



**CITY OF STAMFORD
OTHER POST-EMPLOYMENT BENEFITS PLAN**

**Actuarial Valuation as of July 1, 2022
To Determine Funding for Fiscal Year 2023-24**

Prepared by

Rebecca A. Sielman, FSA
Consulting Actuary

Yelena Pelletier, ASA
Consulting Actuary

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Certification

We have performed an actuarial valuation of the Plan as of July 1, 2022 to determine funding for fiscal year 2023-24. This report presents the results of our valuation.

The ultimate cost of an Other Post-Employment Benefits (OPEB) plan is the total amount needed to provide benefits for plan members and beneficiaries and to pay the expenses of administering the plan. OPEB costs are met by contributions and by investment return on plan assets. The principal purpose of this report is to set forth an actuarial recommendation of the contribution, or range of contributions, which will properly fund the plan, in accordance with applicable actuarial standards of practice. In addition, this report provides:

- A valuation of plan assets and liabilities to review the year-to-year progress of funding.
- Review of plan experience since the previous valuation to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application.
- Assessment of the relative funded position of the plan, i.e., through a comparison of plan assets and projected plan liabilities.
- Comments on any other matters which may be of assistance in the funding and operation of the plan.

This report may not be used for purposes other than those listed above without Milliman's prior written consent. If this report is distributed to other parties, it must be copied in its entirety, including this certification section.

Milliman's work is prepared solely for the internal business use of the City of Stamford ("City"). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the City may provide a copy of Milliman's work, in its entirety, to the City's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the City; and (b) the City may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

In preparing this report, we relied on employee census data and financial information as of the valuation date, furnished by the City. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Certification

The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions. Additional determinations may be needed for purposes other than determining funding amounts, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices. Figures for periods prior to July 1, 2018 have been obtained from actuarial valuation reports prepared by Hooker & Holcombe and from the City's Comprehensive Annual Financial Reports.

The valuation results were developed using models employing standard actuarial techniques. In addition to the models described previously, Milliman has developed certain models to develop the expected long term rate of return on assets and estimate the claim costs and trend used in this analysis. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice. The models, including all input, calculations, and output may not be appropriate for any other purpose.

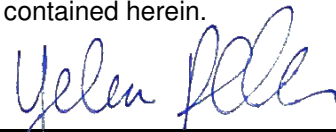
We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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.



Rebecca A. Sielman, FSA
Consulting Actuary



Yelena Pelletier, ASA
Consulting Actuary

Section I - Executive Summary Changes Since the Prior Valuation

Demographic Changes

From July 1, 2021 to July 1, 2022, the overall membership increased from 1,990 to 2,013. The number of active members decreased from 1,179 to 1,168, and the number of members receiving benefits increased from 811 to 845.

The average age of active members stayed the same at 49.8, and the average age of members receiving benefits increased from 74.9 to 75.0.

Changes in Actuarial Methods and Assumptions

We updated the medical trend rate to better reflect anticipated experience. In addition, we updated our mortality improvement assumption from the MP-2019 ultimate scale to the MP-2021 ultimate scale. We also updated retirement, termination, disability and salary growth rates for CERF and Custodian pension plan members in connection with the recent experience studies. Lastly, we changed the Actuarial Cost Method from Projected Unit Credit to Entry Age Normal. These changes in combination increased the Unfunded Accrued Liability by approximately \$7.4 million and increased the Actuarially Determined Contribution by approximately \$0.1 million.

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Plan Changes

None.

Other Significant Changes

Effective July 1, 2022, most members covered by this plan (except for active and retired Fire members and certain grandfathered retirees) have moved to the State Partnership Plan for pre- and post-65 benefits. The significantly lower premiums for this coverage have resulted in substantial reductions in the Accrued Liability and the Actuarially Determined Contribution.

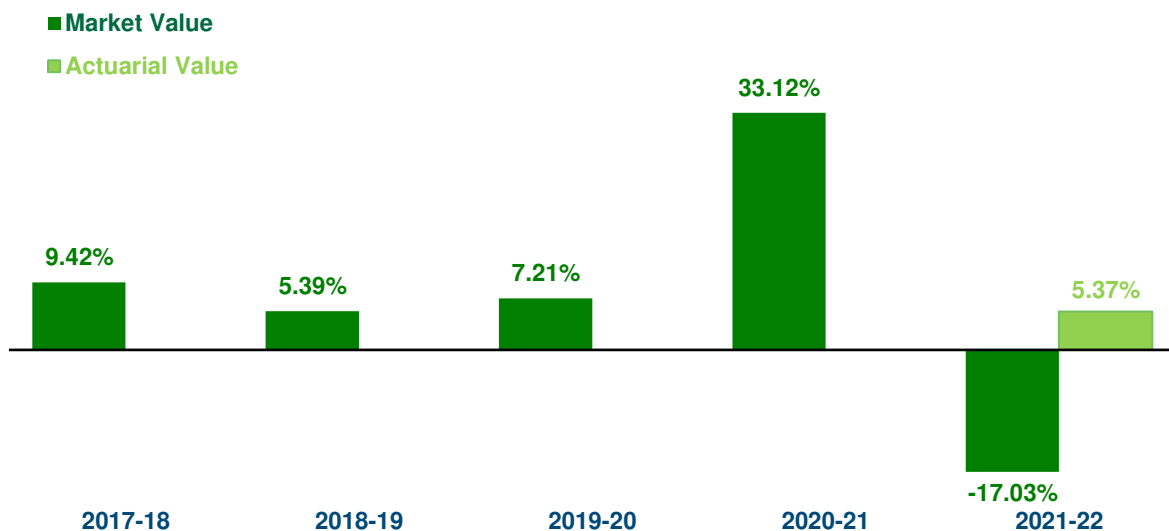
Section I - Executive Summary Assets

The City maintains an OPEB Trust for prefunding OPEB benefits that are provided to both City and Board of Education Members. This valuation pertains to the portion of the OPEB Trust that covers CERF City, CERF BOE, CERF WPCA, Custodians, Fire and Police members. The asset figures shown below and throughout this report exclude the portion of the OPEB Trust that covers other Board of Education members.

There are two different measures of the plan's assets that are used throughout this report. The Market Value is a snapshot of the plan's investments as of the valuation date. The Actuarial Value is a smoothed asset value designed to temper the volatile fluctuations in the market by recognizing investment gains or losses asymptotically over five years. Asset smoothing was introduced effective with the July 1, 2021 valuation.

	Market	Actuarial
Value as of July 1, 2021	\$221,562,089	\$189,274,210
City Contributions and Member Contributions	33,425,846	33,425,846
Investment Income	(39,620,765)	10,165,679
Benefit Payments and Administrative Expenses	<u>(11,330,134)</u>	<u>(11,330,134)</u>
Value as of July 1, 2022	<u>204,037,036</u>	<u>221,535,601</u>

For fiscal year 2021-22, the plan's assets earned -17.03% on a Market Value basis and 5.37% on an Actuarial Value basis. The actuarial assumption for this period was 6.70%; the result is an asset loss of about \$55.2 million on a Market Value basis and a loss of about \$4.4 million on an Actuarial Value basis. Historical rates of return are shown in the graph below.



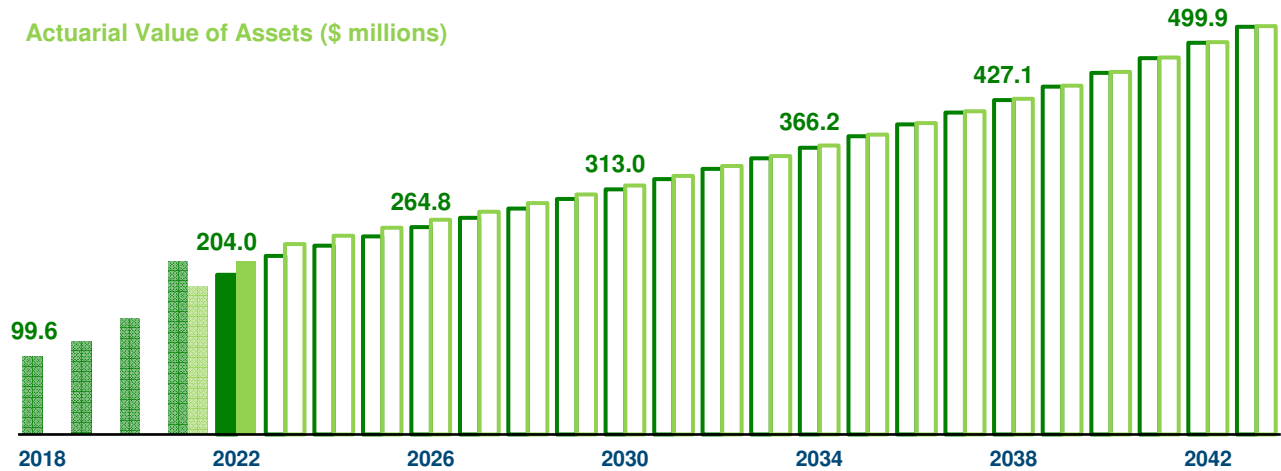
Please note that the Actuarial Value currently exceeds the Market Value by \$17.5 million. This figure represents investment losses that will be gradually recognized in future years. This process will exert upward pressure on the City's contribution, unless there are offsetting market gains.

