



Chicago Transit Authority Retiree Health Care Trust

Actuarial Valuation as of January 1, 2024

**Including Accounting Disclosures
for the Year Ended December 31, 2023**

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Segal



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August 20, 2024

Board of Trustees
Chicago Transit Authority Retiree Health Care Trust
Chicago, Illinois

Dear Trustees:

We are pleased to submit this valuation of the Retiree Health Care Trust as of January 1, 2024. The actuarial computations made are for purposes of determining compliance with certain requirements of the Illinois Pension Code, and accounting disclosures under the Governmental Accounting Standards Board Statement No. 74. Determinations for purposes other than meeting these requirements may be significantly different from the results reported here.

This report is based on information received from Group Administrators and the Retiree Health Care Trust. Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The scope of the assignment did not include performing an analysis of the potential range of such future measurements.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with Illinois Pension Code Sections 22-101B(b)(3)(ii) and 22-101B(b)(3)(iii), Illinois Pension Code Section 22-101B(b)(5), and GASB

Statement 74 with respect to the benefit obligations addressed. We are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations, and collectively meet their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.

We look forward to discussing this material with you at your next meeting.

Sincerely,

Segal



Barbara Zaveduk, EA MAAA
Vice President and Actuary



Nicole Llorens, ASA MAAA
Senior Retiree Health Actuary

cc: Paul Sidrys
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Daniel A. Levin
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Table of Contents

Section 1: Introduction	5
Important information about actuarial valuations	6
Section 2: Illinois Pension Code Requirements	8
Funding assessment	8
Statutory reserve	11
45% Test	12
Section 3: GASB 74 Disclosures	13
Accounting requirements	13
Net OPEB liability	14
Development of long-term rate	15
Discount rate	15
Schedules of required supplementary information	17
Section 4: Supporting Information	21
Exhibit 1 - Summary of participant data	21
Exhibit 2 – Summary of income and expenses	22
Exhibit 3 – Statement of actuarial assumptions/methods	23
Exhibit 4 – Summary of plan	33

Section 1: Introduction

Prior to Public Act 095-0708, the Retirement Plan for CTA Employees reimbursed the CTA for healthcare benefits provided to retired members and their dependents.

Under Section 22-101B of Public Act 095-0708, the Retiree Health Care Trust was established. Since 2009, the Retiree Health Care Trust has been providing health care benefits to eligible retirees and their dependents and survivors.

Retiree health benefits are funded through a combination of active contributions, retiree self-pay contributions, proceeds from a sale of bonds, and investment return on assets.

This valuation report contains information required by the Trustees of the Retiree Health Care Trust in order to comply with various accounting and funding requirements.

The projected present value of income and payments shown in this report are contingent upon a variety of assumptions about future events. Actual experience is likely to vary from these assumptions.

Important information about actuarial valuations

An actuarial valuation is an estimate of future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan of Benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinate with Medicare. If so, changes in the Medicare law or administration may change the plan’s costs without any change in the terms of the plan itself. It is important for the Trustees to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant Data	An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation; the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. Plan sponsors often use an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial Assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement and then develop short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan’s benefits for each of those events. The forecasted benefits are then discounted to a present value, based on an estimate of the rate of return that will be achieved on the plan’s assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Trustees. It includes information for compliance with accounting standards. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- Sections of this report include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience and health care trend, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Trustees should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Illinois Pension Code Requirements

Funding assessment

Section 22-101B (b)(3)(iii) of the Illinois Pension Code requires the Board of Trustees of the Retiree Health Care Trust to make an annual assessment of the funding levels of the Retiree Health Care Trust and to submit a report to the Auditor General at least 90 days prior to the end of the fiscal year (i.e. by October 2).

The report must demonstrate that the present value of projected benefits is exceeded by the present value of projected contributions and income plus assets in excess of the statutory reserve. If there is a shortfall, the report must describe a plan to eliminate the shortfall. As of January 1, 2024, projected income and assets exceed projected benefits, and no changes are necessary.

Table A: January 1, 2024 Funding Assessment

Actuarial Present Value of Projected Benefits	Amount	Actuarial Present Value of Projected Income and Assets	Amount
Current Retirees			
Present Value of Benefits	\$387,197,563	Present Value of Active Contributions	\$72,196,072
Less: Retiree Self-Payments	<u>(120,827,294)</u>	Assets	1,013,336,520
Net Present Value of Benefits	\$263,370,269	Less: Statutory Reserve	<u>(34,171,427)</u>
Future Retirees		Total Income and Assets	<u>\$1,051,361,165</u>
Present Value of Benefits	\$594,705,799		
Less: Retiree Self-Payments	<u>(181,449,119)</u>		
Net Present Value of Benefits	\$413,256,680		
Present Value of HRA Benefits	<u>77,055,274</u>	Income and Assets in Excess of Projected Benefits	<u>\$297,678,942</u>
Total Present Value of Projected Benefits	<u>\$753,682,223</u>	Income and Assets as a Percentage of Projected Benefits	<u>139.5%</u>

This year's valuation includes the following changes since last year:

- Assets greater than expected.
- Changes in the covered population.
- Changes to per capita claims, based on updated claim experience and premium renewals, along with retiree contribution rates and trend rates.
- Based on an experience study completed to determine assumptions for the January 1, 2024 through January 1, 2028 valuations, changes to salary scale, mortality, withdrawal, disability and retirement rates, assumed rates of participation, percent married, plan election, and percent of disabled retirees eligible for Medicare.

