Alameda County Employees' Retirement Association (ACERA)

Governmental Accounting Standards Board Statement No. 67 Actuarial Valuation as of December 31, 2023

Segal

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May 21, 2024

Board of Retirement
Alameda County Employees' Retirement Association
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Dear Board Members:

We are pleased to submit this Governmental Accounting Standards Board Statement No. 67 (GASB 67) Accounting Valuation as of December 31, 2023 for the Alameda County Employees' Retirement Association ("ACERA" or "the Plan"). It contains various information that will need to be disclosed in order to comply with GASB 67. 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; 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.

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, FCA, EA
Vice President and Actuary

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

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement No. 67 (GASB 67) 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*, provided by the staff of the 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 67 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.
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.

* 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.

Highlights of the valuation

1. The reporting date for the Plan is December 31, 2023 and the NPL was measured as of the same date. The TPL was determined based upon rolling forward the TPL from the actuarial funding valuation as of December 31, 2022 while the Plan FNP was valued as of the measurement 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 million[2]), (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 22.

4. 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

[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.

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 test[1] 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.)

5. 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 continued the practice of adjusting the Plan FNP as of December 31, 2023 to include the $111.3 million[2] set aside by the Retirement Board in the SRBR reserve to pay non-vested Supplemental COLA and retired member death benefits[3] 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.
6. 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.
7. 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

[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.

[2] 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.

[3] 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.

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.

8. 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).
9. 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*.

Summary of key valuation results

Valuation Result	Current	Prior
Measurement Date	December 31, 2023	December 31, 2022
Disclosure elements		
Service cost[1]	$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
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 data[2]		
Number of retired members and beneficiaries	11,026	10,798
Number of inactive members[3]	3,838	3,564
Number of active members	11,547	11,346
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[4]	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 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 column, as there had been no changes in the actuarial assumptions between the December 31, 2021 and December 31, 2022 valuations.

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

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

4 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.

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 valuation 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.
Actuarial 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.

Section 1: Actuarial Valuation Summary

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

- The actuarial valuation is prepared at the request of the 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. The Association should notify Segal immediately of any questions or concerns about the final content.

Section 2: GASB 67 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.

Plan membership

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

Membership	Count
Retired members and beneficiaries	11,026
Inactive* 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.

* Includes terminated members due a refund of member contributions.

Section 2: GASB 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*	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

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

Section 2: GASB Information

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.

Exhibit 1 – Net Pension Liability

Component	Current	Prior
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*	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:

* 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.

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

Exhibit 2 – Discount rate

Determination of discount rate and investment rates of return

The long-term expected rate of return on pension plan investments* 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.

* 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.)

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

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return*
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%**

* Arithmetic real rates of return are net of inflation.

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 rates[2] 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 contributions from future plan members, are not included. Based on those assumptions, the Plan FNP was projected to be available

[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.

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.

Item	1% Decrease in Discount Rate (6.00%)	Current Discount Rate (7.00%)	1% Increase in Discount Rate (8.00%)
Net Pension Liability	$3,272,234,787	$1,742,740,212	$486,338,269

Exhibit 3 – Schedule of changes in Net Pension Liability

Schedule of changes in Net Pension Liability	Current	Prior
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.

Exhibit 4 – Schedule of employer contributions

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.

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 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

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.
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. 67. 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).
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.

Appendix B: Definition of terms

Term	Definition
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.
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. 67.)
Defined contribution pension plans	Pension plans that are used to provide defined contribution pensions.
Defined contribution pensions	Pensions having terms that: 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.

Appendix B: Definition of terms

Term	Definition
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: 1. The actuarial present value of benefit payments projected to be made in future periods in which: a. The amount of the Plan Fiduciary Net Position is projected (under the requirements of GASB Statement No. 67) 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.
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.
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.

Appendix B: Definition of terms

Term	Definition
Plan members	Individuals that are covered under the terms of a pension plan. Plan members generally include: 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.
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	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: 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. 67.