Alameda County Employees' Retirement Association
BOARD OF RETIREMENT

ACTUARIAL COMMITTEE/BOARD MEETING NOTICE and AGENDA

ACERA MISSION:

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

Thursday, May 22, 2025
11:00 am

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

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

The Alternate Safety Member votes in the absence of the Elected Safety, either of the two Elected General Members, or both the Retired and Alternate Retired members.

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

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

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

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

ACTUARIAL COMMITTEE/BOARD MEETING

Call to Order: 11:00 am

Roll Call

Public Input

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

1. **Discussion and possible motion to adopt the Actuarial Valuation as of December 31, 2024.**

   -Lisa Johnson
   -Eva Yum, Segal
   -Andy Yeung, Segal

   Recommendation
   Staff recommends that the Actuarial Committee recommend to the Board of Retirement that the Board adopt the Actuarial Valuation and Review as of December 31, 2024.

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

None

Trustee Input

Future Discussion Items

June

- Presentation of the deterministic projections as part of the Risk Assessment Report based on the Actuarial Valuation and Review as of December 31, 2024 (Segal)

Establishment of Next Meeting Date

Wednesday, June 18, 2025, at 11:00 am

Adjournment

MEMORANDUM TO THE ACTUARIAL COMMITTEE

DATE: May 22, 2025

TO: Members of the Actuarial Committee

FROM: Lisa Johnson, Assistant Chief Executive Officer

SUBJECT: Draft Actuarial Valuation and Review as of December 31, 2024

Executive Summary

The draft Actuarial Valuation and Review as of December 31, 2024, is attached for review and discussion. The funded ratio for December 31, 2024, on the Valuation Value of Assets (VVA) basis, remained at 88.0%. The funded ratio remained unchanged primarily due to greater than expected individual salary increases, investment return on the valuation value (after asset smoothing) less than the assumed rate of 7.00% used in the December 31, 2023, valuation, offset by less than expected Cost-of-Living Adjustment (COLA) increases and more than expected deaths for continuing retirees.

A summary of the Unfunded Actuarial Accrued Liability (UAAL) and the aggregate employer and employee contribution rates from the 2024 funding valuation report are provided here for quick reference.

The UAAL increased from $1,404.1 million in 2023 to $1,477.3 million in 2024. This change in the UAAL was primarily due to the following factors:

a) Individual salary increases greater than expected;
b) Investment return on the valuation value (after smoothing) less than the assumed rate of 7.00% used in the December 31, 2023 valuation; and
c) Other experience losses,

The above increases were offset somewhat by:

a) Less than expected COLA increases; and
b) More than expected deaths for continuing retirees.

The aggregate employer contribution rate[1] has increased from 23.51% of payroll to 23.67% of payroll. This change was primarily due to:

a) Individual salary increases greater than expected;
b) Investment return on the valuation value (after smoothing) less than the assumed rate of 7.00% used in the December 31, 2023 valuation; and
c) Other experience losses,

The above increases were offset to some degree by:

a) Amortizing the prior year's UAAL over a larger than expected total projected payroll;
b) Less than expected COLA increases; and
c) More than expected deaths for continuing retirees.

[1] For employers with active member payroll.

The aggregate member contribution rate decreased from 9.87% of payroll to 9.84% of payroll, due to the changes in member demographics.

Next Step: Prior to bringing the finalized 2024 valuation report back to the Actuarial Committee at the May 22, 2025, meeting, staff held a participating employers meeting on April 24, 2025, to review and discuss the results of the draft actuarial valuation with employer representatives.

***Reporting Methodology for ASOP No. 51 Implementation*:** As required by the Actuarial Standards Board, Segal has again included a Low-Default-Risk Obligation Measure (LDROM) in this year's funding valuation report. The LDROM when calculated using an interest rate of 4.08% developed using an all-bond portfolio instead of the long-term investment return assumption of 7.00% developed using ACERA's diversified portfolio would have increased the actuarial accrued liability of the Association to $18.0 billion from $12.3 billion.

In February 2019, the Board adopted staff's recommendation to direct Segal to prepare a separate report to identify risks that "may reasonably be anticipated to significantly affect the plan's future financial condition" (ASOP 51). Based on the Actuarial Valuation and Review as of December 31, 2024, Segal will provide the results of its risk report to the Actuarial Committee on June 18, 2025.

Return Assumption Impact

Similar to what Segal disclosed in ACERA's December 31, 2023, valuation report, the 7.0% investment return assumption that the Board approved on December 21, 2023, for determining the liabilities for funding purposes and used for establishing the employer and member contribution rates in this report has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on Segal's understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption rate of 7.00%.

As required by the Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions"), Segal performed a stochastic model, as detailed in the 2019-2022 experience study report, to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of this model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in this valuation) that would average approximately 0.75% of assets over time. *When the results of the stochastic model are applied to this valuation, it is estimated that the annual outflow would increase the Accrued Actuarial Liability (AAL) measured using a 7.00% investment return assumption from $12.34 billion to $13.48 billion (for a difference of $1.14 billion) and would increase the employer's UAAL contribution rate by about 5.5% - 6.0% of payroll.*

Conclusion

Staff recommends that the Actuarial Committee recommend to the Board of Retirement that the Board adopt the Actuarial Valuation and Review as of December 31, 2024.

Attachment:

ACERA's draft Actuarial Valuation and Review as of December 31, 2024

Alameda County Employees' Retirement Association

Actuarial Valuation and Review
as of December 31, 2024

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This valuation report should only be copied, reproduced or shared with other parties in its entirety as necessary for the proper administration of the Plan.

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Segal

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April 4, 2025

Board of Retirement
Alameda County Employees' Retirement Association
475 14th Street, Suite 1000
Oakland, CA 94612

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2024. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2025-2026.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Retirement, based upon information provided by the staff of ACERA.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. 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; and changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Eva Yum, FSA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board of Retirement based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

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

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

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

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the Alameda County Employees' Retirement Association ("ACERA" or "the Plan" or "the Association") as of December 31, 2024. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive members and retired members and beneficiaries as of November 30, 2024,[1] provided by the Association;
- The assets of the Plan as of December 31, 2024, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the December 31, 2024 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the December 31, 2024 valuation and
- The funding policy adopted by the Board of Retirement.

Certain disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 as of December 31, 2024 for the Plan is provided in separate reports.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the Association's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

The contribution requirements are determined as a percentage of payroll for employers with active member payroll. The contribution requirement for the Alameda County Office of Education (ACOE) with no active member payroll is expressed as a level dollar amount. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded

[1] It should be noted that consistent with last year's valuation, we have also reflected the actual COLA granted by the Board on the April 1 immediately after the date of the valuation in calculating the liabilities for nonactive members.

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actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board of Retirement on September 18, 2014, and most recently revised on October 17, 2024. Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 103.

The rates calculated in this report may be adopted by the Board of Retirement for the fiscal year that extends from July 1, 2025 through June 30, 2026.

Valuation highlights

Funding measures

1. The funded ratio (the ratio of valuation value of assets to the actuarial accrued liability) remained at 88.0% (after rounding) in the December 31, 2024 valuation compared to the December 31, 2023 valuation. The various factors that resulted in the funded status remaining unchanged include individual salary increases greater than expected, an investment return on the valuation value of assets (i.e., after smoothing) of 6.98% which is slightly less than the assumed rate of 7.00% used in the December 31, 2023 valuation, and other experience losses, offset by less than expected COLA increases and more than expected deaths for continuing retirees. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio increased from 86.1% to 87.6%. These measurements are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for, or the amount of, future contributions.
2. The unfunded actuarial accrued liability (the difference between the actuarial accrued liability and the valuation value of assets) increased from $1,404.1 million to $1,477.3 million. The increase in unfunded actuarial accrued liability (UAAL) is primarily due to individual salary increases greater than expected, an investment return on the valuation value (i.e., after asset smoothing) of 6.98% which is slightly less than the assumed rate of 7.00% used in the December 31, 2023 valuation, and other experience losses, offset somewhat by less than expected COLA increases and more than expected deaths for continuing retirees. A reconciliation of the Association's UAAL from the prior year is provided in *Section 2, Exhibit E* on page 31.

   A schedule of the current UAAL amortization balances and payments may be found in *Section 3, Exhibit H* starting on page 83. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit I* starting on page 89.

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Actuarial experience

3. The net actuarial loss of $147.9 million, or 1.2% of actuarial accrued liability, is due to an investment loss of $1.8 million, or 0.01% of actuarial accrued liability, and a net loss from sources other than investments of $146.1 million, or 1.2% of the actuarial accrued liability, prior to reflection of assumption or plan changes, if applicable. The loss from sources other than investments was due to differences in actual versus expected experience including (but not limited to) retirement, disability, termination and salary increases experience.

4. The rate of return on the market value of assets was 9.00% for the year ending December 31, 2024. The return on the valuation value of assets was 6.98% for the same period after recognizing a portion of this year's investment gain and a portion of prior years' investment gains and losses.[1] This resulted in an actuarial loss when measured against the assumed rate of return of 7.00% used in the December 31, 2023 valuation. This actuarial investment loss (after asset smoothing) increased the average employer contribution rate by 0.01% of payroll.

Contributions

5. As reported in the December 31, 2021 valuation, the County made voluntary County Safety contributions of $800 million on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. The Livermore Area Recreation and Park District (LARPD) also made voluntary LARPD General contributions of $12.611 million on around June 29, 2021 to reduce their General UAAL and associated contribution rates. ACERA set up the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve to track these voluntary UAAL contributions. Based on the Board's funding policy and interest crediting policy, these two UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021 for interest crediting purposes. The details of the UAAL Advance Reserves have been included in *Section 4, Exhibit 6* and a reconciliation of the contribution credit available from the voluntary UAAL contributions has been included in *Section 4, Exhibit 7*.

6. The LARPD General cost sharing group had a **surplus** of $451,000 on a VVA basis last year. Due to an investment loss on the UAAL Advance Reserve, the surplus would have reduced to a surplus of $277,000 this year, assuming all other actuarial assumptions had been met. However, due to experience loss, LARPD actually has a net **UAAL** of $493,000 on a VVA basis this year.[2] The experience loss is primarily due to lower than expected mortality for continuing retirees as a result of no actual deaths and individual salary increases greater than expected, offset somewhat by the higher than expected return on investment

[1] Because the two (LARPD and County Safety) UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021, the return on a VVA basis for the UAAL Advance Reserves are lower than that for the other valuation reserves. As a result, the return on a VVA basis for the LARPD and County Safety cost groups is lower than that for the General (non-LARPD) and Alameda County Office of Education (ACOE) cost groups.

[2] The total experience loss for LARPD (excluding the UAAL Advance Reserve) is therefore $277,000 plus $493,000, or $770,000.

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excluding the UAAL Advance Reserve (after smoothing). In order to calculate the proper offset available to LARPD from the LARPD General UAAL Advance Reserve, we have amortized the first $277,000 in experience loss over 12.5 years so that it will have the same amortization period as the LARPD General UAAL Advance Reserve (12.5 years remaining as of December 31, 2024). Consistent with the Board of Retirement's current actuarial funding policy, we have amortized the UAAL of $493,000 over 20 years. The details of the LARPD amortization bases can be found in *Section 3, Exhibit H.*

7. The average employer rate calculated in this valuation has increased from 23.51% to 23.67% of payroll. This increase is primarily due to individual salary increases greater than expected, an investment return on the valuation value (i.e., after asset smoothing) of 6.98% which is slightly less than the assumed rate of 7.00% used in the December 31, 2023 valuation, and other experience losses. That increase was offset to some degree by amortizing the prior year's UAAL over a larger than expected total projected payroll, less than expected COLA increases and more than expected deaths for continuing retirees. A complete reconciliation of the Association's aggregate employer rate and a detailed schedule of the employer contribution rates are provided in *Section 2, Subsection F*.

   A schedule of the projected contributions by each participating employer is provided in *Section 4, Exhibit 4*. Under the Board of Retirement's current actuarial funding policy, the UAAL is calculated for all the employers in the General Tiers 1, 2, and 4 and is paid off by each employer in proportion to their payroll (with the exception of ACOE and the LARPD,[1] based on the application of the Declining Employer Payroll Policy).

   General employer rates for Alameda Health System (AHS)/Court/First 5 are higher than the County's rates to reflect that only the County has received a reimbursement for the implicit retiree health benefit subsidy paid by the County for 2024 and in prior years. The $2.5 million transfer (an estimated amount provided by ACERA for the implicit retiree health benefit subsidy paid by the County for 2024) and the unused credit from prior years' transfers (the balance of prior transfers was about $90.1 million as of December 31, 2024) have been recognized over separate 20-year periods.

8. When the County made voluntary County Safety contributions of $800 million on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates, the County Safety UAAL were projected to be fully amortized at around the same time when the County Safety UAAL Advance Reserve would be exhausted in 2034. With the new experience loss layer established as of December 31, 2024, the UAAL contribution for County Safety would need to be continued after the County Safety UAAL Advance Reserve is scheduled to be exhausted in 2034. We will report the projected County Safety UAAL contribution requirement as part of this year's risk report.

9. The average member rate calculated in this valuation has decreased from 9.87% to 9.84% of payroll due to changes in active member demographics. A complete reconciliation of the Association's aggregate member rate is provided in *Section 2, Subsection F*.

[1] See additional discussion on development and payment of UAAL by LARPD as that employer is in its own cost group.

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The individual member rates have been updated to reflect the valuation as of December 31, 2024. The detailed member rates by tier are provided in *Section 4, Exhibit 3* of this report.

10. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the UAAL and the principal balance. The funding policy adopted by the Board of Retirement meets this standard.

Future expectations

11. The total unrecognized net investment loss as of December 31, 2024 is $82.6 million as compared to an unrecognized net investment loss of $292.8 million in the previous valuation. This net deferred loss of $82.6 million will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years as shown in *Section 2, Subsection B*.

    The net deferred loss of $82.6 million represents about 0.7% of the market value of assets.[1] Unless offset by future investment gains or other favorable experience, the recognition of the $82.6 million net market loss is expected to have an impact on the Association's future funded ratio and contribution rate requirements. Under an approach which takes into account the size of the valuation and the SRBR reserves[2], this potential impact may be illustrated as follows:

    a. If a proportion of the net deferred loss that is commensurate with the size of the valuation reserves were recognized immediately in the valuation value of assets, the funded ratio would decrease from 88.0% to 87.6%.

        For comparison purposes, if a proportion of the net deferred loss that is commensurate with the size of the valuation reserves in the December 31, 2023 valuation had been recognized immediately in the December 31, 2023 valuation, the funded ratio would have decreased from 88.0% to 86.1%.

    b. If a proportion of the net deferred loss that is commensurate with the size of the valuation reserves were recognized immediately in the valuation value of assets, the average employer contribution rate would increase from 23.67% to about 24.0% of payroll.

        For comparison purposes, if a proportion of the net deferred loss that is commensurate with the size of the valuation reserves in the December 31, 2023 valuation had been recognized immediately in the December 31, 2023 valuation, the average employer contribution rate would have increased from 23.54% to about 24.8% of payroll.

[1] Of the $82.6 million in net deferred loss, about $19.2 million would be allocated to the LARPD General UAAL Advance Reserve and the County Safety UAAL Advance Reserve if the net deferred loss were recognized immediately in the valuation value of assets.

[2] The market value of assets as of December 31, 2024 equals the valuation value of assets plus the proportionate share of the net deferred market losses (after offsetting the losses with the Contingency Reserve) that is commensurate with the size of the pension reserves.

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12. Similar to what we disclosed in our December 31, 2023 valuation report, the 7.00% investment return assumption that the Board approved[1] for determining the liabilities for funding purposes and used for establishing the employer and member contribution rates in this report has continued to be developed without considering the impact of any future 50/50 excess earnings allocation. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% of excess earnings to the SRBR and does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.00%.

    Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions") states that some plan provisions, including gain sharing provisions, "may create pension obligations that are difficult to appropriately measure using traditional valuation procedures." ASOP No. 4 further states that "for such plan provisions, the actuary should consider using alternative valuation procedures, such as stochastic modeling…to reflect the impact of variations in experience from year to year." Accordingly, we performed a stochastic model, as detailed in our 2019-2022 experience study report, to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in this valuation) that would average approximately 0.75%[2] of assets over time. For informational purposes only, when we applied the results of our stochastic model to this valuation, we have estimated that such an annual outflow would increase the AAL measured in this valuation using a 7.00% investment return assumption from $12.34 billion to $13.48 billion (for a difference of $1.14 billion) and would increase the employer's UAAL contribution rate by about 5.5% - 6.0% of payroll.[3]

Risk

13. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2024. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Besides the hypothetical market return scenarios that we would include in our risk report for 2025, Segal is available to prepare additional projections of potential outcomes of market conditions and other demographic experience upon request.

14. Because the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have been engaged to perform a

[1] The 7.00% investment return assumption was approved by the Board as part of the triennial experience study recommending assumptions for use starting with the December 31, 2023 valuation.

[2] In estimating the impact of any future 50/50 excess earnings allocation, we have not included the deferred investment gains/losses available as of the date of the valuation. We believe that the determination of the 0.75% average outflow should provide the stakeholders with information about the **long-term** effect of the 50/50 excess earnings allocation and therefore should not be unduly affected by the **short-term** fluctuation in the 50/50 excess earnings allocation due to the actual deferred investment gains/losses available as of the valuation date.

[3] For employers with active member payroll.

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detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition and that report will be provided later in 2025. We have also included a brief discussion of some risks that may affect the Plan in *Section 2, Subsection I* beginning on page 53.

15. The risk assessment in *Section 2, Subsection I* includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found on page 56.

GASB

16. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution (ADC) under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability and Pension Expense under GASB Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of December 31, 2024, will be provided separately. The accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by the GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

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Summary of key valuation results

Average Employer Contribution Calculated as of December 31 *($ in '000s)*

Plan and Employer	2024 Contribution Rate[1]	2024 Annual Amount[2]	2023 Contribution Rate	2023 Annual Amount[2]
County only				
• General Tier 1	24.31%	$738	24.35%	$739
• General Tier 2	22.57%	76,706	22.69%	77,115
• General Tier 4	22.31%	94,348	22.44%	94,897
• Safety Tier 2	29.30%	26,949	27.52%	25,312
• Safety Tier 2C	33.11%	986	31.81%	948
• Safety Tier 2D	30.75%	5,935	28.50%	5,502
• Safety Tier 4	27.14%	28,935	25.26%	26,930
– **County Combined**	**23.78%**	**$234,597**	**23.46%**	**$231,443**
AHS, Court and First 5 only				
• General Tier 1	25.34%	$24	25.43%	$24
• General Tier 2	23.60%	37,959	23.77%	38,232
• General Tier 4	23.34%	61,879	23.52%	62,356
Housing only				
• General Tier 1	30.13%	709	30.49%	717
• General Tier 2	28.39%	128	28.83%	130
• General Tier 4	28.13%	929	28.58%	944
LARPD only[3]				
• General Tier 1	12.04%	74	10.97%	67
• General Tier 3	18.01%	236	16.49%	216
• General Tier 4	10.04%	153	9.06%	138
All categories combined	**23.67%**	**$336,688**	**23.51%**	**$334,267**

[1] For employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $127 K when made on April 1, 2026. The UAAL contribution for ACOE determined in the December 31, 2023 valuation was $120 K when made on April 1, 2025. Safety Tier 1 rates are not calculated because there were no Safety Tier 1 active members reported for the December 31, 2024 and December 31, 2023 valuations.

[2] Based on December 31, 2024 projected compensation.

[3] For LARPD, the combined rate is 13.47% as of December 31, 2024 and 12.25% as of December 31, 2023.

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Section 1: Actuarial Valuation Summary

Average Member Contribution Calculated as of December 31 *($ in '000s)*

Plan	2024 Contribution Rate	2024 Annual Amount[1]	2023 Contribution Rate[2]	2023 Annual Amount[1]
• General Tier 1	9.90%	$603	9.94%	$606
• General Tier 2	7.77%	38,940	7.76%	38,890
• General Tier 3	14.00%	183	13.79%	180
• General Tier 4	9.00%	62,356	9.06%	62,771
• Safety Tier 2	16.49%	15,167	16.50%	15,176
• Safety Tier 2C	13.66%	407	13.71%	408
• Safety Tier 2D	16.74%	3,231	16.74%	3,231
• Safety Tier 4	17.86%	19,041	17.88%	19,062
All categories combined	**9.84%**	**$139,928**	**9.87%**	**140,324**

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[1] Based on December 31, 2024 projected compensation.

[2] Average rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2023 valuation to the Association membership as of December 31, 2024. There are no active Safety Tier 1 members as of December 31, 2024 and December 31, 2023 valuations.

Section 1: Actuarial Valuation Summary

Valuation Results as of December 31 *($ in '000s)*

Valuation Result	2024	2023
Actuarial accrued liability		
• Retired members and beneficiaries	$7,602,615	$7,317,136
• Inactive members	439,179	397,778
• Active members	4,298,872	4,031,753
– **Total actuarial accrued liability**[1]	**$12,340,666**	**$11,746,667**
• Normal cost for plan year beginning December 31	291,892	272,575
Assets		
• Valuation value of assets (VVA)[2]	$10,863,317	$10,342,556
• Market value of assets (MVA)[3]	10,815,496	10,109,342
• Valuation value of assets as a percentage of market value of assets	100.4%	102.3%
Funded status		
• Unfunded actuarial accrued liability on valuation value of assets	$1,477,349	$1,404,111
• Funded percentage on VVA basis	88.0%	88.0%
• Unfunded actuarial accrued liability on market value of assets	$1,525,170	$1,637,325
• Funded percentage on MVA basis	87.6%	86.1%
Key assumptions		
• Net investment return	7.00%	7.00%
• Inflation rate	2.50%	2.50%
• Payroll growth	3.00%	3.00%
• Cost-of-living adjustments (COLA)		
– Tiers with 3% COLA	2.75%	2.75%
– Tiers with 2% COLA	2.00%	2.00%
• Amortization period on VVA basis[4]	20 years	20 years

[1] Excludes liabilities held for SRBR and other non-valuation reserves.
[2] Excludes Reserve for Interest Fluctuations (Contingency Reserve) if positive, Supplemental Retirees Benefit Reserve, and 401(h) Reserve.
[3] The market value of assets as of December 31, 2024 and 2023 equals the valuation value of assets plus the proportionate share of the net deferred market losses (after offsetting the losses with the Contingency Reserve) that is commensurate with the size of the pension reserves.
[4] Changes in unfunded actuarial accrued liability as a result of gains or losses for each valuation are amortized over separate 20-year periods. Details of the funding policy are provided in *Section 4, Exhibit 1*.

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Section 1: Actuarial Valuation Summary

Demographic Data as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number of members	11,865	11,547	2.8%
• Average age	46.9	47.0	-0.1
• Average service	10.7	10.8	-0.1
• Total projected compensation[1]	$1,422,264,000	$1,319,397,000	7.8%
• Average projected compensation	$119,871	$114,263	4.9%
Retired members and beneficiaries			
• Number of members			
– Service retired	8,841	8,685	1.8%
– Disability retired	1,011	1,002	0.9%
– Beneficiaries	1,400	1,339	4.6%
• **Total**	**11,252**	**11,026**	**2.0%**
• Average age	72.9	72.6	0.3
• Average monthly benefit[2]	$4,723	$4,606	2.5%
Inactive members			
• Number of members[3]	4,039	3,838	5.2%
• Average age	47.3	47.1	0.2
Total members	**27,156**	**26,411**	**2.8%**

[1] Total payroll shown above may not total exactly to the amount shown elsewhere in this report when rounded to thousands of dollars due to separate rounding by tiers used elsewhere.
[2] Excludes monthly benefits payable from the SRBR.
[3] Includes inactive members due a refund of member contributions.

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Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the Association. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

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Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Association. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Association should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Association upon delivery and review. The Association should notify Segal immediately of any questions or concerns about the final content.

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Section 2: Actuarial Valuation Results

A. Member information

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups. More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B, and C*.

Member Population as of December 31

Year Ended December 31	Active Members	Inactive Members[1]	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Retired Members and Beneficiaries to Actives
2015	11,071	2,027	8,990	11,017	1.00	0.81
2016	11,111	2,263	9,242	11,505	1.04	0.83
2017	11,323	2,447	9,479	11,926	1.05	0.84
2018	11,349	2,568	9,783	12,351	1.09	0.86
2019	11,336	2,821	10,078	12,899	1.14	0.89
2020	11,322	3,028	10,292	13,320	1.18	0.91
2021	11,326	3,265	10,536	13,801	1.22	0.93
2022	11,346	3,564	10,798	14,362	1.27	0.95
2023	11,547	3,838	11,026	14,864	1.29	0.95
2024	11,865	4,039	11,252	15,291	1.29	0.95

[1] Includes inactive members due a refund of member contributions.

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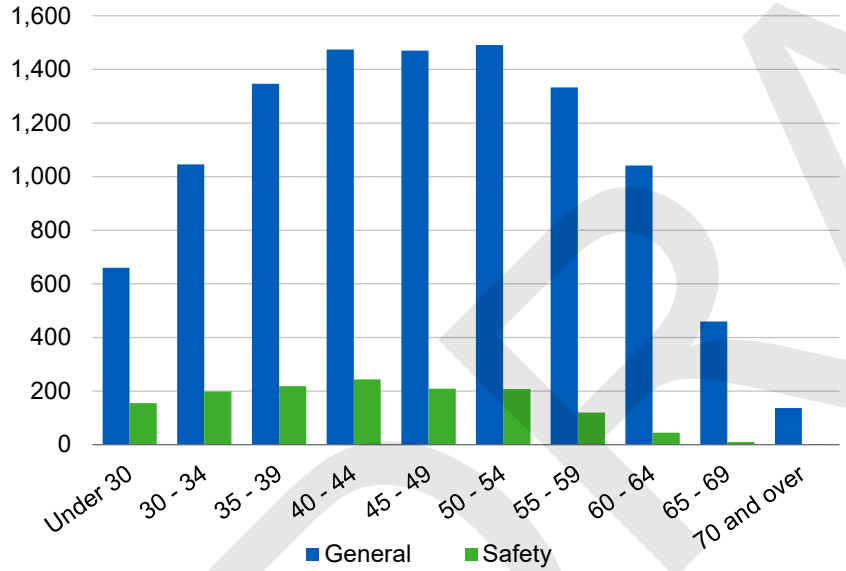
Active members

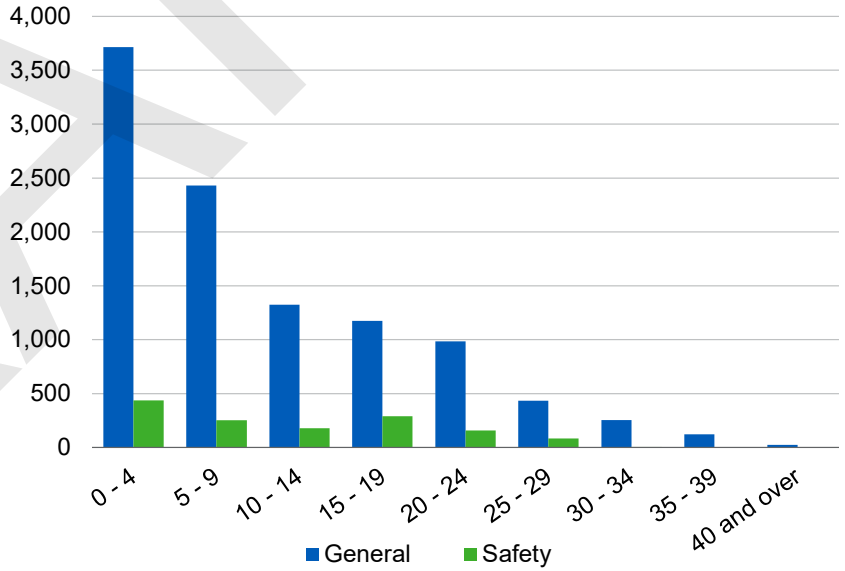
Demographic Data	As of December 31, 2024	As of December 31, 2023	Change
Active members	11,865	11,547	2.8%
Average age[1]	46.9	47.0	-0.1
Average years of service	10.7	10.8	-0.1
Average compensation	$119,871	$114,263	4.9%

Distribution of Active Members as of December 31, 2024

Actives by Age



Actives by Years of Service



Inactive members

Demographic Data	As of December 31, 2024	As of December 31, 2023	Change
Inactive members[2]	4,039	3,838	5.2%

[1] Among the active members, there were none with unknown age information.
[2] Members with a vested right to a deferred (or immediate) benefit or entitled to a return of their member contributions.

