City of New Orleans Employees' Retirement System

Actuarial Valuation and Review as of January 1, 2025

Segal

Segal

2727 Paces Ferry Road SE, Building
One Suite 1400
Atlanta, GA 30339-4053
segalco.com
T 678.306.3100

May 27, 2025

Board of Trustees
City of New Orleans Employees' Retirement System
1300 Perdido Street, Suite 1E12
New Orleans, LA 70112

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2025. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal 2025.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board, based upon information provided by the staff of the City of New Orleans Employees' Retirement System and the System's other service providers.

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 Jeffrey S. Williams. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board based upon our analysis and recommendations. In our opinion, the assumptions are

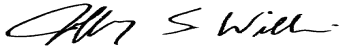
reasonable and take into account the experience of the System and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the System 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 System'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



Jeffrey S. Williams, ASA, FCA, MAAA, EA
Vice President and Consulting Actuary
Enrolled Actuary No. 23-7009

Malichi S. Waterman, FCA, MAAA, EA
Vice President and Consulting Actuary

Table of Contents

Table of Contents

Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the System as of January 1, 2025. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the System, as administered by the Board;
- The characteristics of covered active participants, inactive vested participants, and retired participants and beneficiaries as of December 31, 2024, provided by the Administrative Office;
- The assets of the Plan as of December 31, 2024, provided by the Administrative Office;
- Economic assumptions regarding future salary increases and investment earnings;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. and
- The funding policy adopted by the System and the employers.

Certain disclosure information required by GASB Statements No. 67 and 68 as of December 31, 2024 for the System is provided in a separate report.

Valuation highlights

- 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 unfunded actuarial accrued liability and the principal balance. The funding policy adopted by the City meets this standard.
- Actual employer contributions made during the year ending December 31, 2024 of $33,533,363 were 113.14% of the actuarially determined contribution (ADC). In the prior year, actual contributions were 113.47% of the prior year ADC.
- The total actuarial gain from all sources is $13,566,797, or 1.63% of actuarial accrued liability.
  - The total actuarial loss from investment experience is $1,184,628, or 0.14% of actuarial accrued liability.
  - The total actuarial gain from demographics and non-investment experience is $14,751,425, or 1.77% of actuarial accrued liability.
- The rate of return on the market value of assets was 12.25% for the year ending December 31, 2024. The return on the actuarial value of assets was 7.00% for the same period due to the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.25%.
- The actuarial value of assets is 100.51% of the market value of assets. The investment experience in the past years has only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Plan is likely to increase unless the net loss is offset by future experience. The recognition of the market losses of $2,582,912 will also have an impact on the future funded ratio. If the net deferred losses were recognized immediately in the actuarial value of assets, the ADC would increase from 15.06% to 15.14% of payroll.
- The following actuarial assumptions were approved by the Board and changed with this valuation, following the completion of an experience study for the period January 1, 2019 through December 31, 2023:
  - Healthy retiree mortality was updated from the PubG-2010 Healthy Annuitant Table to the PubG-2010 Healthy Annuitant Table loaded by 15% for both males and females
  - The contingent survivor mortality table was updated from the PubG-2010 Healthy Annuitant Amount-Weighted Table to the PubG-2010 Contingent Survivor Table
  - The generational projection Scale was changed from MP-2020 to MP-2021
  - Retirement rates for actives were changed to reflect recent experience with 100% retirement at age 75 (previously 70).
  - Retirement rates for terminated vested participants were changed from 100% at age 62 to a table of rates beginning at age 60 with 100% assumed to retire at age 75
  - Turnover rates were changed from age-based rates to service-based rates

- The disability incidence rate was lowered to 25% of previous rates
- Salary increases were updated from age-based rates to service-based rates
- Benefit election percentages were updated from 100% Single Life Annuity to 65% Life Annuities, 15% 50% Joint & Survivor Annuities, and 20% 100% Joint & Survivor Annuities
- The discount rate was changed from 7.25% to 7.00%
- The payroll growth assumption for amortization purposes was changed from 2.50% to 3.00%

As a result of these assumption changes, the total normal cost increased by $854,477 and the actuarial accrued liability decreased by $25,386,207. The total impact was a decrease in the ADC of $2,016,574, or 1.07% of payroll.

Risk

- It is important to note that this actuarial valuation is based on plan assets as of December 31, 2024. The Plan's funded status does not reflect short-term 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.
- Since the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition but have included a brief discussion of some risks that may affect the Plan in Section 2. A more detailed assessment would provide the Board with a better understanding of the inherent risks and could be important for the Plan because:
  - Relatively small changes in investment performance can produce large swings in the unfunded liabilities.
  - Inactive and retired participants account for 64% of the Plan's liabilities, leaving limited options for reducing costs in the event of adverse experience.
  - The Board has not to our knowledge performed a detailed risk assessment.

GASB

- This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and pension expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of December 31, 2024, will be provided separately.

Summary of key valuation results

Valuation Result	Current	Prior
Contributions for fiscal year beginning:	**January 1, 2025**	**January 1, 2024**
• Actuarially determined employer contributions	$28,274,657	$29,638,103
• Actuarially determined employer contributions as a percent of payroll	15.06%	16.95%
• Actual employer contributions	—	33,533,363
Actuarial accrued liability for plan year beginning:	**January 1, 2025**	**January 1, 2024**
• Retired participants and beneficiaries	$492,570,067	$493,503,792
• Inactive vested participants	21,526,126	28,798,477
• Active participants	294,306,832	304,644,943
• **Total**	**$808,403,025**	**$826,947,212**
• Normal cost including administrative expenses for plan year beginning January 1	18,391,597	15,778,961
Assets for plan year beginning January 1:		
• Market value of assets (MVA)	$505,835,421	$461,808,874
• Actuarial value of assets (AVA)	508,418,333	486,571,233
• Actuarial value of assets as a percentage of market value of assets	100.51%	105.36%
Funded status for plan year beginning January 1:		
• Unfunded actuarial accrued liability on market value of assets	$302,567,604	$365,138,338
• Funded percentage on MVA basis	62.57%	55.85%
• Unfunded actuarial accrued liability on actuarial value of assets	$299,984,692	$340,375,979
• Funded percentage on AVA basis	62.89%	58.84%
• Effective Amortization period on an AVA basis	20	22

Section 1: Actuarial Valuation Summary

Valuation Result	Current	Prior
Key assumptions:		
• Net investment return	7.00%	7.25%
• Inflation rate	2.50%	2.50%
Demographic data for plan year beginning January 1:		
• Number of retired participants and beneficiaries	2,124	2,124
• Number of inactive vested participants	348	423
• Number of active participants	3,089	3,004
• Total Payroll	$187,776,193	$174,850,253
• Average compensation	60,789	58,206

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.
Participant information	An actuarial valuation for a plan is based on data provided to the actuary by the City. 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 City. 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 participants 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 participants in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

