



**AQUARIUS
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CHAPPAQUA CENTRAL SCHOOL DISTRICT

OTHER POSTEMPLOYMENT BENEFITS (OPEB) REPORTING IN ACCORDANCE WITH GASB 74/75 FISCAL YEAR JULY 1, 2021 TO JUNE 30, 2022

**Prepared by: AQUARIUS CAPITAL SOLUTIONS GROUP LLC
Date: August 11, 2022**



August 11, 2022

Mr. Andrew B. Lennon
Assistant Superintendent for Business
Chappaqua Central School District
66 Roaring Brook Road
Chappaqua, NY 10514

Re: Report - GASB 74/75 Valuation for Fiscal Year July 1, 2021 to June 30, 2022

Dear Mr. Lennon:

Enclosed is an analysis of estimated liabilities for other postemployment benefits (OPEB) under Government Accounting Standards Board (GASB) No. 74/75 for the Chappaqua Central School District (the "District"). The valuation was done for fiscal year July 1, 2021 to June 30, 2022 for the District. The attached report was completed in accordance with generally accepted actuarial principles and practices.

The calculations contained herein are done for the sole purpose of reporting GASB 75 results for the audited financial statements. Fiscal year July 1, 2017 to June 30, 2018 was the first year of implementation for GASB 75 for the District, thus, fiscal year July 1, 2021 to June 30, 2022 is the fifth year of GASB 75 reporting.

Financial Results

Included in the analysis is a Table of Contents. Sections I-II of the report, which is six pages, includes the financial forecast for GASB 75 for the District. The Net OPEB Liability as of year-end June 30, 2022 is \$237.110 million, which is based on the projected pay-as-you-go results for fiscal year July 1, 2021 to June 30, 2022.

Pages 1-6 of the report illustrate the financial projections for the plan as of year-end June 30, 2022 to assist your auditors with accounting for the respective plan year. Although the auditors may only require pages 1-6, we recommend forwarding the report in its entirety. The remainder of the report will include additional documentation and disclosures.

Results for this valuation are based on census information provided by your organization in July 2022. This is based on a total of 1,036 active employees and retirees, reflecting the sum of 648 active employees and 388 retirees. The report includes 213 active employees that are eligible to retire, representing 32.9% of the active employee population. The report also includes 131 employees (120 actives and 11 retirees) that waived coverage, which is described further in the report.

Covered Benefits and Claim Cost Assumptions

The District provides post-employment medical benefits, including prescription drug benefits, as part of the medical plan on a fully insured basis through the Putnam Northern Westchester Health Benefits Consortium (the "Consortium"). A second plan was available through Empire Blue Cross/Blue Shield, which was a change from Emblem Health, effective July 1, 2012. However, this second plan was discontinued effective July 1, 2016 so not reflected in the valuation. As a result, active and retirees were only participate in the Consortium medical plan, effective July 1, 2017. Furthermore, premium rates for the Consortium are reflected through June 30, 2023 since these rates were available for this valuation.

A summary of benefits and eligibility are provided in this documentation for illustrative purposes in order to understand the types of benefits reflected in the valuation. We recommend reviewing the District's plan document for details on eligibility and covered benefits. Information in this report should not be used instead of the District's plan document and/or summary plan description.

Base plan costs are based on premium rates for the Consortium plan. Fully insured premium rates effective July 1, 2021 and July 1, 2022 for pre-65 and post-65 retirees are outlined in Section VI, page 15 of this report. These premium rates are assumed to include all administrative expenses and PPACA fees due at this time. It is further assumed that the premium rates do not contain a cross subsidy of costs between the pre-65 costs and post-65 costs.

Sensitivity Analysis

Section I (page 3) of the report includes a sensitivity analysis as of fiscal year-end June 30, 2022 based on varying the discount interest rate and the healthcare cost inflation rate (trend) for GASB 74/75. We illustrate two scenarios for each variable of discount rate and trend rate as prescribed under GASB 74/75.

The discount rate used was 3.77%, which is based on a beginning of year measurement date of 6/30/21 and is consistent with the prescribed discount rate methodology under GASB 74/75. The prior valuation discount rate was 2.10%. Details of the discount rate assumption are described further in the report in Section IV, page 10.

Overview of Deferred Inflows and Deferred Outflows

Fiscal year July 1, 2021 to June 30, 2022 is the fifth year under GASB 75 reporting for the District. As such, deferred inflows and outflows are calculated along with the amortization of those inflows/outflows and are illustrated in Section I, pages 4-5 of the report in sub-sections F, G, H, and I. Total deferred inflows for the 2021-2022 plan year of \$17.892 million on page 4 (line 4 of sub-section F) reflects a decrease in the total OPEB liability as of July 1, 2021 from the prior implemented liability through yearend June 30, 2021 and is driven by the following:

- Change in discount rate assumption from 2.10% to 3.77% decreased the liability.
- Change in other assumptions (e.g., decrement tables) since the prior valuation.

The liability decrease is partially offset by changes census demographics (e.g., higher average years of service, percentage vested employees, percentage pre-65 retirees, and percentage family contracts) since the prior valuation.

The amortization of the current year deferred inflows and outflows is also reflected on page 4 of the report (sub-section G). An amortization schedule that includes the current year and prior years amortization amounts is included on page 5 of the report (sub-section H).

Also included on page 5 are initial and remaining balances of all current and prior amortization amounts reflecting a total amortization expense of \$5.699 million for FY 2021-2022 and total yearend June 30, 2022 balance of \$13.641 million for the net deferred inflows/outflows. Sub-section I, on page 5 of report also includes a projection schedule of the recognized amortization expense and unamortized balances by fiscal year end.

Demographic Information

Section III of the report illustrates additional information pertaining to the underlying census information including age and sex analysis for active and retired employees along with summaries of the active population by age and years of service. Census analysis is illustrated separately for actives and retirees. As part of the report, we also included a comparison of census demographic information to the prior valuation report of July 1, 2019. This is highlighted on pages 7 through 9 of the report.

Assumptions & Definitions

As part of this report, we included supporting documentation such as a summary of assumptions and key definitions (glossary), which are provided in Sections IV through VI. This includes assumptions for health care costs, contribution rates, healthcare inflation, decrement tables (e.g., probability of death, turnover, disability, and retirement) and other provisions.

The GASB 74/75 results on pages 1-6 are based on the assumptions and cost methods as prescribed under GASB 74/75 (e.g., discount rate, aging requirements, actuarial cost method under Entry Age Normal, etc.) See pages 10-15 for details on assumptions and definitions.

The mortality tables used for this valuation is based on the Society of Actuaries Pub-2010 Public Retirement Plans Healthy Male and Female Total Dataset Headcount-Weighted Mortality tables using Employee and Healthy Annuitant Tables for both pre- and post-retirement projected with mortality improvements using the most current Society of Actuaries Mortality Improvement Scale MP-2021.

The valuation is based on the decrement tables from the New York State Employees' Retirement System (ERS), the New York State Police and Fire Retirement System (PFRS), and the New York State Teachers' Retirement System (TRS). The decrement tables used in this valuation are based on the ERS and PFRS tables released in 2020 and the TRS tables released in 2021. The current valuation reflects enrollment in the ERS and TRS only since no employees participated in the PFRS system.

The Patient Protection and Affordable Care Act (PPACA) enacted in March 2010 (Healthcare Reform) includes several fees and/or taxes levied on employer groups either directly (e.g., self-funded employer groups which calculates and pays the fees directly) or indirectly (e.g., fully insured groups in which the health insurer pays and passes on to the group in their premium rates). Fees associated with PPACA are reflected as appropriate in the valuation and described in detail on page 11 of the report.

COVID-19 Pandemic

There have been no special adjustments or considerations made to valuation results due to the COVID-19 pandemic. Since the District is not funding this benefit in a separate OPEB trust, no special considerations were made for the impact on assets. Similarly, no special adjustments were made to the OPEB liability calculations. The impact of COVID-19 will be reviewed in future years including the potential impact on selected assumptions (e.g., mortality, morbidity, etc.).

Projected Pay-As-You-Go and OPEB Liability Projections for Twenty (20) Years

We included a forecast of the projected pay-as-you-go for twenty (20) years. This is illustrated on page 16 of the report. Furthermore, we included a forecast of the OPEB Liability during the same time period for illustrative purposes.

Additional Seventy-Nine (79) Scenarios

Similar to last year, we incorporated additional scenarios for the valuation as requested by the District, which are illustrated on pages 18-19. All scenarios are identical to the prior year. This includes forty-nine (49) combinations of discount rate and healthcare cost inflation rate, which are illustrated on page 18 of the report. This is similar to the number of scenarios in the prior valuation.

Also included are thirty (30) combinations of future retiree contribution rates (illustrative percentages) and the ultimate healthcare inflation rates. It should be noted that the retiree contribution rates are scenarios for illustrative purposes and have not been implemented or negotiated. Retiree contribution rate scenarios assume that current retiree contribution rates will not change and changes to retiree contribution rates would only apply to current actives that would retire in the future.