Section I - Executive Summary Assets (continued)

The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 20 years. For purposes of this projection, we have assumed that the City always contributes the Actuarially Determined Contribution and the investments always earn the assumed interest rate each year.

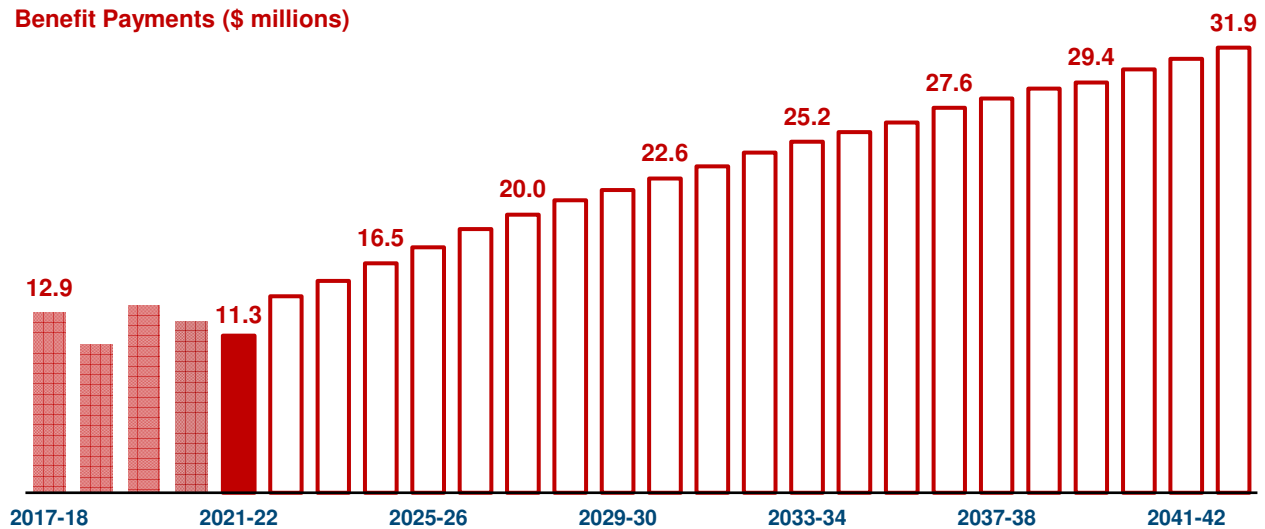
Market Value of Assets (\$ millions)

Actuarial Value of Assets (\$ millions)



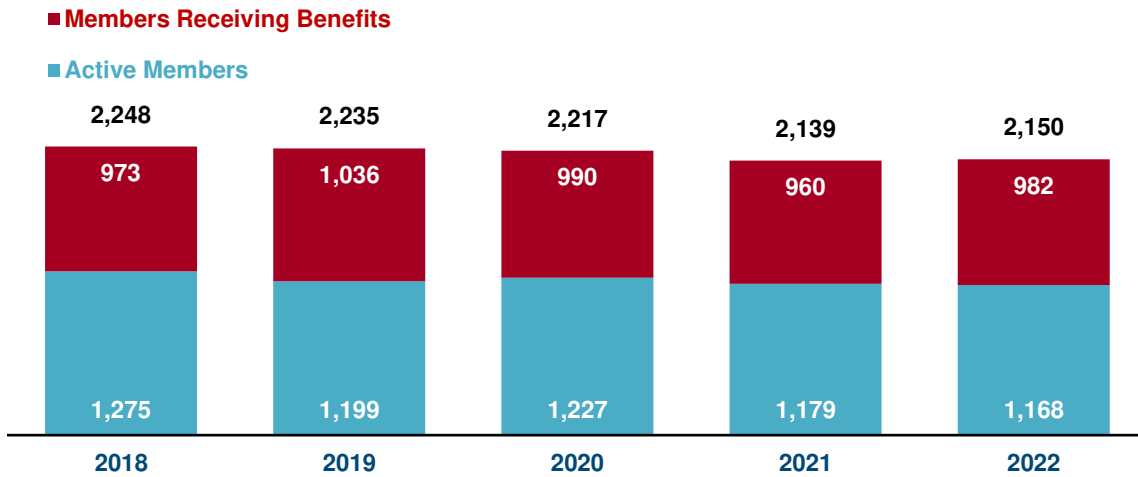
In 2021-22, the plan paid out \$11.3 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$469 million in benefits to members.

Benefit Payments (\$ millions)



Section I - Executive Summary Membership

There are two basic categories of plan members included in the valuation: (1) members who are receiving benefits and (2) active employees who have met the eligibility requirements for membership.

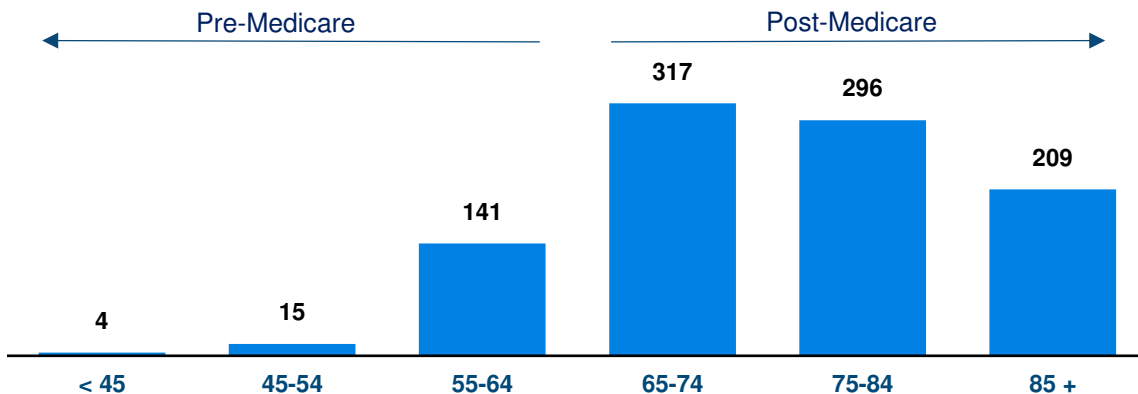


Members Receiving Benefits on July 1, 2022

CERF City	352	Average Age	75.0
CERF BOE	57		
CERF WPCA	14		
Custodians	85		
Fire	230		
Police	244		
Total	982		

As of July 1, 2022, there were 982 members receiving benefits. In addition, 374 spouses/dependents are currently receiving benefits.

The members receiving benefits fall across a wide distribution of ages:



Section I - Executive Summary Membership (continued)

Active Members on July 1, 2022

CERF City	446	Average Age	49.8
CERF BOE	89	Average Service	15.9
CERF WPCA	25		
Custodians	103		
Fire	234		
Police	271		
Total	1,168		

The table below illustrates the age and years of service of the active membership:

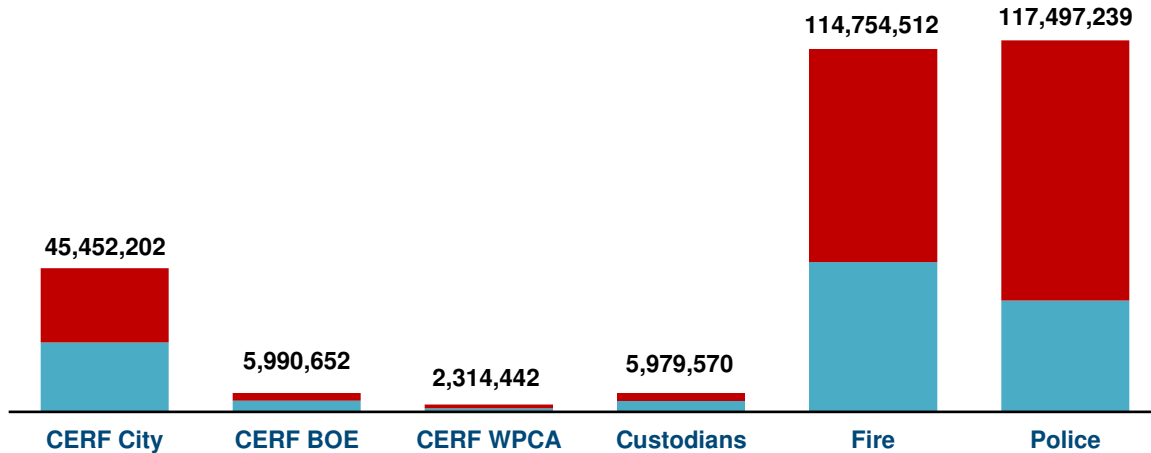
Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	9							9
25-29	45	15						60
30-34	61	36	4					101
35-39	36	42	16	13				107
40-44	24	34	16	42	6			122
45-49	16	21	10	35	35	8		125
50-54	14	24	15	34	49	43	3	182
55-59	15	20	12	24	53	26	42	192
60-64	8	12	9	27	35	16	44	151
65+	9	13	6	16	26	13	36	119
Total	237	217	88	191	204	106	125	1,168

Section I - Executive Summary Accrued Liability

The Accrued Liability as of July 1, 2022 equals \$291,988,617 and consists of the following pieces:

