

Alameda County Employees' Retirement Association (ACERA)

**Governmental Accounting Standards Board
Statement No. 68 Actuarial Valuation as of
December 31, 2023 for Employer Reporting as of
June 30, 2024**



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Segal



180 Howard Street
Suite 1100
San Francisco, CA 94105-6147
segalco.com
T 415.263.8200

June 12, 2024

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 Governmental Accounting Standards Board Statement No. 68 (GASB 68) Actuarial Valuation as of December 31, 2023 for the Alameda County Employees' Retirement Association ("ACERA" or "the Plan") for employer reporting as of June 30, 2024. It contains various information that will need to be disclosed in order for ACERA employers to comply with GASB 68. Please refer to ACERA's Actuarial Valuation and Review as of December 31, 2022 for the data and ACERA's Actuarial Valuation and Review as of December 31, 2023 for the assumptions and plan of benefits underlying these calculations.

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 (the Board), based upon information provided by the staff of the Plan and the Plan's other service providers.

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 (such as the end of an amortization period) and changes in plan provisions or applicable law.

The actuarial calculations were completed 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 the 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 ACERA and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

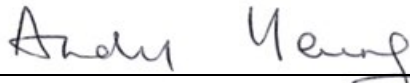
Board of Retirement
June 12, 2024

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

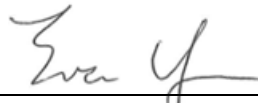
We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal



Andy Yeung, ASA, MAAA, FGA, 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 certain disclosure information required by Governmental Accounting Standards Board Statement No. 68 (GASB 68) as of December 31, 2023 for employer reporting as of June 30, 2024. The results used in preparing this GASB 68 report are comparable to those used in preparing the Governmental Accounting Standards Board Statement No. 67 (GASB 67) report for the plan based on a reporting date and a measurement date as of December 31, 2023. This report is based on:

- The benefit provisions of ACERA, as administered by the Board;
- The characteristics of covered active, inactive, and retired members and beneficiaries as of November 30, 2022,¹ provided by the staff of ACERA;
- The assets of the Plan as of December 31, 2023, provided by ACERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board for the December 31, 2023 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2023 valuation.

General observations on a GASB 68 Actuarial Valuation

1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, they do not apply to contribution amounts for pension funding purposes. Employers and plans should continue to develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as ACERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on the same basis as ACERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the service cost for financial reporting shown in this report and the normal cost component of the annual plan cost for funding.

¹ 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.

Section 1: Actuarial Valuation Summary

3. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan Fiduciary Net Position (FNP). The Plan FNP is equal to the fair value of assets and therefore, the NPL measure is very similar to an Unfunded Actuarial Accrued Liability (UAAL) on a market value basis.

Highlights of the valuation

1. The reporting date for the employers is June 30, 2024. The NPL measured as of December 31, 2023 has been determined by rolling forward the TPL as of December 31, 2022. The Plan's FNP was valued as of the measurement date. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected. Consistent with the provisions of GASB 68, the assets and liabilities measured as of December 31, 2023 are not adjusted or rolled forward to the June 30, 2024 reporting date.

Similar to last year, we have included in the TPL as of December 31, 2023 the non-OPEB unlimited AAL of \$200.3 million, which was calculated by rolling forward the total unlimited non-OPEB AAL as of December 31, 2022.

2. The results of this valuation reflect an experience study of the actuarial assumptions based on the experience during the period December 1, 2019 through November 30, 2022. Based on that study and the recommendations provided in our report dated January 8, 2024, the Board adopted updated actuarial assumptions for use in this valuation.
3. The NPL decreased from \$2.2 billion as of December 31, 2022 to \$1.7 billion as of December 31, 2023 primarily due to: (a) favorable investment experience,¹ a return on the market value of assets of 12.3% during calendar year 2023 that was greater than the assumption of 7.00% used in the December 31, 2022 valuation (a gain of about \$487 million²), (b) \$54.2 million transfer from the OPEB SRBR to the non-OPEB SRBR made by the Board to equalize the sufficiency periods of the OPEB and non-OPEB SRBR benefits, (c) reflecting the assumptions recommended in the experience study, offset to some extent by (d) a new election process adopted by the Board to allow active members to elect an optional settlement 2 allowance in advance to provide a continuance of 100% to the member's spouse, domestic partner or other beneficiaries upon the member's pre-retirement death. Changes in these values during the last two fiscal years can be found in *Section 2, Exhibit 3* on page 24.
4. The pension expense decreased from \$451.3 million calculated last year to \$250.0 million calculated this year. The primary causes of the decrease are (a) the recognition of \$(97.0) million reduction in this year's pension expense that is associated with

¹ The market value investment return for ACERA as a whole was 12.11% net of administrative expenses, or 12.29% gross of administrative expenses, during 2023. In allocating the end of year market value of assets between the Pension Plan and the SRBR, we have taken into consideration that for ACERA as a whole, the actuarial value of assets was higher than the market value of assets as of December 31, 2023 and there are deferred investment losses scheduled to be recognized in the next few years. As a result, the plan FNP allocated to the Pension Plan and the SRBR has generally been done in proportion to the actuarial value of assets and the market value investment return of 12.3% for the Pension Plan is very close to the 12.0% investment return for the SRBR (OPEB and non-OPEB SRBR combined).

² This amount represents the investment income on the Plan FNP for the Pension Plan and non-OPEB SRBR that is above the assumed earnings (actual market return of 12.3% versus 7.00% assumed in the valuation) for the year ending December 31, 2023.

Section 1: Actuarial Valuation Summary

investment income on the Plan FNP that is above the assumed earnings (at 7.00%) for the year ending December 31, 2023 for a gain of \$487 million, (b) the immediate recognition of the \$54.2 million asset transfer from the OPEB to the non-OPEB SRBR to equalize the sufficiency periods, and (c) the recognition of \$(21.2) million from changes in assumptions.

5. As we disclosed in our December 31, 2023 funding valuation report, the 7.00% 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 employee contribution rates 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 Supplemental Retiree Benefits Reserve (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 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 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 the determination of the TPL) that would average approximately 0.75% of assets over time. This approximated outflow was incorporated into our GASB crossover test¹ in *Appendix A*, along with the additional future employer contributions that would result from those future allocations of excess earnings to the SRBR under ACERA’s funding policy. (The choice of this methodology by the Board in 2015 to reflect the impact of the SRBR was a result of several meetings with ACERA and its auditors, as well as with administrative staff, auditors, and consultants representing the County of Alameda, and after twice consulting with GASB staff.)

6. As of December 31, 2023, the deferred investment loss for the entire Plan was \$292.8 million. After offsetting this loss by the balance in the Contingency Reserve, the residual loss is \$256.1 million. Generally speaking, the proportionate share of the net deferred investment loss as of December 31, 2023 for the Pension Plan was equal to \$233.2 million and in calculating the Plan FNP we have adjusted the Pension Plan’s valuation value of assets in the funding valuation to reflect that amount. We have also

¹ The purpose of the GASB crossover test is to determine if the full expected return (or 7.00% in this case) can be used as the discount rate to determine the TPL and the NPL. That is, if there is no crossover point where the projected benefit payments would exceed the Plan FNP, then the full expected return assumption can be used. As detailed later in this report, ACERA **does** pass the crossover test, which means that the full 7.00% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

Section 1: Actuarial Valuation Summary

continued the practice of adjusting the Plan FNP as of December 31, 2023 to include the \$111.3 million¹ set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits² as of December 31, 2023. We have subtracted from the Plan FNP the proportionate share of the net deferred investment loss that is commensurate with the size of the non-OPEB SRBR reserve, or \$2.1 million. The net effect of the adjustments to the Plan FNP as of December 31, 2023 for non-OPEB SRBR benefits was an addition of \$109.2 million.

7. The \$91.1 million difference between the \$200.3 million added to the TPL and the net \$109.2 million added to the Plan FNP as of December 31, 2023 represents the NPL attributable to non-OPEB SRBR benefits.
8. For the December 31, 2023 measurement date, the Plan FNP amount of \$10,218,483,831 includes the net fair value of assets of \$11,278,820,795, less OPEB-related SRBR assets of \$1,060,336,964. The OPEB-related SRBR assets include \$1,070,992,004 in the SRBR-OPEB reserve (after reducing the reserve by the \$4,116,000 SRBR implicit subsidy transfer), and \$10,116,636 in the 401(h) reserve, minus a proportionate share of the deferred market losses commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves of \$20,771,676. For the December 31, 2022 measurement date, the Plan FNP amount of \$9,257,791,490 includes the net fair value of assets of \$10,298,512,063, less OPEB-related SRBR assets of \$1,040,720,573. The OPEB-related SRBR assets include \$1,105,725,871 in the SRBR-OPEB reserve (after reducing the reserve by the \$7,981,476 SRBR implicit subsidy transfer), and \$8,979,234 in the 401(h) reserve, minus a proportionate share of the deferred market losses commensurate with the size of the OPEB to total SRBR and 401(h) reserve to valuation and 401(h) reserves of \$73,984,532.
9. The Alameda County Office of Education (ACOE) made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined as if they had not made the additional lump sum contribution in 2019. We have continued to use that method in determining ACOE's proportionate share of the non-OPEB SRBR NPL in this valuation.
10. 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. We amortized the voluntary County Safety UAAL contributions over 13 years effective FY 21-22 to provide a UAAL

¹ This includes \$54.2 million transferred from the OPEB SRBR to the non-OPEB SRBR approved by the Board on March 21, 2024 to equalize the sufficiency periods for OPEB and non-OPEB SRBR benefits.

² We have excluded the liability and the assets associated with the OPEB component of the SRBR reserve account because it is our understanding that those amounts are reportable under GASB 74/75.

Section 1: Actuarial Valuation Summary

contribution rate credit for County Safety and the voluntary LARPD General UAAL contributions over 16 years effective FY 21-22 to provide a UAAL contribution rate credit for LARPD General. Similar to the approach approved by ACERA as described in the previous item for determining ACOE's proportionate share of the non-OPEB SRBR NPL, we have determined the County Safety and LARPD's proportionate share of the non-OPEB SRBR NPL by using the County Safety and LARPD's required contributions, respectively, as if they had not made the voluntary UAAL contributions in 2021.

11. Employer contributions shown in this report are on a net basis after (a) considering the total cash contributions made by the employers, (b) reducing by the employer contributions made to the 401(h) account, and (c) increasing by the amount of transfer from the SRBR to the Employers Advance Reserve for employer contributions made to the 401(h) account in (b).
12. The discount rate used to measure the TPL and NPL as of December 31, 2023 was 7.00%, following the same assumptions used by ACERA in the actuarial funding valuation as of December 31, 2023. The detailed calculations used in the derivation of the 7.00% discount rate can be found in *Appendix A*. Various other information that is required to be disclosed can be found throughout *Section 2*.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

| Valuation Result | Current | Prior |
|--|-------------------|-------------------|
| Reporting date for employer under GASB 68 ¹ | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Disclosure elements | | |
| Service cost ² | \$257,507,229 | \$245,467,025 |
| Total Pension Liability | 11,961,224,043 | 11,489,051,341 |
| Plan Fiduciary Net Position | 10,218,483,831 | 9,257,791,490 |
| Net Pension Liability | 1,742,740,212 | 2,231,259,851 |
| Pension expense | 250,028,752 | 451,270,666 |
| Schedule of contributions | | |
| Actuarially determined contributions | \$288,640,038 | \$281,646,702 |
| Actual contributions | 288,640,038 | 281,646,702 |
| Contribution deficiency / (excess) | 0 | 0 |
| Demographic data³ | | |
| Number of retired members and beneficiaries | 11,026 | 10,798 |
| Number of inactive members ⁴ | 3,838 | 3,564 |
| Number of active members | 11,547 | 11,346 |

¹ The reporting date and measurement date for the Plan are December 31, 2023 and December 31, 2022, respectively.

² The service cost is based on the previous year's valuation, meaning the service cost as of the December 31, 2023 and December 31, 2022 measurement dates are based on the valuations as of December 31, 2022 and December 31, 2021, respectively. Both service costs have been calculated using the assumptions shown in the December 31, 2022 measurement date column, as there had been no changes in the actuarial assumptions between the December 31, 2021 and December 31, 2022 valuations.

³ Data shown as of the December 31, 2022 measurement date is used in the measurement of the TPL as of December 31, 2023.

⁴ Includes members who left their contributions on deposit even though they have less than five years of service.

Section 1: Actuarial Valuation Summary

| Valuation Result | Current | Prior |
|---|--|--|
| Key assumptions | | |
| Investment rate of return | 7.00% | 7.00% |
| Inflation rate | 2.50% | 2.75% |
| Real across-the-board salary increases | 0.50% | 0.50% |
| Projected salary increases ¹ | General: 8.00% to 3.45% Safety: 11.40% to 4.00% | General: 8.35% to 3.65% Safety: 11.25% to 4.05% |
| Cost-of-living adjustments (COLA) | | |
| • Tiers with 3% COLA | 2.75% | 2.75% |
| • Tiers with 2% COLA | 2.00% | 2.00% |

¹ For the December 31, 2023 measurement date, includes inflation at 2.50% plus real across-the-board salary increase of 0.50% plus merit and promotional increases.
For the December 31, 2022 measurement date, includes inflation at 2.75% plus real across-the-board salary increase of 0.50% plus merit and promotional increases.

Section 1: Actuarial Valuation Summary

Important information about actuarial valuations

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 (as well as the plan summary included in our funding valuation 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 ACERA. 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 | The valuation is based on the fair value of assets as of the measurement date, as provided by ACERA. |
| 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. |

Section 1: Actuarial Valuation Summary

| Input Item | Description |
|-------------------------|---|
| Actuarial models | <p>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.</p> <p>The discount rate used for calculating Total Pension Liability is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of Fiduciary Net Position and the discounting of benefits is part of the model.</p> |

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 Board. 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 ACERA 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 Board 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 ACERA upon delivery and review. ACERA should notify Segal immediately of any questions or concerns about the final content.

Section 2: GASB 68 Information

General information about the pension plan

Plan administration

The Alameda County Employees' Retirement Association (ACERA) was established by the Alameda County Board of Supervisors in 1947. ACERA is administered by the Board of Retirement (the Board) and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.). ACERA is a cost-sharing, multiple employer, defined benefit, public employee retirement system whose main function is to provide service retirement, disability, death, and survivor benefits to the General and Safety members employed by the County of Alameda (Alameda County). ACERA also provides retirement benefits to the employee members of:

- First 5 Alameda County (First 5);
- Housing Authority of the County of Alameda (Housing Authority);
- Alameda Health System;
- Livermore Area Recreation and Park District (LARPD);
- Superior Court of California—County of Alameda (Alameda Superior Court); and
- Alameda County Office of Education (ACOE).

The management of ACERA is vested with the ACERA Board of Retirement. The Board consists of nine members and two alternates:

- The County Treasurer is a member of the Board of Retirement by law and is elected by the general public;
- Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor;
- Two active members are elected by the General members;
- One active member and one alternate are elected by the Safety members; and
- One retired member and one alternate are elected by the retired members.

All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with their term as County Treasurer.

Section 2: GASB 68 Information

Plan membership

At December 31, 2023, pension plan membership consisted of the following:

| Membership | Count |
|-----------------------------------|---------------|
| Retired members and beneficiaries | 11,026 |
| Inactive ¹ members | 3,838 |
| Active members | 11,547 |
| Total | 26,411 |

Note: Data as of December 31, 2023 is **not** used in the measurement of the TPL as of December 31, 2023.