Similar to past years, the thirty (30) scenarios reflect the use of the same contribution rate for all future retirees, regardless of union or employment class. These scenarios are illustrated on page 19 of the report.

The ultimate healthcare inflation rates for all seventy-nine (79) scenarios on pages 18-19 are applied for years 2035 and later. All other assumptions are based on the valuation assumptions in the report. These scenarios are illustrated as of July 1, 2021, which is the beginning of the fiscal year to be consistent with the prior year's analysis.

Information Reviewed

We based our analysis on reviewing electronic census information provided in July 2022 (record-by-record review), retiree plan information, cost information (e.g., premium rates through June 30, 2023), year-end audited financial statements as of June 30, 2021, and other summary information of retiree benefits and eligibility. We also gathered additional information from the District through emails and other correspondence to confirm retiree benefit information, census confirmations, and assumptions. Salary information was also incorporated into the valuation to reflect the prescribed actuarial cost method for GASB75.

A summary of benefits and eligibility are provided in this report for illustrative purposes in order to understand the types of benefits reflected in the valuation. We recommend reviewing your organization's plan document for details on eligibility and covered benefits. Information in this report should not be used instead of the plan document and/or summary plan description.

The projected Net OPEB Liability as of June 30, 2022 reflects the projected pay-as-you-go results for fiscal year July 1, 2021 to June 30, 2022.

Data Reliance & Limitations

In our review, we have relied on the information provided by the District. We have not audited or verified the accuracy of the information provided. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

This report and all attachments contained herein are for the internal use of the District. It may not be provided to other parties without prior consent. If consent is granted, the report must be provided in its entirety. We understand the District intends to distribute this letter and attachments to its auditor in connection with the reporting of results of this report for the sole use of preparation of audited financial statements. Aquarius consents to this distribution as long as the report is provided in its entirety and the auditor is advised to have an actuary review the work.

This report is provided to the District for the purpose of calculating results under GASB 75. Information in this report may not be appropriate to use for other purposes. Aquarius does not intend to benefit from the overall results of the report, and we assume no duty, liability or obligation to parties that use this work for other reasons other than its intention, *i.e.*, reporting of GASB 75 for financial statements.

Furthermore, our understanding is that the District does not maintain assets in a separate irrevocable OPEB trust, so no disclosure reporting would be required under GASB 74. If the District elects to set up an OPEB trust and contribute assets towards the plan, then please let us know so that we can reflect accordingly, including providing any additional disclosures that may be required under GASB 74.

Actuarial Opinion

I, Michael L. Frank, ASA, FCA, MAAA, am President and Actuary of Aquarius Capital Solutions Group LLC. I am an Associate of the Society of Actuaries, Fellow of Conference of Consulting Actuaries, and Member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The attached report was completed in accordance with generally accepted actuarial principles and practices.

Independence Certification

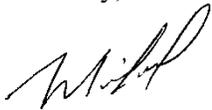
Our organization and its employees are independent of the District and do not have any conflicts of interest as it relates to the services performed on behalf of the District in the preparation of this report.

August 11, 2022
Page 6

We hope that this report is beneficial. When convenient, please contact me so that we can schedule a call or meeting to review the report in more detail. We are available to walk through the report with your auditors as well to assist with the implementation of GASB 74/75 reporting for the current fiscal year.

In addition, please extend thanks to you and your team for assistance in the gathering of information to help us complete this analysis. Their assistance was much appreciated. We look forward to working with you in the future.

Sincerely,



Michael L. Frank, A.S.A., M.A.A.A., F.C.A.
President & Actuary
American Academy of Actuaries ID No. 21342

cc: Donald Rusconi – Aquarius Capital

Enclosure



Chappaqua Central School District
Valuation Estimates under GASB No. 75 valued as of July 1, 2021

CHAPPAQUA CENTRAL SCHOOL DISTRICT

GASB NO. 74 & 75

VALUATION AS OF JULY 1, 2021

Prepared by: Aquarius Capital Solutions Group LLC
August 11, 2022



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Chappaqua Central School District
Valuation Estimates under GASB No. 75 valued as of July 1, 2021

SECTION I: GASB NO. 74/75 REPORTING TO YEAR END JUNE 30, 2022 REPORTING

(Implementation Year for GASB 74/75 is July 1, 2017 to June 30, 2018)

Section A: Reported OPEB Liability as of Year End June 30, 2022

1 Discount Rate		3.77%
2 Present Value of Future Benefits as of Year End June 30, 2022	\$	305,329,443
3 Total OPEB Liability as of Year End June 30, 2022	\$	237,110,037
4 Plan Fiduciary Net Position as of Year End June 30, 2022	\$	-
5 Net OPEB Liability as of Year End June 30, 2022: (3) - (4)	\$	237,110,037
6 Plan Fiduciary Net Position as a Percentage of OPEB Liability: (4) / (3)		0.00%
7 Total Annual Salary (Compensation) based on Valuation Census Information	\$	64,251,967
8 Net OPEB Liability as a Percentage of Annual Salary: (5) / (7)		369.03%
9 Total Employee Census Counts for Valuation		
a. Active Employees		648
b. Retired Employees (incl. vested terminations)		388
c. Subtotal: (8a) + (8b)		1,036

Section B: Projected Expense Calculation as of Year End June 30, 2022

1 Service Cost with Interest to Year End - Period July 1, 2021 to June 30, 2022	\$	6,049,375
2 Interest Cost - Period July 1, 2021 to June 30, 2022		
a. Discount Rate		3.77%
b. Total OPEB Liability as of July 1, 2021	\$	246,230,540
c. Actual Benefit Payments - Illustrated as Project for Period July 1, 2021 to June 30, 2022	\$	6,439,609
d. Interest Cost: (2a) x [(2b) - (2c) / 2]	\$	9,161,505
3 Investment Return - Illustrated as Expected for Period July 1, 2021 to June 30, 2022 (Illustrated results based on expected return)	\$	-
4 Employee Contributions - Period July 1, 2021 to June 30, 2022 (Amount is illustrated as zero since employer contributions are illustrated net of employee contributions)	\$	-
5 Administrative Expenses	\$	-
6 Plan Changes	\$	-
7 Amortization of Unrecognized Amounts		
a. Liability (Gain)/Loss (Page 5, Section H, Line 6)	\$	5,699,121
b. Asset (Gain)/Loss	\$	-
c. Net (Gain)/Loss: (7a) + (7b)	\$	5,699,121
8 Total Expense - Period July 1, 2021 to June 30, 2022 (1) + (2d) + (3) + (4) + (5) + (6) + (7c)	\$	20,910,001

Notes:

1. Employee contributions are illustrated above as zero since benefit payments are illustrated net of employee contributions.



SECTION I: GASB NO. 74/75 REPORTING TO YEAR END JUNE 30, 2022 REPORTING (CONTINUED)

(Implementation Year for GASB 74/75 is July 1, 2017 to June 30, 2018)

Section C: Reconciliation of Net OPEB Liability as of Year End June 30, 2022

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
1 Balance Recognized as of Beginning of Year (End of Prior Year) (Prior year audit report matches the prior actuarial report as of 6/30/21)	\$ 246,230,540	\$ -	\$ 246,230,540
2 Changes Recognized for Fiscal Year			
a. Service Cost: Section B, Line 1	\$ 6,049,375	\$ -	\$ 6,049,375
b. Interest on Total OPEB Liability: Section B, Line 2d	\$ 9,161,505	\$ -	\$ 9,161,505
c. Change in Benefit Terms: Section B, Line 6	\$ -	\$ -	\$ -
d. Change in Expected to Actual	\$ -	\$ -	\$ -
e. Changes in Assumptions	\$ (17,891,774)	\$ -	\$ (17,891,774)
f. Benefit Payments: Section B, Line 2c	\$ (6,439,609)	\$ (6,439,609)	\$ -
g. Contributions from Employer	\$ -	\$ 6,439,609	\$ (6,439,609)
h. Contributions from Employees	\$ -	\$ -	\$ -
i. Net Investment Income: Section B, Line 3	\$ -	\$ -	\$ -
j. Administrative Expenses: Section B, Line 5	\$ -	\$ -	\$ -
k. Net Changes: (a) + ... + (j)	\$ (9,120,503)	\$ -	\$ (9,120,503)
3 Balance Recognized as of End Year - June 30, 2022 (1) + (2k)	\$ 237,110,037	\$ -	\$ 237,110,037

Notes:

- Employee contributions are illustrated above as zero since benefit payments are illustrated net of employee contributions.