■ **Members Receiving Benefits (including dependents) = \$179,452,555**

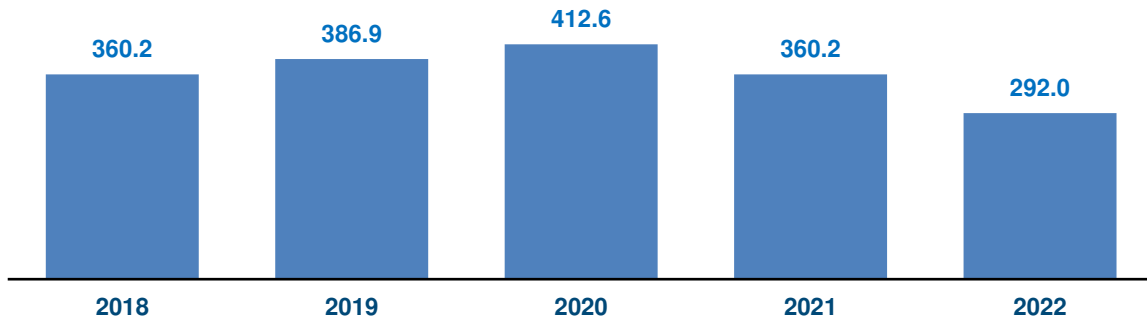
■ **Active Members = \$112,536,062**



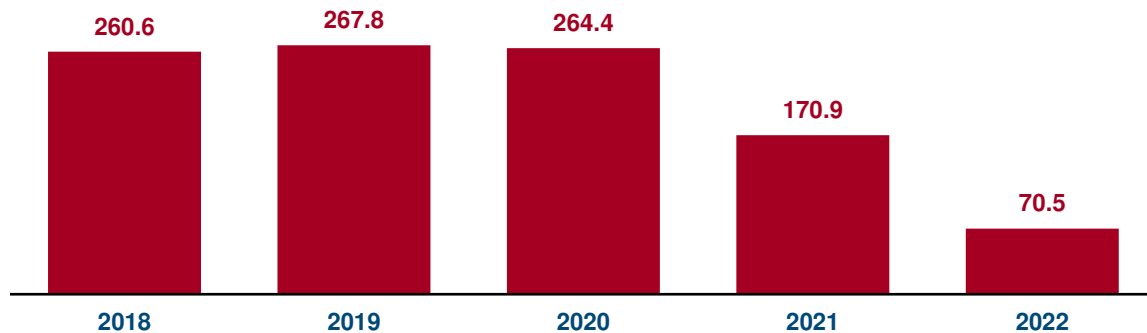
Section I - Executive Summary Funded Status

The Accrued Liability grows over time as active members earn additional benefits, and goes down over time as members receive benefits; it may also change when there are changes to the plan provisions or changes in the actuarial assumptions. The Unfunded Accrued Liability is the dollar difference between the Accrued Liability and the Actuarial Value of Assets; the Funded Ratio is the ratio of the two.

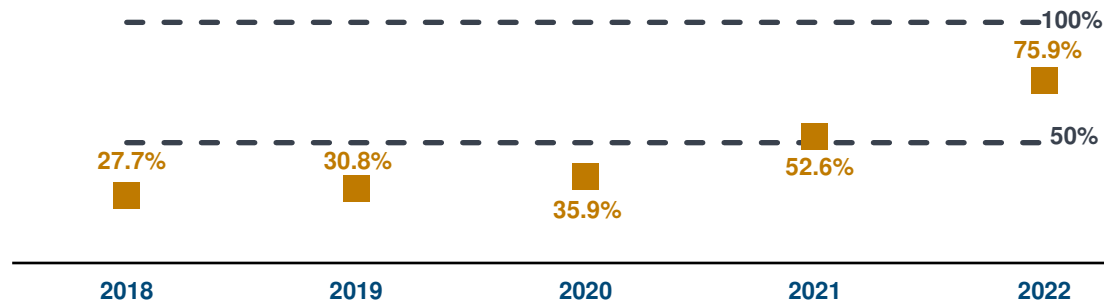
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)



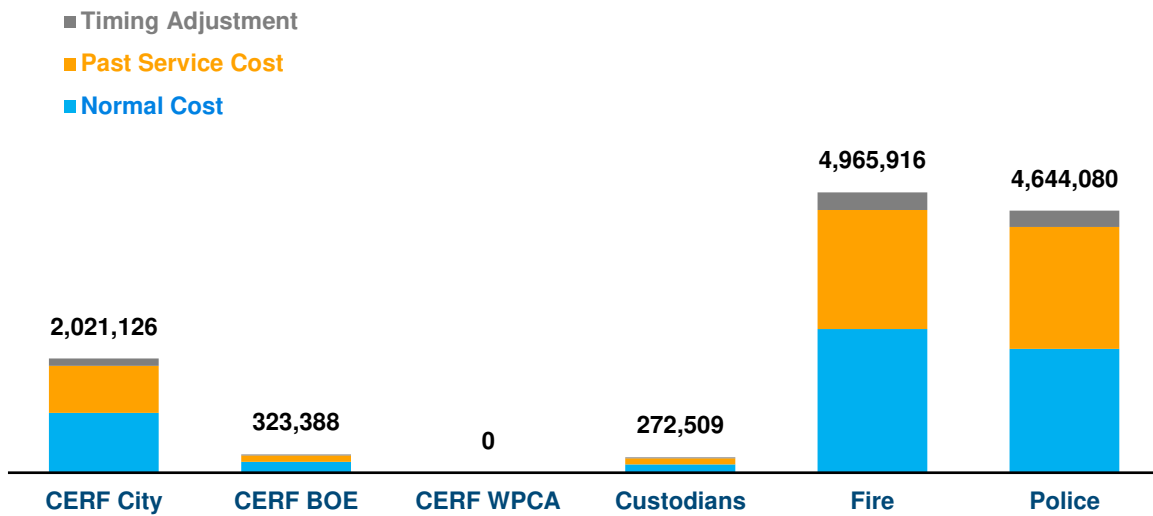
Funded Ratio



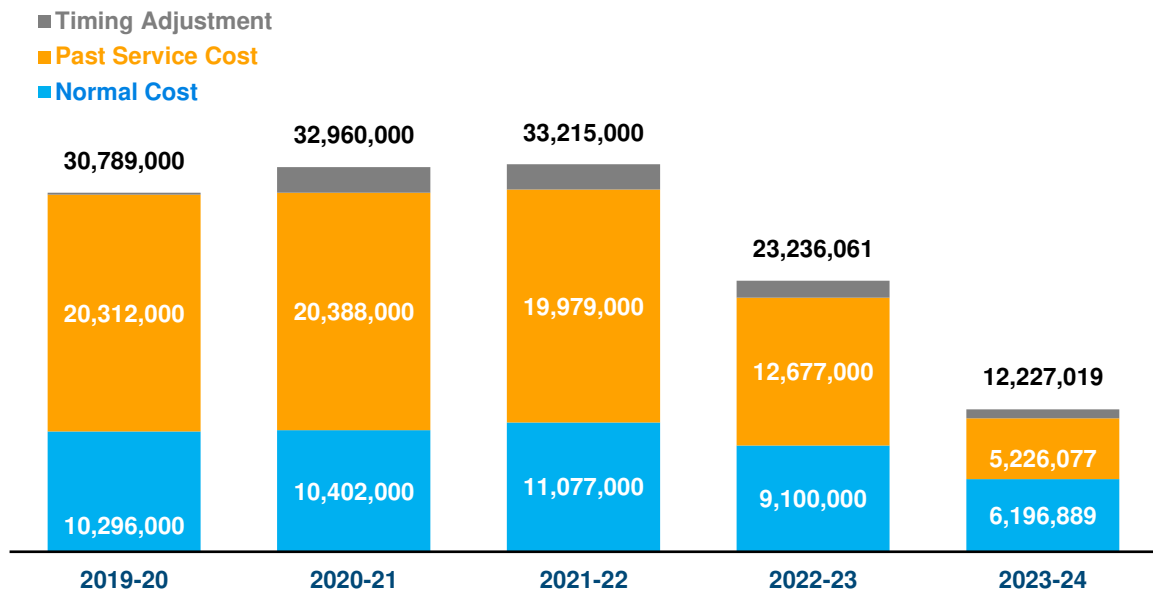
Section I - Executive Summary Actuarially Determined Contribution

The Actuarially Determined Contribution consists of three pieces: a Normal Cost payment to fund the benefits earned each year, a Past Service Cost to gradually reduce any unfunded or surplus liability, and a Timing Adjustment to reflect the timing of the contribution relative to the valuation date. The end result for any of the component groups will not be less than \$0.

The Actuarially Determined Contribution for fiscal year 2023-24 is equal to \$12,227,019 and is shown graphically below.



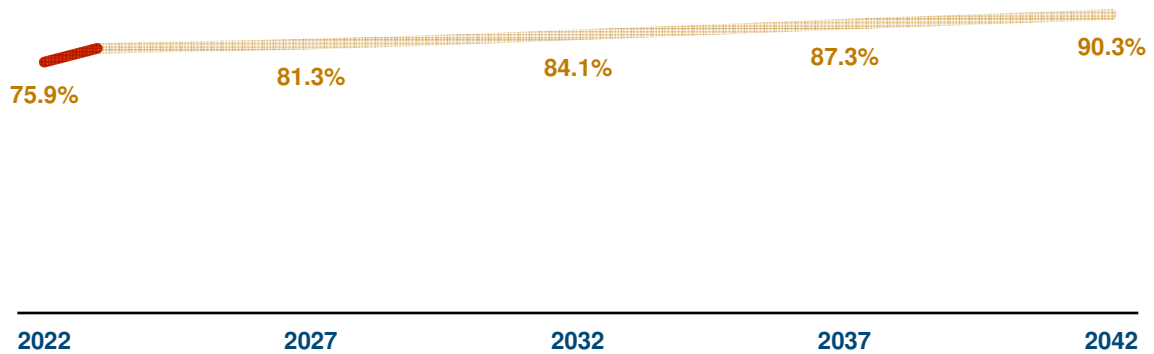
The chart below shows the Actuarially Determined Contribution for the past four fiscal years. The decrease in the Actuarially Determined Contribution for the 2023-24 fiscal year is primarily due to decreases in the medical premiums resulting from the shift to the State Partnership Plan.



