



August 15, 2024

Ms. Marla Alpizar  
Director, SHRM-SCP  
City of Miami Beach  
Human Resources Department  
1700 Convention Center Drive  
Miami Beach, Florida 33139

**Re: Actuarial Projection Study  
City Pension Fund for Firefighters and Police Officers in the City of Miami Beach**

Dear Marla:

As requested, we are pleased to enclose our *updated* Actuarial Projection Study including twenty (20) year projections beginning October 1, 2023 for the City Pension Fund for Firefighters and Police Officers in the City of Miami Beach (Fund) illustrating the financial impact of the current and proposed provisions.

This update reflects proposed changes on Final Average Monthly Earnings (FAME) and the service incurred disability benefit for Firefighters only.

Census data and financial information is reported as of October 1, 2023.

If you should have any question concerning the above or if we may be of further assistance with this matter, please do not hesitate to contact us.

Sincerest regards,  
Gabriel, Roeder, Smith & Company

A handwritten signature in black ink that reads "Michelle Jones". The signature is written in a cursive, flowing style.

Shelly L. Jones, A.S.A., M.A.A.A., E.A., F.C.A.  
Consultant and Actuary

Enclosure

# City Pension Fund for Firefighters and Police Officers in the City of Miami Beach

Actuarial Projection Study as of October 1, 2023

Prepared: August 15, 2024





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## EXECUTIVE SUMMARY

As requested, we have updated twenty (20) year projections illustrating the financial impact of proposed changes to the benefit provisions of the City Pension Fund for Firefighters and Police Officers in the City of Miami Beach (Fund).

The update reflects proposed changes for Firefighters only.

**Background** – Currently the Fund provides:

- Final Average Monthly Earnings (FAME) as the greater of the average of the five (5) highest paid years or the five (5) last paid years prior to date of retirement after taking into consideration the overtime limit for Tier 3, Tier 4 and Tier 5 active members.
- For all current and future active members, the service incurred disability benefit is the accrued benefit with a minimum of 85% of current salary at time of disability.

**Proposed Changes** – We understand the City wishes to determine the effect on future City contributions of the following proposed changes:

- **Scenario 1** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighters, the FAME is the greater of the average of the three (3) highest paid years or the three (3) last paid years prior to date of retirement after taking into consideration the overtime limit.
- **Scenario 2** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighters, the FAME is the greater of the average of the four (4) highest paid years or the four (4) last paid years prior to date of retirement after taking into consideration the overtime limit.
- **Scenario 3** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighters, the FAME is the greater of the average of the three (3) highest paid years or the three (3) last paid years prior to date of retirement after taking into consideration the overtime limit. Additionally, for all current and future active Firefighter members, the service incurred disability benefit is the accrued benefit with a minimum of 50% of current salary at time of disability.
- **Scenario 4** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighters, the FAME is the greater of the average of the four (4) highest paid years or the four (4) last paid years prior to date of retirement after taking into consideration the overtime limit. Additionally, for all current and future active Firefighter members, the service incurred disability benefit is the accrued benefit with a minimum of 50% of current salary at time of disability.

**Results** – The following table shows the current City cost over the next five (5), ten (10) and twenty (20) years for the baseline (current Fund) and for the proposed benefit changes described above both as a dollar amount and as a percentage of projected covered payroll, respectively.

Summary of Costs (\$1,000s)									
	Current Plan	Scenario 1		Scenario 2		Scenario 3		Scenario 4	
		3 year FAME, Firefighter Only		4 year FAME, Firefighter Only		3 year FAME and updated LOD disability benefit, Firefighter Only		4 year FAME and updated LOD disability benefit, Firefighter Only	
	Amount	Amount	Increase / (Decrease)	Amount	Increase / (Decrease)	Amount	Increase / (Decrease)	Amount	Increase / (Decrease)
5 Years									
- Pensionable Payroll	\$465,208	\$465,208	(\$0)	\$465,208	(\$0)	\$465,208	(\$0)	\$465,208	(\$0)
- Net City Cost \$	\$316,326	\$317,652	\$1,326	\$316,982	\$656	\$315,528	(\$798)	\$314,842	(\$1,484)
- % of Payroll	68.0%	68.3%	0.3%	68.1%	0.1%	67.8%	-0.2%	67.7%	-0.3%
10 Years									
- Pensionable Payroll	\$998,469	\$998,469	(\$0)	\$998,469	(\$0)	\$998,469	(\$0)	\$998,469	(\$0)
- Net City Cost \$	\$687,778	\$691,136	\$3,358	\$689,438	\$1,660	\$686,778	(\$1,000)	\$685,040	(\$2,737)
- % of Payroll	68.9%	69.2%	0.3%	69.0%	0.2%	68.8%	-0.1%	68.6%	-0.3%
20 Years									
- Pensionable Payroll	\$2,247,014	\$2,247,014	(\$0)	\$2,247,014	(\$0)	\$2,247,014	(\$0)	\$2,247,014	(\$0)
- Net City Cost \$	\$1,285,132	\$1,294,932	\$9,800	\$1,289,974	\$4,841	\$1,285,765	\$633	\$1,280,692	(\$4,440)
- % of Payroll	57.2%	57.6%	0.4%	57.4%	0.2%	57.2%	0.0%	57.0%	-0.2%

**Actuarial Assumptions and Methods, Fund Provisions, Financial Data and Member Census Data** – Fund provisions, financial data and member census data employed for purposes of our Actuarial Projection Study are the same Fund provisions, financial data and member census data utilized for the October 1, 2023 Actuarial Valuation unless otherwise specified herein.

The actuarial assumptions and methods are the same as outlined in the October 1, 2023 Actuarial Valuation with the following projection modifications:

- Fund provisions are as described above
- For Scenarios 3 and 4, 15% of disabilities are assumed to be non-service incurred – 85% service incurred.
- Future members are assumed to be hired each year at a rate sufficient to maintain a constant active headcount – stationary population. New members are assumed to have the same average demographic characteristics (age, gender, salary – adjusted each year for inflation) as those hired over the past five (5) years.
- State (Share Plan) contributions are projected to remain \$120,549 during the 20-year projection period for all Scenarios.
- Investment return assumption decreases 10 basis points next year to 7.20%.
- Payroll growth is assumed to remain the same as current year (3.5%) for all projection years.
- Administrative expenses included in the normal cost are assumed to grow with projected inflation - 3% per annum.

Projections are deterministic - throughout the projection period Fund experience is expected to match the assumptions (asset value reported as of October 1, 2023).

**Other Considerations** – Under Governmental Accounting Standards Board (GASB) Statement Number 68, we understand the full cost of benefit changes must be recognized immediately in the Pension Expense (for accounting, not funding).

**Risk Assessment** – Risk assessment may include scenario tests, sensitivity, or stress tests, stochastic modeling and a comparison of the present value of benefits at low-risk discount rates. We are prepared to perform



such assessment to aid in the decision making process. Please refer to the October 1, 2023 Actuarial Valuation Report dated April 11, 2024 for additional discussion regarding the risks associated with measuring the accrued liability and the minimum funding payment.

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This Actuarial Projection Study is intended to describe the estimated future financial effects of the proposed benefit changes on the Fund and is not intended as a recommendation in favor of the change nor in opposition to the change.

These calculations are based upon assumptions regarding future events. However, the Fund's long term costs will be determined by actual future events, which may differ materially from the assumptions made. These calculations are also based upon present and proposed Fund provisions that are outlined or referenced in this Actuarial Study.