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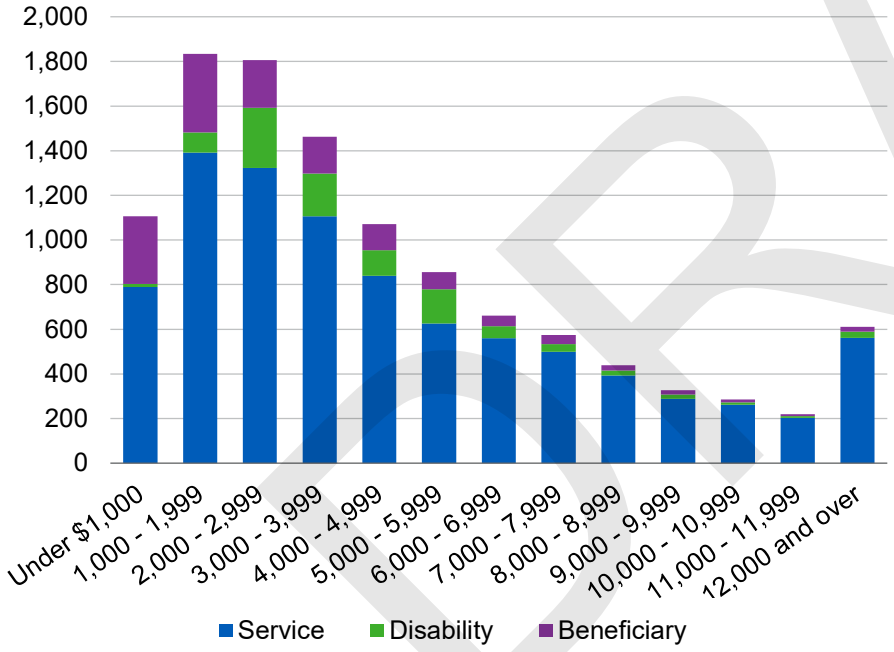
Retired members and beneficiaries

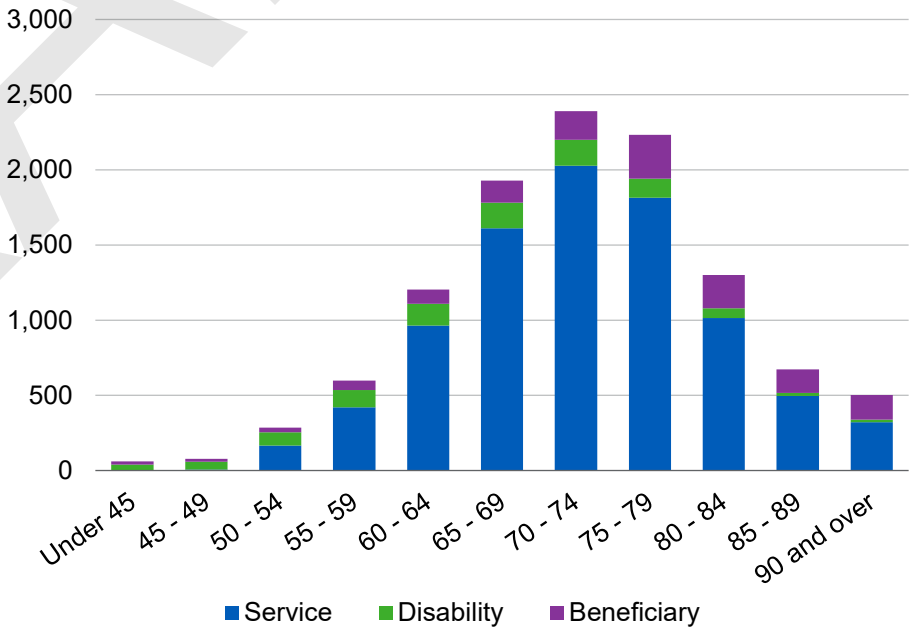
Demographic Data	As of December 31, 2024	As of December 31, 2023	Change
Retired members	9,852	9,687	1.7%
Beneficiaries	1,400	1,339	4.6%
Average age	72.9	72.6	0.3
Average amount	$4,723	$4,606	2.5%
Total monthly amount	$53,143,691	$50,785,571	4.6%

Distribution of Retired Members and Beneficiaries as of December 31, 2024

By Type and Monthly Amount



By Type and Age



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Historical plan population

The chart below demonstrates the progression of the active population over the last 10 years. The chart also shows the growth among the retired population over the same time period.

Member Data Statistics

Active Members versus Retired Members and Beneficiaries (Pay Status)

As of December 31	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Monthly Amount
2015	11,071	47.3	11.6	8,990	71.1	$3,648
2016	11,111	47.3	11.6	9,242	71.3	3,757
2017	11,323	47.1	11.4	9,479	71.6	3,880
2018	11,349	47.0	11.4	9,783	71.7	3,983
2019	11,336	47.1	11.3	10,078	71.9	4,111
2020	11,322	47.1	11.3	10,292	72.1	4,244
2021	11,326	47.1	11.3	10,536	72.3	4,359
2022	11,346	47.0	11.1	10,798	72.4	4,485
2023	11,547	47.0	10.8	11,026	72.6	4,606
2024	11,865	46.9	10.7	11,252	72.9	4,723

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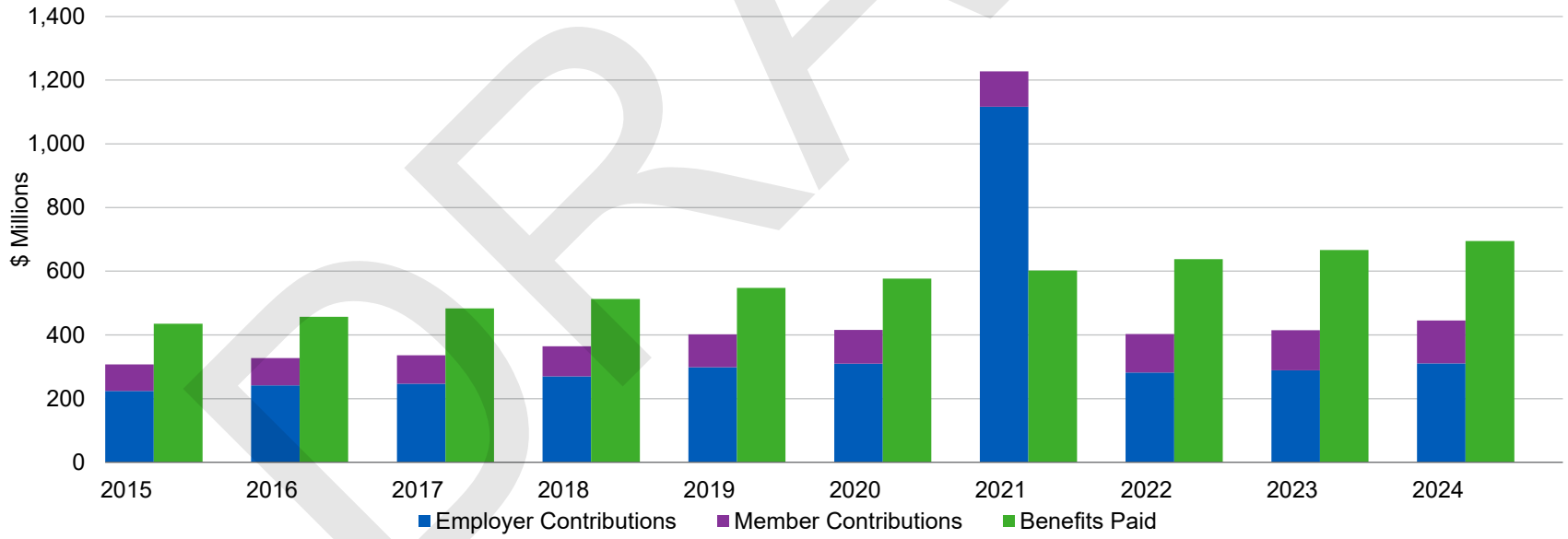
B. Financial information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees) will be needed to cover benefit payments and administrative expenses. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E, F, and G.*

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the valuation asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions Made with Benefits for Years Ended December 31



Note: 2021 contributions include $812,611,250 in additional voluntary Safety and LARPD General contributions to reduce their UAAL.

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Section 2: Actuarial Valuation Results

Determination of Actuarial Value and Valuation Value of Assets[1] for Year Ended December 31, 2024

Step		Actual Return	Expected Return	Investment Gain/(Loss)	Percent Deferred	Amount
1.	Market value of assets					$12,034,355,047
2.	**Calculation of unrecognized return**					
a.	Period ended June 30, 2020	$(507,044,977)	$317,318,139	$(824,363,116)	0%	$0
b.	Period ended December 31, 2020	1,508,460,094	295,971,205	1,212,488,889	10%	121,248,889
c.	Period ended June 30, 2021	1,034,858,840	347,663,410	687,195,431	20%	137,439,086
d.	Period ended December 31, 2021	550,755,442	397,125,337	153,630,105	30%	46,089,031
e.	Period ended June 30, 2022	(1,416,848,650)	412,541,243	(1,829,389,893)	40%	(731,755,957)
f.	Period ended December 31, 2022	110,225,365	358,854,722	(248,629,356)	50%	(124,314,678)
g.	Period ended June 30, 2023	713,510,637	358,334,297	355,176,340	60%	213,105,804
h.	Period ended December 31, 2023	518,437,250	378,873,513	139,563,737	70%	97,694,616
i.	Period ended June 30, 2024	625,439,862	392,712,159	232,727,703	80%	186,182,162
j.	Period ended December 31, 2024	378,812,746	410,239,949	(31,427,204)	90%	(28,284,483)
k.	**Total deferred return[2]**					**$(82,595,530)**
3.	**Actuarial value of assets (1) - (2k)[3]**					**$12,116,950,577**
4.	Ratio of actuarial to market value **(3) ÷ (1)**					100.7%
5.	**Non-valuation reserves and deductions**					
a.	Reserve for Interest Fluctuations (Contingency Reserve)					$31,267,714
b.	Supplemental Retirees Benefit Reserve (SRBR)					1,214,317,136
c.	Other Non-Valuation Reserve (401(h) Reserve)					10,521,170
d.	SRBR Transfer to Employer Advance Reserve					(2,472,346)
e.	**Total (Sum of (5a) through (5d))**					**$1,253,633,674**
6.	**Valuation value of assets (3) – (5e)**					**$10,863,316,903**

[1] See page 104 in *Section 4, Exhibit 1* for our methodology in calculating the actuarial value of assets. Note that results may be slightly off due to rounding.

[2] Total deferred return is equal to the sum of (2a) through (2j).
The total deferred return of $(82,595,530) as of December 31, 2024 is recognized in each of the next five years as follows:

a. Amount recognized on December 31, 2025	$13,018,261
b. Amount recognized on December 31, 2026	(261,032,724)
c. Amount recognized on December 31, 2027	114,345,180
d. Amount recognized on December 31, 2028	54,216,474
e. Amount recognized on December 31, 2029	(3,142,720)

[3] The actuarial value of assets is within the 40% corridor (i.e., AVA is between 60% and 140% of MVA).

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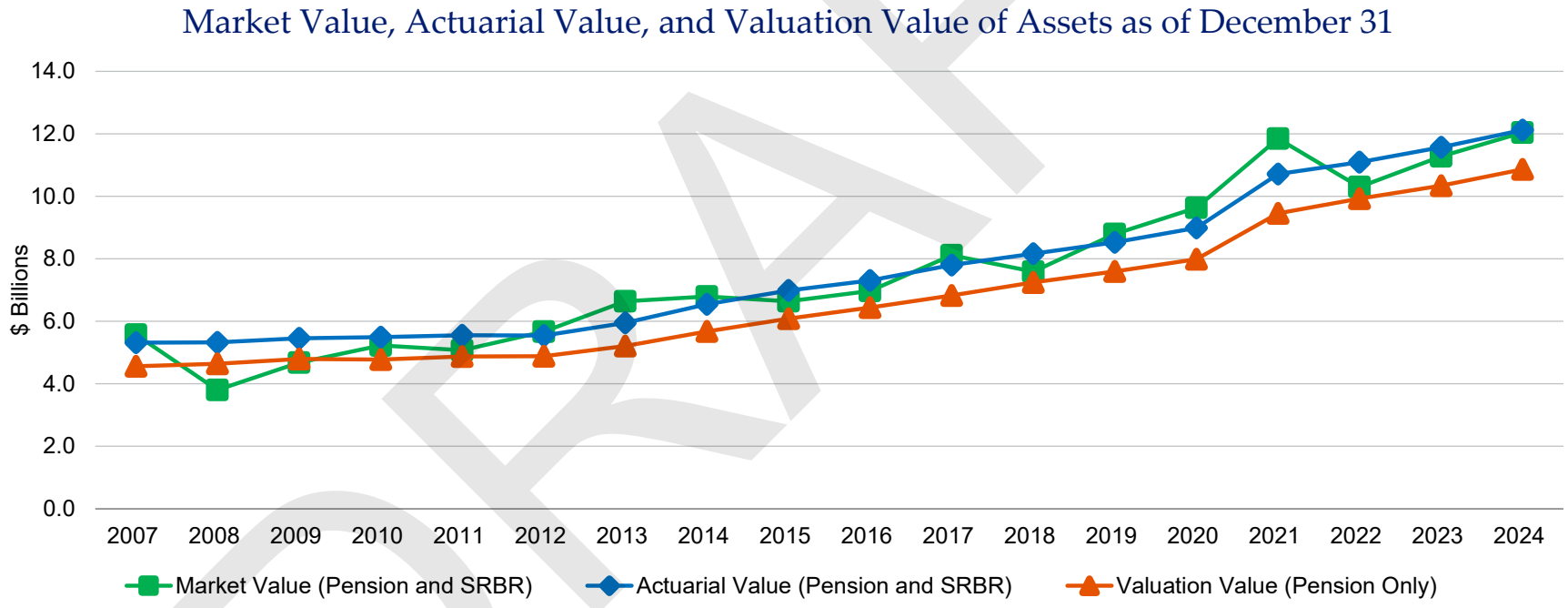
Asset history

The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The valuation value of assets is generally the actuarial value, excluding any non-valuation reserves.

The valuation value of assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.



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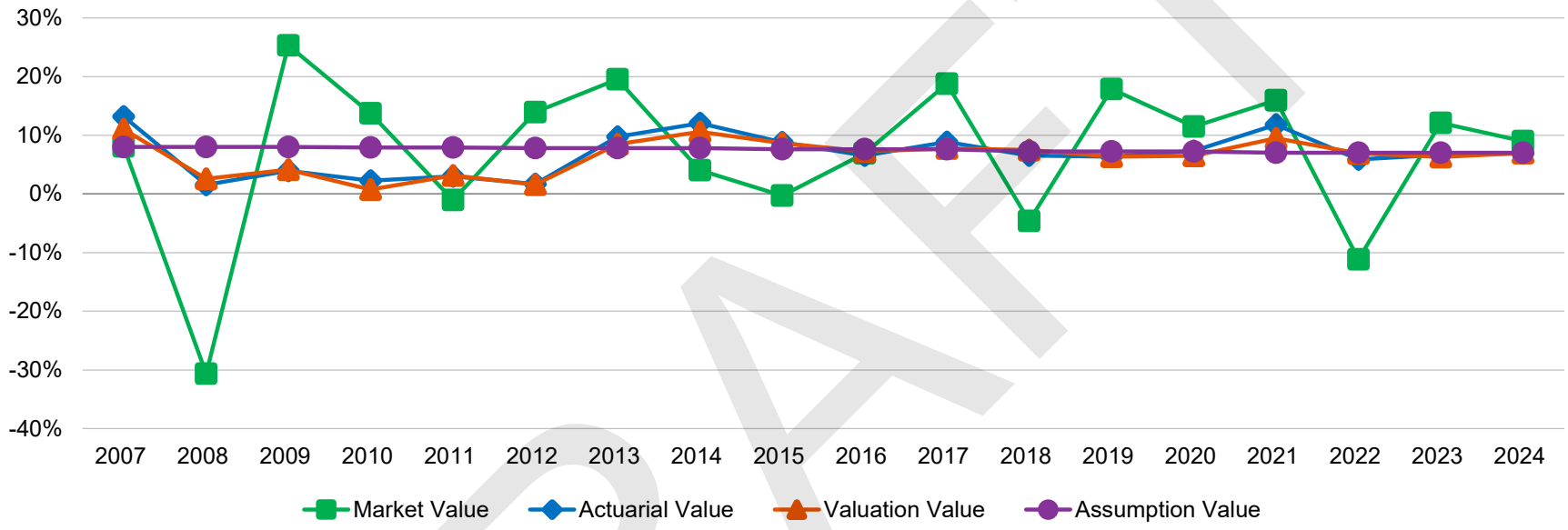
Historical investment returns

Market, Actuarial and Valuation Value Rates of Return for Years Ended December 31



Legend	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market rate	8.1%	-30.7%	25.3%	13.7%	-1.0%	13.9%	19.5%	4.0%	-0.3%	6.9%	18.8%	-4.6%	17.9%	11.5%	15.9%	-11.1%	12.1%	9.0%
Actuarial rate	13.2%	1.5%	3.9%	2.3%	3.0%	1.7%	9.7%	12.0%	8.8%	6.5%	8.8%	6.6%	6.3%	7.3%	11.8%	5.9%	6.7%	6.9%
Valuation rate	11.0%	2.6%	4.1%	0.8%	3.1%	1.6%	8.5%	10.6%	8.7%	7.2%	7.8%	7.5%	6.3%	6.5%	9.5%	6.9%	6.3%	7.0%[1]
Assumed rate	8.00%	8.00%	8.00%	7.90%	7.90%	7.80%	7.80%	7.80%	7.60%	7.60%	7.60%	7.25%	7.25%	7.25%	7.00%	7.00%	7.00%	7.00%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return	7.02%	7.69%	7.24%
Most recent 10-year geometric average return	7.16%	7.55%	7.37%
Most recent 15-year geometric average return	8.03%	6.92%	6.52%

[1] Actual return is 6.98% before it is rounded to 7.0%.

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C. Actuarial experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. In this year's valuation, we have included the changes on actuarial assumptions recommended by Segal and adopted by the Board for this valuation.

The actuarial experience for the year can be found below and a discussion of the major components can be found on the following pages.

Actuarial Experience for Year Ended December 31, 2024

	Source	Amount
1.	Net gain/(loss) from investments[1]	$(1,804,000)
2.	Net gain/(loss) from contributions	4,845,000
3.	Net gain/(loss) from other experience[2]	(150,931,000)
4.	**Net experience gain/(loss) (1) + (2) + (3)**	**$(147,890,000)**

[1] Details on next page
[2] See *Subsection E* for further details. Does not include the effect of plan, method or assumption changes, if any.

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Investment experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy.

For valuation purposes, the assumed rate of return on the valuation value of assets is 7.00% based on the December 31, 2023 valuation. The actual rate of return on a valuation basis for the 2024 plan year was 6.98% after recognizing a portion of this year's investment gain and a portion of prior years' investment gains and losses. Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss during the year ended December 31, 2024 with regard to its investments.

Investment Experience for Year Ended December 31, 2024

	Item	Market Value	Actuarial Value	Valuation Value
1.	Net investment income	$1,004,252,608	$794,055,009	$715,277,036
2.	Average value of assets	11,154,461,617	11,447,254,746	10,244,022,226
3.	Rate of return **(1) ÷ (2)**	9.00%	6.94%	6.98%
4.	Assumed rate of return	7.00%	7.00%	7.00%
5.	Expected investment income **(2) x (4)**	$780,812,313	$801,307,832	$717,081,556
6.	**Investment gain/(loss) (1) – (5)**	**$223,440,295**	**$(7,252,823)**	**$(1,804,520)**

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Contributions

Contributions for the year ended December 31, 2024 totaled $445.6 million, compared to the projected amount of $440.9 million. This resulted in a gain of $4.8 million for the year, when adjusted for timing.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths),
- The extent of turnover among members,
- Retirement experience (earlier or later than projected),
- The number of disability retirements (more or fewer than projected),
- Salary increases (greater or smaller than projected), and
- Cost-of-living adjustments (higher or lower than anticipated)

The net loss from this other experience for the year ended December 31, 2024 amounted to $150.9 million, which is 1.2% of the actuarial accrued liability. See *Section 2, Subsection E* for a detailed development of the unfunded actuarial accrued liability.

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D. Other changes impacting the actuarial accrued liability

Actuarial assumptions and methods

There were no changes in actuarial assumptions or methods since the prior valuation.

Details on actuarial assumptions and methods are in *Section 4, Exhibit 1*.

Plan provision

There were no changes in plan provisions since the prior valuation.

A summary of plan provisions is in *Section 4, Exhibit 2*.

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E. Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024
Total Plan *($ in '000s)*

	Item	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$1,404,111
2.	Normal cost at middle of year	272,575
3.	Expected employer and member contributions	(440,912)
4.	Interest to end of year	93,684
5.	**Expected unfunded actuarial accrued liability at end of year**	**$1,329,458**
6.	**Changes due to:**	
a.	Investment return less than expected, after asset smoothing	$1,804
b.	Actual contributions greater than expected[1]	(4,845)
c.	Individual salary increases greater than expected	141,643
d.	COLA increases less than expected for continuing retirees	(2,307)
e.	Mortality greater than expected for continuing retirees	(13,966)
f.	Other net experience (gain)/loss[2]	25,562
g.	**Total changes**	**$147,891**
7.	**Unfunded actuarial accrued liability at end of year**	**$1,477,349**

Note: The sum of items 6c through 6f equals the "Net gain from other experience" shown in *Section 2, Subsection C*.

[1] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.

[2] Other differences in actual versus expected experience including (but not limited to) retirement, disability, and termination experience. Also reflects changes that certain retirees have been reclassified by ACERA as having an eligible beneficiary for the automatic continuance as a result of data review in ACERA's new pension administration system.

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Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024
General (Excluding LARPD and ACOE) Only *($ in '000s)*

	Item	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$1,286,009
2.	Normal cost at middle of year	195,737
3.	Expected employer and member contributions	(348,548)
4.	Interest to end of year	85,239
5.	**Expected unfunded actuarial accrued liability at end of year**	**$1,218,437**
6.	**Changes due to:**	
a.	Investment return greater than expected, after asset smoothing[1]	$(8,696)
b.	Actual contributions greater than expected[2]	(7,697)
c.	Individual salary increases greater than expected	102,084
d.	COLA increases less than expected for continuing retirees	(1,556)
e.	Mortality greater than expected for continuing retirees	(3,599)
f.	Other net experience (gain)/loss[3]	13,820
g.	**Total changes**	**$94,356**
7.	**Unfunded actuarial accrued liability at end of year**	**$1,312,793**

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[1] The smoothed return on the total General and Safety valuation value of assets was 6.98% after including the smoothed return at 5.03% on the Safety and LARPD General UAAL Advance Reserves earned by contributions made on or around June 29, 2021. The smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%.

[2] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.

[3] Other differences in actual versus expected experience including (but not limited to) retirement, disability, and termination experience. Also reflects changes that certain retirees have been reclassified by ACERA as having an eligible beneficiary for the automatic continuance as a result of data review in ACERA's new pension administration system.

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024 General (ACOE) Only *($ in '000s)*

	Item	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$1,190
2.	Normal cost at middle of year	0
3.	Expected employer and member contributions	(108)
4.	Interest to end of year	77
5.	**Expected unfunded actuarial accrued liability at end of year**	**$1,159**
6.	**Changes due to:**	
a.	Investment return greater than expected, after asset smoothing[1]	$(12)
b.	COLA increases less than expected for continuing retirees	(2)
c.	Mortality less than expected for continuing retirees[2]	92
d.	**Total changes**	**$78**
7.	**Unfunded actuarial accrued liability at end of year**	**$1,237**

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[1] The smoothed return on the total General and Safety valuation value of assets was 6.98% after including the smoothed return at 5.03% on the Safety and LARPD General UAAL Advance Reserves earned by contributions made on or around June 29, 2021. The smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%.

[2] There were no actual deaths during the year ended December 31, 2024.

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024
General (LARPD) Only *($ in '000s)*

	Item	Amount
1.	Unfunded/(overfunded) actuarial accrued liability at beginning of year	$(451)
2.	Normal cost at middle of year	843
3.	Expected employer and member contributions	(843)
4.	Interest to end of year	(49)
5.	**Expected unfunded actuarial accrued liability at end of year**	**$(500)**
6.	**Changes due to:**	
a.	Investment return on UAAL Advance Reserve less than expected, after asset smoothing[1]	$223
b.	Investment return (excluding UAAL Advance Reserve) greater than expected, after asset smoothing[1]	(89)
c.	Actual contributions greater than expected[2]	(42)
d.	Individual salary increases greater than expected	241
e.	COLA increases less than expected for continuing retirees	(52)
f.	Mortality less than expected for continuing retirees[3]	434
g.	Other net experience (gain)/loss[4]	278
h.	**Total changes[5]**	**$993**
7.	**Unfunded/(overfunded) actuarial accrued liability at end of year**	**$493**

[1] The smoothed return on the total General and Safety valuation value of assets was 6.98%. However, because the UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021, the return on a VVA basis for the Safety and LARPD General UAAL Advance Reserves is about 5.03% while the smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%. The smoothed return on the combined LARPD valuation reserves and LARPD General UAAL Advance Reserve was about 6.80%.

[2] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.

[3] There were no actual deaths during the year ended December 31, 2024.

[4] Other differences in actual versus expected experience including (but not limited to) retirement, disability, and termination experience. Also reflects changes that certain retirees have been reclassified by ACERA as having an eligible beneficiary for the automatic continuance as a result of data review in ACERA's new pension administration system.

[5] The sum of items 6b through 6g ($770,000) represents the total LARPD General experience loss excluding the UAAL Advance Reserve, and is equal to the sum of the new LARPD experience loss layers shown in *Section 3, Exhibit H* on page 85.

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Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024
Safety Only *($ in '000s)*

	Item	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$117,363
2.	Normal cost at middle of year	75,995
3.	Expected employer and member contributions	(91,413)
4.	Interest to end of year	8,417
5.	**Expected unfunded actuarial accrued liability at end of year**	**$110,362**
6.	**Changes due to:**	
a.	Investment return on UAAL Advance Reserve less than expected, after asset smoothing[1]	$12,898
b.	Investment return (excluding UAAL Advance Reserve) greater than expected, after asset smoothing[1]	(2,520)
c.	Actual contributions less than expected[2]	2,894
d.	Individual salary increases greater than expected	39,318
e.	COLA increases less than expected for continuing retirees	(697)
f.	Mortality greater than expected for continuing retirees	(10,893)
g.	Other net experience (gain)/loss[3]	11,464
h.	**Total changes[4]**	**$52,464**
7.	**Unfunded actuarial accrued liability at end of year**	**$162,826**

[1] The smoothed return on the total General and Safety valuation value of assets was 6.98%. However, because the UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021, the return on a VVA basis for the Safety and LARPD General UAAL Advance Reserves is about 5.03% while the smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%. The smoothed return on the combined Safety valuation reserves and Safety UAAL Advance Reserve was about 6.67%.

[2] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.

[3] Other differences in actual versus expected experience including (but not limited to) retirement, disability, and termination experience. Also reflects changes that certain retirees have been reclassified by ACERA as having an eligible beneficiary for the automatic continuance as a result of data review in ACERA's new pension administration system.

[4] The sum of items 6b through 6g ($39,566,000) represents the total Safety experience loss excluding the UAAL Advance Reserve, and is equal to the new Safety experience loss layer shown in *Section 3, Exhibit H* on page 86.

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F. Recommended contribution

The recommended contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of December 31, 2024, the average recommended employer contribution is 23.67% of compensation.

The Board sets the funding policy used to calculate the recommended contribution based on layered amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization and each amortization layer is fully funded in 20 years. As shown in the graphical projection of the UAAL amortization balances and payments found in *Section 3, Exhibit I*, before taking into consideration the deferred investment gains and/or losses that will be recognized in the next several valuations, the UAAL of the Plan is expected to be fully amortized by 2044, assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized and assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions. The recommended contribution under the funding policy is a "Reasonable Actuarially Determined Contribution" as required under Actuarial Standard of Practice No. 4 Measuring Pension Obligations and Determining Pension Plan Costs or Contributions.