Section I - Executive Summary Long-Range Forecast

If the City pays the Actuarially Determined Contribution each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions, then we project the following changes in the plan's funded status and the long-range contribution levels:

Funded Ratio



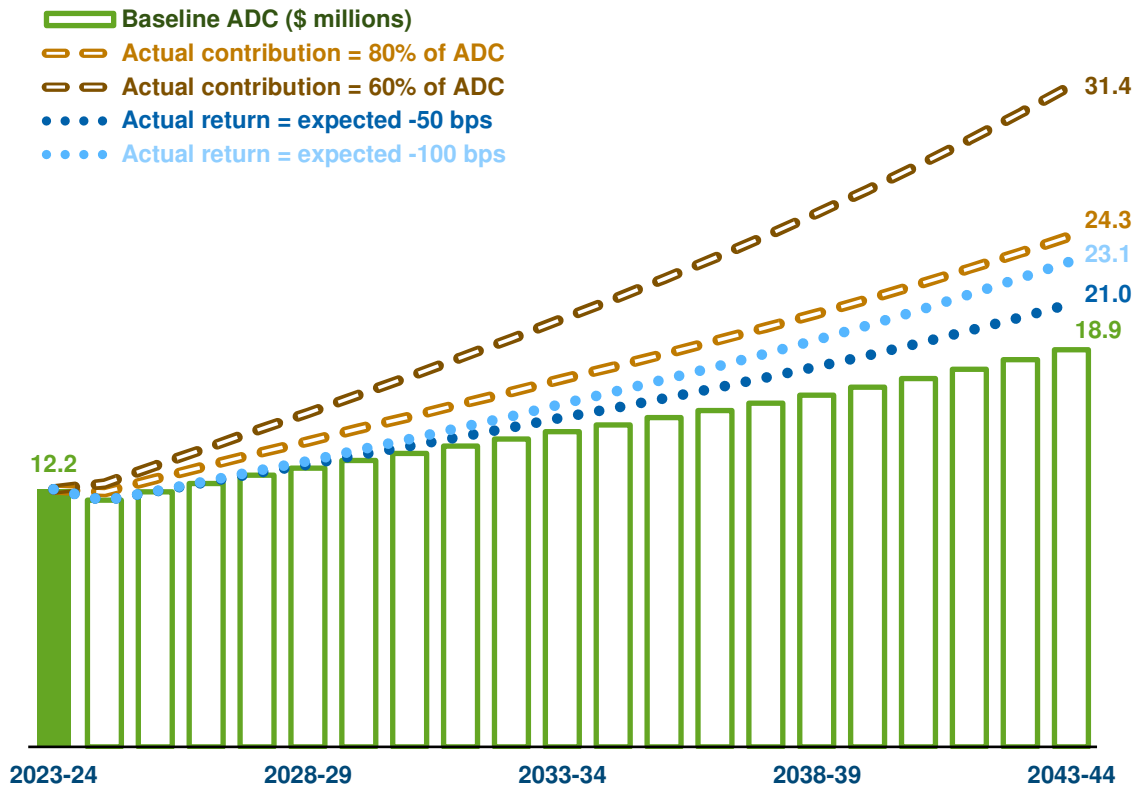
Actuarially Determined Contribution (\$ millions)



To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Section III C for more details of the long range forecast.

Section I - Executive Summary Long-Range Forecast (continued)

Benefits are paid for through a combination of contributions from the City and from employees, and from investment income. If the City pays less than the Actuarially Determined Contribution each year, or if the investments persistently earn less than the assumed interest rate, then the plan's funded status would suffer, and to compensate, the City's contribution levels would be pushed higher. The risks of underfunding and underearning are illustrated in the hypothetical scenarios below:



The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions; in particular that actual asset returns will be constant in every year of the projection period. Variation in asset returns, contribution amounts, and many other factors may have a significant impact on the long-term financial health of the plan, the liquidity constraints on plan assets, and the City's future contribution levels. Stochastic projections could be prepared that would enable the City to understand the potential range of future results based on the expected variability in asset returns and other factors. Such analysis was beyond the scope of this engagement.

Section I - Executive Summary Summary of Principal Results

Membership as of	July 1, 2022	July 1, 2021
Active Members	1,168	1,179
Members Receiving Benefits	982	960
Total Count	2,150	2,139
Assets and Liabilities as of	July 1, 2022	July 1, 2021
Market Value of Assets	\$204,037,036	\$221,562,089
Actuarial Value of Assets	221,535,601	189,274,210
Accrued Liability for Active Members	112,536,062	158,334,644
Accrued Liability for Members Receiving Benefits	179,452,555	201,834,219
Total Accrued Liability	291,988,617	360,168,863
Unfunded Accrued Liability	70,453,016	170,894,653
Funded Ratio	75.9%	52.6%
Actuarially Determined Contribution for Fiscal Year	2023-24	2022-23
Normal Cost	\$6,196,889	\$9,100,346
Past Service Cost	5,226,077	12,676,656
Timing Adjustment	765,339	1,459,059
Actuarially Determined Contribution*	12,227,019	23,236,061
Allocated to CERF City	\$2,021,126	\$6,835,968
Allocated to CERF BOE	323,388	1,204,284
Allocated to CERF WPCA	0	428,110
Allocated to Custodians	272,509	652,527
Allocated to Fire	4,965,916	6,701,925
Allocated to Police	4,644,080	7,413,247
Total	12,227,019	23,236,061

* The Actuarially Determined Contribution (ADC) is the sum of the individual ADCs calculated for the groups shown below. For some groups, the Past Service Cost may be negative and fully offset the Normal Cost; however, the resulting ADC for the group cannot be less than \$0. The total ADC shown on this line may therefore not be equal to the sum of the amounts shown on the preceding lines. Please see Section IIIB for details of the calculation of the ADC by group.

Section II - Plan Assets

The City maintains an OPEB Trust for prefunding OPEB benefits that are provided to both City and Board of Education Members. This valuation pertains to the portion of the OPEB Trust that covers CERF City, CERF BOE, CERF WPCA, Custodians, Fire and Police members. OPEB Trust assets are allocated first to WPCA based on the Accrued Liability as of the beginning of the fiscal year. The remaining OPEB Trust assets are then allocated to the remainder of the City groups and to the Board of Education based on Accrued Liability as of the beginning of the fiscal year; the City assets are then allocated further to the respective groups included in this valuation in proportion to each group's Accrued Liability.

	WPCA	Non-WPCA City Groups	Board of Education	Entire OPEB Trust
Market Value on July 1, 2021	\$3,663,803	\$217,898,286	\$25,367,494	\$246,929,583
City Contributions	572,000	32,643,000	809,000	34,024,000
Member Contributions	0	210,846	0	210,846
Net Investment Income	(686,590)	(38,934,175)	(4,111,052)	(43,731,817)
Benefit Payments	(177,706)	(11,112,722)	(633,137)	(11,923,565)
Administrative Expenses	(658)	(39,048)	(2,227)	(41,933)

Market Value on July 1, 2022	3,370,849	200,666,187	21,430,078	225,467,114
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Approximate Rate of Return	-16.95%
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The rate shown here is not the dollar or time weighted investment yield rate which measures investment performance. It is an approximate net return assuming all activity occurred on average midway through the fiscal year.

Allocation of July 1, 2022 Non-WPCA City assets to groups in proportion to Accrued Liability

	Accrued Liability	Allocated Assets
CERF City	\$45,452,202	\$31,486,135
CERF BOE	5,990,652	4,149,908
Custodians	5,979,570	4,142,232
Fire	114,754,512	79,493,971
Police	117,497,239	81,393,941
Total, non-WPCA City groups	289,674,175	200,666,187
CERF WPCA		3,370,849
Total		204,037,036

Section II - Plan Assets

B. Development of Actuarial Value of Assets

In order to minimize the impact of market fluctuations on the contribution level, we use an Actuarial Value of Assets that recognizes gains and losses non-asymptotically over a five year period. The Actuarial Value of Assets as of July 1, 2022 is determined below.