Table B: Effect of Changes on Funding Levels

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Projected Income and Assets	Income and Assets as a % of Projected Benefits
January 1, 2023 valuation	\$647.3 million	\$952.1 million	147.1%
Effect of expected changes	-0.3 million	+30.1 million	+4.7%
Effect of assets more or less than expected	--	+67.0 million	+10.0%
Effect of other gains/losses (changes in census data)	+25.9 million	+3.3 million	-5.4%
Effect of changes in per capita claims, retiree contribution rates, and trend	+89.8 million	-1.6 million	-18.6%
Effect of changes in other assumptions	-9.0 million	+0.5 million	+1.7%
Effect of plan changes	--	--	--
January 1, 2024 valuation	\$753.7 million	\$1,051.4 million	139.5%

Measuring the funded status of the Trust requires the use of assumptions regarding future economic and demographic experience. Since future events are uncertain and unknowable, there is a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range.

In order to illustrate the sensitivity to changes in one such assumption – the assumed rate of return on plan investments – the funding assessment is shown below if the assumed rate of return were 6.50% rather than 6.85%.

Table C: Sensitivity: Funding Assessment at 6.5% Investment Return

Actuarial Present Value of Projected Benefits	Amount	Actuarial Present Value of Projected Income and Assets	Amount
Current Retirees			
Present Value of Benefits	\$395,517,096	Present Value of Active Contributions	\$74,094,791
Less: Retiree Self-Payments	<u>(124,756,858)</u>	Assets	1,013,336,520
Net Present Value of Benefits	\$270,760,238	Less: Statutory Reserve	<u>(34,171,427)</u>
Future Retirees		Total Income and Assets	<u>\$1,053,259,884</u>
Present Value of Benefits	\$633,687,840		
Less: Retiree Self-Payments	<u>(193,343,996)</u>		
Net Present Value of Benefits	\$440,343,844		
Present Value of HRA Benefits	<u>79,288,380</u>	Income and Assets in Excess of Projected Benefits	<u>\$262,867,422</u>
Total Present Value of Projected Benefits	<u>\$790,392,462</u>	Income and Assets as a Percentage of Projected Benefits	<u>133.3%</u>

Statutory reserve

Section 22-101B (b)(3)(ii) of the Illinois Pension Code requires the Board of Trustees of the Retiree Health Care Trust to maintain an appropriate funding reserve level which shall not be less than the amount of incurred and unreported claims plus 12 months of expected claims and administrative expenses.

Table D: Calculation of January 1, 2024 Statutory Reserve

1. 12 months of expected claims and administrative expenses	\$42,660,889
2. Less: 12 months of expected retiree and dependent contributions	<u>(11,236,162)</u>
3. 12 months of net expected claims and administrative expenses	31,424,727
4. Incurred and unreported claims ¹	<u>2,746,700</u>
5. Total statutory reserve: (3) + (4)	<u>\$34,171,427</u>

¹ Incurred but not reported claims represents the amount of claims that were incurred during a certain time period but have not yet been paid due to the timing difference between when the services were rendered and the day the claim was actually paid.

45% Test

Section 22-101B (b)(5) of the Illinois Pension Code states that the Board of Trustees shall have the discretion to provide different contribution levels for retirees, dependents and survivors based on their years of service, level of coverage or Medicare eligibility, provided that the total contribution from all retirees, dependents and survivors shall not be more than 45% of the total cost of such benefits. The term “total cost of such benefits” is the total amount expended by the retiree health benefit program in the prior plan year.

According to the preliminary December 31, 2023 balance sheet of the Chicago Transit Authority Retiree Health Care Trust, the aggregate amount of retiree, dependent, and survivor contributions for 2023 was \$11.6 million. The total cost of retiree health benefits paid from the Health Care Trust in 2022 was \$43.3 million. HRA benefits are excluded from the total cost of benefits; if they were included the percentage would be lower. Dental benefits and contributions are excluded from these totals, since the Fund does not provide dental benefits, but only serves as a “pass-through” for dental premiums.

Aggregate retiree, dependent, and survivor contributions in 2023 were less than 45% of the total cost of benefits in 2022.