Average Recommended Employer Contribution Calculated as of December 31 *($ in '000s)*

	Item	2024 Amount	2024 % of Projected Compensation[1]	2023 Amount	2023 % of Projected Compensation
1.	Total normal cost	$291,892	20.52%	$272,575	20.66%
2.	Expected member contributions	139,928	9.84%	130,171	9.87%
3.	**Employer normal cost (1) − (2)**	**$151,964**	**10.68%**	**$142,404**	**10.79%**
4.	Actuarial accrued liability	$12,340,666		$11,746,667	
5.	Valuation value of assets	10,863,317		10,342,556	
6.	**Unfunded actuarial accrued liability (4) − (5)**	**$1,477,349**		**$1,404,111**	
7.	Payment on unfunded actuarial accrued liability	184,724	12.99%	168,229	12.75%
8.	**Average recommended employer contribution (3) + (7)**	**$336,688**	**23.67%**	**$310,633**	**23.54%**
9.	Projected compensation	$1,422,264		$1,319,397	

Note: Contributions are assumed to be paid at the middle of the year.

[1] For employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $127 K when made on April 1, 2026.

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Reconciliation of average recommended employer contribution rate

Reconciliation from December 31, 2023 to December 31, 2024
Total Plan *($ in '000s)*

Item	Contribution Rate	Estimated Annual Dollar Amount[1]
Average recommended employer contribution as of December 31, 2023	23.51%	$334,267
1. Effect of investment return less than expected after asset smoothing	0.01%	162
2. Effect of actual contributions greater than expected[2]	(0.02%)	(353)
3. Effect of individual salary increases greater than expected	0.69%	9,879
4. Effect of COLA increases less than expected for continuing retirees	(0.01%)	(190)
5. Effect of amortizing prior year's UAAL over a larger than expected total payroll	(0.58%)	(8,247)
6. Effect of mortality greater than expected for continuing retirees	(0.07%)	(1,003)
7. Effect of change in member demographics on normal cost	(0.02%)	(340)
8. Effect of other (gains)/losses[3]	0.16%	2,513
9. Total change (Sum of (1) through (8))	**0.16%**	**2,421**
Average recommended employer contribution as of December 31, 2024	**23.67%**	**$336,688**

[1] Based on December 31, 2024 projected compensation.
[2] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024. Also includes effect of credit that was not used last year (due to floor on net LARPD rate to be no less than normal cost) but available this year.
[3] Other differences in actual versus expected experience including (but not limited to) retirement, disability and termination experience.

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Reconciliation from December 31, 2023 to December 31, 2024
General (Excluding LARPD and ACOE) Only *($ in '000s)*

Item	Contribution Rate	Estimated Annual Dollar Amount[1]
Average recommended employer contribution as of December 31, 2023[2]	22.97%	$275,154
1. Effect of investment return greater than expected after asset smoothing[3]	(0.05%)	(599)
2. Effect of actual contributions greater than expected[4]	(0.05%)	(560)
3. Effect of individual salary increases greater than expected	0.60%	7,188
4. Effect of COLA increases less than expected for continuing retirees	(0.01%)	(120)
5. Effect of amortizing prior year's UAAL over a larger than expected total payroll	(0.66%)	(7,907)
6. Effect of mortality greater than expected for continuing retirees	(0.02%)	(240)
7. Effect of change in member demographics on normal cost	(0.04%)	(479)
8. Effect of other (gains)/losses[5]	0.08%	983
9. Total change (Sum of (1) through (8))	**(0.15%)**	**(1,734)**
Average recommended employer contribution as of December 31, 2024	**22.82%**	**$273,420**

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[1] Based on December 31, 2024 projected compensation.
[2] Determined by applying the recommended employer contribution rates as of December 31, 2023 to the projected compensation as of December 31, 2024 by cost group, membership class and tier.
[3] The smoothed return on the total General and Safety valuation value of assets was 6.98% after including the smoothed return at 5.03% on the Safety and LARPD General UAAL Advance Reserves earned by contributions made on or around June 29, 2021. The smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%.
[4] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.
[5] Other differences in actual versus expected experience including (but not limited to) retirement, disability and termination experience.

Section 2: Actuarial Valuation Results

Reconciliation from December 31, 2023 to December 31, 2024
General (LARPD) Only *($ in '000s)*

Item	Contribution Rate	Estimated Annual Dollar Amount[1]
Average recommended employer contribution as of December 31, 2023	12.25%	$421
1. Effect of investment return less than expected after asset smoothing[2]	0.28%	10
2. Effect of actual contributions greater than expected[3]	(0.09%)	(3)
3. Effect of individual salary increases greater than expected	0.53%	18
4. Effect of COLA increases less than expected for continuing retirees	(0.12%)	(4)
5. Effect of amortizing prior year's UAAL Advance Reserve layer and net UAAL over a smaller than expected total payroll	(0.27%)	(9)
6. Effect of mortality less than expected for continuing retirees	0.92%	32
7. Effect of change in member demographics on normal cost	0.17%	6
8. Effect of other (gains)/losses[4]	1.03%	34
9. Effect of credit that was not used last year (due to floor on net LARPD rate to be no less than normal cost) but available this year[5]	(1.23%)	(42)
10. Total change (Sum of (1) through (9))	**1.22%**	**42**
Average recommended employer contribution as of December 31, 2024	**13.47%**	**$463**

[1] Based on December 31, 2024 projected compensation.

[2] The smoothed return on the total General and Safety valuation value of assets was 6.98%. However, because the UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021, the return on a VVA basis for the Safety and LARPD General UAAL Advance Reserves is about 5.03% while the smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%. The smoothed return on the combined LARPD valuation reserves and LARPD General UAAL Advance Reserve was about 6.80%.

[3] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.

[4] Other differences in actual versus expected experience including (but not limited to) retirement, disability and termination experience.

[5] LARPD had a surplus in the December 31, 2023 valuation. In compliance with CalPEPRA, the net LARPD contribution rate cannot be less than the normal cost. As a result, the voluntary UAAL contribution credit was reduced by 1.23% of payroll to not exceed the UAAL rate before the credit in the December 31, 2023 valuation. LARPD has a UAAL in the December 31, 2024 valuation. As a result, the credit of 1.23% of payroll that was not used last year is now used this year to reflect the full credit from the LARPD UAAL Advance Reserve.

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Reconciliation from December 31, 2023 to December 31, 2024
Safety Only *($ in '000s)*

Item	Contribution Rate	Estimated Annual Dollar Amount[1]
Average recommended employer contribution as of December 31, 2023	26.57%	$58,692
1. Effect of investment return less than expected after asset smoothing[2]	0.34%	751
2. Effect of actual contributions less than expected[3]	0.10%	210
3. Effect of individual salary increases greater than expected	1.21%	2,673
4. Effect of COLA increases less than expected for continuing retirees	(0.03%)	(66)
5. Effect of amortizing prior year's UAAL over a larger than expected total payroll	(0.15%)	(331)
6. Effect of mortality greater than expected for continuing retirees	(0.36%)	(795)
7. Effect of change in member demographics on normal cost	0.06%	133
8. Effect of other (gains)/losses[4]	0.70%	1,538
9. Total change (Sum of (1) through (8))	**1.87%**	**4,113**
Average recommended employer contribution as of December 31, 2024	**28.44%**	**$62,805**

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[1] Based on December 31, 2024 projected compensation.

[2] The smoothed return on the total General and Safety valuation value of assets was 6.98%. However, because the UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021, the return on a VVA basis for the Safety and LARPD General UAAL Advance Reserves is about 5.03% while the smoothed return on the General and Safety valuation reserves excluding the UAAL Advance Reserve was about 7.12%. The smoothed return on the combined Safety valuation reserves and Safety UAAL Advance Reserve was about 6.67%.

[3] Includes impact of scheduled lag in contribution rate implementation and difference between actual payroll and payroll used in determining normal cost and UAAL contributions during 2024.

[4] Other differences in actual versus expected experience including (but not limited to) retirement, disability and termination experience.

Reconciliation of average recommended member contribution rate

Reconciliation from December 31, 2023 to December 31, 2024
Total Plan *($ in '000s)*

	Contribution Rate	Estimated Annual Dollar Amount[1]
Average recommended member contribution as of December 31, 2023	9.87%	$140,324
1. Effect of change in member demographics	(0.03%)	(396)
2. Total change	**(0.03%)**	**(396)**
Average recommended member contribution as of December 31, 2024	**9.84%**	**$139,928**

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[1] Based on December 31, 2024 projected compensation.

Reconciliation from December 31, 2023 to December 31, 2024
By Membership and Tier

	General Tier 1	General Tier 2	General Tier 3	General Tier 4
Average recommended member contribution as of December 31, 2023[1]	9.94%	7.76%	13.79%	9.06%
1. Effect of change in member demographics	(0.04%)	0.01%	0.21%	(0.06%)
2. Total change	**(0.04%)**	**0.01%**	**0.21%**	**(0.06%)**
Average recommended member contribution as of December 31, 2024	**9.90%**	**7.77%**	**14.00%**	**9.00%**

	Safety Tier 2	Safety Tier 2C	Safety Tier 2D	Safety Tier 4
Average recommended member contribution as of December 31, 2023[1]	16.50%	13.71%	16.74%	17.88%
1. Effect of change in member demographics	(0.01%)	(0.05%)	0.00%	(0.02%)
2. Total change	**(0.01%)**	**(0.05%)**	**0.00%**	**(0.02%)**
Average recommended member contribution as of December 31, 2024	**16.49%**	**13.66%**	**16.74%**	**17.86%**

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[1] Average rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2023 valuation to the Association membership as of December 31, 2024.

Recommended employer contribution rates

Recommended Employer Contribution[1] Calculated as of December 31
County Only

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Amount[2]	2023 Basic	2023 COLA	2023 Total	2023 Estimated Amount[2]
General Tier 1								
Normal Cost	7.96%	3.04%	11.00%	$334	7.95%	3.02%	10.97%	$333
UAAL (Before POB Credit)	14.24%	4.89%	19.13%	581	14.54%	4.98%	19.52%	593
Pension Obligation Bond Credit	(3.37%)	(1.42%)	(4.79%)	(146)	(3.56%)	(1.50%)	(5.06%)	(154)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(31)	(1.08%)	0.00%	(1.08%)	(33)
Employer Contribution	**17.80%**	**6.51%**	**24.31%**	**$738**	**17.85%**	**6.50%**	**24.35%**	**$739**
General Tier 2								
Normal Cost	7.62%	1.64%	9.26%	$31,471	7.66%	1.65%	9.31%	$31,641
UAAL (Before POB Credit)	14.24%	4.89%	19.13%	65,015	14.54%	4.98%	19.52%	66,341
Pension Obligation Bond Credit	(3.37%)	(1.42%)	(4.79%)	(16,279)	(3.56%)	(1.50%)	(5.06%)	(17,197)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(3,501)	(1.08%)	0.00%	(1.08%)	(3,670)
Employer Contribution	**17.46%**	**5.11%**	**22.57%**	**$76,706**	**17.56%**	**5.13%**	**22.69%**	**$77,115**
General Tier 4								
Normal Cost	7.34%	1.66%	9.00%	$38,061	7.40%	1.66%	9.06%	$38,314
UAAL (Before POB Credit)	14.24%	4.89%	19.13%	80,900	14.54%	4.98%	19.52%	82,549
Pension Obligation Bond Credit	(3.37%)	(1.42%)	(4.79%)	(20,257)	(3.56%)	(1.50%)	(5.06%)	(21,399)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(4,356)	(1.08%)	0.00%	(1.08%)	(4,567)
Employer Contribution	**17.18%**	**5.13%**	**22.31%**	**$94,348**	**17.30%**	**5.14%**	**22.44%**	**$94,897**

[1] For employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $127 K when made on April 1, 2026.
[2] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on page 49.

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Section 2: Actuarial Valuation Results

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Amount[1]	2023 Basic	2023 COLA	2023 Total	2023 Estimated Amount[1]
Safety Tier 1								
Employer Contribution				**N/A[2]**				
Safety Tier 2								
Normal Cost	18.78%	4.23%	23.01%	$21,164	18.88%	4.25%	23.13%	$21,274
Member Cost Sharing Contributions[3]	(2.99%)	0.00%	(2.99%)	(2,750)	(2.99%)	0.00%	(2.99%)	(2,750)
UAAL (Before Credits)	39.58%	12.88%	52.46%	48,251	39.89%	12.67%	52.56%	48,343
Voluntary UAAL contribution credit	(28.42%)	(8.89%)	(37.31%)	(34,317)	(29.79%)	(9.31%)	(39.10%)	(35,963)
Pension Obligation Bond Credit	(3.19%)	(1.65%)	(4.84%)	(4,452)	(3.29%)	(1.71%)	(5.00%)	(4,599)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(947)	(1.08%)	0.00%	(1.08%)	(993)
Employer Contribution	**22.73%**	**6.57%**	**29.30%**	**$26,949**	**21.62%**	**5.90%**	**27.52%**	**$25,312**
Safety Tier 2C								
Normal Cost	19.47%	4.36%	23.83%	$710	20.09%	4.34%	24.43%	$728
Member Cost Sharing Contributions[2]	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%	0
UAAL (Before Credits)	39.58%	12.88%	52.46%	1,562	39.89%	12.67%	52.56%	1,565
Voluntary UAAL contribution credit	(28.42%)	(8.89%)	(37.31%)	(1,111)	(29.79%)	(9.31%)	(39.10%)	(1,164)
Pension Obligation Bond Credit	(3.19%)	(1.65%)	(4.84%)	(144)	(3.29%)	(1.71%)	(5.00%)	(149)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(31)	(1.08%)	0.00%	(1.08%)	(32)
Employer Contribution	**26.41%**	**6.70%**	**33.11%**	**$986**	**25.82%**	**5.99%**	**31.81%**	**$948**

[1] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on page 49.
[2] There were no Safety Tier 1 active members reported for the December 31, 2024 and December 31, 2023 valuations.
[3] Adjusted for refunds.

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Section 2: Actuarial Valuation Results

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Amount[1]	2023 Basic	2023 COLA	2023 Total	2023 Estimated Amount[1]
Safety Tier 2D								
Normal Cost	20.00%	4.44%	24.44%	$4,717	19.70%	4.37%	24.07%	$4,646
Member Cost Sharing Contributions[2]	(2.97%)	0.00%	(2.97%)	(573)	(2.95%)	0.00%	(2.95%)	(569)
UAAL (Before Credits)	39.58%	12.88%	52.46%	10,125	39.89%	12.67%	52.56%	10,145
Voluntary UAAL contribution credit	(28.42%)	(8.89%)	(37.31%)	(7,201)	(29.79%)	(9.31%)	(39.10%)	(7,547)
Pension Obligation Bond Credit	(3.19%)	(1.65%)	(4.84%)	(934)	(3.29%)	(1.71%)	(5.00%)	(965)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(199)	(1.08%)	0.00%	(1.08%)	(208)
Employer Contribution	**23.97%**	**6.78%**	**30.75%**	**$5,935**	**22.48%**	**6.02%**	**28.50%**	**$5,502**
Safety Tier 4								
Normal Cost	14.02%	3.84%	17.86%	$19,041	13.98%	3.90%	17.88%	$19,062
Member Cost Sharing Contributions[2]	0.00%	0.00%	0.00%	0	0.00%	0.00%	0.00%	0
UAAL (Before Credits)	39.58%	12.88%	52.46%	55,929	39.89%	12.67%	52.56%	56,035
Voluntary UAAL contribution credit	(28.42%)	(8.89%)	(37.31%)	(39,777)	(29.79%)	(9.31%)	(39.10%)	(41,685)
Pension Obligation Bond Credit	(3.19%)	(1.65%)	(4.84%)	(5,160)	(3.29%)	(1.71%)	(5.00%)	(5,331)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(1,098)	(1.08%)	0.00%	(1.08%)	(1,151)
Employer Contribution	**20.96%**	**6.18%**	**27.14%**	**$28,935**	**19.71%**	**5.55%**	**25.26%**	**$26,930**
All County Categories Combined								
Normal Cost	9.51%	2.20%	11.71%	$115,498	9.55%	2.21%	11.76%	$115,998
Member Cost Sharing Contributions[2]	(0.34%)	0.00%	(0.34%)	(3,323)	(0.34%)	0.00%	(0.34%)	(3,319)
UAAL (Before Credits)	19.91%	6.68%	26.59%	262,363	20.21%	6.71%	26.92%	265,571
Voluntary UAAL contribution credit	(6.36%)	(1.99%)	(8.35%)	(82,406)	(6.67%)	(2.08%)	(8.75%)	(86,359)
Pension Obligation Bond Credit	(3.33%)	(1.47%)	(4.80%)	(47,372)	(3.50%)	(1.55%)	(5.05%)	(49,794)
Implicit Retiree Health Benefit Subsidy	(1.03%)	0.00%	(1.03%)	(10,163)	(1.08%)	0.00%	(1.08%)	(10,654)
Employer Contribution	**18.36%**	**5.42%**	**23.78%**	**$234,597**	**18.17%**	**5.29%**	**23.46%**	**$231,443**

[1] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on page 49.
[2] Adjusted for refunds.

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Section 2: Actuarial Valuation Results

Recommended Employer Contribution Calculated as of December 31
AHS, Court and First 5

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Amount[1]	2023 Basic	2023 COLA	2023 Total	2023 Estimated Amount[1]
General Tier 1								
Normal Cost	7.96%	3.04%	11.00%	$10	7.95%	3.02%	10.97%	$10
UAAL (Before POB Credit)	14.24%	4.89%	19.13%	18	14.54%	4.98%	19.52%	18
Pension Obligation Bond Credit	(3.37%)	(1.42%)	(4.79%)	(4)	(3.56%)	(1.50%)	(5.06%)	(4)
Employer Contribution	**18.83%**	**6.51%**	**25.34%**	**$24**	**18.93%**	**6.50%**	**25.43%**	**$24**
General Tier 2								
Normal Cost	7.62%	1.64%	9.26%	$14,894	7.66%	1.65%	9.31%	$14,974
UAAL (Before POB Credit)	14.24%	4.89%	19.13%	30,769	14.54%	4.98%	19.52%	31,397
Pension Obligation Bond Credit	(3.37%)	(1.42%)	(4.79%)	(7,704)	(3.56%)	(1.50%)	(5.06%)	(8,139)
Employer Contribution	**18.49%**	**5.11%**	**23.60%**	**$37,959**	**18.64%**	**5.13%**	**23.77%**	**$38,232**
General Tier 4								
Normal Cost	7.34%	1.66%	9.00%	$23,861	7.40%	1.66%	9.06%	$24,020
UAAL (Before POB Credit)	14.24%	4.89%	19.13%	50,717	14.54%	4.98%	19.52%	51,751
Pension Obligation Bond Credit	(3.37%)	(1.42%)	(4.79%)	(12,699)	(3.56%)	(1.50%)	(5.06%)	(13,415)
Employer Contribution	**18.21%**	**5.13%**	**23.34%**	**$61,879**	**18.38%**	**5.14%**	**23.52%**	**$62,356**

[1] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on page 49.

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Recommended Employer Contribution Calculated as of December 31
Housing Authority

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Amount[1]	2023 Basic	2023 COLA	2023 Total	2023 Estimated Amount[1]
General Tier 1								
Normal Cost	7.96%	3.04%	11.00%	$259	7.95%	3.02%	10.97%	$258
UAAL	14.24%	4.89%	19.13%	450	14.54%	4.98%	19.52%	459
Employer Contribution	**22.20%**	**7.93%**	**30.13%**	**$709**	**22.49%**	**8.00%**	**30.49%**	**$717**
General Tier 2								
Normal Cost	7.62%	1.64%	9.26%	$42	7.66%	1.65%	9.31%	$42
UAAL	14.24%	4.89%	19.13%	86	14.54%	4.98%	19.52%	88
Employer Contribution	**21.86%**	**6.53%**	**28.39%**	**$128**	**22.20%**	**6.63%**	**28.83%**	**$130**
General Tier 4								
Normal Cost	7.34%	1.66%	9.00%	$297	7.40%	1.66%	9.06%	$299
UAAL	14.24%	4.89%	19.13%	632	14.54%	4.98%	19.52%	645
Employer Contribution	**21.58%**	**6.55%**	**28.13%**	**$929**	**21.94%**	**6.64%**	**28.58%**	**$944**

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[1] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on page 49.

Section 2: Actuarial Valuation Results

Recommended Employer Contribution Calculated as of December 31
LARPD

Component by Tier	2024 Basic	2024 COLA	2024 Total[1]	2024 Estimated Amount[2]	2023 Basic	2023 COLA	2023 Total[1]	2023 Estimated Amount[2]
General Tier 1								
Normal Cost	7.96%	3.04%	11.00%	$67	7.95%	3.02%	10.97%	$67
UAAL (Before Credits)	22.79%	11.46%	34.25%	209	20.54%	9.69%	30.23%	184
Voluntary UAAL contribution credit[3]	(22.06%)	(11.15%)	(33.21%)	(202)	(20.54%)	(9.69%)	(30.23%)	(184)
Employer Contribution	**8.69%**	**3.35%**	**12.04%**	**$74**	**7.95%**	**3.02%**	**10.97%**	**$67**
General Tier 3								
Normal Cost	12.56%	4.41%	16.97%	$222	12.26%	4.23%	16.49%	$216
UAAL (Before Credits)	22.79%	11.46%	34.25%	448	20.54%	9.69%	30.23%	395
Voluntary UAAL contribution credit[3]	(22.06%)	(11.15%)	(33.21%)	(434)	(20.54%)	(9.69%)	(30.23%)	(395)
Employer Contribution	**13.29%**	**4.72%**	**18.01%**	**$236**	**12.26%**	**4.23%**	**16.49%**	**$216**
General Tier 4								
Normal Cost	7.34%	1.66%	9.00%	$137	7.40%	1.66%	9.06%	$138
UAAL (Before Credits)	22.79%	11.46%	34.25%	520	20.54%	9.69%	30.23%	459
Voluntary UAAL contribution credit[3]	(22.06%)	(11.15%)	(33.21%)	(504)	(20.54%)	(9.69%)	(30.23%)	(459)
Employer Contribution	**8.07%**	**1.97%**	**10.04%**	**$153**	**7.40%**	**1.66%**	**9.06%**	**$138**

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[1] For LARPD, the combined rate is 13.47% as of December 31, 2024 and 12.25% as of December 31, 2023.
[2] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on page 49.
[3] In compliance with CalPEPRA, the net LARPD contribution rate cannot be less than the Normal Cost. In order to do that, the voluntary UAAL contribution credit as of December 31, 2023 was reduced to not exceed the UAAL rate before the credit.

Section 2: Actuarial Valuation Results

Recommended Employer Contribution Calculated as of December 31
Total Plan

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Amount[1]	2023 Basic	2023 COLA	2023 Total	2023 Estimated Amount[1]
All Tiers								
Normal Cost (Net)	8.65%	2.03%	10.68%	$151,964	8.69%	2.05%	10.74%	$152,703
UAAL (Net)	9.70%	3.29%	12.99%	184,724	9.57%	3.20%	12.77%	181,564
Employer Contribution	**18.35%**	**5.32%**	**23.67%**	**$336,688**	**18.26%**	**5.25%**	**23.51%**	**$334,267**

Projected Compensation *($ in '000s)* as of December 31, 2024

Tier	County Only	AHS, Court, and First 5	Housing Authority	LARPD	Total
General Tier 1	$3,038	$93	$2,352	$609	$6,092
General Tier 2	339,861	160,843	452		501,156
General Tier 3				1,308	1,308
General Tier 4	422,896	265,120	3,305	1,519	692,840
Safety Tier 2	91,977				91,977
Safety Tier 2C	2,978				2,978
Safety Tier 2D	19,301				19,301
Safety Tier 4	106,612				106,612
Total Payroll	**$986,663**	**$426,056**	**$6,109**	**$3,436**	**$1,422,264**

A breakdown of the approximate[2] portion of the employer contribution rate by the various types of benefit is as follows:

Benefit Type	General	Safety
Service and non-service connected disability benefits	7%	42%
Service retirement and other benefits	93%	58%
Total	**100%**	**100%**

[1] Estimated amounts ($ in '000s) shown on an annual basis and are based on the December 31, 2024 projected compensation shown on this page.

[2] In developing these percentages, we made the simplifying assumption that the liability for active and inactive members (including members who have already retired) can be approximated by the proportion of the normal cost required to fund disability and non-disability benefits.

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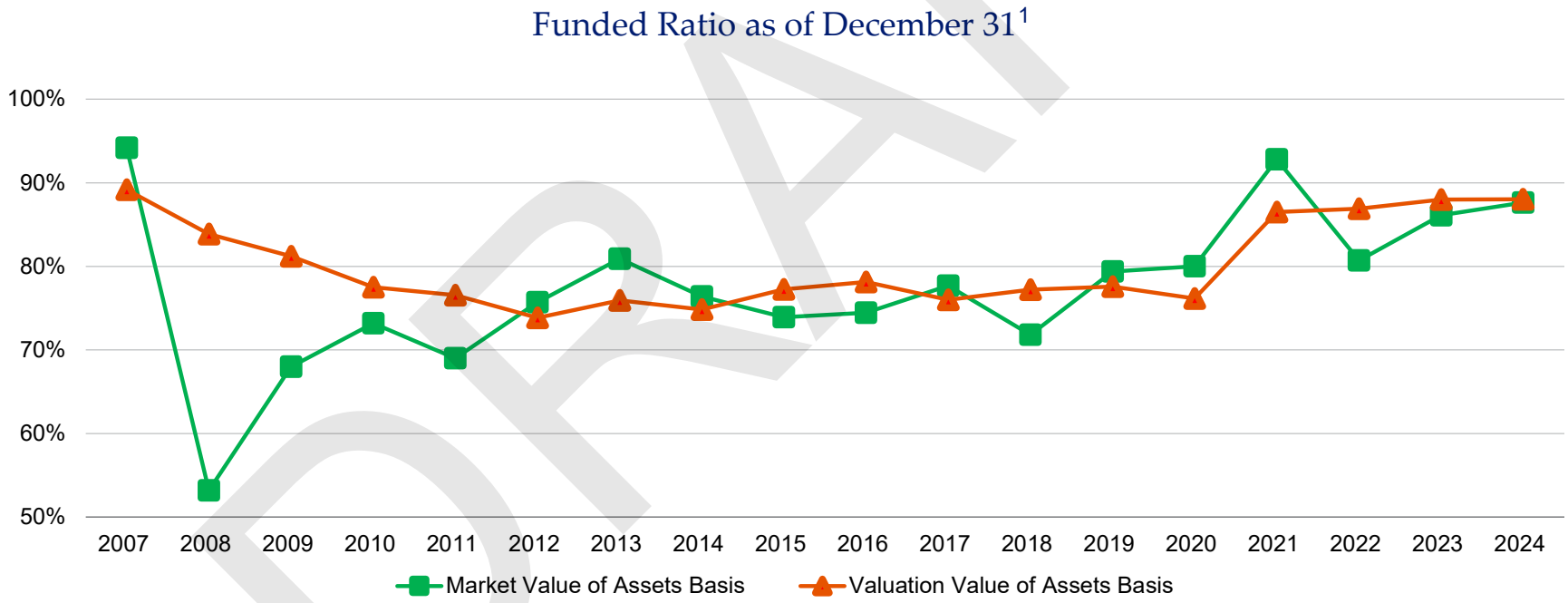
G. Funded status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the market and valuation value of assets to the actuarial accrued liability of the Plan. Higher ratios indicate a relatively well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other causes.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the market or valuation value of assets is used.



[1] Prior to the December 31, 2013 valuation, the funded ratio on a market value basis was calculated using the end-of-year valuation value of assets plus any deferred market gains. Beginning with the December 31, 2013 valuation, the market value of assets for this purpose includes either one-half of any deferred market gains (after adjustment to include the balance in the Contingency Reserve) or a proportion of any deferred investment losses after netting out the Contingency Reserve that is commensurate with the size of the valuation reserves.