Benefits provided

ACERA provides service retirement, disability, death, and survivor benefits to eligible employees. The first date of ACERA membership varies by employer, as follows:

- Alameda County, Alameda Health System and Alameda Superior Court Employees
 - Membership for these employees is effective on the first day of the second pay period following the employee’s hire date in an ACERA covered position. This is the date of entry into ACERA membership.
 - As of the date of entry, payroll deductions for retirement contributions begin and service credit for each hour worked is earned.
 - During the short period between the beginning of employment and the ACERA plan date of entry, the employee does not pay contributions or earn service credit. A member may purchase this service credit (referred to as “days prior to entry”) any time before retirement without changing the membership, but date of entry does not change.
- Housing Authority and LARPD Employees
 - Membership for these employees is effective on the first day of employee’s hire in an ACERA covered position. The first date of employment is the date of entry into ACERA membership.
 - As of this date of entry, payroll deductions for retirement contributions begin and service credit for each hour work is earned.
- First 5 Employees
 - Membership for these employees is effective on the first day of the second pay period following the employee’s hire date.
- Office of Education Employees
 - This is a closed plan with no more active employees (i.e., there is no new ACERA membership). However, the employer does retain retired members and beneficiaries in ACERA as of the December 31, 2023 valuation date.

¹ Includes terminated members due a refund of member contributions.

Section 2: GASB 68 Information

There are separate retirement benefits for General and Safety members. Safety membership is extended to those involved in active law enforcement, deferred firefighters, or positions that have been designated as Safety by the Board of Retirement (e.g. Juvenile Hall Group Counselor, Probation Officer, etc.). All other employees are classified as General members.

Any new member who becomes a member on or after January 1, 2013 is placed into Tier 4 and is subject to the provisions of California Public Employees' Pension Reform Act of 2013 (PEPRA), California Government Code 7522 et seq. and Assembly Bill (AB) 197.

General members enrolled in Tiers 1, 2, or 3 are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 General member with 30 years of service is eligible to retire regardless of age. General members enrolled in Tier 4 are eligible to retire once they have attained the age of 52 and have acquired five years of retirement service credit, or at age 70 regardless of service.

Safety members enrolled in Tiers 1, 2, 2C, or 2D are eligible to retire once they attain the age of 70 regardless of service or at age 50 with five or more years of retirement service credit and a total of 10 years of qualifying membership. A non-Tier 4 Safety member with 20 years of service is eligible to retire regardless of age. Safety members enrolled in Tier 4 are eligible to retire once they have attained the age of 50 and have acquired five years of retirement service credit, or at age 70 regardless of service.

The retirement benefit a member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

The tiers and their basic provisions are listed below:

| Tier Name | Service Retirement Governing Code Section | Effective Date | Basic Provisions (Maximum COLA) | Final Average Salary Period | Plan Sponsors |
|----------------|---|----------------------------|---------------------------------|-----------------------------|------------------|
| General Tier 1 | §31676.12 | Various | 2.0% at 57 (3% COLA) | Highest 1-year | All |
| General Tier 2 | §31676.1 | June 30, 1983 ¹ | 2.0% at 61 (2% COLA) | Highest 3-years | All except LARPD |
| General Tier 3 | §31676.18 | October 1, 2008 | 2.5% at 55 (3% COLA) | Highest 1-year | LARPD |
| General Tier 4 | §7522.20(a) | January 1, 2013 | 2.5% at 67 (2% COLA) | Highest 3-years | All |
| Safety Tier 1 | §31664.1 | Various | 3.0% at 50 (3% COLA) | Highest 1-year | County |
| Safety Tier 2 | §31664.1 | June 30, 1983 | 3.0% at 50 (2% COLA) | Highest 3-years | County |
| Safety Tier 2C | §31664 | October 17, 2010 | 2.6% at 55 (2% COLA) | Highest 3-years | County |
| Safety Tier 2D | §31664.2 | October 17, 2010 | 3.0% at 55 (2% COLA) | Highest 3-years | County |
| Safety Tier 4 | §7522.25(d) | January 1, 2013 | 2.7% at 57 (2% COLA) | Highest 3-years | County |

¹ For Housing Authority members, the effective date is September 30, 2011.

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For members enrolled in Tiers 1, 2, 2C, 2D, or 3, the maximum monthly retirement allowance is 100% of final compensation. There is no maximum for members enrolled in Tier 4.

The member may elect an unmodified retirement allowance or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective retirement date. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

ACERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the San Francisco-Oakland-Hayward Area (with 1982-84 as the base period), is capped at 3.0% for General Tiers 1 and 3 and Safety Tier 1, and at 2.0% for General Tiers 2 and 4 and Safety Tiers 2, 2C, 2D, and 4.

The County of Alameda and the other participating agencies contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from ACERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate for calendar year 2023 (based on the December 31, 2021 valuation for the second half of 2022/2023 and on the December 31, 2022 valuation for the first half of 2023/2024) was 23.06% of compensation.

Members are required to make contributions to ACERA regardless of the retirement plan or tier in which they are included. The average member contribution rate for calendar year 2023 (based on the December 31, 2021 valuation for the second half of 2022/2023 and on the December 31, 2022 valuation for the first half of 2023/2024) was 10.10% of compensation.

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Exhibit 1 – Net Pension Liability

| Component | Current Year | Prior Year |
|---|------------------------|------------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of the Net Pension Liability | | |
| Total Pension Liability | \$11,961,224,043 | \$11,489,051,341 |
| Plan Fiduciary Net Position | (10,218,483,831) | (9,257,791,490) |
| Net Pension Liability | \$1,742,740,212 | \$2,231,259,851 |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability ¹ | 85.43% | 80.58% |

The NPL for the Plan in this valuation was measured as of December 31, 2023. The Plan FNP was valued as of the measurement date and the TPL was determined based upon rolling forward the TPL from the actuarial funding valuation as of December 31, 2022.

Plan provisions

The plan provisions used in the measurement of the NPL as of December 31, 2023 are the same as those used in ACERA's actuarial funding valuation as of December 31, 2023, including the following plan change. On December 21, 2023, the Board adopted a new election process to allow active members to elect an Optional Settlement 2 allowance in advance to provide a continuance of 100% to the member's spouse, domestic partner or other beneficiaries upon the member's active death. This process will be effective April 1, 2024.

Actuarial assumptions

The TPL as of December 31, 2023 uses the same actuarial assumptions as the actuarial funding valuation as of December 31, 2023. The TPL as of December 31, 2023 was remeasured by (a) revaluing the TPL as of December 31, 2022 (before the roll forward) to include the actuarial assumptions adopted in the experience study for the period December 1, 2019 through November 30, 2022, and (b) using this revalued TPL in rolling forward the results from December 31, 2022 to December 31, 2023. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

¹ These funded percentages 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.

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| Assumption Type | Assumption |
|---------------------------------------|--|
| Investment rate of return | 7.00%, net of pension plan investment expense, including inflation |
| Inflation rate | 2.50% |
| Real across-the-board salary increase | 0.50% |
| Salary increases | General: 8.00% to 3.45% Safety: 11.40% to 4.00% The above salary increases vary by service and include inflation and real across-the-board salary increase |
| Cost of living adjustments | 2.75% for General Tiers 1 and 3, and Safety Tier 1: 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4 |
| Other assumptions | See analysis of actuarial experience during the period December 1, 2019 through November 30, 2022 |

Detailed information regarding all actuarial assumptions can be found in the December 31, 2023 Actuarial Valuation and Review.

The following actuarial assumptions were applied to all periods included in the measurement of the TPL as of December 31, 2022:

| Assumption Type | Assumption |
|---------------------------------------|--|
| Investment rate of return | 7.00%, net of pension plan investment expense, including inflation |
| Inflation rate | 2.75% |
| Real across-the-board salary increase | 0.50% |
| Salary increases | General: 8.35% to 3.65% Safety: 11.25% to 4.05% The above salary increases vary by service and include inflation and real across-the-board salary increase |
| Cost of living adjustments | 2.75% for General Tiers 1 and 3, and Safety Tier 1: 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4 |
| Other assumptions | See analysis of actuarial experience during the period December 1, 2016 through November 30, 2019 |

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Exhibit 2 – Discount rate

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments¹ was determined in 2023 using a building-block method in which expected future real rates of return (expected returns, net of inflation and, beginning with December 31, 2023, any applicable investment management expenses) are developed for each major asset class. These returns are combined to produce the long-term expected arithmetic rate of return for the portfolio by weighting the expected arithmetic real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses (beginning with December 31, 2023, including only investment consulting fees, custodian fees and other miscellaneous investment expenses and fees but excluding investment manager fees) and a risk margin. Beginning with December 31, 2023 this portfolio return is further adjusted to an expected geometric real rate of return for the portfolio.

The target allocation (approved by the Board) and projected arithmetic real rates of return for each major asset class, after deducting inflation and applicable investment management expenses, are shown in the following tables. For December 31, 2022, these rates are before deducting investment expenses while for December 31, 2023 they are after deducting applicable investment expenses. This information was used in the derivation of the long-term expected investment rate of return assumption in the actuarial valuations as of December 31, 2023 and December 31, 2022. This information will be subject to change every three years based on the results of an actuarial experience study.

¹ Note that the investment return assumption for funding purposes was developed net of both investment and administrative expenses; however, the same investment return assumption was used for financial reporting purposes and is considered gross of administrative expenses for financial reporting purposes. (This resulted in an increase in the margin for adverse deviation when using that investment return assumption for financial reporting.)

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December 31, 2023 target allocation and projected arithmetic real rates of return

| Asset Class | Target Allocation | Long-Term Expected Arithmetic Real Rate of Return ¹ |
|--------------------------------|-------------------|--|
| US Large Cap Equity | 21.60% | 6.00% |
| US Small Cap Equity | 2.40% | 6.65% |
| International Developed Equity | 16.30% | 7.01% |
| International Small Cap Equity | 2.90% | 7.34% |
| Emerging Markets Equity | 4.80% | 8.80% |
| Core Fixed Income | 10.50% | 1.97% |
| High Yield Bonds | 1.50% | 4.63% |
| Global Fixed Income | 2.00% | 1.17% |
| Private Equity | 11.00% | 9.84% |
| Core Real Estate | 6.30% | 3.86% |
| Value Added Real Estate | 1.80% | 6.70% |
| Opportunistic Real Estate | 0.90% | 8.60% |
| Commodities | 0.90% | 4.21% |
| Private Credit | 4.00% | 6.47% |
| Absolute Return | 8.00% | 2.10% |
| Infrastructure | 5.10% | 7.30% |
| Total | 100.00% | 5.89% |

¹ Arithmetic real rates of return are net of inflation.

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December 31, 2022 target allocation and projected arithmetic real rates of return

| Asset Class | Target Allocation | Long-Term Expected Arithmetic Real Rate of Return ¹ |
|--------------------------------|-------------------|--|
| US Large Cap Equity | 22.40% | 5.43% |
| US Small Cap Equity | 2.50% | 6.21% |
| International Developed Equity | 17.00% | 6.67% |
| International Small Cap Equity | 3.00% | 7.36% |
| Emerging Markets Equity | 5.00% | 8.58% |
| Core Plus Fixed Income | 11.50% | 1.10% |
| High Yield Bonds | 1.60% | 2.91% |
| Global Fixed Income | 3.00% | -0.63% |
| Private Equity | 10.50% | 10.00% |
| Core Real Estate | 8.00% | 4.58% |
| Commodities | 0.75% | 3.46% |
| Infrastructure | 1.75% | 7.80% |
| Private Credit | 4.00% | 8.50% |
| Absolute Return | 9.00% | 3.70% |
| Total | 100.00% | 5.56% |

The discount rate used to measure the TPL was 7.00% as of December 31, 2023. Our understanding is 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 assumption for funding than is used for interest crediting. In order to reflect the provisions of Article 5.5, we have treated future allocations to the SRBR as an additional outflow against the Plan FNP in the GASB crossover test, as mentioned earlier in *Section 1*. Again, we are estimating that the additional outflow would average approximately 0.75% of assets over time, based on the results of our stochastic modeling of the 50% allocation of future excess earnings to the SRBR.

The projection of cash flows used to determine the discount rate assumes plan member contributions will be made at the current contribution rates and that employer contributions will be made at rates equal to the actuarially determined contribution rates² plus additional future contributions that would follow from the future allocation of excess earnings to the SRBR. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected

¹ Arithmetic real rates of return are net of inflation.

² For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included.

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contributions from future plan members, are not included. Based on those assumptions, the Plan FNP was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both December 31, 2023 and December 31, 2022.

Discount rate sensitivity

The following presents the NPL of ACERA as of December 31, 2023 calculated using the current discount rate of 7.00%, as well as what ACERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.00%) or 1-percentage-point higher (8.00%) than the current rate.

| Employer | 1% Decrease in Discount Rate (6.00%) | Current Discount Rate (7.00%) | 1% Increase in Discount Rate (8.00%) |
|------------------------------------|--------------------------------------|-------------------------------|--------------------------------------|
| Alameda County | \$2,335,832,864 | \$1,201,387,127 | \$270,451,578 |
| Health System | 731,453,980 | 425,726,457 | 173,775,689 |
| Superior Court | 150,053,156 | 87,335,089 | 35,648,983 |
| First 5 | 25,719,423 | 14,969,416 | 6,110,310 |
| Housing Authority | 18,592,897 | 10,821,580 | 4,417,221 |
| LARPD | 9,005,869 | 1,287,425 | (4,959,713) |
| ACOE | 1,576,598 | 1,213,118 | 894,201 |
| Total NPL for all employers | \$3,272,234,787 | \$1,742,740,212 | \$486,338,269 |

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Exhibit 3 – Schedule of changes in Net Pension Liability

| Description | Current Year | Prior Year |
|--|-------------------------|-------------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Total Pension Liability | | |
| Service cost | \$257,507,229 | \$245,467,025 |
| Interest | 800,570,343 | 767,151,503 |
| Change of benefit terms | 13,984,543 | 0 |
| Differences between expected and actual experience | 123,459,445 | 58,260,983 |
| Changes of assumptions | (103,670,090) | 0 |
| Benefit payments, including refunds of member contributions | (619,678,768) | (591,336,654) |
| Net change in Total Pension Liability | \$472,172,702 | \$479,542,857 |
| Total Pension Liability — beginning | 11,489,051,341 | 11,009,508,484 |
| Total Pension Liability — ending | \$11,961,224,043 | \$11,489,051,341 |
| Plan Fiduciary Net Position | | |
| Contributions — employer | \$288,640,038 | \$281,646,702 |
| Contributions — member | 126,471,922 | 120,673,520 |
| Net investment income | 1,126,918,417 | (755,044,439) |
| Benefit payments, including refunds of member contributions | (619,678,768) | (591,336,654) |
| Administrative expense | (15,865,268) | (15,369,043) |
| Other ¹ | 54,206,000 | 0 |
| Net change in Plan Fiduciary Net Position | \$960,692,341 | \$(959,429,914) |
| Plan Fiduciary Net Position — beginning | 9,257,791,490 | 10,217,221,404 |
| Plan Fiduciary Net Position — ending | \$10,218,483,831 | \$9,257,791,490 |
| Net Pension Liability | | |
| Net Pension Liability — ending | \$1,742,740,212 | \$2,231,259,851 |
| Plan Fiduciary Net Position as a percentage of the Total Pension Liability | 85.43% | 80.58% |
| Covered payroll ² | \$1,251,821,379 | \$1,198,970,345 |
| Plan Net Pension Liability as percentage of covered payroll | 139.22% | 186.10% |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

² Covered payroll is defined as the payroll on which contributions to the pension plan are based.

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Exhibit 4 – Schedule of employer contributions

Total for All Employers

| Year Ended December 31 | Actuarially Determined Contributions | Contributions in Relation to the Actuarially Determined Contributions | Contribution Deficiency / (Excess) | Covered Payroll ¹ | Contributions as a Percentage of Covered Payroll |
|------------------------|--------------------------------------|---|------------------------------------|------------------------------|--|
| 2014 | \$213,254,775 | \$213,254,775 | \$0 | \$886,924,862 | 24.04% |
| 2015 | 224,607,104 | 224,607,104 | 0 | 945,858,017 ² | 23.75% |
| 2016 | 241,728,451 | 241,728,451 | 0 | 947,567,631 | 25.51% |
| 2017 | 247,063,550 | 247,063,550 | 0 | 995,178,209 | 24.83% |
| 2018 | 269,684,809 | 269,684,809 | 0 | 1,046,033,851 | 25.78% |
| 2019 | 298,526,950 | 298,526,950 | 0 | 1,081,586,887 | 27.60% |
| 2020 | 309,758,947 | 309,752,998 | 5,949 ³ | 1,111,848,569 | 27.86% |
| 2021 | 303,964,590 | 1,116,575,840 | (812,611,250) ⁴ | 1,153,918,121 | 96.76% ⁵ |
| 2022 | 281,646,702 | 281,646,702 | 0 | 1,198,970,345 | 23.49% |
| 2023 | 288,640,038 | 288,640,038 | 0 | 1,251,821,379 | 23.06% |

See accompanying notes to this schedule on next page.