Table E: 45% Test (Retiree Contributions Versus Cost of Benefits)

1. Aggregate retiree, dependent, and survivor contributions in 2023	\$11,618,097
2. Total cost of benefits in 2022	\$43,347,375
3. Retiree self-pay as a percentage of total cost of benefits: (1) / (2)	<u>26.8%</u>

Section 3: GASB 74 Disclosures

Accounting requirements

The Governmental Accounting Standards Board (GASB) issued a new accounting standard, Statement Number 74 – Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, which applies for fiscal years beginning after June 15, 2016. Under this statement, all state and local government entities that provide other post-employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standard supplements cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (i.e., a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are not offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the plan and plan members. The projection of benefits is not limited to legal or contractual limits on funding unless those limits clearly translate into benefit limits on the substantive plan being valued.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Section 4. This amount is then discounted to determine the Total OPEB Liability. The Net OPEB Liability (NOL) is the difference between the Total OPEB Liability and market value of assets in the Plan, called the Plan Fiduciary Net Position.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Plan Sponsor is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

Net OPEB liability

Chart 1: Net OPEB Liability

	December 31, 2023
Total OPEB Liability	\$615,235,547
Plan Fiduciary Net Position	<u>1,013,336,520</u>
Net OPEB Liability	(\$398,100,973)
Plan Fiduciary Net Position as a percentage of the Total OPEB Liability	164.71%

The Net OPEB Liability was measured as of December 31, 2023. Plan Fiduciary Net Position (plan assets) was valued as of the measurement date and the Total OPEB Liability was determined from the actuarial valuation as of December 31, 2023.

Actuarial assumptions. The Total OPEB Liability was measured by an actuarial valuation as December 31, 2023 used the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Actuarial cost method	Entry Age Normal, level percent of payroll
Asset valuation method	Market value
Salary increases	25% for less than 1 year of service, 18% for 1 year of service, 13% for 2 and 3 years of service, 7% for 4 years of service, and 3.75% thereafter
Discount rate	6.85%
Healthcare costs trend rates	
Non-Medicare	8.00% graded down to 4.50% over 14 years
Medicare	15.00%, then 9.00% graded down to 4.50% over 18 years
Mortality rates	
Healthy	SOA Public 2010 General Healthy Retiree Headcount-Weighted Below Median Mortality Tables, multiplied by 113% for females, with generational projection using Scale MP-2021
Disabled	SOA Public 2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables, with generational projection using Scale MP-2021

The actuarial assumptions used in the December 31, 2023 valuation were based on the results of actuarial experience studies completed in 2024.

Detailed information regarding all actuarial assumptions can be found in Section 4.

Development of long-term rate

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which best estimate ranges of expected future rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 2.40%. The target allocation and projected arithmetic real rates of return for each major asset class are summarized below:

Chart 2: Development of Long-Term Rate

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S Fixed Income	27%	1.80%
U.S. Equity	38%	6.60%
Non-U.S. Equity	12%	7.70%
Other	23%	5.38%

Discount rate

The discount rate used to measure the Total OPEB Liability was 6.85%. The projection of cash flows used to determine the discount rate assumed that active members will continue to contribute 1% of payroll. Based on those assumptions the Plan's fiduciary net position was projected to be available to make all projected future net benefit payments for current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the Total OPEB Liability.

The following presents the Net OPEB Liability, as well as what the Net OPEB Liability would be if it were calculated using a discount rate that is 1-percentage-point lower (5.85%) or 1-percentage-point higher (7.85%) than the current rate. Also shown is the Net OPEB Liability as if it were calculated using healthcare cost trend rates that were 1 percentage point lower or 1 percentage point higher than the current healthcare trend rates.

Chart 3: Sensitivity

	1% Decrease in Discount Rate (5.85%)	Current Discount Rate (6.85%)	1% Increase in Discount Rate (7.85%)
Net OPEB Liability (Asset)	(\$332,934,548)	(\$398,100,973)	(\$453,352,034)
	1% Decrease in Trend Rates	Current Trend Rates	1% Increase in Trend Rates
Net OPEB Liability (Asset)	(\$453,298,483)	(\$398,100,973)	(\$332,154,402)

