

Retiree Health Benefits Plan of the Retirement System for the Employees of the City of Cincinnati

GASB Statements No. 74 and 75 Report for the Fiscal Year Commencing July 1, 2021 and Ending June 30, 2022

Produced by Cheiron November 2022

TABLE OF CONTENTS

<u>Section</u>	<u>P</u>	<u>age</u>
Letter of Tran	nsmittal	. i
Section I	Board Summary	.1
Section II	Certification	3
Section III	Determination of Discount Rate	.4
Section IV	Projection of Total OPEB Liability	5
Section V	GASB 74 Reporting Information	.7
Section VI	GASB 75 Information	12
<u>Appendices</u>	<u>S</u>	
Appendix A	Membership Information	17
Appendix B	Actuarial Assumptions and Methods	18
Appendix C	Summary of Plan Provisions.	32
Appendix D	Glossary of Terms	39





Via Email and U.S. Mail

November 1, 2022

Board of Trustees Cincinnati Retirement System 801 Plum Street, Suite 328 Cincinnati, Ohio 45202

Re: 2022 GASB 74/75 Valuation of the Retiree Health Benefits Plan of the Retirement System for the Employees of the City of Cincinnati

Dear Members of the Board:

The purpose of this report is to provide accounting and financial reporting information under the Governmental Accounting Standards Board (GASB) Statement No. 74 for the Retiree Health Benefits Plan of the Retirement System for the Employees of the City of Cincinnati (Plan) and under GASB No. 75 for the participating employer, the City of Cincinnati (employer). This information includes:

- Determination of the discount rate as of June 30, 2022,
- Total OPEB liability sensitivity information,
- Note disclosures and required supplementary information under GASB 74 for the Plan,
- Determination of amounts under GASB 75, and
- Schedules for the financial reporting of the employer under GASB 75.

This report provides GASB 74 and 75 information as of the June 30, 2022 measurement date.

If you have any questions about the report or would like additional information, please let us know.

Sincerely,

Cheiron

Margaret Tempkin, FSA, EA, MAAA

Principal Consulting Actuary

Gaelle Gravot, FSA, MAAA Principal Consulting Actuary

SECTION I – BOARD SUMMARY

The purpose of this report is to provide accounting and financial disclosure information under the Governmental Accounting Standards Board (GASB) Statement No. 74 for the Retiree Health Benefits Plan of the Retirement System for the Employees of the City of Cincinnati and Statement No. 75 for the employer. This information includes:

- Determination of the discount rate as of June 30, 2022,
- Total OPEB liability sensitivity information,
- Note disclosures and required supplementary information under GASB 74 for the Plan,
- Determination of amounts under GASB 75, and
- Schedules for the financial reporting of the employer under GASB 75.

Highlights

The reporting date for the Plan presented in this report is June 30, 2022. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2022 and the Total OPEB Liability as of the valuation date December 31, 2021, updated to June 30, 2022.

The table below provides a summary of the key results during this measurement period for the Plan. In addition to the information shown below, any contributions between the measurement date and the reporting date would be reported as deferred outflows to resources to offset the cash outflows reported.

Ta	able I-1		
Summa	ry of Re	esults	
Reporting Date		6/30/2022	6/30/2021
Measurement Date		6/30/2022	6/30/2021
Valuation Date		12/31/2021	12/31/2020
Total OPEB Liability	\$	364,503	\$ 400,563
Plan Fiduciary Net Position		519,749	 569,500
Net OPEB Liability	\$	(155,246)	\$ (168,937)
Deferred Outflows		24,762	32,635
Deferred Inflows		63,134	 113,629
Net Impact on Statement of Net Position	\$	(116,874)	\$ (87,943)
OPEB Expense (\$ Amount)	\$	(28,932)	\$ (10,485)
OPEB Expense (% of Payroll)		(20.14%)	(6.78%)

Amounts in Thousands

At the June 30, 2022 reporting date, the employer will report a Net OPEB Liability (NOL) of (\$155,246) thousand, deferred outflows of resources of \$24,762 thousand, and deferred inflows of resources of \$63,134 thousand related to the Plan. Consequently, the net impact on the employer's statement of net position due to the Plan would be (\$116,874) [(\$116,874) = (\$155,246) – \$24,762 + \$63,134] thousand.



SECTION I – BOARD SUMMARY

The NOL decreased approximately \$13,691 thousand during the measurement period. The change in NOL due to actuarial gains and losses as well as assumption changes is recognized over the average remaining service life (including inactives), determined at the beginning of each measurement period, which is four years as of the current measurement period for the Plan. The change in NOL due to investment gains and losses is recognized in OPEB expense over five years, beginning in the year of occurrence. Changes in NOL due to Plan changes are recognized immediately. Unrecognized amounts are reported as deferred outflows of resources and deferred inflows of resources.

For the reporting year ending June 30, 2022, the annual OPEB expense is (\$28,932) thousand or (20.14%) of covered-employee payroll. This amount reflects the employer's contributions to the Plan during the measurement period, \$0, plus the change in the net impact on the employer's statement of net position [(\$28,932) = \$0 + (\$116,874) - (\$87,943)] thousand. Volatility in OPEB expense from year to year is to be expected. A breakdown of the components of the net OPEB expense is shown in Section V of this report.



SECTION II – CERTIFICATION

The purpose of this report is to provide accounting and financial reporting information under GASB No. 74 for the Retiree Health Benefits Plan of the Retirement System for the Employees of the City of Cincinnati (Plan) and under GASB No. 75 for the participating employer, the City of Cincinnati (employer). This report is for the use of the Retiree Health Benefits Plan of the Retirement System for the Employees of the City of Cincinnati, the participating employer, and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for the Plan.

In preparing our report, we relied on information, some oral and some written, supplied by the Plan. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: Plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, and changes in Plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we collectively meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared for the Plan for the purposes described herein and for the use by the Plan and employer auditors in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Margaret Tempkin, FSA, EA, MAAA

Principal Consulting Actuary

Gaelle Gravot, FSA, MAAA Principal Consulting Actuary



SECTION III – DETERMINATION OF DISCOUNT RATE

This Plan uses the Bond Buyer GO 20-Bond Municipal Bond Index to satisfy the requirements under paragraph 48 of GASB No. 74. As this index is issued weekly, the value closest to but not after the reporting date is used in determining the appropriate rate. Based on this practice, the municipal bond rate at June 24, 2021 was 2.16%, and the municipal bond rate at June 30, 2022 was 3.54%.

The projection of cash flows used to determine the discount rate was performed in accordance with GASB 74. The projection's basis was an actuarial valuation performed as of December 31, 2021. In addition to the actuarial methods and assumptions of the December 31, 2021 actuarial valuation, the following actuarial methods and assumptions were used in the projection of cash flows:

- No future employee contributions were assumed to be made.
- No future employer contributions were assumed to be made.

Based on these assumptions, the Plan's projected future net position (PFNP) was projected to never be depleted and, as a result, the long-term expected rate of return was used in the determination of the single equivalent interest rate (SEIR). Here, the long-term expected rate of return of 7.50% on Plan investments was applied to all periods, resulting in an SEIR at the Measurement Date of 7.50%.

The PFNP projections are based upon the Plan's financial status on the Valuation Date, the indicated set of methods and assumptions, and the requirements described in GASB 74. As such, the PFNP projections are not reflective of the cash flows and asset accumulations that would occur on an ongoing plan basis, reflecting the impact of future members. Therefore, the results of this test do not necessarily indicate whether or not the fund will actually run out of money, the financial condition of the Plan, or the Plan's ability to make benefit payments in future years.



SECTION IV - PROJECTION OF TOTAL OPEB LIABILITY

The Total OPEB Liability (TOL) at the end of the measurement year, June 30, 2022, is measured as of a valuation date of December 31, 2021 and projected to June 30, 2022. Valuations will be completed every year. Each valuation will be rolled forward six months to provide the GASB liability. There were assumption changes during the period, which are reflected in these numbers. The table below shows the projection of the TOL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure. TOL and Service Cost have been determined using the entry age actuarial cost method as described in paragraph 54 of GASB Statement 74.

Table IV-1 projects the Total OPEB Liability from the valuation date to the **end** of the fiscal year. The **discount rate** plus and minus 1% discount rate liabilities are also shown in this chart.

Total OPEB Liability Se	le IV-1 ty at 6/30/202	2 M	easurement D	ate	
Discount Rate	6.50%		7.50%		8.50%
Valuation Total OPEB Liability, 12/31/2021					
Actives	\$ 117,975	\$	103,004	\$	89,808
Deferred Vested	0		0		0
Retirees	282,747		259,349		239,236
Total	\$ 400,722	\$	362,353	\$	329,044
Service Cost (BOY)	1,717		1,336		1,032
Benefit Payments	(12,353)		(12,353)		(12,353)
Interest	12,677		13,166		13,488
Total OPEB Liability, 6/30/2022	\$ 402,763	\$	364,503	\$	331,211

Amounts in Thousands

Table IV-2 projects the Total OPEB Liability for the plus and minus 1% medical trend results from the valuation date to the **end** of the fiscal year.