¹ For years ended December 31, 2017 and later, covered payroll represents compensation earnable and pensionable compensation and is defined as the payroll on which contributions to the pension plan are based. For the years ended before December 31, 2017, covered payroll was referred to as covered-employee payroll and only compensation earnable and pensionable compensation that would go into the determination of retirement benefits was included.

² ACERA indicated that this amount is based on 27 pay periods for 2015.

³ Actuarially Determined Contribution for the Office of Education of \$78,000 less actual contributions paid of \$72,051.

⁴ Voluntary County Safety contributions of \$800,000,000 and LARPD General contributions of \$12,611,250 to reduce their UAAL contribution rates.

⁵ Contributions as a percentage of covered payroll is 26.34% if excluding the voluntary County Safety and LARPD General contributions.

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Methods and assumptions used to establish the actuarially determined contribution for the year ended December 31, 2023

Valuation date

Actuarially determined contribution rates for the first six months of calendar year 2023 (or the second half of fiscal year 2022/2023) are calculated based on the December 31, 2021 valuation. Actuarially determined contribution rates for the last six months of calendar year 2023 (or the first half of fiscal year 2023/2024) are calculated based on the December 31, 2022 valuation.

Actuarial cost method

Entry Age Actuarial Cost Method

Amortization method

Level percent of payroll (3.25% payroll growth assumed in the December 31, 2021 and December 31, 2022 valuations)

Remaining amortization period

December 31, 2021 valuation

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 11 years remaining as of December 31, 2021). 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 five-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.

The voluntary County Safety UAAL contributions are amortized over a 13-year period effective July 1, 2021 (with 12.5 years remaining as of December 31, 2021). The voluntary LARPD General UAAL contributions are amortized over a 16-year period effective July 1, 2021 (with 15.5 years remaining as of December 31, 2021). Effective December 31, 2021, the existing LARPD General UAAL layers are amortized over 15.5 years.

December 31, 2022 valuation

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 10 years remaining as of December 31, 2022). On or after January 1, 2012, any new UAAL resulting from

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plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing five-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.

The voluntary County Safety UAAL contributions are amortized over a 13-year period effective July 1, 2021 (with 11.5 years remaining as of December 31, 2022). The voluntary LARPD General UAAL contributions are amortized over a 16-year period effective July 1, 2021 (with 14.5 years remaining as of December 31, 2022). Effective December 31, 2022, the existing LARPD General UAAL layers are amortized over 14.5 years.

Asset valuation method

The actuarial value of assets is determined by recognizing any difference between the actual and the expected market return over 10 six-month interest crediting periods. The actuarial value of assets is further adjusted, if necessary, to be within 40% of the market value of assets. The valuation value of assets is the actuarial value of assets reduced by the value of the non-valuation reserves.

Actuarial assumptions

| Assumption Type | Assumption Used in the December 31, 2021 Actuarial Valuation | Assumption Used in the December 31, 2022 Actuarial Valuation |
|--|---|---|
| Investment rate of return | 7.00%, net of pension plan administrative and investment expense, including inflation | 7.00%, net of pension plan administrative and investment expense, including inflation |
| Inflation rate | 2.75% | 2.75% |
| Real across-the-board salary increases | 0.50% | 0.50% |
| Salary increases | General: 8.35% to 3.65% Safety: 11.25% to 4.05% The above increases vary by service, including inflation and across-the-board salary increase | General: 8.35% to 3.65% Safety: 11.25% to 4.05% The above increases vary by service, including inflation and across-the-board salary increase |
| Cost-of-living adjustments | 2.75% for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4 | 2.75% for General Tiers 1 and 3, and Safety Tier 1; 2.00% for General Tiers 2 and 4, and Safety Tiers 2, 2C, 2D, and 4 |
| Other assumptions | Same as those used in the funding actuarial valuation as of December 31, 2021 | Same as those used in the funding actuarial valuation as of December 31, 2022 |

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Exhibit 5 – Determination of proportionate share

Employer Allocations as of December 31, 2022
Actual Employer Contributions by Employer and Membership Class
January 1, 2022 to December 31, 2022

| Employer | General Excluding ACOE and LARPD Contribution | General Excluding ACOE and LARPD Percentage ¹ | General ACOE Only Contribution | General ACOE Only Percentage | General LARPD Only Contribution | General LARPD Only Percentage | General Combined Contribution | General Combined Percentage |
|----------------------------|---|--|--------------------------------|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|
| Alameda County | \$151,823,933 | 65.256% | \$0 | 0.000% | \$0 | 0.000% | \$151,823,933 | 65.082% |
| Health System | 64,478,768 | 27.714% | 0 | 0.000% | 0 | 0.000% | 64,478,768 | 27.640% |
| Superior Court | 13,151,755 | 5.653% | 0 | 0.000% | 0 | 0.000% | 13,151,755 | 5.638% |
| First 5 | 1,695,921 | 0.729% | 0 | 0.000% | 0 | 0.000% | 1,695,921 | 0.727% |
| Housing Authority | 1,508,274 | 0.648% | 0 | 0.000% | 0 | 0.000% | 1,508,274 | 0.647% |
| LARPD | 0 | 0.000% | 0 | 0.000% | 519,392 | 100.000% | 519,392 | 0.223% |
| ACOE | 0 | 0.000% | 100,000 | 100.000% | 0 | 0.000% | 100,000 | 0.043% |
| Total all employers | \$232,658,651 | 100.000% | \$100,000 | 100.000% | \$519,392 | 100.000% | \$233,278,043 | 100.000% |

| Employer | Safety Contribution | Safety Percentage | Total Contribution | Total Percentage | Adjusted Total Contribution | Adjusted Total ^{2,3,4} Percentage ¹ |
|----------------------------|---------------------|-------------------|----------------------|------------------|-----------------------------|---|
| Alameda County | \$48,368,659 | 100.000% | \$200,192,592 | 71.079% | \$283,811,533 ¹ | 77.476% |
| Health System | 0 | 0.000% | 64,478,768 | 22.893% | 64,478,768 | 17.602% |
| Superior Court | 0 | 0.000% | 13,151,755 | 4.670% | 13,151,755 | 3.590% |
| First 5 | 0 | 0.000% | 1,695,921 | 0.602% | 1,695,921 | 0.463% |
| Housing Authority | 0 | 0.000% | 1,508,274 | 0.536% | 1,508,274 | 0.412% |
| LARPD | 0 | 0.000% | 519,392 | 0.184% | 1,514,139 ² | 0.413% |
| ACOE | 0 | 0.000% | 100,000 | 0.036% | 159,854 ³ | 0.044% |
| Total all employers | \$48,368,659 | 100.000% | \$281,646,702 | 100.000% | \$366,320,244 | 100.000% |

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Notes for actual employer contributions for 2022

1. The unrounded percentages are used in the allocation of the NPL amongst the employers.
2. This includes \$151,823,933 of County General actual employer contributions and \$131,987,600 of County Safety adjusted employer contributions used for purposes of determining the proportionate share of the non-OPEB SRBR NPL for the County. The County made voluntary County Safety contributions of \$800,000,000 on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions to provide a UAAL contribution rate credit for County Safety over 13 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined the County Safety's proportionate share of the non-OPEB SRBR NPL by using the County Safety's actual contributions made in 2022 in the amount of \$48,368,659 plus the contribution credit applied in 2022 in the amount of \$83,618,941 for a total adjusted County Safety contribution of \$131,987,600.
3. LARPD made voluntary LARPD General contributions of \$12,611,250 on around June 29, 2021 to reduce their General UAAL and associated contribution rates. We have amortized the voluntary LARPD General UAAL contributions to provide a UAAL contribution rate credit for LARPD General over 16 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined LARPD's proportionate share of the non-OPEB SRBR NPL by using LARPD's actual contributions made in 2022 in the amount of \$519,392 plus the contribution credit applied in 2022 in the amount of \$994,747 for a total adjusted LARPD contribution of \$1,514,139.
4. ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined in our December 31, 2020 valuation in the amount of \$100,000 based on an April 1, 2022 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$59,854 which represents the additional UAAL contribution ACOE would have been required to pay had they not made the additional lump sum contribution in 2019).

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Allocation of Net Pension Liability (NPL) by Employer as of December 31, 2022 Excluding Non-OPEB SRBR

| Employer | General Excluding ACOE and LARPD NPL | General Excluding ACOE and LARPD Percentage ¹ | General ACOE Only NPL | General ACOE Only Percentage ¹ | General LARPD Only NPL | General LARPD Only Percentage ¹ |
|----------------------------|--------------------------------------|--|-----------------------|---|------------------------|--|
| Alameda County | \$1,168,107,079 | 65.256% | \$0 | 0.000% | \$0 | 0.000% |
| Health System | 496,088,488 | 27.714% | 0 | 0.000% | 0 | 0.000% |
| Superior Court | 101,187,328 | 5.653% | 0 | 0.000% | 0 | 0.000% |
| First 5 | 13,048,123 | 0.729% | 0 | 0.000% | 0 | 0.000% |
| Housing Authority | 11,604,399 | 0.648% | 0 | 0.000% | 0 | 0.000% |
| LARPD | 0 | 0.000% | 0 | 0.000% | 5,231,149 | 100.000% |
| ACOE | 0 | 0.000% | 1,241,602 | 100.000% | 0 | 0.000% |
| Total all employers | \$1,790,035,417 | 100.000% | \$1,241,602 | 100.000% | \$5,231,149 | 100.000% |

| Employer | General Combined NPL | General Combined Percentage | Safety NPL | Safety Percentage ¹ | Total General and Safety NPL | Total General and Safety Percentage |
|----------------------------|------------------------|-----------------------------|----------------------|--------------------------------|------------------------------|-------------------------------------|
| Alameda County | \$1,168,107,079 | 65.022% | \$341,190,621 | 100.000% | \$1,509,297,700 | 70.604% |
| Health System | 496,088,488 | 27.614% | 0 | 0.000% | 496,088,488 | 23.207% |
| Superior Court | 101,187,328 | 5.632% | 0 | 0.000% | 101,187,328 | 4.733% |
| First 5 | 13,048,123 | 0.726% | 0 | 0.000% | 13,048,123 | 0.610% |
| Housing Authority | 11,604,399 | 0.646% | 0 | 0.000% | 11,604,399 | 0.543% |
| LARPD | 5,231,149 | 0.291% | 0 | 0.000% | 5,231,149 | 0.245% |
| ACOE | 1,241,602 | 0.069% | 0 | 0.000% | 1,241,602 | 0.058% |
| Total all employers | \$1,796,508,168 | 100.000% | \$341,190,621 | 100.000% | \$2,137,698,789 | 100.000% |

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Allocation of Net Pension Liability (NPL) by Employer as of December 31, 2022 Including Non-OPEB SRBR

| Employer | General and Safety Non-OPEB SRBR NPL | General and Safety Non-OPEB SRBR Percentage ² | Total NPL | Total Percentage |
|----------------------------|--|--|------------------------|---------------------|
| Alameda County | \$72,487,690 | 77.476% | \$1,581,785,390 | 70.892% |
| Health System | 16,468,383 | 17.602% | 512,556,871 | 22.972% |
| Superior Court | 3,359,061 | 3.590% | 104,546,389 | 4.686% |
| First 5 | 433,152 | 0.463% | 13,481,275 | 0.604% |
| Housing Authority | 385,225 | 0.412% | 11,989,624 | 0.537% |
| LARPD | 386,723 | 0.413% | 5,617,872 | 0.252% |
| ACOE | 40,828 | 0.044% | 1,282,430 | 0.057% |
| Total all employers | \$93,561,062 | 100.000% | \$2,231,259,851 | 100.000% |

Notes for allocation of NPL for 2022

1. Allocated based on the actual employer contributions within each membership class.
2. Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$159,854 in 2022 had they not made the additional contribution in 2019 to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$131,987,600 in 2022 had they not made the voluntary County Safety UAAL contribution in 2021. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,514,139 in 2022 had they not made the voluntary LARPD General UAAL contribution in 2021.

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Additional notes for allocation of NPL for 2022

Pension (excluding non-OPEB SRBR)

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results.

As of December 31, 2022, the total Plan Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is \$716.5 million lower than the valuation value of assets as of the same date, due to the inclusion of deferred market losses. The Plan Fiduciary Net Position for Pension for each membership class is obtained as follows:

- The deferred market gains and losses accumulated up to June 30, 2021 are allocated to each membership class proportionately based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes, both excluding the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.¹
- The deferred market gains and losses accumulated after June 30, 2021 are allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.
- The Contingency Reserve, if any, is allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.

The total Plan Fiduciary Net Position for pension as of December 31, 2022 includes the net fair value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the Non-OPEB SRBR reserve, minus a proportionate share of the deferred market losses commensurate with the size of those SRBR reserves and 401(h) reserve to valuation and 401(h) reserves.

The General ACOE membership class has only one employer (ACOE), so all of the NPL for General ACOE is allocated to the ACOE. The General LARPD membership class has only one employer (LARPD), so all of the NPL for General LARPD is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

¹ Based on the Board's funding policy and interest crediting policy, the County Safety UAAL Advance Reserve and LARPD General Advance Reserve 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.

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For General excluding ACOE and LARPD, the NPL is allocated based on the actual employer contributions within the General membership class excluding any contributions made by ACOE and LARPD. The steps used for the allocation are as follows:

- Calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

Non-OPEB SRBR

The non-OPEB SRBR assets include the non-OPEB SRBR reserve, minus a proportionate share of the deferred market losses commensurate with the size of the non-OPEB to valuation and SRBR reserves.

For non-OPEB SRBR, the NPL is allocated based on the adjusted employer contributions in total. The steps used for the allocation are as follows:

- Calculate the ratio of the employer's adjusted total contributions to the adjusted total contributions for all employers.
- This ratio is multiplied by the NPL for the non-OPEB SRBR to determine the employer's proportionate share of the NPL for the non-OPEB SRBR.