Schedules of required supplementary information

Chart 4: Schedule of Change in Net OPEB Liability

	2017	2018	2019	2020	2021	2022	2023
Total OPEB Liability							
Service cost	\$17,056,064	\$16,248,895	\$14,467,096	\$14,679,935	\$14,494,046	\$13,941,889	\$12,443,896
Interest	49,442,226	48,344,035	42,238,580	43,520,614	41,293,312	42,869,767	36,951,351
Change of benefit terms	(231,265)	0	0	0	(6,836,572)	0	0
Differences between expected & actual experience	(15,636,958)	(4,438,778)	5,306,214	(22,326,324)	(15,467,426)	(19,418,962)	(8,618,439)
Changes of assumptions	(35,532,918)	(101,361,429)	(13,417,865)	(38,729,375)	19,971,491	(94,345,814)	60,135,894
Benefit payments net of retiree contributions	(28,370,831)	(31,586,009)	(30,450,777)	(29,731,301)	(29,217,319)	(30,560,184)	(25,338,073)
Net change in Total OPEB Liability	(13,273,682)	(72,793,286)	18,143,247	(32,586,451)	24,237,532	(87,513,304)	75,574,629
Total OPEB Liability – beginning	<u>703,446,862</u>	<u>690,173,180</u>	<u>617,379,894</u>	<u>635,523,141</u>	<u>602,936,690</u>	<u>627,174,222</u>	<u>539,660,918</u>
(a) Total OPEB Liability – ending	<u>690,173,180</u>	<u>617,379,894</u>	<u>635,523,141</u>	<u>602,936,690</u>	<u>627,174,222</u>	<u>539,660,918</u>	<u>615,235,547</u>
Plan Fiduciary Net Position							
Contributions – employer	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions – employee	21,205,666	23,300,031	24,039,187	23,370,519	23,285,858	9,192,177	8,654,675
Net investment income	111,133,146	(35,292,431)	138,082,960	114,601,568	130,551,028	(141,986,277)	112,259,907
Benefit payments net of retiree contributions	(28,370,831)	(31,586,009)	(30,450,777)	(29,731,301)	(29,217,319)	(30,560,184)	(25,338,073)
Administrative expense	(1,718,881)	(2,458,360)	(2,910,387)	(2,027,844)	(1,762,012)	(2,128,395)	(1,374,259)
Settlement payable	0	0	0	0	0	(80,000,000)	0
Net change in Plan Fiduciary Net Position	102,249,100	(46,036,769)	128,760,982	106,212,942	122,857,554	(245,482,678)	94,202,250
Plan Fiduciary Net Position – beginning	<u>750,573,139</u>	<u>852,822,239</u>	<u>806,785,470</u>	<u>935,546,452</u>	<u>1,041,759,394</u>	<u>1,164,616,949</u>	<u>919,134,270</u>
(b) Plan Fiduciary Net Position – ending	<u>852,822,239</u>	<u>806,785,470</u>	<u>935,546,452</u>	<u>1,041,759,394</u>	<u>1,164,616,949</u>	<u>919,134,270</u>	<u>1,013,336,520</u>
(c) Net OPEB Liability – ending (a) – (b)	<u>(162,649,059)</u>	<u>(189,405,576)</u>	<u>(300,023,311)</u>	<u>(438,822,704)</u>	<u>(537,442,727)</u>	<u>(379,473,352)</u>	<u>(398,100,973)</u>
Plan Fiduciary Net Position as a percentage of Total OPEB Liability: (b)/(a)	123.57%	130.68%	147.21%	172.78%	185.69%	170.32%	164.71%
Covered employee payroll	684,200,773	671,698,469	761,433,460	737,513,496	737,577,463	762,227,385	813,371,515
Plan Net OPEB Liability as percentage of covered employee payroll	(23.77%)	(28.20%)	(39.40%)	(59.50%)	(72.87%)	(49.78%)	(48.94%)

Chart 4: Schedule of Change in Net OPEB Liability (continued)

Notes to Schedule:

The above information is required beginning in 2017. A full 10-year trend will be compiled in future years.

Benefit changes:

2017: On April 27, 2017, the Trustees changed eligibility requirements for retirements on or after January 1, 2018 to be (1) separate from service at or after age 55 with at least 20 years of eligibility service, or (2) separate with at least 10 years of service and are at least age 65 at the time they enroll.

2017: Effective January 1, 2018, the HRA program was established.

2018: None.

2019: None.

2020: None.

2021: A 2021 amendment to the Illinois Pension Code (PA 102-0415) decreased the minimum active contribution rate from 3% of compensation to 1%. The Trustees lowered the active contribution rate from 3% to 1% effective January 1, 2022.

2022: None.

2023: None

Changes of assumptions:

2017: Valuation-year per capita health costs, retiree contribution rates, and future assumed trend rates on such costs and rates were updated.

2018: Valuation-year per capita health costs, retiree contribution rates, and future assumed trend rates on such costs and rates were updated. Assumed retirement, turnover, disability, and mortality rates and salary scale were modified. The percent of future retirees assumed to enroll in health care was decreased. The percent of future retirees assumed to enroll in the PPO versus HMO plans was changed to 85% PPO and 15% HMO for non-Medicare retirees and 95% PPO and 5% HMO for Medicare retirees. The percentage of future disabled retirees assumed to be on Medicare was decreased to 40% in the first two years of disability and 70% thereafter. The discount rate was lowered from 7.00% to 6.85%.

2019: Valuation-year retiree contribution rates remained unchanged rather than increasing as projected. Valuation-year per capita health costs and future assumed trend rates on such costs and rates were updated.

2020: Valuation-year per capita health costs, retiree contribution rates, and future assumed trend rates on such costs and rates were updated.

2021: Valuation-year per capita health costs, retiree contribution rates, and future assumed trend rates on such costs and rates were updated.

