Milliman

TOWN OF NEWINGTON
ADMINISTRATIVE EMPLOYEES' PENSION PLAN

Actuarial Valuation as of July 1, 2023
To Determine Funding for Fiscal Year 2024-25

Prepared by

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Consulting Actuary

Table of Contents

Certification

As part of our engagement with the Town of Newington ("Town"), we have performed an actuarial valuation of the Plan as of July 1, 2023. Our findings are set forth in this actuary's report. The main purposes of this valuation are to determine funding for fiscal year 2024-25, to review the Plan's experience since the prior valuation, and to assess the funded position of the Plan.

Actuarial computations presented in this report are for the purposes of determining the recommended funding amounts for the Plan. The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy and on our understanding of the plan provisions as summarized in this report. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions. Note that a Plan's funded status is dependent on the selection of both the actuarial cost method and the asset smoothing method; different measurements would result if, for instance, the Market Value of Assets were used in place of the Actuarial Value of Assets.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the Town, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The Town is solely responsible for communicating to Milliman any changes thereto. All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

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 modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

Certification

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the Town. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised.

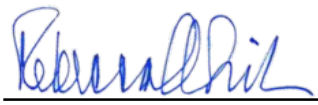
Milliman's work is prepared solely for the use and benefit of the Town. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit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

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

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

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct* and *Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States*, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Rebecca A. Sielman, FSA
Consulting Actuary

Section I - Executive Summary
Changes Since the Prior Valuation

Plan Experience

From July 1, 2022 to July 1, 2023, the plan's assets earned 11.088% on a Market Value basis and 1.610% on an Actuarial Value basis. The interest rate assumption for this period was 6.125%; the result is an asset gain of about $0.2 million on a Market Value basis and a loss of about $0.3 million on an Actuarial Value basis.

From July 1, 2022 to July 1, 2023, the Accrued Liability was expected to decline from $13.30 million to $13.02 million, based on expected changes in the plan's membership per the actuarial assumptions. Actual changes in the plan's membership during this period resulted in an Accrued Liability as of July 1, 2023 of $12.98 million (measured before any changes in the plan provisions or the actuarial methods and assumptions). This difference of $38,000 between the expected Accrued Liability and the actual Accrued Liability is termed a 'liability gain'. The primary factors contributing to this liability gain were: (1) a modest gain from retired mortality experience, with more deaths than expected; and (2) a small loss from salary growth, with higher pay increases than expected.

Plan Changes

None.

Changes in Actuarial Assumptions

None.

Changes in Actuarial Methods

None.

Other Significant Changes

Although it is possible that the COVID-19 pandemic could have a material impact on the projected mortality, liabilities, and contribution requirements, we have chosen not to make an adjustment in the projections at this time, given the substantial current uncertainty regarding the impact of COVID-19 on mortality and plan costs, including whether the pandemic will increase or decrease mortality during the term of our projections. We will be monitoring this development closely and may adjust future projections to reflect the impact of COVID-19, if and when it becomes appropriate.

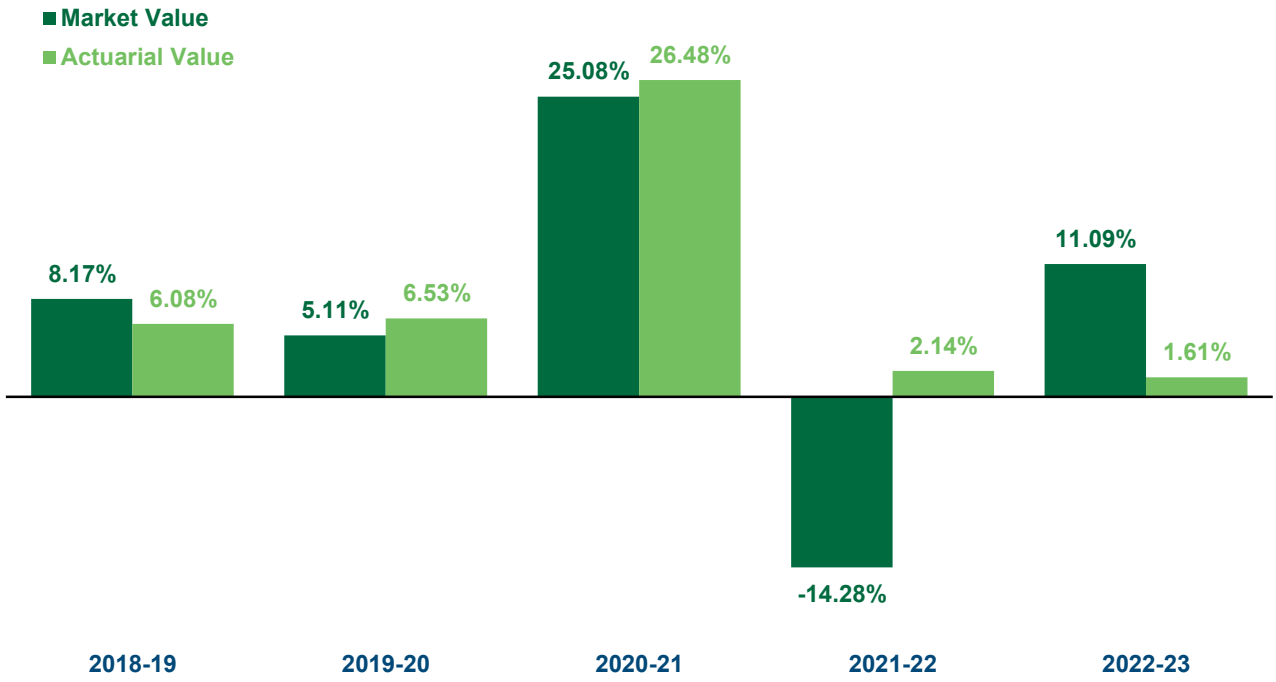
Section I - Executive Summary
Assets

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

	Market	Actuarial
Value as of July 1, 2022	$4,854,243	$5,829,726
Town and Member Contributions	832,956	832,956
Investment Income	522,562	91,572
Benefit Payments and Administrative Expenses	(1,115,609)	(1,115,609)
Value as of July 1, 2023	5,094,152	5,638,645

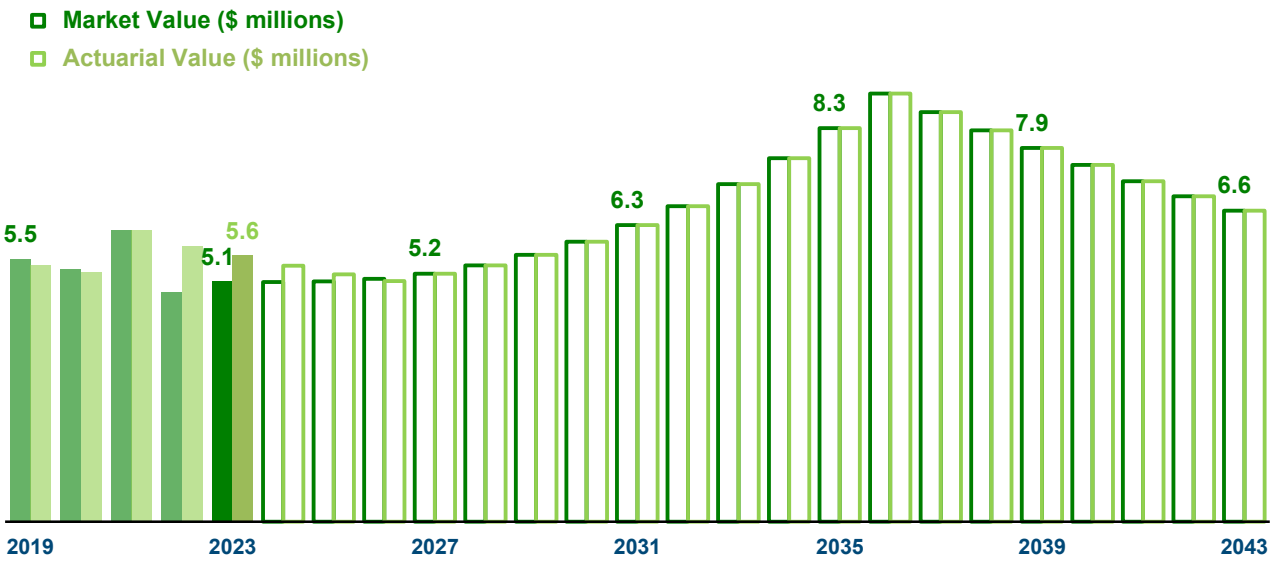
The Actuarial Value currently exceeds the Market Value by $0.5 million. This figure represents investment losses that will be gradually recognized in future years. This process will exert upward pressure on the Town's contribution, unless there are offsetting market gains.