SECTION I: GASB NO. 74/75 REPORTING TO YEAR END JUNE 30, 2022 REPORTING (CONTINUED)

(Implementation Year for GASB 74/75 is July 1, 2017 to June 30, 2018)

Section D: Discount (Interest) Rate Sensitivity as of Year End June 30, 2022

	Current Valuation Discount Rate <u>3.77%</u>		Discount Rate Less 1% <u>2.77%</u>		Discount Rate Plus 1% <u>4.77%</u>
1 Total OPEB Liability as of Year End June 30, 2022					
a. OPEB Liability	\$ 237,110,037	\$	281,229,595	\$	202,545,575
b. Ratio to Current Valuation Assumptions	n/a		118.61%		85.42%
2 Plan Fiduciary Net Position as of Year End June 30, 2022					
a. Plan Fiduciary Net Position	\$ -	\$	-	\$	-
b. Ratio to Current Valuation Assumptions	n/a		n/a		n/a
3 Net OPEB Liability as of Year End June 30, 2022					
a. OPEB Liability: (1a) - (2a)	\$ 237,110,037	\$	281,229,595	\$	202,545,575
b. Ratio to Current Valuation Assumptions	n/a		118.61%		85.42%

Note: Sensitivity analysis for discount (interest) rate is illustrated as of end of year.

Section E: Healthcare Cost Inflation (Trend) Rate Sensitivity as of Year End June 30, 2022

	Current Valuation Discount Rate		Trend Rate Less 1%		Trend Rate Plus 1%
1 OPEB Liability as of Year End June 30, 2022					
a. OPEB Liability	\$ 237,110,037	\$	199,378,944	\$	286,344,977
b. Ratio to Current Valuation Assumptions	n/a		84.09%		120.76%
2 Plan Fiduciary Net Position as of Year End June 30, 2022					
a. Plan Fiduciary Net Position	\$ -	\$	-	\$	-
b. Ratio to Current Valuation Assumptions	n/a		n/a		n/a
3 Net OPEB Liability as of Year End June 30, 2022					
a. OPEB Liability: (1a) - (2a)	\$ 237,110,037	\$	199,378,944	\$	286,344,977
b. Ratio to Current Valuation Assumptions	n/a		84.09%		120.76%

Note: Sensitivity analysis for healthcare cost inflation (trend) rate is illustrated as of end of year.



SECTION I: GASB NO. 74/75 REPORTING TO YEAR END JUNE 30, 2022 REPORTING (CONTINUED)

(Implementation Year for GASB 74/75 is July 1, 2017 to June 30, 2018)

Section F: Summary of Deferred Inflows & Outflows for 2021/22 Plan Year Valuation Only

	Deferred <u>Outflows</u>	Deferred <u>Inflows</u>
1 Difference Between Actual and Expected Experience (Page 2, Line 2d)	\$ -	\$ -
2 Net Difference Between Expected and Actual Earnings on OPEB Investments (Page 2, Line 2d)	\$ -	\$ -
3 Impact due to Changes in Assumptions (Page 2, Line 2e)	\$ -	\$ 17,891,774
4 Total for 2021/22 Plan Year Valuation: (1) + (2) + (3)	\$ -	\$ 17,891,774

Note: The deferred inflow (actuarial gain) of \$17.892 million in line 3 above is driven by an increase in discount rate from 2.09% to 3.77% plus changes in assumptions (e.g., plan costs, decrement tables, etc.) and the liability decrease is partially offset by changes in census demographics (e.g., higher average years of service, percentage vested employees, percentage pre-65 retirees, and percentage family contracts) since the prior valuation.

Section G: Amortization of Deferred Inflows & Outflows for 2021/22 Plan Year Valuation Only

1 Amortization of Difference Between Actual and Expected Experience

a. Difference Between Actual and Expected Experience: (Section F, Line 1)	\$ -	
b. Amortization Period in Years: Average Expected Future Working Lifetime		7 Years
c. Annual Amortization Payment for Current Period: (1a) / (1b)	\$ -	
d. Remaining 2021/22 Balance as of the end of the Fiscal Year: (1a) - (1c)	\$ -	

2 Amortization of Net Difference Between Expected and Actual Earnings on OPEB Investments

a. Difference Between Actual and Expected Experience: (Section F, Line 2)	\$ -	
b. Amortization Period in Years (Five Years)		5 Years
c. Annual Amortization Payment: (2a) / (2b)	\$ -	
d. Remaining 2021/22 Balance as of the end of the Fiscal Year: (2a) - (2c)	\$ -	

3 Amortization of Impact due to Changes in Assumptions

a. Impact due to Changes in Assumptions: (Section F, Line 3)	\$ (17,891,774)	
b. Amortization Period in Years: Average Expected Future Working Lifetime		7 Years
c. Annual Amortization Payment: (3a) / (3b)	\$ (2,555,968)	
d. Remaining 2021/22 Balance as of the end of the Fiscal Year: (3a) - (3c)	\$ (15,335,806)	

Notes:

1. See page 5, section H for historical schedule of amortization payments.



SECTION I: GASB NO. 74/75 REPORTING TO YEAR END JUNE 30, 2022 REPORTING (CONTINUED)

(Implementation Year for GASB 74/75 is July 1, 2017 to June 30, 2018)

Section H: Amortization Schedule of Deferred Inflows & Outflows as of Year End June 30, 2022

Amortized Item	Initial Year	Amortization Period in Years	Initial Balance	Beginning of Year Unamortized Balance	Amortization Amount for FY End 6/30/22	End of Year Unamortized Balance
Deferred Outflows						
1 Change in Assumptions - Note 1	FY End 6/30/18	n/a	\$ -	\$ -	\$ -	\$ -
2 Deferred Inflows Change in Assumptions - Note 2	FY End 6/30/19	6	\$ (5,478,137)	\$ (2,739,068)	\$ (913,023)	\$ (1,826,045)
Deferred Outflows						
3 Change in Assumptions - Note 3	FY End 6/30/20	6	\$ 35,219,027	\$ 23,479,351	\$ 5,869,838	\$ 17,609,513
Deferred Outflows						
4 Change in Assumptions - Note 4	FY End 6/30/21	6	\$ 19,789,645	\$ 16,491,371	\$ 3,298,274	\$ 13,193,097
5 Deferred Inflows Change in Assumptions - Note 5	FY End 6/30/22	7	\$ (17,891,774)	\$ (17,891,774)	\$ (2,555,968)	\$ (15,335,806)
6 Totals			\$ 31,638,761	\$ 19,339,880	\$ 5,699,121	\$ 13,640,759
7 Subsequent Benefit Payments - Illustrated as Projected for Period July 1, 2022 to June 30, 2023						\$ 6,824,348

- Note 1 No deferred inflows/outflows for fiscal year 2017/2018 since beginning and end of year assumptions were the same.
- Note 2 Fiscal year 2018/19 is based on the prior year's report reflecting the impact of changes in assumptions and census information resulting in an actuarial gain or deferred inflow. No new deferred outflow was calculated for this year.
- Note 3 Fiscal year 2019/20 is based on the prior year's report reflecting the impact of changes in assumptions and census information resulting in an actuarial loss or deferred outflow. No new deferred inflow was calculated for this year.
- Note 4 Fiscal year 2020/21 is based on the prior year's report reflecting the impact of changes in assumptions and census information resulting in an actuarial loss or deferred outflow. No new deferred inflow was calculated for this year.
- Note 5 Change in assumptions deferred inflows (actuarial gain) due to change in discount rate assumption from 2.10% to 3.77% along with other assumptions and census demographics. See page 4, section F footnote for additional details. No new deferred outflow was calculated for this year.

Section I: Projection of Deferred Inflows & Outflows Balances by Fiscal Year End

Fiscal Year Ending June 30,	Beginning of Year Unamortized Balance	Recognition of OPEB Amortization Expense	End of Year Unamortized Balance
2022	\$ 19,339,880	\$ 5,699,121	\$ 13,640,759
2023	\$ 13,640,759	\$ 5,699,121	\$ 7,941,638
2024	\$ 7,941,638	\$ 5,699,122	\$ 2,242,516
2025	\$ 2,242,516	\$ 6,612,143	\$ (4,369,627)
2026	\$ (4,369,627)	\$ 742,307	\$ (5,111,934)
2027	\$ (5,111,934)	\$ (2,555,968)	\$ (2,555,966)
2028	\$ (2,555,966)	\$ (2,555,966)	\$ -
2029	\$ -	\$ -	\$ -



SECTION II - SUMMARY OF FINANCIAL INFORMATION INCLUDING SENSITIVITY ANALYSIS

Summary of Financial Results with Sensitivity Analysis
(July 1, 2021 Valuation Date)

