Fire and Police Pension Fund, San Antonio

Actuarial Valuation and Review as of January 1, 2025

Segal

Segal

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June 16, 2025

Board of Trustees
Fire and Police Pension Fund, San Antonio
11603 W. Coker Loop, Suite 201
San Antonio, Texas 78216-3099

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 Fire and Police Pension Fund, San Antonio and the Fund'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 Malichi S. Waterman. I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my 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 my analysis and recommendations. In my opinion, the assumptions are

reasonable and take into account the experience of the Fund and reasonable expectations. In addition, in my 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 Fund 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

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

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the San Antonio Fire and Police Pension Fund, as of January 1, 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 Pension Fund, 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 Fund;
- The assets of the Plan as of December 31, 2024, provided by the Fund;
- 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 Board.

The assumptions and methods used to value the Fund were set by the Board of Trustees, based on recommendations made by Segal following a 5-year experience study for the period ended December 31, 2023.

Certain disclosure information required by GASB Statement No. 67 for the Pension Fund's financial statements as of December 31, 2024 and by GASB Statement No. 68 for the City's financial statements as of September 30, 2025 is provided in separate reports.

Valuation highlights

- The Board's Actuarial Funding Policy for the Pension Fund was updated in July, 2024. The Actuarially Determined Contribution (ADC) set by the policy is defined as the sum of the Normal Cost and a closed 25-year percent of pay amortization of the Unfunded Actuarial Accrued Liability. 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 Fund meets this standard.
- The actuarially determined contribution (ADC) for the upcoming year is $142,102,281, a decrease of $1.1 million from last year. The contribution as a percentage of payroll decreased from 37.36% of payroll to 35.47% of payroll.
- The City is expected to continue to contribute 24.64% of pay, and members are expected to contribute 12.32%, for a total of 36.96% of pay. The total normal cost is 22.96% of payroll and is fully covered by the 36.96% contribution rate. Since the actual budgeted contributions are higher than the ADC, there is a surplus this year, and the unfunded liability is effectively being amortized over a period of 20.55 years as a level percent of pay. This is a 0.41-year decrease in the effective period from 20.96 in the prior valuation. If all assumptions are met in the future, 100% funding is projected in the 2045 Plan Year. Based on these results, the Fund is in compliance with the provisions of the Board's funding policy. The Fund also continues to meet the requirements of the Texas Pension Review Board (PRB) for actuarial soundness, and no Funding Soundness Restoration Plan is required.
- The actuarial loss of $83,354,657, or 1.66% of actuarial accrued liability, is due to an investment loss of $36,754,544, or 0.73% of actuarial accrued liability, and a loss from sources other than investments of $46,600,113, or 0.93% of the actuarial accrued liability prior to reflection of assumption changes. The demographic loss was primarily due to salary experience different than expected.
- The rate of return on the market value of assets was 8.36% for the year ending December 31, 2024. The return on the actuarial value of assets was 6.34% 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%. We advise the Board to continue to monitor actual and anticipated investment returns relative to the assumed long-term rate of return on investments of 7.25%.
- The actuarial value of assets is 102.5% of the market value of assets. The investment experience in the past years have only been partially recognized in the actuarial value of assets. As the deferred net loss is recognized in future years, the cost of the Fund is likely to increase unless the net loss is offset by future experience. The recognition of the market gains/losses of $104.3 million 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 35.47% to about 39.12% of payroll.

Section 1: Actuarial Valuation Summary

- Included in this valuation for the first time are a variety of assumption changes as recommended in the January 1, 2019 – December 31, 2023 experience study for the Fund. The study was presented to the Board in February 2025. Changes were made to the salary scale, inflation rate, mortality projection scale, retirement rates, turnover rates, disability rates and other demographic assumptions. Details of the new assumptions are summarized in Section 4, Exhibit G.
  - As a result of these assumption changes the actuarial accrued liability decreased by $53.5 million, the actuarially determined contribution decreased by $4.2 million and the funded percentage increased from 84.45% to 85.37% on an actuarial value of asset basis.
- In addition to the assumption changes, the amortization method was changed from an open 20-year to a closed 25-year level percentage of payroll method in this valuation.
  - The change in funding method decreased the actuarially determined contribution by $6.9 million from $149.0 million or 37.19% of projected payroll to $142.1 million or 35.47% of projected payroll.
- There were no plan changes included for the first time in this valuation.
- The funded ratio (the ratio of the actuarial value of assets to actuarial accrued liability) is 85.37%, compared to the prior year funded ratio of 85.44%. 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 is 83.26%, compared to 81.86% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of the plan assets to cover the estimated cost of settling the Fund's benefit obligation or the need for or the amount of future contributions.
- The unfunded actuarial accrued liability is $724,928,187, which is an increase of $27.1 million since the prior valuation.

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 Fund's future financial condition, but have included a brief discussion of some risks that may affect the Fund 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 Fund because:
  - Relatively small changes in investment performance can produce large swings in the unfunded liabilities.
  - Retired participants account for over 60% of the Fund's liabilities, leaving limited options for reducing costs in the event of adverse experience.
  - Potential changes in the plan of benefits may result in participant choices that vary from those assumed.
  - The Board have not had a detailed risk assessment in recent years.

GASB

- The disclosure information required for compliance with Governmental Accounting Standards Board (GASB) Statement No. 67 *Financial Reporting for Pension Plans* for the fiscal year ended December 31, 2024 and information required for compliance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, for the fiscal year ended September 30, 2025, based on a December 31, 2024 measurement date is provided separately.

Summary of key valuation results

Valuation Result	Current	Prior
Contributions for fiscal year beginning:	**January 1, 2025**	**January 1, 2024**
• Actuarially determined contribution	$142,102,281	$143,242,097
• Actuarially determined contribution as a percent of payroll	35.47%	37.36%
• Actual contributions	—	$95,246,413
• Actual contribution rate	36.96%	36.96%
• Effective amortization period	20.55 years	20.96 years
Actuarial accrued liability for plan year beginning:	**January 1, 2025**	**January 1, 2024**
• Retired participants and beneficiaries	$3,022,523,812	$2,949,210,476
• Inactive vested participants	1,020,707	971,254
• Inactive participants due a refund of employee contributions	1,848,149	1,346,942
• Active participants	1,928,607,476	1,841,536,285
• **Total**	**$4,954,000,144**	**$4,793,064,957**
• Normal cost including administrative expenses for plan year beginning January 1	91,969,560	88,368,942
Assets for plan year beginning January 1:		
• Market value of assets (MVA)	$4,124,762,616	$3,923,604,117
• Actuarial value of assets (AVA)	4,229,071,957	4,095,280,090
• Actuarial value of assets as a percentage of market value of assets	102.53%	104.38%
Funded status for plan year beginning January 1:		
• Unfunded actuarial accrued liability on market value of assets	$829,237,528	$869,460,840
• Funded percentage on MVA basis	83.26%	81.86%
• Unfunded actuarial accrued liability on actuarial value of assets	$724,928,187	$697,784,867
• Funded percentage on AVA basis	85.37%	85.44%

Section 1: Actuarial Valuation Summary

Valuation Result	Current	Prior
Key assumptions:		
• Net investment return	7.25%	7.25%
• Inflation rate	2.75%	3.00%
• Across-the-board payroll increase	3.00%	3.00%
Demographic data for plan year beginning January 1:		
• Number of retired participants and beneficiaries	3,441	3,376
• Number of inactive vested participants[1]	1	1
• Number of inactive participants due a refund of employee contributions	32	27
• Number of active participants	4,315	4,272
• Total payroll	$379,133,277	$361,268,312
• Average payroll	87,864	84,567
• Projected payroll	400,575,397	383,423,203

[1] Includes deferred beneficiaries

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 Fund. 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 Fund. 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.

