	0.00054	N/A	0.00147
55	0.10000	0.00500	0.00168	0.00056	N/A	0.00160
56	0.12000	0.00500	0.00174	0.00058	N/A	0.00173
57	0.17000	0.00500	0.00180	0.00060	N/A	0.00187
58	0.26000	0.00500	0.00194	0.00064	N/A	0.00203
59	0.26000	0.00500	0.00208	0.00068	N/A	0.00221
60	0.30000	0.00500	0.00222	0.00072	N/A	0.00242
61	0.30000	0.00500	0.00236	0.00076	N/A	0.00264
62	0.30000	0.00500	0.00250	0.00080	N/A	0.00289
63	0.30000	0.00500	0.00250	0.00084	N/A	0.00317
64	0.30000	0.00500	0.00250	0.00088	N/A	0.00350
65	0.30000	0.00500	0.00250	0.00092	N/A	0.00385
66	0.22000	0.00500	0.00250	0.00096	N/A	0.00425
67	0.22000	0.00500	0.00250	0.00100	N/A	0.00471
68	0.22000	0.00500	0.00250	0.00104	N/A	0.00520
69	0.22000	0.00500	0.00250	0.00108	N/A	0.00575
70	0.22000	0.00500	0.00250	0.00112	N/A	0.00636
71	0.22000	0.00500	0.00250	0.00116	N/A	0.00703
72	0.22000	0.00500	0.00250	0.00120	N/A	0.00777
73	0.22000	0.00500	0.00250	0.00124	N/A	0.00859
74	0.22000	0.00500	0.00250	0.00128	N/A	0.00950
75	1.00000	0.00000	0.00000	0.00000	N/A	0.01050

Table A-8
Probability of Separation from Active Service for General Members
Plans D & G – Male

Age	Service Retirement ⁽¹⁾		Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plan D	Plan G							
18	0.00000	0.00000	0.00010	0.00010	N/A	0.00043	0	0.08000	80%
19	0.00000	0.00000	0.00010	0.00010	N/A	0.00046	1	0.06500	80%
20	0.00000	0.00000	0.00010	0.00010	N/A	0.00044	2	0.05000	80%
21	0.00000	0.00000	0.00010	0.00010	N/A	0.00043	3	0.04250	80%
22	0.00000	0.00000	0.00010	0.00010	N/A	0.00040	4	0.03500	80%
23	0.00000	0.00000	0.00010	0.00010	N/A	0.00037	5	0.03100	80%
24	0.00000	0.00000	0.00010	0.00010	N/A	0.00035	6	0.02900	80%
25	0.00000	0.00000	0.00010	0.00010	N/A	0.00034	7	0.02700	80%
26	0.00000	0.00000	0.00010	0.00010	N/A	0.00036	8	0.02500	80%
27	0.00000	0.00000	0.00010	0.00010	N/A	0.00037	9	0.02000	80%
28	0.00000	0.00000	0.00010	0.00010	N/A	0.00040	10	0.01700	80%
29	0.00000	0.00000	0.00010	0.00010	N/A	0.00041	11	0.01500	80%
30	0.00000	0.00000	0.00010	0.00020	N/A	0.00043	12	0.01350	80%
31	0.00000	0.00000	0.00010	0.00020	N/A	0.00046	13	0.01200	80%
32	0.00000	0.00000	0.00010	0.00020	N/A	0.00048	14	0.01100	80%
33	0.00000	0.00000	0.00016	0.00020	N/A	0.00050	15	0.01000	80%
34	0.00000	0.00000	0.00022	0.00020	N/A	0.00053	16	0.00950	80%
35	0.00000	0.00000	0.00028	0.00020	N/A	0.00056	17	0.00900	80%
36	0.00000	0.00000	0.00034	0.00020	N/A	0.00060	18	0.00850	80%
37	0.00000	0.00000	0.00040	0.00020	N/A	0.00064	19	0.00800	80%
38	0.00000	0.00000	0.00048	0.00020	N/A	0.00068	20	0.00750	90%
39	0.00000	0.00000	0.00056	0.00020	N/A	0.00073	21	0.00700	90%
40	0.01500	0.00000	0.00064	0.00020	N/A	0.00079	22	0.00650	90%
41	0.01500	0.00000	0.00072	0.00020	N/A	0.00085	23	0.00600	90%
42	0.01500	0.00000	0.00080	0.00020	N/A	0.00092	24	0.00550	90%
43	0.01500	0.00000	0.00084	0.00024	N/A	0.00100	25	0.00500	110%
44	0.01500	0.00000	0.00088	0.00028	N/A	0.00108	26	0.00450	110%
45	0.01500	0.00000	0.00092	0.00032	N/A	0.00118	27	0.00400	110%
46	0.01500	0.00000	0.00096	0.00036	N/A	0.00128	28	0.00400	110%
47	0.01500	0.00000	0.00100	0.00040	N/A	0.00139	29	0.00400	110%
48	0.01500	0.00000	0.00104	0.00044	N/A	0.00152	30 & Above	0.00000	160%
49	0.01500	0.00000	0.00108	0.00048	N/A	0.00166			
50	0.01500	0.01200	0.00112	0.00052	N/A	0.00179			
51	0.01200	0.00960	0.00116	0.00056	N/A	0.00194			
52	0.01200	0.00960	0.00120	0.00060	N/A	0.00210			
53	0.01500	0.01200	0.00156	0.00064	N/A	0.00227			
54	0.02000	0.01600	0.00192	0.00068	N/A	0.00244			
55	0.03000	0.02400	0.00228	0.00072	N/A	0.00263			
56	0.03000	0.02400	0.00264	0.00076	N/A	0.00283			
57	0.03000	0.02400	0.00300	0.00080	N/A	0.00306			
58	0.04000	0.03200	0.00330	0.00084	N/A	0.00330			
59	0.05000	0.04000	0.00360	0.00088	N/A	0.00355			
60	0.07000	0.05600	0.00390	0.00092	N/A	0.00383			
61	0.07000	0.05600	0.00420	0.00096	N/A	0.00413			
62	0.10000	0.10000	0.00450	0.00100	N/A	0.00445			
63	0.12000	0.12000	0.00450	0.00104	N/A	0.00481			
64	0.17000	0.17000	0.00450	0.00108	N/A	0.00520			
65	0.23000	0.18400	0.00450	0.00112	N/A	0.00562			
66	0.19000	0.15200	0.00450	0.00116	N/A	0.00607			
67	0.19000	0.30000	0.00450	0.00120	N/A	0.00658			
68	0.19000	0.19000	0.00450	0.00124	N/A	0.00713			
69	0.19000	0.19000	0.00450	0.00128	N/A	0.00775			
70	0.24000	0.24000	0.00450	0.00132	N/A	0.00844			
71	0.19000	0.19000	0.00450	0.00136	N/A	0.00920			
72	0.19000	0.19000	0.00450	0.00140	N/A	0.01004			
73	0.19000	0.19000	0.00450	0.00144	N/A	0.01098			
74	0.19000	0.19000	0.00450	0.00148	N/A	0.01201			
75	1.00000	1.00000	0.00000	0.00000	N/A	0.01315			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-9
Probability of Separation from Active Service for General Members
Plans D & G – Female

Age	Service Retirement ⁽¹⁾		Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plan D	Plan G							
18	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	0	0.08000	80%
19	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	1	0.06500	80%
20	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	2	0.05000	80%
21	0.00000	0.00000	0.00015	0.00010	N/A	0.00016	3	0.04250	80%
22	0.00000	0.00000	0.00015	0.00010	N/A	0.00014	4	0.03500	80%
23	0.00000	0.00000	0.00015	0.00010	N/A	0.00013	5	0.03100	80%
24	0.00000	0.00000	0.00015	0.00010	N/A	0.00012	6	0.02900	80%
25	0.00000	0.00000	0.00015	0.00010	N/A	0.00012	7	0.02700	80%
26	0.00000	0.00000	0.00015	0.00010	N/A	0.00013	8	0.02500	80%
27	0.00000	0.00000	0.00015	0.00010	N/A	0.00014	9	0.02000	80%
28	0.00000	0.00000	0.00015	0.00010	N/A	0.00016	10	0.01700	80%
29	0.00000	0.00000	0.00015	0.00010	N/A	0.00017	11	0.01500	80%
30	0.00000	0.00000	0.00015	0.00010	N/A	0.00020	12	0.01350	80%
31	0.00000	0.00000	0.00015	0.00010	N/A	0.00021	13	0.01200	80%
32	0.00000	0.00000	0.00015	0.00010	N/A	0.00023	14	0.01100	80%
33	0.00000	0.00000	0.00020	0.00010	N/A	0.00025	15	0.01000	80%
34	0.00000	0.00000	0.00025	0.00010	N/A	0.00027	16	0.00950	80%
35	0.00000	0.00000	0.00030	0.00010	N/A	0.00030	17	0.00900	80%
36	0.00000	0.00000	0.00035	0.00010	N/A	0.00033	18	0.00850	80%
37	0.00000	0.00000	0.00040	0.00010	N/A	0.00036	19	0.00800	80%
38	0.00000	0.00000	0.00042	0.00014	N/A	0.00039	20	0.00750	90%
39	0.00000	0.00000	0.00044	0.00018	N/A	0.00043	21	0.00700	90%
40	0.01500	0.00000	0.00046	0.00022	N/A	0.00047	22	0.00650	90%
41	0.01500	0.00000	0.00048	0.00026	N/A	0.00052	23	0.00600	90%
42	0.01500	0.00000	0.00050	0.00030	N/A	0.00056	24	0.00550	90%
43	0.01500	0.00000	0.00060	0.00032	N/A	0.00061	25	0.00500	110%
44	0.01500	0.00000	0.00070	0.00034	N/A	0.00066	26	0.00450	110%
45	0.01500	0.00000	0.00080	0.00036	N/A	0.00073	27	0.00400	110%
46	0.01500	0.00000	0.00090	0.00038	N/A	0.00079	28	0.00400	110%
47	0.01500	0.00000	0.00100	0.00040	N/A	0.00086	29	0.00400	110%
48	0.01500	0.00000	0.00110	0.00042	N/A	0.00092	30 & Above	0.00000	160%
49	0.01500	0.00000	0.00120	0.00044	N/A	0.00100			
50	0.01500	0.01200	0.00130	0.00046	N/A	0.00108			
51	0.01200	0.00960	0.00140	0.00048	N/A	0.00117			
52	0.01200	0.00960	0.00150	0.00050	N/A	0.00126			
53	0.01500	0.01200	0.00156	0.00052	N/A	0.00137			
54	0.02000	0.01600	0.00162	0.00054	N/A	0.00147			
55	0.03000	0.02400	0.00168	0.00056	N/A	0.00160			
56	0.03000	0.02400	0.00174	0.00058	N/A	0.00173			
57	0.03000	0.02400	0.00180	0.00060	N/A	0.00187			
58	0.04000	0.03200	0.00194	0.00064	N/A	0.00203			
59	0.05000	0.04000	0.00208	0.00068	N/A	0.00221			
60	0.07000	0.05600	0.00222	0.00072	N/A	0.00242			
61	0.07000	0.05600	0.00236	0.00076	N/A	0.00264			
62	0.10000	0.10000	0.00250	0.00080	N/A	0.00289			
63	0.12000	0.12000	0.00250	0.00084	N/A	0.00317			
64	0.17000	0.17000	0.00250	0.00088	N/A	0.00350			
65	0.23000	0.18400	0.00250	0.00092	N/A	0.00385			
66	0.19000	0.15200	0.00250	0.00096	N/A	0.00425			
67	0.19000	0.30000	0.00250	0.00100	N/A	0.00471			
68	0.19000	0.19000	0.00250	0.00104	N/A	0.00520			
69	0.19000	0.19000	0.00250	0.00108	N/A	0.00575			
70	0.24000	0.24000	0.00250	0.00112	N/A	0.00636			
71	0.19000	0.19000	0.00250	0.00116	N/A	0.00703			
72	0.19000	0.19000	0.00250	0.00120	N/A	0.00777			
73	0.19000	0.19000	0.00250	0.00124	N/A	0.00859			
74	0.19000	0.19000	0.00250	0.00128	N/A	0.00950			
75	1.00000	1.00000	0.00000	0.00000	N/A	0.01050			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-10
Probability of Separation from Active Service for General Members
Plan E – Male

Age	Service Retirement ⁽¹⁾	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
18	0.00000	N/A	N/A	N/A	0.00043	0	0.08000	70%
19	0.00000	N/A	N/A	N/A	0.00046	1	0.06500	70%
20	0.00000	N/A	N/A	N/A	0.00044	2	0.05000	70%
21	0.00000	N/A	N/A	N/A	0.00043	3	0.04250	70%
22	0.00000	N/A	N/A	N/A	0.00040	4	0.03500	70%
23	0.00000	N/A	N/A	N/A	0.00037	5	0.03100	70%
24	0.00000	N/A	N/A	N/A	0.00035	6	0.02700	70%
25	0.00000	N/A	N/A	N/A	0.00034	7	0.02300	70%
26	0.00000	N/A	N/A	N/A	0.00036	8	0.02300	70%
27	0.00000	N/A	N/A	N/A	0.00037	9	0.02300	70%
28	0.00000	N/A	N/A	N/A	0.00040	10	0.02300	70%
29	0.00000	N/A	N/A	N/A	0.00041	11	0.01900	70%
30	0.00000	N/A	N/A	N/A	0.00043	12	0.01800	70%
31	0.00000	N/A	N/A	N/A	0.00046	13	0.01680	70%
32	0.00000	N/A	N/A	N/A	0.00048	14	0.01560	70%
33	0.00000	N/A	N/A	N/A	0.00050	15	0.01440	70%
34	0.00000	N/A	N/A	N/A	0.00053	16	0.01320	70%
35	0.00000	N/A	N/A	N/A	0.00056	17	0.01200	70%
36	0.00000	N/A	N/A	N/A	0.00060	18	0.01160	70%
37	0.00000	N/A	N/A	N/A	0.00064	19	0.01120	70%
38	0.00000	N/A	N/A	N/A	0.00068	20	0.01080	70%
39	0.00000	N/A	N/A	N/A	0.00073	21	0.01040	70%
40	0.00000	N/A	N/A	N/A	0.00079	22	0.01000	70%
41	0.00000	N/A	N/A	N/A	0.00085	23	0.01000	70%
42	0.00000	N/A	N/A	N/A	0.00092	24	0.01000	70%
43	0.00000	N/A	N/A	N/A	0.00100	25	0.01000	100%
44	0.00000	N/A	N/A	N/A	0.00108	26	0.01000	100%
45	0.00000	N/A	N/A	N/A	0.00118	27	0.01000	100%
46	0.00000	N/A	N/A	N/A	0.00128	28	0.01000	100%
47	0.00000	N/A	N/A	N/A	0.00139	29	0.01000	100%
48	0.00000	N/A	N/A	N/A	0.00152	30 & Above	0.01000	130%
49	0.00000	N/A	N/A	N/A	0.00166			
50	0.00000	N/A	N/A	N/A	0.00179			
51	0.00000	N/A	N/A	N/A	0.00194			
52	0.00000	N/A	N/A	N/A	0.00210			
53	0.00000	N/A	N/A	N/A	0.00227			
54	0.00000	N/A	N/A	N/A	0.00244			
55	0.02000	N/A	N/A	N/A	0.00263			
56	0.02000	N/A	N/A	N/A	0.00283			
57	0.02500	N/A	N/A	N/A	0.00306			
58	0.02500	N/A	N/A	N/A	0.00330			
59	0.03000	N/A	N/A	N/A	0.00355			
60	0.04000	N/A	N/A	N/A	0.00383			
61	0.06000	N/A	N/A	N/A	0.00413			
62	0.09000	N/A	N/A	N/A	0.00445			
63	0.09000	N/A	N/A	N/A	0.00481			
64	0.19000	N/A	N/A	N/A	0.00520			
65	0.27000	N/A	N/A	N/A	0.00562			
66	0.20000	N/A	N/A	N/A	0.00607			
67	0.20000	N/A	N/A	N/A	0.00658			
68	0.20000	N/A	N/A	N/A	0.00713			
69	0.20000	N/A	N/A	N/A	0.00775			
70	0.20000	N/A	N/A	N/A	0.00844			
71	0.20000	N/A	N/A	N/A	0.00920			
72	0.20000	N/A	N/A	N/A	0.01004			
73	0.20000	N/A	N/A	N/A	0.01098			
74	0.20000	N/A	N/A	N/A	0.01201			
75	1.00000	N/A	N/A	N/A	0.01315			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-11
Probability of Separation from Active Service for General Members
Plan E – Female