1.	Expected Actuarial Value of Assets:	
	a. Actuarial Value of Assets as of July 1, 2021	\$189,274,210
	b. Town and Member Contributions	33,425,846
	c. Benefit Payments and Administrative Expenses	(11,330,134)
	d. Expected Earnings Based on 6.70% Interest	<u>14,540,320</u>
	e. Expected Actuarial Value of Assets as of July 1, 2022	225,910,242
2.	Market Value of Assets as of July 1, 2022	204,037,036
3.	Unrecognized Gains/(Losses): (2) - (1e)	(21,873,206)
4.	Amount Recognized as of July 1, 2022: 20% of (3)	(4,374,641)
5.	Preliminary Actuarial Value of Assets as of July 1, 2022: (1e) + (4)	221,535,601
6.	Preliminary Actuarial Value of Assets as a % of Market Value: (5) / (2)	108.6%
7.	Actuarial Value of Assets as of July 1, 2022: (5), within +/- 30% of (2)	221,535,601
8.	Actual Earnings on Actuarial Value of Assets: (7) - [(1a) + (1b) + (1c)]	10,165,679
9.	Approximate Rate of Return on Actuarial Value of Assets	5.37%
10.	Actuarial Value (Gain)/Loss: (1d) - (8)	4,374,641
11.	Actuarial Value of Assets as of July 1, 2022 allocated in proportion to Market Value:	

	Market Value	Actuarial Value
CERF City	\$31,486,135	\$34,186,440
CERF BOE	4,149,908	4,505,811
CERF WPCA	3,370,849	3,659,939
Custodians	4,142,232	4,497,477
Fire	79,493,971	86,311,510
Police	<u>81,393,941</u>	<u>88,374,424</u>
Total	204,037,036	221,535,601

Section III - Development of Contribution

A. Past Service Cost

In determining the Past Service Cost, the Unfunded Accrued Liability is amortized as a level percent over 20 years on an open basis.

	CERF City	CERF BOE	CERF WPCA	Custodians	Fire	Police	Total
1. Accrued Liability							
Active Members	\$21,962,932	\$3,474,749	\$1,106,349	\$3,422,975	\$47,375,005	\$35,194,052	\$112,536,062
Terminated Members	0	0	0	0	0	0	0
Retirees	20,875,808	2,515,903	1,066,086	1,844,557	52,703,946	37,154,012	116,160,312
Disabled Retirees	1,467,351	0	123,334	482,708	10,515,928	37,050,667	49,639,988
Beneficiaries	1,146,111	0	18,673	229,330	4,159,633	8,098,508	13,652,255
Total Accrued Liability	45,452,202	5,990,652	2,314,442	5,979,570	114,754,512	117,497,239	291,988,617
2. Actuarial Value of Assets (see Section II)	34,186,440	4,505,811	3,659,939	4,497,477	86,311,510	88,374,424	221,535,601
3. Unfunded Accrued Liability: (1) - (2)	11,265,762	1,484,841	(1,345,497)	1,482,093	28,443,002	29,122,815	70,453,016
4. Funded Ratio: (2) / (1)	75.2%	75.2%	158.1%	75.2%	75.2%	75.2%	75.9%
5. Amortization Period	20	20	20	20	20	20	20
6. Amortization Growth Rate	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
7. Past Service Cost: (3) amortized over (5)	835,674	110,143	(99,807)	109,939	2,109,850	2,160,278	5,226,077

Section III - Development of Contribution

B. Actuarially Determined Contribution for FY 2023-24

The Actuarially Determined Contribution is developed below.

	CERF City	CERF BOE	CERF WPCA	Custodians	Fire	Police	Total
1. Total Normal Cost	\$1,058,539	\$192,939	\$63,524	\$145,458	\$2,544,242	\$2,404,635	\$6,409,337
2. Expected Member Contributions	0	0	0	0	0	212,448	212,448
3. Expected Administrative Expenses	0	0	0	0	0	0	0
4. Net Normal Cost: (1) - (2) + (3)	1,058,539	192,939	63,524	145,458	2,544,242	2,192,187	6,196,889
5. Past Service Cost (see Section IIIA)	835,674	110,143	(99,807)	109,939	2,109,850	2,160,278	5,226,077
6. Interest on (4) + (5) to start of the fiscal year	126,913	20,306	(2,431)	17,112	311,824	291,615	765,339
7. Actuarially Determined Contribution for FY 2023-24: (4) + (5) + (6), but not less than \$0*	2,021,126	323,388	0	272,509	4,965,916	4,644,080	12,227,019

* The ADC for each group is equal to the sum of the Past Service Cost, Net Normal Cost and Timing Adjustment, but not less than zero. The total ADC for the plan is equal to the sum of the ADCs for each group.

Section III - Development of Contribution C. Long Range Forecast

This forecast is based on the results of the July 1, 2022 actuarial valuation and assumes that the City will pay the Actuarially Determined Contribution each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Valuation Date	Values as of the Valuation Date				Fiscal Year	Cash Flows Projected to the Following Fiscal Year			
	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio		City Contributions	Member Contributions	Benefit Payments	Net Cash Flows
7/1/2022	\$291,988,617	\$221,535,601	\$70,453,016	75.9%	2023-24	\$12,227,019	\$218,821	(\$15,195,815)	(\$2,749,975)
7/1/2023	303,835,000	243,097,000	60,738,000	80.0%	2024-25	11,710,000	225,000	(16,468,000)	(4,533,000)
7/1/2024	315,626,000	253,772,000	61,854,000	80.4%	2025-26	12,100,000	232,000	(17,607,000)	(5,275,000)
7/1/2025	327,197,000	263,770,000	63,427,000	80.6%	2026-27	12,503,000	239,000	(18,929,000)	(6,187,000)
7/1/2026	338,646,000	274,083,000	64,563,000	80.9%	2027-28	12,890,000	246,000	(19,961,000)	(6,825,000)
7/1/2027	349,796,000	284,499,000	65,297,000	81.3%	2028-29	13,225,000	254,000	(20,998,000)	(7,519,000)
7/1/2028	360,906,000	295,258,000	65,648,000	81.8%	2029-30	13,595,000	261,000	(21,720,000)	(7,864,000)
7/1/2029	372,031,000	306,279,000	65,752,000	82.3%	2030-31	13,930,000	269,000	(22,555,000)	(8,356,000)
7/1/2030	383,482,000	317,906,000	65,576,000	82.9%	2031-32	14,284,000	277,000	(23,432,000)	(8,871,000)
7/1/2031	395,210,000	329,996,000	65,214,000	83.5%	2032-33	14,614,000	286,000	(24,404,000)	(9,504,000)
7/1/2032	407,179,000	342,531,000	64,648,000	84.1%	2033-34	14,965,000	294,000	(25,186,000)	(9,927,000)
7/1/2033	419,346,000	355,394,000	63,952,000	84.7%	2034-35	15,286,000	303,000	(25,879,000)	(10,290,000)
7/1/2034	431,905,000	368,806,000	63,099,000	85.4%	2035-36	15,625,000	312,000	(26,575,000)	(10,638,000)
7/1/2035	445,004,000	382,849,000	62,155,000	86.0%	2036-37	15,963,000	321,000	(27,621,000)	(11,337,000)
7/1/2036	458,682,000	397,566,000	61,116,000	86.7%	2037-38	16,321,000	331,000	(28,290,000)	(11,638,000)
7/1/2037	472,644,000	412,629,000	60,015,000	87.3%	2038-39	16,694,000	341,000	(29,009,000)	(11,974,000)
7/1/2038	487,320,000	428,461,000	58,859,000	87.9%	2039-40	17,075,000	351,000	(29,441,000)	(12,015,000)
7/1/2039	502,721,000	445,071,000	57,650,000	88.5%	2040-41	17,490,000	362,000	(30,393,000)	(12,541,000)
7/1/2040	519,232,000	462,807,000	56,425,000	89.1%	2041-42	17,932,000	373,000	(31,135,000)	(12,830,000)
7/1/2041	536,414,000	481,240,000	55,174,000	89.7%	2042-43	18,384,000	384,000	(31,938,000)	(13,170,000)

Section III - Development of Contribution

D. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2022	\$221,535,601	\$291,988,617	\$70,453,016	75.9%
July 1, 2021	189,274,210	360,168,863	170,894,653	52.6%
July 1, 2020	148,270,420	412,626,059	264,355,639	35.9%
July 1, 2019	119,098,854	386,865,454	267,766,600	30.8%
July 1, 2018	99,596,457	360,169,536	260,573,079	27.7%
July 1, 2017	79,181,012	306,365,000	227,183,988	25.8%
July 1, 2016	54,664,000	279,009,000	224,345,000	19.6%
July 1, 2015	46,738,000	242,622,000	195,884,000	19.3%

Section III - Development of Contribution
E. History of City Contributions

Fiscal Year	Actuarially Determined Contribution	Actual City Contribution	Contribution (Deficiency) Excess
2023-24	\$12,227,019	TBD	TBD
2022-23	23,236,061	TBD	TBD
2021-22	33,215,000	\$33,215,000	\$0
2020-21	32,960,000	32,960,866	866
2019-20	30,789,000	30,789,000	0
2018-19	26,418,000	24,243,000	(2,175,000)
2017-18	25,097,000	25,097,000	0
2016-17	21,891,000	21,891,000	0

Section IV - Membership Data
A. Statistics of Active Membership

	As of July 1, 2022	As of July 1, 2021
Number of Active Members	1,168	1,179
Average Age	49.8	49.8
Average Service	15.9	16.1

Section IV - Membership Data

B. Distribution of Active Members as of July 1, 2022

CERF City

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	4							4
25-29	10	4						14
30-34	20	6	2					28
35-39	12	8	4	2				26
40-44	12	7	7	9	1			36
45-49	13	11	3	7	11	1		46
50-54	12	15	7	9	20	8	1	72
55-59	12	13	4	11	21	9	15	85
60-64	4	9	3	17	15	5	19	72
65+	9	9	3	9	13	5	15	63
Total	108	82	33	64	81	28	50	446

