



Town of Simsbury

933 HOPMEADOW STREET ~ SIMSBURY, CONNECTICUT 06070

ADDENDUM #1 – OCTOBER 6, 2023

REQUEST FOR QUALIFICATIONS

**PENSION BENEFITS & OTHER POST EMPLOYMENT BENEFITS (OPEB)
ACTUARIAL SERVICES**

Below are responses to the questions that were received. Responses are in bold font.

Question(s): Who is the current actuary? If applicable, what is the name of the firm that provided the most recent GASB 74/75 compliant interim year OPEB plans(s) actuarial valuation(s) and report(s) for the Town?

What is the name of the firm that provided the most recent GASB 67/68 compliant Defined Benefit Pension Plan(s) actuarial valuations and report(s) for the Town?

What is the name of the firm that provided the most recent GASB 74/75 compliant FULL OPEB plans(s) actuarial valuation(s) and report(s) for the Town?

Response: **Milliman.**

Question(s): How long has the current actuary been providing the scope of service?

Response: **20+Years.**

Question: When was the last time the Town of Simsbury went out to bid for this work?

Response: **Not aware of the last time these services were bid.**

Question(s): What are the main reasons you are going out to bid at this time?

Why has the City decided to go out to bid at this time?

Response: **Survey of the market.**

Question(s): Are you having any issues with your current provider?

Are there any concerns with the current actuary?

Response: **No.**

Question: What concerns, if any, does the Town's Board have relating to its pension plan?

Response: **None.**



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Question(s): What were the fees paid in the last 2 years for the pension and OPEB valuations?

Can you provide the actuarial fees over the past 3 years broken down by each of the items listed in the Scope of Services? If that cannot be completed, can you at least provide the total actuarial fees over the past 3 years?

What were the fees charged to the Town by that firm for the most recent GASB 67/68 Defined Benefit Pension Plans valuations and report(s)?

What were the fees charged to the Town by that firm for the most recent GASB 74/75 compliant FULL OPEB actuarial valuation(s) and report(s)?

What were the fees charged by the current provider?

What was the annual fee paid for in-scope services for each of the last 3 years?

What are the current fees for this work for the last 3 years?

Please provide the fees paid to the current consultant for the most recent three fiscal years?

Will the Town disclose the current annual fees for this work?

Response: **These are the costs per plan:**

7/1/22 Valuations

- **Valuation \$8,165**
- **Benefit Statements \$1,475**
- **Disclosure Reports – In Progress, not billed yet**

7/1/21 Valuations

- **Valuation \$7,775**
- **Disclosure Report \$4,550**
- **Benefit Statements \$1,400**

7/1/21 Valuation (OPEB)

- **Valuation \$29,500**
- **Disclosure Report \$4,500**
- **Off Year ARC Calc for FY24 \$1,075**



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7/1/20 Valuations

- Valuation \$7,500
- Disclosure Report \$4,400
- Benefit Statements \$1,350

Question: Have there been changes to the plans or scope of work since the last valuation?

Response: **Yes, Police only with recent negotiations. There was a minor change related to the exclusion of overtime being pensionable.**

Question: When were the most recent last GASB 67/68 compliant actuarial valuations and report(s) completed for the Town's Defined Benefit Pension Plan(s)? For OPEB?

When were the most recent GASB 74/75 FULL OPEB actuarial valuation(s) and report(s) completed for the Town?

If applicable, when were the most recent interim (roll-forward or updated) valuations completed for the Town's OPEB plan(s)?

Response: **Most recently completed valuation reports were for July 1, 2021, FY 2022/2023. Valuation reports for July 1, 2022, FY 2023/2024 are in progress. Most recently completed GASB 67/68 and GASB 74/75 disclosure reports were for FY 2021/2022. GASB 67/68 and GASB 74/75 disclosure reports for FY 2022/2023 are in progress.**

Question(s): Can we get copies of the last valuation reports for both pension and OPEB?

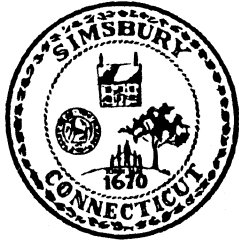
Can you provide all valuation and GASB reports for 2022?

Could you please provide a copy of the most recent actuarial valuation?

May we have copies of the last actuarial, GASB, and OPEB reports?

Please provide copies of the most recently completed pension and OPEB actuarial valuations and review?

Can the Town provide copies of the most recent valuation and GASB reports? Can we receive a copy of the most recent GASB 67/68 Defined Benefit Pension Plans valuations and report(s)?



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Can we receive a copy of the most recent GASB 74/75 compliant FULL OPEB actuarial plan(s) valuations and reports?

Response: **Yes – We will forward the reports to those respondents requesting the documents.**

Question(s): Typically, in which month is the Retirement Plan Sub-Committee meeting that the actuary is required to present and discuss the valuation results? Is the meeting in person or held virtually?

What are the requirements for onsite consulting, meetings, and/or presentations?

Can meetings be performed using voice conference and/or web meeting services?

Response: **Presentations are on an as-needed basis. During the budget process, the actuary will provide ARC payment estimates for each plan. If changes in assumptions are being recommended by the actuary, those assumption changes will be presented and explained to the Retirement Plan Sub-Committee typically in November. The Board of Finance may also request presentations from time to time. For example, a new Board will be elected soon and will likely request an information session with the actuary. Retirement Plan Sub-Committee meetings are held virtually. Board of Finance meetings are held in person. Meetings can be performed virtually, it is the Board of Finance's preference for meetings to be in-person.**

Question: Is it the Town's preference to award a contract to a single firm for both the Pension actuarial valuation and the OPEB actuarial valuation services or will it consider separate awards to separate firms for the Pension and OPEB actuarial services?

Response: **The Town is amenable to both options.**

Question: What are the fiscal years (for OPEB and Pension) included in the contract for this RFP?

What is the anticipated term of the contract?

Response: **FY2024/2025 thru FY2026/2027 valuations (3 Years) with the option to extend for 2 years.**

Question: Will the Town consider negotiation of lesser minimum coverage limits for Umbrella Liability Insurance?



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Response: **Yes.**

Question: Regarding RFP Section 5. Scope of Services, please confirm that that the Town IS NOT requiring the awarded vendor to calculate, produce, or distribute Annual Participant Benefit Statements or QRDO Statements?

Response: **The Town would like a real time online alternative to provide participants. If that is not available, then the Town would require the Annual Participant Benefit Statements.**

Question: Regarding RFP Section 5. Scope of Services, Part E. Advise the Town on all Federal and State Regulations, Statue and Mandate Compliance Requirements for the Plan(s), Item 3: Ensure accurate follow-through on all negotiated contractual arrangements between the Town and Simsbury Board of Education and any administrators or insurance carriers utilized by the Town and Simsbury Board of Education. Please elaborate or provide examples of the specific tasks that comprise the Town's expectations for fulfillment of this requirement?

Response: **If there are any plan changes during the course of contract negotiations, those changes will be incorporated into the requested benefit calculations or the Town will may request analysis to support contract negotiations.**

Question(s): When are the final reports due each year for the Defined Benefit Pension Plans actuarial valuation report? When are the final reports due each year for the OPEB actuarial valuation report?

Response: **The Town would like to have reports received around August or September.**

Question(s): Is the Town requesting separate GASB 67/68 compliant actuarial valuations and reports for the Town's three (3) Defined three single-employer Defined Benefit Pension Plans (General Government Pension Plan, Police Pension Plan and Board of Education Pension Plan) or one (1) comprehensive report that includes separate financial statements for each Defined Benefit Pension Plan?

Response: **Three (3) separate reports.**

Question: Does the Town maintain three (3) separate OPEB plans (one each for General Government Employee Group, Police Employee Group, and the Board of Education Employee group) or (1) comprehensive OPEB plan that includes all three Town Employee Groups?



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Response: **One comprehensive OPEB plan that includes all three groups.**

Question: Is the Town requesting three (3) separate GASB 74/75 FULL OPEB actuarial valuation(s) and report(s) or one (1) comprehensive GASB 74/75 OPEB actuarial valuation and report that includes all three (3) employee groups?

Response: **One (1) FULL OPEB actuarial valuation report that includes all three groups.**

Question: Please confirm whether the Town is requesting only FULL GASB 74/75 OPEB valuation report(s) every two years or BIENNIAL FULL GASB 74/75 valuation reports with updated (roll-forward) reports for interim years?

Response: **Biennial Full valuation report with updated GASB74/75 disclosure (roll-forward) reports for interim years.**

Question: What out-of-scope services were performed over the last three years?

Response: **Experience study.**

Question: Has the Town historically performed experience studies for the purpose of reviewing the actuarial assumptions used in the valuations? If so, please provide a copy of the most recent study and the fees charged by the consultant.

Response: **Yes, the cost was \$13,000/plan.**

Question: Section 5.A of the RFQ references a defined contribution plan. Is there any regular or annual work expected for the defined contribution plan, or only on as as-needed basis?

Response: **No, this would be as-needed, if any. Scope of work is mainly for the defined benefit and OPEB plans.**

Question: Section 5.B of the RFQ requests assistance with the determination of benefits for individual participants. Does this typically involve all new retirement awards, or only special situations (QDROs, service purchase calculations, etc.)?

Response: **All new retirement awards.**

Question: Section B. under scope of services states "assist, upon request, The Town in the preparation of documents required, in the determination of benefits for individual employees". Does the city currently handle the day-to-day administration of plan benefits? Please provide a description of what sorts of assistance may be requested and an estimate of the frequency or volume of the requests.



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Response:

The Town currently handles the day-to-day administration of the plan benefits. Outside of the valuation and GASB disclosure services, the Town would request benefit calculation services for employees looking at their retirement options or finalized benefit calculations for retiring individuals. While requests vary from month to month, below was the number of benefit calculation requested for each plan from March – June:

Police – March (2)

General Government – March (2)

Board of Education – May (3), June (4)

Town of Simsbury Pension Plans 2021 Experience Study

Jennifer M. Castelhana, FSA
Principal and Consulting Actuary

NOVEMBER 15, 2022

Topics

1

Overview of an Experience Study

2

Economic assumptions

3

Demographic assumptions

4

Funding method

5

Impact of proposed changes on valuation results

Experience Study

- **Objectives**

- Bring actuarial assumptions in line with recent experience
- Reflect emerging long-term trends

- **Scope**

- Economic assumptions: inflation, interest rate, pay increases, administrative expenses
- Demographic assumptions: mortality, turnover, retirement, disability
- Funding method: cost method, asset smoothing method, amortization method

- **Sources of data**

- Census data from 2016-2021 valuations
- Social Security Administration annual trustees report
- Milliman's Capital Market Assumptions

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 Impact of proposed changes on valuation results

Economic Assumptions - Inflation

Current assumption: 2.75%

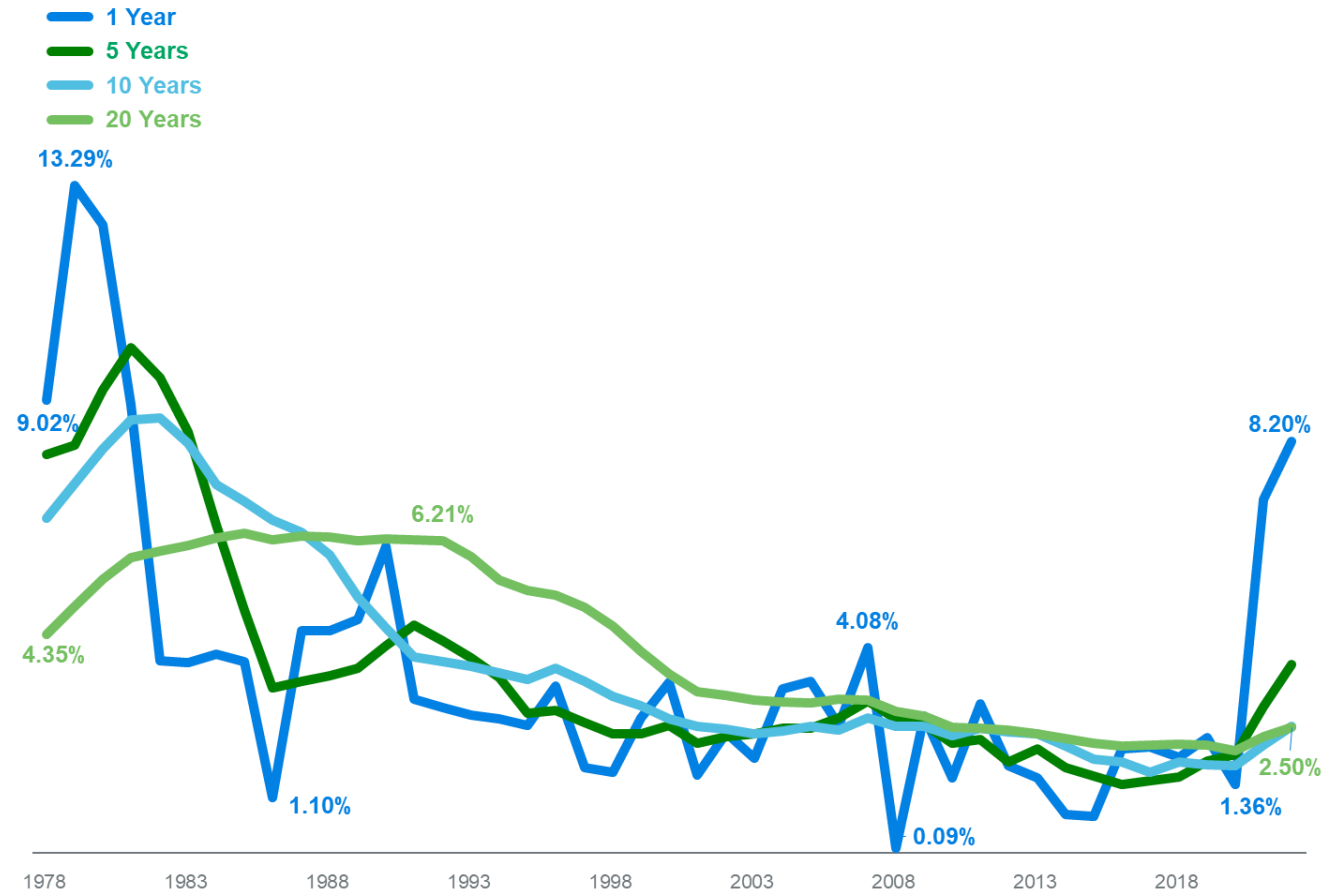
Analysis

The graph at right shows historical CPI-U through 2022; except for the short-term spike in 2022, there is a clear pattern of declining inflation over the past 40+ years

The Social Security Administration studies long-term inflation trends and projections on an annual basis. In the 2022 Trustees report, the projected average annual inflation over the next 30 years under the intermediate cost assumptions was 2.40%; their reasonable range was 1.80%-3.00%

Proposed assumption: 2.50%

Consumer Price Index - All Urban Consumers (CPI-U)



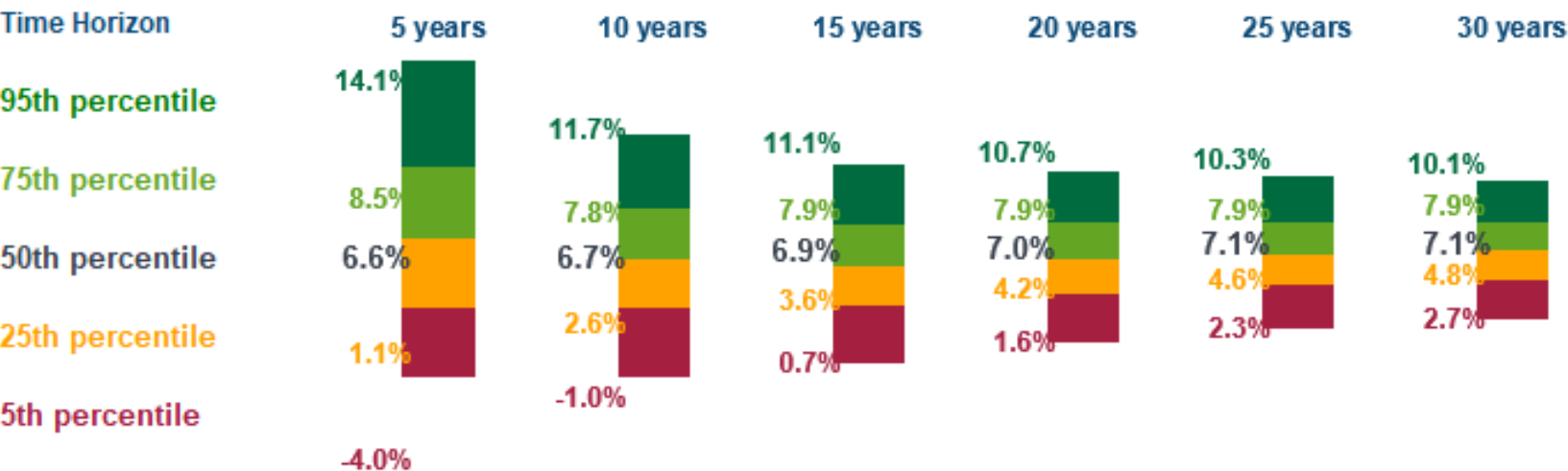
Economic Assumptions – Interest Rate

Current assumption: 6.50%

Analysis

Using Milliman’s June 30, 2022 capital market assumptions and the proposed 2.50% inflation rate, the expected long-term return for the target asset allocation (without margin for manager alpha) is 7.13%.

Proposed assumption: 6.50%
(no change)



Economic Assumptions – Pay Increases for Police

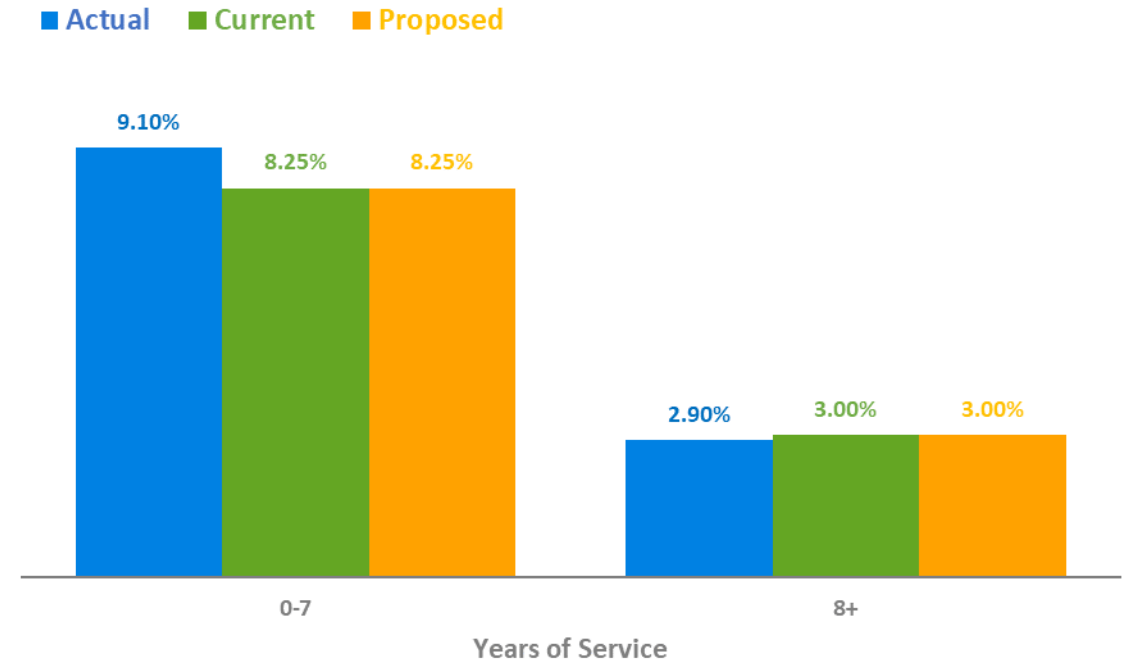
Current assumption: 8.25% for first 7 years and 3.00% thereafter

Analysis

The graph at right shows that actual pay increases have generally been in line with what was anticipated by the current assumptions

Pay increases in the first few years of duty are based on steps in the contract, so a service-based assumption is reasonable for Police

Proposed assumption: 8.25% for first 7 years and 3.00% thereafter (no change)



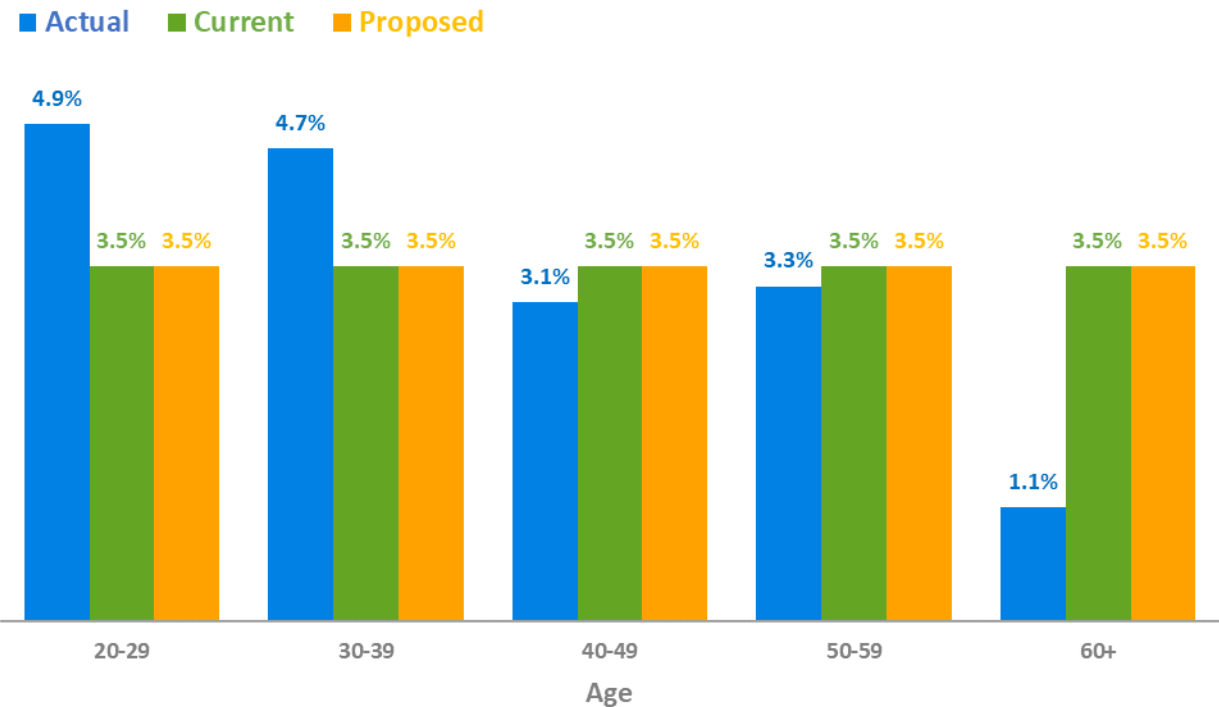
Economic Assumptions – Pay Increases for Town

Current assumption: 3.50%

Analysis

The graph at right shows that actual pay increases have been higher than what was anticipated at younger ages and lower than anticipated at higher ages. Given that the plan is closed to new entrants for some groups, the data is thinner at the younger ages, and we do not want to place too much emphasis on those results

Proposed assumption: 3.50% (no change)



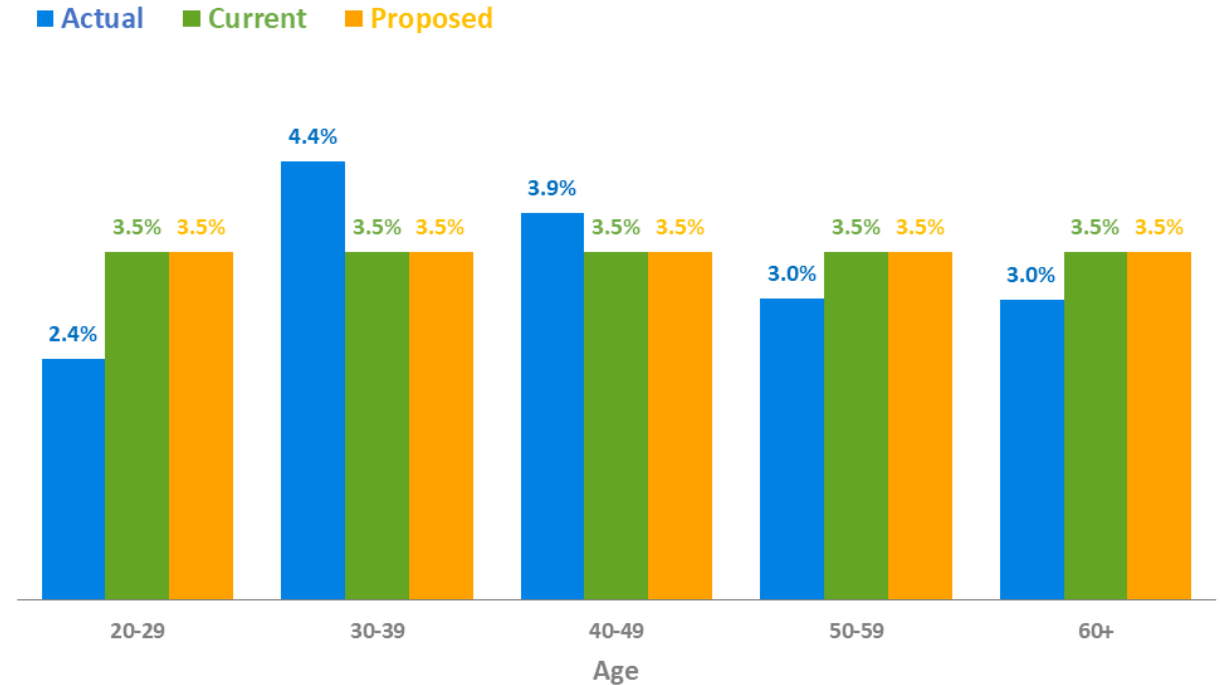
Economic Assumptions – Pay Increases for BOE

Current assumption: 3.50%

Analysis

The graph at right shows that actual pay increases have been lower at some ages and higher at other ages than what was anticipated by the current assumptions

Proposed assumption: 3.50% (no change)



Economic Assumptions – Administrative Expenses

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

Analysis

Pension trusts are permitted to pay certain expenses associated with administering the plan:

- Fees for outside professional advisors such as actuaries and legal counsel
- The cost of calculating benefits for terminating / retiring plan members
- The cost of cutting and mailing pension checks, including withholding and transmitting taxes
- The cost of providing information to members about their benefits, including benefit statements, summary plan descriptions, educational seminars, etc.

Administrative expenses paid by the pension trust in the past three years have fluctuated from year to year.

	2019-20	2020-21	2021-22
Police	34,126	16,390	22,675
Town	49,745	39,320	39,567
BOE	26,153	36,442	40,351

Proposed assumption: average of the actual administrative expenses paid by the pension trust in the preceding three years, rounded to the nearest \$100

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 **Demographic assumptions**

4 Funding method

5 Impact of proposed changes on valuation results

Demographic Assumptions – Mortality

Current assumption (adopted in 2020):

- Pub-2010 Mortality Table
- Generational projection per the MP-2019 Ultimate Scale
- Employee rates before retirement; healthy or disabled annuitant rates after retirement
- Public Safety variant for Police; General variant for Town and BOE

Analysis

The Pub-2010 mortality tables were published in early 2019 and are the first mortality tables constructed solely using mortality data from public pension plans

The MP-2019 Ultimate Scale was recently updated in 2021 and is the basis for projecting future improvements in longevity for the vast majority of both public and private plans

Proposed assumption: no change other than updating the mortality improvement scale to the recently updated MP-2021 version

Demographic Assumptions – Turnover for Police

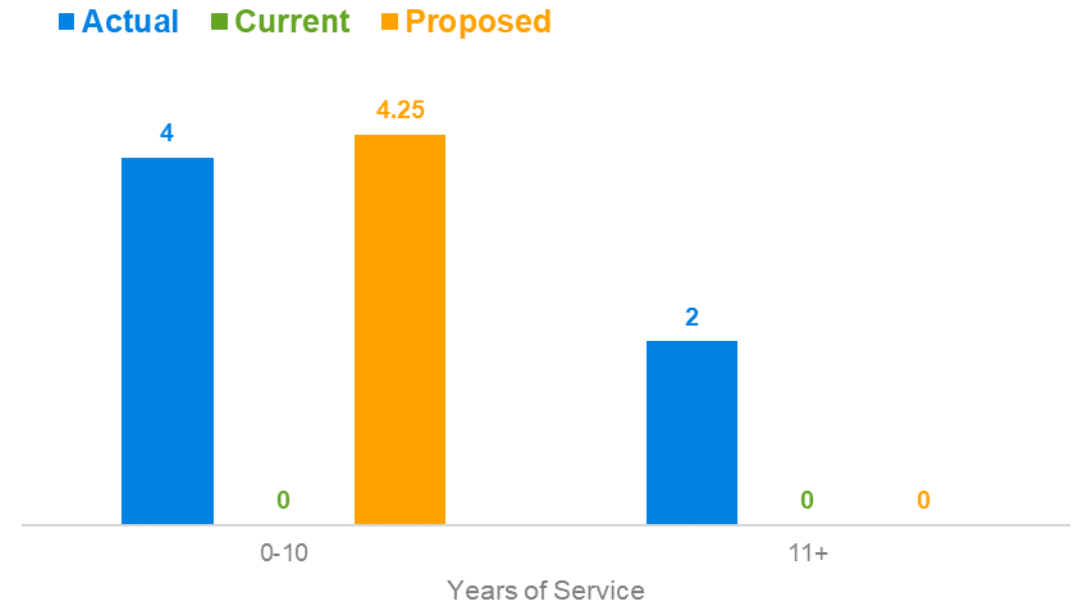
Current assumption: None

Analysis

The data is thin for this group, but there was some turnover activity in the first 10 years of service

The terminations that occurred in the 11+ years of service bucket where eligible for retirement so we do not want to place much weight on that experience

Proposed assumption: 5% for first 10 years of service, and 0% thereafter



Demographic Assumptions – Turnover for Town

Current assumption: service-based rates grading from 4.25% to 2.50%

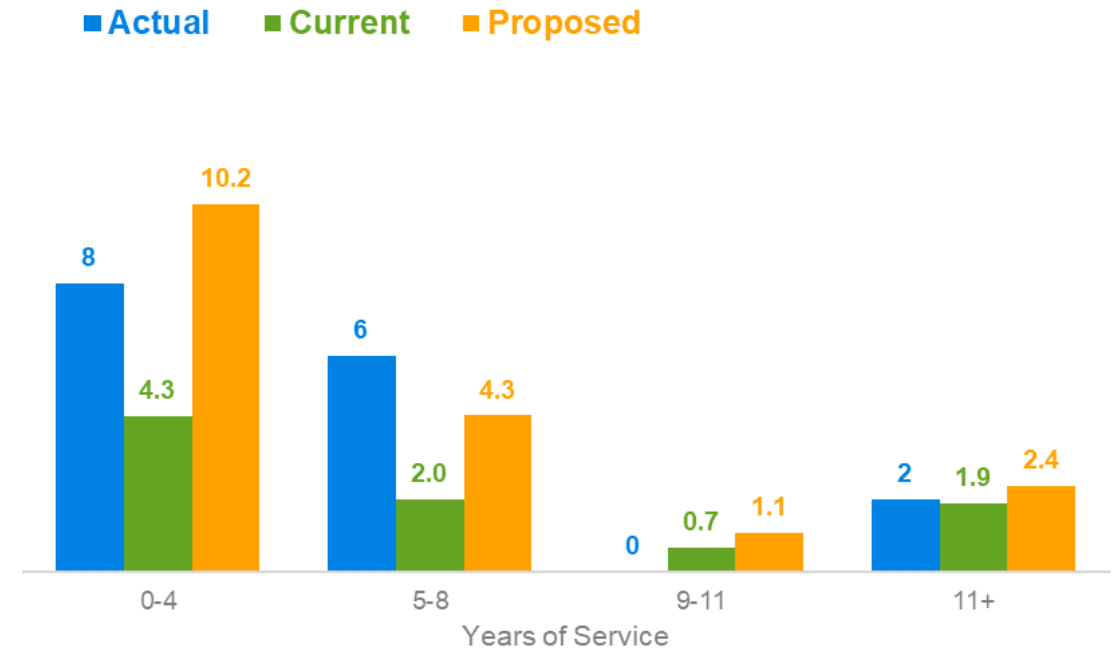
Analysis

The data is thin for this group

Overall there were more terminations (16) than expected (8.9)

We examined turnover patterns by age but did not find this provided a better fit than service

Proposed assumption: incorporate slightly higher rates at lower service bands



Demographic Assumptions – Turnover for BOE

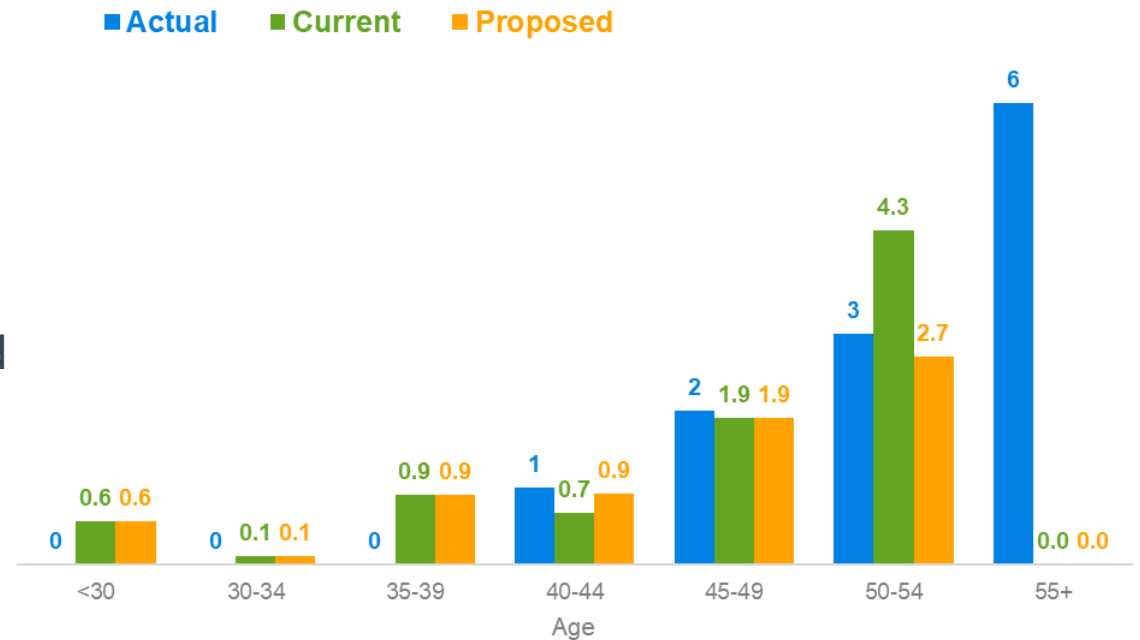
Current assumption: age-based rates grading from 14.0% to 4.0%

Analysis

The data is thin for this group

Overall there were more terminations (12) than expected (8.5)