Age	Service Retirement ⁽¹⁾	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
18	0.00000	N/A	N/A	N/A	0.00017	0	0.08000	70%
19	0.00000	N/A	N/A	N/A	0.00017	1	0.06500	70%
20	0.00000	N/A	N/A	N/A	0.00017	2	0.05000	70%
21	0.00000	N/A	N/A	N/A	0.00016	3	0.04250	70%
22	0.00000	N/A	N/A	N/A	0.00014	4	0.03500	70%
23	0.00000	N/A	N/A	N/A	0.00013	5	0.03100	70%
24	0.00000	N/A	N/A	N/A	0.00012	6	0.02700	70%
25	0.00000	N/A	N/A	N/A	0.00012	7	0.02300	70%
26	0.00000	N/A	N/A	N/A	0.00013	8	0.02300	70%
27	0.00000	N/A	N/A	N/A	0.00014	9	0.02300	70%
28	0.00000	N/A	N/A	N/A	0.00016	10	0.02300	70%
29	0.00000	N/A	N/A	N/A	0.00017	11	0.01900	70%
30	0.00000	N/A	N/A	N/A	0.00020	12	0.01800	70%
31	0.00000	N/A	N/A	N/A	0.00021	13	0.01680	70%
32	0.00000	N/A	N/A	N/A	0.00023	14	0.01560	70%
33	0.00000	N/A	N/A	N/A	0.00025	15	0.01440	70%
34	0.00000	N/A	N/A	N/A	0.00027	16	0.01320	70%
35	0.00000	N/A	N/A	N/A	0.00030	17	0.01200	70%
36	0.00000	N/A	N/A	N/A	0.00033	18	0.01160	70%
37	0.00000	N/A	N/A	N/A	0.00036	19	0.01120	70%
38	0.00000	N/A	N/A	N/A	0.00039	20	0.01080	70%
39	0.00000	N/A	N/A	N/A	0.00043	21	0.01040	70%
40	0.00000	N/A	N/A	N/A	0.00047	22	0.01000	70%
41	0.00000	N/A	N/A	N/A	0.00052	23	0.01000	70%
42	0.00000	N/A	N/A	N/A	0.00056	24	0.01000	70%
43	0.00000	N/A	N/A	N/A	0.00061	25	0.01000	100%
44	0.00000	N/A	N/A	N/A	0.00066	26	0.01000	100%
45	0.00000	N/A	N/A	N/A	0.00073	27	0.01000	100%
46	0.00000	N/A	N/A	N/A	0.00079	28	0.01000	100%
47	0.00000	N/A	N/A	N/A	0.00086	29	0.01000	100%
48	0.00000	N/A	N/A	N/A	0.00092	30 & Above	0.01000	130%
49	0.00000	N/A	N/A	N/A	0.00100			
50	0.00000	N/A	N/A	N/A	0.00108			
51	0.00000	N/A	N/A	N/A	0.00117			
52	0.00000	N/A	N/A	N/A	0.00126			
53	0.00000	N/A	N/A	N/A	0.00137			
54	0.00000	N/A	N/A	N/A	0.00147			
55	0.02000	N/A	N/A	N/A	0.00160			
56	0.02000	N/A	N/A	N/A	0.00173			
57	0.02500	N/A	N/A	N/A	0.00187			
58	0.02500	N/A	N/A	N/A	0.00203			
59	0.03000	N/A	N/A	N/A	0.00221			
60	0.04000	N/A	N/A	N/A	0.00242			
61	0.06000	N/A	N/A	N/A	0.00264			
62	0.09000	N/A	N/A	N/A	0.00289			
63	0.09000	N/A	N/A	N/A	0.00317			
64	0.19000	N/A	N/A	N/A	0.00350			
65	0.27000	N/A	N/A	N/A	0.00385			
66	0.20000	N/A	N/A	N/A	0.00425			
67	0.20000	N/A	N/A	N/A	0.00471			
68	0.20000	N/A	N/A	N/A	0.00520			
69	0.20000	N/A	N/A	N/A	0.00575			
70	0.20000	N/A	N/A	N/A	0.00636			
71	0.20000	N/A	N/A	N/A	0.00703			
72	0.20000	N/A	N/A	N/A	0.00777			
73	0.20000	N/A	N/A	N/A	0.00859			
74	0.20000	N/A	N/A	N/A	0.00950			
75	1.00000	N/A	N/A	N/A	0.01050			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-12
Probability of Separation from Active Service for Safety Members
Plans A, B & C – Male

Age	Service Retirement ⁽¹⁾						Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plans A & B	Plan C	Service Disability	Ordinary Disability	Service Death	Ordinary Death			
18	0.00000	0.00000	0.00200	0.00000	0.00010	0.00037	0	0.05000	30%
19	0.00000	0.00000	0.00200	0.00000	0.00010	0.00040	1	0.03750	30%
20	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	2	0.02000	30%
21	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	3	0.01500	30%
22	0.00000	0.00000	0.00200	0.00000	0.00010	0.00040	4	0.01200	30%
23	0.00000	0.00000	0.00200	0.00000	0.00010	0.00039	5	0.01130	30%
24	0.00000	0.00000	0.00200	0.00000	0.00010	0.00038	6	0.01070	30%
25	0.00000	0.00000	0.00200	0.00000	0.00010	0.00037	7	0.01000	30%
26	0.00000	0.00000	0.00200	0.00000	0.00010	0.00038	8	0.00920	30%
27	0.00000	0.00000	0.00200	0.00000	0.00010	0.00039	9	0.00840	30%
28	0.00000	0.00000	0.00200	0.00000	0.00010	0.00040	10	0.00760	30%
29	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	11	0.00680	30%
30	0.00000	0.00000	0.00200	0.00000	0.00010	0.00041	12	0.00600	30%
31	0.00000	0.00000	0.00200	0.00000	0.00010	0.00042	13	0.00560	30%
32	0.00000	0.00000	0.00200	0.00000	0.00010	0.00043	14	0.00520	30%
33	0.00000	0.00000	0.00210	0.00000	0.00010	0.00044	15	0.00480	40%
34	0.00000	0.00000	0.00220	0.00000	0.00010	0.00045	16	0.00440	40%
35	0.00000	0.00000	0.00230	0.00000	0.00010	0.00047	17	0.00400	40%
36	0.00000	0.00000	0.00240	0.00000	0.00010	0.00049	18	0.00360	40%
37	0.00000	0.00000	0.00250	0.00000	0.00010	0.00050	19	0.00320	40%
38	0.00000	0.00000	0.00260	0.00000	0.00010	0.00053	20	0.00280	70%
39	0.00000	0.00000	0.00270	0.00000	0.00010	0.00056	21	0.00240	70%
40	0.00750	0.00000	0.00280	0.00000	0.00010	0.00059	22	0.00200	70%
41	0.00750	0.00000	0.00290	0.00000	0.00010	0.00062	23	0.00200	70%
42	0.00750	0.00000	0.00300	0.00000	0.00010	0.00067	24	0.00200	70%
43	0.00750	0.00000	0.00310	0.00000	0.00010	0.00071	25	0.00200	110%
44	0.00750	0.00000	0.00320	0.00000	0.00010	0.00076	26	0.00200	110%
45	0.00750	0.00000	0.00330	0.00000	0.00010	0.00082	27	0.00200	110%
46	0.00750	0.00000	0.00340	0.00000	0.00010	0.00088	28	0.00200	110%
47	0.00750	0.00000	0.00350	0.00000	0.00010	0.00095	29	0.00200	110%
48	0.00750	0.00000	0.00400	0.00000	0.00010	0.00102	30 & Above	0.00000	170%
49	0.00750	0.00000	0.00500	0.00000	0.00010	0.00111			
50	0.02000	0.02000	0.00750	0.00000	0.00010	0.00120			
51	0.02000	0.02000	0.00750	0.00000	0.00010	0.00129			
52	0.02000	0.02000	0.00750	0.00000	0.00010	0.00140			
53	0.03000	0.03000	0.02000	0.00000	0.00010	0.00151			
54	0.12000	0.08000	0.02000	0.00000	0.00010	0.00162			
55	0.22000	0.15000	0.07500	0.00000	0.00010	0.00175			
56	0.18000	0.15000	0.07500	0.00000	0.00010	0.00190			
57	0.14000	0.23000	0.10000	0.00000	0.00010	0.00205			
58	0.15000	0.15000	0.10000	0.00000	0.00010	0.00223			
59	0.22000	0.22000	0.10000	0.00000	0.00010	0.00243			
60	0.21000	0.21000	0.10000	0.00000	0.00010	0.00264			
61	0.20000	0.20000	0.05000	0.00000	0.00010	0.00288			
62	0.20000	0.20000	0.05000	0.00000	0.00010	0.00315			
63	0.20000	0.20000	0.05000	0.00000	0.00010	0.00344			
64	0.23000	0.23000	0.05000	0.00000	0.00010	0.00375			
65	1.00000	1.00000	0.00000	0.00000	0.00000	0.00410			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Table A-13
Probability of Separation from Active Service for Safety Members
Plans A, B & C – Female

Age	Service Retirement ⁽¹⁾						Years of Service	Other Terminations	Retirement Rate Loading ⁽²⁾
	Plans A & B	Plan C	Service Disability	Ordinary Disability	Service Death	Ordinary Death			
18	0.00000	0.00000	0.00300	0.00000	0.00010	0.00014	0	0.05000	30%
19	0.00000	0.00000	0.00300	0.00000	0.00010	0.00015	1	0.03750	30%
20	0.00000	0.00000	0.00300	0.00000	0.00010	0.00016	2	0.02000	30%
21	0.00000	0.00000	0.00300	0.00000	0.00010	0.00017	3	0.01500	30%
22	0.00000	0.00000	0.00300	0.00000	0.00010	0.00017	4	0.01200	30%
23	0.00000	0.00000	0.00300	0.00000	0.00010	0.00018	5	0.01130	30%
24	0.00000	0.00000	0.00300	0.00000	0.00010	0.00019	6	0.01070	30%
25	0.00000	0.00000	0.00300	0.00000	0.00010	0.00020	7	0.01000	30%
26	0.00000	0.00000	0.00300	0.00000	0.00010	0.00021	8	0.00920	30%
27	0.00000	0.00000	0.00300	0.00000	0.00010	0.00022	9	0.00840	30%
28	0.00000	0.00000	0.00340	0.00000	0.00010	0.00024	10	0.00760	30%
29	0.00000	0.00000	0.00380	0.00000	0.00010	0.00025	11	0.00680	30%
30	0.00000	0.00000	0.00420	0.00000	0.00010	0.00027	12	0.00600	30%
31	0.00000	0.00000	0.00460	0.00000	0.00010	0.00028	13	0.00560	30%
32	0.00000	0.00000	0.00500	0.00000	0.00010	0.00030	14	0.00520	30%
33	0.00000	0.00000	0.00560	0.00000	0.00010	0.00032	15	0.00480	40%
34	0.00000	0.00000	0.00620	0.00000	0.00010	0.00034	16	0.00440	40%
35	0.00000	0.00000	0.00680	0.00000	0.00010	0.00036	17	0.00400	40%
36	0.00000	0.00000	0.00740	0.00000	0.00010	0.00038	18	0.00360	40%
37	0.00000	0.00000	0.00800	0.00000	0.00010	0.00041	19	0.00320	40%
38	0.00000	0.00000	0.00840	0.00000	0.00010	0.00043	20	0.00280	70%
39	0.00000	0.00000	0.00880	0.00000	0.00010	0.00046	21	0.00240	70%
40	0.00750	0.00000	0.00920	0.00000	0.00010	0.00049	22	0.00200	70%
41	0.00750	0.00000	0.00960	0.00000	0.00010	0.00052	23	0.00200	70%
42	0.00750	0.00000	0.01000	0.00000	0.00010	0.00056	24	0.00200	70%
43	0.00750	0.00000	0.01040	0.00000	0.00010	0.00059	25	0.00200	110%
44	0.00750	0.00000	0.01080	0.00000	0.00010	0.00063	26	0.00200	110%
45	0.00750	0.00000	0.01120	0.00000	0.00010	0.00067	27	0.00200	110%
46	0.00750	0.00000	0.01160	0.00000	0.00010	0.00071	28	0.00200	110%
47	0.00750	0.00000	0.01200	0.00000	0.00010	0.00076	29	0.00200	110%
48	0.00750	0.00000	0.01300	0.00000	0.00010	0.00080	30 & Above	0.00000	170%
49	0.00750	0.00000	0.01500	0.00000	0.00010	0.00085			
50	0.02000	0.02000	0.01800	0.00000	0.00010	0.00091			
51	0.02000	0.02000	0.02000	0.00000	0.00010	0.00097			
52	0.02000	0.02000	0.02400	0.00000	0.00010	0.00103			
53	0.03000	0.03000	0.02800	0.00000	0.00010	0.00109			
54	0.12000	0.08000	0.03200	0.00000	0.00010	0.00116			
55	0.22000	0.15000	0.11000	0.00000	0.00010	0.00123			
56	0.18000	0.15000	0.06000	0.00000	0.00010	0.00131			
57	0.14000	0.23000	0.06000	0.00000	0.00010	0.00140			
58	0.15000	0.15000	0.06000	0.00000	0.00010	0.00148			
59	0.22000	0.22000	0.06000	0.00000	0.00010	0.00158			
60	0.21000	0.21000	0.06000	0.00000	0.00010	0.00168			
61	0.20000	0.20000	0.06000	0.00000	0.00010	0.00178			
62	0.20000	0.20000	0.06000	0.00000	0.00010	0.00190			
63	0.20000	0.20000	0.06000	0.00000	0.00010	0.00202			
64	0.23000	0.23000	0.06000	0.00000	0.00010	0.00215			
65	1.00000	1.00000	0.00000	0.00000	0.00000	0.00228			

1. Service retirement rates vary by years of service. The applicable retirement rate loading that varies by years of service is shown on this page in a separate column.
2. The retirement rate loading is applied to the service retirement rate at each member's applicable age and years of service.

Appendix B Summary of Plan Provisions

All actuarial calculations are based on our understanding of the statutes governing LACERA as contained in the County Employees Retirement Law (CERL) of 1937 and the California Public Employees' Pension Reform Act of 2013 (PEPRA). The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the Government Code Section. This summary does not attempt to cover all the detailed provisions of the law.

MEMBERSHIP	Government Code Section
Permanent employees of Los Angeles County (County) and participating districts who work $\frac{3}{4}$ time or more are eligible for membership in LACERA.	(31551, 31552, Bylaws)
Employees eligible for safety membership (law enforcement, firefighting and specific lifeguards) become safety members on the first day of the month after date of hire. Employees who become members on or after January 1, 2013, will enter into Safety Plan C.	(31558)
All other employees become general members on the first day of the month after date of hire or the first day of the month after they make an election of either Plan D or Plan E, depending on the law in effect at that time. Employees who become members on or after January 1, 2013 will enter into General Plan G.	(31493, 31493.5, 31493.6, Bylaws)
Elective officers become members on the first day of the month after filing a declaration with the Board of Retirement (Board).	(31553, 31562)
General members in Plan E may transfer all their Plan E service credit to Plan D during an approved transfer period by making the required contributions. Transferred members relinquish, waive, and forfeit any and all vested or accrued benefits available under any other retirement plan and are entitled only to the benefits of Plan D.	(31494.1, 31494.3)

RETIREMENT PLANS

The County has established nine defined benefit plans. The following outlines the dates these plans were available, based on a member’s date of entry into LACERA:

Safety Member Plans:

- Plan A:** Inception to August 1977
- Plan B:** September 1977 through December 2012
- Plan C:** January 2013 to present (7522.02)

General Member Plans:

- Plan A:** Inception through August 1977
- Plan B:** September 1977 through September 1978
- Plan C:** October 1978 through May 1979
- Plan D:** June 1979 through December 2012
- Plan E:** February 1982 through December 2012 (31487, 31496)
- Plan G:** January 2013 to present (7522.02)

NOTE: After review of a new member’s account, a member with prior membership may be enrolled into one of the pre-PEPRA plans.

