East Bay Municipal Utility District Employees' Retirement System

Pension Plan Actuarial Valuation and Review
as of June 30, 2025

Segal

Segal

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

January 21, 2026

Ms. Sophia Skoda
Director of Finance
East Bay Municipal Utility District
375 Eleventh Street
Oakland, CA 94607-4240

Dear Sophia:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2025 for only the Pension Plan. The Review of Contribution Rates and Funding Status for the Health Insurance Benefit (HIB) Plan is provided in a separate report. This report summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2026/2027.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Retirement Board to assist in administering the Plan. The census information and financial information on which our calculations were based was prepared by the East Bay Municipal Utility District Employees' Retirement System (EBMUDERS). That assistance is gratefully acknowledged.

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

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

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

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

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

Sincerely,

Segal

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

Emily Klare, ASA, MAAA, EA
Senior Actuary

DNA/jl

Table of Contents

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a Pension Plan valuation of the East Bay Municipal Utility District Employees' Retirement System ("EBMUDERS" or "the System" or "the Plan") as of June 30, 2025. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Retirement Board;
- The characteristics of covered active members, inactive members, and retired members and beneficiaries as of June 30, 2025, provided by EBMUDERS;
- The assets of the Plan as of June 30, 2025, provided by EBMUDERS;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Retirement Board for the June 30, 2025 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Retirement Board for the June 30, 2025 valuation; and
- The funding policy adopted by the Retirement Board.

Certain disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 as of June 30, 2025 for the Plan and the employer, respectively, are provided in separate reports.

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

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy last reviewed and adopted by the Retirement Board on September 22, 2022. Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 65.

The rates calculated in this report may be adopted by the Retirement Board for the fiscal year that extends from July 1, 2026 through June 30, 2027.

Valuation highlights

Funding measures

1. The funded ratio (the ratio of valuation value of assets to the actuarial accrued liability) increased from 76.1% to 79.3%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio increased from 77.8% to 83.9%. These measurements are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for, or the amount of, future contributions. A history of the Plan's funded ratios is provided in *Section 2, Subsection G* on pages 34 and 35.

   In addition to the type of funded ratios noted above, Section 33 of the Employees' Retirement System Ordinance ("Ordinance") references a funded ratio based on the ratio of the market value of assets to the projected benefit obligation (PBO) for purposes of determining post-retirement cost-of-living adjustments (COLA).[1] As noted in the plan provisions section of this report (*Section 4, Exhibit 2*), the basic minimum COLA benefit is the lesser of 3% and the actual change in the cost-of-living index. Any excess of the actual change in the cost-of-living index over 3% is accumulated in individual retiree COLA banks, and withdrawals from the bank are made in years when the index increases less than 3%. However, increases of up to 5% are granted in years when the Retirement Board determines that the System is more than 85% funded on a PBO basis. In those years when the System is more than 85% funded and the cost-of-living index exceeds 5%, any excess cost-of-living over 5% is accumulated in the COLA bank. Furthermore, effective October 1, 2000, in those years when the system is more than 85% funded on a PBO basis and the cost-of-living is less than 4%, withdrawals from the bank are made to allow cost-of-living increases up to 4%.

   For the June 30, 2025 Pension Plan and HIB Plan valuations, we note that the funded ratio on the PBO (and market value) basis is 83.6% for both plans combined, as shown in the Supplemental Exhibits report dated January 21, 2026. Even though the funded ratio would be expected to exceed 85% at some point in the future, we would find the long-term COLA assumption of 2.75% per year to be reasonable for this valuation.

2. The unfunded actuarial accrued liability (the difference between the actuarial accrued liability and the valuation value of assets) decreased from $752.3 million to $676.2 million. The decrease in unfunded actuarial accrued liability (UAAL) is primarily due to contributions made at the actuarially determined contribution rate and an investment return on the valuation value (i.e., after asset smoothing) greater than the assumed rate of 6.75% used in the June 30, 2024 valuation, partially offset by higher than

[1] The COLA assumption used in this valuation is 2.75% per year. (For those members with COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted.) The 2.75% assumption is based on the general price inflation assumption of 2.50% plus a margin of 0.25% for adverse deviation.

expected salary increases for continuing actives. A reconciliation of the System's UAAL from the prior year is provided in *Section 2, Subsection E* on page 28.

A schedule of the current UAAL amortization balances and payments may be found in *Section 3, Exhibit G* starting on page 53. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit H* starting on page 55.

Actuarial experience

3. The net actuarial experience gain of $53.9 million, or 1.65% of the actuarial accrued liability, is due to an investment gain of $64.8 million (1.98% of the AAL), partially offset by a contribution experience loss of $1.3 million (or 0.04% of the AAL) and a net experience loss from sources other than investments and contributions of $9.6 million (0.29% of the AAL), prior to reflection of assumption and methodology changes, if applicable. The loss from sources other than investment and contribution experience was primarily due to higher than expected salary increases for continuing actives.

4. The rate of return on the market value of assets was 13.12% for the year ending June 30, 2025. The return on the valuation value of assets was 9.47%[2] for the same period after recognizing a portion of this year's investment gain and a portion of prior years' investment gains and losses. This resulted in an actuarial gain when measured against the assumed rate of return of 6.75% used in the June 30, 2024 valuation. This actuarial investment gain (after asset smoothing) decreased the average employer contribution rate by 1.61% of payroll.

Contributions

5. The aggregate employer rate (if paid at the end of each pay period) calculated in this valuation has decreased from 39.86% to 38.08% of payroll. This decrease is primarily due to an investment return on the valuation value (i.e., after asset smoothing) greater than the 6.75% used in the June 30, 2024 valuation and higher than expected growth in the total payroll used to amortize the prior year's UAAL contribution amounts, partially offset by higher than expected salary increases for continuing actives. A complete reconciliation of the System's aggregate employer rate is provided in *Section 2, Subsection F* on page 31.

6. The member contribution rate for the 1955/1980 Plan remained at 8.66% for the Pension Plan, since that rate is set based on bargaining unit contract negotiations in 2013. The member contribution rate for the 2013 Tier remained at 10.08% for the Pension Plan, because the total normal cost rate of 20.21% for this tier, as determined in this 2025 valuation, was within 1% of payroll of the total normal cost rate threshold of 20.16% as determined in the 2024 valuation. (We note that since the initial CalPEPRA valuation, the change in the total normal cost rate for the 2013 Tier has exceeded the 1% of payroll threshold twice, in 2020 and 2024.)

[2] The rate of return on the valuation value of assets was 9.47% for the Pension Plan and 8.88% for the HIB Plan. The rate of return for the two plans may vary due to such factors as a difference in timing for when contributions and benefit payments are actually made compared to when they are assumed to be made.

7. The aggregate member rate calculated in this valuation has remained level at 9.49% of payroll. A complete reconciliation of the System's aggregate member rate is provided in *Section 2, Subsection F* on page 32.
8. In determining the contribution rates for the 2013 Tier members, we have continued the approach of using current and projected payroll for those members assuming they will be constrained by the cap on pensionable compensation as imposed by PEPRA on the Pension Plan.
9. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the UAAL and the principal balance. The funding policy adopted by the Retirement Board meets this standard.

Future expectations

10. The total unrecognized net investment gain as of June 30, 2025 is $152.9 million as compared to an unrecognized net investment gain of $55.8 million in the previous valuation. This net deferred gain of $152.9 million will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years as shown in *Section 2, Subsection B* on page 21.

    The net deferred gain of $152.9 million represent about 5.4% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the $152.9 million net market gain is expected to have an impact on the System's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:

    a. If the Pension Plan portion of the net deferred gain was recognized immediately in the valuation value of assets, the funded percentage would increase from 79.3% to 83.9%.

        For comparison purposes, if the Pension Plan portion of the net deferred gain in the June 30, 2024 valuation had been recognized immediately, the funded percentage would have increased from 76.1% to 77.8%.

    b. If the Pension Plan portion of the net deferred gain was recognized immediately in the valuation value of assets, the average employer contribution rate would decrease from 38.08% to about 34.4% of payroll.

        For comparison purposes, if the Pension Plan portion of the net deferred gain in the June 30, 2024 valuation had been recognized immediately, the average employer contribution rate would have decreased from 40.20% to about 38.8% of payroll.

Risk

11. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2025. The Plan's funded status does not reflect short-term economic fluctuations, but rather is based on the market values on the last day of the plan year. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

12. Because the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. This potential divergence may have a significant impact on the future financial condition of the plan. We prepared a standalone Risk Assessment report for the Pension Plan dated April 29, 2021 by using membership and financial information as provided in the actuarial valuation as of June 30, 2020. That report includes various deterministic projections of future results under different investment return scenarios based on the assumptions adopted in the quadrennial experience study for the June 30, 2020 valuation.

    Based on our discussion with EBMUDERS, we will perform a stand-alone risk assessment report in early 2026. In the meantime, we have also included a brief discussion of some risks that may affect the Plan in *Section 2, Subsection I*, beginning on page 37. This discussion of risk is included to satisfy the disclosure required by the Actuarial Standards of Practice No. 51 (ASOP 51).

13. The risk assessment in *Section 2, Subsection I* includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found on page 40.

Summary of key valuation results

Average Employer and Member Contributions Calculated as of June 30

Employer and Member Contributions	2025 Contribution Rate	2025 Annual Amount[3]	2024 Contribution Rate	2024 Annual Amount[3]
Employer contribution				
• 1955/1980 Plan	43.58%	$51,631,166	45.43%	$53,822,943
• 2013 Tier	34.20%	57,451,956	35.93%	60,358,151
• **Combined**	**38.08%**	**$109,083,122**	**39.86%**	**$114,181,094**
Member contribution				
• 1955/1980 Plan	8.66%[4]	$10,259,887	8.66%[4]	$10,259,887
• 2013 Tier	10.08%	16,933,208	10.08%	16,933,208
• **Combined**	**9.49%**	**$27,193,095**	**9.49%**	**$27,193,095**

Note: Contributions are payable at the end of each pay period.

[3] Estimated based on June 30, 2025 projected annual compensation of $286,462,625 (that is, $118,474,450 for the 1955/1980 Plan and $167,988,175 for the 2013 Tier).

[4] The rate of 8.66% payable during the fiscal years 2025/2026 and 2026/2027 is calculated by taking the total employee rate payable beginning April 18, 2016 (i.e., 8.75%), less the HIB employee contribution rate of 0.09%. (Based on the 2025-2028 Memoranda of Understanding (MOUs) and other special agreements between the District and employee bargaining units, the HIB Plan member rate is scheduled to increase to 0.40% effective January 1, 2026, to 0.70% effective January 1, 2027 and to 1.00% effective January 1, 2028.)

Section 1: Actuarial Valuation Summary

Valuation Results as of June 30

Line Description	2025	2024
Actuarial accrued liability		
• Total actuarial accrued liability	$3,270,837,224	$3,143,728,340
– Retired members and beneficiaries	2,173,833,194	2,081,323,619
– Inactive members	68,399,872	63,313,175
– Active members	1,028,604,158	999,091,546
• Normal cost for plan year beginning June 30[5]	67,324,663	65,051,880
Assets		
• Market value of Pension Plan and HIB Plan assets	$2,826,084,000	$2,517,031,000
• Actuarial value of Pension Plan and HIB Plan assets	2,673,176,540	2,461,214,590
• Actuarial value of assets as a percentage of market value of assets	94.6%	97.8%
• Market value of Pension Plan assets (MVA)[6]	$2,743,096,000	$2,445,611,000
• Valuation value of Pension Plan assets (VVA)[6]	2,594,678,670	2,391,378,364
Funded status		
• Unfunded actuarial accrued liability on market value of assets	$527,741,224	$698,117,340
• Funded percentage on MVA basis	83.9%	77.8%
• Unfunded actuarial accrued liability on valuation value of assets	$676,158,554	$752,349,976
• Funded percentage on VVA basis	79.3%	76.1%
Key assumptions		
• Net investment return	6.75%	6.75%
• Inflation rate	2.50%	2.50%
• Real across-the-board increase	0.50%	0.50%
• Payroll growth	3.00%	3.00%
• Cost-of-living adjustments	2.75%	2.75%
• Amortization period[7]	20 years	20 years

[5] Adjusted with interest to middle of the year assuming contributions would be paid at the end of each pay period.
[6] Net of HIB Plan assets.
[7] Changes in UAAL as a result of gains or losses for each valuation are amortized over separate 20-year periods. Details on the funding policy are provided in *Section 4, Exhibit 1*.