CERF BOE

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34	5	1						6
35-39	6	5	2					13
40-44	5	7	1	2				15
45-49	1				1			2
50-54	2	4	1	1	3			11
55-59	3	4	2		5		1	15
60-64	2	3	2		2	2	2	13
65+		1	1	2	5	2	3	14
Total	24	25	9	5	16	4	6	89

CERF WPCA

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29	2							2
30-34	1		1					2
35-39				1				1
40-44			1	1				2
45-49								0
50-54				1				1
55-59		2	2				2	6
60-64	2		1		2	1		6
65+		3	1			1		5
Total	5	5	6	3	2	2	2	25

Section IV - Membership Data

B. Distribution of Active Members as of July 1, 2022

Custodians

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34								0
35-39			1	1				2
40-44		1	2	2	3			8
45-49			1	2	1			4
50-54			3	2	7			12
55-59			3	2	11	3	5	24
60-64			3	7	13	3	3	29
65+			1	4	7	5	7	24
Total	0	1	14	20	42	11	15	103

Fire

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	2							2
25-29	5	4						9
30-34	8	10						18
35-39	9	14	2	3				28
40-44	2	12	3	17	1			35
45-49	2	7	3	12	9	1		34
50-54		4	3	17	11	12		47
55-59		1	1	8	11	7	10	38
60-64				3	2	3	10	18
65+							5	5
Total	28	52	12	60	34	23	25	234

Police

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	3							3
25-29	28	7						35
30-34	27	19	1					47
35-39	9	15	7	6				37
40-44	5	7	2	11	1			26
45-49		3	3	14	13	6		39
50-54		1	1	4	8	23	2	39
55-59				3	5	7	9	24
60-64					1	2	10	13
65+				1	1		6	8
Total	72	52	14	39	29	38	27	271

Section IV - Membership Data

C. Information on Members Receiving Benefits

	As of July 1, 2022	As of July 1, 2021
Members Receiving Benefits		
Number	982	960
Average Age	75.0	74.9
Spouses / dependents receiving benefits		
Number	374	367
Average Age	67.6	67.8

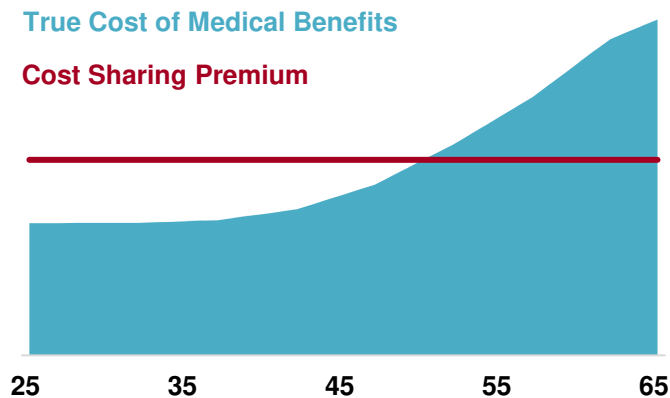
Distribution of Members Receiving Benefits as of July 1, 2022	Age	Number
	< 50	4
	50 - 59	15
	60 - 69	141
	70 - 79	317
	80 - 89	296
	90 +	<u>209</u>
	Total	982

Section V - Healthcare Information

A. Introduction

In many cases, the cost sharing premium is lower than the true cost of providing the medical benefits, for two reasons:

- The cost sharing premium is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:



- The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an "implicit rate subsidy." GASB 74 and 75 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based on factors developed by Milliman's health actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed in this report. We term this amount the "gross liability."

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the Other Post-Employment Benefits Plan – different retirees pay different percentages based on their union, date of retirement, age at retirement, and other factors. We term this amount the "offset liability."

Finally, the net liability for the City is calculated as the difference between the gross liability and the offset liability.

Section V - Healthcare Information

B. Current Premiums

The annual medical premiums are shown below.

Medical Plan	Employee	Spouse	Effective Date
HDHP Pre-65	\$14,492.76	\$14,492.64	7/1/2022
PPO Post-65	9,556.20	9,556.20	7/1/2022
OAP6 Pre-65	26,919.48	26,919.72	7/1/2022
OAP6 Post-65	12,780.36	12,780.48	7/1/2022
IPI Retiree Post-65	9,885.12	9,885.12	7/1/2022
State Partnership Plan Pre-65	16,449.12	18,979.32	7/1/2022
State Partnership Plan Post-65*	1,847.16	1,847.16	1/1/2023

*The premium shown here is the actual State Partnership Plan Premium as of January 1, 2023. For this valuation, we valued a smoothed premium which recognizes 50% of the premium decrease from January 1, 2022 to January 1, 2023. We applied the same resulting load to the claim cost for this medical plan.

Section V - Healthcare Information

C. Expected Healthcare Costs

Milliman's Health Cost Guidelines were used to develop the expected true cost of healthcare benefits by age and gender, separately for employees and spouses. Representative healthcare cost factors were developed with this actuarial valuation and are shown in the table below. These factors were then applied to the plan's healthcare rates for the year beginning July 1, 2022 to arrive at the expected annual per capita claims costs for a 65-year-old, which are shown on the next page.

HDHP/PPO and OAP6

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.52424	0.87695	0.44162	0.62917
50	0.59931	0.83825	0.53580	0.71389
55	0.68410	0.81422	0.64117	0.78897
60	0.78862	0.87934	0.77347	0.87416
65	1.00000	1.00000	1.00000	1.00000
70	1.19518	1.15673	1.19518	1.15673
75	1.36226	1.26577	1.36226	1.26577
80	1.44687	1.30331	1.44687	1.30331

IPI

Age	Employee		Spouse	
	Male	Female	Male	Female
65	1.00000	1.00000	1.00000	1.00000
70	1.19518	1.15673	1.19518	1.15673
75	1.36226	1.26577	1.36226	1.26577
80	1.44687	1.30331	1.44687	1.30331

State Partnership Plan

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.44139	0.66616	0.39122	0.54778
50	0.54350	0.70591	0.49625	0.63205
55	0.66367	0.75411	0.62045	0.72015
60	0.80601	0.84807	0.77083	0.82031
65	1.00000	1.00000	1.00000	1.00000
70	1.02734	1.02373	1.02734	1.02373
75	1.06544	1.04531	1.06544	1.04531
80	1.10095	1.06934	1.10095	1.06934

Section V - Healthcare Information

C. Expected Healthcare Costs

The expected age 65 per capita claim costs, based on the factors in the tables on the previous page, are:

	Employee		Spouse	
	Male	Female	Male	Female
HDHP Pre-65	\$28,425.10	\$25,524.13	\$22,519.49	\$20,851.62
PPO Post-65	8,264.01	7,720.23	8,264.01	7,720.23
OAP6 Pre-65	39,094.72	35,104.84	30,972.39	28,678.46
OAP6 Post-65	11,052.23	10,324.99	11,052.23	10,324.99
IPI Post-65	8,238.73	7,696.62	8,238.73	7,696.62
State Partnership Plan Pre-65	26,977.60	26,035.30	24,865.84	24,256.52
State Partnership Plan Post-65	2,446.94	2,371.34	2,446.94	2,371.34

Appendix A - Actuarial Funding Method

Starting with the July 1, 2022 valuation, the actuarial funding method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Contribution consists of three pieces: Normal Cost plus a Past Service Cost payment to gradually eliminate the Unfunded Accrued Liability plus a Timing Adjustment to reflect the timing of the contribution relative to the valuation date.

The Normal Cost is determined by calculating the present value of future benefits for present active Members that will become payable as the result of death, disability, retirement or termination. This cost is then spread as a level percentage of earnings from entry age to termination as an Active Member. If Normal Costs had been paid at this level for all prior years, a fund would have accumulated. Because this fund represents the portion of benefits that would have been funded to date, it is termed the Accrued Liability. In fact, it is calculated by adding the present value of benefits for Retired Members and Terminated Vested Members to the present value of benefits for Active Members and subtracting the present value of future Normal Cost contributions.

The funding cost of the Plan is derived by making certain specific assumptions as to rates of interest, mortality, turnover, etc. which are assumed to hold for many years into the future. Since actual experience may differ somewhat from the assumptions, the costs determined by the valuation must be regarded as estimates of the true costs of the Plan.

The Unfunded Accrued Liability is the excess of the Accrued Liability over the assets which have been accumulated for the plan. This Unfunded Accrued Liability is amortized as a level percent over 20 years on an open basis.

The Actuarial Value of Assets is determined by recognizing market gains and losses asymptotically over a five year period; the result is constrained to within +/- 30% of the market value of assets as of the valuation date.

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. In addition, the assumptions reflect the formal experience studies performed as of the following dates: July 1, 2016 - June 30, 2021 for CERF, WPCA and Custodians; July 1, 2008 - June 30, 2015 for Police; and July 1, 2015 - July 1, 2019 for Fire. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Interest Rate	6.70%
Inflation	2.60%
Amortization Growth Rate	2.00%
Salary Scale	Custodians: 2.60%

	CERF & WPCA		Police		Fire	
	Age	Rate	Service	Rate	Service	Rate
	<30	5.00%	0-1	15.00%	0	14.75%
	30-39	5.00%	2-5	6.00%	1-2	9.75%
	40-49	4.00%	6+	2.75%	3	8.75%
	50-64	4.00%			4	7.75%
	65+	3.20%			5	6.75%
					6-7	5.75%
					8	4.75%
					9	3.75%
					10+	3.25%
Prior:	CERF, Custodian & WPCA					
	Age	Rate				
	20	6.10%				
	25	6.10%				
	30	5.45%				
	35	4.80%				
	40	4.15%				
	45	3.50%				
	50	2.85%				
	55+	2.60%				

Actuarial Assumptions

Medical Trend

The medical trend assumption used in this valuation is based on long-term healthcare trend rates generated by the Society of Actuaries' Getzen Trend Model and was developed with this actuarial valuation. Inputs to the model are consistent with other assumptions used in the valuation.