If all actuarial assumptions are met and if all future minimum required contributions are paid, Fund assets will be sufficient to pay all Fund benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. Fund minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act, Firefighters Retirement Chapter 175 and Police Officers Retirement Chapter 185 with normal cost determined as a level percent of covered payroll and with a level percent amortization payment using a closed amortization period of 30-years.

All actuarial assumptions used in this Actuarial Study are reasonable for the purposes of this study. The combined effect of the assumptions is expected to have no significant bias (i.e. not significantly optimistic or pessimistic). All actuarial assumptions and methods used in the study follow the guidance in the applicable Actuarial Standards of Practice.

The Unfunded Actuarial Accrued Liability (UAAL) may not be appropriate for assessing the sufficiency of Fund assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions. The UAAL would be different if it reflected the market value of assets rather than the smoothed actuarial value of assets.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: Fund 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 or additional cost or contribution requirements based on the Fund's funded status); and changes in Fund provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

If you have reason to believe the assumptions used are unreasonable, the Fund provisions are incorrectly described or referenced, important Fund provisions relevant to this Actuarial Projection Study are not described or that conditions have changed since the calculations were made, you should contact the undersigned prior to relying on information in this Actuarial Projection Study. If you have reason to believe



that the information provided in this Actuarial Projection Study is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the undersigned prior to making such decision.

This Actuarial Study was prepared using ProVal's valuation model, a software product of Winklevoss Technologies. We are relying on the ProVal model. We performed tests of the ProVal model with this assignment and made a reasonable attempt to understand the developer's intended purpose of, general operation of, major sensitivities and dependencies within, and key strengths and limitations of the ProVal model. In our professional judgment, the ProVal valuation model has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses.

This Study has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This Actuarial Study was prepared at the request of the City and is intended for use by the City and those designated or approved by the City. This Actuarial Study may be provided to parties other than the City only in its entirety and only with the permission of the City. GRS is not responsible for unauthorized use of this Study.

The signing actuaries are independent of the Fund sponsor.

The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

If you should have any question concerning the above or if we may be of further assistance with this matter, please do not hesitate to contact us.

Sincerest regards,  
Gabriel, Roeder, Smith & Company



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Shelly L. Jones, A.S.A., E.A., M.A.A.A, F.C.A.  
Consultant and Actuary



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Jennifer M. Borregard, E.A., M.A.A.A, F.C.A.  
Consultant and Actuary

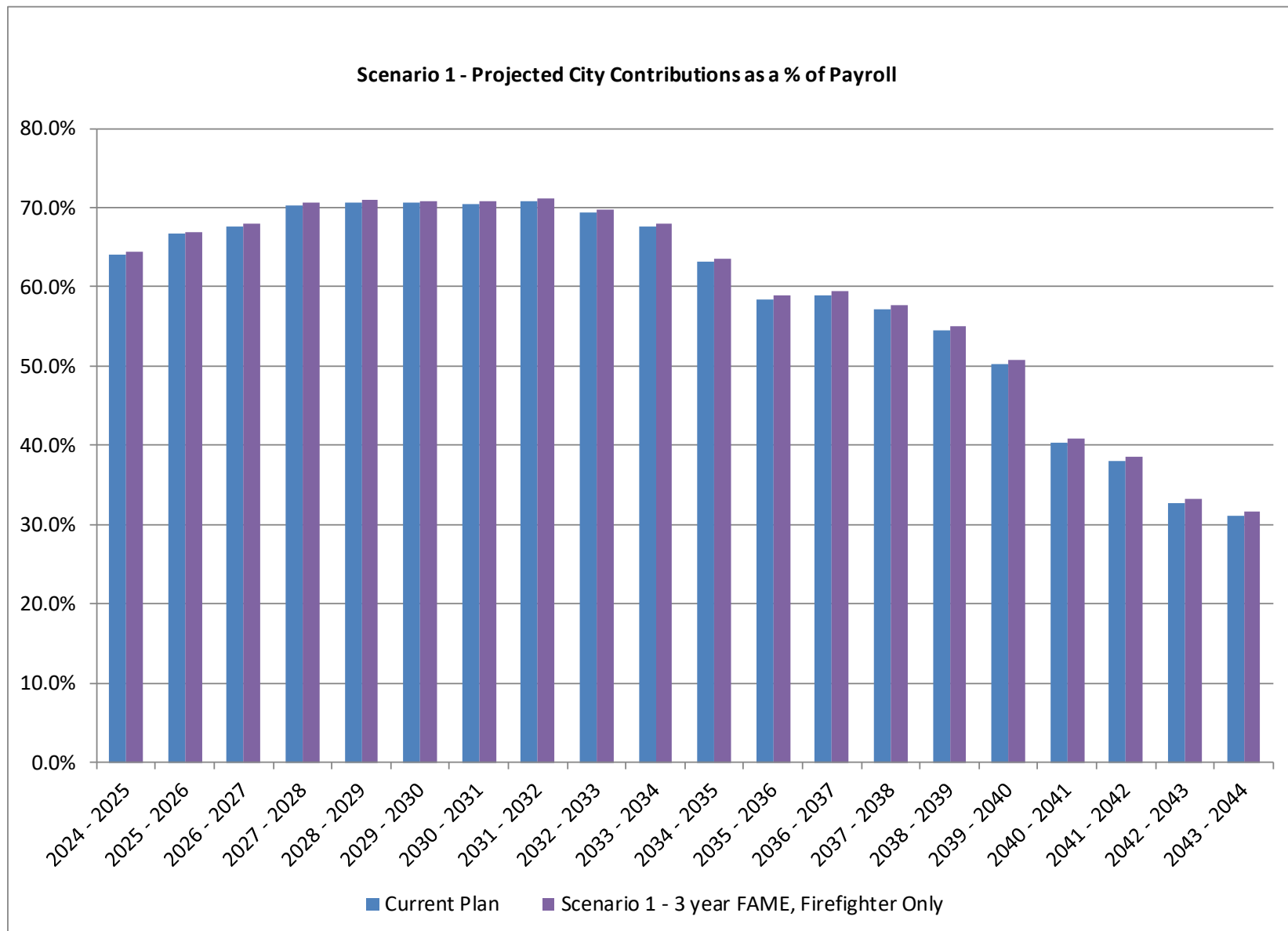


## PROJECTION RESULTS

**Scenario 1** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighter members, the FAME is the greater of the average of the three (3) highest paid years or the three (3) last paid years prior to date of retirement after taking into consideration the overtime limit.

The following Tables show projected covered payroll, comparison of projected City and Unfunded Actuarial Accrued Liability (UAAL) under the baseline forecast versus Scenario 1 – (\$1,000s).