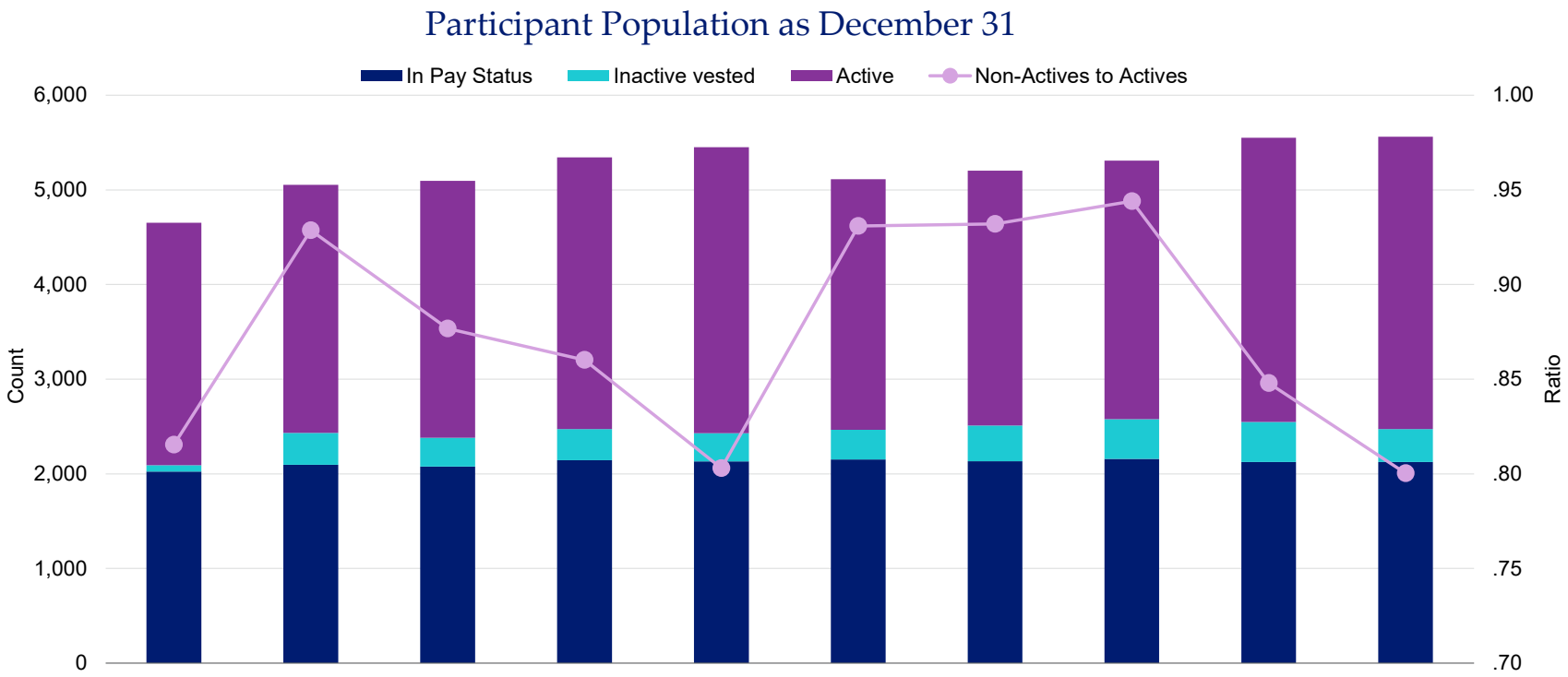
Section 1: Actuarial Valuation Summary

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 City. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the City 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 System. The valuation is based on Segal's understanding of applicable guidance in these areas and of the System's provisions, but they may be subject to alternative interpretations. The City 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 City upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

Participant information



Legend	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
In Pay Status	2,024	2,096	2,078	2,143	2,130	2,151	2,134	2,157	2,124	2,124
Inactive Vested[1]	65	337	303	328	298	314	376	421	423	348
Active	2,562	2,620	2,716	2,873	3,024	2,648	2,693	2,731	3,004	3,089
Ratio	0.82	0.93	0.88	0.86	0.80	0.93	0.93	0.94	0.85	0.80

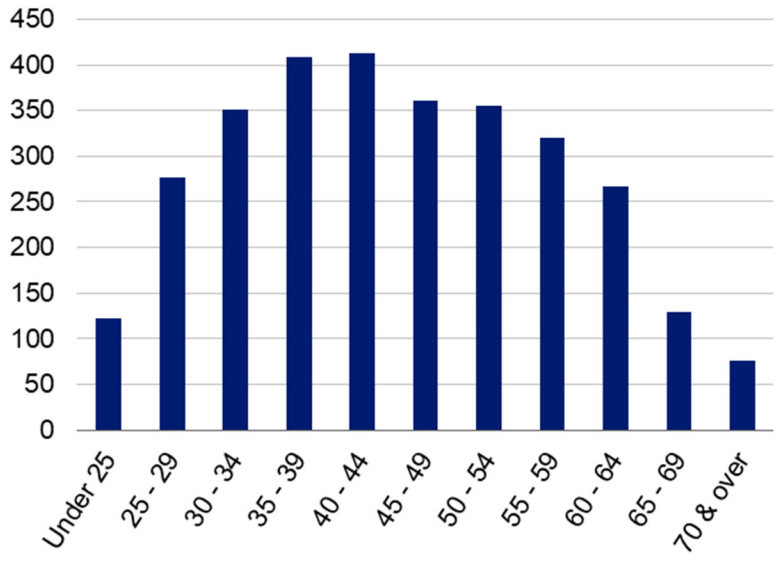
[1] Excluding terminated participants due a refund of employee contributions.

Active participants

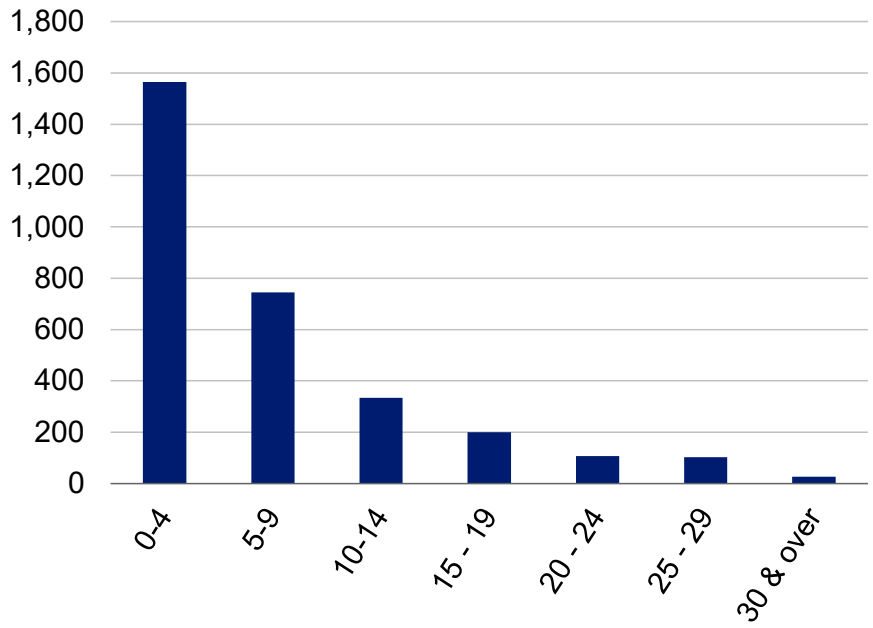
Demographic Data	December 31, 2024	December 31, 2023	Change
Active participants	3,089	3,004	2.8%
Average age	45.4	45.4	—
Average years of service	7.0	7.2	-0.2
Average compensation	$60,789	$58,206	4.4%