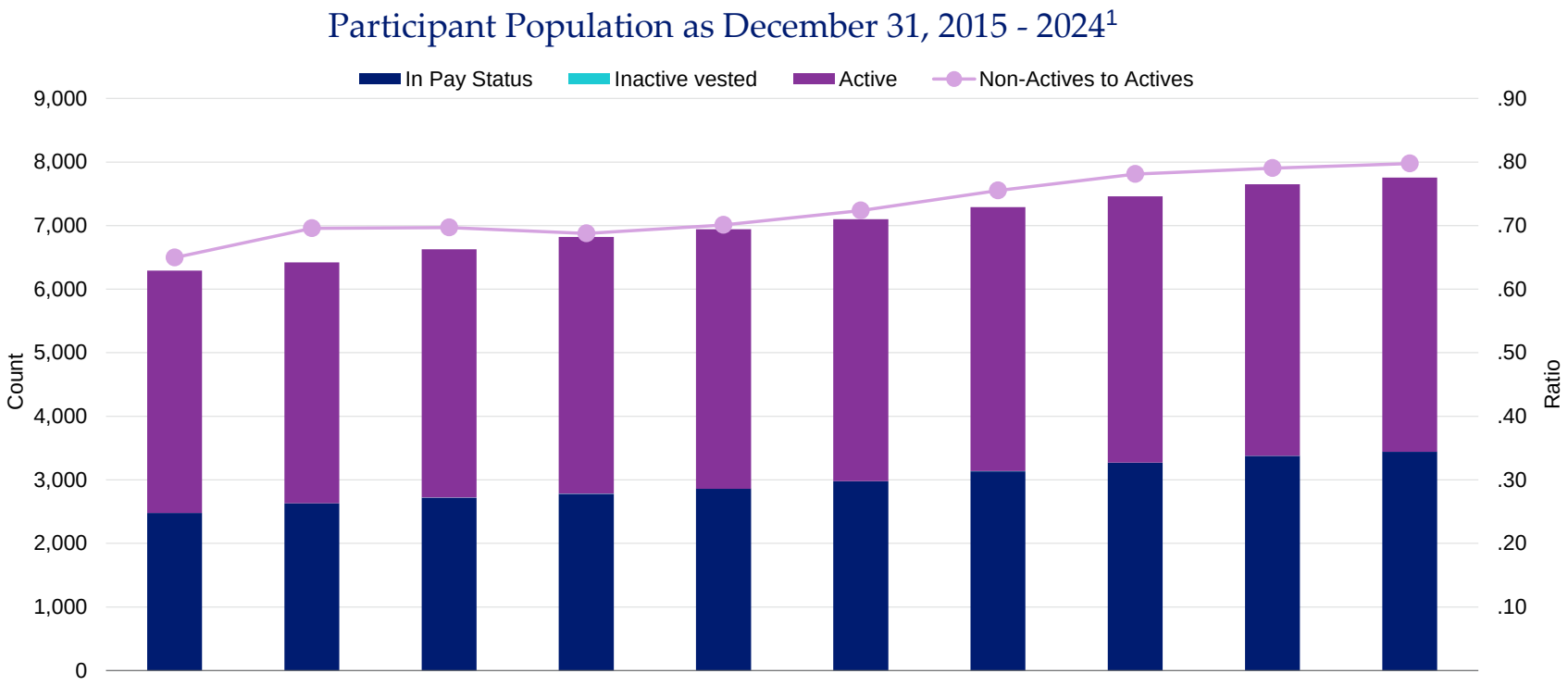
Section 1: Actuarial Valuation Summary

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 Board. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If the Fund 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 Fund. The 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 Fund 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 Board 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	2,478	2,634	2,719	2,779	2,858	2,980	3,135	3,271	3,376	3,441
Inactive Vested[2]	0	0	3	1	2	0	2	0	1	1
Active	3,815	3,787	3,906	4,042	4,081	4,119	4,155	4,188	4,272	4,315
Ratio	0.65	0.70	0.70	0.69	0.70	0.72	0.75	0.78	0.79	0.80

[1] Prior to 2016, valuation cycles reflect 12-month periods ending September 30.

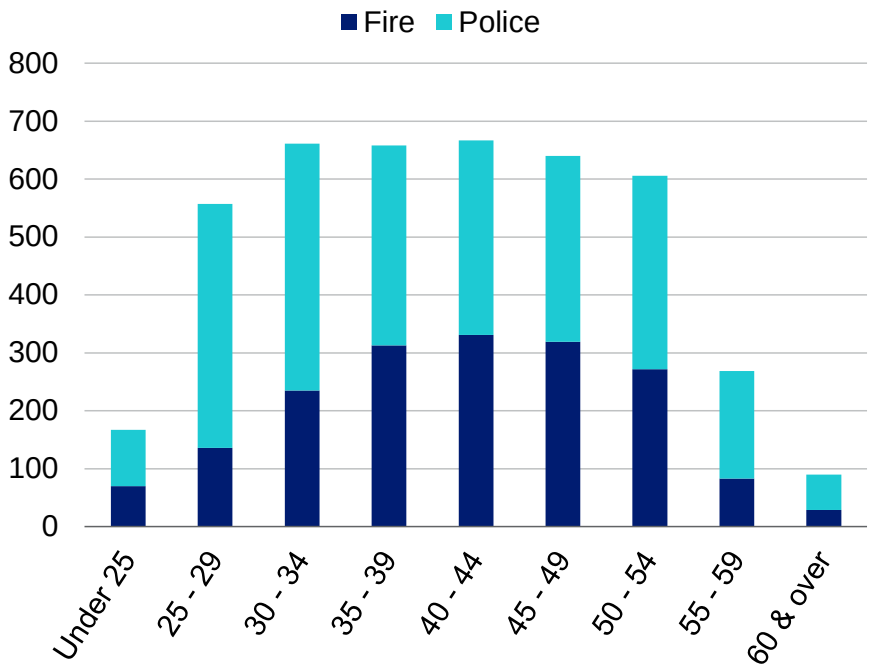
[2] Excludes terminated participants due a refund of employee contributions and includes deferred beneficiaries. Beginning with the 2018 valuation, participants with 20 or more years of service who are on indefinite suspension from employment are included as inactive vested participants entitled to retirement benefits.

Active participants

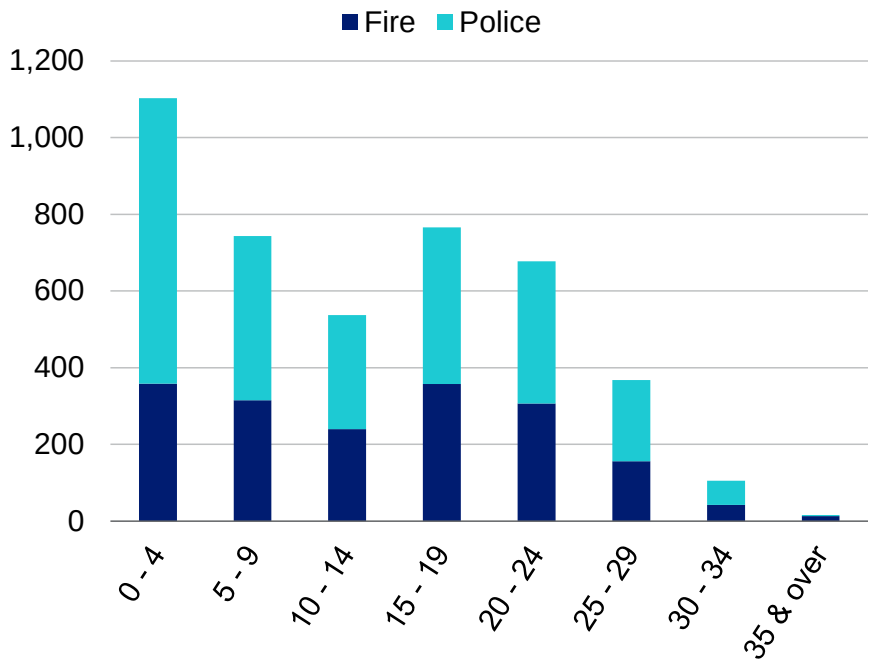
Demographic Data	December 31, 2024	December 31, 2023	Change
Active participants	4,315	4,272	1.0%
Average age	41.0	41.0	—
Average years of service	13.3	13.2	0.1
Average compensation	$87,864	$84,567	3.9%

Distribution of Active Participants as of December 31, 2024

Actives by Age



Actives by Years of Service



Inactive participants

In this year's valuation, there was one inactive participant with a vested right to a deferred or immediate vested benefit.

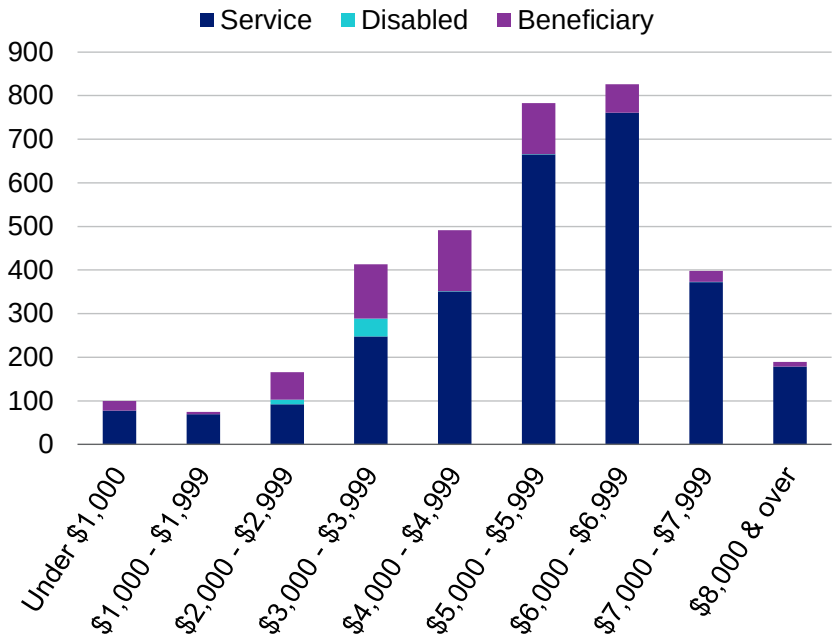
In addition, there were 32 inactive participants entitled to a return of their employee contributions.