Historical rates of return are shown in the graph below:

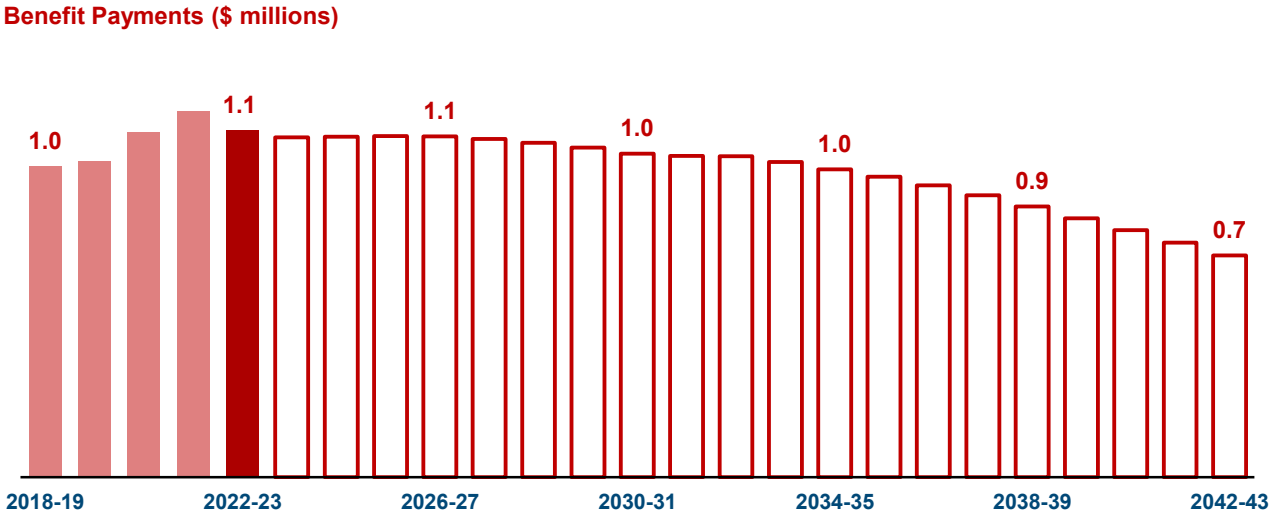


Section I - Executive Summary
Assets (continued)

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

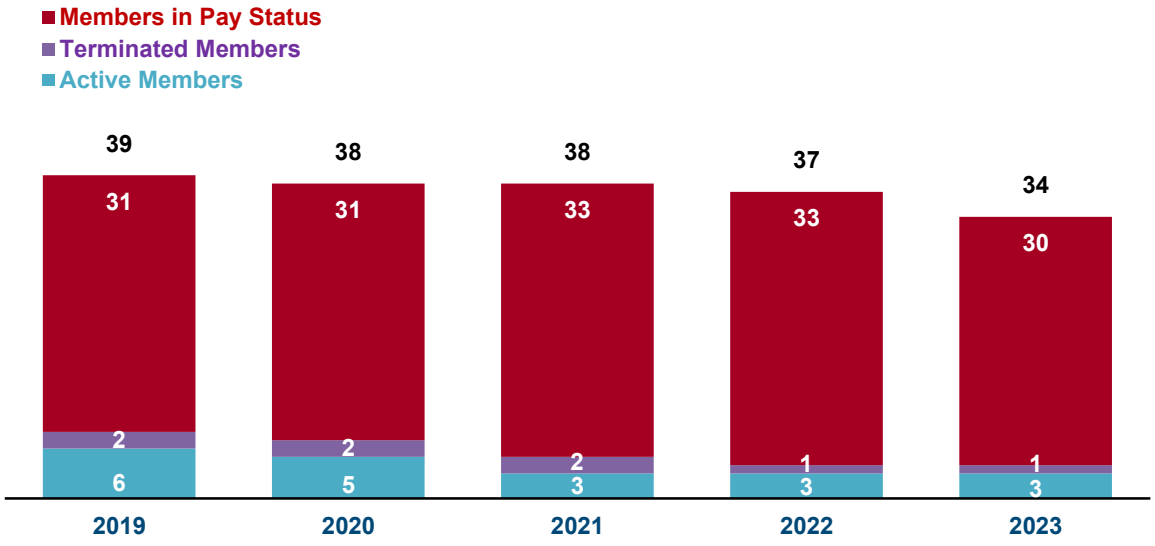


In 2022-23, the plan paid out $1,096,700 in benefits to members. Over the next 20 years, the plan is projected to pay out a total of $19,171,000 in benefits to members.



Section I - Executive Summary
Membership

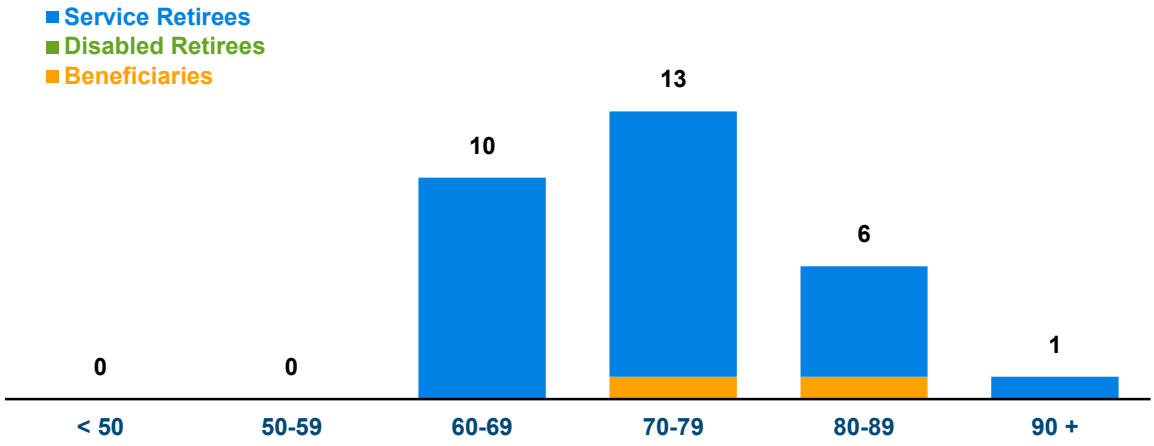
There are three basic categories of plan members included in the valuation: (1) members who are receiving monthly pension benefits, (2) former employees who have a vested right to benefits but have not yet started collecting, and (3) active employees who have met the eligibility requirements for membership.



Members in Pay Status on July 1, 2023

Service Retirees	28	Average Age	74.3
Disabled Retirees	0	Total Annual Benefit	$1,073,743
Beneficiaries	2	Average Annual Benefit	35,791
Total	30		

The members in pay status fall across a wide distribution of ages:



Section I - Executive Summary
Membership (continued)

Terminated Vested Members on July 1, 2023

Count	1
Average Age	56.4
Total Annual Benefit	$30,273
Average Annual Benefit	30,273

Nonvested Members Due Refunds on July 1, 2023

Count	0

Active Members on July 1, 2023

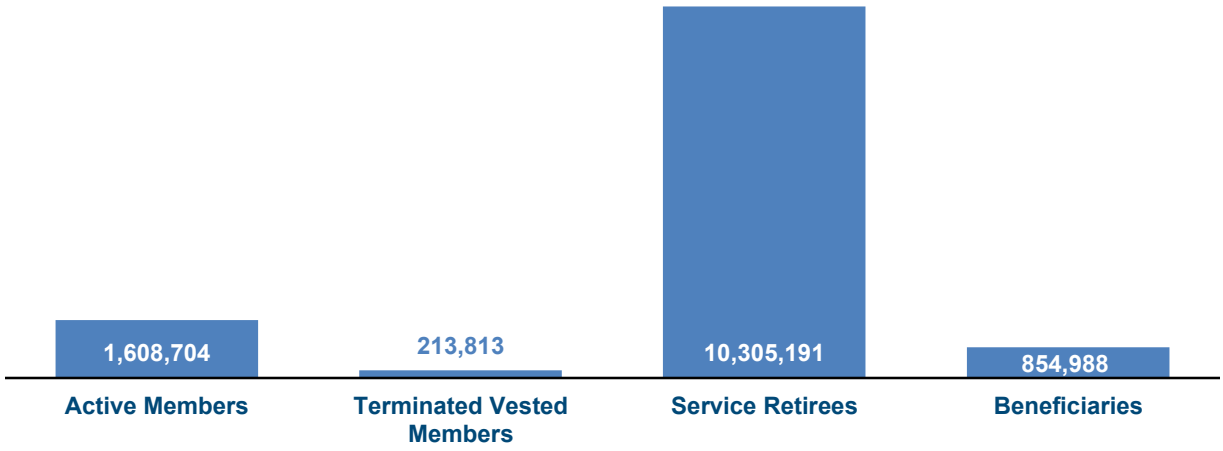
Count	3
Average Age	59.5
Average Service	24.3
Payroll	$305,767
Average Payroll	101,922