MEMBER CONTRIBUTIONS

Plans A, B, D and General Plan C members

Contributions are based on the entry age and class of each member and are required of all members in Plans A, B, C, and D. Current member rates are shown in Appendix D. Section 5 provides additional detail on how these rates are calculated. (31620)

Contributions cease when general members are credited with 30 years of service in a contributory plan, provided they were members of LACERA or a reciprocal plan on March 7, 1973, and continuously thereafter. All safety members are eligible for the 30-year cessation of contributions. (31625.2, 31836.1)

Interest is credited to contributions semiannually on June 30 and December 31 at an interest rate set by the Board of Investments on amounts that have been on deposit for at least six months. (31591, 31700)

In addition to the normal contributions, members pay one-half of the cost of their plan’s COLA. This is discussed further in Section 5 of this report. (31873)

General Plan G and Safety Plan C members

Members contribute 50% of the aggregate Normal Cost rate for their Plan. (7522.30)

EMPLOYER CONTRIBUTIONS

The employer (County or District) contributes to the retirement fund a percent of the total compensation provided for all members based on an actuarial valuation and recommendation of the actuary and the Board of Investments. (31453, 31454 31581)

SERVICE RETIREMENT ALLOWANCE

Eligibility

- Plans A-B: Safety members** (31662.4, 31662.6, 31663.25)
 Age 50 with 10 years of County service;
 Any age with 20 years of service; or
- Plans A-D: General members** (31672)
 Age 50 with 10 years of County service;
 Any age with 30 years of service; or
 Age 70 and actively employed, regardless of service.
- Plan C: Safety members** (7522.25(d))
 Age 50 with 5 years of service.
- Plan E: General members** (31491, 31491.3)
 Age 65 with 10 years of service.
 A reduced benefit is also payable at age 55 with 10 years of service.
- Plan G: General members** (7522.20(a))
 Age 52 with 5 years of service.

Final Compensation

- General Plans A-D and Safety Plans A-B** (31462.3)
 Average of the member’s highest monthly pensionable earnings during any 12-consecutive-month period.
- Plan E:** Average of the member’s highest monthly pensionable earnings during any three 12-consecutive month periods. (31488)
- General Plan G and Safety Plan C** (7522.32)
 Average of the member’s highest monthly pensionable earnings during any 36-consecutive month period.
- The amount of compensation that is taken into account in computing benefits payable to any person who first becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17) of Title 26 of the US Code. (31671)
- The amount of compensation taken into account for General Plan G and Safety Plan C members is limited to \$181,734 for 2024. The amount of compensation taken into account shall be adjusted based on changes in the Consumer Price Index for All Urban Consumers: U.S. City Average. Adjustments shall be effective annually on January 1. (7522.10)

SERVICE RETIREMENT ALLOWANCE (continued)

Monthly Allowance

Plans A-B: Safety members

$1/50 \times \text{Final Compensation} \times \text{Safety age factor} \times \text{Years of service. (The Safety Plan A and Safety Plan B age factors are the same.)}$ (31664)

Plans A-D: General members

$1/60 \times \text{Final Compensation} \times \text{a Plan specific age factor} \times \text{years of service. (The General Plan C and General D age factors are the same.)}$ (31676.1)
 (31676.11)
 (31676.14)
 (7522.25(d))

Plan C: Safety members

Final Compensation x Safety Plan percentage x Years of service.

Plan E: General members [(a)+(b)-(c)] x d where:

(a) $2\% \times \text{Final Compensation} \times (\text{Years of Service (up to 35 years), plus}$ (31491,
 31491.3 (b)&(c))
 (b) $1\% \times \text{Final Compensation} \times \text{Years of Service in excess of 35 (up to 10)}$
 (c) $\text{Estimated Primary Insurance Amount (PIA)} \times \text{Years of Covered Service (up to 35) divided by 35.}$
 (d) **Early Retirement Adjustment Factor**
 The PIA is calculated based on certain assumptions specified by statute, and an assumed Social Security retirement age of 62.
 If retirement occurs prior to age 65, benefit amount is adjusted by an Early Retirement Adjustment Factor.

Plan G: General members

Final Compensation x General Plan percentage x Years of Service. (7522.20(a))

Social Security Integration

Plans A-C: General Members

For County service covered by Social Security prior to January 1, 1983, the 1/60 factor is replaced by 1/90 for the first \$350 of compensation. (31808)

Plan D: The 1/90 factor is applied to the first \$1,050 of compensation.

SERVICE RETIREMENT ALLOWANCE (continued)

Sample Plan Age Factors

Plan	Age 50	Age 55	Age 60	Age 65 & Up	
General A	0.8850	1.1686	1.4638	1.5668	(31676.14)
General B	0.7454	1.0000	1.3093	1.5668	(31676.11)
General C&D	0.7091	0.8954	1.1500	1.4593	(31676.1)
General E	N/A	0.3748	0.6009	1.0000	(31491.3(a))
Safety A&B	1.0000	1.3099	1.3099	1.3099	(31664)

Sample Plan Age Percentages

Plan	Age 50	Age 55	Age 60	Age 65 & Up	
General G	N/A	1.30%	1.80%	2.30%*	(7522.20(a))
Safety C	2.00%	2.50%	2.70%	2.70%	(7522.25(d))

*Maximum percentage for General Plan G is 2.50% at age 67.

Maximum Allowance

Plans A-D, G:	Allowance may not exceed 100% of final compensation.	(31676.1, 31676.11, 31676.14)
Plan E:	The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35 years.	(31491)

Unmodified Retirement Allowance (Normal Form)

Plans A-D, G:	Life Annuity payable to retired member with 65% continuance to an eligible survivor (or eligible children).	(31760.12, 31785.4)
Plan E:	Life Annuity payable to retired member with 55% continuance to an eligible survivor (or eligible children).	(31492.1)

Eligible survivor includes certain domestic partners. (31780.2)

Optional Retirement Allowance

A member may elect to have the actuarial equivalent of the service or disability retirement allowance applied to a lesser retirement allowance during the retired member's life in order to provide an optional survivor allowance. (31760)

Unmodified Plus:	Members with eligible survivors may elect a higher percent than the standard unmodified continuance, up to 100%. The benefit is actuarially reduced from the unmodified amount. The elected percent of the member's reduced allowance is payable to the eligible survivor.	(31760.5)
Option 1:	Member's allowance is reduced to pay a cash refund of any unpaid annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable interest in the life of the member.	(31761)
Option 2:	100% of member's reduced allowance is payable to a beneficiary having an insurable interest in the life of the member.	(31762)
Option 3:	50% of member's reduced allowance is payable to a beneficiary having an insurable interest in the life of the member.	(31763)
Option 4:	Other % of member's reduced allowance is payable to a beneficiary(ies) having an insurable interest in the life of the member.	(31764)
	A member may not revoke and name another beneficiary if the member elects Option 2, 3, or 4.	(31782)
Pension Advance Option:	The Pension Advance Option is available to members who are fully insured under Social Security for the purpose of coordinating a member's retirement allowance with benefits receivable from Social Security. It is not available to disability retirees or members who elect Option 2, 3, or 4. The allowance is increased prior to age 62 and then reduced after 62 by amounts which have equivalent actuarial values. The automatic 65% continuance for eligible spouses of members who elect the Pension Advance Option is based on the unmodified allowance the member would have received if the member had not elected the option.	(31810, 31811)
All Allowances		(31452.7, 31600)
	All allowances are made on a pro-rata basis (based on the number of days in that month) if not in effect for the entire month of retirement. For deaths that occur mid-month, the full month's payment is made.	

SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

Eligibility

Plans A-D, G:	Any age or years of service; disability must result from occupational injury or disease, and member must be permanently incapacitated for the performance of duty.	(31720)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

Greater of (1) 50% of final compensation, and (2) the service retirement allowance, if eligible to retire. (31727.4)

Normal Form Of Payment

Life Annuity with 100% continuance to a surviving spouse (or eligible children). (31786)

NONSERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

Eligibility

Plans A-D, G:	Any age with five years of service, and permanently incapacitated for the performance of duty.	(31720)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance

The monthly allowance is equal to a service retirement allowance if a General member is age 65 or a Safety member is age 55; otherwise the monthly allowance is the greater of that to which the member would be entitled as service retirement or the sum of (a) or (b) where: (31726, 31726.5)

General Members:	(a) 90% of 1/60 of Final Compensation x years of service, if member must rely on service in another retirement plan in order to be eligible to retire, or allowance exceeds 1/3 of final compensation.	(31727(a))
	(b) 90% of 1/60 of Final Compensation x years of service projected to age 65, not to exceed 1/3 of Final Compensation.	(31727(b))

Safety Members: 1/60 is replaced by 1/50 and age 65 is replaced by age 55 in (a) and (b) above. (31727.2)

Normal Form of Payment

Life Annuity with 65% continuance to a surviving spouse (or eligible children). (31760.1, 31760.12, 31785, 31785.4)

SERVICE-CONNECTED PRE-RETIREMENT DEATH BENEFITS

Eligibility

Plans A-D, G:	Active members who die in service as a result of injury or disease arising out of and in the course of employment.	(31787)
Plan E:	Not available under Plan E.	(31487)

Monthly Allowance (31787)

A monthly allowance payable to an eligible survivor (or eligible children) equal to the retirement allowance the deceased member would have received under a service-connected disability retirement.

Optional Combined Benefit (31781.3)

In lieu of the monthly allowance above, a surviving spouse may elect:

- (a) A lump sum equal to 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation), plus
- (b) A monthly payment equal to 50% of the member's Final Compensation, reduced by a monthly amount, which is the actuarial equivalent of (a) above based on the age of surviving spouse.

Death Benefit (Lump Sum) (31781)

The member's accumulated contributions with interest, plus 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation).

Additional Allowance for Children (31787.5)

In the case of a surviving spouse of a member who is killed in the performance of duty or who dies as the result of an accident or an injury caused by external violence or physical force, incurred in the performance of the member's duty: 25% of death allowance (whether or not the monthly allowance or combined benefit is chosen) for one child, 40% for two children, and 50% for three or more children.

Additional Amount for Spouse of Safety Member (31787.6)

A surviving spouse of a safety member, who is killed in the performance of duty or who dies as the result of an accident or injury caused by external violence or physical force, incurred in the performance of his or her duty, is also entitled to receive a lump-sum death benefit equal to 12 x monthly rate of compensation at the time of member's death in addition to all other benefits.

Note: For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the monthly allowance or the lump sum, whichever is more valuable.

NONSERVICE-CONNECTED PRE-RETIREMENT DEATH BENEFITS

Eligibility

Plans A-D, G: Active members who die while in service or while physically or mentally incapacitated for the performance of duty. (31780)

Plan E: Not available under Plan E. (31487)

Death Benefit (Lump Sum) (31781)

The member's accumulated contributions with interest, plus 1/12 of the compensation earned in preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation).

Optional Death Benefit

In lieu of the lump-sum death benefit, the following several optional death benefits are available to provide flexibility to survivors.

First Optional Death Benefit (31781.1, 31781.12)

If a member who would have been entitled to a non-service-connected disability retirement allowance dies prior to retirement as a result of such disability, the surviving spouse (or eligible children) may elect to receive an optional death allowance equal to 65% of the monthly retirement allowance to which the member would have been entitled as of the date of death.

Second Optional Death Benefit (31781.2, 31765.2)

If a member dies prior to reaching the minimum retirement age but has 10 or more years of County service, a surviving spouse (or eligible children) may elect to leave the amount of the death benefit on deposit until the earliest date the member could have retired and at that time receive the allowance provided for in Section 31765 (an Option 3 benefit) or 31765.2 (a 65% continuance).

Third Optional Death Benefit

A surviving spouse of a member who dies after five years of County service may elect a combined benefit equal to:

(a) A lump sum equal to 1/12 of the compensation earnable in the preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation), plus (31781.3)

(b) A monthly payment equal to 65% of the monthly retirement allowance to which the member would have been entitled if the member retired or could have retired for a non-service-connected disability as of the date of death, reduced by a monthly amount which is the actuarial equivalent of (a) above based on the age of surviving spouse. (31781.1, 31781.12)

NONSERVICE-CONNECTED PRE-RETIREMENT DEATH BENEFITS (continued)

Fourth Optional Death Benefit

If a member dies while eligible for a service retirement and the surviving spouse is designated as beneficiary, the spouse (or eligible children) may elect to receive 65% of the monthly retirement allowance to which the member would have been entitled as of the date of death. (31765.1, 31765.2)

Fifth Optional Death Benefit

If a member dies while eligible for a service retirement and the surviving spouse is designated as beneficiary and survives the member by not less than 30 days, the spouse (or eligible children) may elect to receive the same retirement allowance as the spouse would have received had the member retired on the date of death and selected Option 3. (31765)

Note: For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the first optional death benefit or the lump sum, whichever is more valuable.

POSTRETIREMENT DEATH/BURIAL BENEFIT

Plans A-E: A one-time lump-sum benefit of \$5,000 is payable to the estate or to the beneficiary designated by the member upon the death of any member while receiving a retirement allowance. This is in addition to any other death or survivor benefits. The amount is currently paid by the County based on agreement with LACERA. It is not included for valuation purposes. (31789.3)

DEFERRED RETIREMENT ALLOWANCE

Eligibility

Plans A, B, D and General Plan C: Five years of county or reciprocal service. (31700)
 Member contributions must be left on deposit.

Safety Plan C: Age 50 with 5 years of service. (7522.25(d))

Plan E: Age 55 with 10 years of service. (31491)

Plan G: Age 52 with 5 years of service. (7522.20(a))

DEFERRED RETIREMENT ALLOWANCE (continued)

Monthly Allowance

Plans A-D, G:	Same as service retirement allowance; payable any time after the member would have been eligible for service retirement.	(31703, 31704, 31705)
	If a former employee dies before the effective date of the deferred retirement allowance, the member's accumulated contributions are paid to the estate or to the named beneficiary.	(31702)
Plan E:	Same as service retirement allowance at normal retirement age 65 or in an actuarially equivalent reduced amount at early retirement, after age 55.	(31491)

TRANSFERS BETWEEN PLAN D AND PLAN E

Members in Plan D may transfer to Plan E on a prospective basis. Members in Plan E may transfer to Plan D on a prospective basis.	(31494.2, 31494.5)
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RECIPROCITY

All Plans:	Reciprocal benefits are granted to members who are entitled to retirement benefits from two or more retirement plans established under the CERL or from a County retirement plan and the California Public Employees' Retirement System (CalPERS). Reciprocity also applies to the members of the State Teachers' Retirement System Defined Benefit Plan.	(31830, 31840.4, 31840.8)
	Final Compensation may be based on service with CalPERS or another County retirement plan, if greater.	(31835)
	Vested former employees are eligible for disability and death benefits from LACERA, if disabled while a member of CalPERS or another County retirement plan, but combined benefits are limited.	(31837, 31838, 31838.5, 31839)

TRANSFER FROM CALPERS

Whenever firefighting or law enforcement functions performed by a public agency or the state subject to the California Public Employees Retirement Law are transferred to the County, fire authority, or district, employees performing those functions become members of LACERA. LACERA and CalPERS may enter into an agreement whereby the members' service credit plus the members' and the cities' or states' retirement contributions are transferred from CalPERS to LACERA. (31657)

COST-OF-LIVING INCREASES

Cost-of-living increases (or decreases) are applied to all retirement allowances (service and disability), optional death allowances, and annual death allowances effective April 1, based on changes in the Consumer Price Index (CPI) from the previous January 1 to the current January 1, to the nearest ½ of 1%. (31870, 31870.1)

Plan A: Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase. (31870.1)

Plans B-D, G: Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. (31870)

When the CPI exceeds 2% or 3%, the difference between the actual CPI and the maximum cost-of-living increase given in any year is credited to the COLA Accumulation. It may be used in future years to provide cost-of-living increases when the CPI falls below 2% or 3%, depending on the retirement plan.

Plan E: Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. The 2% is pro-rated based on service earned after June 4, 2002. "Elective COLA" increases for service earned prior to June 4, 2002 may be purchased by the member. (31495.5)

STAR PROGRAM

Contributory plan members who have a COLA Accumulation of more than 20% resulting from CPI increases that exceeded the maximum cost-of-living increases that could be granted are eligible for a supplemental cost-of-living increase effective January 1 known as the Supplemental Targeted Adjustment for Retirees Cost-of-Living Adjustment (STAR COLA). These benefits are not evaluated in this report, or as part of the actuarially required funding amount, unless they have been vested by the Board of Retirement. (31874.3(b))

Appendix C Valuation Data and Schedules

On the following table, Exhibit C-1, we present a summary of LACERA membership at June 30, 2024 for active members. Similar information is shown in Exhibits C-2 for retired members and beneficiaries, and former (not retired) employees.

Note that salary amounts shown are the prior year annual pensionable earnings for those members of plans with a one-year final compensation period. For plans with a three-year final compensation period, the monthly rate of pay at June 2024 is shown.

Additional statistical data on both active and retired members is shown in the following tables. Additional detailed summaries are supplied to LACERA staff in a supplementary report.

Exhibit C-3: Age Distribution of Active Members

Exhibit C-4: Age, Service, Compensation Distribution of Active Members

Exhibit C-5: Age, Retirement Year, Benefit Amount and Plan Distribution of Retired Members

Exhibits C-4 and C-5 are shown for all plans combined as well as for each plan separately.

