

City of Taylor Police and Fire Retirement System

Actuarial Valuation

As of June 30, 2024 Contributions Applicable to the Plan/ Fiscal Year Beginning July 1, 2025





March 28, 2025

Board of Trustees
City of Taylor Police and Fire Retirement System

Re: City of Taylor Police and Fire Retirement System Actuarial Valuation Report

Dear Board,

This report details the annual actuarial valuation of the Police and Fire Retirement System as of June 30, 2024.

The valuation was performed to measure the plan's liability and funding levels and to determine the actuarially appropriate funding requirements for the plan year beginning July 1, 2025. This report was prepared for use by the Board. Use of the results for other purposes may not be applicable and could produce significantly different results.

DATA AND ASSUMPTIONS

In preparing this report, we have relied on personnel and plan design supplied by the Board. Assets were determined based on audited financial reports supplied by the Board. In our opinion, the assumptions used in the valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated fund experience. Other sets of assumptions and methods could also be reasonable and could produce materially different results. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

DISCLOSURES AND LIMITATIONS

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law. Due to the limited scope of this report, we did not provide an analysis of these potential differences.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the

software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

ACTUARIAL CERTIFICATION

The valuation has been conducted in accordance with all applicable laws and regulations, as well as generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board; specifically No. 4 for Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, No. 23 for Data Quality, No. 27 for Selection of Economic Assumptions for Measuring Pension Obligations, No. 35 for Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations, No. 44, Selection and Use of Asset Valuation Methods for Pension Valuations, and No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations.

In our opinion, the Minimum Required Contribution set forth in this report constitutes a reasonable actuarially determined contribution under Actuarial Standard of Practice No. 4.

The undersigned is familiar with the immediate and long-term aspects of pension valuations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on this report has any direct financial interest or indirect material interest in the City of Taylor, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police and Fire Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

Respectfully submitted,

Foster & Foster, Inc.

Jason L. Franken, FSA, EA, MAAA



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SUMMARY

The regular annual actuarial valuation of the City of Taylor Police and Fire Retirement System, performed as of June 30, 2024, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year beginning July 1, 2025.

The contribution requirements, compared with those set forth in the June 30, 2023 actuarial report, are as follows:

Valuation Date Applicable to Fiscal Year Beginning	6/30/2024 7/1/2025	6/30/2023 7/1/2024
Total Recommended Contribution % of Projected Annual Payroll	\$7,736,855 129.73%	\$7,479,817 119.07%
Member Contributions (Est.) % of Projected Annual Payroll	(511,736) (8.58%)	(539,010) (8.58%)
City Recommended Contribution % of Projected Annual Payroll	7,225,119 121.15%	6,940,807 110.49%

As you can see, the Total Recommended Contribution shows an increase from the June 30, 2023 actuarial valuation report. The increase is attributable to the inclusion of assumed administrative expenses in the development of the recommended contribution, increases in liability due to plan experience, and assumption changes.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of unfavorable experience included lower than expected inactive mortality and more retirements than expected. These losses were offset in part by a gain associated with an investment return of 8.68% (Actuarial Asset Basis) which exceeded the 7.25% assumption.



CHANGES SINCE PRIOR VALUATION

The valuation reflects no plan changes.

The valuation reflects the following assumption changes:

- Updated salary increase tables.
- Payroll growth was changed from 3.50% to 3.00%.
- Updated mortality tables.
- Updated retirement and termination rate tables.
- Adjusted the disability rate to use 0.20% for all.

The Valuation reflects the following method changes:

- The cost of administrative expenses are included in the recommended contribution amount.
- A 15-year open amortization period.



COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

Valuation Date	New Asmp/Mthd 6/30/2024	Old Asmp/Mthd 6/30/2024	6/30/2023
A. Participant Data			
Number Included Actives Service Retirees Beneficiaries Disability Retirees Terminated Vested	79 252 55 3 <u>8</u>	79 252 55 3 <u>8</u>	75 247 53 4 <u>8</u>
Total	397	397	387
Total Projected Annual Payroll Payroll Under Assumed Ret. Age	\$6,162,885 5,964,291	\$6,223,224 6,223,224	\$6,282,167 6,282,167
Annual Rate of Payments to:			
Service Retirees Beneficiaries Disability Retirees Terminated Vested	15,932,924 1,208,062 109,074 262,659	15,932,924 1,208,062 109,074 262,659	15,392,497 1,176,188 129,281 262,659
B. Assets			
Actuarial Value Market Value	138,393,668 140,778,947	138,393,668 140,778,947	137,121,472 135,577,185
C. Liabilities			
Present Value of Benefits (PVB) Actives			
Retirement Benefits Disability Benefits Death Benefits Vested Benefits	19,439,538 920,004 166,109 3,796,047	30,155,852 1,420,677 313,959 856,840	33,446,276 1,293,874 284,353 830,400
Service Retirees ¹ Beneficiaries Disability Retirees	180,037,160 10,270,098 1,588,254	177,961,868 10,127,662 1,594,627	171,112,286 10,208,288 1,732,082
Terminated Vested	3,480,210	3,448,659	<u>3,432,899</u>
Total	219,697,420	225,880,144	222,340,458

¹ Includes reserve for DROP balances. \$3,495,929 as of 6/30/2024 and \$2,143,503 as of 6/30/2023.