2022: Valuation-year per capita health costs, retiree contribution rates, and future assumed trend rates on such costs and rates were updated.

2023: Valuation-year per capita health costs, retiree contribution rates, and future assumed trend rates on such costs and rates were updated. Assumed retirement, turnover, disability, mortality rates and salary scale were modified. The assumed rate of turnover for non-Full Time Permanent employees was lowered from 15% to 12%. The percent of future retirees assumed to be married was decreased from 75% to 70%. The percent of retirees assumed to decline coverage was lowered from 100% to 75% of the percent of full cost paid by the retiree. The percent of future non-Medicare retirees assumed to enroll in the PPO was changed from 85% to 90%. The percentage of future disabled retirees assumed to be on Medicare was updated to 30% in the first two years of disability, 50% in the third year of disability, and 70% thereafter, and 50% of current non-Medicare disabled retirees who retired in the past two years are assumed to be Medicare eligible in two years.

Chart 5: Schedule of Investment Returns

Year	Annual Money Weighted Rate of Return, Net of Investment Expense
2023	12.3%
2022	-12.8%
2021	12.6%
2020	12.3%
2019	17.2%
2018	-4.2%
2017	14.9%
2016	6.2%
2015	-0.6%
2014	3.4%

Section 4: Supporting Information

Exhibit 1 - Summary of participant data

	January 1, 2023	January 1, 2024
Retirees and Disableds¹		
• Number of retirees and disableds	5,464	5,459
• Average age of retirees and disableds	72.7	72.7
• Number of spouses (not including dependent children)	1,734	1,739
• Average age of spouses	69.5	69.6
Surviving Spouses		
• Number	640	633
• Average age	79.9	80.3
Active Employees (including those not yet accruing service under the Retirement Plan)		
• Number	9,292	9,478
• Average age	46.4	45.7
• Average years of service for contribution schedule	10.9	10.1
• Average salary	\$87,712	\$93,499
Inactive Vested Participants		
• Number	107	103
• Average age	59.4	60.0
Separated Participants Only Eligible for HRA at Age 65		
• Number age 65 and older (enrolled or eligible to enroll)	1,633	1,702
• Average age	70.9	70.9
• Number under age 65	9,463	10,539
• Average age	45.5	45.7

¹ Excludes retirees receiving only dental benefits

Exhibit 2 – Summary of income and expenses

	Year Ended December 31, 2022	Year Ended December 31, 2023
Additions		
Employee contributions	\$9,192,177	\$8,654,675
Retiree contributions	14,408,030	13,449,431
Investment income (net of investment expenses)	<u>(141,986,277)</u>	<u>112,259,907</u>
Total Additions	\$(118,386,070)	\$134,364,013
Deductions		
Benefit payments (net of rebates)	\$44,968,214	\$38,787,504
Administrative expenses	2,128,395	1,374,259
Settlement payable	<u>80,000,000</u>	<u>0</u>
Total Deductions	\$127,096,609	\$40,161,763
Net increase (decrease)	(245,482,679)	94,202,250
Net assets available for benefits		
Beginning of year	\$1,164,616,949	\$919,134,270
End of year	\$919,134,270	\$1,013,336,520

Exhibit 3 – Statement of actuarial assumptions/methods

Valuation date

January 1, 2024

Data

Claims experience and premiums were provided by the Retiree Health Care Trust and by vendors hired by the Trust. Detailed census data was provided by Group Administrators and the Trust.

Economic assumptions

Net investment return

6.85%

Salary scale

Years of Service	Salary Increase
<1	25.00%
1	18.00%
2	13.00%
3	13.00%
4	7.00%
5+	3.75%

Demographic assumptions

Post-retirement mortality rates

Healthy: SOA Public 2010 General Healthy Retiree Headcount-Weighted Below Median Mortality Tables, multiplied by 113% for females, with generational projection from 2010 using Scale MP-2021

Disabled: SOA Public 2010 Non-Safety Disabled Retiree Headcount-Weighted Mortality Tables, with generational projection from 2010 using Scale MP-2021

Termination rates prior to retirement (%)

Age	Mortality, Male	Mortality, Female	Withdrawal, Service 10+	Disability, Male	Disability, Female
20	0.04	0.02	6.00	0.10	0.10
25	0.05	0.02	6.00	0.10	0.10
30	0.08	0.03	6.00	0.10	0.10
35	0.12	0.05	4.25	0.25	0.25
40	0.14	0.06	3.25	0.35	0.55
45	0.17	0.07	2.50	0.56	1.05
50	0.21	0.10	2.50	0.86	1.55
55	0.32	0.16	2.50	1.16	2.05

Mortality rates shown include generational projection to the census date for each age.

The following withdrawal rates apply to full-time permanent employees with less than 10 years of service:

Service	Male	Female
0-2	7.25	16.00
3-4	7.25	7.00
5	5.75	5.75
6	5.00	4.50
7-9	4.00	4.50

A withdrawal rate of 12% applies to non-full-time permanent employees.