Data on LACERA membership as of June 30, 2024 was supplied to us by LACERA staff. Based on our review of this data and discussions with LACERA staff, all retiree and beneficiary records were included in our valuation.

**Exhibit C-1
 LACERA Membership – Active Members as of June 30, 2024**

	Sex	Vested	NonVested	Total Number	Annual Salary	Average Age	Average Monthly Salary	Average Service
General Members								
Plan A	M	15	-	15	\$ 2,520,252	79.5	\$ 14,001	44.0
	F	25	-	25	2,438,820	74.5	8,129	43.4
Plan B	M	3	-	3	366,576	74.3	10,183	31.0
	F	7	-	7	1,043,880	71.1	12,427	43.3
Plan C	M	3	-	3	239,028	72.0	6,640	45.5
	F	10	-	10	1,530,096	69.5	12,751	43.8
Plan D	M	10,251	42	10,293	1,226,407,980	53.2	9,929	21.8
	F	21,701	60	21,761	2,424,505,584	52.8	9,285	22.0
Plan E	M	3,729	3	3,732	404,582,364	56.9	9,034	25.1
	F	8,339	4	8,343	762,869,820	57.2	7,620	25.8
Plan G	M	7,258	6,738	13,996	1,257,350,376	40.9	7,486	5.2
	F	14,128	13,957	28,085	2,269,060,452	40.2	6,733	5.1
Total		65,469	20,804	86,273	\$ 8,352,915,228	47.4	\$ 8,068	14.3
Safety Members								
Plan A	M	-	-	-	-	N/A	N/A	N/A
	F	-	-	-	-	N/A	N/A	N/A
Plan B	M	5,873	63	5,936	931,990,980	48.0	13,084	21.2
	F	1,079	1	1,080	162,920,148	46.4	12,571	20.1
Plan C	M	2,549	2,042	4,591	508,053,948	34.1	9,222	5.6
	F	446	357	803	88,179,252	33.3	9,151	5.7
Total		9,947	2,463	12,410	\$ 1,691,144,328	41.8	\$ 11,356	14.4
Grand Total		75,416	23,267	98,683	\$ 10,044,059,556	46.7	\$ 8,482	14.3

Notes

1. 19 members were provided without a gender code, or with a non-binary gender code designation. Members of General plans are included in the female categories above, and members of Safety plans are included in the male categories above.

Exhibit C-2
LACERA Membership – Retired Members and Beneficiaries as of June 30, 2024

	Sex	Number	Annual Allowance	Average Age	Average Monthly Benefit
General Members					
Plan A	M	5,563	\$ 450,878,342	82.4	\$ 6,754
	F	10,611	637,024,624	81.9	5,003
Plan B	M	188	14,691,512	77.4	6,512
	F	484	29,095,792	77.2	5,010
Plan C	M	139	8,713,706	76.6	5,224
	F	322	17,196,359	76.3	4,450
Plan D	M	8,531	460,693,238	69.7	4,500
	F	16,319	790,878,679	69.6	4,039
Plan E	M	5,588	211,349,823	73.5	3,152
	F	11,981	376,667,582	73.5	2,620
Plan G	M	186	3,517,064	64.5	1,576
	F	250	3,856,319	64.3	1,285
Total		60,162	\$ 3,004,563,040	74.2	\$ 4,162
Safety Members					
Plan A	M	3,708	\$ 451,739,864	79.6	\$ 10,152
	F	2,014	174,592,861	80.4	7,224
Plan B	M	7,237	846,554,675	62.7	9,748
	F	1,602	138,823,111	60.5	7,221
Plan C	M	32	1,600,689	52.7	4,168
	F	12	460,326	41.3	3,197
Total		14,605	\$ 1,613,771,526	69.1	\$ 9,208
Grand Total		74,767	\$ 4,618,334,566	73.2	\$ 5,147

Notes

- 205 retirees and beneficiaries were provided without a gender code, or with a non-binary gender code designation. Retirees of General plans are included in the female categories above, and retirees of Safety plans are included in the male categories above. Beneficiaries are included in the opposite categories of retirees based on plan.

Exhibit C-2
LACERA Membership –Former Employees (not retired) as of June 30, 2024

	<u>Sex</u>	<u>Number</u>	<u>Average Age</u>
General Members			
Plan A	M	12	77.4
	F	29	76.8
Plan B	M	2	76.5
	F	6	74.3
Plan C	M	5	71.0
	F	7	69.6
Plan D	M	2,427	51.4
	F	5,190	51.1
Plan E	M	842	57.5
	F	1,865	58.1
Plan G	M	2,838	39.6
	F	6,549	39.0
Total		19,772	46.5
Safety Members			
Plan A	M	4	72.0
	F	-	-
Plan B	M	649	46.8
	F	120	47.0
Plan C	M	631	33.4
	F	98	33.8
Total		1,502	40.4
Grand Total		21,274	46.1

Notes

1. *Includes vested and non-vested former employees*
2. *309 former employees were provided without a gender code, or with a non-binary gender code designation. Former employees of General plans are included in the female categories above, and former employees of Safety plans are included in the male categories above.*

Exhibit C-2a
LACERA Membership – Retired Members and Beneficiaries as of June 30, 2024
Subtotaled by Plan and Retirement Type

<u>Plan</u>	<u>Retirement Type</u>	<u>Number</u>	<u>Annual Benefits in Thousands</u>	<u>Average Monthly Benefit</u>
General Plans:				
Plan A	Healthy	11,176	\$ 859,273	\$ 6,407
	Disabled	1,028	49,732	4,031
	Beneficiaries	3,970	178,898	3,755
	Total	16,174	\$ 1,087,903	\$ 5,605
Plan B	Healthy	557	\$ 38,843	\$ 5,811
	Disabled	42	1,643	3,260
	Beneficiaries	73	3,301	3,768
	Total	672	\$ 43,787	\$ 5,430
Plan C	Healthy	352	\$ 22,113	\$ 5,235
	Disabled	43	1,669	3,234
	Beneficiaries	66	2,128	2,687
	Total	461	\$ 25,910	\$ 4,684
Plan D	Healthy	20,177	\$ 1,088,254	\$ 4,495
	Disabled	2,546	102,997	3,371
	Beneficiaries	2,127	60,322	2,363
	Total	24,850	\$ 1,251,573	\$ 4,197
Plan E	Healthy	15,828	\$ 557,594	\$ 2,936
	Disabled	N/A	N/A	N/A
	Beneficiaries	1,741	30,424	1,456
	Total	17,569	\$ 588,018	\$ 2,789
Plan G	Healthy	342	\$ 5,095	\$ 1,241
	Disabled	56	1,789	2,662
	Beneficiaries	38	490	1,074
	Total	436	\$ 7,374	\$ 1,409
Safety Plans:				
Plan A	Healthy	1,755	\$ 223,456	\$ 10,610
	Disabled	2,315	263,574	9,488
	Beneficiaries	1,652	139,302	7,027
	Total	5,722	\$ 626,332	\$ 9,122
Plan B	Healthy	3,393	\$ 387,336	\$ 9,513
	Disabled	4,995	564,152	9,412
	Beneficiaries	451	33,889	6,262
	Total	8,839	\$ 985,377	\$ 9,290
Plan C	Healthy	16	\$ 816	\$ 4,249
	Disabled	24	1,130	3,923
	Beneficiaries	4	116	2,407
	Total	44	\$ 2,062	\$ 3,903
Grand Totals		74,767	4,618,336	5,147

Exhibit C-2b
LACERA Membership – Retired Members and Beneficiaries as of June 30, 2024
Subtotaled by Retirement Type and Plan

<u>Type</u>	<u>Plan</u>	<u>Number</u>	<u>Annual Benefits in Thousands</u>	<u>Average Monthly Benefit</u>
Healthy Retirees				
	General A	11,176	\$ 859,273	\$ 6,407
	General B	557	38,843	5,811
	General C	352	22,113	5,235
	General D	20,177	1,088,254	4,495
	General E	15,828	557,594	2,936
	General G	342	5,095	1,241
	Safety A	1,755	223,456	10,610
	Safety B	3,393	387,336	9,513
	Safety C	16	816	4,249
	Total	<u>53,596</u>	<u>\$ 3,182,780</u>	<u>\$ 4,949</u>
Disabled Retirees				
	General A	1,028	\$ 49,732	\$ 4,031
	General B	42	1,643	3,260
	General C	43	1,669	3,234
	General D	2,546	102,997	3,371
	General E	N/A	N/A	N/A
	General G	56	1,789	2,662
	Safety A	2,315	263,574	9,488
	Safety B	4,995	564,152	9,412
	Safety C	24	1,130	3,923
	Total	<u>11,049</u>	<u>\$ 986,686</u>	<u>\$ 7,442</u>
Beneficiaries				
	General A	3,970	\$ 178,898	\$ 3,755
	General B	73	3,301	3,768
	General C	66	2,128	2,687
	General D	2,127	60,322	2,363
	General E	1,741	30,424	1,456
	General G	38	490	1,074
	Safety A	1,652	139,302	7,027
	Safety B	451	33,889	6,262
	Safety C	4	116	2,407
	Total	<u>10,122</u>	<u>\$ 448,870</u>	<u>\$ 3,695</u>
Grand Totals		74,767	\$ 4,618,336	\$ 5,147

**Exhibit C-3
 Age Distribution of Active Members as of June 30, 2024**

	Age Groups						Total
	0-29	30-39	40-49	50-59	60-69	70+	
General Plans:							
Plan A							
Male	-	-	-	-	1	14	15
Female	-	-	-	-	2	23	25
Plan B							
Male	-	-	-	-	-	3	3
Female	-	-	-	-	3	4	7
Plan C							
Male	-	-	-	-	-	3	3
Female	-	-	-	-	5	5	10
Plan D							
Male	-	436	3,172	4,278	2,121	286	10,293
Female	-	863	7,142	9,006	4,242	508	21,761
Plan E							
Male	-	100	711	1,393	1,237	291	3,732
Female	-	161	1,448	3,199	3,025	510	8,343
Plan G							
Male	1,505	5,782	3,902	1,906	824	77	13,996
Female	3,119	12,493	7,393	3,715	1,255	110	28,085
Safety Plans:							
Plan A							
Male	-	-	-	-	-	-	-
Female	-	-	-	-	-	-	-
Plan B							
Male	-	675	2,624	2,434	198	5	5,936
Female	-	157	572	332	18	1	1,080
Plan C							
Male	1,125	2,703	628	110	22	3	4,591
Female	212	495	82	12	2	-	803
Grand Totals:	<u>5,961</u>	<u>23,865</u>	<u>27,674</u>	<u>26,385</u>	<u>12,955</u>	<u>1,843</u>	<u>98,683</u>

**Exhibit C-4
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 All Plans**

Count														
Age	Years of Service												Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	608	190	35	9	16	-	-	-	-	-	-	-	-	858
25-29	1,715	1,098	638	487	540	624	1	-	-	-	-	-	-	5,103
30-34	1,756	1,339	878	904	1,169	4,273	393	5	-	-	-	-	-	10,717
35-39	1,186	863	683	663	911	5,459	2,324	1,033	26	-	-	-	-	13,148
40-44	793	611	407	414	593	3,674	2,408	4,144	717	63	1	-	-	13,825
45-49	661	436	243	278	362	2,349	1,567	3,913	3,039	929	72	-	-	13,849
50-54	425	293	201	186	266	1,603	1,106	2,777	3,149	2,727	1,024	74	-	13,831
55-59	294	216	143	143	205	1,221	739	1,950	2,241	2,171	2,173	1,058	-	12,554
60-64	128	93	74	79	113	774	628	1,442	1,533	1,231	1,389	1,591	-	9,075
65 & Over	44	26	33	21	60	454	426	1,131	1,224	761	614	929	-	5,723
Total Count	7,610	5,165	3,335	3,184	4,235	20,431	9,592	16,395	11,929	7,882	5,273	3,652	-	98,683

Compensation														
Age	Years of Service												Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over		
Under 25	52,853	65,688	69,326	81,281	84,493	-	-	-	-	-	-	-	-	57,255
25-29	60,210	69,556	72,869	80,039	89,978	91,497	62,436	-	-	-	-	-	-	72,672
30-34	69,084	75,219	79,196	79,484	85,913	91,622	100,482	111,490	-	-	-	-	-	83,549
35-39	75,037	78,481	86,069	91,831	89,258	96,476	106,408	108,913	119,334	-	-	-	-	94,864
40-44	76,409	82,724	88,906	86,873	92,713	99,619	114,643	114,014	120,088	119,889	125,628	-	-	104,635
45-49	77,576	83,157	84,556	84,760	83,266	97,693	117,204	112,342	119,282	129,412	145,724	-	-	108,870
50-54	72,540	78,178	85,710	83,323	83,604	94,360	114,317	109,914	119,758	132,507	139,040	142,951	-	114,456
55-59	74,149	72,180	78,639	85,789	82,546	91,851	102,110	106,286	115,989	124,903	124,653	123,996	-	111,984
60-64	79,755	77,273	75,308	92,936	78,193	89,013	105,886	94,524	103,369	115,426	117,925	120,398	-	106,529
65 & Over	117,839	115,725	103,479	86,760	80,561	92,694	98,649	90,765	93,173	104,331	109,166	114,062	-	99,853
Avg. Annual Compensation	\$ 69,066	\$ 76,049	\$ 81,388	\$ 84,455	\$ 87,281	\$ 95,205	\$ 110,194	\$ 108,361	\$ 114,114	\$ 124,559	\$ 124,159	\$ 120,286	\$ -	\$ 101,781

**Exhibit C-4a
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 General Plan A**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	2	2	2	3	1	30	40
Total Count	-	-	-	-	-	-	2	2	2	3	1	30	40

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	59,802	-	75,222	136,212	54,288	140,870	123,977
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 59,802	\$ -	\$ 75,222	\$ 136,212	\$ 54,288	\$ 140,870	\$ 123,977

**Exhibit C-4b
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 General Plan B**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	2	1	-	7	10
Total Count	-	-	-	-	-	-	-	-	2	1	-	7	10

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	157,518	175,776	-	131,378	141,046
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 157,518	\$ 175,776	\$ -	\$ 131,378	\$ 141,046

**Exhibit C-4c
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 General Plan C**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	4	4
65 & Over	-	-	-	-	-	-	-	-	-	-	-	9	9
Total Count	-	-	-	-	-	-	-	-	-	-	-	13	13

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	104,511	104,511
65 & Over	-	-	-	-	-	-	-	-	-	-	-	150,120	150,120
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 136,086	\$ 136,086

Exhibit C-4d
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2024
General Plan D

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	3	34	3	-	-	-	-	40
35-39	1	3	1	1	4	42	693	496	18	-	-	-	1,259
40-44	4	4	3	10	4	93	1,085	2,565	427	52	1	-	4,248
45-49	4	9	5	3	5	66	769	2,649	1,927	572	57	-	6,066
50-54	1	7	2	2	6	58	529	1,946	1,995	1,587	595	62	6,790
55-59	3	2	3	1	3	54	353	1,374	1,440	1,396	1,251	614	6,494
60-64	-	2	3	1	2	23	250	976	1,051	797	742	691	4,538
65 & Over	-	-	1	1	2	11	178	726	730	425	284	261	2,619
Total Count	13	27	18	19	26	350	3,891	10,735	7,588	4,829	2,930	1,628	32,054

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	95,500	77,094	90,684	-	-	-	-	79,493
35-39	161,952	118,252	119,424	48,000	132,804	114,719	102,408	94,138	110,147	-	-	-	99,823
40-44	93,819	179,679	94,116	119,438	148,062	121,660	115,052	106,412	110,897	116,225	125,628	-	109,646
45-49	139,056	153,771	114,610	65,904	106,061	119,906	122,902	109,126	114,010	118,012	134,448	-	113,684
50-54	210,144	207,141	95,484	124,428	157,540	127,379	120,264	108,993	117,322	121,896	128,494	136,957	117,615
55-59	160,444	54,582	206,180	255,000	105,180	136,675	105,986	107,557	118,524	124,053	124,369	128,135	118,951
60-64	-	108,678	157,036	340,200	154,464	90,185	113,436	98,630	106,879	121,661	122,202	131,230	114,298
65 & Over	-	-	142,596	55,200	144,672	97,657	100,846	94,521	98,695	111,600	118,883	136,190	105,735
Avg. Annual Compensation	\$ 137,302	\$ 156,812	\$ 133,224	\$ 123,124	\$ 135,108	\$ 120,714	\$ 113,152	\$ 105,613	\$ 113,092	\$ 121,054	\$ 124,323	\$ 131,076	\$ 113,899