	New Asmp/Mthd 6/30/2024	Old Asmp/Mthd 6/30/2024	6/30/2023
C. Liabilities - (Continued) Present Value of Future Salaries	69,410,460	89,174,536	79,228,916
Normal Cost (Retirement) Normal Cost (Disability) Normal Cost (Death) Normal Cost (Vesting) Total Normal Cost (EAN)	751,937	1,260,693	1,361,502
	78,750	81,182	79,295
	8,623	14,455	13,862
	<u>241,040</u>	<u>63,654</u>	<u>64,587</u>
	1,080,350	1,419,984	1,519,246
Present Value of Future Normal Costs	11,847,378	19,309,344	17,484,105
Accrued Liability (Retirement) Accrued Liability (Disability) Accrued Liability (Death) Accrued Liability (Vesting) Accrued Liability (Inactives) ¹ Total Actuarial Accrued Liability	11,020,170	12,814,720	17,786,250
	31,565	287,472	269,769
	63,629	98,542	93,546
	1,358,956	237,250	221,233
	<u>195,375,722</u>	<u>193,132,816</u>	186,485,555
	207,850,042	206,570,800	204,856,353
Unfunded Actuarial Accrued Liability (UAAL) Funded Ratio (AVA / AL)	69,456,374	68,177,132	67,734,881
	66.6%	67.0%	66.9%

¹ Includes reserve for DROP balances. \$3,495,929 as of 6/30/2024 and \$2,143,503 as of 6/30/2023.



	New Asmp/Mthd 6/30/2024	Old Asmp/Mthd 6/30/2024	6/30/2023
D. Actuarial Present Value of Accrued Benef	its		
Vested Accrued Benefits			
Inactives ¹	195,375,722	193,132,816	186,485,555
Actives	4,045,113	3,698,867	8,660,549
Member Contributions	3,086,660	<u>3,086,660</u>	3,517,637
Total	202,507,495	199,918,343	198,663,741
TOTAL	202,307,493	199,910,545	190,003,741
Non-vested Accrued Benefits	<u>1,981,697</u>	2,043,951	2,062,860
Total Present Value Accrued Benefits	204,489,192	201,962,294	200,726,601
Funded Ratio (MVA / PVAB)	68.8%	69.7%	67.5%
Increase (Decrease) in Present Value of			
Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption and Method Changes	2,526,898	0	
Plan Experience	0	4,610,490	
Benefits Paid	0	(17,300,338)	
Interest	0	13,925,541	
Other	<u>0</u>	0	
Total	2,526,898	1,235,693	
TOtal	2,320,030	1,233,033	

 $^{^1}$ Includes reserve for DROP balances. $\$3,\!495,\!929$ as of 6/30/2024 and $\$2,\!143,\!503$ as of 6/30/2023.



Valuation Date Applicable to Fiscal Year Beginning	New Asmp/Mthd 6/30/2024 7/1/2025	Old Asmp/Mthd 6/30/2024 7/1/2025	6/30/2023 7/1/2024
E. Pension Cost			
Normal Cost ¹ % of Total Annual Payroll ¹	\$1,158,675 19.43	\$1,522,933 24.47	\$1,629,391 25.94
Administrative Expenses ¹ % of Total Annual Payroll ¹	86,873 1.46	0 0.00	0 0.00
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years			
(as of 6/30/2024) ¹ % of Total Annual Payroll ¹	6,491,307 108.84	6,180,465 99.31	5,850,426 93.13
Total Recommended Contribution % of Total Annual Payroll ¹	7,736,855 129.73	7,703,398 123.78	7,479,817 119.07
Expected Member Contributions ¹ % of Total Annual Payroll ¹	(511,736) (8.58)	(533,953) (8.58)	(539,010) (8.58)
Expected City Contribution % of Total Annual Payroll ¹	7,225,119 121.15	7,169,445 115.20	6,940,807 110.49
F. Past Contributions			
Plan Years Ending:	6/30/2024		
Total Recommended Contribution City	7,212,393 6,636,384		
Actual Contributions Made:			
Members (excluding buyback) City Total	576,009 <u>6,636,384</u> 7,212,393		
G. Net Actuarial (Gain)/Loss	1,318,043		

¹ Contributions developed as of 6/30/2024 displayed above have been adjusted to account for assumed interest.