Section 1: Actuarial Valuation Summary

Demographic Data as of June 30

Demographic Data by Status	2025	2024	Change
Active members			
• Number of members	2,001	1,974	1.4%
• Average age	46.8	46.9	-0.1
• Average service	10.8	10.9	-0.1
• Total projected compensation	$286,462,625	$273,428,306	4.8%
• Average projected compensation	$143,160	$138,515	3.4%
Retired members and beneficiaries			
• Number of members	2,235	2,176	2.7%
– Service retired	1,799	1,753	2.6%
– Disability retired	51	51	0.0%
– Beneficiaries	385	372	3.5%
• Average age	72.0	71.7	0.3
• Average monthly benefit	$6,107	$5,930	3.0%
Inactive members			
• Number of members[8]	424	407	4.2%
• Average age	48.1	48.0	0.1
Total members	**4,660**	**4,557**	**2.3%**

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

Important information about actuarial valuations

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

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

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by the System. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the System. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if applicable). 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

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 System. 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 EBMUDERS 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 System should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the System upon delivery and review. The System should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

A. Member information

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

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

Member Population

As of June 30	Active Members	Inactive Members[9]	Retired Members and Beneficiaries (Pay Status)	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Pay Status to Actives
2016	1,789	248	1,630	1,878	1.05	0.91
2017	1,802	267	1,713	1,980	1.10	0.95
2018	1,828	284	1,779	2,063	1.13	0.97
2019	1,847	303	1,844	2,147	1.16	1.00
2020	1,903	312	1,905	2,217	1.17	1.00
2021	1,896	327	1,977	2,304	1.22	1.04
2022	1,895	360	2,048	2,408	1.27	1.08
2023	1,955	381	2,117	2,498	1.28	1.08
2024	1,974	407	2,176	2,583	1.31	1.10
2025	2,001	424	2,235	2,659	1.33	1.12

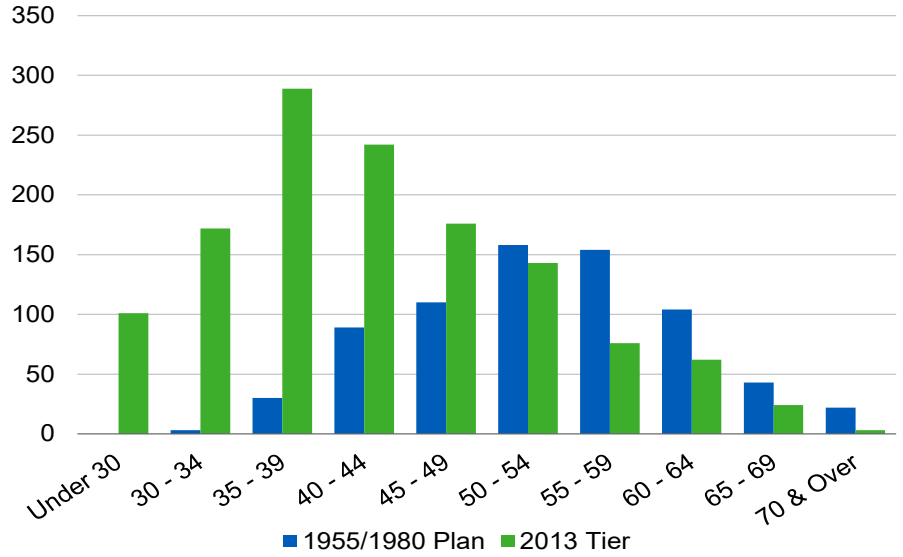
[9] Includes inactive members due a refund of member contributions.

Active members

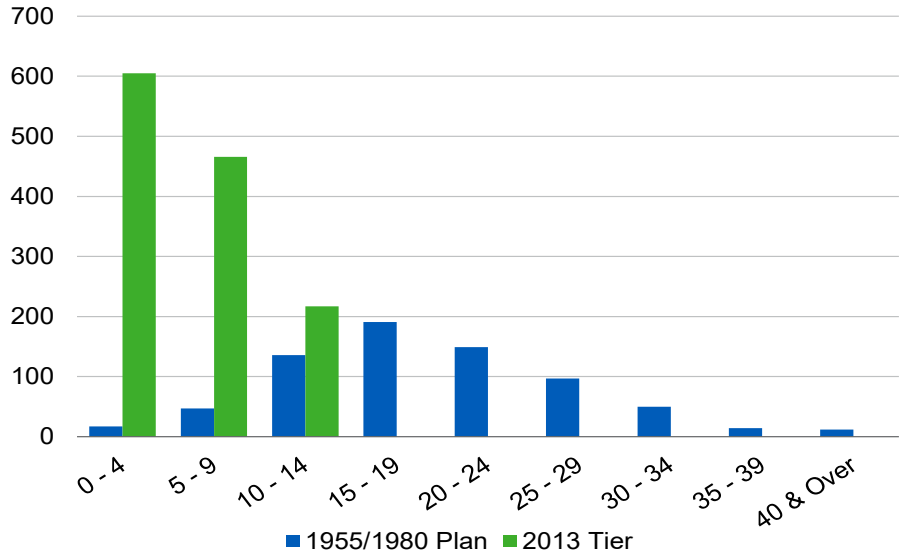
Demographic Data	As of June 30, 2025	As of June 30, 2024	Change
Active members	2,001	1,974	1.4%
Average age[10]	46.8	46.9	-0.1
Average years of service	10.8	10.9	-0.1
Average projected compensation	$143,160	$138,515	3.4%

Distribution of Active Members as of June 30, 2025

Actives by Age



Actives by Years of Service



Inactive members

Demographic Data	As of June 30, 2025	As of June 30, 2024	Change
Inactive members[11]	424	407	4.2%

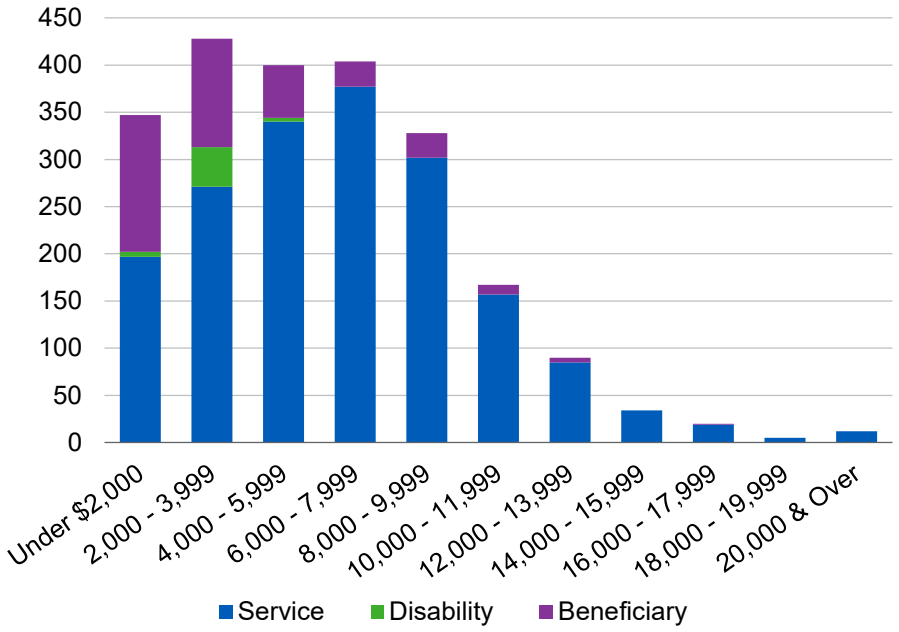
[10] Among the active members, there were none with unknown age information.
[11] Includes inactive members due a refund of member contributions.

Retired members and beneficiaries

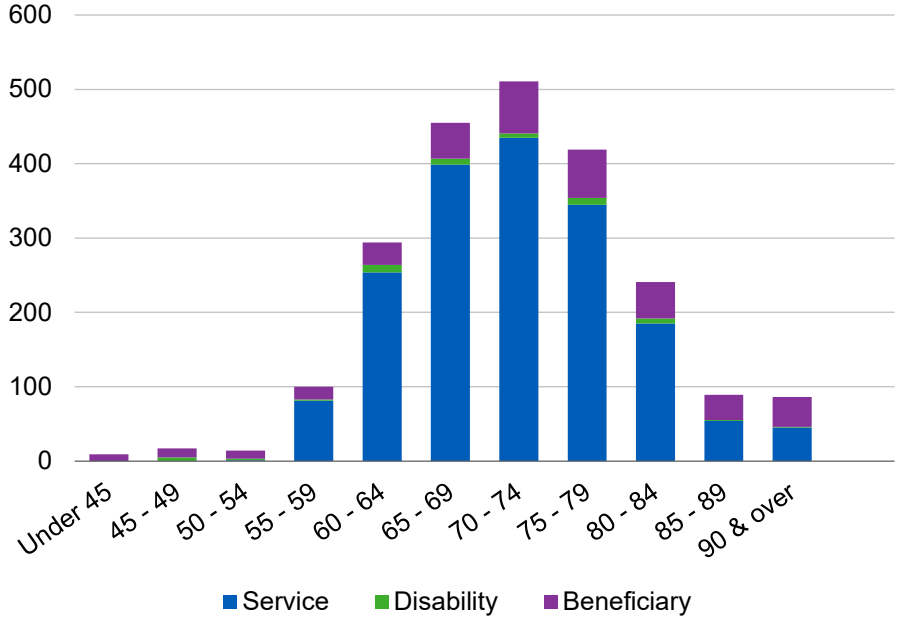
Demographic Data	As of June 30, 2025	As of June 30, 2024	Change
Retired members	1,850	1,804	2.5%
Beneficiaries	385	372	3.5%
Average age	72.0	71.7	0.3
Average monthly amount	$6,107	$5,930	3.0%
Total monthly amount	$13,649,257	$12,903,119	5.8%

Distribution of Retired Members and Beneficiaries as of June 30, 2025

By Type and Monthly Amount



By Type and Age



Historical plan population

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

Member Data Statistics

Active Members versus Retired Members and Beneficiaries (Pay Status)

As of June 30	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Monthly Amount
2016	1,789	48.5	13.3	1,630	70.1	$4,499
2017	1,802	48.0	12.8	1,713	70.1	4,649
2018	1,828	47.8	12.4	1,779	70.2	4,841
2019	1,847	47.6	12.0	1,844	70.3	5,024
2020	1,903	47.3	11.7	1,905	70.6	5,211
2021	1,896	47.4	11.6	1,977	70.8	5,376
2022	1,895	47.2	11.4	2,048	71.0	5,592
2023	1,955	47.1	11.0	2,117	71.4	5,752
2024	1,974	46.9	10.9	2,176	71.7	5,930
2025	2,001	46.8	10.8	2,235	72.0	6,107

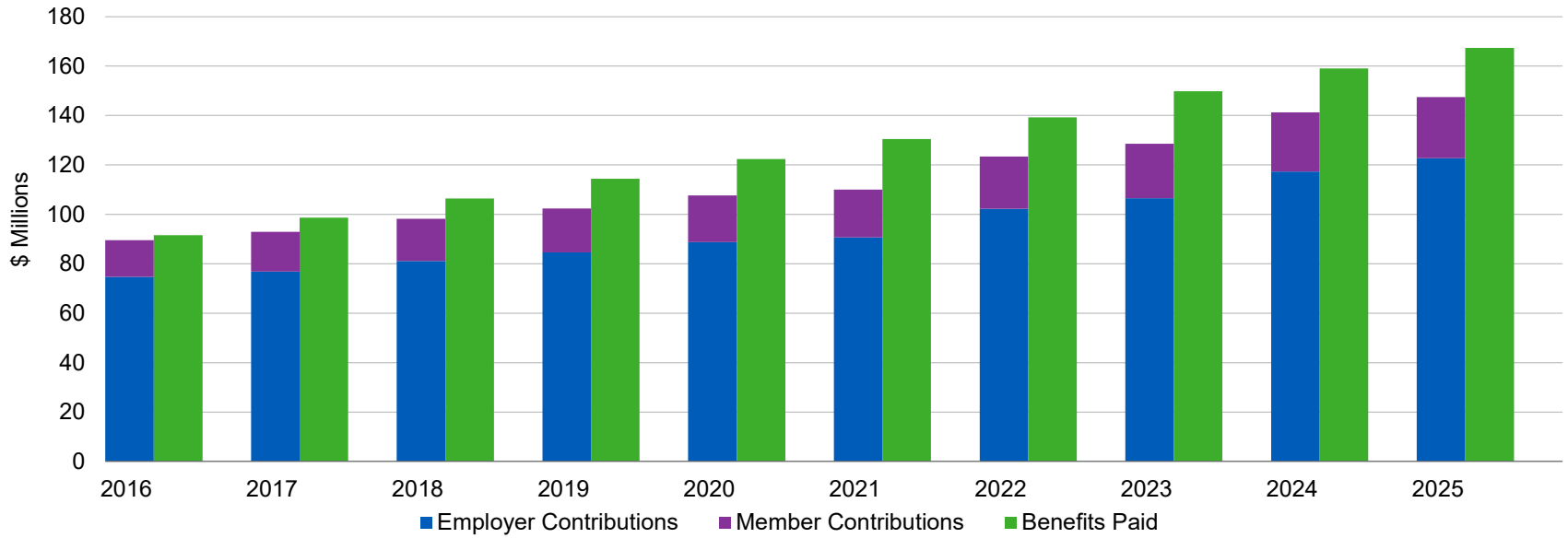
B. Financial information

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

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

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

Comparison of Contributions Made with Benefits for Years Ended June 30



Section 2: Actuarial Valuation Results

Determination of Actuarial Value and Valuation Value of Assets for Year Ended June 30, 2025