Total

The employer's total allocated NPL is the sum of its allocated pension NPL from each membership class and the non-OPEB SRBR. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

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Employer Allocations as of December 31, 2023 Actual Employer Contributions by Employer and Membership Class January 1, 2023 to December 31, 2023

| Employer | General Excluding ACOE and LARPD Contribution | General Excluding ACOE and LARPD Percentage ¹ | General ACOE Only Contribution | General ACOE Only Percentage | General LARPD Only Contribution | General LARPD Only Percentage | General Combined Contribution | General Combined Percentage |
|----------------------------|---|--|--------------------------------|------------------------------|---------------------------------|-------------------------------|-------------------------------|-----------------------------|
| Alameda County | \$153,656,002 | 63.930% | \$0 | 0.000% | \$0 | 0.000% | \$153,656,002 | 63.781% |
| Health System | 68,496,541 | 28.498% | 0 | 0.000% | 0 | 0.000% | 68,496,541 | 28.432% |
| Superior Court | 14,051,632 | 5.846% | 0 | 0.000% | 0 | 0.000% | 14,051,632 | 5.833% |
| First 5 | 2,408,479 | 1.002% | 0 | 0.000% | 0 | 0.000% | 2,408,479 | 1.000% |
| Housing Authority | 1,741,120 | 0.724% | 0 | 0.000% | 0 | 0.000% | 1,741,120 | 0.723% |
| LARPD | 0 | 0.000% | 0 | 0.000% | 454,796 | 100.000% | 454,796 | 0.189% |
| ACOE | 0 | 0.000% | 101,000 | 100.000% | 0 | 0.000% | 101,000 | 0.042% |
| Total all employers | \$240,353,774 | 100.000% | \$101,000 | 100.000% | \$454,796 | 100.000% | \$240,909,570 | 100.000% |

| Employer | Safety Contribution | Safety Percentage | Total Contribution | Total Percentage | Adjusted Total Contribution | Adjusted Total ^{2,3,4} Percentage ¹ |
|----------------------------|---------------------|-------------------|----------------------|------------------|-----------------------------|---|
| Alameda County | \$47,730,468 | 100.000% | \$201,386,470 | 69.771% | \$283,753,532 ² | 76.256% |
| Health System | 0 | 0.000% | 68,496,541 | 23.731% | 68,496,541 | 18.407% |
| Superior Court | 0 | 0.000% | 14,051,632 | 4.868% | 14,051,632 | 3.776% |
| First 5 | 0 | 0.000% | 2,408,479 | 0.834% | 2,408,479 | 0.647% |
| Housing Authority | 0 | 0.000% | 1,741,120 | 0.603% | 1,741,120 | 0.468% |
| LARPD | 0 | 0.000% | 454,796 | 0.158% | 1,500,857 ³ | 0.403% |
| ACOE | 0 | 0.000% | 101,000 | 0.035% | 160,854 ⁴ | 0.043% |
| Total all employers | \$47,730,468 | 100.000% | \$288,640,038 | 100.000% | \$372,113,015 | 100.000% |

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Notes for actual employer contributions for 2023

1. The unrounded percentages are used in the allocation of the NPL amongst the employers.
2. This includes \$153,656,002 of County General actual employer contributions and \$130,097,530 of County Safety adjusted employer contributions used for purposes of determining the proportionate share of the non-OPEB SRBR NPL for the County. The County made voluntary County Safety contributions of \$800,000,000 on around June 29, 2021 to reduce their Safety UAAL and associated contribution rates. We have amortized the voluntary County Safety UAAL contributions to provide a UAAL contribution rate credit for County Safety over 13 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined the County Safety's proportionate share of the non-OPEB SRBR NPL by using the County Safety's actual contributions made in 2023 in the amount of \$47,730,468 plus the contribution credit applied in 2023 in the amount of \$82,367,062 for a total adjusted County Safety contribution of \$130,097,530.
3. LARPD made voluntary LARPD General contributions of \$12,611,250 on around June 29, 2021 to reduce their General UAAL and associated contribution rates. We have amortized the voluntary LARPD General UAAL contributions to provide a UAAL contribution rate credit for LARPD General over 16 years effective FY 21-22. Similar to the approach approved by ACERA for ACOE to determine ACOE's proportionate share of the non-OPEB SRBR NPL, we determined LARPD's proportionate share of the non-OPEB SRBR NPL by using LARPD's actual contributions made in 2023 in the amount of \$454,796 plus the contribution credit applied in 2023 in the amount of \$1,046,061 for a total adjusted LARPD contribution of \$1,500,857.
4. ACOE made a lump sum contribution of \$750,000 in 2019 to partially pay off their UAAL. That lump sum is greater than the amount that ACOE would have to make on an installment basis over 20 years. In order to have a more level allocation of the NPL to ACOE, ACERA approved an approach outlined in our March 2, 2020 letter to determine ACOE's proportionate share of the non-OPEB SRBR NPL by using ACOE's required contributions determined in our December 31, 2021 valuation in the amount of \$101,000 based on an April 1, 2023 payment date plus the amortization of the remaining balance of the original \$750,000 lump sum amount (an amount of \$59,854 which represents the additional UAAL contribution ACOE would have been required to pay had they not made the additional lump sum contribution in 2019).

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Allocation of Net Pension Liability (NPL) by Employer as of December 31, 2023 Excluding Non-OPEB SRBR

| Employer | General Excluding ACOE and LARPD NPL | General Excluding ACOE and LARPD Percentage ¹ | General ACOE Only NPL | General ACOE Only Percentage ¹ | General LARPD Only NPL | General LARPD Only Percentage ¹ |
|----------------------------|--------------------------------------|--|-----------------------|---|------------------------|--|
| Alameda County | \$917,374,067 | 63.930% | \$0 | 0.000% | \$0 | 0.000% |
| Health System | 408,945,629 | 28.498% | 0 | 0.000% | 0 | 0.000% |
| Superior Court | 83,892,608 | 5.846% | 0 | 0.000% | 0 | 0.000% |
| First 5 | 14,379,368 | 1.002% | 0 | 0.000% | 0 | 0.000% |
| Housing Authority | 10,395,027 | 0.724% | 0 | 0.000% | 0 | 0.000% |
| LARPD | 0 | 0.000% | 0 | 0.000% | 919,733 | 100.000% |
| ACOE | 0 | 0.000% | 1,173,711 | 100.000% | 0 | 0.000% |
| Total all employers | \$1,434,986,699 | 100.000% | \$1,173,711 | 100.000% | \$919,733 | 100.000% |

| Employer | General Combined NPL | General Combined Percentage | Safety NPL | Safety Percentage ¹ | Total General and Safety NPL | Total General and Safety Percentage |
|----------------------------|------------------------|-----------------------------|----------------------|--------------------------------|------------------------------|-------------------------------------|
| Alameda County | \$917,374,067 | 63.835% | \$214,496,861 | 100.000% | \$1,131,870,928 | 68.532% |
| Health System | 408,945,629 | 28.457% | 0 | 0.000% | 408,945,629 | 24.761% |
| Superior Court | 83,892,608 | 5.838% | 0 | 0.000% | 83,892,608 | 5.080% |
| First 5 | 14,379,368 | 1.001% | 0 | 0.000% | 14,379,368 | 0.871% |
| Housing Authority | 10,395,027 | 0.723% | 0 | 0.000% | 10,395,027 | 0.629% |
| LARPD | 919,733 | 0.064% | 0 | 0.000% | 919,733 | 0.056% |
| ACOE | 1,173,711 | 0.082% | 0 | 0.000% | 1,173,711 | 0.071% |
| Total all employers | \$1,437,080,143 | 100.000% | \$214,496,861 | 100.000% | \$1,651,577,004 | 100.000% |

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Allocation of Net Pension Liability (NPL) by Employer as of December 31, 2023 Including Non-OPEB SRBR

| Employer | General and Safety Non-OPEB SRBR Only NPL | General and Safety Non-OPEB SRBR Only Percentage ² | Total NPL | Total Percentage |
|----------------------------|--|--|------------------------|---------------------|
| Alameda County | \$69,516,199 | 76.256% | \$1,201,387,127 | 68.936% |
| Health System | 16,780,828 | 18.407% | 425,726,457 | 24.429% |
| Superior Court | 3,442,481 | 3.776% | 87,335,089 | 5.011% |
| First 5 | 590,048 | 0.647% | 14,969,416 | 0.859% |
| Housing Authority | 426,553 | 0.468% | 10,821,580 | 0.621% |
| LARPD | 367,692 | 0.403% | 1,287,425 | 0.074% |
| ACOE | 39,407 | 0.043% | 1,213,118 | 0.070% |
| Total all employers | \$91,163,208 | 100.000% | \$1,742,740,212 | 100.000% |

Notes for allocation of NPL for 2023

1. Allocated based on the actual employer contributions within each membership class.
2. Allocated based on the actual employer contributions in total, with an adjustment to reflect the total annual UAAL contribution ACOE would have been required to make of \$160,854 in 2023 had they not made the additional contribution in 2019 to partially pay off their UAAL. This approach is outlined in our March 2, 2020 letter and is approved by ACERA. Following this approach, there is an adjustment to reflect the total annual contribution County Safety would have been required to make of \$130,097,530 in 2023 had they not made the voluntary County Safety UAAL contribution in 2021. There is also an adjustment to reflect the total annual contribution LARPD would have been required to make of \$1,500,857 in 2023 had they not made the voluntary LARPD General UAAL contribution in 2021.

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Additional notes for allocation of NPL for 2023

Pension (excluding non-OPEB SRBR)

The Net Pension Liability (NPL) for each membership class is the Total Pension Liability (TPL) minus the Plan Fiduciary Net Position (plan assets). The Total Pension Liability for each membership class is obtained from internal valuation results.

As of December 31, 2023, the total Plan Fiduciary Net Position for Pension (excluding non-OPEB SRBR) is \$233.2 million lower than the valuation value of assets as of the same date, due to the inclusion of deferred market losses and the balance of the Contingency Reserve. The Plan Fiduciary Net Position for Pension for each membership class is obtained as follows:

- The deferred market gains and losses accumulated up to June 30, 2021 are allocated to each membership class proportionately based on the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes, both excluding the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.¹
- The deferred market gains and losses accumulated after June 30, 2021 are allocated to each membership class proportionately based on the valuation value of asset for each membership class relative to the total valuation value of assets for all membership classes, both including the valuation value of assets for the County Safety UAAL Advance Reserve and the LARPD General UAAL Advance Reserve.
- The Contingency Reserve is allocated to each membership class taking into consideration the valuation value of assets for each membership class relative to the total valuation value of assets for all membership classes as well as the amount in the Contingency Reserve that originates from the returns derived from the two UAAL Advance Reserves.

The total Plan Fiduciary Net Position for pension as of December 31, 2023 includes the net fair value of assets less SRBR assets. The SRBR assets include the SRBR-OPEB reserve (after reducing the reserve by the SRBR implicit subsidy transfer), the 401(h) reserve, and the Non-OPEB SRBR reserve, minus a proportionate share of the deferred market losses commensurate with the size of those SRBR reserves and 401(h) reserve to valuation and 401(h) reserves.

The General ACOE membership class has only one employer (ACOE), so all of the NPL for General ACOE is allocated to the ACOE. The General LARPD membership class has only one employer (LARPD), so all of the NPL for General LARPD is allocated to LARPD. The Safety membership class also has only one employer (County), so all of the NPL for Safety is allocated to the County.

¹ Based on the Board's funding policy and interest crediting policy, the County Safety UAAL Advance Reserve and LARPD General Advance Reserve 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.

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For General excluding ACOE and LARPD, the NPL is allocated based on the actual employer contributions within the General membership class excluding any contributions made by ACOE and LARPD. The steps used for the allocation are as follows:

- Calculate the ratio of the employer's contributions to the total contributions for the membership class.
- This ratio is multiplied by the NPL for the membership class to determine the employer's proportionate share of the NPL for the membership class.

Non-OPEB SRBR

The non-OPEB SRBR assets include the non-OPEB SRBR reserve, minus a proportionate share of the deferred market losses commensurate with the size of the non-OPEB to valuation and SRBR reserves.

For non-OPEB SRBR, the NPL is allocated based on the adjusted employer contributions in total. The steps used for the allocation are as follows:

- Calculate the ratio of the employer's adjusted total contributions to the adjusted total contributions for all employers.
- This ratio is multiplied by the NPL for the non-OPEB SRBR to determine the employer's proportionate share of the NPL for the non-OPEB SRBR.

Total

The employer's total allocated NPL is the sum of its allocated pension NPL from each membership class and the non-OPEB SRBR. The proportionate share of the total plan NPL is then the ratio of the employer's total allocated NPL to the total NPL of all employers.

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The following items are allocated based on the corresponding proportionate share within each membership class:

- a. Net Pension Liability
- b. Service cost
- c. Interest on the Total Pension Liability
- d. Current-period benefit changes
- e. Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability
- f. Expensed portion of current-period changes of assumptions or other inputs
- g. Member contributions
- h. Projected earnings on plan investments
- i. Expensed portion of current-period differences between actual and projected earnings on plan investments
- j. Administrative expense
- k. Other
- l. Recognition of beginning of year deferred outflows of resources as pension expense
- m. Recognition of beginning of year deferred inflows of resources as pension expense

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Exhibit 6 – Pension expense

Total for All Employers

| Description | Current Year | Prior Year |
|---|---------------------------|----------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$257,507,229 | \$245,467,025 |
| Interest on the Total Pension Liability | 800,570,343 | 767,151,503 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | 0 | 0 |
| Benefit changes | 13,984,543 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 25,247,330 | 11,698,992 |
| Expensed portion of current-period changes of assumptions or other inputs | (21,200,427) | 0 |
| Member contributions | (126,471,922) | (120,673,520) |
| Projected earnings on plan investments | (640,330,282) | (708,052,007) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (97,317,627) | 292,619,289 |
| Administrative expense | 15,865,268 | 15,369,043 |
| Other | (54,206,000) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 380,494,624 | 257,320,677 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (304,114,327) | (309,630,336) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | 0 | 0 |
| Pension expense | \$250,028,752 | \$451,270,666 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

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Alameda County

| Description | Current Year | Prior Year |
|---|---------------------------|----------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$189,860,091 | \$183,094,825 |
| Interest on the Total Pension Liability | 589,624,111 | 572,186,316 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | (3,728,378) | 197,146 |
| Benefit changes | 9,824,497 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 19,875,711 | 8,748,151 |
| Expensed portion of current-period changes of assumptions or other inputs | (15,313,625) | 0 |
| Member contributions | (93,027,163) | (90,173,480) |
| Projected earnings on plan investments | (477,242,122) | (535,415,730) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (73,191,705) | 223,105,162 |
| Administrative expense | 11,829,905 | 11,624,240 |
| Other | (41,334,604) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 285,311,633 | 191,112,849 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (222,556,958) | (229,792,774) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | 3,164,893 | 2,335,716 |
| Pension expense | \$183,096,286 | \$337,022,421 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

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Health System

| Description | Current Year | Prior Year |
|---|--------------------------|---------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$52,754,156 | \$49,039,663 |
| Interest on the Total Pension Liability | 162,787,927 | 151,742,393 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | 2,223,316 | (305,686) |
| Benefit changes | 3,258,089 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 4,318,850 | 2,228,152 |
| Expensed portion of current-period changes of assumptions or other inputs | (4,541,355) | 0 |
| Member contributions | (26,046,223) | (23,974,402) |
| Projected earnings on plan investments | (125,381,068) | (133,719,425) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (18,507,064) | 53,748,723 |
| Administrative expense | 3,101,042 | 2,899,405 |
| Other | (9,977,946) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 72,503,086 | 50,572,685 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (62,441,498) | (61,649,364) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | (3,264,036) | (1,763,531) |
| Pension expense | \$50,787,276 | \$88,818,613 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

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Superior Court

| Description | Current Year | Prior Year |
|---|--------------------------|---------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$10,822,181 | \$10,002,636 |
| Interest on the Total Pension Liability | 33,394,913 | 30,950,945 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | 545,285 | 41,036 |
| Benefit changes | 668,376 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 885,984 | 454,476 |
| Expensed portion of current-period changes of assumptions or other inputs | (931,631) | 0 |
| Member contributions | (5,343,218) | (4,890,066) |
| Projected earnings on plan investments | (25,721,133) | (27,274,794) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (3,796,607) | 10,963,144 |
| Administrative expense | 636,159 | 591,393 |
| Other | (2,046,912) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 14,873,550 | 10,315,327 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (12,809,478) | (12,574,641) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | (173,187) | (730,442) |
| Pension expense | \$11,004,282 | \$17,849,014 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

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First 5

| Description | Current Year | Prior Year |
|---|------------------------|--------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$1,854,944 | \$1,289,842 |
| Interest on the Total Pension Liability | 5,723,958 | 3,991,130 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | 751,616 | 89,965 |
| Benefit changes | 114,561 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 151,859 | 58,605 |
| Expensed portion of current-period changes of assumptions or other inputs | (159,683) | 0 |
| Member contributions | (915,839) | (630,575) |
| Projected earnings on plan investments | (4,408,655) | (3,517,089) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (650,746) | 1,413,699 |
| Administrative expense | 109,039 | 76,260 |
| Other | (350,845) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 2,549,358 | 1,330,163 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (2,195,571) | (1,621,502) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | 384,921 | 310,095 |
| Pension expense | \$2,958,917 | \$2,790,593 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