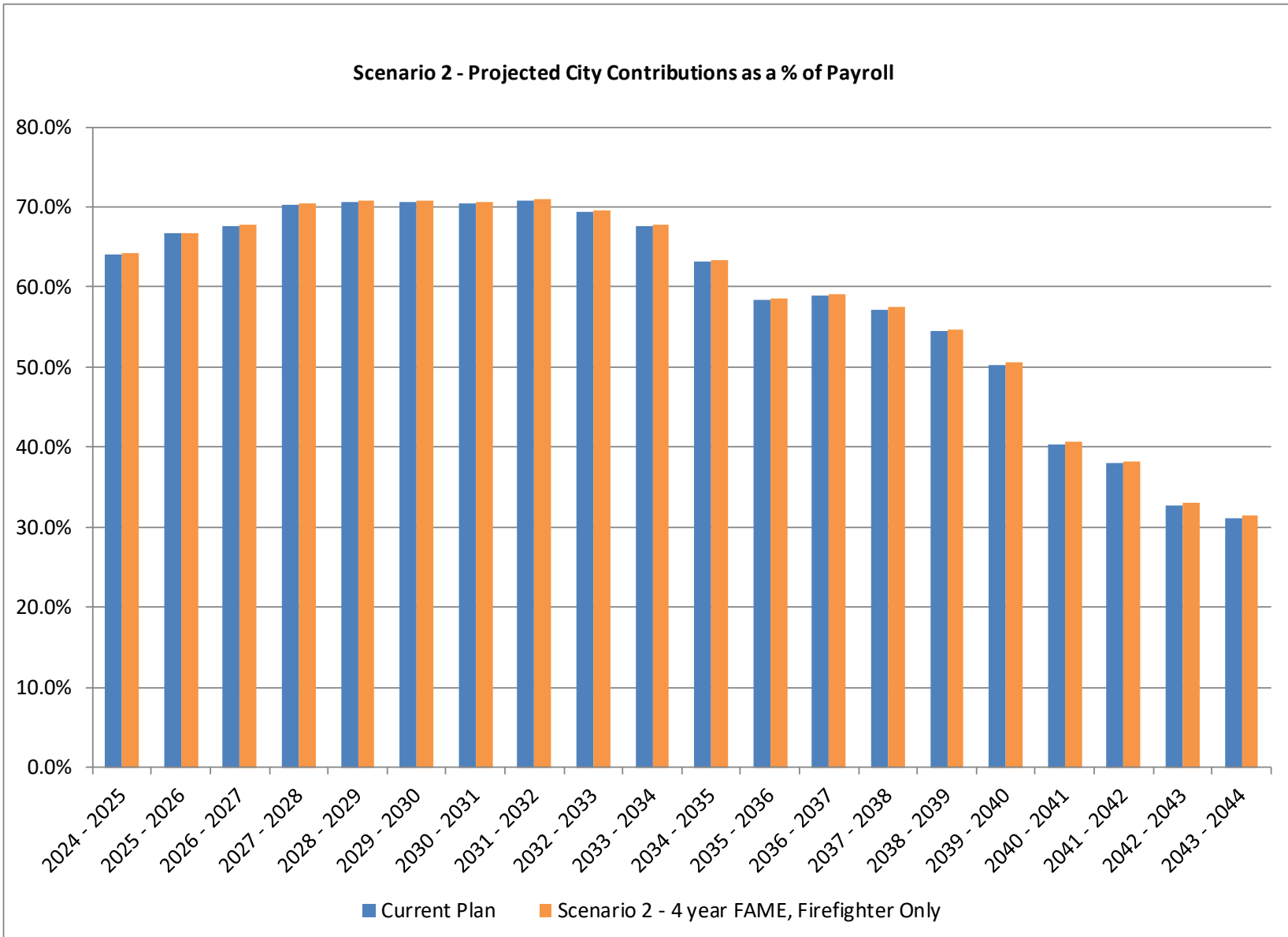
Contribution Fiscal Year	Current Plan				Scenario 1 - 3 year FAME, Firefighter Only				Increase / (Reduction) in Net City Cost	Cumulative Inc / (Red) in Net City Cost	Increase / (Reduction) in UAAL
	Projected Annual Pensionable Payroll	Projected Net City Cost			Projected Annual Pensionable Payroll	Projected Net City Cost					
		Amount	% of Pay	UAAL		Amount	% of Pay	UAAL			
2024 - 2025	85,775	55,019	64.1%	401,283	85,775	55,231	64.4%	402,193	212	212	911
2025 - 2026	89,989	59,981	66.7%	438,131	89,989	60,227	66.9%	439,296	246	458	1,165
2026 - 2027	93,620	63,354	67.7%	455,247	93,620	63,621	68.0%	456,457	267	724	1,210
2027 - 2028	96,532	67,896	70.3%	491,878	96,532	68,184	70.6%	493,117	288	1,012	1,239
2028 - 2029	99,293	70,075	70.6%	479,790	99,293	70,389	70.9%	481,056	314	1,326	1,265
2029 - 2030	101,992	71,947	70.5%	463,631	101,992	72,289	70.9%	464,927	342	1,668	1,296
2030 - 2031	104,292	73,374	70.4%	444,349	104,292	73,747	70.7%	445,674	373	2,041	1,325
2031 - 2032	106,632	75,402	70.7%	421,540	106,632	75,807	71.1%	422,895	405	2,447	1,355
2032 - 2033	108,847	75,449	69.3%	396,086	108,847	75,888	69.7%	397,469	439	2,885	1,383
2033 - 2034	111,497	75,279	67.5%	366,749	111,497	75,752	67.9%	368,158	472	3,358	1,409
2034 - 2035	114,277	72,173	63.2%	335,557	114,277	72,680	63.6%	336,989	506	3,864	1,431
2035 - 2036	116,642	68,115	58.4%	302,827	116,642	68,658	58.9%	304,277	543	4,407	1,450
2036 - 2037	118,614	69,872	58.9%	271,047	118,614	70,451	59.4%	272,513	579	4,986	1,467
2037 - 2038	121,274	69,379	57.2%	241,928	121,274	69,992	57.7%	243,406	613	5,599	1,478
2038 - 2039	123,958	67,506	54.5%	209,464	123,958	68,154	55.0%	210,946	647	6,247	1,482
2039 - 2040	125,469	63,067	50.3%	175,748	125,469	63,738	50.8%	177,228	671	6,918	1,480
2040 - 2041	127,463	51,414	40.3%	141,605	127,463	52,108	40.9%	143,065	693	7,611	1,460
2041 - 2042	129,864	49,271	37.9%	110,412	129,864	49,987	38.5%	111,844	716	8,326	1,431
2042 - 2043	133,603	43,766	32.8%	90,755	133,603	44,487	33.3%	92,152	721	9,047	1,396
2043 - 2044	137,380	42,790	31.1%	72,794	137,380	43,543	31.7%	74,128	752	9,800	1,334
5 Year Totals	465,208	316,326	68.0%		465,208	317,652	68.3%		1,326		
10 Year Totals	998,469	687,778	68.9%		998,469	691,136	69.2%		3,358		
20 Year Totals	2,247,014	1,285,132	57.2%		2,247,014	1,294,932	57.6%		9,800		



**Scenario 2** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighter members, the FAME is the greater of the average of the four (4) highest paid years or the four (4) last paid years prior to date of retirement after taking into consideration the overtime limit.

The following Tables show projected covered payroll, comparison of projected City and Unfunded Actuarial Accrued Liability (UAAL) under the baseline forecast versus Scenario 2 – (\$1,000s).