Retired participants and beneficiaries

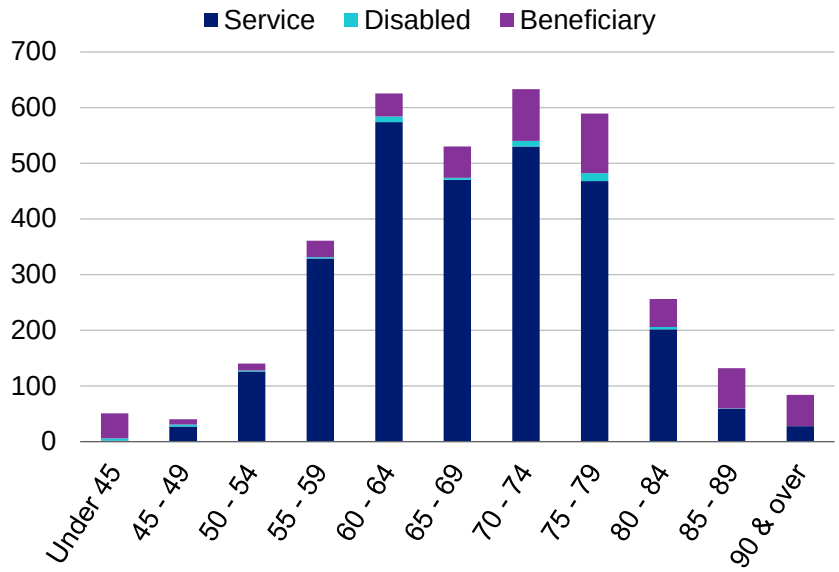
Demographic Data	December 31, 2024	December 31, 2023	Change
Retired participants	2,870	2,824	1.6%
Beneficiaries	571	552	3.4%
Average age	69.2	68.9	0.3
Average amount[1]	$5,417	$5,238	3.4%
Total monthly amount[1]	18,640,937	17,684,844	5.4%

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

By Type and Monthly Amount



By Type and Age



[1] Amounts exclude assumed loads.

Historical plan population

Participant Data Statistics

Active Participants versus Retired Participants and Beneficiaries

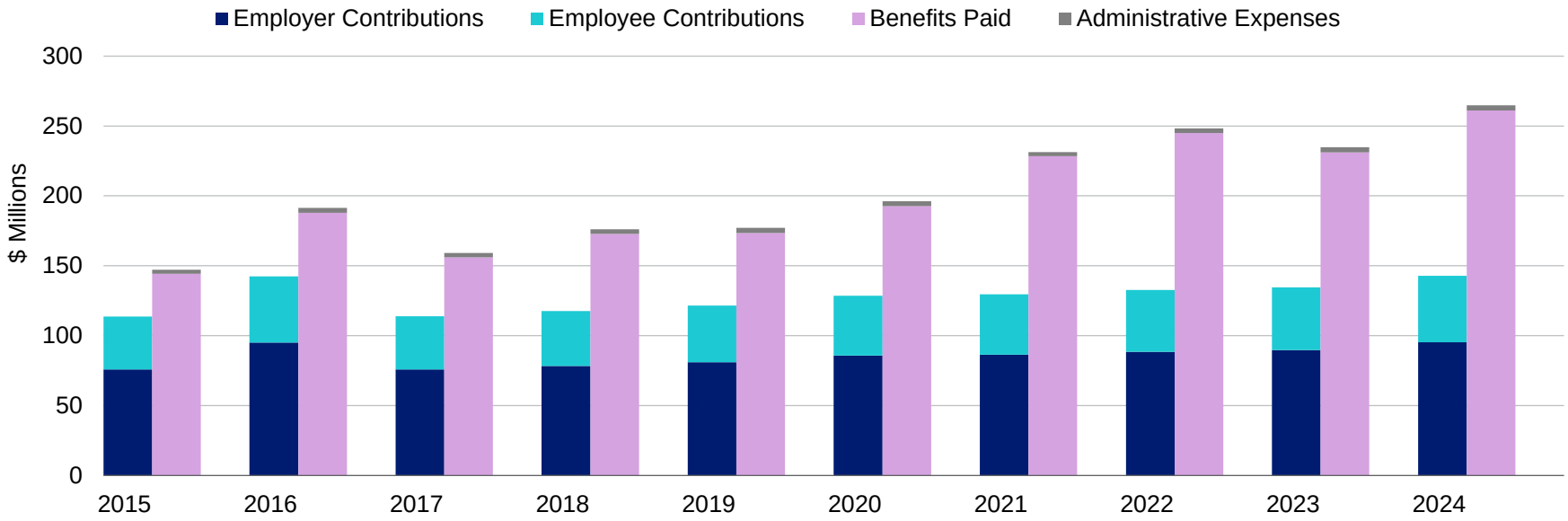
Year Ended December 31[1]	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Average Monthly Amount[2]
2015	3,815	42.4	14.8	2,478	67.4	$3,951
2016	3,787	42.4	14.8	2,634	67.5	4,049
2017	3,906	42.1	14.5	2,719	67.8	4,160
2018	4,042	41.9	14.3	2,779	68.1	4,281
2019	4,081	41.9	14.2	2,858	68.3	4,411
2020	4,119	41.7	14.0	2,980	68.4	4,556
2021	4,155	41.4	13.6	3,135	68.5	4,660
2022	4,188	41.2	13.4	3,271	68.6	4,949
2023	4,272	41.0	13.2	3,376	68.9	5,238
2024	4,315	41.0	13.3	3,441	69.2	5,417

[1] Prior to 2016, the valuation cycle was for the 12-month period ending September 30.
[2] Amount excludes assumed loads.

Financial information

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

Comparison of Contributions Made with Benefits and Expenses Paid for Years Ended September 30, 2015 - December 31, 2024[1]



[1] The cash flows shown for 2016 reflect a 15-month period, due to the change in Plan Year from a September 30 year-end to a December 31 year end.

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.

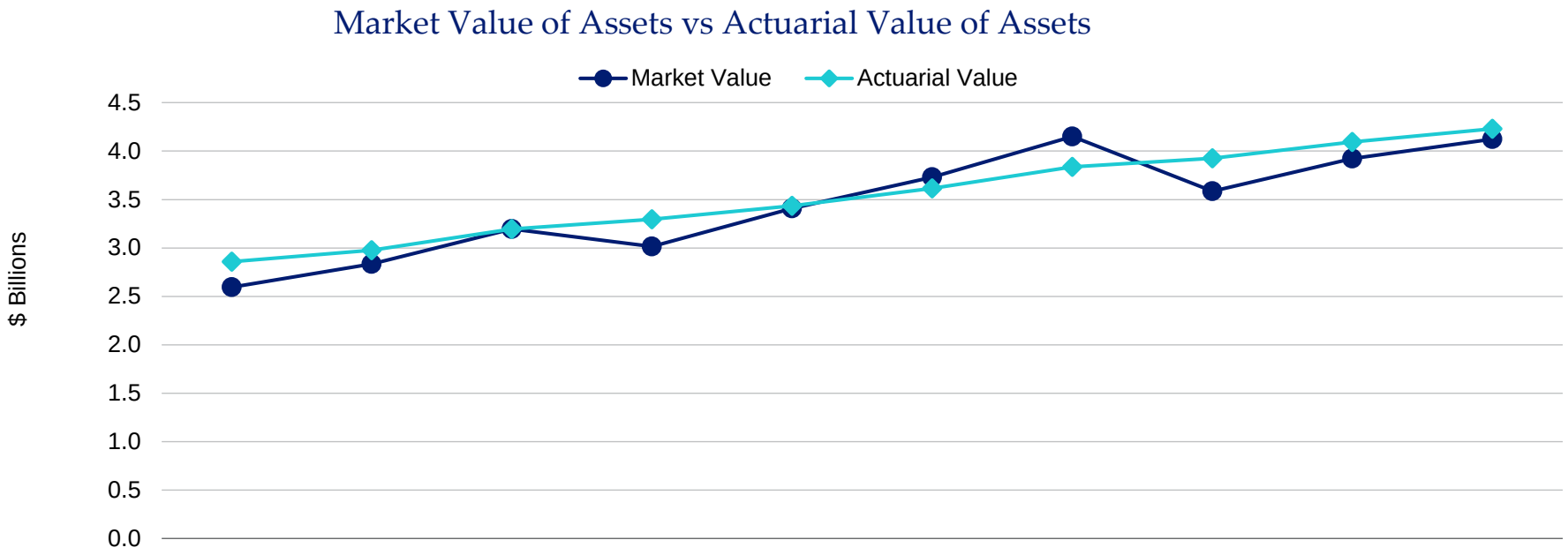
Determination of Actuarial Value of Assets for Year Ended December 31, 2024