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Section 2: Actuarial Valuation Results

Schedule of Funding Progress

Actuarial Valuation Date as of December 31	Valuation Value of Assets[1] (a)	Actuarial Accrued Liability (AAL)[2] (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Projected Compensation (c)	UAAL as a % of Projected Compensation [(b) – (a)] / (c)
2015	$6,083,536,000	$7,875,020,000	$1,791,484,000	77.3%	$969,534,000	184.8%
2016	6,436,138,000	8,237,715,000	1,801,577,000	78.1%	1,003,651,000	179.5%
2017	6,830,379,000	8,987,061,000	2,156,682,000	76.0%	1,055,661,000	204.3%
2018	7,239,327,000	9,376,397,000	2,137,070,000	77.2%	1,093,735,000	195.4%
2019	7,599,977,000	9,795,019,000	2,195,042,000	77.6%	1,129,175,000	194.4%
2020	7,984,241,000	10,484,180,000	2,499,939,000	76.2%	1,155,697,000	216.3%
2021	9,453,108,000	10,929,935,000	1,476,827,000	86.5%	1,204,499,000	122.6%
2022	9,923,019,000	11,415,120,000	1,492,101,000	86.9%	1,258,026,000	118.6%
2023	10,342,556,000	11,746,667,000	1,404,111,000	88.0%	1,319,397,000	106.4%
2024	10,863,317,000	12,340,666,000	1,477,349,000	88.0%	1,422,264,000	103.9%

[1] Excludes assets for SRBR and other non-valuation reserves (401(h) Reserve), and includes the following (whole dollar) reimbursement amounts of implicit retiree health benefit subsidy paid by the County (amounts are estimates provided by ACERA):

Actuarial Valuation Date	Reimbursement Amount	For Year	Actuarial Valuation Date	Reimbursement Amount	For Year
12/31/2015	$5,324,502	2015	12/31/2020	$7,548,683	2020
12/31/2016	8,865,275	2016	12/31/2021	5,652,613	2021
12/31/2017	5,830,283	2017	12/31/2022	7,981,476	2022
12/31/2018	6,939,808	2018	12/31/2023	4,116,000	2023
12/31/2019	6,510,876	2019	12/31/2024	2,472,346	2024

[2] Excludes liabilities for SRBR and other non-valuation reserves.

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H. Actuarial balance sheet

An overview of the Plan's funding is given by an actuarial balance sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current members is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet as of December 31, 2024

($ in '000s)

Description	Basic	COLA	Total
Liabilities			
Present value of benefits for retired members and beneficiaries	$4,714,038	$2,888,577	$7,602,615
Present value of benefits for inactive members	372,461	66,718	439,179
Present value of benefits for active members	5,260,660	1,240,772	6,501,432
Total liabilities	**$10,347,159**	**$4,196,067**	**$14,543,226**
Current and future assets			
Total valuation value of assets	$7,502,069	$3,361,248	$10,863,317
Present value of future contributions by members	863,829	200,370	1,064,199
Present value of future employer contributions for:			
• Entry age normal cost	930,610	207,751	1,138,361
• Unfunded actuarial accrued liability	1,050,651	426,698	1,477,349
Total of current and future assets	**$10,347,159**	**$4,196,067**	**$14,543,226**

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I. Risk

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan that can inform both financial preparation and future decision making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling. As noted in the valuation highlights section of this report, a copy of the risk assessment report including the analysis recommended by Segal in consultation with ACERA will be available later in 2025.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial health, as well as a discussion of historical trends and maturity measures.

Risk assessments

- **Asset/Liability Mismatch Risk** (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

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

  Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but have no impact on asset levels. This risk is also discussed below.

- **Investment Risk** (the risk that investment returns will be different than expected)

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the actuarial value of assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection J,*

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Volatility Ratios, on page 57, a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.6% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of -11.15% to a high of 18.77%.

As discussed on page 11, the 7.00% investment return assumption used in this valuation has been developed without taking into consideration any impact of the 50/50 excess earnings allocation between the retirement and SRBR asset pools. The 50/50 allocation of future excess earnings would result in an "outflow" (i.e., assets not available to fund the benefits included in this valuation) over time, creating headwinds to the funding of the plan. This outflow would increase the unfunded actuarial accrued liability and over time result in higher employer contribution rates.

- **Longevity Risk** (the risk that mortality experience will be different than expected)

  The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections. Effective with the December 31, 2020 valuation, the Board has adopted amount weighted mortality tables with generational mortality projections.

- **Other Risks**

  In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for Safety groups).

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employers have a proven track-record of making the actuarially determined contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

Evaluation of historical trends

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past 10 years:

- The funded percentage on the valuation value of assets basis has increased from 77.3% to 88.0%. This is primarily due to contributions by all employers made to amortize the UAAL, additional voluntary County Safety and LARPD General contributions to

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reduce their UAAL, and higher than assumed average investment returns over recent years. For a more detailed history see *Section 2, Subsection G, Funded Status* starting on page 50.

- The average geometric investment return on the valuation value of assets over the last 10 years was 7.37%. This includes a high of 9.50% return and a low of 6.30%. The average over the last 5 years was 7.24%. For more details see the *Section 2, Subsection B, Investment Return* table on page 26.
- The primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in 2017 changed the discount rate from 7.60% to 7.25% (as well as various other changes) adding $396 million in unfunded liability. The assumption changes in 2020 changed the discount rate from 7.25% to 7.00% (as well as various other changes) adding $321.7 million in unfunded liability. The most recent assumption change in 2023 reduced the inflationary salary increase assumption from 2.75% to 2.50% (as well as various other changes), **subtracting** $97.5 million in unfunded liability. For more details on the unfunded liability changes see *Section 3, Exhibit H, Table of Amortization Bases* starting on page 83.
- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in *Section 3, Exhibit I, Projection of UAAL Balances and Payments* provided on pages 89 and 90.

Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.81 to 0.95. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative for understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member Information* on page 19.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. Over the past year, benefits paid were $249 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the Plan currently has a relatively low level of negative cash flow and is relatively well funded (at an 88.0% funded ratio). For more details on historical cash flows see *Section 2, Subsection B, Comparison of Contributions Made with Benefits* on page 23.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection J, Volatility Ratios* on page 57.

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Low-Default-Risk Obligation Measure (LDROM)

Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions* requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is calculated using the same methodology and assumptions used to determine the AAL used for funding, except for the discount rate. The LDROM is required to be calculated using "a discount rate…derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer, is 4.08% for use effective December 31, 2024. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or actuarially determined contribution rates. The plan's expected return on assets, currently 7.00%, is used for these calculations.

As of December 31, 2024, the LDROM for the Plan is $18.0 billion.[1] The difference between the Plan's AAL of $12.3 billion and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the Plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of member benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the actuarially determined contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

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[1] For comparison purposes, as of December 31, 2023, the LDROM was $19.3 billion based on a discount rate of 3.26%, while the Plan's actuarial accrued liability was $11.7 billion.

J. Volatility ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total projected compensation, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 7.6. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.6% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the actuarial accrued liability divided by total projected compensation, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the actuarial accrued liability due to actual experience or to changes in actuarial assumptions. The current total Plan LVR is about 8.7 but is 7.3 for General (non-LARPD) compared to 20.2 for General (LARPD) and 15.7 for Safety. This means that assumption changes will have a greater impact on employer contribution rates for General (LARPD) and Safety than for General (non-LARPD).

The decrease in the total AVR and LVR this year was caused by greater than expected overall payroll growth. The increase in the LVR for LARPD this year was caused by about a 7% reduction in the payroll for LARPD (relative to the assumption) as reported in the December 31, 2024 valuation.

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Volatility Ratios

Asset Volatility Ratio (AVR) versus Liability Volatility Ratio (LVR)[1]

As of December 31	AVR General (non-LARPD)	AVR General (LARPD)	AVR Safety	AVR Total	LVR General (non-LARPD)	LVR General (LARPD)[2]	LVR Safety	LVR Total
2015	5.5	5.7	8.8	6.0	7.0	7.3	13.7	8.1
2016	5.6	6.1	8.9	6.1	7.1	7.7	13.8	8.2
2017	6.0	7.6	9.8	6.6	7.3	9.1	14.6	8.5
2018	5.5	9.0	9.5	6.2	7.3	12.5	15.1	8.6
2019	6.1	11.1	10.8	6.9	7.4	14.1	15.4	8.7
2020	6.4	13.8	11.6	7.3	7.7	16.8	16.2	9.1
2021	6.8	18.8	16.5	8.4	7.8	17.5	15.8	9.1
2022	6.0	17.1	14.0	7.3	7.8	18.2	15.6	9.1
2023	6.3	18.4	14.9	7.7	7.6	18.7	15.8	8.9
2024	6.2	20.0	14.9	7.6	7.3	20.2	15.7	8.7

[1] Prior to the December 31, 2018 valuation, volatility ratios for the General (non-LARPD) group were calculated including assets, liabilities, and payroll attributable to Tier 1 members from the LARPD and the ACOE (payroll was $0 as of December 31, 2017).
Beginning with the December 31, 2018 valuation, the assets, liabilities, and payroll attributable to LARPD Tier 1 members are included in calculating the volatility ratios for the General (LARPD) group, and the assets and liabilities attributable to ACOE Tier 1 members are excluded from this table.

[2] The ratio of retired members and beneficiaries to actives as of December 31, 2024 is 2.4 for LARPD compared to 0.9 for General (non-LARPD). This results in a higher LVR for LARPD as compared to General (non-LARPD).

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Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Total Plan – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	11,865	11,547	2.8%
• Average age	46.9	47.0	-0.1
• Average years of service	10.7	10.8	-0.1
• Total projected compensation[1]	$1,422,263,693	$1,319,396,465	7.8%
• Average projected compensation	$119,871	$114,263	4.9%
• Account balances	$1,546,360,432	$1,466,082,423	5.5%
• Total active vested members	7,727	7,621	1.4%
Inactive members[2]			
• Number	4,039	3,838	5.2%
• Average age	47.3	47.1	0.2
Retired members			
• Number	8,841	8,685	1.8%
• Average age	73.2	72.9	0.3
• Average retirement age	60.6	60.5	0.1
• Average monthly benefit[3]	$5,022	$4,903	2.4%
Disabled members			
• Number	1,011	1,002	0.9%
• Average age	66.1	65.8	0.3
• Average retirement age	49.5	49.6	-0.1
• Average monthly benefit[3]	$4,427	$4,322	2.4%
Beneficiaries			
• Number	1,400	1,339	4.6%
• Average age	76.1	75.9	0.2
• Average monthly benefit[3]	$3,049	$2,893	5.4%

[1] Total payroll shown above may not total exactly to the amount shown elsewhere in this report when rounded to thousands of dollars due to separate rounding by tiers used elsewhere.

[2] Includes inactive members due a refund of member contributions.

[3] Excludes supplemental benefits paid from SRBR.

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General Tier 1 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	50	62	-19.4%
• Average age	61.1	60.8	0.3
• Average years of service	28.9	28.3	0.6
• Total projected compensation	$6,092,832	$7,026,138	-13.3%
• Average projected compensation	$121,857	$113,325	7.5%
• Account balances	$25,349,988	$29,643,841	-14.5%
• Total active vested members	50	62	-19.4%
Inactive members[1]			
• Number	22	29	-24.1%
• Average age	65.8	65.8	0.0
Retired members			
• Number	2,533	2,643	-4.2%
• Average age	79.2	78.7	0.5
• Average retirement age	59.5	59.4	0.1
• Average monthly benefit[2]	$6,306	$6,064	4.0%
Disabled members			
• Number	114	120	-5.0%
• Average age	78.1	77.0	1.1
• Average retirement age	51.7	51.5	0.2
• Average monthly benefit[2]	$4,081	$3,969	2.8%
Beneficiaries			
• Number	625	623	0.3%
• Average age	81.6	81.2	0.4
• Average monthly benefit[2]	$3,356	$3,126	7.4%

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[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

General Tier 2 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	3,860	4,146	-6.9%
• Average age	54.5	54.0	0.5
• Average years of service	20.0	19.3	0.7
• Total projected compensation[1]	$501,155,500	$501,991,121	-0.2%
• Average projected compensation	$129,833	$121,078	7.2%
• Account balances	$798,588,989	$790,233,575	1.1%
• Total active vested members	3,784	4,063	-6.9%
Inactive members[2]			
• Number	1,739	1,779	-2.2%
• Average age	52.8	52.2	0.6
Retired members			
• Number	4,780	4,587	4.2%
• Average age	71.3	70.9	0.4
• Average retirement age	62.5	62.5	0.0
• Average monthly benefit[3]	$3,588	$3,461	3.7%
Disabled members			
• Number	462	470	-1.7%
• Average age	67.6	67.0	0.6
• Average retirement age	50.5	50.5	0.0
• Average monthly benefit[3]	$3,103	$3,036	2.2%
Beneficiaries			
• Number	437	394	10.9%
• Average age	71.6	70.8	0.8
• Average monthly benefit[3]	$1,767	$1,617	9.3%

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[1] Projected compensation has been limited. For members with membership dates on or after January 1, 1996, the Internal Revenue Code Section 401(a)(17) limit is $350,000 for 2025.
[2] Includes inactive members due a refund of member contributions.
[3] Excludes supplemental benefits paid from SRBR.

General Tier 3 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	11	13	-15.4%
• Average age	55.3	56.6	-1.3
• Average years of service	15.6	16.9	-1.3
• Total projected compensation[1]	$1,307,656	$1,409,317	-7.2%
• Average projected compensation	$118,878	$108,409	9.7%
• Account balances	$2,922,595	$3,489,252	-16.2%
• Total active vested members	10	11	-9.1%
Inactive members[2]			
• Number	13	13	0.0%
• Average age	51.1	50.1	1.0
Retired members			
• Number	38	35	8.6%
• Average age	66.7	66.1	0.6
• Average retirement age	59.5	59.3	0.2
• Average monthly benefit[3]	$4,460	$4,328	3.0%
Disabled members			
• Number	1	1	0.0%
• Average age	71.1	70.1	1.0
• Average retirement age	62.6	62.6	0.0
• Average monthly benefit[3]	$2,540	$2,466	3.0%
Beneficiaries			
• Number	5	5	0.0%
• Average age	68.6	67.6	1.0
• Average monthly benefit[3]	$3,890	$3,777	3.0%

[1] Projected compensation has been limited. For members with membership dates on or after January 1, 1996, the Internal Revenue Code Section 401(a)(17) limit is $350,000 for 2025.
[2] Includes inactive members due a refund of member contributions.
[3] Excludes supplemental benefits paid from SRBR.

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General Tier 4 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	6,537	5,922	10.4%
• Average age	43.1	42.9	0.2
• Average years of service	4.8	4.5	0.3
• Total projected compensation[1]	$692,839,857	$600,065,472	15.5%
• Average projected compensation	$105,987	$101,328	4.6%
• Account balances	$298,124,548	$237,981,764	25.3%
• Total active vested members	2,913	2,495	16.8%
Inactive members[2]			
• Number	2,001	1,761	13.6%
• Average age	42.8	42.2	0.6
Retired members			
• Number	158	119	32.8%
• Average age	68.4	68.0	0.4
• Average retirement age	65.8	65.8	0.0
• Average monthly benefit[3]	$1,400	$1,313	6.6%
Disabled members			
• Number	8	7	14.3%
• Average age	64.6	66.0	-1.4
• Average retirement age	59.7	61.7	-2.0
• Average monthly benefit[3]	$2,726	$2,669	2.1%
Beneficiaries			
• Number	6	5	20.0%
• Average age	65.0	63.3	1.7
• Average monthly benefit[3]	$1,301	$1,386	-6.1%

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[1] Projected compensation has been limited. It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2025 is equal to $155,081. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $155,081, or $186,096). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2025. (reference: Section 7522.10(d)).

[2] Includes inactive members due a refund of member contributions.

[3] Excludes supplemental benefits paid from SRBR.

Safety Tier 1 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average years of service	N/A	N/A	N/A
• Total projected compensation	$0	$0	N/A
• Average projected compensation	N/A	N/A	N/A
• Account balances	$0	$0	N/A
• Total active vested members	0	0	N/A
Inactive members[1]			
• Number	4	4	0.0%
• Average age	68.1	67.1	1.0
Retired members			
• Number	508	522	-2.7%
• Average age	76.8	76.0	0.8
• Average retirement age	54.9	54.9	0.0
• Average monthly benefit[2]	$10,178	$9,899	2.8%
Disabled members			
• Number	85	86	-1.2%
• Average age	74.8	73.8	1.0
• Average retirement age	48.3	48.4	-0.1
• Average monthly benefit[2]	$6,682	$6,721	-0.6%
Beneficiaries			
• Number	202	199	1.5%
• Average age	77.8	76.9	0.9
• Average monthly benefit[2]	$4,783	$4,533	5.5%

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[1] Includes inactive members due a refund of member contributions.
[2] Excludes supplemental benefits paid from SRBR.

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Safety Tier 2 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	513	576	-10.9%
• Average age	50.0	49.2	0.8
• Average years of service	20.8	20.1	0.7
• Total projected compensation[1]	$91,977,208	$95,464,429	-3.7%
• Average projected compensation	$179,293	$165,737	8.2%
• Account balances	$303,360,999	$309,204,484	-1.9%
• Total active vested members	513	576	-10.9%
Inactive members[2]			
• Number	104	114	-8.8%
• Average age	49.5	48.8	0.7
Retired members			
• Number	781	740	5.5%
• Average age	64.3	64.1	0.2
• Average retirement age	55.1	55.3	-0.2
• Average monthly benefit[3]	$7,188	$6,911	4.0%
Disabled members			
• Number	313	297	5.4%
• Average age	58.9	58.4	0.5
• Average retirement age	47.9	47.8	0.1
• Average monthly benefit[3]	$5,866	$5,796	1.2%
Beneficiaries			
• Number	125	111	12.6%
• Average age	63.1	64.0	-0.9
• Average monthly benefit[3]	$3,244	$3,232	0.4%

[1] Projected compensation has been limited. For members with membership dates on or after January 1, 1996, the Internal Revenue Code Section 401(a)(17) limit is $350,000 for 2025.
[2] Includes inactive members due a refund of member contributions.
[3] Excludes supplemental benefits paid from SRBR.

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Safety Tier 2C – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	20	20	0.0%
• Average age	48.0	46.7	1.3
• Average years of service	12.5	11.3	1.2
• Total projected compensation[1]	$2,977,667	$2,782,556	7.0%
• Average projected compensation	$148,883	$139,128	7.0%
• Account balances	$3,976,840	$3,428,419	16.0%
• Total active vested members	17	17	0.0%
Inactive members[2]			
• Number	12	11	9.1%
• Average age	44.7	43.8	0.9
Retired members			
• Number	7	7	0.0%
• Average age	60.4	59.4	1.0
• Average retirement age	56.5	56.5	0.0
• Average monthly benefit[3]	$2,173	$2,232	-2.6%
Disabled members			
• Number	1	1	0.0%
• Average age	65.2	64.2	1.0
• Average retirement age	62.3	62.3	0.0
• Average monthly benefit[3]	$7,782	$7,630	2.0%
Beneficiaries			
• Number[4]	0	2	-100.0%
• Average age	N/A	53.5	N/A
• Average monthly benefit[3]	N/A	$1,294	N/A

[1] Projected compensation has been limited. For members with membership dates on or after January 1, 1996, the Internal Revenue Code Section 401(a)(17) limit is $350,000 for 2025.
[2] Includes inactive members due a refund of member contributions.
[3] Excludes supplemental benefits paid from SRBR.
[4] The two beneficiaries as of December 31, 2023 were reclassified as Safety Tier 2 in the December 31, 2024 valuation data.

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Safety Tier 2D – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	121	125	-3.2%
• Average age	45.3	43.9	1.4
• Average years of service	13.3	12.3	1.0
• Total projected compensation[1]	$19,301,255	$18,777,101	2.8%
• Average projected compensation	$159,515	$150,217	6.2%
• Account balances	$32,581,524	$29,149,492	11.8%
• Total active vested members	109	112	-2.7%
Inactive members[2]			
• Number	21	17	23.5%
• Average age	42.7	42.9	-0.2
Retired members			
• Number	16	14	14.3%
• Average age	59.6	59.8	-0.2
• Average retirement age	56.8	57.7	-0.9
• Average monthly benefit[3]	$2,944	$2,918	0.9%
Disabled members			
• Number	13	10	30.0%
• Average age	47.6	49.6	-2.0
• Average retirement age	43.1	45.0	-1.9
• Average monthly benefit[3]	$5,156	$4,825	6.9%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

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[1] Projected compensation has been limited. For members with membership dates on or after January 1, 1996, the Internal Revenue Code Section 401(a)(17) limit is $350,000 for 2025.
[2] Includes inactive members due a refund of member contributions.
[3] Excludes supplemental benefits paid from SRBR.

Safety Tier 4 – Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	753	683	10.2%
• Average age	37.6	37.1	0.5
• Average years of service	5.2	4.8	0.4
• Total projected compensation[1]	$106,611,718	$91,880,333	16.0%
• Average projected compensation	$141,583	$134,525	5.2%
• Account balances	$81,454,948	$62,951,597	29.4%
• Total active vested members	331	285	16.1%
Inactive members[2]			
• Number	123	110	11.8%
• Average age	37.2	36.2	1.0
Retired members			
• Number	20	18	11.1%
• Average age	62.8	61.8	1.0
• Average retirement age	59.4	59.1	0.3
• Average monthly benefit[3]	$2,049	$1,991	2.9%
Disabled members			
• Number	14	10	40.0%
• Average age	45.7	46.3	-0.6
• Average retirement age	42.8	43.6	-0.8
• Average monthly benefit[3]	$5,248	$5,098	2.9%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

[1] Projected compensation has been limited. It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2025 is equal to $155,081. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $155,081, or $186,096). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2025. (reference: Section 7522.10(d)).

[2] Includes inactive members due a refund of member contributions.

[3] Excludes supplemental benefits paid from SRBR.

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Exhibit B: Distribution of active members

Total Plan
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	151	151	—	—	—	—	—	—	—	—
	$85,061	$85,061	—	—	—	—	—	—	—	—
25 - 29	664	601	63	—	—	—	—	—	—	—
	98,931	97,668	$110,980	—	—	—	—	—	—	—
30 - 34	1,245	824	388	33	—	—	—	—	—	—
	108,756	106,276	112,414	$127,667	—	—	—	—	—	—
35 - 39	1,565	705	576	244	40	—	—	—	—	—
	114,654	110,238	113,600	127,268	$130,703	—	—	—	—	—
40 - 44	1,717	569	489	314	314	30	1	—	—	—
	121,782	109,435	116,651	130,581	140,245	$148,957	$280,726	—	—	—
45 - 49	1,678	433	368	284	334	217	42	—	—	—
	126,974	111,734	119,241	129,169	143,989	136,614	151,891	—	—	—
50 - 54	1,698	366	282	226	307	332	160	24	1	—
	129,357	114,399	117,211	130,120	142,739	136,977	144,842	$114,713	$92,978	—
55 - 59	1,453	280	234	168	205	270	158	105	32	1
	125,607	114,496	123,198	126,490	130,056	129,250	138,797	125,540	112,344	$103,564
60 - 64	1,086	151	171	132	161	201	107	88	70	5
	122,056	107,714	110,027	130,449	130,540	119,960	126,814	132,087	133,542	116,904
65 - 69	470	58	91	83	66	76	41	30	13	12
	118,621	109,128	108,963	126,440	114,671	121,386	129,945	128,459	104,919	139,429
70 and over	138	13	20	19	36	16	9	12	7	6
	117,921	113,899	109,870	116,355	101,590	104,489	113,116	134,505	166,487	209,610
Total	**11,865**	**4,151**	**2,682**	**1,503**	**1,463**	**1,142**	**518**	**259**	**123**	**24**
	$119,871	**$107,320**	**$115,501**	**$128,766**	**$136,762**	**$130,908**	**$138,378**	**$127,515**	**$126,547**	**$150,787**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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General Tier 1
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 - 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 - 34	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35 - 39	1	—	—	1	—	—	—	—	—	—
	$73,832	—	—	$73,832	—	—	—	—	—	—
40 - 44	2	—	—	1	1	—	—	—	—	—
	93,559	—	—	97,450	$89,667	—	—	—	—	—
45 - 49	6	—	—	2	4	—	—	—	—	—
	126,934	—	—	114,180	133,311	—	—	—	—	—
50 - 54	5	—	—	1	2	2	—	—	—	—
	95,100	—	—	95,029	106,669	$83,566	—	—	—	—
55 - 59	7	—	—	—	2	5	—	—	—	—
	99,022	—	—	—	91,233	102,138	—	—	—	—
60 - 64	6	—	—	—	—	4	—	—	1	1
	98,564	—	—	—	—	87,407	—	—	$133,706	$108,049
65 - 69	16	—	—	1	1	—	—	4	—	10
	126,215	—	—	92,824	66,186	—	—	$104,722	—	144,155
70 and over	7	—	—	—	—	1	1	—	—	5
	184,399	—	—	—	—	106,514	$82,223	—	—	220,411
Total	**50**	**—**	**—**	**6**	**10**	**12**	**1**	**4**	**1**	**16**
	$121,857	**—**	**—**	**$97,916**	**$108,490**	**$94,497**	**$82,223**	**$104,722**	**$133,706**	**$165,728**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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General Tier 2
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 - 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 - 34	3	—	2	1	—	—	—	—	—	—
	$108,935	—	$95,198	$136,410	—	—	—	—	—	—
35 - 39	121	5	11	83	22	—	—	—	—	—
	112,080	$115,475	112,223	117,005	$92,656	—	—	—	—	—
40 - 44	406	12	29	150	196	19	—	—	—	—
	131,385	126,119	151,193	139,954	123,907	$113,970	—	—	—	—
45 - 49	643	11	28	159	252	166	27	—	—	—
	132,495	195,724	176,218	131,634	135,285	120,748	$112,652	—	—	—
50 - 54	827	14	20	127	250	276	117	22	1	—
	134,102	141,688	171,812	140,142	136,457	130,092	129,042	$112,436	$92,978	—
55 - 59	817	22	15	102	177	228	137	103	32	1
	130,270	144,486	226,165	136,543	127,285	123,742	135,830	125,067	112,344	$103,564
60 - 64	685	8	12	75	143	185	103	87	68	4
	127,608	123,255	137,308	138,789	128,680	119,648	124,743	131,587	133,223	119,117
65 - 69	275	4	11	47	61	74	39	26	12	1
	124,826	137,946	117,623	141,346	114,655	121,340	129,919	132,110	104,764	106,264
70 and over	83	1	—	6	35	15	6	12	7	1
	116,376	119,035	—	128,799	103,040	104,354	110,100	134,505	166,487	155,605
Total	**3,860**	**77**	**128**	**750**	**1,136**	**963**	**429**	**250**	**120**	**7**
	$129,833	**$143,675**	**$160,264**	**$135,095**	**$128,575**	**$123,580**	**$128,961**	**$127,410**	**$126,414**	**$120,272**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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General Tier 3
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 - 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 - 34	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35 - 39	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
40 - 44	1	—	1	—	—	—	—	—	—	—
	$136,284	—	$136,284	—	—	—	—	—	—	—
45 - 49	3	1	1	—	—	—	1	—	—	—
	116,003	$117,284	131,666	—	—	—	$99,059	—	—	—
50 - 54	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
55 - 59	2	—	—	1	—	—	1	—	—	—
	107,603	—	—	$135,018	—	—	80,188	—	—	—
60 - 64	4	—	—	1	2	1	—	—	—	—
	131,497	—	—	159,750	$141,929	$82,378	—	—	—	—
65 - 69	1	—	—	—	—	1	—	—	—	—
	82,171	—	—	—	—	82,171	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**11**	**1**	**2**	**2**	**2**	**2**	**2**	**—**	**—**	**—**
	$118,878	**$117,284**	**$133,975**	**$147,384**	**$141,929**	**$82,275**	**$89,623**	**—**	**—**	**—**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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General Tier 4
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	125	125	—	—	—	—	—	—	—	—
	$80,141	$80,141	—	—	—	—	—	—	—	—
25 - 29	535	493	42	—	—	—	—	—	—	—
	92,539	92,406	$94,093	—	—	—	—	—	—	—
30 - 34	1,043	714	312	17	—	—	—	—	—	—
	102,950	102,584	103,969	$99,594	—	—	—	—	—	—
35 - 39	1,225	628	496	100	1	—	—	—	—	—
	108,774	107,563	109,214	114,462	$82,378	—	—	—	—	—
40 - 44	1,065	517	424	118	6	—	—	—	—	—
	108,831	106,830	111,151	109,956	95,106	—	—	—	—	—
45 - 49	818	403	319	91	4	1	—	—	—	—
	109,826	108,324	111,177	111,630	104,634	$140,953	—	—	—	—
50 - 54	659	316	253	85	3	2	—	—	—	—
	109,575	106,729	111,530	112,965	139,315	123,027	—	—	—	—
55 - 59	507	236	202	61	5	3	—	—	—	—
	108,587	106,190	111,512	106,661	109,505	137,790	—	—	—	—
60 - 64	346	138	154	48	4	1	—	—	1[1]	—
	106,378	105,263	105,297	111,277	125,273	67,208	—	—	$155,080	—
65 - 69	168	54	79	32	2	—	1	—	—	—
	106,123	106,993	107,762	98,411	116,791	—	$155,080	—	—	—
70 and over	46	12	20	13	1	—	—	—	—	—
	109,735	113,471	109,870	110,612	50,828	—	—	—	—	—
Total	**6,537**	**3,636**	**2,301**	**565**	**26**	**7**	**1**	**—**	**1**	**—**
	$105,987	**$103,330**	**$109,006**	**$110,282**	**$108,559**	**$123,941**	**$155,080**	**—**	**$155,080**	**—**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

[1] This member also has non-General Tier 4 service.