Total OPEB Liability Ser		ole IV-2 ty at 6/30/202	2 M	easurement D	ate	
Healthcare Trends		-1.00%		Baseline		1.00%
Valuation Total OPEB Liability, 12/31/2021 Actives Deferred Vested Retirees Total	\$ 	87,782 0 238,744 326,526		103,004 0 259,349 362,353		120,913 0 282,955 403,868
Service Cost (BOY) Benefit Payments Interest Total OPEB Liability, 6/30/2022	\$	1,083 (12,353) 11,838 327,094	\$	1,336 (12,353) 13,166 364,503	\$	1,647 (12,353) 14,706 407,868



SECTION IV - PROJECTION OF TOTAL OPEB LIABILITY

The TOL as of June 30, 2022 is based on the Plan's actuarial valuation results as of December 31, 2021. The TOL as of June 30, 2022 was determined using standard projection (roll forward) techniques. The roll forward calculation adds the normal cost (also called the service cost) for the projection period – for experience and assumption changes this is the first half of 2022 – and subtracts the expected net benefit payments for the period, and then applies the discount rate used to measure the TOL as of the Valuation Date. The roll forward calculation for the expected change is determined using a similar procedure, except that the TOL and service cost are based on GASB 75 results as of the Prior Measurement Date, a one-year projection period is used, and actual net benefit payments are subtracted. These procedures are shown in the table below.

The difference between this expected TOL and the projected TOL as of June 30, 2022 before reflecting any changes of assumptions or other inputs is the experience (gain) or loss for the period. The impact of measuring the liabilities after reflecting these changes relative to the experience change TOL - is shown as an assumption (gain) or loss for the period.

		Table IV-3				
To	otal OPEB	Liability Roll 1	For	ward		
		Expected		Experience	Benefit	Assumption
Measurement Date		7/1/2021		12/31/2021	12/31/2021	12/31/2021
Projection Period		1 year		1/2 year	1/2 year	1/2 year
Discount Rate		7.50%		7.50%	7.50%	7.50%
Total as of Measurement Date	\$	400,563	\$	406,295	\$ 406,295	\$ 362,353
Service Cost (EOY)		2,856		1,256	1,256	1,336
Interest		29,132		14,781	14,781	13,166
Benefit payments		(24,706)		(12,353)	(12,353)	(12,353)
Net changes		7,282		3,684	3,684	2,150
Balances at 6/30/2022	\$	407,845	\$	409,979	\$ 409,979	\$ 364,503
Experience (gain)/loss [Experience - Expected]	<u></u>		\$	2,134		
Benefit Change (gain)/loss [Benefit - Experience]					\$ -	
Assumption (gain)/loss [Assumption - Benefit]						\$ (45,476)



SECTION V – GASB 74 REPORTING INFORMATION

Note Disclosures

The table below shows the changes in the total OPEB liability (TOL), the Plan fiduciary net position (i.e., fair value of Plan assets) (FNP), and the net OPEB liability (NOL) during the measurement period ending on June 30, 2022.

	Increase (Decrease)											
	,	Total OPEB Liability		Fiduciary t Position		Net OPEB Liability						
Balance at end of prior year	\$	400,563	\$	569,500	\$	(168,937)						
Changes for the year:												
Service cost (EOY)		2,856				2,856						
Interest		29,132				29,132						
Changes of benefits		0				0						
Differences between expected and actual experience		2,134				2,134						
Changes of assumptions		(45,476)				(45,476						
Contributions - employer				0		0						
Contributions - member				0		0						
Net investment income				(24,514)		24,514						
Benefit payments		(24,706)		(24,706)		0						
Administrative expense		. , ,		(531)		531						
Net changes		(36,060)		(49,751)		13,691						
Balance at end of current year	-\$	364,503	\$	519,749	\$	(155,246						

Total service cost and interest cost plus the experience loss and assumption changes were more than contributions and investment earnings, resulting in an increase in the Net OPEB Liability (NOL) of \$13,691 thousand. The NOL remaining as of June 30, 2022 is (\$155,246) thousand.



SECTION V – GASB 74 REPORTING INFORMATION

Changes in the discount rate would affect the measurement of the TOL. Lower discount rates produce a higher TOL, and higher discount rates produce a lower TOL. Because the discount rate does not affect the measurement of assets, the percentage change in the NOL can be very significant for a relatively small change in the discount rate. Table V-2 shows the sensitivity of the TOL and NOL to the discount rate.

Sensitivity of Total O	PEB	Table V-2 Liability to Cl	ian	ges in Discoun	t Ra	ate
		1% Decrease 6.50%		Discount Rate 7.50%		1% Increase 8.50%
Total OPEB Liability Plan Fiduciary Net Position Collective Net OPEB Liability	\$ <u>\$</u>	402,763 519,749 (116,986)	\$ \$	364,503 519,749 (155,246)	\$	331,211 519,749 (188,538)
Percentage of the Total OPEB Liability		129.0%		142.6%		156.9%

Amounts in Thousands

A one percent decrease in the discount rate increases the TOL by approximately 10% and increases the NOL by approximately (25%). A one percent increase in the discount rate decreases the TOL by approximately 9% and decreases the NOL by approximately 21%.

Similarly, changes in the healthcare trend rate affect the measurement of the TOL. Lower healthcare trend rates produce a lower TOL, and higher healthcare trend rates produce a higher TOL. Table V-3 shows the sensitivity of the TOL and NOL to the healthcare trend rate.

Sensitivity of Total OPEB Lia	bilit	Table V-3 ty to Changes i	n F	Iealthcare Cost	t T ı	rend Rates
		1% Decrease		Healthcare Trend		1% Increase
Total OPEB Liability Plan Fiduciary Net Position Collective Net OPEB Liability	\$	327,094 519,749 (192,655)	\$	364,503 519,749 (155,246)	\$ <u>\$</u>	407,868 519,749 (111,881)
Percentage of the Total OPEB Liability		158.9%		142.6%		127.4%

Amounts in Thousands

A one percent decrease in the healthcare trend rate decreases the TOL by approximately 10% and decreases the NOL by approximately (24%). A one percent increase in the healthcare trend rate increases the TOL by approximately 12% and increases the NOL by approximately (28%).



SECTION V – GASB 74 REPORTING INFORMATION

Required Supplementary Information

The schedules of Required Supplementary Information generally start with information as of the implementation of GASB 74, and eventually will build up to 10 years of information.

The schedule below shows the changes in NOL and related ratios required by GASB.

				Table V-4							
Sch	edul	e of Changes ir	ı T	otal OPEB Lia	bil	lity and Related	l R	Ratios			
	I	FYE 06/30/2022		FYE 06/30/2021		FYE 06/30/2020		FYE 06/30/2019	FYE 06/30/2018	F	YE 06/30/2017
Total OPEB Liability											
Service cost (EOY)	\$	2,856	\$	3,141	\$	7,276	\$	6,110	\$ 5,076	\$	7,669
Interest (includes interest on service cost)		29,132		27,412		32,500		34,288	31,360		27,446
Changes of benefit terms		0		16,324		(172,890)		0	0		0
Differences between expected and actual experience		2,134		1,378		(57,263)		2,516	16,272		0
Changes of assumptions		(45,476)		0		(58,845)		67,838	38,505		(109,830)
Benefit payments, including refunds of member contributions	_	(24,706)		(25,892)		(26,889)		(31,119)	 (26,640)		(31,144)
Net change in total OPEB liability	\$	(36,060)	\$	22,363	\$	(276,111)	\$	79,633	\$ 64,573	\$	(105,859)
Total OPEB liability - beginning		400,563		378,200		654,311		574,678	510,105		615,964
Total OPEB liability - ending	\$	364,503	\$	400,563	\$	378,200	\$	654,311	\$ 574,678	\$	510,105
Plan fiduciary net position											
Contributions - employer	\$	0	\$	0	\$	0	\$	0	\$ 0	\$	0
Contributions - member		0		0		0		0	0		0
Net investment income		(24,514)		140,270		(5,999)		21,589	39,483		58,398
Benefit payments, including refunds of member contributions		(24,706)		(25,892)		(26,889)		(31,119)	(26,640)		(31,144)
Administrative expense		(531)		(527)		(535)		(418)	(417)		(440)
Net change in plan fiduciary net position	\$	(49,751)	\$	113,851	\$	(33,423)	\$	(9,948)	\$ 12,426	\$	26,814
Plan fiduciary net position - beginning		569,500		455,649		489,072		499,020	 486,594		459,780
Plan fiduciary net position - ending	\$	519,749	\$	569,500	\$	455,649	\$	489,072	\$ 499,020	\$	486,594
Net OPEB liability - ending	\$	(155,246)	\$	(168,937)	\$	(77,449)	\$	165,239	\$ 75,658	\$	23,511
Plan fiduciary net position as a percentage of the total OPEB liability		142.59%		142.17%		120.48%		74.75%	86.83%		95.39%
Covered employee payroll	\$	143,643	\$	154,720	\$	168,208	\$	174,957	\$ 177,713	\$	179,887
Net OPEB liability as a percentage of covered employee payro	11	-108.08%		-109.19%		-46.04%		94.45%	42.57%		13.07%



SECTION V – GASB 74 REPORTING INFORMATION

If an Actuarially Determined Contribution is calculated, the following schedule is required. An Actuarially Determined Contribution is a contribution amount determined in accordance with Actuarial Standards of Practice.