Step	Actual Return	Expected Return	Investment Gain/(Loss)	Percent Deferred	Amount
1. Market value of assets					
a. Pension Plan					$2,743,096,000
b. HIB Plan					82,988,000
c. Total					**$2,826,084,000**
2. Calculation of deferred return					
a. Year ended June 30, 2021	$491,625,000	$129,314,710	$362,310,290	0%	$0
b. Year ended June 30, 2022	(253,930,000)	162,455,125	(416,385,125)	20	(83,277,025)
c. Year ended June 30, 2023	217,559,000	138,262,646	79,296,354	40	31,718,542
d. Year ended June 30, 2024	279,545,000	151,631,764	127,913,236	60	76,747,942
e. Year ended June 30, 2025	328,878,000	169,230,499	159,647,501	80	127,718,001
f. Total deferred return[12]					**$152,907,460**
3. Preliminary actuarial value of assets: 1c − 2f					**$2,673,176,540**
4. Adjustment to be within 30% corridor of market value					0
5. Final actuarial value of assets: 3 + 4					**$2,673,176,540**
6. Ratio of actuarial to market value of assets: **5 ÷ 1c**					94.6%
7. Valuation value of Pension Plan assets: 1a ÷ 1c × 5					**$2,594,678,670**

[12] The total deferred return as of June 30, 2025 is recognized in each of the next four years as follows:

a. Amount recognized on June 30, 2026	$(9,905,607)
b. Amount recognized on June 30, 2027	73,371,418
c. Amount recognized on June 30, 2028	57,512,147
d. Amount recognized on June 30, 2029	31,929,500
e. Total unrecognized return as of June 30, 2025	$152,907,460

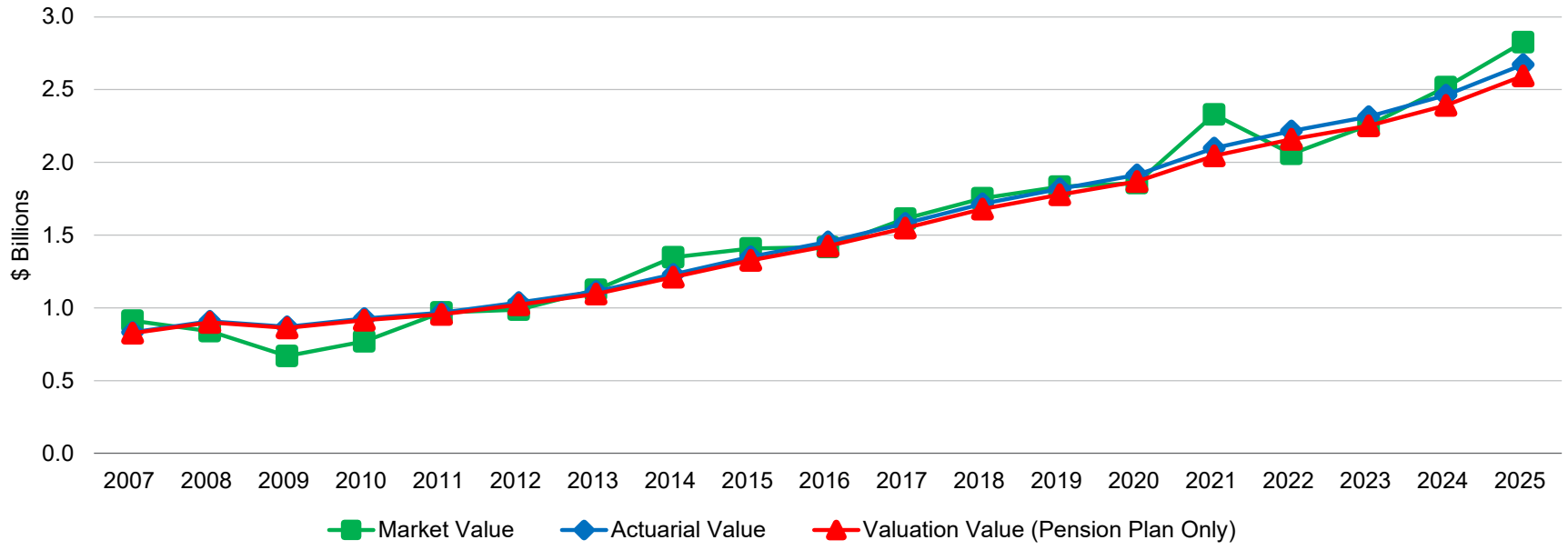
(may not total exactly due to rounding)

Asset history

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

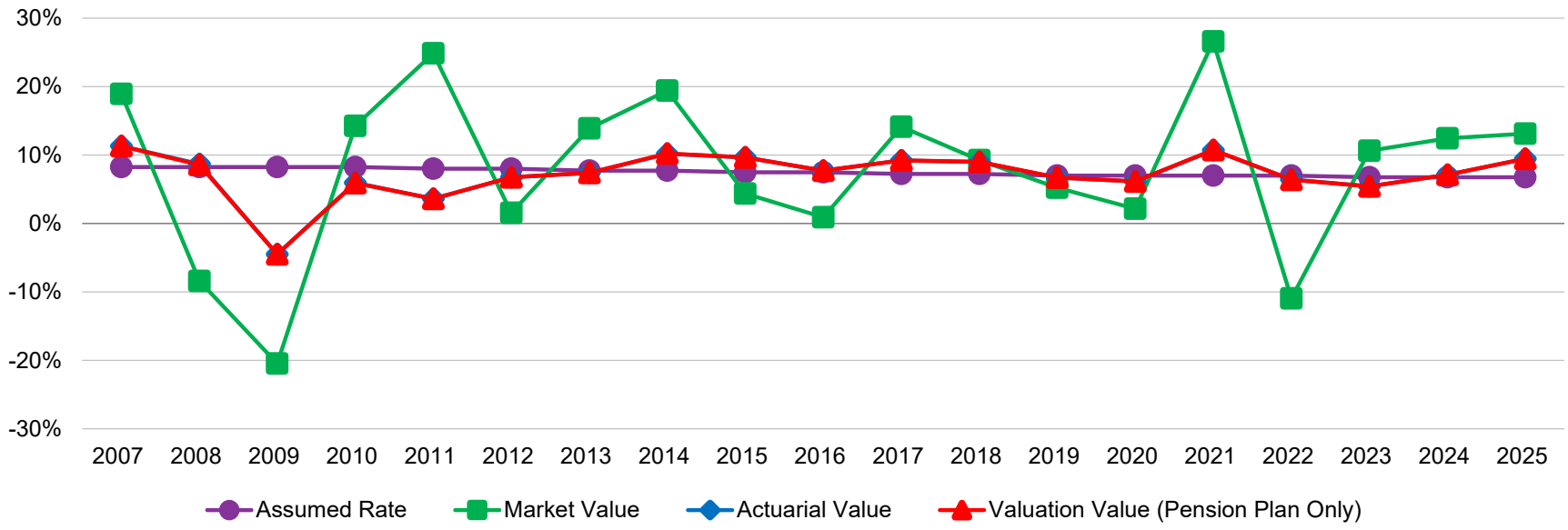
The valuation value of assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

Market Value, Actuarial Value, and Valuation Value (Pension Plan Only) of Assets as of June 30



Historical investment returns

Market, Actuarial and Valuation Rates of Return for Years Ended June 30



Legend	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Market rate	18.95%	(8.40)%	(20.47)%	14.27%	24.85%	1.57%	13.91%	19.41%	4.37%	0.92%	14.15%	9.25%	5.25%	2.16%	26.61%	(10.94)%	10.62%	12.44%	13.12%
Actuarial rate	11.31%	8.69%	(4.47)%	5.96%	3.62%	6.76%	7.39%	10.19%	9.67%	7.74%	9.22%	9.00%	6.74%	6.16%	10.71%	6.43%	5.42%	7.14%	9.46%
Valuation rate	11.33%	8.59%	(4.49)%	5.93%	3.62%	6.75%	7.40%	10.22%	9.68%	7.74%	9.23%	9.01%	6.74%	6.16%	10.74%	6.41%	5.42%	7.15%	9.47%
Assumed rate	8.25%	8.25%	8.25%	8.25%	8.00%	8.00%	7.75%	7.75%	7.50%	7.50%	7.25%	7.25%	7.00%	7.00%	7.00%	7.00%	6.75%	6.75%	6.75%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return	9.67%	7.81%	7.82%
Most recent 10-year geometric average return	7.94%	7.79%	7.79%
Most recent 15-year geometric average return	9.43%	7.69%	7.70%

C. Actuarial experience

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

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

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. There are no changes in actuarial assumptions reflected in this valuation.

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

Actuarial Experience for Year Ended June 30, 2025

	Source	Amount
1.	Net gain from investments[13]	$(64,812,909)
2.	Net loss from contributions	1,269,349
3.	Net loss from other experience[14]	9,586,903
4.	**Net experience gain**	**$(53,956,657)**

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

Investment experience

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

For valuation purposes, the assumed rate of return on the valuation value of assets is 6.75% based on the June 30, 2024 valuation. The actual rate of return on a valuation basis for the 2024–2025 plan year was 9.47% after recognizing a portion of this year's investment gain and a portion of prior years' investment gains and losses. Since the actual return for the year was more than the assumed return, the Plan experienced an actuarial gain during the year ended June 30, 2025 with regard to its investments.

Investment Experience for Year Ended June 30, 2025

	Line Description	Valuation Value (Pension Plan Assets)	Actuarial Value (Pension and HIB Plan Assets)	Market Value (Pension and HIB Plan Assets)
1.	Net investment income	$225,482,306	$231,786,950	$328,878,000
2.	Average value of assets	2,380,287,364	2,451,302,090	2,507,118,500
3.	Rate of return: **1 ÷ 2**	9.47%	9.46%	13.12%
4.	Assumed rate of return	6.75%	6.75%	6.75%
5.	Expected investment income: **2 × 4**	$160,669,397	$165,462,891	$169,230,499
6.	**Investment gain/(loss): 1 − 5**	**$64,812,909**	**$66,324,059**	**$159,647,501**

Contributions

In last year's valuation report, expected contributions for the year ended June 30, 2025 were based on the contribution rates from the June 30, 2024 valuation. However, due to the anticipated one-year delay in implementing the higher contribution rates calculated in that valuation, actual contributions for fiscal year 2024/2025 were based on the contribution rates from the June 30, 2023 valuation. This anticipated delay resulted in a contribution loss of $1.3 million for the year, when adjusted for timing.

Other experience

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

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

The net loss from this other experience for the year ended June 30, 2025 amounted to $9.6 million, which is 0.29% of the actuarial accrued liability. See *Section 2, Subsection E* for a detailed development of the unfunded actuarial accrued liability.

