

TOWN AND BOARD OF EDUCATION - BRANFORD OPEB

ACTUARIAL VALUATION REPORT

JULY 1, 2022





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Executive Summary

| | July 1, 2022 | July 1, 2020 |
|--|--------------|--------------|
| Number of members | | |
| Active members | 579 | 575 |
| Retired members and dependents | <u>88</u> | <u>86</u> |
| Total | 667 | 661 |
| Covered employee payroll | 47,267,481 | 44,639,368 |
| Average plan salary | 81,636 | 77,634 |
| Actuarial present value of future benefits | 29,611,239 | 33,153,155 |
| Actuarial accrued liability | 23,692,215 | 25,885,442 |
| Plan assets | | |
| Market value of assets | 35,675,801 | 31,913,829 |
| Actuarial value of assets | 38,465,160 | 31,913,829 |
| Unfunded accrued liability | (14,772,945) | (6,028,387) |
| Funded ratio | 162.4% | 123.3% |
| Actuarially determined employer contribution (ADEC) | | |
| Fiscal year ending | 2024 | 2022 |
| ADEC | 7,677 | 298,455 |
| Fiscal year ending | 2025 | 2023 |
| ADEC | 9,736 | 326,473 |



Valuation Results and Highlights

Purpose of the Valuation

The purpose of the valuation is to develop the Actuarially Determined Employer Contribution (ADEC).

The ultimate cost of an OPEB plan is based primarily on the level of benefits promised by the plan. The OPEB fund's investment earnings serve to reduce the cost of plan benefits and expenses. Thus,

$$\text{Ultimate cost} = \text{Benefits Paid} + \text{Expenses Incurred} - \text{Investment Return} - \text{Employee Contributions}$$

The actuarial cost method distributes this ultimate cost over the working lifetime of current plan participants. By means of this budgeting process, costs are allocated to both past and future years, and a cost is assigned to the current year. The current year's allocated cost, or normal cost, is the building block upon which the actuarially determined employer contribution is developed. The July 1, 2022 valuation produces the contributions for the fiscal years ending 2024 and 2025.

Information Available in the Valuation Report

The Executive Summary is intended to emphasize the notable results of the valuation from the perspective of the Plan Sponsor. Supporting technical detail is documented in Results of the Valuation, Supporting Exhibits and Description of Actuarial Methods and Assumptions. A concise summary of the principal provisions of the Plan is outlined in Summary of Plan Provisions.

Changes Reflected in the Valuation

The medical plan was changed effective with this valuation to the CT State Partnership Plan 2.0. This change in plans lowered the liability by 15%. In addition the trend assumption was updated. This change increased liabilities by 3.2%.

Cash Contribution for Fiscal Years Ending 2024 and 2025

| The Town cost is: | 2024 Fiscal Year | 2025 Fiscal Year |
|-------------------|------------------|------------------|
| Police | \$0 | \$0 |
| Fire | 0 | 0 |
| Town | 4,153 | 6,015 |
| BOE Certified | 0 | 0 |
| BOE Non-Certified | 3,524 | 3,721 |
| Total | \$7,677 | \$9,736 |

Liability Experience During Period Under Review

Plan experience resulted in a liability gain of approximately \$1.4 million. The main driver of this gain was due to changes in the population since the last valuation.



Asset Experience During Period Under Review

The plan's assets provided the following rates of return during the past two fiscal years:

| | 2021 Fiscal Year | 2022 Fiscal Year |
|-----------------------|------------------|------------------|
| Market Value Basis | 14.2% | -7.7% |
| Actuarial Value Basis | 8.0% | 5.2% |

The Actuarial Value of assets, rather than the Market Value, is used to determine plan contributions. The Actuarial Value spreads the asset volatility by recognizing 20% of the difference each year, thereby smoothing out fluctuations that are inherent in the Market Value.



Certification

This report presents the results of the July 1, 2022 Actuarial Valuation for Town and Board of Education - Branford OPEB (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Employer Contribution (ADEC) for the fiscal years ending June 30, 2024 and June 30, 2025. This report is intended to satisfy the requirements of Connecticut General Statute 7-450a. This report may not be appropriate for any other purpose.

The valuation has been performed in accordance with generally accepted actuarial principles and practices. It is intended to comply with all applicable Actuarial Standards of Practice.

I certify that the actuarial assumptions and methods that were selected by me and represent my best estimate of anticipated actuarial experience under the Plan.

In preparing this valuation, I have relied on employee data provided by the Plan Sponsor, and on asset and contribution information provided by the Trustee. I have audited neither the employee data nor the financial information, although I have reviewed them for reasonableness.

The results in this valuation report are based on the Plan as summarized in the *Summary of Plan Provisions* section of this report and the actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I have no relationship with the employer or the Plan that would impair, or appear to impair, my objectivity in performing the work presented in this report. I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

Steve A. Lemanski, FSA, FCA, MAAA
Enrolled Actuary 23-05506

October 6, 2023



Development of Unfunded Accrued Liability and Funded Ratio

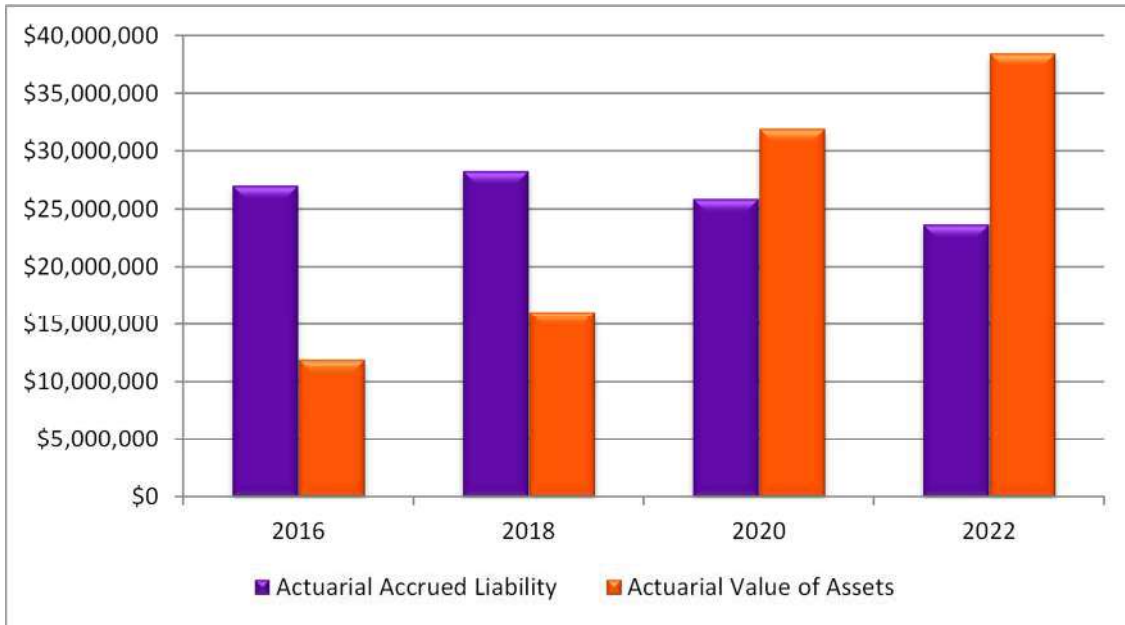
| | July 1, 2022 | July 1, 2020 |
|--|--------------|--------------|
| Actuarial accrued liability for active members | | |
| Members under age 65 | \$3,373,221 | \$4,409,292 |
| Members over age 65 | 5,305,615 | 4,785,225 |
| Dependents under age 65 | 1,138,706 | 1,668,257 |
| Dependents over age 65 | 741,672 | 805,397 |
| Total | 10,559,214 | 11,668,171 |
| Actuarial accrued liability for inactive members | | |
| Members under age 65 | 2,028,429 | 2,958,658 |
| Members over age 65 | 9,418,900 | 8,893,663 |
| Dependents under age 65 | 820,487 | 1,203,671 |
| Dependents over age 65 | 865,185 | 1,161,279 |
| Total | 13,133,001 | 14,217,271 |
| Total actuarial accrued liability | 23,692,215 | 25,885,442 |
| Actuarial value of assets | 38,465,160 | 31,913,829 |
| Unfunded accrued liability | (14,772,945) | (6,028,387) |
| Funded ratio | 162.4% | 123.3% |