				Scheo	lule			V-5 ver Conti	ibı	ıtions										
	F	YE 2022	F	YE 2021	F	YE 2020	F	YE 2019	F	YE 2018	I	YE 2017	F	YE 2016	F	YE 2015	F	YE 2014	F	YE 2013
Actuarially Determined Contribution (ADC) Actual Contribution related to ADC	\$	0	\$	0	\$	5,651	\$	4,442	\$	1,152	\$	6,188	\$	1,404	\$	7,363 0	\$	5,697	\$	453 0
Contribution Deficiency/(Excess) relative to ADC	\$	0	\$	0	\$	5,651	\$	4,442	\$	1,152	\$	6,188	\$	1,404	\$	7,363	\$	5,697	\$	453
Covered-Employee Payroll (Pay) Actual Contributions as % of Pay	\$	143,643 0.00%	\$	154,720 0.00%	\$	168,208 0.00%	\$	174,957 0.00%	\$	177,713 0.00%	\$	179,887 0.00%	\$	174,963 0.00%	\$	164,575 0.00%	\$	163,477 0.00%	\$	167,148 0.00%

Amounts in Thousands

Notes to Schedule

Valuation Date 12/31/2020

Timing Actuarially determined contribution rates are calculated based on the actuarial valuation 18 months prior to the beginning of the plan year

Key Methods and Assumptions Used to Determine Contribution Rates:

Actuarial cost method Entry Age Normal
Asset valuation method 5-year smoothed market
Amortization method 30 year level dollar
Discount rate 7.50%
Amortization growth rate 0.00%
Price inflation 3.25%

Salary increases Intitial 7.5% dropping to 3.75% by the 21 year of service

Mortality RP-2014 Healthy Dataset Mortality table set forward two years for males and females

with fully generational projected mortality improvements using MP-2017



SECTION V – GASB 74 REPORTING INFORMATION

Actuarial Assumptions:

Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.

Actuarial cost method: Entry age
Amortization method: Level dollar
Amortization period: 30 years, open

Asset valuation method: Five-year smoothed market value

Medical inflation: 3.25%

Salary increases, including wage inflation: 3.75% to 7.50%

	Initial health care	Ultimate health care	Year of ultimate
	cost trend rates:	cost trend rates:	trend rates:
Medical and Rx - Pre-Medicare	8.00%	4.00%	2036
Medical and Rx Non-Model - Post-Medicare	4.97%	4.00%	2036
Medical and Rx Model - Post-Medicare	4.84%	4.00%	2036

Long-term investment rate of return, net of pension plan

investment expense, including price inflation 7.50%

Changes of Benefit Terms:

In 2020, the City offered an early retirement incentive program which provided two additional years of service that would count toward benefits and eligibility. Eligible members were those projected to be eligible for normal retirement as of July 1, 2020 or have earned at least 28 years of service as of July 1, 2020.

In 2020, the City moved all Medicare Part A and Part B eligible, and Medicare Part B only eligible plan participants to a fully insured Medicare Advantage Plan offered by Anthem.

In 2017, the Plan changes included in Ordinance 336-2016 were adopted by the City Council on October 26, 2016. In addition to incorporating many of the changes mandated by the CSA, the Ordinance also:

- Excluded members hired after December 31, 2015 from eligibility to receive retiree health benefits.
- Established benefit and eligibility provisions for Group E and F members not covered under the CSA similar to employees who are covered under the CSA.
- Specified eligibility and postemployment contribution requirements for the retiree health benefits payable to members and beneficiaries entitled to deferred benefits.
- Modified eligibility and postemployment contribution requirements to retiree health benefits paid as the result of an in-service death.

In 2016, there were several changes in benefit provisions as a result of the Collaborative Settlement Agreement (CSA) between the City and various plaintiff groups representing certain active and retired members of CRS as approved by the Court on October 5, 2015 and generally effective January 1, 2016.

Changes in Actuarial Assumptions and Methods:

In 2021, healthcare costs and trends were updated to reflect the current marketplace and participation assumptions were updated for future retirees to better reflect observed and expected experience.

In 2019, healthcare costs and trends were updated to reflect the current marketplace.

In 2017, future contribution rates for retiree health benefit recipients are now based upon the projected retiree healthcare costs associated with each projection year's closed group of participants.



SECTION VI – GASB 75 INFORMATION

The employer implemented GASB 75 as of its reporting date of June 30, 2018. The amounts reported as of June 30, 2018 must be based upon a Plan measurement date within the prior 12 months. The Plan has elected that measurements as of June 30, 2021 will be based on the June 30, 2021 measurement date. The schedules in this section are provided for the purpose of the Plan's June 30, 2022 reporting date and the employer's June 30, 2023 reporting date.

The impact of experience gains or losses and assumption changes on the TOL are recognized in expense over the average expected remaining service life of all active and inactive members of the System. As of the measurement date, this recognition period was four years. During the measurement year, there was an experience loss of \$2,134 thousand. \$533 thousand of that loss was recognized in the current year, and an identical amount will be recognized in each of the next three years, resulting in a Deferred Outflow of Resources \$1,601 thousand.

During the measurement year, there was a gain due to assumption changes of \$45,476 thousand. \$11,369 thousand of that gain was recognized in the current year, and an identical amount will be recognized in each of the next three years, resulting in a Deferred Inflow of Resources \$34,107 thousand.

The impact of investment gains or losses is recognized over a period of five years. During the measurement year, there was an investment loss of \$66,298 thousand. \$13,260 thousand of that loss was recognized in the current year, and an identical amount will be recognized in each of the next four years.

The impact of Plan changes is recognized immediately. There were no Plan changes during the measurement year.

The table on the next page summarizes the current balances of Deferred Outflows and Deferred Inflows of resources along with the net recognition over the next five years.



SECTION VI – GASB 75 INFORMATION

Table VI- Schedule of Deferred Inflows and G June 30, 2022 Measu	Outflo		urces as	s of
	Ou	eferred tflows of esources	In	eferred flows of esources
Differences between expected and actual experience Changes in assumptions	\$	2,792 13,566	\$	14,315 48,819
Net difference between projected and actual earnings on OPEB plan investments Total	<u> </u>	8,404 24,762	\$	63,134
Amounts reported as deferred outflows and deferred in OPEB expense as follows:	flows of	resources will	be recogn	ized in
Year ended June 30	:			
2023		(22,331)		
2024		(10,312)		
2025		(18,986)		
2026		13,258		
2027		0		
Thereafte	r \$	0		



SECTION VI – GASB 75 INFORMATION

The table below lists the details of the inflows and outflows shown in the previous table.