D. Other changes impacting the actuarial accrued liability

Actuarial assumptions and methods

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

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

Plan provisions

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

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

E. Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2025

	Line Description	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$752,349,976
2.	Total normal cost at beginning of year	62,955,107
3.	Expected employer and member contributions at beginning of year	(131,356,409)
4.	Interest to end of year	46,166,537
5.	**Expected unfunded actuarial accrued liability at end of year**	**$730,115,211**
6.	**Changes due to:**	
a.	Investment return greater than expected, after asset smoothing	$(64,812,909)
b.	Anticipated one-year delay in implementing the higher contribution rates calculated in the prior valuation	1,269,349
c.	Individual salary increases greater than expected	7,021,341
d.	Higher than expected COLA increases for current retirees and beneficiaries	465,734
e.	Other losses on demographic experience	2,099,828
f.	**Total changes**	**$(53,956,657)**
7.	**Unfunded actuarial accrued liability at end of year: 5 + 6f**	**$676,158,554**

Note: The “net loss from other experience” of $9,586,903 from *Subsection C* is equal to the sum of items 6c, 6d and 6e.

F. Recommended contribution

The recommended contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of June 30, 2025, the average recommended employer contribution is 38.08% of payroll.

The Board sets the funding policy used to calculate the recommended contribution based on layered 20-year[15] amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization[16] and each amortization layer is fully funded in 20 years. As shown in the projection of UAAL balances in *Section 3, Exhibit H*, before taking into consideration the future recognition of the deferred investment gains and losses, the UAAL of the Plan is expected to be fully amortized by 2045, assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized and assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions.

The recommended contribution under the funding policy is a “Reasonable Actuarially Determined Contribution” as required under Actuarial Standard of Practice No. 4 Measuring Pension Obligations and Determining Pension Plan Costs or Contributions.

[15] Changes in UAAL as a result of actuarial gains or losses or as a result of changes in actuarial assumptions or methods (on or after July 1, 2021) for each valuation are amortized over separate 20-year periods. Changes in UAAL as a result of plan changes are amortized over separate 15-year periods.

[16] Negative amortization means that the amortization payment towards the UAAL is less than the interest on the UAAL and therefore the outstanding balance of the UAAL would increase.

Section 2: Actuarial Valuation Results

Average Recommended Employer Contribution Calculated as of June 30

Line Description	2025 Amount	2025 % of Projected Compensation	2024 Amount	2024 % of Projected Compensation
1. Total normal cost	$67,324,663	23.50%	$65,051,880	23.79%
2. Expected member normal cost contributions	27,193,095	9.49%	25,816,672	9.44%
3. Employer normal cost: **1 − 2**	$40,131,568	14.01%	$39,235,208	14.35%
4. Actuarial accrued liability	3,270,837,224		3,143,728,340	
5. Valuation value of assets	2,594,678,670		2,391,378,364	
6. Unfunded actuarial accrued liability: **4 − 5**	$676,158,554		$752,349,976	
7. Payment on UAAL	68,951,554	24.07%	70,681,217	25.85%
8. Average recommended employer contribution: 3 + 7	**$109,083,122**	**38.08%**	**$109,916,425**	**40.20%**
9. Projected payroll	$286,462,625		$273,428,306	

Note: Contributions are assumed to be paid at the end of each pay period.

Reconciliation of average recommended employer contribution rate

Reconciliation from June 30, 2024 to June 30, 2025

	Item	Contribution Rate	Estimated Annual Dollar Amount[17]
1.	Average recommended employer contribution as of June 30, 2024	39.86%	$114,181,094
2.	**Changes due to:**		
a.	Investment return greater than expected, after asset smoothing	(1.61)%	(4,612,048)
b.	Anticipated one-year delay in implementing the higher contribution rates calculated in the prior valuation	0.03%	85,939
c.	Individual salary increases greater than expected	0.17%	486,986
d.	Amortizing prior year's UAAL over a larger than expected total payroll	(0.44)%	(1,260,436)
e.	Higher than expected COLA increases for current retirees and beneficiaries	0.01%	28,646
f.	Change in member demographics and other net experience losses	0.06%	172,941
g.	**Total change**	**(1.78)%**	**$(5,097,972)**
3.	**Average recommended employer contribution as of June 30, 2025: 1 + 2g**	**38.08%**	**$109,083,122**

[17] Based on June 30, 2025 projected compensation of $286,462,625.

Reconciliation of average recommended member contribution rate

Reconciliation from June 30, 2024 to June 30, 2025

	Item	Contribution Rate	Estimated Annual Dollar Amount[18]
1.	Average recommended member contribution as of June 30, 2024	9.49%	$27,193,095
2.	**Changes due to:**		
	a. Change in member demographics	0.00%	0
	b. Total change	**0.00%**	**$0**
3.	**Average recommended member contribution as of June 30, 2025: 1 + 2b**	**9.49%**	**$27,193,095**

[18] Based on June 30, 2025 projected compensation of $286,462,625.

Recommended employer contribution rate

Recommended Employer Contribution Calculated as of June 30

(% of Payroll; Payable at End of Each Pay Period)

Employer and Member Contributions	2025 Contribution Rate	2025 Estimated Annual Amount[19]	2024 Contribution Rate	2024 Estimated Annual Amount[19]
1955/1980 Plan				
Total normal cost	28.17%	$33,374,253	28.24%	$33,457,185
Expected employee contributions	−8.66%	−10,259,887	−8.66%	−10,259,887
Employer normal cost	19.51%	$23,114,366	19.58%	$23,197,298
UAAL	24.07%	28,516,800	25.85%	30,625,645
Total employer contribution	**43.58%**	**$51,631,166**	**45.43%**	**$53,822,943**
2013 Tier				
Total normal cost	20.21%	$33,950,410	20.16%	$33,866,416
Expected employee contributions	−10.08%	−16,933,208	−10.08%	−16,933,208
Employer normal cost	10.13%	$17,017,202	10.08%	$16,933,208
UAAL	24.07%	40,434,754	25.85%	43,424,943
Total employer contribution	**34.20%**	**$57,451,956**	**35.93%**	**$60,358,151**
Combined				
Total normal cost	23.50%	$67,324,663	23.50%	$67,323,601
Expected employee contributions	−9.49%	−27,193,095	−9.49%	−27,193,095
Employer normal cost	14.01%	$40,131,568	14.01%	$40,130,506
UAAL	24.07%	68,951,554	25.85%	74,050,588
Total employer contribution	**38.08%**	**$109,083,122**	**39.86%**	**$114,181,094**

[19] Amounts are based on the following June 30, 2025 projected annual payroll:

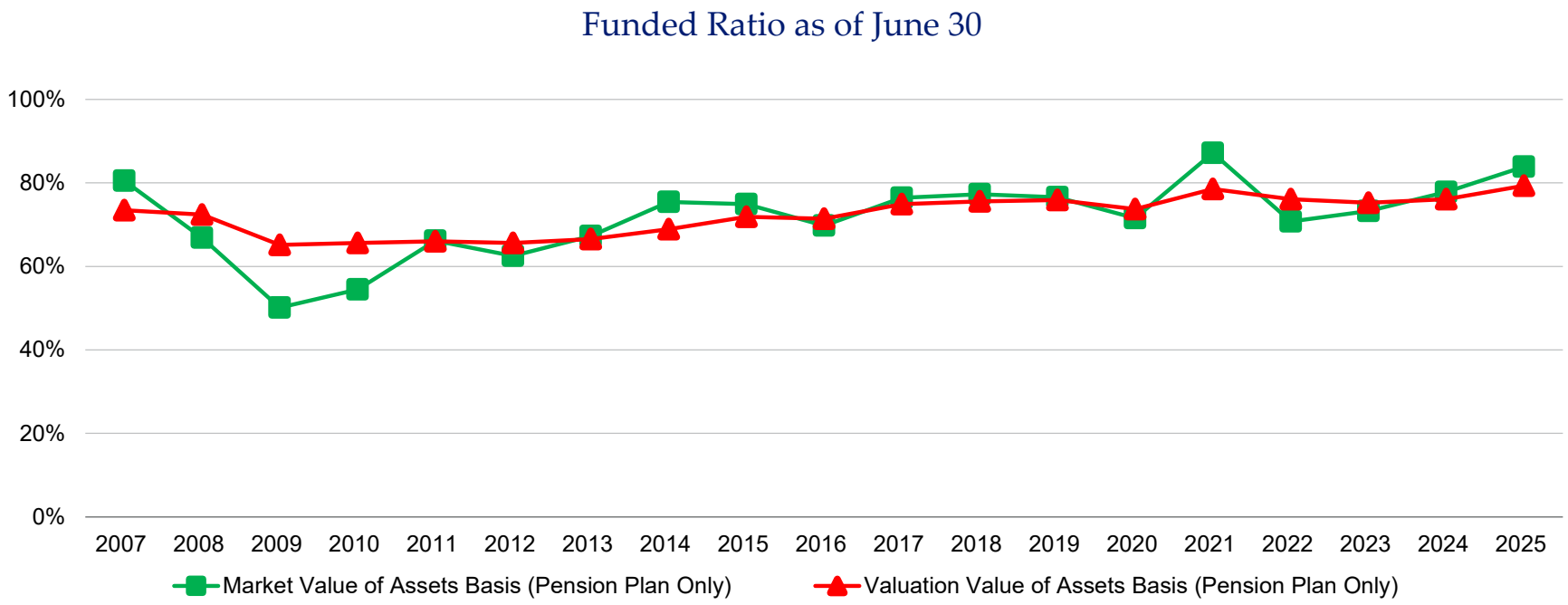
Projected Annual Payroll

Plan	Amount
1955/1980 Plan	$118,474,450
2013 Tier	167,988,175
Combined	**$286,462,625**

G. Funded status

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

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



Schedule of Funding Progress

(Dollars in Thousands)

As of June 30	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) − (a)	Funded Ratio (a) ÷ (b)	Projected Compensation (c)	UAAL as a % of Projected Compensation [(b) − (a)] ÷ (c)
2016	$1,425,785	$1,995,863	$570,078	71.4%	$183,971	309.9%
2017	1,549,213	2,068,015	518,802	74.9	184,859	280.6
2018	1,678,417	2,220,977	542,560	75.6	202,995	267.3
2019	1,777,065	2,340,773	563,708	75.9	212,351	265.5
2020	1,868,917	2,535,238	666,321	73.7	224,412	296.9
2021	2,045,503	2,605,614	560,111	78.5	224,392	249.6
2022	2,158,463	2,835,771	677,308	76.1	241,538	280.4
2023	2,251,691	2,994,429	742,738	75.2	262,273	283.2
2024	2,391,378	3,143,728	752,350	76.1	273,428	275.2
2025	2,594,679	3,270,837	676,158	79.3	286,463	236.0

H. Actuarial balance sheet

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

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

Actuarial Balance Sheet as of June 30

Line Description	2025	2024
Liabilities		
Present value of benefits for retired members and beneficiaries	$2,173,833,194	$2,081,323,619
Present value of benefits for inactive members	68,399,872	63,313,175
Present value of benefits for active members	1,614,877,189	1,562,679,932
Total liabilities	**$3,857,110,255**	**$3,707,316,726**
Current and future assets		
Total valuation value of assets	$2,594,678,670	$2,391,378,364
Present value of future contributions by members	263,876,461	249,278,982
Present value of future employer contributions for:		
• Entry age normal cost	322,396,570	314,309,404
• Unfunded actuarial accrued liability	676,158,554	752,349,976
Total of current and future assets	**$3,857,110,255**	**$3,707,316,726**

I. Risk

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

This report does not contain a detailed analysis of the potential range of future measurements but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. In early 2026, we are scheduled to prepare a stand-alone Risk Assessment report for the Pension Plan by using membership and financial information as provided in this actuarial valuation as of June 30, 2025. That report will include various deterministic projections of future results under different investment return scenarios based on the assumptions adopted for the June 30, 2025 valuation. The report will also include stochastic projections of how changes in price inflation may impact the COLA benefit paid after the Plan is more than 85% funded on a PBO basis.

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

Risk assessments

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

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

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

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

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

Volatility Ratios, on page 41, a 1% asset gain or loss (relative to the assumed investment return) translates to about 9.6% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.7% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of (10.94)% to a high of 26.61%.

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

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

- **Other Risks**

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

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

Evaluation of historical trends

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

- The funded percentage on the valuation value of assets basis has increased from 71.4% to 79.3%. This is primarily due to contributions made to amortize the UAAL under the Board's actuarial funding policy and average recent years' investment return on a smoothed basis greater than the assumption. For a more detailed history see *Section 2, Subsection G, Funded status* starting on page 34.
- The average geometric investment return on the actuarial value of assets over the last 10 years was 7.79%. This includes a high of 10.71% and a low of 5.42%. The average over the last five years is 7.81%. For more details see *Section 2, Subsection B, Historical investment returns* on page 23.