| | Discount Rate (6.50%) | 1% Decrease (5.50%) | 1% Increase (7.50%) |
|--|--------------------------|------------------------|------------------------|
| Actuarial accrued liability for active members | 10,559,214 | 12,509,840 | 8,995,294 |
| Actuarial accrued liability for inactive members | 13,133,001 | 14,550,059 | 11,940,867 |
| Total actuarial accrued liability | 23,692,215 | 27,059,899 | 20,936,161 |

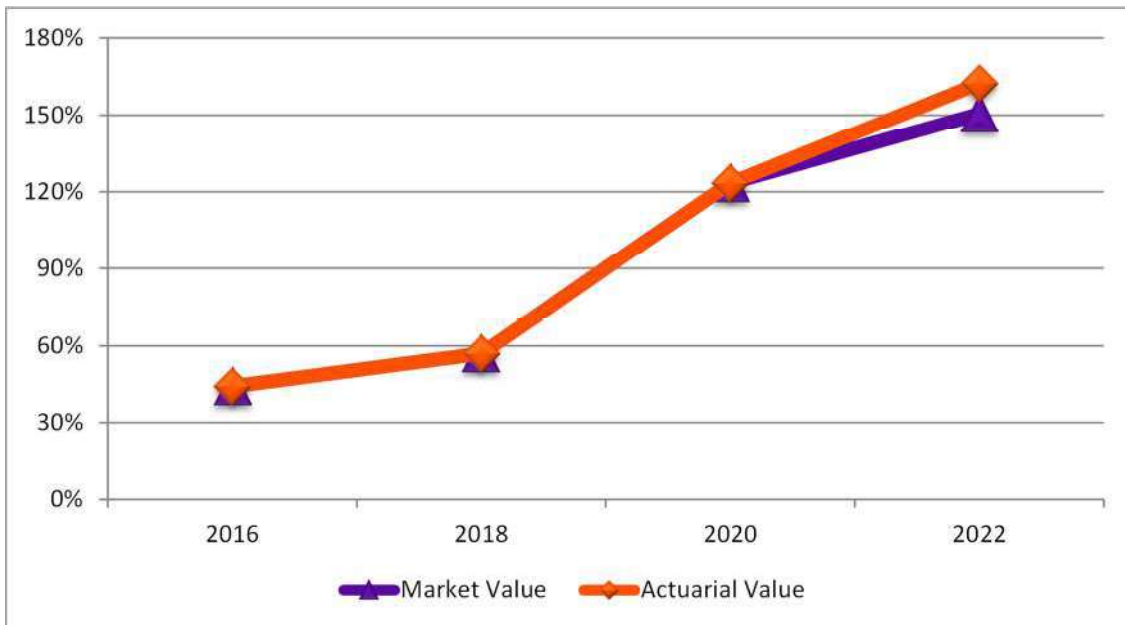
| | Healthcare Cost Trend Rates (6.50% decreasing to 4.40%) | 1% Decrease (5.50% decreasing to 3.40%) | 1% Increase (7.50% decreasing to 5.40%) |
|--|---|--|--|
| Actuarial accrued liability for active members | 10,559,214 | 8,685,299 | 12,989,604 |
| Actuarial accrued liability for inactive members | 13,133,001 | 11,974,582 | 14,485,638 |
| Total actuarial accrued liability | 23,692,215 | 20,659,881 | 27,475,242 |



Actuarial Accrued Liability vs. Actuarial Value of Assets



Funded Ratio





Development of Unfunded Accrued Liability and Funded Ratio by Group

| | Police | Fire | Town | BOE Certified | BOE Non-Certified | Total |
|--|-------------|-------------|-----------|---------------|-------------------|--------------|
| Actuarial accrued liability for active members | | | | | | |
| Members under age 65 | \$2,150,661 | \$282,785 | \$223,879 | \$677,179 | \$38,717 | \$3,373,221 |
| Members over age 65 | 2,957,617 | 1,970,094 | 146,932 | 230,972 | 0 | 5,305,615 |
| Dependents under age 65 | 686,093 | 91,841 | 138,994 | 221,778 | 0 | 1,138,706 |
| Dependents over age 65 | 426,410 | 211,508 | 28,116 | 75,638 | 0 | 741,672 |
| Total | 6,220,781 | 2,556,228 | 537,921 | 1,205,567 | 38,717 | 10,559,214 |
| Actuarial accrued liability for inactive members | | | | | | |
| Members under age 65 | 1,163,445 | 700,578 | 91,724 | 66,592 | 6,090 | 2,028,429 |
| Members over age 65 | 4,417,951 | 2,155,589 | 0 | 2,845,360 | 0 | 9,418,900 |
| Dependents under age 65 | 627,025 | 67,973 | 66,097 | 59,392 | 0 | 820,487 |
| Dependents over age 65 | 733,042 | 73,571 | 0 | 58,572 | 0 | 865,185 |
| Total | 6,941,463 | 2,997,711 | 157,821 | 3,029,916 | 6,090 | 13,133,001 |
| Total actuarial accrued liability | 13,162,244 | 5,553,939 | 695,742 | 4,235,483 | 44,807 | 23,692,215 |
| Actuarial value of assets | 22,424,083 | 9,462,064 | 1,168,276 | 5,354,096 | 56,641 | 38,465,160 |
| Unfunded accrued liability | (9,261,839) | (3,908,125) | (472,534) | (1,118,613) | (11,834) | (14,772,945) |
| Funded ratio | 170.4% | 170.4% | 167.9% | 126.4% | 126.4% | 162.4% |