	Item	Original Amount[1]	Percent Deferred[2]	Unrecognized Amount[3]	Amount
1.	Market value of assets, December 31, 2024				$4,124,762,616
2.	Calculation of unrecognized return				
a.	Year ended December 31, 2024	$43,058,596	80%	$34,446,877	
b.	Year ended December 31, 2023	180,860,868	60%	108,516,522	
c.	Year ended December 31, 2022	-745,558,729	40%	-298,223,492	
d.	Year ended December 31, 2021	254,753,759	20%	50,950,752	
e.	Year ended December 31, 2020	145,345,337	0%	0	
f.	**Total unrecognized return**				**-$104,309,341**
3.	**Preliminary actuarial value: (1) - (2f)**				**4,229,071,957**
4.	Adjustment to be within 20% corridor				0
5.	**Final actuarial value of assets as of December 31, 2024: (3) + (4)**				**$4,229,071,957**
6.	Actuarial value as a percentage of market value: (5) ÷ (1)				102.5%
7.	Amount deferred for future recognition: (1) - (5)[4]				-$104,309,341

[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 four years.
[4] Deferred return as of December 31, 2024 recognized in each of the next four years:

a. Amount recognized on December 31, 2025	-$53,377,101
b. Amount recognized on December 31, 2026	-104,327,853
c. Amount recognized on December 31, 2027	44,783,893
d. Amount recognized on December 31, 2028	8,611,719

Asset history for years ended December 31

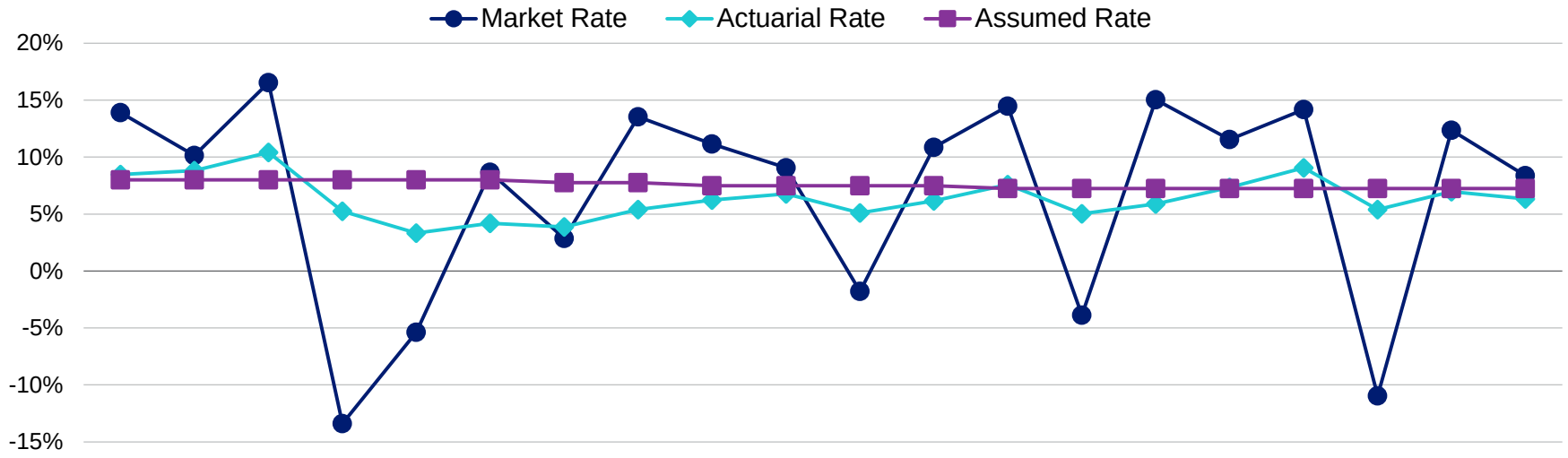


Legend	2015	2016[1]	2017	2018	2019	2020	2021	2022	2023	2024
Market value[2]	$2.60	$2.83	$3.20	$3.02	$3.41	$3.73	$4.15	$3.59	$3.92	$4.12
Actuarial value[2]	2.86	2.98	3.20	3.30	3.43	3.62	3.84	3.93	4.10	4.23
Ratio	1.10	1.05	1.00	1.09	1.01	0.97	0.92	1.09	1.04	1.03

[1] 2016 reflects a 15-month period due to the change in Plan Year from a September 30 year-end to a December 31 year-end
[2] In $ billions

Historical investment returns

Market and Actuarial Rates of Return versus Assumed Rate for Years Ended September 30, 2005 - December 31, 2024



Legend	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016[1]	2017	2018	2019	2020	2021	2022	2023	2024
Market rate	13.90%	10.15%	16.54%	-13.40%	-5.36%	8.68%	2.87%	13.54%	11.17%	9.07%	-1.79%	10.87%	14.48%	-3.87%	15.03%	11.56%	14.17%	-10.96%	12.36%	8.36%
Actuarial rate	8.49%	8.82%	10.41%	5.24%	3.33%	4.20%	3.87%	5.39%	6.23%	6.77%	5.10%	6.15%	7.59%	5.03%	5.89%	7.35%	9.06%	5.39%	6.97%	6.34%
Assumed rate	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	7.75%	7.75%	7.50%	7.50%	7.50%	7.50%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%

Average Rates of Return	Market Value	Actuarial Value
Most recent five-year average return:	6.59%	6.98%
Most recent ten-year average return:	6.69%	6.52%
Most recent 15-year average return:	7.28%	6.22%
20-year average return:	6.58%	6.36%

[1] Prior to 2017, valuation cycles reflect 12-month periods ending September 30. The amounts for the period ended December 31, 2016 cover the 15 months from October 1, 2015 through December 31, 2016. The actuarial and market returns for the year ended December 31, 2016 were 5.99% and 9.26%, respectively.

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 loss from investments	-$36,754,544
2.	Loss from administrative expenses	-351,165
3.	Net loss from contributions	-206,065
4.	Net loss from other experience	-46,248,948
5.	**Net experience loss: 1 + 2 + 3 +4**	**-$83,560,722**

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 of 7.25% considers past experience, the asset allocation policy of the Board and future expectations.

Investment Experience for Year Ended December 31

	Item	2024 Market Value	2024 Actuarial Value
1.	Net investment income	$323,099,532	$255,732,900
2.	Average value of assets	3,862,633,601	4,034,309,574
3.	Rate of return: **1 ÷ 2**	8.36%	6.34%
4.	Assumed rate of return	7.25%	7.25%
5.	Expected investment income: **2 x 4**	$280,040,936	$292,487,444
6.	**Net investment gain/(loss): 1 – 5**	**$43,058,596**	**-$36,754,544**

Non-investment experience

Contributions

Contributions for the year ended December 31, 2024 totaled $142,867,950, compared to the projected amount of $138,231,215. This resulted in a loss of $206,065 for the year, when adjusted for timing.

Administrative expenses

Administrative expenses for the year ended December 31, 2024 totaled $3,741,378, as compared to the assumption of $3,400,000. This resulted in an experience loss of $351,165 for the year, including an adjustment for interest.

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)
- Inflationary cost-of-living adjustments higher or lower than anticipated.

The net loss from this other experience for the year ended December 31, 2024 amounted to $46,248,948, which is 0.9% of the actuarial accrued liability.

Actuarial assumptions

A comprehensive experience study was completed in February, 2025 for the period January 1, 2019 through December 31, 2023. Based on observed and expected future experience, changes were made to the majority of assumptions, including salary scale, inflation, cost-of-living increases, mortality, disability, turnover, retirement and other demographic assumptions. All changes are outlined in Section 4, Exhibit G.

The assumption changes decreased the actuarial accrued liability by $53.5 million and decreased the actuarially determined contribution by $4.2 million. The changes increased the funded percentage from 84.45% to 85.37% on an actuarial value of asset basis.

In addition, the plan's funding method was changed from an open 20-year, level percentage of payroll method to a closed 25 -year, level percentage of payroll method.

The change in funding method decreased the actuarially determined contribution by $6.9 million from $149.0 million or 37.19% of projected payroll to $142.1 million or 35.47% of projected payroll.

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	$697,784,867
2.	Normal cost at beginning of year	88,368,942
3.	Total contributions	-142,867,950
4.	Interest on 1, 2 & 3	51,817,188
5.	Expected unfunded actuarial accrued liability	695,103,047
6.	Changes due to:	
	a. Experience gains and losses	83,354,657
	b. Assumptions	-53,529,517
	c. Funding method	0
	d. Total changes	29,825,140
7.	**Unfunded actuarial accrued liability at end of year**	**$724,928,187**

Actuarially determined contribution

The actuarially determined contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of January 1, 2025, the actuarially determined contribution is $142,102,281, or 35.47% of projected payroll.

The new funding policy, effective with the January 1, 2025 valuation, used to calculate the actuarially determined contribution is based on a closed amortization period of 25 years. As of January 2025, there are 25 years remaining on this schedule.

As set by State legislature, the total amount of annual contributions is comprised of a 12.32% of pay member contribution and a 24.64% of pay City contribution for a total contribution of 36.96% of pay. Since the actuarially determined contribution is 35.47% of payroll, there is a margin of 1.49% of payroll.