H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

V	Projected Unfunded
Year	Accrued Liability
2024	69,456,374
2025	68,000,654
2026	66,575,444
2029	62,476,548
2033	57,401,198
2036	53,867,139
2039	50,550,664

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		Actual	Assumed
Year Ended	6/30/2024	5.59%	6.95%
Year Ended	6/30/2023	12.16%	6.84%
Year Ended	6/30/2022	13.68%	6.52%

(ii) 3 Year Comparison of Investment Return on Actuarial Value

		Actual	Assumed
Year Ended	6/30/2024	8.68%	7.25%
Year Ended	6/30/2023	7.35%	7.25%
Year Ended	6/30/2022	7.70%	7.25%



DEVELOPMENT OF AMORTIZATION PAYMENT

(1)	Unfunded Actuarial Accrued Liability as of June 30, 2023	\$67,734,881
(2)	Sponsor Normal Cost developed as of June 30, 2023	1,016,673
(3)	Expected administrative expenses for the year ended June 30, 2024	0
(4)	Expected interest on (1), (2) and (3)	4,984,488
(5)	Sponsor contributions to the System during the year ended June 30, 2024	6,636,384
(6)	Expected interest on (5)	240,569
(7)	Expected Unfunded Actuarial Accrued Liability as of June 30, 2024, (1)+(2)+(3)+(4)-(5)-(6)	66,859,089
(8)	Change to UAAL due to Assumption/Method Change	1,279,242
(9)	Change to UAAL due to Actuarial (Gain)/Loss	1,318,043
(10)	Unfunded Accrued Liability as of June 30, 2024	69,456,374
(11)	UAAL Subject to Amortization (100% AAL less Actuarial Assets)	69,456,374

Date	Years	6/30/2024	Amortization
Established	Remaining	Amount	Amount
6/30/2024	15	69,456,374	6,052,501



DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2023	\$67,734,881
(2)	Expected UAAL as of June 30, 2024	66,859,089
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	(1,887,736)
	Salary Increases	(326,564)
	Active Decrements	1,029,895
	Inactive Mortality	1,364,451
	Other	1,137,997
	Change in UAAL due to (Gain)/Loss	1,318,043
	Change to UAAL due to Assumption/Method Change	1,279,242
(4)	Actual UAAL as of June 30, 2024	\$69,456,374



RECONCILIATION OF CHANGES IN CONTRIBUTION REQUIREMENT

(1)	Contribution Determined as of June 30, 2023	\$ 6,940,807
(2)	Summary of Contribution Impact by component:	
	Change in Normal Cost	(106,458)
	Change in Assumed Administrative Expense	86,873
	Investment Return (Actuarial Asset Basis)	(171,129)
	Salary Increases	(29,604)
	New Entrants	34,686
	Active Decrements	93,363
	Inactive Mortality	123,692
	Contributions (More) or Less than Recommended	-
	Change in Expected Member Contributions	5,057
	Assumption/Method/Plan Change	55,674
	Other	 (12,607)
	Total Change in Contribution	284,312
(3)	Contribution Determined as of June 30, 2024	\$7,225,119



FUNDING HISTORY

					Unfunded		Recommended
	Applicable		Actuarial			Recommended	Employer
Valuation	Fiscal Year	Valuation	Accrued	Funded	Accrued	Employer	Contribution -
Date	Beginning	Assets	Liabilities	Ratio	Liabilities		as a% of Payroll
6/30/2005	7/1/2006	98,951,961	123,358,784	80.2%	24,406,823	4,023,065	29.95%
6/30/2006	7/1/2007	100,038,258	132,777,933	75.3%	32,739,675	4,977,904	35.18%
6/30/2007	7/1/2008	105,253,136	138,917,506	75.8%	33,664,370	5,483,018	36.61%
6/30/2008	7/1/2009	107,616,702	143,634,491	74.9%	36,017,789	5,613,904	38.19%
6/30/2009	7/1/2010	106,010,390	146,368,393	72.4%	40,358,003	5,917,992	40.58%
6/30/2010	7/1/2011	104,077,490	150,774,376	69.0%	46,696,886	6,059,600	45.04%
6/30/2011	7/1/2012	103,934,745	155,333,797	66.9%	51,399,052	6,070,834	48.85%
6/30/2012	7/1/2013	99,683,637	160,414,696	62.1%	60,731,059	5,145,379	63.36%
6/30/2013	7/1/2014	99,259,779	161,043,175	61.6%	61,783,396	5,409,465	56.03%
6/30/2014	7/1/2015	105,226,637	167,330,715	62.9%	62,104,078	5,588,834	55.44%
6/30/2015	7/1/2016	111,681,871	168,842,174	66.1%	57,160,303	5,190,370	53.87%
6/30/2016	7/1/2017	114,904,904	171,511,297	67.0%	56,606,393	4,987,980	60.76%
6/30/2017	7/1/2018	120,061,921	185,870,601	64.6%	65,808,680	6,344,603	68.89%
6/30/2018	7/1/2019	123,671,115	189,748,432	65.2%	66,077,317	6,314,749	77.62%
6/30/2019	7/1/2020	126,307,470	192,880,943	65.5%	66,573,473	6,416,342	78.37%
6/30/2020	7/1/2021	127,124,839	193,219,158	65.8%	66,094,319	6,568,459	79.10%
6/30/2021	7/1/2022	135,463,508	199,902,653	67.8%	64,439,145	6,574,292	81.10%
6/30/2022	7/1/2023	136,989,025	204,403,254	67.0%	67,414,229	6,636,384	112.05%
6/30/2023	7/1/2024	137,121,472	204,856,353	66.9%	67,734,881	6,940,807	110.49%
6/30/2024	7/1/2025	138,393,668	207,850,042	66.6%	69,456,374	7,225,119	121.15%