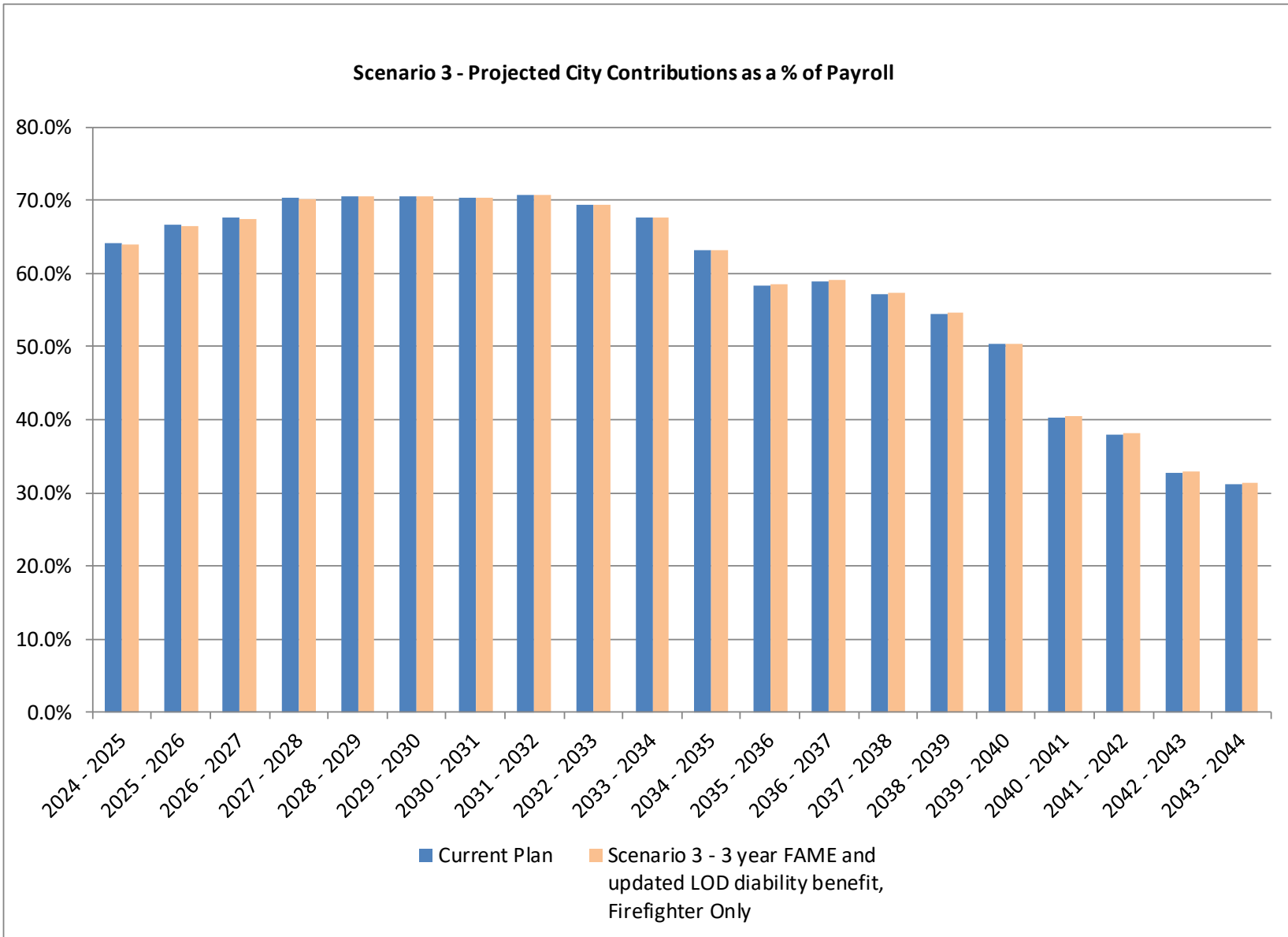
Contribution Fiscal Year	Current Plan				Scenario 2 - 4 year FAME, Firefighter Only				Increase / (Reduction) in Net City Cost	Cumulative Inc / (Red) in Net City Cost	Increase / (Reduction) in UAAL
	Projected Annual Pensionable Payroll	Projected			Projected Annual Pensionable Payroll	Projected					
		Net City Cost				Net City Cost					
		Amount	% of Pay	UAAL		Amount	% of Pay	UAAL			
2024 - 2025	85,775	55,019	64.1%	401,283	85,775	55,124	64.3%	401,735	105	105	453
2025 - 2026	89,989	59,981	66.7%	438,131	89,989	60,103	66.8%	438,710	122	227	579
2026 - 2027	93,620	63,354	67.7%	455,247	93,620	63,486	67.8%	455,848	132	358	601
2027 - 2028	96,532	67,896	70.3%	491,878	96,532	68,038	70.5%	492,496	142	501	617
2028 - 2029	99,293	70,075	70.6%	479,790	99,293	70,231	70.7%	480,421	155	656	631
2029 - 2030	101,992	71,947	70.5%	463,631	101,992	72,116	70.7%	464,276	169	825	646
2030 - 2031	104,292	73,374	70.4%	444,349	104,292	73,559	70.5%	445,009	184	1,010	660
2031 - 2032	106,632	75,402	70.7%	421,540	106,632	75,602	70.9%	422,215	200	1,210	675
2032 - 2033	108,847	75,449	69.3%	396,086	108,847	75,666	69.5%	396,775	217	1,427	689
2033 - 2034	111,497	75,279	67.5%	366,749	111,497	75,513	67.7%	367,451	233	1,660	702
2034 - 2035	114,277	72,173	63.2%	335,557	114,277	72,424	63.4%	336,270	250	1,910	713
2035 - 2036	116,642	68,115	58.4%	302,827	116,642	68,383	58.6%	303,549	268	2,179	722
2036 - 2037	118,614	69,872	58.9%	271,047	118,614	70,158	59.1%	271,777	286	2,464	730
2037 - 2038	121,274	69,379	57.2%	241,928	121,274	69,682	57.5%	242,663	303	2,767	736
2038 - 2039	123,958	67,506	54.5%	209,464	123,958	67,826	54.7%	210,202	320	3,087	738
2039 - 2040	125,469	63,067	50.3%	175,748	125,469	63,398	50.5%	176,484	331	3,418	736
2040 - 2041	127,463	51,414	40.3%	141,605	127,463	51,757	40.6%	142,331	342	3,760	726
2041 - 2042	129,864	49,271	37.9%	110,412	129,864	49,625	38.2%	111,125	353	4,114	712
2042 - 2043	133,603	43,766	32.8%	90,755	133,603	44,122	33.0%	91,451	356	4,470	695
2043 - 2044	137,380	42,790	31.1%	72,794	137,380	43,162	31.4%	73,458	372	4,841	665
5 Year Totals	465,208	316,326	68.0%		465,208	316,982	68.1%		656		
10 Year Totals	998,469	687,778	68.9%		998,469	689,438	69.0%		1,660		
20 Year Totals	2,247,014	1,285,132	57.2%		2,247,014	1,289,974	57.4%		4,841		



**Scenario 3** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighter members, the FAME is the greater of the average of the three (3) highest paid years or the three (3) last paid years prior to date of retirement after taking into consideration the overtime limit. Additionally, for all current and future active Firefighter members, the service incurred disability benefit is the accrued benefit with a minimum of 50% of current salary at time of disability.

The following Tables show projected covered payroll, comparison of projected City and Unfunded Actuarial Accrued Liability (UAAL) under the baseline forecast versus Scenario 3 – (\$1,000s).