Proposed assumption: slightly modify the rates for ages 40+



Demographic Assumptions – Retirement for Police

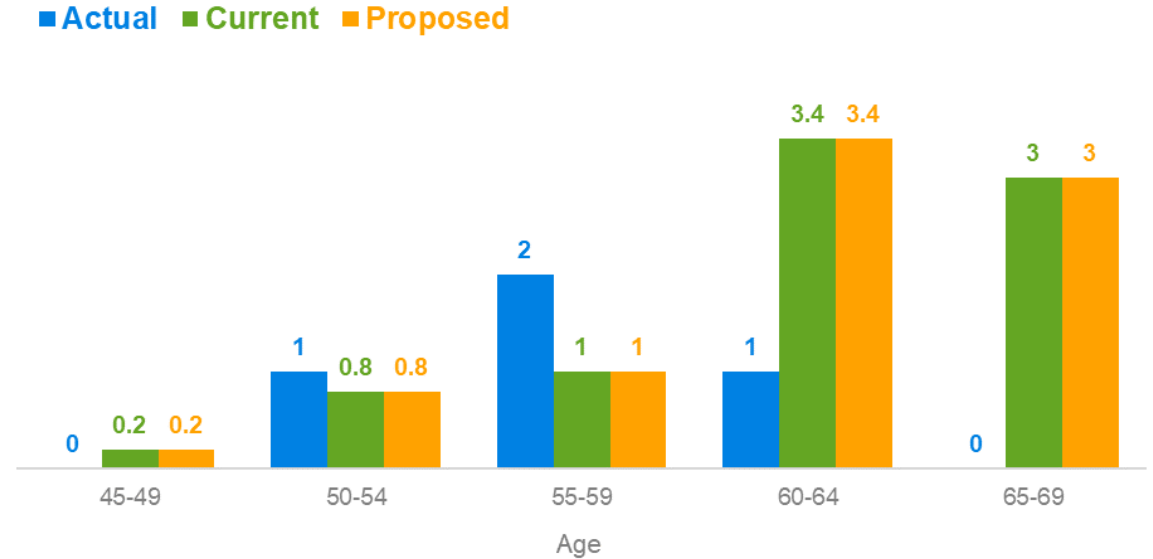
Current assumption: 20% per year starting at Normal Retirement Date; 100% at age 62

Analysis

The data is thin for this group

Overall there were fewer retirements (4) than expected (8.4)

Proposed assumption: no change



Demographic Assumptions – Retirement for Town

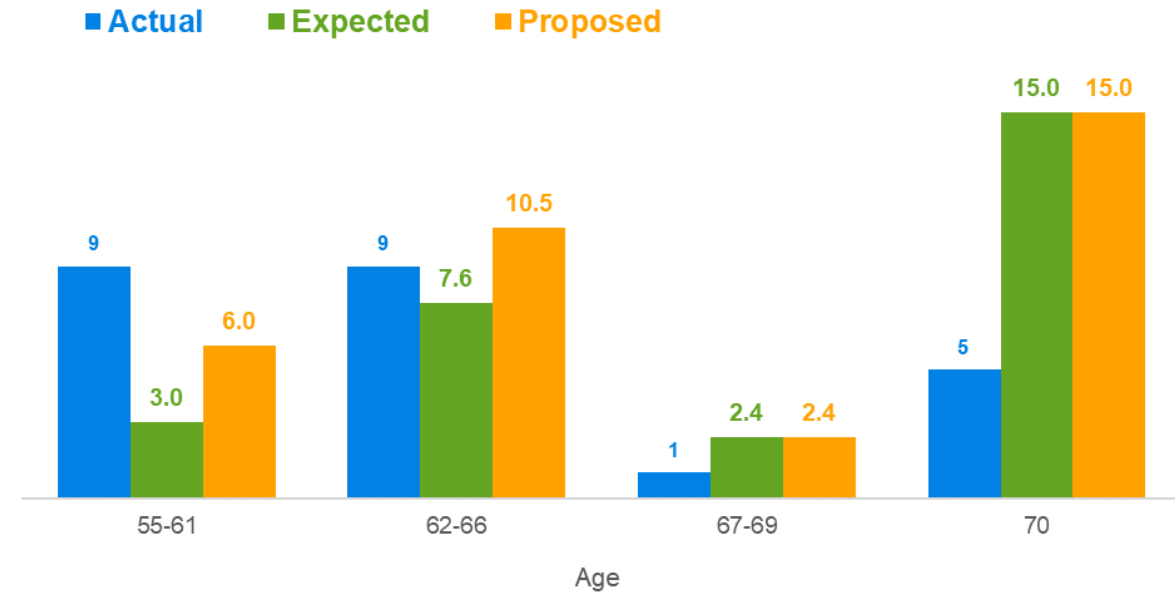
Current assumption: graded by age

Analysis

Overall there were fewer retirements (24) than expected (28)

However, there were more retirements than expected at younger ages

Proposed assumption: modify age buckets and increase rates at younger ages



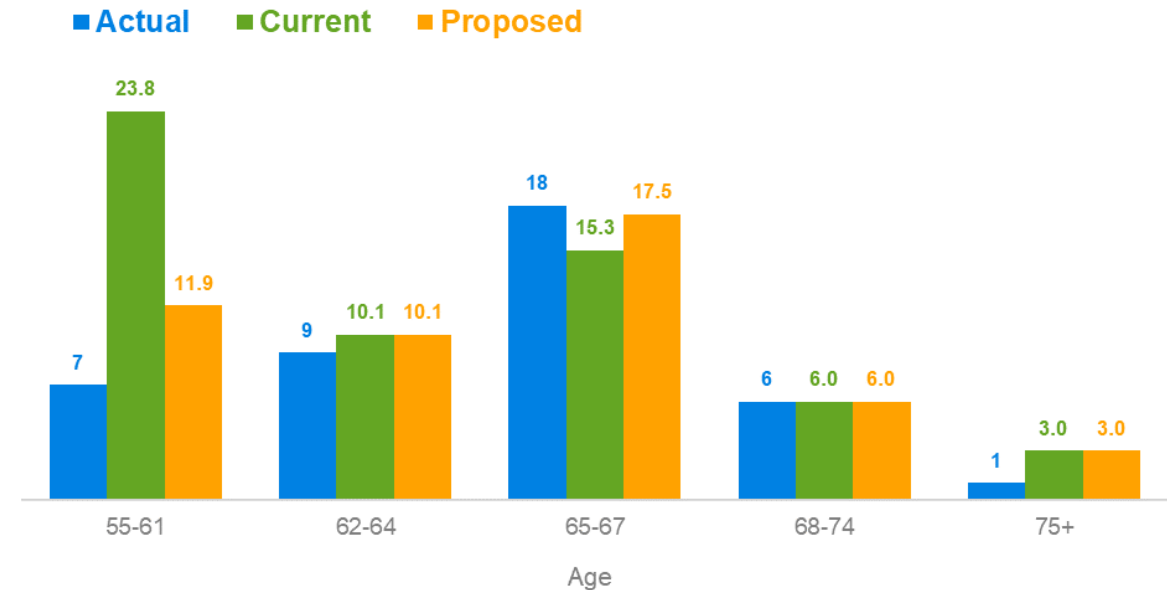
Demographic Assumptions – Retirement for BOE

Current assumption: graded by age

Analysis

Overall there were fewer retirements (41) than expected (58.2)

Proposed assumption: modify age buckets and slightly adjust rates at some ages



Demographic Assumptions – Disability

Current assumption: None for Town and Police; 1952 Disability Study of the Society of Actuaries, Period 4, Benefit Rates for BOE

Analysis

There was a total of one disability for the BOE during the study period (none for Town and Police)

This data is too thin from which to draw conclusions

Proposed assumption: no change

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 **Funding method**

5 Impact of proposed changes on valuation results

Funding Method – Cost Method

Current method: Entry Age Normal

Analysis

Entry Age Normal is a very widely used cost method for public plans

Entry Age Normal is the method prescribed by GASB 67/68 for financial reporting purposes

Entry Age Normal provides a stable progression of costs over a member's working lifetime

Proposed method: no change

Funding Method – Amortization Method

Current method: level percent over a closed 17 year period with a 3.50% amortization growth rate

Analysis

Level percent amortization is widely used and means that the annual amortization payment is expected to increase at a predictable constant rate; so long as the amortization period is not too long, we recommend continuing to use level percent amortization

A closed amortization period means that the amortization period will decrease each year and the plan will make steady progress towards becoming fully funded; we recommend continuing the current closed approach

The amortization period was reset to 17 years with the July 1, 2020 valuation; a longer period would not be reasonable for this plan given the demographic profile of the active membership

The amortization growth rate should be consistent with the inflation and salary scale assumptions; we recommend continuing with the current 3.50% amortization growth rate assumption

Proposed method: no change

Funding Method – Asset Smoothing Method

Current method: five year non-asymptotic smoothing

Analysis

Five years is the predominant period for asset smoothing and provides a nice balance between dampening market fluctuations while not straying too far from market value.

“Non-asymptotic” smoothing, which means that exactly 20% of each year’s market gain or loss is recognized in each of the subsequent five years. Since non-asymptotic smoothing is more readily grasped by most stakeholders, we recommend its use.

Proposed method: no change

Topics

1 Overview of an Experience Study

2 Economic assumptions

3 Demographic assumptions

4 Funding method

5 **Impact of proposed changes on valuation results**

Impact of Proposed Changes Based on July 1, 2021 Valuation

Town of Simsbury Police Retirement Income Plan Estimated Actuarially Determined Contribution for FY 2023-24

Based on July 1, 2021 Valuation and July 1, 2022 Assets		2022 Valuation Estimates		
		2021 Valuation	Projected from 2021 Valuation	Reflecting Actual 2021-22 Asset Performance
Interest Rate	6.50%	6.50%	6.50%	6.50%
Mortality	PubS-2010/MP-2019	PubS-2010/MP-2019	PubS-2010/MP-2019	PubS-2010/MP-2021
Inflation	2.75%	2.75%	2.75%	2.50%
Administrative Expenses	Prior Year increased 3%	Prior Year increased 3%	Prior Year increased 3%	Updated
Turnover	None	None	None	Updated
Accrued Liability	\$24,704,267	\$25,791,000	\$25,791,000	\$26,109,000
Actuarial Value of Assets	20,158,255	21,945,000	21,181,000	21,181,000
Unfunded Accrued Liability	4,546,012	3,846,000	4,610,000	4,928,000
Funded Ratio	81.6%	85.1%	82.1%	81.1%
Amortization Period	16	15	15	15
Amortization Growth Rate	3.50%	3.50%	3.50%	3.50%
Past Service Cost	348,995	311,000	373,000	398,000
Total Normal Cost	729,586	776,000	776,000	700,000
Expected Employee Contributions	293,370	288,000	288,000	280,000
Expected Expenses	16,900	17,000	17,000	24,000
Net Normal Cost	453,116	505,000	505,000	444,000
Interest	52,137	53,000	57,000	55,000
Actuarially Determined Contribution	854,248	868,000	934,000	897,000
For Fiscal Year	2022-23	2023-24	2023-24	2023-24

Impact of Proposed Changes Based on July 1, 2021 Valuation

Town of Simsbury General Government Employees' Retirement Income Plan Estimated Actuarially Determined Contribution for FY 2023-24

Based on July 1, 2021 Valuation and July 1, 2022 Assets

	2021 Valuation	Projected from 2021 Valuation	Reflecting Actual 2021-22 Asset Performance	Reflecting Proposed Assumption Changes
Interest Rate	6.50%	6.50%	6.50%	6.50%
Mortality	PubG-2010/MP-2019	PubG-2010/MP-2019	PubG-2010/MP-2019	PubG-2010/MP-2021
Inflation	2.75%	2.75%	2.75%	2.50%
Administrative Expenses	Prior year increased 3%	Prior year increased 3%	Prior year increased 3%	Updated
Turnover	Graded by service	Graded by service	Graded by service	Updated
Retirement	Graded by age	Graded by age	Graded by age	Updated
Accrued Liability	\$39,548,593	\$40,519,000	\$40,519,000	\$40,919,000
Actuarial Value of Assets	27,563,154	29,486,000	28,484,000	28,484,000
Unfunded Accrued Liability	11,985,439	11,032,000	12,034,000	12,434,000
Funded Ratio	69.7%	72.8%	70.3%	69.6%
Amortization Period	16	15	15	15
Amortization Growth Rate	3.50%	3.50%	3.50%	3.50%
Past Service Cost	920,116	892,000	973,000	1,005,000
Total Normal Cost	792,108	774,000	774,000	723,000
Expected Employee Contributions	390,716	390,000	390,000	375,000
Expected Expenses	40,500	42,000	42,000	43,000
Net Normal Cost	441,892	426,000	426,000	391,000
Interest	88,531	86,000	91,000	91,000
Actuarially Determined Contribution	1,450,539	1,403,000	1,489,000	1,487,000
For Fiscal Year	2022-23	2023-24	2023-24	2023-24

Impact of Proposed Changes Based on July 1, 2021 Valuation

Town of Simsbury Board of Education Retirement Income Plan Estimated Actuarially Determined Contribution for FY 2023-24

	2022 Valuation Estimates			
	2021 Valuation	Projected from 2021 Valuation	Reflecting Actual 2021-22 Asset Performance	Reflecting Proposed Assumption Changes
Based on July 1, 2021 Valuation and July 1, 2022 Assets				
Interest Rate	6.50%	6.50%	6.50%	6.50%
Mortality	PubG-2010/MP-2019	PubG-2010/MP-2019	PubG-2010/MP-2019	PubG-2010/MP-2021
Inflation	2.75%	2.75%	2.75%	2.50%
Administrative Expenses	Prior Year increased 3%	Prior Year increased 3%	Prior Year increased 3%	Updated
Turnover	Graded by age	Graded by age	Graded by age	Updated
Retirement	Graded by age	Graded by age	Graded by age	Updated
Accrued Liability	\$38,040,104	\$39,299,000	\$39,299,000	\$39,448,000
Actuarial Value of Assets	27,400,973	29,710,000	28,690,000	28,690,000
Unfunded Accrued Liability	10,639,131	9,589,000	10,610,000	10,759,000
Funded Ratio	72.0%	75.6%	73.0%	72.7%
Amortization Period	16	15	15	15
Amortization Growth Rate	3.50%	3.50%	3.50%	3.50%
Past Service Cost	816,761	775,000	857,000	869,000
Total Normal Cost	728,428	664,000	664,000	690,000
Expected Employee Contributions	256,998	234,000	234,000	240,000
Expected Expenses	37,500	39,000	39,000	34,000
Net Normal Cost	508,930	469,000	469,000	484,000
Interest	86,170	81,000	86,000	88,000
Actuarially Determined Contribution	1,411,861	1,325,000	1,413,000	1,442,000
For Fiscal Year	2022-23	2023-24	2023-24	2023-24

Caveats

In preparing this study, we relied without audit on information furnished by the Town as of each valuation date from July 1, 2016 through July 1, 2021. This information includes, but is not limited to, plan provisions, employee data, and financial information. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the study results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. If any data or other information is inaccurate or incomplete, our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions of the Town of Simsbury pension plans. Furthermore, the calculations were determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

Milliman's work is prepared solely for the internal business use of the Town of Simsbury. 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. If this report is distributed to other parties, we request that it be copied in its entirety and distributed along with a copy of the July 1, 2021 actuarial valuation report in its entirety as well, because that document provides background information that is important in understanding the basis for the results contained herein.

The cost calculations reported herein have been made on a basis consistent with our understanding of ERISA and the related sections of the tax code. Additional determinations may be needed for other purposes, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices. We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations or would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. Actual experience will not conform exactly to the assumptions made for this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Jennifer M. Castelhana, FSA, Principal and Consulting Actuary

Questions?



TOWN OF SIMSBURY BOARD OF EDUCATION RETIREMENT INCOME PLAN

GASB 67 and 68 DISCLOSURE

Fiscal Year: July 1, 2021 to June 30, 2022

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

Actuarial computations presented in this report under Statements No. 67 and 68 of the Governmental Accounting Standards Board are for purposes of assisting the Town in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of July 1, 2021 and June 30, 2022 furnished by the Town. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's funding valuation report dated October 10, 2022 for more information on the plan's participant group as of July 1, 2021 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them 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.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law 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.

This valuation report 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.

Certification

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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. 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 models, including all input, calculations, and output may not be appropriate for any other purpose.

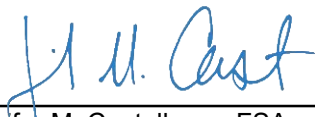
Milliman's work is prepared solely for the internal use and benefit of the Town of Simsbury. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does 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 Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor'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 Plan Sponsor 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 specific needs.

The consultants who worked on this assignment are pension 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 has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Overview of GASB 67 and GASB 68

The Governmental Accounting Standards Board (GASB) released accounting standards for public pension plans and participating employers in 2012. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. The most notable change is the distinct separation of funding from financial reporting. The Annual Required Contribution (ARC) has been eliminated under GASB 67 and 68 and is no longer relevant for financial reporting purposes. As a result, plan sponsors have been encouraged to establish a formal funding policy that is separate from financial reporting calculations.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a pension trust fund of a government, it is subject to GASB 67. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of participating employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is July 1, 2021. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022. This is the date as of which the net pension liability is determined. The Reporting Date is June 30, 2022. This is the plan's and/or employer's fiscal year ending date.

Significant Changes

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Participant Data as of July 1, 2021

Actives	112
Terminated vested & other inactive	82
Retirees and beneficiaries	<u>142</u>
Total	336

Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2013	\$1,012,381	\$1,104,718	(\$92,337)	\$7,740,314	14.27%
2014	1,231,124	1,231,124	0	7,911,823	15.56%
2015	1,236,631	1,236,631	0	7,916,465	15.62%
2016	1,110,353	1,288,982	(178,629)	7,864,597	16.39%
2017	1,112,035	1,112,035	0	7,766,728	14.32%
2018	1,084,561	1,084,561	0	7,614,963	14.24%
2019	1,086,598	1,086,598	0	7,235,501	15.02%
2020	1,175,122	1,175,122	0	7,011,899	16.76%
2021	1,296,230	1,296,230	0	7,050,585	18.38%
2022	1,387,251	1,387,251	0	6,391,476	21.70%

Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the July 1, 2021 funding valuation. Please see the valuation report dated October 10, 2022 for further details.

Valuation Timing	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported.
Actuarial Cost Method	Entry Age Normal
Amortization Method	
Level percent or level dollar	Level percent
Closed, open, or layered periods	Closed
Amortization period at 07/01/2021	16 years
Amortization growth rate	3.50%
Asset Valuation Method	
Smoothing period	5 years
Recognition method	Non-asymptotic
Corridor	None
Inflation	2.75%
Salary Increases	3.50%
Investment Rate of Return	6.50%
Cost of Living Adjustments	None
Retirement Age	Rates based on age
Turnover	Rates based on age
Mortality	PubG-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale

Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2013	N/A
2014	14.02%
2015	1.86%
2016	0.12%
2017	12.07%
2018	6.32%
2019	5.32%
2020	3.08%
2021	24.75%
2022	-11.91%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2021	\$30,384,867	12.00	1.00	\$26,765,323
Monthly net external cash flows:				
July	1,230,259	12.00	1.00	1,083,707
August	(129,544)	11.00	0.92	(115,276)
September	(146,596)	10.00	0.83	(131,948)
October	(120,443)	9.00	0.75	(109,514)
November	(132,017)	8.00	0.67	(121,262)
December	(102,710)	7.00	0.58	(95,425)
January	(154,127)	6.00	0.50	(144,656)
February	(121,404)	5.00	0.42	(115,106)
March	(130,786)	4.00	0.33	(125,425)
April	(171,647)	3.00	0.25	(166,290)
May	(107,863)	2.00	0.17	(105,562)
June	(119,667)	1.00	0.08	(118,459)
Ending Value - June 30, 2022	26,500,107			26,500,107
Money-Weighted Rate of Return	-11.91%			

Long-Term Expected Rate of Return

The assumption for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman as of June 30, 2021.

Asset Class	Index	Target Allocation*	Long-Term Expected Arithmetic Real Rate of Return	Long-Term Expected Geometric Real Rate of Return
US Core Fixed Income	Bloomberg Barclays Aggregate	32.50%	1.37%	1.26%
US Inflation-Indexed Bonds	BBgBarc US Treasury US TIPS	1.75%	0.61%	0.50%
US Large Cap Equity	S&P 500	21.50%	5.15%	3.65%
US Small Cap Equity	Russell 2000	10.00%	6.58%	3.89%
Non-US Equity	MSCI ACWI Ex USA	16.00%	6.74%	4.90%
Emerging Markets Equity	MSCI EM	11.50%	8.64%	4.95%
Private Real Estate	NCREIF Property	5.00%	4.62%	3.58%
Commodities	Bloomberg Commodity	1.75%	1.93%	0.59%
Assumed Inflation - Mean			2.75%	2.75%
Assumed Inflation - Standard Deviation			1.16%	1.16%
Portfolio Real Mean Return			4.56%	3.85%
Portfolio Nominal Mean Return			7.31%	6.70%
Portfolio Standard Deviation				11.49%
Long-Term Expected Rate of Return				6.50%

* As outlined in the Plan's investment policy dated September 15, 2020

Depletion Date Projection

GASB 67 and 68 generally require that a blended discount rate be used to measure the Total Pension Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 67 and 68 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 67 and 68 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Town of Simsbury:

- The Town of Simsbury has at least a 5-year history of paying at least 100% of the Actuarially Determined Contribution.
- The Actuarially Determined Contribution is based on a closed amortization period, which means that payment of the Actuarially Determined Contribution each year will bring the plan to a 100% funded position by the end of the amortization period.
- GASB 67 and 68 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 67 and 68 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

Net Pension Liability

Net Pension Liability	June 30, 2021	June 30, 2022
Total pension liability	\$37,497,789	\$39,435,151
Fiduciary net position	30,384,867	26,500,107
Net pension liability	7,112,922	12,935,044
Fiduciary net position as a % of total pension liability	81.03%	67.20%
Covered payroll	7,050,585	6,391,476
Net pension liability as a % of covered payroll	100.88%	202.38%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. Any significant changes during this period have been reflected as prescribed by GASB 67 and 68.

Discount Rate

Discount rate	6.625%	6.50%
Long-term expected rate of return, net of investment expense	6.625%	6.50%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

Other Key Actuarial Assumptions

The actuarial assumptions that determined the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period July 1, 2008 - July 1, 2012.

Valuation date	July 1, 2020	July 1, 2021
Measurement date	June 30, 2021	June 30, 2022
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.75%	2.75%
Salary increases including inflation	3.50%	3.50%
Mortality	PubG-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale	PubG-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale

Please see Milliman's funding valuation report dated October 10, 2022 for more detail.

Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a) - (b)
Balances as of June 30, 2021	\$37,497,789	\$30,384,867	\$7,112,922
Changes for the year:			
Service cost	709,652		709,652
Interest on total pension liability	2,472,708		2,472,708
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	65,804		65,804
Effect of assumptions changes or inputs	485,086		485,086
Benefit payments	(1,795,888)	(1,795,888)	0
Employer contributions		1,387,251	(1,387,251)
Member contributions		242,443	(242,443)
Net investment income		(3,678,215)	3,678,215
Administrative expenses		(40,351)	40,351
Balances as of June 30, 2022	39,435,151	26,500,107	12,935,044

Sensitivity Analysis

The following presents the net pension liability of the Town, calculated using the discount rate of 6.50%, as well as what the Town's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.50%) or 1 percentage point higher (7.50%) than the current rate.

	1% Decrease 5.50%	Current Discount Rate 6.50%	1% Increase 7.50%
Total pension liability	\$43,683,266	\$39,435,151	\$35,805,525
Fiduciary net position	26,500,107	26,500,107	26,500,107
Net pension liability	17,183,159	12,935,044	9,305,418

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service cost	\$709,652	\$665,110	\$740,945	\$712,212	\$742,875	\$781,880	\$792,518	\$720,226	\$723,982	N/A
Interest on total pension liability	2,472,708	2,241,566	2,143,058	2,064,354	1,980,261	1,903,998	1,815,018	1,745,104	1,635,060	N/A
Effect of plan changes	0	8,957	0	0	0	0	(29,091)	(32,802)	0	N/A
Effect of economic/demographic gains or losses	65,804	39,830	260,375	135,169	(161,126)	(274,621)	(445,038)	319,281	(19,757)	N/A
Effect of assumption changes or inputs	485,086	2,847,046	0	760,097	0	0	0	0	0	N/A
Benefit payments	(1,795,888)	(1,668,714)	(1,551,554)	(1,335,830)	(1,324,428)	(1,242,519)	(1,125,306)	(1,147,085)	(1,096,023)	N/A
Net change in total pension liability	1,937,362	4,133,795	1,592,824	2,336,002	1,237,582	1,168,738	1,008,101	1,604,724	1,243,262	N/A
Total pension liability, beginning	37,497,789	33,363,994	31,771,170	29,435,168	28,197,586	27,028,848	26,020,747	24,416,023	23,172,761	N/A
Total pension liability, ending (a)	39,435,151	37,497,789	33,363,994	31,771,170	29,435,168	28,197,586	27,028,848	26,020,747	24,416,023	N/A
Fiduciary Net Position										
Employer contributions	\$1,387,251	\$1,296,230	\$1,175,122	\$1,086,598	\$1,084,561	\$1,112,035	\$1,288,982	\$1,236,631	\$1,231,124	N/A
Member contributions	242,443	265,776	279,676	293,320	304,208	348,561	324,788	283,433	239,829	N/A
Net investment income	(3,678,215)	6,155,888	745,321	1,223,623	1,364,568	2,322,363	21,997	337,905	2,157,971	N/A
Benefit payments	(1,795,888)	(1,668,714)	(1,551,554)	(1,335,830)	(1,324,428)	(1,242,519)	(1,125,306)	(1,147,085)	(1,096,023)	N/A
Administrative expenses	(40,351)	(36,442)	(26,153)	(54,326)	(25,392)	(37,728)	(18,799)	(36,870)	(18,463)	N/A
Net change in plan fiduciary net position	(3,884,760)	6,012,738	622,412	1,213,385	1,403,517	2,502,712	491,662	674,014	2,514,438	N/A
Fiduciary net position, beginning	30,384,867	24,372,129	23,749,717	22,536,332	21,132,815	18,630,103	18,138,441	17,464,427	14,949,989	N/A
Fiduciary net position, ending (b)	26,500,107	30,384,867	24,372,129	23,749,717	22,536,332	21,132,815	18,630,103	18,138,441	17,464,427	N/A
Net pension liability, ending = (a) - (b)	\$12,935,044	\$7,112,922	\$8,991,865	\$8,021,453	\$6,898,836	\$7,064,771	\$8,398,745	\$7,882,306	\$6,951,596	N/A
Fiduciary net position as a % of total pension liability	67.20%	81.03%	73.05%	74.75%	76.56%	74.95%	68.93%	69.71%	71.53%	N/A
Covered payroll	\$6,391,476	\$7,050,585	\$7,011,899	\$7,235,501	\$7,614,963	\$7,766,728	\$7,864,597	\$7,916,465	\$7,911,823	N/A
Net pension liability as a % of covered payroll	202.38%	100.88%	128.24%	110.86%	90.60%	90.96%	106.79%	99.57%	87.86%	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

Pension Expense

Pension Expense	July 1, 2020 to June 30, 2021	July 1, 2021 to June 30, 2022
Service cost	\$665,110	\$709,652
Interest on total pension liability	2,241,566	2,472,708
Effect of plan changes	8,957	0
Administrative expenses	36,442	40,351
Member contributions	(265,776)	(242,443)
Expected investment return net of investment expenses	(1,640,436)	(2,006,106)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	153,346	102,294
Recognition of assumption changes or inputs	1,473,739	1,480,389
Recognition of investment gains or losses	(841,640)	497,705
Pension Expense	1,831,308	3,054,550

As of June 30, 2022, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	\$0	\$38,098
Changes of assumptions	0	613,897
Net difference between projected and actual earnings	0	2,249,663
Contributions made subsequent to measurement date	0	0
Total	0	2,901,658

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2023	\$1,126,888
2024	404,133
2025	233,772
2026	1,136,865
2027	0
Thereafter*	0

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Pension Expense for FYE 06/30/2022	Amount Recognized in Pension Expense through 06/30/2022	Balance of Deferred Inflows as of 06/30/2022	Balance of Deferred Outflows as of 06/30/2022
Economic/ demographic gains or losses	\$65,804	6/30/2022	2.0	\$32,902	\$32,902	\$0	\$32,902
	39,830	6/30/2021	2.3	17,317	34,634	0	5,196
	260,375	6/30/2020	2.5	52,075	260,375	0	0
		Total		102,294	327,911	0	38,098
Assumption changes or inputs	485,086	6/30/2022	2.0	242,543	242,543	0	242,543
	2,847,046	6/30/2021	2.3	1,237,846	2,475,692	0	371,354
		Total		1,480,389	2,718,235	0	613,897
Investment gains or losses	5,684,321	6/30/2022	5.0	1,136,864	1,136,864	0	4,547,457
	(4,515,452)	6/30/2021	5.0	(903,090)	(1,806,180)	(2,709,272)	0
	851,795	6/30/2020	5.0	170,359	511,077	0	340,718
	353,792	6/30/2019	5.0	70,758	283,032	0	70,760
	114,066	6/30/2018	5.0	22,814	114,066	0	0
		Total		497,705	238,859	(2,709,272)	4,958,935
Total for economic/demographic gains or losses and assumption changes or inputs						0	651,995
Net deferred (inflows)/outflows for investment gains or losses						0	2,249,663
Total deferred (inflows)/outflows						0	2,901,658
Total net deferrals							2,901,658

* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

Milliman Financial Reporting Valuation

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Deferred (Inflows)	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net Pension Liability plus Net Deferrals	Annual Expense
Balances as of June 30, 2021	(\$37,497,789)	\$30,384,867	(\$7,112,922)	\$0	\$1,683,788	(\$2,936,953)	(\$1,253,165)	(\$8,366,087)	
Service cost	(709,652)		(709,652)						709,652
Interest on total pension liability	(2,472,708)		(2,472,708)						2,472,708
Effect of plan changes	0		0						0
Effect of liability gains or losses	(65,804)		(65,804)		65,804		65,804		
Effect of assumption changes or inputs	(485,086)		(485,086)		485,086		485,086		
Benefit payments	1,795,888	(1,795,888)	0						
Administrative expenses		(40,351)	(40,351)						40,351
Member contributions		242,443	242,443						(242,443)
Expected net investment income		2,006,106	2,006,106						(2,006,106)
Investment gains or losses		(5,684,321)	(5,684,321)			5,684,321	5,684,321		
Employer contributions		1,387,251	1,387,251					1,387,251	
Recognition of liability gains or losses					(102,294)		(102,294)		102,294
Recognition of assumption changes or inputs					(1,480,389)		(1,480,389)		1,480,389
Recognition of investment gains or losses						(497,705)	(497,705)		497,705
Annual expense								(3,054,550)	3,054,550
Balances as of June 30, 2022	(39,435,151)	26,500,107	(12,935,044)	0	651,995	2,249,663	2,901,658	(10,033,386)	

Glossary

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	<p>Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:</p> <ol style="list-style-type: none">1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on pension plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net Pension Liability	Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.



TOWN OF SIMSBURY BOARD OF EDUCATION RETIREMENT INCOME PLAN

**Actuarial Valuation as of July 1, 2021
To Determine Funding for Fiscal Year 2022-23**

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

We have performed an actuarial valuation of the Plan as of July 1, 2021 to determine funding for fiscal year 2022-23. This report presents the results of our valuation.

The ultimate cost of a pension plan is the total amount needed to provide benefits for plan members and beneficiaries and to pay the expenses of administering the plan. Pension costs are met by contributions and by investment return on plan assets. The principal purpose of this report is to set forth an actuarial recommendation of the contribution, or range of contributions, which will properly fund the plan, in accordance with applicable government regulations. In addition, this report provides:

- A valuation of plan assets and liabilities to review the year-to-year progress of funding.
- Information needed to meet disclosure requirements.
- Review of plan experience for the previous year to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application.
- Assessment of the relative funded position of the plan, i.e., through a comparison of plan assets and projected plan liabilities.
- Comments on any other matters which may be of assistance in the funding and operation of the plan.

This report may not be used for purposes other than those listed above without Milliman's prior written consent. If this report is distributed to other parties, it must be copied in its entirety, including this certification section.

Milliman's work is prepared solely for the internal business use of the Town of Simsbury ("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.

In preparing this report, we relied on employee census data and financial information as of the valuation date, furnished by the Town. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Certification


The valuation results were developed using models employing standard actuarial techniques. In addition to the models described previously, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. 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 models, including all input, calculations, and output, may not be appropriate for any other purpose.

The calculations reported herein have been made on a basis consistent with our understanding of ERISA and the related sections of the tax code. Additional determinations may be needed for purposes other than meeting funding requirements, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices.

We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. 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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

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

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Section I - Executive Summary Changes Since the Prior Valuation

Plan Changes

None.

Changes in Actuarial Methods and Assumptions

In order to better anticipate future plan experience, we lowered the investment return assumption from 6.625% to 6.50%.

This change caused the Unfunded Accrued Liability to increase by about \$481,000 and the Actuarially Determined Contribution to increase by about \$51,000.

Other Significant Changes

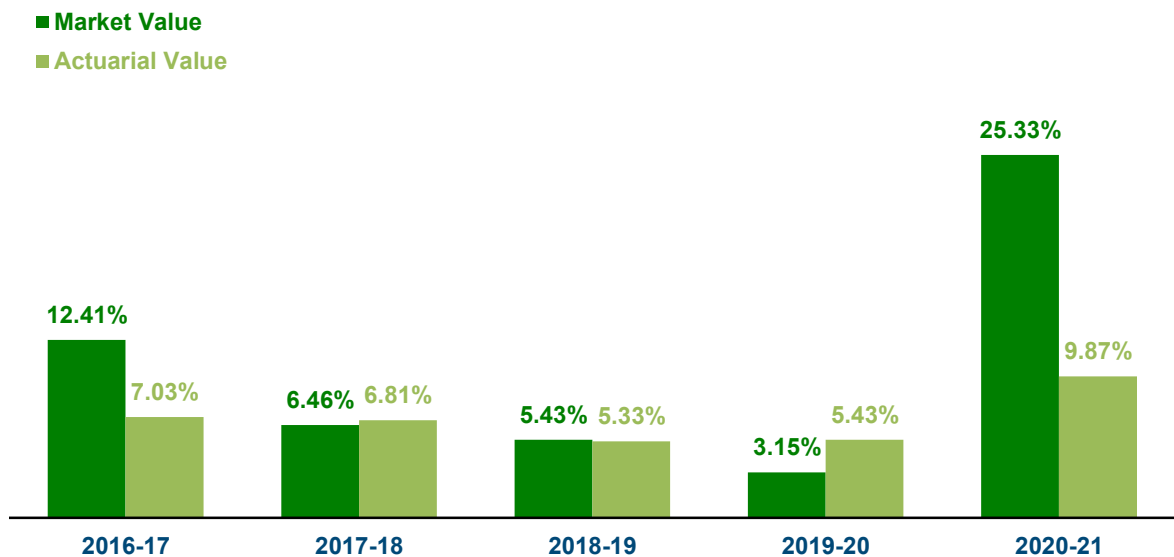
Although it is possible that the COVID-19 pandemic could have a material impact on the projected mortality, liabilities, and contribution requirements, we have chosen not to make an adjustment in the projections at this time, given the substantial current uncertainty regarding the impact of COVID-19 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, 2020	\$24,372,129	\$25,075,182
Town and Member Contributions	1,562,006	1,562,006
Investment Income	6,155,888	2,468,941
Benefit Payments and Administrative Expenses	(1,705,156)	(1,705,156)
Value as of July 1, 2021	30,384,867	27,400,973

For fiscal year 2020-21, the plan's assets earned 25.332% on a Market Value basis and 9.874% on an Actuarial Value basis. The actuarial assumption for this period was 6.625%; the result is an asset gain of about \$4,546,000 million on a Market Value basis and a gain of about \$812,000 million on an Actuarial Value basis. Historical rates of return are shown in the graph below.