Distribution of Active Participants as of December 31, 2024

Actives by Age



Actives by Years of Service

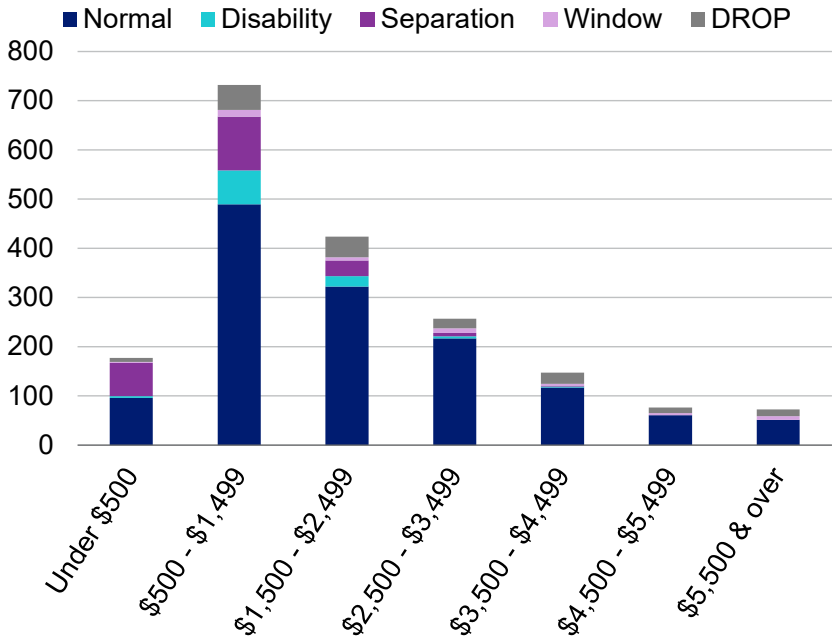


Retired participants and beneficiaries

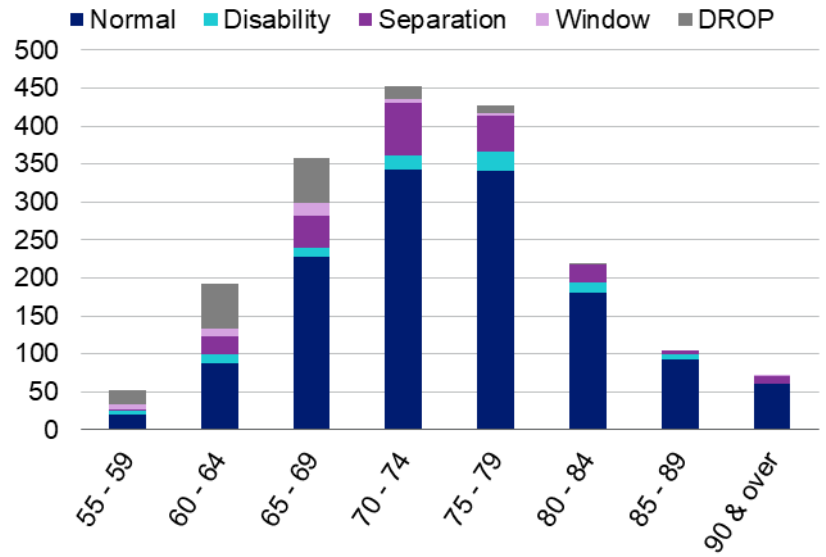
Demographic Data	December 31, 2024	December 31, 2023	Change
Retired participants	1,886	1,892	-0.3%
Beneficiaries	238	232	2.6%
Average age	73.8	73.6	0.2
Average amount	$1,952	$1,929	1.2%
Total monthly amount	4,146,811	4,097,500	1.2%

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

By Type and Monthly Amount



By Type and Age



Historical plan population

Participant Data Statistics

Active Participants versus Retired Participants and Beneficiaries

Year Ended December 31	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Average Monthly Amount
2015	2,562	44.0	8.3	2,024	71.8	$1,629
2016	2,620	44.0	7.8	2,096	71.7	1,707
2017	2,716	44.1	7.5	2,078	72.3	1,758
2018	2,873	44.2	7.3	2,143	72.0	1,770
2019	3,024	44.4	6.3	2,130	72.3	1,808
2020	2,648	45.1	7.8	2,151	72.7	1,848
2021	2,693	45.4	7.8	2,134	73.2	1,880
2022	2,731	45.5	7.5	2,157	73.4	1,913
2023	3,004	45.4	7.2	2,124	73.6	1,929
2024	3,089	45.4	7.0	2,124	73.8	1,952

Note: Average age, service, and monthly amounts prior to 2018 are estimated based on valuation reports from the prior actuary.

Section 2: Actuarial Valuation Results

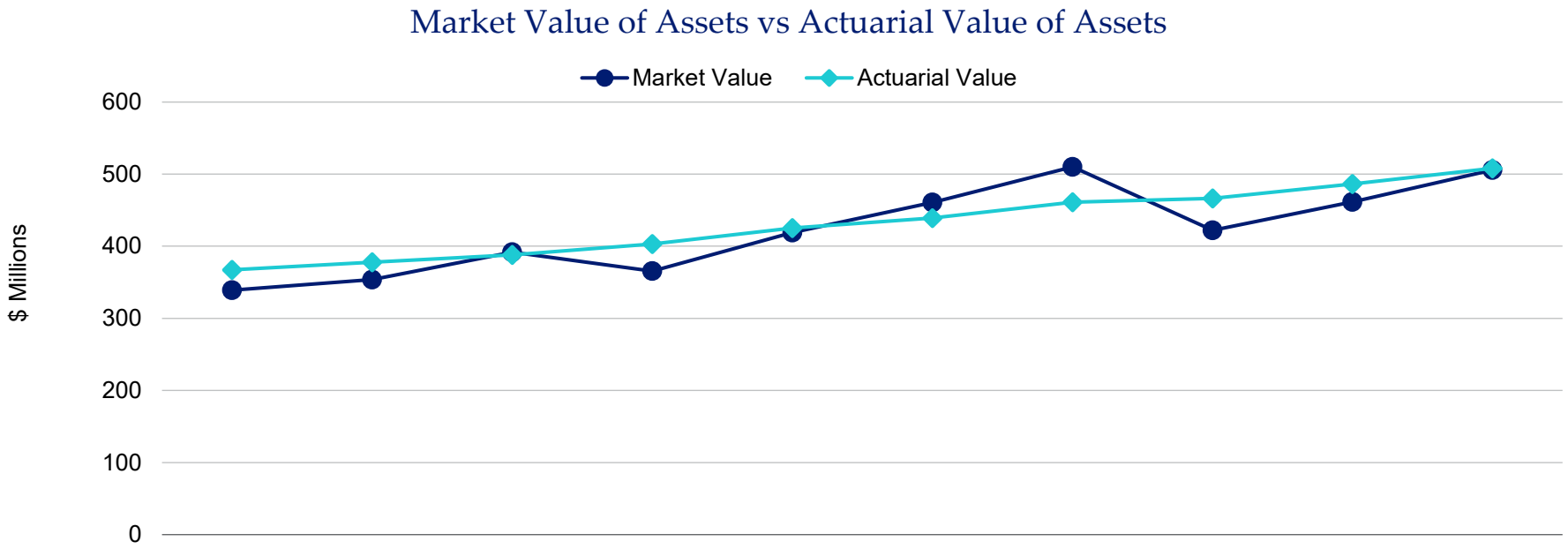
It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the 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.