PROJECTION OF BENEFIT PAYMENTS

	Payments for	Payments for	Total
Year	Current Actives	Current Inactives	Payments
2024	248,435	17,437,219	17,685,654
2025	355,846	17,265,166	17,621,012
2026	434,904	17,076,970	17,511,874
2027	500,410	16,872,267	17,372,677
2028	593,023	16,650,734	17,243,757
2029	613,640	16,412,190	17,025,830
2030	638,461	16,210,002	16,848,463
2031	615,151	15,937,291	16,552,442
2032	611,660	15,648,076	16,259,736
2033	620,638	15,342,979	15,963,617
2034	628,566	15,022,868	15,651,434
2035	635,859	14,688,846	15,324,705
2036	661,899	14,342,153	15,004,052
2037	878,095	13,984,122	14,862,217
2038	1,224,629	13,616,199	14,840,828
2039	1,549,780	13,239,929	14,789,709
2040	1,622,755	12,856,866	14,479,621
2041	2,282,288	12,468,497	14,750,785
2042	2,884,217	12,076,071	14,960,288
2043	3,177,627	11,680,547	14,858,174
2044	3,626,365	11,282,629	14,908,994
2045	4,118,159	10,882,813	15,000,972
2046	4,318,999	10,481,449	14,800,448
2047	4,802,113	10,078,737	14,880,850
2048	5,173,192	9,674,705	14,847,897
2049	5,296,788	9,269,211	14,565,999
2050	5,373,438	8,861,983	14,235,421
2051	5,360,303	8,452,672	13,812,975
2052	5,349,325	8,040,952	13,390,277
2053	5,326,821	7,626,643	12,953,464
2054	5,302,563	7,209,862	12,512,425
2055	5,275,323	6,791,112	12,066,435
2056	5,243,361	6,371,320	11,614,681
2057	5,207,831	5,951,796	11,159,627
2058	5,168,383	5,534,124	10,702,507
2059	5,124,642	5,120,048	10,244,690
2060	5,076,202	4,711,398	9,787,600
2061	5,022,639	4,310,098	9,332,737
2062	4,963,522	3,918,223	8,881,745
2063	4,898,419	3,537,888	8,436,307



ACTUARIAL ASSUMPTIONS AND METHODS

Interest Rate

7.25% per year compounded annually, net of investment related expenses.

Mortality Rate

Active Lives:

PubS-2010 Employee mortality, projected 5 years past the valuation date with Scale MP-2021. 100% of active deaths are assumed to be non-duty.

Inactive Lives:

PubS-2010 Healthy Retiree mortality, projected 5 years past the valuation date with Scale MP-2021.

Beneficiaries:

PubS-2010 Survivor mortality, projected 5 years past the valuation date with Scale MP-2021.

Disabled Lives:

PubS-2010 Disabled mortality, projected 5 years past the valuation date with Scale MP-2021.

The mortality assumptions sufficiently accommodate anticipated future mortality improvements.

Retirement Age

Rates are based on an experience study performed in 2023. 100% of members are assumed to retire at age 60.

	% Retiring During Year (Age < 60)					
	Corp/ Fire Fire					
			Patrol	Hired	Hired	
	Police	Corp/Patrol	Hired After	Before	After	
	Command	Hired Before	9/30/11	8/1/12	8/1/12	
Service	Rate	9/30/11 Rate	Rate	Rate	Rate	
<18	N/A	N/A	N/A	N/A	N/A	
18	N/A	70%	N/A	N/A	N/A	
19	N/A	70%	N/A	N/A	N/A	
20	100%	70%	N/A	70%	30%	
21	100%	20%	N/A	40%	20%	
22	100%	20%	N/A	30%	20%	
23-24	100%	20%	N/A	20%	20%	
25-29	100%	100%	100%	50%	50%	
30+	100%	100%	100%	100%	100%	



Disa	hil	litv	Rate
DIJU	\sim 1 $^{\circ}$	ııcy	Nucc

Members are assumed to decrement due to disability at a rate of 0.20% per year. 90% of disabilities are assumed to be in the line of duty.

Termination Rate

Rates are based on an experience study performed in 2023.

% Terminating I	During Year
Service	Rate
0	8.00%
1	7.00%
2	6.00%
3	5.00%
4-9	4.00%
10+	3.00%

Inflation

3.50%.

Salary Increases

Rates inclusive of inflation. Rates are based on an experience study performed in 2023 and the police officers CBA effective January 1, 2025.