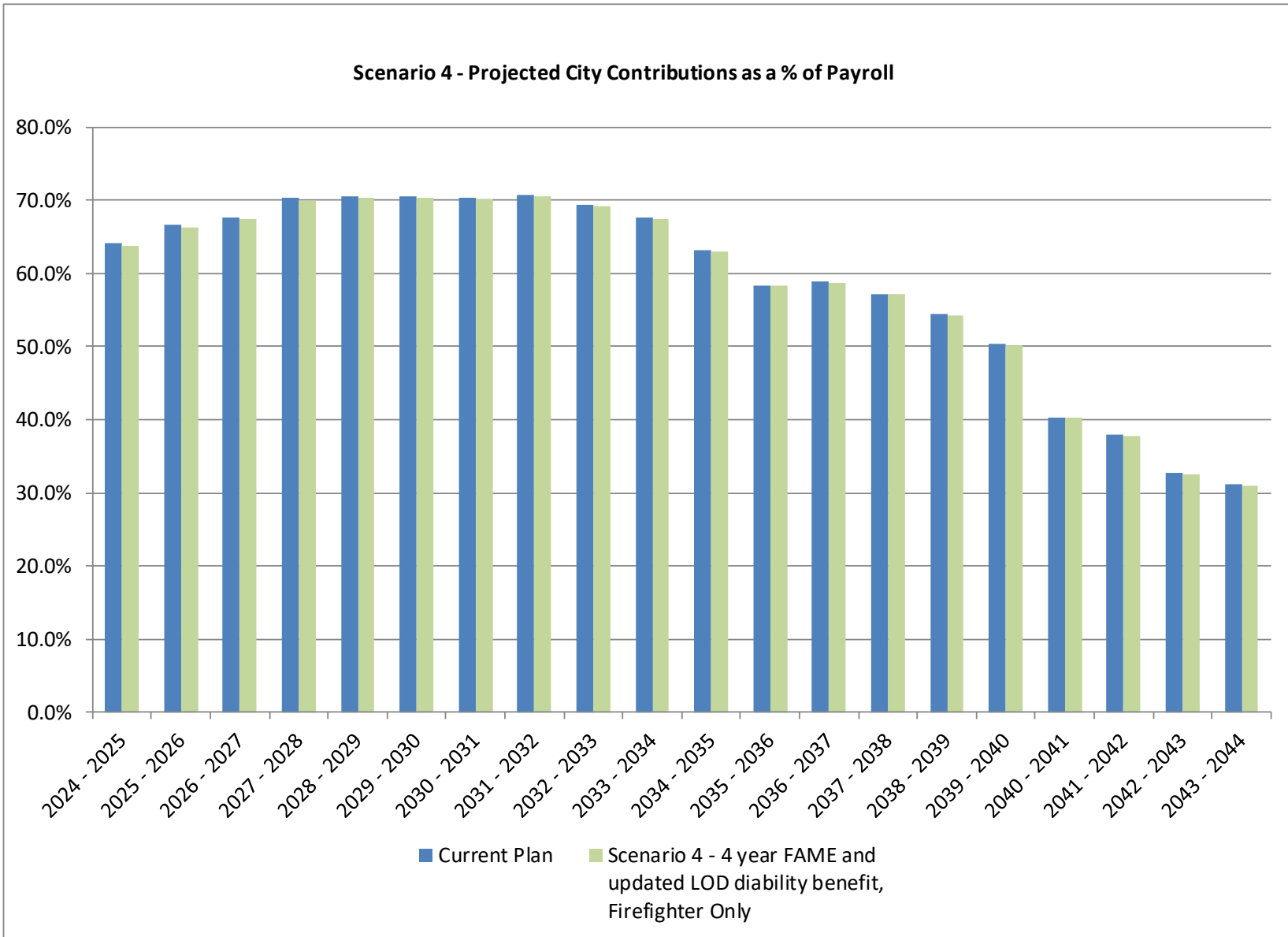
Contribution Fiscal Year	Scenario 3 - 3 year FAME and updated LOD disability benefit,										
	Current Plan				Firefighter Only				Increase / (Reduction) in Net City Cost	Cumulative Inc / (Red) in Net City Cost	Increase / (Reduction) in UAAL
	Projected Annual Pensionable Payroll	Projected			Projected Annual Pensionable Payroll	Projected					
		Net City Cost				Net City Cost					
		Amount	% of Pay	UAAL		Amount	% of Pay	UAAL			
2024 - 2025	85,775	55,019	64.1%	401,283	85,775	54,841	63.9%	401,217	(178)	(178)	(66)
2025 - 2026	89,989	59,981	66.7%	438,131	89,989	59,804	66.5%	437,886	(177)	(355)	(245)
2026 - 2027	93,620	63,354	67.7%	455,247	93,620	63,189	67.5%	455,006	(165)	(520)	(241)
2027 - 2028	96,532	67,896	70.3%	491,878	96,532	67,747	70.2%	491,654	(149)	(669)	(224)
2028 - 2029	99,293	70,075	70.6%	479,790	99,293	69,946	70.4%	479,586	(129)	(798)	(204)
2029 - 2030	101,992	71,947	70.5%	463,631	101,992	71,843	70.4%	463,451	(104)	(902)	(180)
2030 - 2031	104,292	73,374	70.4%	444,349	104,292	73,303	70.3%	444,198	(72)	(974)	(150)
2031 - 2032	106,632	75,402	70.7%	421,540	106,632	75,358	70.7%	421,428	(44)	(1,018)	(113)
2032 - 2033	108,847	75,449	69.3%	396,086	108,847	75,440	69.3%	396,006	(9)	(1,026)	(81)
2033 - 2034	111,497	75,279	67.5%	366,749	111,497	75,306	67.5%	366,708	27	(1,000)	(41)
2034 - 2035	114,277	72,173	63.2%	335,557	114,277	72,233	63.2%	335,557	60	(940)	(1)
2035 - 2036	116,642	68,115	58.4%	302,827	116,642	68,213	58.5%	302,863	98	(842)	36
2036 - 2037	118,614	69,872	58.9%	271,047	118,614	70,001	59.0%	271,125	129	(713)	78
2037 - 2038	121,274	69,379	57.2%	241,928	121,274	69,534	57.3%	242,041	155	(557)	113
2038 - 2039	123,958	67,506	54.5%	209,464	123,958	67,684	54.6%	209,606	177	(380)	142
2039 - 2040	125,469	63,067	50.3%	175,748	125,469	63,262	50.4%	175,914	195	(185)	166
2040 - 2041	127,463	51,414	40.3%	141,605	127,463	51,617	40.5%	141,790	203	18	185
2041 - 2042	129,864	49,271	37.9%	110,412	129,864	49,479	38.1%	110,606	208	225	194
2042 - 2043	133,603	43,766	32.8%	90,755	133,603	43,966	32.9%	90,955	200	425	199
2043 - 2044	137,380	42,790	31.1%	72,794	137,380	42,998	31.3%	72,985	208	633	192
5 Year Totals	465,208	316,326	68.0%		465,208	315,528	67.8%		(798)		
10 Year Totals	998,469	687,778	68.9%		998,469	686,778	68.8%		(1,000)		
20 Year Totals	2,247,014	1,285,132	57.2%		2,247,014	1,285,765	57.2%		633		



**Scenario 4** – For Tier 3, Tier 4 and Tier 5 current and future active Firefighter members, the FAME is the greater of the average of the four (4) highest paid years or the four (4) last paid years prior to date of retirement after taking into consideration the overtime limit. Additionally, for all current and future active Firefighter members, the service incurred disability benefit is the accrued benefit with a minimum of 50% of current salary at time of disability.

The following Tables show projected covered payroll, comparison of projected City and Unfunded Actuarial Accrued Liability (UAAL) under the baseline forecast versus Scenario 4 – (\$1,000s).