			Schedu	le (ne	Table Inflows ar 30, 2022 I), 2022 M	nd (Rep	Outflows orting D	ate		s as	s of				
Recognition of E		ns) a									_						
Experience	Recognition		Total		Remaining	g Ai						eco	gnition Yea	r			***
Year	Period	_	Amount	_	BOY	_	EOY	_	2022	_	2023	_	2024	_	2025	_	2026
2022	4.00	\$	2,134		2,134	\$	1,601	\$	533	\$	533	\$	533	\$		\$	0
2021	4.00	\$,	\$	1,033	\$	688	\$	345	\$	345	\$	343	\$	0	\$	0
2020	4.00	\$	(57,263)		(28,631)		(14,315)		(14,316)		(14,315)		0	\$	0	\$	0
2019	5.00	\$,	\$	1,007	\$	504	\$	503	\$	504	\$	0	\$	0	\$	0
2018	4.27	\$	16,272	\$	1,028	\$	0	\$	1,028	\$	0	\$	0	\$	0	\$	0
Recognition of	of liability gains	s an	d losses					\$	(11,907)	\$	(12,933)	\$	876	\$	535	\$	0
Recognition of A	ssumption Cha	nge	s														
Experience	Recognition	0	Total		Remaining	A	mounts				R	eco	gnition Yea	r			
Year	Period		Amount		BOY	,	EOY		2022		2023		2024		2025		2026
2022	4.00	\$	(45,476)	\$	(45,476)	\$	(34,107)	\$	(11,369)	\$	(11,369)	\$	(11,369)	\$	(11,369)	\$	0
2021	4.00	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
2020	4.00	\$	(58,845)	\$	(29,423)	\$	(14,712)	\$	(14,711)	\$	(14,712)	\$	0	\$	0	\$	0
2019	5.00	\$	67,838	\$	27,134	\$	13,566	\$	13,568	\$	13,566	\$	0	\$	0	\$	0
2018	4.27	\$	38,505	\$	2,433	\$	0	\$	2,433	\$	0	\$	0	\$	0	\$	0
Recognition of	of assumption c	han	iges					\$	(10,079)	\$	(12,515)	\$	(11,369)	\$	(11,369)	\$	0
Recognition of In	vostment (Cai	ne) .	and Laccae														
Experience	Recognition	113)	Total		Remaining	τ Δ 1	mounts				R	eco	gnition Yea	r			
Year	Period		Amount		BOY	5 4 1	EOY		2022		2023	cco	2024	•	2025		2026
2022	5.00	\$	66,298	\$	66,298	\$	53.038	\$	13,260	\$		\$	13,260	\$	13,260	\$	13,258
2021	5.00	\$	(107,068)		(85,654)		(64,240)		(21,414)		(21,414)		(21,414)		(21,412)		0
2020	5.00	\$, , ,	\$	25,003	\$	16,669	\$	8,334	\$. , ,	\$		\$	0	\$	0
2019	5.00	\$	14,677	\$	5,872	\$	2,937	\$	2,935	\$,	\$	0,555	\$	0	\$	0
2018	5.00	\$	(3,984)		(796)		0	\$	(796)		0	\$	0	\$	0	\$	0
Recognition (of investment g	ains	` ' /		(,			\$	2,319	\$	3.117	\$	181	\$	(8,152)	\$	13,258
Total (Gains) and	U		Total		Remaining	2 A	mounts	*	_,	*	- /	-	gnition Yea	-	(0,-0-)	-	,
(2)			Amount		BOY	,	EOY		2022		2023		2024		2025		2026
Total (Gains) and	d Losses	\$	(72,141)	\$	(60,704)	\$	(38,372)	\$	(19,667)	\$	(22,331)	\$	(10,312)	\$	(18,986)	\$	13,258



SECTION VI – GASB 75 INFORMATION

The annual OPEB expense recognized by the employer can be calculated in two different ways. First, it is the change in the amounts reported on the employer's Statement of Net Position that relate to the Plan and are not attributable to employer contributions. That is, it is the change in NOL plus the changes in deferred outflows and inflows plus employer contributions.

Alternatively, annual OPEB expense can be calculated by its individual components. While GASB does not require or suggest the organization of the individual components shown in the table below, we believe it helps to understand the level and volatility of pension expense.

Table VI-3 Calculation of OPEB Expense							
Reporting Date Measurement Date Valuation Date	Jun	e 30, 2022 e 30, 2022 er 31, 2021	Jun	ne 30, 2021 ne 30, 2021 er 31, 2020			
Change in Net OPEB Liability Change in Deferred Outflows Change in Deferred Inflows Employer Contributions	\$	13,691 7,872 (50,495) 0	\$	(91,488) 61,401 19,602 0			
OPEB Expense OPEB Expense as % of Payroll	\$	(28,932) (20.14%)	\$	(10,485) (6.78%)			
Operating Expenses							
Service cost (EOY)	\$	2,856	\$	3,141			
Employee contributions Administrative expenses		0 531		0 527			
Total	\$	3,387	\$	3,668			
Financing Expenses							
Interest cost	\$	29,132	\$	27,412			
Expected return on assets		(41,784)		(33,202)			
Total	\$	(12,652)	\$	(5,790)			
Changes							
Benefit changes	\$	0	\$	16,324			
Recognition of assumption changes		(10,079)		929			
Recognition of liability gains and losses		(11,907)		(9,657)			
Recognition of investment gains and losses		2,319		(15,959)			
Total	\$	(19,667)	\$	(8,363)			
OPEB Expense	\$	(28,932)	\$	(10,485)			



SECTION VI – GASB 75 INFORMATION

First, there are components that we refer to as operating expenses. These are items directly attributable to the operation of the Plan during the measurement year. Service cost less employee contributions represents the increase in employer-provided benefits attributable to the year, and administrative expenses are the cost of operating the Plan for the year.

Second, there are the financing expenses: the interest on the Total OPEB Liability, administrative expenses, and contributions less the expected return on assets. Since the discount rate is equal to the long-term expected return on assets, the financing expense is just the interest on the Net OPEB Liability.

The final category is changes. This category will drive most of the volatility in pension expense from year to year. It includes any changes in benefits made during the year and the recognized amounts due to assumption changes, gains or losses on the TOL, and investment gains or losses.



APPENDIX A – MEMBERSHIP INFORMATION

Member Data:

Group	December 31, 2020	December 31, 2021
Active Participants		
Active Full Time Employees	1,767	1,673
Active Part Time Employees	279	210
Active DROP Employees	<u>209</u>	<u>185</u>
Total	2,255	2,068
Covered Payroll	\$140,670,666	\$139,123,528
Total Compensation	\$192,988,736	\$205,675,789
Active Full Time Employees - ineligible for retiree health benefits	883	1,194
Active Part Time Employees - ineligible for retiree health benefits	<u>327</u>	<u>344</u>
Total - ineligible for retiree health benefits	1,210	1,538
Inactive Participants		
Number of retirees and surviving spouses currently receiving	3,683	3,511
retiree health benefits	3,003	3,311
Spouses currently receiving retiree health benefits	<u>1,427</u>	<u>1,398</u>
Total	5,110	4,909
Retired members and surviving spouses not currently		
receiving retiree health benefits but may elect coverage in the	224	251
future	<u>224</u>	<u>351</u>
Total	5,334	5,260
Terminated vested members eligible for retiree health	25	20
benefits	23	20
Terminated vested members not eligible for retiree health	200	210
benefits	<u>200</u>	<u>219</u>
Total	5,559	5,499

Note: In addition, there are 7,399 inactive participants hired before December 31, 2015 who are former employees with an employee account balance in the pension plan, but are assumed not to be vested. No retiree health benefit liability is assumed for these individuals.

Please refer to the December 31, 2021 Actuarial Valuation Reports for a more complete summary of the data.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions for this valuation were selected based on recent experience and expectations for the future. The current year's assumptions were detailed in the prior actuary's experience study adopted March 1, 2018. We have not performed our own experience study but reviewed the reports and letters of the prior actuary and believe the assumptions to be reasonable. The 7.50% discount rate used for valuation purposes as of December 31, 2021, is prescribed under paragraph 29 of the CSA. The actuarial cost method, the asset valuation method, and the amortization method used for funding purposes were selected by CRS during prior periods.

Economic Assumptions

1. **Discount Rate** 7.50% per year

2. Single Equivalent Discount Rate for GASB 74/75

7.50% per year, prior year 7.50%

3. Expected Return on Assets 7.50% per year, net of investment expenses

4. Administrative Expenses 0.25% of total payroll

5. Inflation Assumption CPI: 2.75% per year

Medical CPI: 3.25% per year

6. Salary Increase RateSalary increases are assumed to vary by service.
Representative rates are shown as follows:

	Annual
Service	Increase
0	7.50%
5	5.00
10	4.50
15	4.00
21+	3.75



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

7. Per Person Health Care Cost Trends

Annual per capita health care claims costs are expected to increase in future years as a result of medical inflation, utilization, demographic changes, leverage in the plan design, and improvements in technology adjusted for any implicit and/or explicit cost containment features. Initial health care cost trend rates were selected based on an analysis of national average health trend surveys specific to similarly structured plans for both Medicare ineligible and Medicare-eligible participants. The assumed rates of increases in expected retiree health care claims costs and contributions vary by year, retiree health plan, and payment age, as shown in the table below:

Trends for current actives, non-Medicare retirees, and Part A only Medicare retirees:

	All Plans	Non-Model Plans	Model Plans
Calendar Year	Payment Age < 65	Payment Age 65+	Payment Age 65+
2021	8.00%	4.97%	4.84%
2022	7.75%	7.27%	7.30%
2023	7.50%	6.56%	6.55%
2024	7.00%	6.57%	6.58%
2025	6.66%	6.30%	6.31%
2026	6.32%	6.04%	6.04%
2027	5.99%	5.77%	5.78%
2028	5.65%	5.51%	5.51%
2029	5.31%	5.24%	5.24%
2030	4.97%	4.97%	4.97%
2031	4.97%	4.97%	4.97%
2032	4.63%	4.63%	4.63%
2033	4.45%	4.45%	4.45%
2034	4.35%	4.35%	4.35%
2035	4.28%	4.28%	4.28%
2036+	4.00%	4.00%	4.00%



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Trends for current Medicare retirees:

	Non-Model Plans	Model	Medicare A Only
Calendar Year	Payment Age 65+	Payment Age 65+	Payment Age 65+
2021	8.00%	5.55%	5.54%
2022	7.75%	7.14%	7.14%
2023	7.50%	6.57%	6.57%
2024	7.00%	6.52%	6.52%
2025	6.66%	6.26%	6.26%
2026	6.32%	6.00%	6.01%
2027	5.99%	5.75%	5.75%
2028	5.65%	5.49%	5.49%
2029	5.31%	5.23%	5.23%
2030	4.97%	4.97%	4.97%
2031	4.97%	4.97%	4.97%
2032	4.63%	4.63%	4.63%
2033	4.45%	4.45%	4.45%
2034	4.35%	4.35%	4.35%
2035	4.28%	4.28%	4.28%
2036+	4.00%	4.00%	4.00%

Trends for retiree contributions:

	All Plans	Non-Model Plans	Model Plans
Calendar Year	Payment Age < 65	Payment Age 65+	Payment Age 65+
2021	8.00%	4.97%	5.15%
2022	7.75%	7.27%	7.23%
2023	7.50%	6.56%	6.56%
2024	7.00%	6.57%	6.55%
2025	6.66%	6.30%	6.29%
2026	6.32%	6.04%	6.03%
2027	5.99%	5.77%	5.76%
2028	5.65%	5.51%	5.50%
2029	5.31%	5.24%	5.24%
2030	4.97%	4.97%	4.97%
2031	4.97%	4.97%	4.97%
2032	4.63%	4.63%	4.63%
2033	4.45%	4.46%	4.46%
2034	4.35%	4.35%	4.35%
2035	4.28%	4.28%	4.28%
2036+	4.00%	4.00%	4.00%

8. Changes Since the Last Valuation

Trends were updated to reflect the current marketplace.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Demographic Assumptions

1. Retirement Rates

Retirement rates for each group vary by age and service with the City. Sample rates are shown in the tables below.

Annual Rate of Retirement Groups C, D, E, and F*								
Age	5 Years of Service	6-24 Years of Service	25-29 Years of Service	30 Years of Service	31+ Years of Service			
50-54				55.0%	30.0%			
55			6.0%	55.0	30.0			
56			8.0	55.0	30.0			
57-59			10.0	55.0	30.0			
60	25.0%	25.0%	25.0	55.0	25.0			
61-69	25.0	18.0	18.0	55.0	25.0			
70	100.0	100.0	100.0	100.0	100.0			

^{*} For purposes of valuing CSA Employee members eligible for DROP benefits, an additional 10% is added to rates for 30 years of service and an additional 5% is added to rates for 31+ years of service.

Annual Rate of Retirement Group G							
Age	5 Years of Service	6-14 Years of Service	15-29 Years of Service	30 Years of Service	31+ Years of Service		
57-58			6.0%	6.0%	6.0%		
59-60			8.0	8.0	8.0		
61			10.0	10.0	10.0		
62			10.0	25.0	25.0		
63-66			10.0	25.0	18.0		
67	25.0%	25.0%	25.0	25.0	18.0		
68-69	25.0	18.0	18.0	18.0	18.0		
70	100.0	100.0	100.0	100.0	100.0		



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

2. Rates of Withdrawal

Withdrawal rates for each group vary by age and service with the City. Sample rates are shown in the tables below.

	Annual Rate of Withdrawal						
Age	Less than One Year of Service	Between One and Three Years of Service	Between Three and Five Years of Service	Five or More Years of Service			
20	22.00%	10.00%	8.00%	4.00%			
25	22.00	10.00	8.00	4.00			
30	22.00	10.00	8.00	4.00			
35	22.00	10.00	4.00	4.00			
40	22.00	10.00	4.00	2.75			
45	22.00	10.00	4.00	1.25			
50	22.00	10.00	4.00	1.25			
55	22.00	10.00	4.00	1.25			
60	22.00	10.00	4.00	1.25			
65	22.00	10.00	4.00	1.25			
70	22.00	10.00	4.00	1.25			

3. Rates of Disability

Disability rates for each group vary by age. Sample rates are shown in the table below.

Age	Annual Rate of Disability*
20	0.005%
25	0.010
30	0.015
35	0.025
40	0.045
45	0.075
50	0.135
55	0.210
60	0.250
65	0.250

^{*} Rates are 0% when a member is eligible for normal retirement.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

4. Rates of Mortality

Preretirement Mortality: RP-2014 Healthy Dataset Mortality table set forward two years for

males and females with fully generational projected mortality

improvements using MP-2017.

Postretirement Mortality: RP-2014 Total Dataset Mortality table set forward two years for

males and females with fully generational projected mortality

improvements using MP-2017.

Disabled Mortality: RP-2014 Disabled Mortality table with fully generational projected

mortality improvements using MP-2017.

5. DROP Participation

60% of eligible CSA Employee members eligible for DROP benefits are assumed to decline participation and 40% are assumed to elect participation. Those electing to participate are assumed to remain in the DROP for three years.

6. Vested Withdrawal

60% of vested members who terminate elect to leave their contributions in the Plan in order to be eligible for a benefit at their normal retirement date while the remaining 40% elect to withdraw their contributions.

7. Spousal Coverage

Actual census data, payment form elections, and current health care plan elections for spouses of current retirees were used. For spouses of eligible future retirees, a 100% spouse coverage election rate is assumed for those members choosing a joint & survivor payment form, and a 15% spouse coverage election rate is assumed for those members selecting a single life annuity payment form. Under a joint & survivor payment form, retiree health benefits are available until the death of the last annuitant.

8. Dependent Age

For current retirees, actual spouse date of birth was used when available. For future retirees, husbands are assumed to be three years older than wives.

9. Health Plan Administrative Expenses

Health plan administrative expenses are included in the per capita claims costs.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

10. Percent of Members Electing Coverage

Actual census data and current Plan elections provided by CRS were used for those currently receiving retiree health benefits. Group 1 members who retired prior to September 1, 2007, and currently qualify for the Secure Plan, are assumed to re-qualify in all future years. All current participants not qualifying for the Secure Plan are covered either by the Select Plan or the Model Plan. Current participants are assumed to maintain their current retiree health benefits coverage until they are no longer eligible. The active members of Group C with at least 15 years of creditable service shall be entitled to retiree health benefits under the Select Plan as Group 1 members. All other eligible future retirees electing retiree health benefits are assumed to be covered by the Model Plan. 95% of eligible future retirees in Group 2 are required to pay the portion of their cost as determined by the point system, so retiree health benefit election rates are assumed to reduce as the level of cost-sharing increases. The point system is based upon the sum of the member's full years of service and the member's age at separation from service. The assumed contribution rates and rates of participation for Group 1 and Group 2 members are as follows:

	Assumed Rate	of Participation		ion as a Percentage Cost
Group	Pre-65 Retirement	Post-64 Retirement	Select Plan	Model Plan
Group 1	95%	95%	5%	10%
Group 2 with 90+ Points	90% grading to 70% over 20 years	75%	5%	10%
Group 2 with 80 – 89 Points	90% grading to 70% over 20 years	75%	25%	25%
Group 2 with 70 – 79 Points	50% grading to 25% over 20 years	25%	50%	50%

Note that the Group 2 rates of participation assumptions differ from the ones in the prior actuary's experience study adopted March 2018. We changed these assumptions due to the recent experience varying greatly from the experience study results.

It is assumed that 100% of eligible future disabled retirees will elect retiree health benefits.

11. Percent Electing Medical Expense Reimbursement Program (MERP)

Based upon current participation in the MERP, 0% of current and future retiree health benefits participants are assumed to elect the MERP. As credible experience for MERP participation is not yet available, the assumed rate of participation is an estimate and actual results may be materially different. As such, this assumption will need to be reviewed as a credible experience evolves.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

12. New Retiree Listing

Members who have newly retired but have not been completely processed for benefits were assumed to be elected post-retirement medical. For those in Pension Group C, we have assumed they elect the Select Plan while all others elect the Model Plan.

13. Changes Since the Last Valuation

The percentage of future pre-Medicare retirees electing medical coverage was adjusted upwards from grading down to 45% to grading down to 70% for Group 2 with 80+ points, and 50% grading to 25% for 70-79 points, from 40% to 0%. The percentage of future Medicare retirees electing medical coverage was adjusted upward from 45% to 75% for Group 2 with 80+ points and from 0% to 25% for Group 2 with 70-79 points.

Claim and Expense Assumptions

The claims costs are developed based on claims experience projected to 2022 for the self-insured benefits and actual premiums in effect for 2022 for the fully insured ones. Contractual administrative expenses for 2022 are included. The resulting per person per month (PPPM) cost is then adjusted using age curves.