Service	Police Rate	All
	for 2024	Others
0	47%	8.00%
1	40%	8.00%
2	38%	8.00%
3	21%	8.00%
4	18%	5.50%
5-10	22%	5.50%
11-19	22%	3.00%
20	3%	3.00%

Final Salary Load

Final salary is loaded 17% for police members and 10% for fire members to account for unused sick leave payouts.

Marital Status

90% of Members are assumed to be married.

Spouse's Age

Males are assumed to be three years older than females.



Mam	har	Contri	hution	Interest
IVIEIN	ner	Contri	nurion.	interest

2.00%.

Funding Method

Entry Age Normal Cost Method.

Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation. The normal cost accrual rate equals:

- (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
- (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future.

Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Actuarial Asset Method

Investment gains and losses are smoothed over a five-year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of the Market Value of Assets.



Funding Policy Amortization Method	The unfunded present value of benefits is amortized according to a level percentage of payroll method over an open period. 15 years as of June 30, 2024.
Payroll Growth	3.00%. This is based on an experience study performed in 2023.
Administrative Expenses	Expenses paid out of the fund other than investment-related expenses are assumed to be equal to those paid in the previous year.



GLOSSARY

Accrued Benefit	The benefit earned as of a specific date based on the provisions of the plan and the member's age, service, and salary as of that date.
Actuarial Accrued Liability	The portion of the anticipated future benefits allocated to years prior to the valuation date determined according to the plan's Actuarial Cost Method.
Actuarial Value of Assets	The asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.
Actuarial Assumptions	Assumptions regarding the occurrence of future events affecting plan costs. These assumptions include rates of investment earnings, changes in compensation, rates of mortality, withdrawal, disablement, and retirement as well as statistics related to marriage and family composition.
Actuarial Cost Method	A method of determining the portion of the cost of a plan to be allocated to each year; sometimes referred to as the "actuarial funding method." Each cost method allocates a certain portion of the actuarial present value of benefits between the Actuarial Accrued Liability and future normal costs to ensure the plan is adequately and systematically funded.
Actuarial Gain or Loss	The change in Unfunded Actuarial Accrued Liability resulting from experience different from Actuarial Assumptions. Gains decrease the Unfunded Actuarial Accrued Liability and losses increase the Unfunded Actuarial Accrued Liability.



Actuarial Present Value	The estimated amount of funds required as of a specified date to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payments between the specified date and the expected date of payment.
Amortization Payment	The portion of the plan contribution designated to pay interest and reduce the outstanding principal balance of Unfunded Actuarial Accrued Liability. If the amortization payment is less than the accrued interest on the Unfunded Actuarial Accrued Liability the outstanding principal balance will increase.
Decrements	Events which result in the termination of membership in the system such as retirement, disability, withdrawal, or death.
Funded Ratio	A measure of the ratio of the plan assets to liabilities of the system. Typically, the assets used in the measure are the Actuarial Value of Assets as determined by the asset valuation method. The Funded Ratio depends not only on the financial strength of the plan but also on the asset valuation method used to determine the assets and on the Actuarial Cost Method used to determine the liabilities.
Interest Rate	The assumed long-term rate of return on plan assets.
Market Value of Assets	The fair market value of plan assets as of the valuation date.
Normal Cost	The portion of the Actuarial Present Value of Benefits allocated to the current year determined according to the plan's Actuarial Cost Method.
Present Value of Benefits	The single sum value on the valuation date of all future benefits to be paid to current plan participants.
Projected Annual Payroll	The salary expected for the year after the valuation date, excluding members over the 100% assumed retirement age.



Projected Benefits	The benefits expected to be paid in the future based on the provisions of the plan and the Actuarial Assumptions. The projected values are based on anticipated future advancement in age and accrual of service as well as increases in salary paid to the participant.
Total Annual Payroll	The salary expected for the year after the valuation date.
Ultimate Cost	The total cost to the plan once the last benefit has been paid. The Ultimate Cost equals
	Benefit Payments Plus: Expenses Less: Investment Income
	The Ultimate Cost is independent of the Actuarial Cost Method selected.
Unfunded Actuarial Accrued Liability	The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.
Vested Benefit	Benefits members are entitled to regardless of employment status.



DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined under various assumption scenarios. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- <u>Investment Return</u>: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- <u>Salary Increases</u>: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- <u>Payroll Growth</u>: The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll does not increase according to the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.



- <u>Demographic Assumptions:</u> Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.
- Contribution Risk: This risk results from the potential that actual employer contributions may deviate from actuarially determined contributions, which are determined in accordance with the Board's funding policy. The funding policy is intended to result in contribution requirements that if paid when due, will result in a reasonable expectation that assets will accumulate to be sufficient to pay plan benefits when due. Contribution deficits, particularly large deficits and those that occur repeatedly, increase future contribution requirements and put the plan at risk for not being able to pay plan benefits when due.

IMPACT OF PLAN MATURITY ON RISK

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature plans with a substantial inactive liability. Similarly, mature plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.