Contribution Fiscal Year	Scenario 4 - 4 year FAME and updated LOD disability benefit,									Increase / (Reduction) in Net City Cost	Cumulative Inc / (Red) in Net City Cost	Increase / (Reduction) in UAAL
	Current Plan				Firefighter Only							
	Projected Annual Pensionable Payroll	Projected Net City Cost			Projected Annual Pensionable Payroll	Projected Net City Cost						
		Amount	% of Pay	UAAL		Amount	% of Pay	UAAL				
2024 - 2025	85,775	55,019	64.1%	401,283	85,775	54,732	63.8%	400,748	(287)	(287)	(535)	
2025 - 2026	89,989	59,981	66.7%	438,131	89,989	59,677	66.3%	437,286	(305)	(592)	(845)	
2026 - 2027	93,620	63,354	67.7%	455,247	93,620	63,051	67.3%	454,382	(303)	(895)	(865)	
2027 - 2028	96,532	67,896	70.3%	491,878	96,532	67,599	70.0%	491,018	(298)	(1,193)	(861)	
2028 - 2029	99,293	70,075	70.6%	479,790	99,293	69,784	70.3%	478,936	(292)	(1,484)	(854)	
2029 - 2030	101,992	71,947	70.5%	463,631	101,992	71,666	70.3%	462,785	(281)	(1,765)	(846)	
2030 - 2031	104,292	73,374	70.4%	444,349	104,292	73,110	70.1%	443,517	(265)	(2,030)	(831)	
2031 - 2032	106,632	75,402	70.7%	421,540	106,632	75,149	70.5%	420,731	(254)	(2,284)	(809)	
2032 - 2033	108,847	75,449	69.3%	396,086	108,847	75,213	69.1%	395,295	(236)	(2,520)	(791)	
2033 - 2034	111,497	75,279	67.5%	366,749	111,497	75,061	67.3%	365,984	(218)	(2,737)	(765)	
2034 - 2035	114,277	72,173	63.2%	335,557	114,277	71,971	63.0%	334,821	(202)	(2,940)	(736)	
2035 - 2036	116,642	68,115	58.4%	302,827	116,642	67,932	58.2%	302,118	(183)	(3,123)	(709)	
2036 - 2037	118,614	69,872	58.9%	271,047	118,614	69,701	58.8%	270,371	(170)	(3,294)	(676)	
2037 - 2038	121,274	69,379	57.2%	241,928	121,274	69,216	57.1%	241,281	(163)	(3,456)	(647)	
2038 - 2039	123,958	67,506	54.5%	209,464	123,958	67,348	54.3%	208,844	(158)	(3,614)	(621)	
2039 - 2040	125,469	63,067	50.3%	175,748	125,469	62,914	50.1%	175,153	(152)	(3,767)	(595)	
2040 - 2041	127,463	51,414	40.3%	141,605	127,463	51,258	40.2%	141,039	(156)	(3,923)	(566)	
2041 - 2042	129,864	49,271	37.9%	110,412	129,864	49,108	37.8%	109,870	(163)	(4,086)	(542)	
2042 - 2043	133,603	43,766	32.8%	90,755	133,603	43,593	32.6%	90,237	(173)	(4,259)	(518)	
2043 - 2044	137,380	42,790	31.1%	72,794	137,380	42,609	31.0%	72,300	(181)	(4,440)	(494)	
5 Year Totals	465,208	316,326	68.0%		465,208	314,842	67.7%		(1,484)			
10 Year Totals	998,469	687,778	68.9%		998,469	685,040	68.6%		(2,737)			
20 Year Totals	2,247,014	1,285,132	57.2%		2,247,014	1,280,692	57.0%		(4,440)			





**OUTLINE OF PRINCIPAL PROVISIONS OF THE RETIREMENT FUND  
PRIOR TO ANY PROPOSED CHANGES INCLUDED IN THIS STUDY**

A. Relevant Provisions:

The Fund was created under Chapter 23414, Laws of Florida, Special Act of 1945, as most recently amended by Ordinance No. 2023-4533 adopted February 1, 2023 and reflecting the most recent Collectively Bargained Agreements executed December 2, 2022 and January 10, 2023 for Firefighters and Police Officers, respectively.

B. Eligibility Requirements:

Any full-time employee of the City who is certified as a Firefighter or Police Officer as a condition of employment.

C. Membership Tiers:

Tier 1 - Members hired prior to July 14, 2010

Tier 2 - Members hired on or after July 14, 2010 but prior to September 30, 2013

Tier 3 - Members hired on or after September 30, 2013 but prior to June 8, 2016 for the Fire Department and July 20, 2016 for the Police Department

Tier 4 - Members hired on or after June 8, 2016 but prior to May 8, 2019 for the Fire Department and hired on or after July 20, 2016 but prior to July 31, 2019 for the Police Department

Tier 5 - Members hired on or after May 8, 2019 for the Fire Department and July 31, 2019 for the Police Department

D. Credited Service:

All periods of employment as an Employee for which contributions have been made to the Fund together with all service in the uniformed services of the United States required to be included.

E. Pre-Employment Service:

Members with at least 5 years of credited service (10 years for Tier 5 members) may purchase pre-employment military service. Pre-employment military service must be purchased within 24 months following the date the member completes 5 years of credited service (10 years for Tier 5 members) under the pension fund. A member may purchase up to two years of pre-employment military service at the accrual rate of 3% per year.

The price for each year purchased shall be of 10.0% (10.5% for members hired on or after September 30, 2013) of the member's Salary during the 12 calendar months immediately preceding the date of such purchase.

F. Pensionable Pay:

Pensionable pay is defined as base pay, any premiums that longevity is calculated on, longevity pay, pensionable overtime and any other pay negotiated as pensionable. Effective July 14, 2010, off-duty pay is pensionable for any member who is eligible for overtime and receives off-duty compensation through the City. Effective September 30, 2013, pensionable overtime is limited to 300 hours per calendar year.

1. Overtime and Off-Duty pay included in pension computation for Police Officers:

- Pensionable overtime pay not exceeding 300 hours per calendar year and off duty is limited in each year to an amount that is equal to 11% of highest annualized pay rate for the same salary rank that the member is in at time of retirement.
- The 11% limitation shall not apply to any member who holds the rank of sergeant or lieutenant on September 30, 2013, or any Police Officer promoted to the rank of sergeant prior to the date the 2013 Certified Police Sergeant Promotional Register expired in 2015. For these members, the inclusion of overtime and / or off duty in the member's salary shall be limited in each year to an amount which is equal to 70% of the difference between the member's annualized pay rate at retirement and the highest annualized pay rate for the next higher salary rank.
- For any members who self-demote they will become subject to the eleven percent (11%) limitation on overtime and off-duty compensation.

2. Overtime and Off-Duty pay included in pension computation for Firefighters:

- Pensionable overtime pay not exceeding 300 hours per calendar year and off duty is limited in each year to an amount that is equal to 11% of highest annualized pay rate for the same salary rank that the member is in at time of retirement.

G. Final Average Monthly Earnings (FAME):

Tier 1 and eligible to retire on or after September 30, 2015 - the greater of the average of the 3 highest paid years or the 3 last paid years prior to date of retirement after taking into consideration the overtime limit.

Tier 2 - the greater of the average of the 3 highest paid years or the 3 last paid years prior to date of retirement after taking into consideration the overtime limit.

Tier 3, Tier 4 and Tier 5 - the greater of the average of the 5 highest paid years or the 5 last paid years prior to date of retirement after taking into consideration the overtime limit.