Determination of Actuarial Value of Assets for Year Ended December 31, 2024

	Item	Original Amount[1]	Percent Deferred[2]	Unrecognized Amount[3]	Amount
1.	Market value of assets, December 31, 2024				$505,835,421
2.	Calculation of unrecognized return				
a.	Year ended December 31, 2024	$22,790,090	80%	$18,232,072	
b.	Year ended December 31, 2023	21,909,852	60%	13,145,910	
c.	Year ended December 31, 2022	-104,070,330	40%	-41,628,132	
d.	Year ended December 31, 2021	38,336,192	20%	7,667,238	
e.	Year ended December 31, 2020	24,087,406	0%	0	
f.	**Total unrecognized return**				**-$2,582,912**
3.	**Preliminary actuarial value: (1) - (2f)**				**508,418,333**
4.	Adjustment to be within 20% corridor				0
5.	**Final actuarial value of assets as of December 31, 2024: (3) + (4)**				**$508,418,333**
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				100.5%
7.	Amount deferred for future recognition: (1) - (5)				-$2,582,912

[1] Total return minus expected return on a market value basis.
[2] Percent deferred applies to the current valuation year.
[3] Recognition at 20% per year over five years.

Asset history for years ended December 31

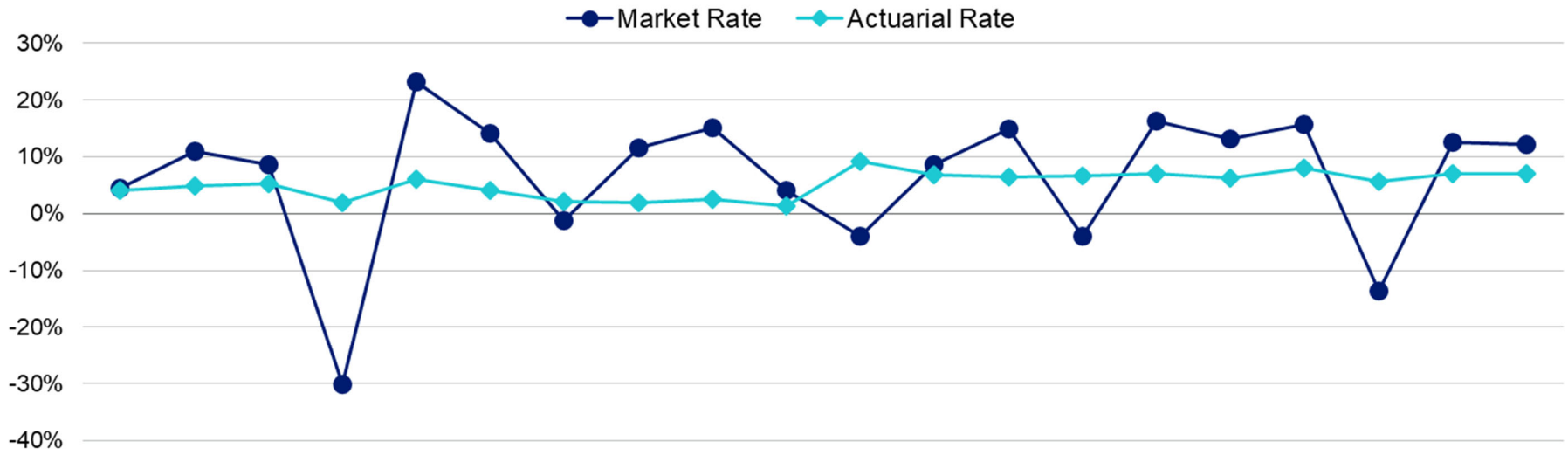


Legend	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market value[1]	$339.10	$353.61	$391.83	$365.74	$418.97	$460.64	$510.03	$422.17	$461.81	$505.84
Actuarial value[1]	367.27	377.75	388.23	403.02	425.08	439.15	461.09	466.43	486.57	508.42
Ratio (AVA/MVA)	1.08	1.07	0.99	1.10	1.01	0.95	0.90	1.10	1.05	1.01

[1] In $ millions

Historical investment returns

Market and Actuarial Rates of Return versus Assumed Rate for Years Ended December 31



Legend	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market rate	4.56%	11.05%	8.62%	-30.18%	23.13%	14.11%	-1.30%	11.56%	15.17%	4.16%	-3.88%	8.62%	14.97%	-4.03%	16.27%	13.09%	15.77%	-13.56%	12.52%	12.25%
Actuarial rate	4.02%	4.94%	5.30%	1.99%	6.06%	4.02%	2.10%	1.98%	2.57%	1.31%	9.29%	6.82%	6.52%	6.60%	6.97%	6.31%	8.12%	5.62%	7.08%	7.00%

Average Rates of Return	Market Value	Actuarial Value
Most recent five-year average return:	7.39%	7.21%
Most recent ten-year average return:	6.83%	7.31%
Most recent 15-year average return:	7.32%	5.79%
20-year average return:	5.97%	5.46%

Actuarial experience

Assumptions should consider experience and should be based on reasonable expectations for the future.

Each year actual experience is compared to that projected by the assumptions. Differences are reflected in the actuarial valuation.

Assumptions are not changed if experience is believed to be a short-term development that will not continue over the long term. On the other hand, if experience is expected to continue, assumptions are changed.

Actuarial Experience for Year Ended December 31, 2024

	Source	Amount
1.	Net gain/(loss) from investments	-$1,184,628
2.	Gain/(loss) from administrative expenses	-72,349
3.	Net gain/(loss) from other experience	14,823,774
4.	**Net experience gain/(loss): 1 + 2 + 3**	**$13,566,797**

Investment experience

Actuarial planning is long term. The obligations of a pension plan are expected to continue for the lifetime of all its participants.

The assumed long-term rate of return for the year ended December 31, 2024 was 7.25%. The assumption was updated in the experience study to 7.00%. The new assumption considers past experience, the asset allocation policy of the Board and future expectations.

Investment Experience for Year Ended December 31, 2024

	Item	Market Value	Actuarial Value
1.	Net investment income	$55,842,891	$33,663,444
2.	Average value of assets	455,900,702	480,663,061
3.	Rate of return: **1 ÷ 2**	12.25%	7.00%
4.	Assumed rate of return	7.25%	7.25%
5.	Expected investment income: **2 x 4**	$33,052,801	$34,848,072
6.	**Net investment gain/(loss): 1 – 5**	**$22,790,090**	**-$1,184,628**

Non-investment experience

Administrative expenses

Administrative expenses for the year ended December 31, 2024 totaled $766,859, as compared to the assumption of $699,401. This resulted in an experience loss of $72,349 for the year.