To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled "Plan Maturity Measures and Other Risk Metrics". Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 34.2% on June 30, 2021 to 24.8% on June 30, 2024, indicating that the plan has been maturing.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 94.0%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors will need to be made up for over a shorter time horizon than would be needed for a less mature plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 67.8% on June 30, 2021 to 66.6% on June 30, 2024, due mainly to the shortfall in Actual Sponsor Contributions. If the contribution deficit continues, the funded ratio will continue to decrease even if all assumptions are met.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from -4.8% on June 30, 2021 to -7.2% on June 30, 2024. The current Net Cash Flow Ratio of -7.2% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

LOW DEFAULT-RISK OBLIGATION MEASURE

ASOP No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, was revised as of December 2021 to include a "low-default-risk obligation measure" (LDROM). This liability measure is consistent with the determination of the actuarial accrued liability shown on page 8 in terms of member data, plan provisions, and assumptions/methods, including the use of the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20 Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.21% resulting in an LDROM of \$281,876,814. The LDROM should not be considered the "correct" liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. Given that plan benefits are paid over time through the combination of contributions and investment returns, prudent investments selected by the Board help to balance asset accumulation through these two sources.

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.



PLAN MATURITY MEASURES AND OTHER RISK METRICS

	6/30/2024	6/30/2023	6/30/2022	6/30/2021
Support Ratio				
Total Actives	79 310	75 242	75 200	96
Total Inactives Actives / Inactives	318 24.8%	312 24.0%	308 24.4%	281 34.2%
Asset Volatility Ratio				
Market Value of Assets (MVA) Total Annual Payroll MVA / Total Annual Payroll	140,778,947 6,162,885 2,284.3%	135,577,185 6,282,167 2,158.1%	132,104,695 5,922,743 2,230.5%	156,692,679 8,196,459 1,911.7%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability Total Accrued Liability Inactive AL / Total AL	195,375,722 207,850,042 94.0%	186,485,555 204,856,353 91.0%	184,683,918 204,403,254 90.4%	164,536,575 199,902,653 82.3%
Funded Ratio				
Actuarial Value of Assets (AVA) Total Accrued Liability AVA / Total Accrued Liability	138,393,668 207,850,042 66.6%	137,121,472 204,856,353 66.9%	136,989,025 204,403,254 67.0%	135,463,508 199,902,653 67.8%
Net Cash Flow Ratio Net Cash Flow ¹ Market Value of Assets (MVA) Ratio	(10,176,940) 140,778,947 -7.2%	(9,542,745) 135,577,185 -7.0%	(8,539,273) 132,104,695 -6.5%	(7,546,154) 156,692,679 -4.8%

¹ Determined as total contributions minus benefit payments and administrative expenses.



ASSET INFORMATION

STATEMENT OF FIDUCIARY NET POSITION

	MARKET VALUE June 30, 2024
ASSETS Cash and Cash Equivalents	7,448,362
Total Cash and Equivalents	7,448,362
Receivables: Accounts Receivable-Other Accrued Interest and Dividends	198,244 106,190
Total Receivable	304,434
Investments: Fixed Income Domestic and International Equities Alternative Investments	5,532,360 95,010,204 32,483,587
Total Investments	133,026,151
Total Assets	140,778,947
LIABILITIES	
Liabilities:	
Total Liabilities	0
Net Assets: Active and Retired Members' Equity	140,778,947
NET POSITION RESTRICTED FOR PENSIONS	140,778,947



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

		YEAR ENDED 6/30/2024
ADDITIONS Contributions: Member City	576,009 6,636,384	
Total Contributions		7,212,393
Investment Income: Net Increase in Fair Value of Investments Less Expenses ¹		15,455,738 (347,472)
Net Investment Income		15,108,266
Other		281,044
Total Additions		22,601,703
DEDUCTIONS Distributions to Members: Benefit Payments	17,300,338	
Total Distributions		17,300,338
Administrative Expenses		88,995
Other		10,608
Total Deductions		17,399,941
Net Increase in Net Position		5,201,762
NET POSITION RESTRICTED FOR PENSIONS Beginning of the Year		135,577,185
End of the Year		140,778,947

¹ Expenses include investment advisory, custodial and performance monitoring fees



DEVELOPMENT OF ACTUARIAL ASSET VALUATION

	6/30/2024
Actuarial Value of Assets	
Market Value of Assets	140,778,947
Total Deferred Investment (Gains)/Losses	(2,385,279)
Preliminary Actuarial Value of Assets	138,393,668
1:-:!!	420,202,660
Limited Actuarial Value of Assets (20% corridor)	138,393,668
Development of Investment (Gain)/Loss	
	425 577 405
Market Value of Assets, Prior Year	135,577,185
Actuarial Value of Assets, Prior Year	137,121,472
Contributions	7,212,393
Benefit Payments	(17,300,338)
Administrative Expenses/Other	(99,603)
Expected Investment Earnings	9,572,008
·	· · · ·
Actual Net Investment Earnings	(15,108,266)
2024 Actuarial Investment (Gain)/Loss	(5,536,258)