Section 2: GASB 68 Information

Housing Authority

| Description | Current Year | Prior Year |
|---|------------------------|--------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$1,340,963 | \$1,147,125 |
| Interest on the Total Pension Liability | 4,137,922 | 3,549,527 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | 210,607 | (18,345) |
| Benefit changes | 82,818 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 109,781 | 52,121 |
| Expensed portion of current-period changes of assumptions or other inputs | (115,437) | 0 |
| Member contributions | (662,071) | (560,804) |
| Projected earnings on plan investments | (3,187,073) | (3,127,937) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (470,433) | 1,257,279 |
| Administrative expense | 78,826 | 67,822 |
| Other | (253,630) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 1,842,963 | 1,182,986 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (1,587,206) | (1,442,089) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | (115,825) | (137,081) |
| Pension expense | \$1,412,205 | \$1,970,604 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

Section 2: GASB 68 Information

LARPD

| Description | Current Year | Prior Year |
|---|------------------------|--------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$873,771 | \$891,858 |
| Interest on the Total Pension Liability | 4,592,380 | 4,422,394 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | (2,349) | (3,815) |
| Benefit changes | 36,202 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | (124,804) | 132,210 |
| Expensed portion of current-period changes of assumptions or other inputs | (138,156) | 0 |
| Member contributions | (477,408) | (444,193) |
| Projected earnings on plan investments | (4,167,587) | (4,732,221) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (664,742) | 2,025,038 |
| Administrative expense | 104,562 | 103,988 |
| Other | (218,631) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 3,130,420 | 2,446,907 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (2,399,541) | (2,423,540) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | (3,981) | (9,681) |
| Pension expense | \$540,136 | \$2,408,945 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

Section 2: GASB 68 Information

ACOE

| Description | Current Year | Prior Year |
|---|-----------------------|-------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Components of Pension Expense | | |
| Service cost | \$1,123 | \$1,076 |
| Interest on the Total Pension Liability | 309,132 | 308,798 |
| Expensed portion of current-period changes in proportion and differences between employer's contributions and proportionate share of contributions | (97) | (301) |
| Benefit changes | 0 | 0 |
| Expensed portion of current-period difference between expected and actual experience in the Total Pension Liability | 29,949 | 25,277 |
| Expensed portion of current-period changes of assumptions or other inputs | (540) | 0 |
| Member contributions | 0 | 0 |
| Projected earnings on plan investments | (222,644) | (264,811) |
| Expensed portion of current-period differences between projected and actual earnings on plan investments | (36,330) | 106,244 |
| Administrative expense | 5,735 | 5,935 |
| Other | (23,432) ¹ | 0 |
| Recognition of beginning of year deferred outflows of resources as pension expense | 283,614 | 359,760 |
| Recognition of beginning of year deferred inflows of resources as pension expense | (124,075) | (126,426) |
| Net amortization of deferred amounts from changes in proportion and differences between employer's contributions and proportionate share of contributions | 7,215 | (5,076) |
| Pension expense | \$229,650 | \$410,476 |

¹ One time transfer of assets from OPEB to non-OPEB SRBR to equalize the sufficiency periods.

Section 2: GASB 68 Information

Notes:

Amounts shown in this exhibit were allocated first by employer within each of the four pension plan membership classes (excl. non-OPEB SRBR) and within the non-OPEB SRBR based on the Employer Allocation Percentage calculations shown in *Section 2, Exhibit 5 – Determination of proportionate share*, and added together to produce the results by employer in total.

In determining the pension expense:

- Any differences between projected and actual investment earnings on pension plan investments are recognized over a period of five years beginning with the year in which they occur.
- Current period differences between expected and actual experience as well as changes of assumptions or other inputs (if any) are recognized over the average expected remaining service lives of all employees, calculated as of the beginning of the measurement period.
- Prior period differences between expected and actual experience as well as changes of assumptions or other inputs continue to be recognized based on the average expected remaining service lives of all employees calculated based on their respective measurement dates.
- Current-period plan changes are recognized immediately.

In addition, there have been changes in each employer's proportionate share of the collective NPL during the measurement period ending December 31, 2023. The net effect of that change on the employer's proportionate share of the collective NPL and collective deferred outflows and deferred inflows of resources, as well as any differences between actual employer contributions¹ and the proportionate share of employer contributions, are recognized as follows:

- Current period changes in proportion and differences between employer's contributions and proportionate share of contributions are recognized over the average expected remaining service lives of all employees, calculated as of the beginning of the measurement period.
- Prior period changes in proportion and differences between employer's contributions and proportionate share of contributions continue to be recognized based on the average expected remaining service lives of all employees calculated based on their respective measurement dates.

¹ Actual employer contributions are reported to us by ACERA for each active employer.

Section 2: GASB 68 Information

The average expected remaining service lives of all employees is 4.89 years for the measurement period ending December 31, 2023 (calculated as of December 31, 2022). The average expected remaining service lives of all employees was determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each non-active or retired member.
- Dividing the sum of the above amounts by the total number of active, non-active and retired members.

Section 2: GASB 68 Information

Exhibit 7 – Deferred outflows and deferred inflows of resources

Total for All Employers

| Description | Current Year | Prior Year | |
|--|----------------------|----------------------|--------------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹ | \$22,750,560 | \$15,067,259 | |
| Changes of assumptions or other inputs | 79,948,501 | 143,399,695 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 249,177,800 | 656,205,117 | |
| Difference between actual and expected experience in the Total Pension Liability | 144,088,293 | 69,662,072 | |
| Total deferred outflows | \$495,965,154 | \$884,334,143 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions ¹ | \$22,750,560 | \$15,067,259 | |
| Changes of assumptions or other inputs | 105,762,883 | 41,779,901 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 21,858,144 | 31,985,063 | |
| Total deferred inflows | \$150,371,587 | \$88,832,223 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$76,380,297 |
| | June 30, 2025 | \$114,969,700 | 208,240,424 |
| | June 30, 2026 | 114,024,783 | 207,295,507 |
| | June 30, 2027 | 210,314,968 | 303,585,692 |
| | June 30, 2028 | (93,715,884) | 0 |
| | Thereafter | 0 | 0 |

¹ Calculated in accordance with paragraphs 54 and 55 of GASB 68.

Section 2: GASB 68 Information

Alameda County

| Description | Current Year | Prior Year | |
|---|----------------------|----------------------|--------------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$3,166,854 | \$6,331,747 | |
| Changes of assumptions or other inputs | 59,254,379 | 107,621,239 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 192,492,581 | 510,684,110 | |
| Difference between actual and expected experience in the Total Pension Liability | 110,456,525 | 51,616,393 | |
| Total deferred outflows | \$365,370,339 | \$676,253,489 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$14,503,394 | \$0 | |
| Changes of assumptions or other inputs | 77,332,167 | 32,369,540 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 15,771,917 | 24,013,009 | |
| Total deferred inflows | \$107,607,478 | \$56,382,549 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$66,334,851 |
| | June 30, 2025 | \$88,080,450 | 162,181,982 |
| | June 30, 2026 | 85,700,369 | 159,852,899 |
| | June 30, 2027 | 156,431,751 | 231,501,208 |
| | June 30, 2028 | (72,449,709) | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

Health System

| Description | Current Year | Prior Year | |
|---|---------------------|----------------------|-------------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$11,683,571 | \$4,569,214 | |
| Changes of assumptions or other inputs | 16,039,058 | 27,976,705 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 43,178,308 | 111,944,639 | |
| Difference between actual and expected experience in the Total Pension Liability | 25,826,874 | 13,081,204 | |
| Total deferred outflows | \$96,727,811 | \$157,571,762 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$4,748,096 | \$9,546,476 | |
| Changes of assumptions or other inputs | 21,953,565 | 7,353,993 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 3,249,938 | 4,773,932 | |
| Total deferred inflows | \$29,951,599 | \$21,674,401 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$6,564,305 |
| | June 30, 2025 | \$20,128,245 | 35,616,977 |
| | June 30, 2026 | 22,636,545 | 38,082,818 |
| | June 30, 2027 | 40,737,765 | 55,633,261 |
| | June 30, 2028 | (16,726,343) | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

Superior Court

| Description | Current Year | Prior Year | |
|---|---------------------|---------------------|-------------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$3,423,585 | \$2,925,105 | |
| Changes of assumptions or other inputs | 3,290,311 | 5,706,418 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 8,857,756 | 22,833,384 | |
| Difference between actual and expected experience in the Total Pension Liability | 5,298,220 | 2,668,177 | |
| Total deferred outflows | \$20,869,872 | \$34,133,084 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$3,276,462 | \$5,072,327 | |
| Changes of assumptions or other inputs | 4,503,635 | 1,499,996 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 666,704 | 973,740 | |
| Total deferred inflows | \$8,446,801 | \$7,546,063 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$1,831,505 |
| | June 30, 2025 | \$4,077,726 | 7,121,787 |
| | June 30, 2026 | 3,243,895 | 6,279,362 |
| | June 30, 2027 | 8,453,379 | 11,354,367 |
| | June 30, 2028 | (3,351,929) | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

First 5

| Description | Current Year | Prior Year | |
|---|--------------------|--------------------|-----------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$3,513,801 | \$974,936 | |
| Changes of assumptions or other inputs | 563,966 | 735,843 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 1,518,238 | 2,944,369 | |
| Difference between actual and expected experience in the Total Pension Liability | 908,126 | 344,062 | |
| Total deferred outflows | \$6,504,131 | \$4,999,210 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$0 | \$0 | |
| Changes of assumptions or other inputs | 771,933 | 193,425 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 114,274 | 125,564 | |
| Total deferred inflows | \$886,207 | \$318,989 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$643,426 |
| | June 30, 2025 | \$1,763,084 | 1,300,732 |
| | June 30, 2026 | 1,638,294 | 1,175,340 |
| | June 30, 2027 | 2,205,317 | 1,560,723 |
| | June 30, 2028 | 11,229 | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

Housing Authority

| Description | Current Year | Prior Year | |
|---|--------------------|--------------------|-----------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$945,404 | \$226,256 | |
| Changes of assumptions or other inputs | 407,698 | 654,425 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 1,097,554 | 2,618,586 | |
| Difference between actual and expected experience in the Total Pension Liability | 656,496 | 305,993 | |
| Total deferred outflows | \$3,107,152 | \$3,805,260 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$171,104 | \$387,041 | |
| Changes of assumptions or other inputs | 558,040 | 172,023 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 82,611 | 111,670 | |
| Total deferred inflows | \$811,755 | \$670,734 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$114,078 |
| | June 30, 2025 | \$710,533 | 873,835 |
| | June 30, 2026 | 696,859 | 859,285 |
| | June 30, 2027 | 1,176,033 | 1,287,328 |
| | June 30, 2028 | (288,028) | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

LARPD

| Description | Current Year | Prior Year | |
|---|--------------------|--------------------|-----------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$14,516 | \$29,656 | |
| Changes of assumptions or other inputs | 380,980 | 683,344 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 1,955,117 | 4,965,270 | |
| Difference between actual and expected experience in the Total Pension Liability | 710,514 | 1,363,341 | |
| Total deferred outflows | \$3,061,127 | \$7,041,611 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$50,230 | \$60,215 | |
| Changes of assumptions or other inputs | 631,375 | 172,692 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 1,970,805 | 1,984,200 | |
| Total deferred inflows | \$2,652,410 | \$2,217,107 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$725,438 |
| | June 30, 2025 | \$109,858 | 1,038,353 |
| | June 30, 2026 | 13,039 | 943,007 |
| | June 30, 2027 | 1,186,682 | 2,117,706 |
| | June 30, 2028 | (900,862) | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

ACOE

| Description | Current Year | Prior Year | |
|---|-------------------|-------------------|-----------|
| Reporting and Measurement Dates | | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 | |
| Measurement date | December 31, 2023 | December 31, 2022 | |
| Deferred Outflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$2,829 | \$10,345 | |
| Changes of assumptions or other inputs | 12,109 | 21,721 | |
| Net difference between projected and actual earnings on pension plan investments (if any) | 78,246 | 214,759 | |
| Difference between actual and expected experience in the Total Pension Liability | 231,538 | 282,902 | |
| Total deferred outflows | \$324,722 | \$529,727 | |
| Deferred Inflows of Resources | | | |
| Changes in proportion and differences between employer's contributions and proportionate share of contributions | \$1,274 | \$1,200 | |
| Changes of assumptions or other inputs | 12,168 | 18,232 | |
| Net difference between actual and projected earnings on pension plan investments (if any) | 0 | 0 | |
| Difference between expected and actual experience in the Total Pension Liability | 1,895 | 2,948 | |
| Total deferred inflows | \$15,337 | \$22,380 | |
| Recognition of Deferred Outflows/(Inflows) by Reporting Date for Employer | | | |
| | June 30, 2024 | N/A | \$166,694 |
| | June 30, 2025 | \$99,804 | 106,758 |
| | June 30, 2026 | 95,782 | 102,796 |
| | June 30, 2027 | 124,041 | 131,099 |
| | June 30, 2028 | (10,242) | 0 |
| | Thereafter | 0 | 0 |

Section 2: GASB 68 Information

Exhibit 8 – Reconciliation of Net Pension Liability

Total for All Employers

| Description | Current Year | Prior Year |
|--|------------------------|------------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$2,231,259,851 | \$792,287,080 |
| Pension expense | 250,028,752 | 451,270,666 |
| Employer contributions | (288,640,038) | (281,646,702) |
| New net deferred outflows/(inflows) | (373,528,056) | 1,217,039,148 |
| Change in allocation of prior deferred outflows/(inflows) | 0 | 0 |
| New net deferred flows due to change in proportion ¹ | 0 | 0 |
| Recognition of prior deferred outflows/(inflows) | (76,380,297) | 52,309,659 |
| Recognition of prior deferred flows due to change in proportion ¹ | 0 | 0 |
| Ending Net Pension Liability | \$1,742,740,212 | \$2,231,259,851 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Alameda County

| Description | Current Year | Prior Year |
|--|------------------------|------------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$1,581,785,390 | \$481,002,724 |
| Pension expense | 183,096,286 | 337,022,421 |
| Employer contributions | (201,386,470) | (200,192,592) |
| New net deferred outflows/(inflows) | (275,020,309) | 927,238,291 |
| Change in allocation of prior deferred outflows/(inflows) | (6,664,807) | (414,306) |
| New net deferred flows due to change in proportion ¹ | (14,503,394) | 784,644 |
| Recognition of prior deferred outflows/(inflows) | (62,754,676) | 38,679,924 |
| Recognition of prior deferred flows due to change in proportion ¹ | (3,164,893) | (2,335,716) |
| Ending Net Pension Liability | \$1,201,387,127 | \$1,581,785,390 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Health System

| Description | Current Year | Prior Year |
|--|----------------------|----------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$512,556,871 | \$252,205,306 |
| Pension expense | 50,787,276 | 88,818,613 |
| Employer contributions | (68,496,541) | (64,478,768) |
| New net deferred outflows/(inflows) | (74,893,805) | 223,862,934 |
| Change in allocation of prior deferred outflows/(inflows) | 3,921,508 | 525,203 |
| New net deferred flows due to change in proportion ¹ | 8,648,701 | (1,216,627) |
| Recognition of prior deferred outflows/(inflows) | (10,061,589) | 11,076,679 |
| Recognition of prior deferred flows due to change in proportion ¹ | 3,264,036 | 1,763,531 |
| Ending Net Pension Liability | \$425,726,457 | \$512,556,871 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Superior Court

| Description | Current Year | Prior Year |
|--|---------------------|----------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$104,546,389 | \$51,067,964 |
| Pension expense | 11,004,282 | 17,849,014 |
| Employer contributions | (14,051,632) | (13,151,755) |
| New net deferred outflows/(inflows) | (15,363,990) | 45,661,395 |
| Change in allocation of prior deferred outflows/(inflows) | 969,766 | (33,306) |
| New net deferred flows due to change in proportion ¹ | 2,121,158 | 163,321 |
| Recognition of prior deferred outflows/(inflows) | (2,064,071) | 2,259,314 |
| Recognition of prior deferred flows due to change in proportion ¹ | 173,187 | 730,442 |
| Ending Net Pension Liability | \$87,335,089 | \$104,546,389 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