1. Average Annual Claims and Expense Assumptions & Methodology

The Calendar Year (CY) 2022 claims costs were developed using actual CY 2020 and CY 2021 Medical and Rx claim experience. Claims were divided by benefit type (i.e., medical vs. Rx) and population category (i.e., non-Medicare eligible (NME) vs Medicare Eligible (ME)) for each plan and standardized to the Select Plan design for the 2021 enrollment. Rx claim costs were defined as Plan paid amounts minus pharmacy rebates. Large claims above \$100,000 for Medical were removed from the experience prior to calculating the experience Per Adult Per Month (PAPM) cost.

We calculated the benefit relativity factors of the Select, Model, and Secure plan using the OptumInsight Comprehensive Pricing Tool for NME and OptumInsight Comprehensive Medicare Coordination Model for ME participants. Using the same model, we calculated the change in demographics between the 2020 and 2021 enrollments.

Using the benefit relativity and demographic factors, the experience PAPM costs of each plan and year were adjusted to the Select plan design for the 2021 population. The adjusted experience PAPM costs were then blended using:

- 40% of CY 20219, 10% of CY 2020 and 50% of CY 2021 experience for Medical NME,
- 20%/40%/40% of CY 2019/2020/2021, respectively, for Rx NME,
- 0%/50%/50% of CY 2019/2020/2021, respectively, for Rx ME, and
- 100% CY 2021 for Medical ME (Part A only members).



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Rates were trended to CY 2022 using an 8% annual trend. Large claims were trended separately assuming a 5% annual trend and added to the projected PAPM costs. To convert paid claims into incurred claims, we applied an extra 2.5 months of trend to medical and ½ month of trend to Rx. The CY 2022 projected Rx cost for ME was further adjusted to reflect the expected receivable payments from CMS (Part D Direct subsidy, Federal Reinsurance, Low Income Cost Share subsidy, Low Income Premium subsidy) and PhrMa (Gap Discount). These receivables were projected using CY 2019, 2020, and 2021 experience with payments through March 2022, adjusted for expected reconciliation payments for CY 2021.

Finally, we applied the benefit relativity factors to the Select projected costs PAPM to derive the Model and Secure projected costs PMPM. The PAPM costs for the ME Part A only population are expressed based on the entire ME population and added to the Medicare Advantage (MA) premium rates.

Claims curves were developed using the resulting projected PAPM claims costs, the premium rates for the fully insured MA plans, and our proprietary age curves. The costs of retirees over 65 who are eligible for Medicare Part A and didn't sign up for Part B are spread across the entire ME population.

No child load was added to the NME pre-65 claims since the associated cost is assumed to be implicitly reflected in the Per Adult Per Month costs.

Expenses were projected for NME vs ME, based on actual CY 2021 expenses provided by CRS, trended to CY 2022 using a 4% trend.



APPENDIX B - ACTUARIAL ASSUMPTIONS AND METHODS

Calendar Year 2022 Average Claim and Expense Assumptions								
	(Future Retirees and Current NME Inactives)							
	Sel		Model		Secure			
	Medicare Eligible		Medicare Eligible		Medicare Eligible			
Age	Male	Female	Male	Female	Male	Female		
40	\$5,558	\$8,984	\$5,502	\$8,881	\$0	\$0		
45	7,295	9,679	7,221	9,574	0	0		
50	9,461	11,229	9,365	11,107	0	0		
55	12,057	13,567	11,932	13,418	0	0		
60	15,081	15,907	14,923	15,731	0	0		
64	17,809	16,629	17,621	16,451	0	0		
65	\$2,967	\$2,842	\$3,030	\$2,900	\$2,267	\$2,205		
70	3,408	3,043	3,486	3,109	2,558	2,315		
75	3,577	3,177	3,674	3,258	2,517	2,291		
80	3,596	3,247	3,715	3,345	2,314	2,186		
85	3,559	3,261	3,698	3,374	2,073	2,043		

Calendar Year 2022 Average Claim and Expense Assumptions							
(Current Inactives Medicare A & B Eligible)							
	Select		Model		Secure		
	Non Medica	are Eligible	Non Medicare Eligible		Non Medicare Eligible		
Age	Male	Female	Male	Female	Male	Female	
40	\$2,759	\$2,610	\$2,750	\$2,602	\$3,001	\$2,833	
45	3,973	3,759	3,960	3,747	4,322	4,080	
50	5,042	4,771	5,026	4,755	5,485	5,178	
55	5,525	5,228	5,507	5,211	6,010	5,675	
60	5,209	4,929	5,192	4,913	5,667	5,350	
64	4,382	4,147	4,368	4,133	4,767	4,501	
65	\$2,655	\$2,556	\$2,646	\$2,548	\$2,888	\$2,775	
70	3,032	2,719	3,023	2,711	3,307	2,960	
75	3,118	2,791	3,110	2,783	3,431	3,060	
80	3,052	2,793	3,045	2,786	3,398	3,091	
85	2,938	2,747	2,933	2,741	3,311	3,068	



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Calendar Year 2022 Average Claim and Expense Assumptions						
(Current Inactives Medicare B Only Eligible)						
	Select		Model		Secure	
	Non Medicare Eligible		Non Medicare Eligible		Non Medicare Eligible	
Age	Male	Female	Male	Female	Male	Female
40	\$6,000	\$5,528	\$6,739	\$6,193	\$5,711	\$5,273
45	8,641	7,961	9,705	8,919	8,224	7,594
50	10,966	10,104	12,317	11,319	10,438	9,637
55	12,018	11,073	13,498	12,404	11,439	10,561
60	11,330	10,440	12,726	11,695	10,784	9,957
64	9,532	8,782	10,706	9,838	9,072	8,377
65	\$5,774	\$5,414	\$6,486	\$6,065	\$5,496	\$5,164
70	6,793	5,958	7,652	6,697	6,451	5,668
75	7,704	6,654	8,753	7,537	7,264	6,290
80	8,494	7,336	9,743	8,378	7,947	6,889
85	9,153	7,892	10,582	9,074	8,507	7,370

2. Retiree Health Care Plan Contributions

Assumed adult per capita health care contribution rates were developed for those participants in the Select and Model Plans who are required to contribute a portion of retiree health benefit costs as defined in Schedule C. Contributions were determined to fully fund retiree health benefit costs in 2022 based upon Medicare eligibility status. Rates are based on retiree cost experience, enrollment, and trended based on the assumptions. The following chart details the full (100%) adult per capita contribution assumptions. These amounts include medical, drug, and third-party administrative costs.

	Retiree		Spouse	
	Payment Age		Payment Age	
Health Plan	< 65	Payment Age 65+	< 65	Payment Age 65+
Secure Plan	\$0	\$0	\$0	\$0
Select Plan	\$15,617	\$3,573	\$15,617	\$3,573
Model Plan	\$15,084	\$3,570	\$15,084	\$3,570

As members hired after December 31, 2015 are ineligible to receive retiree health benefits, the contributions assumed for years beyond 2019 are based upon the projected retiree health care costs associated with each projection year's closed group of participants, reflecting the impact of aging and health care inflation.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

3. Medicare Part D Subsidy

The City offers an EGWP Part D plan to its Medicare retirees; it, therefore, does not participate in the Retiree Drug Subsidy program.

4. Medicare Part B Premium Subsidy

Assumed that Medicare-eligible retirees pay the Medicare Part B premiums.

5. Medicare Coverage and Eligibility

Retiree health benefit participants aged 65 and older who are eligible for premium-free Medicare Part A benefits are assumed to be enrolled in Medicare Part A. For those retiree health benefit participants who are not eligible for premium-free Medicare Part A coverage, CRS is assumed to remain the primary payer. For a portion of the Medicare-eligible group, the premium-free Medicare Part A eligibility status is provided by CRS. As the premium-free Medicare Part A eligibility status is determined from a wide range of sources with varying and at times, limited content, the premium-free Medicare Part A eligibility status data is incomplete. Adjustments have been made to account for this incompleteness. As the true status of those who are or will be eligible for premium-free Medicare Part A is uncertain, actual results may be materially different. For all unidentified current retirees, hired prior to April 1, 1986, and not assumed eligible for premium-free Medicare Part A coverage through their spouse, as well as those active employees hired prior to April 1, 1986, 10% are assumed to not qualify for premium-free Medicare Part A coverage. The assumption of 10% is based upon estimates from the current retiree population. 100% of deferred vested members are assumed to obtain the 40 or more quarters of Medicare-covered employment required for premium-free Medicare Part A coverage as a result of their subsequent employment. Retiree health benefit participants aged 65 and older are assumed to be enrolled in Medicare Part B.

6. Marital and Spouse Assumptions

For participants who are not receiving benefits, 100% of participants are assumed to be married to a spouse of the opposite gender. Husbands are assumed to be three years older than their wives. For participants who are receiving benefits, the actual spouse age is used where available. If relevant spouse information is not available, husbands are assumed to be three years older than their wives.

7. Part-Time Employees

On July 1, 1991, the plan was amended to include part-time employees. Part-time employees hired on or before December 31, 2015, have been included in the valuation.