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

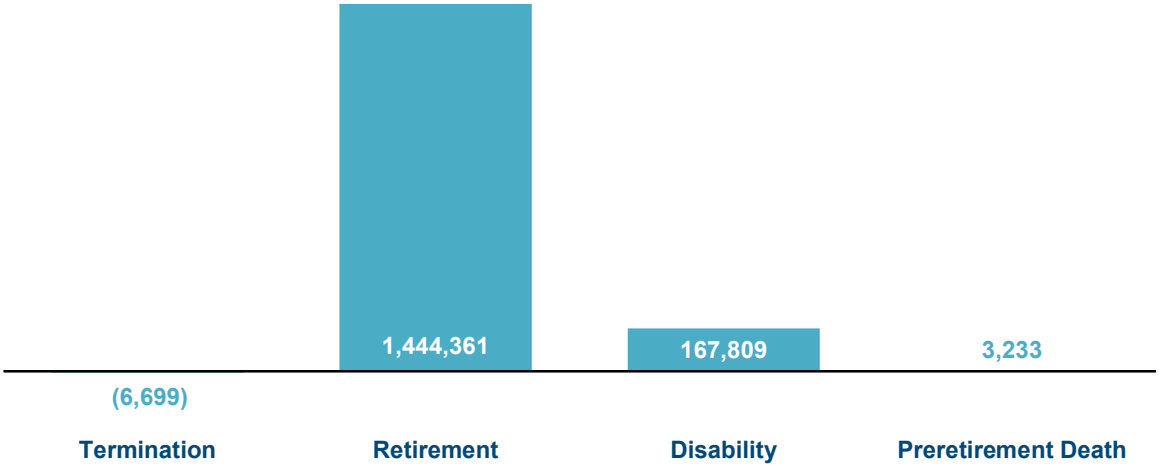
	Years of Service							
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**Total**
< 25								0
25-29								0
30-34								0
35-39								0
40-44								0
45-49								0
50-54							1	1
55-59								0
60-64				2				2
65+								0
Total	0	0	0	2	0	0	1	3

Section I - Executive Summary
Accrued Liability

The Accrued Liability as of July 1, 2023 is $12,982,696, which consists of the following pieces:

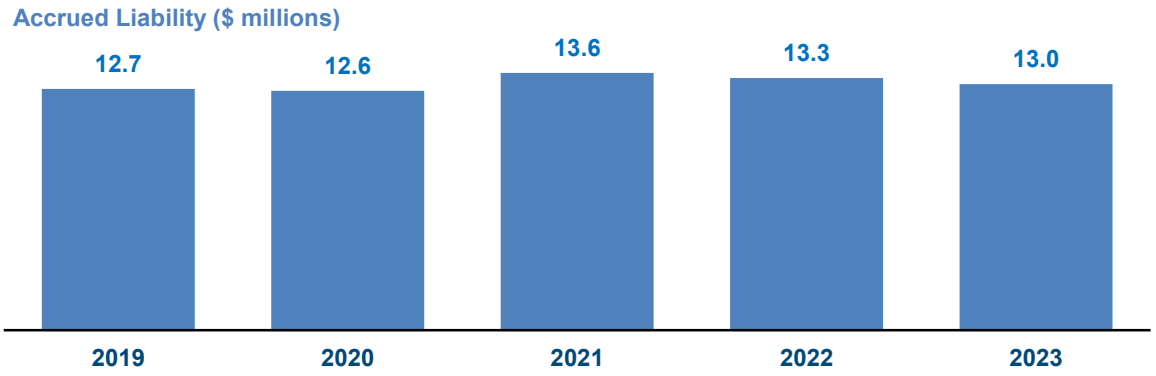


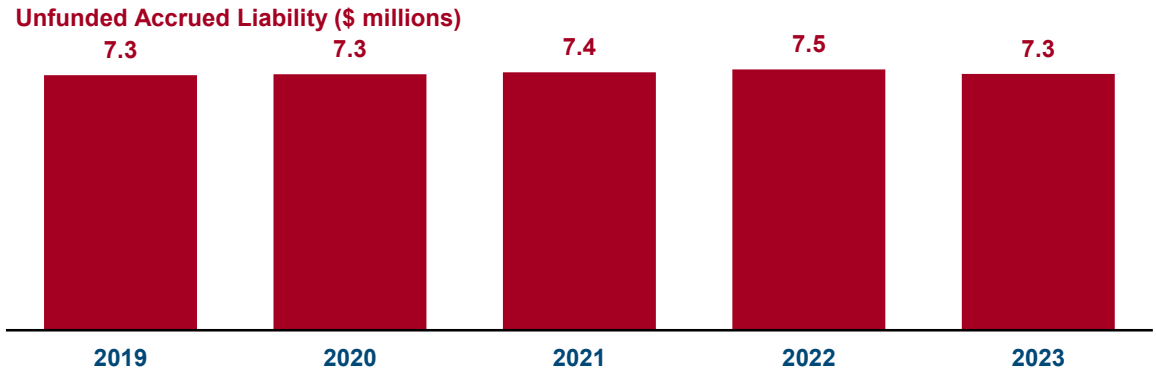
The Accrued Liability for active members can be broken down further by the different types of benefits provided by the plan:

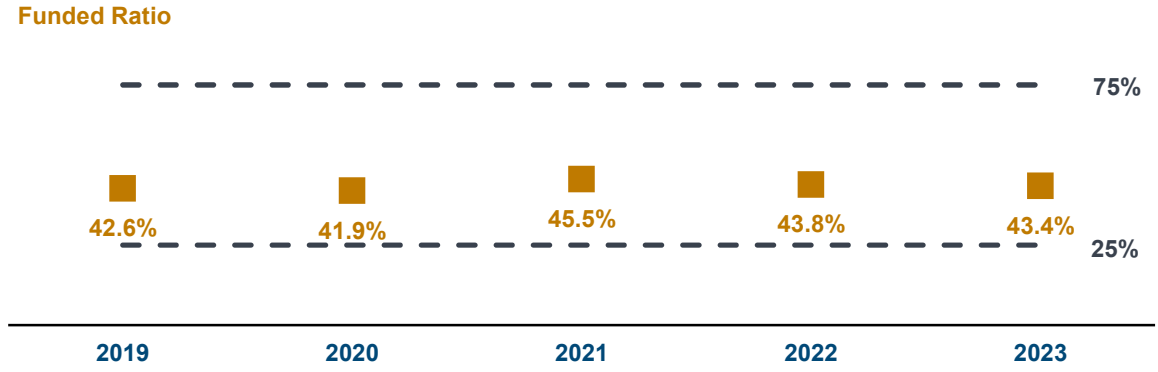


Section I - Executive Summary
Funded Status

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

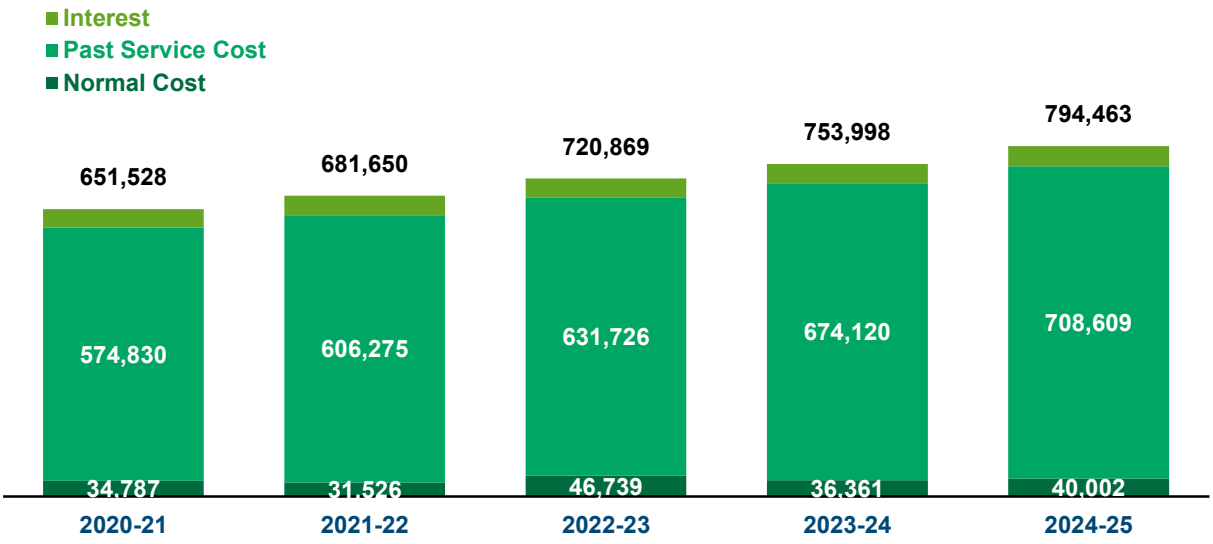






Section I - Executive Summary
Actuarially Determined Contribution (ADC)