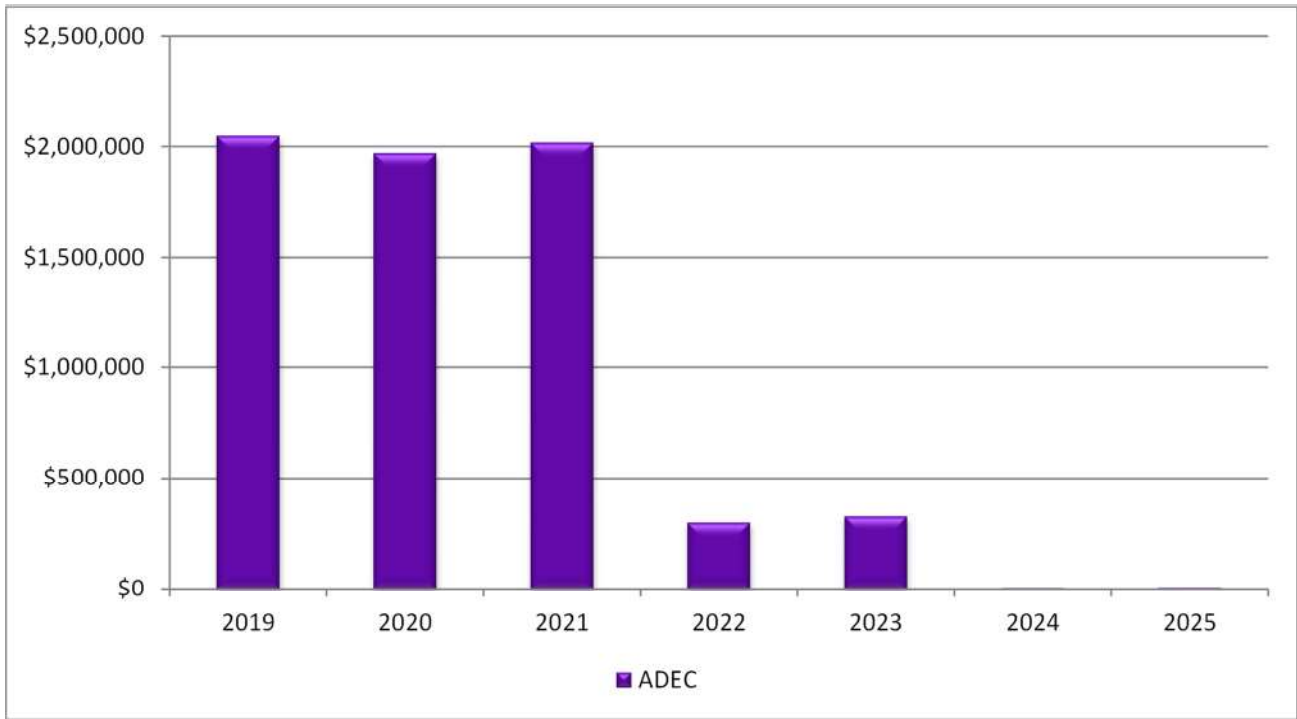


Determination of Normal Cost and Actuarially Determined Employer Contribution

| | July 1, 2022 | | July 1, 2020 | |
|---|--------------|--------------------|--------------|--------------------|
| | Cost | Percent of payroll | Cost | Percent of payroll |
| Town's normal cost | \$581,384 | 1.2% | \$709,329 | 1.6% |
| Amortization of unfunded accrued liability* | (575,857) | -1.2% | (444,652) | -1.0% |
| Contribution before adjustment as of the valuation date | 5,527 | 0.0% | 264,677 | 0.6% |
| Estimated valuation year payroll for actives not yet at 100% assumed retirement age | 47,267,481 | | 44,639,368 | |
| Fiscal year ending | 2024 | | 2022 | |
| Adjustment for interest and inflation | 2,150 | | 33,778 | |
| Actuarially determined employer contribution | 7,677 | | 298,455 | |
| Fiscal year ending | 2025 | | 2023 | |
| Adjustment for interest and inflation | 2,059 | | 28,018 | |
| Actuarially determined employer contribution | 9,736 | | 326,473 | |



Actuarially Determined Employer Contribution





Actuarially Determined Employer Contribution per Group

| | Police | Fire | Town | BOE Certified | BOE Non-Certified | Total |
|---|-------------------|------------------|------------------|------------------|-------------------|-------------------|
| Town's normal cost | \$358,964 | \$135,571 | \$39,298 | \$43,392 | \$4,159 | \$581,384 |
| Actuarial accrued liability | 13,162,244 | 5,553,939 | 695,742 | 4,235,483 | 44,807 | 23,692,215 |
| Actuarial value of assets | <u>22,424,083</u> | <u>9,462,064</u> | <u>1,168,276</u> | <u>5,354,096</u> | <u>56,641</u> | <u>38,465,160</u> |
| Unfunded accrued liability | (9,261,839) | (3,908,125) | (472,534) | (1,118,613) | (11,834) | (14,772,945) |
| Amortization of unfunded accrued liability* | (358,964) | (135,571) | (37,003) | (43,392) | (927) | (575,857) |
| Contribution before adjustment as of the valuation date | 0 | 0 | 2,295 | 0 | 3,232 | 5,527 |
| Fiscal year ending June 30, 2024 | | | | | | |
| Adjustment for interest and inflation | <u>0</u> | <u>0</u> | <u>1,858</u> | <u>0</u> | <u>292</u> | <u>2,150</u> |
| Actuarially determined employer contribution | 0 | 0 | 4,153 | 0 | 3,524 | 7,677 |
| Fiscal year ending June 30, 2025 | | | | | | |
| Adjustment for interest and inflation | <u>0</u> | <u>0</u> | <u>1,862</u> | <u>0</u> | <u>197</u> | <u>2,059</u> |
| Actuarially determined employer contribution | 0 | 0 | 6,015 | 0 | 3,721 | 9,736 |



Development of Asset Values

| Summary of Fund Activity | | |
|--|--------------|-----------------|
| | Market Value | Actuarial Value |
| 1. Beginning value of assets July 1, 2021 | | |
| Trust assets | \$37,497,545 | \$35,540,671 |
| 2. Contributions | | |
| Town contributions during year | 1,061,000 | 1,061,000 |
| Employee contributions during year | 0 | 0 |
| Total for plan year | 1,061,000 | 1,061,000 |
| 3. Disbursements | | |
| Benefit payments during year | 0 | 0 |
| Administrative expenses during year | 0 | 0 |
| Total for plan year | 0 | 0 |
| 4. Net investment return | | |
| Interest and dividends | 0 | N/A |
| Realized and unrealized gain / (loss) | (2,882,744) | N/A |
| Expected return | N/A | 2,438,525 |
| Recognized gain / (loss) | N/A | (575,036) |
| Required adjustment due to corridor | N/A | 0 |
| Reversal of prior year required adjustment | N/A | 0 |
| Investment-related expenses | 0 | N/A |
| Total for plan year | (2,882,744) | 1,863,489 |
| 5. Ending value of assets July 1, 2022 | | |
| Trust assets: (1) + (2) - (3) + (4) | 35,675,801 | 38,465,160 |
| 6. Approximate rate of return | -7.7% | 5.2% |



| Relationship of Actuarial Value to Market Value | |
|---|--------------------|
| 1. Market value 7/1/2022 | \$35,675,801 |
| 2. Gain / (loss) not recognized in actuarial value 7/1/2022 | <u>(2,789,359)</u> |
| 3. Preliminary actuarial value 7/1/2022: (1) - (2) | 38,465,160 |
| 4. Preliminary actuarial value as a percentage of market value: (3) ÷ (1) | 107.8% |
| 5. Gain / (loss) recognized for corridor minimum / maximum | N/A |
| 6. Actuarial value 7/1/2022 after corridor minimum / maximum: (3) + (5) | 38,465,160 |
| 7. Actuarial value as a percentage of market value: (6) ÷ (1) | 107.8% |