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

8. Geography

Implicitly assumed to remain the same as current retirees.

9. Changes Since the Last Valuation

The claim curves were updated to reflect the current experience, premiums, and marketplace.

Disclosure Regarding Models Used

ProVal

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate the liabilities, normal costs and projected benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

Projection Model

This report includes projections of future liabilities, assets, and employer contributions for the purpose of assisting the Board of Trustees with the management of the Fund. We have used Cheiron's H-Scan model to develop these projections. The model is also used to stress test the impact of volatile asset returns over the projection period.

Experience in the model may be varied to illustrate the sensitivity of potential experience compared to a particular assumption. Because the model does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

The H-Scan projection uses standard roll-forward techniques that implicitly assume a stable active population. Changes in the demographic characteristics of the active population will lead to different results.

Getzen Trend Model

Medical Trend assumptions were developed using the Society of Actuaries (SOA) Long-Run Medical Cost Trend Model.

We have reviewed the baseline assumptions for the model and found them to be reasonable and consistent with the other economic assumptions used in the valuation. We have relied on the Society of Actuaries as the developer of the Model. We have reviewed the Model and have a basic understanding of the Model and have used the Model in accordance with its original



APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

intended purpose. We have not identified any material inconsistencies in assumptions or output of the Model that would affect this report.

Methodology

The Entry Age Normal Actuarial Cost method is used to determine costs. Under this funding method, a normal cost rate is determined as a level percent of pay for each active Plan member and then summed to produce the total normal cost for the City.

The Actuarial Accrued Liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. It represents the value of the past normal costs with interest to the valuation date. The difference between this liability and funds accumulated as of the same date is referred to as the unfunded actuarial liability.

The portion of the Actuarial Liability in excess of OPEB Trust's assets is amortized to develop additional costs or savings which is added to each year's employer normal cost to produce the Actuarial Defined Contribution (ADC). Under this cost method, actuarial gains and losses are directly reflected in the size of the ADC.

The unfunded actuarial liability is amortized over an open 30-year period. The amortization is a level dollar amortization. CY 2022 claims and expenses were developed as described in Appendix B, Claims and Expenses Assumptions section above.

Actuarial Value of Assets

For purposes of determining the contribution rate to the Plan, we use an actuarial value of assets. The asset adjustment method dampens the volatility in asset values that could occur because of fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process.

The actuarial value of assets is the current market value, adjusted by a five-year smoothing of gains and losses on a market value basis. Each year's gain or loss is determined as the difference between the actual market return and the expected market return using the assumed rate of investment return. The actuarial value is adjusted to remain within 20% of the market value.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

Summary of Key Substantive Plan Provisions

Pension Benefit Eligibility

All active employees of the City except for the following:

- Members of the Police and Firemen's Disability and Pension Fund of Ohio
- Elected City officials
- Employees for whom the City contributes to PERS
- Persons hired as police recruits who are not currently enrolled as a member of the System prior to their date of hire
- Current contributing members of the School Employees Retirement System (SERS) or the State Teachers Retirement System (STRS) who are hired by the City on a seasonal, temporary, or part-time basis

Members of the System are divided into the following groups:

Group	Criteria		
A , B	Any member who has retired prior to 7/1/2011		
С	Any member who, as of June 30, 2011, was an active or deferred vested member and had either: a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service.		
D	Any active member who, between July 1, 2011 and December 31, 2013: 1) Either a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service; and 2) Retired prior to January 1, 2014.		
E	Any active member who: 1) Between July 1, 2011 and December 31, 2013, either: a) Completed at least 30 years of service, or b) Reached age 60 and completed at least 5 years of service; and 2) Retires on or after January 1, 2014.		
F	Any active member whose most recent membership enrollment date was prior to January 1, 2010 and who is not in groups A through E. Any deferred vested member whose most recent membership enrollment date was prior to January 1, 2010, is not in groups A through E, and has at least five years of service prior to the date they separate from employment.		
G	Any member whose most recent membership enrollment date is on or after January 1, 2010, or Any member rehired on or after January 1, 2010, who has fewer than 5 years of service as of June 30, 2011, or Any retiree of the System who is receiving a service retirement allowance and is re-employed on or after April 1, 2013.		



APPENDIX C – SUMMARY OF PLAN PROVISIONS

Members of the System are further classified as:

Class	Criteria		
CSA Retiree (CSA participants corresponding to Retirees Class)	Group A and B members and their designated optionees.		
CSA Employee (CSA participants corresponding to Current Employees Class)	Group C, D, E and F members (and their designated optionees) that were vested and employed on 7/1/2011.		
CMC Employee (Non-CSA participants)	Group E and F members (and their designated optionees) that were either vested or employed on 7/1/2011 and no break in employment service since 1/1/2010 and prior to becoming vested.		
Non-CSA	Group G members and their designated optionees.		



APPENDIX C – SUMMARY OF PLAN PROVISIONS

Years of Service: Years or fractional years of full-time service rendered to the Plan Sponsor.

Normal Retirement:

Groups A, B, C, D, E, and F:

Age 60 with 5 years of service or 30 years of service.

Group G:

Age 67 with 5 years of service or age 62 with 30 years of service.

Early Retirement:

Groups A, B, C, D, E, and F:

Age 55 with 25 years of service

Group G:

Age 57 with 15 years of service

Deferred Retirement Option Plan (DROP):

Current Employees Class members with at least 30 years of service may participate in the DROP

Disability Retirement Eligibility:

5 years of service

Deferred Vested Retirement Eligibility:

5 years of service

Retiree Health Benefits Eligibility:

Per Ordinance 336-2016 adopted by the City Council on October 26, 2016, employees hired after December 31, 2015, are not eligible to receive retiree health benefits.

Group 1: Those members of Group C or those members hired before January 9, 1997. For those members of Group C or those members who retire under the System prior to January 1, 2016 (including their survivors receiving pension benefits), a minimum of 15 years of service is required. For those members who retire under the System after December 31, 2015 (including their survivors receiving pension benefits), a minimum attained the age of 60 with 20 years of service or 30 years of service regardless of age is required.

Group 2: Those participants hired on or after January 9, 1997. For those members who retire under the System prior to January 1, 2016 (including their survivors receiving pension benefits), a minimum of 15 years of service is required. For those members who retire under the System after December 31, 2015 (including their survivors receiving pension benefits), a minimum attained the age of 60 with 20 years of service or 30 years of service regardless of age is required. Group 2 participants entitled to a deferred retirement allowance are eligible for health benefits upon attainment of the Medicare eligibility age.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

Deferred Retirement Option Plan (DROP): Eligible Current Employees Class members may effectively retire and freeze their accrual of years of service with the System and defer receipt of retirement benefits, including retiree health benefits, for a period not to exceed five years while continuing City employment. For valuation purposes, current DROP participants are assumed to be active members, receiving health care benefits as an active employee. Service does not accrue while participating in the DROP and retiree health benefits are assumed to begin upon exit from active employment.

Members and Beneficiaries Assumed to be Eligible for Deferred Retiree Health Benefits as of December 31, 2016: Per Ordinance 336-2016 adopted by the City Council on October 26, 2016, members of Group C and their associated beneficiaries are eligible for retiree health benefits under the Select Plan based upon a minimum of 15 years of service. All other eligible members and their associated beneficiaries are eligible for retiree health benefits under the Model Plan based upon a minimum attained age of 60 with 20 years of service or 30 years of service regardless of age.

Dependents: A retiree may elect to cover an eligible spouse and/or eligible dependent children by paying the applicable retiree contribution rate for the specified enrollment tier.

Retiree Health Benefits

The System offers health care benefits (medical, prescription drugs, dental, and vision coverage) to eligible retirees, beneficiaries, and their dependents before and during Medicare eligibility.

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, members who retired prior to September 1, 2007, and who establish their annual household income to be less than \$30,000, are eligible to receive medical and prescription drug coverage under the Secure Plan. Those members who retired prior to September 1, 2007, who do not qualify for coverage under the Secure Plan may elect medical and prescription drug coverage through either the Select Plan or Model Plan based upon eligibility.

Those members of Group C or those members who retired on or after September 1, 2007 (including those employees who retired under a special incentive plan in 2007) but prior to January 1, 2016, may elect medical and prescription drug coverage through the Select Plan. Those members not eligible for the Secure Plan or the Select Plan may elect coverage under the Model Plan.

Active Service Death Benefits

A surviving spouse, eligible dependent child, and orphan receiving survivor pension benefits as a result of death during employment of an eligible active member is eligible to receive retiree health benefits based upon the eligibility and terms applicable to the associated member.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

Medicare Part B Premium Reimbursement

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, CRS no longer reimburses the Medicare Part B premiums for retirees and spouses.