	Base Scenario Val. Discount Rate of <u>3.77%</u>	Sensitivity Analysis Val. Discount Rate of <u>4.77%</u>	Sensitivity Analysis Val. Discount Rate of <u>2.77%</u>	Healthcare Cost Trend Rate Assumptions <u>Increased 1%</u>	Healthcare Cost Trend Rate Assumptions <u>Decreased 1%</u>
1 Total Employee Lives					
a. Actives	648	648	648	648	648
b. Retirees	388	388	388	388	388
c. Subtotal	1,036	1,036	1,036	1,036	1,036
2 Present Value of Future Benefits (PVFB) as of July 1, 2021					
a. Actives	\$ 172,295,411	\$ 129,762,761	\$ 233,955,031	\$ 230,669,664	\$ 130,867,828
b. Retirees	\$ 128,263,940	\$ 113,638,460	\$ 146,418,783	\$ 144,758,469	\$ 114,648,728
c. Subtotal	\$ 300,559,351	\$ 243,401,221	\$ 380,373,814	\$ 375,428,133	\$ 245,516,556
d. % Actives as ratio of Subtotal	57.3%	53.3%	61.5%	61.4%	53.3%
e. Sensitivity Analysis of Subtotal: Ratio to Base Scenario for PVFB		81.0%	126.6%	124.9%	81.7%
3 Accrued Liability (AL) as of July 1, 2021					
a. Actives	\$ 100,724,841	\$ 81,687,740	\$ 125,586,225	\$ 129,536,950	\$ 79,478,862
b. Retirees	\$ 128,263,940	\$ 113,638,460	\$ 146,418,783	\$ 144,758,469	\$ 114,648,728
c. Subtotal	\$ 228,988,781	\$ 195,326,200	\$ 272,005,008	\$ 274,295,419	\$ 194,127,590
d. % Actives as ratio of Subtotal	44.0%	41.8%	46.2%	47.2%	40.9%
e. Sensitivity Analysis of Subtotal: Ratio to Base Scenario for AL		85.3%	118.8%	119.8%	84.8%
4 Assets as of July 1, 2021	\$ -	\$ -	\$ -	\$ -	\$ -
5 Unfunded Accrued Liability (UAL) (3c) - (4)	\$ 228,988,781	\$ 195,326,200	\$ 272,005,008	\$ 274,295,419	\$ 194,127,590
6 Service Cost with Interest					
a. Service Cost at Year End:	\$ 6,049,375	\$ 4,495,509	\$ 8,218,846	\$ 8,269,616	\$ 4,493,739
b. Ratio to Valuation Results for Service Cost		74.3%	135.9%	136.7%	74.3%
7 Pay-As-You-Go Benefits - Illustrated as Projected	\$ 6,439,609	\$ 6,439,609	\$ 6,439,609	\$ 6,439,609	\$ 6,439,609
8 Ratio of AL to Pay-As-You-Go: (3c) / (7)	35.56	30.33	42.24	42.60	30.15
9 Ratio of Service Cost to Pay-As-You-Go: (6a) / (7)	0.94	0.70	1.28	1.28	0.70
10 Average Annual Pay-As-You-Go Benefit per Retiree (7) / (1b)	\$ 16,597	\$ 16,597	\$ 16,597	\$ 16,597	\$ 16,597
11 Three Year Projection of Pay-As-You-Go Costs					
a. Year 1: July 1, 2021 to June 30, 2022: (7)	\$ 6,439,609	\$ 6,439,609	\$ 6,439,609	\$ 6,439,609	\$ 6,439,609
b. Year 2: July 1, 2022 to June 30, 2023	\$ 6,824,348	\$ 6,824,348	\$ 6,824,348	\$ 6,860,702	\$ 6,787,867
c. Year 3: July 1, 2023 to June 29, 2024	\$ 7,105,642	\$ 7,105,642	\$ 7,105,642	\$ 7,277,876	\$ 6,936,004
12 Discount Rate	3.77%	4.77%	2.77%	3.77%	3.77%
13 Interest Cost for Fiscal Year July 1, 2021 to June 30, 2022 (3c) x (12) - (7) x (12) / 2; excludes interest on service cost	\$ 8,511,490	\$ 9,163,475	\$ 7,445,350	\$ 10,219,551	\$ 7,197,224
14 Accrued Liability (AL) as of June 30, 2022 (3c) + (6a) - (7) + (13)	\$ 237,110,037	\$ 202,545,575	\$ 281,229,595	\$ 286,344,977	\$ 199,378,944
15 Assets as of June 30, 2022	\$ -	\$ -	\$ -	\$ -	\$ -
16 Unfunded Accrued Liability (UAL) as of June 30, 2022 (14) - (15)	\$ 237,110,037	\$ 202,545,575	\$ 281,229,595	\$ 286,344,977	\$ 199,378,944
17 Present Value of Future Benefits (PVFB) as of June 30, 2022 (2c) x [1 + (12)] - (7) x [1 + (12) / 2]	\$ 305,329,443	\$ 248,418,266	\$ 384,381,371	\$ 383,020,778	\$ 248,211,535

Note: All costs are net of retiree contributions. See pages 1-5 for financial statement information, including discount rate and trend scenarios for reporting under GASB75.



SECTION III - SUMMARY OF CENSUS INFORMATION

Summary of Retiree Enrollment, by Age Band and Gender, calculated as of July 1, 2021

<u>Age Band</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>% Female</u>	<u>% Total</u>
Under 50	3	6	9	33.3%	2.3%
50 to 54	-	1	1	0.0%	0.3%
55 to 59	13	8	21	61.9%	5.4%
60 to 64	28	15	43	65.1%	11.1%
65 to 69	51	20	71	71.8%	18.3%
70 to 74	69	21	90	76.7%	23.2%
75 to 79	42	23	65	64.6%	16.8%
80 to 84	23	13	36	63.9%	9.3%
85 to 89	18	8	26	69.2%	6.7%
90 to 94	10	6	16	62.5%	4.1%
95 +	<u>6</u>	<u>4</u>	<u>10</u>	<u>60.0%</u>	<u>2.6%</u>
Subtotal	263	125	388	67.8%	100.0%

	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>% Female</u>	<u>% Total</u>
Pre 65 Retirees	44	30	74	59.5%	19.1%
Post 65 Retirees	<u>219</u>	<u>95</u>	<u>314</u>	<u>69.7%</u>	<u>80.9%</u>
Subtotal	263	125	388	67.8%	100.0%

	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>% Female</u>	<u>% Total</u>
Female	263	-	263	100.0%	67.8%
Male	<u>-</u>	<u>125</u>	<u>125</u>	<u>0.0%</u>	<u>32.2%</u>
Subtotal	263	125	388	67.8%	100.0%

	<u>Female</u>	<u>Male</u>	<u>Total</u>
Average Age - Pre 65	59.3	55.4	57.7
Average Age - Post 65	75.7	76.6	76.0
Average Age - Total	72.9	71.5	72.5

Note:

Retiree counts above include 11 employees currently opting out of coverage.



SECTION III - SUMMARY OF CENSUS INFORMATION (CONTINUED)

Summary Active Employees by Age Band and Years of Service, calculated as of July 1, 2021

<u>Age Band</u>	<u>Years of Service</u>								<u>Subtotal</u>	<u>% Subtotal</u>
	<u>0 to 4</u>	<u>5 to 9</u>	<u>10 to 14</u>	<u>15 to 19</u>	<u>20 to 24</u>	<u>25 to 29</u>	<u>30 to 34</u>	<u>35 +</u>		
Under 25	3	-	-	-	-	-	-	-	3	0.5%
25 to 29	32	2	-	-	-	-	-	-	34	5.2%
30 to 34	39	7	1	-	-	-	-	-	47	7.3%
35 to 39	20	9	8	4	1	-	-	-	42	6.5%
40 to 44	30	10	24	25	4	-	-	-	93	14.4%
45 to 49	20	7	8	31	23	1	-	-	90	13.9%
50 to 54	14	18	8	27	19	9	2	-	97	15.0%
55 to 59	17	10	12	20	20	10	3	-	92	14.2%
60 to 64	10	3	9	23	14	2	4	3	68	10.5%
Age 65 +	<u>2</u>	<u>-</u>	<u>5</u>	<u>16</u>	<u>14</u>	<u>7</u>	<u>7</u>	<u>31</u>	<u>82</u>	<u>12.7%</u>
Subtotal	187	66	75	146	95	29	16	34	648	100.0%
% Subtotal	28.9%	10.2%	11.6%	22.5%	14.7%	4.5%	2.5%	5.2%	100.0%	

<u>Actives</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>
Average Age:	50.8	48.1	50.1
Average Years of Service:	13.7	14.6	13.9

<u>Count by Gender</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>% Female</u>	<u>% Total</u>
Female	490	-	490	100.0%	75.6%
Male	<u>-</u>	<u>158</u>	<u>158</u>	<u>0.0%</u>	<u>24.4%</u>
Subtotal	490	158	648	75.6%	100.0%

<u>Actives by Service Category</u>	<u>Female</u>	<u>Male</u>	<u>Total</u>	<u>% Female</u>	<u>% Total</u>
Actives Not Yet Eligible for Benefits	326	109	435	74.9%	67.1%
Actives Eligible for Benefits	<u>164</u>	<u>49</u>	<u>213</u>	<u>77.0%</u>	<u>32.9%</u>
Total	490	158	648	75.6%	100.0%
% Actives Eligible for Benefits	33.5%	31.0%	32.9%		

Note:

Active counts above include 120 employees currently opting out of coverage and 9 employees on leave of absence.