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 participants
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)

The net gain from this other experience for the year ended December 31, 2024 amounted to $14,823,774, which is 1.8% of the actuarial accrued liability.

Actuarial assumptions

The assumption changes reflected in this report are:

- Healthy retiree mortality was updated from the PubG-2010 Healthy Annuitant Table to the PubG-2010 Healthy Annuitant Table loaded by 15% for both males and females
- The contingent survivor mortality table was updated from the PubG-2010 Healthy Annuitant Amount-Weighted Table to the PubG-2010 Contingent Survivor Table
- The generational projection scale was changed from MP-2020 to MP-2021
- Retirement rates for actives were changed to reflect recent experience with 100% retirement at age 75 (previously 70)
- Retirement rates for terminated vested participants were changed from 100% at age 62 to a table of rates beginning at age 60 with 100% assumed to retire at age 75
- Turnover rates were changed from age-based rates to service-based rates
- The disability incidence rate was lowered to 25% of previous rates
- Salary increases were updated from age-based rates to service-based rates
- Benefit election percentages were updated from 100% Single Life Annuity to 65% Single Life Annuities, 15% 50% Joint & Survivor Annuities, and 20% 100% Joint & Survivor Annuities
- The discount rate was changed from 7.25% to 7.00%
- The payroll growth assumption for amortization purposes was changed from 2.50% to 3.00%

Plan provisions

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

Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024

	Component	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$340,375,979
2.	Normal cost at beginning of year, including administrative expenses	15,778,961
3.	Total expected contributions	-40,129,118
4.	Interest on 1, 2 & 3	22,911,874
5.	Expected unfunded actuarial accrued liability	338,937,696
6.	Changes due to:	
	a. Net experience (gain)/loss	-13,566,797
	b. Assumptions	-25,386,207
	c. Total changes	-38,953,004
7.	**Unfunded actuarial accrued liability at end of year**	**$299,984,692**

Actuarially determined contribution

The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded/(overfunded) actuarial accrued liability. As of January 1, 2025, the actuarially determined contribution is $28,274,657, or 15.06% of projected payroll.

The contribution requirement as of January 1, 2025 is based on the data previously described, the actuarial assumptions and plan provisions described in Section 4, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in actuarial assumptions.

Actuarially Determined Contribution

	Component	2025 Amount	2025 Percent of Projected Payroll	2024 Amount	2024 Percent of Projected Payroll
1.	Total normal cost	$17,640,492	9.39%	$15,079,560	8.62%
2.	Administrative expenses	751,105	0.40%	699,401	0.40%
3.	Expected employee contributions	-11,266,572	-6.00%	-10,491,015	-6.00%
4.	Employer normal cost: (1) + (2) + (3)	7,125,025	3.79%	5,287,946	3.02%
5.	Actuarial accrued liability	808,403,025		826,947,212	
6.	Actuarial value of assets	508,418,333		486,571,233	
7.	Unfunded/(overfunded) actuarial accrued liability: (5) - (6)	299,984,692		340,375,979	
8.	Payment on unfunded actuarial accrued liability	21,149,632	11.27%	24,350,157	13.93%
9.	**Actuarially determined contribution: (4) + (10) + (11)**	**$28,274,657**	**15.06%**	**$29,638,103**	**16.95%**
10.	Payroll	187,776,193		174,850,253	

The actuarially determined 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*.

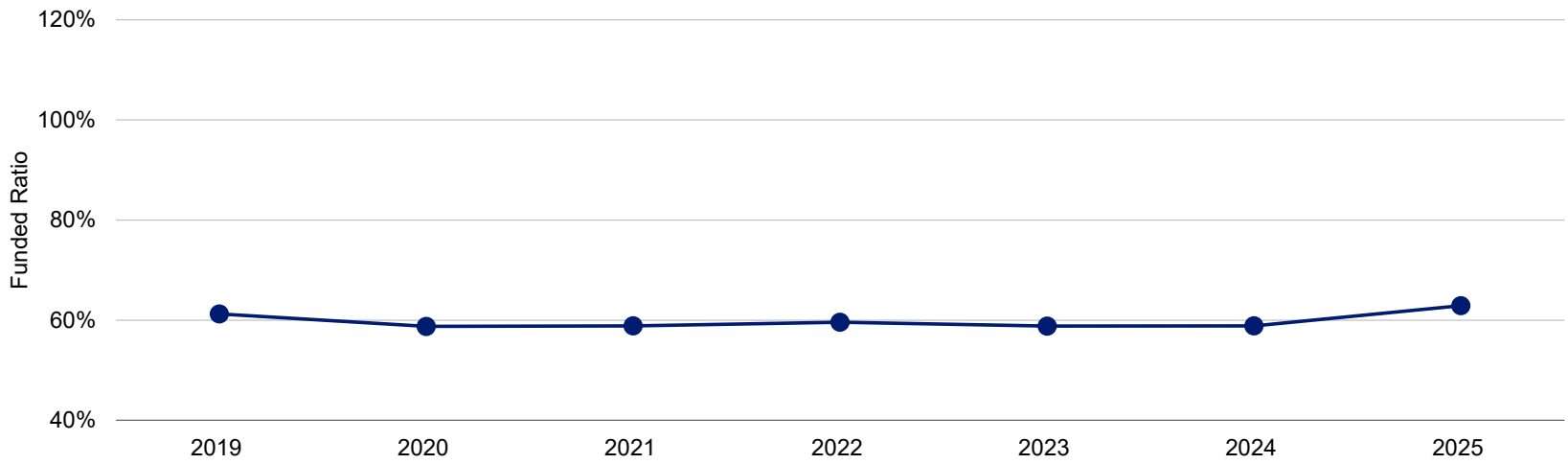
Reconciliation of actuarially determined contribution

Reconciliation from January 1, 2024 to January 1, 2025

Component	Amount	Percent of Payroll
Actuarially determined contribution as of January 1, 2024	$29,638,103	16.95%
Changes in Actuarially Determined Contribution due to:		
• Expected change in amortization payment due to payroll growth	608,754	0.35%
• Change due to administrative expense assumption	51,704	0.03%
• Change in actuarial assumptions	-2,068,278	-1.18%
• Investment loss	77,410	0.04%
• Other gains and losses on accrued liability	-700,698	-0.40%
• Other changes, including composition and number of participants	667,662	0.36%
• **Total change**	**-$1,363,446**	**-0.78%**
Total change in percentage due to payroll change		-1.11%
Actuarially determined contribution as of January 1, 2025	**$28,274,657**	**15.06%**

Schedule of funding progress through December 31, 2024

Actuarial Valuation Date of January 1	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Compensation (c)	UAAL as a Percentage of Covered Compensation [(b) – (a)] / (c)
2019	$403,015,342	$658,352,626	$255,337,284	61.22%	$128,530,078	198.66%
2020	425,079,078	723,145,441	298,066,363	58.78%	149,538,039	199.32%
2021	439,149,127	746,340,322	307,191,195	58.84%	135,779,772	226.24%
2022	461,092,638	773,824,079	312,731,441	59.59%	142,338,647	219.71%
2023	466,427,804	792,825,271	326,397,467	58.83%	148,582,198	219.67%
2024	486,571,233	826,947,212	340,375,979	58.84%	174,850,253	194.67%
2025	508,418,333	808,403,025	299,984,692	62.89%	187,776,193	159.76%