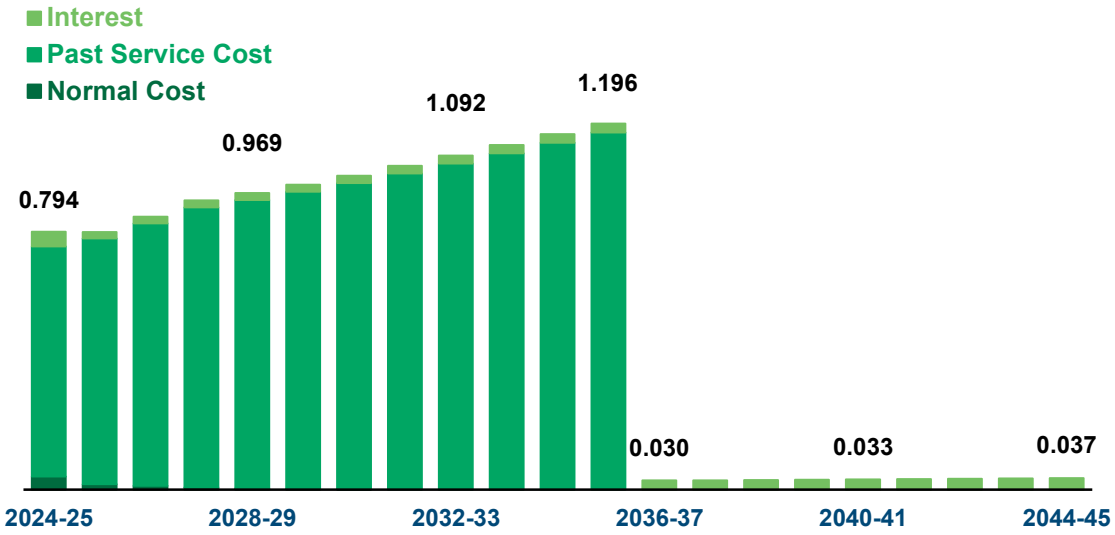
The ADC consists of three pieces: a Normal Cost payment to fund the benefits earned each year, a Past Service Cost to gradually reduce any unfunded or surplus liability, and Interest. The ADC for fiscal year 2024-25 is $794,463:



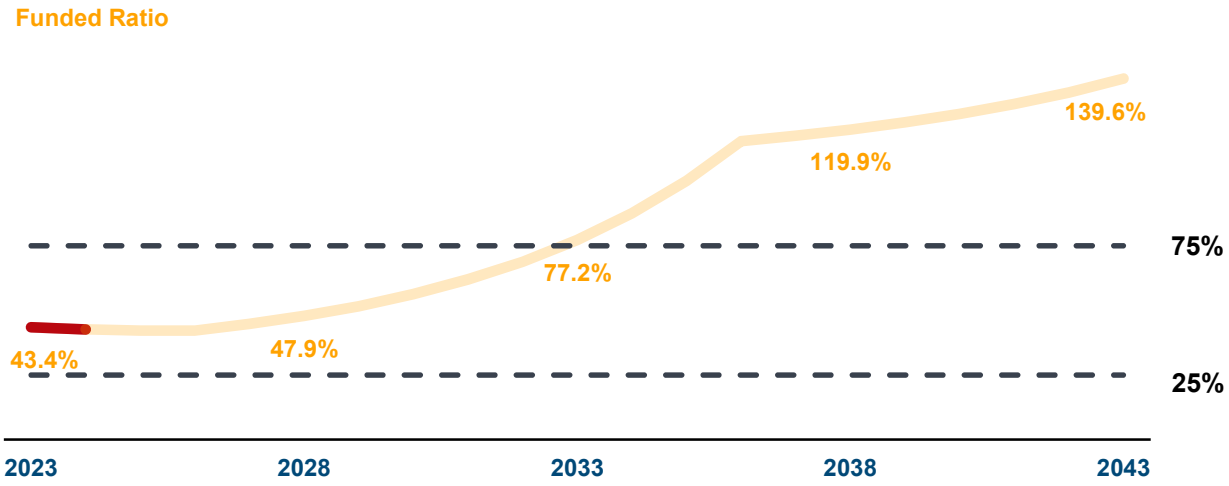
Actuarial Standard of Practice (ASOP) No. 4 requires the actuary to calculate and disclose a 'reasonable' ADC, which considers whether the actuarial methods and actuarial assumptions are in compliance with all applicable ASOPs. Based on the actuarial assumptions and methods used in this report, we believe the ADC is reasonable in accordance with ASOP 4 and reflects a balance among benefit security for plan members, intergenerational equity among stakeholders, and stability of periodic costs.

Section I - Executive Summary
Long-Range Forecast

If the Town pays the Actuarially Determined Contribution each year, the investments earn exactly the assumed interest rate each year, and there are no changes in the plan provisions or in the actuarial methods and assumptions, then we project the following long-range Actuarially Determined Contributions (in $ millions):



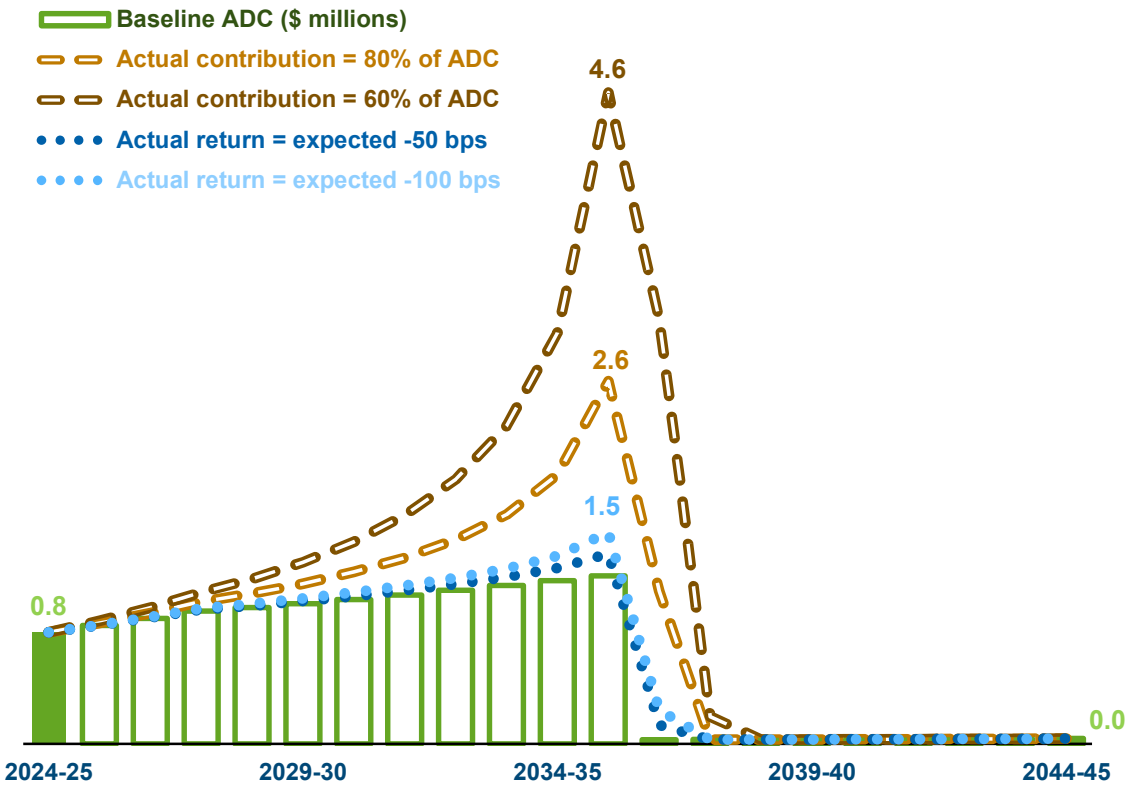
On the basis of this forecast, the Actuarially Determined Contribution currently exceeds the sum of the Normal Cost plus one year's interest on the Unfunded Accrued Liability and the Unfunded Accrued Liability is expected to be fully amortized by 2035. Over time, the funded ratio is expected to change as follows:



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

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

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



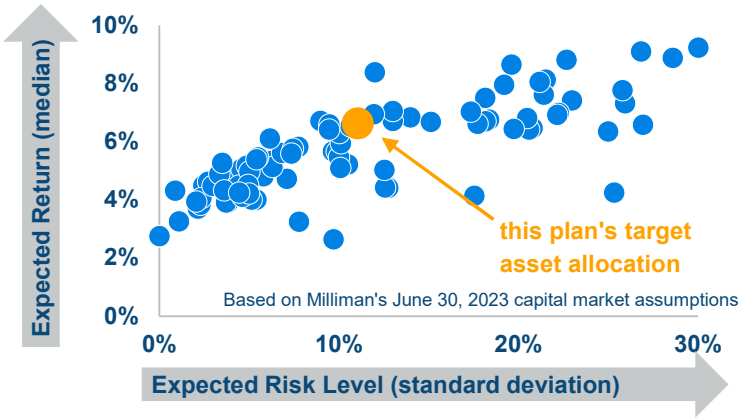
The scenarios illustrated above are based on deterministic projections that assume emerging plan experience always exactly matches the actuarial assumptions; in particular that actual asset returns will be constant in every year of the projection period. Variation in asset returns, contribution amounts,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

Section I - Executive Summary
Asset Allocation

Monies that flow out of a pension plan (benefits and expenses) must be matched over the long term by monies that flow into the plan (contributions and investment income). This is expressed in a classic equation: **B** (benefits) + **E** (expenses) = **C** (contributions) + **I** (investment income).