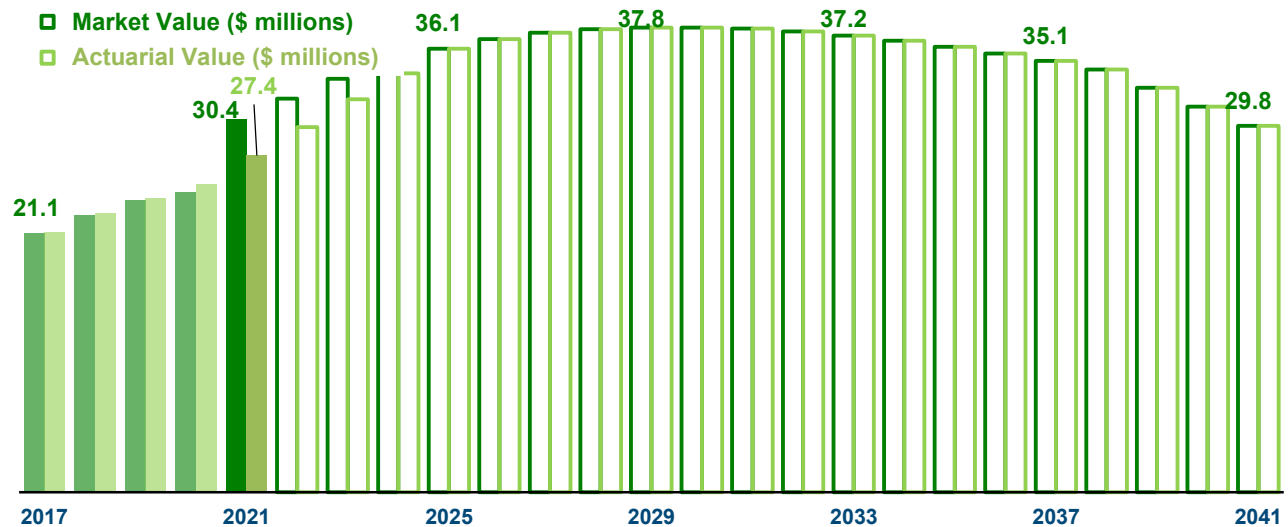


Please note that the Actuarial Value currently is less than the Market Value by \$2,984,000. This figure represents investment gains that will be gradually recognized in future years. This process will exert downward pressure on the Town's contribution, unless there are offsetting market losses.

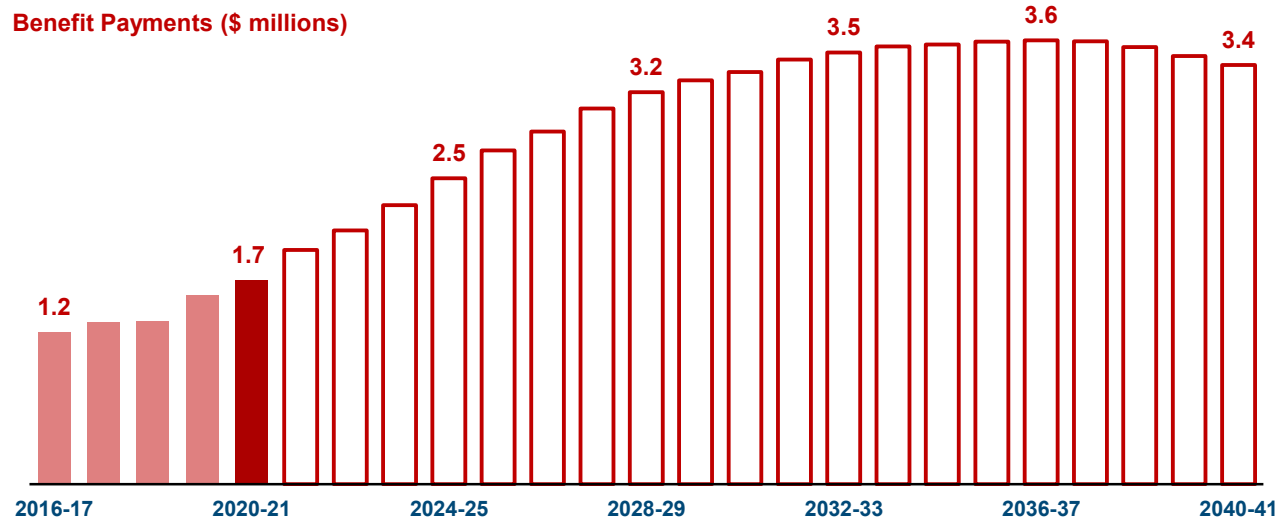
Section I - Executive Summary

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.



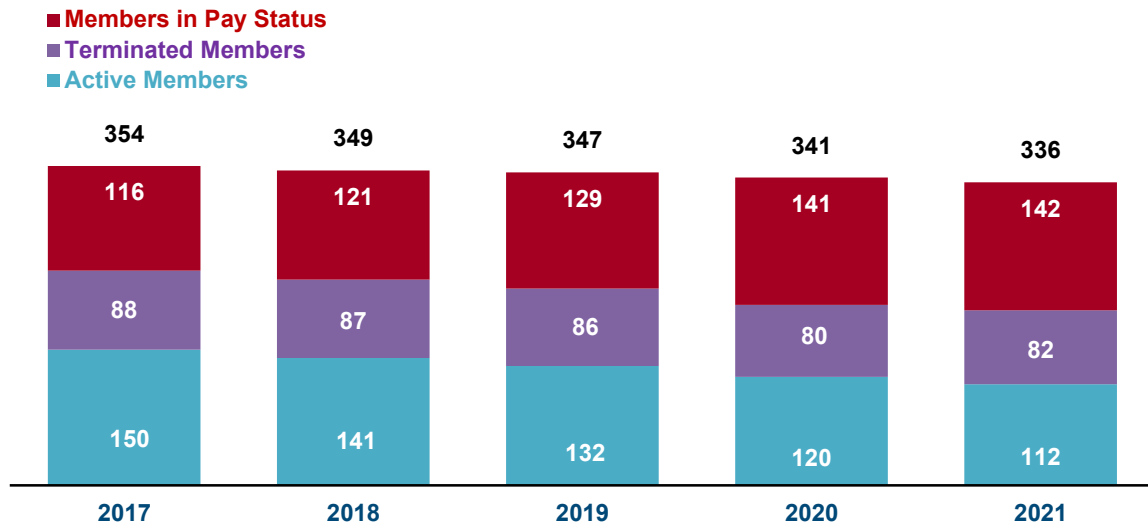
In 2020-21, the plan paid out \$1.669 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$63 million in benefits to members.



Section I - Executive Summary

Membership

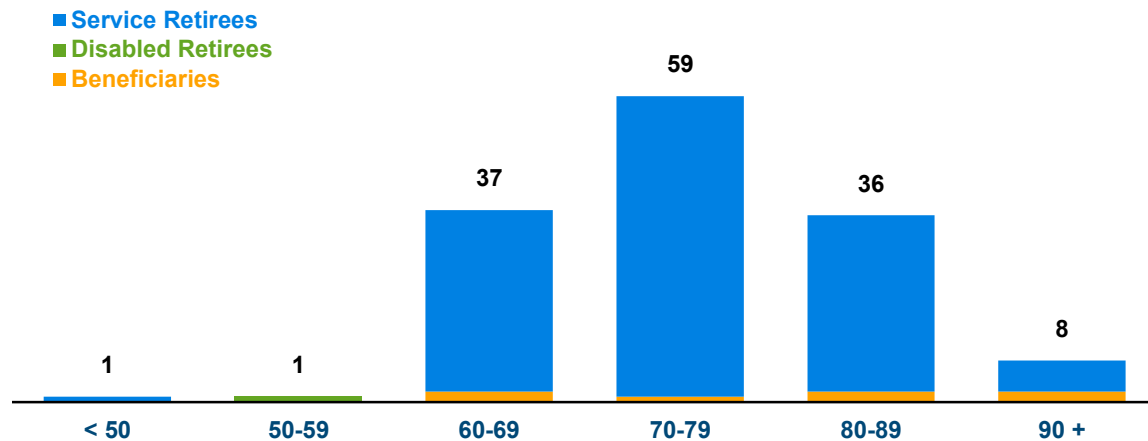
There are three basic categories of plan members included in the valuation: (1) members who are receiving monthly pension benefits, (2) former employees who have a vested right to benefits but have not yet started collecting, and (3) active employees who have met the eligibility requirements for membership.



Members in Pay Status on July 1, 2021

Service Retirees	134	Average Age	75.7
Disabled Retirees	1	Total Annual Benefit	\$1,726,913
Beneficiaries	7	Average Annual Benefit	12,161
Total	142		

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



Section I - Executive Summary Membership (continued)

Terminated Members on July 1, 2021

Count	55
Average Age	59.4
Total Annual Benefit	\$260,227
Average Annual Benefit	4,731

Nonvested Members Due Refunds on July 1, 2021

Count	27
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Active Members on July 1, 2021

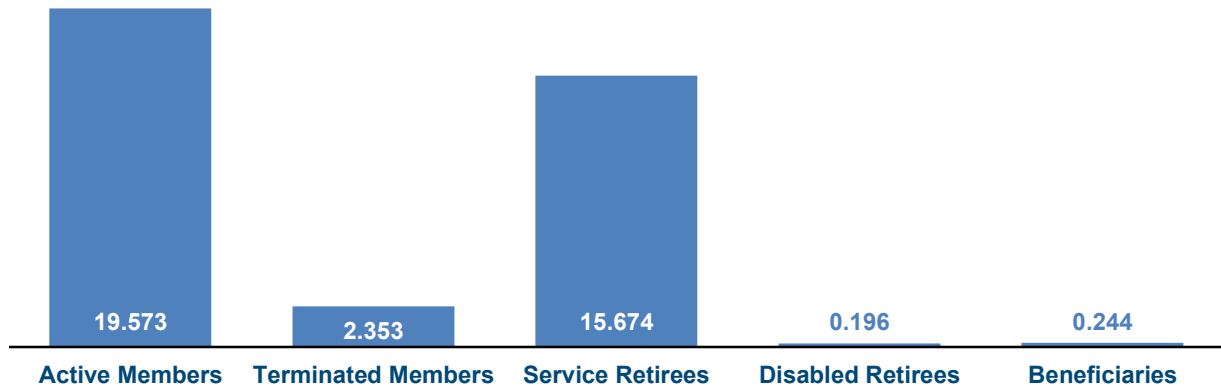
Count	112
Average Age	59.3
Average Service	19.4
Payroll	\$6,290,034
Average Payroll	56,161

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

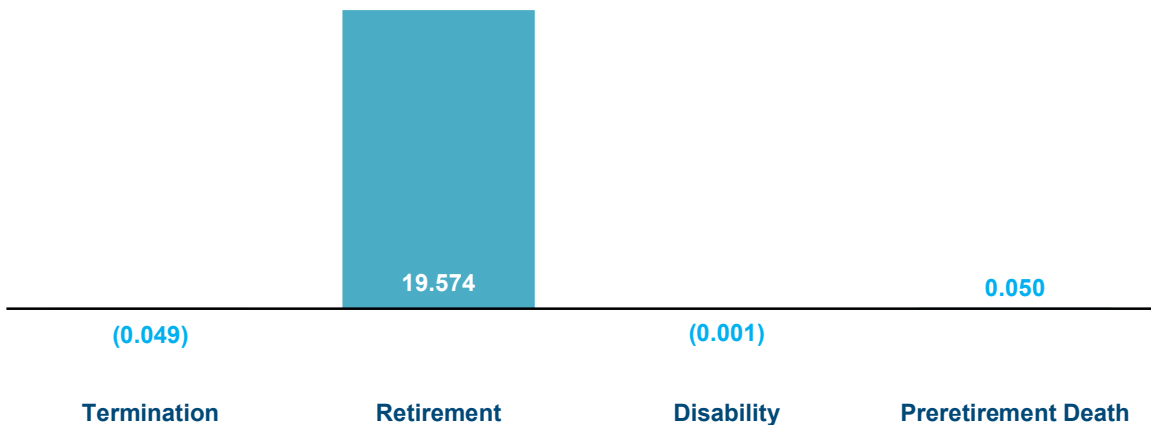
Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29								0
30-34	1							1
35-39								0
40-44	1	1	1					3
45-49	2	1	1	2				6
50-54	1	2	3	4				10
55-59	8	11	6	2	1		1	29
60-64	5	9	11	14	2	1	1	43
65+	1	2	8	3	5	1		20
Total	19	26	30	25	8	2	2	112

Section I - Executive Summary Accrued Liability

The Accrued Liability as of July 1, 2021 equals \$38,040,104, 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:

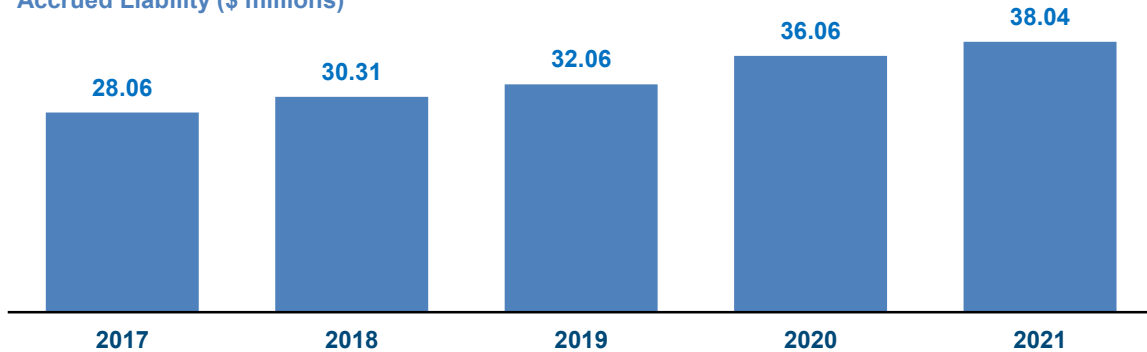


Section I - Executive Summary

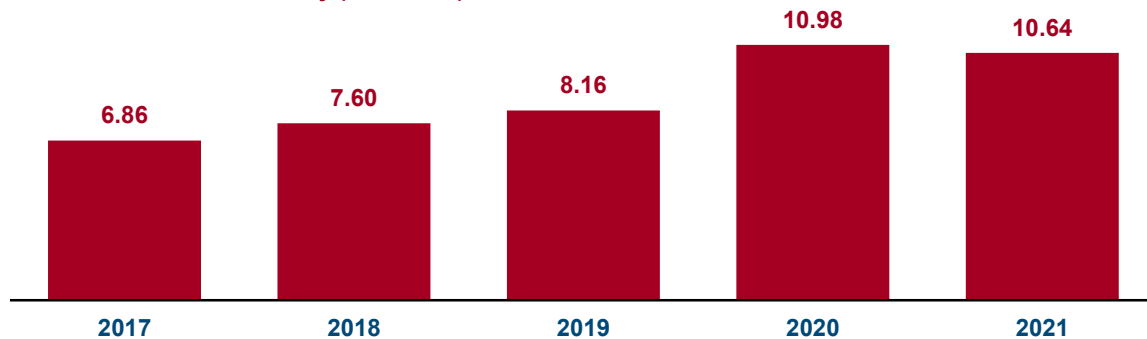
Funded Status

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.

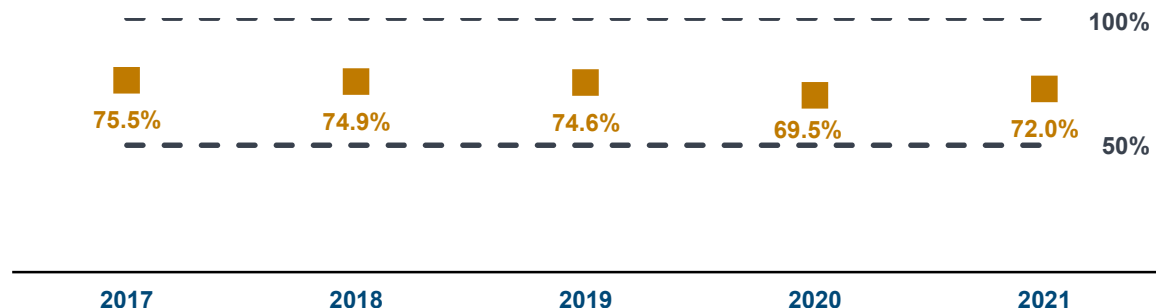
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)



Funded Ratio

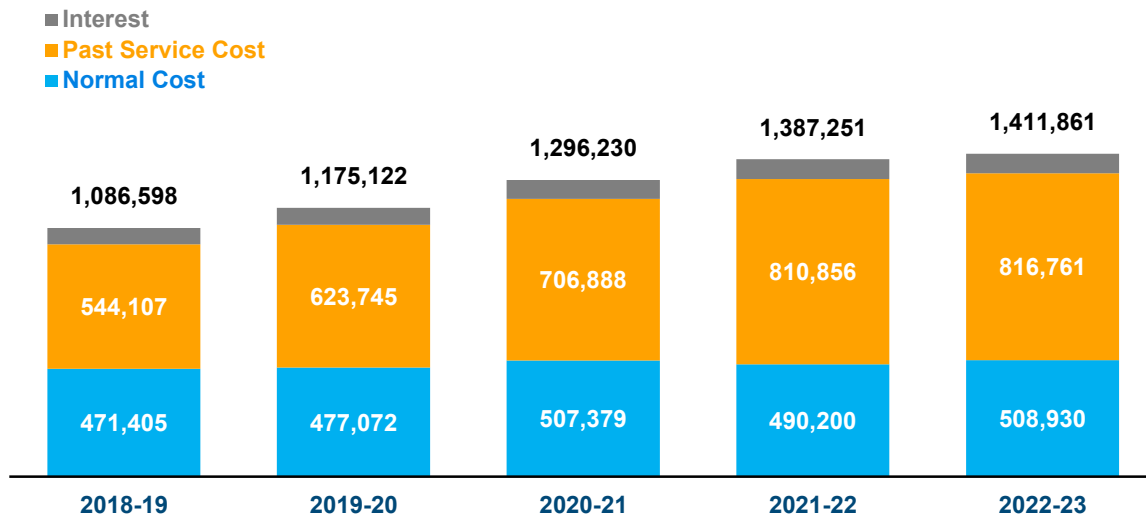


Section I - Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution 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 to reflect the timing of the contribution relative to the valuation date.

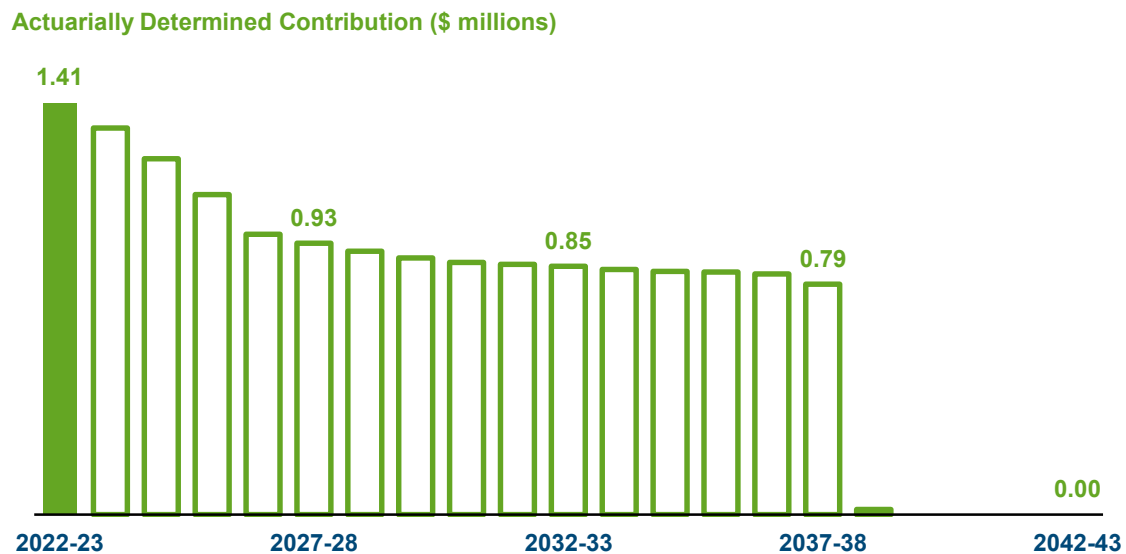
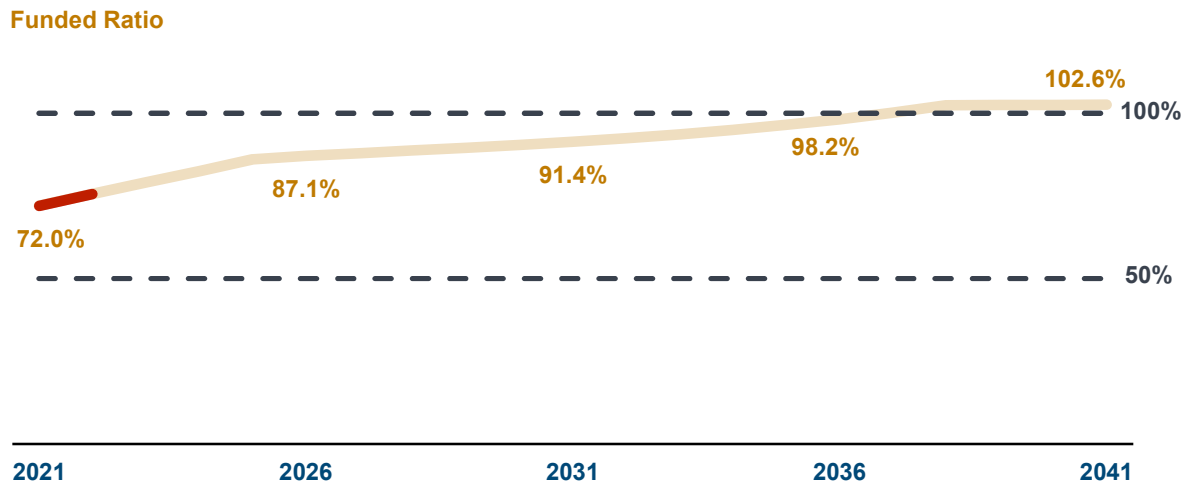
The Actuarially Determined Contribution for fiscal year 2022-23 is shown graphically below, along with the comparable figures for the preceding four fiscal years. Note that the Normal Cost is relatively consistent from year to year, whereas the Past Service Cost tends to be more volatile since it reflects the impact of asset performance.



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 changes in the plan's funded status and the long-range contribution levels:

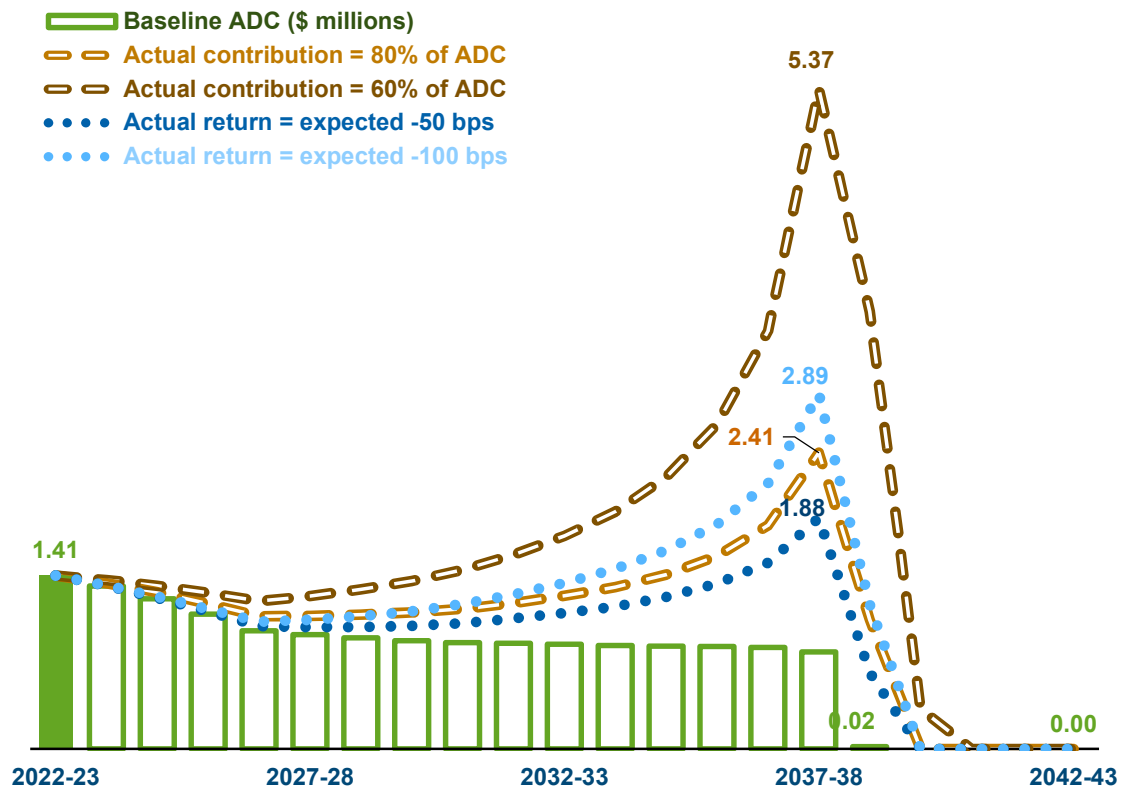


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Section III C for more details of the long range forecast.

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 Summary of Principal Results

Membership as of	July 1, 2020	July 1, 2021
Active Members	120	112
Terminated Members	80	82
Members in Pay Status	<u>141</u>	<u>142</u>
Total Count	341	336
Payroll	\$6,391,476	\$6,290,034
Assets and Liabilities as of	July 1, 2020	July 1, 2021
Market Value of Assets	\$24,372,129	\$30,384,867
Actuarial Value of Assets	25,075,182	27,400,973
Accrued Liability for Active Members	18,364,381	19,573,133
Accrued Liability for Terminated Members	2,194,122	2,353,116
Accrued Liability for Members in Pay Status	<u>15,497,755</u>	<u>16,113,855</u>
Total Accrued Liability	36,056,258	38,040,104
Unfunded Accrued Liability	10,981,076	10,639,131
Funded Ratio	69.5%	72.0%
Actuarially Determined Contribution for Fiscal Year	2021-22	2022-23
Normal Cost	\$490,200	\$508,930
Past Service Cost	810,856	816,761
Interest	<u>86,195</u>	<u>86,170</u>
Actuarially Determined Contribution	1,387,251	1,411,861

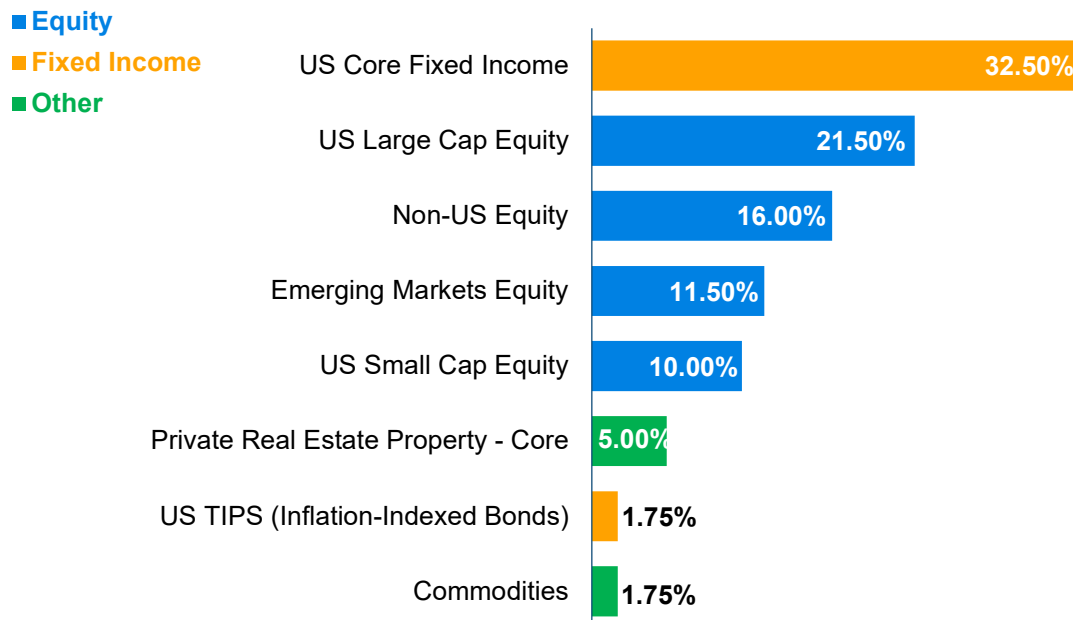
Section II - Plan Assets

A. Summary of Fund Transactions

Market Value as of July 1, 2020	\$24,372,129
Town Contributions	1,296,230
Member Contributions	265,776
Net Investment Income	6,155,888
Benefit Payments	(1,668,714)
Administrative Expenses	(36,442)
Market Value as of June 30, 2021	30,384,867
Expected Return on Market Value of Assets	1,609,930
Market Value (Gain)/Loss	(4,545,958)
Approximate Rate of Return *	25.33%

* 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, 2021



Section II - Plan Assets

B. Development of Actuarial 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 in equal installments ('non-asymptotically') over a five year period. The Actuarial Value of Assets as of July 1, 2021 is determined below.

1.	Expected Market Value of Assets:	
a.	Market Value of Assets as of July 1, 2020	\$24,372,129
b.	Town and Member Contributions	1,562,006
c.	Benefit Payments and Administrative Expenses	(1,705,156)
d.	Expected Earnings Based on 6.625% Interest	<u>1,609,930</u>
e.	Expected Market Value of Assets as of July 1, 2021	25,838,909
2.	Actual Market Value of Assets as of July 1, 2021	30,384,867
3.	Market Value (Gain)/Loss: (1e) - (2)	(4,545,958)
4.	Delayed Recognition of Market (Gains)/Losses	
	Plan Year End	(Gain)/Loss
	06/30/2021	(\$4,545,958)
	06/30/2020	851,795
	06/30/2019	297,455
	06/30/2018	114,066
	Percent Not Recognized	Amount Not Recognized
	80%	(\$3,636,766)
	60%	511,077
	40%	118,982
	20%	<u>22,813</u>
		(2,983,894)
5.	Actuarial Value of Assets as of July 1, 2021: (2) + (4)	27,400,973
6.	Return on Actuarial Value of Assets	2,468,941
7.	Approximate Rate of Return on Actuarial Value of Assets	9.87%
8.	Actuarial Value (Gain)/Loss	(812,395)

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 17 years starting on July 1, 2020.

	July 1, 2020	July 1, 2021
1. Accrued Liability		
Active Members	\$18,364,381	\$19,573,133
Terminated Members	2,194,122	2,353,116
Service Retirees	15,045,199	15,674,370
Disabled Retirees	179,023	195,749
Beneficiaries	<u>273,533</u>	<u>243,736</u>
Total Accrued Liability	36,056,258	38,040,104
2. Actuarial Value of Assets (see Section IIB)	25,075,182	27,400,973
3. Unfunded Accrued Liability: (1) - (2)	10,981,076	10,639,131
4. Funded Ratio: (2) / (1)	69.5%	72.0%
5. Amortization Period	17	16
6. Amortization Growth Rate	3.50%	3.50%
7. Past Service Cost: (3) amortized over (5)	810,856	816,761

Section III - Development of Contribution

B. Actuarially Determined Contribution

	2021-22	2022-23
1. Total Normal Cost	\$727,698	\$728,428
2. Expected Member Contributions	264,398	256,998
3. Expected Administrative Expenses	26,900	37,500
4. Net Normal Cost: (1) - (2) + (3)	490,200	508,930
5. Past Service Cost (see Section IIIA)	810,856	816,761
6. Interest on (4) + (5) to the start of the fiscal year	86,195	86,170
7. Actuarially Determined Contribution: (4) + (5) + (6)	1,387,251	1,411,861

Section III - Development of Contribution

C. Long Range Forecast

This forecast is based on the results of the July 1, 2021 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.