Active retirement rates (%)

After meeting Pension eligibility, the following rates apply:

Age	25+years of service and hired <1/18/08 OR Age 64+ with 25+ years of service and hired 1/18/08+	<25 years of service OR Age <64 and hired 1/18/08+
45-50	18.00	N/A
51-54	14.00	N/A
55-60	19.25	2.60
61-63	30.00	9.60
64	30.00	17.60
65	42.50	37.50
66-74	30.00	33.00
75+	100.00	100.0

Pension eligibility is assumed to be as follows:

- Normal Retirement: Age 65
- Early Retirement if hired before 1/18/08: Age 55 with 3 years of service or any age with 25 years of service
- Early Retirement if hired on or after 1/18/08: Age 55 with 10 years of service or age 64 with 25 years of service

Retirement age for eligible inactives

Age 65.

Participation rate (%)

The percent of those eligible for coverage who are assumed to decline is equal to 75% of the percent of full cost paid by the retiree (based on contribution service at retirement). The resulting rates of retiree PPO enrollment for January 1, 2024 are as follows:

Service	Pre-Medicare	Medicare
35+	97.4	96.4
30-34	97.0	93.0
25-29	92.5	82.6
20-24	78.0	66.7
15-19	58.2	44.6
10-14	52.7	38.9
<10	44.4	31.3

Dependents and dependent participation rate (%)

70% of future retirees are assumed to be married, with husbands assumed to be three years older than their wives. The percent of spouses assumed to decline coverage is equal to 100% of the percent of full cost paid by the spouse (based on retiree's contribution service at retirement). The resulting rates of spouse PPO enrollment for January 1, 2024 are as follows:

Service	Pre-Medicare	Medicare
45+	96.5	95.2
40-44	88.2	83.3
35-39	75.6	65.1
30-34	66.5	51.8
25-29	54.6	37.0
20-24	48.0	31.5
15-19	44.3	26.1
10-14	36.9	18.5
<10	25.8	8.4

Plan election

90% of future pre-Medicare retirees are assumed to elect PPO coverage, and the remaining 10% elect HMO coverage. Once eligible for Medicare, 95% of future retirees are assumed to elect PPO coverage, and the remaining 5% elect HMO coverage.

Upon retirement, 30% of pre-65 disabled retirees are assumed to be eligible for Medicare, increasing to 50% eligible for Medicare two years after retirement and 70% after three years. 50% of current non-Medicare disableds who retired in the last two years are assumed to become eligible for Medicare after two years. All pre-Medicare disabled retirees are assumed to elect PPO coverage.

Missing participant data

A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known. For those hired in 2023, salaries were annualized. For employees whose 2023 earnings were less than \$20,000, an annual rate of \$30,000 was assumed. Those currently in part-time status are assumed to attain full time permanent status in the coming year at a salary of \$50,000.

Service for eligibility

Future accruals assumed to equal one credit per year.

Service for contribution schedule

Future accruals assumed to be equal to an average of 2022 and 2023 hours divided by 2,080 for non-salaried actives. If hired in 2022, only 2023 hours are used. If hired in 2023 or currently part-time, participants earn one credit in each future year. Salaried actives earn one year of service each year.

Per capita cost development:

PPO medical

Per capita claims costs were based on actual retiree paid claim experience for the period July 1, 2020 through June 30, 2023, including PPO fees. Claims were adjusted as follows:

- total adjusted claims were divided by the number of adult members to yield a per capita claim,
- the per capita claim was trended to the midpoint of the valuation year at assumed trend rates, and
- the per capita claim was adjusted for the effect of any plan changes.

Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. ASO fees were added to the average claim. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.

PPO prescription drugs

Per capita claims costs were based on actual retiree paid claim experience for the period July 1, 2020 through June 30, 2023. Claims were then adjusted as follows:

- total adjusted claims were divided by the number of adult members to yield a per capita claim,
- the per capita claim was trended to the midpoint of the valuation year at assumed trend rates,
- the per capita claim was adjusted for the effect of any plan changes, and
- the per-capita prescription drug claims were decreased for estimated prescription drug rebates.

Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.

Aetna HMO

Per capita claims costs were based on actual retiree paid claim experience for the period July 1, 2020 through June 30, 2023. Claims were separated by plan year and claim type (medical versus prescription drug), then adjusted as follows:

- total adjusted claims were divided by the number of adult members to yield a per capita claim,
- the per capita claim was trended to the midpoint of the valuation year at assumed trend rates, and
- the per capita claim was adjusted for the effect of any plan changes.

Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. Medical and prescription drug per capita costs were combined, and ASO fees were added to the average claim. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.

MAPD PPO

Based on January 1, 2024 premium rates for Humana Medicare Advantage Prescription Drug (MAPD) PPO plan. Actuarial factors were then applied to estimate individual retiree and spouse costs by age and by gender.