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Safety Tier 2
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 - 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 - 34	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35 - 39	15	—	—	—	15	—	—	—	—	—
	$186,773	—	—	—	$186,773	—	—	—	—	—
40 - 44	113	—	—	4	98	10	1	—	—	—
	179,909	—	—	$178,359	175,319	$215,420	$280,726	—	—	—
45 - 49	137	—	—	6	70	47	14	—	—	—
	189,837	—	—	213,020	178,942	190,743	231,340	—	—	—
50 - 54	138	—	—	2	47	46	43	—	—	—
	182,365	—	—	154,105	178,975	181,949	187,831	—	—	—
55 - 59	75	—	—	1	20	33	20	1	—	—
	165,863	—	—	168,848	163,495	170,314	162,047	$139,708	—	—
60 - 64	27	—	—	1	11	10	4	1	—	—
	154,826	—	—	107,801	154,420	147,773	180,145	175,560	—	—
65 - 69	6	—	—	—	2	1	1	—	1	1
	129,417	—	—	—	137,293	163,987	105,808	—	$106,784	$125,341
70 and over	2	—	—	—	—	—	2	—	—	—
	137,612	—	—	—	—	—	137,612	—	—	—
Total	**513**	**—**	**—**	**14**	**263**	**147**	**85**	**2**	**1**	**1**
	$179,293	**—**	**—**	**$184,030**	**$175,528**	**$181,979**	**$187,515**	**$157,634**	**$106,784**	**$125,341**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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Safety Tier 2C
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 - 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 - 34	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35 - 39	4	—	—	3	1	—	—	—	—	—
	$167,121	—	—	$175,138	$143,070	—	—	—	—	—
40 - 44	4	1	—	2	1	—	—	—	—	—
	121,682	$123,090	—	130,710	102,216	—	—	—	—	—
45 - 49	5	1	1	3	—	—	—	—	—	—
	159,773	157,959	$153,080	162,609	—	—	—	—	—	—
50 - 54	4	—	1	1	1	—	—	1	—	—
	121,118	—	139,929	122,647	85,824	—	—	$136,074	—	—
55 - 59	1	1	—	—	—	—	—	—	—	—
	193,428	193,428	—	—	—	—	—	—	—	—
60 - 64	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
65 - 69	2	—	1	1	—	—	—	—	—	—
	172,844	—	108,621	237,068	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**20**	**3**	**3**	**10**	**3**	**—**	**—**	**1**	**—**	**—**
	$148,883	**$158,159**	**$133,877**	**$163,438**	**$110,370**	**—**	**—**	**$136,074**	**—**	**—**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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Safety Tier 2D
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 - 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 - 34	2	1	—	1	—	—	—	—	—	—
	$151,248	$144,595	—	$157,901	—	—	—	—	—	—
35 - 39	30	2	—	27	1	—	—	—	—	—
	169,332	162,769	—	170,066	$162,652	—	—	—	—	—
40 - 44	34	4	3	14	12	1	—	—	—	—
	156,746	152,704	$180,027	158,720	150,608	$149,091	—	—	—	—
45 - 49	26	3	4	12	4	3	—	—	—	—
	166,564	160,171	218,757	163,117	130,638	165,052	—	—	—	—
50 - 54	19	2	1	5	4	6	—	1	—	—
	142,299	156,961	181,378	139,828	144,437	131,341	—	$143,455	—	—
55 - 59	7	—	3	1	1	1	—	1	—	—
	155,204	—	161,140	170,838	132,119	139,929	—	160,120	—	—
60 - 64	3	—	1	1	1	—	—	—	—	—
	156,223	—	206,680	129,871	132,119	—	—	—	—	—
65 - 69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**121**	**12**	**12**	**61**	**23**	**11**	**—**	**2**	**—**	**—**
	$159,515	**$156,282**	**$190,549**	**$162,770**	**$144,978**	**$142,929**	**—**	**$151,787**	**—**	**—**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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Safety Tier 4
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0 - 4 Years	5 - 9 Years	10 - 14 Years	15 - 19 Years	20 - 24 Years	25 - 29 Years	30 - 34 Years	35 - 39 Years	40 Years and over
Under 25	26	26	—	—	—	—	—	—	—	—
	$108,715	$108,715	—	—	—	—	—	—	—	—
25 - 29	129	108	21	—	—	—	—	—	—	—
	125,444	121,689	$144,755	—	—	—	—	—	—	—
30 - 34	197	109	74	14	—	—	—	—	—	—
	139,061	130,106	148,484	$158,972	—	—	—	—	—	—
35 - 39	169	70	69	30	—	—	—	—	—	—
	142,007	132,362	145,348	156,826	—	—	—	—	—	—
40 - 44	92	35	32	25	—	—	—	—	—	—
	145,473	136,857	151,663	149,610	—	—	—	—	—	—
45 - 49	40	14	15	11	—	—	—	—	—	—
	144,577	129,823	154,747	149,487	—	—	—	—	—	—
50 - 54	46	34	7	5	—	—	—	—	—	—
	167,541	171,941	154,119	156,410	—	—	—	—	—	—
55 - 59	37	21	14	2	—	—	—	—	—	—
	172,833	172,665	173,358	170,935	—	—	—	—	—	—
60 - 64	15	5	4	6	—	—	—	—	—	—
	171,214	150,502	186,096	178,553	—	—	—	—	—	—
65 - 69	2	—	—	2	—	—	—	—	—	—
	186,096	—	—	186,096	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**753**	**422**	**236**	**95**	**—**	**—**	**—**	**—**	**—**	**—**
	$141,583	**$133,289**	**$150,345**	**$156,657**	**—**	**—**	**—**	**—**	**—**	**—**

Note: Age and years of service were projected from November 30, 2024 to December 31, 2024.

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Exhibit C: Reconciliation of member data

Description	Active Members	Inactive Members[1]	Retired Members	Disabled Members	Beneficiaries	Total
Number as of December 31, 2023	**11,547**	**3,838**	**8,685**	**1,002**	**1,339**	**26,411**
New members	1,113	0	0	0	117	1,230
Terminations with vested rights	(374)	374	0	0	0	0
Contribution refunds	(108)	(116)	0	0	0	(224)
Retirements	(323)	(77)	400	0	0	0
New disabilities	(21)	(1)	(12)	34	0	0
Return to work	49	(49)	0	0	0	0
Died with or without beneficiary	(18)	0	(231)	(25)	(56)	(330)
Data adjustments[2]	0	70	(1)	0	0	69
Number as of December 31, 2024	**11,865**	**4,039**	**8,841**	**1,011**	**1,400**	**27,156**

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[1] Includes inactive members due a refund of member contributions.
[2] Out of the net 70 data adjustments for inactive members: 71 members were hired and terminated employment after November 30, 2023 (i.e. the census data collection date for last year's valuation); 7 non-member records were added to the terminated vested file, 2 non-members commenced payment, and 6 duplicate records were removed.

Exhibit D: Summary of income and expenses on a market value basis

Statement of Income and Expenses for Years Ended December 31

Line Description	2024	2023
Net assets at market value at the beginning of the year	**$11,278,820,795**	**$10,298,512,063**
GASB 101 implementation	**(985,379)**	**0**
Adjusted net assets at market value at the beginning of the year	**$11,277,835,416**	**$10,298,512,063**
Contribution income		
• Employer contributions	$311,106,275	$288,640,038
• Member contributions	134,489,875	126,471,922
– **Net contribution income**	**$445,596,150**	**$415,111,960**
Investment income		
• Investment, dividends and other income	$275,840,235	$169,595,619
• Asset appreciation	822,031,489	1,148,260,790
• Less investment and administrative fees	(92,633,737)	(85,908,523)
– **Net investment income**	**$1,005,237,987**	**$1,231,947,886**
Total income available for benefits	**$1,450,834,137**	**$1,647,059,846**
Less benefit payments		
• Service retirement and disability benefits	$(628,985,557)	$(601,262,166)
• Death benefits	(3,818,199)	(3,989,157)
• Supplemental cost of living allowance	(1,242,635)	(1,134,334)
• Member refunds	(10,081,262)	(13,293,111)
• Health insurance subsidies	(50,186,853)	(47,072,346)
– **Net benefit payments**	**$(694,314,506)**	**$(666,751,114)**
Change in market value of assets	**$756,519,631**	**$980,308,732**
Net assets at market value at the end of the year	**$12,034,355,047**	**$11,278,820,795**

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Exhibit E: Summary statement of plan assets

Statement of Plan Assets as of December 31

Line Description	2024	2023
Cash	$1,898,343	$5,606,534
Securities lending collateral	149,259,557	158,812,517
Accounts receivable		
• Contributions	$30,652,627	$26,273,195
• Investment receivables	25,203,382	24,364,477
• Investments sold	1,221,241	9,403,958
• Futures contracts	58,859	8,931,394
• Foreign exchange contracts	19,996	2,713,605
• Others	229,650	408,234
– **Total accounts receivable**	**$57,385,755**	**$72,094,863**
– **Prepaid expenses**	**$571,128**	**$833,905**
Investments		
• Short-term investments	$255,540,203	$196,147,412
• Equities	6,108,819,003	5,655,920,181
• Fixed income investments	1,648,579,154	1,594,024,175
• Real estate	814,329,200	804,702,607
• Capital assets	12,339,158	9,752,086
• Alternative investments and private equity	3,183,640,459	2,982,726,814
– **Total investments at market value**	**$12,023,247,177**	**$11,243,273,275**
Total assets	**$12,232,361,960**	**$11,480,621,094**
Accounts payable		
• Securities lending and investments purchased	$(167,527,433)	$(177,801,151)
• Investment-related payables	(13,557,381)	(13,922,794)
• Futures contracts	(1,310,020)	0
• Foreign exchange contracts	(5,035,526)	(9,939)
• Accrued administration expense	(3,822,689)	(3,083,756)
• Members benefits and refunds	(6,508,299)	(6,748,067)
• Lease liability	(245,565)	(234,592)
– **Total accounts payable**	**$(198,006,913)**	**$(201,800,299)**
Net assets at market value	**$12,034,355,047**	**$11,278,820,795**
Net assets at actuarial value	**$12,116,950,577**	**$11,571,613,924**
Net assets at valuation value	**$10,863,316,903**	**$10,342,555,618**

[1] Includes retirement payroll deductions payable.

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Exhibit F: Summary of reported reserve information

Reserve	As of December 31, 2024	As of December 31, 2023
Used in Development of Valuation Value of Assets		
• Member deposit – basic	$1,631,481,590	$1,540,648,400
• Member cost of living	376,818,131	353,992,208
• Employer advance (before transfer from SRBR to employer advance)	2,070,631,690	1,835,763,161
• Pension reserve-current	2,049,215,716	1,997,892,947
• Pension reserve-prior	7,708,235	7,201,449
• Annuity reserve	1,207,341,851	1,181,743,775
• Cost of living reserve	2,826,910,115	2,686,573,602
• Survivor death benefit	34,248,752	28,410,274
• SRBR transfer to employer advance[1]	2,472,346	4,116,000
• Reserve for interest fluctuations (contingency reserve), if negative	0	0
• County-Safety UAAL advance reserve	645,338,735	694,561,086
• LARPD-General UAAL advance reserve	11,149,742	11,652,716
– **Subtotal**	**$10,863,316,903[2]**	**$10,342,555,618**
Not Used in Development of Valuation Value of Assets		
• 401(h) account	$10,521,170	$10,116,636
• Supplemental retirees benefit reserve (before transfer from SRBR to employer advance)	1,214,317,136	1,186,387,821
• Reserve for interest fluctuations (contingency reserve), if positive	31,267,714	36,669,849
• Market stabilization reserve	(82,595,530)	(292,793,129)
• SRBR transfer to employer advance	(2,472,346)[2]	(4,116,000)
– **Subtotal**	**$1,171,038,144**	**$936,265,177**
Total	**$12,034,355,047**	**$11,278,820,795**

[1] Estimate provided by ACERA.
[2] A breakdown of this amount between different cost groups is provided in Section 4, Exhibit 6.

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Exhibit G: Development of the fund through December 31, 2024

Year Ended December 31	Employer Contributions	Member Contributions	Net Investment Return[1]	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2015	$224,607,104	$82,948,934	$(19,960,005)	$434,984,266	$6,640,624,773	$6,987,026,015	105.2%
2016	241,728,451	85,736,229	454,641,033	457,150,304	6,965,580,182	7,309,485,170	104.9%
2017	247,063,550	89,325,824	1,293,322,206	483,192,206	8,112,099,556	7,803,026,229	96.2%
2018	269,684,809	94,735,673	(371,111,618)	512,821,851	7,592,586,569	8,161,706,068	107.5%
2019	298,526,950	103,117,022	1,342,794,800	547,746,289	8,789,279,051	8,528,590,602	97.0%
2020	309,752,998	106,104,226	1,001,415,117	576,784,042	9,629,767,350	8,986,481,645	93.3%
2021	1,116,575,840	111,091,264	1,585,614,282	602,185,840	11,840,862,896	10,707,915,790	90.4%
2022	281,646,702	120,673,520	(1,306,623,284)	638,047,771	10,298,512,063	11,092,625,485	107.7%
2023	288,640,038	126,471,922	1,231,947,886	666,751,114	11,278,820,795	11,571,613,924	102.6%
2024	311,106,275	134,489,875	1,004,252,608[2]	694,314,506	12,034,355,047	12,116,950,577	100.7%

[1] On a market basis, net of investment fees and administrative expenses.
[2] Includes $(985,379) adjustment for GASB 101 implementation.

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Exhibit H: Table of amortization bases

General (Excluding LARPD and ACOE) *($ in '000s)*

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined bases	December 31, 2011	$885,036	21	$659,518	8	$97,342
Experience loss	December 31, 2012	165,501	20	122,567	8	18,090
Experience gain	December 31, 2013	(75,003)	20	(59,070)	9	(7,891)
Experience gain	December 31, 2014	(156,281)	20	(129,289)	10	(15,824)
Change in assumptions	December 31, 2014	350,827	20	290,237	10	35,524
Experience gain	December 31, 2015	(98,619)	20	(85,036)	11	(9,632)
Experience loss	December 31, 2016	3,655	20	3,258	12	344
Experience gain	December 31, 2017	(27,249)	20	(24,942)	13	(2,476)
Change in assumptions	December 31, 2017	260,437	20	238,386	13	23,666
Experience gain[2]	December 31, 2018	(6,121)	20	(5,736)	14	(538)
Experience loss	December 31, 2019	74,367	20	70,963	15	6,321
Experience loss	December 31, 2020	29,771	20	28,808	16	2,447
Change in assumptions	December 31, 2020	231,791	20	224,291	16	19,055
Experience gain	December 31, 2021	(103,975)	20	(101,879)	17	(8,287)
Experience loss	December 31, 2022	25,358	20	25,076	18	1,959
Experience loss	December 31, 2023	22,462	20	22,350	19	1,682
Change in assumptions	December 31, 2023	(70,873)	20	(70,518)	19	(5,308)
Plan change	December 31, 2023	9,665	15	9,453	14	887
Experience loss	December 31, 2024	94,356	20	94,356	20	6,861
Total				**$1,312,793**		**$164,222**

[1] Level percentage of payroll.
[2] Includes the impact of transferring the allocated UAAL for LARPD Tier 1 members to the LARPD cost group and the allocated UAAL for ACOE Tier 1 members to the ACOE cost group.

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Section 3: Supplemental Information

General (LARPD) *($ in '000s)*

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined bases	December 31, 2011	$7,060	21	$5,825	12.5	$596
Experience loss	December 31, 2012	370	20	303	12.5	31
Experience gain	December 31, 2013	(534)	20	(452)	12.5	(46)
Experience gain	December 31, 2014	(1,562)	20	(1,353)	12.5	(138)
Change in assumptions	December 31, 2014	1,303	20	1,131	12.5	116
Experience gain[2]	December 31, 2015	(1,506)	20	(1,333)	12.5	(136)
Experience loss	December 31, 2016	139	20	126	12.5	13
Experience gain[2]	December 31, 2017	(622)	20	(566)	12.5	(58)
Change in assumptions	December 31, 2017	1,418	20	1,289	12.5	132
Experience loss[2]	December 31, 2018	1,058	20	971	12.5	99
UAAL for Tier 1 members[3]	December 31, 2018	6,576	20	6,036	12.5	618
Experience loss[2]	December 31, 2019	980	20	905	12.5	93
Experience gain[2]	December 31, 2020	(2,024)	20	(1,878)	12.5	(192)
Change in assumptions	December 31, 2020	1,171	20	1,087	12.5	111
Voluntary UAAL Advance Reserve contributions[4]	June 30, 2021	(12,611)	16	(11,150)	12.5	(1,141)
Experience gain[2]	December 31, 2021	(488)	15.5	(454)	12.5	(46)
Experience gain[2]	December 31, 2022	(862)	14.5	(817)	12.5	(84)
Experience loss[5]	December 31, 2023	641	13.5	622	12.5	64
Change in assumptions	December 31, 2023	(616)	13.5	(598)	12.5	(61)
Plan change	December 31, 2023	30	13.5	29	12.5	3

[1] Level percentage of payroll.
[2] The cause of this experience gain/loss is provided in our December 31, 2022 valuation report.
[3] The allocated UAAL for LARPD Tier 1 of $6,167,000 determined as of December 31, 2017 is rolled forward to December 31, 2018 to be amortized starting with the December 31, 2018 valuation.
[4] LARPD made voluntary LARPD General contributions of $12.611 million on around June 29, 2021 to reduce their UAAL and associated UAAL contribution rates. These contributions are tracked under the LARPD – General UAAL Advance Reserve based on the amount of contribution credit used and the interest credited to that reserve in accordance with the Board's Interest Crediting Policy and that balance is $11.150 million. The outstanding balance of this reserve is amortized over the remaining 12.5 years (as of December 31, 2024) as a contribution credit.
[5] The cause of this experience loss is provided in our December 31, 2023 valuation report.

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Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Experience loss[2]	December 31, 2024	$277	12.5	$277	12.5	$26
Experience loss (December 31, 2024 UAAL)[2]	December 31, 2024	493	20	493	20	36
Total				**$493**		**$36**

Notes: When LARPD General Tier 3 was established in 2008, they were classified as a stand-alone group because they were the only employer with the higher 2.5% at 55 benefit (i.e., Section 31676.18), and the cost to upgrade the past service under that formula was only to be paid by LARPD. (reference: Segal's letter dated October 7, 2008).

The initial UAAL rate for that group was based on an allocation of assets needed to maintain the total employer rate from the December 31, 2007 valuation before any benefit improvements for General Tier 3. The UAAL rate for LARPD General Tier 3 was then increased to reflect the benefit improvement.

When LARPD General Tier 4 was later established in 2013, that tier was combined with LARPD General Tier 3 for purpose of determining their UAAL rate only (as normal cost for LARPD General Tier 4 has continued to be developed on a pooled basis with other General employers offering General Tier 4 benefits), in order to continue with the open-group level percentage of payroll approach for paying off the UAAL amount for General Tier 3 (that is now closed to new entrants because of CalPEPRA).

Furthermore, the Board adopted the declining employer payroll policy in 2018 and determined that the policy applies to LARPD Tier 1. As a result, the UAAL (and associated assets) of LARPD Tier 1 was combined with the UAAL for LARPD Tiers 3 and 4.

[1] Level percentage of payroll.

[2] The total experience loss of $770,000 is primarily due to lower than expected mortality for continuing retirees as a result of no actual deaths and individual salary increases greater than expected, offset somewhat by higher than expected return on investments excluding the UAAL Advance Reserve (after smoothing). There is an additional loss due to investment experience related to the voluntary UAAL Advance Reserve contributions of $223,000 that we have used in updating the balance of $11.150 million. In order to calculate the proper offset available to LARPD from the LARPD General UAAL Advance Reserve, we have amortized the first $277,000 in experience loss over 12.5 years so that it will have the same amortization period as the LARPD General UAAL Advance Reserve (12.5 years remaining as of December 31, 2024). We have amortized the net UAAL of $493,000 over 20 years.

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Section 3: Supplemental Information

Safety *($ in '000s)*

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined bases	December 31, 2011	$598,698	21	$446,144	8	$65,849
Experience loss	December 31, 2012	63,130	20	46,753	8	6,901
Experience gain	December 31, 2013	(9,350)	20	(7,366)	9	(984)
Experience gain	December 31, 2014	(43,238)	20	(35,770)	10	(4,378)
Change in assumptions	December 31, 2014	107,552	20	88,976	10	10,890
Experience gain	December 31, 2015	(12,850)	20	(11,081)	11	(1,255)
Experience loss	December 31, 2016	19,183	20	17,103	12	1,807
Experience loss	December 31, 2017	6,354	20	5,818	13	578
Change in assumptions	December 31, 2017	134,184	20	122,822	13	12,193
Experience loss	December 31, 2018	9,377	20	8,786	14	824
Experience loss	December 31, 2019	24,143	20	23,038	15	2,052
Experience loss	December 31, 2020	6,202	20	6,001	16	510
Change in assumptions	December 31, 2020	88,760	20	85,889	16	7,297
Voluntary UAAL Advance Reserve contributions[2]	June 30, 2021	(800,000)	13	(645,339)	9.5	(82,405)
Experience gain	December 31, 2021	(35,445)	20	(34,731)	17	(2,825)
Experience loss	December 31, 2022	16,969	20	16,781	18	1,311
Experience loss	December 31, 2023	13,268	20	13,201	19	994
Change in assumptions	December 31, 2023	(25,970)	20	(25,840)	19	(1,945)
Plan change	December 31, 2023	2,121	15	2,075	14	195
Experience loss[3]	December 31, 2024	39,566	20	39,566	20	2,877
Total				**$162,826**		**$20,486**

[1] Level percentage of payroll.

[2] The County made voluntary County Safety contributions of $800 million on around June 29, 2021 to reduce their UAAL and associated UAAL contribution rates. These contributions are tracked under the County – Safety UAAL Advance Reserve based on the amount of contribution credit used and the interest credited to that reserve in accordance with the Board's Interest Crediting Policy and that balance is $645.339 million. The outstanding balance of this reserve is amortized over the remaining 9.5 years (as of December 31, 2024) as a contribution credit.

[3] There is an additional loss due to investment experience related to the voluntary UAAL Advance Reserve contributions of $12.898 million that we have used in updating the balance of $645.339 million.

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Section 3: Supplemental Information

Total (Excluding ACOE) *($ in '000s)*

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Combined bases	December 31, 2011	$1,483,734	21	$1,105,662	8	$163,191
Experience loss	December 31, 2012	228,631	20	169,320	8	24,991
Experience gain	December 31, 2013	(84,353)	20	(66,436)	9	(8,875)
Experience gain	December 31, 2014	(199,519)	20	(165,059)	10	(20,202)
Change in assumptions	December 31, 2014	458,379	20	379,213	10	46,414
Experience gain	December 31, 2015	(111,469)	20	(96,117)	11	(10,887)
Experience loss	December 31, 2016	22,838	20	20,361	12	2,151
Experience gain	December 31, 2017	(20,895)	20	(19,124)	13	(1,898)
Change in assumptions	December 31, 2017	394,621	20	361,208	13	35,859
Experience gain	December 31, 2018	3,256	20	3,050	14	286
Experience loss	December 31, 2019	98,510	20	94,001	15	8,373
Experience loss	December 31, 2020	35,973	20	34,809	16	2,957
Change in assumptions	December 31, 2020	320,551	20	310,180	16	26,352
Voluntary contributions[2]	June 30, 2021	(800,000)	13	(645,339)	9.5	(82,405)
Experience gain	December 31, 2021	(139,420)	20	(136,610)	17	(11,112)
Experience loss	December 31, 2022	42,327	20	41,857	18	3,270
Voluntary contributions[3]	June 30, 2021	(12,611)	16	(11,150)	12.5	(1,141)
LARPD – other bases	Varies[4]	Varies	Varies	11,150	12.5	1,141
Experience loss	December 31, 2023	35,730	20	35,551	19	2,676
Change in assumptions	December 31, 2023	(96,843)	20	(96,358)	19	(7,253)
Plan change	December 31, 2023	11,786	15	11,528	14	1,082
Experience loss	December 31, 2024	134,415[5]	20	134,415	20	9,774
Total				**$1,476,112**		**$184,744**

[1] Level percentage of payroll.
[2] Voluntary County Safety UAAL Advance Reserve contributions.
[3] Voluntary LARPD General UAAL Advance Reserve contributions.
[4] This base includes all LARPD UAAL amortization bases combined through the December 31, 2024 valuation except for the Voluntary LARPD General UAAL Advance Reserve Contributions base and $493,000 of the December 31, 2024 experience loss layer.
[5] The experience loss for the total plan of $147,890,000 shown in *Section 2, Subsection E* is different from this amount because the experience loss for the total plan also includes experience gains/losses from LARPD and ACOE as well as experience gains/losses from the Voluntary UAAL Advance Reserves.

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Section 3: Supplemental Information

General (ACOE) *($ in '000s)*

Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
UAAL for Tier 1 members	December 31, 2017	$1,357	20	$581	13	$71
Experience loss	December 31, 2018	61	20	49	14	6
Experience loss	December 31, 2019	110	20	94	15	10
Experience loss	December 31, 2020	106	20	95	16	10
Change in assumptions	December 31, 2020	18	20	14	16	2
Experience loss	December 31, 2021	13	20	13	17	1
Experience loss	December 31, 2022	108	20	103	18	10
Experience loss	December 31, 2023	100	20	97	19	10
Change in assumptions	December 31, 2023	(5)	20	(5)	19	0
Experience loss	December 31, 2024	78	20	78	20	7
Subtotal				**$1,119**		**$127**
Credit for expected UAAL contribution				118[2]		
Total				**$1,237**		

Note: The equivalent amortization period for the entire Plan is about 10 years.

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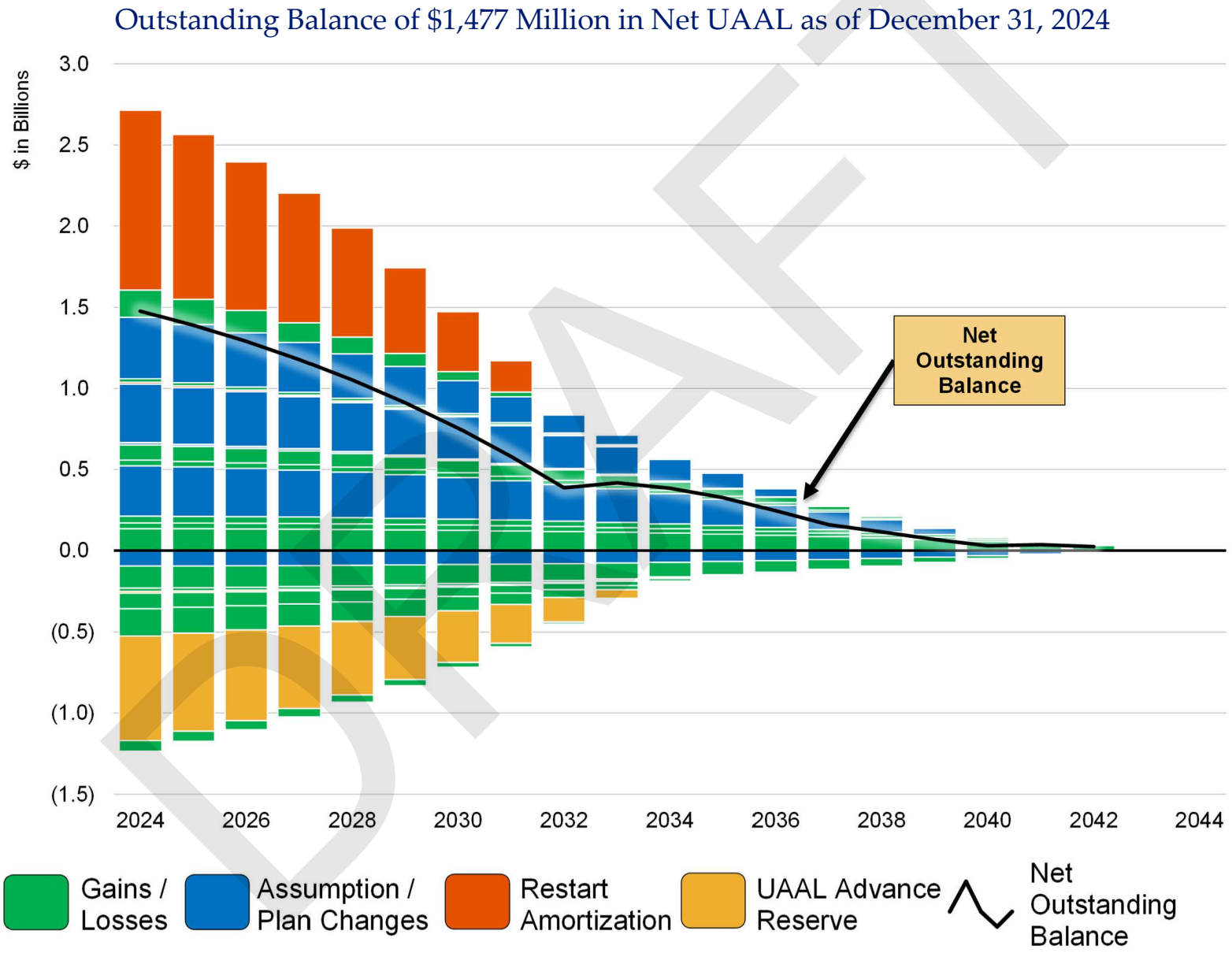
[1] Level dollar, and reflects timing of payment (i.e., next scheduled on April 1, 2026).
[2] $120,000 (as determined in the December 31, 2023 valuation to be payable April 1, 2025), discounted at 7.00% to December 31, 2024.