Valuation Date	Values as of the Valuation Date				Fiscal Year	Cash Flows Projected to the Following Fiscal Year			
	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio		Town Contributions	Member Contributions	Benefit Payments	Net Cash Flows
7/1/2021	\$38,040,104	\$27,400,973	\$10,639,131	72.0%	2022-23	\$1,411,861	\$234,070	(\$2,078,992)	(\$433,061)
7/1/2022	39,299,000	29,710,000	9,589,000	75.6%	2023-24	1,325,000	212,000	(2,288,000)	(751,000)
7/1/2023	40,408,000	31,985,000	8,423,000	79.2%	2024-25	1,220,000	188,000	(2,507,000)	(1,099,000)
7/1/2024	41,301,000	34,093,000	7,208,000	82.5%	2025-26	1,097,000	167,000	(2,737,000)	(1,473,000)
7/1/2025	41,946,000	36,100,000	5,846,000	86.1%	2026-27	961,000	149,000	(2,892,000)	(1,782,000)
7/1/2026	42,328,000	36,882,000	5,446,000	87.1%	2027-28	930,000	128,000	(3,081,000)	(2,023,000)
7/1/2027	42,520,000	37,395,000	5,125,000	87.9%	2028-29	903,000	112,000	(3,216,000)	(2,201,000)
7/1/2028	42,467,000	37,691,000	4,776,000	88.8%	2029-30	880,000	98,000	(3,311,000)	(2,333,000)
7/1/2029	42,215,000	37,821,000	4,394,000	89.6%	2030-31	864,000	87,000	(3,380,000)	(2,429,000)
7/1/2030	41,803,000	37,822,000	3,981,000	90.5%	2031-32	858,000	75,000	(3,482,000)	(2,549,000)
7/1/2031	41,258,000	37,722,000	3,536,000	91.4%	2032-33	851,000	64,000	(3,541,000)	(2,626,000)
7/1/2032	40,538,000	37,490,000	3,048,000	92.5%	2033-34	840,000	54,000	(3,590,000)	(2,696,000)
7/1/2033	39,671,000	37,161,000	2,510,000	93.7%	2034-35	834,000	47,000	(3,606,000)	(2,725,000)
7/1/2034	38,669,000	36,738,000	1,931,000	95.0%	2035-36	832,000	40,000	(3,630,000)	(2,758,000)
7/1/2035	37,566,000	36,257,000	1,309,000	96.5%	2036-37	825,000	33,000	(3,639,000)	(2,781,000)
7/1/2036	36,348,000	35,707,000	641,000	98.2%	2037-38	789,000	26,000	(3,632,000)	(2,817,000)
7/1/2037	35,020,000	35,095,000	(75,000)	100.2%	2038-39	17,000	22,000	(3,584,000)	(3,545,000)
7/1/2038	33,596,000	34,406,000	(810,000)	102.4%	2039-40	0	19,000	(3,512,000)	(3,493,000)
7/1/2039	32,115,000	32,918,000	(803,000)	102.5%	2040-41	0	16,000	(3,438,000)	(3,422,000)
7/1/2040	30,605,000	31,385,000	(780,000)	102.5%	2041-42	0	13,000	(3,364,000)	(3,351,000)

Section III - Development of Contribution

D. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2012	\$13,482,404	\$21,305,007	\$7,822,603	63.3%
July 1, 2013	14,261,995	23,172,761	8,910,766	61.5%
July 1, 2014	16,482,594	24,773,671	8,291,077	66.5%
July 1, 2015	18,208,133	25,689,450	7,481,317	70.9%
July 1, 2016	19,652,847	26,782,964	7,130,117	73.4%
July 1, 2017	21,193,924	28,057,807	6,863,883	75.5%
July 1, 2018	22,704,702	30,307,500	7,602,798	74.9%
July 1, 2019	23,903,390	32,061,081	8,157,691	74.6%
July 1, 2020	25,075,182	36,056,258	10,981,076	69.5%
July 1, 2021	27,400,973	38,040,104	10,639,131	72.0%

Section III - Development of Contribution

E. History of Town Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Town Contribution	Payroll	Actual Contribution as a Percent of Payroll
2013-14	\$1,231,124	\$1,323,461	\$7,911,823	16.7%
2014-15	1,236,631	1,236,631	7,916,465	15.6%
2015-16	1,110,353	1,288,982	7,864,597	16.4%
2016-17	1,112,035	1,112,035	7,737,228	14.4%
2017-18	1,084,561	1,084,561	7,614,963	14.2%
2018-19	1,086,598	1,086,598	7,235,501	15.0%
2019-20	1,175,122	1,175,122	7,011,899	16.8%
2020-21	1,296,230	1,296,230	7,050,585	18.4%
2021-22	1,387,251	TBD	6,391,476	TBD
2022-23	1,411,861	TBD	6,290,034	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 Members	Nonvested Members Due Refunds	Service Retirees	Disabled Retirees	Beneficiaries	Total
Count July 1, 2020	120	53	27	131	1	9	341
Terminated							
- no benefits due	-	-	-	-	-	-	0
- paid refund	-	-	-	-	-	-	0
- vested benefits due	(3)	3	-	-	-	-	0
Retired	(5)	(1)	-	6	-	-	0
Died							
- with beneficiary	-	-	-	-	-	-	0
- no beneficiary	-	-	-	(3)	-	-	(3)
Benefits expired	-	-	-	-	-	(2)	(2)
New member	-	-	-	-	-	-	0
Rehired	-	-	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	-	0
Correction	-	-	-	-	-	-	0
Count July 1, 2021	112	55	27	134	1	7	336

Section IV - Membership Data
B. Statistics of Active Membership

	As of July 1, 2020	As of July 1, 2021
Number of Active Members	120	112
Average Age	58.6	59.3
Average Service	18.7	19.4
Total Payroll	\$6,391,476	\$6,290,034
Average Payroll	53,262	56,161

Section IV - Membership Data

C. Statistics of Inactive Membership

	As of July 1, 2020	As of July 1, 2021
Terminated Members		
Number	53	55
Total Annual Benefit	\$247,254	\$260,227
Average Annual Benefit	4,665	4,731
Average Age	53.1	59.4
Nonvested Members Due Refunds		
Number	27	27
Service Retirees		
Number	131	134
Total Annual Benefit	\$1,558,396	\$1,634,182
Average Annual Benefit	11,896	12,195
Average Age	75.0	75.5
Disabled Retirees		
Number	1	1
Total Annual Benefit	\$44,160	\$44,160
Average Annual Benefit	44,160	44,160
Average Age	54.2	55.2
Beneficiaries		
Number	9	7
Total Annual Benefit	\$68,092	\$48,571
Average Annual Benefit	7,566	6,939
Average Age	76.0	82.5

Section IV - Membership Data

D. Distribution of Inactive Members as of July 1, 2021

	Age	Number	Annual Benefits
Terminated Members	< 50	7	\$31,082
	50 - 59	11	50,335
	60 - 69	28	160,970
	70 - 79	6	14,184
	80 - 89	2	2,690
	90 +	<u>1</u>	<u>966</u>
	Total	55	260,227
Service Retirees	< 50	1	\$8,889
	50 - 59	0	0
	60 - 69	35	556,968
	70 - 79	58	720,408
	80 - 89	34	322,224
	90 +	<u>6</u>	<u>25,693</u>
	Total	134	1,634,182
Disabled Retirees	< 50	0	\$0
	50 - 59	1	44,160
	60 - 69	0	0
	70 - 79	0	0
	80 - 89	0	0
	90 +	<u>0</u>	<u>0</u>
	Total	1	44,160
Beneficiaries	< 50	0	\$0
	50 - 59	0	0
	60 - 69	2	28,478
	70 - 79	1	7,232
	80 - 89	2	6,345
	90 +	<u>2</u>	<u>6,515</u>
	Total	7	48,571

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 C for more information on the basis for the projected results shown on the following pages.

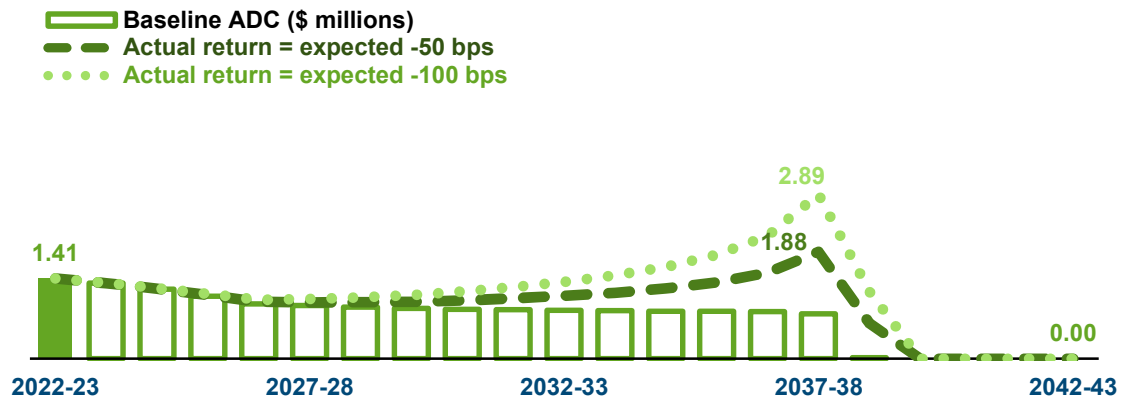
Section V - Analysis of Risk

B. Risk Identification and Assessment

Investment Risk

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

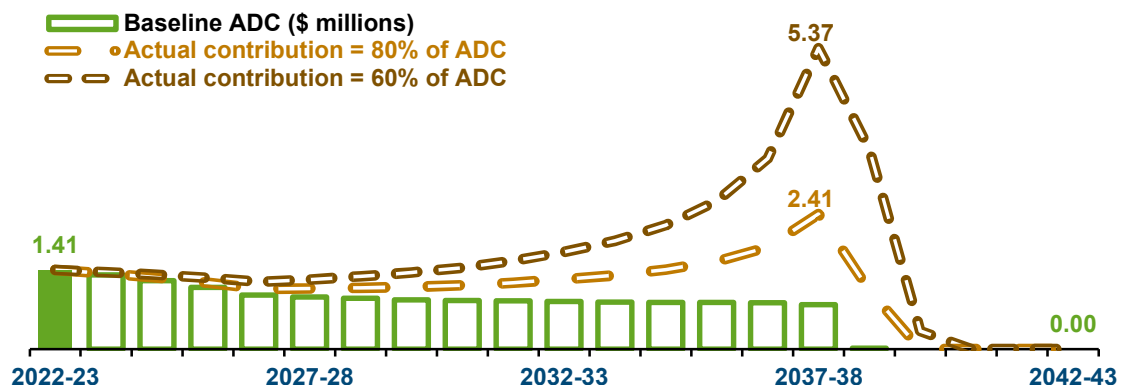
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on 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 102.9% 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.

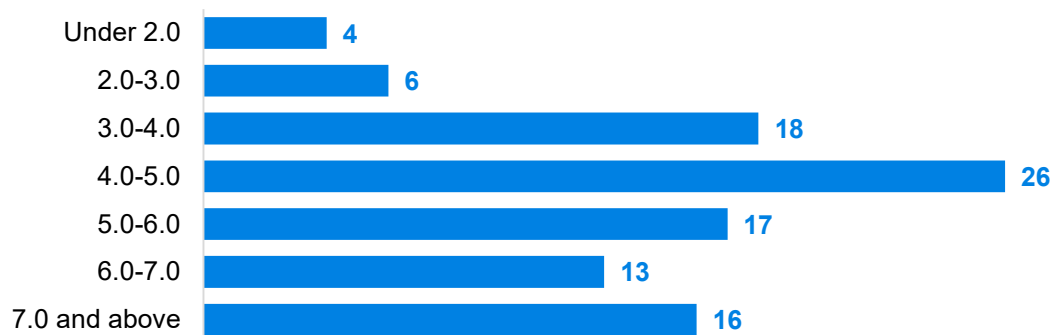
Identification: In 2020-21, the plan had negative cash flow, with town and member contributions to the plan of \$1,562,006 compared to \$1,705,156 of benefit payments and administrative expenses paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity 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, 2021, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 4.8. According to Milliman's 2021 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.

Retirement Risk

Definition: This is the potential for members to retire and receive subsidized benefits that are more valuable than expected.

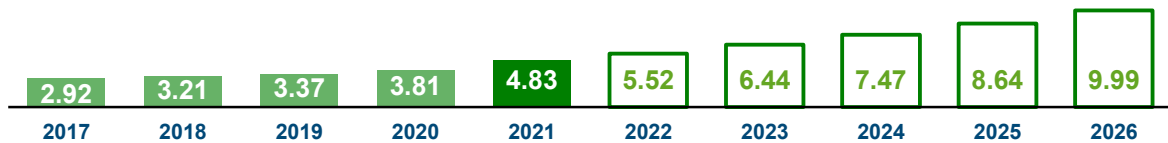
Identification: This plan provides unreduced early retirement benefits for certain members with long service. If members retire at earlier ages than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

Section V - Analysis of Risk

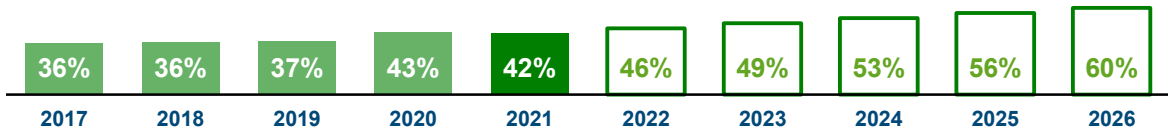
C. Maturity Measures

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.

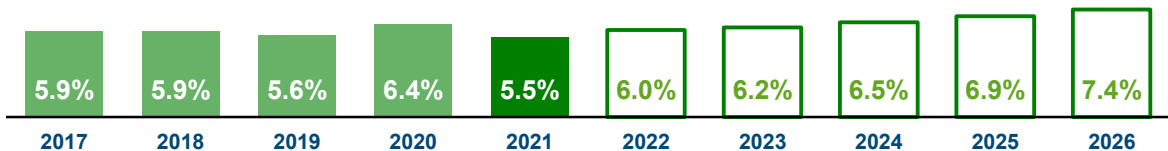
Asset Volatility Ratio: Market Value of Assets compared to Payroll



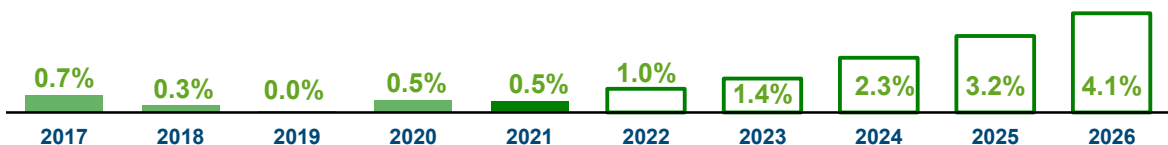
Accrued Liability for members in pay status compared to total Accrued Liability



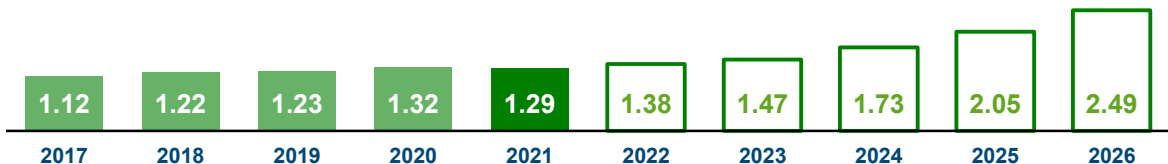
Benefit Payments compared to Market Value of Assets



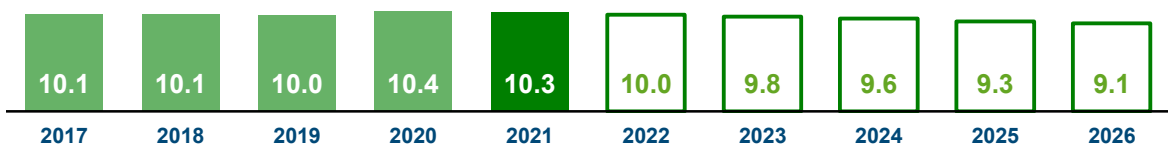
Net Cash Flows compared to Market Value of Assets



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 timing of the contribution relative to the valuation date.

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 17 years starting on July 1, 2020. The amortization period will decrease each year until it reaches 10 years, after which point it will remain at 10 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	6.50% (prior: 6.625%)	
Inflation	2.75%	
Amortization Growth Rate	3.50%	
Salary Scale	3.50%	
Expenses	Administrative expenses paid in the prior year, increased by 3% and rounded to the nearest \$100.	
Turnover	Age	Rate
	<30	14.0%
	30-34	11.5%
	35-39	7.0%
	40+	4.0%
Mortality	PubG-2010 Mortality Table with generational projection per the MP-2019 ultimate scale, with employee rates before benefit commencement and healthy or disabled annuitant rates after benefit commencement. This assumption includes a margin for improvements in longevity beyond the valuation date.	
Marital Status	90% of male members and 60% of female members are assumed to be married with wives 3 years younger than husbands.	
Retirement	Age	Rate
	55-64	10%
	65-66	35%
	67-74	15%
	75	100%
Disability	The 1952 Disability Study of the Society of Actuaries, Period 4, Benefit Rates.	

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

Any individual in the employ of the Town of Simsbury whose customary employment is at least 32½ hours per week on a regular schedule, excluding all individuals covered by the State Teachers Retirement Plan or the Town of Simsbury Police or General Government Retirement Income Plans. The plan is closed to employees hired after the following dates:

NAGE: December 10, 2013.

SFEP, SSNA and Unaffiliated: July 1, 2013.

Employee Contributions

Prior to 7/1/13, 2.0% of compensation for NAGE, SFEP and SSNA; 2.5% for Unaffiliated.

NAGE: 2.5% effective 7/1/13, increasing to 3.5% effective 7/1/14 and 4.5% effective 7/1/15.

SFEP and SSNA: 3.0% effective 7/1/13, increasing to 4.0% effective 7/1/14 and 4.5% effective 7/1/15.

Unaffiliated: 3.0% effective 7/1/13, increasing to 3.5% effective 7/1/14 and 4.0% effective 7/1/15.

No contributions after Normal Retirement Date. Interest is credited at 5% per year.

Credited Service

Whole years and full months from date of participation.

Compensation

Basic Compensation excluding overtime, commissions, bonuses, and any other form of additional compensation.

Final Average Compensation Compensation

NAGE: average of Compensation paid during the last three July 1's before retirement.

SFEP: average of Compensation paid during the last three completed years of employment.

SSNA and Unaffiliated: average of Compensation during the highest three consecutive July 1's out of the last ten years before retirement.

Appendix C - Summary of Plan Provisions

Normal Retirement Date	NAGE and SFEP: age 65. SSNA and Unaffiliated: age 65 with 10 years of Credited Service.
Normal Retirement Benefit	1½% of Final Average Compensation times Credited Service through July 1, 1996, plus 2% of Final Average Compensation times Credited Service after July 1, 1996. For certain Unaffiliated members: 2% of Final Average Compensation times Credited Service.
Early Retirement Date	Age 55 with 10 years of Credited Service.
Early Retirement Benefit	Benefit is based on Credited Service and Final Average Compensation to actual retirement date reduced by 4% for each year by which the participant's retirement date precedes Normal Retirement Date. There is no reduction in benefit for NAGE employees after age 62 and 29 years of service, for Unaffiliated employees after age 62 and 20 years of service or for SFEP employees after age 62 and 25 years of service.
Deferred Retirement Date	Members may continue to work beyond Normal Retirement.
Deferred Retirement Benefit	Benefit based on Credited Service and Final Average Compensation to actual date of retirement.
Death Benefits Before Retirement	For Unaffiliated, SFEP, and SSNA only, must be eligible for early retirement and married one full year prior to death. Benefit is 100% of the pension benefit accrued to date of death reduced by the appropriate early retirement and joint and survivor factors reduced to 50% after the first 5 years.
Death Benefits After Retirement	Based on form of benefit elected at retirement.
Disability Retirement Date	Ten years of Credited Service and not eligible for early retirement.
Disability Retirement Benefit	NAGE: \$500 per month. SFEP: \$200 per month. Unaffiliated: \$300 per month.
Vesting	100% vested after completion of 5 years of Credited Service.
Termination Benefit Pre-Retirement	Refund of Employee Contributions with interest to date of termination.

Appendix C - Summary of Plan Provisions

Termination Benefit Post-Retirement

On or after Normal Retirement Date but prior to annuity commencement date: Annuity payments to the beneficiary for the five year period commencing on the first of the month following the member's death.

Normal Form of Annuity

5 Year Certain and Life Annuity.

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.



TOWN OF SIMSBURY GENERAL GOVERNMENT EMPLOYEES' RETIREMENT INCOME PLAN

GASB 67 and 68 DISCLOSURE

Fiscal Year: July 1, 2021 to June 30, 2022

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

Actuarial computations presented in this report under Statements No. 67 and 68 of the Governmental Accounting Standards Board are for purposes of assisting the Town in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of July 1, 2021 and June 30, 2022 furnished by the Town. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's funding valuation report dated October 10, 2022 for more information on the plan's participant group as of July 1, 2021 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them 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.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law 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.

This valuation report 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.

Certification

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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. 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 models, including all input, calculations, and output may not be appropriate for any other purpose.


Milliman's work is prepared solely for the internal use and benefit of the Town of Simsbury. 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 Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor'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 Plan Sponsor 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 specific needs.

The consultants who worked on this assignment are pension 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 has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Overview of GASB 67 and GASB 68

The Governmental Accounting Standards Board (GASB) released accounting standards for public pension plans and participating employers in 2012. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. The most notable change is the distinct separation of funding from financial reporting. The Annual Required Contribution (ARC) has been eliminated under GASB 67 and 68 and is no longer relevant for financial reporting purposes. As a result, plan sponsors have been encouraged to establish a formal funding policy that is separate from financial reporting calculations.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a pension trust fund of a government, it is subject to GASB 67. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of participating employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is July 1, 2021. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022. This is the date as of which the net pension liability is determined. The Reporting Date is June 30, 2022. This is the plan's and/or employer's fiscal year ending date.

Significant Changes

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Participant Data as of July 1, 2021

Actives	80
Terminated vested & other inactive	51
Retirees and beneficiaries	<u>108</u>
Total	239

Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2013	\$714,779	\$779,972	(\$65,193)	\$5,797,979	13.45%
2014	985,089	985,089	0	6,490,784	15.18%
2015	1,013,590	1,013,590	0	6,477,448	15.65%
2016	888,277	1,023,393	(135,116)	6,476,467	15.80%
2017	877,663	877,664	(1)	6,870,896	12.77%
2018	920,889	920,889	0	7,124,309	12.93%
2019	950,965	950,965	0	7,110,117	13.37%
2020	1,031,101	1,031,101	0	6,832,071	15.09%
2021	1,272,157	1,272,157	0	6,859,123	18.55%
2022	1,390,773	1,390,773	0	6,597,800	21.08%

Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the July 1, 2021 funding valuation. Please see the valuation report dated October 10, 2022 for further details.

Valuation Timing	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported.
Actuarial Cost Method	Entry Age Normal
Amortization Method	
Level percent or level dollar	Level percent
Closed, open, or layered periods	Closed
Amortization period at 07/01/2021	16 years
Amortization growth rate	3.50%
Asset Valuation Method	
Smoothing period	5 years
Recognition method	Non-asymptotic
Corridor	None
Inflation	2.75%
Salary Increases	3.50%
Investment Rate of Return	6.50%
Cost of Living Adjustments	None
Retirement Age	Rates based on age
Turnover	Rates based on service
Mortality	PubG-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale

Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2013	N/A
2014	14.35%
2015	1.97%
2016	-0.10%
2017	12.09%
2018	6.36%
2019	4.84%
2020	3.04%
2021	24.27%
2022	-11.65%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2021	\$30,361,920	12.00	1.00	\$26,824,980
Monthly net external cash flows:				
July	(184,291)	12.00	1.00	(162,822)
August	(151,102)	11.00	0.92	(134,829)
September	(141,037)	10.00	0.83	(127,259)
October	1,205,730	9.00	0.75	1,098,772
November	(160,278)	8.00	0.67	(147,515)
December	(156,146)	7.00	0.58	(145,322)
January	(155,337)	6.00	0.50	(146,009)
February	(155,349)	5.00	0.42	(147,474)
March	(131,544)	4.00	0.33	(126,276)
April	(198,381)	3.00	0.25	(192,332)
May	(163,677)	2.00	0.17	(160,267)
June	(136,436)	1.00	0.08	(135,091)
Ending Value - June 30, 2022	26,298,556			26,298,556
Money-Weighted Rate of Return	-11.65%			

Long-Term Expected Rate of Return

The assumption for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman as of June 30, 2021.

Asset Class	Index	Target Allocation*	Long-Term Expected Arithmetic Real Rate of Return	Long-Term Expected Geometric Real Rate of Return
US Core Fixed Income	Bloomberg Barclays Aggregate	32.50%	1.37%	1.26%
US Inflation-Indexed Bonds	BBgBarc US Treasury US TIPS	1.75%	0.61%	0.50%
US Large Cap Equity	S&P 500	21.50%	5.15%	3.65%
US Small Cap Equity	Russell 2000	10.00%	6.58%	3.89%
Non-US Equity	MSCI ACWI Ex USA	16.00%	6.74%	4.90%
Emerging Markets Equity	MSCI EM	11.50%	8.64%	4.95%
Private Real Estate	NCREIF Property	5.00%	4.62%	3.58%
Commodities	Bloomberg Commodity	1.75%	1.93%	0.59%
Assumed Inflation - Mean			2.75%	2.75%
Assumed Inflation - Standard Deviation			1.16%	1.16%
Portfolio Real Mean Return			4.56%	3.85%
Portfolio Nominal Mean Return			7.31%	6.70%
Portfolio Standard Deviation				11.49%
Long-Term Expected Rate of Return				6.50%

* As outlined in the Plan's investment policy dated September 15, 2020

Depletion Date Projection

GASB 67 and 68 generally require that a blended discount rate be used to measure the Total Pension Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 67 and 68 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 67 and 68 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Town of Simsbury:

- The Town of Simsbury has at least a 5-year history of paying at least 100% of the Actuarially Determined Contribution.
- The Actuarially Determined Contribution is based on a closed amortization period, which means that payment of the Actuarially Determined Contribution each year will bring the plan to a 100% funded position by the end of the amortization period.
- GASB 67 and 68 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 67 and 68 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

Net Pension Liability

Net Pension Liability	June 30, 2021	June 30, 2022
Total pension liability	\$38,887,402	\$40,675,086
Fiduciary net position	30,361,920	26,298,556
Net pension liability	8,525,482	14,376,530
Fiduciary net position as a % of total pension liability	78.08%	64.66%
Covered payroll	6,859,123	6,597,800
Net pension liability as a % of covered payroll	124.29%	217.90%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. Any significant changes during this period have been reflected as prescribed by GASB 67 and 68.

Discount Rate

Discount rate	6.625%	6.50%
Long-term expected rate of return, net of investment expense	6.625%	6.50%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

Other Key Actuarial Assumptions

The actuarial assumptions that determined the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period July 1, 2008 - July 1, 2012.

Valuation date	July 1, 2020	July 1, 2021
Measurement date	June 30, 2021	June 30, 2022
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.75%	2.75%
Salary increases including inflation	3.50%	3.50%
Mortality	PubG-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale	PubG-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale

Please see Milliman's funding valuation report dated October 10, 2022 for more detail.

Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2021	\$38,887,402	\$30,361,920	\$8,525,482
Changes for the year:			
Service cost	770,819		770,819
Interest on total pension liability	2,555,101		2,555,101
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	167,817		167,817
Effect of assumptions changes or inputs	510,795		510,795
Benefit payments	(2,216,848)	(2,216,848)	0
Employer contributions		1,390,773	(1,390,773)
Member contributions		337,794	(337,794)
Net investment income		(3,535,516)	3,535,516
Administrative expenses		(39,567)	39,567
Balances as of June 30, 2022	40,675,086	26,298,556	14,376,530

Sensitivity Analysis

The following presents the net pension liability of the Town, calculated using the discount rate of 6.50%, as well as what the Town's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.50%) or 1 percentage point higher (7.50%) than the current rate.

	1% Decrease 5.50%	Current Discount Rate 6.50%	1% Increase 7.50%
Total pension liability	\$45,195,491	\$40,675,086	\$36,879,754
Fiduciary net position	26,298,556	26,298,556	26,298,556
Net pension liability	18,896,935	14,376,530	10,581,198

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service cost	\$770,819	\$669,268	\$700,538	\$629,377	\$673,731	\$668,192	\$651,745	\$607,102	\$605,889	N/A
Interest on total pension liability	2,555,101	2,364,718	2,205,899	2,156,775	2,070,339	1,939,574	1,864,604	1,793,949	1,718,093	N/A
Effect of plan changes	0	0	0	0	0	291,643	0	(16,733)	0	N/A
Effect of economic/demographic gains or losses	167,817	(58,874)	1,599,221	206,134	269,122	509,974	(259,385)	99,498	(1,191)	N/A
Effect of assumption changes or inputs	510,795	2,635,850	0	815,182	0	0	0	0	0	N/A
Benefit payments	(2,216,848)	(2,139,369)	(2,104,246)	(1,917,120)	(1,557,045)	(1,536,992)	(1,296,608)	(1,321,430)	(1,157,072)	N/A
Net change in total pension liability	1,787,684	3,471,593	2,401,412	1,890,348	1,456,147	1,872,391	960,356	1,162,386	1,165,719	N/A
Total pension liability, beginning	38,887,402	35,415,809	33,014,397	31,124,049	29,667,902	27,795,511	26,835,155	25,672,769	24,507,050	N/A
Total pension liability, ending (a)	40,675,086	38,887,402	35,415,809	33,014,397	31,124,049	29,667,902	27,795,511	26,835,155	25,672,769	N/A
Fiduciary Net Position										
Employer contributions	\$1,390,773	\$1,272,157	\$1,031,101	\$950,965	\$920,889	\$877,664	\$1,023,393	\$1,013,590	\$985,089	N/A
Member contributions	337,794	296,132	326,518	365,409	302,656	295,408	445,994	223,536	175,834	N/A
Net investment income	(3,535,516)	6,057,599	755,523	1,183,630	1,491,838	2,563,793	(20,390)	415,595	2,629,226	N/A
Benefit payments	(2,216,848)	(2,139,369)	(2,104,246)	(1,917,120)	(1,557,045)	(1,536,992)	(1,296,608)	(1,321,430)	(1,157,072)	N/A
Administrative expenses	(39,567)	(39,320)	(49,745)	(58,623)	(22,443)	(34,812)	(37,477)	(44,274)	(21,758)	N/A
Net change in plan fiduciary net position	(4,063,364)	5,447,199	(40,849)	524,261	1,135,895	2,165,061	114,912	287,017	2,611,319	N/A
Fiduciary net position, beginning	30,361,920	24,914,721	24,955,570	24,431,309	23,295,414	21,130,353	21,015,441	20,728,424	18,117,105	N/A
Fiduciary net position, ending (b)	26,298,556	30,361,920	24,914,721	24,955,570	24,431,309	23,295,414	21,130,353	21,015,441	20,728,424	N/A
Net pension liability, ending = (a) - (b)	\$14,376,530	\$8,525,482	\$10,501,088	\$8,058,827	\$6,692,740	\$6,372,488	\$6,665,158	\$5,819,714	\$4,944,345	N/A
Fiduciary net position as a % of total pension liability	64.66%	78.08%	70.35%	75.59%	78.50%	78.52%	76.02%	78.31%	80.74%	N/A
Covered payroll	\$6,597,800	\$6,859,123	\$6,832,071	\$7,110,117	\$7,124,309	\$6,870,896	\$6,476,467	\$6,477,448	\$6,490,784	N/A
Net pension liability as a % of covered payroll	217.90%	124.29%	153.70%	113.34%	93.94%	92.75%	102.91%	89.85%	76.17%	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

Pension Expense

Pension Expense	July 1, 2020 to June 30, 2021	July 1, 2021 to June 30, 2022
Service cost	\$669,268	\$770,819
Interest on total pension liability	2,364,718	2,555,101
Effect of plan changes	0	0
Administrative expenses	39,320	39,567
Member contributions	(296,132)	(337,794)
Expected investment return net of investment expenses	(1,661,471)	(1,993,938)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	555,956	498,126
Recognition of assumption changes or inputs	828,793	963,213
Recognition of investment gains or losses	(792,721)	532,923
Pension Expense	1,707,731	3,028,017

As of June 30, 2022, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	(\$29,436)	\$641,494
Changes of assumptions	0	1,830,161
Net difference between projected and actual earnings	0	2,246,753
Contributions made subsequent to measurement date	0	0
Total	(29,436)	4,718,408

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2023	\$1,872,435
2024	1,341,114
2025	369,533
2026	1,105,890
2027	0
Thereafter*	0

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Pension Expense for FYE 06/30/2022	Amount Recognized in Pension Expense through 06/30/2022	Balance of Deferred Inflows as of 06/30/2022	Balance of Deferred Outflows as of 06/30/2022
Economic/ demographic gains or losses	\$167,817 (58,874) 1,599,221 206,134 269,122	6/30/2022 6/30/2021 6/30/2020 6/30/2019 6/30/2018	3.8 4.0 4.3 4.8 5.0	\$44,162 (14,719) 371,912 42,945 53,826	\$44,162 (29,438) 1,115,736 171,780 269,122	\$0 (29,436) 0 0 0	\$123,655 0 483,485 34,354 0
		Total		498,126	1,571,362	(29,436)	641,494
Assumption changes or inputs	510,795 2,635,850 815,182	6/30/2022 6/30/2021 6/30/2019	3.8 4.0 4.8	134,420 658,963 169,830	134,420 1,317,926 679,320	0 0 0	376,375 1,317,924 135,862
		Total		963,213	2,131,666	0	1,830,161
Investment gains or losses	5,529,454 (4,396,128) 900,250 503,826 127,211	6/30/2022 6/30/2021 6/30/2020 6/30/2019 6/30/2018	5.0 5.0 5.0 5.0 5.0	1,105,891 (879,226) 180,050 100,765 25,443	1,105,891 (1,758,452) 540,150 403,060 127,211	0 (2,637,676) 0 0 0	4,423,563 0 360,100 100,766 0
		Total		532,923	417,860	(2,637,676)	4,884,429
Total for economic/demographic gains or losses and assumption changes or inputs						(29,436)	2,471,655
Net deferred (inflows)/outflows for investment gains or losses						0	2,246,753
Total deferred (inflows)/outflows						(29,436)	4,718,408
Total net deferrals							4,688,972

* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

Milliman Financial Reporting Valuation

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Deferred (Inflows)	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net Pension Liability plus Net Deferrals	Annual Expense
Balances as of June 30, 2021	(\$38,887,402)	\$30,361,920	(\$8,525,482)	(\$44,155)	\$3,269,101	(\$2,749,778)	\$475,168	(\$8,050,314)	
Service cost	(770,819)		(770,819)						770,819
Interest on total pension liability	(2,555,101)		(2,555,101)						2,555,101
Effect of plan changes	0		0						0
Effect of liability gains or losses	(167,817)		(167,817)		167,817		167,817		
Effect of assumption changes or inputs	(510,795)		(510,795)		510,795		510,795		
Benefit payments	2,216,848	(2,216,848)	0						
Administrative expenses		(39,567)	(39,567)						39,567
Member contributions		337,794	337,794						(337,794)
Expected net investment income		1,993,938	1,993,938						(1,993,938)
Investment gains or losses		(5,529,454)	(5,529,454)			5,529,454	5,529,454		
Employer contributions		1,390,773	1,390,773					1,390,773	
Recognition of liability gains or losses				14,719	(512,845)		(498,126)		498,126
Recognition of assumption changes or inputs					(963,213)		(963,213)		963,213
Recognition of investment gains or losses						(532,923)	(532,923)		532,923
Annual expense								(3,028,017)	3,028,017
Balances as of June 30, 2022	(40,675,086)	26,298,556	(14,376,530)	(29,436)	2,471,655	2,246,753	4,688,972	(9,687,558)	

Glossary

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	<p>Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:</p> <ol style="list-style-type: none">1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on pension plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net Pension Liability	Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.



TOWN OF SIMSBURY GENERAL GOVERNMENT EMPLOYEES' RETIREMENT INCOME PLAN

**Actuarial Valuation as of July 1, 2021
To Determine Funding for Fiscal Year 2022-23**

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

We have performed an actuarial valuation of the Plan as of July 1, 2021 to determine funding for fiscal year 2022-23. This report presents the results of our valuation.

The ultimate cost of a pension plan is the total amount needed to provide benefits for plan members and beneficiaries and to pay the expenses of administering the plan. Pension costs are met by contributions and by investment return on plan assets. The principal purpose of this report is to set forth an actuarial recommendation of the contribution, or range of contributions, which will properly fund the plan, in accordance with applicable government regulations. In addition, this report provides:

- A valuation of plan assets and liabilities to review the year-to-year progress of funding.
- Information needed to meet disclosure requirements.
- Review of plan experience for the previous year to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application.
- Assessment of the relative funded position of the plan, i.e., through a comparison of plan assets and projected plan liabilities.
- Comments on any other matters which may be of assistance in the funding and operation of the plan.

This report may not be used for purposes other than those listed above without Milliman's prior written consent. If this report is distributed to other parties, it must be copied in its entirety, including this certification section.

Milliman's work is prepared solely for the internal business use of the Town of Simsbury ("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.

In preparing this report, we relied on employee census data and financial information as of the valuation date, furnished by the Town. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Certification


The calculations reported herein have been made on a basis consistent with our understanding of ERISA and the related sections of the tax code. Additional determinations may be needed for purposes other than meeting funding requirements, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition to the models described previously, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. 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 (ASOP). The models, including all input, calculations, and output may not be appropriate for any other purpose.

We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. 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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

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

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Section I - Executive Summary

Changes Since the Prior Valuation

Plan Changes

None.

Changes in Actuarial Methods and Assumptions

In order to better anticipate future plan experience, we lowered the investment return assumption from 6.625% to 6.50%.

This change caused the Unfunded Accrued Liability to increase by about \$0.5 million and the Actuarially Determined Contribution to increase by about \$55,000.