Exhibit C-4e
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2024
General Plan E

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	9	-	-	-	-	-	9
35-39	-	-	-	-	-	1	106	145	-	-	-	-	252
40-44	-	-	-	-	-	2	162	519	90	1	-	-	774
45-49	-	-	-	-	-	-	129	628	522	105	1	-	1,385
50-54	-	-	-	-	-	1	118	519	633	463	174	4	1,912
55-59	-	-	-	-	-	-	89	436	552	510	715	378	2,680
60-64	-	-	-	-	-	1	110	425	439	384	626	868	2,853
65 & Over	-	-	-	-	-	2	81	393	479	326	319	610	2,210
Total Count	-	-	-	-	-	7	804	3,065	2,715	1,789	1,835	1,860	12,075

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	81,005	-	-	-	-	-	81,005
35-39	-	-	-	-	-	70,800	94,046	80,477	-	-	-	-	86,146
40-44	-	-	-	-	-	135,816	99,209	90,001	86,553	67,056	-	-	91,616
45-49	-	-	-	-	-	-	106,727	93,243	91,217	95,882	95,880	-	93,937
50-54	-	-	-	-	-	61,668	105,973	94,578	93,803	105,092	99,361	143,661	98,091
55-59	-	-	-	-	-	-	97,317	89,373	90,505	103,954	105,609	102,792	98,869
60-64	-	-	-	-	-	46,008	102,186	80,914	90,345	96,087	110,665	108,591	100,163
65 & Over	-	-	-	-	-	61,968	115,000	83,134	83,324	93,638	98,770	101,079	93,084
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 82,006	\$ 102,312	\$ 88,760	\$ 89,987	\$ 100,186	\$ 105,547	\$ 105,024	\$ 96,683

Exhibit C-4f
Age and Service Distribution of Active Members by Count
and Average Compensation as of June 30, 2024
General Plan G

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	517	130	21	4	7	-	-	-	-	-	-	-	679
25-29	1,541	926	521	331	295	330	1	-	-	-	-	-	3,945
30-34	1,646	1,215	765	733	900	3,198	197	-	-	-	-	-	8,654
35-39	1,150	811	621	569	786	4,653	1,021	10	-	-	-	-	9,621
40-44	782	585	383	372	539	3,229	829	10	-	-	-	-	6,729
45-49	650	421	229	258	326	2,162	505	15	-	-	-	-	4,566
50-54	420	278	193	176	250	1,497	397	12	3	-	-	-	3,226
55-59	289	210	136	133	195	1,145	276	7	3	1	-	-	2,395
60-64	127	90	71	71	108	744	250	12	3	-	-	-	1,476
65 & Over	44	26	31	19	58	438	163	8	2	1	-	-	790
Total Count	7,166	4,692	2,971	2,666	3,464	17,396	3,639	74	11	2	-	-	42,081

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	50,623	54,727	53,728	48,807	61,435	-	-	-	-	-	-	-	51,606
25-29	58,256	64,772	68,692	67,216	70,494	72,068	62,436	-	-	-	-	-	63,987
30-34	68,572	72,889	76,500	72,991	77,766	83,358	84,769	-	-	-	-	-	77,042
35-39	74,790	77,042	84,632	89,118	85,194	92,439	96,917	86,875	-	-	-	-	88,209
40-44	76,344	81,323	88,169	83,924	89,917	96,516	107,892	109,907	-	-	-	-	92,573
45-49	76,956	81,430	83,254	82,709	79,677	95,508	105,081	139,580	-	-	-	-	90,304
50-54	71,920	73,948	85,051	80,064	80,532	92,171	105,656	131,587	136,944	-	-	-	87,824
55-59	73,035	71,742	74,623	80,042	80,880	88,906	96,518	182,038	119,672	50,748	-	-	84,701
60-64	79,461	76,133	71,854	80,343	75,065	88,511	97,735	139,359	146,948	-	-	-	86,894
65 & Over	117,839	115,725	105,555	85,043	78,350	92,578	87,814	131,003	99,366	139,260	-	-	93,513
Avg. Annual Compensation	\$ 68,537	\$ 73,631	\$ 79,356	\$ 79,246	\$ 81,170	\$ 91,101	\$ 100,455	\$ 130,205	\$ 128,129	\$ 95,004	\$ -	\$ -	\$ 83,801

**Exhibit C-4g
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 Safety Plan A**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	-	-	-	-	-	-	-	-	-	-

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	-	-	-	-
55-59	-	-	-	-	-	-	-	-	-	-	-	-	-
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-
65 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Avg. Annual Compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

**Exhibit C-4h
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 Safety Plan B**

Count													
Age	Years of Service												Total Count
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	1	-	-	-	1	5	74	2	-	-	-	-	83
35-39	-	-	-	3	4	20	335	379	8	-	-	-	749
40-44	1	-	2	7	10	32	252	1,046	200	10	-	-	1,560
45-49	-	-	-	6	6	21	133	617	587	252	14	-	1,636
50-54	-	1	-	5	2	7	53	299	516	677	255	8	1,823
55-59	-	-	-	7	1	4	17	133	244	264	207	66	943
60-64	-	-	-	4	1	-	10	29	40	50	20	28	182
65 & Over	-	-	-	1	-	-	2	2	8	5	10	12	40
Total Count	2	1	2	33	25	89	876	2,507	1,603	1,258	506	114	7,016

Compensation													
Age	Years of Service												Average Comp.
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	
Under 25	-	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-	-
30-34	98,112	-	-	-	124,440	136,992	133,327	142,698	-	-	-	-	133,242
35-39	-	-	-	112,692	131,796	138,227	137,620	139,428	140,007	-	-	-	138,445
40-44	84,816	-	122,490	119,522	130,571	132,820	140,845	144,520	154,801	144,227	-	-	144,734
45-49	-	-	-	140,340	129,944	145,499	138,323	144,865	161,530	169,257	195,189	-	154,437
50-54	-	141,252	-	158,503	122,880	136,608	135,750	141,642	160,959	176,131	190,722	189,050	166,826
55-59	-	-	-	162,237	119,148	156,411	132,760	144,615	158,418	170,149	192,156	206,935	170,072
60-64	-	-	-	158,343	181,980	-	141,625	137,230	150,809	164,561	186,901	221,387	167,080
65 & Over	-	-	-	150,936	-	-	162,792	156,606	166,260	143,201	170,296	188,538	170,031
Avg. Annual Compensation	\$ 91,464	\$ 141,252	\$ 122,490	\$ 143,311	\$ 131,355	\$ 138,619	\$ 138,187	\$ 143,421	\$ 159,681	\$ 172,654	\$ 190,878	\$ 207,293	\$ 156,059

**Exhibit C-4i
 Age and Service Distribution of Active Members by Count
 and Average Compensation as of June 30, 2024
 Safety Plan C**

Count													
Age	Years of Service											Total Count	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	91	60	14	5	9	-	-	-	-	-	-	-	179
25-29	174	172	117	156	245	294	-	-	-	-	-	-	1,158
30-34	109	124	113	171	268	1,067	79	-	-	-	-	-	1,931
35-39	35	49	61	90	117	743	169	3	-	-	-	-	1,267
40-44	6	22	19	25	40	318	80	4	-	-	-	-	514
45-49	7	6	9	11	25	100	31	4	3	-	-	-	196
50-54	4	7	6	3	8	40	9	1	2	-	-	-	80
55-59	2	4	4	2	6	18	4	-	2	-	-	-	42
60-64	1	1	-	3	2	6	8	-	-	-	1	-	22
65 & Over	-	-	1	-	-	3	-	-	1	-	-	-	5
Total Count	429	445	344	466	720	2,589	380	12	8	-	1	-	5,394

Compensation													
Age	Years of Service											Average Comp.	
	0-1	1-2	2-3	3-4	4-5	5-9	10-14	15-19	20-24	25-29	30-34		35&Over
Under 25	65,522	89,438	92,724	107,261	102,427	-	-	-	-	-	-	-	78,687
25-29	77,508	95,309	91,467	107,248	113,438	113,306	-	-	-	-	-	-	102,259
30-34	76,554	98,050	97,442	107,315	113,128	116,169	121,185	-	-	-	-	-	110,673
35-39	80,658	99,868	100,155	108,771	113,610	119,637	126,038	144,320	-	-	-	-	116,442
40-44	71,908	102,342	99,407	108,582	115,382	121,108	127,776	138,120	-	-	-	-	119,044
45-49	99,938	98,386	100,980	107,700	114,298	120,242	126,342	122,067	122,880	-	-	-	117,544
50-54	103,146	108,159	103,646	121,780	114,332	121,817	129,971	115,056	109,926	-	-	-	118,111
55-59	105,690	103,974	119,508	115,818	119,298	130,359	122,235	-	143,010	-	-	-	123,194
60-64	117,060	117,060	-	221,340	118,950	153,868	130,859	-	-	-	109,704	-	146,174
65 & Over	-	-	-	-	-	111,832	-	-	90,504	-	-	-	85,200
Avg. Annual Compensation	\$ 75,730	\$ 96,501	\$ 95,981	\$ 108,514	\$ 113,425	\$ 117,871	\$ 125,574	\$ 132,397	\$ 120,627	\$ -	\$ 109,704	\$ -	\$ 110,536

Exhibit C-5
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
All Plans

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	5	3	10	49	83	150	\$ 1,184
35-39	-	-	-	-	-	1	2	5	4	47	79	138	2,513
40-44	-	-	-	-	-	-	2	8	21	85	133	249	3,052
45-49	-	-	-	-	-	2	4	23	74	142	200	445	3,572
50-54	-	-	-	-	1	8	59	73	101	183	805	1,230	3,763
55-59	-	-	-	1	24	85	130	118	194	831	2,876	4,259	6,500
60-64	-	-	-	10	73	152	158	167	652	2,734	3,757	7,703	6,056
65-69	-	1	19	51	113	131	179	566	2,238	3,406	5,543	12,247	5,376
70-74	-	21	64	94	119	173	578	2,167	3,251	5,100	2,726	14,293	4,939
75-79	11	97	173	146	206	746	2,319	2,972	3,735	2,225	1,349	13,979	5,073
80-84	22	105	141	167	654	1,602	2,277	2,058	1,414	862	734	10,036	5,111
85-89	35	68	106	380	976	1,083	1,161	671	509	446	461	5,896	4,675
90-94	43	57	221	359	677	489	288	226	194	237	210	3,001	4,213
95-99	16	66	134	132	174	93	69	73	90	59	55	961	3,774
100 & Over	7	26	32	31	25	13	12	5	12	11	6	180	3,045
Total Count	134	441	890	1,371	3,042	4,578	7,243	9,135	12,499	16,417	19,017	74,767	
Avg Monthly Benefit	\$ 2,586	\$ 3,234	\$ 3,255	\$ 3,758	\$ 4,871	\$ 4,983	\$ 5,802	\$ 5,017	\$ 4,988	\$ 5,096	\$ 5,445		\$ 5,147

Exhibit C-5a
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
General Plan A

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	1	-	1	-	4	6	\$ 678
35-39	-	-	-	-	-	-	-	2	-	4	-	6	1,120
40-44	-	-	-	-	-	-	1	3	2	2	6	14	2,410
45-49	-	-	-	-	-	-	1	3	5	-	-	9	2,600
50-54	-	-	-	-	-	2	1	4	3	3	5	18	3,565
55-59	-	-	-	1	1	2	4	4	3	1	7	23	2,208
60-64	-	-	-	-	-	3	3	11	6	12	8	43	3,932
65-69	-	-	4	7	3	7	14	53	108	94	39	329	5,270
70-74	-	12	24	23	21	28	218	495	784	224	143	1,972	6,124
75-79	6	44	57	45	71	419	877	1,291	594	203	235	3,842	6,348
80-84	11	50	59	65	463	746	1,327	620	244	209	252	4,046	5,993
85-89	21	41	50	292	636	714	545	192	179	187	229	3,086	5,264
90-94	25	40	181	257	540	298	116	94	96	128	129	1,904	4,370
95-99	14	57	112	120	137	52	40	47	63	38	41	721	3,915
100 & Over	7	24	30	29	17	11	10	5	10	7	5	155	3,040
Total Count	84	268	517	839	1,889	2,282	3,158	2,824	2,098	1,112	1,103	16,174	
Avg Monthly Benefit	\$ 1,985	\$ 2,634	\$ 2,558	\$ 3,177	\$ 4,672	\$ 4,935	\$ 6,757	\$ 6,893	\$ 6,757	\$ 5,190	\$ 4,495		\$ 5,605

Exhibit C-5b
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
General Plan B

Age	Retirement Year											Total Count	Average Monthly Benefit	
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24			
Under 35	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50-54	-	-	-	-	-	-	-	-	-	1	-	1	1	2,964
55-59	-	-	-	-	-	-	-	-	-	-	1	1	1	3,385
60-64	-	-	-	-	-	-	-	1	1	1	2	5	5	3,812
65-69	-	-	-	-	1	1	-	14	17	41	10	84	84	5,905
70-74	-	-	-	1	2	1	11	25	84	51	9	184	184	6,825
75-79	-	-	2	4	3	11	22	52	57	14	7	172	172	5,419
80-84	-	-	1	4	5	12	33	23	16	5	6	105	105	4,539
85-89	-	-	1	-	5	15	22	12	8	2	5	70	70	4,512
90-94	-	-	-	2	7	13	2	6	2	2	1	35	35	3,315
95-99	-	-	1	2	5	1	3	1	-	2	-	15	15	2,079
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	5	13	28	54	93	134	185	119	41	672		
Avg Monthly Benefit	\$ -	\$ -	\$ 1,685	\$ 1,606	\$ 1,941	\$ 2,670	\$ 3,845	\$ 5,110	\$ 6,812	\$ 7,348	\$ 5,958			\$ 5,430

Exhibit C-5c
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
General Plan C

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	-	-	1	1	2	\$ 2,708
35-39	-	-	-	-	-	-	-	-	-	1	-	1	5,415
40-44	-	-	-	-	-	-	-	-	-	-	1	1	1,393
45-49	-	-	-	-	-	-	-	-	2	-	-	2	1,596
50-54	-	-	-	-	-	-	-	-	1	-	-	1	1,757
55-59	-	-	-	-	-	-	-	-	-	1	1	2	1,298
60-64	-	-	-	-	-	-	1	-	1	2	2	6	4,597
65-69	-	-	1	2	-	1	-	3	11	33	19	70	5,745
70-74	-	1	2	3	2	3	10	15	40	36	6	118	6,113
75-79	-	-	2	2	1	5	14	21	40	16	3	104	5,208
80-84	-	-	-	2	8	8	12	24	10	3	2	69	3,079
85-89	-	-	-	6	6	9	15	4	4	2	2	48	3,160
90-94	-	-	-	1	4	7	5	4	3	1	-	25	2,340
95-99	-	-	-	-	6	2	-	1	1	2	-	12	2,009
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	1	5	16	27	35	57	72	113	98	37	461	
Avg Monthly Benefit	\$ -	\$ 2,116	\$ 1,739	\$ 1,093	\$ 1,537	\$ 2,348	\$ 2,991	\$ 3,650	\$ 6,222	\$ 6,622	\$ 5,996		\$ 4,684

Exhibit C-5d
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
General Plan D

Age	Retirement Year										Total Count	Average Monthly Benefit	
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19			2020-24
Under 35	-	-	-	-	-	-	2	1	7	27	34	71	\$ 926
35-39	-	-	-	-	-	-	1	-	1	19	25	46	1,826
40-44	-	-	-	-	-	-	1	2	6	32	55	96	2,096
45-49	-	-	-	-	-	1	1	6	32	47	81	168	2,595
50-54	-	-	-	-	1	3	14	15	37	80	479	629	2,460
55-59	-	-	-	-	3	5	27	38	84	490	1,096	1,743	3,308
60-64	-	-	-	-	8	33	45	57	411	969	2,257	3,780	4,579
65-69	-	-	2	7	22	37	62	327	666	1,791	2,949	5,863	4,932
70-74	-	1	3	11	24	43	200	441	1,116	2,309	1,293	5,441	4,484
75-79	-	-	2	12	26	134	240	575	1,319	1,016	467	3,791	3,977
80-84	-	-	1	8	37	114	264	574	535	275	151	1,959	3,539
85-89	-	-	3	9	35	87	250	223	144	90	62	903	2,934
90-94	-	-	1	5	20	67	71	53	23	29	19	288	2,663
95-99	-	-	-	2	8	21	8	12	7	3	4	65	2,106
100 & Over	-	-	-	1	4	-	-	-	-	2	-	7	1,207
Total Count	-	1	12	55	188	545	1,186	2,324	4,388	7,179	8,972	24,850	
Avg Monthly Benefit	\$ -	\$ 3,296	\$ 2,205	\$ 1,808	\$ 1,972	\$ 2,197	\$ 2,558	\$ 3,007	\$ 3,845	\$ 4,344	\$ 4,962		\$ 4,197