#### H. Normal Retirement:

##### 1. Eligibility:

Tier 1 and eligible to retire on or after September 30, 2013 - the earlier of attainment of age 50 or Rule of 70 (must attain age 47) or reach the 85% maximum pension benefit regardless of age

Tier 2 and Tier 3 - the earlier of attainment of age 50 with 5 years of creditable service or Rule of 70 (must attain age 48) or reach the 85% maximum pension benefit regardless of age

Tier 4 and Tier 5 - the earlier of attainment of age 52 with 5 years of creditable service or Rule of 70 (must attain age 48) or reach the 85% maximum pension benefit regardless of age

##### 2. Benefit:

All Tiers and eligible to retire on or after September 30, 2015:

$3\% \times \text{FAME} \times \text{Credited Service up to 20 years plus } 4\% \times \text{Credited Service after 20 years}$

Benefit shall not exceed 85% of FAME.

A member's benefit multiplier for credited service earned before October 1, 2013 shall not be reduced.

#### I. Deferred Retirement:

##### 1. Eligibility:

Any first day of the month past Normal Retirement Date.

##### 2. Benefit:

Benefit calculated as for Normal Retirement based upon service and pay to Deferred Retirement Date.

#### J. Disability Retirement:

##### 1. Eligibility:

Totally and permanently disabled meaning incapacity to perform regular duty as Firefighter or Police Officer (and completion of at least 5 years of Credited Service for non-service incurred disability).

Effective July 1, 2019, a Firefighter who becomes totally and permanently unable to perform useful and efficient service as a Firefighter due to a diagnosis of cancer or circumstances that arise out of the treatment of such cancer will be presumed to be disabled in-line of duty subject to the limitations in Chapter 112.1816, Florida Statutes.

##### 2. Benefit:

Accrued benefit (minimum of 85% of current salary at time of disability for service incurred disability).



K. Pre-Retirement Death Benefit:

1. Service Incurred:

Greater of accrued benefit or 85% of members salary payable as a monthly benefit to the spouse until death or remarriage, to a Domestic Partner until death, marriage or entry into another Domestic Partnership, to unmarried children in equal shares until age 18 (until age 22 if a full-time student or until recovery from handicap if handicapped), or to dependent parents in equal shares.

2. Non-Service Incurred:

For members with at least 5 years of service, accrued benefit is payable for the first 12 months after death and 75% of the accrued benefit is payable thereafter (with a minimum benefit of 25% of average monthly salary); Benefits are payable to the spouse until death or remarriage, to a Domestic Partner until death, marriage or entry into another Domestic Partnership, to unmarried children in equal shares until age 18 (until age 22 if a full-time student or until recovery from handicap or until marriage if handicapped), or to dependent parents in equal shares. However, if the member has been married or in a domestic partnership for less than 10 years, benefits are payable to the spouse or domestic partner only for the life expectancy of the deceased member at time of death.

L. Vested Benefit:

1. Eligibility:

Any age prior to 50 with at least 5 years (10 years for Tier 5 members) of service for members who terminate employment on or after September 30, 2013.

2. Benefit:

Return of employee contributions or accrued benefit upon attainment of age 50. If a member terminates employment with less than 10 years of service and passes away prior to the normal retirement date, the return of employee contributions is the only benefit.

M. Employee Contributions:

10.0% of pensionable wages (on a pre-tax basis) for members hired prior to September 30, 2013 and 10.5% of pensionable wages (on a pre-tax basis) for members hired on or after September 30, 2013; If contributions are refunded to the member or to his or her beneficiaries, then interest is credited at the rate of 3% per annum.

N. Payment of Retirement Benefit:

Benefit is payable to the member for his or her life. Upon death of member, except those retiring prior to November 5, 2003, the standard benefit is a 75% joint and survivor annuity with a specified beneficiary as provided under the plan. The specified beneficiary will receive a survivor annuity equal to 100% of the total benefit for one year following the death of the member and thereafter 75% of the total benefit until death or remarriage. However, upon death, if the member has been married or in a domestic partnership for less than 10 years, the survivor annuity is payable only for the life expectancy of the deceased member at time of death.

In lieu of the standard benefit, the members may elect the actuarial equivalent of the 10 year certain and life annuity, with a designated beneficiary, any of the following optional forms of payment:

- 75% joint and contingent survivor annuity with a designated beneficiary
- 66 ⅔% joint and contingent survivor annuity with a designated beneficiary
- 50% joint and contingent survivor annuity with a designated beneficiary
- 25% joint and contingent survivor annuity with a designated beneficiary
- 10 year certain and life annuity with a designated beneficiary
- Life of member only

Members who retired prior to November 5, 2003 were subject to different normal and optional forms of payment.

O. Deferred Retirement Option Program (DROP):

Police Officers and Firefighters are eligible to participate in a Deferred Retirement Option Program (DROP) upon meeting eligibility for a normal service retirement.

Operations of the DROP:

1. Member contributions to the Pension Plan will cease upon entering the DROP.
2. The member's monthly retirement benefit, based on final average earnings and service, will be calculated as of the date prior to them entering the DROP.
3. The member will cease to accrue additional pension benefits (with the exception of the COLA under the pension plan).
4. The member will no longer be eligible for Disability or Pre-Retirement Service Connected Death benefits from the Pension Plan.
5. The member's monthly pension will be deposited into the selected investment vehicles.
6. Members who enter the DROP on or after June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members may participate in DROP for a period not to exceed ninety-six (96) months.

Notwithstanding the above, participation may not continue beyond the date when the member's combined years of creditable service and time in the DROP equals 456 months for members who enter the DROP on or after September 1, 2012.

Members who enter the DROP on or after October 1, 2015 but prior to June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members may extend their DROP participation period by up to 36 months for a total maximum DROP participation period not to exceed ninety-six (96) months.

7. The member will not have access or be able to borrow against any of the funds accumulated in their DROP account.
8. The member may sever employment with the City at any time during the DROP period. Such separation will terminate their participation in the DROP.
9. No payment will be made from the DROP account until the member severs employment with the City.
10. Following severance of employment, the funds in the DROP will be paid under the *DROP Account Payment Options* the member selected. The member will also start receiving their monthly pension which was previously being deposited in the DROP.
11. A 2.5% COLA (1.5% per year for participants hired on or after July 14, 2010) is paid annually on the anniversary date of the member's retirement.

Members hired before June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members who elect to extend or enter the DROP and participate for more than 5 years will have no COLA adjustment applied for years six (6), seven (7), and eight (8) while participating in the DROP. Members hired on or after June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members will receive a zero percent (0%) COLA for the first (1st), second (2nd), third (3rd) and fourth (4th) annual adjustment dates while participating in the DROP.

P. Cost-of-Living Adjustment:

Effective October 1, 2010, after 1 year of retirement, benefits are increased by 2.5% per year (1.5% per year for participants hired on or after July 14, 2010), compounded annually, on the anniversary date of each member's retirement.

For members retired prior to October 1, 2010, benefit increases occur on the first of October each year.

Members whose grandfathered Base Plan benefit is greater than the benefit otherwise provided by this plan will receive the applicable cost-of-living adjustment on that basis (2% a year beginning the October three years after retirement) until such time as the benefit from this plan with 2.5% cost-of-living exceeds that comparable grandfathered Base Plan benefit.



Q. Changes Since Previous Actuarial Valuation

None.