History of employer contributions

Actuarially Determined Contribution (ADC) versus Actual Contribution

Year Ended December 31	ADC Amount	ADC as a Percentage of Covered Compensation	Actual Contribution Amount	Actual Contribution as a Percentage of Covered Compensation	Percent Contributed
2016	$22,713,296	21.49%	$27,304,527	25.83%	120.21%
2017	26,857,512	23.25%	27,169,921	23.52%	101.16%
2018	28,015,495	23.19%	31,065,227	25.71%	110.89%
2019	28,689,759	22.32%	33,884,678	26.36%	118.11%
2020	22,890,640	15.31%	32,615,183	21.81%	142.48%
2021	23,973,368	17.66%	21,651,850	15.95%	90.32%
2022	24,450,297	17.18%	25,665,015	18.03%	104.97%
2023	26,969,460	18.15%	30,602,728	20.60%	113.47%
2024	29,638,103	16.95%	33,533,363	19.18%	113.14%
2025	28,274,657	15.06%	- -	- -	- -

Low-Default-Risk Obligation Measure (LDROM)

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

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer (www.bondbuyer.com), is 4.01% for use effective December 31, 2024. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or Actuarially Determined Contribution. The plan's expected return on assets, currently 7.00%, is used for these calculations.

As of December 31, 2024, the LDROM for the system is $1,159,183,966. The difference between the plan's AAL of $808,403,025 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 participant 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.

Risk

The actuarial valuation results are dependent on a single set of assumptions; however, there is a risk that emerging results may differ significantly as actual experience proves to be different from the current assumptions.

We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition but have included a brief discussion of some risks that may affect the Plan.

- Economic and Other Related Risks. Potential implications for the Plan due to the following economic effects (that were not reflected as of the valuation date) include:
  - Volatile financial markets and investment returns lower than assumed
  - High inflationary environment impacting salary increases
- Investment Risk (the risk that returns will be different than expected)

  If the actual return on market value for the prior plan year were 1% different (either higher or lower), the unfunded actuarial liability would change by 1.52%, or about $4,559,007, disregarding the asset smoothing method.

  Since the Plan's assets are much larger than contributions, investment performance may create volatility in the actuarially determined contribution requirements. For example, for the prior plan year, if the actual return on market value were 1% different, the actuarially determined contribution would increase or decrease by $277,473, disregarding the effects of the 5-year phase-in of investment gains and losses.

  The market value rate of return over the last 20 years has ranged from a low of -30.18% to a high of 23.13%.
- Longevity Risk (the risk that mortality experience will be different than expected)

  The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.
- Contribution Risk (the risk that actual contributions will be different from actuarially determined contribution)

  The Plan's funding policy requires payment of the actuarially determined contribution. As long as this policy is adhered to, contribution risk is negligible.
- Demographic Risk (the risk that participant experience will be different than assumed)

  Examples of this risk include:
  - Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that apply.
  - More or less active participant turnover than assumed.

Section 2: Actuarial Valuation Results

- There are external factors including legislative or financial reporting changes that could impact the Plan's funding and disclosure requirements. While we do not assume any changes in such external factors, it is important to understand that they could have significant consequences for the Plan.
- Actual Experience Over the Last Seven Years

  Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past seven years:
  - The annual investment gain(loss) on a market value basis has ranged from a loss of $104,070,330 to a gain of $38,336,192
  - The annual non-investment gain(loss) has ranged from a loss of $23,462,607 to a gain of $14,885,424.

Plan Year Ended	Market Investment Gain/(Loss)	All Other Gains and (Losses)
2018	-44,582,900	-23,462,607
2019	31,830,992	14,885,424
2020	23,055,409	-11,272,794
2021	38,336,192	-15,427,528
2022	-104,070,330	-4,405,432
2023	21,909,852	-18,507,745
2024	22,790,090	14,751,425

Maturity Measures

- 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.
- Currently the Plan has a non-active to active participant ratio of 0.80.
- For the prior year, benefits and administrative expenses paid were $11,816,344 more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return.

GFOA funded liability by type

The Actuarial Accrued Liability represents the present value of benefits earned, calculated using the Plan's actuarial cost method. The Actuarial Value of Assets reflects the financial resources available to liquidate the liability. The portion of the liability covered by assets reflects the extent to which accumulated plan assets are sufficient to pay future benefits, and is shown for liabilities associated with employee contributions, pensioner liabilities, and other liabilities. The Government Finance Officers Association (GFOA) recommends that the funding policy aim to achieve a funded ratio of 100 percent.

GFOA Funded Liability by Type as of December 31

Type	2024	2023
Actuarial accrued liability (AAL)		
Active member contributions	$66,327,281	$62,291,558
Retirees and beneficiaries	492,570,067	493,503,792
Active and inactive members (employer-financed)	249,505,677	271,151,862
Total	**$808,403,025**	**$826,947,212**
Actuarial value of assets	508,418,333	486,571,233
Cumulative portion of AAL covered		
Active member contributions	**100.00%**	**100.00%**
Retirees and beneficiaries	**89.75%**	**85.97%**
Active and inactive members (employer-financed)	**0.00%**	**0.00%**

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 participants 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

Description	Year Ended December 31, 2024	Year Ended December 31, 2023
Liabilities		
Present value of benefits for retired participants and beneficiaries	$492,570,067	$493,503,792
Present value of benefits for inactive vested participants	21,526,126	28,798,477
Present value of benefits for active participants	420,172,027	396,372,589
Total liabilities	**$934,268,220**	**$918,674,858**
Current and future assets		
Total valuation value of assets	$508,418,333	$486,571,233
Present value of future contributions by members	80,253,760	63,274,885
Present value of future employer contributions for:		
• Entry age cost	45,611,435	28,452,761
• Unfunded actuarial accrued liability	299,984,692	340,375,979
Total of current and future assets	**$934,268,220**	**$918,674,858**

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 payroll, 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 2.7. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 2.7% of one-year's payroll. Since actuarial gains and losses are amortized over 5 years, there would be a 0.5% of payroll decrease/(increase) in the required contribution for each 1% asset gain or loss.