Exhibit C-5e
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
General Plan E

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	-	-	14	16	30	\$ 812
35-39	-	-	-	-	-	1	-	3	2	5	15	26	831
40-44	-	-	-	-	-	-	-	2	5	10	11	28	1,201
45-49	-	-	-	-	-	1	-	1	6	21	17	46	1,262
50-54	-	-	-	-	-	-	-	3	11	18	31	63	1,250
55-59	-	-	-	-	-	-	2	7	15	33	320	377	1,210
60-64	-	-	-	-	-	-	2	3	21	405	734	1,165	2,113
65-69	-	-	-	-	-	-	2	9	480	752	2,232	3,475	3,464
70-74	-	-	-	-	-	4	8	542	765	2,317	1,080	4,716	3,186
75-79	-	-	-	-	-	8	367	609	1,631	860	493	3,968	2,777
80-84	-	-	-	-	2	193	272	776	550	280	202	2,275	2,393
85-89	-	-	-	-	55	114	302	203	128	103	75	980	1,785
90-94	-	-	-	13	41	93	75	43	32	35	19	351	1,477
95-99	-	-	-	-	17	16	10	3	6	5	4	61	1,151
100 & Over	-	-	1	1	2	2	1	-	1	-	-	8	576
Total Count	-	-	1	14	117	432	1,041	2,204	3,653	4,858	5,249	17,569	
Avg Monthly Benefit	\$ -	\$ -	\$ 81	\$ 261	\$ 530	\$ 780	\$ 1,243	\$ 1,703	\$ 2,666	\$ 3,139	\$ 3,537		\$ 2,789

Exhibit C-5f
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
General Plan G

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	-	-	-	8	8	\$ 1,372
35-39	-	-	-	-	-	-	-	-	-	2	9	11	2,184
40-44	-	-	-	-	-	-	-	-	-	1	5	6	1,979
45-49	-	-	-	-	-	-	-	-	-	2	5	7	1,730
50-54	-	-	-	-	-	-	-	-	-	2	20	22	1,381
55-59	-	-	-	-	-	-	-	-	-	4	35	39	1,109
60-64	-	-	-	-	-	-	-	1	-	6	72	79	1,103
65-69	-	-	-	-	-	-	-	-	-	13	123	136	1,335
70-74	-	-	-	-	-	-	-	-	-	13	73	86	1,412
75-79	-	-	-	-	-	-	-	-	-	10	24	34	2,007
80-84	-	-	-	-	-	-	-	-	-	2	4	6	3,486
85-89	-	-	-	-	-	-	-	-	-	1	1	2	1,306
90-94	-	-	-	-	-	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	-	-	-	-	-	1	56	379	436	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,027	\$ 1,789	\$ 1,354		\$ 1,409

Exhibit C-5g
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
Safety Plan A

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	-	-	2	1	1	4	\$ -
35-39	-	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	1	1	272
45-49	-	-	-	-	-	-	-	-	1	1	-	2	7,452
50-54	-	-	-	-	-	-	-	-	-	1	1	2	11,204
55-59	-	-	-	-	-	1	3	-	2	-	3	9	7,825
60-64	-	-	-	-	2	-	2	-	6	9	5	24	7,111
65-69	-	1	3	2	3	5	7	8	87	19	27	162	11,148
70-74	-	7	27	31	33	61	72	387	144	61	83	906	10,378
75-79	5	53	102	72	90	144	747	317	54	86	115	1,785	9,557
80-84	11	55	80	88	134	526	351	37	53	86	114	1,535	8,965
85-89	14	27	52	73	237	144	26	37	45	60	87	802	8,014
90-94	18	17	39	81	64	11	18	25	37	41	42	393	7,262
95-99	2	9	21	8	1	1	8	9	13	9	6	87	6,223
100 & Over	-	2	1	-	2	-	1	-	1	2	1	10	6,387
Total Count	50	171	325	355	566	893	1,235	820	445	376	486	5,722	
Avg Monthly Benefit	\$ 3,595	\$ 4,182	\$ 4,492	\$ 5,934	\$ 8,127	\$ 9,392	\$ 11,064	\$ 11,568	\$ 10,519	\$ 8,170	\$ 7,907		\$ 9,122

Exhibit C-5h
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
Safety Plan B

Age	Retirement Year											Total Count	Average Monthly Benefit
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-24		
Under 35	-	-	-	-	-	-	2	2	-	5	11	20	\$ 1,776
35-39	-	-	-	-	-	-	1	-	1	15	25	42	4,487
40-44	-	-	-	-	-	-	-	1	8	40	51	100	4,656
45-49	-	-	-	-	-	-	2	13	28	70	96	209	4,949
50-54	-	-	-	-	-	3	44	51	49	78	265	490	5,859
55-59	-	-	-	-	20	77	94	69	90	302	1,410	2,062	10,322
60-64	-	-	-	10	63	116	105	95	205	1,327	668	2,589	10,186
65-69	-	-	9	33	84	80	94	152	869	663	141	2,125	9,533
70-74	-	-	8	25	37	33	59	262	318	88	39	869	8,709
75-79	-	-	8	11	15	25	52	107	39	20	5	282	6,405
80-84	-	-	-	-	5	3	18	4	6	2	3	41	4,878
85-89	-	-	-	-	2	-	1	-	1	1	-	5	4,354
90-94	-	-	-	-	1	-	1	1	1	1	-	5	1,836
95-99	-	-	-	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	25	79	227	337	473	757	1,615	2,612	2,714	8,839	
Avg Monthly Benefit	\$ -	\$ -	\$ 2,829	\$ 3,026	\$ 3,807	\$ 4,158	\$ 4,582	\$ 6,851	\$ 9,223	\$ 10,231	\$ 11,263		\$ 9,290

Exhibit C-5i
Distribution of Retired Members and Beneficiaries by Age and Retirement Year
as of June 30, 2024
Safety Plan C

Age	Retirement Year										Total Count	Average Monthly Benefit	
	Pre-1975	1975-79	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19			2020-24
Under 35	-	-	-	-	-	-	-	-	-	1	8	9	\$ 3,503
35-39	-	-	-	-	-	-	-	-	-	1	5	6	2,755
40-44	-	-	-	-	-	-	-	-	-	-	3	3	4,032
45-49	-	-	-	-	-	-	-	-	-	1	1	2	3,769
50-54	-	-	-	-	-	-	-	-	-	-	4	4	2,421
55-59	-	-	-	-	-	-	-	-	-	-	3	3	2,329
60-64	-	-	-	-	-	-	-	-	-	3	9	12	2,819
65-69	-	-	-	-	-	-	-	-	-	-	3	3	2,140
70-74	-	-	-	-	-	-	-	-	-	1	-	1	26,602
75-79	-	-	-	-	-	-	-	-	1	-	-	1	20,537
80-84	-	-	-	-	-	-	-	-	-	-	-	-	-
85-89	-	-	-	-	-	-	-	-	-	-	-	-	-
90-94	-	-	-	-	-	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	-	-	-	-	-	1	7	36	44	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,537	\$ 5,737	\$ 3,085		\$ 3,903

Appendix D Member Contribution Rates

This section illustrates the member normal contribution rates and the normal plus cost-of-living contribution rates by entry age.

Exhibit D-1
Normal Member Contribution Rates

Entry Age	General					Safety		
	Plan A	Plan B	Plan C	Plan D	Plan G	Plan A	Plan B	Plan C
16	2.78%	5.57%	4.77%	4.77%	7.53%	4.47%	8.94%	11.78%
17	2.84%	5.68%	4.86%	4.86%	7.53%	4.47%	8.94%	11.78%
18	2.90%	5.79%	4.96%	4.96%	7.53%	4.47%	8.94%	11.78%
19	2.95%	5.91%	5.06%	5.06%	7.53%	4.55%	9.09%	11.78%
20	3.01%	6.03%	5.16%	5.16%	7.53%	4.58%	9.16%	11.78%
21	3.07%	6.15%	5.27%	5.27%	7.53%	4.61%	9.22%	11.78%
22	3.13%	6.27%	5.37%	5.37%	7.53%	4.69%	9.38%	11.78%
23	3.20%	6.39%	5.48%	5.48%	7.53%	4.77%	9.54%	11.78%
24	3.26%	6.52%	5.59%	5.59%	7.53%	4.85%	9.70%	11.78%
25	3.33%	6.65%	5.70%	5.70%	7.53%	4.89%	9.77%	11.78%
26	3.39%	6.79%	5.82%	5.82%	7.53%	4.92%	9.84%	11.78%
27	3.46%	6.92%	5.93%	5.93%	7.53%	5.00%	10.01%	11.78%
28	3.53%	7.06%	6.05%	6.05%	7.53%	5.09%	10.18%	11.78%
29	3.60%	7.21%	6.17%	6.17%	7.53%	5.18%	10.36%	11.78%
30	3.68%	7.35%	6.30%	6.30%	7.53%	5.23%	10.47%	11.78%
31	3.75%	7.50%	6.42%	6.42%	7.53%	5.29%	10.58%	11.78%
32	3.83%	7.66%	6.55%	6.55%	7.53%	5.38%	10.77%	11.78%
33	3.91%	7.81%	6.69%	6.69%	7.53%	5.48%	10.96%	11.78%
34	3.98%	7.96%	6.82%	6.82%	7.53%	5.58%	11.16%	11.78%
35	4.06%	8.12%	6.96%	6.96%	7.53%	5.69%	11.37%	11.78%
36	4.14%	8.28%	7.10%	7.10%	7.53%	5.79%	11.59%	11.78%
37	4.22%	8.43%	7.25%	7.25%	7.53%	5.90%	11.80%	11.78%
38	4.30%	8.59%	7.39%	7.39%	7.53%	6.01%	12.02%	11.78%
39	4.38%	8.75%	7.54%	7.54%	7.53%	6.12%	12.24%	11.78%
40	4.46%	8.91%	7.69%	7.69%	7.53%	6.23%	12.47%	11.78%
41	4.54%	9.08%	7.83%	7.83%	7.53%	6.35%	12.69%	11.78%
42	4.62%	9.24%	7.98%	7.98%	7.53%	6.45%	12.90%	11.78%
43	4.70%	9.41%	8.13%	8.13%	7.53%	6.55%	13.10%	11.78%
44	4.78%	9.57%	8.28%	8.28%	7.53%	6.64%	13.28%	11.78%
45	4.86%	9.73%	8.44%	8.44%	7.53%	6.70%	13.40%	11.78%
46	4.94%	9.88%	8.59%	8.59%	7.53%	6.70%	13.41%	11.78%
47	5.01%	10.03%	8.75%	8.75%	7.53%	6.70%	13.41%	11.78%
48	5.07%	10.15%	8.91%	8.91%	7.53%	6.70%	13.41%	11.78%
49	5.12%	10.24%	9.06%	9.06%	7.53%	6.70%	13.41%	11.78%
50	5.15%	10.29%	9.21%	9.21%	7.53%	6.70%	13.41%	11.78%
51	5.16%	10.32%	9.36%	9.36%	7.53%	6.70%	13.41%	11.78%
52	5.16%	10.32%	9.49%	9.49%	7.53%	6.70%	13.41%	11.78%
53	5.16%	10.32%	9.61%	9.61%	7.53%	6.70%	13.41%	11.78%
54	5.16%	10.32%	9.69%	9.69%	7.53%	6.70%	13.41%	11.78%
55	5.16%	10.32%	9.74%	9.74%	7.53%	6.70%	13.41%	11.78%
56	5.16%	10.32%	9.76%	9.76%	7.53%	6.70%	13.41%	11.78%
57	5.16%	10.32%	9.76%	9.76%	7.53%	6.70%	13.41%	11.78%
58	5.16%	10.32%	9.76%	9.76%	7.53%	6.70%	13.41%	11.78%
59	5.16%	10.32%	9.76%	9.76%	7.53%	6.70%	13.41%	11.78%
60	5.16%	10.32%	9.76%	9.76%	7.53%	6.70%	13.41%	11.78%

Exhibit D-2
Normal Plus Cost-of-Living Member Contribution Rates

Entry Age	General					Safety		
	Plan A	Plan B	Plan C	Plan D	Plan G	Plan A	Plan B	Plan C
16	5.06%	7.02%	6.02%	6.04%	9.30%	8.37%	11.93%	15.14%
17	5.17%	7.16%	6.13%	6.15%	9.30%	8.37%	11.93%	15.14%
18	5.28%	7.30%	6.26%	6.28%	9.30%	8.37%	11.93%	15.14%
19	5.37%	7.45%	6.39%	6.41%	9.30%	8.52%	12.13%	15.14%
20	5.48%	7.60%	6.51%	6.53%	9.30%	8.57%	12.22%	15.14%
21	5.59%	7.76%	6.65%	6.67%	9.30%	8.63%	12.30%	15.14%
22	5.70%	7.91%	6.78%	6.80%	9.30%	8.78%	12.52%	15.14%
23	5.83%	8.06%	6.92%	6.94%	9.30%	8.93%	12.73%	15.14%
24	5.94%	8.22%	7.05%	7.08%	9.30%	9.08%	12.94%	15.14%
25	6.06%	8.39%	7.19%	7.22%	9.30%	9.15%	13.04%	15.14%
26	6.17%	8.56%	7.34%	7.37%	9.30%	9.21%	13.13%	15.14%
27	6.30%	8.73%	7.48%	7.51%	9.30%	9.36%	13.36%	15.14%
28	6.43%	8.90%	7.63%	7.66%	9.30%	9.53%	13.58%	15.14%
29	6.55%	9.09%	7.79%	7.81%	9.30%	9.69%	13.82%	15.14%
30	6.70%	9.27%	7.95%	7.98%	9.30%	9.79%	13.97%	15.14%
31	6.83%	9.46%	8.10%	8.13%	9.30%	9.90%	14.12%	15.14%
32	6.97%	9.66%	8.27%	8.29%	9.30%	10.07%	14.37%	15.14%
33	7.12%	9.85%	8.44%	8.47%	9.30%	10.26%	14.62%	15.14%
34	7.25%	10.04%	8.61%	8.63%	9.30%	10.44%	14.89%	15.14%
35	7.39%	10.24%	8.78%	8.81%	9.30%	10.65%	15.17%	15.14%
36	7.54%	10.44%	8.96%	8.99%	9.30%	10.84%	15.46%	15.14%
37	7.68%	10.63%	9.15%	9.18%	9.30%	11.04%	15.74%	15.14%
38	7.83%	10.83%	9.33%	9.36%	9.30%	11.25%	16.04%	15.14%
39	7.98%	11.03%	9.51%	9.54%	9.30%	11.45%	16.33%	15.14%
40	8.12%	11.24%	9.70%	9.73%	9.30%	11.66%	16.64%	15.14%
41	8.27%	11.45%	9.88%	9.91%	9.30%	11.88%	16.93%	15.14%
42	8.41%	11.65%	10.07%	10.10%	9.30%	12.07%	17.21%	15.14%
43	8.56%	11.87%	10.26%	10.29%	9.30%	12.26%	17.48%	15.14%
44	8.70%	12.07%	10.45%	10.48%	9.30%	12.43%	17.72%	15.14%
45	8.85%	12.27%	10.65%	10.68%	9.30%	12.54%	17.88%	15.14%
46	8.99%	12.46%	10.84%	10.87%	9.30%	12.54%	17.89%	15.14%
47	9.12%	12.65%	11.04%	11.08%	9.30%	12.54%	17.89%	15.14%
48	9.23%	12.80%	11.24%	11.28%	9.30%	12.54%	17.89%	15.14%
49	9.32%	12.91%	11.43%	11.47%	9.30%	12.54%	17.89%	15.14%
50	9.38%	12.98%	11.62%	11.66%	9.30%	12.54%	17.89%	15.14%
51	9.40%	13.01%	11.81%	11.85%	9.30%	12.54%	17.89%	15.14%
52	9.40%	13.01%	11.98%	12.01%	9.30%	12.54%	17.89%	15.14%
53	9.40%	13.01%	12.13%	12.17%	9.30%	12.54%	17.89%	15.14%
54	9.40%	13.01%	12.23%	12.27%	9.30%	12.54%	17.89%	15.14%
55	9.40%	13.01%	12.29%	12.33%	9.30%	12.54%	17.89%	15.14%
56	9.40%	13.01%	12.32%	12.36%	9.30%	12.54%	17.89%	15.14%
57	9.40%	13.01%	12.32%	12.36%	9.30%	12.54%	17.89%	15.14%
58	9.40%	13.01%	12.32%	12.36%	9.30%	12.54%	17.89%	15.14%
59	9.40%	13.01%	12.32%	12.36%	9.30%	12.54%	17.89%	15.14%
60	9.40%	13.01%	12.32%	12.36%	9.30%	12.54%	17.89%	15.14%

Appendix E Historical Information

This section presents historical statistical information on LACERA's membership and the calculated contribution rates.