Other Significant Changes

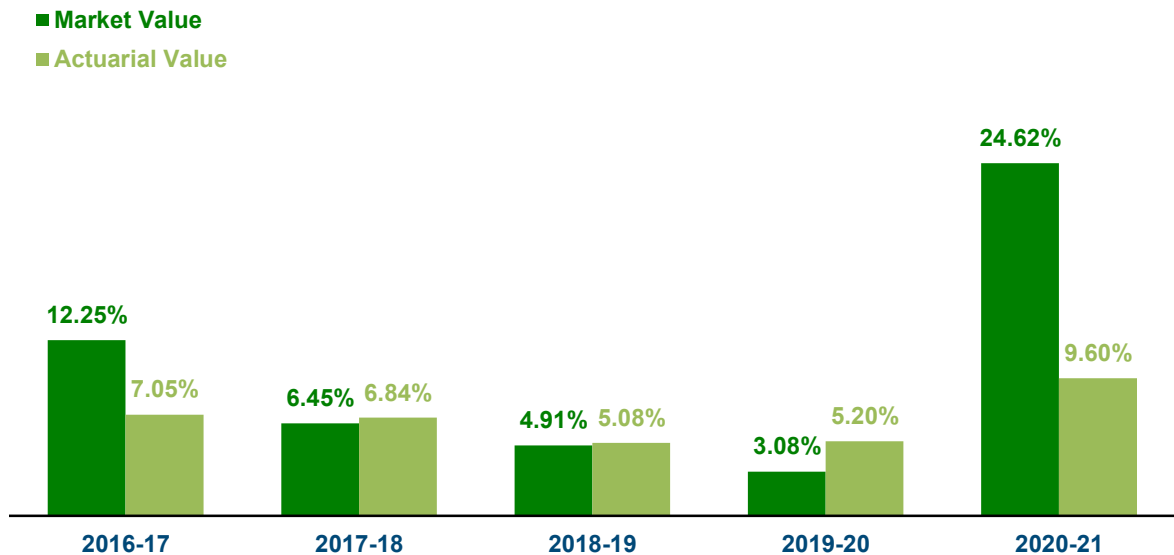
Although it is possible that the COVID-19 pandemic could have a material impact on the projected mortality, liabilities, and contribution requirements, we have chosen not to make an adjustment in the projections at this time, given the substantial current uncertainty regarding the impact of COVID-19 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, 2020	\$24,914,721	\$25,732,187
Town and Member Contributions	1,568,289	1,568,289
Investment Income	6,057,599	2,441,367
Benefit Payments and Administrative Expenses	(2,178,689)	(2,178,689)
Value as of July 1, 2021	30,361,920	27,563,154

For fiscal year 2020-21, the plan's assets earned 24.615% on a Market Value basis and 9.601% on an Actuarial Value basis. The actuarial assumption for this period was 6.625%; the result is an asset gain of about \$4,427,000 million on a Market Value basis and a gain of about \$757,000 million on an Actuarial Value basis. Historical rates of return are shown in the graph below.

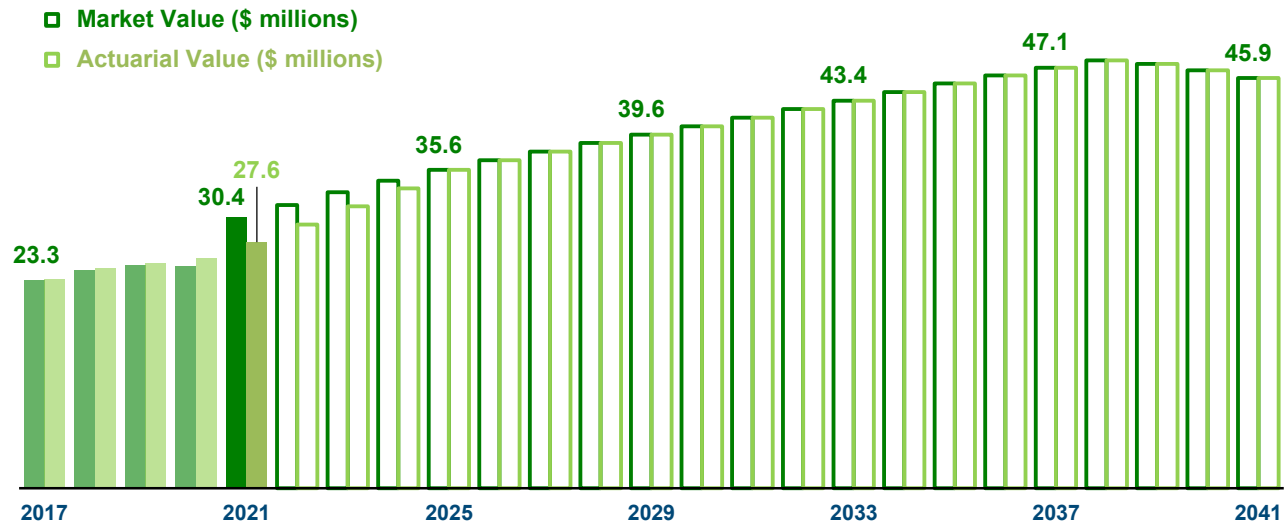


Please note that the Actuarial Value currently is less than the Market Value by \$2,799,000. This figure represents investment gains that will be gradually recognized in future years. This process will exert downward pressure on the Town's contribution, unless there are offsetting market losses.

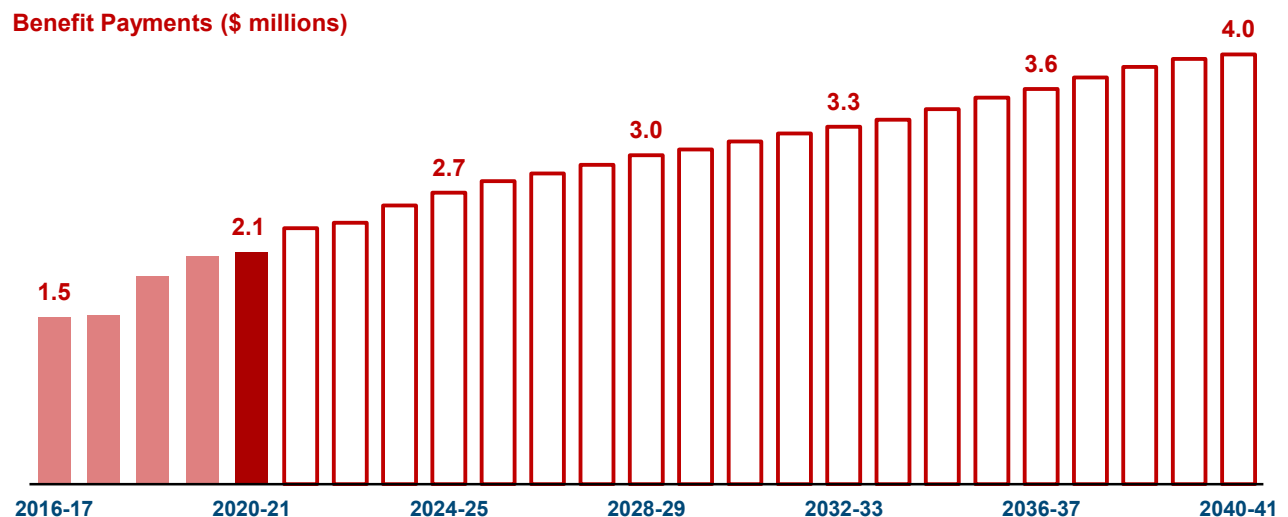
Section I - Executive Summary

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.

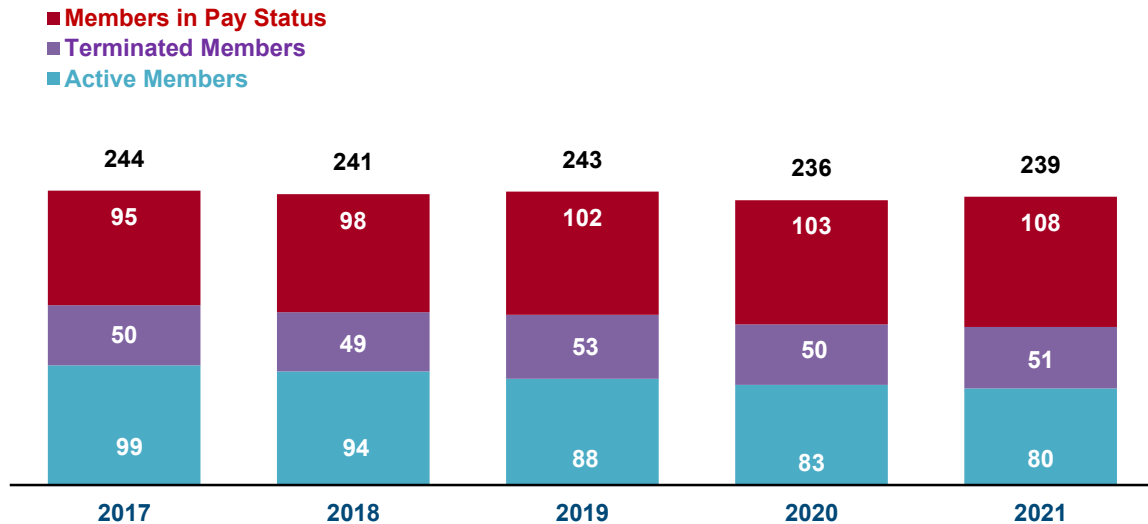


In 2020-21, the plan paid out \$2.14 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$64 million in benefits to members.



Section I - Executive Summary Membership

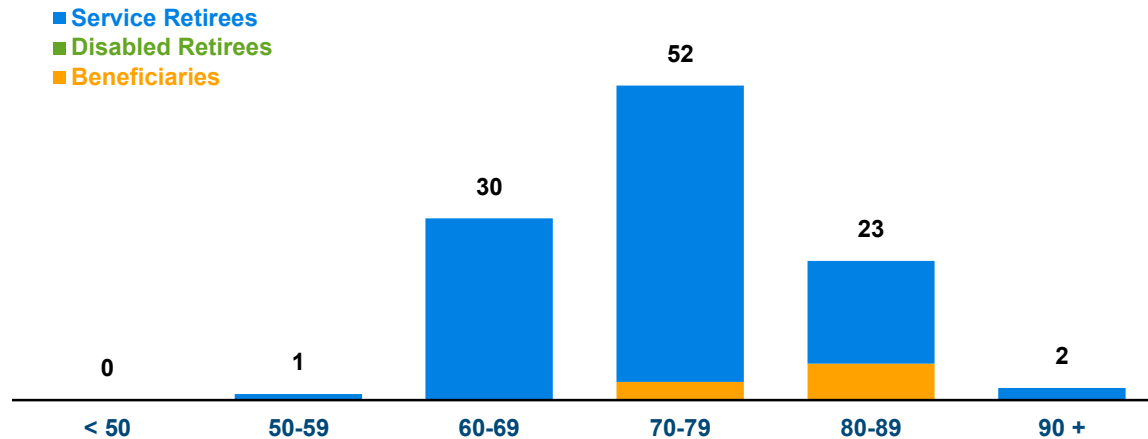
There are three basic categories of plan members included in the valuation: (1) members who are receiving monthly pension benefits, (2) former employees who have a vested right to benefits but have not yet started collecting, and (3) active employees who have met the eligibility requirements for membership.



Members in Pay Status on July 1, 2021

Service Retirees	99	Average Age	74.6
Disabled Retirees	0	Total Annual Benefit	\$2,213,242
Beneficiaries	9	Average Annual Benefit	20,493
Total	108		

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



Section I - Executive Summary

Membership (continued)

Terminated Vested Members on July 1, 2021

Count	42
Average Age	54.7
Total Annual Benefit	\$455,922
Average Annual Benefit	10,855

Nonvested Members Due Refunds on July 1, 2021

Count	9
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Active Members on July 1, 2021

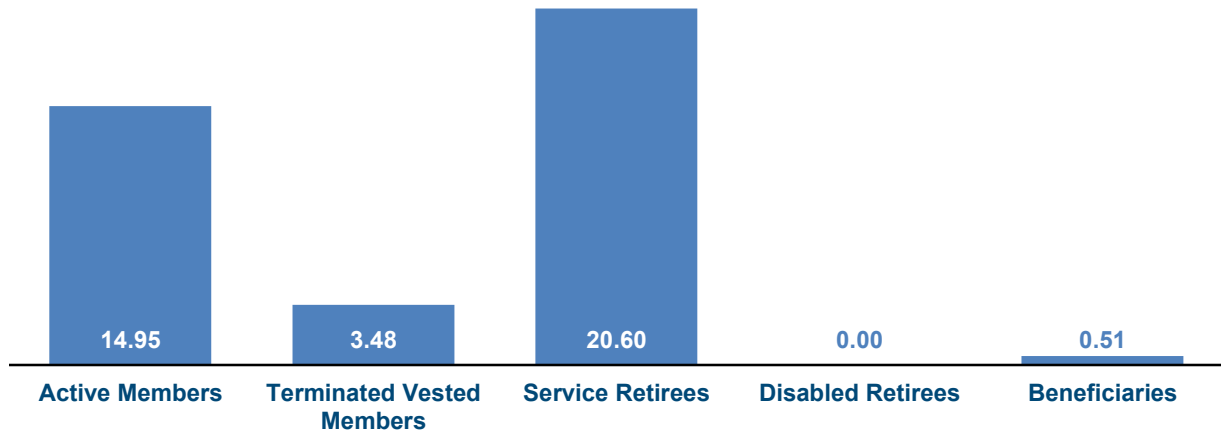
Count	80
Average Age	51.3
Average Service	14.4
Payroll	\$6,745,332
Average Payroll	84,317

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

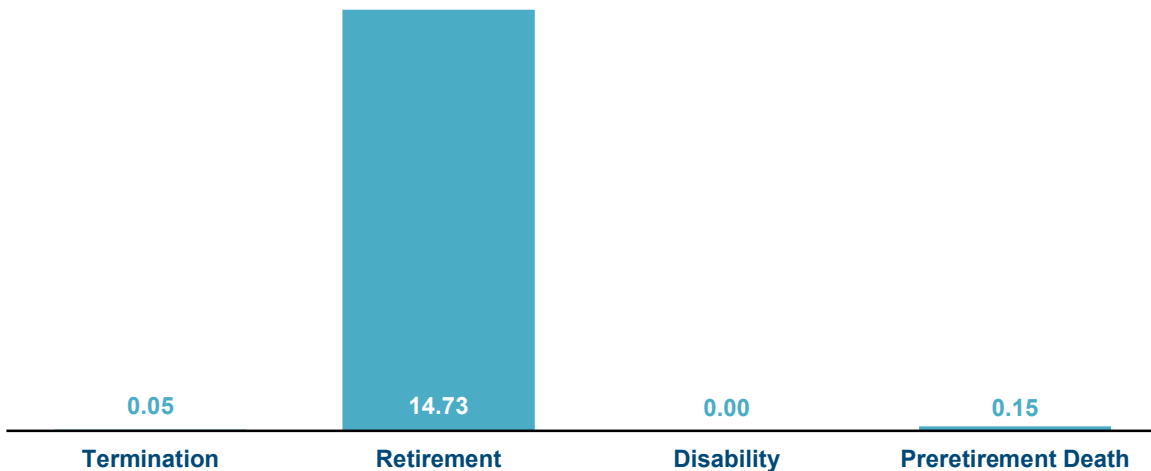
Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25								0
25-29	1	1						2
30-34	1	5						6
35-39	4		1	1				6
40-44	2	1						3
45-49	2	2	6	1	1			12
50-54	1	8	3	5	1	1	1	20
55-59	2	2	1	3			4	12
60-64	1		3	3	3		5	15
65+			1	1	2			4
Total	14	19	15	14	7	1	10	80

Section I - Executive Summary Accrued Liability

The Accrued Liability as of July 1, 2021 equals \$39,548,593, 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:

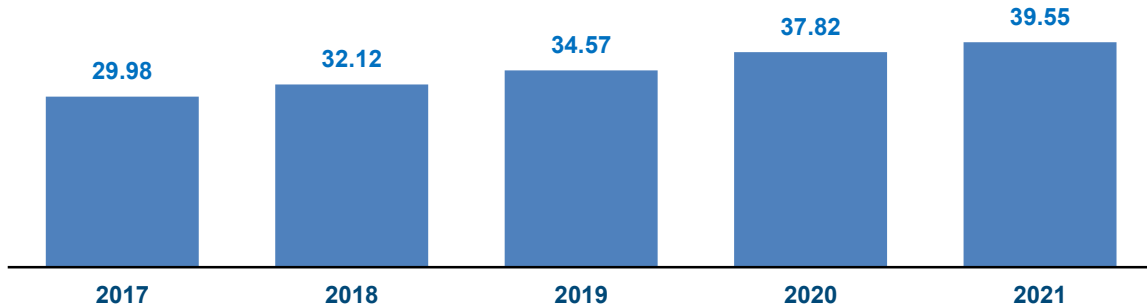


Section I - Executive Summary

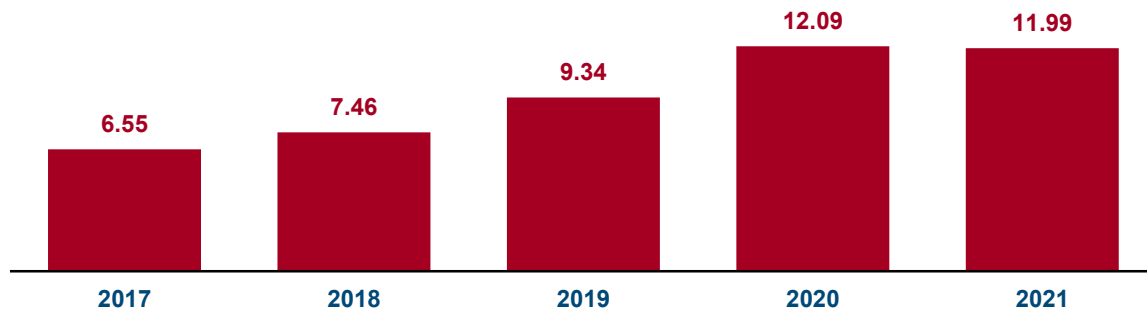
Funded Status

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.

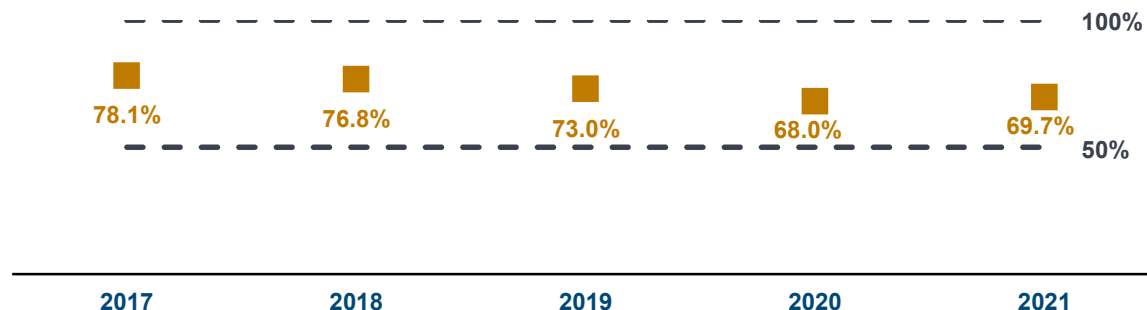
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)



Funded Ratio

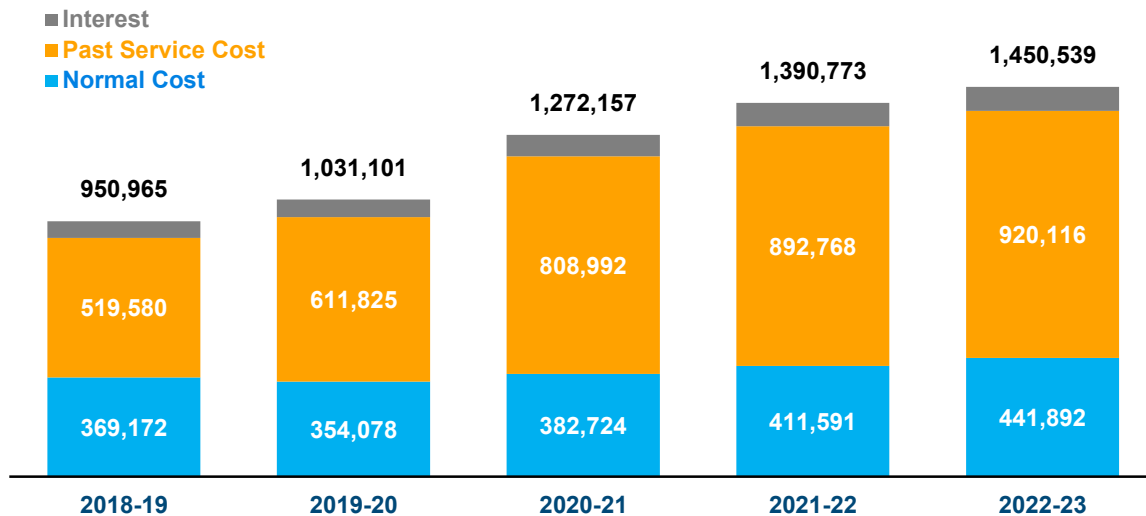


Section I - Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution 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 to reflect the timing of the contribution relative to the valuation date.

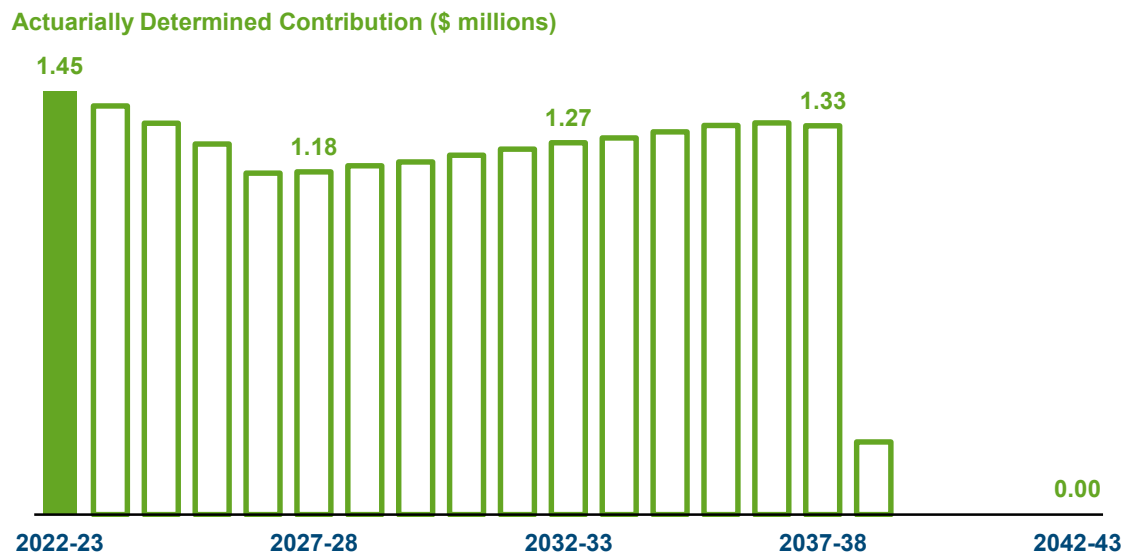
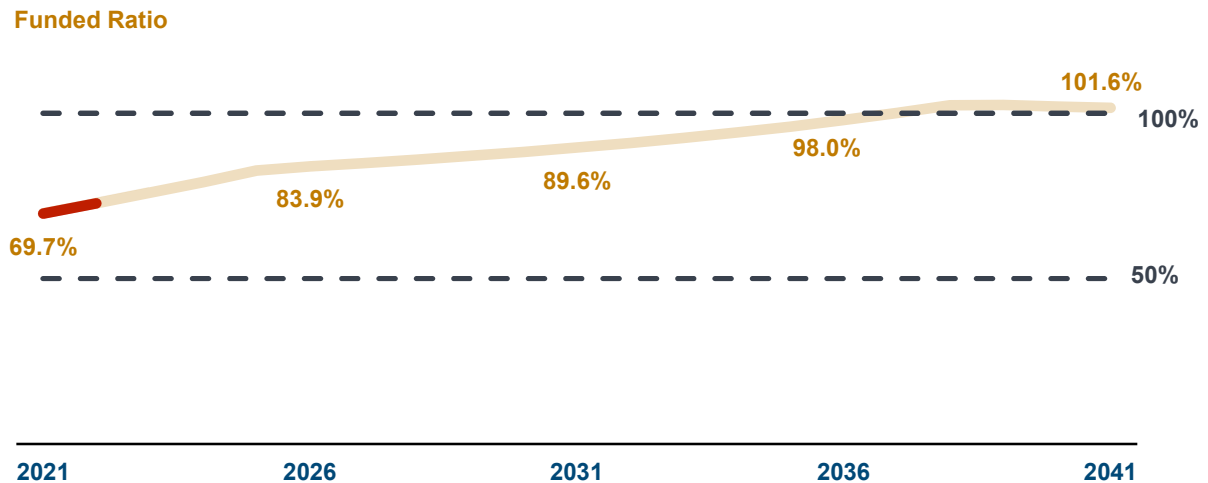
The Actuarially Determined Contribution for fiscal year 2022-23 is shown graphically below, along with the comparable figures for the preceding four fiscal years. Note that the Normal Cost is relatively consistent from year to year, whereas the Past Service Cost tends to be more volatile since it reflects the impact of asset performance.



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 changes in the plan's funded status and the long-range contribution levels:

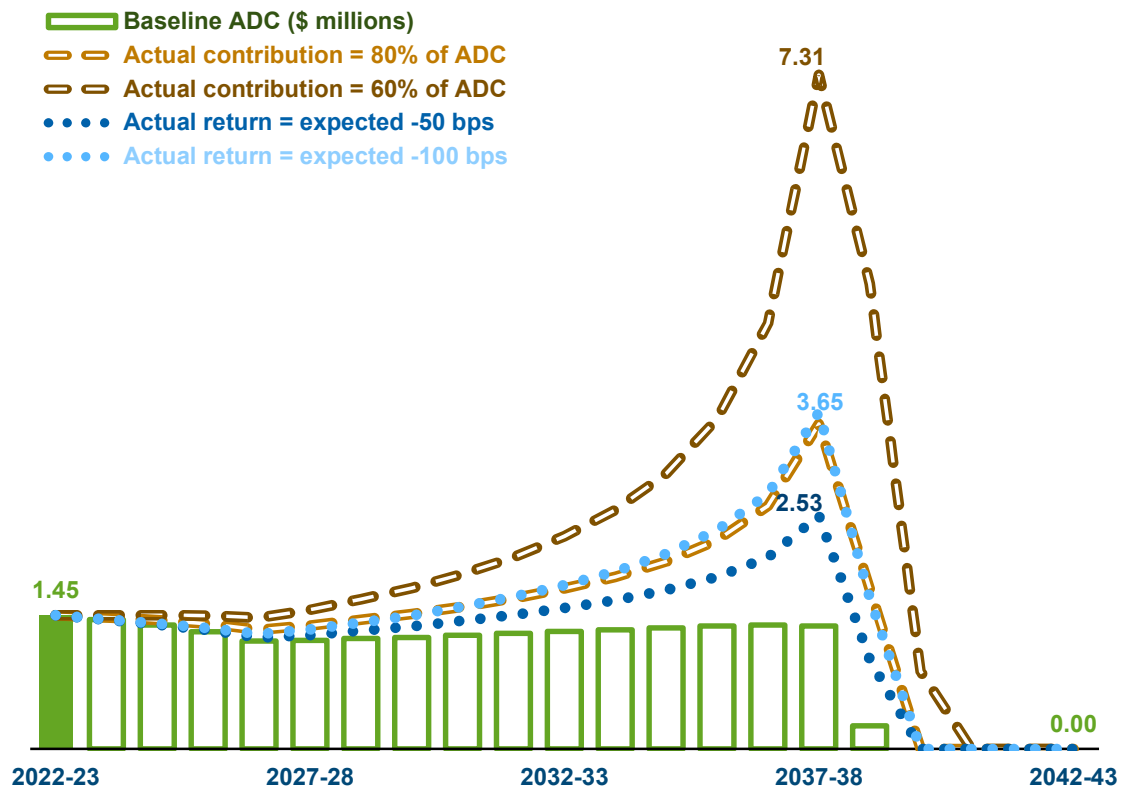


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Section III C for more details of the long range forecast.

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 Summary of Principal Results

Membership as of	July 1, 2020	July 1, 2021
Active Members	83	80
Terminated Members	50	51
Members in Pay Status	<u>103</u>	<u>108</u>
Total Count	236	239
Payroll	\$6,597,800	\$6,745,332
Assets and Liabilities as of	July 1, 2020	July 1, 2021
Market Value of Assets	\$24,914,721	\$30,361,920
Actuarial Value of Assets	25,732,187	27,563,154
Accrued Liability for Active Members	15,055,941	14,952,555
Accrued Liability for Terminated Members	3,638,595	3,484,357
Accrued Liability for Members in Pay Status	<u>19,128,020</u>	<u>21,111,681</u>
Total Accrued Liability	37,822,556	39,548,593
Unfunded Accrued Liability	12,090,369	11,985,439
Funded Ratio	68.0%	69.7%
Actuarially Determined Contribution for Fiscal Year	2021-22	2022-23
Normal Cost	\$411,591	\$441,892
Past Service Cost	892,768	920,116
Interest	<u>86,414</u>	<u>88,531</u>
Actuarially Determined Contribution	1,390,773	1,450,539
Actuarially Determined Contribution by Group		
WPCA	\$153,006	\$130,899
Parks and Recreation	263,768	256,916
All Others	<u>973,999</u>	<u>1,062,724</u>
Total	1,390,773	1,450,539

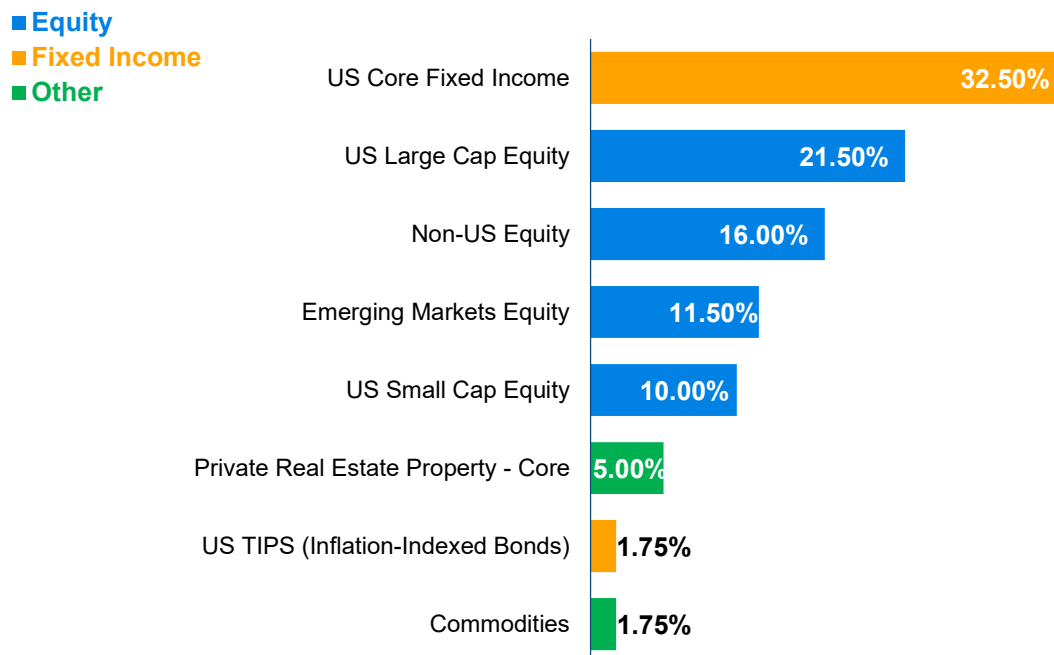
Section II - Plan Assets

A. Summary of Fund Transactions

Market Value as of July 1, 2020	\$24,914,721
Town Contributions	1,272,157
Member Contributions	296,132
Net Investment Income	6,057,599
Benefit Payments	(2,139,369)
Administrative Expenses	(39,320)
Market Value as of June 30, 2021	30,361,920
Expected Return on Market Value of Assets	1,630,371
Market Value (Gain)/Loss	(4,427,228)
Approximate Rate of Return *	24.62%

* 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, 2021



Section II - Plan Assets

B. Development of Actuarial 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 in equal installments ('non-asymptotically') over a five year period. The Actuarial Value of Assets as of July 1, 2021 is determined below.

1.	Expected Market Value of Assets:	
a.	Market Value of Assets as of July 1, 2020	\$24,914,721
b.	Town and Member Contributions	1,568,289
c.	Benefit Payments and Administrative Expenses	(2,178,689)
d.	Expected Earnings Based on 6.625% Interest	<u>1,630,371</u>
e.	Expected Market Value of Assets as of July 1, 2021	25,934,692
2.	Actual Market Value of Assets as of July 1, 2021	30,361,920
3.	Market Value (Gain)/Loss: (1e) - (2)	(4,427,228)
4.	Delayed Recognition of Market (Gains)/Losses	
	Plan Year End	(Gain)/Loss
	06/30/2021	(\$4,427,228)
	06/30/2020	900,250
	06/30/2019	443,560
	06/30/2018	127,211
	Percent Not Recognized	Amount Not Recognized
	80%	(\$3,541,782)
	60%	540,150
	40%	177,424
	20%	<u>25,442</u>
		(2,798,766)
5.	Actuarial Value of Assets as of July 1, 2021: (2) + (4)	27,563,154
6.	Return on Actuarial Value of Assets	2,441,367
7.	Approximate Rate of Return on Actuarial Value of Assets	9.60%
8.	Actuarial Value (Gain)/Loss	(756,745)

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 17 year period starting on July 1, 2020.

	July 1, 2020	July 1, 2021
1. Accrued Liability		
Active Members	\$15,055,941	\$14,952,555
Terminated Members	3,638,595	3,484,357
Service Retirees	18,627,117	20,600,839
Disabled Retirees	0	0
Beneficiaries	<u>500,903</u>	<u>510,842</u>
Total Accrued Liability	37,822,556	39,548,593
2. Actuarial Value of Assets (see Section IIB)	25,732,187	27,563,154
3. Unfunded Accrued Liability: (1) - (2)	12,090,369	11,985,439
4. Funded Ratio: (2) / (1)	68.0%	69.7%
5. Amortization Period	17	16
6. Amortization Growth Rate	3.50%	3.50%
7. Past Service Cost: (3) amortized over (5)	892,768	920,116

Section III - Development of Contribution

B. Actuarially Determined Contribution

	2021-22	2022-23
1. Total Normal Cost	\$720,470	\$792,108
2. Expected Member Contributions	360,079	390,716
3. Expected Administrative Expenses	51,200	40,500
4. Net Normal Cost: (1) - (2) + (3)	411,591	441,892
5. Past Service Cost (see Section IIIA)	892,768	920,116
6. Interest on (4) + (5) to the start of the fiscal year	86,414	88,531
7. Actuarially Determined Contribution: (4) + (5) + (6)	1,390,773	1,450,539
8. Payroll		
WPCA	\$725,857	\$608,710
Parks and Recreation	1,251,309	1,194,719
All Others	<u>4,620,633</u>	<u>4,941,904</u>
Total	6,597,800	6,745,332
9. (7) allocated in proportion to (8)		
WPCA	\$153,006	\$130,899
Parks and Recreation	263,768	256,916
All Others	<u>973,999</u>	<u>1,062,724</u>
Total	1,390,773	1,450,539

Section III - Development of Contribution

C. Long Range Forecast

This forecast is based on the results of the July 1, 2021 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.