- The primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in:
  - 2016 included a change in the discount rate from 7.50% to 7.25%, adding $52.6 million in unfunded liability;
  - 2018 included a change in the discount rate from 7.25% to 7.00%, adding $12.5 million in unfunded liability;
  - 2020 included the use of amount-weighted mortality tables projected generationally to better reflect future mortality improvement, adding $104.8 million in unfunded liability;
  - 2022 included a change in the discount rate from 7.00% to 6.75%, adding $72.1 million in unfunded liability; and
  - 2024 included changes in demographic assumptions and methodology, adding $25.3 million in unfunded liability.
- The plan's funding policy effectively deals with these unfunded liabilities over time.[20] This can be seen most clearly in *Section 3, Exhibit H: Projection of UAAL balances and payments* starting on page 55.

Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.91 to 1.12. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative for understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member information* on page 16.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. Over the past year, benefits paid were $22.2 million more than contributions received.[21] Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the Plan currently has a low level of negative cash flow. For more details on historical cash flows see *Section 2, Subsection B, Financial information* on page 20.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection J, Volatility ratios* on page 41.

[20] In addition, during the last ten years, the Board had on five occasions elected to continue to carry over the higher employer contribution rates in a previous valuation even though the employer contribution rates would have come down in the absence of such action. The Board made that election for the purpose of accelerating the payment of the UAAL.

[21] Under the Retirement Board's actuarial funding policy, current assets plus the present value of future (employer and member) contributions will always be equal to the present value of benefits expected to be paid by the System. Based on the understanding that the present value of future contributions includes both the amounts required to pay the ongoing normal cost and any unfunded liabilities, it appears that the minimum contribution limit pursuant to Section 12335 of the Public Utilities Code does not apply.

Low-Default-Risk Obligation Measure (LDROM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is calculated using the same methodology and assumptions used to determine the AAL used for funding, except for the discount rate. The LDROM is required to be calculated using "a discount rate…derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in June of the measurement period, by The Bond Buyer, is 5.20% for use effective June 30, 2025. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or actuarially determined contribution rates. The plan's expected return on assets, currently 6.75%, is used for these calculations.

As of June 30, 2025, the LDROM for the Plan is $3.971 billion.[22] The difference between the Plan's AAL of $3.271 billion and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the Plan's diversified portfolio compared to investing only in low-default-risk securities.

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

[22] For comparison purposes, as of June 30, 2024, the LDROM was $4.560 billion based on a discount rate of 3.93%, while the Plan's actuarial accrued liability was $3.144 billion.

J. Volatility ratios

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

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

The current AVR is about 9.6. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 9.6% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.7% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

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

The LVR also indicates how volatile contributions will be in response to changes in the actuarial accrued liability due to actual experience or to changes in actuarial assumptions. The current total Plan LVR is about 11.4. This is about 19% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Volatility Ratios

Asset Volatility Ratio (AVR) versus Liability Volatility Ratio (LVR)

As of June 30	Asset Volatility Ratio	Liability Volatility Ratio
2016	7.6	10.8
2017	8.6	11.2
2018	8.5	10.9
2019	8.4	11.0
2020	8.1	11.3
2021	10.1	11.6
2022	8.3	11.7
2023	8.4	11.4
2024	8.9	11.5
2025	9.6	11.4

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Total Plan — Demographics as of June 30

Demographic Data by Status	2025	2024	Change
Active members			
• Number	2,001	1,974	1.4%
• Average age	46.8	46.9	-0.1
• Average years of service	10.8	10.9	-0.1
• Total projected compensation	$286,462,625	$273,428,306	4.8%
• Average projected compensation	$143,160	$138,515	3.4%
• Account balances	$281,115,878	$263,198,027	6.8%
• Total active vested members	1,380	1,367	1.0%
Inactive members[23]			
• Number	424	407	4.2%
• Average age	48.1	48.0	0.1
Retired members			
• Number	1,799	1,753	2.6%
• Average age	71.8	71.4	0.4
• Average monthly benefit	$6,729	$6,531	3.0%
Disabled members			
• Number	51	51	0.0%
• Average age	69.0	68.0	1.0
• Average monthly benefit	$2,780	$2,699	3.0%
Beneficiaries			
• Number	385	372	3.5%
• Average age	73.5	73.9	-0.4
• Average monthly benefit	$3,640	$3,538	2.9%

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

Section 3: Supplemental Information

1955/1980 Plan — Demographics as of June 30

Demographic Data by Status	2025	2024	Change
Active members			
• Number	713	778	-8.4%
• Average age	53.8	53.6	0.2
• Average years of service	20.0	19.5	0.5
• Total projected compensation	$118,474,450	$122,880,363	-3.6%
• Average projected compensation	$166,163	$157,944	5.2%
• Account balances	$194,223,396	$193,280,838	0.5%
• Total active vested members	697	756	-7.8%
Inactive members[24]			
• Number	196	204	-3.9%
• Average age	53.8	53.2	0.6
Retired members			
• Number	1,779	1,742	2.1%
• Average age	71.8	71.4	0.4
• Average monthly benefit	$6,789	$6,564	3.4%
Disabled members			
• Number	51	51	0.0%
• Average age	69.0	68.0	1.0
• Average monthly benefit	$2,780	$2,699	3.0%
Beneficiaries			
• Number	385	372	3.5%
• Average age	73.5	73.9	-0.4
• Average monthly benefit	$3,640	$3,538	2.9%

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

Section 3: Supplemental Information

2013 Tier — Demographics as of June 30

Demographic Data by Status	2025	2024	Change
Active members			
• Number	1,288	1,196	7.7%
• Average age	42.9	42.5	0.4
• Average years of service	5.7	5.3	0.4
• Total projected compensation	$167,988,175	$150,547,943	11.6%
• Average projected compensation	$130,426	$125,876	3.6%
• Account balances	$86,892,482	$69,917,190	24.3%
• Total active vested members	683	611	11.8%
Inactive members[25]			
• Number	228	203	12.3%
• Average age	43.1	42.8	0.3
Retired members			
• Number	20	11	81.8%
• Average age	66.7	68.3	-1.6
• Average monthly benefit	$1,453	$1,345	8.0%
Disabled members			
• Number	N/A	N/A	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A
Beneficiaries			
• Number	N/A	N/A	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A

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

Exhibit B: Distribution of active members

Total Plan

Active Counts & Average Projected Compensation by Age and Years of Service as of June 30, 2025

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	16	16	—	—	—	—	—	—	—	—
	$104,605	$104,605	—	—	—	—	—	—	—	—
25–29	85	77	8	—	—	—	—	—	—	—
	$117,060	$115,918	$128,056	—	—	—	—	—	—	—
30–34	175	111	48	15	1	—	—	—	—	—
	$130,581	$124,426	$139,929	$143,946	$164,549	—	—	—	—	—
35–39	319	140	125	51	3	—	—	—	—	—
	$133,555	$123,322	$136,877	$151,700	$164,247	—	—	—	—	—
40–44	331	103	112	74	35	7	—	—	—	—
	$140,887	$121,966	$136,222	$155,355	$168,496	$202,965	—	—	—	—
45–49	286	66	72	73	42	27	6	—	—	—
	$149,776	$126,540	$138,135	$151,431	$170,543	$188,191	$206,704	—	—	—
50–54	301	56	71	59	33	42	32	8	—	—
	$149,970	$134,898	$140,013	$149,838	$157,138	$166,252	$169,565	$151,384	—	—
55–59	230	28	40	34	39	40	30	16	3	—
	$156,234	$135,718	$144,872	$144,953	$159,272	$169,951	$165,213	$186,291	$154,618	—
60–64	166	17	29	32	28	19	19	15	6	1
	$151,461	$119,100	$132,125	$144,572	$171,113	$162,054	$175,474	$150,894	$166,046	$196,065
65–69	67	7	6	15	8	9	4	8	5	5
	$148,991	$129,792	$131,498	$130,393	$169,604	$155,888	$155,096	$159,257	$158,683	$176,255
70 and over	25	1	2	—	2	5	6	3	—	6
	$148,547	$123,536	$120,942	—	$155,099	$128,908	$159,630	$148,509	—	$165,036
Total	**2,001**	**622**	**513**	**353**	**191**	**149**	**97**	**50**	**14**	**12**
	$143,160	**$123,796**	**$137,722**	**$149,568**	**$165,303**	**$170,531**	**$170,463**	**$163,494**	**$160,967**	**$172,296**

1955/1980 Plan

Active Counts & Average Projected Compensation by Age and Years of Service as of June 30, 2025

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25–29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30–34	3	—	1	1	1	—	—	—	—	—
	$154,918	—	$135,455	$164,750	$164,549	—	—	—	—	—
35–39	30	1	6	20	3	—	—	—	—	—
	$156,839	$159,894	$145,075	$159,104	$164,247	—	—	—	—	—
40–44	89	3	9	35	35	7	—	—	—	—
	$168,341	$155,444	$144,332	$168,541	$168,496	$202,965	—	—	—	—
45–49	110	4	10	21	42	27	6	—	—	—
	$173,255	$144,538	$142,722	$169,926	$170,543	$188,191	$206,704	—	—	—
50–54	158	5	10	28	33	42	32	8	—	—
	$164,609	$220,537	$164,373	$159,160	$157,138	$166,252	$169,565	$151,384	—	—
55–59	154	3	6	17	39	40	30	16	3	—
	$166,595	$177,478	$198,737	$148,250	$159,272	$169,951	$165,213	$186,291	$154,618	—
60–64	104	—	4	12	28	19	19	15	6	1
	$165,989	—	$148,068	$167,550	$171,113	$162,054	$175,474	$150,894	$166,046	$196,065
65–69	43	1	1	2	8	9	4	8	5	5
	$162,541	$249,885	$122,636	$143,901	$169,604	$155,888	$155,096	$159,257	$158,683	$176,255
70 and over	22	—	—	—	2	5	6	3	—	6
	$152,193	—	—	—	$155,099	$128,908	$159,630	$148,509	—	$165,036
Total	**713**	**17**	**47**	**136**	**191**	**149**	**97**	**50**	**14**	**12**
	$166,163	**$181,728**	**$154,961**	**$162,422**	**$165,303**	**$170,531**	**$170,463**	**$163,494**	**$160,967**	**$172,296**

2013 Tier

Active Counts & Average Projected Compensation by Age and Years of Service as of June 30, 2025

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	16	16	—	—	—	—	—	—	—	—
	$104,605	$104,605	—	—	—	—	—	—	—	—
25–29	85	77	8	—	—	—	—	—	—	—
	$117,060	$115,918	$128,056	—	—	—	—	—	—	—
30–34	172	111	47	14	—	—	—	—	—	—
	$130,156	$124,426	$140,025	$142,460	—	—	—	—	—	—
35–39	289	139	119	31	—	—	—	—	—	—
	$131,138	$123,059	$136,463	$146,923	—	—	—	—	—	—
40–44	242	100	103	39	—	—	—	—	—	—
	$130,791	$120,962	$135,513	$143,520	—	—	—	—	—	—
45–49	176	62	62	52	—	—	—	—	—	—
	$135,102	$125,378	$137,395	$143,962	—	—	—	—	—	—
50–54	143	51	61	31	—	—	—	—	—	—
	$133,795	$126,502	$136,019	$141,418	—	—	—	—	—	—
55–59	76	25	34	17	—	—	—	—	—	—
	$135,240	$130,707	$135,366	$141,656	—	—	—	—	—	—
60–64	62	17	25	20	—	—	—	—	—	—
	$127,093	$119,100	$129,574	$130,785	—	—	—	—	—	—
65–69	24	6	5	13	—	—	—	—	—	—
	$124,713	$109,776	$133,271	$128,315	—	—	—	—	—	—
70 and over	3	1	2	—	—	—	—	—	—	—
	$121,807	$123,536	$120,942	—	—	—	—	—	—	—
Total	**1,288**	**605**	**466**	**217**	**—**	**—**	**—**	**—**	**—**	**—**
	$130,426	**$122,168**	**$135,983**	**$141,513**	**—**	**—**	**—**	**—**	**—**	**—**

Exhibit C: Reconciliation of member data

Line Description	Active Members	Inactive Members[26]	Retired Members	Disabled Members	Beneficiaries	Total
Number as of June 30, 2024	1,974	407	1,753	51	372	4,557
New members	132	0	0	0	27	159
Terminations with vested rights	−33	33	0	0	0	0
Contribution refunds	−3	−8	0	0	0	−11
Retirements	−67	−14	81	0	0	0
New disabilities	0	0	0	0	0	0
Return to work	0	0	0	0	0	0
Died with or without beneficiary	−2	−1	−35	0	−15	−53
Data adjustments	0	7[27]	0	0	1	8
Number as of June 30, 2025	**2,001**	**424**	**1,799**	**51**	**385**	**4,660**

[26] Includes inactive members due a refund of member contributions.
[27] These 7 members were hired and terminated during fiscal year 2024/2025.