**Exhibit E-1
 Active Membership Data**

General Members						Safety Members					Total Members				
Valuation Date (June 30)	Annual Salary (in millions)	Average Age	Average Service	Average Monthly Salary	Number	Annual Salary (in millions)	Average Age	Average Service	Average Monthly Salary	Number	Annual Salary (in millions)	Average Age	Average Service	Average Monthly Salary	
1998	\$ 2,837	44.7	12.9	\$ 3,594	65,782	\$ 725	39.9	13.8	\$ 5,519	10,947	\$ 3,562	44.0	13.0	\$ 3,870	
1999	\$ 3,105	44.6	12.7	\$ 3,769	68,652	\$ 753	40.0	13.7	\$ 5,696	11,024	\$ 3,858	43.9	12.8	\$ 4,035	
2000	\$ 3,353	44.4	12.5	\$ 3,884	71,940	\$ 790	39.8	13.8	\$ 5,849	11,264	\$ 4,143	43.8	12.6	\$ 4,150	
2001	\$ 3,608	44.5	12.3	\$ 4,006	75,048	\$ 860	39.6	13.0	\$ 5,967	12,021	\$ 4,468	43.9	12.4	\$ 4,277	
2002	\$ 3,833	44.7	12.3	\$ 4,145	77,062	\$ 894	39.6	13.8	\$ 6,115	12,190	\$ 4,727	44.0	12.5	\$ 4,414	
2003	\$ 3,954	45.2	12.7	\$ 4,336	75,995	\$ 899	40.1	13.7	\$ 6,370	11,765	\$ 4,853	44.5	12.9	\$ 4,609	
2004	\$ 3,967	45.6	13.1	\$ 4,418	74,826	\$ 885	40.6	14.7	\$ 6,467	11,409	\$ 4,852	44.9	13.3	\$ 4,689	
2005	\$ 4,046	45.8	13.2	\$ 4,486	75,167	\$ 905	41.0	14.9	\$ 6,722	11,217	\$ 4,951	45.2	13.4	\$ 4,777	
2006	\$ 4,267	45.7	13.0	\$ 4,608	77,167	\$ 969	41.2	15.0	\$ 7,047	11,464	\$ 5,236	45.1	13.3	\$ 4,924	
2007	\$ 4,673	45.7	12.8	\$ 4,878	79,829	\$ 1,104	40.8	14.4	\$ 7,499	12,267	\$ 5,777	45.1	13.0	\$ 5,227	
2008	\$ 5,017	45.8	12.8	\$ 5,119	81,664	\$ 1,187	40.5	13.7	\$ 7,714	12,828	\$ 6,204	45.1	12.9	\$ 5,471	
2009	\$ 5,348	46.1	13.1	\$ 5,377	82,878	\$ 1,240	40.8	14.0	\$ 8,002	12,910	\$ 6,588	45.4	13.2	\$ 5,731	
2010	\$ 5,318	46.6	13.6	\$ 5,444	81,413	\$ 1,257	41.3	14.5	\$ 8,062	12,997	\$ 6,575	45.9	13.7	\$ 5,804	
2011	\$ 5,295	47.0	14.0	\$ 5,506	80,145	\$ 1,240	41.9	15.1	\$ 8,172	12,641	\$ 6,535	46.3	14.2	\$ 5,869	
2012	\$ 5,272	47.3	14.4	\$ 5,528	79,467	\$ 1,230	42.3	15.5	\$ 8,209	12,485	\$ 6,502	46.7	14.6	\$ 5,892	
2013	\$ 5,253	47.6	14.8	\$ 5,541	79,006	\$ 1,235	42.3	15.7	\$ 8,207	12,539	\$ 6,488	46.9	14.9	\$ 5,906	
2014	\$ 5,488	47.6	14.9	\$ 5,720	79,943	\$ 1,253	42.6	15.8	\$ 8,337	12,523	\$ 6,741	47.0	15.0	\$ 6,075	
2015	\$ 5,706	47.6	14.8	\$ 5,854	81,228	\$ 1,300	42.8	16.0	\$ 8,702	12,446	\$ 7,006	46.9	15.0	\$ 6,233	
2016	\$ 5,950	47.4	14.6	\$ 5,980	82,916	\$ 1,343	42.8	16.0	\$ 8,931	12,528	\$ 7,293	46.8	14.8	\$ 6,367	
2017	\$ 6,290	47.3	14.5	\$ 6,202	84,513	\$ 1,388	42.5	15.6	\$ 9,110	12,698	\$ 7,678	46.7	14.6	\$ 6,582	
2018	\$ 6,610	47.2	14.4	\$ 6,428	85,703	\$ 1,452	42.2	15.3	\$ 9,471	12,771	\$ 8,062	46.6	14.5	\$ 6,822	
2019	\$ 6,816	47.3	14.4	\$ 6,574	86,392	\$ 1,540	42.0	15.1	\$ 10,032	12,794	\$ 8,356	46.6	14.5	\$ 7,020	
2020	\$ 7,186	47.3	14.4	\$ 6,889	86,930	\$ 1,591	41.4	14.4	\$ 10,058	13,178	\$ 8,777	46.5	14.4	\$ 7,306	
2021	\$ 7,438	47.5	14.6	\$ 7,210	85,963	\$ 1,651	41.4	14.2	\$ 10,471	13,138	\$ 9,088	46.7	14.5	\$ 7,642	
2022	\$ 7,335	47.6	14.7	\$ 7,304	83,689	\$ 1,627	41.6	14.3	\$ 10,551	12,850	\$ 8,962	46.8	14.7	\$ 7,736	
2023	\$ 7,843	47.6	14.6	\$ 7,753	84,295	\$ 1,683	41.7	14.3	\$ 11,125	12,610	\$ 9,526	46.9	14.6	\$ 8,192	
2024	\$ 8,413	47.4	14.3	\$ 8,127	86,273	\$ 1,718	41.8	14.4	\$ 11,533	12,410	\$ 10,131	46.7	14.3	\$ 8,555	

Exhibit E-2
Retired Membership Data

General Members					Safety Members				Total Members			
Valuation Date (June 30)	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit	Number	Annual Allowance (in millions)	Average Age	Average Monthly Benefit
1998	35,462	\$ 692	71.1	\$ 1,626	7,425	\$ 267	62.5	\$ 3,001	42,887	\$ 959	69.6	\$ 1,864
1999	35,837	\$ 725	71.4	\$ 1,686	7,674	\$ 291	63.1	\$ 3,166	43,511	\$ 1,016	70.0	\$ 1,947
2000	36,596	\$ 780	71.4	\$ 1,778	8,032	\$ 324	63.1	\$ 3,358	44,628	\$ 1,104	69.9	\$ 2,062
2001	37,077	\$ 890	71.6	\$ 2,001	8,319	\$ 382	63.4	\$ 3,828	45,396	\$ 1,272	70.1	\$ 2,336
2002	37,618	\$ 914	71.8	\$ 2,025	8,624	\$ 403	63.7	\$ 3,892	46,242	\$ 1,317	70.3	\$ 2,374
2003	38,283	\$ 984	71.9	\$ 2,142	8,949	\$ 443	63.9	\$ 4,128	47,232	\$ 1,427	70.4	\$ 2,518
2004	39,097	\$ 1,056	72.0	\$ 2,250	9,235	\$ 478	64.2	\$ 4,318	48,332	\$ 1,534	70.5	\$ 2,645
2005	40,251	\$ 1,138	72.1	\$ 2,355	9,518	\$ 514	64.6	\$ 4,504	49,769	\$ 1,652	70.7	\$ 2,766
2006	41,309	\$ 1,224	72.2	\$ 2,469	9,683	\$ 549	65.0	\$ 4,728	50,992	\$ 1,773	70.8	\$ 2,898
2007	41,584	\$ 1,280	72.2	\$ 2,565	9,808	\$ 578	65.4	\$ 4,914	51,392	\$ 1,858	70.9	\$ 3,013
2008	42,298	\$ 1,356	72.4	\$ 2,671	10,052	\$ 623	65.8	\$ 5,167	52,350	\$ 1,979	71.1	\$ 3,150
2009	42,825	\$ 1,423	72.6	\$ 2,768	10,244	\$ 663	66.3	\$ 5,394	53,069	\$ 2,086	71.4	\$ 3,275
2010	43,752	\$ 1,514	72.7	\$ 2,883	10,444	\$ 706	66.7	\$ 5,638	54,196	\$ 2,220	71.6	\$ 3,414
2011	44,726	\$ 1,597	72.9	\$ 2,976	10,645	\$ 746	67.0	\$ 5,836	55,371	\$ 2,343	71.7	\$ 3,526
2012	45,899	\$ 1,686	73.0	\$ 3,061	10,871	\$ 789	67.3	\$ 6,049	56,770	\$ 2,475	71.9	\$ 3,633
2013	46,939	\$ 1,774	73.2	\$ 3,149	11,147	\$ 837	67.5	\$ 6,261	58,086	\$ 2,611	72.1	\$ 3,746
2014	47,867	\$ 1,836	73.4	\$ 3,196	11,362	\$ 876	67.8	\$ 6,427	59,229	\$ 2,712	72.3	\$ 3,816
2015	48,958	\$ 1,898	73.5	\$ 3,231	11,648	\$ 914	68.0	\$ 6,541	60,606	\$ 2,813	72.5	\$ 3,867
2016	50,034	\$ 1,988	73.6	\$ 3,311	11,880	\$ 965	68.3	\$ 6,766	61,914	\$ 2,952	72.6	\$ 3,974
2017	51,083	\$ 2,079	73.8	\$ 3,391	12,241	\$ 1,030	68.4	\$ 7,012	63,324	\$ 3,109	72.7	\$ 4,091
2018	52,292	\$ 2,192	73.9	\$ 3,493	12,588	\$ 1,104	68.5	\$ 7,308	64,880	\$ 3,296	72.8	\$ 4,233
2019	53,560	\$ 2,316	73.9	\$ 3,603	12,947	\$ 1,184	68.6	\$ 7,620	66,507	\$ 3,500	72.9	\$ 4,385
2020	54,693	\$ 2,436	74.0	\$ 3,712	13,319	\$ 1,270	68.8	\$ 7,946	68,012	\$ 3,706	73.0	\$ 4,541
2021	55,828	\$ 2,552	74.1	\$ 3,809	13,669	\$ 1,350	68.8	\$ 8,228	69,497	\$ 3,902	73.0	\$ 4,679
2022	57,606	\$ 2,716	74.0	\$ 3,928	13,965	\$ 1,434	68.9	\$ 8,560	71,571	\$ 4,150	73.0	\$ 4,832
2023	58,745	\$ 2,848	74.1	\$ 4,040	14,263	\$ 1,520	69.0	\$ 8,883	73,008	\$ 4,368	73.1	\$ 4,986
2024	60,162	\$ 3,005	74.2	\$ 4,162	14,605	\$ 1,614	69.1	\$ 9,208	74,767	\$ 4,618	73.2	\$ 5,147

**Exhibit E-3
 Contribution Rates**

Valuation Date (June 30)	General Plans				Safety Plans					Total All Plans					
	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution	Calculated Normal Cost	Member Contributions	Net Employer Normal Cost	UAAL Rate	Total Employer Contribution
1998	10.27%	3.06%	7.21%	0.00%	7.21%	25.00%	8.70%	16.30%	0.00%	16.30%	13.27%	4.21%	9.06%	0.00%	9.06%
1999	10.98%	3.20%	7.78%	0.00%	7.78%	25.41%	9.12%	16.29%	0.00%	16.29%	13.81%	4.36%	9.45%	0.00%	9.45%
2000	10.91%	3.33%	7.58%	0.00%	7.58%	25.22%	9.44%	15.78%	0.00%	15.78%	13.66%	4.51%	9.15%	0.00%	9.15%
2001	11.27%	3.45%	7.82%	0.00%	7.82%	25.47%	9.27%	16.20%	0.00%	16.20%	14.01%	4.57%	9.44%	0.00%	9.44%
2002	12.04%	3.53%	8.51%	0.21%	8.72%	25.92%	9.37%	16.55%	0.21%	16.76%	14.66%	4.63%	10.03%	0.21%	10.24%
2003	12.25%	3.72%	8.53%	4.66%	13.19%	25.89%	9.55%	16.34%	4.66%	21.00%	14.80%	4.81%	9.99%	4.66%	14.65%
2004	12.20%	3.82%	8.38%	6.41%	14.79%	24.61%	9.61%	15.00%	6.41%	21.41%	14.48%	4.88%	9.60%	6.41%	16.01%
2005	12.22%	3.91%	8.31%	5.33%	13.64%	24.69%	9.68%	15.01%	5.33%	20.34%	14.50%	4.97%	9.53%	5.33%	14.86%
2006	12.22%	4.07%	8.15%	3.49%	11.64%	24.70%	9.70%	15.00%	3.49%	18.49%	14.54%	5.12%	9.42%	3.49%	12.91%
2007	13.15%	4.38%	8.77%	2.24%	11.01%	26.04%	10.18%	15.86%	2.24%	18.10%	15.67%	5.51%	10.16%	2.24%	12.40%
2008	13.18%	4.47%	8.71%	1.99%	10.70%	26.01%	10.22%	15.79%	1.99%	17.78%	15.68%	5.59%	10.09%	1.99%	12.08%
2009	13.29%	4.57%	8.72%	4.12%	12.84%	26.08%	10.21%	15.87%	4.12%	19.99%	15.75%	5.65%	10.10%	4.12%	14.22%
2010	13.32%	4.68%	8.64%	6.47%	15.11%	25.00%	10.19%	14.81%	6.47%	21.28%	15.59%	5.75%	9.84%	6.47%	16.31%
2011	13.36%	4.91%	8.45%	7.89%	16.34%	25.09%	10.50%	14.59%	7.89%	22.48%	15.65%	6.00%	9.65%	7.89%	17.54%
2012	13.50%	5.01%	8.49%	10.09%	18.58%	25.42%	10.52%	14.90%	10.09%	24.99%	15.81%	6.08%	9.73%	10.09%	19.82%
2013	13.25%	5.01%	8.24%	11.90%	20.14%	24.67%	10.26%	14.41%	11.90%	26.31%	15.47%	6.03%	9.44%	11.90%	21.34%
2014	13.14%	5.09%	8.05%	10.04%	18.09%	24.71%	10.23%	14.48%	10.04%	24.52%	15.37%	6.08%	9.29%	10.04%	19.33%
2015	13.28%	5.22%	8.06%	8.49%	16.55%	24.71%	10.26%	14.45%	8.49%	22.94%	15.46%	6.18%	9.28%	8.49%	17.77%
2016	14.51%	5.72%	8.79%	9.73%	18.52%	25.54%	10.57%	14.97%	9.73%	24.70%	16.62%	6.65%	9.97%	9.73%	19.70%
2017	14.62%	5.87%	8.75%	10.10%	18.85%	25.69%	10.56%	15.13%	10.10%	25.23%	16.70%	6.76%	9.94%	10.10%	20.04%
2018	14.77%	6.04%	8.73%	10.99%	19.72%	25.70%	10.59%	15.11%	10.99%	26.10%	16.80%	6.88%	9.92%	10.99%	20.91%
2019	16.24%	6.74%	9.50%	11.73%	21.23%	28.58%	11.78%	16.80%	11.73%	28.53%	18.54%	7.68%	10.86%	11.73%	22.59%
2020	16.31%	6.86%	9.45%	13.75%	23.20%	28.95%	11.88%	17.07%	13.75%	30.82%	18.69%	7.80%	10.89%	13.75%	24.64%
2021	16.35%	6.94%	9.41%	13.58%	22.99%	29.09%	11.88%	17.21%	13.58%	30.79%	18.75%	7.87%	10.88%	13.58%	24.46%
2022	16.85%	7.23%	9.62%	14.72%	24.34%	29.97%	12.45%	17.52%	14.72%	32.24%	19.33%	8.21%	11.12%	14.72%	25.84%
2023	16.95%	7.37%	9.58%	14.87%	24.45%	30.14%	12.84%	17.30%	14.87%	32.17%	19.38%	8.37%	11.01%	14.87%	25.88%
2024	17.00%	7.49%	9.51%	14.73%	24.24%	30.25%	13.02%	17.23%	14.73%	31.96%	19.34%	8.46%	10.88%	14.73%	25.61%