Actuarial assumptions enable us to anticipate the long-term levels of **B** (benefits) and **E** (expenses) that will be paid out of the plan. In order to determine the appropriate level of **C** (contributions) that should come in to the plan, we must first anticipate the long-term level of **I** (investment income) the plan is likely to receive. That is why, for purposes of calculating the Actuarially Determined Contribution, we measure this plan's liability using the long-term rate of investment returns this plan's portfolio is expected to generate.

Pension plans construct their portfolios by allocating assets across a wide range of asset classes with different risk and return profiles; the graph includes nearly 100 asset classes that pension plans invest in. As the graph illustrates, asset classes with higher expected returns also have higher risk levels; that is, a higher likelihood of experiencing both very good returns and very bad returns. Asset classes with lower expected returns also have lower risk levels.



The plan's target allocation represents a balance. Investing in lower-returning asset classes should reduce future investment returns and therefore increase future Town contributions, but the lower risk levels would result in lower year-over-year volatility in the Actuarially Determined Contribution and might provide more benefit security for plan members. Conversely, investing in higher-returning asset classes should increase future investment returns and therefore reduce future Town contributions, but would also increase the volatility of those contributions and potentially reduce benefit security for plan members.

In the graph above, the asset class with the lowest risk level is US Cash, and the asset class with the highest risk level is Private Equity. If the plan were invested 100% in either of these extremes, it would impact the interest rate assumption and therefore the Accrued Liability, Funded Ratio, and ultimately the Town's annual contributions; the volatility of the contributions would also change based on the risk level of the portfolio:

	100% US Cash *	Plan's Interest Rate Assumption	100% Private Equity
Expected long-term return (median)	3.3%	6.125%	9.2%
Expected risk level (standard deviation)	1.1%	11.1%	30.0%
Accrued Liability on July 1, 2023 **	$16.5 million	$13.0 million	$10.0 million
Funded Ratio on July 1, 2023 ***	34%	43%	56%

* This would be considered a "low-default-risk obligation measure" (LDROM) using the language of ASOP 4.

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the interest rate; the plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

*** Measured using the Actuarial Value of Assets

Section I - Executive Summary
Summary of Principal Results

Membership as of	July 1, 2022	July 1, 2023
Active Members	3	3
Terminated Members	1	1
Members in Pay Status	33	30
Total Count	37	34
Payroll	$291,176	$305,767

Assets and Liabilities as of	July 1, 2022	July 1, 2023
Market Value of Assets	$4,854,243	$5,094,152
Actuarial Value of Assets	5,829,726	5,638,645
Accrued Liability for Active Members	1,448,893	1,608,704
Accrued Liability for Terminated Members	201,398	213,813
Accrued Liability for Members in Pay Status	11,650,892	11,160,179
Total Accrued Liability	13,301,183	12,982,696
Unfunded Accrued Liability	7,471,457	7,344,051
Funded Ratio	43.8%	43.4%

Actuarially Determined Contribution for Fiscal Year	2023-24	2024-25
Normal Cost	$36,361	$40,002
Past Service Cost	674,120	708,609
Interest	43,517	45,852
Actuarially Determined Contribution	753,998	794,463

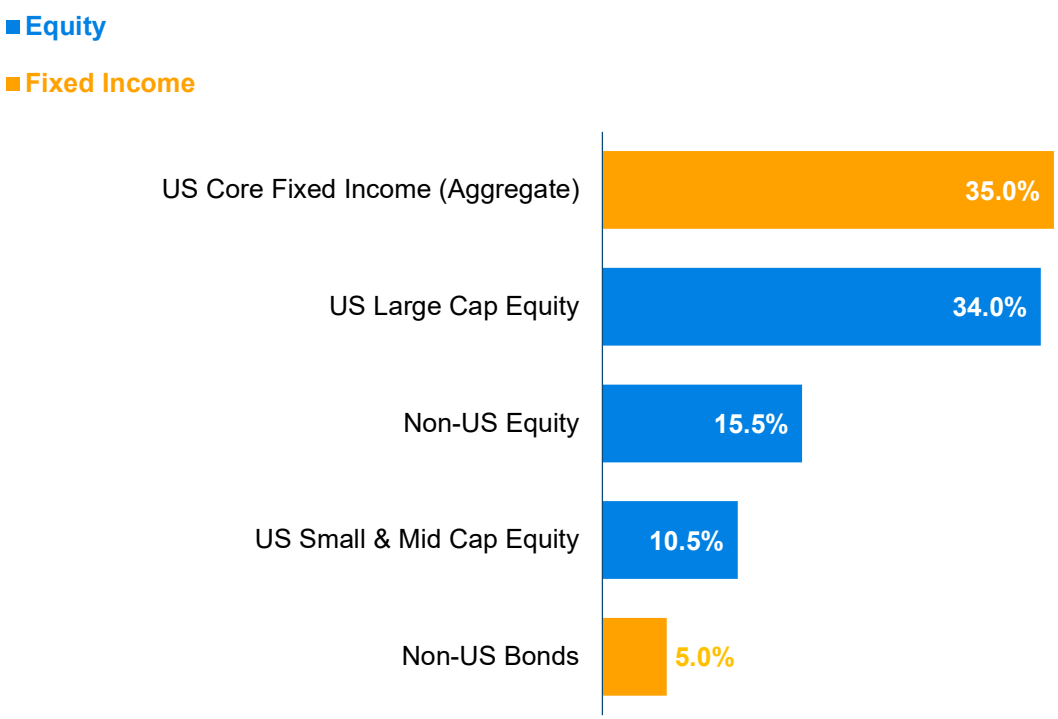
Breakdown of Actuarially Determined Contribution		
Board of Education	$124,594	$138,136
Town	629,404	656,327
Total	753,998	794,463

Section II - Plan Assets
A. Summary of Fund Transactions

Market Value as of July 1, 2022	$4,854,243
Town Contributions	820,869
Member Contributions	12,087
Net Investment Income	522,562
Benefit Payments	(1,096,695)
Administrative Expenses	(18,914)
Market Value as of June 30, 2023	5,094,152
Expected Return on Market Value of Assets	288,663
Market Value (Gain)/Loss	(233,899)
Approximate Rate of Return *	11.088%

* The rate shown here is not the dollar or time weighted investment yield rate which measures investment performance. It is an approximate net return assuming all activity occurred on average midway through the fiscal year.

Target Asset Allocation as of June 30, 2023



Section II - Plan Assets
B. Development of Actuarial Value of Assets

As of July 1, 2021, the Actuarial Value of Assets was reset to the Market Value of Assets.

In order to minimize the impact of market fluctuations on the contribution level, we use an Actuarial Value of Assets that recognizes gains and losses non-asymptotically over a five year period. The Actuarial Value of Assets as of July 1, 2023 is determined below.

1.	Expected Market Value of Assets:	
	a. Market Value of Assets as of July 1, 2022	$4,854,243
	b. Town and Member Contributions	832,956
	c. Benefit Payments and Administrative Expenses	(1,115,609)
	d. Expected Earnings Based on 6.125% Interest	288,663
	e. Expected Market Value of Assets as of July 1, 2023	4,860,253
2.	Actual Market Value of Assets as of July 1, 2023	5,094,152
3.	Market Value (Gain)/Loss: (1e) - (2)	(233,899)
4.	Delayed Recognition of Market (Gains)/Losses:	

Plan Year End	(Gain)/Loss	Percent Not Recognized	Amount Not Recognized
06/30/2023	($233,899)	80%	($187,119)
06/30/2022	1,219,354	60%	731,612
			544,493

5.	Actuarial Value of Assets as of July 1, 2023: (2) + (4)	5,638,645
6.	Approximate Rate of Return on Actuarial Value of Assets	1.610%
7.	Actuarial Value (Gain)/Loss	256,800

Section III - Development of Contribution
A. Past Service Cost

In determining the Past Service Cost, the Unfunded Accrued Liability is amortized as a level percent over a closed period of 30 years starting on July 1, 2005.

		July 1, 2022	July 1, 2023
1.	Accrued Liability		
	Active Members	$1,448,893	$1,608,704
	Terminated Members	201,398	213,813
	Service Retirees	10,767,445	10,305,191
	Disabled Retirees	0	0
	Beneficiaries	883,447	854,988
	Total Accrued Liability	13,301,183	12,982,696
2.	Actuarial Value of Assets (see Section IIB)	5,829,726	5,638,645
3.	Unfunded Accrued Liability: (1) - (2)	7,471,457	7,344,051
4.	Funded Ratio: (2) / (1)	43.8%	43.4%
5.	Amortization Period	13	12
6.	Amortization Growth Rate	3.25%	3.25%
7.	Past Service Cost: (3) amortized over (5)	674,120	708,609

Section III - Development of Contribution
B. Actuarial Gains / (Losses)

From one valuation to the next, the Accrued Liability and Actuarial Value of Assets may change in ways that were not anticipated by the actuarial assumptions that were used in the last valuation. If the Accrued Liability is lower than expected or the Actuarial Value of Assets is higher than expected, we say that the plan has experienced an 'actuarial gain', and if the Accrued Liability is higher than expected or the Actuarial Value of Assets is lower than expected, we say that the plan has experienced an 'actuarial loss'. The actuarial gains / losses that arose during 2022-23 are shown below, along with the impact of plan changes and changes in the actuarial assumptions and method. Please see page 3 for more details on any changes since the last valuation.