Exhibit I: Projection of UAAL balances and payments



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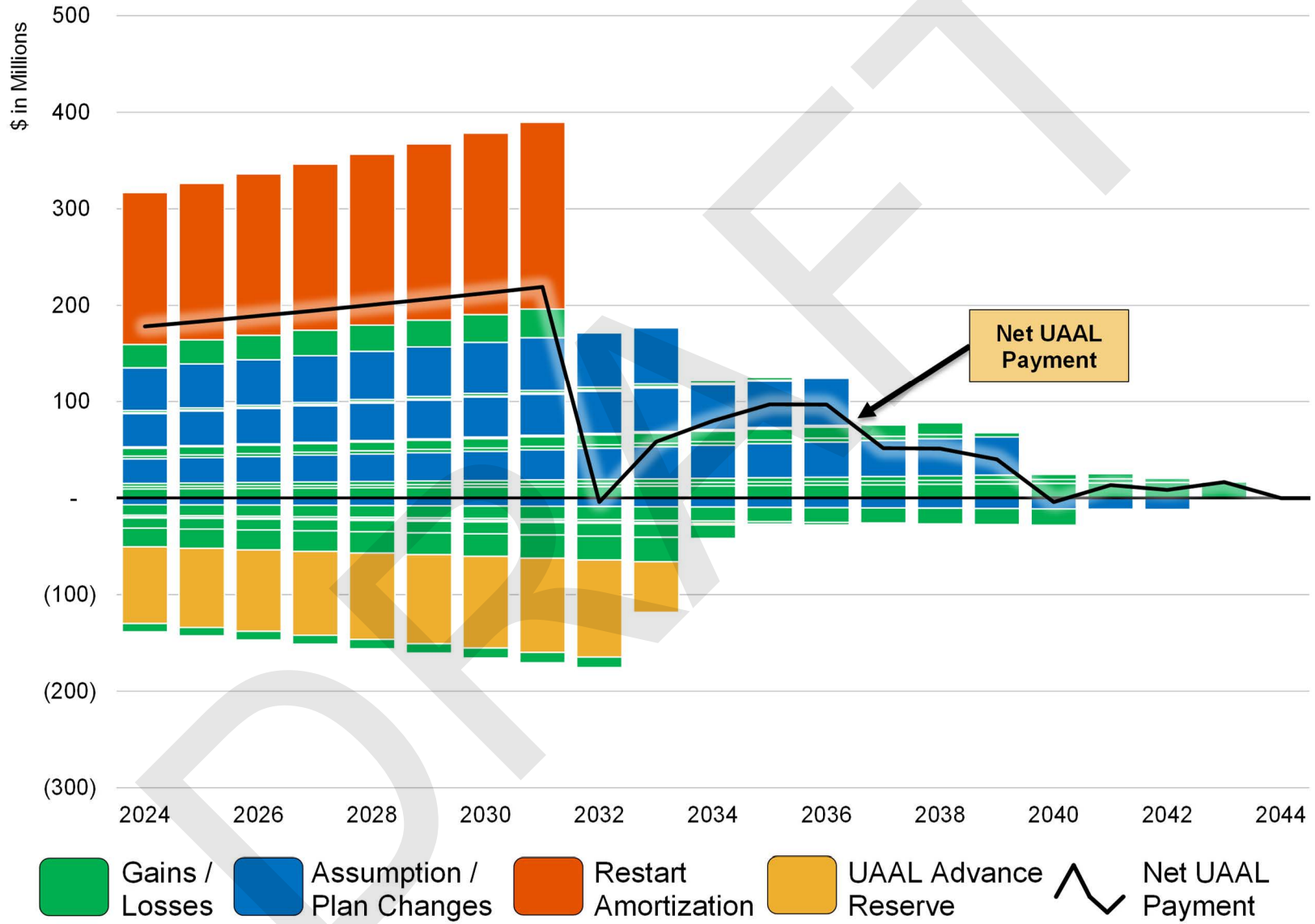
Annual Payments Required to Amortize $1,477 Million in Net UAAL as of December 31, 2024



Note: As UAAL contributions would be expected to be non-level starting with the 2032 valuation, Segal would bring back some proposals to levelize these amounts for the Board to consider.

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Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the December 1, 2019 through November 30, 2022 Actuarial Experience Study report adopted by the Board on December 21, 2023. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all tiers. These assumptions were adopted by the Board.

Net investment return

7.00%, net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.30% of the actuarial value of assets.

Employee contribution crediting rate

7.00%, compounded semi-annually.

Consumer price index (CPI or inflation)

Increase of 2.50% per year.

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Retiree cost of living increases

The actual COLA granted by ACERA on April 1, 2025 has been reflected in the December 31, 2024 valuation for nonactive members.

General Tier 1, General Tier 3, and Safety Tier 1

For tiers with a 3.00% maximum COLA, retiree COLA increases of 2.75% per year.

For members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year.

General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4

For tiers with a 2.00% maximum COLA, retiree COLA increases of 2.00% per year.

Payroll growth

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

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

Increase of 2.50% per year from the valuation date.

Increase in California Government Code Section 7522.10 compensation limit

Increase of 2.50% per year from the valuation date.

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Salary increases

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across-the-board" real salary increases of 0.50% per year, plus
- The following merit and promotion increases:

Years of Service	General	Safety
Less than 1	5.00%	8.40%
1 – 2	5.00%	8.40%
2 – 3	4.40%	8.40%
3 – 4	3.00%	5.40%
4 – 5	2.10%	4.00%
5 – 6	1.60%	2.50%
6 – 7	1.50%	1.80%
7 – 8	1.50%	1.60%
8 – 9	1.20%	1.20%
9 – 10	1.00%	1.20%
10 – 11	0.85%	1.00%
11 and over	0.45%	1.00%

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Additional cashout assumptions

Additional pay elements are expected to be received during a member's final average earnings period. The percentages, added to the final average salary, used in this valuation are:

	Service Retirement	Disability Retirement
General Tier 1	5.0%	4.0%
General Tier 2	2.7%	1.0%
General Tier 3	5.0%	4.0%
General Tier 4	N/A	N/A
Safety Tier 1	6.0%	5.0%
Safety Tier 2	2.3%	2.2%
Safety Tier 2C	2.3%	2.2%
Safety Tier 2D	2.3%	2.2%
Safety Tier 4	N/A	N/A

Post-retirement mortality rates

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

Healthy

- **General members**: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members**: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), with rates increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

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Disabled

- **General members**: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates unadjusted for males and decreased by 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members**: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Beneficiaries

- **Beneficiaries not currently in pay status**: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Beneficiaries currently in pay status**: Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

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Pre-retirement mortality rates

- **General members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

Age	General Male	General Female	Safety Male	Safety Female
20	0.04%	0.01%	0.04%	0.01%
25	0.02%	0.01%	0.03%	0.02%
30	0.03%	0.01%	0.04%	0.02%
35	0.04%	0.02%	0.04%	0.03%
40	0.06%	0.03%	0.05%	0.04%
45	0.09%	0.05%	0.07%	0.06%
50	0.13%	0.08%	0.10%	0.08%
55	0.19%	0.11%	0.15%	0.11%
60	0.28%	0.17%	0.23%	0.14%
65	0.41%	0.27%	0.35%	0.20%

Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates.

All pre-retirement deaths are assumed to be non-service connected.

Mortality rates for member contributions

- **General members**: Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.
- **Safety members**: Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), increased by 5% for males, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 75% male and 25% female.

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Optional Forms of Benefit

Service Retirement and All Beneficiaries

- **General members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female**.**
- **General beneficiaries:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 70% male and 30% female**.**
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), with rates increased by 5% for males and unadjusted for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 75% male and 25% female.
- **Safety beneficiaries:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 25% male and 75% female**.**

Disability Retirement

- **General members**: Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates unadjusted for males and decreased by 10% for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.
- **Safety members**: Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males and unadjusted for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 75% male and 25% female.

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Disability incidence rates

Age	General	Safety
20	0.00%	0.00%
25	0.01%	0.03%
30	0.02%	0.38%
35	0.05%	0.96%
40	0.08%	1.50%
45	0.13%	1.70%
50	0.21%	2.33%
55	0.31%	3.62%
60	0.35%	4.44%
65	0.44%	0.00%
70	0.62%	0.00%

70% of General disabilities are assumed to be service connected disabilities. The other 30% are assumed to be non-service connected disabilities.

100% of Safety disabilities are assumed to be service connected disabilities.

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Termination rates

Years of Service	General	Safety
Less than 1	12.25%	5.20%
1 – 2	9.25%	4.20%
2 – 3	8.00%	4.20%
3 – 4	6.25%	4.00%
4 – 5	6.25%	4.00%
5 – 6	6.25%	4.00%
6 – 7	5.75%	4.00%
7 – 8	5.00%	2.40%
8 – 12	4.00%	2.00%
12 – 15	3.25%	2.00%
15 – 16	3.25%	1.50%
16 – 17	3.00%	1.40%
17 – 18	3.00%	1.30%
18 – 19	3.00%	1.20%
19 – 20	2.75%	1.10%
20 or more	2.75%	1.00%

For members with less than five years of service, 55% of all terminated members are assumed to choose a refund of contributions and the other 45% are assumed to choose a deferred vested benefit.

For members with five or more years of service, 25% of all terminated members are assumed to choose a refund of contributions and the other 75% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement.

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Retirement rates

General

Age	Tier 1	Tier 2 Less than 30 Years of Service	Tier 2 30 or More Years of Service	Tier 3	Tier 4 Less than 30 Years of Service	Tier 4 30 or More Years of Service
50	2.0%	1.5%	3.0%	10.0%	0.0%	0.0%
51	4.0%	1.5%	3.0%	10.0%	0.0%	0.0%
52	4.0%	2.0%	3.0%	10.0%	3.0%	3.0%
53	5.0%	2.0%	3.0%	10.0%	2.0%	2.0%
54	5.0%	2.5%	3.0%	10.0%	2.0%	2.0%
55	6.0%	3.0%	5.0%	12.0%	2.0%	5.0%
56	10.0%	3.5%	5.0%	14.0%	2.0%	2.5%
57	14.0%	4.0%	5.0%	16.0%	2.0%	3.5%
58	14.0%	4.5%	7.0%	18.0%	4.0%	4.0%
59	14.0%	5.0%	10.0%	20.0%	4.0%	4.5%
60	25.0%	7.5%	12.0%	20.0%	4.0%	5.0%
61	25.0%	9.5%	12.0%	20.0%	4.0%	5.0%
62	30.0%	15.0%	23.0%	30.0%	12.0%	18.0%
63	26.0%	15.0%	25.0%	25.0%	12.0%	15.0%
64	26.0%	17.0%	28.0%	25.0%	12.0%	17.0%
65	26.0%	27.0%	35.0%	50.0%	23.0%	25.0%
66	26.0%	27.0%	35.0%	50.0%	23.0%	30.0%
67	26.0%	27.0%	35.0%	50.0%	23.0%	30.0%
68	26.0%	30.0%	35.0%	50.0%	23.0%	30.0%
69	31.0%	30.0%	35.0%	50.0%	20.0%	30.0%
70	36.0%	30.0%	30.0%	60.0%	20.0%	25.0%
71	36.0%	30.0%	30.0%	60.0%	20.0%	25.0%
72	36.0%	30.0%	30.0%	60.0%	20.0%	25.0%
73	36.0%	30.0%	30.0%	60.0%	20.0%	25.0%
74	36.0%	30.0%	30.0%	60.0%	20.0%	25.0%
75 and over	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The retirement rates only apply to members that are eligible to retire at the age shown.

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Safety

Age	Tier 1	Tier 2, 2D Less than 30 Years of Service	Tier 2, 2D 30 or More Years of Service	Tier 2C	Tier 4 Less than 30 Years of Service	Tier 4 30 or More Years of Service
45	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%
46	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%
47	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%
48	0.0%	4.0%	0.0%	0.0%	0.0%	0.0%
49	0.0%	10.0%	18.0%	0.0%	0.0%	0.0%
50	35.0%	14.0%	18.0%	4.0%	4.0%	4.0%
51	30.0%	10.0%	24.0%	2.0%	2.0%	2.0%
52	25.0%	10.0%	24.0%	2.0%	2.0%	2.0%
53	35.0%	10.0%	25.0%	3.0%	3.0%	3.0%
54	45.0%	11.0%	27.0%	6.0%	6.0%	6.0%
55	45.0%	11.0%	29.0%	10.0%	10.0%	10.0%
56	45.0%	12.0%	32.0%	12.0%	12.0%	12.0%
57	45.0%	12.0%	32.0%	20.0%	20.0%	20.0%
58	45.0%	14.0%	37.0%	10.0%	10.0%	10.0%
59	45.0%	14.0%	37.0%	15.0%	15.0%	15.0%
60	45.0%	30.0%	37.0%	40.0%	40.0%	60.0%
61	45.0%	30.0%	37.0%	40.0%	40.0%	60.0%
62	45.0%	30.0%	37.0%	40.0%	40.0%	60.0%
63	45.0%	30.0%	37.0%	40.0%	40.0%	60.0%
64	45.0%	30.0%	37.0%	40.0%	40.0%	60.0%
65 and over	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The retirement rates only apply to members that are eligible to retire at the age shown.

For Safety Tiers 1 and 2C, the retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

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Retirement age and benefit for deferred vested members

Current and Future Inactive Member Assumptions

Membership and Reciprocity	% of Future Deferred Vested Members	Annual Salary Increases from Separation Date	Retirement Age
General with reciprocity	20%	3.45%	61
General without reciprocity	80%	N/A	62
Safety with reciprocity	45%	4.00%	55
Safety without reciprocity	55%	N/A	56

Current and future deferred vested non-reciprocal members who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

Future benefit accruals

1.0 year of service per year of employment, plus 0.003 years of additional service for General members and 0.006 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male. If not provided, salary is assumed to be equal to the average salary of the membership group.

Inclusion of deferred vested members

All deferred vested members to the extent they are reported by ACERA for this particular valuation are included.

Data adjustment

Data as of November 30 has been adjusted to December 31 by adding one month of age and, for active members, one month of service.

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Form of payment

All active and inactive vested members are assumed to elect the unmodified option at retirement.

Percent married

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

Age and gender of spouse

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

Pre-retirement death optional form election

All active members with five or more years of service are assumed to elect the optional settlement 2 allowance that leaves a 100% continuance to their beneficiary upon the member's non-service connected pre-retirement death.

Beneficiary Type	Percentage	Age Difference with Active Member
Child	50%	30 years younger
Sibling	25%	Same age
Parent	25%	30 years older

Note: We made the simplifying assumption that the beneficiary is of the opposite sex of the member.

Actuarial cost method

Entry age actuarial cost method. Entry age is the age on the valuation date minus years of service. Normal cost and actuarial accrued liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect.

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Actuarial value of assets

Market value of assets (MVA) less unrecognized returns in each of the last 10 six-month interest crediting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized semi-annually over a five-year period. The actuarial value of assets (AVA) is limited by a 40% corridor; the AVA cannot be less than 60% of MVA, nor greater than 140% of MVA.

Valuation value of assets

The actuarial value of assets reduced by the value of the non-valuation reserves.

Amortization policy

Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 8 years remaining as of December 31, 2024).

On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.

ACOE's UAAL amortization under the declining employer payroll policy is level dollar.

The Voluntary County Safety UAAL Contributions are amortized over a 13-year period effective July 1, 2021. The Voluntary LARPD General UAAL Contributions are amortized over a 16-year period effective July 1, 2021. All existing LARPD General UAAL layers as of December 31, 2024 (except the December 31, 2024 UAAL) are amortized over 12.5 years.[1] The UAAL as of December 31, 2024 is amortized over 20 years.

If an overfunding exists (i.e., the total of all UAAL becomes negative so that there is a surplus) and the amount of the surplus is in excess of 20% of the AAL, such surplus that is in excess of 20% of the AAL and any subsequent such surplus will be amortized over an "open" amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over 20 years as the first of a new series of amortization layers.

[1] The LARPD General cost sharing group had a surplus as of December 31, 2023 and has an unfunded liability as of December 31, 2024, both on a VVA basis. In order to calculate the proper offset available to LARPD from the LARPD General UAAL Advance Reserve, we amortized all LARPD UAAL layers as of December 31, 2024 (except the December 31, 2024 UAAL) over 12.5 years so that they would have the same amortization period as the LARPD General UAAL Advance Reserve (12.5 years remaining as of December 31, 2024). The December 31, 2024 UAAL is amortized over 20 years.

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Employer Contributions

The recommended employer contributions consist of two components (normal cost and a contribution to the UAAL) and are provided in *Section 2, Subsection F*. These rates reflect the POB credits for the County, AHS, Court, and First 5; the retiree health benefit subsidy credits for the County; and the UAAL Advance Reserve credits as discussed below.

Normal cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.

Contribution to the UAAL

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.00% (i.e., 2.50% inflation plus 0.50% across-the-board salary increase).

The amortization policy is described above.

Alameda County previously issued pension obligation bonds (POB) and the net bond proceeds were contributed to ACERA. When the POBs were issued, AHS, Court and First 5 were part of the County and, consequently, they share in the proceeds. The net bond proceeds contributed to ACERA allow the Association to provide a "Pension Obligation Bond Credit" to these employers, thereby reducing their employer contribution rate. As of December 31, 2024, the outstanding balances of the POBs were $386.4 million for the General employers (County, AHS, Court, and First 5) and $72.5 million for the Safety employers (County).

For several years, the Board of Retirement has approved transfers from the SRBR to the Employer Advance Reserve to reimburse the County for their payment of the implicit retiree health benefit subsidy. The amortization credits resulting from these transfers have served to reduce the County's employer contribution rates.

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LARPD General and County Safety made additional voluntary contributions to the UAAL Advance Reserve to reduce their UAAL as of June 30, 2021. The amortization credits from the UAAL Advance Reserve serve to reduce the LARPD General and County Safety employer contribution rates.

Member contributions

The member contribution rates for all members are provided in *Section 4, Exhibit 3*.

Non-Tier 4 members

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for non-Tier 4 General and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary for General Tier 1, General Tier 3, and all Safety non-Tier 4 members and 1/120 of Final Average Salary for General Tier 2 members. That age is 60 for General Tier 1 and Tier 2, 55 for General Tier 3, and 50 for all Safety non-Tier 4 members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits. As instructed by ACERA, we have also included a 3% cost-sharing contribution that we understand will be paid by Safety Tier 1 and Tier 2 members. For Safety Tier 2C members, there are no cost-sharing contributions. For Safety Tier 2D members, the cost-sharing contribution rate is 5% of salary for the first 5 years of vesting service and 3% of salary for each subsequent year of vesting service. (The 3% cost-sharing contribution for Safety Tiers 1, 2, and 2D (after 5 years of service) will continue even after the member attains 30 years of service.)

Accumulation includes semi-annual crediting of interest at the assumed investment earnings rate. Following the procedure established by the Board, basic member rates have been adjusted to anticipate conversion of additional cashout at retirement.

Tier 4 members

Pursuant to Section 7522.30(a) of the Government Code, Tier 4 members are required to contribute at least 50% of the normal cost rate.

When previously calculating member rates, there were certain additional requirements that had to be met such as requiring the employee rates be rounded to the nearest one quarter of one percent and requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). Furthermore, Section 7522.30(d) indicated that "once established, the employee contribution rate described in subdivision (c) shall not be adjusted on account of a change to the normal cost rate unless the normal cost rate increases or decreases by more than 1 percent of payroll above or below the normal cost rate in

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effect at the time the employee contribution rate is first established or, if later, the normal cost rate in effect at the time of the last adjustment to the employee contribution rate under this section."

However, as we referenced in our letter dated February 26, 2014, Assembly Bill 1380 (AB 1380) was approved by the Governor on September 6, 2013. In particular, Section 31620.5(a) was added to the Government Code to provide the Board with the discretion to not apply the rounding previously required under Section 7522.30(c). We understand that our recommendation in that letter to no longer apply the rounding rule effective with the December 31, 2013 valuation was adopted by the Board, and the results in this valuation reflect that action taken by the Board.

Section 31620.5(b) of AB 1380 also stipulates that the "one percent rule" under Section 7522.30(d) "shall not apply to the contribution rates of members of retirement systems established pursuant to this chapter."

Therefore, in preparing the normal cost rates in this report, we have assumed that exactly 50% of the normal cost would be paid by the Tier 4 members.

Internal Revenue Code Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification; active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $275,000 for 2024 and $280,000 for 2025. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Non-Tier 4 benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

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Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. However, it is anticipated that PEPRA members will not be limited in the future due to the PEPRA compensation limit applied in the determination of their benefit. Actual limitations will result in gains as they occur.

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions, methods or models

There have been no changes in actuarial assumptions, methods or models since the prior valuation.

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Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.

Plan year

January 1 through December 31

Membership eligibility

Membership with ACERA usually begins with the second pay period following appointment to a full time County or member District position. For Housing Authority and LARPD, membership with ACERA begins on the first day of hire. ACERA members who change from full time to part time will continue to participate at ACERA.

Membership Tier	Plan Provision
General and Safety Tier 1	All General and Safety members hired on or before June 30, 1983. For Housing Authority General members, the hire date is on or before September 30, 2011 (instead of June 30, 1983). For LARPD General members, the hire date is on or before September 30, 2008 (instead of June 30, 1983).
General and Safety Tier 2	All General and Safety members hired after June 30, 1983, and not in any of the other Tiers listed below. For Housing Authority General members, the hire date is after September 30, 2011 (instead of June 30, 1983).
General Tier 3	Only General LARPD members hired before October 1, 2008 who elected the 2.5% at 55 formula and all General LARPD members hired after that date.
General and Safety Tier 4	All General and Safety members with membership dates on or after January 1, 2013.
Safety Tier 2C	All Safety members in the Sheriff's Department (excluding Probation Officers) hired on or after October 17, 2010 who elected the 2% at 50 formula.
Safety Tier 2D	All Safety members in the Sheriff's Department (excluding Probation Officers) hired on or after October 17, 2010 who elected the 3% at 55 formula.

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Final compensation and service for benefit determination

Final Compensation and Service	Plan Provision
Final average compensation	
General Tier 1, General Tier 3 and Safety Tier 1	Highest consecutive 12 months of compensation earnable (§31462.1) (FAS1).
General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4	For non-Tier 4 members, highest consecutive 36 months of compensation earnable (§31462), and for Tier 4 members, highest consecutive 36 months of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAS3).
Compensation limit	
Non-Tier 4	For members with membership dates on or after January 1, 1996, compensation earnable is limited by Internal Revenue Code Section 401(a)(17). The limit for 2025 is $350,000. The limit is indexed for inflation on an annual basis.
Tier 4	Pensionable compensation is limited to $155,081 for 2025 for an employer that is enrolled in Social Security. For an employer that is not enrolled in Social Security, the maximum amount for 2025 is 120% of $155,081, or $186,096. (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2025. (reference: Section 7522.10(d)).
Service	
All members	Years of service (Yrs) are generally based on a member's employment during a period of time for which deductions are made from their compensation.

Service retirement benefits

Provision by Tier	Service Retirement Plan Provision
Eligibility	
General Non-Tier 4	Age 50 with 5 years of service and a total of 10 years of qualifying membership, or age 70 regardless of service, or after 30 years of service regardless of age (§31672).
General Tier 4	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).
Safety Non-Tier 4	Age 50 with 5 years of service and a total of 10 years of qualifying membership, or age 70 regardless of service, or after 20 years of service regardless of age (§31663.25).
Safety Tier 4	Age 50 with 5 years of service (§7522.25(d)) or age 70 regardless of service (§31672.3).

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Provision by Tier	Service Retirement Plan Provision
Benefit amount	
All members	The benefit formula for all members varies by membership tier and retirement age. See the tables below for a selection of benefit formulas at various ages for each membership tier.
Maximum benefit	
Non-Tier 4	100% of highest average compensation (§31676.1, §31676.12, §31676.18, §31664, §31664.1, and §31664.2).
Tier 4	There is no final average compensation limit on the maximum retirement benefit.

Service retirement benefit formula

The offsets shown in all benefit formulas only apply to members integrated with Social Security.

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
General Tier 1 (§31676.12)	
50	1.34% x (FAS1 – $1,400) x Yrs
55	1.77% x (FAS1 – $1,400) x Yrs
60	2.34% x (FAS1 – $1,400) x Yrs
62 and over	2.62% x (FAS1 – $1,400) x Yrs
General Tier 2 (§31676.1)	
50	1.18% x (FAS3 – $1,400) x Yrs
55	1.49% x (FAS3 – $1,400) x Yrs
60	1.92% x (FAS3 – $1,400) x Yrs
62	2.09% x (FAS3 – $1,400) x Yrs
65 and over	2.43% x (FAS3 – $1,400) x Yrs
General Tier 3 (§31676.18)	
50	2.00% x FAS1 x Yrs
55 and over	2.50% x FAS1 x Yrs

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Tier and Retirement Age	Service Retirement Benefit Formula by Tier
General Tier 4 (§7522.20(a))	
52	1.00% x FAS3 x Yrs
55	1.30% x FAS3 x Yrs
60	1.80% x FAS3 x Yrs
62	2.00% x FAS3 x Yrs
65	2.30% x FAS3 x Yrs
67 and over	2.50% x FAS3 x Yrs
Safety Tier 1 (non-integrated) (§31664.1)	
50 and over	3.00% x FAS1 x Yrs
Safety Tier 2 (non-integrated) (§31664.1)	
50 and over	3.00% x FAS3 x Yrs
Safety Tier 2C (non-integrated) (§31664)	
50	2.00% x FAS3 x Yrs
55 and over	2.62% x FAS3 x Yrs
Safety Tier 2D (non-integrated) (§31664.2)	
50	2.29% x FAS3 x Yrs
55 and over	3.00% x FAS3 x Yrs
Safety Tier 4 (non-integrated) (§7522.25(d))	
50	2.00% x FAS3 x Yrs
55	2.50% x FAS3 x Yrs
57 and over	2.70% x FAS3 x Yrs

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Disability benefits

Non-service-connected disability

Provision by Tier	Non-Service-Connected Disability Plan Provision
Eligibility	
All members	Five years of service (§31720).
Benefit amount	
General members	1.8% of final compensation per year of service for General Tier 1 and Tier 3 and 1.5% of final compensation per year of service for General Tier 2 and Tier 4. If the benefit does not exceed one-third of final compensation, the service is projected to 62 for General Tier 1 and Tier 3, and to age 65 for General Tier 2 and Tier 4, but the total projected benefit cannot be more than one-third of final compensation (§31727.1 and §31727). For all members, 100% of the service retirement benefit, if greater.
Safety members	1.8% per year of service. If the benefit does not exceed one-third of final compensation, the service is projected to age 55, but the total projected benefit cannot be more than one-third of final compensation (§31727.2). For all members, 100% of the service retirement benefit, if greater.