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, 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 LVR is about 4.3. This is about 59.26% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Volatility Ratios

Year Ended December 31	Asset Volatility Ratio	Liability Volatility Ratio
2018	2.8	5.1
2019	2.8	4.8
2020	3.4	5.5
2021	3.6	5.4
2022	2.8	5.3
2023	2.6	4.7
2024	2.7	4.3

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Demographic Data	Year Ended December 31, 2024	Year Ended December 31, 2023	Change From Prior Year
Active participants in valuation:			
• Number	3,089	3,004	2.8%
• Average age	45.4	45.4	0.0
• Average years of service	7.0	7.2	-0.2
• Average compensation	$60,789	$58,206	4.4%
• Account balances	66,327,281	62,291,558	6.5%
• Number with unknown age and/or service information	0	0	N/A
• Total active vested participants	1,534	1,530	0.3%
Inactive participants:			
• Inactive vested participants	348	423	-17.7%
Retired participants:			
• Number in pay status	1,787	1,788	-0.1%
• Average age	73.7	73.5	0.2
• Average monthly benefit	$2,090	$2,065	1.2%
Disabled participants:			
• Number in pay status	99	104	-4.8%
• Average age	72.0	71.4	0.6
• Average monthly benefit	$1,286	$1,273	1.0%

Section 3: Supplemental Information

Demographic Data	Year Ended December 31, 2024	Year Ended December 31, 2023	Change From Prior Year
Beneficiaries:			
• Number in pay status	238	232	2.6%
• Average age	76.5	73.6	2.9
• Average monthly benefit	$1,192	$1,177	1.3%

Exhibit B: Reconciliation of participant data

Description	Active Participants	Inactive Vested Participants	Disableds	Retired Participants	Beneficiaries	Total
Number as of January 1, 2024	**3,004**	**423**	**104**	**1,788**	**232**	**5,551**
New participants	573	N/A	N/A	N/A	N/A	573
Terminations — with vested rights	-36	36	0	0	0	0
Terminations — without vested rights	-262	N/A	N/A	N/A	N/A	-262
Retirements	-61	-16	N/A	77	N/A	0
New disabilities	0	0	0	N/A	N/A	0
Return to work	0	0	0	0	N/A	0
Deaths	-1	0	-5	-78	-25	-109
New beneficiaries	0	0	0	0	31	31
Lump sum cash-outs	-137	-31	0	0	0	-168
Rehire	9	-8	N/A	-1	N/A	0
Certain period expired	N/A	N/A	0	0	0	0
Data adjustments	0	-56	0	1	0	-55
Active participants no longer accruing benefits	0	0	N/A	N/A	N/A	0
Other	0	0	0	0	0	0
Number as of January 1, 2025	**3,089**	**348**	**99**	**1,787**	**238**	**5,561**

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

Income and Expenses for Years Ended December 31

Item	2024	2023
Contribution and other income:		
• Employer contributions	$33,533,363	$30,602,728
• Member contributions	11,065,528	10,183,093
• Other contributions	972,803	848,935
– **Net contribution and other income**	**$45,571,694**	**$41,634,756**
Investment income:		
• Investment income	$57,173,469	$53,179,788
• Less investment fees	-1,330,578	-1,112,964
– **Net investment income**	**$55,842,891**	**$52,066,824**
• **Total income available for benefits**	**$101,414,585**	**$93,701,580**
Less benefit payments and administrative expenses:		
• Benefit payments	-$56,621,179	-$53,345,618
• Administrative expenses	-766,859	-721,502
– **Net benefit payments and administrative expenses**	**-$57,388,038**	**-$54,067,120**
Change in market value of assets	**$44,026,547**	**$39,634,460**
Net assets at market value at the beginning of the year	**$461,808,874**	**$422,174,414**
Net assets at market value at the end of the year	**$505,835,421**	**$461,808,874**

Exhibit D: Summary statement of plan assets

Statement of Plan Assets as of December 31

Item	2024	2023
Cash equivalents	**$32,459,247**	**$31,462,572**
Accounts receivable:		
• **Total accounts receivable**	**$423,395**	**$2,475,555**
Investments:		
• Fixed Income	$42,095,514	$59,330,509
• Stocks and equity	310,487,343	247,569,730
• Alternatives	122,961,542	123,102,178
• **Total investments at market value**	**$475,544,399**	**$430,002,417**
Total assets	**$508,427,041**	**$463,940,544**
Accounts payable:		
• **Total accounts payable**	**-$2,591,620**	**-$2,131,670**
Net assets at market value	**$505,835,421**	**$461,808,874**
Net assets at actuarial value	**$508,418,333**	**$486,571,233**

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

Year Ended December 31	Employer Contributions	Employee Contributions	Other Income	Net Investment Return[1]	Admin. Expenses[2]	Benefit Payments	Market Value of Assets at Year-End	Actuarial Value of Assets at Year-End	Actuarial Value as a Percent of Market Value
2015	$22,447,281	$6,490,092	$1,622,658	-$14,044,748	$0	$48,166,703	$339,098,650	$367,274,453	108.3%
2016	27,304,527	7,444,419	1,106,421	28,611,585	0	49,956,004	353,609,598	377,748,008	106.8%
2017	27,169,921	7,677,009	729,180	51,906,523	296,496	49,264,915	391,827,316	388,233,310	99.1%
2018	31,065,227	8,246,577	507,195	-15,589,616	243,972	50,075,418	365,737,309	403,015,342	110.2%
2019	33,884,678	9,134,139	264,650	59,043,437	376,002	48,716,880	418,971,331	425,079,078	101.5%
2020	32,615,183	8,851,861	261,920	54,015,335	316,687	53,756,908	460,642,035	439,149,127	95.3%
2021	21,651,850	8,509,475	965,183	70,951,072	560,127	52,129,637	510,029,851	461,092,638	90.4%
2022	25,665,015	8,743,683	764,331	-67,819,470	615,589	54,593,407	422,174,414	466,427,804	110.5%
2023	30,602,728	10,183,093	848,935	52,066,824	721,502	53,345,618	461,808,874	486,571,233	105.4%
2024	33,533,363	11,065,528	972,803	55,842,891	766,859	56,621,179	505,835,421	508,418,333	100.5%

[1]On a market basis, net of investment fees
[2] Information prior to 2017 not available in prior actuary's reports

Exhibit F: Table of amortization bases

Type	Date Established	Initial Period	Initial Amount	Annual Payment[1]	Years Remaining	Outstanding Balance
Initial UAL	01/01/2020	25	$239,946,779	$16,731,216	20.00	$238,668,790
Actuarial Gain	01/01/2020	25	-12,750,278	-889,062	20.00	-12,682,369
Change in Assumptions	01/01/2020	25	70,869,862	4,941,675	20.00	70,492,401
Actuarial Loss	01/01/2021	25	6,288,682	426,697	21.00	6,285,938
Change in Assumptions	01/01/2021	25	-4,226,362	-286,766	21.00	-4,224,519
Plan Amendment	01/01/2021	25	2,955,892	200,562	21.00	2,954,602
Plan Amendment	01/01/2021	25	3,386,082	229,751	21.00	3,384,605
Actuarial Loss	01/01/2022	25	13,986,907	923,527	22.00	14,019,966
Change in Asset Method	01/01/2022	25	-8,717,521	-575,600	22.00	-8,738,125
Actuarial Loss	01/01/2023	25	10,792,617	693,493	23.00	10,827,778
Plan Amendment	01/01/2023	25	3,120,186	200,492	23.00	3,130,352
Actuarial Loss	01/01/2024	25	14,782,542	924,426	24.00	14,818,277
Actuarial Gain	01/01/2025	25	-13,566,797	-825,710	25.00	-13,566,797
Change in Assumptions	01/01/2025	25	-25,386,207	-1,545,069	25.00	-25,386,207
Total				**$21,149,632**		**$299,984,692**

[1] Level percentage of payroll

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is from the January 1, 2019 through December 31, 2023 Actuarial Experience Study.

Net investment return

7.00%.