SECTION III - SUMMARY OF CENSUS INFORMATION (CONTINUED)

Comparison of Census Information to the Prior Valuation

	<u>July 1, 2021</u>	<u>July 1, 2020</u>	<u>Difference</u>	<u>% Difference</u>
<u>Summary of Counts</u>				
Actives	648 *	624 *	24	3.8%
Retirees	<u>388</u>	<u>436</u>	<u>(48)</u>	<u>-11.0%</u>
Total	1,036	1,060	(24)	-2.3%
Retiree Counts - % Pre-65	19.1%	15.4%	3.7%	24.0%
o Actives - Valuation Age	50.1	47.2	2.9	6.1%
o Actives - Hire Age	36.2	35.8	0.4	1.1%
o Pre-65 Retirees	57.7	61.1	(3.4)	-5.6%
o Post-65 Retirees	76.0	76.1	(0.1)	-0.1%
o Total Retirees	72.5	73.7	(1.2)	-1.6%
<u>Actives Avg. Years of Service</u>	13.9	11.4	2.5	21.9%
<u>Actives Eligible for Benefits</u>				
o Total	213	162	51	31.5%
% Eligible for Benefits	32.9%	26.0%	6.9%	26.5%
<u>Gender</u>				
% Female - Active	75.6%	74.2%	1.4%	1.9%
% Female - Retiree	67.8%	69.7%	-1.9%	-2.7%

* Note:

151 employees were impacted by the eligibility (e.g., years of service) change effective for July 1, 2018 for newer hires. The prior valuation reflected 143 employees.



SECTION IV - SUMMARY OF ASSUMPTIONS

Municipality	Chappaqua Central School District		
Valuation Date	July 1, 2021		
Initial Implementation Year for GASB No. 74/75	Implementation Year for GASB 74/75 is July 1, 2017 to June 30, 2018		
Purpose of Work	Effective for fiscal years beginning after June 15, 2017, the District is required to reflect the impact of GASB Statements 74/75. The impact to financial statements as a result of these new GASB Statements include, but are not limited to, the amount of the OPEB liability to be reported on the financial statements, the selected actuarial cost method, discount rate used, and disclosures in the audited financial statements. Details are described throughout the report.		
Assets	Not applicable. Assets are zero.		
Asset Allocation	Not applicable. Assets are zero.		
Expected Return on Assets	Not applicable. Assets are zero.		
Discount Rate	3.77% - End of Year Measurement Date The selected discount rate is based on the prescribed discount interest rate methodology under GASB No. 74/75 using an average of three 20-year bond indices (e.g., Bond Buyer-20 Bond GO - 3.54%, S&P Municipal Bond 20 Year High Grade Rate Index - 4.09%, and Fidelity GA AA 20 Years - 3.69%) as of June 30, 2022. Prior discount rate used in July 1, 2020 to June 30, 2021 GASB 74/75 report was 2.10%.		
Information for Valuation	All information was provided by the District.		
Retirement Benefits	Coverage for pre-65 and post-65 retirement benefits. This valuation is provided to a single employer plan.		
Covered Benefits	Coverage for medical only including prescription drug coverage as part of medical plan. Certain retirees are eligible for life insurance and receive on a non-contributory basis. Subsidized dental and vision coverage are not provided in retirement with dental and vision solely provided on a retiree pay-all-basis with no implicit or explicit subsidy assumed for these ancillary coverages. For detailed and accurate description of benefits, we recommend that you review the District's plan documents for determining benefits, eligibility, etc. Summaries in this report are illustrative and solely to assist the reviewer to understand the types of benefits that were valued and reflected in this report. These summaries should not be used for any other purposes.		
Insurance Coverage and Funding Basis	Medical, including prescription drugs, is fully insured through Putnam Northern Westchester Health Benefits Consortium ("Consortium") and Empire Blue Cross/Blue Shield. The Empire plan was a new plan effective July 1, 2013, replacing the medical plan with Emblem Health. The Empire plan was cancelled effective July 1, 2016, so all employees are valued on the Consortium plan only with no other assumed medical plan options available to them. The District is one of fourteen (14) participating schools districts, including Putnam Northern Westchester BOCES, to participate in the Consortium health plan. The life insurance benefit is provided on a fully insured basis with Mutual of Omaha.		
Actuarial Cost Method	Entry Age Normal as a Level Percentage of Payroll		
Health Care Cost Trend Assumption	The following assumptions are used for annual healthcare cost inflation (trend):		
	Year	Pre-65	Post 65
Year 1 Trend	July 1, 2023	7.00%	7.00%
Ultimate Trend	July 1, 2035 & Later	4.00%	4.00%
Grading Per Year		0.25%	0.25%
Starting Claim Cost	Base plan costs for medical are based on premium rates for plan year July 1, 2021 to June 30, 2022 for year 1 and plan year July 1, 2022 to June 30, 2023 for Year 2. Both plan years were reflected in the valuation since known premium cost to the District. Medical insured monthly premiums for pre-65 and post-65 retirees for the Consortium are illustrated on page 16 of the report. These costs are based on 100% before retiree contributions and are assumed to include all administrative expenses and the required PPACA fees due at this time. Plan costs for July 1, 2023 and beyond are trended forward using the trend rates illustrated under the "Health Care Cost Trend Assumptions" section above.		



SECTION IV - SUMMARY OF ASSUMPTIONS (CONTINUED)

Projected Benefit Costs	While the plans within the Consortium are assumed to be community rated, Actuarial Standards of Practice No. 6 requires age adjusted costs be measured by estimating the expected costs by age whether or not a pooling or community rating applies. The underlying costs for the Consortium reflect an average age of actives and pre-65 retirees of age 49 and an average age for retirees post-65 of age 76 for purposes of developing aging for the valuation. The prior valuation under GASB 75 reflected an assumption for aging with similar average ages (actives/pre-65 retirees of age 49 and post-65 retirees of age 76).
Medicare Part B Reimbursements	Valuation reflects the reimbursement of Medicare Part B premium to retirees, spouses and surviving spouses over age 65 that are eligible for the benefit. Employee will pay Medicare Part B premium and be reimbursed by District. The District does not reimburse for the Income Related Monthly Adjustment Amount (IRMAA) amount. The District confirmed in the prior valuation that IRMAA was not a reimburseable benefit and this was confirmed in the review of current contracts from the District's website.
Medicare Part D Reimbursements	The District does not reimburse Medicare Part D premiums to retirees or spouses.
Retiree Life Insurance Benefits	A small number of retirees are eligible for a non-contributory (District-pay-all) life insurance benefit and costs are reflected in the report. This group reported eight (8) retirees receiving benefits and rates were reflected for these individuals as reported. Retiree life insurance coverage is provided on a fully insured basis through Mutual of Omaha and reflects data from the prior valuation.
Implicit Subsidy	This reflects the difference between the premium rate or cost charged to a retiree for a particular benefit as compared to the estimated rate of cost to the retiree, if those benefits were calculated reflecting retirees as a separate group (rather than their costs bundled with the active population). The results in this valuation reflect an implicit subsidy in the cost projections.
Healthcare Reform Impact	<p>The Patient Protection and Affordable Care Act (PPACA) enacted in March 2010 (Healthcare Reform) includes several fees and/or taxes levied on employer groups either directly (e.g., self-funded employer groups which calculates and pays the fees directly) or indirectly (e.g., fully insured employer groups in which the health insurer pays and passes on to the group in their premium rates.) The fees included in this valuation are 1) Comparative Effectiveness Research fee (aka PCORI), 2) Health Insurance Industry fee, and 3) High Cost Plans Excise Tax ("Cadillac tax"). The Reinsurance Assessment, also initiated with the passing of the PPACA, was a short-term fee levied on fully insured and self-funded employer groups between 2014 - 2016.</p> <p>The Comparative Effectiveness Research fee runs through 2029 and is tax deductible. The initial fee was \$1 per participant per year increasing to \$2 in the next year. Subsequent years are increased based on medical inflation. The fee applies to post-65 retirees where Medicare is the primary payer. Initially, this fee was to expire in 2019, however, legislation signed into law by President Trump on December 20, 2019 HR 1865 "Further Consolidated Appropriations Act, 2020" extended the fee 10 years.</p> <p>The Health Insurance Industry fee is based on targeted fixed fees to be paid by the health insurance industry and is not tax deductible. The total fee amount to be paid by health insurers starts at \$8 billion in 2014 and increases to \$14.3 billion in 2018. After 2018, the fee increases annually based on premium growth. The fee was suspended for the 2017 plan year and resumed in 2018 with the estimated fee to be approximately 3.0% to 4.0% of premium. The fee applies to fully insured plans including Medicare Advantage plans and excludes self-funded employer sponsored group health plans. Effective with legislation passed on January 22, 2018, this fee was suspended again for the 2019 plan year and will resume in 2020, however has been repealed beginning 2021 and beyond based on 12/20/19 HR 1865 "Further Consolidated Appropriations Act, 2020".</p> <p>The High Cost Plans Excise tax included a 40% tax ("Cadillac tax") on high cost plans to be levied on insurers and third party administrators (TPA) beginning in 2022 and was to be tax deductible. The calculation was to be done separately for single and family coverage and was equal to 40% of the excess of per employee plan costs, net of patient cost sharing, over the 2022 stated cost limits of:</p> <ul style="list-style-type: none"> o - \$10,200 single / \$27,500 family o - \$11,850 single / \$30,950 family for retirees age 55-64 <p>This valuation excludes the Cadillac tax in its entirety based on legislation signed into law by President Trump on 12/20/19, HR 1865 "Further Consolidated Appropriations Act, 2020" repealing the "Cadillac Tax".</p>
COVID-19 Pandemic	No special adjustments or considerations were made to valuation results due to the COVID-19 pandemic. Since the District is not funding this benefit in a separate OPEB trust, no special considerations were made for the impact on assets. Similarly, no special adjustments were made to the OPEB liability calculations. The impact of COVID-19 will be reviewed in future years including the potential impact on selected assumptions (e.g., mortality, morbidity, etc.).
Plan Design Changes	Valuation assumes no changes in future plan designs (e.g., deductibles, coinsurance, etc.) from current benefits offered for the current plan year. It is assumed that the current level of benefits will remain, with no modifications to avoid the potential excise tax imposed by the Patient Protection and Affordable Care Act (PPACA) described in detail above.
% Future Retirees Opting Out	It is assumed that 100% participation for those covered as actives. All eligible active and retiree employee records provided by your organization were valued.
Census Information	Participant data was provided by the District in July 2022. We relied on information as being accurate and we have not conducted any data audits.
New Hires	This valuation is based on a closed group and does not reflect the impact of future new entrants (e.g., new hires after date of data collection, i.e., July 2022) into the plan.