Service-connected disability

Provision by Tier	Service-Connected Disability Plan Provision
Eligibility	
All members	No age or service requirements (§31720).
Benefit amount	
All members	50% of the final compensation or 100% of service retirement benefit, if greater (§31727.4)

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Pre-retirement death benefits

Non-service-connected death benefit

Provision by Tier	Non-Service-Connected Death Benefit Plan Provision
Eligibility	
All members	No age or service requirements.
Vested members	Five years of service.
Vested members with Optional Settlement 2 election	Five years of service and election of Optional Settlement 2 allowance in advance.
Benefit amount	
All members	Refund of employee contributions with interest plus one month's eligible compensation for each year of service to a maximum of six months' compensation (§31781).
Vested members	60% of the greater of service retirement or non-service-connected disability retirement benefit payable to surviving eligible spouse or eligible children (§31765.1, §31781.1), in lieu of above. Additionally, the spouse may choose a combined benefit of: • A lump sum payment of up to six months' compensation (see above), and • A monthly (60%) benefit reduced by actuarial equivalent of the lump sum payment (§31781.3).
Vested members with Optional Settlement 2 election	In lieu of the 60% continuance to a beneficiary, 100% of the greater of service or non-service connected disability retirement benefit, with actuarial adjustment for Optional Settlement 2, is payable to member's beneficiary (§31787).

Service-connected death benefit

Provision by Tier	Service-Connected Death Benefit Plan Provision
Eligibility	
All members	No age or service requirements.
Benefit amount	
All members	50% of final compensation or 100% of service retirement benefit, if greater, payable to spouse or minor children (§31787).

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Post-retirement death benefits

Service retirement or non-service-connected disability retirement

Unless another option was selected at retirement, 60% of member's unmodified allowance continues to eligible spouse (§31760.1) and lump sum death burial benefit payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1).

Based on action taken by the Board in February 2014, we are continuing to exclude the death burial benefit from the pension valuation.

Service connected disability

Unless another option was selected at retirement, 100% of member's allowance continued to eligible spouse (§31786).

Withdrawal benefits

Less than Five Years of Service

Refund of accumulated employee contributions with interest, or benefit at age 70 (§31628).

Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund (§31629.5).

Five or More Years of Service

If contributions left on deposit, a member is entitled to earned benefits commencing at any time after eligible to retire (§31700).

Post-retirement cost-of-living benefits

General Tier 1, General Tier 3 and Safety Tier 1

Annual adjustment based on Consumer Price Index to a maximum of 3% per year; excess "banked" (§31870.1).

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General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4

Annual adjustment based on Consumer Price Index to a maximum of 2% per year; excess "banked" (§31870).

Supplemental benefit

Non-vested supplemental COLA and medical benefits are also paid from the Supplemental Retirees Benefit Reserve to eligible retirees and survivors. These benefits have been excluded from this valuation.

Member contributions

Please refer to *Section 4, Exhibit 3* for specific rates.

Provision by Tier	Member Contribution Plan Provision
General Tier 1	
Basic contributions	Entry-age based rates that provide for an average annuity at age 60 equal to 1/100 of FAS1 (§31621.2).
Cost-of-living contributions	Entry-age based rates that provide for one-half of future cost-of-living costs.
General Tier 2	
Basic contributions	Entry-age based rates that provide for an average annuity at age 60 equal to 1/120 of FAS3 (§31621).
Cost-of-living contributions	Entry-age based rates that provide for one-half of future cost-of-living costs.
General Tier 3	
Basic contributions	Entry-age based rates that provide for an average annuity at age 55 equal to 1/100 of FAS1 (§31621.8).
Cost-of-living contributions	Entry-age based rates that provide for one-half of future cost-of-living costs.
General Tier 4	
Contributions	50% of the total normal cost rate.

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Provision by Tier	Member Contribution Plan Provision
Safety non-Tier 4	
Basic contributions	Entry-age based rates that provide for an average annuity at age 50 equal to 1/100 of FAS1 (FAS3 for Tier 2, Tier 2C, and Tier 2D) (§31639.25). As instructed by ACERA, we have also included a 3% cost-sharing contribution that we understand will be paid by Safety Tier 1 and Tier 2 members. For Safety Tier 2C members, there are no cost-sharing contributions. For Safety Tier 2D members, the cost-sharing contribution rate is 5% of salary for the first 5 years of vesting service and 3% of salary for each subsequent year of vesting service. (The 3% cost-sharing contribution for Safety Tiers 1, 2, and 2D (after 5 years of service) will continue even after the member attains 30 years of service.)
Cost-of-living contributions	Entry-age based rates that provide for one-half of future cost-of-living costs.
Safety Tier 4	
Contributions	50% of the total normal cost rate.

Other information

Except for the 3% cost-sharing contribution described above, non-Tier 4 Safety members are exempt from paying member contributions after 30 or more years of service. This exemption also applies for General members hired on or before March 7, 1973.

Changes in plan provisions

There have been no changes in plan provisions since the prior valuation.

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Exhibit 3: Member contribution rates

Comparison of Total Member Rate[1]

Entry Age	Based on December 31, 2024 Valuation	Based on December 31, 2023 Valuation	Change
General Tier 1			
25	8.89%	8.92%	(0.03%)
35	10.89%	10.94%	(0.05%)
45	13.36%	13.42%	(0.06%)
General Tier 2			
25	6.63%	6.62%	0.01%
35	8.12%	8.11%	0.01%
45	9.96%	9.95%	0.01%
General Tier 3			
25	11.12%	10.96%	0.16%
35	13.61%	13.41%	0.20%
45	16.73%	16.49%	0.24%
General Tier 4[2]			
Any	9.00%	9.06%	(0.06%)
Safety Tier 2			
25	15.83%	15.84%	(0.01%)
30	16.99%	17.00%	(0.01%)
35	18.30%	18.31%	(0.01%)

[1] For the non-CalPEPRA tiers, contributions for the first $161 of biweekly payroll are based on 2/3 of the above rates for integrated members. There were no Safety Tier 1 active members reported since the December 31, 2023 valuation.

[2] Tier 4 member rates are independent of entry age.

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Section 4: Actuarial Valuation Basis

Entry Age	Based on December 31, 2024 Valuation	Based on December 31, 2023 Valuation	Change
Safety Tier 2C			
25	12.60%	12.65%	(0.05%)
30	13.74%	13.79%	(0.05%)
35	15.03%	15.09%	(0.06%)
Safety Tier 2D (<5 years vesting service)			
25	17.98%	17.97%	0.01%
30	19.15%	19.15%	0.00%
35	20.48%	20.47%	0.01%
Safety Tier 2D (5+ years vesting service)			
25	15.98%	15.97%	0.01%
30	17.15%	17.15%	0.00%
35	18.48%	18.47%	0.01%
Safety Tier 4[1]			
Any	17.86%	17.88%	(0.02%)

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[1] Tier 4 member rates are independent of entry age.

Breakdown of member rate between basic and COLA

Based on the December 31, 2024 valuation *($ in '000s)*

Tier	Basic Rate	Basic Estimated Annual Amount[1]	COLA Rate	COLA Estimated Annual Amount[1]	Cost Sharing Rate[2]	Cost Sharing Estimated Annual Amount[1,2]	Total Rate	Total Estimated Annual Amount[1]
General Tier 1	7.50%	$457	2.40%	$146			9.90%	$603
General Tier 2	6.21%	31,122	1.56%	7,818			7.77%	38,940
General Tier 3	9.88%	129	4.12%	54			14.00%	183
General Tier 4	7.34%	50,854	1.66%	11,502			9.00%	62,356
Safety Tier 2	9.54%	8,775	3.95%	3,633	3.00%	$2,759	16.49%	15,167
Safety Tier 2C	9.83%	293	3.83%	114	0.00%	0	13.66%	407
Safety Tier 2D	9.59%	1,851	4.13%	797	3.02%	583	16.74%	3,231
Safety Tier 4	14.02%	14,947	3.84%	4,094	0.00%	0	17.86%	19,041
All Tiers Combined	**7.62%**	**$108,428**	**1.99%**	**$28,158**	**0.23%**	**$3,342**	**9.84%**	**$139,928**

[1] Amounts are based on December 31, 2024 annual payroll (also in thousands):

	County	AHS, Court and First 5	Housing Authority	LARPD	Total
General Tier 1	$3,038	$93	$2,352	$609	$6,092
General Tier 2	339,861	160,843	452		501,156
General Tier 3				1,308	1,308
General Tier 4	422,896	265,120	3,305	1,519	692,840
Safety Tier 2	91,977				91,977
Safety Tier 2C	2,978				2,978
Safety Tier 2D	19,301				19,301
Safety Tier 4	106,612				106,612
Total	**$986,663**	**$426,056**	**$6,109**	**$3,436**	**$1,422,264**

[2] Cost sharing contributions for Safety Tier 2D members are determined based on proportion of members contributing 5.00% (with less than five years of vesting service) and 3.00% (with five or more years of vesting service).

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Section 4: Actuarial Valuation Basis

Based on the December 31, 2023 valuation[1] ($ in '000s)

	Basic Rate	Basic Estimated Annual Amount[2]	COLA Rate	COLA Estimated Annual Amount[2]	Cost Sharing Rate[3]	Cost Sharing Estimated Annual Amount[2,3]	Total Rate	Total Estimated Annual Amount[2]
General Tier 1	7.50%	$457	2.44%	$149			9.94%	$606
General Tier 2	6.21%	31,122	1.55%	7,768			7.76%	38,890
General Tier 3	9.88%	129	3.91%	51			13.79%	180
General Tier 4	7.40%	51,270	1.66%	11,501			9.06%	62,771
Safety Tier 2	9.54%	8,775	3.96%	3,642	3.00%	2,759	16.50%	15,176
Safety Tier 2C	9.83%	293	3.88%	115	0.00%	0	13.71%	408
Safety Tier 2D	9.59%	1,851	4.13%	797	3.02%	583	16.74%	3,231
Safety Tier 4	13.98%	14,904	3.90%	4,158	0.00%	0	17.88%	19,062
All Tiers Combined	**7.65%**	**$108,801**	**1.99%**	**$28,181**	**0.23%**	**$3,342**	**9.87%**	**$140,324**

[1] These rates have been re-calculated by applying the individual entry age-based member rates determined in the December 31, 2023 valuation to the Association membership as of December 31, 2024.

[2] Amounts are based on December 31, 2024 annual payroll (also in thousands):

	County	AHS, Court and First 5	Housing Authority	LARPD	Total
General Tier 1	$3,038	$93	$2,352	$609	$6,092
General Tier 2	339,861	160,843	452		501,156
General Tier 3				1,308	1,308
General Tier 4	422,896	265,120	3,305	1,519	692,840
Safety Tier 2	91,977				91,977
Safety Tier 2C	2,978				2,978
Safety Tier 2D	19,301				19,301
Safety Tier 4	106,612				106,612
Total	**$986,663**	**$426,056**	**$6,109**	**$3,436**	**$1,422,264**

[3] Cost sharing contributions for Safety Tier 2D members are determined based on proportion of members contributing 5.00% (with less than five years of vesting service) and 3.00% (with five or more years of vesting service).

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General Tier 1 Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	3.72%	5.57%	1.19%	1.79%	4.91%	7.36%
17	3.80%	5.69%	1.21%	1.82%	5.01%	7.51%
18	3.88%	5.82%	1.24%	1.86%	5.12%	7.68%
19	3.96%	5.94%	1.27%	1.90%	5.23%	7.84%
20	4.04%	6.06%	1.29%	1.94%	5.33%	8.00%
21	4.13%	6.19%	1.32%	1.98%	5.45%	8.17%
22	4.21%	6.32%	1.35%	2.03%	5.56%	8.35%
23	4.30%	6.45%	1.38%	2.07%	5.68%	8.52%
24	4.39%	6.59%	1.41%	2.11%	5.80%	8.70%
25	4.48%	6.73%	1.44%	2.16%	5.92%	8.89%
26	4.58%	6.87%	1.47%	2.20%	6.05%	9.07%
27	4.67%	7.01%	1.50%	2.25%	6.17%	9.26%
28	4.77%	7.15%	1.53%	2.29%	6.30%	9.44%
29	4.87%	7.30%	1.56%	2.34%	6.43%	9.64%
30	4.97%	7.45%	1.59%	2.39%	6.56%	9.84%
31	5.07%	7.60%	1.63%	2.44%	6.70%	10.04%
32	5.17%	7.76%	1.66%	2.49%	6.83%	10.25%
33	5.28%	7.92%	1.69%	2.54%	6.97%	10.46%
34	5.39%	8.08%	1.73%	2.59%	7.12%	10.67%
35	5.50%	8.25%	1.76%	2.64%	7.26%	10.89%
36	5.61%	8.41%	1.80%	2.70%	7.41%	11.11%
37	5.72%	8.59%	1.83%	2.75%	7.55%	11.34%
38	5.84%	8.76%	1.87%	2.81%	7.71%	11.57%
39	5.96%	8.94%	1.91%	2.86%	7.87%	11.80%
40	6.08%	9.12%	1.95%	2.92%	8.03%	12.04%

[1] Use these rates for non-integrated members.

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Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
41	6.21%	9.31%	1.99%	2.98%	8.20%	12.29%
42	6.34%	9.50%	2.03%	3.05%	8.37%	12.55%
43	6.47%	9.70%	2.07%	3.11%	8.54%	12.81%
44	6.60%	9.91%	2.11%	3.17%	8.71%	13.08%
45	6.74%	10.12%	2.16%	3.24%	8.90%	13.36%
46	6.89%	10.33%	2.21%	3.31%	9.10%	13.64%
47	7.04%	10.56%	2.25%	3.38%	9.29%	13.94%
48	7.20%	10.80%	2.31%	3.46%	9.51%	14.26%
49	7.34%	11.01%	2.35%	3.53%	9.69%	14.54%
50	7.48%	11.21%	2.39%	3.59%	9.87%	14.80%
51	7.60%	11.41%	2.43%	3.65%	10.03%	15.06%
52	7.72%	11.58%	2.47%	3.71%	10.19%	15.29%
53	7.84%	11.77%	2.51%	3.77%	10.35%	15.54%
54	7.97%	11.96%	2.55%	3.83%	10.52%	15.79%
55	8.08%	12.12%	2.59%	3.88%	10.67%	16.00%
56	8.13%	12.20%	2.61%	3.91%	10.74%	16.11%
57	8.10%	12.14%	2.59%	3.89%	10.69%	16.03%
58	7.99%	11.99%	2.56%	3.84%	10.55%	15.83%
59 and over	7.77%	11.65%	2.49%	3.73%	10.26%	15.38%

Interest	7.00% per annum
COLA	2.75%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	32.04%
Additional Cashout	5.0%

[1] Use these rates for non-integrated members.

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General Tier 2 Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	2.93%	4.39%	0.73%	1.10%	3.66%	5.49%
17	2.99%	4.49%	0.75%	1.13%	3.74%	5.62%
18	3.05%	4.58%	0.77%	1.15%	3.82%	5.73%
19	3.12%	4.68%	0.78%	1.17%	3.90%	5.85%
20	3.19%	4.78%	0.80%	1.20%	3.99%	5.98%
21	3.25%	4.88%	0.81%	1.22%	4.06%	6.10%
22	3.32%	4.98%	0.83%	1.25%	4.15%	6.23%
23	3.39%	5.09%	0.85%	1.28%	4.24%	6.37%
24	3.46%	5.19%	0.87%	1.30%	4.33%	6.49%
25	3.53%	5.30%	0.89%	1.33%	4.42%	6.63%
26	3.61%	5.41%	0.91%	1.36%	4.52%	6.77%
27	3.68%	5.52%	0.93%	1.39%	4.61%	6.91%
28	3.76%	5.63%	0.94%	1.41%	4.70%	7.04%
29	3.83%	5.75%	0.96%	1.44%	4.79%	7.19%
30	3.91%	5.87%	0.98%	1.47%	4.89%	7.34%
31	3.99%	5.99%	1.00%	1.50%	4.99%	7.49%
32	4.07%	6.11%	1.02%	1.53%	5.09%	7.64%
33	4.16%	6.24%	1.05%	1.57%	5.21%	7.81%
34	4.24%	6.36%	1.07%	1.60%	5.31%	7.96%
35	4.33%	6.49%	1.09%	1.63%	5.42%	8.12%
36	4.42%	6.63%	1.11%	1.66%	5.53%	8.29%
37	4.51%	6.76%	1.13%	1.70%	5.64%	8.46%
38	4.60%	6.90%	1.15%	1.73%	5.75%	8.63%
39	4.69%	7.04%	1.18%	1.77%	5.87%	8.81%
40	4.79%	7.18%	1.20%	1.80%	5.99%	8.98%

[1] Use these rates for non-integrated members.

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Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
41	4.89%	7.33%	1.23%	1.84%	6.12%	9.17%
42	4.99%	7.48%	1.25%	1.88%	6.24%	9.36%
43	5.09%	7.63%	1.28%	1.92%	6.37%	9.55%
44	5.20%	7.79%	1.31%	1.96%	6.51%	9.75%
45	5.31%	7.96%	1.33%	2.00%	6.64%	9.96%
46	5.42%	8.13%	1.36%	2.04%	6.78%	10.17%
47	5.53%	8.30%	1.39%	2.08%	6.92%	10.38%
48	5.64%	8.46%	1.41%	2.12%	7.05%	10.58%
49	5.74%	8.60%	1.44%	2.16%	7.18%	10.76%
50	5.83%	8.74%	1.46%	2.19%	7.29%	10.93%
51	5.92%	8.87%	1.49%	2.23%	7.41%	11.10%
52	6.00%	9.00%	1.51%	2.26%	7.51%	11.26%
53	6.08%	9.12%	1.53%	2.29%	7.61%	11.41%
54	6.14%	9.21%	1.54%	2.31%	7.68%	11.52%
55	6.15%	9.23%	1.55%	2.32%	7.70%	11.55%
56	6.13%	9.19%	1.54%	2.31%	7.67%	11.50%
57	6.06%	9.09%	1.52%	2.28%	7.58%	11.37%
58	6.26%	9.39%	1.57%	2.36%	7.83%	11.75%
59 and over	6.47%	9.71%	1.63%	2.44%	8.10%	12.15%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	25.10%
Additional Cashout	2.7%

[1] Use these rates for non-integrated members.

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General Tier 3 Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	4.35%	6.52%	1.81%	2.72%	6.16%	9.24%
17	4.44%	6.66%	1.85%	2.77%	6.29%	9.43%
18	4.53%	6.80%	1.89%	2.83%	6.42%	9.63%
19	4.63%	6.94%	1.93%	2.89%	6.56%	9.83%
20	4.73%	7.09%	1.97%	2.95%	6.70%	10.04%
21	4.82%	7.24%	2.01%	3.01%	6.83%	10.25%
22	4.92%	7.39%	2.05%	3.07%	6.97%	10.46%
23	5.03%	7.54%	2.09%	3.14%	7.12%	10.68%
24	5.13%	7.69%	2.13%	3.20%	7.26%	10.89%
25	5.23%	7.85%	2.18%	3.27%	7.41%	11.12%
26	5.34%	8.01%	2.23%	3.34%	7.57%	11.35%
27	5.45%	8.18%	2.27%	3.40%	7.72%	11.58%
28	5.56%	8.34%	2.31%	3.47%	7.87%	11.81%
29	5.68%	8.51%	2.36%	3.54%	8.04%	12.05%
30	5.79%	8.69%	2.41%	3.62%	8.20%	12.31%
31	5.91%	8.87%	2.46%	3.69%	8.37%	12.56%
32	6.03%	9.05%	2.51%	3.77%	8.54%	12.82%
33	6.15%	9.23%	2.56%	3.84%	8.71%	13.07%
34	6.28%	9.42%	2.61%	3.92%	8.89%	13.34%
35	6.41%	9.61%	2.67%	4.00%	9.08%	13.61%
36	6.54%	9.81%	2.72%	4.08%	9.26%	13.89%
37	6.68%	10.01%	2.78%	4.17%	9.46%	14.18%
38	6.82%	10.22%	2.84%	4.26%	9.66%	14.48%
39	6.96%	10.44%	2.90%	4.35%	9.86%	14.79%
40	7.11%	10.66%	2.96%	4.44%	10.07%	15.10%

[1] Use these rates for non-integrated members.

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Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
41	7.26%	10.89%	3.02%	4.53%	10.28%	15.42%
42	7.42%	11.13%	3.09%	4.63%	10.51%	15.76%
43	7.59%	11.38%	3.16%	4.74%	10.75%	16.12%
44	7.73%	11.60%	3.22%	4.83%	10.95%	16.43%
45	7.88%	11.81%	3.28%	4.92%	11.16%	16.73%
46	8.01%	12.02%	3.33%	5.00%	11.34%	17.02%
47	8.13%	12.20%	3.39%	5.08%	11.52%	17.28%
48	8.26%	12.40%	3.44%	5.16%	11.70%	17.56%
49	8.40%	12.60%	3.49%	5.24%	11.89%	17.84%
50	8.51%	12.77%	3.54%	5.31%	12.05%	18.08%
51	8.57%	12.85%	3.57%	5.35%	12.14%	18.20%
52	8.53%	12.80%	3.55%	5.33%	12.08%	18.13%
53	8.42%	12.63%	3.51%	5.26%	11.93%	17.89%
54 and over	8.18%	12.28%	3.41%	5.11%	11.59%	17.39%

Interest	7.00% per annum
COLA	2.75%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	41.63%
Additional Cashout	5.0%

[1] Use these rates for non-integrated members.

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General Tier 4 Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly eligible payroll)[1]

Entry Age	Basic Eligible Pay	COLA Eligible Pay	Total Eligible Pay
All Ages	7.34%	1.66%	9.00%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	22.62%
Additional Cashout	0.00%

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[1] It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2025 is equal to $155,081. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $155,081, or $186,096). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2025. (reference: Section 7522.10(d)).

Safety Tier 2 Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	Cost Sharing First $161	Cost Sharing Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	5.19%	7.79%	3.00%	3.00%	2.15%	3.23%	10.34%	14.02%
17	5.28%	7.92%	3.00%	3.00%	2.19%	3.28%	10.47%	14.20%
18	5.37%	8.06%	3.00%	3.00%	2.23%	3.34%	10.60%	14.40%
19	5.46%	8.19%	3.00%	3.00%	2.27%	3.40%	10.73%	14.59%
20	5.56%	8.33%	3.00%	3.00%	2.30%	3.45%	10.86%	14.78%
21	5.65%	8.48%	3.00%	3.00%	2.34%	3.51%	10.99%	14.99%
22	5.75%	8.62%	3.00%	3.00%	2.38%	3.57%	11.13%	15.19%
23	5.85%	8.77%	3.00%	3.00%	2.42%	3.63%	11.27%	15.40%
24	5.95%	8.92%	3.00%	3.00%	2.47%	3.70%	11.42%	15.62%
25	6.05%	9.07%	3.00%	3.00%	2.51%	3.76%	11.56%	15.83%
26	6.15%	9.23%	3.00%	3.00%	2.55%	3.83%	11.70%	16.06%
27	6.26%	9.39%	3.00%	3.00%	2.59%	3.89%	11.85%	16.28%
28	6.37%	9.55%	3.00%	3.00%	2.64%	3.96%	12.01%	16.51%
29	6.48%	9.72%	3.00%	3.00%	2.69%	4.03%	12.17%	16.75%
30	6.59%	9.89%	3.00%	3.00%	2.73%	4.10%	12.32%	16.99%
31	6.71%	10.06%	3.00%	3.00%	2.78%	4.17%	12.49%	17.23%
32	6.83%	10.24%	3.00%	3.00%	2.83%	4.25%	12.66%	17.49%
33	6.95%	10.43%	3.00%	3.00%	2.88%	4.32%	12.83%	17.75%
34	7.08%	10.62%	3.00%	3.00%	2.93%	4.40%	13.01%	18.02%
35	7.21%	10.82%	3.00%	3.00%	2.99%	4.48%	13.20%	18.30%
36	7.35%	11.02%	3.00%	3.00%	3.05%	4.57%	13.40%	18.59%
37	7.49%	11.24%	3.00%	3.00%	3.11%	4.66%	13.60%	18.90%
38	7.64%	11.46%	3.00%	3.00%	3.17%	4.75%	13.81%	19.21%
39	7.79%	11.69%	3.00%	3.00%	3.23%	4.84%	14.02%	19.53%

[1] Use these rates for non-integrated members.

DRAFT

Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	Cost Sharing First $161	Cost Sharing Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
40	7.94%	11.91%	3.00%	3.00%	3.29%	4.94%	14.23%	19.85%
41	8.09%	12.13%	3.00%	3.00%	3.35%	5.03%	14.44%	20.16%
42	8.22%	12.34%	3.00%	3.00%	3.41%	5.11%	14.63%	20.45%
43	8.32%	12.48%	3.00%	3.00%	3.45%	5.17%	14.77%	20.65%
44	8.35%	12.53%	3.00%	3.00%	3.46%	5.19%	14.81%	20.72%
45	8.28%	12.42%	3.00%	3.00%	3.43%	5.15%	14.71%	20.57%
46	8.13%	12.19%	3.00%	3.00%	3.37%	5.05%	14.50%	20.24%
47	7.93%	11.89%	3.00%	3.00%	3.29%	4.93%	14.22%	19.82%
48	8.18%	12.27%	3.00%	3.00%	3.39%	5.09%	14.57%	20.36%
49 and over	8.45%	12.68%	3.00%	3.00%	3.50%	5.25%	14.95%	20.93%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	41.44%
Additional Cashout	2.3%

[1] Use these rates for non-integrated members.

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Safety Tier 2C Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	5.19%	7.79%	2.02%	3.03%	7.21%	10.82%
17	5.28%	7.92%	2.05%	3.08%	7.33%	11.00%
18	5.37%	8.06%	2.09%	3.14%	7.46%	11.20%
19	5.46%	8.19%	2.13%	3.19%	7.59%	11.38%
20	5.56%	8.33%	2.16%	3.24%	7.72%	11.57%
21	5.65%	8.48%	2.20%	3.30%	7.85%	11.78%
22	5.75%	8.62%	2.24%	3.36%	7.99%	11.98%
23	5.85%	8.77%	2.27%	3.41%	8.12%	12.18%
24	5.95%	8.92%	2.31%	3.47%	8.26%	12.39%
25	6.05%	9.07%	2.35%	3.53%	8.40%	12.60%
26	6.15%	9.23%	2.39%	3.59%	8.54%	12.82%
27	6.26%	9.39%	2.44%	3.66%	8.70%	13.05%
28	6.37%	9.55%	2.48%	3.72%	8.85%	13.27%
29	6.48%	9.72%	2.52%	3.78%	9.00%	13.50%
30	6.59%	9.89%	2.57%	3.85%	9.16%	13.74%
31	6.71%	10.06%	2.61%	3.92%	9.32%	13.98%
32	6.83%	10.24%	2.66%	3.99%	9.49%	14.23%
33	6.95%	10.43%	2.71%	4.06%	9.66%	14.49%
34	7.08%	10.62%	2.75%	4.13%	9.83%	14.75%
35	7.21%	10.82%	2.81%	4.21%	10.02%	15.03%
36	7.35%	11.02%	2.86%	4.29%	10.21%	15.31%
37	7.49%	11.24%	2.92%	4.38%	10.41%	15.62%
38	7.64%	11.46%	2.97%	4.46%	10.61%	15.92%
39	7.79%	11.69%	3.03%	4.55%	10.82%	16.24%
40	7.94%	11.91%	3.09%	4.64%	11.03%	16.55%

[1] Use these rates for non-integrated members.

DRAFT

Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
41	8.09%	12.13%	3.15%	4.72%	11.24%	16.85%
42	8.22%	12.34%	3.20%	4.80%	11.42%	17.14%
43	8.32%	12.48%	3.24%	4.86%	11.56%	17.34%
44	8.35%	12.53%	3.25%	4.88%	11.60%	17.41%
45	8.28%	12.42%	3.22%	4.83%	11.50%	17.25%
46	8.13%	12.19%	3.17%	4.75%	11.30%	16.94%
47	7.93%	11.89%	3.09%	4.63%	11.02%	16.52%
48	8.18%	12.27%	3.19%	4.78%	11.37%	17.05%
49 and over	8.45%	12.68%	3.29%	4.94%	11.74%	17.62%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	38.93%
Additional Cashout	2.3%

DRAFT

[1] Use these rates for non-integrated members.