| Development of Market Value Gain / Loss for 2021-2022 Plan Year | |
|--|-------------------|
| 1. Market value 7/1/2021 | \$37,497,545 |
| 2. Town contributions | 1,061,000 |
| 3. Employee contributions | 0 |
| 4. TRB reimbursements | 0 |
| 4. Benefit payments | 0 |
| 5. Administrative expenses | 0 |
| 6. Expected return at 6.50% | <u>2,438,525</u> |
| 7. Expected value 7/1/2022: (1) + (2) + (3) - (4) - (5) + (6) | 40,997,070 |
| 8. Market value 7/1/2022 | <u>35,675,801</u> |
| 9. Market value gain / (loss) for 2021-2022 plan year: (8) - (7) | (5,321,269) |

| Recognition of Gain / Loss in Actuarial Value | | | | | |
|--|----------------------|--|---|---|---|
| Year | (a) Gain / (loss) | (b) Total recognized as of 7/1/2021 | (c) Recognized in current year: 20% of (a) | (d) Total recognized as of 7/1/2022: (b) + (c) | (e) Not recognized as of 7/1/2022: (a) - (d) |
| 2017-2018 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2018-2019 | 0 | 0 | 0 | 0 | 0 |
| 2019-2020 | 0 | 0 | 0 | 0 | 0 |
| 2020-2021 | 2,446,092 | 489,218 | 489,218 | 978,436 | 1,467,656 |
| 2021-2022 | (5,321,269) | 0 | <u>(1,064,254)</u> | (1,064,254) | <u>(4,257,015)</u> |
| Total | | | (575,036) | | (2,789,359) |



| Summary of Fund Activity | | |
|--|---------------------|------------------------|
| | Market Value | Actuarial Value |
| 1. Beginning value of assets July 1, 2020 | | |
| Trust assets | \$31,913,829 | \$31,913,829 |
| 2. Contributions | | |
| Town contributions during year | 1,061,000 | 1,061,000 |
| Employee contributions during year | 0 | 0 |
| Total for plan year | 1,061,000 | 1,061,000 |
| 3. Disbursements | | |
| Benefit payments during year | 0 | 0 |
| Administrative expenses during year | 0 | 0 |
| Total for plan year | 0 | 0 |
| 4. Net investment return | | |
| Interest and dividends | 0 | N/A |
| Realized and unrealized gain / (loss) | 4,522,716 | N/A |
| Expected return | N/A | 2,076,624 |
| Recognized gain / (loss) | N/A | 489,218 |
| Required adjustment due to corridor | N/A | 0 |
| Reversal of prior year required adjustment | N/A | 0 |
| Investment-related expenses | 0 | N/A |
| Total for plan year | 4,522,716 | 2,565,842 |
| 5. Ending value of assets July 1, 2021 | | |
| Trust assets: (1) + (2) - (3) + (4) | 37,497,545 | 35,540,671 |
| 6. Approximate rate of return | 14.2% | 8.0% |



| Relationship of Actuarial Value to Market Value | |
|---|------------------|
| 1. Market value 7/1/2021 | \$37,497,545 |
| 2. Gain / (loss) not recognized in actuarial value 7/1/2021 | <u>1,956,874</u> |
| 3. Preliminary actuarial value 7/1/2021: (1) - (2) | 35,540,671 |
| 4. Preliminary actuarial value as a percentage of market value: (3) ÷ (1) | 94.8% |
| 5. Gain / (loss) recognized for corridor minimum / maximum | N/A |
| 6. Actuarial value 7/1/2021 after corridor minimum / maximum: (3) + (5) | 35,540,671 |
| 7. Actuarial value as a percentage of market value: (6) ÷ (1) | 94.8% |

| Development of Market Value Gain / Loss for 2020-2021 Plan Year | |
|--|-------------------|
| 1. Market value 7/1/2020 | \$31,913,829 |
| 2. Town contributions | 1,061,000 |
| 3. Employee contributions | 0 |
| 4. TRB reimbursements | 0 |
| 4. Benefit payments | 0 |
| 5. Administrative expenses | 0 |
| 6. Expected return at 6.50% | <u>2,076,624</u> |
| 7. Expected value 7/1/2021: (1) + (2) + (3) - (4) - (5) + (6) | 35,051,453 |
| 8. Market value 7/1/2021 | <u>37,497,545</u> |
| 9. Market value gain / (loss) for 2020-2021 plan year: (8) - (7) | 2,446,092 |

| Recognition of Gain / Loss in Actuarial Value | | | | | |
|--|----------------------|--|---|---|---|
| Year | (a) Gain / (loss) | (b) Total recognized as of 7/1/2020 | (c) Recognized in current year: 20% of (a) | (d) Total recognized as of 7/1/2021: (b) + (c) | (e) Not recognized as of 7/1/2021: (a) - (d) |
| 2016-2017 | \$0 | \$0 | \$0 | \$0 | \$0 |
| 2017-2018 | 0 | 0 | 0 | 0 | 0 |
| 2018-2019 | 0 | 0 | 0 | 0 | 0 |
| 2019-2020 | 0 | 0 | 0 | 0 | 0 |
| 2020-2021 | 2,446,092 | 0 | <u>489,218</u> | 489,218 | <u>1,956,874</u> |
| Total | | | 489,218 | | 1,956,874 |