SECTION IV - SUMMARY OF ASSUMPTIONS (CONTINUED)

Eligible Population Population reflects all benefit eligible employees provided. New hires after date of data collection are not reflected herein.

Payroll Information Payroll information was reflected in the valuation for the actuarial cost method. Benefit and retiree contribution rates are not based on payroll so this information was not necessary for benefit or contribution rate calculations. Average salary increase used for the Entry Age Normal (EAN) actuarial cost method is assumed to be 3.0%. Payroll compensation is illustrated on page 1 of the report and reflects annual salary information as reported for each active employee.

Retirement System Valuation is based on the most recent New York State Employees' Retirement System (ERS), the New York State Police and Fire Retirement System (PFRS), and the New York State Teachers' Retirement System (TRS). ERS and PFRS tables are based on version released in 2020 while the TRS tables are based on version released in 2021. This valuation reflects the ERS and TRS tables only.

Retirement Eligibility Assumptions Eligibility for early retirement is based on meeting a criteria of minimum age and/or years of service (YOS) requirements. All employees are assumed to be eligible upon reaching age fifty-five (55) and completing five (5) YOS, which is based on the current contracts as provided by your organization. For CCT, COSA, Teaching Assistants, and RN/PT, the retirement eligibility increased to fifteen (15) YOS for dates of hire after July 1, 2018 while CSEA increased to ten (10) YOS. The Administration group remains unchanged at five (5) YOS as of July 1, 2018 and is assumed to continue until the next bargaining period for valuation purposes. 155 employees were impacted by the eligibility (e.g., years of service) change effective for July 1, 2018 for newer hires. Contract information was reviewed as posted on the District's website as of August 8, 2022.

Retiree Contribution Rates Retiree contribution rates vary by employee class and date of retirement. Contributions are based on a percentage of premium and are the same for employee and family coverage. Below is a summary of retiree contribution percentages. For employees retiring prior to June 30, 2025, retiree contribution percentages are as follows:

Contract Year	Teachers (CCT)	Clerical (COSA)	Custodians (CSEA)	Administration
2007 to 2008	5.00%	5.00%	6.00%	8.00%
7/2008 to 12/2008	6.50%	6.50%	7.00%	10.00%
1/2009 to 6/2009	6.50%	6.50%	8.00%	10.00%
2009 to 2010	7.75%	7.75%	8.00%	10.00%
2010 to 2011	9.00%	9.00%	8.00%	11.00%
2011 to 2012	10.00%	9.00%	10.50%	13.00%
2012 to 2013	11.00%	9.00%	10.50%	15.00%
2013 to 2014	12.25%	9.00%	11.75%	16.25%
2014 to 2015	13.50%	9.00%	13.00%	17.50%
2015 to 2016	14.50%	11.00%	14.00%	18.25%
2016 to 2017	15.50%	12.00%	15.00%	19.00%
2017 to 2018	16.50%	13.00%	16.00%	19.00%
2018 to 2019	17.00%	13.50%	16.50%	21.00%
2019 to 2020	17.50%	14.00%	17.00%	22.00%
2020 to 2021	18.00%	14.50%	17.50%	22.00%
2021 to 2022	18.00%	14.50%	17.50%	22.00%
2022 to 2023	18.50%	14.75%	17.75%	22.25%
2023 to 2024	19.00%	15.00%	18.00%	22.50%
2024 to 2025	19.50%	15.00%	18.00%	22.50%

Teaching assistants had a contribution rate of 14% and increasing 0.25% effective 7/1/22 and an additional 0.25% effective 7/1/23. The above are examples of contribution rates by class. Contribution rates vary by additional classes of employees (e.g., teaching assistants) and reflected accordingly. For the District's health plan, contribution rate percentages are as follows for future retirees (single or family) after June 30, 2025:

Division	Future Retiree Contribution %
Teachers (CCT)	19.50%
Clerical (COSA)	15.00%
Administration	22.50%
Custodians (CSEA)	18.00%
Teaching Assistants	14.50%

Any contracts not updated after the valuation date were assumed to apply through June 30, 2024 with assume contribution rates above after the contract date. Actual contribution rates were reflected for retirees.

Mortality Society of Actuaries Pub-2010 Public Retirement Plans Healthy Male and Female Total Dataset Headcount-Weighted Mortality tables based on Employee and Healthy Annuitant Tables for both pre and post retirement projected with mortality improvements using the most current Society of Actuaries Mortality Improvement Scale MP-2021.

Turnover Assumptions This reflects rate of separation from the active plan and excludes retirement and disability. Turnover tables vary by age, gender and years of service with rates of turnover based on the ERS and TRS.



SECTION IV - SUMMARY OF ASSUMPTIONS (CONTINUED)

Disability Assumptions	This reflects disability assumptions from the active plan and is based on age and gender. This is the assumption used for the ERS and TRS.
Retirement Assumptions	This reflects rate of retirement from the active plan and is based on age, gender and years of service. This is the assumption used for the ERS and TRS.
Surviving Spouses & Surviving Dependents	Surviving dependents do not receive subsidized health insurance or any reimbursements for Medicare Part B coverage. Any health insurance coverage provided by District is individual pay all coverage resulting in no additional liability to your organization. Surviving spouses were not included in the census file for the current valuation.
Valuation of Spouses & Marital Status	Spouses are valued for benefits similar to retired employees. Employees with spouses are assumed to be married to those spouses at and throughout retirement. Employees that are without spouses (or not covering a spouse) are assumed to be single at and throughout retirement. Based on the contribution rates for future retirees, it is assumed that active employees with dependent coverage will elect dependent coverage in retirement 60% of the time.
Spouse Age Assumptions	It is assumed that female spouses are three years younger than male employees and male spouses are three years older than female employees unless actual spouse date of birth information was provided. Spousal dates of birth were not provided, so this assumption was used for the valuation.
Waivers & Buyouts	A portion of individuals that elected buy back option (i.e., opt outs) as actives are assumed to enroll in coverage at retirement. Individuals must be covered as actives prior to retirement in order to be eligible for benefits at retirement. We are assuming that 80% of these employees will elect to re-enroll at open enrollment in the year prior to retirement in order to obtain retiree benefits. Individuals are assumed to be single coverage in retirement with no dependents. A total of 120 employees elected opt-out, waiver, declined or not eligible for coverage. All of these individuals are reflected in the valuation. The prior valuation was 162 employees. The valuation also includes 11 retirees that declined coverage and these individuals are assumed not to enroll in medical in the future.
Vested, Leave of Absence & Deceased Employees	No individuals were listed as vested terminated. Nine (9) employees listed as leave of absence are assumed to return to work and treated as active employees. No employees were listed as deceased, so no adjustments were made.
Missing Census Information	
o Dates of Birth	No individuals were missing date of birth, so no special adjustments were needed.
o Dates of Hire	No active individuals were missing date of hire, so no special adjustments were needed.
o Gender	No individuals were missing gender, so no special adjustments were needed.
o Coverage Tier	No individuals electing coverage were missing coverage tier, so no special adjustments needed.
o Status	No individuals were missing status, so no special adjustments were needed.
o Salary	No active employees were missing salary, so no special adjustments needed. Salary information was provided by individual and reflected in the valuation for use with the actuarial cost method.
Medicare Tax Subsidy	The Medicare tax subsidy is not reflected in valuation. There is no offset in premium rates charged to employer and post-65 costs are illustrated gross of subsidy.
Special Adjustments	No other special adjustments were provided since client data was complete for purposes of completing the valuation. All active and retired employees provided were valued. The prior year audit report matched the prior year actuarial report so no special adjustments were required for beginning of year balances.
Rounding of Results	Results are illustrated to the nearest dollar. In using unrounded results (exact dollars), no implication is made as to the degree of precision in those results. Clients and their auditors should apply their own judgement as to the desirability of rounding when transferring results from this valuation report to the client's financial statements.
Employee Contracts & Collective Bargaining Agreements	Employee contracts and collective bargaining agreements specific to retiree benefits were reviewed to the extent available. Results are based on information as provided by the organization. A summary of benefits and eligibility are provided in this report for illustrative purposes in order to understand the types of benefits reflected in the valuation. We recommend reviewing your organization's plan document for details on eligibility and covered benefits. Information in this report should not be used instead of the plan document and/or summary plan description.
Initial Year of Recognition of GASB No. 43/45 & 74/75	We have not reviewed the audited financials of client so are not providing an opinion on when client should recognize and comply with GASB 43/45 & 74/75. We rely on the opinion of your organization and auditor for this determination.
Other Comments	Actuarial methods, considerations, and analyses used in forming this certification conform to the appropriate Standards of Practice and guidelines of the Actuarial Standards Board (ASB).