MAPD HMO

Based on January 1, 2024 premium rates for Humana Medicare Advantage Prescription Drug (MAPD) HMO plan. Actuarial factors were then applied to estimate individual retiree and spouse costs by age and by gender.

Administrative expenses

Administrative expenses were based on experience furnished by the Plan Administrator for the period January 1, 2020 through December 31, 2022. Expenses were separated by plan year and trended to the valuation date. Expenses were then divided by the number of adult members to yield a per participant cost.

Per capita health costs

Medical and prescription drug claims costs for the plan year beginning January 1, 2024 are shown in the table below for retirees at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Age	PPO Medical, Male	PPO Medical, Female	PPO Prescription Drug, Male	PPO Prescription Drug, Female	Aetna HMO, Male	Aetna HMO, Female
55	\$11,694	\$11,879	\$3,341	\$3,394	\$10,782	\$10,952
60	13,465	12,877	3,847	3,679	12,414	11,872
64	16,364	13,980	4,675	3,994	15,086	12,889

Age	MAPD PPO, Male	MAPD PPO, Female	MAPD HMO, Male	MAPD HMO, Female
55	\$1,632	\$1,632	\$820	\$820
60	1,632	1,632	820	820
64	1,632	1,632	820	820
65	1,730	1,437	869	722
70	1,943	1,607	976	807
75	2,146	1,690	1,078	849

Administrative expenses of \$334 per participant were added to projected incurred claims costs.

Health care cost trend rates (%)

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above.

Year Ending December 31,	Non-Medicare PPO & HMO	MAPD PPO & HMO	Fees and Administrative Expenses
2024	8.00%	15.00%	3.00%
2025	7.75%	9.00%	3.00%
2026	7.50%	8.75%	3.00%
2027	7.25%	8.50%	3.00%
2028	7.00%	8.25%	3.00%
2029	6.75%	8.00%	3.00%
2030	6.50%	7.75%	3.00%
2031	6.25%	7.50%	3.00%
2032	6.00%	7.25%	3.00%
2033	5.75%	7.00%	3.00%
2034	5.50%	6.75%	3.00%
2035	5.25%	6.50%	3.00%
2036	5.00%	6.25%	3.00%
2037	4.75%	6.00%	3.00%
2038	4.50%	5.75%	3.00%
2039	4.50%	5.50%	3.00%
2040	4.50%	5.25%	3.00%
2041	4.50%	5.00%	3.00%
2042	4.50%	4.75%	3.00%
2043 & Later	4.50%	4.50%	3.00%

Retiree contribution increase rate

Retiree and dependent contribution rates were assumed to increase at medical and prescription drug trend.

Active contributions

1.00% of pay in all future years.

Plan design

Development of plan liabilities was based on the plan of benefits in effect as described in a subsequent appendix. No information was available regarding accumulations toward lifetime maximum benefits and no such accumulations were assumed. The cost of dental coverage was not included in this valuation since retirees and dependents pay the full cost for this coverage.

Health care legislation

This is a retiree-only plan, and most aspects of the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 do not apply. The valuation does not include the potential impact of any future changes due to prior or pending legislation, unless otherwise noted.

The Inflation Reduction Act of 2022 (IRA) includes material benefit cost-sharing changes for 2025, most notably implementing a \$2,000 member out-of-pocket maximum, as well as various funding changes that are used to reduce costs for Medicare prescription drug plans. Both changes are expected to significantly increase costs for the Plan. Our projections include an estimated impact of the IRA on the Plan's Medicare prescription drug costs in calendar year 2025 based on preliminary information.

Models

Segal accounting results are based on proprietary actuarial modeling software. The accounting valuation models generate a comprehensive set of liability and cost calculations that are presented to meet accounting standards and client requirements. Our Actuarial Technology and Systems unit, comprising both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

The results are also based on models for cost projections developed by Segal actuaries and programmers. The client team customizes and validates the models, and reviews the results, under the supervision of the responsible actuary.

Our claims costs assumptions are based on proprietary modeling software as well as models that were developed by others. These models generate per capita claims cost calculations that are used in our valuation software. Our Health Technical Services Unit, comprised of actuaries and programmers, is responsible for the initial development and maintenance of our health models. They are also responsible for testing models that we purchase from other vendors for reasonableness. The client team inputs the paid claims, enrollments, plan provisions and assumptions into these models and reviews the results for reasonableness, under the supervision of the responsible actuary.

Rational for actuarial assumptions

Rates of mortality, turnover, disability, and retirement, salary increases, and the rate of inflation were based on an experience study completed to determine assumptions for the January 1, 2024 through January 1, 2028 valuations of the Retirement Plan for CTA Employees. The analysis was based on historical data and projections for the five-year period ending December 31, 2022. The mortality tables were determined to reasonably provide for future mortality improvement.