Exhibit D: Summary of income and expenses on a market value basis for all Pension Plan and HIB Plan assets

Line Description	Year Ended June 30, 2025	Year Ended June 30, 2024
Contribution income		
• Employer contributions	$122,754,000	$117,342,000
• Member contributions	24,737,000	23,877,000
– **Net contribution income**	**$147,491,000**	**$141,219,000**
Investment income		
• Interest, dividends and other income	$42,550,000	$44,490,000
• Asset appreciation	298,940,000	247,042,000
• Less investment and administrative fees	(12,612,000)	(11,987,000)
– **Net investment income**	**$328,878,000**	**$279,545,000**
Total income available for benefits	**$476,369,000**	**$420,764,000**
Less benefit payments		
• Benefits paid	$(166,830,000)	$(157,771,000)
• Refund of contributions	(486,000)	(1,269,000)
– **Net benefit payments**	**$(167,316,000)**	**$(159,040,000)**
Change in market value of assets	**$309,053,000**	**$261,724,000**
Net assets at market value at the beginning of the year	**$2,517,031,000**	**$2,255,307,000**
Net assets at market value at the end of the year	**$2,826,084,000**	**$2,517,031,000**

Note: Results may be slightly off due to rounding.

Exhibit E: Summary statement of plan assets

Line Description	Year Ended June 30, 2025	Year Ended June 30, 2024
Cash equivalents	**$33,957,000**	**$28,791,000**
Accounts receivable		
• Brokers, securities sold	$4,027,000	$2,068,000
• Employer and member contributions	6,095,000	5,584,000
• Interest, dividends and recoverable taxes	5,887,000	5,115,000
– **Total accounts receivable**	**$16,009,000**	**$12,767,000**
Investments		
• Equities	$1,982,608,000	$1,824,973,000
• Fixed income investments	751,248,000	533,117,000
• Real estate	53,323,000	118,857,000
• Securities lending collateral	134,426,000	106,561,000
• Capital assets	7,339,000	4,240,000
• Prepaid expenses	0	598,000
– **Total investments at market value**	**$2,928,944,000**	**$2,588,346,000**
Total assets	**$2,978,910,000**	**$2,629,904,000**
Accounts payable		
• Accounts payable and accrued expenses	$(3,845,000)	$(2,772,000)
• Payables to brokers, securities purchased	(14,555,000)	(3,540,000)
• Securities lending collateral	(134,426,000)	(106,561,000)
– **Total accounts payable**	**$(152,826,000)**	**$(112,873,000)**
Net assets at market value	**$2,826,084,000**	**$2,517,031,000**
Net assets at actuarial value	**$2,673,176,540**	**$2,461,214,590**
Net assets at valuation value (Pension Plan only)	**$2,594,678,670**	**$2,391,378,364**

Note: Results may be slightly off due to rounding.

Exhibit F: Development of the Plan through June 30, 2025 for all Pension Plan and HIB Plan assets

Year Ended June 30	Employer Contributions	Member Contributions	Net Investment Return[28]	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2016	$74,672,000	$14,925,000	$12,894,000	$91,571,000	$1,418,129,000	$1,452,786,717	102.4%
2017	76,860,000	16,018,000	200,254,000	98,617,000	1,612,644,000	1,580,665,009	98.0%
2018	81,096,000	17,079,000	148,798,000	106,377,000	1,753,240,000	1,714,363,843	97.8%
2019	84,551,000	17,865,000	91,744,000	114,435,000	1,832,965,000	1,817,562,986	99.2%
2020	88,734,000	18,885,000	39,376,000	122,351,000	1,857,609,000	1,914,278,036	103.1%
2021	90,624,000	19,336,000	491,625,000	130,472,000	2,328,722,000	2,097,712,454	90.1%
2022	102,285,000	21,127,000	(253,930,000)	139,281,000	2,058,923,000	2,216,123,725	107.6%
2023	106,523,000	22,088,000	217,559,000	149,786,000	2,255,307,000	2,314,460,062	102.6%
2024	117,342,000	23,877,000	279,545,000	159,040,000	2,517,031,000	2,461,214,590	97.8%
2025	122,754,000	24,737,000	328,878,000	167,316,000	2,826,084,000	2,673,176,540	94.6%

[28] On a market value basis, net of investment and administrative expenses.

Exhibit G: Table of amortization bases

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[29]
Experience Gain	2000	$(10,871,830)	30	$(6,775,191)	5	$(1,453,643)
Change in Assumptions	2000	8,629,891	30	5,378,045	5	1,153,880
Plan Amendments	2000	13,607,265	30	8,479,883	5	1,819,391
3.5% Retiree COLA Assumption	2000	27,057,441	30	16,861,872	5	3,617,778
Experience Loss	2001	2,292,281	30	1,617,330	6	294,215
Experience Loss	2002	26,232,251	30	20,375,148	7	3,232,098
Plan Amendments	2002	5,111,914	30	3,970,530	7	629,843
Experience Loss	2003	43,692,270	30	36,602,172	8	5,167,938
Plan Amendments	2003	67,138,578	30	56,243,759	8	7,941,175
Experience Loss	2004	32,731,232	30	29,115,168	9	3,716,634
New Assumption / Domestic Partners	2004	(9,812,646)	30	(8,728,571)	9	(1,114,227)
Experience Loss	2005	26,910,233	30	25,106,784	10	2,933,530
Remove Limit Pension Base	2005	27,315,928	30	25,369,463	10	2,964,222
Experience Loss	2006	14,160,133	30	13,719,872	11	1,481,963
Experience Gain	2007	(3,098,126)	30	(3,092,024)	12	(311,298)
Experience Gain	2008	(7,800,585)	30	(7,964,584)	13	(752,529)
Change in Assumptions	2008	51,413,374	30	52,494,289	13	4,959,889
Experience Loss	2009	114,894,458	30	119,317,975	14	10,642,019
Experience Loss	2010	3,039,098	30	3,194,164	15	270,277
Change in Assumptions	2010	8,098,499	30	8,511,714	15	720,227
Experience Loss	2011	4,428,038	30	4,693,141	16	378,389
Experience Gain	2012	(15,668,764)	20	(10,449,375)	7	(1,657,578)

[29] Calculated as a level percentage of payroll, payable at the beginning of the year.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[30]
Change in Assumptions	2012	$53,400,521	25	$48,497,514	12	$4,882,618
Experience Loss	2013	10,858,322	20	7,835,114	8	1,106,256
Experience Gain	2014	(26,406,581)	20	(20,297,088)	9	(2,590,981)
Change in Assumptions	2014	18,421,049	25	17,517,352	14	1,562,380
Experience Gain	2015	(28,955,525)	20	(23,473,696)	10	(2,742,717)
Experience Gain	2016	(1,408,751)	20	(1,192,613)	11	(128,821)
Change in Assumptions	2016	52,595,760	25	51,570,620	16	4,157,932
Experience Gain	2017	(50,022,788)	20	(43,901,201)	12	(4,419,872)
Experience Loss	2018	14,053,082	20	12,698,207	13	1,199,782
Change in Assumptions	2018	12,484,391	25	12,450,275	18	921,442
Experience Loss	2019	26,728,885	20	24,780,968	14	2,210,225
Experience Loss	2020	5,281,313	20	4,998,848	15	422,982
Change in Assumptions	2020	104,813,640	25	105,547,714	20	7,257,147
Experience Gain	2021	(97,336,901)	20	(93,649,842)	16	(7,550,611)
Experience Loss	2022	56,034,517	20	54,592,405	17	4,210,022
Change in Assumptions	2022	72,119,593	20	70,263,512	17	5,418,537
Experience Loss	2023	80,817,915	20	79,654,433	18	5,895,209
Experience Loss	2024	3,041,236	20	3,023,299	19	215,380
Change in Assumptions	2024	25,307,090	20	25,157,826	19	1,792,242
Experience Gain	2025	(53,956,657)	20	(53,956,657)	20	(3,709,899)
Total				**$676,158,554**		**$66,743,446**

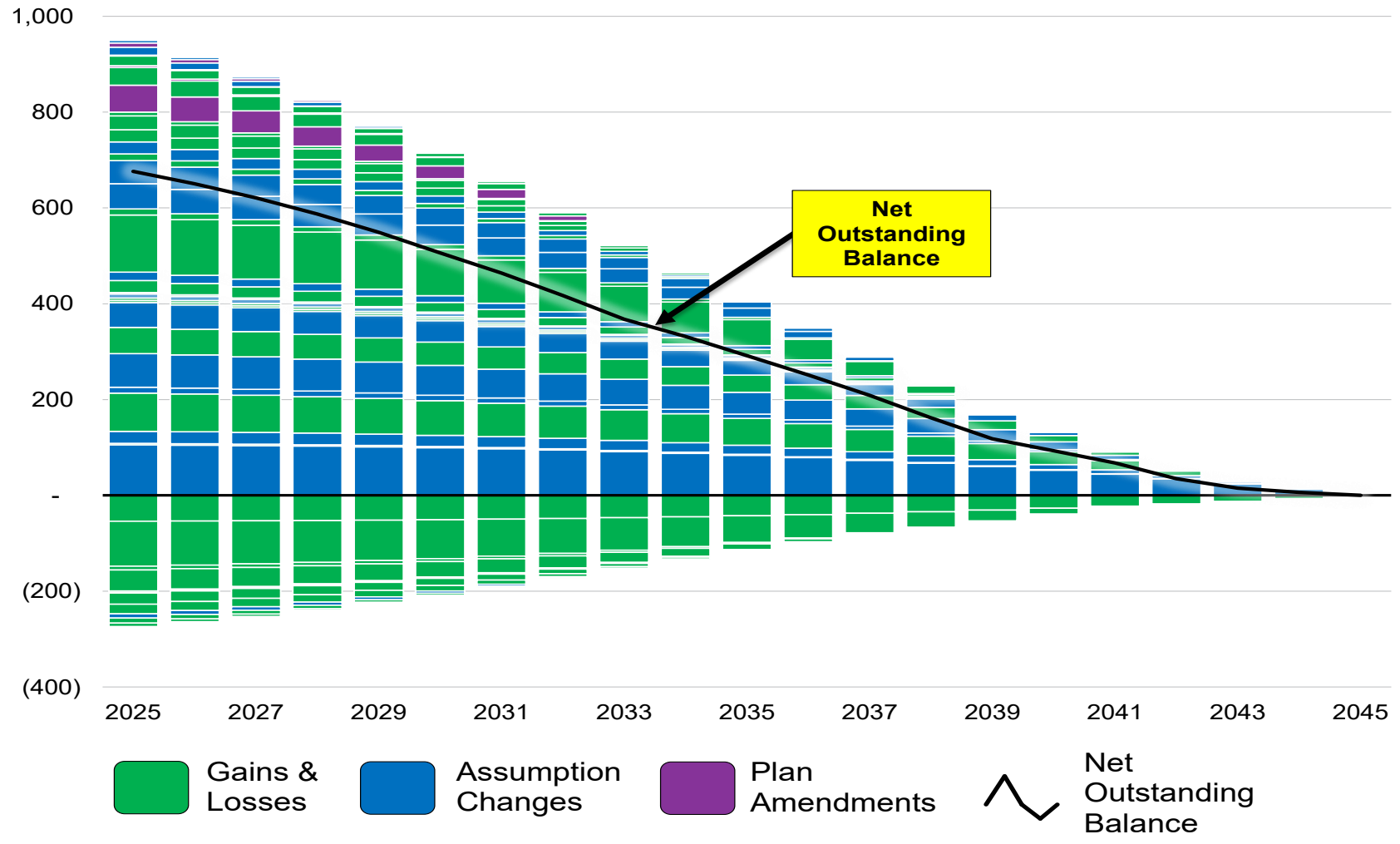
Note: The equivalent single amortization period is about 12 years.