Exhibit E-4
Funded Status History

Dollars in Millions

Valuation Year	Actuarial Accrued Liability (AAL)	Fair Value Basis			Actuarial Value Basis			Annual Total Payroll	Asset Smoothing Ratio (AVA / FVA)	Asset Volatility Ratio (FVA / Payroll)	Liability Volatility Ratio (AAL / Payroll)
		Fair Value of Assets (FVA) ¹	Unfunded AAL (UAAL)/Surplus FVA Basis	Funded Ratio FVA Basis	Actuarial Value of Assets (AVA) ¹	Unfunded AAL (UAAL)/Surplus AVA Basis	Funded Ratio AVA Basis				
1996 ²	17,300	18,600	1,300	107.5%	17,700	400	102.3%	3,356	95.2%	5.5	5.2
1997 ²	19,300	21,100	1,800	109.3%	19,600	300	101.6%	3,373	92.9%	6.3	5.7
1998	20,960	22,332	1,372	106.5%	20,851	(109)	99.5%	3,562	93.4%	6.3	5.9
1999	22,785	24,382	1,597	107.0%	23,536	751	103.3%	3,858	96.5%	6.3	5.9
2000	24,721	27,257	2,536	110.3%	25,427	706	102.9%	4,143	93.3%	6.6	6.0
2001	26,490	23,916	(2,574)	90.3%	26,490	-	100.0%	4,469	110.8%	5.4	5.9
2002	28,437	24,085	(4,352)	84.7%	28,262	(175)	99.4%	4,730	117.3%	5.1	6.0
2003	30,474	24,616	(5,858)	80.8%	26,564	(3,910)	87.2%	4,934	107.9%	5.0	6.2
2004	32,700	28,094	(4,606)	85.9%	27,089	(5,611)	82.8%	4,942	96.4%	5.7	6.6
2005	34,375	30,904	(3,471)	89.9%	29,497	(4,878)	85.8%	5,051	95.4%	6.1	6.8
2006	36,259	34,256	(2,003)	94.5%	32,820	(3,439)	90.5%	5,333	95.8%	6.4	6.8
2007	39,503	40,073	570	101.4%	37,042	(2,461)	93.8%	5,886	92.4%	6.8	6.7
2008	41,975	37,834	(4,141)	90.1%	39,662	(2,313)	94.5%	6,257	104.8%	6.0	6.7
2009	44,469	29,723	(14,746)	66.8%	39,542	(4,927)	88.9%	6,673	133.0%	4.5	6.7
2010	46,646	32,629	(14,017)	69.9%	38,839	(7,807)	83.3%	6,739	119.0%	4.8	6.9
2011	48,599	38,587	(10,012)	79.4%	39,194	(9,405)	80.6%	6,705	101.6%	5.8	7.2
2012	50,809	37,453	(13,356)	73.7%	39,039	(11,770)	76.8%	6,675	104.2%	5.6	7.6
2013	53,247	41,334	(11,913)	77.6%	39,932	(13,315)	75.0%	6,656	96.6%	6.2	8.0
2014	54,942	47,223	(7,719)	86.0%	43,654	(11,288)	79.5%	6,815	92.4%	6.9	8.1
2015	56,819	48,308	(8,511)	85.0%	47,328	(9,491)	83.3%	7,078	98.0%	6.8	8.0
2016	62,199	47,347	(14,852)	76.1%	49,358	(12,841)	79.4%	7,390	104.2%	6.4	8.4
2017	65,311	52,217	(13,094)	80.0%	52,166	(13,145)	79.9%	7,749	99.9%	6.7	8.4
2018	68,527	55,737	(12,790)	81.3%	55,233	(13,294)	80.6%	8,079	99.1%	6.9	8.5
2019	74,635	57,712	(16,923)	77.3%	57,617	(17,018)	77.2%	8,423	99.8%	6.9	8.9
2020	78,275	57,925	(20,350)	74.0%	59,763	(18,512)	76.3%	8,819	103.2%	6.6	8.9
2021	81,898	72,282	(9,616)	88.3%	64,909	(16,989)	79.3%	9,080	89.8%	8.0	9.0
2022	86,320	68,973	(17,347)	79.9%	68,712	(17,608)	79.6%	9,048	99.6%	7.6	9.5
2023	90,651	72,502	(18,149)	80.0%	72,415	(18,236)	79.9%	9,548	99.9%	7.6	9.5
2024	94,803	77,802	(17,001)	82.1%	76,664	(18,139)	80.9%	9,996	98.5%	7.8	9.5

1. Asset values exclude non-valuation reserves.
2. Only rounded values are available.

Exhibit E-5
Reconciliation of Changes in Unfunded Actuarial Accrued Liability or Surplus

Valuation Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Prior Year UAAL	13,315	11,288	9,491	12,841	13,145	13,294	17,018	18,512	16,989	17,608	18,236
Normal Cost	1,163	1,068	1,118	1,246	1,243	1,352	1,553	1,634	1,681	1,743	1,844
Contributions	(1,824)	(1,936)	(1,902)	(1,880)	(2,116)	(2,303)	(2,459)	(2,774)	(2,959)	(3,095)	(3,370)
Interest	999	814	682	954	968	976	1,212	1,311	1,202	1,244	1,285
Changes in Assumptions/Methodology	-	-	2,922	-	-	2,528	-	-	1,364	-	-
Changes in Benefit Provisions	-	-	-	-	-	-	-	-	-	-	-
Expected Current Year UAAL	13,653	11,234	12,311	13,161	13,240	15,847	17,324	18,683	18,277	17,500	17,995
Actual Current Year UAAL	11,288	9,491	12,841	13,145	13,294	17,018	18,512	16,989	17,608	18,236	18,139
Total (Gain)/Loss on UAAL	(2,365)	(1,743)	530	(16)	54	1,171	1,188	(1,694)	(669)	736	144
Asset (Gains)/Losses	(1,664)	(1,263)	496	(421)	(411)	477	701	(2,039)	(996)	(118)	(364)
Salary Increases	(291)	79	162	277	223	486	388	484	(21)	771	488
All Other Actuarial (Gains)/Losses	(410)	(559)	(128)	128	242	208	99	(139)	348	83	20

Exhibit E-6
Reconciliation of Changes in Calculated Employer Contribution Rate

Valuation Year	Prior Year Contribution Rate	Changes in Existing Amortization Bases	Assumption/ Method Changes	Salary/Payroll Variations	Plan Amendments	Asset (Gains)/Losses	Demographic/Other (Gains)/Losses	Current Year Contribution Rate
2004	14.65%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	16.01%
2005	16.01%	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	14.86%
2006	14.86%	-0.29%	0.00%	0.02%	0.00%	-1.82%	0.14%	12.91%
2007	12.91%	-0.28%	1.34%	0.61%	0.00%	-2.14%	-0.04%	12.40%
2008	12.40%	-0.17%	0.00%	0.21%	0.00%	-0.24%	-0.12%	12.08%
2009	12.08%	-0.04%	-1.76%	0.21%	0.00%	3.91%	-0.18%	14.22%
2010	14.22%	0.00%	-0.27%	-0.10%	0.00%	2.29%	0.17%	16.31%
2011	16.31%	0.00%	0.25%	-0.14%	0.00%	1.39%	-0.27%	17.54%
2012	17.54%	0.00%	0.54%	-0.11%	0.00%	1.92%	-0.07%	19.82%
2013	19.82%	0.00%	0.82%	-0.01%	0.00%	0.74%	-0.03%	21.34%
2014	21.34%	0.00%	0.00%	-0.15%	0.00%	-1.43%	-0.43%	19.33%
2015	19.33%	0.00%	0.00%	0.04%	0.00%	-1.04%	-0.56%	17.77%
2016	17.77%	0.00%	2.87%	0.20%	0.00%	0.39%	-0.02%	21.21%
2017	21.21%	0.00%	0.00%	0.05%	0.00%	-0.32%	0.06%	21.00%
2018	21.00%	0.00%	0.00%	0.04%	0.00%	-0.30%	0.17%	20.91%
2019	20.91%	0.00%	1.10%	0.20%	0.00%	0.42%	-0.04%	22.59%
2020	22.59%	0.00%	1.09%	0.04%	0.00%	0.58%	0.34%	24.64%
2021	24.64%	0.00%	1.10%	0.39%	0.00%	-1.69%	0.02%	24.46%
2022	24.46%	0.00%	1.38%	0.49%	0.00%	-0.80%	0.31%	25.84%
2023	25.84%	0.00%	0.00%	0.26%	0.00%	-0.09%	-0.13%	25.88%
2024	25.88%	0.00%	0.00%	0.14%	0.00%	-0.26%	-0.15%	25.61%

1. Data not available.

**Exhibit E-7
 Funding Policy History**

	Description of changes, if any	Effective Date	Impact on Contribution Rate	Impact on Funded Ratio	Rationale
2009	Changed from 3-year to 5-year asset smoothing. Included STAR reserve as a valuation asset. Adopted 30-year layered amortization period.	June 30, 2009	-1.68% ¹	4.40%	See June 30, 2009 valuation report.
2010	Included STAR reserve as a valuation asset.	June 30, 2010	-0.52% ¹	1.40%	See June 30, 2010 valuation report.
2011	Included STAR reserve as a valuation asset.	June 30, 2011	-0.52% ¹	1.20%	See June 30, 2011 valuation report.
2012	Included STAR reserve as a valuation asset for 2012 and future valuations (adopted February 2013).	June 30, 2012	-0.53% ¹	1.20%	See June 30, 2012 valuation report.
2019	Adopted 20-year layered amortization period for new layers. Existing layers are set to be no greater than 22 years, so they are fully amortized no later than 2042.	June 30, 2019	0.30%	0.00%	See June 30, 2019 valuation report.
2022	Excluded STAR reserve from valuation assets.	June 30, 2022	0.46%	-0.70%	See June 30, 2022 valuation report.

1. Note that savings due to inclusion of STAR reserve as valuation asset are not cumulative from year to year.

Exhibit E-8
History of Changes in Economic Assumptions

Valuation Year	Price Inflation	Wage Inflation	Real Wage Inflation ¹	Investment Return Assumption	Real Investment Return ²	Effective Date	Change in Contribution Rate	Change in Funded Ratio
2004	3.50%	3.75%	0.25%	7.75%	4.25%	July 1, 2004	1.65%	N/A ³
2007	3.50%	4.00%	0.50%	7.75%	4.25%	July 1, 2007	0.66%	-1.3%
2011	3.45%	3.95%	0.50%	7.70%	4.25%	July 1, 2011	0.25%	-0.3%
2012	3.35%	3.85%	0.50%	7.60%	4.25%	July 1, 2012	0.54%	-0.7%
2013	3.00%	3.50%	0.50%	7.50%	4.50%	July 1, 2013	0.37%	-0.1%
2016	2.75%	3.25%	0.50%	7.25%	4.50%	July 1, 2016	1.14%	-1.4%
2019	2.75%	3.25%	0.50%	7.00%	4.25%	July 1, 2019	2.20%	-2.3%

1. Excess of assumed wage inflation over price inflation.

2. Excess of assumed investment return over price inflation.

3. Information not available.

Exhibit E-9 History of Changes in Demographic and Other Non-Economic Assumptions

	Demographic Assumption Revisions	Effective Date	Change in Contribution Rate	Change in Funded Ratio	Rationale
2004	Mortality, merit salary scale, retirement, termination, probability of refund, probability of eligible survivor revised.	July 1, 2004	-0.63%	N/A ¹	Refer to the 2004 Investigation of Experience Report.
2007	Mortality, retirement, termination, probability of refund, merit salary scale for Safety members revised.	July 1, 2007	0.68%	N/A ¹	Refer to the 2007 Investigation of Experience Report.
2010	Mortality, retirement, termination, probability of refund, assumed benefit commencement age revised.	July 1, 2010	-0.27%	-0.1%	Refer to the 2010 Investigation of Experience Report.
2013	Mortality, retirement, termination, probability of refund, merit salary scale for Safety members, probability of eligible survivor, assumption for beneficiary age, reciprocity assumption revised.	July 1, 2013	0.45%	-0.6%	Refer to the 2013 Investigation of Experience Report.
2016	Mortality, retirement, termination, probability of eligible survivor, assumed benefit commencement age, reciprocity assumption revised.	July 1, 2016	1.73%	-2.5%	Refer to the 2016 Investigation of Experience Report.
2019	Mortality, retirement, termination, probability of refund, merit salary scale, assumed benefit commencement age.	July 1, 2019	0.80%	-0.4%	2019 Investigation of Experience.
2022	Mortality, retirement, termination, probability of refund, merit salary scale, probability of eligible survivor, assumption for beneficiary age, reciprocity assumption revised.	July 1, 2022	0.92%	-0.7%	2022 Investigation of Experience.

1. Information not available.

Appendix F Glossary

The following definitions include excerpts from a list adopted by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to LACERA and include terms used exclusively by LACERA. Defined terms are capitalized throughout this Appendix.

Accrued Benefit

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disability, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Gain (Loss)

A measure of the difference between actual experience and that expected based on a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Present Value

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets

The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Amortization Payment

That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Contingency Reserve

Reserves accumulated for future earning deficiencies, investment losses, and other contingencies. Additions include investment income and other revenues; deductions include investment expense, administrative expense, interest allocated to other reserves, funding the STAR Reserve, and distributions to the Contribution Credit Reserve. Amounts are allocated to the Contingency Reserve to the extent there are positive recognized earnings to allocate. The California Government Code (Sections 31592 and 31592.2) requires the Contingency Reserve to be set at a minimum of 1.0% of the fair value of total assets.

County Contribution Credit Reserve

The accumulated balance of the County's proportionate share of excess earnings as stipulated in the Retirement System Funding Agreement between LACERA and the County. Additions include distributions from excess earning during the fiscal years ending 1994 through 1998 and related earnings. Deductions include payments, as the County authorizes, for future employer contributions due LACERA and for funding a portion of the Retiree Healthcare Program under the provisions of Internal Revenue Code 401(h).

Employer Reserve

The accumulation of employer contributions for future retirement benefit payments. Additions include contributions from employers and related earnings. Deductions include annuity payments to retired members and survivors, lump sum death benefit payments to member survivors, and supplemental disability payments.

Entry Age Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

Funded Ratio

A measurement of the funded status of the Plan. The Funded Ratio is calculated by dividing the Valuation Assets by the Actuarial Accrued Liability. For example, a Funded Ratio of 90% indicates assets are 10% less than liabilities.

Funding Goal

The Funding Goal is the funded status the Board of Investments would like LACERA to achieve. The main goal is to provide benefit security for its members as well as to achieve and maintain stable employer contributions that are as low as possible. A Funded Ratio equal to 100% is the Funding Goal.

Layered Amortization Period

Payment of each year's change in the Unfunded Actuarial Accrued Liability (UAAL) is amortized over separate closed periods. For LACERA, the original UAAL as of June 30, 2009 is being amortized over a closed 30-year period. Subsequent changes in the UAAL were amortized over new closed 30-year periods. Effective with the June 30, 2019 valuation all existing layers with more than 22 years remaining as of June 30, 2020 were re-amortized over closed 22-year periods. All new UAAL layers thereafter are amortized over closed 20-year periods beginning with the date the contribution is first expected to be made. All amortization payments are based on a level percent of pay.

Member Reserve

The accumulation of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees and refunds to members.

Non-Valuation Reserves

Reserves excluded from the calculation of contribution rates, including the Contingency Reserve, the County Contribution Credit Reserve, and any other reserves specifically excluded by the Board of Investments.

Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Plan Year

A 12-month period beginning July 1 and ending June 30.

Projected Benefits

Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.

STAR Reserve

Reserves accumulated for the payment of cost-of-living benefits as defined in California Government Code Section 31874.3.

Supplemental Targeted Adjustment for Retirees (STAR) Benefits Supplemental cost-of-living payments to retired members to restore purchasing power at a specified percentage level, as described in California Government Code Section 31874.3.

Surplus Funding

The excess, if any, of the Actuarial Value of Assets over the Actuarial Accrued Liability. Standard actuarial terminology defines this as the "Funding Excess." LACERA uses the term "Surplus Funding."

Unfunded Actuarial Accrued Liability

The excess, if any, of the Actuarial Accrued Liability over the Actuarial Value of Assets.

Valuation Date

The date upon which the Normal Cost, Actuarial Accrued Liability, and Actuarial Value of Assets are determined. Generally, the Valuation Date will coincide with the ending of a Plan Year.

Valuation Reserves

All reserves excluding the Non-Valuation Reserves