Rates of retiree and spouse participation, plan election assumptions, the percent of disabled participants eligible for Medicare, and rates of turnover for participants who are not full time permanent employees were based on an experience study completed to determine assumptions for the January 1, 2024 through January 1, 2028 valuations of the CTA RHCT. The analysis was based on historical data and projections for various periods ending December 31, 2023.

The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. The investment manager and the Trustees review and adjust the Plan's target asset allocation on a near annual basis. An analysis is then completed on the target asset allocation. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation.

The trend rate assumptions were developed using data sources such as the Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

Exhibit 4 – Summary of plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the valuation date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Active contributions

1% of pay since January 1, 2022.

Eligibility

Health benefit eligibility

Retirement:

- Age 55 with 20 years of service, or
- Separate with at least 10 years of service and at least age 65 at time of enrollment.

Disability:

- 5 years of service if covered under Workmen's Compensation; or
- 10 years of service.

Participants are not eligible for retiree health benefits if they cash-out their pension benefits.

Service for eligibility purposes

Pension service to January 18, 2008 plus RHCT service after January 17, 2008. After January 17, 2008, employees accrue one year of service for every plan year worked.

Service for contribution schedule

Pension service to January 18, 2008 plus RHCT service after January 17, 2008. After January 17, 2008, salaried employees accrue one year of service for every plan year worked, and non-salaried employees earn service based on the actual hours worked in the plan year divided by 2,080 hours.

Benefits

Benefit types

Medical and prescription drug. Dental is available at full cost.

Duration of coverage

Lifetime.

Dependent benefits

Medical and prescription drug. Dental is available at full cost.

Dependent coverage

Eligible dependents covered during retirement may continue coverage after the death of the retiree.

HRA

The Trustees established a health reimbursement account (HRA) for retirees and former employees, and their survivors, who have contributed to the Retiree Health Care Trust but either (1) do not satisfy the eligibility requirements for retiree health coverage, or (2) satisfy the eligibility requirements but decline coverage prior to retirement. Upon reaching age 65, the HRA provides reimbursement for allowable expenses, not to exceed the retiree's total active contributions. To begin using the HRA balance, participants must enroll for a debit card. Once enrolled, an annual fee is deducted from the HRA balance. If a participant enrolls in the HRA, they can never enroll in the RHCT health care benefits and vice versa.

Retiree contributions

Self-pay rates depend on service at retirement and Medicare status. Self-pay rates for disabled retirees depend on Medicare status and service at time of disability. The monthly rates effective January 1, 2024 are shown below.

Non-Medicare

Service	Retiree PPO	Retiree HMO	Dependent(s) or Surviving Spouse PPO	Dependent(s) or Surviving Spouse HMO
45+	\$51	\$42	\$51	\$42
40-44	51	42	172	142
35-39	51	42	355	292
30-34	58	53	488	401
25-29	145	149	661	541
20-24	485	444	756	691
15-19	810	740	810	740
10-14	918	838	918	838
Less than 10	1,080	987	1,080	987

Medicare

Service	Retiree PPO	Retiree HMO	Dependent(s) or Surviving Spouse PPO	Dependent(s) or Surviving Spouse HMO
45+	\$9	\$5	\$9	\$5
40-44	9	5	32	17
35-39	9	5	66	37
30-34	18	10	91	50
25-29	44	25	119	66
20-24	84	47	130	71
15-19	140	78	140	78
10-14	154	85	154	85
Less than 10	173	93	173	93

Benefit descriptions

Non-Medicare

	Aetna PPO	Aetna HMO
Medical		
Annual Deductible	\$390 individual/\$780 family	Not applicable
Annual Out-of-Pocket Maximum (after deductible)	\$3,901 individual/ \$7,802 family in-network, \$5,202 individual/ \$10,404 family out-of-network	\$1,500 individual/ \$3,000 family
Lifetime Maximum	\$2,000,000 per person	Unlimited
Coinsurance (after deductible)	90% in-network, 60% out-of-network	100% after co-pays
Prescription Drug copays		
Generic	\$13 retail, \$26 mail	\$5 retail, \$10 mail
Brand Formulary if no Generic	\$26 retail, \$52 mail	\$10 retail, \$20 mail
Brand Non-Formulary or Brand with Generic	\$65 retail, \$130 mail	\$25 retail, \$50 mail

* Retail is 30-day, mail is 90-day. PPO has mandatory mail-order for 2nd refill

Medicare

	Humana MAPD PPO & HMO
Medical	
Annual Deductible	\$390 individual/\$780 family
Annual Out-of-Pocket Maximum (after deductible)	\$3,901 individual/\$7,802 family
Lifetime Maximum	Unlimited
Prescription Drug copays	
Generic	\$5 retail, \$10 mail
Brand Formulary if no Generic	\$15 retail, \$31 mail
Brand Non-Formulary or Brand with Generic	\$41 retail, \$82 mail

Humana MAPD PPO and HMO have the same plan provisions but HMO has a smaller network of providers.