	Accrued Liability A	Actuarial Value of Assets B	Unfunded Accrued Liability = A - B
1. Value as of July 1, 2022	$13,301,183	$5,829,726	$7,471,457
2. Normal Cost as of July 1, 2022	33,064		33,064
3. Town Contributions during 2022-23		820,869	(820,869)
4. Employee Contributions during 2022-23		12,087	(12,087)
5. Benefit Payments during 2022-23	(1,096,695)	(1,096,695)	0
6. Administrative Expenses during 2022-23		(18,914)	18,914
7. One year of interest on (1) thru (2) at 6.125%	816,723	357,071	459,652
8. Half year of interest on (3) thru (6) at 6.125%	(33,586)	(8,699)	(24,887)
9. Expected value as of July 1, 2023	13,020,689	5,895,445	7,125,244
10. Actual value as of July 1, 2023 before any plan, assumption, or method changes	12,982,696	5,638,645	7,344,051
11. Experience gains / losses: (10) - (9)	(37,993)	(256,800)	218,807
12. Impact of plan changes (see page 3)	0	0	0
13. Impact of assumption changes (see page 3)	0	0	0
14. Impact of method changes (see page 3)	0	0	0
15. Final value as of July 1, 2023	12,982,696	5,638,645	7,344,051

Section III - Development of Contribution
C. Actuarially Determined Contribution

		2023-24	2024-25
1.	Total Normal Cost	$33,064	$34,261
2.	Expected Member Contributions	13,103	13,759
3.	Expected Administrative Expenses	16,400	19,500
4.	Town Normal Cost: (1) - (2) + (3)	36,361	40,002
5.	Past Service Cost (see Section IIIA)	674,120	708,609
6.	Interest on (4) + (5) to beginning of fiscal year	43,517	45,852
7.	Actuarially Determined Contribution: (4) + (5) + (6)	753,998	794,463
8.	Actuarially Determined Contribution as a Percent of Payroll	258.9%	259.8%
9.	Allocation of Actuarially Determined Contribution (ADC) based on the Accrued Liability:		
	a. Accrued liability for Board of Education members	2,197,951	2,257,340
	b. Accrued liability for Town members	11,103,232	10,725,356
	c. Total accrued liability	13,301,183	12,982,696
	d. ADC allocated to Board of Education: (7) x (9a) / (9c)	124,594	138,136
	e. ADC allocated to Town: (7) x (9b) / (9c)	629,404	656,327

Section III - Development of Contribution
D. Long Range Forecast

This forecast is based on the results of the July 1, 2023 actuarial valuation and assumes that the Town will pay the Actuarially Determined Contribution each year, the assets will return the assumed interest rate on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. For purposes of this forecast the amortization period declines to 1 year to illustrate the progress of the plan towards becoming fully funded; in actual practice the amortization period will not be less than 10 years in order to shield the Town from contribution volatility. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

	Values as of the Valuation Date					Cash Flows Projected to the Following Fiscal Year			
Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio	Fiscal Year	Town Contributions	Member Contributions	Benefit Payments	Net Cash Flows
7/1/2023	$12,982,696	$5,638,645	$7,344,051	43.4%	2024-25	$794,463	$12,079	($1,076,592)	($270,050)
7/1/2024	12,704,000	5,417,000	7,287,000	42.6%	2025-26	842,000	10,000	(1,080,000)	(228,000)
7/1/2025	12,400,000	5,232,000	7,168,000	42.2%	2026-27	892,000	8,000	(1,078,000)	(178,000)
7/1/2026	12,066,000	5,090,000	6,976,000	42.2%	2027-28	945,000	7,000	(1,070,000)	(118,000)
7/1/2027	11,707,000	5,246,000	6,461,000	44.8%	2028-29	969,000	6,000	(1,058,000)	(83,000)
7/1/2028	11,329,000	5,423,000	5,906,000	47.9%	2029-30	997,000	5,000	(1,042,000)	(40,000)
7/1/2029	10,938,000	5,647,000	5,291,000	51.6%	2030-31	1,026,000	4,000	(1,023,000)	7,000
7/1/2030	10,536,000	5,927,000	4,609,000	56.3%	2031-32	1,058,000	3,000	(1,016,000)	45,000
7/1/2031	10,128,000	6,272,000	3,856,000	61.9%	2032-33	1,092,000	3,000	(1,016,000)	79,000
7/1/2032	9,703,000	6,678,000	3,025,000	68.8%	2033-34	1,126,000	2,000	(997,000)	131,000
7/1/2033	9,250,000	7,142,000	2,108,000	77.2%	2034-35	1,162,000	1,000	(974,000)	189,000
7/1/2034	8,788,000	7,688,000	1,100,000	87.5%	2035-36	1,196,000	1,000	(951,000)	246,000
7/1/2035	8,321,000	8,326,000	(5,000)	100.1%	2036-37	30,000	1,000	(923,000)	(892,000)
7/1/2036	7,849,000	9,061,000	(1,212,000)	115.4%	2037-38	30,000	0	(892,000)	(862,000)
7/1/2037	7,376,000	8,667,000	(1,291,000)	117.5%	2038-39	31,000	0	(857,000)	(826,000)
7/1/2038	6,907,000	8,280,000	(1,373,000)	119.9%	2039-40	32,000	0	(819,000)	(787,000)
7/1/2039	6,444,000	7,905,000	(1,461,000)	122.7%	2040-41	33,000	0	(781,000)	(748,000)
7/1/2040	5,992,000	7,546,000	(1,554,000)	125.9%	2041-42	34,000	0	(741,000)	(707,000)
7/1/2041	5,551,000	7,204,000	(1,653,000)	129.8%	2042-43	35,000	0	(701,000)	(666,000)
7/1/2042	5,125,000	6,882,000	(1,757,000)	134.3%	2043-44	36,000	0	(662,000)	(626,000)

Section III - Development of Contribution
E. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2013	$5,303,177	$11,515,341	$6,212,164	46.1%
July 1, 2014	5,426,265	11,636,496	6,210,231	46.6%
July 1, 2015	5,601,205	11,711,195	6,109,990	47.8%
July 1, 2016	5,528,790	11,965,592	6,436,802	46.2%
July 1, 2017	5,590,931	12,161,577	6,570,646	46.0%
July 1, 2018	5,549,956	11,882,376	6,332,420	46.7%
July 1, 2019	5,422,977	12,732,378	7,309,401	42.6%
July 1, 2020	5,287,258	12,621,848	7,334,590	41.9%
July 1, 2021	6,175,742	13,566,599	7,390,857	45.5%
July 1, 2022	5,829,726	13,301,183	7,471,457	43.8%
July 1, 2023	5,638,645	12,982,696	7,344,051	43.4%

Section III - Development of Contribution
F. History of Town Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Town Contribution	Payroll	Actual Contribution as a Percent of Payroll
2014-15	$436,353	$436,353	$841,894	51.8%
2015-16	449,398	449,398	864,498	52.0%
2016-17	455,458	455,458	899,426	50.6%
2017-18	491,441	491,441	924,684	53.1%
2018-19	516,572	516,572	766,280	67.4%
2019-20	512,235	512,235	541,650	94.6%
2020-21	651,528	651,528	559,604	116.4%
2021-22	681,650	681,650	484,166	140.8%
2022-23	720,869	820,869	289,483	283.6%
2023-24	753,998	TBD	291,176	TBD
2024-25	794,463	TBD	305,767	TBD

Section IV - Membership Data
A. Reconciliation of Membership from Prior Valuation

Details of the changes in the Plan membership since the last valuation are shown below. Additional details on the Plan membership are provided in the remainder of Section IV.