Retiree Contributions

Participants covered by the Secure Plan do not contribute towards the cost of medical and prescription drug coverage. Group 1 participants covered by the Select Plan contribute an amount equal to five percent of the full cost of medical and prescription drug benefits of the retiree group with costs adjusted based upon the Medicare eligibility age (age 65). Group 1 participants covered by the Model Plan contribute an amount equal to ten percent of the full cost of medical and prescription drug benefits of the retiree group with costs adjusted based upon the Medicare eligibility age (age 65). Group 2 participants will pay the portion of the full cost of medical and prescription drug benefits of the coverage option for which they are eligible as determined by the point system.

	Retiree Contribution as a Percentage of Cost			
Points	Select Plan	Model Plan		
90+	5%	10%		
80-89	25%			
70-79	50%			

Dental Benefits

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, all members electing to participate in the dental plan will be required to pay the full cost of dental coverage. As such, it is assumed CRS has no liability under GASB 74 and 75 for dental benefits.

Vision Benefits

Under the provisions of Ordinance 85-2011, beginning January 1, 2012, all members electing to participate in the vision plan will be required to pay the full cost of vision coverage. As such, it is assumed CRS has no liability under GASB 74 and 75 for vision benefits.

Changes Since Prior Valuation

None



APPENDIX C – SUMMARY OF PLAN PROVISIONS

Summary of 2021 Benefit Plans

Currently, the City of Cincinnati Postretirement Health Fund offers three plans for retired employees. Benefits are payable under the Plan for medical care obtained from the City's health care vendors. Medicare Part A eligible retirees who didn't buy into Part B get the same medical benefits as the non-Medicare retirees.

City of Cincinnati Non-Medicare Retirees

Provider Network:	Anthem BCBS	Anthem BCBS	Anthem BCBS
In-Network (INN) Benefits	Select Plan	Model Plan	Secure Plan
Deductible (Individual / Family)	\$300 / 600	\$500 / 1,000	\$0 / 0
Coinsurance	20%	20%	20%
	2070	2070	2070
Copays			
Office Visit (OV)-Primary Care (PCP)	DC	DC	DC
OV - Specialist Care Provider (SCP)	DC	DC	DC
Urgent Care (UC)	DC	DC	DC
Hospital Emergency Room (ER)	DC	DC	DC
Outpatient Surgery	DC	DC	DC
Hospital Inpatient	DC	DC	DC
Out-of-Pocket Max (Individual / Family)	\$1,500 / 3,000	\$2,000 / 4,000	\$500 / 1,000
Out-of-Network (OON) Benefits			
Deductible (Individual / Family)	\$600 / 1,200	\$1,000 / 2,000	\$0 / 0
Coinsurance	50%	50%	50%
Hospital Emergency Room (ER)	INN DC	INN DC	INN DC
Out-of-Pocket (OOP) Max (Individ / Family)	\$3,000 / 6,000	\$4,000 / 8,000	\$1,000 / 2,000
Lifetime Maximum	Unlimited	Unlimited	Unlimited
Annual Maximum	Unlimited	Unlimited	Unlimited
Prescription Drugs	Non Medicare Coverage Only	Non Medicare Coverage Only	Non Medicare Coverage Only
Retail (30 Days) - Generic/Formulary /Non-Form.	\$10 / 20 / 30	\$10 / 20 / 30	\$5 / 15 / 30
Copay	\$107.207.30	\$107.207.50	\$57 157 50
Mail Order (90 Days) - Generic/Formulary /Non-	\$20 / 40 / 60	\$20 / 40 / 60	\$10 / 30 / 60
Form. Copay	3207 407 00	\$207 407 00	\$107.307.00
Out-of-Pocket Max (Individual / Family)	None	None	\$500
Detail Benefits			
Mental Health (MH) / Substance Abuse (SA):			
- SA Lifetime Visit Limit (Inpatient / Outpatient)	Unlimited	Unlimited	Unlimited
- SA Lifetime OOP Maximum	Unlimited	Unlimited	Unlimited
- MH Per Year Visit Limit (Inpatient / Outpatient)	Unlimited	Unlimited	Unlimited
Home Health (INN / OON):	DC / DC up to 30 visits	DC / DC up to 30 visits	DC / DC up to 30 visits
Allergy Care:	DC	DC	DC
Rehabilitation (i.e., speech, occup. physical):	DC up to 60 visits	DC up to 60 visits	DC up to 60 visits
Chiropractors:	DC	DC	DC
Medical Supplies and Equipment:	DC	DC	DC
Maternity Care:	DC	DC	DC
Skilled Nursing Facility	DC	DC	DC
Hearing Aids:	DC	DC	DC
Preventive Care:	DC	DC	DC
Medicare Integration:	Exclusion ²	Exclusion ²	Exclusion ²

¹ DC=Deductible and coinsurance applies.

Vendors

Medical Claims Administrator:Anthem BCBSMedical Network:Anthem BCBSPharmacy Benefit Manager:CVS / CareMark

Stop-Loss Insurer: N/A



² Medicare Pays first then the Plan applies the Plan's rules for non-Medicare covered benefits. Only Medicare Eligibles who have not bought into Medicare Part B are covered under the NME plan

APPENDIX C – SUMMARY OF PLAN PROVISIONS

City of Cincinnati Medicare Advantage Plans - For Medicare Part A&B and Part B only eligibles

Provider Network:	Anthem BCBS	Anthem BCBS	Anthem BCBS
In-Network (INN) Benefits	Select Plan	Model Plan	Secure Plan
Deductible (Individual)	\$300	\$500	\$0
Coinsurance	4%	4%	4%
Copays			
Office Visit (OV)-Primary Care (PCP)	DC	DC	DC
OV - Specialist Care Provider (SCP)	DC	DC	DC
Preventive Care:	\$0 / C	\$0 / C	\$0 / C
Urgent Care (UC)	DC	DC	DC
Hospital Emergency Room (ER)	\$50	\$50	\$50
	\$5/day for days 1-20, DC for	\$5/day for days 1-20, DC for	\$5/day for days 1-20, DC for
Skilled Nursing Facility (SNF)	days 21-100	days 21-100	days 21-100
Outpatient Surgery	DC	DC	DC
Hospital Inpatient	DC	DC	DC
Home Health (INN / OON):	\$0 / DC	\$0 / DC	\$0 / DC
Mental Health (MH) / Substance Abuse (SA):	DC	DC	DC
Out-of-Pocket Max (Individual / Family)	\$1,500	\$2,000	\$500
Out-of-Network (OON) Benefits			
Deductible (Individual)	Combined with INN	Combined with INN	Combined with INN
Coinsurance	10%	10%	10%
Hospital Emergency Room (ER)	INN DC	INN DC	INN DC
Out-of-Pocket (OOP) Max (Individual)	\$3,000	\$4,000	\$1,000
Lifetime Maximum	Unlimited	Unlimited	Unlimited
Annual Maximum	Unlimited	Unlimited	Unlimited
Prescription Drugs	Medicare Coverage Only	Medicare Coverage Only	Medicare Coverage Only
Retail (30 Days) - Generic/Formulary /Non-Form.	010 / 20 / 20	\$10 / 20 / 30	\$5 / 15 / 30
Copay	\$10 / 20 / 30	\$10 / 20 / 30	\$5 / 15 / 30
Mail Order (90 Days) - Generic/Formulary /Non-	#20 / 40 / CO	#20 / 40 / CO	#10 / 20 / 60
Form. Copay	\$20 / 40 / 60	\$20 / 40 / 60	\$10 / 30 / 60
Out-of-Pocket Max (Individual)	None	None	\$500

DC=Deductible and coinsurance applies.



 $^{^{2}}$ C=Coinsurance applies.

APPENDIX D – GLOSSARY OF TERMS

1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

3. Deferred Inflow of Resources

An acquisition of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 75, these are experience gains on the Total OPEB Liability, assumption changes reducing the Total OPEB Liability or investment gains that are recognized in future reporting periods.

4. Deferred Outflow of Resources

A consumption of net assets by a government employer that is applicable to a future reporting period. In the context of GASB 75, these are experience losses on the Total OPEB Liability, assumption changes increasing the Total OPEB Liability or investment losses that are recognized in future reporting periods.

5. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 75 calculations. Under this method, the actuarial present value of the projected benefits of each individual, included in an actuarial valuation, is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total OPEB Liability.

6. Measurement Date

The date as of which the Total OPEB Liability and Plan Fiduciary Net Position are measured. The Total OPEB Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the Plan.



APPENDIX D – GLOSSARY OF TERMS

7. Net OPEB Liability

The liability of employers and non-employer contributing entities for employees for benefits provided through a defined benefit OPEB plan. It is calculated as the Total OPEB Liability less the Plan Fiduciary Net Position.

8. Plan Fiduciary Net Position

The fair or market value of assets.

9. Reporting Date

The last day of the Plan or employer's fiscal year.

10. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 75. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

11. Total OPEB Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 74 and 75. The Total OPEB Liability is the actuarial liability calculated under the entry age actuarial cost method.