[30] Calculated as a level percentage of payroll, payable at the beginning of the year.

Exhibit H: Projection of UAAL balances and payments

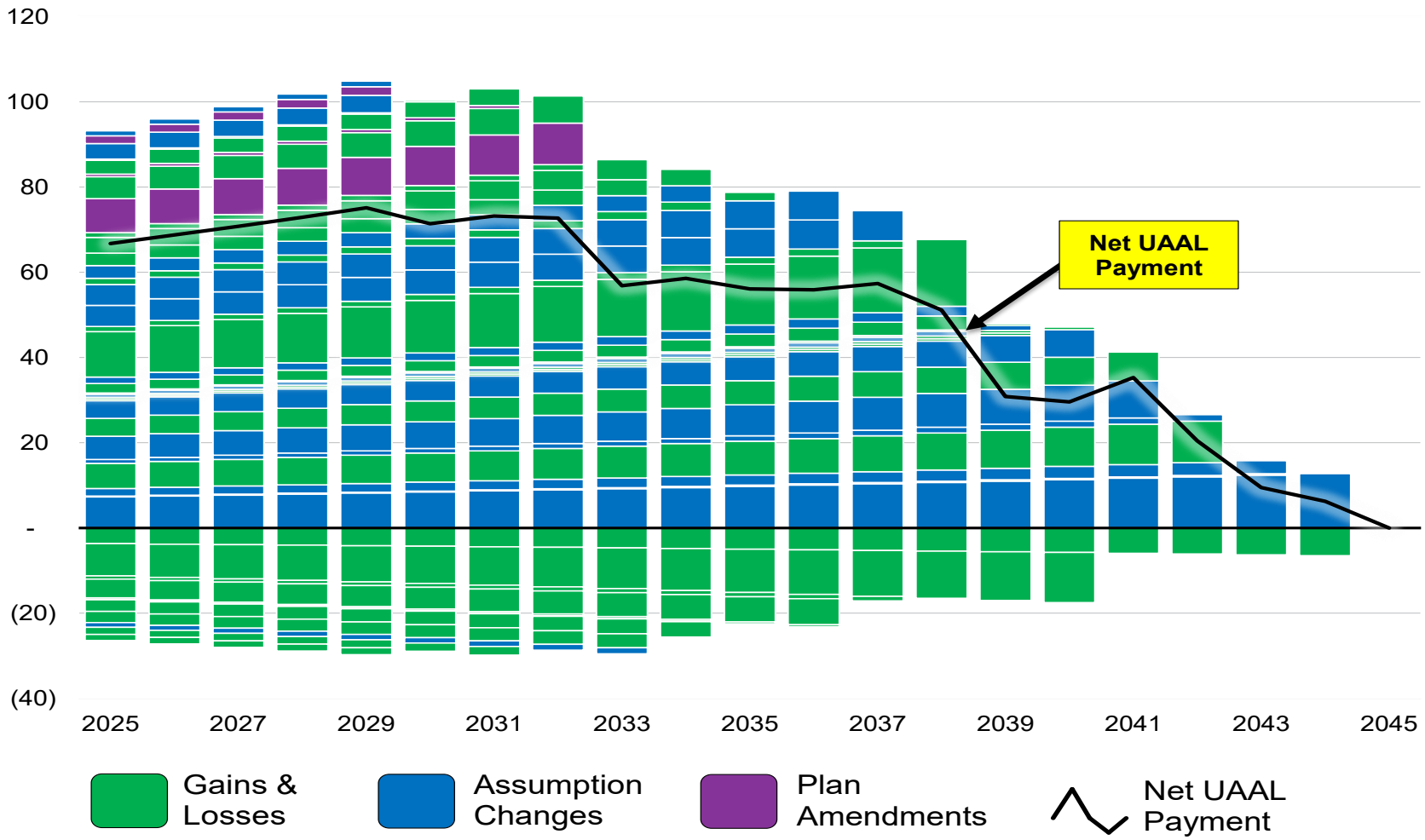
Outstanding Balance of $676.2 Million in Net UAAL as of June 30, 2025

($ in Millions)



Annual Payments Required to Amortize $676.2 Million in Net UAAL as of June 30, 2025

($ in Millions)



Note: Starting in 2030, the contribution rate for the UAAL is expected to become non-level due to the pattern of recognition of the various layers of UAAL payments. We will continue to monitor and, if warranted, bring a proposal to the Board for consideration to levelize such UAAL payments.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2020 through June 30, 2024 Actuarial Experience Study report dated November 13, 2024. Unless otherwise noted, all actuarial assumptions and methods shown below apply to both tiers. These assumptions were adopted by the Board.

Net investment return

6.75%; net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.15% of the beginning of year actuarial value of assets.

Employee contribution crediting rate

6.75%, compounded semi-annually.

Inflation

Increase of 2.50% per year.

Cost-of-Living Adjustment (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 3.00% per year.

Payroll growth

Inflation of 2.50% per year plus real “across-the-board” salary increase of 0.50% per year. The payroll growth assumption is used to amortize the unfunded actuarial accrued liability 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.

Salary increases

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across-the-board" salary increase of 0.50% per year, plus
- Merit and promotion increase based on time from hire:

Merit and Promotion Increases (%)

Time from Hire (Years)	1955/1980 Plan	2013 Tier
Less than 1	6.25	6.50
1–2	6.00	6.25
2–3	5.00	5.25
3–4	3.75	4.25
4–5	2.50	2.75
5–6	1.50	1.75
6–7	1.25	1.25
7–8	1.25	1.25
8–9	1.25	1.25
9–10	1.25	1.25
10–11	1.00	1.00
11–12	1.00	1.00
12 and over	0.75	0.75

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

Pub-2010 General Healthy Retiree 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-2021.

Disabled

Pub-2010 Non-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-2021.

Beneficiary

Not in pay status at the valuation

Pub-2010 General Healthy Retiree 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-2021.

In pay status at the valuation

Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Tables (separate tables for males and females) with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-retirement mortality rates

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

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

Age	Male	Female
20	0.04	0.01
25	0.02	0.01
30	0.03	0.01
35	0.04	0.02
40	0.06	0.03
45	0.09	0.05
50	0.13	0.08
55	0.19	0.11
60	0.28	0.17
65	0.41	0.27

Disability

Disability Incidence Rates (%)

Age	Rate
25	0.000
30	0.006
35	0.016
40	0.080
45	0.126
50	0.136
55	0.146
60	0.156
65	0.166
70	0.170

Disabilities rates are applicable after eight years of service.

Termination

Termination Rates (%)

Years of Service	1955/1980 Plan	2013 Tier
Less than 1	11.30	8.00
1–2	6.00	4.00
2–3	6.00	3.75
3–4	3.00	3.25
4–5	3.00	3.00
5–6	2.50	2.70
6–7	2.50	2.60
7–8	2.50	2.50
8–9	2.50	2.30
9–10	1.80	2.20
10–11	1.80	2.10
11–12	1.80	2.00
12–13	1.80	1.90
13–14	1.80	1.80
14–15	1.60	1.70
15 and over	1.60	1.60

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

Retirement rates

Retirement Rates (%)

Age	1955/1980 Plan: Unreduced Pension[31]	1955/1980 Plan: Reduced Pension	2013 Tier
52	0.00	0.00	2.00
53	0.00	0.00	2.00
54	50.00	7.00	2.00
55	16.00	7.00	3.00
56	16.00	7.00	3.00
57	16.00	8.00	4.00
58	16.00	8.00	4.00
59	16.00	8.00	6.00
60	16.00	10.00	6.00
61	16.00	10.00	6.00
62	20.00	N/A[32]	10.00
63	20.00	N/A	10.00
64	20.00	N/A	10.00
65	20.00	N/A	20.00
66	24.00	N/A	20.00
67	24.00	N/A	20.00
68	24.00	N/A	20.00
69	24.00	N/A	20.00
70	40.00	N/A	35.00
71	40.00	N/A	35.00
72	40.00	N/A	35.00
73	40.00	N/A	35.00
74	40.00	N/A	35.00
75 and over	100.00	N/A	100.00

[31] For example, a 1955/1980 Plan member age 54 with 30 or more years of service would receive the full 2.60% per year of service accrual.
[32] For ages 62 and over, all 1955/1980 Plan members who are eligible for retirement receive the full 2.60% per year of service accrual.

Retirement age for inactive members

For current and future inactive vested members, the retirement age assumption is 59.

1955/1980 Plan non-reciprocal members who are currently terminated with less than five years of service and are not vested are assumed to retire at age 65 if they decide to leave their contributions on deposit.

Reciprocity

15% of members who terminate with a vested benefit are assumed to enter a reciprocal system. For reciprocals, 3.75% compensation increases are assumed per annum.

Future benefit accruals

1.0 year of service per year of employment, plus 0.040 years of additional service to anticipate conversion of unused sick leave for each year of employment. As directed by EBMUDERS, this assumption has been applied to active members in the 1955/1980 Plan and the 2013 Tier.

Unknown data for members

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

Percent married/domestic partnership

For all active and inactive members, 85% of male members and 65% of female members are assumed to be married or with domestic partner at pre-retirement death or retirement.

Age and gender of spouse/domestic partner

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

Since birth dates for non-spouse/non-domestic partner contingent beneficiaries are not provided by EBMUDERS, the age differences noted above also apply to assumed contingent beneficiaries of retired members who chose an optional form of payment at retirement.

Form of payment

At retirement, members with spouses or domestic partners are assumed to elect the following form of payment (single members are assumed to elect the Unmodified option):

Election Percentage

Form of Payment	Election Percentage
Unmodified or Option 1	55%
Option 2 (100% Continuance)	10%
Option 3 (50% Continuance)	20%
Option 4 (25% Continuance)	15%

Actuarial cost method

Entry age cost method. Entry age is the age at the member's hire date. Normal cost and actuarial accrued liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect (i.e., "replacement life within a tier"). The individual normal costs for the 2013 Tier are calculated using salaries that are constrained by the cap on pensionable compensation imposed by PEPRA.

Actuarial value of assets

Market value of assets (MVA) less unrecognized returns in each of the last five years. Unrecognized returns are equal to the difference between the actual market returns and the expected returns on the market value, and are recognized over a five-year period. The actuarial value of assets (AVA) is limited by a 30% corridor; the AVA cannot be less than 70% of MVA, nor greater than 130% of MVA.

Valuation value of assets

The proportion of the actuarial value of assets allocated to the Pension Plan, based on the proportion of the MVA attributable to the Pension Plan.

Amortization policy

Prior to July 1, 2011, the UAAL from plan amendments, assumption changes, and experience gains/losses were amortized over separate decreasing 30-year periods.

On or after July 1, 2011, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; assumption and method changes are amortized over separate decreasing 25-year periods (prior to July 1, 2021); and experience gains/losses are amortized over separate decreasing 20-year periods.

On or after July 1, 2021, assumption and method changes are amortized over separate decreasing 20-year periods.

Employer contributions

The recommended employer contributions are provided in *Section 2, Subsection F* and consist of two components:

Normal Cost

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

Contribution to the Unfunded Actuarial Accrued Liability (UAAL)

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

The amortization policy is described above.

Member contributions

The member contribution rates are provided in *Section 2, Subsection F*. Accumulation for all members includes crediting of interest at the assumed investment earnings rate.

1955/1980 Plan Members

Employee contribution rates for 1955/1980 Plan members are prescribed in the Ordinance. Effective April 17, 2006, the rate of member retirement contributions is 6.83%, and 6.74% of that rate is allocated to pay pension benefits. The rest, or 0.09%, is used to pay HIB benefits. The Board of Directors may adjust the employee rates solely pursuant to the terms of a negotiated collective bargaining agreement or memorandum of understanding (MOU) with employee bargaining units.