Valuation Date	Values as of the Valuation Date				Fiscal Year	Cash Flows Projected to the Following Fiscal Year			
	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio		Town Contributions	Member Contributions	Benefit Payments	Net Cash Flows
7/1/2021	\$39,548,593	\$27,563,154	\$11,985,439	69.7%	2022-23	\$1,450,539	\$390,129	(\$2,411,311)	(\$570,642)
7/1/2022	40,519,000	29,486,000	11,033,000	72.8%	2023-24	1,401,000	387,000	(2,570,000)	(782,000)
7/1/2023	41,480,000	31,531,000	9,949,000	76.0%	2024-25	1,342,000	383,000	(2,688,000)	(963,000)
7/1/2024	42,317,000	33,538,000	8,779,000	79.3%	2025-26	1,270,000	378,000	(2,795,000)	(1,147,000)
7/1/2025	43,066,000	35,620,000	7,446,000	82.7%	2026-27	1,171,000	374,000	(2,866,000)	(1,321,000)
7/1/2026	43,725,000	36,704,000	7,021,000	83.9%	2027-28	1,175,000	368,000	(2,945,000)	(1,402,000)
7/1/2027	44,342,000	37,677,000	6,665,000	85.0%	2028-29	1,196,000	362,000	(3,035,000)	(1,477,000)
7/1/2028	44,908,000	38,629,000	6,279,000	86.0%	2029-30	1,209,000	358,000	(3,088,000)	(1,521,000)
7/1/2029	45,395,000	39,563,000	5,832,000	87.2%	2030-31	1,232,000	352,000	(3,161,000)	(1,577,000)
7/1/2030	45,852,000	40,511,000	5,341,000	88.4%	2031-32	1,253,000	347,000	(3,235,000)	(1,635,000)
7/1/2031	46,251,000	41,462,000	4,789,000	89.6%	2032-33	1,274,000	341,000	(3,296,000)	(1,681,000)
7/1/2032	46,584,000	42,413,000	4,171,000	91.0%	2033-34	1,291,000	335,000	(3,362,000)	(1,736,000)
7/1/2033	46,857,000	43,376,000	3,481,000	92.6%	2034-35	1,312,000	327,000	(3,459,000)	(1,820,000)
7/1/2034	47,065,000	44,343,000	2,722,000	94.2%	2035-36	1,334,000	316,000	(3,566,000)	(1,916,000)
7/1/2035	47,171,000	45,285,000	1,886,000	96.0%	2036-37	1,343,000	309,000	(3,647,000)	(1,995,000)
7/1/2036	47,145,000	46,188,000	957,000	98.0%	2037-38	1,333,000	301,000	(3,753,000)	(2,119,000)
7/1/2037	47,012,000	47,065,000	(53,000)	100.1%	2038-39	248,000	293,000	(3,850,000)	(3,309,000)
7/1/2038	46,741,000	47,869,000	(1,128,000)	102.4%	2039-40	0	286,000	(3,923,000)	(3,637,000)
7/1/2039	46,331,000	47,495,000	(1,164,000)	102.5%	2040-41	0	283,000	(3,966,000)	(3,683,000)
7/1/2040	45,800,000	46,755,000	(955,000)	102.1%	2041-42	0	280,000	(3,971,000)	(3,691,000)

Section III - Development of Contribution

D. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2012	\$16,705,634	\$23,104,691	\$6,399,057	72.3%
July 1, 2013	17,308,917	24,507,050	7,198,133	70.6%
July 1, 2014	19,467,950	25,670,287	6,202,337	75.8%
July 1, 2015	21,055,298	26,622,799	5,567,501	79.1%
July 1, 2016	22,269,090	28,524,429	6,255,339	78.1%
July 1, 2017	23,425,550	29,980,033	6,554,483	78.1%
July 1, 2018	24,659,243	32,116,754	7,457,511	76.8%
July 1, 2019	25,236,776	34,572,778	9,336,002	73.0%
July 1, 2020	25,732,187	37,822,556	12,090,369	68.0%
July 1, 2021	27,563,154	39,548,593	11,985,439	69.7%

Section III - Development of Contribution

E. History of Town Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Town Contribution	Payroll	Actual Contribution as a Percent of Payroll
2013-14	\$985,089	\$985,089	\$6,490,784	15.2%
2014-15 *	1,013,590	1,013,590	6,477,448	15.6%
2015-16	888,277	1,023,393	6,476,467	15.8%
2016-17	877,663	877,664	6,870,896	12.8%
2017-18	920,889	920,889	7,124,309	12.9%
2018-19	950,965	950,965	7,110,117	13.4%
2019-20	1,031,101	1,031,101	6,832,071	15.1%
2020-21	1,272,157	1,272,157	6,859,123	18.5%
2021-22	1,390,773	TBD	6,597,800	TBD
2022-23	1,450,539	TBD	6,745,332	TBD

* \$101,337 was held as an accrued contribution at July 1, 2014 and is shown above as a contribution for FYE 2015.

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, 2020	83	41	9	95	0	8	236
Terminated							
- no benefits due	-	-	-	-	-	-	0
- paid refund	-	-	-	-	-	-	0
- vested benefits due	(2)	2	-	-	-	-	0
Retired	(6)	(1)	-	7	-	-	0
Died							
- with beneficiary	-	-	-	(1)	-	1	0
- no beneficiary	-	-	-	(2)	-	-	(2)
Benefits expired	-	-	-	-	-	-	0
New member	5	-	-	-	-	-	5
Rehired	-	-	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	-	0
Correction	-	-	-	-	-	-	0
Count July 1, 2021	80	42	9	99	0	9	239

Section IV - Membership Data

B. Statistics of Active Membership

	As of July 1, 2020	As of July 1, 2021
Number of Active Members	83	80
Average Age	51.1	51.3
Average Service	15.0	14.4
Total Payroll	\$6,597,800	\$6,745,332
Average Payroll	79,492	84,317

Section IV - Membership Data

C. Statistics of Inactive Membership

	As of July 1, 2020	As of July 1, 2021
Terminated Vested Members		
Number	41	42
Total Annual Benefit	\$472,412	\$455,922
Average Annual Benefit	11,522	10,855
Average Age	53.1	54.7
Nonvested Members Due Refunds		
Number	9	9
Service Retirees		
Number	95	99
Total Annual Benefit	\$1,964,240	\$2,131,134
Average Annual Benefit	20,676	21,527
Average Age	73.7	73.9
Disabled Retirees		
Number	0	0
Total Annual Benefit	\$0	\$0
Average Annual Benefit	0	0
Average Age	0.0	0.0
Beneficiaries		
Number	8	9
Total Annual Benefit	\$78,231	\$82,108
Average Annual Benefit	9,779	9,123
Average Age	82.3	82.7

Section IV - Membership Data

D. Distribution of Inactive Members as of July 1, 2021

	Age	Number	Annual Benefits
Terminated Vested Members /	< 50	16	\$118,916
Nonvested Members Due Refunds	50 - 59	19	130,833
	60 - 69	14	203,046
	70 - 79	2	3,126
	80 - 89	0	0
	90 +	<u>0</u>	<u>0</u>
	Total	51	455,922
Service Retirees	< 50	0	\$0
	50 - 59	1	36,709
	60 - 69	30	715,324
	70 - 79	49	900,135
	80 - 89	17	463,630
	90 +	<u>2</u>	<u>15,335</u>
	Total	99	2,131,134
Disabled Retirees	< 50	0	\$0
	50 - 59	0	0
	60 - 69	0	0
	70 - 79	0	0
	80 - 89	0	0
	90 +	<u>0</u>	<u>0</u>
	Total	0	0
Beneficiaries	< 50	0	\$0
	50 - 59	0	0
	60 - 69	0	0
	70 - 79	3	16,848
	80 - 89	6	65,260
	90 +	<u>0</u>	<u>0</u>
	Total	9	82,108

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 C for more information on the basis for the projected results shown on the following pages.

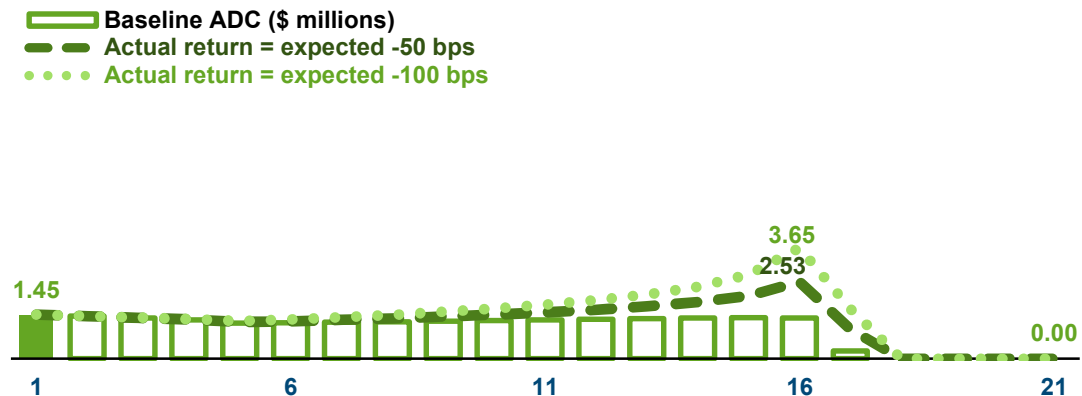
Section V - Analysis of Risk

B. Risk Identification and Assessment

Investment Risk

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

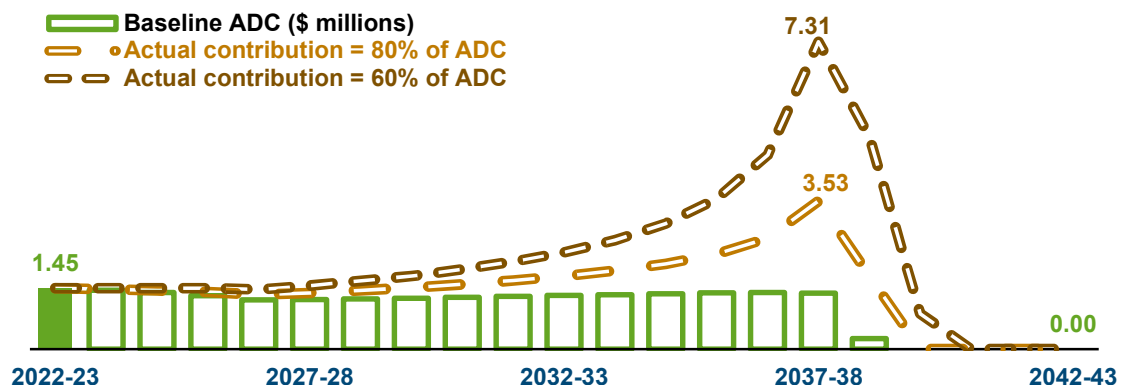
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on 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 101.7% 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.

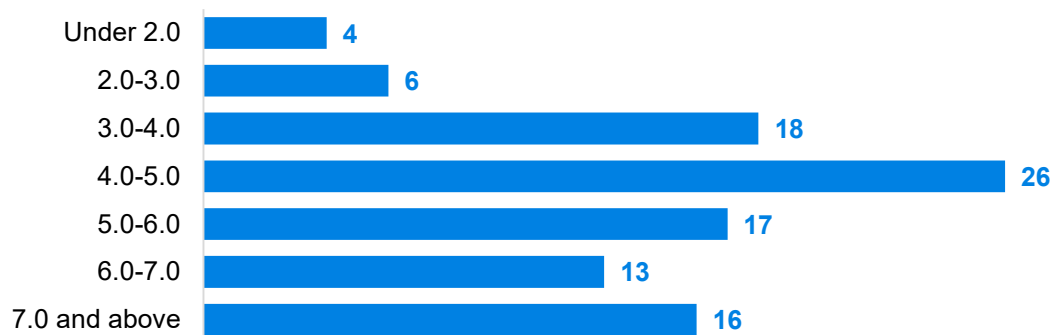
Identification: In 2020-21, the plan had negative cash flow, with town and member contributions to the plan of \$1,568,289 compared to \$2,178,689 of benefit payments and administrative expenses paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity 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, 2021, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 4.5. According to Milliman's 2021 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.

Retirement Risk

Definition: This is the potential for members to retire and receive subsidized benefits that are more valuable than expected.

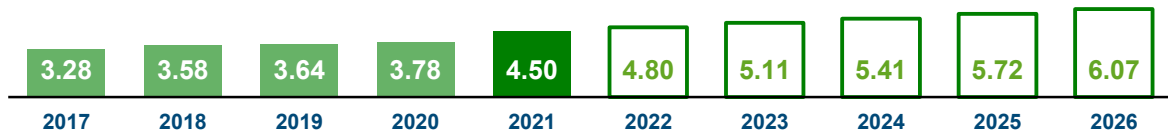
Identification: This plan permits some members to retire with unreduced benefits after 25 years of service. If members retire at earlier ages than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

Section V - Analysis of Risk

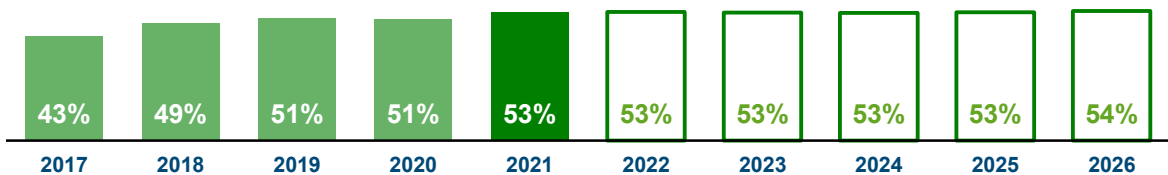
C. Maturity Measures

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.

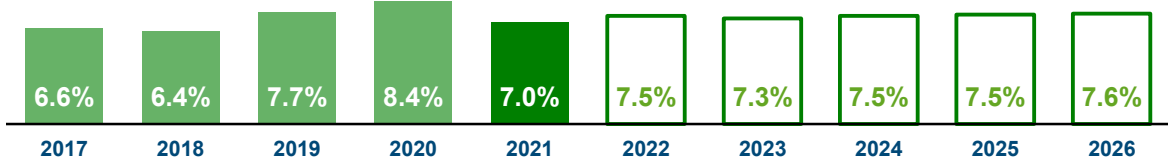
Asset Volatility Ratio: Market Value of Assets compared to Payroll



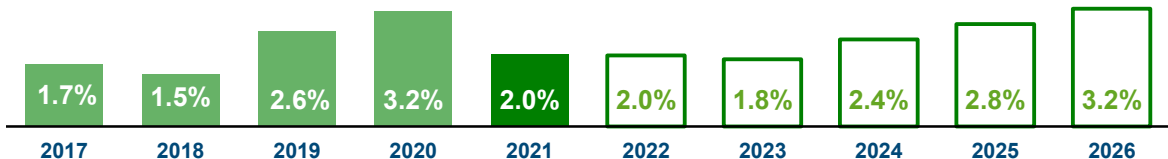
Accrued Liability for members in pay status compared to total Accrued Liability



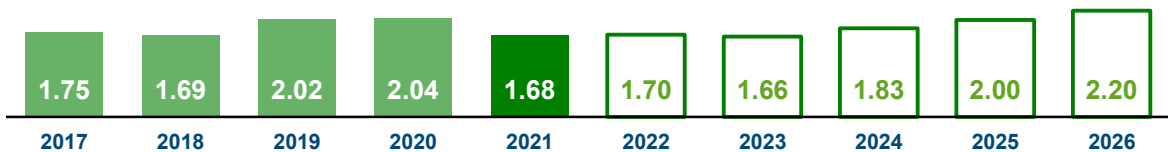
Benefit Payments compared to Market Value of Assets



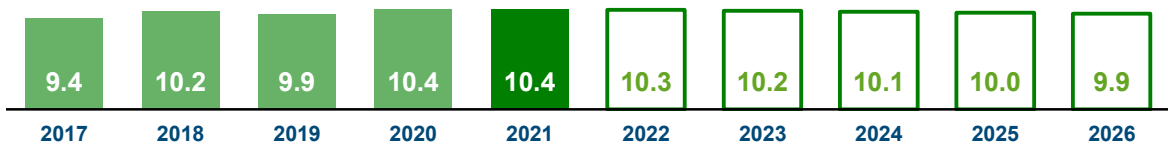
Net Cash Flows compared to Market Value of Assets



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 timing of the contribution relative to the valuation date.

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 17 year period starting on July 1, 2020. The amortization period will decrease each year until it reaches 10 years, after which point it will remain at 10 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. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

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	6.50% (prior: 6.625%)	
Inflation	2.75%	
Amortization Growth Rate	3.50%	
Salary Scale	3.50%	
Expenses	Administrative expenses paid in the prior year, increased by 3% and rounded to the nearest \$100.	
Turnover	Service	Rate
	0-4	4.25%
	5-8	3.25%
	9-11	3.00%
	>11	2.50%
Mortality	PubG-2010 Mortality Table with generational projection per the MP-2019 ultimate scale, with employee rates before benefit commencement and healthy or disabled annuitant rates after benefit commencement. This assumption includes a margin for improvements in longevity beyond the valuation date.	
Marital Status	90% of male members and 60% of female members are assumed to be married with wives 3 years younger than husbands.	
Retirement	Age	Rate
	55-61	2.5%
	62	20%
	63	8%
	64	15%
	65	25%
	66-69	40%
	70	100%

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	Any individual in the employ of the Town of Simsbury whose customary employment is at least 32½ hours per week on a regular schedule, excluding police, those individuals covered by the State Teachers Retirement Plan or the Town of Simsbury Board of Education Retirement Income Plan. Public Works employees hired after October 18, 2016 and Dispatchers hired after December 12, 2016 will not be covered by this plan.
Credited Service	Whole years and full months from date of participation, but not greater than 30 years.
Compensation	Basic Compensation excluding overtime, commissions, bonuses, and any other form of additional compensation.
Final Average Compensation	Average Earnings paid to a member during the highest 5 consecutive years out of the last 10 years of active employment.
Normal Retirement Date	Age 62 or 25 years of Credited Service for Dispatchers. Age 65 with 5 years of Credited Service for employees other than Dispatchers.
Normal Retirement Benefit	2% of Final Average Compensation times Credited Service for union members. 2.5% of Final Average Compensation times Credited Service for unaffiliated members.
Early Retirement Date	Earlier of age 55 and 5 years of Credited Service. Dispatchers may retire without an early retirement penalty at age 62 or when their age plus service are equal to 85.
Early Retirement Benefit	Benefit is based on Credited Service and Final Average Compensation to actual retirement date reduced by ⅓ of 1% for each month by which the participant's retirement date precedes Normal Retirement Date.
Deferred Retirement Date	Members may continue to work beyond Normal Retirement.

Appendix C - Summary of Plan Provisions

Deferred Retirement Benefit	Benefit based on Credited Service and Final Average Compensation to actual date of retirement.
Death Benefits Before Retirement	A monthly survivors benefit payable on behalf of an employee who has attained age 55 and completed 5 years of Credited Service, and who has a surviving spouse to whom he has been married at least one year. The benefit will be 100% of the monthly retirement benefit which such employee would have received had he retired on the day before he died and elected a 50% Joint & Survivor Annuity. The benefit is reduced by 50% after 5 years.
Death Benefits After Retirement	Based on form of benefit elected at retirement.
Vesting	100% vested after completion of 5 years of Credited Service.
Termination Benefit Pre-Retirement	Refund of Employee Contributions with interest to date of termination.
Termination Benefit Post-Retirement	On or after Normal Retirement Date but prior to annuity commencement date: Annuity payments to the beneficiary for the five year period commencing on the first of the month following the member's death.
Employee Contributions	<p>Dispatchers and CSEA hired before 8/12/2013:</p> <p>Prior to 7/1/2013: 2.0%</p> <p>7/1/2013: 2.5%</p> <p>7/1/2014: 3.0%</p> <p>7/1/2015: 3.5%</p> <p>7/1/2016: 4.0%</p> <p>7/1/2017: 4.5%</p> <p>7/1/2018: 5.0%</p> <p>Public Works hired before 8/12/2013:</p> <p>Prior to 9/1/2013: 2.0%</p> <p>9/1/2013: 2.5%</p> <p>9/1/2014: 3.0%</p> <p>9/1/2015: 3.5%</p> <p>7/1/2016: 4.0%</p> <p>7/1/2017: 4.5%</p> <p>7/1/2018: 5.0%</p> <p>Unaffiliated employees hired before 8/12/2013: 5.0%</p> <p>All employees hired on or after 8/12/2013: 10.0%</p> <p>No contributions after Normal Retirement Date. Interest is credited at 5% per year.</p>

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.



TOWN OF SIMSBURY OTHER POST-EMPLOYMENT BENEFITS PROGRAM

GASB 74 and 75 DISCLOSURE

Fiscal Year: July 1, 2021 to June 30, 2022

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

Actuarial computations presented in this report under Statements No. 74 and 75 of the Governmental Accounting Standards Board are for purposes of assisting the Town in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of July 1, 2021 and June 30, 2022 furnished by the Town. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's valuation report dated January 11, 2023 for more information on the plan's participant group as of July 1, 2021 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them 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.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Code of Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law 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. Assumptions related to the claims costs and healthcare trend (cost inflation) rates for the retiree healthcare program discussed in this report were determined by Milliman actuaries qualified in such matters.

This valuation report 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.

Certification

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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets and estimate the claim costs and trend used in this analysis. 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 models, including all input, calculations, and output may not be appropriate for any other purpose.

Milliman's work is prepared solely for the internal use and benefit of the Town of Simsbury. 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 Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor'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 Plan Sponsor 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 specific needs.

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 has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Jennifer M. Castelhana, FSA
Consulting Actuary

Overview of GASB 74 and GASB 75

The Governmental Accounting Standards Board (GASB) released accounting standards for public postemployment benefit plans other than pension (OPEB) and participating employers in 2015. These standards, GASB Statements No. 74 and 75, have substantially revised the accounting requirements previously mandated under GASB Statements No. 43 and 45. The most notable change is that the Annual Required Contribution (ARC) has been eliminated and the Net OPEB Liability will be an item on the employer's financial statement rather than a footnote entry.

GASB 74 applies to financial reporting for public OPEB plans funded by OPEB trusts and is required to be implemented for plan fiscal years beginning after June 15, 2016. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a trust fund of a government, it is subject to GASB 74. Under GASB 74, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 75 governs the specifics of accounting for public OPEB plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2017. GASB 75 requires a liability for OPEB obligations, known as the Net OPEB Liability (Total OPEB Liability for unfunded plans), to be recognized on the balance sheets of participating employers. Changes in the Net OPEB Liability (Total OPEB Liability for unfunded plans) will be immediately recognized as OPEB Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is July 1, 2021. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022. This is the date as of which the total OPEB liability is determined. The Reporting Date is June 30, 2022. This is the plan's and/or employer's fiscal year ending date.

Significant Changes

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Participant Data as of July 1, 2021

Actives	713
Retirees	344
Spouses of Retirees	43
Beneficiaries	<u>1</u>
Total	1,101

Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2013	\$1,613,000	\$2,393,362	(\$780,362)	N/A	N/A
2014	1,825,000	1,980,158	(155,158)	44,132,000	4.49%
2015	1,880,000	4,880,000	(3,000,000)	44,132,000	11.06%
2016	1,047,953	1,195,883	(147,930)	44,570,517	2.68%
2017	1,073,307	1,073,307	0	45,238,019	2.37%
2018	1,182,000	1,197,000	(15,000)	45,238,019	2.65%
2019	1,093,300	1,157,219	(63,919)	52,352,923	2.21%
2020	1,308,000	1,350,537	(42,537)	52,352,923	2.58%
2021	1,284,141	1,360,107	(75,966)	54,406,476	2.50%
2022	1,595,000	954,082	640,918	54,406,476	1.75%

Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the July 1, 2021 funding valuation. Please see the valuation report dated January 11, 2023 for further details.

Valuation Timing	Actuarial valuations for funding purposes are performed biennially as of July 1. The most recent valuation was performed as of July 1, 2021.
Actuarial Cost Method	Projected Unit Credit
Amortization Method	
Level percent or level dollar	Level Percent
Closed, open, or layered periods	Closed
Amortization period at July 1, 2021	16
Amortization growth rate	3.50%
Asset Valuation Method	Market Value
Smoothing period	N/A
Recognition method	N/A
Corridor	N/A
Inflation	2.75%
Salary Increases	Graded Scale for Certified BOE and Police, 3.50% for All Others
Discount Rate	6.50%
Healthcare Trend Rates	Pre-Medicare: 5.20% - 4.30% over 60 years Post-Medicare: 5.00% - 4.30% over 51 years

Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2013	N/A
2014	N/A
2015	N/A
2016	N/A
2017	9.44%
2018	7.52%
2019	5.96%
2020	3.59%
2021	26.00%
2022	-12.46%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2021	\$22,666,720	12.00	1.00	\$19,841,619
Monthly net external cash flows:				
July	17,228	12.00	1.00	15,081
August	13,703	11.00	0.92	12,124
September	4,516	10.00	0.83	4,044
October	17,177	9.00	0.75	15,545
November	(1,731)	8.00	0.67	(1,583)
December	14,287	7.00	0.58	13,225
January	(2,508)	6.00	0.50	(2,347)
February	11,792	5.00	0.42	11,151
March	914	4.00	0.33	875
April	11,520	3.00	0.25	11,143
May	14,012	2.00	0.17	13,698
June	(18,289)	1.00	0.08	(18,095)
Ending Value - June 30, 2022	19,916,480			19,916,480
Money-Weighted Rate of Return	-12.46%			

Long-Term Expected Rate of Return

The assumption for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman's investment consulting practice as of June 30, 2021.

Asset Class	Index	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return	Long-Term Expected Geometric Real Rate of Return
US Core Fixed Income	Bloomberg Barclays Aggregate	22.50%	1.37%	1.26%
US TIPS (Inflation-Indexed Bonds)	BBgBarc US Treasury US TIPS	22.50%	0.61%	0.50%
US Large Cap Equity	S&P 500	22.50%	5.15%	3.65%
US Mid Cap Equity	Russell Mid Cap	5.00%	5.71%	3.66%
US Small Cap Equity	Russell 2000	2.50%	6.58%	3.89%
Foreign Developed Equity	MSCI EAFE NR	15.00%	6.27%	4.52%
Emerging Markets Equity	MSCI EM NR	5.00%	8.64%	4.95%
US REITs	FTSE Nareit All Equity REIT	2.50%	5.75%	3.57%
Non-US REITs	FTSE EPRA Nareit Developed	2.50%	6.83%	4.37%
Assumed Inflation - Mean			2.75%	2.75%
Assumed Inflation - Standard Deviation			1.16%	1.16%
Portfolio Real Mean Return			3.74%	3.21%
Portfolio Nominal Mean Return			6.49%	6.05%
Portfolio Standard Deviation				9.80%
Long-Term Expected Rate of Return				6.50%

Depletion Date Projection

GASB 74 and 75 generally require that a blended discount rate be used to measure the Total OPEB Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond yield or index rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 74 and 75 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 74 and 75 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Town of Simsbury:

- The Town of Simsbury has, on average over the last 5 years, paid about 93% of the Actuarially Determined Contribution.
- The Actuarially Determined Contribution is based on a closed amortization period, which means that payment of the Actuarially Determined Contribution each year will bring the plan to a 100% funded position by the end of the amortization period.
- GASB 74 and 75 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 74 and 75 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

Net OPEB Liability

Net OPEB Liability	June 30, 2021	June 30, 2022
Total OPEB liability	\$27,660,817	\$23,840,579
Fiduciary net position	22,666,720	19,916,480
Net OPEB liability	4,994,097	3,924,099
Fiduciary net position as a % of total OPEB liability	81.95%	83.54%
Covered payroll	54,406,476	54,406,476
Net OPEB liability as a % of covered payroll	9.18%	7.21%

The total OPEB liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. Any significant changes during this period have been reflected as prescribed by GASB 74 and 75.

Discount Rate

Discount rate	6.75%	6.50%
Long-term expected rate of return, net of investment expense	6.75%	6.50%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the long-term expected rate of return.

Other Key Actuarial Assumptions

The plan has not had a formal actuarial experience study performed.

Valuation date	July 1, 2019	July 1, 2021
Measurement date	June 30, 2021	June 30, 2022
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.75%	2.75%
Medical Trend Rate	Pre-Medicare: 6.20% - 4.30% over 62 years Post-Medicare: 3.70% - 4.30% over 53 years	Pre-Medicare: 5.20% - 4.30% over 60 years Post-Medicare: 5.00% - 4.30% over 51 years
Salary increases including inflation	8.25% for first 7 years and 3.00% thereafter for Police, 3.50% for all others	Graded Scale for Certified BOE and Police, 3.50% for All Others

Please see Milliman's funding valuation report dated January 11, 2023 for more detail.

Changes in Net OPEB Liability

Changes in Net OPEB Liability	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances as of June 30, 2021	\$27,660,817	\$22,666,720	\$4,994,097
Changes for the year:			
Service cost	897,711		897,711
Interest on total OPEB liability	1,896,026		1,896,026
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	(4,203,001)		(4,203,001)
Effect of assumptions changes or inputs	(1,456,892)		(1,456,892)
Benefit payments	(954,082)	(954,082)	0
Employer contributions		954,082	(954,082)
Member contributions		133,591	(133,591)
Net investment income		(2,832,861)	2,832,861
Administrative expenses		(50,970)	50,970
Balances as of June 30, 2022	23,840,579	19,916,480	3,924,099

Sensitivity Analysis

The following presents the net OPEB liability of the Town, calculated using the discount rate of 6.50%, as well as what the Town's net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.50%) or 1 percentage point higher (7.50%) than the current rate.

	Current		
	1% Decrease 5.50%	Discount Rate 6.50%	1% Increase 7.50%
Total OPEB liability	\$26,576,327	\$23,840,579	\$21,502,031
Fiduciary net position	19,916,480	19,916,480	19,916,480
Net OPEB liability	6,659,847	3,924,099	1,585,551

The following presents the net OPEB liability of the Town, calculated using the current healthcare cost trend rates as well as what the Town's net OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current trend rates.

	Current		
	1% Decrease	Trend Rate	1% Increase
Total OPEB liability	\$21,136,370	\$23,840,579	\$27,103,645
Fiduciary net position	19,916,480	19,916,480	19,916,480
Net OPEB liability	1,219,890	3,924,099	7,187,165

Schedule of Changes in Net OPEB Liability and Related Ratios

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total OPEB Liability										
Service cost	\$897,711	\$955,522	\$902,676	\$828,630	\$823,820	\$797,888	N/A	N/A	N/A	N/A
Interest on total OPEB liability	1,896,026	1,785,683	1,620,250	1,520,906	1,509,026	1,424,684	N/A	N/A	N/A	N/A
Effect of plan changes	0	0	0	0	0	0	N/A	N/A	N/A	N/A
Effect of economic/demographic (gains) or losses	(4,203,001)	0	2,113,487	0	(1,151,462)	0	N/A	N/A	N/A	N/A
Effect of assumption changes or inputs	(1,456,892)	0	(291,275)	0	(509)	0	N/A	N/A	N/A	N/A
Benefit payments	(954,082)	(1,140,222)	(1,040,537)	(969,404)	(1,061,000)	(1,026,815)	N/A	N/A	N/A	N/A
Net change in total OPEB liability	(3,820,238)	1,600,983	3,304,601	1,380,132	119,875	1,195,757	N/A	N/A	N/A	N/A
Total OPEB liability, beginning	27,660,817	26,059,834	22,755,233	21,375,101	21,255,226	20,059,469	N/A	N/A	N/A	N/A
Total OPEB liability, ending (a)	23,840,579	27,660,817	26,059,834	22,755,233	21,375,101	21,255,226	N/A	N/A	N/A	N/A
Fiduciary Net Position										
Employer contributions	\$954,082	\$1,360,107	\$1,350,537	\$1,157,219	\$1,197,000	\$1,073,307	N/A	N/A	N/A	N/A
Member contributions	133,591	152,927	107,341	174,772	173,532	116,584	N/A	N/A	N/A	N/A
Net Investment income	(2,832,861)	4,657,455	611,868	931,563	1,064,107	1,210,475	N/A	N/A	N/A	N/A
Benefit payments	(954,082)	(1,140,222)	(1,040,537)	(969,404)	(1,061,000)	(1,026,815)	N/A	N/A	N/A	N/A
Administrative expenses	(50,970)	(84,664)	(11,592)	(4,925)	(9,228)	0	N/A	N/A	N/A	N/A
Net change in plan fiduciary net position	(2,750,240)	4,945,603	1,017,617	1,289,225	1,364,411	1,373,551	N/A	N/A	N/A	N/A
Fiduciary net position, beginning	22,666,720	17,721,117	16,703,500	15,414,275	14,049,864	12,676,313	N/A	N/A	N/A	N/A
Fiduciary net position, ending (b)	19,916,480	22,666,720	17,721,117	16,703,500	15,414,275	14,049,864	N/A	N/A	N/A	N/A
Net OPEB liability, ending = (a) - (b)	\$3,924,099	\$4,994,097	\$8,338,717	\$6,051,733	\$5,960,826	\$7,205,362	N/A	N/A	N/A	N/A
Fiduciary net position as a % of total OPEB liability	83.54%	81.95%	68.00%	73.41%	72.11%	66.10%	N/A	N/A	N/A	N/A
Covered payroll	\$54,406,476	\$54,406,476	\$52,352,923	\$52,352,923	\$45,238,019	\$45,238,019	N/A	N/A	N/A	N/A
Net OPEB liability as a % of covered payroll	7.21%	9.18%	15.93%	11.56%	13.18%	15.93%	N/A	N/A	N/A	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

OPEB Expense

OPEB Expense	July 1, 2020 to June 30, 2021	July 1, 2021 to June 30, 2022
Service cost	\$955,522	\$897,711
Interest on total OPEB liability	1,785,683	1,896,026
Effect of plan changes	0	0
Administrative expenses	84,664	50,970
Member contributions	(152,927)	(133,591)
Expected investment return net of investment expenses	(1,205,900)	(1,532,196)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	116,022	(451,951)
Recognition of assumption changes or inputs	(36,937)	(233,814)
Recognition of investment gains or losses	(557,822)	315,190
OPEB Expense	988,305	808,345

As of June 30, 2022, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	(\$4,028,950)	\$1,310,897
Changes of assumptions	(1,440,854)	0
Net difference between projected and actual earnings	0	1,681,793
Contributions made subsequent to measurement date	0	0
Total	(5,469,804)	2,992,690

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to other postemployment benefits will be recognized in OPEB expense as follows:

Year ended June 30:	
2023	(\$356,651)
2024	(388,799)
2025	(442,436)
2026	338,823
2027	(557,258)
Thereafter*	(1,070,793)

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Expense for FYE 06/30/2022	Amount Recognized in Expense through 06/30/2022	Balance of Deferred Inflows 06/30/2022	Balance of Deferred Outflows 06/30/2022
Economic/ demographic (gains)/losses	(\$4,203,001)	6/30/2022	7.4	(\$567,973)	(\$567,973)	(\$3,635,028)	\$0
	2,113,487	6/30/2020	7.9	267,530	802,590	0	1,310,897
	(1,151,462)	6/30/2018	7.6	(151,508)	(757,540)	(393,922)	0
		Total		(451,951)	(522,923)	(4,028,950)	1,310,897
Assumption changes or inputs	(1,456,892)	6/30/2022	7.4	(196,877)	(196,877)	(1,260,015)	0
	(291,275)	6/30/2020	7.9	(36,870)	(110,610)	(180,665)	0
	(509)	6/30/2018	7.6	(67)	(335)	(174)	0
		Total		(233,814)	(307,822)	(1,440,854)	0
Investment (gains)/losses	4,365,057	6/30/2022	5.0	873,011	873,011	0	3,492,046
	(3,451,555)	6/30/2021	5.0	(690,311)	(1,380,622)	(2,070,933)	0
	571,338	6/30/2020	5.0	114,268	342,804	0	228,534
	160,722	6/30/2019	5.0	32,144	128,576	0	32,146
	(69,614)	6/30/2018	5.0	(13,922)	(69,614)	0	0
		Total		315,190	(105,845)	(2,070,933)	3,752,726
Total for economic/demographic gains or losses and assumption changes or inputs						(5,469,804)	1,310,897
Net deferred (inflows)/outflows for investment gains or losses						0	1,681,793
Total deferred (inflows)/outflows						(5,469,804)	2,992,690
Total net deferrals						(2,477,114)	

* Investment (gains)/losses are recognized in OPEB expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

Milliman Financial Reporting Valuation

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability	Deferred Inflows	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net OPEB Liability plus Net Deferrals	Annual Expense
Balances as of June 30, 2021	(\$27,660,817)	\$22,666,720	(\$4,994,097)	(\$763,206)	\$1,578,427	(\$2,368,074)	(\$1,552,853)	(\$6,546,950)	
Service cost	(897,711)		(897,711)						897,711
Interest on total OPEB liability	(1,896,026)		(1,896,026)						1,896,026
Effect of plan changes	0		0						0
Effect of liability gains or losses	4,203,001		4,203,001	(4,203,001)			(4,203,001)		
Effect of assumption changes or inputs	1,456,892		1,456,892	(1,456,892)			(1,456,892)		
Benefit payments	954,082	(954,082)	0						
Administrative expenses		(50,970)	(50,970)						50,970
Member contributions		133,591	133,591						(133,591)
Expected net investment income		1,532,196	1,532,196						(1,532,196)
Investment gains or losses		(4,365,057)	(4,365,057)			4,365,057	4,365,057		
Employer contributions		954,082	954,082					954,082	
Recognition of liability gains or losses				719,481	(267,530)		451,951		(451,951)
Recognition of assumption changes or inputs				233,814			233,814		(233,814)
Recognition of investment gains or losses						(315,190)	(315,190)		315,190
Annual expense								(808,345)	808,345
Balances as of June 30, 2022	(23,840,579)	19,916,480	(3,924,099)	(5,469,804)	1,310,897	1,681,793	(2,477,114)	(6,401,213)	

Glossary

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net OPEB liability that is not immediately recognized in OPEB Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of: <ol style="list-style-type: none">1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net OPEB Liability	Total OPEB Liability minus the Plan's Fiduciary Net Position.
Projected Benefit Payments	All benefits estimated to be payable through the OPEB plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total OPEB Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 74 and 75.