The calculated normal cost (including expenses) is 22.96% of projected payroll before adjustment for timing (23.79% after adjustment for timing). The remaining 13.17% of projected payroll will amortize the unfunded actuarial accrued liability over a period of 20.55 years if all assumptions are met. This is a reasonable amortization period and complies with the Board's Actuarial Funding Policy and the Texas State Pension Review Board's Guidelines for Actuarial Soundness.

Actuarially Determined Contribution

	Component	2025 Amount	2025 Percent of Projected Payroll	2024 Amount	2024 Percent of Projected Payroll
1.	Total normal cost	$88,686,489	22.14%	$85,085,871	22.19%
2.	Administrative expenses	3,283,071	0.82%	3,283,071	0.86%
3.	Normal cost including administrative expenses: (1) + (2)	91,969,560	22.96%	88,368,942	23.05%
4.	Actuarial accrued liability	4,954,000,144		4,793,064,957	
5.	Actuarial value of assets	4,229,071,957		4,095,280,090	
6.	Unfunded actuarial accrued liability: (4) - (5)	724,928,187		697,784,867	
7.	Payment on unfunded actuarial accrued liability	45,161,712	11.27%	49,862,273	13.00%
8.	Adjustment for timing[1]	4,971,009	1.24%	5,010,882	1.31%
9.	**Actuarially determined contribution: (3) + (7) + (8)**	**$142,102,281**	**35.47%**	**$143,242,097**	**37.36%**
10.	Projected payroll	400,575,397		383,423,203	

[1] Actuarially determined contributions are assumed to be paid a the middle of ever year.

Section 2: Actuarial Valuation Results

The funding policy adopted by the Board is designed to reduce the volatility of the actuarially determined contribution by smoothing investment gains and losses over five years in the actuarial value of assets. If the actuarially determined contribution were determined by using the market value of assets without adjustment, the actuarially determined contribution as of January 1, 2025 would increase from $142.1 million to $156.7 million and be more volatile in future years.

The current funding policy is intended to result in predictable employer contributions that eliminate the unfunded actuarial accrued liability within 25 years thereby providing benefit security to Fund members while balancing the needs of current and future contributors to the Fund.

The actuarially determined contribution under this 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*.

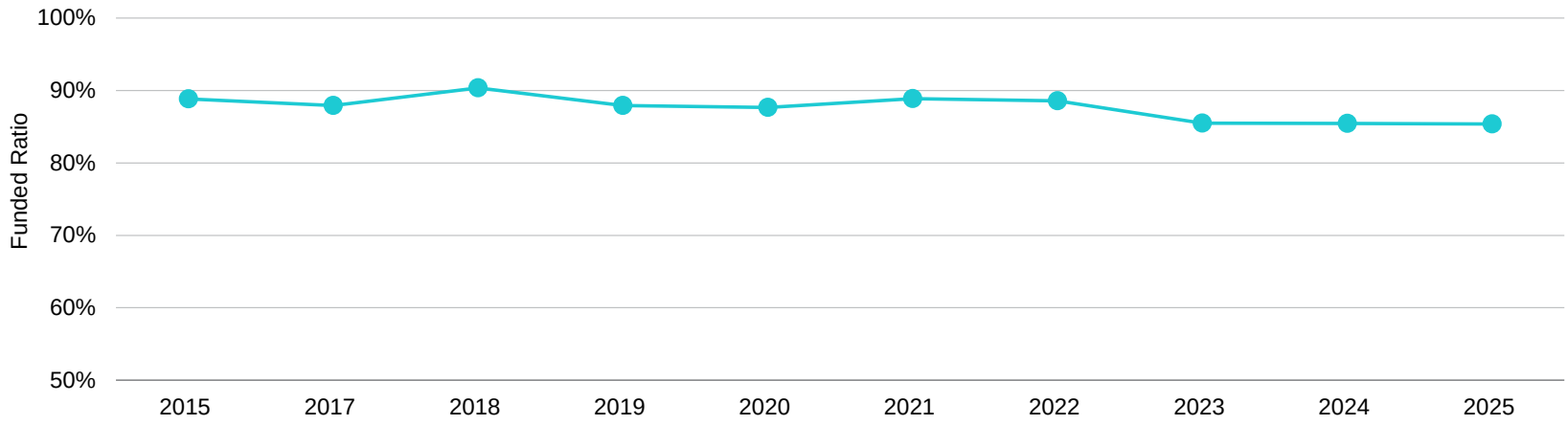
Reconciliation of actuarially determined contribution

Reconciliation from January 1, 2024 to January 1, 2025

Component	Amount	Percent of Projected Payroll
Actuarially determined contribution as of January 1, 2024	$143,242,097	37.36%
Changes in Actuarially Determined Contribution due to:		
• Funding method change	-6,880,873	-1.72%
• Effect of increase in projected payroll	6,408,060	1.60%
• Maintaining 20-year amortization period, prior to funding method change	-1,976,048	-0.49%
• Change in actuarial assumptions	-4,169,611	-1.04%
• Contributions less than recommended contribution	15,782	0.00%
• Investment loss	2,814,910	0.70%
• Other gains and losses on accrued liability	3,568,949	0.89%
• Other changes, including composition and number of participants	-920,985	-0.22%
• **Total change**	**-$1,139,816**	**-0.28%**
Total change in percentage due to payroll change		-1.61%
Actuarially determined contribution as of January 1, 2025	**$142,102,281**	**35.47%**

Schedule of funding progress through December 31, 2024

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)
10/01/2015	$2,858,461,847	$3,218,382,810	$359,920,963	88.82%
01/01/2017	2,976,885,674	3,385,806,423	408,920,749	87.92%
01/01/2018	3,196,529,718	3,538,230,508	341,700,790	90.34%
01/01/2019	3,297,010,974	3,749,250,860	452,239,886	87.94%
01/01/2020	3,434,094,746	3,918,523,796	484,429,050	87.64%
01/01/2021	3,616,358,403	4,069,999,173	453,640,770	88.85%
01/01/2022	3,837,389,315	4,333,329,726	495,940,411	88.56%
01/01/2023	3,925,443,660	4,592,060,662	666,617,002	85.48%
01/01/2024	4,095,280,090	4,793,064,957	697,784,867	85.44%
01/01/2025	4,229,071,957	4,954,000,144	724,928,187	85.37%



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 4.08% for use effective December 31, 2024. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or Actuarially Determined Contribution. The Fund's expected return on assets, currently 7.25%, is used for these calculations.

As of December 31, 2024, the LDROM for the system is $7,672,564,007. The difference between the plan's AAL of $4,954,000,144 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 Fund's future financial condition but have included a brief discussion of some risks that may affect the Fund.

- Economic and Other Related Risks. Potential implications for the Fund 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 and COLAs
- 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 5.33%, or about $38,626,336, disregarding the asset smoothing method.

  Since the Fund'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 $2,493,581, 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 -13.40% to a high of 16.54%.
- 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 r actuarially determined contribution)

  Plan contributions are set by statute. Periodic projections comparing expected statutory contributions with the actuarially determined contributions may be developed to determine if the statutory amounts are sufficient to fund the Plan and to ensure the payment of promised benefits.

  If contributions remain at current level and future experience matches the current assumptions, we project the unfunded actuarial accrued liability will be paid off in 20.55 years, which complies with the Board's 25-year target as of this valuation. Currently, contribution risk for the Fund is negligible.

Section 2: Actuarial Valuation Results

- 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.

  – Annual cost-of-living allowances higher than assumed.

- There are external factors including legislative or financial reporting changes that could impact the Fund'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 Fund.

- Actual Experience Over the Last Ten Years

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

  – The annual investment gain(loss) on a market value basis has ranged from a loss of $745.6 million to a gain of $254.8 million.

  – The annual non-investment gain(loss) has ranged from a loss of $124.4 million to a gain of $51.9 million.

Plan Year Ended[1]	Market Investment Gain/(Loss)[2]	All Other Gains and (Losses)
2015	-$65,637,791	$51,917,066
2016[3]	-89,308,635	22,587,408
2017	203,417,007	27,628,779
2018	-352,315,393	-57,794,682
2019	232,480,658	24,122,222
2020	145,345,337	11,608,096
2021	254,753,759	-124,402,894
2022	-745,558,729	-113,211,847
2023	180,860,868	-9,088,596
2024	43,058,596	-46,600,113

  – The funded percentage on the actuarial value of assets has ranged from a low of 85.4% to a high of 90.3% since 2015.

[1] Prior to 2016, valuation cycles reflect 12-month periods ending September 30.
[2] Based on market value of assets
[3] 2016 reflects a 15-month period due to the change in Plan Year from a September 30 year-end to a December 31 year-end.

Section 2: Actuarial Valuation Results

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 Fund's asset allocation is aligned to meet emerging pension liabilities.
- Currently the Fund has a non-active to active participant ratio of 0.80.
- For the prior year, benefit payments (including BackDROP payments) and administrative expenses paid were $121,941,033 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.