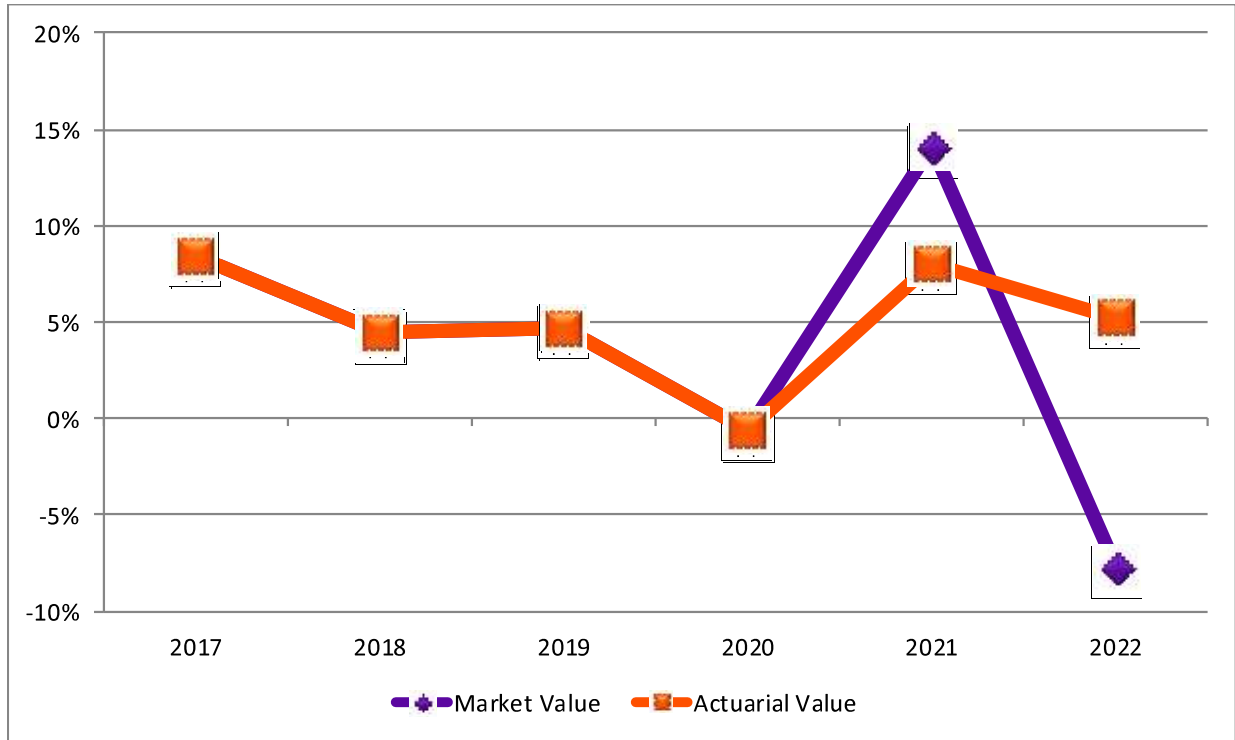


| Rate of Return on Market Value of Assets | | | | |
|---|--|----------------|----------------|-----------------|
| Period Ending | Average Annual Effective Rate of Return | | | |
| June 30 | 1 Year | 3 Years | 5 Years | 10 Years |
| 2013 | N/A | N/A | N/A | N/A |
| 2014 | N/A | N/A | N/A | N/A |
| 2015 | N/A | N/A | N/A | N/A |
| 2016 | N/A | N/A | N/A | N/A |
| 2017 | 8.4% | N/A | N/A | N/A |
| 2018 | 4.5% | N/A | N/A | N/A |
| 2019 | 4.7% | 5.9% | N/A | N/A |
| 2020 | -0.6% | 2.9% | N/A | N/A |
| 2021 | 14.2% | 5.9% | 6.1% | N/A |
| 2022 | -7.7% | 1.6% | 2.8% | N/A |

| Rate of Return on Actuarial Value of Assets | | | | |
|--|--|----------------|----------------|-----------------|
| Period Ending | Average Annual Effective Rate of Return | | | |
| June 30 | 1 Year | 3 Years | 5 Years | 10 Years |
| 2013 | N/A | N/A | N/A | N/A |
| 2014 | N/A | N/A | N/A | N/A |
| 2015 | N/A | N/A | N/A | N/A |
| 2016 | N/A | N/A | N/A | N/A |
| 2017 | 8.4% | N/A | N/A | N/A |
| 2018 | 4.5% | N/A | N/A | N/A |
| 2019 | 4.7% | 5.9% | N/A | N/A |
| 2020 | -0.6% | 2.8% | N/A | N/A |
| 2021 | 8.0% | 4.0% | 5.0% | N/A |
| 2022 | 5.2% | 4.2% | 4.3% | N/A |



Actual Rate of Return on Assets





Target Allocation and Expected Rate of Return July 1, 2022

| Asset Class | Target Allocation | Long-Term Expected Real Rate of Return* | Weighting |
|-----------------------------------|-------------------|---|-----------|
| US Large Cap Equity | 14.50% | 5.00% | 0.73% |
| US Mid/Small Cap Equity | 11.00% | 5.30% | 0.58% |
| Developed International Equity | 12.50% | 6.40% | 0.80% |
| Emerging Markets Equity | 8.50% | 7.70% | 0.65% |
| Intermediate Corp Fixed Income | 18.00% | 2.30% | 0.41% |
| Intermediate Govt Fixed Income | 18.00% | 1.80% | 0.32% |
| High Yield Fixed Income | 8.00% | 4.05% | 0.32% |
| Cash | 1.00% | 0.05% | 0.00% |
| REITs | 3.25% | 4.90% | 0.16% |
| Commodities (MLP's) | 5.25% | 3.30% | 0.17% |
| | 100.00% | | 4.14% |
| Long-Term Inflation Expectation | | | 2.40% |
| Long-Term Expected Nominal Return | | | 6.54% |

**Long-Term Real Returns are provided by HHIA. The returns are geometric means.*

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 real rates of return are developed. Best estimates of the real rates of return for each major asset class are included in the OPEB plan's target asset allocation.

The information above is based on geometric means and does not reflect additional returns through investment selection, asset allocation and rebalancing. An expected rate of return of 6.50% was used.



Amortization of Unfunded Liability

| Schedule of Amortization Bases | | | | |
|--------------------------------|------------------|---------------------------|-----------------|--|
| | Date established | Amortization installment* | Years remaining | Present value of remaining installments as of July 1, 2022 |
| 2022 base | July 1, 2022 | (1,156,835) | 24 | (14,772,945) |
| Amortization adjustment* | | <u>580,978</u> | | |
| Total | | (575,857) | | |



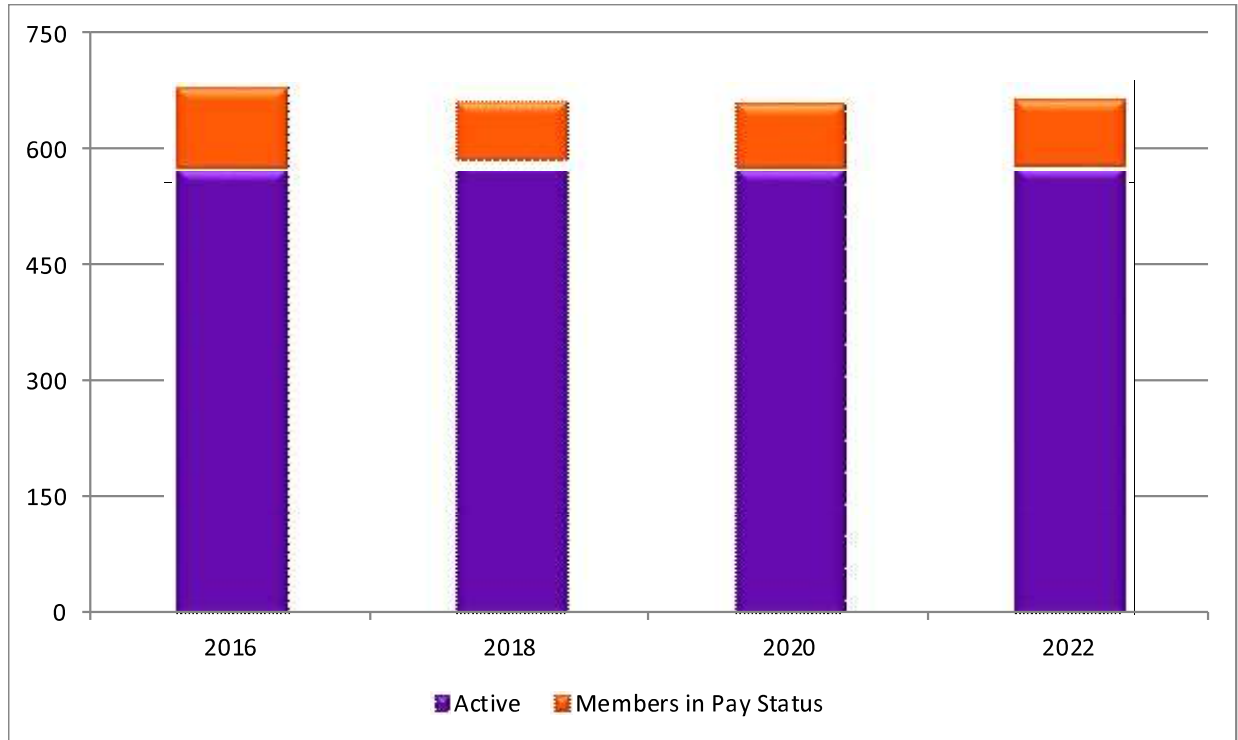
Member Data

The data reported by the Plan Sponsor for this valuation includes 579 active employees who met the Plan's minimum age and service requirements as of July 1, 2022.