THE TOWN OF SIMSBURY OTHER POST-EMPLOYMENT BENEFITS PLAN

**Actuarial Valuation as of July 1, 2021
To Determine Funding for Fiscal Year 2022-23**

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

We have performed an actuarial valuation of the Plan as of July 1, 2021 to determine funding for fiscal year 2022-23. This report presents the results of our valuation.

The ultimate cost of an Other Post-Employment Benefits (OPEB) plan is the total amount needed to provide benefits for plan members and beneficiaries and to pay the expenses of administering the plan. OPEB costs are met by contributions and by investment return on plan assets. The principal purpose of this report is to set forth an actuarial recommendation of the contribution, or range of contributions, which will properly fund the plan, in accordance with applicable actuarial standards of practice. In addition, this report provides:

- A valuation of plan assets and liabilities to review the year-to-year progress of funding.
- Review of plan experience since the previous valuation to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application.
- Assessment of the relative funded position of the plan, i.e., through a comparison of plan assets and projected plan liabilities.
- Comments on any other matters which may be of assistance in the funding and operation of the plan.

This report may not be used for purposes other than those listed above without Milliman's prior written consent. If this report is distributed to other parties, it must be copied in its entirety, including this certification section.

Milliman's work is prepared solely for the internal business use of the Town of Simsbury ("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.

In preparing this report, we relied on employee census data and financial information as of the valuation date, furnished by the Town. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Certification

The calculations reported herein have been made on a basis consistent with our understanding of the plan provisions. Additional determinations may be needed for purposes other than determining funding amounts, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices.

The valuation results were developed using models employing standard actuarial techniques. In addition to the models described previously, Milliman has developed certain models to develop the expected long term rate of return on assets and estimate the claim costs and trend used in this analysis. 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 models, including all input, calculations, and output may not be appropriate for any other purpose.

We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. 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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

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

The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Section I - Executive Summary

Changes Since the Prior Valuation

Demographic Changes and Plan Experience

From July 1, 2019 to July 1, 2021, the overall membership increased from 1,077 to 1,101. The number of active members increased from 712 to 713, and the total number of members and spouses/dependents receiving benefits increased from 365 to 388.

The average age of active members decreased from 48.2 to 48.1, and the average age of members receiving benefits decreased slightly from 75.2 to 74.5.

Plan Changes

None.

Changes in Actuarial Methods and Assumptions

We are now assuming that there will be no future Teacher, Administrator, or Central Office Administrator retirees who are not eligible for Medicare.

We have updated the disability, retirement, termination and salary growth rates for Teachers, Administrators and Central Office Administrators to reflect the assumptions used in the June 30, 2020 Actuarial Valuation Report for the Connecticut State Teachers' Retirement System. For all other groups, these rates were updated to reflect the results of the 2022 experience study done for the Town of Simsbury.

We updated the mortality assumption to use the Pub-2010 mortality tables with the MP-2021 ultimate improvement scale. The combined impact of the changes mentioned above caused the Accrued Liability to decrease by about \$485,000 and the Actuarially Determined Contribution to decrease by about \$150,000.

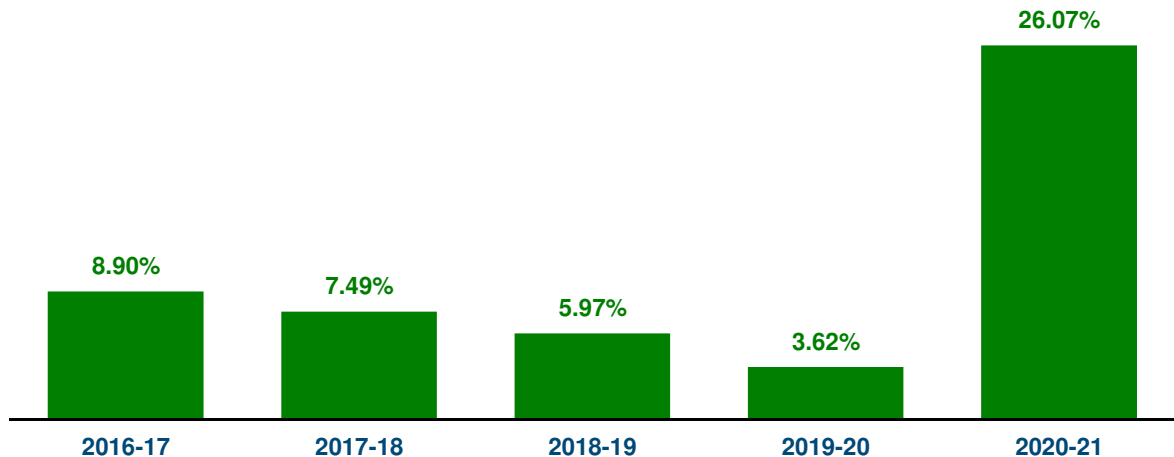
Lastly, we lowered the discount rate assumption from 6.625% to 6.500%, which caused the Accrued Liability to increase by about \$323,000 and the Actuarially Determined Contribution to increase by about \$48,000.

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

	Market Value
Value as of July 1, 2019	\$16,703,500
Town and Active Member Contributions	1,457,878
Investment Income	611,868
Benefit Payments	(1,052,129)
Value as of July 1, 2020	17,721,117
Town and Active Member Contributions	1,513,034
Investment Income	4,657,455
Benefit Payments	(1,224,886)
Value as of July 1, 2021	22,666,720

For fiscal year 2019-20, the plan's assets earned 3.62% on a Market Value basis. The actuarial assumption for this period was 6.75%; the result is an asset loss of about \$0.5 million. For fiscal year 2020-21, the plan's assets earned 26.07% on a Market Value basis. The actuarial assumption for this period was 6.625%; the result is an asset gain of about \$3.5 million. Historical rates of return are shown in the graph below.

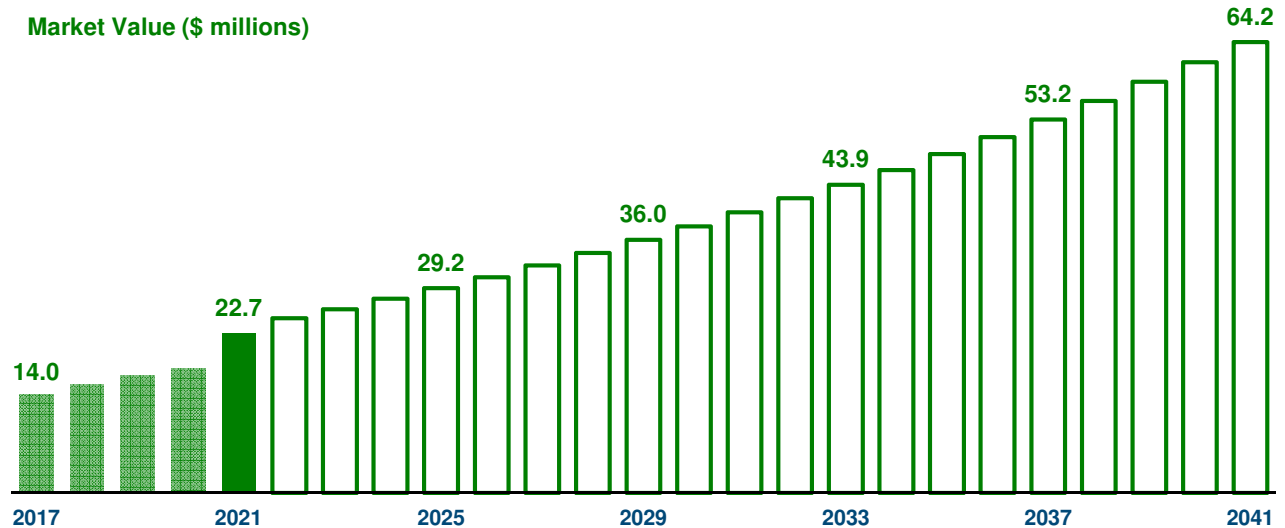


Section I - Executive Summary

Assets (continued)

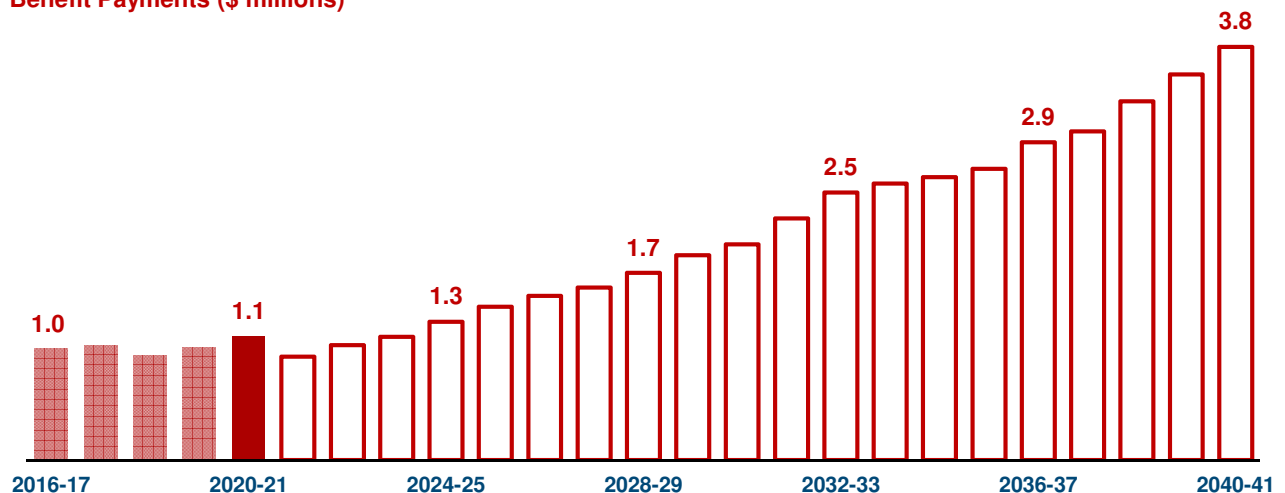
The graph below shows how this year's asset values compare to where the plan's assets have been over the past several years and how they are projected to change over the next 20 years. For purposes of this projection, we have assumed that the Town always contributes the Actuarially Determined Contribution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

Market Value (\$ millions)



In 2020-21, the plan paid out \$1.1 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$44 million in benefits to members.

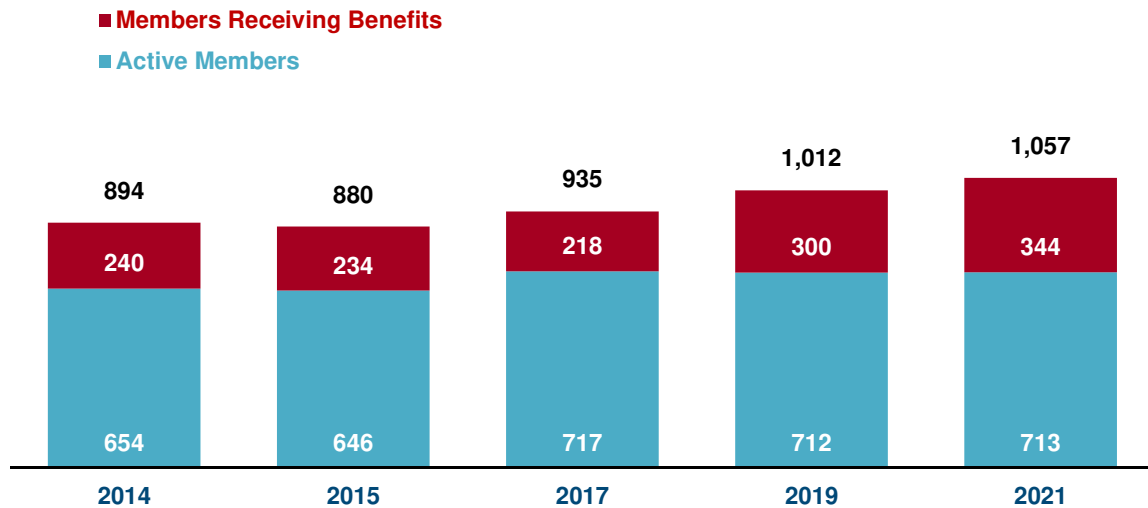
Benefit Payments (\$ millions)



Section I - Executive Summary

Membership

There are two basic categories of plan members included in the valuation: (1) members who are receiving benefits and (2) active employees who have met the eligibility requirements for membership.

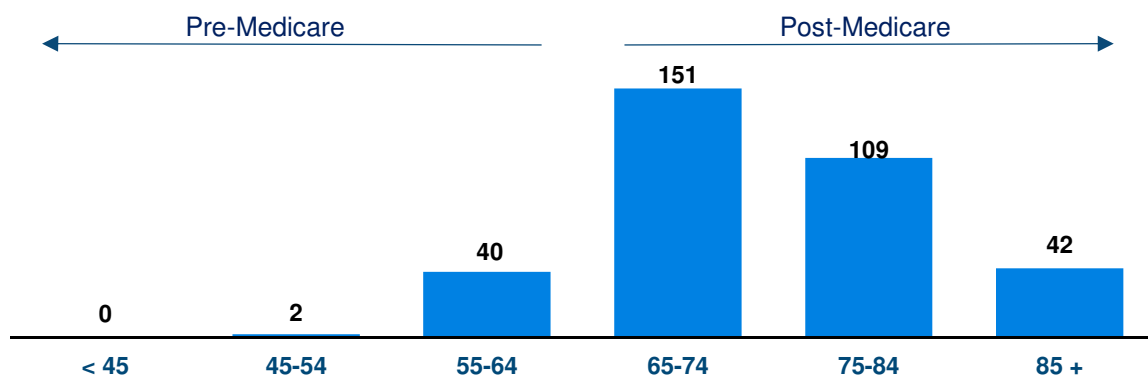


Members Receiving Benefits on July 1, 2021

Members Receiving Benefits	344
Spouses/Dependents Receiving Benefits	44
Total	388

Average Age 74.1

The members receiving benefits fall across a wide distribution of ages:



Section I - Executive Summary

Membership (continued)

Active Members on July 1, 2021

Count	713
Average Age	48.1
Average Service	12.6
Payroll	\$57,834,701
Average Payroll	81,115

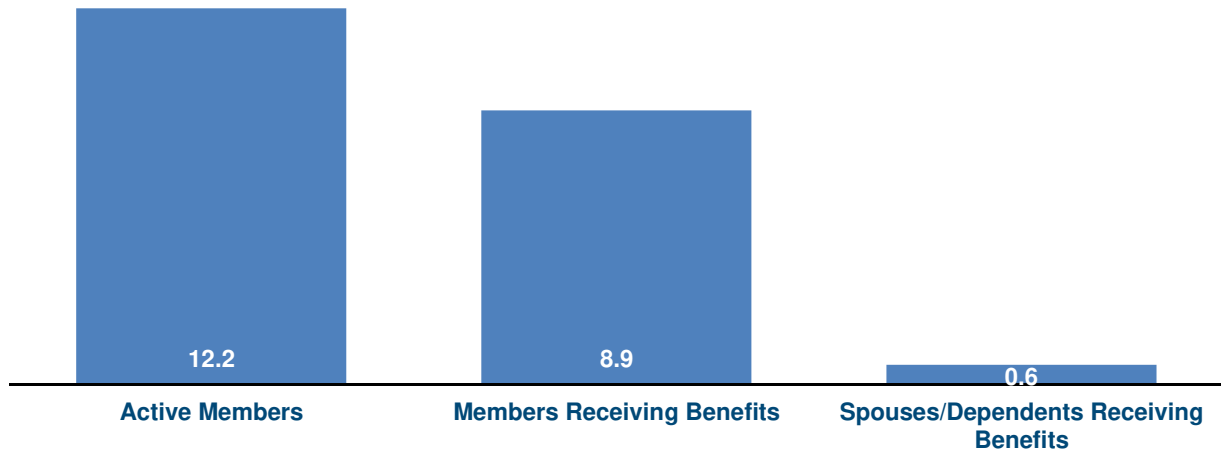
The table below illustrates the age and years of service of the active membership:

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	8							8
25-29	33	11						44
30-34	32	28	1					61
35-39	27	22	17	5				71
40-44	19	25	15	22	6			87
45-49	20	25	18	16	17	1		97
50-54	14	29	19	26	23	10	1	122
55-59	9	15	23	29	23	4	10	113
60-64	6	8	9	23	22	3	12	83
65+	1	2	2	7	8	5	2	27
Total	169	165	104	128	99	23	25	713

Section I - Executive Summary

Accrued Liability

The Accrued Liability as of July 1, 2021 is \$21,636,725 and consists of the following pieces (in \$ millions):

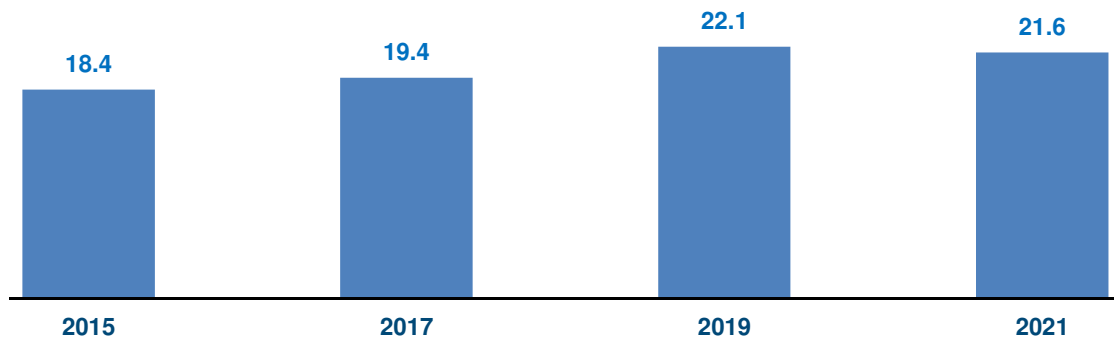


Section I - Executive Summary

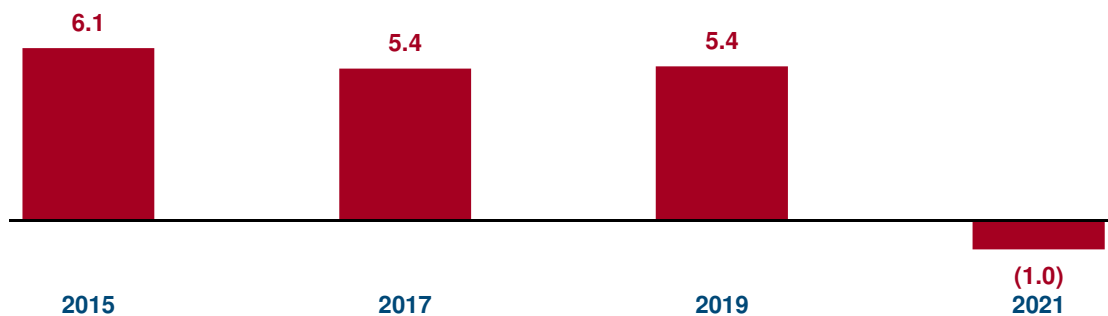
Funded Status

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.

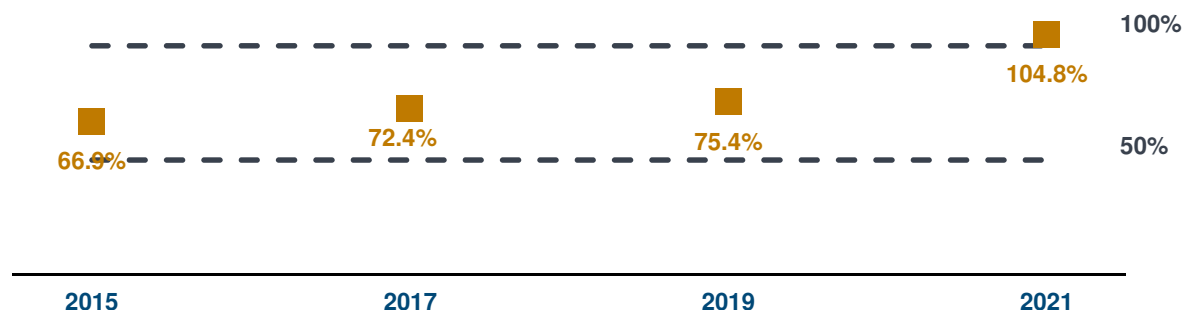
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)



Funded Ratio

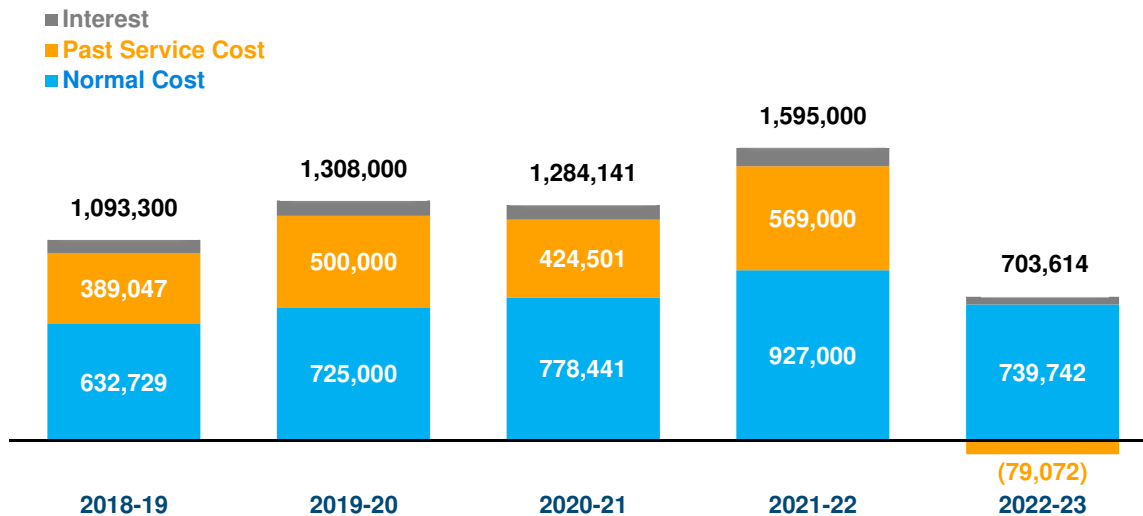


Section I - Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution 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 to reflect the timing of the contribution relative to the valuation date.

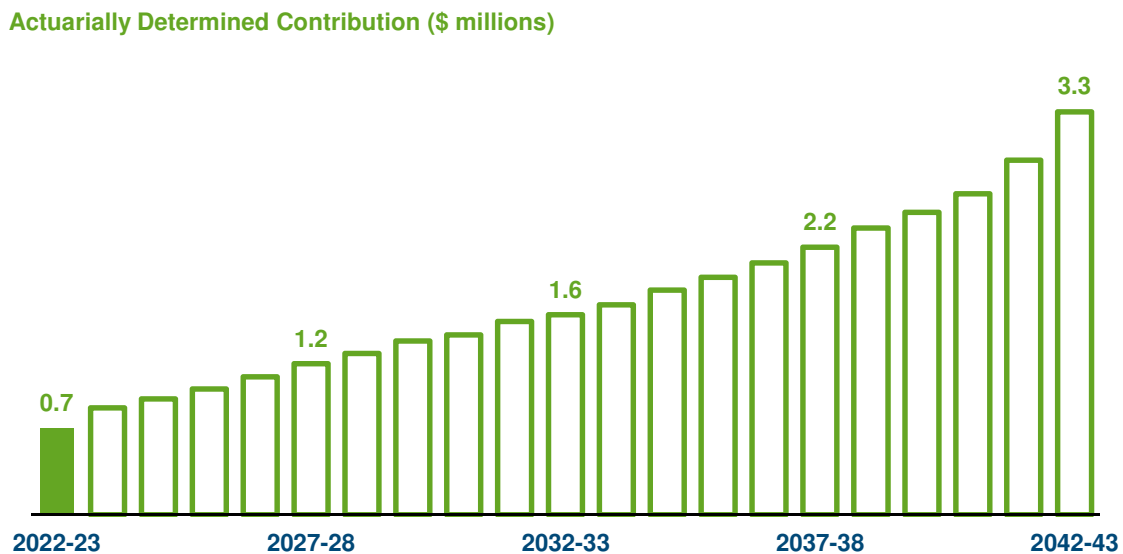
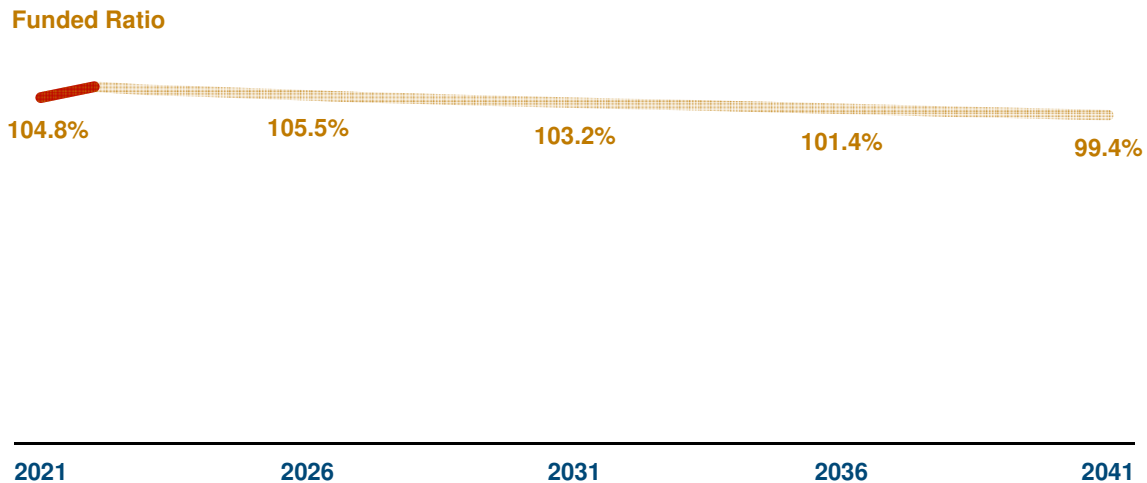
The Actuarially Determined Contribution for fiscal year 2022-23 is shown graphically below, along with the comparable figures for the preceding four fiscal years. Note that the Normal Cost is relatively consistent from year to year, whereas the Past Service Cost tends to be more volatile since it reflects the impact of asset performance.



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 changes in the plan's funded status and the long-range contribution levels:

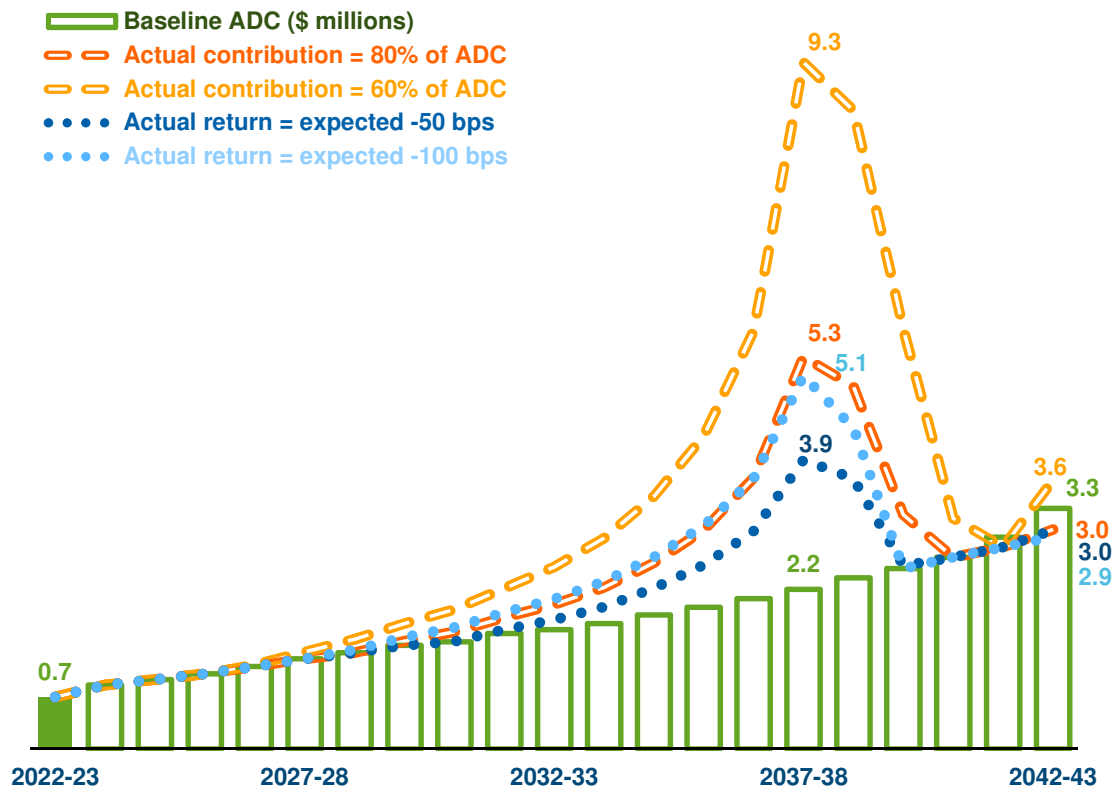


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Section III C for more details of the long range forecast.

Section I - Executive Summary

Long-Range Forecast (continued)

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

Summary of Principal Results

Membership as of	July 1, 2019	July 1, 2021
Active Members	712	713
Members Receiving Benefits	<u>300</u>	<u>344</u>
Total Count	1,012	1,057
Payroll	\$54,406,476	\$57,834,701
Assets and Liabilities as of	July 1, 2019	July 1, 2021
Market Value of Assets	\$16,703,500	\$22,666,720
Accrued Liability for Active Members	13,349,543	12,154,641
Accrued Liability for Members Receiving Benefits	<u>8,795,160</u>	<u>9,482,084</u>
Total Accrued Liability	22,144,703	21,636,725
Unfunded Accrued Liability	5,441,203	(1,029,995)
Funded Ratio	75.4%	104.8%
Actuarially Determined Contribution for Fiscal Year	2020-21	2022-23
Normal Cost	\$778,441	\$739,742
Past Service Cost	424,501	(79,072)
Interest	<u>81,199</u>	<u>42,944</u>
Actuarially Determined Contribution	1,284,141	703,614

Section II - Plan Assets

A. Summary of Fund Transactions

Market Value as of July 1, 2019	\$16,703,500
Town Contributions	1,350,537
Member Contributions	107,341
Net Investment Income	611,868
Benefit Payments	(1,040,537)
Administrative Expenses	(11,592)
Market Value as of June 30, 2020	17,721,117
Expected Return on Market Value of Assets, 2019-20	1,140,914
Market Value (Gain)/Loss, 2019-20	529,046
Approximate Rate of Return, 2019-20*	3.62%
Market Value as of July 1, 2020	\$17,721,117
Town Contributions	1,360,107
Member Contributions	152,927
Net Investment Income	4,657,455
Benefit Payments	(1,140,222)
Administrative Expenses	(84,664)
Market Value as of June 30, 2021	22,666,720
Expected Return on Market Value of Assets, 2020-21	1,183,569
Market Value (Gain)/Loss, 2020-21	(3,473,886)
Approximate Rate of Return, 2020-21*	26.07%

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

Section III - Development of Contribution

A. Summary of Liabilities

We have calculated the Accrued Liability separately for 4 groups, who are eligible for different OPEB benefits. We have broken the accrued liability into several pieces: benefits that are expected to be paid prior to age 65 (i.e. prior to Medicare) and after age 65 (i.e. after Medicare) to current active members and their covered dependents after retirement, and the same figures for members who have already retired and are currently receiving benefits. In all cases, the Accrued Liability only reflects benefits that are paid for by the Town, taking into account any implicit rate subsidies.

	BOE Non-Certified	BOE Certified	Town	Police	Total
Current active members					
Members Under Age 65	\$800,539	\$3,342,168	\$573,396	\$1,912,942	\$6,629,045
Members Over Age 65	413,482	702,920	2,319,565	24,449	3,460,416
Spouses/Dependents Under Age 65	259,750	1,080,123	177,019	1,313,766	2,830,658
Spouses/Dependents Over Age 65	<u>20,120</u>	<u>385,149</u>	<u>15,089</u>	<u>9,066</u>	<u>429,424</u>
Total	1,493,891	5,510,360	3,085,069	3,260,223	13,349,543
Current members receiving benefits					
Members Under Age 65	44,155	424,424	45,618	791,493	1,305,690
Members Over Age 65	702,369	2,625,395	3,256,487	8,590	6,592,841
Spouses/Dependents Under Age 65	0	3,119	0	411,792	414,911
Spouses/Dependents Over Age 65	<u>9,620</u>	<u>317,743</u>	<u>92,924</u>	<u>61,431</u>	<u>481,718</u>
Total	756,144	3,370,681	3,395,029	1,273,306	8,795,160
Total Accrued Liability	2,250,035	8,881,041	6,480,098	4,533,529	22,144,703

For purposes of determining the Town's contribution, the Accrued Liability is measured using the Projected Unit Credit actuarial cost method. A different actuarial cost method, Entry Age Normal, is required to be used to measure liability for financial reporting purposes per GASB 74/75.

Entry Age Normal Accrued Liability Sensitivity at July 1, 2021

	1% Decrease	Baseline	1% Increase
Discount Rate	25,067,403	22,453,144	20,221,011
Trend Rate	20,057,468	22,453,144	25,333,131

Section III - Development of Contribution

B. Actuarially Determined Contribution

The Actuarially Determined Contribution (ADC) for the OPEB program consists of three pieces: a **Normal Cost** (the cost of benefits earned each year should be accrued in that year) plus a **Past Service Cost** (a catch-up accrual to amortize the Unfunded Accrued Liability) plus **Interest** to reflect the timing lag between the valuation date and the fiscal year.