Detailed Risk Assessment

- We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan. This assessment may include scenario testing, sensitivity testing, stress testing, and stochastic modeling.
- A detailed risk assessment could be important for the Fund because:
  - Relatively small changes in investment performance can produce large swings in the unfunded liabilities since the assets and liabilities are of similar size.
  - The Fund's asset allocation has potential for a significant amount of investment return volatility.
  - Retired participants account for most of the Fund's liabilities, leaving limited options for reducing plan costs in the event of adverse experience.
  - Potential changes in the plan of benefits may result in participant choices that vary from those assumed.
  - Since annual cost-of-living allowances are tied to inflation, extended periods of high inflation may lead to significant increases in plan liabilities.
  - The Board has not had a detailed risk assessment in recent years.

GFOA funded liability by type

The Actuarial Accrued Liability represents the present value of benefits earned, calculated using the Fund'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. The Board's funding policy targets 100 percent funding by December 31, 2049.

GFOA Funded Liability by Type as of December 31

Type	2025	2024
Actuarial accrued liability (AAL)		
Active member contributions	$511,725,921	$495,377,833
Retirees and beneficiaries	3,022,523,812	2,949,210,476
Active and inactive members (employer-financed)	1,419,750,411	1,348,476,648
Total	**$4,954,000,144**	**$4,793,064,957**
Actuarial value of assets	4,229,071,957	4,095,280,090
Cumulative portion of AAL covered		
Active member contributions	**100.00%**	**100.00%**
Retirees and beneficiaries	**100.00%**	**100.00%**
Active and inactive members (employer-financed)	**48.94%**	**48.25%**

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 10.9. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 10.9% of one-year's payroll. Since actuarial gains and losses are amortized over 5 years, there would be a 2.2% 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 13.1. This is about 20% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Volatility Ratios

Actuarial Valuation Date	Asset Volatility Ratio	Liability Volatility Ratio
10/01/2015	8.6	10.7
01/01/2017	9.3	11.1
01/01/2018	10.4	11.5
01/01/2019	9.4	11.7
01/01/2020	10.6	12.2
01/01/2021	11.0	12.0
01/01/2022	12.2	12.7
01/01/2023	10.2	13.1
01/01/2024	10.9	13.3
01/01/2025	10.9	13.1

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

A-1 Total

Demographic Data	Year Ended December 31, 2024	Year Ended December 31, 2023	Change From Prior Year
Active participants in valuation:			
• Number	4,315	4,272	1.0%
• Average age	41.0	41.0	0.0
• Average years of service	13.3	13.2	0.1
• Total payroll	$379,133,277	$361,268,312	4.9%
• Average payroll	87,864	84,567	3.9%
• Account balances	511,725,921	495,377,833	3.3%
• Total active vested participants	1,166	1,177	-0.9%
Inactive participants:			
• Inactive vested participants	0	0	N/A
• Inactive nonvested participants due a refund	32	27	18.5%
• Beneficiaries with rights to a deferred benefit	1	1	0.0%
Retired participants:			
• Number in pay status	2,815	2,764	1.8%
• Average age	68.2	68.0	0.2
• Average monthly benefit	$5,636	$5,456	3.3%
Disabled participants:			
• Number in pay status	55	60	-8.3%
• Average age	66.7	67.2	-0.5
• Average monthly benefit	$3,424	$3,344	2.4%
Beneficiaries:			
• Number in pay status	571	552	3.4%
• Average age	74.5	74.2	0.3
• Average monthly benefit	$4,533	$4,356	4.1%

Exhibit A: Table of plan demographics

A-2 Fire

Demographic Data	Year Ended December 31, 2024	Year Ended December 31, 2023	Change From Prior Year
Active participants in valuation:			
• Number	1,788	1,797	-0.5%
• Average age	41.8	41.8	0.0
• Average years of service	14.2	14.1	0.1
• Total payroll	$152,958,302	$146,173,642	4.6%
• Average payroll	85,547	81,343	5.2%
• Account balances	221,554,921	216,548,861	2.3%
• Total active vested participants	518	527	-1.7%
Inactive participants:			
• Inactive vested participants	0	0	N/A
• Inactive nonvested participants due a refund	11	10	10.0
• Beneficiaries with rights to a deferred benefit	0	0	0.0%
Retired participants:			
• Number in pay status	1,140	1,113	2.4%
• Average age	69.0	68.9	0.1
• Average monthly benefit	$5,575	$5,419	2.9%
Disabled participants:			
• Number in pay status	23	25	-8.0%
• Average age	67.7	69.6	-1.9
• Average monthly benefit	$3,422	$3,343	2.4%
Beneficiaries:			
• Number in pay status	231	228	1.3%
• Average age	75.5	75.4	0.1
• Average monthly benefit	$4,661	$4,522	3.1%

Exhibit A: Table of plan demographics

A-3 Police

Demographic Data	Year Ended December 31, 2024	Year Ended December 31, 2023	Change From Prior Year
Active participants in valuation:			
• Number	2,527	2,475	2.1%
• Average age	40.4	40.4	0.0
• Average years of service	12.6	12.6	0.0
• Total payroll	$226,174,975	$215,094,670	5.2%
• Average payroll	89,503	86,907	3.0%
• Account balances	290,171,001	278,828,972	4.1%
• Total active vested participants	648	650	
Inactive participants:			
• Inactive vested participants	0	0	N/A
• Inactive nonvested participants due a refund	21	17	23.5%
• Beneficiaries with rights to a deferred benefit	1	1	0.0%
Retired participants:			
• Number in pay status	1,675	1,651	1.5%
• Average age	67.7	67.3	0.4
• Average monthly benefit	$5,677	$5,481	3.6%
Disabled participants:			
2Number in pay status	32	35	-8.6%
• Average age	66.0	65.5	0.5
• Average monthly benefit	$3,425	$3,345	2.4%
Beneficiaries:			
• Number in pay status	340	324	4.9%
• Average age	73.8	73.3	0.5
• Average monthly benefit	$4,447	$4,238	4.9%

Exhibit B: Participants in active service as of December 31, 2024 by age and years of service

B-1 Total

Years of Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	167	167	—	—	—	—	—	—	—	—
25 - 29	557	460	97	—	—	—	—	—	—	—
30 - 34	661	297	320	44	—	—	—	—	—	—
35 - 39	658	136	224	221	77	—	—	—	—	—
40 - 44	667	31	82	185	321	48	—	—	—	—
45 - 49	640	11	15	67	236	290	21	—	—	—
50 - 54	606	—	5	13	94	260	199	35	—	—
55 - 59	269	1	—	7	30	65	117	49	—	—
60 - 64	76	—	—	—	8	10	29	19	8	2
65 & over	14	—	—	—	—	4	2	2	2	4
Total	**4,315**	**1,103**	**743**	**537**	**766**	**677**	**368**	**105**	**10**	**6**

Exhibit B: Participants in active service as of December 31, 2024 by age and years of service

B-2 Fire

Years of Service

Age	Total	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 & over
Under 25	70	70	—	—	—	—	—	—	—	—
25 - 29	136	118	18	—	—	—	—	—	—	—
30 - 34	235	111	114	10	—	—	—	—	—	—
35 - 39	313	59	133	87	34	—	—	—	—	—
40 - 44	331	—	50	109	143	29	—	—	—	—
45 - 49	319	—	—	33	134	137	15	—	—	—
50 - 54	272	—	—	1	46	120	94	11	—	—
55 - 59	83	—	—	—	—	21	39	23	—	—
60 - 64	24	—	—	—	—	—	8	8	6	2
65 & over	5	—	—	—	—	—	—	—	1	4
Total	**1,788**	**358**	**315**	**240**	**357**	**307**	**156**	**42**	**7**	**6**

Exhibit B: Participants in active service as of December 31, 2024 by age and years of service

B-3 Police

		Years of Service							
Age	**Total**	**0 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**30 - 34**	**35 - 39**
Under 25	97	97	—	—	—	—	—	—	—
25 - 29	421	342	79	—	—	—	—	—	—
30 - 34	426	186	206	34	—	—	—	—	—
35 - 39	345	77	91	134	43	—	—	—	—
40 - 44	336	31	32	76	178	19	—	—	—
45 - 49	321	11	15	34	102	153	6	—	—
50 - 54	334	—	5	12	48	140	105	24	—
55 - 59	186	1	—	7	30	44	78	26	—
60 - 64	52	—	—	—	8	10	21	11	2
65 & over	9	—	—	—	—	4	2	2	1
Total	**2,527**	**745**	**428**	**297**	**409**	**370**	**212**	**63**	**3**

Exhibit C: Reconciliation of participant data

Description	Active Participants	Inactive Vested Participants[1]	Deferred Beneficiaries	Disableds	Retired Participants	Beneficiaries	Total
Number as of January 1, 2024	**4,272**	**0**	**1**	**60**	**2,764**	**552**	**7,649**
New participants	204	N/A	0	N/A	N/A	N/A	204
Terminations — with vested rights	0	0	0	0	0	0	0
Terminations — without vested rights	-10	N/A	0	N/A	N/A	N/A	-10
Retirements	-111	0	0	N/A	111	N/A	0
New disabilities	-1	0	0	1	N/A	N/A	0
Return to work	0	0	0	0	0	N/A	0
Deceased	-1	0	0	-6	-61	-21	-89
New beneficiaries	0	0	0	0	0	43	43
Lump sum cash-outs	-38	0	0	0	0	-1	-39
Rehire	0	0	0	N/A	0	N/A	0
Payment period for dependent children expired	N/A	N/A	0	0	0	-2	-2
Data adjustments	0	0	0	0	-5	0	-5
QDRO adjustments[2]	0	0	0	0	6	0	6
Number as of January 1, 2025	**4,315**	**0**	**1**	**55**	**2,815**	**571**	**7,757**

[1] Excludes terminated participants due a refund of employee contributions.
[2] The data includes six new former spouses receiving benefits under qualified domestic relations orders (QDROs); there were five former spouses whose benefit terminated during the year.