Safety Tier 2D Members' Contribution Rates for Members with Less than Five Years of Vesting Service Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	Cost Sharing First $161	Cost Sharing Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	5.19%	7.79%	5.00%	5.00%	2.23%	3.35%	12.42%	16.14%
17	5.28%	7.92%	5.00%	5.00%	2.27%	3.41%	12.55%	16.33%
18	5.37%	8.06%	5.00%	5.00%	2.31%	3.47%	12.68%	16.53%
19	5.46%	8.19%	5.00%	5.00%	2.35%	3.53%	12.81%	16.72%
20	5.56%	8.33%	5.00%	5.00%	2.39%	3.59%	12.95%	16.92%
21	5.65%	8.48%	5.00%	5.00%	2.43%	3.65%	13.08%	17.13%
22	5.75%	8.62%	5.00%	5.00%	2.47%	3.71%	13.22%	17.33%
23	5.85%	8.77%	5.00%	5.00%	2.52%	3.78%	13.37%	17.55%
24	5.95%	8.92%	5.00%	5.00%	2.56%	3.84%	13.51%	17.76%
25	6.05%	9.07%	5.00%	5.00%	2.61%	3.91%	13.66%	17.98%
26	6.15%	9.23%	5.00%	5.00%	2.65%	3.97%	13.80%	18.20%
27	6.26%	9.39%	5.00%	5.00%	2.69%	4.04%	13.95%	18.43%
28	6.37%	9.55%	5.00%	5.00%	2.74%	4.11%	14.11%	18.66%
29	6.48%	9.72%	5.00%	5.00%	2.79%	4.18%	14.27%	18.90%
30	6.59%	9.89%	5.00%	5.00%	2.84%	4.26%	14.43%	19.15%
31	6.71%	10.06%	5.00%	5.00%	2.89%	4.33%	14.60%	19.39%
32	6.83%	10.24%	5.00%	5.00%	2.94%	4.41%	14.77%	19.65%
33	6.95%	10.43%	5.00%	5.00%	2.99%	4.49%	14.94%	19.92%
34	7.08%	10.62%	5.00%	5.00%	3.05%	4.57%	15.13%	20.19%
35	7.21%	10.82%	5.00%	5.00%	3.11%	4.66%	15.32%	20.48%
36	7.35%	11.02%	5.00%	5.00%	3.17%	4.75%	15.52%	20.77%
37	7.49%	11.24%	5.00%	5.00%	3.23%	4.84%	15.72%	21.08%
38	7.64%	11.46%	5.00%	5.00%	3.29%	4.93%	15.93%	21.39%

[1] Use these rates for non-integrated members.

DRAFT

Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	Cost Sharing First $161	Cost Sharing Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
39	7.79%	11.69%	5.00%	5.00%	3.35%	5.03%	16.14%	21.72%
40	7.94%	11.91%	5.00%	5.00%	3.42%	5.13%	16.36%	22.04%
41	8.09%	12.13%	5.00%	5.00%	3.48%	5.22%	16.57%	22.35%
42	8.22%	12.34%	5.00%	5.00%	3.54%	5.31%	16.76%	22.65%
43	8.32%	12.48%	5.00%	5.00%	3.58%	5.37%	16.90%	22.85%
44	8.35%	12.53%	5.00%	5.00%	3.59%	5.39%	16.94%	22.92%
45	8.28%	12.42%	5.00%	5.00%	3.57%	5.35%	16.85%	22.77%
46	8.13%	12.19%	5.00%	5.00%	3.50%	5.25%	16.63%	22.44%
47	7.93%	11.89%	5.00%	5.00%	3.41%	5.12%	16.34%	22.01%
48	8.18%	12.27%	5.00%	5.00%	3.52%	5.28%	16.70%	22.55%
49 and over	8.45%	12.68%	5.00%	5.00%	3.64%	5.46%	17.09%	23.14%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	43.05%
Additional Cashout	2.3%

DRAFT

[1] Use these rates for non-integrated members.

Safety Tier 2D Members' Contribution Rates for Members with Five or More Years of Vesting Service Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly payroll)

Entry Age	Basic First $161	Basic Over $161[1]	Cost Sharing First $161	Cost Sharing Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
16 and under	5.19%	7.79%	3.00%	3.00%	2.23%	3.35%	10.42%	14.14%
17	5.28%	7.92%	3.00%	3.00%	2.27%	3.41%	10.55%	14.33%
18	5.37%	8.06%	3.00%	3.00%	2.31%	3.47%	10.68%	14.53%
19	5.46%	8.19%	3.00%	3.00%	2.35%	3.53%	10.81%	14.72%
20	5.56%	8.33%	3.00%	3.00%	2.39%	3.59%	10.95%	14.92%
21	5.65%	8.48%	3.00%	3.00%	2.43%	3.65%	11.08%	15.13%
22	5.75%	8.62%	3.00%	3.00%	2.47%	3.71%	11.22%	15.33%
23	5.85%	8.77%	3.00%	3.00%	2.52%	3.78%	11.37%	15.55%
24	5.95%	8.92%	3.00%	3.00%	2.56%	3.84%	11.51%	15.76%
25	6.05%	9.07%	3.00%	3.00%	2.61%	3.91%	11.66%	15.98%
26	6.15%	9.23%	3.00%	3.00%	2.65%	3.97%	11.80%	16.20%
27	6.26%	9.39%	3.00%	3.00%	2.69%	4.04%	11.95%	16.43%
28	6.37%	9.55%	3.00%	3.00%	2.74%	4.11%	12.11%	16.66%
29	6.48%	9.72%	3.00%	3.00%	2.79%	4.18%	12.27%	16.90%
30	6.59%	9.89%	3.00%	3.00%	2.84%	4.26%	12.43%	17.15%
31	6.71%	10.06%	3.00%	3.00%	2.89%	4.33%	12.60%	17.39%
32	6.83%	10.24%	3.00%	3.00%	2.94%	4.41%	12.77%	17.65%
33	6.95%	10.43%	3.00%	3.00%	2.99%	4.49%	12.94%	17.92%
34	7.08%	10.62%	3.00%	3.00%	3.05%	4.57%	13.13%	18.19%
35	7.21%	10.82%	3.00%	3.00%	3.11%	4.66%	13.32%	18.48%
36	7.35%	11.02%	3.00%	3.00%	3.17%	4.75%	13.52%	18.77%
37	7.49%	11.24%	3.00%	3.00%	3.23%	4.84%	13.72%	19.08%
38	7.64%	11.46%	3.00%	3.00%	3.29%	4.93%	13.93%	19.39%

[1] Use these rates for non-integrated members.

DRAFT

Section 4: Actuarial Valuation Basis

Entry Age	Basic First $161	Basic Over $161[1]	Cost Sharing First $161	Cost Sharing Over $161[1]	COLA First $161	COLA Over $161[1]	Total First $161	Total Over $161[1]
39	7.79%	11.69%	3.00%	3.00%	3.35%	5.03%	14.14%	19.72%
40	7.94%	11.91%	3.00%	3.00%	3.42%	5.13%	14.36%	20.04%
41	8.09%	12.13%	3.00%	3.00%	3.48%	5.22%	14.57%	20.35%
42	8.22%	12.34%	3.00%	3.00%	3.54%	5.31%	14.76%	20.65%
43	8.32%	12.48%	3.00%	3.00%	3.58%	5.37%	14.90%	20.85%
44	8.35%	12.53%	3.00%	3.00%	3.59%	5.39%	14.94%	20.92%
45	8.28%	12.42%	3.00%	3.00%	3.57%	5.35%	14.85%	20.77%
46	8.13%	12.19%	3.00%	3.00%	3.50%	5.25%	14.63%	20.44%
47	7.93%	11.89%	3.00%	3.00%	3.41%	5.12%	14.34%	20.01%
48	8.18%	12.27%	3.00%	3.00%	3.52%	5.28%	14.70%	20.55%
49 and over	8.45%	12.68%	3.00%	3.00%	3.64%	5.46%	15.09%	21.14%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	43.05%
Additional Cashout	2.3%

DRAFT

[1] Use these rates for non-integrated members.

Safety Tier 4 Members' Contribution Rates Based on the December 31, 2024 Actuarial Valuation

(as a % of biweekly eligible payroll [1]

Entry Age	Basic Eligible Pay	COLA Eligible Pay	Total Eligible Pay
All Ages	14.02%	3.84%	17.86%

Interest	7.00% per annum
COLA	2.00%
Mortality	See *Section 4, Exhibit 1*
Salary Increase	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor	27.39%
Additional Cashout	0.00%

DRAFT

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2025 is equal to $155,081. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of $155,081, or $186,096). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2025. (reference: Section 7522.10(d)).

Exhibit 4: Projected employer contributions by participating employer

Estimated employer contribution requirement for each ACERA participating employer based on projected employer compensation used in the December 31, 2024 Actuarial Valuation

Employer Dollar Contribution[1,2] Calculated Based on December 31, 2024 Valuation *($ in '000s)*

Employer Name (Code)	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 2	Safety Tier 2C	Safety Tier 2D	Safety Tier 4	Total
Alameda County (101)	$738	$76,706		$94,348	$26,949	$986	$5,935	$28,935	$234,597
Health System (106)		30,377		51,263					81,640
Superior Court (632)	24	6,980		7,996					15,000
First 5 (714)		602		2,620					3,222
Housing Authority (103)	709	128		929					1,766
LARPD (104)	74		$236	153					463
Total	**$1,545**	**$114,793**	**$236**	**$157,309**	**$26,949**	**$986**	**$5,935**	**$28,935**	**$336,688**

Employer Dollar Contribution[2,3] Calculated Based on December 31, 2023 Valuation *($ in '000s)*

Employer Name (Code)	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 2	Safety Tier 2C	Safety Tier 2D	Safety Tier 4	Total
Alameda County (101)	$739	$77,115		$94,897	$25,312	$948	$5,502	$26,930	$231,443
Health System (106)		30,594		51,659					82,253
Superior Court (632)	24	7,031		8,057					15,112
First 5 (714)		607		2,640					3,247
Housing Authority (103)	717	130		944					1,791
LARPD (104)	67		$216	138					421
Total	**$1,547**	**$115,477**	**$216**	**$158,335**	**$25,312**	**$948**	**$5,502**	**$26,930**	**$334,267**

[1] Includes contributions only for those employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $127 K when made on April 1, 2026.

[2] Contribution calculated using projected compensation provided on the next page for the December 31, 2024 valuation.

[3] Includes contributions only for those employers with active member payroll. The UAAL contribution for ACOE, expressed as a level dollar amount, is $120 K when made on April 1, 2025.

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December 31, 2024 Projected Employer Compensation *($ in '000s)*

Employer Name (Code)	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 2	Safety Tier 2C	Safety Tier 2D	Safety Tier 4	Total
Alameda County (101)	$3,038	$339,861		$422,896	$91,977	$2,978	$19,301	$106,612	$986,663
Health System (106)		128,713		219,638					348,351
Superior Court (632)	93	29,578		34,257					63,928
First 5 (714)		2,552		11,225					13,777
Housing Authority (103)	2,352	452		3,305					6,109
LARPD (104)	609		$1,308	1,519					3,436
Total	**$6,092**	**$501,156**	**$1,308**	**$692,840**	**$91,977**	**$2,978**	**$19,301**	**$106,612**	**$1,422,264**

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Exhibit 5: Schedule of outstanding balances of prior implicit retiree health benefit subsidy transfers

For Year(s)	Initial Years	Initial Amount ($ in '000s)[1]	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment ($ in '000s)[2]
Prior to 2013	[3]	[3]	$26,114	8	$3,854
2013	20	$6,993	5,245	9	701
2014	20	5,215	4,207	10	515
2015	20	5,325	4,559	11	516
2016	20	8,865	7,651	12	809
2017	20	5,830	5,172	13	513
2018	20	6,940	6,485	14	608
2019	20	6,511	6,072	15	541
2020	20	7,549	7,162	16	608
2021	20	5,653	5,428	17	441
2022	20	7,981	7,856	18	614
2023	20	4,116	4,110	19	309
2024	20	2,472	2,472	20	180
Total			**$92,533**		**$10,210**

Note: Results may be slightly off due to rounding.

[1] For years 2013 and later, these amounts are estimates provided by ACERA.
[2] Level percentage of payroll.
[3] Various initial years and amounts prior to 2013.

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Exhibit 6: Allocation of the valuation value of assets as of December 31, 2024

The allocation of the valuation value of assets is determined based on a roll-forward of the prior year allocation using employer contributions, member contributions, benefit payments, and calculated interest credits as provided by ACERA. The allocation is determined separately for each 6-month period, consistent with ACERA's interest crediting cycle.

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Section 4: Actuarial Valuation Basis

Allocation of Valuation Value of Assets from January 1 – June 30, 2024

Step	(1) General (Excludes ACOE and LARPD)	(2) General (ACOE)	(3) General (LARPD)	(4) Safety	(5) LARPD General UAAL Advance Reserve[1]	(6) County Safety UAAL Advance Reserve[1]	(7) Total
A. VVA at January 1							
Basic Only	$4,984,626,190	$2,313,042	$35,143,489	$1,569,577,285	$8,341,279	$529,063,391	$7,129,064,676
COLA Only	2,100,285,312	1,145,300	20,526,762	918,608,436	3,311,437	165,497,695	3,209,374,942
Total[2]	**$7,084,911,502**	**$3,458,342**	**$55,670,251**	**$2,488,185,721**	**$11,652,716**	**$694,561,086**	**$10,338,439,618**
B. Est. SRBR Transfer							
Basic Only[2]	$3,169,672	$0	$0	$946,328	$0	$0	$4,116,000
C. SRBR Adjustment[3]							
Basic Only	$(60,596)	$0	$0	$(18,092)	$0	$0	$(78,688)
D. Employer Contributions							
Basic Only	$100,876,041	$110,000	$166,102	$19,886,626	$0	$0	$121,038,770
COLA Only	29,219,055	0	49,428	5,543,367	0	0	34,811,851
Total	**$130,095,096**	**$110,000**	**$215,531**	**$25,429,994**	**$0**	**$0**	**$155,850,620**
E. Employee Contributions							
Basic Only	$40,450,239	$0	$199,397	$13,588,854	$0	$0	$54,238,490
COLA Only	9,391,401	0	53,168	4,165,982	0	0	13,610,551
Total	**$49,841,640**	**$0**	**$252,565**	**$17,754,837**	**$0**	**$0**	**$67,849,041**
F. Benefit Payments							
Basic Only	$170,045,589	$137,515	$1,378,169	$63,123,762	$0	$0	$234,685,035
COLA Only	58,474,085	84,254	474,725	24,096,579	0	0	83,129,643
Total	**$228,519,674**	**$221,769**	**$1,852,894**	**$87,220,341**	**$0**	**$0**	**$317,814,678**
G. Reserve Transfer[4]							
Basic Only	$0	$0	$336,423	$31,064,479	$(336,423)	$(31,064,479)	$0
COLA Only	0	0	158,795	9,717,343	(158,795)	(9,717,343)	0
Total	**$0**	**$0**	**$495,218**	**$40,781,822**	**$(495,218)**	**$(40,781,822)**	**$0**
H. Return on VVA[5]							
Basic Only	$173,800,771	$80,650	$1,225,361	$54,727,021	$197,879	$12,550,897	$242,582,579
COLA Only	73,480,164	40,069	718,145	32,138,252	78,557	3,926,079	110,381,267
Total	**$247,280,936**	**$120,719**	**$1,943,506**	**$86,865,273**	**$276,436**	**$16,476,976**	**$352,963,846**
I. VVA at June 30[6]							
Basic Only	**$5,132,816,727**	**$2,366,177**	**$35,692,603**	**$1,626,648,741**	**$8,202,735**	**$510,549,809**	**$7,316,276,792**
COLA Only	**2,153,901,848**	**1,101,115**	**21,031,574**	**946,076,801**	**3,231,199**	**159,706,431**	**3,285,048,968**
Total	**$7,286,718,575**	**$3,467,292**	**$56,724,177**	**$2,572,725,542**	**$11,433,934**	**$670,256,240**	**$10,601,325,760**

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Allocation of Valuation Value of Assets from July 1 – December 31, 2024

Step	(1) General (Excludes ACOE and LARPD)	(2) General (ACOE)	(3) General (LARPD)	(4) Safety	(5) LARPD General UAAL Advance Reserve[1]	(6) County Safety UAAL Advance Reserve[1]	(7) Total
I. VVA at July 1[6]							
Basic Only	$5,132,816,727	$2,366,177	$35,692,603	$1,626,648,741	$8,202,735	$510,549,809	$7,316,276,792
COLA Only	2,153,901,848	1,101,115	21,031,574	946,076,801	3,231,199	159,706,431	3,285,048,968
Total	$7,286,718,575	$3,467,292	$56,724,177	$2,572,725,542	$11,433,934	$670,256,240	$10,601,325,760
J. Employer Contributions							
Basic Only	$98,897,543	$0	$160,636	$21,585,597	$0	$0	$120,643,776
COLA Only	28,594,729	0	49,082	5,968,068	0	0	34,611,879
Total	**$127,492,273**	**$0**	**$209,717**	**$27,553,665**	**$0**	**$0**	**$155,255,655**
K. Employee Contributions							
Basic Only	$39,478,123	$0	$157,937	$13,715,243	$0	$0	$53,351,302
COLA Only	9,077,479	0	48,257	4,163,796	0	0	13,289,532
Total	**$48,555,602**	**$0**	**$206,194**	**$17,879,038**	**$0**	**$0**	**$66,640,834**
L. Benefit Payments							
Basic Only	$172,683,585	$137,355	$1,441,201	$65,017,376	$0	$0	$239,279,518
COLA Only	59,992,915	87,227	500,441	24,830,781	0	0	85,411,364
Total	**$232,676,500**	**$224,582**	**$1,941,642**	**$89,848,158**	**$0**	**$0**	**$324,690,882**
M. Reserve Transfer[4]							
Basic Only	$0	$0	$382,840	$31,455,741	$(382,840)	$(31,455,741)	$0
COLA Only	0	0	180,636	9,833,391	(180,636)	(9,833,391)	0
Total	**$0**	**$0**	**$563,477**	**$41,289,132**	**$(563,477)**	**$(41,289,132)**	**$0**
N. Return on VVA[5]							
Basic Only	$178,618,684	$82,341	$1,242,079	$56,606,318	$200,359	$12,470,650	$249,220,432
COLA Only	75,275,463	38,482	735,020	33,063,888	78,925	3,900,977	113,092,756
Total	**$253,894,147**	**$120,824**	**$1,977,100**	**$89,670,206**	**$279,284**	**$16,371,627**	**$362,313,188**
O. Preliminary VVA Dec 31[7]							
Basic Only	$5,277,127,507	$2,311,164	$36,194,894	$1,684,994,269	$8,020,254	$491,564,718	$7,500,212,806
COLA Only	2,206,856,590	1,052,370	21,544,129	974,275,157	3,129,488	153,774,017	3,360,631,751
Total	**$7,483,984,097**	**$3,363,534**	**$57,739,023**	**$2,659,269,426**	**$11,149,742**	**$645,338,735**	**$10,860,844,557**
P. Est. Transfers[8]							
Basic Only	$1,918,903	$0	$0	$553,443	$(616,000)	$0	$1,856,346
COLA Only	0	0	0	0	616,000	0	616,000
Total	**$1,918,903**	**$0**	**$0**	**$553,443**	**$0**	**$0**	**$2,472,346**
Q. VVA at December 31							
Total Basic Only	**$5,279,046,410**	**$2,311,164**	**$36,194,894**	**$1,685,547,712**	**$7,404,254**	**$491,564,718**	**$7,502,069,152**
Total COLA Only	**2,206,856,590**	**1,052,370**	**21,544,129**	**974,275,157**	**3,745,488**	**153,774,017**	**3,361,247,751**
Total VVA[9]	**$7,485,903,000**	**$3,363,534**	**$57,739,023**	**$2,659,822,869**	**$11,149,742**	**$645,338,735**	**$10,863,316,903**

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Notes for Exhibit 6

Results may be slightly off due to rounding.

1. The County made voluntary County Safety contributions of $800 million on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. The Livermore Area Recreation and Park District (LARPD) also made voluntary LARPD General contributions of $12.611 million on around June 29, 2021 to reduce their General UAAL and associated contribution rates. ACERA has set up the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve to track these voluntary UAAL contributions. Based on the Board's funding policy and interest crediting policy, these two UAAL Advance Reserves are subject to a separate five-year asset smoothing schedule that excludes the allocation of any deferred investment gains or losses accumulated up to June 30, 2021 for interest crediting purposes. For purposes of determining the Basic and COLA voluntary UAAL contribution credit, we tracked internally the UAAL Advance Reserve by Basic and COLA based on the proportion of Basic and COLA voluntary contribution credits provided in our June 4, 2021 letter for County Safety and in our June 10, 2021 letter for LARPD General. ACERA continues to maintain the UAAL Advance Reserves with no Basic and COLA split.
2. The final valuation value of assets as of December 31, 2023 is $10,342,555,618, is calculated as: (A) + (B)
3. The SRBR Adjustment is calculated by taking the difference between the actual and estimated SRBR transfer used in the prior valuation.
4. The Reserve Transfer is the transfer from UAAL Advance Reserve to Employer Advance Reserve and COLA Reserve.
5. The return for LARPD General UAAL Advance Reserve and County Safety UAAL Advance Reserve are determined based on a separate five-year asset smoothing schedule that excludes any deferred investment gains or losses accumulated up to June 30, 2021. The total return minus the returns for the UAAL Advance Reserve is allocated to the cost groups based on the cost group's valuation value of assets at beginning of period using the following formulas:

   [(7) H – (5) H – (6) H] ÷ [(7) A – (5) A – (6) A] × A for each Cost Group

   [(7) N - (5) N - (6) N] ÷ [(7) I - (5) I - (6) I] × I for each Cost Group
6. Valuation value of assets at June 30 is provided by ACERA, is calculated as: A + B + C + D + E – F + G + H
7. Preliminary VVA at December 31 is provided by ACERA, is calculated as: I + J + K – L + M + N

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Section 4: Actuarial Valuation Basis

Note that the preliminary VVA at December 31 also includes the following manual adjustments (to align with the total basic and COLA reserves maintained by ACERA):

Manual Adjustments	(1) General (Excludes ACOE and LARPD)	(2) General (ACOE)	(3) General (LARPD)	(4) Safety	(5) LARPD General UAAL Advance Reserve[1]	(6) County Safety UAAL Advance Reserve[1]	(7) Total
Basic Only	$15	$0	$0	$5	$0	$0	$20
COLA Only	(15)	0	0	(5)	0	0	(20)

8. Estimated Transfers include SRBR Transfers and other Asset Transfers. $616,000 was transferred from the Basic LARPD General UAAL Advance Reserve to the COLA LARPD General UAAL Advance Reserve such that the proportion of the Basic LARPD UAAL contribution rate compared to the COLA LARPD UAAL contribution rate would be roughly equal both before and after applying the voluntary UAAL contribution credit. This transfer only affects the proportion of the LARPD General UAAL Advance Reserve that is allocated between Basic and COLA for the purposes of determining the breakdown of the voluntary UAAL contribution credit into credit under Basic and credit under COLA.
9. Valuation value of assets at December 31 is calculated as: O + P

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Exhibit 7: Reconciliation of voluntary UAAL contribution rate credit as of December 31, 2024

The County made voluntary County Safety UAAL contributions of $800 million on around June 29, 2021 to reduce their UAAL and associated UAAL contribution rates. These contributions are tracked under the County – Safety UAAL Advance Reserve based on the amount of contribution credit used and the interest credited to that reserve in accordance with the Board's Interest Crediting Policy.[1] The outstanding balance of this reserve is amortized over the remaining 9.5 years (as of December 31, 2024) as a contribution credit.

Reconciliation from December 31, 2023 to December 31, 2024
Safety Only

Item	Contribution Rate
County – Safety Voluntary UAAL contribution credit as of December 31, 2023	39.10%
1. Effect of investment return less than expected after "smoothing"	(0.76%)
2. Effect of more actual contribution credit required or applied than expected[2]	(0.04%)
3. Effect of amortizing the UAAL Advance Reserve balance over a larger than expected projected payroll	(0.99%)
4. **Total change**	**(1.79%)**
County – Safety Voluntary UAAL contribution credit as of December 31, 2024	**37.31%**

[1] Details may be found in *Section 4, Exhibit 6*.
[2] Includes impact of scheduled lag in applying the contribution rate credit from the voluntary UAAL contributions and difference due to actual payroll during 2024 different than expected.

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Section 4: Actuarial Valuation Basis

LARPD made voluntary LARPD General UAAL contributions of $12.611 million on around June 29, 2021 to reduce their UAAL and associated UAAL contribution rates. These contributions are tracked under the LARPD – General UAAL Advance Reserve based on the amount of contribution credit used and the interest credited to that reserve in accordance with the Board's Interest Crediting Policy.[1] The outstanding balance of this reserve is amortized over the remaining 12.5 years (as of December 31, 2024) as a contribution credit.

Reconciliation from December 31, 2023 to December 31, 2024
LARPD Only

	Contribution Rate
LARPD – General Voluntary UAAL contribution credit as of December 31, 2023	30.23%
1. Effect of investment return less than expected after "smoothing"	(0.62%)
2. Effect of less actual contribution credit required or applied than expected[2]	0.17%
3. Effect of amortizing the UAAL Advance Reserve balance over a smaller than expected projected payroll	2.20%
4. Effect of credit that was not used last year (due to floor on net LARPD rate to be no less than normal cost) but available this year[3]	1.23%
5. **Total change**	**2.98%**
LARPD – General Voluntary UAAL contribution credit as of December 31, 2024	**33.21%**

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[1] Details may be found in *Section 4, Exhibit 6*.

[2] Includes impact of scheduled lag in applying the contribution rate credit from the voluntary UAAL contributions and difference due to actual payroll during 2024 different than expected.

[3] LARPD had a surplus in the December 31, 2023 valuation. In compliance with CalPEPRA, the net LARPD contribution rate cannot be less than the normal cost. As a result, the voluntary UAAL contribution credit was reduced by 1.23% of payroll to not exceed the UAAL rate before the credit in the December 31, 2023 valuation. LARPD has a UAAL in the December 31, 2024 valuation. As a result, the credit of 1.23% of payroll that was not used last year is now used this year to reflect the full credit from the LARPD UAAL Advance Reserve.

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial present value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the actuarial present value of future benefits to various time periods; a method used to determine the normal cost and the actuarial accrued liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates. To the extent that actual experience differs from that assumed, actuarial accrued liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal actuarial present value, determined as of a given date and based on a given set of actuarial assumptions.
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. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

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Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The actuarial present value of benefit amounts 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, anticipated future compensation, and future service credits. The actuarial present value of future benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
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 plan, as well as actuarially determined contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The actuarially determined contribution consists of the employer normal cost and the amortization payment.
Amortization method	A method for determining the amortization payment. The most common methods used are level dollar and level percentage of payroll. Under the level dollar method, the amortization payment is one of a stream of payments, all equal, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the amortization payment is one of a stream of increasing payments, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or actuarially determined contribution, that is intended to pay off the unfunded actuarial accrued liability.
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: **Investment return** — the rate of investment yield that the Plan will earn over the long-term future; **Mortality rates** — the rate or probability of death at a given age for employees and retirees; **Retirement rates** — the rate or probability of retirement at a given age or service; **Disability rates** — the rate or probability of disability retirement at a given age; **Withdrawal rates** — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; **Salary increase rates** — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

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Appendix A: Definition of Pension Terms

Term	Definition
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See “open amortization period.”
Decrements	Those causes/events due to which a member’s status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member’s compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan’s earnings are allocated to each account, and each member’s benefits are a direct function of the account balance.
Employer normal cost	The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the valuation value of assets to the actuarial accrued liability. Plans sometimes also calculate a market funded ratio, using the market value of assets, rather than the valuation value of assets.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Negative amortization	Negative amortization is a result of an increase in the unfunded actuarial accrued liability when the amortization payment is less than the interest accrued on the unfunded actuarial accrued liability.
Net pension liability	The net pension liability is equal to the total pension liability minus the plan fiduciary net position.
Normal cost	The portion of the actuarial present value of future benefits and expenses, if applicable, allocated to a valuation year by the actuarial cost method. Any payment with respect to an unfunded actuarial accrued liability is not part of the normal cost (see “amortization payment”). For pension plan benefits that are provided in part by employee contributions, normal cost refers to the total of member contributions and employer normal cost unless otherwise specifically stated.

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Appendix A: Definition of Pension Terms

Term	Definition
Open amortization period	An open amortization period is one which is used to determine the amortization payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the amortization period.
Plan fiduciary net position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total pension liability	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the actuarial accrued liability over the valuation value of assets. This value may be negative, in which case it may be expressed as a negative unfunded actuarial accrued liability, also called the funding surplus or an overfunded actuarial accrued liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the actuarial present value of future benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation value of assets	The actuarial value of assets reduced by the value of non-valuation reserves.

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