| | Police | Fire | Town | BOE Certified | BOE Non-Certified | Total |
|-----------------------------------|--------|------|------|---------------|-------------------|-------|
| Total members July 1, 2022 | | | | | | |
| Active members | 49 | 41 | 133 | 319 | 37 | 579 |
| Retirees | 30 | 12 | 4 | 23 | 1 | 70 |
| Dependents of current retirees | 10 | 1 | 2 | 5 | 0 | 18 |
| Total | 89 | 54 | 139 | 347 | 38 | 667 |
| Average age July 1, 2022 | | | | | | |
| Active members | 42.6 | 39.0 | 50.7 | 45.5 | 49.1 | 46.2 |
| Retirees | 69.9 | 62.6 | 56.8 | 72.0 | 63.2 | 68.5 |
| Dependents of current retirees | 64.6 | 57.8 | 52.8 | 60.9 | N/A | 61.9 |
| Total members July 1, 2020 | | | | | | |
| Active members | 51 | 40 | 134 | 312 | 38 | 575 |
| Retirees | 28 | 12 | 2 | 25 | 0 | 67 |
| Dependents of current retirees | 10 | 1 | 1 | 7 | 0 | 19 |
| Total | 89 | 53 | 137 | 344 | 38 | 661 |
| Average age July 1, 2020 | | | | | | |
| Active members | 42.3 | 39.7 | 51.3 | 47.0 | 52.6 | 47.4 |
| Retirees | 69.6 | 61.7 | 62.5 | 70.5 | N/A | 68.3 |
| Dependents of current retirees | 62.6 | 56.0 | 67.0 | 65.0 | N/A | 63.4 |



Member Counts by Status





Expected Benefit Payments from Trust Fund

An important consideration in formulating short-term or intermediate-term investment policy is the need for liquidity to meet the payment requirements of the Plan. The Plan's investment advisors may wish to compare expected benefit payments and expenses with anticipated cash income from investments and employer contributions.

The table below presents projected annual benefit payments for the next twenty plan years. The following assumptions are reflected in this table:

- Retirements among active participants will occur consistent with the Plan's retirement assumption.
- Benefits will continue to accrue according to the provisions of the Plan.

Differences between actual experience and that assumed will affect the pattern of benefit payments.

Participant categories reflect status as of July 1, 2022.

| Year | Active as of July 1, 2022 | Retired and Terminated as of July 1, 2022 | Total Benefit Payments |
|------|------------------------------|---|------------------------------|
| 2022 | \$36,003 | \$998,347 | \$1,034,350 |
| 2023 | 107,135 | 1,015,507 | 1,122,642 |
| 2024 | 171,924 | 1,007,255 | 1,179,179 |
| 2025 | 247,258 | 1,007,981 | 1,255,239 |
| 2026 | 326,933 | 994,504 | 1,321,437 |
| 2027 | 408,404 | 1,013,633 | 1,422,037 |
| 2028 | 492,250 | 1,035,193 | 1,527,443 |
| 2029 | 579,415 | 1,013,673 | 1,593,088 |
| 2030 | 694,714 | 982,077 | 1,676,791 |
| 2031 | 788,011 | 968,920 | 1,756,931 |
| 2032 | 866,087 | 967,180 | 1,833,267 |
| 2033 | 993,772 | 973,000 | 1,966,772 |
| 2034 | 1,057,583 | 976,407 | 2,033,990 |
| 2035 | 1,144,826 | 977,880 | 2,122,706 |
| 2036 | 1,195,827 | 952,143 | 2,147,970 |
| 2037 | 1,232,350 | 947,625 | 2,179,975 |
| 2038 | 1,310,714 | 928,088 | 2,238,802 |
| 2039 | 1,380,141 | 916,891 | 2,297,032 |
| 2040 | 1,438,066 | 902,155 | 2,340,221 |
| 2041 | 1,511,777 | 883,810 | 2,395,587 |



Description of Actuarial Methods

Asset Valuation Method

Beginning with the 2022 valuation, the Actuarial value of assets will be used in the development of plan contributions. The difference between the actual return on Market Value and the expected return on Market Value will be phased in over a 5-year period at 20% per year.

Change in Asset Valuation Method

Market Value was used previously.

Actuarial Cost Method

Basic Cost Method: Entry Age Normal Actuarial Cost Method (level percentage of salary).

Change in Actuarial Cost Method: None.

Normal Cost: Under this method, the total normal cost is the sum of amounts necessary to fund each active member's normal retirement benefit if paid annually from entry age to assumed retirement age. Entry age is the age at which the employee would have been first eligible for the plan, if it had always been in effect. The normal cost for each participant is expected to remain a level percentage of the employee's salary. The normal cost for the plan is the difference between the total normal cost for the year and the anticipated member contributions for that year.

Past Service Liability: The present value of future benefits that relates to service before the valuation date is the total past service liability. The unfunded past service liability is the difference between the total past service liability and any assets (including accumulated member contributions).

Amortization Method

This amount is amortized over 30 years on a closed basis as of July 1, 2016. There are 24 years remaining as of July 1, 2022.



Description of Actuarial Assumptions

The valuation reflects changes in the actuarial assumptions listed below. The assumptions used before and after these changes are more fully described in the next section.

- Healthcare cost trend rates

Interest (net of investment-related expenses)

6.50%

Rate of compensation increase (including inflation)

Town, Non-Certified BOE, Police and Fire:

3.40%.

The plan does not have statistically credible data on which to form a rate of compensation increase assumption. The assumption is based on historical national wage increases and input from the plan sponsor regarding future expectations.

BOE Certified:

According to the following service – based schedule (including inflation) (From Connecticut State TRS 2020 Pension Valuation):

| Service | Rate of Increase |
|---------|------------------|
| 0 | 6.50% |
| 1 | 6.25 |
| 2-9 | 6.00 |
| 10-11 | 5.50 |
| 12 | 5.25 |
| 13 | 5.00 |
| 14 | 4.75 |
| 15 | 4.50 |
| 16 | 4.00 |
| 17 | 3.75 |
| 18 | 3.50 |
| 19 | 3.25 |
| 20+ | 3.00 |

The actuarial assumption in regards to rates of compensation increase is based on the rates used by the Connecticut State Teachers’ Retirement System actuaries.

Inflation

2.40%.

This assumption is consistent with the Social Security Administration’s current best estimate of the ultimate long-term (75-year horizon) annual percentage increase in CPI, as published in the 2022 OASDI Trustees Report.

Mortality

Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables (with separate tables for General Employees, Public Safety and Teachers), projected to the valuation date with Scale MP-2021.



Disabled Mortality (Police and Fire only)

Pub-2010 Public Retirement Plans Amount-Weighted Mortality Tables (with separate tables for General Employees, Public Safety and Teachers), projected to the valuation date with Scale MP-2021.

Mortality Improvement

Projected to date of decrement using Scale MP-2021 (generational).

We have selected this mortality assumption because it is based on the latest published public retirement mortality study recently published by the Society of Actuaries.