Salary increases

Service	Rate (%)
0	15.00%
1-4	8.25%
5-11	7.00%
12-20	6.00%
21+	4.00%

Mortality rates

Healthy Pre-Retirement: PubG-2010 Employee Mortality Tables, amount-weighted with rates loaded by 15%, projected generationally with Scale MP-2021

Healthy Post-Retirement: PubG-2010 General Healthy Retiree Tables, amount-weighted, projected generationally with Scale MP-2021

Disabled: PubNS-2010 Non-Safety Disabled Retiree Tables, amount-weighted, projected generationally with Scale MP-2021

Contingent survivors: PubG-2010 General Contingent Survivor Table, projected generationally with Scale MP-2021

Termination rates (%) before retirement

Age	Disability[1]
20	0.04125
30	0.04125
40	0.03375
50	0.13125
60+	0.00000

Service	Male Withdrawal	Female Withdrawal
0	28%	25%
1	20%	22%
2-3	20%	20%
4-5	15%	13%
6-13	11%	10%
14+	7%	7%

[1] All disabilities are assumed to be Ordinary Disabilities

Retirement rates

Age	Retirement Probability (%)
46-55	30%
56-64	15%
65-67	20%
68-70	12%
71-74	20%
75+	100%

Retirement rates for inactive vested participants

Age	Retirement Probability (%)
60-62	28%
63-64	15%
65-66	30%
67-74	15%
75+	100%

Inflation

2.50%

Payroll Growth

3.00%

Administrative Expenses

0.4% of payroll

Unknown data for participants

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

Benefit election

65% assumed to elect Life Annuities, 15% assumed to elect 50% Joint & Survivor Annuities, and 20% assumed to elect 100% Joint & Survivor Annuities

Actuarial value of assets

Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period, further adjusted, if necessary, to be within 20% of the market value.

Actuarial cost method

Entry Age Actuarial Cost Method. Entry Age is the age at date of employment or, if date is unknown, current age minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by service, with Normal Cost determined using the plan of benefits applicable to each participant.

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

Based on past experience and future expectations, the following actuarial assumptions were changed:

- Healthy retiree mortality was updated from the PubG-2010 Healthy Annuitant Table to the PubG-2010 Healthy Annuitant Table loaded by 15% for both males and females
- The contingent survivor mortality table was updated from the PubG-2010 Healthy Annuitant Amount-Weighted Table to the PubG-2010 Contingent Survivor Table
- The generational projection Scale was changed from MP-2020 to MP-2021
- Retirement rates for actives were changed to reflect recent experience with 100% retirement at age 75 (previously 70).
- Retirement rates for terminated vested participants were changed from 100% at age 62 to a table of rates beginning at age 60 with 100% assumed to retire at age 75
- Turnover rates were changed from age-based rates to service-based rates
- The disability incidence rate was lowered to 25% of previous rates
- Salary increases were updated from age-based rates to service-based rates
- Benefit election percentages were updated from 100% Single Life Annuity to 65% Life Annuities, 15% 50% Joint & Survivor Annuities, and 20% 100% Joint & Survivor Annuities
- The discount rate was changed from 7.25% to 7.00%
- The payroll growth assumption was changed from 2.50% to 3.00%

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.

Plan year

January 1 through December 31

Plan status

Ongoing

Normal retirement

Members Hired Prior to January 1, 2018

Eligibility Requirement	Age 65 and 5 years of service
Amount	2.5% of average compensation times creditable service for the first 25 years plus 4.0% of average compensation times creditable service thereafter
Average Compensation	Average annual compensation for highest consecutive 60-month period.

Members Hired on or After January 1, 2018

Eligibility Requirement	Age 65 and 5 years of service
Amount	2.5% of average compensation times creditable service
Average Compensation	Average annual compensation for highest consecutive 60-month period.

Unreduced Early Retirement

Members Hired Prior to January 1, 2018

Eligibility Requirement	Any age with 30 years of service or age plus service equals 80
Amount	Normal Retirement amount, unreduced

Members Hired on or After January 1, 2018

Eligibility Requirement	Any age with 30 years of service, age 62 with 20 years of service, or age plus service equals 80
Amount	Normal Retirement amount, unreduced

Early retirement

Eligibility Requirement	Age 60 and 10 years of service
Amount	Normal Retirement amount, reduced by 3% per year prior to age 62

Minimum Retirement Benefit

$3,600 per year for any member with at least 10 years of creditable service

Disability

Eligibility Requirement	Any age with 10 years of service
Amount	75% of the benefit the member would have earned had they worked until age 65

Accidental Disability

Eligibility Requirement	Disability occurs as a result of an accident sustained while in the actual performance of duty, without willful negligence on the member's part.
Amount	65% of the member's compensation for the 12 months preceding the accident, offset by any payments received from Workers Compensation

Vesting

5 years of service

Spouse's pre-retirement death benefit

Death while an Active Member

Member had less than three years of service at date of death	Refund of member contributions plus interest
Member had at least three years of service at date of death	Refund of member contributions plus interest plus 25% of the member's base pensionable earnings in the year preceding death plus 5% of the member's base pensionable earnings for each full year in excess of three years

Death after Separation from Service

Not Retirement Eligible	Refund of member contributions plus interest
Retirement Eligible	Survivor's portion of 100% Joint and Survivor benefit with Pop-Up, payable as if member retired immediately prior to death

Post-retirement death benefit

Based on form of payment chosen by member upon retirement

DROP

Members eligible for Normal Retirement or Unreduced Early Retirement may elect to defer receipt of their retirement benefits while continuing employment for up to five (5) years. Upon the effective date of participating in the DROP, a member's years of service and Average Monthly Compensation become frozen for purposes of determining pension benefits. Additional service beyond the date of DROP participation no longer accrues any additional benefits under the Retirement System. Benefits that would have been payable are accumulated at interest to date of termination and paid in a single lump sum or in substantially equal payments over a period designated by the member but not to exceed 119 months. The interest rate is the applicable rate established by the Louisiana Asset Management Pool and credited as of each December 31st.

Contribution rates

Member	6.0% of pensionable compensation
Employer	Actuarial Determined Contribution less member contributions

Future Benefit Increases

Participants who retired in 2022 under the Voluntary Retirement Option receive annual increases of 1% of monthly benefit plus an annual payment to the member or surviving beneficiary of $50 for each full year of employment ($1,000 minimum) for the 10-year period beginning January 1, 2022.

Changes in plan provisions

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

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, as well as Actuarially Determined Contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the Actuarially Determined Contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC 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 ADC, that is intended to pay off the Unfunded Actuarial Accrued Liability.
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: **Investment return** — the rate of investment yield that the Plan will earn over the long-term future; **Mortality rates** — the rate or probability of death at a given age for employees and retirees; **Retirement rates** — the rate or probability of retirement at a given age or service; **Disability rates** — the rate or probability of disability retirement at a given age; **Withdrawal rates** — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; **Salary increase rates** — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.

Appendix A: Definition of Pension Terms

Term	Definition
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See Open Amortization Period.
Decrements	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member's compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer normal cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the Actuarial Value of Assets (AVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the AVA.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Net Pension Liability (NPL)	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.

Appendix A: Definition of Pension Terms

Term	Definition
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 (TPL)	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 Actuarial 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.