First 5

| Description | Current Year | Prior Year |
|--|---------------------|---------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$13,481,275 | \$6,278,562 |
| Pension expense | 2,958,917 | 2,790,593 |
| Employer contributions | (2,408,479) | (1,695,921) |
| New net deferred outflows/(inflows) | (2,633,420) | 5,888,045 |
| Change in allocation of prior deferred outflows/(inflows) | 1,386,044 | (119,309) |
| New net deferred flows due to change in proportion ¹ | 2,923,786 | 358,061 |
| Recognition of prior deferred outflows/(inflows) | (353,786) | 291,339 |
| Recognition of prior deferred flows due to change in proportion ¹ | (384,921) | (310,095) |
| Ending Net Pension Liability | \$14,969,416 | \$13,481,275 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Housing Authority

| Description | Current Year | Prior Year |
|--|---------------------|---------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$11,989,624 | \$5,940,077 |
| Pension expense | 1,412,205 | 1,970,604 |
| Employer contributions | (1,741,120) | (1,508,274) |
| New net deferred outflows/(inflows) | (1,903,733) | 5,236,555 |
| Change in allocation of prior deferred outflows/(inflows) | 385,276 | 27,491 |
| New net deferred flows due to change in proportion ¹ | 819,260 | (73,014) |
| Recognition of prior deferred outflows/(inflows) | (255,757) | 259,104 |
| Recognition of prior deferred flows due to change in proportion ¹ | 115,825 | 137,081 |
| Ending Net Pension Liability | \$10,821,580 | \$11,989,624 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

LARPD

| Description | Current Year | Prior Year |
|--|--------------------|--------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$5,617,872 | \$(4,882,346) |
| Pension expense | 540,136 | 2,408,945 |
| Employer contributions | (454,796) | (519,392) |
| New net deferred outflows/(inflows) | (3,681,879) | 8,626,350 |
| Change in allocation of prior deferred outflows/(inflows) | 2,126 | 13,186 |
| New net deferred flows due to change in proportion ¹ | (9,136) | (15,185) |
| Recognition of prior deferred outflows/(inflows) | (730,879) | (23,367) |
| Recognition of prior deferred flows due to change in proportion ¹ | 3,981 | 9,681 |
| Ending Net Pension Liability | \$1,287,425 | \$5,617,872 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

ACOE

| Description | Current Year | Prior Year |
|--|--------------------|--------------------|
| Reporting and Measurement Dates | | |
| Reporting date for employer under GASB 68 | June 30, 2024 | June 30, 2023 |
| Measurement date | December 31, 2023 | December 31, 2022 |
| Reconciliation of Net Pension Liability | | |
| Beginning Net Pension Liability | \$1,282,430 | \$674,793 |
| Pension expense | 229,650 | 410,476 |
| Employer contributions | (101,000) | (100,000) |
| New net deferred outflows/(inflows) | (30,920) | 525,578 |
| Change in allocation of prior deferred outflows/(inflows) | 87 | 1,041 |
| New net deferred flows due to change in proportion ¹ | (375) | (1,200) |
| Recognition of prior deferred outflows/(inflows) | (159,539) | (233,334) |
| Recognition of prior deferred flows due to change in proportion ¹ | (7,215) | 5,076 |
| Ending Net Pension Liability | \$1,213,118 | \$1,282,430 |

¹ Includes differences between employer contributions and proportionate share of contributions.

Section 2: GASB 68 Information

Exhibit 9 – Schedule of proportionate share of Net Pension Liability

Total for All Employers

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 100.000% | \$1,740,642,540 | \$886,924,862 | 196.26% | 77.26% |
| 2016 | 100.000% | 2,118,448,018 | 945,858,017 | 223.97% | 73.43% |
| 2017 | 100.000% | 2,243,194,227 | 947,567,631 | 236.73% | 73.33% |
| 2018 | 100.000% | 2,013,675,939 | 995,178,209 | 202.34% | 77.93% |
| 2019 | 100.000% | 2,764,001,975 | 1,046,033,851 | 264.24% | 71.01% |
| 2020 | 100.000% | 2,140,692,960 | 1,081,586,887 | 197.92% | 78.51% |
| 2021 | 100.000% | 2,194,415,875 | 1,111,848,569 | 197.37% | 79.37% |
| 2022 | 100.000% | 792,287,080 | 1,153,918,121 | 68.66% | 92.80% |
| 2023 | 100.000% | 2,231,259,851 | 1,198,970,345 | 186.10% | 80.58% |
| 2024 | 100.000% | 1,742,740,212 | 1,251,821,379 | 139.22% | 85.43% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

Alameda County

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 78.293% | \$1,362,794,384 | \$624,890,234 | 218.09% | 75.95% |
| 2016 | 77.434% | 1,640,381,401 | 669,324,559 | 245.08% | 72.23% |
| 2017 | 77.697% | 1,742,898,513 | 670,675,915 | 259.87% | 72.10% |
| 2018 | 78.526% | 1,581,250,705 | 696,359,743 | 227.07% | 76.50% |
| 2019 | 76.913% | 2,125,856,592 | 728,698,264 | 291.73% | 69.77% |
| 2020 | 78.452% | 1,679,429,417 | 757,563,567 | 221.69% | 77.25% |
| 2021 | 78.572% | 1,724,179,473 | 784,654,614 | 219.74% | 78.25% |
| 2022 | 60.710% | 481,002,724 | 816,272,092 | 58.93% | 94.15% |
| 2023 | 70.892% | 1,581,785,390 | 849,473,056 | 186.21% | 81.52% |
| 2024 | 68.936% | 1,201,387,127 | 873,218,276 | 137.58% | 86.35% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

Health System

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 16.779% | \$292,060,821 | \$205,303,352 | 142.26% | 81.06% |
| 2016 | 17.436% | 369,372,264 | 217,863,121 | 169.54% | 76.89% |
| 2017 | 17.285% | 387,733,901 | 216,685,931 | 178.94% | 76.88% |
| 2018 | 16.959% | 341,501,682 | 239,207,087 | 142.76% | 81.93% |
| 2019 | 18.147% | 501,587,358 | 255,247,270 | 196.51% | 74.56% |
| 2020 | 16.608% | 355,519,355 | 257,591,438 | 138.02% | 82.22% |
| 2021 | 16.248% | 356,559,512 | 257,126,856 | 138.67% | 82.77% |
| 2022 | 31.833% | 252,205,306 | 270,985,189 | 93.07% | 88.38% |
| 2023 | 22.972% | 512,556,871 | 279,653,188 | 183.28% | 77.51% |
| 2024 | 24.429% | 425,726,457 | 300,988,698 | 141.44% | 82.54% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

Superior Court

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 3.695% | \$64,323,516 | \$44,783,132 | 143.63% | 81.06% |
| 2016 | 3.880% | 82,205,987 | 45,883,436 | 179.16% | 76.89% |
| 2017 | 3.806% | 85,372,076 | 46,866,752 | 182.16% | 76.88% |
| 2018 | 3.413% | 68,718,793 | 46,437,348 | 147.98% | 81.93% |
| 2019 | 3.507% | 96,943,208 | 48,293,563 | 200.74% | 74.56% |
| 2020 | 3.522% | 75,388,579 | 52,163,782 | 144.52% | 82.22% |
| 2021 | 3.703% | 81,267,099 | 55,376,411 | 146.75% | 82.77% |
| 2022 | 6.446% | 51,067,964 | 52,057,810 | 98.10% | 88.38% |
| 2023 | 4.686% | 104,546,389 | 54,680,732 | 191.19% | 77.51% |
| 2024 | 5.011% | 87,335,089 | 58,450,424 | 149.42% | 82.54% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

First 5

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 0.326% | \$5,674,306 | \$3,957,401 | 143.38% | 81.06% |
| 2016 | 0.349% | 7,383,341 | 4,239,645 | 174.15% | 76.89% |
| 2017 | 0.358% | 8,035,666 | 4,416,769 | 181.94% | 76.88% |
| 2018 | 0.334% | 6,731,962 | 4,562,701 | 147.54% | 81.93% |
| 2019 | 0.366% | 10,129,093 | 4,952,333 | 204.53% | 74.56% |
| 2020 | 0.368% | 7,872,042 | 5,423,220 | 145.15% | 82.22% |
| 2021 | 0.398% | 8,730,366 | 5,953,576 | 146.64% | 82.77% |
| 2022 | 0.792% | 6,278,562 | 6,311,029 | 99.49% | 88.38% |
| 2023 | 0.604% | 13,481,275 | 6,796,789 | 198.35% | 77.51% |
| 2024 | 0.859% | 14,969,416 | 9,745,890 | 153.60% | 82.54% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

Housing Authority

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 0.428% | \$7,455,335 | \$4,002,650 | 186.26% | 81.06% |
| 2016 | 0.455% | 9,644,104 | 4,272,082 | 225.75% | 76.89% |
| 2017 | 0.460% | 10,314,924 | 4,354,275 | 236.89% | 76.88% |
| 2018 | 0.409% | 8,244,509 | 4,299,288 | 191.76% | 81.93% |
| 2019 | 0.435% | 12,014,705 | 4,512,036 | 266.28% | 74.56% |
| 2020 | 0.370% | 7,919,662 | 4,347,895 | 182.15% | 82.22% |
| 2021 | 0.396% | 8,693,280 | 4,675,355 | 185.94% | 82.77% |
| 2022 | 0.750% | 5,940,077 | 4,748,361 | 125.10% | 88.38% |
| 2023 | 0.537% | 11,989,624 | 4,871,447 | 246.12% | 77.51% |
| 2024 | 0.621% | 10,821,580 | 5,812,483 | 186.18% | 82.54% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

LARPD

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 0.471% | \$8,203,447 | \$3,919,778 | 209.28% | 76.82% |
| 2016 | 0.438% | 9,288,497 | 4,203,012 | 221.00% | 75.39% |
| 2017 | 0.385% | 8,644,696 | 4,487,952 | 192.62% | 77.76% |
| 2018 | 0.359% | 7,228,288 | 4,312,042 | 167.63% | 82.99% |
| 2019 | 0.572% | 15,804,862 | 4,330,385 | 364.98% | 72.74% |
| 2020 | 0.640% | 13,701,573 | 4,496,985 | 304.68% | 77.82% |
| 2021 | 0.644% | 14,126,234 | 4,061,757 | 347.79% | 78.44% |
| 2022 | (0.616)% | (4,882,346) | 3,543,640 | (137.78)% | 107.51% |
| 2023 | 0.252% | 5,617,872 | 3,495,133 | 160.73% | 91.51% |
| 2024 | 0.074% | 1,287,425 | 3,605,608 | 35.71% | 98.07% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

ACOE

| Reporting Date for Employer as of June 30 | Proportion of NPL | Proportionate Share of NPL | Covered Payroll ¹ | Proportionate Share of NPL as a Percentage of Covered Payroll | Plan FNP as a Percentage of TPL |
|---|-------------------|----------------------------|------------------------------|---|---------------------------------|
| 2015 | 0.008% | \$130,731 | \$68,314 | 191.37% | 81.06% |
| 2016 | 0.008% | 172,424 | 72,162 | 238.94% | 76.89% |
| 2017 | 0.009% | 194,451 | 80,037 | 242.95% | 76.88% |
| 2018 | 0.000% | 0 | 0 | N/A | N/A |
| 2019 | 0.060% | 1,666,157 | 0 | N/A | 63.63% |
| 2020 | 0.040% | 862,332 | 0 | N/A | 81.56% |
| 2021 | 0.039% | 859,911 | 0 | N/A | 81.63% |
| 2022 | 0.085% | 674,793 | 0 | N/A | 85.29% |
| 2023 | 0.057% | 1,282,430 | 0 | N/A | 72.43% |
| 2024 | 0.070% | 1,213,118 | 0 | N/A | 74.06% |

¹ For reporting dates on or after June 30, 2018, covered payroll shown represents Compensation Earnable and Pensionable Compensation and is defined as the payroll on which contributions to the pension plan are based. For reporting dates before June 30, 2018, covered payroll was referred to as covered-employee payroll and only Compensation Earnable and Pensionable Compensation that would go into the determination of retirement benefits was included.

Section 2: GASB 68 Information

Exhibit 10 – Schedule of recognition of changes in Net Pension Liability

The following tables present the increase/(decrease) in pension expense due to various changes in Net Pension Liability.

Differences between Expected and Actual Experience on Total Pension Liability

| Reporting Date for Employer as of June 30 | Total Change | Recognition Period | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Thereafter |
|---|--------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| 2018 ¹ | \$17,516,316 | 5.47 | \$1,505,056 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2019 ¹ | 13,710,084 | 5.43 | 2,524,878 | 1,085,694 | 0 | 0 | 0 | 0 | 0 |
| 2020 ¹ | 24,548,055 | 5.37 | 4,571,332 | 4,571,332 | 1,691,395 | 0 | 0 | 0 | 0 |
| 2021 ¹ | 33,007,683 | 5.26 | 6,275,224 | 6,275,224 | 6,275,224 | 1,631,563 | 0 | 0 | 0 |
| 2022 ¹ | (50,359,948) | 5.05 | (9,972,267) | (9,972,267) | (9,972,267) | (9,972,267) | (498,613) | 0 | 0 |
| 2023 | 58,260,983 | 4.98 | 11,698,992 | 11,698,992 | 11,698,992 | 11,698,992 | 11,465,015 | 0 | 0 |
| 2024 | 123,459,445 | 4.89 | N/A | 25,247,330 | 25,247,330 | 25,247,330 | 25,247,330 | 22,470,125 | 0 |
| Total² | N/A | N/A | \$16,603,215 | \$38,906,305 | \$34,940,674 | \$28,605,618 | \$36,213,732 | \$22,470,125 | \$0 |

As described in Exhibit 6 - Pension expense, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through ACERA (active and inactive employees) determined as of December 31, 2022 (the beginning of the measurement period ending December 31, 2023) is 4.89 years.

¹ The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.

² Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Assumption Changes or Other Inputs

| Reporting Date for Employer as of June 30 | Total Change | Recognition Period | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Thereafter |
|---|---------------|--------------------|---------------------|---------------------|---------------------|----------------------|-----------------------|-----------------------|------------|
| 2018 ¹ | \$316,727,508 | 5.47 | \$27,214,243 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2019 ¹ | 0 | 5.43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 ¹ | 0 | 5.37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2021 ¹ | 236,513,333 | 5.26 | 44,964,513 | 44,964,513 | 44,964,513 | 11,690,768 | 0 | 0 | 0 |
| 2022 ¹ | 0 | 5.05 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2023 | 0 | 4.98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2024 | (103,670,090) | 4.89 | N/A | (21,200,427) | (21,200,427) | (21,200,427) | (21,200,427) | (18,868,382) | 0 |
| Total² | N/A | N/A | \$72,178,756 | \$23,764,086 | \$23,764,086 | \$(9,509,659) | \$(21,200,427) | \$(18,868,382) | \$0 |

As described in Exhibit 6 – Pension expense, for the current period, the average of the expected remaining service lives of all employees that are provided with pensions through ACERA (active and inactive employees) determined as of December 31, 2022 (the beginning of the measurement period ending December 31, 2023) is 4.89 years.

¹ The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.

² Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Differences between Projected and Actual Earnings on Pension Plan Investments

| Reporting Date for Employer as of June 30 | Total Change | Recognition Period | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Thereafter |
|---|-----------------|--------------------|----------------------|-----------------------|---------------------|---------------------|----------------------|-----------------------|------------|
| 2018 ¹ | \$(601,849,317) | 5.00 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2019 ¹ | 727,349,183 | 5.00 | 145,469,839 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2020 ¹ | (679,128,753) | 5.00 | (135,825,750) | (135,825,753) | 0 | 0 | 0 | 0 | 0 |
| 2021 ¹ | (193,319,430) | 5.00 | (38,663,887) | (38,663,887) | (38,663,882) | 0 | 0 | 0 | 0 |
| 2022 ¹ | (501,864,198) | 5.00 | (100,372,840) | (100,372,840) | (100,372,840) | (100,372,838) | 0 | 0 | 0 |
| 2023 | 1,463,096,446 | 5.00 | 292,619,289 | 292,619,289 | 292,619,289 | 292,619,289 | 292,619,290 | 0 | 0 |
| 2024 | (486,588,135) | 5.00 | N/A | (97,317,627) | (97,317,627) | (97,317,627) | (97,317,627) | (97,317,627) | 0 |
| Total² | N/A | N/A | \$163,226,651 | \$(79,560,818) | \$56,264,940 | \$94,928,824 | \$195,301,663 | \$(97,317,627) | \$0 |

The differences between projected and actual earnings on pension plan investments are recognized over a five-year period per Paragraph 33b. of GASB 68.

¹ The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.

² Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Total Increase/(Decrease) in Pension Expense

| Reporting Date for Employer as of June 30 | Total Change | Recognition Period | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | Thereafter |
|---|-----------------|--------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|-----------------------|------------|
| 2018 ¹ | \$(267,605,493) | N/A | \$28,719,299 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2019 ¹ | 741,059,267 | N/A | 147,994,717 | 1,085,694 | 0 | 0 | 0 | 0 | 0 |
| 2020 ¹ | (654,580,698) | N/A | (131,254,418) | (131,254,421) | 1,691,395 | 0 | 0 | 0 | 0 |
| 2021 ¹ | 76,201,586 | N/A | 12,575,850 | 12,575,850 | 12,575,855 | 13,322,331 | 0 | 0 | 0 |
| 2022 ¹ | (552,224,146) | N/A | (110,345,107) | (110,345,107) | (110,345,107) | (110,345,105) | (498,613) | 0 | 0 |
| 2023 | 1,521,357,429 | N/A | 304,318,281 | 304,318,281 | 304,318,281 | 304,318,281 | 304,084,305 | 0 | 0 |
| 2024 | (466,798,780) | N/A | N/A | (93,270,724) | (93,270,724) | (93,270,724) | (93,270,724) | (93,715,884) | 0 |
| Total² | N/A | N/A | \$252,008,622 | \$(16,890,427) | \$114,969,700 | \$114,024,783 | \$210,314,968 | \$(93,715,884) | \$0 |

¹ The amortization amounts prior to June 30, 2023 have been omitted from this schedule. Those amounts can be found in prior years' GASB 68 reports.

² Net increase (decrease) in pension expense.

Section 2: GASB 68 Information

Exhibit 11 – Schedule of recognition of changes in proportionate share

In addition to the amounts shown in *Section 2, Exhibit 10 – Schedule of recognition of changes in Net Pension Liability*, there are changes in each employer’s proportionate share of the NPL during the measurement period ending on December 31, 2023.

The net effect of the change in the employer’s proportionate share of the collective NPL and collective deferred outflows of resources and deferred inflows of resources along with the difference between the actual employer contributions and the proportionate share of the employer contributions is recognized over the average of the expected remaining service lives of all employees that are provided with pensions through ACERA as shown earlier.

The following tables illustrate the scheduled increase/(decrease) in pension expense due to the change in proportion and difference in employer contributions. While these amounts are different for each employer, they sum to zero over the entire ACERA.

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2023

| Employer | Total Change | Recognition Period | 2024 | 2025 | 2026 | 2027 | 2028 | Thereafter |
|--------------------------------|----------------|--------------------|---------------|---------------|---------------|---------------|---------------|------------|
| Alameda County | \$(18,231,772) | 4.89 | \$(3,728,378) | \$(3,728,378) | \$(3,728,378) | \$(3,728,378) | \$(3,318,260) | \$0 |
| Health System | 10,872,017 | 4.89 | 2,223,316 | 2,223,316 | 2,223,316 | 2,223,316 | 1,978,753 | 0 |
| Superior Court | 2,666,443 | 4.89 | 545,285 | 545,285 | 545,285 | 545,285 | 485,303 | 0 |
| First 5 | 3,675,402 | 4.89 | 751,616 | 751,616 | 751,616 | 751,616 | 668,938 | 0 |
| Housing Authority | 1,029,867 | 4.89 | 210,607 | 210,607 | 210,607 | 210,607 | 187,439 | 0 |
| LARPD | (11,485) | 4.89 | (2,349) | (2,349) | (2,349) | (2,349) | (2,089) | 0 |
| ACOE | (472) | 4.89 | (97) | (97) | (97) | (97) | (84) | 0 |
| Total for all employers | \$0 | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2022

| Employer | Total Change | Recognition Period | 2023 | 2024 | 2025 | 2026 | 2027 | Thereafter |
|--------------------------------|--------------|--------------------|------------|------------|------------|------------|------------|------------|
| Alameda County | \$981,790 | 4.98 | \$197,146 | \$197,146 | \$197,146 | \$197,146 | \$193,206 | \$0 |
| Health System | (1,522,313) | 4.98 | (305,686) | (305,686) | (305,686) | (305,686) | (299,569) | 0 |
| Superior Court | 204,357 | 4.98 | 41,036 | 41,036 | 41,036 | 41,036 | 40,213 | 0 |
| First 5 | 448,026 | 4.98 | 89,965 | 89,965 | 89,965 | 89,965 | 88,166 | 0 |
| Housing Authority | (91,359) | 4.98 | (18,345) | (18,345) | (18,345) | (18,345) | (17,979) | 0 |
| LARPD | (19,000) | 4.98 | (3,815) | (3,815) | (3,815) | (3,815) | (3,740) | 0 |
| ACOE | (1,501) | 4.98 | (301) | (301) | (301) | (301) | (297) | 0 |
| Total for all employers | \$0 | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2021

| Employer | Total Change | Recognition Period | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | Thereafter |
|--------------------------------|--------------|--------------------|-------------|-------------|-------------|-------------|-------------|------------|------------|
| Alameda County | \$409,443 | 5.05 | \$81,077 | \$81,077 | \$81,077 | \$81,077 | \$81,077 | \$4,058 | \$0 |
| Health System | 7,476,142 | 5.05 | 1,480,424 | 1,480,424 | 1,480,424 | 1,480,424 | 1,480,424 | 74,022 | 0 |
| Superior Court | (8,017,615) | 5.05 | (1,587,646) | (1,587,646) | (1,587,646) | (1,587,646) | (1,587,646) | (79,385) | 0 |
| First 5 | 339,623 | 5.05 | 67,253 | 67,253 | 67,253 | 67,253 | 67,253 | 3,358 | 0 |
| Housing Authority | (134,381) | 5.05 | (26,610) | (26,610) | (26,610) | (26,610) | (26,610) | (1,331) | 0 |
| LARPD | (73,224) | 5.05 | (14,500) | (14,500) | (14,500) | (14,500) | (14,500) | (724) | 0 |
| ACOE | 12 | 5.05 | 2 | 2 | 2 | 2 | 2 | 2 | 0 |
| Total for all employers | \$0 | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2020

| Employer | Total Change | Recognition Period | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | Thereafter |
|--------------------------------|--------------|--------------------|-------------|-------------|-------------|-------------|-------------|------------|------------|
| Alameda County | \$8,250,590 | 5.26 | \$1,568,554 | \$1,568,554 | \$1,568,554 | \$1,568,554 | \$1,568,554 | \$407,820 | \$0 |
| Health System | (12,853,687) | 5.26 | (2,443,667) | (2,443,667) | (2,443,667) | (2,443,667) | (2,443,667) | (635,352) | 0 |
| Superior Court | 3,403,342 | 5.26 | 647,023 | 647,023 | 647,023 | 647,023 | 647,023 | 168,227 | 0 |
| First 5 | 620,220 | 5.26 | 117,913 | 117,913 | 117,913 | 117,913 | 117,913 | 30,655 | 0 |
| Housing Authority | 526,592 | 5.26 | 100,112 | 100,112 | 100,112 | 100,112 | 100,112 | 26,032 | 0 |
| LARPD | 52,689 | 5.26 | 10,017 | 10,017 | 10,017 | 10,017 | 10,017 | 2,604 | 0 |
| ACOE | 254 | 5.26 | 48 | 48 | 48 | 48 | 48 | 14 | 0 |
| Total for all employers | \$0 | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Section 2: GASB 68 Information

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2019

| Employer | Total Change | Recognition Period | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | Thereafter |
|--------------------------------|--------------|--------------------|-------------|-------------|-------------|-------------|-------------|------------|------------|
| Alameda County | \$6,339,140 | 5.37 | \$1,180,474 | \$1,180,474 | \$1,180,474 | \$1,180,474 | \$1,180,474 | \$436,770 | \$0 |
| Health System | (11,003,271) | 5.37 | (2,049,027) | (2,049,027) | (2,049,027) | (2,049,027) | (2,049,027) | (758,136) | 0 |
| Superior Court | 4,979,652 | 5.37 | 927,309 | 927,309 | 927,309 | 927,309 | 927,309 | 343,107 | 0 |
| First 5 | 515,062 | 5.37 | 95,915 | 95,915 | 95,915 | 95,915 | 95,915 | 35,487 | 0 |
| Housing Authority | (898,184) | 5.37 | (167,260) | (167,260) | (167,260) | (167,260) | (167,260) | (61,884) | 0 |
| LARPD | 27,510 | 5.37 | 5,123 | 5,123 | 5,123 | 5,123 | 5,123 | 1,895 | 0 |
| ACOE | 40,091 | 5.37 | 7,466 | 7,466 | 7,466 | 7,466 | 7,466 | 2,761 | 0 |
| Total for all employers | \$0 | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Change in Proportion and Difference in Employer Contributions for the Year Ended December 31, 2018

| Employer | Total Change | Recognition Period | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | Thereafter |
|--------------------------------|--------------|--------------------|------------|------------|------------|------------|------------|------------|------------|
| Alameda County | \$1,738,127 | 5.43 | \$320,097 | \$320,097 | \$320,097 | \$320,097 | \$320,097 | \$137,642 | \$0 |
| Health System | 680,885 | 5.43 | 125,393 | 125,393 | 125,393 | 125,393 | 125,393 | 53,920 | 0 |
| Superior Court | (2,537,099) | 5.43 | (467,238) | (467,238) | (467,238) | (467,238) | (467,238) | (200,909) | 0 |
| First 5 | 175,250 | 5.43 | 32,275 | 32,275 | 32,275 | 32,275 | 32,275 | 13,875 | 0 |
| Housing Authority | (46,967) | 5.43 | (8,649) | (8,649) | (8,649) | (8,649) | (8,649) | (3,722) | 0 |
| LARPD | (10,196) | 5.43 | (1,878) | (1,878) | (1,878) | (1,878) | (1,878) | (806) | 0 |
| ACOE | 0 | 5.43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total for all employers | \$0 | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Section 3: Actuarial Valuation Basis

The following presents the actuarial assumptions, methods and models used in the December 31, 2023 measurement date for employer reporting as of June 30, 2024.

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 investment expenses.

Employee contribution crediting rate

7.00%, compounded semi-annually.

Consumer price index (CPI or inflation)

Increase of 2.50% per year.

Section 3: Actuarial Valuation Basis

Retiree cost of living increases

The actual COLA granted by ACERA on April 1, 2023 has been reflected in the December 31, 2022 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.

Section 3: Actuarial Valuation Basis

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% |

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

Retirement age and benefit for deferred vested members

| | |
|---------------------------------------|----|
| General Non-Reciprocal Retirement Age | 62 |
| General Reciprocal Retirement Age | 61 |
| Safety Non-Reciprocal Retirement Age | 56 |
| Safety Reciprocal Retirement Age | 55 |

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.

20% of future General and 45% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocal members, 3.45% and 4.00% compensation increases are assumed per annum for General and Safety members, respectively.

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.

Form of payment

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

Section 3: Actuarial Valuation Basis

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.

Section 3: Actuarial Valuation Basis

Expected Remaining Service Lives

The average of the expected service lives of all employees is determined by:

- Calculating each active employee's expected remaining service life as the present value of \$1 per year of future service at zero percent interest.
- Setting the remaining service life to zero for each nonactive or retired member.
- Dividing the sum of the above amounts by the total number of active employees, nonactive and retired members.

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.

Changes in actuarial assumptions and methods

Based on the Actuarial Experience Study, the following assumptions were changed. Previously, these assumptions and methods were as follows:

Consumer price index

Increase of 2.75% per year.

Payroll growth

Inflation of 2.75% 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 2.75% per year from the valuation date.

Section 3: Actuarial Valuation Basis

Increase in California Government Code Section 7522.10 compensation limit

Increase of 2.75% per year from the valuation date.

Salary increases

The annual rate of compensation increase includes:

- Inflation at 2.75%, 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 | 5.10% | 8.00% |
| 1 – 2 | 5.10% | 8.00% |
| 2 – 3 | 4.50% | 8.00% |
| 3 – 4 | 2.90% | 4.90% |
| 4 – 5 | 2.10% | 3.70% |
| 5 – 6 | 1.60% | 2.10% |
| 6 – 7 | 1.50% | 1.30% |
| 7 – 8 | 1.50% | 1.20% |
| 8 – 9 | 1.00% | 0.90% |
| 9 – 10 | 0.90% | 0.90% |
| 10 – 11 | 0.70% | 0.80% |
| 11 and over | 0.40% | 0.80% |

Section 3: Actuarial Valuation Basis

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 | 7.5% | 6.5% |
| General Tier 2 | 3.0% | 1.4% |
| General Tier 3 | 7.5% | 6.5% |
| General Tier 4 | N/A | N/A |
| Safety Tier 1 | 7.5% | 6.4% |
| Safety Tier 2 | 2.5% | 1.9% |
| Safety Tier 2C | 2.5% | 1.9% |
| Safety Tier 2D | 2.5% | 1.9% |
| 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-2019.
- **Safety members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

Section 3: Actuarial Valuation Basis

Disabled

- **General members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.

Beneficiaries

- **All beneficiaries:** Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2019.

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-2019.
- **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-2019.

| Age | General Male | General Female | Safety Male | Safety Female |
|-----|--------------|----------------|-------------|---------------|
| 20 | 0.04% | 0.01% | 0.04% | 0.02% |
| 25 | 0.02% | 0.01% | 0.03% | 0.02% |
| 30 | 0.04% | 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% | 0.15% |
| 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.

Section 3: Actuarial Valuation Basis

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-2019, 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), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 75% male and 25% female.

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-2019, weighted 30% male and 70% female.
- **General beneficiaries:** Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, 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), projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 75% male and 25% female.
- **Safety beneficiaries:** Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 25% male and 75% female.

Section 3: Actuarial Valuation Basis

Disability Retirement

- **General members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased 10% for females, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, 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, projected 25 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 75% male and 25% female.

Disability incidence rates

| Age | General | Safety |
|-----|---------|--------|
| 20 | 0.00% | 0.00% |
| 25 | 0.01% | 0.03% |
| 30 | 0.03% | 0.26% |
| 35 | 0.07% | 0.64% |
| 40 | 0.09% | 1.22% |
| 45 | 0.16% | 1.50% |
| 50 | 0.26% | 2.10% |
| 55 | 0.33% | 2.65% |
| 60 | 0.38% | 3.80% |

65% of General disabilities are assumed to be service connected disabilities. The other 35% are assumed to be non-service connected disabilities.

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

Section 3: Actuarial Valuation Basis

Termination rates

| Years of Service | General | Safety |
|------------------|---------|--------|
| Less than 1 | 12.00% | 4.00% |
| 1 – 2 | 9.00% | 4.00% |
| 2 – 3 | 8.00% | 4.00% |
| 3 – 4 | 6.00% | 3.50% |
| 4 – 5 | 6.00% | 3.00% |
| 5 – 6 | 6.00% | 2.00% |
| 6 – 7 | 5.25% | 1.80% |
| 7 – 8 | 4.25% | 1.70% |
| 8 – 9 | 3.75% | 1.60% |
| 9 – 16 | 3.50% | 1.50% |
| 16 – 17 | 3.40% | 1.40% |
| 17 – 18 | 3.30% | 1.30% |
| 18 – 19 | 3.20% | 1.20% |
| 19 – 20 | 3.10% | 1.10% |
| 20 or more | 3.00% | 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, 30% of all terminated members are assumed to choose a refund of contributions and the other 70% are assumed to choose a deferred vested benefit.