Exhibit D: 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:		
• City contributions	$95,246,413	$89,740,704
• Member contributions	47,621,537	44,870,311
• Less administrative expenses	-3,741,378	-3,617,241
– **Net contribution income**	**$139,126,572**	**$130,993,774**
Investment income:		
• Investment income	$334,410,584	$447,834,997
• Less investment fees	-11,311,052	-10,583,819
– **Net investment income**	**$323,099,532**	**$437,251,178**
• **Total income available for benefits**	**$462,226,104**	**$568,244,952**
Less benefit payments:		
• Benefits	-$239,440,567	-$209,257,514
• BackDROP payments	-19,282,948	-19,655,659
• Refunds	-2,344,090	-2,210,861
– **Net benefit payments**	**-$261,067,605**	**-$231,124,034**
Change in market value of assets	**$201,158,499**	**$337,120,918**
Net assets at market value at the beginning of the year	**$3,923,604,117**	**$3,586,483,199**
Net assets at market value at the end of the year	**$4,124,762,616**	**$3,923,604,117**

Exhibit E: Summary statement of plan assets

Statement of Plan Assets as of December 31

Item	2024	2023
Cash equivalents	**$133,227,406**	**$107,690,352**
Accounts receivable:		
• **Total accounts receivable**	**$18,438,858**	**$18,785,905**
Investments:		
• Equities	$2,273,827,177	$2,153,666,698
• Fixed income	1,167,511,904	1,159,466,486
• Real estate and real assets	545,939,257	499,123,970
• Property, plant and equipment	605,169	633,136
• **Total investments at market value**	**$3,987,883,507**	**$3,812,890,290**
Total assets	**$4,139,549,771**	**$3,939,366,547**
Accounts payable:		
• **Total accounts payable**	**-$14,787,155**	**-$15,762,430**
Net assets at market value	**$4,124,762,616**	**$3,923,604,117**
Net assets at actuarial value	**$4,229,071,957**	**$4,095,280,090**

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

Year Ended December 31[1]	Employer Contributions	Employee Contributions	Net Investment Return[2]	Admin. Expenses	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	$75,801,715	$37,901,064	-$47,586,525	$2,903,392	$144,157,312	$2,595,910,683	$2,858,461,847	110.1%
2016[3]	94,972,075	47,485,016	287,674,638	3,568,003	187,925,984	2,834,548,425	2,976,885,674	105.0%
2017	75,915,522	37,958,082	407,279,701	3,034,563	156,137,449	3,196,529,718	3,196,529,718	100.0%
2018	78,312,472	39,182,276	-122,694,031	3,479,408	172,692,367	3,015,158,660	3,297,010,974	109.3%
2019	81,016,332	40,507,611	449,066,512	3,564,973	173,494,107	3,408,690,035	3,434,094,746	100.7%
2020	85,693,319	42,846,035	390,027,733	3,389,565	192,670,646	3,731,196,911	3,616,358,403	96.9%
2021	86,322,619	43,213,365	521,573,764	2,962,649	228,415,302	4,150,928,708	3,837,389,315	92.4%
2022	88,371,349	44,303,532	-448,808,248	3,333,274	244,978,868	3,586,483,199	3,925,443,660	109.5%
2023	89,740,704	44,870,311	437,251,178	3,617,241	231,124,034	3,923,604,117	4,095,280,090	104.4%
2024	95,246,413	47,621,537	323,099,532	3,741,378	261,067,605	4,124,762,616	4,229,071,957	102.5%

[1] Prior to 2016, financial information was based on 12-month periods ending September 30.
[2] On a market basis, net of investment fees
[3] Reflects the 15-month period from October 1, 2015 through December 31, 2016.

Section 4: Actuarial Valuation Basis

Exhibit I: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting methods and each assumption that has a significant effect on this actuarial valuation is shown in the Review of Actuarial Experience for the five year period ended December 31, 2023 dated February 26, 2025. Current data is reviewed in conjunction with each annual valuation. Assumption changes are listed at the end of this exhibit.

Net investment return

7.25%. The net investment assumption was chosen by the Pension Fund's Board of Trustees, with input from the actuary. The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes as provided by Segal Marco Advisors, as well as the Fund's target asset allocation.

Administrative expenses

$3,400,000 payable mid-year for the year beginning January 1, 2025 (equivalent to $3,283,071 payable at the beginning of the year).

Payroll growth

3.00%, used to amortize the unfunded actuarial accrued liability as a level percentage of payroll.

Salary increases

Salary increases include an underlying inflation component of 2.75% assumed to occur at the beginning of each year

Years of Service	Fire Rate (%)	Police Rate (%)
Less than 1	6.00	10.00
1	6.00	10.00
2	4.00	4.00
3	4.00	4.00
4	4.00	4.00
5	3.25	4.00
6	2.75	3.75
7	2.75	3.75
8 – 15	2.75	3.75
16 - 24	2.75	3.25
25 or more	2.75	2.75

Cost-of-living adjustments

Retirement before October 1, 1999: 2.75%

Retirement on or after October 1, 1999: 2.0625%

Valuation liabilities reflect the actual COLA granted for 2024. The stated assumptions apply to 2025 forward, at the beginning of each year.

Duty death-percentages

10% of deaths are assumed to be in the line of duty.

Mortality rates

Pre-retirement: PUBS-2010 Safety Employee Amount-Weighted Table

Healthy: PUBS-2010 Safety Healthy Retiree Amount-Weighted Table

Disabled:PUBS-2010 Safety Disabled Retiree Amount-Weighted Table

Beneficiaries:PUBS-2010 Safety Contingent Survivor Amount-Weighted Table

The tables above, projected to 2024, reasonably reflect the mortality experience of the Fire and Police Pension Fund as of the measurement date. The mortality tables are generationally projected using scale MP-2021-2d to reflect future mortality.

Annuitant mortality rates(%)[1]

Age	Healthy Male	Healthy Female	Disabled Male	Disabled Female	Contingent Survivors Male	Contingent Survivors Female
55	0.31	0.26	0.48	0.46	0.82	0.45
60	0.51	0.45	0.74	0.70	1.01	0.62
65	0.88	0.77	1.19	1.06	1.38	0.90
70	1.57	1.33	1.91	1.61	2.13	1.35
75	2.83	2.30	3.24	2.44	3.38	2.15
80	5.10	3.96	5.60	3.96	5.36	3.57
85	9.14	6.84	9.21	6.84	8.74	6.32
90	15.86	11.82	15.86	11.82	14.42	11.33

[1] Rates shown do not include generational projection.

Mortality and disability rates(%) before retirement

Age	Mortality[1] Male	Mortality[1] Female	Disability[2] Fire	Disability[2] Police
20	0.04	0.02	0.01	0.01
25	0.04	0.02	0.01	0.01
30	0.04	0.03	0.02	0.02
35	0.05	0.04	0.02	0.02
40	0.06	0.05	0.03	0.03
45	0.08	0.07	0.05	0.05
50	0.12	0.09	0.00	0.00
55	0.18	0.12	0.00	0.00
60	0.26	0.17	0.00	0.00

Catastrophic Disability

15% of disabilities are assumed to be catastrophic.

[1] Mortality rates shown do not include generational projection.
[2] Disability rates cease at 21 years of service.

Termination rates before retirement

Years of Service	Fire Rate (%)	Police Rate (%)
Less than 1	0.60	1.50
1	0.60	1.50
2	0.60	1.50
3	0.50	1.50
4	0.50	1.75
5	0.50	2.00
6	0.50	2.00
7	0.50	2.00
8	0.50	1.50
9	0.50	1.00
10	0.50	1.00
11	0.50	1.00
12	0.30	1.00
13	0.30	1.00
14	0.30	0.75
15	0.30	0.75
16	0.30	0.75
17	0.20	0.75
18	0.20	0.75
19	0.10	0.75
20 or more	0.00	0.00

Retirement rates

Years of Service	Fire (%)	Police (%)
20	1.50	2.50
21	1.50	2.50
22	1.50	2.50
23	1.50	3.00
24	1.50	4.00
25	1.50	5.00
26	2.50	7.00
27	5.00	11.00
28	5.00	15.00
29	10.00	20.00
30	10.00	28.00
31	30.00	35.00
32	45.00	50.00
33	45.00	58.00
34	45.00	50.00
35	45.00	40.00
36	25.00	25.00
37	30.00	25.00
38	25.00	60.00
39	25.00	30.00
40	10.00	100.00
41	10.00	100.00
42	35.00	100.00
43 or more	100.00	100.00

Retirement is assumed to occur no later than age 65 if participant has at least 20 years of service.