	Active Members	Terminated Vested Members	Nonvested Members Due Refunds	Service Retirees	Disabled Retirees	Beneficiaries	Total
Count July 1, 2022	3	1	0	31	0	2	37
Terminated							
- no benefits due	-	-	-	-	-	-	0
- paid refund	-	-	-	-	-	-	0
- vested benefits due	-	-	-	-	-	-	0
Retired	-	-	-	-	-	-	0
Died							
- with beneficiary	-	-	-	-	-	-	0
- no beneficiary	-	-	-	(3)	-	-	(3)
Benefits expired	-	-	-	-	-	-	0
New member	-	-	-	-	-	-	0
Rehired	-	-	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	-	0
Correction	-	-	-	-	-	-	0
Count July 1, 2023	3	1	0	28	0	2	34

Section IV - Membership Data
B. Statistics of Active Membership

	As of July 1, 2022	As of July 1, 2023
Number of Active Members	3	3
Average Age	58.5	59.5
Average Service	23.3	24.3
Total Payroll	$291,176	$305,767
Average Payroll	97,059	101,922

Section IV - Membership Data
C. Statistics of Inactive Membership

	As of July 1, 2022	As of July 1, 2023
Terminated Vested Members		
Number	1	1
Total Annual Benefit	$30,273	$30,273
Average Annual Benefit	30,273	30,273
Average Age	55.4	56.4
Nonvested Members Due Refunds		
Number	0	0
Service Retirees		
Number	31	28
Total Annual Benefit	$1,011,821	$972,472
Average Annual Benefit	32,639	34,731
Average Age	74.1	74.1
Disabled Retirees		
Number	0	0
Total Annual Benefit	$0	$0
Average Annual Benefit	0	0
Average Age	0.0	0.0
Beneficiaries		
Number	2	2
Total Annual Benefit	$101,271	$101,271
Average Annual Benefit	50,636	50,636
Average Age	76.2	77.2

Section IV - Membership Data
D. Distribution of Inactive Members as of July 1, 2023

	Age	Number	Annual Benefits
Terminated Vested Members	< 50	0	$0
	50 - 59	1	30,273
	60 - 69	0	0
	70 - 79	0	0
	80 - 89	0	0
	90 +	0	0
	Total	1	30,273
Service Retirees	< 50	0	$0
	50 - 59	0	0
	60 - 69	10	419,095
	70 - 79	12	408,781
	80 - 89	5	142,023
	90 +	1	2,573
	Total	28	972,472
Disabled Retirees	< 50	0	$0
	50 - 59	0	0
	60 - 69	0	0
	70 - 79	0	0
	80 - 89	0	0
	90 +	0	0
	Total	0	0
Beneficiaries	< 50	0	$0
	50 - 59	0	0
	60 - 69	0	0
	70 - 79	1	50,060
	80 - 89	1	51,211
	90 +	0	0
	Total	2	101,271

Section V - Analysis of Risk
A. Introduction

The results of this actuarial valuation are based on one set of reasonable assumptions. However, it is almost certain that future experience will not exactly match these assumptions. As an example, the plan's investments may perform better or worse than assumed in any single year and over any longer time horizon. It is therefore important to consider the potential impacts of these likely differences when making decisions that may affect the future financial health of the plan, or of the plan's members.

In addition, as plans mature they accumulate larger pools of assets and liabilities. The increase in size in turn increases the potential magnitude of adverse experience. As an example, the dollar impact of a 10% investment loss on a plan with $1 billion in assets and liabilities is much greater than the dollar impact for a plan with $1 million in assets and liabilities. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

Actuarial Standard of Practice No. 51 (ASOP 51) directs actuaries to provide pension plan sponsors with information concerning the risks associated with the plan:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

This section of the report uses the framework of ASOP 51 to communicate important information about significant risks to the plan, the plan's maturity, and relevant historical plan data.

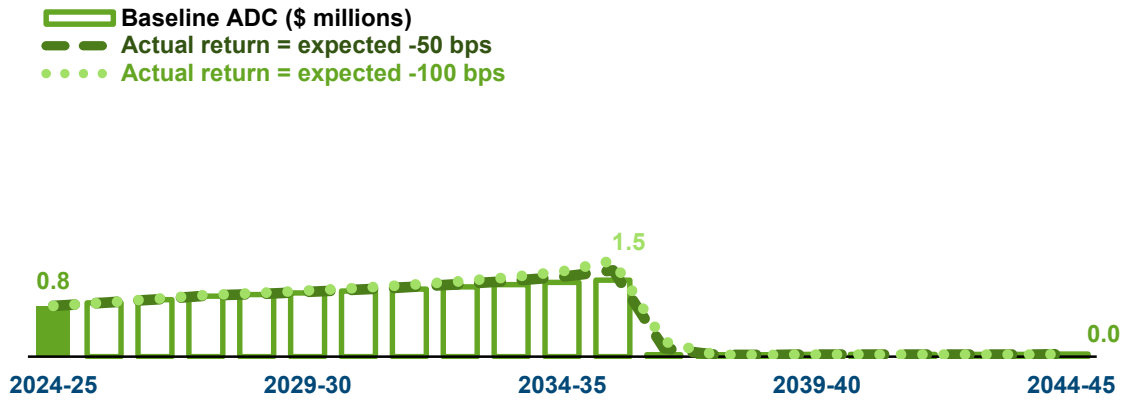
Please see Section III D for more information on the basis for the projected results shown on the following pages.

Section V - Analysis of Risk
B. Risk Identification and Assessment

Investment Risk

Definition: This is the potential that investment returns will be different than expected.

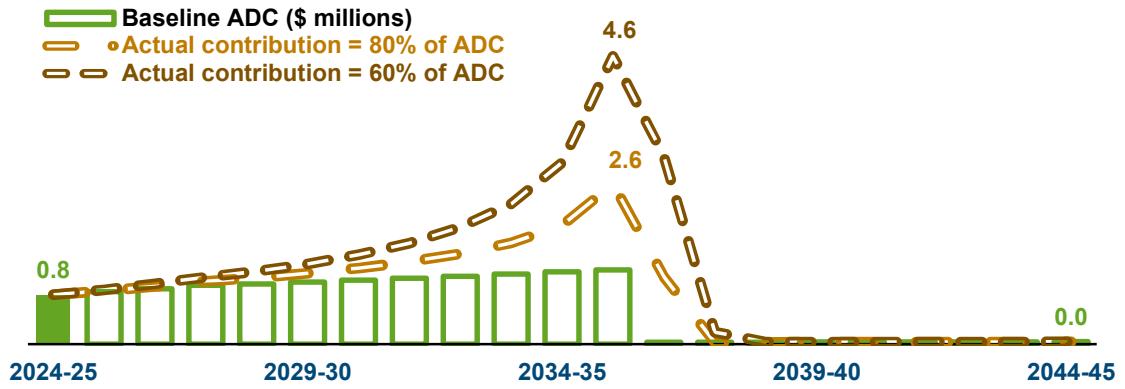
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on future Actuarially Determined Contribution levels are illustrated below:



Contribution Risk

Definition: This is the potential that actual future contributions will be less than the Actuarially Determined Contribution.

Identification: Over the past 8 years, actual contributions have been 102.2% of the Actuarially Determined Contribution in total. The consequences of persistent underfunding on future Actuarially Determined Contribution levels are illustrated below:



Section V - Analysis of Risk
B. Risk Identification and Assessment

Liquidity Risk

Definition: This is the potential that assets must be liquidated at a loss earlier than planned in order to pay for the plan's benefits and operating costs. This risk is heightened for plans with negative cash flows, in which contributions are not sufficient to cover benefit payments plus expenses.

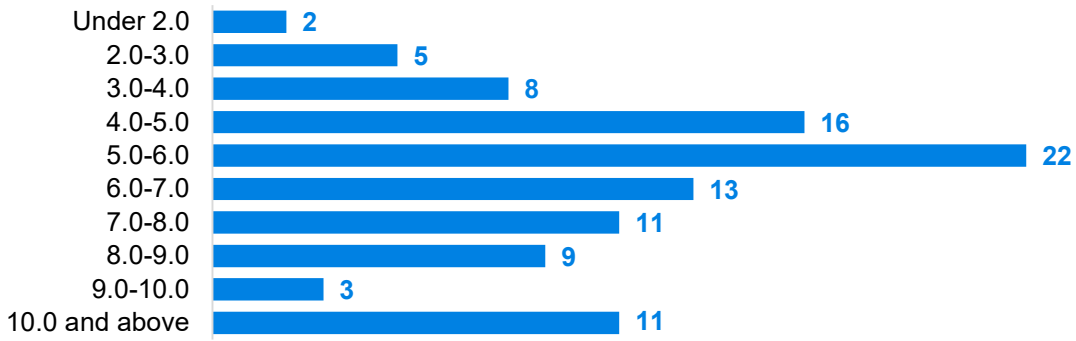
Identification: In 2022-23, the plan had negative cash flow, with town and member contributions to the plan of $832,956 compared to $1,115,609 of benefit payments and administrative expenses paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity characteristics of the plan's investment holdings.

Maturity Risk

Definition: This is the potential for total plan liabilities to become more heavily weighted toward inactive liabilities over time, and for plan assets and/or liabilities to become larger relative to the active member liability.

Identification: The plan is subject to maturity risk because as plan assets and liabilities continue to grow, the dollar impact of any gains or losses on the assets or liabilities also becomes larger.

Assessment: As of July 1, 2023, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 16.7. According to Milliman's 2022 Public Pension Funding Study, the 100 largest US public pension plans have the following range of Asset Volatility Ratios:



Inflation Risk

Definition: This is the potential for a pension to lose purchasing power over time due to inflation.

Identification: The members of pension plans without fully inflation-indexed benefits are subject to the risk that their purchasing power will be reduced over time due to inflation.

Assessment: This plan does not contain a mechanism to regularly increase benefits after retirement, so members bear all of the inflation risk.

Section V - Analysis of Risk
B. Risk Identification and Assessment

Insolvency Risk

Definition: This is the potential that a plan will become insolvent; that is, assets will be fully depleted.

Identification: If a plan becomes insolvent, contractually required benefits must be paid from the plan sponsor's other remaining assets.

Assessment: Under the GASB 68 depletion date methodology, the plan is not projected to become insolvent. Please see the GASB 68 report for more details on the underlying analysis.