**ACTUARIAL ASSUMPTIONS AND METHODS  
PRIOR TO ANY PROPOSED CHANGES INCLUDED IN THIS STUDY**

**A. Mortality**

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Sample Ages (2023)	Pre-retirement Future Life		Post-retirement Future Life	
	Expectancy (Years)		Expectancy (Years)	
	Male	Female	Male	Female
45	40.93	44.88	37.48	41.66
50	35.78	39.69	32.65	36.48
55	30.70	34.54	27.87	31.44
60	25.74	29.47	23.27	26.64
62	23.80	27.46	21.53	24.79

Sample Ages (2043)	Pre-retirement Future Life		Post-retirement Future Life	
	Expectancy (Years)		Expectancy (Years)	
	Male	Female	Male	Female
45	42.65	46.42	39.54	43.56
50	37.46	41.20	34.62	38.35
55	32.33	36.03	29.77	33.27
60	27.31	30.92	25.06	28.39
62	25.35	28.88	23.27	26.50

**B. Investment Return**

7.30%, compounded annually, net of investment expenses includes inflation at 3.00%. The investment return is scheduled to be scaled down to 7.20% in the October 1, 2024 Actuarial Valuation and thereafter.



C. Expenses

Prior year's actual administrative expenses.

D. Employee Withdrawal Rates

Representative values of the assumed annual rates of withdrawal among members in active service are as follows:

Withdrawal		Withdrawal	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	2.00%	35	1.25%
25	1.75%	40	1.00%
30	1.50%	45	0.75%

E. Disability Rates

Representative values of the assumed annual rates of disability among members in active service are as follows:

Disability		Disability	
<u>Age</u>	<u>Rates</u>	<u>Age</u>	<u>Rate</u>
20	0.07%	45	0.58%
25	0.11%	50	0.99%
30	0.16%	55	1.42%
35	0.22%	60	2.00%
40	0.32%	64	2.69%

For Firefighters, 30% of disabilities are assumed to be non-service incurred - 70% service incurred.

For Police Officers, 35% of disabilities are assumed to be non-service incurred - 65% service incurred.

F. Salary Increase Factors

Representative values of the assumed annual rates of future salary increase are as follows:

<u>Age</u>	<u>Merit Salary Increase</u>	<u>Age</u>	<u>Merit Salary Increase</u>
20	3.7%	45	2.7%
25	7.7%	50	2.7%
30	6.7%	55	2.7%
35	3.7%	60	1.7%
40	2.7%	64	0.7%

In addition to the average assumed salary increase rates shown above the expected cost of living increases are as follows:

<u>FYE</u>	<u>COLA Salary Increase</u>	<u>Weighted Average Increase *</u>
2024	3.00%	6.68%
2025 and thereafter	2.18%	5.66%

The cost of living increases shown above are based long term expected increases of 2.18% annually.

\* The weighted average increase shown is based on aging of the current active census demographics.

G. Payroll Growth Assumption

The aggregate compensation used to compute the accrued liability contribution rate is assumed to increase at a rate of 3.5% per year. For purposes of financing the unfunded liabilities, the payroll growth assumption is assumed to increase at a rate of 3.5% per year - not greater than historical 10-year average (5.1% as of October 1, 2023) and not less than 0%.

#### H. Retirement

All members are assumed to retire at age 50 with 26.25 years of service, but not later than age 65. Retirement is assumed to occur in accordance with the following rates:

Service	Rate of Retirement	
	Meeting Rule of 70	Not Meeting Rule of 70
Less than 20	30%	8%
20	45%	8%
21	45%	8%
22	50%	8%
23	50%	20%
24	70%	60%
25	70%	60%
More than 25	100%	100%

#### I. DROP Assumption

80% of all active participants will participate in the DROP.

Leave DROP	Enter the DROP on or after October 1, 2015
Prior to 5 years	0%
After 5 years	5%
After 6 years	5%
After 7 years	10%
After 8 years	100%

The recent extension of the DROP may alter the retirement experience of the Fund.

DROP assumptions will need to be monitored in light of future DROP experience.

#### J. Overtime and Off-Duty Pay Limitation

No members excluded from the eleven percent (11%) limitation on overtime and off-duty compensation are assumed to self-demote.

K. Loadings for Contingencies

Pre-Employment Service: A City contribution of 0.275% of annual pensionable payroll is added to provide for the purchase (or *buyback*) of pre-employment military service and any probationary service by the membership.

Transfers into Fund from other City pension systems: A City contribution of 0.025% of annual pensionable payroll is added to provide for the transfer of service under another City pension system. This load does not apply to Tier 5 Police members.

L. Marital Assumptions

1. 77% of members are assumed married or entitled to benefits for dependents, including registered domestic partners.
2. Male spouses are assumed to be three years older than female spouses.

M. Smoothed Asset Valuation Method

The method used for determining the smoothed value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The smoothed value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of fund assets and whose upper limit is 120% of the fair market value of fund assets.

N. Actuarial Cost Methods

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Actuarial Cost Method

Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his age at hire to his assumed retirement age to fund his estimated benefits, assuming the Fund had always been in effect. The normal cost for the Fund is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the Fund is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the smoothed value of assets of the Fund.

Vested Normal Retirement, Termination, Disability, and Death Benefits: Unit Credit Cost Method

Under this method, the actuarial present value of vested accrued benefits is an amount calculated to be the sum of the present values of each individual's vested accrued or earned benefit under the Fund as of the valuation date. Each individual's calculation is based on pay and service as of the valuation date.

The DROP accounts balance is included in the assets and liabilities as of the valuation date.



O. Disclosure of Assumptions

The retirement assumption was updated based on the most recent experience study performed for the five years ending September 30, 2019. The salary increases and withdrawal assumptions were updated based on the experience study performed for the five years ending September 30, 2014. The investment return assumption was lowered from 7.35% to 7.30%, as adopted by the Board on March 16, 2023, based upon an Investment Return Assumption Study completed in 2023 along with recommendations from the Investment Consultant. The mortality rates are based upon the July 1, 2023 FRS Actuarial Valuation, as required under F.S., Chapter 2015-157.

P. Changes Since Previous Actuarial Valuation

1. Investment Return:

The interest rate used to calculate all liabilities was reduced from 7.35% to 7.30%.

## GLOSSARY

<b><i>Actuarial Accrued Liability</i></b>	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
<b><i>Actuarial Assumptions</i></b>	Assumptions about future Plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.
<b><i>Actuarial Cost Method</i></b>	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
<b><i>Actuarial Equivalent</i></b>	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
<b><i>Actuarial Present Value</i></b>	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
<b><i>Actuarial Present Value of Future Benefits</i></b>	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund 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.
<b><i>Actuarial Valuation</i></b>	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
<b><i>Actuarial Value of Assets</i></b>	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

<b><i>Amortization Method</i></b>	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 UAAL. 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 UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
<b><i>Amortization Payment</i></b>	That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
<b><i>Amortization Period</i></b>	The period used in calculating the Amortization Payment.
<b><i>Annual Required Contribution</i></b>	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.
<b><i>Closed Amortization Period</i></b>	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
<b><i>Employer Normal Cost</i></b>	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
<b><i>Equivalent Single Amortization Period</i></b>	For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
<b><i>Experience Gain/Loss</i></b>	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

<b><i>Funded Ratio</i></b>	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.
<b><i>GASB</i></b>	Governmental Accounting Standards Board.
<b><i>GASB No. 67 and GASB No. 68</i></b>	These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.
<b><i>Normal Cost</i></b>	The annual cost assigned, under the Actuarial Cost Method, to the current Plan year.
<b><i>Open Amortization Period</i></b>	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
<b><i>Unfunded Actuarial Accrued Liability</i></b>	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
<b><i>Valuation Date</i></b>	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.