SECTION V - DEFINITIONS & GLOSSARY

Other Post Employment Benefits (OPEB)	Medical, dental, vision, life and other health benefits provided to terminated or retired employees including their dependents and beneficiaries.
Actuarial Present Value of Future Benefits (PVFB)	Present value of all benefits expected to be paid by the employer, net of expected retiree contributions, based on actuarial assumptions used in the valuation.
Accrued Liability (AL)	This is the past service liability or present value of all benefits earned to date. Since retiree medical benefits are not accrued based on a specific formula like a pension plan, the accounting standard requires the benefits to be earned ratably from date of hire to date of full eligibility for benefits. For retirees and actives that are immediately eligible to retire and receive full benefits, the AL equals the PVFB. For actives not yet eligible to retire, it equals a pro-rata portion of the PVFB based on past service to total service to retirement eligibility for that employee. This is consistent with the Total OPEB Liability under GASB 74 & 75 reporting.
Unfunded Accrued Liability (UAL)	This is the excess of the AL over Plan Fiduciary Net Position (OPEB trust assets). This would also be referred to as the Total Net OPEB Liability, reflecting the Total OPEB Liability less the Plan Fiduciary Net Position.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits (PVFB) to time periods, usually in the form of Normal Cost and an Accrued Liability (AL). This actuarial cost method is prescribed under GASB 74 & 75.
Service Cost (Normal Cost)	The proportion of the PVFB of a plan's benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method used in the valuation. This is the cost of OPEB attributed to the current year of service.
Pay-As-You-Go	This is a method of financing a postretirement benefit plan under which the contributions to the plan are generally made at about the same time and amount as benefits and expenses become due.
Plan Fiduciary Net Position	The current market value of assets placed in an irrevocable OPEB trust.
Closed Group Valuation	This means that it does not consider the Actuarial PVFB associated with future entrants.
Decrement Rates	This includes mortality, turnover, disability and retirement rate assumptions. This is used to determine the likelihood of an employee qualifying for OPEB and when benefits will commence. Mortality is also used to determine probability of individuals to live and continue to receive benefits.
Covered Payroll	The payroll of the active employees that are provided OPEB benefits.
Discount Rate	Assumption used for converting present value of future benefits less future contributions into today's dollar amounts.
Projected Unit Credit	This is an actuarial cost method whereby the costs of benefits earned is funded each year and the value of the accrued liability reflects the benefits earned to date. This was the most common method used under GASB No. 45.
Individual Entry Age Normal	This is an actuarial cost method whereby costs are determined as of the entry age of the employee until his/her exiting of active service. This allocation can be done on a level dollar or level percentage of pay. This method is prescribed under GASB No. 75.
Deferred Inflows/Outflows of Resources	This reflects amounts resulting from experience gains/losses that have not been recognized in the current OPEB expense calculations, but will be potentially reflected in future years.
Plan Members	The individuals covered by the terms of an OPEB plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.
Substantive Plan	The terms of the OPEB plan as understood by the employer and its plan members. The plan is assumed to be a single employer plan unless noted otherwise in the report.
Recognition Year for GASB No. 74 & 75	The effective date for reporting GASB No. 74 is for fiscal years beginning after June 15, 2016. The effective date for reporting GASB No. 75 is for fiscal years beginning after June 15, 2017. GASB No. 74 & 75 replaced GASB No 43 & 45.



SECTION VI: SUMMARY OF CLAIM COST ASSUMPTIONS

Summary of Plan Costs by Year - Monthly Fully Insured Rates

Retiree Group	Tier	Plan Year	Plan Year	Plan Year	7/2021-o-7/2020	7/2022-o-7/2021
		7/20 to 6/21	7/21 to 6/22	7/22 to 6/23	% Change	% Change
<i>Pre-65 Medical/Rx Plans:</i>						
PNWHBC	Single	\$ 804.00	\$ 816.00	\$ 881.00	1.5%	8.0%
	Dual	1,931.00	1,960.00	2,117.00	1.5%	8.0%
	Family	2,106.00	2,138.00	2,310.00	1.5%	8.0%
<i>Post-65 Medical/Rx Plans:</i>						
PNWHBC	Single	\$ 724.00	\$ 735.00	\$ 794.00	1.5%	8.0%
	Family - 2 Medicare	1,520.00	1,543.00	1,667.00	1.5%	8.0%
Medicare Part B Premium	Per Individual	\$ 144.60	\$ 148.50	\$ 170.10	2.7%	14.5%

Notes:

1. Pre-65 and post-65 retiree premium rates above are based on the PNWHBC rates for the effective dates indicated above and are based on 100% before retiree contributions. These premium rates are assumed to include all administrative costs and PPACA fees required at this time.
2. The monthly life insurance premium for Mutual of Omaha reflected 5 retirees at \$2.82/month, 2 at \$70.50/month and 1 at \$211.50/month based on prior valuation.
3. The above rates reflect plan costs prior to adjustments for aging and implicit subsidies.
4. The District does not reimburse for the IRMAA portion (income adjusted premium) of the Medicare Part B premium rate.



SECTION VII: TWENTY (20) YEAR FORECAST OF PAY-AS-YOU-GO COSTS AND TOTAL OPEB LIABILITY FOR CURRENT POPULATION

				[A]=[E(n-1)]	[B]=[B(n-1)]*(1+3%)	[C]=[Input]	[D]=3.77%*(A)-[C]/2	[E]=[A]+[B]-[C]+[D]
<u>Fiscal Year</u>				Total OPEB Liability at Beginning of Year	Annual Service Cost with Interest	Annual Projected PAYGO	Annual Interest Cost	Total OPEB Liability at End of Year
1. Fiscal Year	July 1, 2021	to	June 30, 2022	\$ 228,988,781	\$ 6,049,375	\$ 6,439,609	\$ 8,511,490	\$ 237,110,037
2. Fiscal Year	July 1, 2022	to	June 30, 2023	237,110,037	6,230,856	6,824,348	8,810,409	245,326,954
3. Fiscal Year	July 1, 2023	to	June 30, 2024	245,326,954	6,417,782	7,105,642	9,114,885	253,753,979
4. Fiscal Year	July 1, 2024	to	June 30, 2025	253,753,979	6,610,315	7,487,983	9,425,377	262,301,688
5. Fiscal Year	July 1, 2025	to	June 30, 2026	262,301,688	6,808,624	7,922,801	9,739,429	270,926,940
6. Fiscal Year	July 1, 2026	to	June 30, 2027	270,926,940	7,012,883	8,354,775	10,056,458	279,641,506
7. Fiscal Year	July 1, 2027	to	June 30, 2028	279,641,506	7,223,269	8,764,291	10,377,278	288,477,762
8. Fiscal Year	July 1, 2028	to	June 30, 2029	288,477,762	7,439,967	9,209,324	10,702,016	297,410,421
9. Fiscal Year	July 1, 2029	to	June 30, 2030	297,410,421	7,663,166	9,606,879	11,031,283	306,497,991
10. Fiscal Year	July 1, 2030	to	June 30, 2031	306,497,991	7,893,061	10,031,943	11,365,872	315,724,981
11. Fiscal Year	July 1, 2031	to	June 30, 2032	315,724,981	8,129,853	10,515,275	11,704,619	325,044,178
12. Fiscal Year	July 1, 2032	to	June 30, 2033	325,044,178	8,373,749	11,004,406	12,046,732	334,460,253
13. Fiscal Year	July 1, 2033	to	June 30, 2034	334,460,253	8,624,961	11,534,748	12,391,722	343,942,188
14. Fiscal Year	July 1, 2034	to	June 30, 2035	343,942,188	8,883,710	11,974,130	12,740,908	353,592,676
15. Fiscal Year	July 1, 2035	to	June 30, 2036	353,592,676	9,150,221	12,422,648	13,096,277	363,416,526
16. Fiscal Year	July 1, 2036	to	June 30, 2037	363,416,526	9,424,728	12,855,455	13,458,478	373,444,277
17. Fiscal Year	July 1, 2037	to	June 30, 2038	373,444,277	9,707,470	13,307,263	13,828,007	383,672,491
18. Fiscal Year	July 1, 2038	to	June 30, 2039	383,672,491	9,998,694	13,541,679	14,209,192	394,338,698
19. Fiscal Year	July 1, 2039	to	June 30, 2040	394,338,698	10,298,655	13,834,373	14,605,791	405,408,771
20. Fiscal Year	July 1, 2040	to	June 30, 2041	405,408,771	10,607,615	<u>14,072,574</u>	15,018,643	416,962,455
21. Subtotal - Projected Pay-As-You-Go for Twenty Years: (1) + ... + (20)						\$ 206,810,146		