Retirement

Town and Non-Certified BOE:

| Age | Rate |
|-----|---------|
| 45 | 13.00% |
| 50 | 13.00% |
| 55 | 7.50% |
| 60 | 9.00% |
| 65 | 18.00% |
| 70 | 18.00% |
| 75 | 100.00% |

The actuarial assumption in regards to rates of retirement shown above are based on the rates used by the state of Connecticut Municipal Employee Retirement System actuaries.

Police:

| Service | Rate of Retirement |
|---------|--------------------|
| 25 | 25% |
| 26-28 | 30 |
| 29 | 40 |
| 30 | 60 |
| 31-39 | 50 |
| 40+ | 100 |

Fire:

Per table below:

| Age | Rate |
|-----|------|
| 65 | 50% |
| 66 | 25% |
| 67 | 25% |
| 68 | 25% |
| 69 | 25% |
| 70 | 100% |

The actuarial assumption in regards to rates of retirement for Police and Fire are based on the rates used by the Town of Branford pension plans.



Retirement (cont.)

Certified BOE:

Certified BOE: Per table below (from Connecticut State TRS 2020 Pension Valuation):

| Age | Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. Or 35 Yrs. Serv.) Less than 35 years of Serv. | | Eligible for Normal (Unreduced) Retirement (Age 60 and 20 Yrs. Serv. Or 35 Yrs. Serv.) 35 or more years of Serv. | | Eligible for Early (Reduced) Retirement (Age 50 and 20 Yrs. Serv. Or 25 Yrs. Serv.) | |
|-------|--|--------|--|--------|---|--------|
| | Male | Female | Male | Female | Male | Female |
| 50 | | | 35.0% | 30.0% | 1.50% | 1.25% |
| 51 | | | 35.0% | 30.0% | 1.50% | 1.25% |
| 52 | | | 35.0% | 30.0% | 1.50% | 1.25% |
| 53 | | | 35.0% | 30.0% | 1.50% | 1.75% |
| 54 | | | 35.0% | 30.0% | 2.00% | 2.25% |
| 55 | | | 35.0% | 30.0% | 3.00% | 3.00% |
| 56 | | | 35.0% | 30.0% | 4.00% | 3.75% |
| 57 | | | 35.0% | 30.0% | 5.00% | 4.50% |
| 58 | | | 35.0% | 30.0% | 6.50% | 5.50% |
| 59 | | | 35.0% | 30.0% | 8.00% | 7.00% |
| 60 | 20.0% | 20.0% | 30.0% | 30.0% | | |
| 61 | 20.0% | 20.0% | 30.0% | 30.0% | | |
| 62 | 22.5% | 20.0% | 30.0% | 30.0% | | |
| 63 | 22.5% | 20.0% | 30.0% | 30.0% | | |
| 64 | 25.0% | 25.0% | 30.0% | 30.0% | | |
| 65 | 27.5% | 32.5% | 35.0% | 37.5% | | |
| 66 | 27.5% | 30.0% | 35.0% | 37.5% | | |
| 67-68 | 27.5% | 30.0% | 30.0% | 32.5% | | |
| 69-74 | 27.5% | 30.0% | 30.0% | 32.5% | | |
| 75-80 | 100.0% | 100.0% | 100.0% | 100.0% | | |

The actuarial assumption in regards to rates of retirement shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries



Retirement (cont.)

Sample Age-Based Withdrawal Rates (until eligible to retire)

Town and Non-Certified BOE:

| Age | Male Rate | | Female Rate | |
|-----|-----------|------------|-------------|------------|
| | 0-4 Years | 5-24 Years | 0-4 Years | 5-24 Years |
| 20 | 16.00% | 12.00% | 24.00% | 18.00% |
| 25 | 16.00% | 12.00% | 19.00% | 18.00% |
| 30 | 12.50% | 10.00% | 16.00% | 12.00% |
| 35 | 10.00% | 8.00% | 12.00% | 10.00% |
| 40 | 9.50% | 5.75% | 10.00% | 8.00% |
| 45 | 8.50% | 5.00% | 9.00% | 6.00% |
| 50 | 8.50% | 4.50% | 9.00% | 4.50% |
| 55 | 6.50% | 0.00% | 8.00% | 0.00% |
| 60 | 6.50% | 0.00% | 8.00% | 0.00% |
| 65 | 6.00% | 0.00% | 8.00% | 0.00% |
| 70 | 6.00% | 0.00% | 8.00% | 0.00% |

The actuarial assumption in regards to rates of termination shown above are based on the rates used by the State of Connecticut Municipal Employee Retirement System actuaries.

Police:

| Withdrawal and Vesting | | |
|------------------------|-----------|------------|
| Age | 0-4 Years | 5-24 Years |
| 20 | 6.50% | 5.00% |
| 25 | 6.50% | 5.00% |
| 30 | 5.75% | 4.00% |
| 35 | 3.50% | 2.50% |
| 40 | 3.50% | 2.00% |
| 45 | 3.50% | 1.50% |
| 50 | 3.50% | 0.00% |
| 55 | 3.50% | 0.00% |
| 60 | 3.50% | 0.00% |
| 65 | 0.00% | 0.00% |

The actuarial assumption in regards to rates of termination shown above are based on the rates used by the State of Connecticut Municipal Employee Retirement System actuaries.



Sample Age-Based Withdrawal Rates (until eligible to retire) (cont.)

Fire:

Sample termination rates are as follows:

Table T-3

| Age | Rate |
|-----|------|
| 20 | 6.6% |
| 25 | 5.3% |
| 30 | 4.8% |
| 35 | 4.5% |
| 40 | 3.8% |
| 45 | 3.2% |
| 50 | 1.5% |

Certified BOE:

Certified BOE: Rates based on gender and length of service for first Ten years and gender and age thereafter (Connecticut State TRS 2020 Pension Valuation):

| Service | Male Rate | Female Rate |
|---------|--|-------------|
| 0-1 | 15.00% | 12.00% |
| 1-2 | 11.00 | 11.00 |
| 2-3 | 8.50 | 9.50 |
| 3-4 | 7.00 | 8.00 |
| 4-5 | 5.50 | 7.50 |
| 5-6 | 4.50 | 7.00 |
| 6-7 | 4.00 | 6.50 |
| 7-8 | 3.50 | 6.00 |
| 8-9 | 3.50 | 5.50 |
| 9-10 | 3.50 | 5.00 |
| 10 + | use age-related rates until eligible to retire | |

Sample Age-Based Withdrawal Rates (until eligible to retire):

| Age | Male Rate | Female Rate |
|-----|-----------|-------------|
| 25 | 1.80% | 6.00% |
| 30 | 1.80 | 6.00 |
| 35 | 1.80 | 4.25 |
| 40 | 1.80 | 2.50 |
| 45 | 1.80 | 2.00 |
| 50 | 2.25 | 2.40 |
| 55 | 4.00 | 3.90 |
| 59+ | 5.50 | 4.00 |

The actuarial assumption in regards to rates of withdrawal shown above are based on the rates used by the Connecticut State Teachers' Retirement System actuaries.



Sample Age-Based Withdrawal Rates (until eligible to retire) (cont.)