State Partnership Plan

Year Beginning	Pre-65	Year Beginning	Post-65
2022 to 2023	6.40%	2022 to 2023	5.90%
2023 to 2024	6.80%	2023 to 2024	6.50%
2024 to 2025	6.70%	2024 to 2025	6.60%
2025 to 2026	6.10%	2025 to 2026	6.10%
2026 to 2027	5.50%	2026 to 2027	5.50%
2027 to 2028	5.10%	2027 to 2028	5.10%
2028 to 2029	5.00%	2028 to 2029	5.00%
2029 to 2030	4.80%	2029 to 2030	4.80%
2030 to 2031	4.70%	2030 to 2031	4.70%
2031 to 2033	4.50%	2031 to 2033	4.50%
2033 to 2048	4.40%	2033 to 2048	4.40%
2048 to 2064	4.50%	2048 to 2064	4.50%
2064 to 2067	4.40%	2064 to 2067	4.40%
2067 to 2069	4.30%	2067 to 2069	4.30%
2069 to 2071	4.20%	2069 to 2071	4.20%
2071 to 2073	4.10%	2071 to 2073	4.10%
2073 +	4.00%	2073 +	4.00%

All Other Medical Plans

Year Beginning	Pre-65	Year Beginning	Post-65
2022 to 2023	6.20%	2022 to 2023	6.20%
2023 to 2024	6.60%	2023 to 2024	6.60%
2024 to 2025	6.50%	2024 to 2025	6.50%
2025 to 2026	6.00%	2025 to 2026	6.00%
2026 to 2027	5.40%	2026 to 2027	5.40%
2027 to 2028	5.10%	2027 to 2028	5.10%
2028 to 2029	4.90%	2028 to 2029	4.90%
2029 to 2030	4.80%	2029 to 2030	4.80%
2030 to 2031	4.60%	2030 to 2031	4.60%
2031 to 2032	4.50%	2031 to 2032	4.50%
2032 to 2059	4.40%	2032 to 2059	4.40%
2059 to 2061	4.50%	2059 to 2061	4.50%
2061 to 2066	4.40%	2061 to 2066	4.40%
2066 to 2068	4.30%	2066 to 2068	4.30%
2068 to 2070	4.20%	2068 to 2070	4.20%
2070 to 2073	4.10%	2070 to 2073	4.10%
2073 +	4.00%	2073 +	4.00%

Actuarial Assumptions

Medical Trend

Medicare Part B

Year Beginning		Rate	Year Beginning		Rate
2022	to 2023	2.00%	2030	to 2031	6.10%
2023	to 2024	7.50%	2031	to 2039	5.90%
2024	to 2025	8.40%	2039	to 2040	5.20%
2025	to 2026	8.60%	2040	to 2049	4.40%
2026	to 2027	7.10%	2049	to 2050	4.30%
2027	to 2028	6.00%	2050	to 2089	4.10%
2028	to 2029	5.60%	2089	to 2090	4.00%
2029	to 2030	5.70%	2090	+	3.90%

Mortality

CERF, Custodians & WPCA

PubG-2010 Mortality Table with generational projection per MP-2021 (prior: MP-2019) ultimate scale, with employee rates before benefit commencement and healthy and disabled annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Police & Fire

PubS-2010 Mortality Table with generational projection per MP-2021 (prior: MP-2019) ultimate scale, with employee rates before benefit commencement and healthy and disabled annuitant rates after benefit commencement. This assumption includes a margin for mortality improvement beyond the valuation date.

Retirement

CERF & WPCA

Age	Rate
50-59	5.2%
60-64	10.8%
65	13.0%
66-69	18.5%
70-74	16.5%
75+	100.0%

Retirements are assumed to occur after the earliest of 1) age 50 with 25 years of service, 2) age 55 with 15 years of service, or 3) age 60 with 5 years of service.

Prior:

Age	Rate
50-61	5.0%
62-65	100.0%

Appendix B - Actuarial Assumptions

Retirement

Police

Service	Rate
20	13%
21	11%
22	8%
23	7%
24	7%
25	7%
26	7%
27	8%
28	8%
29	8%
30	11%
31	13%
32	14%
33	13%
34	19%
35	20%
36	21%
37	17%
38	16%
39	18%
40	24%
41	24%
42	27%
43	21%
44	25%
45	22%
46	35%
47	50%

100% are assumed to retire at age 65

Appendix B - Actuarial Assumptions

Retirement

Firefighters

Age	Rate
48	4%
49-51	1%
52-54	2%
55	5%
56	6%
57	5%
58	12%
59	10%
60	18%
61-62	10%
63-64	25%
65-69	65%
70+	100%

Custodians

Assumed rates of retirement after the completion of 10 years of service:

Age	<25 Years of Service	25+ Years of Service
<65	2.00%	3.75%
65-69	12.00%	10.00%
70-74	14.00%	18.00%
75+	100.00%	100.00%

Prior:

Assumed rates of retirement after the completion of 10 years of service:

Age	Rate
<65	20%
61	5%
62-69	20%
70	100%

An additional 50% probability of retirement is assumed after the completion of 25 years of service.

Appendix B - Actuarial Assumptions

Turnover

Rates for UAW and UE members:

Service	Male	Female
<5	6.0%	10.0%
5-9	5.0%	10.0%
10-14	3.0%	3.0%
15+	1.0%	1.0%

Rates for all other CERF members:

Service	Rate
<10	5.0%
10+	1.0%

Prior:

Age	Rate
20	10.6%
25	7.9%
30	5.8%
35	4.2%
40	3.1%
45	2.1%
50	13.0%
55	0.5%
60	0.0%

Custodians: 1.0%

Prior:

Age	Rate
20	5.44%
25	4.89%
30	3.70%
35	2.35%
40	1.13%
45+	0.00%

Age	Firefighters	Police
20	2.72%	1.81%
25	2.45%	1.63%
30	1.85%	1.23%
35	1.18%	0.78%
40	0.72%	0.00%
45+	0.00%	0.00%

Appendix B - Actuarial Assumptions

Disability

Classified and WPCA

25% of the DP-1985 Class 1 Table. Sample rates are shown below.

Age	Male	Female
20	0.007%	0.008%
25	0.010%	0.012%
30	0.012%	0.020%
35	0.017%	0.034%
40	0.029%	0.053%
45	0.051%	0.081%
50	0.090%	0.133%
55	0.181%	0.238%
60	0.314%	0.290%
65	0.438%	0.340%
70	0.000%	0.000%

All disabilities are assumed to be non-service related.

Prior:

Age	Rate
20	0.05%
25	0.05%
30	0.05%
35	0.06%
40	0.09%
45	0.18%
50	0.40%
55	0.85%
60	0.85%
65	0.00%
70	0.00%

Age	Custodians	Firefighters		Police
		Male	Female	
20	0.05%	0.09%	0.05%	0.30%
25	0.05%	0.13%	0.09%	0.30%
30	0.05%	0.18%	0.15%	0.30%
35	0.06%	0.25%	0.23%	0.36%
40	0.09%	0.35%	0.32%	0.54%
45	0.18%	0.47%	0.44%	1.08%
50	0.40%	0.68%	0.66%	2.40%
55	0.85%	1.14%	1.06%	5.10%
60	0.00%	1.72%	1.23%	10.44%
65	0.00%	2.30%	1.43%	0.00%
70	0.00%	0.00%	0.00%	0.00%

Appendix B - Actuarial Assumptions

Future Retiree Coverage	95% of active participants are assumed to elect coverage at retirement.
Future Dependent Coverage	60% of active participants are assumed to be married. Female spouses are assumed to be 4 years younger than male spouses.
Retiree Contribution	Some current retirees pay flat amounts with no future increases assumed. Other retirees and future retirees percentage contributions, which are assumed to increase periodically with the Medical Trend.
Medicare Coordination	For those participants who are eligible for Medicare, Medicare is assumed to remain the primary payor of medical benefits for retirees and spouses over age 65.
Medicare Plan Enrollment	Reported data was used to identify current covered retirees, spouses and surviving spouses. All active employees were assumed to elect coverage under the State Partnership Plan (except for Fire employees, who will continue on the PPO plan) and be eligible for Medicare upon attainment of age 65.
Valuation of Benefits for Children	Benefits attributed to children have been excluded from this valuation as they were determined to be de minimus.

Appendix C - Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Police

Coverage is provided through the State Partnership Plan.

Eligibility Completion of 20 years of service

Cost Sharing Date of hire prior to April 11, 2016:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 55	66.66%	66.66%
After 55	100%	100%

Date of hire after April 11, 2016:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 55	55%	55%
55-60	55%	100%
60-65	60%	100%
After 65	N/A	100%

Medicare Part B The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Employee Contributions Effective July 1, 2016, all active employees contribute 1% of the Top Step Patrol Rate into an OPEB Trust each payroll period. Employees are not be required to contribute after 30 years of service.