Demographic Risks

Definition: This is the potential that mortality, turnover, retirement, or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that members will follow patterns of demographic experience as described in Appendix B. If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. Formal Experience Studies performed on a regular basis are helpful in ensuring that the demographic assumptions reflect emerging plan experience.

Pensionable Earnings Risk

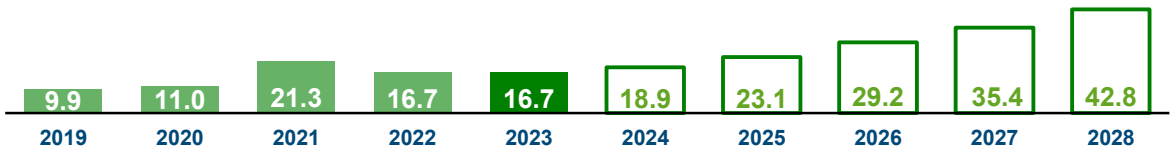
Definition: This is the potential for active members to add items to their pensionable earnings and receive pension benefits that are higher than expected.

Identification: This plan uses gross earnings to determine pension amounts. To the extent that members have years with substantial amounts of overtime pay, this could put upward pressure on subsequent Actuarially Determined Contributions.

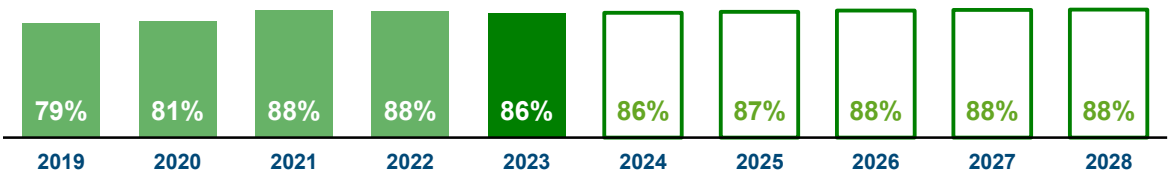
Section V - Analysis of Risk
C. Maturity Measures

The metrics presented below are different ways of understanding the plan's maturity level, both in the past and as it is expected to change in the coming years.

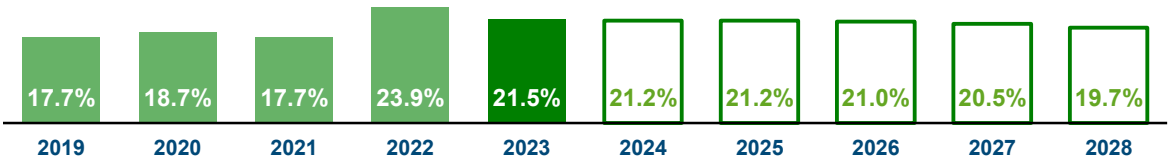
Asset Volatility Ratio: Market Value of Assets compared to Payroll



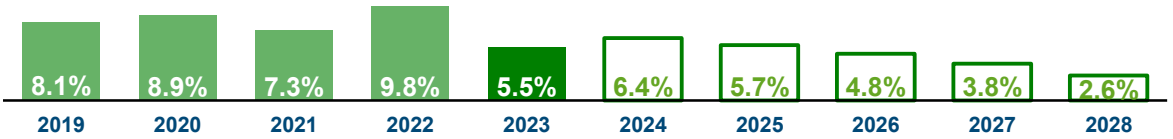
Accrued Liability for members in pay status compared to total Accrued Liability



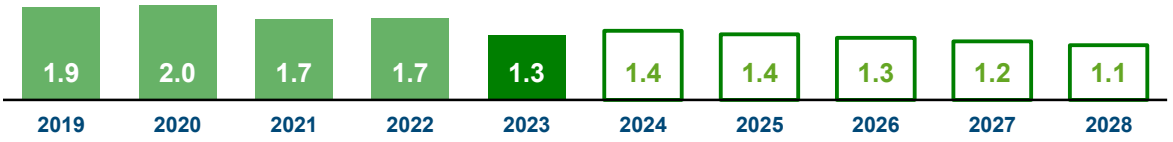
Benefit Payments compared to Market Value of Assets



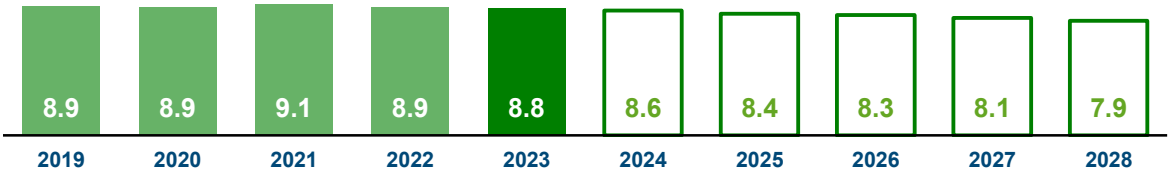
Net Cash Flows compared to Market Value of Assets



Benefit Payments compared to Town Contributions



Duration of Accrued Liability (based on GASB 68 sensitivity disclosures)



Appendix A - Actuarial Funding Method

The actuarial funding method used in the valuation of this Plan is known as the Entry Age Normal Method. The Actuarially Determined Contribution consists of three pieces: Normal Cost plus a Past Service Cost payment to gradually eliminate the Unfunded Accrued Liability plus Interest to reflect the one-year lag between the valuation date and when the contribution is expected to be paid.

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

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

The Unfunded Accrued Liability is the excess of the Accrued Liability over the assets which have been accumulated for the plan. This Unfunded Accrued Liability is amortized as a level percent over a closed period of 30 years starting on July 1, 2005. The amortization period will decrease each year until it reaches 10 years, after which point it will remain at 10 years.

As of July 1, 2021 the Actuarial Value of Assets was reset to the Market Value of Assets. Beginning in 2022 and in subsequent years the Actuarial Value of Assets is determined by recognizing market gains and losses non-asymptotically over a five year period.

The long-range forecasts included in this report have been developed by assuming that members will terminate, retire, become disabled, and die according to the actuarial assumptions with respect to these causes of decrement, and that pay increases, cost of living adjustments, and so forth will likewise occur according to the actuarial assumptions.

Appendix B - Actuarial Assumptions

Each of the assumptions used in this valuation was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Interest Rate

6.125%

Amortization Growth Rate

3.25%

Expenses

Administrative expenses paid in the prior year, increased by 3% and rounded to the nearest $100.

Salary Scale

3.25%

Mortality

Pub-2010 Mortality Table for Employees, Healthy Annuitants and Disabled Annuitants with generational projection of future improvements per the MP-2021 Ultimate scale. This assumption incorporates the expectation of mortality improvements beyond the valuation date.

Turnover

Age	Rate
20	11.9%
25	11.8%
30	11.0%
35	10.6%
40	9.5%
45	7.5%
50	5.1%
55	1.2%
60	0.3%

Retirement

Age	Rate
55-59	5%
60-61	10%
62-64	25%
65	35%
66-69	50%
70	100%

Disability

11th Railroad Retirement Board Disability Rates.

Marital Status

80% of members are assumed to be married with wives 3 years younger than husbands.

Appendix C - Summary of Plan Provisions

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

Eligibility	Employed for twenty or more hours a week for more than 5 months per calendar year. Employees hired after July 1, 1997 are not covered by this plan.
Final Average Earnings	Highest average gross earnings received in any three consecutive full calendar years.
Continuous Service	Period of continuous employment with the Town beginning with the first of the month following date of employment.
Aggregate Service	The sum of all periods of Continuous Service.
Member Contributions	4.5% of after tax Earnings. Interest is credited at 4% per annum. Refund of Employee Contributions with interest to date of termination of employment or death, unless the employee is eligible for a deferred retirement income.
Normal Form of Benefit	Modified Cash Refund.
Normal Retirement Date	Earlier of age 65, or age 55 with completion of 30 years of service.
Normal Retirement Benefit	1.75% of Final Average Earnings not in excess of $10,000 plus 2% of Final Average Earnings in excess of $10,000 multiplied by years of Aggregate Service with a minimum of $750 per year.
Early Retirement Date	Age 55 and 10 years of Continuous Service or 15 years of Aggregate Service.
Early Retirement Benefit	Accrued Benefit, actuarially reduced if payments begin prior to the member's 58th birthday.
Death Benefit Eligibility	Married Member (of at least one year) or with minor children. Age 30 with 5 years of Continuous Service.
Death Benefit	35% of benefit accrued to date of death.
Disability Retirement Eligibility	Ten years of Aggregate Service and not eligible for benefits under the Long Term Disability Contract.

Appendix C - Summary of Plan Provisions

Disability Retirement Benefit	Accrued Benefit, not less than $1,000 per year, payable to the earlier of the end of disability, death or Normal Retirement Date.
Vesting	Prior to July 1, 1989 - Ten years of Continuous Service or 15 years of Aggregate Service. Effective July 1, 1989 - Five years of Continuous Service or 15 years of Aggregate Service.
Termination Benefit	Benefit accrued to date of termination with payment commencing on Normal Retirement Date.

Appendix D - Glossary

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

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

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

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

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

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

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

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

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

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

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

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