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

Section 3: Actuarial Valuation Basis

Retirement rates

General

| Age | Tier 1 | Tier 2 Less than 30 Years of Service | Tier 2 Over 30 Years of Service | Tier 3 | Tier 4 |
|-------------|--------|--|---------------------------------------|--------|--------|
| 49 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| 50 | 2.0% | 2.0% | 4.0% | 10.0% | 0.0% |
| 51 | 4.0% | 2.0% | 4.0% | 10.0% | 0.0% |
| 52 | 4.0% | 2.0% | 4.0% | 10.0% | 4.0% |
| 53 | 5.0% | 2.0% | 4.0% | 10.0% | 2.0% |
| 54 | 5.0% | 2.0% | 4.0% | 10.0% | 2.0% |
| 55 | 6.0% | 2.0% | 4.0% | 12.0% | 5.0% |
| 56 | 10.0% | 2.5% | 4.5% | 14.0% | 2.5% |
| 57 | 12.0% | 4.0% | 5.0% | 16.0% | 3.5% |
| 58 | 12.0% | 4.0% | 5.0% | 18.0% | 3.5% |
| 59 | 14.0% | 4.5% | 8.0% | 20.0% | 4.5% |
| 60 | 20.0% | 8.0% | 8.5% | 20.0% | 5.0% |
| 61 | 20.0% | 9.0% | 13.5% | 20.0% | 5.0% |
| 62 | 35.0% | 15.0% | 22.5% | 30.0% | 18.0% |
| 63 | 30.0% | 15.0% | 22.5% | 25.0% | 15.0% |
| 64 | 30.0% | 18.0% | 27.0% | 25.0% | 17.0% |
| 65 | 30.0% | 25.0% | 27.5% | 50.0% | 25.0% |
| 66 | 30.0% | 30.0% | 33.0% | 50.0% | 30.0% |
| 67 | 30.0% | 30.0% | 33.0% | 50.0% | 30.0% |
| 68 | 30.0% | 30.0% | 33.0% | 50.0% | 30.0% |
| 69 | 35.0% | 35.0% | 38.5% | 50.0% | 35.0% |
| 70 | 40.0% | 40.0% | 40.0% | 65.0% | 25.0% |
| 71 | 40.0% | 40.0% | 40.0% | 65.0% | 25.0% |
| 72 | 40.0% | 40.0% | 40.0% | 65.0% | 25.0% |
| 73 | 40.0% | 40.0% | 40.0% | 65.0% | 25.0% |
| 74 | 40.0% | 40.0% | 40.0% | 65.0% | 25.0% |
| 75 and over | 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.

Section 3: Actuarial Valuation Basis

Safety

| Age | Tier 1 | Tier 2, 2D Less than 30 Years of Service | Tier 2, 2D Over 30 Years of Service | Tier 2C | Tier 4 |
|-------------|--------|--|---|---------|--------|
| 49 | 0.0% | 12.0% | 18.0% | 0.0% | 0.0% |
| 50 | 35.0% | 12.0% | 18.0% | 4.0% | 4.0% |
| 51 | 30.0% | 10.0% | 24.0% | 2.0% | 2.0% |
| 52 | 25.0% | 10.0% | 24.0% | 2.0% | 2.0% |
| 53 | 35.0% | 10.0% | 25.0% | 3.0% | 3.0% |
| 54 | 45.0% | 12.0% | 27.0% | 6.0% | 6.0% |
| 55 | 45.0% | 12.0% | 29.0% | 10.0% | 10.0% |
| 56 | 45.0% | 14.0% | 32.0% | 12.0% | 12.0% |
| 57 | 45.0% | 16.0% | 32.0% | 20.0% | 20.0% |
| 58 | 45.0% | 18.0% | 30.0% | 10.0% | 10.0% |
| 59 | 45.0% | 18.0% | 30.0% | 15.0% | 15.0% |
| 60 | 45.0% | 25.0% | 30.0% | 60.0% | 60.0% |
| 61 | 45.0% | 25.0% | 30.0% | 60.0% | 60.0% |
| 62 | 45.0% | 25.0% | 30.0% | 60.0% | 60.0% |
| 63 | 45.0% | 25.0% | 30.0% | 60.0% | 60.0% |
| 64 | 45.0% | 30.0% | 30.0% | 60.0% | 60.0% |
| 65 and over | 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.

Retirement age and benefit for deferred vested members

| | |
|------------------------|----|
| General retirement age | 61 |
| Safety retirement age | 55 |

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.

Section 3: Actuarial Valuation Basis

25% of future General and 50% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocal members, 3.65% and 4.05% compensation increases are assumed per annum for General and Safety members, respectively.

Future benefit accruals

1.0 year of service per year of employment, plus 0.003 years of additional service for General members and 0.007 years of additional service for Safety members, to anticipate conversion of unused sick leave for each year of employment.

Appendix A: Projection of Plan Fiduciary Net Position

Projection of Plan Fiduciary Net Position for use in the Calculation of Discount Rate as of December 31, 2023 (\$ in millions)

| Year Beginning January 1 | Beginning Plan Fiduciary Net Position (a) | Total Contributions (b) | Benefit Payments (c) | Administrative Expenses (d) | Investment Earnings (e) | Ending Plan Fiduciary Net Position (a) + (b) – (c) – (d) + (e) |
|--------------------------------|---|-------------------------|----------------------|-----------------------------|-------------------------|--|
| 2023 | \$9,258 | \$415 | \$620 | \$16 | \$1,181 ¹ | \$10,218 |
| 2024 | 10,218 | 396 | 735 | 17 | 699 | 10,560 |
| 2025 | 10,560 | 402 | 769 | 18 | 722 | 10,897 |
| 2026 | 10,897 | 408 | 804 | 19 | 744 | 11,226 |
| 2027 | 11,226 | 430 | 838 | 19 | 766 | 11,566 |
| 2028 | 11,566 | 430 | 872 | 20 | 789 | 11,893 |
| 2029 | 11,893 | 434 | 907 | 20 | 810 | 12,211 |
| 2030 | 12,211 | 441 | 941 | 21 | 831 | 12,522 |
| 2049 | 12,701 | 281 | 1,301 | 22 | 846 | 12,505 |
| 2050 | 12,505 | 278 | 1,305 | 21 | 832 | 12,288 |
| 2051 | 12,288 | 274 | 1,307 | 21 | 816 | 12,050 |
| 2052 | 12,050 | 270 | 1,308 | 20 | 799 | 11,791 |
| 2094 | 3,037 | 58 | 93 | 5 | 211 | 3,207 |
| 2095 | 3,207 | 56 | 82 | 5 | 223 | 3,399 |
| 2096 | 3,399 | 55 | 73 | 6 | 237 | 3,611 |
| 2097 | 3,611 | 54 | 66 | 6 | 252 | 3,845 |
| 2141 | 69,520 | 642 | 521 | 118 | 4,864 | 74,387 |
| 2142 | 74,387 | 687 | 558 | 126 | 5,204 | 79,594 |
| 2143 | 79,594 | 735 | 597 ² | 135 | 5,568 | 85,165 |
| 2144 | 85,165 | | | | | |
| 2144 (Discounted Value) | 25 | | | | | |

¹ Includes \$1,127 million in net investment income and \$54 million in other changes resulting from the transfer of assets from the OPEB SRBR reserve to the non-OPEB reserve.

² Projected benefit payments for the closed group of active, inactive, retired members and beneficiaries as of November 30, 2022 is \$0. This amount represents the 0.75% of the beginning-of-year market value to reflect the approximated outflow of future allocations to the SRBR. See Note 6.

Appendix A: Projection of Plan Fiduciary Net Position

Notes

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning January 1, 2023 row are actual amounts, based on the financial statements provided by ACERA.
3. Various years have been omitted from this table.
4. **Column (a):** Except for the “discounted value” shown for 2144, none of the projected Plan FNP amounts shown have been adjusted for the time value of money.
5. **Column (b):** Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of November 30, 2022); plus employer contributions to the UAAL; plus employer contributions to fund each year’s annual administrative expenses as well as future allocations of excess earnings to the SRBR under ACERA’s Funding Policy, both reflecting a 20-year amortization schedule. Contributions are assumed to occur halfway through the year, on average.
6. **Column (c):** Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive, retired members, and beneficiaries as of November 30, 2022. The projected benefit payments reflect the cost of living increase assumption of 2.75% per annum for Tier 1 and Tier 3, and 2.00% per annum for Tier 2 and Tier 4. In accordance with paragraph 31.b.(1)(e) of GASB Statement No. 67, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the discount rate. Benefit payments are assumed to occur halfway through the year, on average.

The projected benefit payments include the non-OPEB SRBR benefits to the extent the current non-OPEB SRBR supports those benefits. In addition, the projected benefit payments in column (c) include an amount equal to 0.75% of the beginning Plan FNP to reflect the approximated outflow of future allocations to the SRBR. This outflow has an estimated present value of \$1.30 billion. This present value of outflow is expected to be sufficient to pay for the remaining present value of the non-OPEB SRBR benefits of \$0.11 billion as well as the remaining present value of the OPEB SRBR benefits of \$0.50 billion.
7. **Column (d):** Projected administrative expenses are calculated as approximately 0.17% of the beginning Plan FNP. The 0.17% was based on the actual fiscal year 2023 administrative expenses as a percentage of the beginning Plan FNP as of January 1, 2023. Administrative expenses are assumed to occur halfway through the year, on average.

Appendix A: Projection of Plan Fiduciary Net Position

8. **Column (e):** Projected investment earnings are based on the assumed investment rate of return of 7.00% per annum and reflect the assumed timing of cashflows, as noted above.
9. As illustrated in this appendix, the Plan FNP was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected “cross-over date” when projected benefits are **not** covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.00% per annum was applied to all periods of projected benefit payments to determine the TPL as of December 31, 2023 shown earlier in this report, pursuant to paragraph 44 of GASB Statement No. 67.

Appendix B: Definition of terms

Definitions of certain terms as they are used in GASB Statement No. 68. The terms may have different meanings in other contexts.

| Term | Definition |
|--|--|
| Active employees | Individuals employed at the end of the reporting or measurement period, as applicable. |
| Actual contributions | Cash contributions recognized as additions to the Plan Fiduciary Net Position. |
| Actuarial present value of projected benefit payments | Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment. |
| Actuarial valuation | The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB. |
| Actuarial valuation date | The date as of which an actuarial valuation is performed. |
| Actuarially determined contribution | A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted. |
| Ad hoc cost-of-living adjustments (Ad Hoc COLAs) | Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions. |
| Ad hoc postemployment benefit changes | Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions. |
| Agent employer | An employer whose employees are provided with pensions through an agent multiple-employer defined benefit pension plan. |
| Agent multiple-employer defined benefit pension plan (agent pension plan) | A multiple-employer defined benefit pension plan in which pension plan assets are pooled for investment purposes but separate accounts are maintained for each individual employer so that each employer's share of the pooled assets is legally available to pay the benefits of only its employees. |
| Automatic cost-of-living adjustments (Automatic COLAs) | Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index). |
| Automatic postemployment benefit changes | Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index). |

Appendix B: Definition of terms

| Term | Definition |
|--|--|
| Closed period | A specific number of years that is counted from one date and declines to zero with the passage of time. For example, if the recognition period initially is five years on a closed basis, four years remain after the first year, three years after the second year, and so forth. |
| Collective deferred outflows of resources and deferred inflows of resources related to pensions | Deferred outflows of resources and deferred inflows of resources related to pensions arising from certain changes in the collective Net Pension Liability. |
| Collective Net Pension Liability | The Net Pension Liability for benefits provided through (1) a cost-sharing pension plan or (2) a single-employer or agent pension plan in circumstances in which there is a special funding situation. |
| Collective pension expense | Pension expense arising from certain changes in the collective Net Pension Liability. |
| Contributions | Additions to the Plan Fiduciary Net Position for amounts from employers, non-employer contributing entities (for example, state government contributions to a local government pension plan), or employees. Contributions can result from cash receipts by the pension plan or from recognition by the pension plan of a receivable from one of these sources. |
| Cost-of-living adjustments | Postemployment benefit changes intended to adjust benefit payments for the effects of inflation. |
| Cost-sharing employer | An employer whose employees are provided with pensions through a cost-sharing multiple-employer defined benefit pension plan. |
| Cost-sharing multiple employer defined benefit pension plan (Cost-sharing pension plan) | A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan. |
| Covered payroll | Payroll on which contributions to a pension plan are based. |
| Deferred retirement option program (DROP) | A program that permits an employee to elect a calculation of benefit payments based on service credits and salary, as applicable, as of the DROP entry date. The employee continues to provide service to the employer and is paid for that service by the employer after the DROP entry date; however, the pensions that would have been paid to the employee (if the employee had retired and not entered the DROP) are credited to an individual employee account within the defined benefit pension plan until the end of the DROP period. |
| Defined benefit pension plans | Pension plans that are used to provide defined benefit pensions. |

Appendix B: Definition of terms

| Term | Definition |
|---|---|
| Defined benefit pensions | Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of GASB Statement No. 68.) |
| Defined contribution pension plans | Pension plans that are used to provide defined contribution pensions. |
| Defined contribution pensions | Pensions having terms that: <ol style="list-style-type: none"> 1. Provide an individual account for each employee; 2. Define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and 3. Provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account. |
| Discount rate | The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: <ol style="list-style-type: none"> 1. The actuarial present value of benefit payments projected to be made in future periods in which: <ol style="list-style-type: none"> a. The amount of the Plan Fiduciary Net Position is projected (under the requirements of GASB Statement No. 68) to be greater than the benefit payments that are projected to be made in that period, and b. Pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in 1., calculated using the municipal bond rate. |
| Entry age actuarial cost method | A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability. |

Appendix B: Definition of terms

| Term | Definition |
|---|---|
| Inactive employees | Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits. |
| Measurement period | The period between the prior and the current measurement dates. |
| Multiple-employer defined benefit pension plan | A defined benefit pension plan that is used to provide pensions to the employees of more than one employer. |
| Net Pension Liability (NPL) | The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan. |
| Non-employer contributing entities | Entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. |
| Other postemployment benefits | All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits. |
| Pension plans | Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due. |
| Pension expense | Pension expense arising from certain changes in the Net Pension Liability. |
| Pensions | Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits. |
| Plan members | Individuals that are covered under the terms of a pension plan. Plan members generally include: <ol style="list-style-type: none"> 1. Employees in active service (active plan members), and 2. Terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members). |
| Postemployment | The period after employment. |
| Postemployment benefit changes | Adjustments to the pension of an inactive employee. |
| Postemployment healthcare benefits | Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment. |
| Projected benefit payments | All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service. |

Appendix B: Definition of terms

| Term | Definition |
|--|---|
| Public employee retirement system | A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans. |
| Real rate of return | The rate of return on an investment after adjustment to eliminate inflation. |
| Service costs | The portions of the actuarial present value of projected benefit payments that are attributed to valuation years. |
| Single employer | An employer whose employees are provided with pensions through a single-employer defined benefit pension plan. |
| Single-employer defined benefit pension plan (Single-employer pension plan) | A defined benefit pension plan that is used to provide pensions to employees of only one employer. |
| Special funding situations | <p>Circumstances in which a non-employer entity is legally responsible for making contributions directly to a pension plan that is used to provide pensions to the employees of another entity or entities and either of the following conditions exists:</p> <ol style="list-style-type: none"> 1. The amount of contributions for which the non-employer entity legally is responsible is not dependent upon one or more events or circumstances unrelated to the pensions. 2. The non-employer entity is the only entity with a legal obligation to make contributions directly to a pension plan. |
| Termination benefits | Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits. |
| Total Pension Liability (TPL) | The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB Statement No. 68. |

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