Notes:

1. Projections are based on the current census population and valuation assumptions. Group is assumed to be closed group with no new hires.
2. The above costs are net of retiree contribution rates.
3. Service cost is assumed for illustrative purposes to increase based on the assumed salary increase assumption on a year-over-year basis.
4. Plan fiduciary net position (assets) is zero so not illustrated in the projections.
5. The OPEB Liability as of the beginning of the year above is illustrated based on the current valuation assumptions, including current assumed discount rate and healthcare cost inflation trend rates.
6. Projections based on end of year discount rate of 3.77%.



SECTION VIII: ACTUARIALLY DETERMINED CONTRIBUTION

Summary of Financial Results as of July 1, 2021

1 Discount Rate (See Page 1, Section B, Line 2a of Report)	3.77%
2 Net OPEB Liability Amortization Factor (PV 30 yrs at 3.77%, BOY)	18.4559
3 Net OPEB Liability as of July 1, 2021 (See Page 6, Line 5 of Report)	\$ 228,988,781
4 Service Cost with Interest - July 1, 2021 to June 30, 2022 (See Page 1, Section B, Line 1 of Report)	\$ 6,049,375
5 30 Year Amortization of Net OPEB Liability (3) / (2) * [1 + (1)]	\$ 12,875,105
6 Actuarially Determined Contribution (4) + (5)	\$ 18,924,480
7 Projected Pay-As-You-Go (See Page 1, Section B, Line 2c of Report)	\$ 6,439,609
8 Total Annual Payroll (See Page 1, Section A, Line 7 of Report)	\$ 64,251,967



SECTION IX: FORTY NINE (49) SCENARIOS FOR DISCOUNT RATES AND HEALTHCARE COST TREND RATES

VALUATION RESULTS FOR THE ACTUARIAL ACCRUED LIABILITY (AAL)

Valuation Date: July 1, 2021

Ultimate Healthcare Cost Trend Scenarios	Discount Rate Scenarios						
	2%	3%	3.77%	4%	5%	6%	7%
3%	\$ 283,858,517	\$ 239,386,058	\$ 211,771,610	\$ 204,443,398	\$ 176,671,190	\$ 154,353,138	\$ 136,226,563
4%	\$ 313,516,790	\$ 261,130,151	\$ 228,988,781	\$ 220,515,759	\$ 188,645,679	\$ 163,344,237	\$ 143,029,634
5%	\$ 350,807,568	\$ 288,184,805	\$ 250,243,578	\$ 240,311,518	\$ 203,250,063	\$ 174,206,341	\$ 151,173,423
6%	\$ 398,194,186	\$ 322,196,012	\$ 276,748,919	\$ 264,938,936	\$ 221,235,781	\$ 187,452,405	\$ 161,010,483
7%	\$ 459,048,796	\$ 365,396,859	\$ 310,139,435	\$ 295,888,403	\$ 243,604,835	\$ 203,760,882	\$ 173,003,371
8%	\$ 538,019,675	\$ 420,837,636	\$ 352,632,750	\$ 335,177,891	\$ 271,702,353	\$ 224,034,860	\$ 187,762,682
9%	\$ 641,556,022	\$ 492,712,424	\$ 407,257,533	\$ 385,557,956	\$ 307,346,227	\$ 249,484,620	\$ 206,100,032

RATIO OF AAL TO CURRENT VALUATION:

Ultimate Healthcare Cost Trend Scenarios	Discount Rate Scenarios						
	2%	3%	3.77%	4%	5%	6%	7%
3%	124.0%	104.5%	92.5%	89.3%	77.2%	67.4%	59.5%
4%	136.9%	114.0%	100.0%	96.3%	82.4%	71.3%	62.5%
5%	153.2%	125.9%	109.3%	104.9%	88.8%	76.1%	66.0%
6%	173.9%	140.7%	120.9%	115.7%	96.6%	81.9%	70.3%
7%	200.5%	159.6%	135.4%	129.2%	106.4%	89.0%	75.6%
8%	235.0%	183.8%	154.0%	146.4%	118.7%	97.8%	82.0%
9%	280.2%	215.2%	177.9%	168.4%	134.2%	109.0%	90.0%

Notes:

1. Trend rate scenarios are for ultimate trend assumptions in Year 2035 and later. Trend rates for Years 2023 to 2034 as per valuation report.
2. Current valuation results are based on the current discount rate and trend assumptions for the valuation.
3. Current valuation results illustrated as of July 1, 2021, and reflects additional sensitivity analysis beyond required for GASB 74 & 75.



SECTION X: THIRTY (30) ADDITIONAL SCENARIOS BASED ON TREND AND RETIREE CONTRIBUTIONS

VALUATION RESULTS FOR THE ACTUARIAL ACCRUED LIABILITY (AAL):

Valuation Date: July 1, 2021

Future Retirees Contribution Rates	<u>Ultimate Healthcare Cost Trend Scenarios</u>					
	<u>4%</u>	<u>5%</u>	<u>9%</u>	<u>11%</u>	<u>13%</u>	<u>15%</u>
8.0%	\$ 239,342,497	\$ 262,257,879	\$ 432,135,858	\$ 609,856,325	\$ 921,620,931	\$ 1,487,874,683
10.0%	\$ 237,350,284	\$ 259,957,607	\$ 427,471,334	\$ 602,668,821	\$ 909,992,842	\$ 1,468,218,857
20.0%	\$ 227,389,242	\$ 248,456,201	\$ 404,148,702	\$ 566,731,262	\$ 851,852,335	\$ 1,369,939,759
30.0%	\$ 217,428,162	\$ 236,954,830	\$ 380,826,096	\$ 530,793,669	\$ 793,711,820	\$ 1,271,660,677
40.0%	\$ 207,467,096	\$ 225,453,441	\$ 357,503,494	\$ 494,856,103	\$ 735,571,302	\$ 1,173,381,577

INCREASE/(DECREASE) IN AAL TO CURRENT VALUATION BASED ON SCENARIO:

Current Valuation Contribution Rates & Trend: \$ 228,988,781

Future Retirees Contribution Rates	<u>Ultimate Healthcare Cost Trend Scenarios</u>					
	<u>4%</u>	<u>5%</u>	<u>9%</u>	<u>11%</u>	<u>13%</u>	<u>15%</u>
8%	\$ 10,353,716	\$ 33,269,098	\$ 203,147,077	\$ 380,867,544	\$ 692,632,150	\$ 1,258,885,902
10%	\$ 8,361,503	\$ 30,968,826	\$ 198,482,553	\$ 373,680,040	\$ 681,004,061	\$ 1,239,230,076
20%	\$ (1,599,539)	\$ 19,467,420	\$ 175,159,921	\$ 337,742,481	\$ 622,863,554	\$ 1,140,950,978
30%	\$ (11,560,619)	\$ 7,966,049	\$ 151,837,315	\$ 301,804,888	\$ 564,723,039	\$ 1,042,671,896
40%	\$ (21,521,685)	\$ (3,535,340)	\$ 128,514,713	\$ 265,867,322	\$ 506,582,521	\$ 944,392,796

RATIO OF AAL TO CURRENT VALUATION:

Future Retirees Contribution Rates	<u>Ultimate Healthcare Cost Trend Scenarios</u>					
	<u>4%</u>	<u>5%</u>	<u>9%</u>	<u>11%</u>	<u>13%</u>	<u>15%</u>
8%	104.5%	114.5%	188.7%	266.3%	402.5%	649.8%
10%	103.7%	113.5%	186.7%	263.2%	397.4%	641.2%
20%	99.3%	108.5%	176.5%	247.5%	372.0%	598.3%
30%	95.0%	103.5%	166.3%	231.8%	346.6%	555.3%
40%	90.6%	98.5%	156.1%	216.1%	321.2%	512.4%

Notes:

1. Trend rate scenarios are for ultimate trend assumptions in Year 2035 and later. Trend rates for Years 2023 to 2034 as per valuation report.
2. Current valuation results are based on the current discount rate, trend assumptions and retiree contribution rates for the valuation.
3. Updates to future retiree contribution rates only. Current retirees based on current percentages.
4. Current valuation results illustrated as of July 1, 2021, and reflects additional sensitivity analysis beyond required for GASB 74 & 75.