HSA/HRA Contribution The City reimburses the retiree for 75% of the deductible before age 65 and 50% after age 65.

Appendix C - Summary of Plan Provisions

Fire

Eligibility

Hired prior to January 1, 1981: the completion of 20 years of service.

Hired after January 1, 1981: the later of age 48 or the completion of 20 years of service.

Cost Sharing

Retired prior to December 1, 2016:

Age at Retirement	Pre-65 Benefits Employee Pays	Post-65 Benefits Employee Pays
Prior to 55	33.33%	33.33%
After 55	\$21.66	\$21.66

Retired after December 1, 2016:

Age at Retirement	Pre-65 Benefits Employee Pays	Post-65 Benefits Employee Pays
Prior to 55	33.33%	33.33%
After 55	\$85.00	\$85.00

Hired after July 1, 2016:

Retiree Age Retiree Percent

Prior to 55	50%	
55	50%	
56	48%	
57	46%	
58	44%	
59	42%	
60	40%	
61	39%	
62	38%	
63	37%	
64	36%	
65		retiree pays for Medicare Part B, City pays for supplemental plan

Disability Retirement after July 1, 2016: retiree pays \$85.00 per month.

Medicare Part B

The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

\$4,000

HSA/HRA Contribution

The City reimburses the retiree for 75% of the deductible until age 65. Post 65, the City will fund the same percent as paid for active employees but not less than 50%.

Appendix C - Summary of Plan Provisions

CERF

Union **DEN**

Coverage is provided through the State Partnership Plan.

Eligibility

The earliest of:
 Age 50 and completion of 25 years of service
 Age 58 and completion of 15 years of service
 Age 60 and completion of 10 years of service

Employees hired after July 1, 2002 are not entitled to retiree medical benefits.

Cost Sharing

Employees eligible for normal retirement prior to June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	66.66%
After 65	N/A	66.66%

Employees eligible for normal retirement after June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	50%
After 65	N/A	50%

Medicare Part B

The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

Appendix C - Summary of Plan Provisions

CERF

Union

NUR

Coverage is provided through the State Partnership Plan.

Eligibility

The earliest of:

Age 50 and completion of 25 years of service

Age 58 and completion of 15 years of service

Age 60 and completion of 10 years of service

Employees hired after June 30, 2012 are not entitled to retiree medical benefits.

Cost Sharing

Employees eligible for normal retirement prior to June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	66.66%
After 65	N/A	66.66%

Employees eligible for normal retirement after June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	50%
After 65	N/A	50%

Medicare Part B

The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

Appendix C - Summary of Plan Provisions

CERF

Union

MAA

Coverage is provided through the State Partnership Plan.

Eligibility

The earliest of:
 The completion of 25 years of service
 Age 58 and completion of 15 years of service
 Age 60 and completion of 10 years of service

Employees hired after June 30, 2020 are not entitled to retiree medical benefits.

Cost Sharing

Employees eligible for normal retirement prior to June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	66.66%
After 65	N/A	66.66%

Employees eligible for normal retirement after June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	50%
After 65	N/A	50%

Medicare Part B

The City reimburses retirees who retired prior to July 1, 2020 for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

Appendix C - Summary of Plan Provisions

CERF

Union **TEA (IUOE-WPCA)**

Coverage is provided through the State Partnership Plan.

Eligibility The earliest of:
 Age 50 and completion of 25 years of service
 Age 58 and completion of 15 years of service
 Age 60 and completion of 10 years of service

Employees hired after July 1, 2011 are not entitled to post-65 retiree medical benefits.

Cost Sharing Employees eligible for normal retirement prior to June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	33.33%
After 65	N/A	33.33%

Employees eligible for normal retirement after June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%*	33.33%
After 65	N/A	33.33%

*The City pays 50% when age at retirement is 64 and 2% less for each year under age 64. However, the City pays 50% regardless of age if the employee retires as a result of an involuntary layoff.

Medicare Part B The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

Appendix C - Summary of Plan Provisions

CERF

Union **UE (IUOE Operations)**

Coverage is provided through the State Partnership Plan.

Eligibility

The earliest of:

Age 50 and completion of 25 years of service

Age 58 and completion of 15 years of service and date of hire prior to July 1, 2012

Age 60 and completion of 10 years of service

Employees hired after July 1, 2012 are not entitled to post-65 retiree medical benefits.

Cost Sharing

Employees eligible for normal retirement prior to June 30, 2015:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	33.33%
After 65	N/A	33.33%

Employees eligible for normal retirement after June 30, 2015:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	33.33%
After 65	N/A	33.33%

Medicare Part B

The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

HSA/HRA Contribution

The City reimburses the retiree for 50% of the deductible (same as HSA funding for active employees).

Appendix C - Summary of Plan Provisions

CERF

Union

LAW

Coverage is provided through the State Partnership Plan.

Eligibility

The earliest of:
 Age 50 and completion of 25 years of service
 Age 58 and completion of 15 years of service
 Age 60 and completion of 10 years of service

Employees hired after June 30, 2012 are not entitled to retiree medical benefits.

Cost Sharing

Employees eligible for normal retirement prior to June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%*	66.66%
After 65	N/A	66.66%

*Effective July 1, 2014, the City pays 50%

Employees eligible for normal retirement after June 30, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	50%
After 65	N/A	50%

Medicare Part B

The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

HSA/HRA Contribution

The City reimburses the retiree for 50% of the deductible (same as HSA funding for active employees).

Appendix C - Summary of Plan Provisions

CERF

Union

UAW

Coverage is provided through the State Partnership Plan.

Eligibility

The earliest of:
 Age 50 and completion of 25 years of service
 Age 58 and completion of 15 years of service and non-grandfathered UAW before January 1, 2015
 Age 60 and completion of 10 years of service

Cost Sharing

Employees eligible for normal retirement prior to December 31, 2014:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	66.66%
After 65	N/A	66.66%

Employees eligible for normal retirement after December 31, 2014:

Retired prior to July 1, 2015:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	66.66%
After 65	N/A	66.66%

Retired after July 1, 2015:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%*	66.66%
After 65	N/A	66.66%

*The City pays 50% when age at retirement is 64 and 2% less for each year under age 64. However, the City pays 50% regardless of age if the employee retires as a result of an involuntary layoff.

Medicare Part B

The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance

In general, for those current and future retirees still eligible for retiree life insurance, the liability has been transferred to the CERF pension plan.

Appendix C - Summary of Plan Provisions

Custodians

Coverage is provided through the State Partnership Plan.

Eligibility The earlier of:
 The completion of 25 years of service
 Age 60 and completion of 10 years of service

Employees hired after July 1, 2011 are not entitled to retiree medical benefits.

Cost Sharing Retired prior to July 1, 2011:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	66.66%	33.33%
After 65	N/A	33.33%

Retired after July 1, 2011:

Age at Retirement	Pre-65 Benefits City Pays	Post-65 Benefits City Pays
Prior to 65	50%	0%
After 65	N/A	0%

Medicare Part B The City reimburses retirees for their Medicare Part B premiums, in the amounts provided on the census data.

Life Insurance \$6,000

Appendix D - Glossary

Actuarial Cost Method - This is a procedure for determining the Actuarial Present Value of Benefits and allocating it to time periods to produce the Actuarial Accrued Liability and the Normal Cost.

Accrued Liability - This is the portion of the Actuarial Present Value of Benefits attributable to periods prior to the valuation date by the Actuarial Cost Method (i.e., that portion not provided by future Normal Costs).

Actuarial Assumptions - With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well. Some examples of key assumptions include the interest rate, salary scale, and rates of mortality, turnover and retirement.

Actuarial Present Value of Benefits - This is the present value, as of the valuation date, of future payments for benefits and expenses under the Plan, where each payment is: a) multiplied by the probability of the event occurring on which the payment is conditioned, such as the probability of survival, death, disability, termination of employment, etc.; and b) discounted at the assumed interest rate.

Actuarial Value of Assets - This is the value of cash, investments and other property belonging to the plan, typically adjusted to recognize investment gains or losses over a period of years to dampen the impact of market volatility on the Actuarially Determined Contribution.

Actuarially Determined Contribution (“ADC”) - This is the employer’s periodic contributions to a defined benefit plan, calculated in accordance with actuarial standards of practice.

Attribution Period - The period of an employee’s service to which the expected benefit obligation for that employee is assigned. The beginning of the attribution period is the employee’s date of hire and costs are spread across all employment.

Interest Rate - This is the long-term expected rate of return on any investments set aside to pay for the benefits. In a financial reporting context (e.g., GASB 68) this is termed the Discount Rate.

Normal Cost - This is the portion of the Actuarial Present Value of Benefits allocated to a valuation year by the Actuarial Cost Method.

Past Service Cost - This is a catch-up payment to fund the Unfunded Accrued Liability over time (generally 10 to 30 years). A closed amortization period is a specific number of years counted from one date and reducing to zero with the passage of time; an open amortization period is one that begins again or is recalculated at each valuation date. Also known as the Amortization Payment.

Return on Plan Assets - This is the actual investment return on plan assets during the fiscal year.

Unfunded Accrued Liability - This is the excess of the Accrued Liability over the Actuarial Value of Assets.