Deferred Investment (Gains)/Losses

		Percentage	Deferred
Year Ended:	(Gain)/Loss	Deferred	(Gain)/Loss
6/30/2024	(5,536,258)	80%	(4,429,006)
6/30/2023	(3,434,219)	60%	(2,060,531)
6/30/2022	25,518,694	40%	10,207,478
6/30/2021	(30,516,100)	20%	(6,103,220)
Total Deferred I	/Losses	(2,385,279)	

Approximate Rates of Return

Basis	Rate of Return
Actuarial Asset Rate of Return:	8.68%
Market Value of Assets Rate of Return:	11.57%



CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS - ACTUARIAL ASSET BASIS

		YEAR ENDED 6/30/2024
ADDITIONS Contributions: Member City	576,009 6,636,384	
Total Contributions		7,212,393
Earnings from Investments Change in Actuarial Value	11,807,216	
Total Earnings and Investment Gains		11,807,216
DEDUCTIONS Administrative Expenses: Investment Related ¹ Other	347,472 88,995	
Total Administrative Expenses		436,467
Distributions to Members: Benefit Payments Refunds	17,300,338 0	
Total Distributions		17,300,338
Other		10,608
Change in Net Assets for the Year		1,272,196
Net Assets Beginning of the Year		137,121,472
Net Assets End of the Year		138,393,668

¹ Investment Related expenses include investment advisory, custodial and performance monitoring fees.



STATISTICAL DATA

Valuation Date	6/30/2024	6/30/2023	6/30/2022	6/30/2021
<u>Actives</u>				
Number	79	75	75	96
Average Current Age	34.5	34.7	35.1	38.2
Average Age at Employment	27.1	26.5	26.8	25.9
Average Past Service	7.4	8.2	8.3	12.3
Average Annual Salary	\$73,937	\$78,492	\$74,023	\$80,450
Service Retirees				
Number	252	247	245	219
Average Current Age	64.7	64.3	63.5	64.3
Average Annual Benefit	\$63,226	\$62,318	\$62,009	\$61,804
DROP Retirees incl. in Retirees	19	20	24	6
<u>Beneficiaries</u>				
Number	55	53	52	51
Average Current Age	73.8	72.4	71.2	70.3
Average Annual Benefit	\$21,965	\$22,192	\$22,140	\$21,202
EDROs incl. in Beneficiaries	29	29	29	29
<u>Disability Retirees</u>				
Number	3	4	4	4
Average Current Age	58.3	63.4	62.4	61.4
Average Annual Benefit	\$36,358	\$32,320	\$32,320	\$32,320
Terminated Vested				
Number	8	8	7	7
Average Current Age	46.8	45.8	45.3	N/A
Average Annual Benefit	\$32,832	\$32,832	\$29,805	\$29,805



AGE AND SERVICE DISTRIBUTION

ACTIVE EMPLOYEES TOTAL

						P.	AST SER	VICE					
AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total	Total Pay ¹
20 - 24	0	1	1	0	0	0	0	0	0	0	0	2	\$ 111,410
25 - 29	0	2	5	0	0	5	0	0	0	0	0	12	\$ 767,639
30 - 34	1	1	5	2	5	15	5	0	0	0	0	34	\$ 2,449,467
35 - 39	0	2	6	0	0	3	7	0	0	0	0	18	\$ 1,383,627
40 - 44	0	0	0	0	1	0	3	0	0	0	0	4	\$ 257,432
45 - 49	0	0	1	0	0	1	0	1	4	0	0	7	\$ 689,778
50 - 54	0	0	0	0	0	0	0	0	2	0	0	2	\$ 181,641
55 - 59	0	0	0	0	0	0	0	0	0	0	0	0	\$ 0
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0	\$ 0
65+	0	0	0	0	0	0	0	0	0	0	0	0	\$ 0
Total	1	6	18	2	6	24	15	1	6	0	0	79	\$ 5,840,994

¹ Total Pay is salaries for the period ending 6/30/2024.



AGE DISTRIBUTION RETIRES, DISABLEDS AND BENEFICIARIES

AGE	Count	Annual Pensions
< 45	6	\$ 574,424
45 - 49	29	\$ 2,026,391
50 - 54	39	\$ 2,588,613
55 - 59	41	\$ 2,741,856
60 - 64	29	\$ 1,776,027
65 - 69	31	\$ 1,759,195
70 - 74	32	\$ 1,639,329
75 - 79	44	\$ 2,229,124
80 - 84	36	\$ 1,281,360
85 - 89	13	\$ 383,483
90 - 94	8	\$ 209,667
95 - 99	1	\$ 30,001
100 +	1	\$ 10,589
Total	310	\$ 17,250,059



AGE DISTRIBUTION INACTIVE VESTED MEMBERS

Annual Pensions		Count	AGE
78,549	\$ 2		< 45
141,576	\$ 5		45 - 49
42,534	\$ 1		50 - 54
262,659	\$ 8		Total



PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 6/30/2023	75
b. Terminationsi. Vested (partial or full) with deferred benefitsii. Non-vested or full lump sum distribution received	0
iii. Refunded	0 (5)
c. Deathsi. Beneficiary receiving benefitsii. No future benefits payable	0
d. Disabled	0
e. Retired f. DROP	(3) <u>(3)</u>
g. Continuing participants h. New entrants	64 <u>15</u>
i. Total active life participants in valuation	79

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested Deferred	Total
a. Number prior valuation	247	53	4	8	312
Retired	3	0	0	0	3
DROP	3	0	0	0	3
Vested Deferred	0	0	0	0	0
Death, With Survivor	(1)	2	(1)	0	0
Death, No Survivor	0	0	0	0	0
Disabled	0	0	0	0	0
Refund of Contributions	0	0	0	0	0
Rehires	0	0	0	0	0
New EDROs	0	0	0	0	0
Data Corrections	0	0	0	0	0
Hired/Termed in Same Year	0	0	0	0	0
b. Number current valuation	252	55	3	8	318



PLAN PROVISIONS

Plan Administration

The Plan is a single employer defined benefit pension plan that covers all eligible public safety employees of the City. The plan is administered by a Board of Trustees comprised of five members:

- a.) One police officer elected by plan members,
- b.) One firefighter elected by plan members,
- c.) Two members representing the City, and
- d.) The city treasurer.

Final Average Compensation (FAC)

Highest 3 years out of last 10. Fire FAC will use base wages only and overtime is capped at \$3,000. Corporal/Patrol FAC shall be base wage plus a maximum of 240 hours of paid leave.

Service Retirement Eligibility

Corporal/Patrol hired prior to 10/1/2011 and Fire hired prior to August 1, 2012: Any age with 20 or more years of service or age 60 regardless of service.

Corporal/Patrol hired after 9/30/2011: 25 or more years of service or age 60.

Fire hired after August 1, 2021: Any age with 20 or more years of service or age 60 regardless of service.

Police Command: Any age with 25 or more years of service or age 60 regardless of service.

Annual Benefit

Corporal/Patrol hired prior to 10/1/2011:

Straight life pension equals 2.80% FAC times first 25 years of service, maximum of 70% of FAC.

Police Command and Fire hired prior July 1, 2007: Straight life pension equals 2.80% of FAC times first 25 years of service plus 1.00% of FAC times years of service in excess of 25 years to a maximum of 75% of FAC.

Fire hired on or after July 1, 2007 (and before August 1, 2012) and Corporal/Patrol hired after 9/30/2011:

Straight life pension equals 2.25% of FAC times years of service.



Fire hired on or after August 1, 2021:

Straight life pension equals 2.25% of FAC times years of service to a

maximum of 75% of FAC.

Duty Disability Retirement

Eligibility Payable upon the total and permanent disability of a member in the

line of duty.

Benefit To age 55: 50% of FAC.

At age 55: Same as Service Retirement Pension with service credit

from date of disability to age 55.

Non-Duty Disability Retirement

Eligibility Payable upon the total and permanent disability of a member with 5

or more years of service

Benefit To Age 55: 1.50% of FAC times years of service.

At Age 55: Same as service retirement pension.

Deferred Retirement

Eligibility 10 years of credited service.

Benefit Computed as service retirement but based upon service, FAC and

benefit provisions in effect at termination. Benefit begins at date

retirement would have occurred had member remained in

employment.

Duty Death in Service Survivor's Pension

Eligibility Payable upon the expiration of a worker's compensation to the

survivors of a member who died in the line of duty.

Benefit Same amount that was paid by worker's compensation.

Non-Duty Death in Service Survivor's Pension

Eligibility Payable to a surviving spouse, if any, upon the death of a member

with 10 or more years of service.

Benefit Fire: Spouse's pension equals 60% of the straight life pension.

All others: Accrued straight life pension actuarially reduced in

accordance with an Option I election.



Death After Retirement Survivor's Pension

Eligibility Payable to an eligible surviving spouse, if any, upon the death of a

retired member who was receiving a straight life pension which was

effective July 1, 1975 or later.

Benefit Spouse's pension equals 60% of the straight life pension the

deceased retiree was receiving.

Deferred Retirement Option Plan

Eligibility Must be Police Command or member of the Taylor Professional Fire

Fighters Associate Local 1252 hired before August 1, 2012. Members can elect DROP after earning 20 years of service. Fire members must

earn 20 years on or before June 30, 2022.

Participation Not to exceed 60 months.

Rate of Return DROP Interest for each DROP Participant prior to termination of

employment shall be equal to the rate paid to an employee who terminates their employment and withdraws their annuity in lieu of a retirement. Upon termination of employment, DROP Interest shall be credited at the same rate and in the same manner as interests is credited to an employee who withdraws their annuity and terminates

employment in lieu of a retirement.

Contributions 8.00% of pay. Member contributions earn 2.00% interest.