Based on bargaining unit contract negotiations in 2013, members are contracted to pay the following employee rates (as a percentage of pay) beginning April 22, 2013:

Member Rate

Effective Date	(a) Total	(b) HIB Plan[33]	(c) = (a) − (b) Pension Plan
April 17, 2006[34]	6.83%[34]	0.09%	6.74%
April 22, 2013	7.33%	0.09%	7.24%
April 21, 2014	7.83%	0.09%	7.74%
April 20, 2015	8.33%	0.09%	8.24%
April 18, 2016	8.75%	0.09%	8.66%

2013 Tier Members

Pursuant to Section 7522.30(a) of the California Government Code, 2013 Tier members are required to contribute at least 50% of the Normal Cost rate. In addition, Section 7522.30(c) requires that the initial employee contribution rate be rounded to the nearest quarter of 1 percent, unless a greater contribution rate has been agreed to pursuant to Section 7522.30(e). In preparing the initial Normal Cost rates, we assumed that exactly 50% of the Normal Cost would be paid by the new members and we took into account only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e). In particular, the total Normal Cost rate of

[33] Based on the 2025-2028 MOUs and other special agreements between the District and employee bargaining units, the HIB Plan member rate is scheduled to increase to 0.40% effective January 1, 2026, to 0.70% effective January 1, 2027, and to 1.00% effective January 1, 2028. We understand the member contributions associated with the HIB Plan will be paid by the District if the member contributions are cashed out by the member.

[34] Pursuant to the Ordinance.

17.56% was determined in the first CalPEPRA valuation, and this total rate has been used through the June 30, 2019 valuation to determine the 50% of the Normal Cost (rounded to one quarter of 1 percent) paid by the employees, or 8.75%.

Pursuant to Section 7522.30(d), each year we have compared the total Normal Cost rates between the current valuation and the initial CalPEPRA valuation since a rate increase (or decrease) of less than 1% of payroll would result in no change to the members' rate. Effective with the June 30, 2020 valuation, the total Normal Cost rate was determined to be 18.81%, which is a change of more than 1% of payroll compared to the rate of 17.56% that was determined in the first CalPEPRA valuation. This was the first time since the first CalPEPRA valuation that the change in the total Normal Cost rate has exceeded the 1% of payroll threshold. Consequently, the member contribution rate for 2013 Tier members was increased to 9.41%, which is 50% of the total Normal Cost rate.

For the June 30, 2024 valuation, the 2013 Tier member contribution rate increased to 10.08% for the Pension Plan, because the total Normal Cost rate for this tier of 20.16% had exceeded 1% of payroll of the new 18.81% threshold noted above.

As stated in our Actuarial Experience Study Report dated November 12, 2020, once the 1% threshold has been exceeded, an adjustment to the members' rate is required, as was the case in the June 30, 2020 valuation. Upon consulting with the Retirement System, the final member contribution rate determined in that valuation was calculated without the quarter of 1 percent rounding based on the Retirement System's direction that the rounding does not apply after the initial calculation. However, the rate paid by the employee was rounded to the nearest one/one hundredth of one percent (two decimals) consistent with the rounding methods used throughout the June 30, 2020 valuation report to ensure that the employees would pay at least 50% of the Normal Cost. This practice has been followed for the adjustment in the June 30, 2024 valuation.

Internal Revenue Code Section 415

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

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

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

Benefits for members in the non-CalPEPRA plan in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

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

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

Models

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

Justification for change in actuarial assumptions, methods or models

There have been no changes in actuarial assumptions since the last valuation.

Exhibit 2: Summary of plan provisions

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

Plan year

July 1 through June 30

Census date

June 30

Membership eligibility

Membership Tier	Plan Provision
1955/1980 Plan	All employees who first become members before January 1, 2013.
2013 Tier	All employees who first become members on or after January 1, 2013.

Final compensation and service for benefit determination

Final Compensation and Service	Plan Provision
Final average compensation	
1955/1980 Plan	Highest two consecutive years of compensation earnable (FAS2).
2013 Tier	Highest thirty-six consecutive months of pensionable compensation (FAS3).
Compensation limit	
1955/1980 Plan	IRC Section 401(a)(17) compensation limit applies to all employees who began membership in EBMUDERS on or after January 1, 1996.
2013 Tier	$155,081 for 2025

Final Compensation and Service	Plan Provision
Service	
All members	Years of service (Yrs) are generally based on a member's employment during a period of time in which retirement contributions are deducted from their compensation.

Normal retirement benefits

Eligibility for unreduced benefits

Tier	Age and Service Requirement
1955/1980 Plan	Age 65; Age 62 with 5 years of service; Age 59 with 20 years of service; Age 54 with 30 years of service; Other combinations of age and service between ages 54 and 59.
2013 Tier	Age 67 with 5 years of service

Section 4: Actuarial Valuation Basis

Unreduced benefit formula

Tier	Benefit formula
1955/1980 Plan	
1955 Formula	2.42% (2.82% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service including all service extension credit.
1955/80 Formula	• 2.42% (2.82% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service up to August 1, 1980 including all service extension credit, plus • 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service after August 1, 1980. Applies to members who elected to convert to the 1980 Formula in 1980.
1955/90 Formula	• 2.42% (2.82% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service up to January 1, 2000 including all service extension credit, plus • 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service after January 1, 2000. Applies to members who elected to convert to the 1980 Formula in 1989.
1980 Formula	• 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) times Final Compensation per year of service including all service extension credit. Applies to all members hired on or after January 1, 1980.
Service Extension Credit	• 2.42% (2.82% if member is credited with District Service on or after January 1, 2004) for members with any service under the 1955 Formula times Final Compensation per year of Service Extension Credit., **or** • 2.20% (2.60% if member is credited with District Service on or after January 1, 2004) for members with service only under the 1980 Formula times Final Compensation per year of Service Extension Credit. Service extension credit is the number of unused sick leave days credited to a member at the time of retirement converted on a 260-day basis. The number of such days is then doubled for the benefit calculation and for service retirements to meet the early retirement provision of the Ordinance.
2013 Tier	2.50% × FAS3 × Yrs

Eligibility for early/reduced benefits

Tier	Age and Service Requirement
1955/1980 Plan	Age 54 with 5 years of service.
2013 Tier	Age 52 with 5 years of service.

Reductions to benefit formula for early retirement

Tier and Retirement Age	Reduction to benefit formula
1955/1980 Plan	Reduced by 3% per year under the age of eligibility for an unreduced benefit, based on service at retirement, for retirements before age 63 (before age 62 commencing November 1, 2000). Effective July 1, 1999, Service Extension Credit is included in the years of service calculation of service for determining eligibility for unreduced retirement.
2013 Tier	
Age 52	1.00% × FAS3 × Yrs
Age 55	1.30% × FAS3 × Yrs
Age 60	1.80% × FAS3 × Yrs
Age 62	2.00% × FAS3 × Yrs
Age 65	2.30% × FAS3 × Yrs

Disability benefits

Provision by Tier	Disability Benefit Plan Provision
Eligibility	
All members	Eight years of service (not available for Directors).
Benefit amount	
All members	Greater of: • 1.5% times Final Compensation per year of service. • One-third of Final Compensation.

Vesting

Five years of service; must leave contributions on deposit, reciprocal service counts for vesting purposes.

Pre-retirement death benefits

Provision by Vesting	Pre-Retirement Death Benefit Plan Provision
Eligibility	
All members	None.
Vested members	Eligible for retirement.
Benefit amount	
All members	Lump sum payment of accumulated retirement contributions.
Vested members	50% of the unmodified service retirement benefit to eligible surviving spouse/surviving domestic partner plus the lump sum payment of accumulated retirement contributions.

Post-retirement death benefit

50% of the unmodified service retirement benefit to surviving spouse or registered domestic partner (tied to the implementation of the AB 205 legislation).

Post-retirement cost-of-living benefits

Payable July 1 of each year, the basic minimum COLA benefit is the lesser of 3% and the actual change in the cost-of-living index.

Excess of the actual change of cost-of-living index over 3% is accumulated in individual retiree COLA banks.

Withdrawals from the bank are made in years when the index increases less than 3%.

Increases of up to 5% are granted in years when the Retirement Board determines that the System is more than 85% funded on a Projected Benefit Obligation basis. In those years when the System is more than 85% funded and the cost-of-living index exceeds 5%, any excess cost-of-living over 5% is accumulated in the COLA bank.

Effective October 1, 2000, in those years when the system is more than 85% funded on a Projected Benefit Obligation basis and the cost-of-living is less than 4%, withdrawals from the bank are made to allow cost-of-living increases up to 4%.

Member contributions

Provision by Tier	Plan Provision
1955/1980 Plan	Effective April 17, 2006, retirement system members contribute at a rate of 6.83% of pay, as prescribed in the Ordinance. Effective April 22, 2013, members are contracted to pay the employee rates (as a percentage of pay) as shown in the table below, based on bargaining unit contract negotiations in 2013
2013 Tier	Initial member contribution rate is set at 50% of the total 2013 Tier Normal Cost rate, rounded to the nearest quarter of 1%. Once established, the member contribution rate will be adjusted annually to reflect the change in the 2013 Tier Normal Cost rate, but only if the change is more than 1% of payroll. Effective with the June 30, 2024 valuation, the member contribution rate for the Pension Plan is 10.08% of pay.

1955/1980 Plan schedule of member contribution rates

Effective Date	(a) Total	(b) HIB Plan[35]	(c) = (a) – (b) Pension Plan
April 17, 2006[36]	6.83%[36]	0.09%	6.74%
April 22, 2013	7.33%	0.09%	7.24%
April 21, 2014	7.83%	0.09%	7.74%
April 20, 2015	8.33%	0.09%	8.24%
April 18, 2016	8.75%	0.09%	8.66%

Changes in plan provisions

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

[35] Based on the 2025-2028 MOUs and other special agreements between the District and employee bargaining units, the HIB Plan member rate is scheduled to increase to 0.40% effective January 1, 2026, to 0.70% effective January 1, 2027, and to 1.00% effective January 1, 2028. We understand the member contributions associated with the HIB Plan will be paid by the District if the member contributions are cashed out by the member.

[36] Pursuant to the Ordinance.

Appendix A: Definition of Pension Terms

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

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

Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The actuarial present value of benefit amounts expected to be paid at various future times under a particular set of actuarial assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The actuarial present value of future benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial valuation	The determination, as of a valuation date, of the normal cost, actuarial accrued liability, actuarial value of assets, and related actuarial present values for a plan. An actuarial valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial value of assets	The value of the Fund's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the law.
Actuarially determined contribution	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The actuarially determined contribution consists of the employer normal cost and the amortization payment.
Amortization method	A method for determining the amortization payment. The most common methods used are level dollar and level percentage of payroll. Under the level dollar method, the amortization payment is one of a stream of payments, all equal, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the amortization payment is one of a stream of increasing payments, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or actuarially determined contribution, that is intended to pay off the unfunded actuarial accrued liability.

Appendix A: Definition of Pension Terms

Term	Definition
Assumptions or actuarial assumptions	The estimates upon which the cost of the Fund is calculated, including: **Investment return** — the rate of investment yield that the Fund will earn over the long-term future; **Mortality rates** — the rate or probability of death at a given age for employees and retirees; life expectancy is based on these rates; **Retirement rates** — the rate or probability of retirement at a given age or service; **Disability rates** — the rate or probability of disability retirement at a given age; **Withdrawal rates** — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; **Salary increase rates** — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See “open amortization period.”
Decrements	Those causes/events due to which a member’s status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member’s compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan’s earnings are allocated to each account, and each member’s benefits are a direct function of the account balance.
Employer normal cost	The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the valuation value of assets to the actuarial accrued liability. Plans sometimes also calculate a market funded ratio, using the market value of assets, rather than the valuation value of assets.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

Appendix A: Definition of Pension Terms

Term	Definition
Investment return	The rate of earnings of the Fund from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Negative amortization	Negative amortization is a result of an increase in the unfunded actuarial accrued liability when the amortization payment is less than the interest accrued on the unfunded actuarial accrued liability.
Net pension liability	The net pension liability is equal to the total pension liability minus the plan fiduciary net position.
Normal cost	The portion of the actuarial present value of future benefits and expenses, if applicable, allocated to a valuation year by the actuarial cost method. Any payment with respect to an unfunded actuarial accrued liability is not part of the normal cost (see “amortization payment”). For pension plan benefits that are provided in part by employee contributions, normal cost refers to the total of member contributions and employer normal cost unless otherwise specifically stated.
Open amortization period	An open amortization period is one which is used to determine the amortization payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the amortization period.
Plan fiduciary net position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total pension liability	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
Unfunded actuarial accrued liability	The excess of the actuarial accrued liability over the valuation value of assets. This value may be negative, in which case it may be expressed as a negative unfunded actuarial accrued liability, also called the funding surplus or an overfunded actuarial accrued liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation value of assets	For EBMUDERS, the proportion of the actuarial value of assets allocated to the Pension Plan.

5951291v6/10419.001