Service - Connected Disability (Police and Fire)

| Age | Rate of Disability |
|-----|--------------------|
| 20 | 0.10% |
| 25 | 0.10 |
| 30 | 0.10 |
| 35 | 0.14 |
| 40 | 0.22 |
| 45 | 0.30 |
| 50 | 0.64 |
| 55 | 2.40 |
| 60 | 4.80 |
| 65 | 0.00 |

The actuarial assumption in regards to rates of disability shown above are based on the rates used by the State of Connecticut Municipal Employee Retirement System actuaries.

Additional Assumptions

Town, Police and Fire:

50% assumed married with wives assumed to be three years younger than their husbands.

Prior: 70% of males and 60% of females assumed married with wives assumed to be three years younger than their husbands.

Certified BOE and Non-Certified:

40% assumed married with wives assumed to be three years younger than their husbands.

The actuarial assumptions in regards to utilization shown above are based on standard assumptions modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Medical inflation

6.50% for 2022, decreasing 0.2% per year, to an ultimate rate of 4.40% for 2033 and later.

Prior: 6.50% for 2020, decreasing 0.2% per year, to an ultimate rate of 4.40% for 2031 and later.

Health care trend rates reflect both the current and long-term outlook for increases in health care costs. The short term rates are based on recent industry surveys, plan experience and near-term expectations. The long term trend rate is based on our general inflation assumption of 2.40% plus 2.00% to reflect expectations for long-term medical inflation.

Dental inflation

3.40%.



Medical Premiums

The Town has moved to the Connecticut State Partnership Plan 2.0. The Board of Education will be moving to the State Plan effective July 1, 2023 and has been reflected in this valuation. Dental insurance is self-insured and retirees over age 65 who are medicare eligible are covered by Anthem.

| | Employee | Employee Plus Spouse |
|---|----------|----------------------|
| 2022 CT State Partnership Plan 2.0 | | |
| Pre-65 Medical Costs, including Prescription Drugs | \$16,142 | \$34,766 |
| Post-65 Medical Costs, including Prescription Drugs (Non-Medicare Eligible) | \$28,717 | \$62,448 |
| Retiree Contribution Rates | | |
| Town | | |
| Board of Education | \$13,258 | \$28,456 |
| Anthem Over 65 (Medicare Eligible) | \$10,782 | \$21,564 |
| Dental | | |
| Town | \$340 | \$680 |
| Board of Education | \$378 | \$756 |

Percentage of Actives Eligible at Retirement who continue with Medical Coverage

100% for Town Finance Director.

50% for all other Town employees.

90% for Police.

90% for Fire with a date of hire prior to 1/26/2017.

80% for Fire with a date of hire on or after 1/26/2017.

65% for Certified BOE.

50% for Non-Certified BOE.

The actuarial assumptions in regards to utilization shown above are based on standard assumptions modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.

Percentage of non-Medicare eligible Continuing after 65 (Certified BOE only)

20%.

The actuarial assumptions in regards to utilization shown above are based on standard assumptions modified for certain plan features such as eligibility for full and early retirement where applicable and input from the plan sponsor.



Patient Protection and Affordable Care Act (PPACA)

For purposes of this valuation, extended coverage for adult children and 100% coverage of preventive care are assumed to be reflected in per capita costs.

For purposes of this valuation, elimination of lifetime maximum benefits and removal of the limits on essential healthcare are assumed to have no impact on plan liabilities.



Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Plan identification

Single-employer OPEB plan.

Medical Plan

The Town has moved to the State Partnership Plan 2.0 effective 9/1/2022 for actives and retirees not eligible for Medicare. The Board of Education will move effective 7/1/2023. The medical plan for medicare eligible retirees is insured with Anthem. The dental plan is self-insured.

Town Employees

Eligibility for Retiree Medical Coverage

Age 55 with 5 years of service or 25 years of service with no age requirement.

Retiree/Spouse Cost of Medical Coverage

The retiree must pay 100% of the premium for medical coverage until age 65. No coverage after age 65.

Retiree/Spouse Dental Coverage

None.

Life Insurance Benefit

None.

Finance Director

Eligibility for Retiree Medical Coverage

Age 50 with 15 years of service or 25 years of service with no age requirement.

Retiree/Spouse Cost of Medical Coverage

The retiree pays 0% of the premium for their coverage and 50% of the premium for the spouse. Spouse coverage ends on the death of the retiree. If the retiree or spouse is offered comparable insurance coverage, they will not receive insurance through the Town. If there is a premium share, however, the Town will reimburse the retiree. When the retiree or spouse is eligible for Medicare, the Town shall provide a Plan F supplement to Medicare.

Retiree/Spouse Cost of Dental Coverage

Same as Medical.

Life Insurance Benefit

None.



Police (including Chief of Police)

Eligibility for Medical and Dental Coverage

25 years of service with no age requirement.

Retiree/Spouse Cost of Medical Coverage

The retiree pays 0% of the premium for their coverage and 50% of the premium for the spouse. Spouse coverage ends on the death of the retiree. If an employee retires prior to age 50, the Town will not contribute toward spouse coverage until the retiree attains age 50. If the retiree or spouse is offered comparable insurance coverage, they will not receive insurance through the Town. If there is a premium share, however, the Town will reimburse the retiree. When the retiree or spouse is eligible for Medicare, the Town shall provide a Plan F supplement to Medicare.

For Police hired after January 15, 2010, the spouse does not have access to medical benefits after retirement.

Retiree/Spouse Cost of Dental Coverage

Same as Medical.

Life Insurance Benefit

None.

Fire (including Fire Chief/Deputy Fire Marshal and Assistant Fire Chief)

Eligibility for Medical and Dental Coverage

Age 55 with either 10 years of continuous service or 15 years of aggregate service or 25 years of service with no age requirement.

Retiree/Spouse Cost of Medical Coverage

For Fire employees hired prior to January 25, 2017, the retiree pays 0% of the premium for their coverage and 50% of the premium for the spouse. Spouse coverage ends on the death of the retiree. If the retiree or spouse is offered comparable insurance coverage, they will not receive insurance through the Town. If there is a premium share, however, the Town will reimburse the retiree. For Fire employees hired on or after January 25, 2017, the retiree pays 25% of the premium for coverage prior to age 65. When the retiree or spouse is eligible for Medicare, the Town shall provide a Plan F supplement to Medicare.

For Fire employees hired after July 1, 2004, the spouse does not have access to medical benefits after retirement.

Retiree/Spouse Cost of Dental Coverage

Same as Medical.

Life Insurance Benefit

None.



Board of Education Employees (Other than Certified Staff and Administrators)*

Eligibility for Retiree Medical Coverage

Age 55 with 5 years of service or 25 years of service with no age requirement.

Retiree/Spouse Cost of Medical Coverage

The retiree must pay 100% of the premium for medical coverage until age 65. No coverage after age 65.

Retiree/Spouse Dental Coverage

None.

Life Insurance Benefit

None.

** BASS, Professional, Technical Staff and Nurses (those hired after October 1, 2011) do not have access to medical insurance after retirement.*

Board of Education Certified Staff and Administrators

Eligibility for Medical, Dental and Life Coverage

Age 50 with 25 years of service, age 55 with 20 years of service or age 60 with 10 years of service.

Retiree/Spouse Cost of Medical Coverage

The retiree must pay 100% of the premium for medical coverage for themselves or their spouse.

Retiree/Spouse Dental Coverage

None.

Life Insurance Benefit

None.