Retirement rates for inactive vested participants

Former participants with rights to deferred benefits are assumed to retire at earliest eligibility.

Weighted average retirement age

Age 58.7 for Firefighters and 56.8 for Police Officers, determined as follows: The weighted average retirement age for each participant is calculated as the sum of the product of each potential current or future retirement age times the probability of surviving from current age to that age and then retiring at that age, assuming no other decrements. The overall weighted retirement age is the average of the individual retirement ages based on all the active participants included in the January 1, 2025 actuarial valuation.

Percent married

Males: 95%

Females: 60%

Age of spouse

Spouses of male participants are female and three years younger and spouses of female participants are male and three years older.

Marriage after retirement

The retiree liability includes a 0.05% load and the disability liability includes a 0.15% load to account for unmarried retirees marrying after retirement.

Beneficiary Liability

The spousal beneficiary liability includes a 2% load to account for future increased spousal benefits when dependent children receiving benefits reach the age of majority and are no longer eligible to receive benefits.

13th and 14th checks

For purposes of estimating the cost of this asymmetric benefit, active liabilities are loaded by 0.10% and non-active liabilities are loaded by 0.40%.

Utilization of BackDROP

90% of retiring Firefighters and new beneficiaries are assumed to elect a four-year BackDROP. Firefighters who retire prior to 24 years of service are not assumed to utilize the BackDROP provisions of the plan.

75% of retiring Police Officers and new beneficiaries are assumed to elect a three-year BackDROP. Police Officers who retire prior to 23 years of service are not assumed to utilize the BackDROP provisions of the plan.

Sick leave

For purposes of calculating Fund benefits, total service at decrement is increased by 0.9% for Firefighters and 0.15% for Police Officers to recognize inclusion of sick leave.

Decrement Methodology

Decrement rates are independent probabilities, and all decrements are assumed to occur at the beginning of the valuation year.

Benefit limits

Salary and benefit limitations under IRC Sections 401(a)(17) and 415 are disregarded for purposes of determining the valuation liabilities.

Unknown data for participants

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

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 current age minus years of benefit service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated as a level percentage of compensation, with Normal Cost determined as if the current plan of benefits had always been in effect 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 and methods

A comprehensive Actuarial Experience Review, covering the period January 1, 2019 through December 31, 2023, was completed in 2025. As a result of that study, the following assumption changes were proposed by the actuary and subsequently were approved by the Board. These changes are reflected for the first time in this valuation:

The generational projection scale was changed from the sex-distinct SSA2019-2D scale projected from 2010 to the sex-distinct Society of Actuaries MP-2021 scale.

The existing service-based retirement rates for both Fire and Police were modified to more accurately reflect observed retirement patterns.

The load for marriage after retirement was reduced from 0.20% to 0.05% for retirees and from 0.40% to 0.15% for disabled annuitants.

Disability rates were increased from 10% to 15% of OASDI rates for both Fire and Police.

The catastrophic disability assumption of 15% of disabilities assumed to be catastrophic was introduced.

The existing service-based withdrawal rates for both Fire and Police were modified to more accurately reflect observed turnover patterns.

Based on average service at retirement, the assumed sick leave load on service was reduced from 0.20% to 0.15% for Police Officers and from 1.0% to 0.90% for Firefighters.

The inflation assumption was lowered from 3.00% to 2.75%.

The service-based salary scale was modified to reflect separate service-based salary scales for Police and Fire starting at 6% for Police and 10% for Fire scaling downward with an ultimate rate of 2.75% for both.

To account for future 13/14th checks, the assumed load on active liabilities was increased from 0.03% to 0.10% and the assumed load on non-active liabilities was increased from 0.10% to 0.40%.

Section 4: Actuarial Valuation Basis

The assumed cost-of-living adjustment for retirements before October 1, 1999 was reduced from 3.00% to 2.75%. In conjunction with this decrease, the assumed cost-of-living adjustment for retirements on or after October 1, 1999 was also reduced from 2.25% to 2.0625%.

The amortization method was changed from an open 20-year level percentage of payroll method to a closed 25-year, level percentage of payroll method.

Exhibit II: Summary of plan provisions

This exhibit summarizes the major provisions of the Fund 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

Service Requirement	20 years of service and contributions, regardless of age
Amount	2.25% of Average Salary for each of the first 20 years of service, plus 5.00% of Average Salary for each of the next 7 years of service, plus 2.00% of Average Salary for each of the next 3 years of service, plus 0.50% of Average Salary for each year of service thereafter, with a maximum benefit percentage of 87.50%.
Average Compensation	The average of the highest three years of annual salary during the five-year period ending on the date of retirement.

Disability

Eligibility	Immediately eligible upon membership, payable after 30 days of continuous disability
Amount	50% of Average Salary

Catastrophic injury disability

Eligibility	Be unable to secure any type of third-party employment, or engage in any self-employment, and as a result make an annual income below the poverty level.
Amount	87.50% of Average Salary

Termination benefits

No benefits are vested prior to eligibility for disability or normal retirement benefits, or at death. However, a participant may receive a refund of member contributions without interest.

Survivor's pre-retirement death benefit (death not in line of duty)

Eligibility	Immediately upon membership
Amount	Spouse - Participant's accrued benefit, with a minimum of 75% of average salary and a maximum based on 27 years of service. 25% of the benefit is paid to the children who are under age 18 or disabled, if any, divided equally among them.
	Children only (under age 18, or disabled) -Participant's accrued benefit, with a minimum of 50% of average salary and a maximum based on 27 years of service. Benefits are divided equally among the children.
	Dependent parents, no wife or children - 33% of Average Salary, if two; 25% if one.
	No dependents - Lump sum equal to ten times the accrued retirement benefit based on service and salary at time of death, or a refund of member contributions, if greater.
	Wholly-dependent orphaned children - 100% of the surviving spouse's benefit for life.

Survivor's pre-retirement death benefit (death in line of duty)

Eligibility	Immediately upon membership
Amount	Surviving spouse and dependent children will receive a total pension equal to the salary, including longevity pay, of the member at the time of death.

Post-retirement death benefit(s)

Amount	Percentage of Average Salary available for retirement benefit, with a maximum benefit based on 27 years of service, with the percentage based on the formula in effect on the date of the retiree's death minus BackDROP period; maximum benefit equal to benefit being received by retiree at death. For marriages after retirement if the widow was married less than five years a lump sum of $15,000 is payable and if the widow was married at least five years than the widow is eligible for the entire death benefit of a surviving spouse starting at age 55. If a retiree dies leaving no beneficiaries, the estate is entitled to an amount equal to ten times the annual annuity awarded on the date of retirement, minus any payments already made to the retiree.

Cost of living adjustments (COLAs)

If retirement was before October 1, 1999, the benefits are adjusted annually by 100% of the CPI, provided the index shows an increase, if the percentage increase is 8% or less. If the increase is more than 8%, the benefits shall be increased by 8% plus a percentage equal to 75% of the percentage increase that is more than 8%. If retirement is on or after October 1, 1999, benefits are adjusted by 75% of the CPI.

13th and 14th pension checks

The Board may authorize the disbursement of a 13th pension check in a year in which the arithmetic average of the annual rates of return for the most recent five years exceeds the assumed rate by at least 100 basis points. A 14th check may be authorized if the five-year average return exceeds the assumed rate by at least 300 basis points.

Contribution rates

Member contributions	Members pay 12.32% of total salary, excluding overtime pay.
City contributions	The City pays 24.64% of total salary, excluding overtime pay.

BackDROP

Eligibility	Participants who are eligible to retire may elect a BackDROP. (Not applicable to line-of-duty or disability). The surviving spouse of an active member may elect a BackDROP, but the service upon which the spousal BackDROP benefit is based may not exceed 27 years of service.
Amount	The backward deferred retirement option plan (BackDROP) benefit provides a lump sum payment based on pay and service as of the BackDROP retirement date times the number of months elected in exchange for a reduced monthly benefit. The monthly benefit is based on pay and all service as of the BackDROP retirement date plus sick leave credit.
BackDROP Retirement Date	Actual retirement date minus number of months elected. The number of months cannot exceed the lesser of 60 months or the number of months of service in excess of 20 years.

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 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 Fund.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Fund'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 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; **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 Fund 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.
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.
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.
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.

Appendix A: Definition of Pension Terms

Term	Definition
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.