In determining the Past Service Cost, The Unfunded Accrued Liability is amortized as a level percent over a closed 17 year period starting on July 1, 2020. On this basis, the ADC is determined as follows:

	BOE Non-Certified	BOE Certified	Town	Police	Total
Accrued Liability	\$1,724,139	\$7,653,638	\$8,387,869	\$3,871,079	\$21,636,725
Market Value of Assets	1,983,487	8,289,424	8,108,401	4,285,408	22,666,720
Unfunded Accrued Liability	(259,348)	(635,786)	279,468	(414,329)	(1,029,995)
Funded Ratio	115.0%	108.3%	96.7%	110.7%	104.8%
Amortization Period	16	16	16	16	16
Amortization Growth Rate	3.50%	3.50%	3.50%	3.50%	3.50%
Past Service Cost	(19,910)	(48,809)	21,455	(31,808)	(79,072)
Normal Cost	55,290	254,807	331,855	241,809	883,761
Employee Contributions	0	0	133,080	10,939	144,019
Expenses	0	0	0	0	0
Employer Normal Cost	55,290	254,807	198,775	230,870	739,742
Interest	2,300	13,390	14,315	12,939	42,944
ADC for FY 2022-23	37,680	219,388	234,545	212,001	703,614
Expected Benefit Payments	(117,677)	(364,872)	(406,268)	(171,193)	(1,060,010)
Net Budget Impact	(79,997)	(145,484)	(171,723)	40,808	(356,396)

The ADC is assumed to be paid at the beginning of the Fiscal Year.

*Assets are allocated based on actual net cash flows. Net investment income is allocated based on the Market Value of Assets at the beginning of the year plus a half year of interest on net cash flows.

Section III - Development of Contribution

C. Long Range Forecast

This forecast is based on the results of the July 1, 2021 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. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets. 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.

Valuation Date	Values as of the Valuation Date				Fiscal Year	Cash Flows Projected to the Following Fiscal Year			
	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio		Town Contributions	Member Contributions	Benefit Payments	Net Cash Flows
7/1/2021	\$21,636,725	\$22,666,720	(\$1,029,995)	104.8%	2022-23	\$703,614	\$149,060	(\$1,059,979)	(\$207,305)
7/1/2022	23,001,000	24,860,000	(1,859,000)	108.1%	2023-24	866,000	154,000	(1,137,000)	(117,000)
7/1/2023	24,429,000	26,170,000	(1,741,000)	107.1%	2024-25	939,000	160,000	(1,276,000)	(177,000)
7/1/2024	25,949,000	27,655,000	(1,706,000)	106.6%	2025-26	1,017,000	165,000	(1,414,000)	(232,000)
7/1/2025	27,508,000	29,171,000	(1,663,000)	106.0%	2026-27	1,117,000	171,000	(1,516,000)	(228,000)
7/1/2026	29,131,000	30,726,000	(1,595,000)	105.5%	2027-28	1,222,000	177,000	(1,594,000)	(195,000)
7/1/2027	30,867,000	32,384,000	(1,517,000)	104.9%	2028-29	1,305,000	183,000	(1,728,000)	(240,000)
7/1/2028	32,725,000	34,181,000	(1,456,000)	104.4%	2029-30	1,407,000	190,000	(1,892,000)	(295,000)
7/1/2029	34,673,000	36,045,000	(1,372,000)	104.0%	2030-31	1,455,000	196,000	(1,990,000)	(339,000)
7/1/2030	36,635,000	37,969,000	(1,334,000)	103.6%	2031-32	1,565,000	203,000	(2,231,000)	(463,000)
7/1/2031	38,739,000	39,970,000	(1,231,000)	103.2%	2032-33	1,619,000	210,000	(2,471,000)	(642,000)
7/1/2032	40,792,000	41,969,000	(1,177,000)	102.9%	2033-34	1,700,000	218,000	(2,554,000)	(636,000)
7/1/2033	42,821,000	43,909,000	(1,088,000)	102.5%	2034-35	1,820,000	225,000	(2,612,000)	(567,000)
7/1/2034	45,023,000	45,978,000	(955,000)	102.1%	2035-36	1,923,000	233,000	(2,690,000)	(534,000)
7/1/2035	47,421,000	48,249,000	(828,000)	101.7%	2036-37	2,041,000	241,000	(2,934,000)	(652,000)
7/1/2036	50,020,000	50,698,000	(678,000)	101.4%	2037-38	2,166,000	250,000	(3,034,000)	(618,000)
7/1/2037	52,669,000	53,179,000	(510,000)	101.0%	2038-39	2,322,000	258,000	(3,311,000)	(731,000)
7/1/2038	55,554,000	55,853,000	(299,000)	100.5%	2039-40	2,449,000	268,000	(3,562,000)	(845,000)
7/1/2039	58,476,000	58,581,000	(105,000)	100.2%	2040-41	2,598,000	277,000	(3,815,000)	(940,000)
7/1/2040	61,489,000	61,362,000	127,000	99.8%	2041-42	2,872,000	287,000	(3,927,000)	(768,000)

Section III - Development of Contribution

D. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2009	\$1,747,000	\$17,565,000	\$15,818,000	9.9%
July 1, 2011	4,253,000	18,933,000	14,680,000	22.5%
July 1, 2012	5,018,000	19,989,000	14,971,000	25.1%
July 1, 2014	11,496,819	17,328,319	5,831,500	66.3%
July 1, 2015	12,285,779	18,371,550	6,085,771	66.9%
July 1, 2017	14,049,864	19,407,220	5,357,356	72.4%
July 1, 2019	16,703,500	22,144,703	5,441,203	75.4%
July 1, 2021	22,666,720	21,636,725	(1,029,995)	104.8%

Section III - Development of Contribution

E. History of Town Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Town Contribution	Contribution Deficiency (Excess)
2013-14	\$1,825,000	\$1,980,158	(\$155,158)
2014-15	1,880,000	4,880,000	(3,000,000)
2015-16	1,047,953	1,195,883	(147,930)
2016-17	1,073,307	1,073,307	0
2017-18	1,182,000	1,197,000	(15,000)
2018-19	1,093,300	1,157,219	(63,919)
2019-20	1,308,000	1,350,537	(42,537)
2020-21	1,284,141	1,360,107	(75,966)
2021-22	1,595,000	TBD	TBD
2022-23	703,614	TBD	TBD

Section IV - Membership Data

A. Statistics of Active Membership

		As of July 1, 2019	As of July 1, 2021
Number of Active Members	BOE Non-Certified	198	190
	BOE Certified	372	376
	Town	104	111
	Police	<u>38</u>	<u>36</u>
	Total	712	713
Average Age	BOE Non-Certified	54.2	54.5
	BOE Certified	45.9	45.5
	Town	47.5	48.4
	Police	<u>40.3</u>	<u>40.9</u>
	Total	48.2	48.1
Average Service	BOE Non-Certified	13.6	13.8
	BOE Certified	12.8	12.6
	Town	11.7	10.9
	Police	<u>10.9</u>	<u>10.9</u>
	Total	12.8	12.6

Section IV - Membership Data

B. Distribution of Active Members as of July 1, 2021

BOE Non-Certified

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	2							2
25-29	3	1						4
30-34	6	4						10
35-39	1	4	1					6
40-44	5	2		1	1			9
45-49	6	8	1	1	2			18
50-54	6	9	7	5	5			32
55-59	1	7	14	13	7	1	2	45
60-64	5	5	5	12	15	3	3	48
65+	1		1	5	3	4	2	16
Total	36	40	29	37	33	8	7	190

BOE Certified

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	3							3
25-29	23	7						30
30-34	17	17	1					35
35-39	16	14	12	2				44
40-44	9	19	15	20	4			67
45-49	5	14	13	13	11	1		57
50-54	6	12	9	12	15	9		63
55-59	1	5	8	13	14	3	5	49
60-64		3	1	9	5		3	21
65+		1	1	2	2	1		7
Total	80	92	60	71	51	14	8	376

Town

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	2							2
25-29	4	1						5
30-34	7	5						12
35-39	9	1	1	1				12
40-44	4	2						6
45-49	8	2	4	1	2			17
50-54	2	8	2	6	1	1	1	21
55-59	7	3	1	3	2		3	19
60-64	1		3	2	2		6	14
65+		1			2			3
Total	44	23	11	13	9	1	10	111

Section IV - Membership Data

B. Distribution of Active Members as of July 1, 2021

Police

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	1							1
25-29	3	2						5
30-34	2	2						4
35-39	1	3	3	2				9
40-44	1	2		1	1			5
45-49	1	1		1	2			5
50-54			1	3	2			6
55-59								0
60-64								0
65+					1			1
Total	9	10	4	7	6	0	0	36

Section IV - Membership Data

C. Information on Members Receiving Benefits

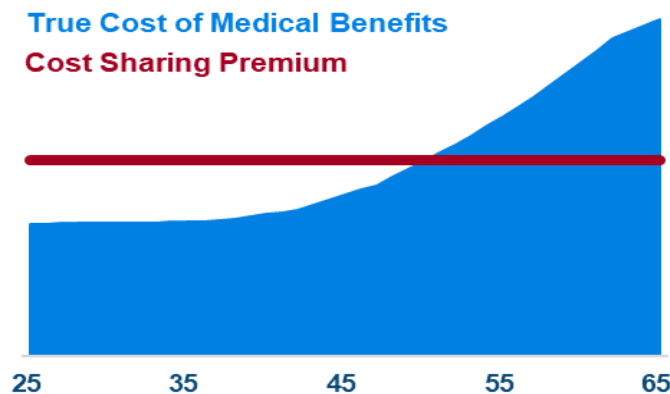
	As of July 1, 2019	As of July 1, 2021
Members Receiving Benefits		
Number		
BOE Non-Certified	99	106
BOE Certified	136	170
Town	56	62
Police	<u>9</u>	<u>6</u>
Total	300	344
Average Age		
BOE Non-Certified	79.1	76.3
BOE Certified	74.1	73.9
Town	73.3	74.6
Police	<u>60.0</u>	<u>59.7</u>
Total	75.2	74.5
Spouses/Dependents Receiving Benefits		
Number		
BOE Non-Certified	14	20
BOE Certified	40	18
Town	3	2
Police	<u>8</u>	<u>4</u>
Total	65	44
Average Age		
BOE Non-Certified	76.8	75.9
BOE Certified	69.4	69.0
Town	77.2	59.9
Police	<u>65.3</u>	<u>60.8</u>
Total	70.9	71.0

Section V - Healthcare Information

A. Introduction

In many cases, the cost sharing premium is lower than the true cost of providing the medical benefits, for two reasons:

- The cost sharing premium is usually a fixed amount such as a COBRA premium that does not take into account the age of the retiree and his/her dependents. Since medical costs generally increase with age, the cost sharing premium is often lower than the true cost of the medical benefits:



- The cost sharing premium is usually a blended rate that takes into account the cost of medical benefits for active employees as well as retirees. Medical costs are generally higher for retirees than for active employees of the same age. This means that, again, the cost sharing premium is often lower than the true cost of the medical benefits.

Because of these two factors, a retiree who is paying 100% of the cost sharing premium is most likely not paying 100% of the true cost of the medical benefits. This situation is known as an "implicit rate subsidy." GASB 74 and 75 require the plan sponsor to measure the liability for this subsidy; that is, the difference between the true cost of the medical benefits and the cost sharing premiums paid by the retiree. To do this, our valuation consists of several steps:

First, we calculate the liability for the true cost of medical benefits expected to be received by retirees and their dependents. This liability is based on factors developed by Milliman's health actuaries that reflect how the cost of medical benefits varies by age and gender, as well as the other assumptions discussed in this report. We term this amount the "gross liability."

Next, we calculate the liability for the future premiums expected to be paid by the retiree for their own and their dependents' coverage. This liability is based on the current premium rates without adjustment for age or gender. It also is based on the terms of the Other Post-Employment Benefits Plan – different retirees pay different percentages based on their union, date of retirement, age at retirement, and other factors. We term this amount the "offset liability."

Finally, the net liability for the Town is calculated as the difference between the gross liability and the offset liability.

Section V - Healthcare Information

B. Current Premiums

The annual medical premiums are shown below.

Pre-65 Medical Plan	Employee	Spouse	Effective Date
Town (Future Retirees)	\$10,054.36	\$10,052.88	7/1/2021
BOE (Future Retirees)	9,475.37	9,471.72	7/1/2021
Town (Current Retirees)	10,835.99	10,832.78	7/1/2021
BOE (Current Retirees)	10,359.93	10,348.37	7/1/2021
Post-65 Medical Plan			
Town	6,656.28	6,656.28	7/1/2021
BOE (Medicare Eligible)	5,975.52	5,975.52	7/1/2021
BOE (Non-Medicare Eligible)	9,475.37	9,471.72	7/1/2021
Dental			
Town	509.04	550.92	7/1/2021
BOE	562.92	613.20	7/1/2021

The premium rates (shown above) and claim amounts (displayed on the following pages) are a blend of the existing medical plans based on actual plan enrollment.

Section V - Healthcare Information

C. Expected Healthcare Costs

Milliman's Health Cost Guidelines were used to develop the expected true cost of healthcare benefits by age and gender, separately for employees and spouses. Representative healthcare cost factors were developed with the July 1, 2019 actuarial valuation and are shown in the table below. These factors were then applied to the plan's healthcare rates for the year beginning July 1, 2021 to arrive at the expected annual per capita claims costs for a 65-year-old, which are also shown below.

Board of Education Future Retirees

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.60860	0.92610	0.46370	0.58210
50	0.66610	0.86180	0.54760	0.65620
55	0.72450	0.81170	0.63560	0.73310
60	0.83000	0.86770	0.76280	0.81550
65	1.00000	1.00000	1.00000	1.00000
70	1.00760	1.01510	1.00760	1.01510
75	1.04190	1.03230	1.04190	1.03230
80	1.08490	1.05290	1.08490	1.05290
85	1.12740	1.08690	1.12740	1.08690
90	1.16550	1.12150	1.16550	1.12150

Age 65 per capita claims cost

Pre-65	\$21,102.98	\$20,086.68	\$17,910.87	\$17,439.71
Post-65	5,913.89	5,708.49	5,913.89	5,708.49

Board of Education Medicare Eligible Current Retirees

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.60860	0.92610	0.46370	0.58210
50	0.66610	0.86180	0.54760	0.65620
55	0.72450	0.81170	0.63560	0.73310
60	0.83000	0.86770	0.76280	0.81550
65	1.00000	1.00000	1.00000	1.00000
70	1.00760	1.01510	1.00760	1.01510
75	1.04190	1.03230	1.04190	1.03230
80	1.08490	1.05290	1.08490	1.05290
85	1.12740	1.08690	1.12740	1.08690
90	1.16550	1.12150	1.16550	1.12150

Age 65 per capita claims cost

Pre-65	\$23,018.45	\$21,909.91	\$19,528.85	\$19,015.13
Post-65	5,913.89	5,708.49	5,913.89	5,708.49

Section V - Healthcare Information

C. Expected Healthcare Costs (Continued)

Board of Education Non-Medicare Eligible Current Retirees

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.60860	0.92610	0.46370	0.58210
50	0.66610	0.86180	0.54760	0.65620
55	0.72450	0.81170	0.63560	0.73310
60	0.83000	0.86770	0.76280	0.81550
65	1.00000	1.00000	1.00000	1.00000
70	1.21300	1.17900	1.36370	1.30420
75	1.43740	1.36620	1.69360	1.57350
80	1.63970	1.53510	1.93200	1.76810
85	1.84870	1.71750	2.17820	1.97810
90	2.03840	1.88730	2.40170	2.17380
Age 65 per capita claims cost	\$23,018.45	\$21,909.91	\$19,528.85	\$19,015.13

Town Future Retirees

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.60860	0.92610	0.46370	0.58210
50	0.66610	0.86180	0.54760	0.65620
55	0.72450	0.81170	0.63560	0.73310
60	0.83000	0.86770	0.76280	0.81550
65	1.00000	1.00000	1.00000	1.00000
70	1.21300	1.17900	1.36370	1.30420
75	1.43740	1.36620	1.69360	1.57350
80	1.63970	1.53510	1.93200	1.76810
85	1.84870	1.71750	2.17820	1.97810
90	2.03840	1.88730	2.40170	2.17380
Age 65 per capita claims cost				
Pre-65	\$22,443.04	\$21,362.22	\$19,048.23	\$18,547.15
Post-65	6,531.02	6,304.19	6,531.02	6,304.19

Section V - Healthcare Information

C. Expected Healthcare Costs (Continued)

Town Current Retirees

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.60860	0.92610	0.46370	0.58210
50	0.66610	0.86180	0.54760	0.65620
55	0.72450	0.81170	0.63560	0.73310
60	0.83000	0.86770	0.76280	0.81550
65	1.00000	1.00000	1.00000	1.00000
70	1.21300	1.17900	1.36370	1.30420
75	1.43740	1.36620	1.69360	1.57350
80	1.63970	1.53510	1.93200	1.76810
85	1.84870	1.71750	2.17820	1.97810
90	2.03840	1.88730	2.40170	2.17380
Age 65 per capita claims cost				
Pre-65	\$24,147.28	\$22,984.37	\$20,496.72	\$19,957.55
Post-65	6,531.02	6,304.19	6,531.02	6,304.19

Section V - Healthcare Information

D. Expected Dental Costs

BOE and Town Retirees

Age	Employee		Spouse	
	Male	Female	Male	Female
45	0.63680	0.74960	0.63680	0.74960
50	0.69790	0.80740	0.69790	0.80740
55	0.79510	0.88340	0.79510	0.88340
60	0.90270	0.97070	0.90270	0.97070
65	1.00000	1.00000	1.00000	1.00000
70	1.07940	1.02060	1.07940	1.02060
75	1.07940	1.02060	1.07940	1.02060
80	1.07940	1.02060	1.07940	1.02060
85	1.07940	1.02060	1.07940	1.02060
90	1.07940	1.02060	1.07940	1.02060

Age 65 per capita claims cost

BOE	\$682.08	\$666.58	\$697.06	\$681.22
Town	617.40	603.35	630.86	616.50

Appendix A - Actuarial Funding Method

The actuarial funding method used in the valuation of this Plan is known as the Projected Unit Credit 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 timing of the contribution relative to the valuation date.

Under this cost method a projected retirement benefit at assumed retirement age is computed for each member. The Normal Cost for each member is computed as the present value of the pro-rata portion of the member's projected benefit which is accrued or earned during the plan year being valued. The normal cost of the plan is the total of the individually computed normal costs for all members. The Accrued Liability at any point in time for an active member is the present value of that portion of the projected benefit which has been accrued up to the valuation date. For members receiving benefits or entitled to a deferred benefit, the accrued liability is equal to the present value of their future benefit payments. The accrued liability for the plan is the total of individually computed accrued liability amounts for all members.

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. The Unfunded Accrued Liability is amortized as a level percent over a closed 17 year period starting on July 1, 2020.

The Actuarial Value of Assets is equal to the Market Value of Assets.

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. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

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 6.50% (prior: 6.625%)

Inflation 2.75%

Amortization Growth Rate 3.50%

Salary Scale **Teachers, Administrators and Central Office Administrators[#]:**

Service	Rate
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%

All Others: 3.50%

Prior: 8.25% for first 7 years and 3.00% thereafter for Police, 3.50% for all others.

Actuarial Assumptions

Medical Trend

The medical trend assumption used in this valuation is based on long-term healthcare trend rates generated by the Society of Actuaries' Getzen Trend Model and was developed with the July 1, 2019 actuarial valuation. Inputs to the model are consistent with other assumptions used in the valuation.

The medical trend assumption includes the estimated impact of the Further Consolidated Appropriations Act, 2020, which became law on December 20, 2019. This law repeals the Cadillac Tax completely and removes the Health Insurer Fee permanently beginning in 2021.

Year Beginning	Pre-65	Year Beginning	Post-65
2021 to 2022	5.20%	2021 to 2035	5.00%
2022 to 2037	5.00%	2035 to 2044	5.10%
2037 to 2046	5.10%	2044 to 2050	5.20%
2046 to 2050	5.20%	2050 to 2053	5.10%
2050 to 2052	5.10%	2053 to 2063	5.00%
2052 to 2062	5.00%	2063 to 2065	4.90%
2062 to 2065	4.90%	2065 to 2067	4.80%
2065 to 2066	4.80%	2067 to 2068	4.70%
2066 to 2068	4.70%	2068 to 2069	4.60%
2068 to 2069	4.60%	2069 to 2071	4.50%
2069 to 2071	4.50%	2071 to 2072	4.40%
2071 to 2072	4.40%	2072 to -	4.30%
2072 to 2074	4.30%		
2074 to 2081	4.20%		
2081 to -	4.30%		

Dental Trend

3.00%

Healthy Mortality

Teachers, Administrators and Central Office Administrators[#]: PubT-2010 Mortality Table for Employees and Healthy Annuitants (adjusted 105% for males and 103% for females at ages 82 and above) with generational projection of future improvements per the MP-2021 Ultimate scale. The PubT-2010 Contingent Survivor Table projected generationally per the MP-2021 Ultimate scale and set forward 1 year for both males and females is used for survivors and beneficiaries. This assumption includes a margin for improvements in longevity beyond the valuation date.

Prior: RP-2000 Combined Healthy Mortality Table for males and females projected forward 19 years using Scale AA, with a two-year age setback.

Actuarial Assumptions

Healthy Mortality

All Others: Pub-2010 Mortality Table with generational projection per the MP-2021 ultimate scale, with employee rates before commencement and healthy and contingent annuitant rates after benefit commencement. The Public Safety variant is used for the Police. This assumption includes a margin for future improvements in longevity.

Prior: RP-2000 Healthy Mortality Table for males and females with generational projection per Scale AA, with separate tables for active employees and annuitants.

Disabled Mortality

Teachers, Administrators and Central Office Administrators[#]: PubT-2010 Disabled Mortality Table for males and females with generational projection of future improvements per the MP-2021 Ultimate scale. This assumption includes a margin for mortality improvement beyond the valuation date.

Prior: RP-2000 Combined Healthy Mortality Table for males and females projected forward 19 years using Scale AA, with an eight-year age set forward.

BOE Non-Certified: Pub-2010 Mortality Table for disabled retirees with generational projection per the MP-2021 ultimate scale. This assumption includes a margin for mortality improvement beyond the valuation date.

Appendix B - Actuarial Assumptions

Turnover

Teachers, Administrators and Central Office Administrators[#] :
rates based on gender and length of service for the first nine years and gender and age thereafter:

Service	Male	Female
0	15.00%	12.00%
1	11.00%	11.00%
2	8.50%	9.50%
3	7.00%	8.00%
4	5.50%	7.50%
5	4.50%	7.00%
6	4.00%	6.50%
7	3.50%	6.00%
8	3.50%	5.50%
9	3.50%	5.00%

Age	Male	Female
25	1.80%	6.00%
35	1.80%	4.25%
45	1.80%	2.00%
55	4.00%	3.90%

Prior:	Service	Male	Female
	0-1	14.00%	12.00%
	1-2	11.00%	10.50%
	2-3	8.00%	8.75%
	3-4	6.50%	7.50%
	4-5	4.50%	6.75%
	5-6	3.50%	6.00%
	6-7	3.00%	5.25%
	7-8	2.75%	4.75%
	8-9	2.50%	4.25%
	10+	2.50%	4.00%

Age	Male	Female
25	1.50%	4.00%
35	1.50%	3.50%
45	1.59%	1.50%
55	3.44%	2.50%

Appendix B - Actuarial Assumptions

Turnover

Police: 5% per year for the first ten years of service and 0% thereafter

Prior: None

Town: Rates based on length of service:

Service	Rate
0-4	10.00%
5-8	7.00%
9-11	3.00%
>11	2.50%

Prior:

Service	Rate
0-4	4.25%
5-8	3.25%
9-11	3.00%
>11	2.50%

BOE Non-Certified: Rates based on age:

Age	Rate
<30	14.00%
30-34	11.50%
35-39	7.00%
40-44	5.50%
45-49	4.00%
50-54	2.50%
55+	0.00%

Prior:

Age	Rate
<30	14.00%
30-34	11.50%
35-39	7.00%
40+	4.00%

Appendix B - Actuarial Assumptions

Retirement

Teachers, Administrators and Central Office Administrators[#]: Rates based on age, eligibility for pension benefits, and gender:

Age	Unreduced < 35 years of service		35+ years of service	
	Male	Female	Male	Female
50-59			35.00%	30.00%
60	20.00%	20.00%	30.00%	30.00%
61	20.00%	20.00%	30.00%	30.00%
62	22.50%	20.00%	30.00%	30.00%
63	22.50%	20.00%	30.00%	30.00%
64	25.00%	25.00%	30.00%	30.00%
65	27.50%	32.50%	35.00%	37.50%
66	27.50%	30.00%	35.00%	37.50%
67-74	27.50%	30.00%	30.00%	32.50%
75	100.00%	100.00%	100.00%	100.00%

Age	Proratable		Reduced	
	Male	Female	Male	Female
50-52			1.50%	1.25%
53			1.50%	1.75%
54			2.00%	2.25%
55			3.00%	3.00%
56			4.00%	3.75%
57			5.00%	4.50%
58			6.50%	5.50%
59			8.00%	7.00%
60	6.00%	5.00%		
61	6.00%	6.00%		
62	6.00%	7.00%		
63	9.00%	8.00%		
64	12.00%	9.00%		
65	15.00%	12.00%		
66-68	18.00%	15.00%		
69-79	28.50%	15.00%		
80	100.00%	100.00%		

Appendix B - Actuarial Assumptions

Retirement

Teachers, Administrators and Central Office Administrators[#]: Rates based on age, eligibility for pension benefits, and gender:

Prior:

Age	Unreduced		Proratable		Reduced	
	Male	Female	Male	Female	Male	Female
50	27.50%	27.50%			1.00%	1.00%
51	27.50%	27.50%			1.00%	1.25%
52	27.50%	27.50%			1.00%	1.75%
53	27.50%	27.50%			2.00%	2.25%
54	27.50%	27.50%			3.00%	2.75%
55	38.50%	27.50%			4.00%	4.75%
56	38.50%	27.50%			6.00%	6.25%
57	38.50%	27.50%			7.00%	6.75%
58	38.50%	27.50%			8.00%	7.25%
59	38.50%	27.50%			11.00%	8.50%
60	22.00%	27.50%	6.00%	5.50%		
61	25.30%	27.50%	6.00%	6.50%		
62	25.30%	27.50%	9.00%	7.50%		
63	27.50%	27.50%	11.00%	7.50%		
64	27.50%	27.50%	10.00%	8.00%		
65	36.30%	32.50%	13.00%	12.50%		
66-67	27.50%	32.50%	20.00%	12.50%		
68	27.50%	32.50%	20.00%	12.00%		
69	27.50%	32.50%	30.00%	14.50%		
70-73	100.00%	32.50%	30.00%	14.50%		
74-79	100.00%	32.50%	30.00%	18.00%		
80	100.00%	100.00%	100.00%	100.00%		

Police: 20% per year starting at Normal Retirement Date; 100% at age 62.

Town: Rates based on age:

Age	Rate
55-61	5.0%
62-66	25.0%
67-69	40.0%
70	100.0%

Appendix B - Actuarial Assumptions

Retirement

Town: Rates based on age:

Prior:

Age	Rate
55-61	2.5%
62	20.0%
63	8.0%
64	15.0%
65	25.0%
66-69	40.0%
70	100.0%

Disability

Teachers, Administrators and Central Office Administrators[#]: Rates based on age and gender:

Age	Male	Female
20	0.02%	0.02%
30	0.02%	0.02%
40	0.03%	0.06%
50	0.15%	0.15%
60	0.15%	0.15%

Prior:

Age	Male	Female
20	0.0341%	0.0500%
30	0.0341%	0.0410%
40	0.0536%	0.0720%
50	0.2438%	0.2630%
60	0.9604%	0.5000%

Police: None.

Town: None.

BOE Non-Certified: The 1952 Disability Study of the Society of Actuaries, Period 4, Benefit Rates.

Appendix B - Actuarial Assumptions

Future Retiree Coverage 85% of **Teachers, Administrators** and **Central Office Administrators**, 90% of **Police**, 80% of **Town**, and 50% of **BOE Non-Certified** active members are assumed to elect coverage at retirement.

Future Dependent Coverage We received data on the covered spouses of retired members. For active members, we assumed that female spouses are three years younger than their male spouses and used the following assumptions regarding the percentage assumed to have covered spouses at retirement:

	Male	Female
Teachers, Administrators and Central Office Administrators	85%	60%
Police	75%	75%
Town	50%	30%
BOE Non-Certified	90%	60%

Future Post-65 Coverage **Teachers** and **Administrators**: 50% of current actives and pre-65 retirees are assumed either to enroll in retiree health coverage through the Connecticut State Teachers' Retirement System at age 65, or transfer to a Medicare Supplement Plan. 100% of current actives and pre-65 retirees are assumed to be Medicare-eligible (Prior: 98%).

All Others: All current actives and pre-65 retirees are assumed to continue coverage past age 65 (if available).

Valuation of Post-65 Medicare Eligible Medical Benefits It is assumed that there is no implicit rate subsidy associated with post-65 medical benefits for Medicare eligible retired members and their spouses who are paying 100% of the premium.

Certain actuarial demographic assumptions for **Teachers, Administrators** and **Central Office Administrators** are based on the assumptions used in the June 30, 2020 valuation of the Connecticut State Teachers' Retirement System.

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.

Town

General Government Employees (Public Works, CSEA, Town Unaffiliated)

Medical Eligibility – Retire from Town service and be eligible for a pension (age 55 with 5 years of service). Retiree must have 10 years of service to be eligible for OPEB.

Medical Benefit – Town pays 100% of the premium for medical coverage for retiree for ages 62 through 65 and 75% of the premium thereafter. Retiree can obtain coverage prior to age 62 and for dependents by paying the COBRA premium.

Dispatchers

Medical Eligibility – Retire from Town service and be eligible for a pension (age 55 with 5 years of service). Retiree must have 10 years of service to be eligible for OPEB (5 years if hired prior to October 19, 2020).

Medical Benefit – Town pays 95% of the premium for medical coverage for retiree for ages 62 through 65 and 60% (75% if hired prior to July 1, 2009) of the premium thereafter. Retiree can obtain coverage prior to age 62 and for dependents by paying the COBRA premium.

Police

Medical Eligibility – Retire from Town service and be eligible for a pension (age 53 or 25 years service).

Medical Benefit – Town pays 80% of the HMO/PPO premium or 85% of the HDHP premium for medical coverage for retiree and spouse until age 65. Retired employees and dependents can obtain coverage after age 65 by paying the COBRA premium.

Appendix C - Summary of Plan Provisions

BOE Certified

Teachers (SEA)

Medical Eligibility and Medical Benefit – The Board of Education will pay the following amounts for up to 7 years but not past age 65:

- \$600 per year with 15 years of service.
- \$800 per year with 20 years of service.
- \$900 per year with 30 years of service.

Life Insurance Eligibility – 25 years of service.

Life Insurance Benefit – \$7,500.

Administrators (SSASA)

Medical Eligibility – Age 60 with 12 years of service if hired prior to July 1, 1995; age 60 with 15 years of service if hired after July 1, 1995.

Medical Benefit – Board of Education pays a fixed amount of \$800 per year for an individual or \$1,500 per year for family towards medical coverage as long as coverage is uninterrupted.

Life Insurance Eligibility – Age 60 with 12 years of service if hired prior to July 1, 1995; age 60 with 15 years of service if hired after July 1, 1995.

Life Insurance Benefit – \$50,000 until age 70.

Central Office Administrators

Medical Eligibility – Retire with 10 years of service.

Medical Benefit – Board of Education pays the full cost for family medical coverage less the Connecticut Teachers' Retirement Board subsidy up to age 65. After age 65 the Board pays the full cost of the Medicare Supplemental Plan offered by the Board or the Connecticut Teachers' Retirement Board for retiree and spouse less the Connecticut Teachers' Retirement Board subsidy.

Life Insurance Eligibility – Retire with 15 years of service.

Life Insurance Benefit – \$50,000 - 100% paid by Board of Education. For Superintendent, face amount equal to 3 times annual base salary, up to a maximum of \$600,000 - Board of Education shall pay no more than \$3,000 per year in premiums.

Appendix C - Summary of Plan Provisions

BOE Non-Certified

Unaffiliated

Medical Eligibility – Retire from Town service and be eligible for a pension (age 62 with 10 years service).

Medical Benefit – Board of Education pays a fixed amount of \$1,400 per year towards medical coverage for life of retiree or full cost of individual insurance premium from ages 62 to 65.

Life Insurance Eligibility – Age 65 with 10 years of service.

Life Insurance Benefit – \$15,000.

Custodians (NAGE), Paraprofessionals & Clerical (SFEP)

Medical Eligibility – Retire from Town service and be eligible for a pension (age 62 with 10 years service).

Medical Benefit – Board of Education pays a fixed amount of \$600 per year towards medical coverage for life of retiree.

Life Insurance Eligibility – Age 62 with 29 years of service.

Life Insurance Benefit – \$5,000 (\$7,500 for Custodians).

Nurses (SSNA)

Medical Eligibility – Retire from Town service and be eligible for a pension (age 62 with 10 years service if hired before July 1, 1994; age 62 with 12 years of service if hired after July 1, 1994).

Medical Benefit – Board of Education pays a fixed amount of \$800 per year towards medical coverage for life of retiree.

Life Insurance Eligibility – Age 55 with 10 years of service.

Life Insurance Benefit – \$5,000.

Cafeteria

Retired employee can elect coverage for self and dependents at their own expense.

Dental Benefit

Retiree pays 100% of the premium for self and dependents.

Appendix C - Summary of Plan Provisions

Employee Police Contributions

Employees hired on or after January 1, 2019 shall contribute 2.0% of base salary per year for a period of 10 years to the Town's OPEB Trust.

Employees hired before January 1, 2019 shall contribute 1.5% of base salary for a period of 5 years to the OPEB Trust.

Town CSEA and Dispatchers

Employees hired on or after July 1, 2013 (for Dispatchers, on or after July 1, 2011) shall contribute 2% of earnings per year for a period of 10 years to the Town's OPEB Trust.

Employees hired on or before June 30, 2013 (for Dispatchers, before July 1, 2011) shall contribute the following percentage of base salary for a period of 10 years to the OPEB Trust beginning July 1, 2013 according to the following schedule:

- o Effective July 1, 2015: 1.5%
- o Effective July 1, 2016 and thereafter: 2%

Public Works

Employees hired on or after July 1, 2012 shall contribute 1.5% of earnings per year for a period of 10 years to the Town's OPEB Trust.

Employees hired before July 1, 2012 shall contribute the following percentage of base salary for a period of 10 years to the OPEB Trust beginning September 1, 2014 according to the following schedule:

- o Effective September 1, 2014: 0.5%
- o Effective January 1, 2016: 1.0%
- o Effective June 30, 2016 and thereafter: 1.5%

Town Unaffiliated

Employees hired after August 12, 2013 shall contribute 2% of earnings per year for a period of 10 years to the Town's OPEB Trust.

Employees before August 12, 2013 shall contribute a percentage of base salary for a period of 10 years to the OPEB Trust (1.5% effective July 1, 2015).

An employee with 5 or more years of service with the Town is entitled to 100% refund of employee's actual contributions if they do not elect retiree health coverage or they are not entitled to retiree health coverage for any other reason.

Appendix C - Summary of Plan Provisions

Employee Contributions **Town Supervisors, Secretarial, Clerical and Library**

Employees shall contribute 2.0% of base salary per year for a period of 10 years to the Town's OPEB Trust.

An employee with 5 or more years of service with the Town is entitled to 100% refund of employee's actual contributions if they do not elect retiree health coverage or they are not entitled to retiree health coverage for any other reason.

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.



TOWN OF SIMSBURY POLICE RETIREMENT INCOME PLAN

GASB 67 and 68 DISCLOSURE

Fiscal Year: July 1, 2021 to June 30, 2022

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

Actuarial computations presented in this report under Statements No. 67 and 68 of the Governmental Accounting Standards Board are for purposes of assisting the Town in fulfilling its financial accounting requirements. No attempt is being made to offer any accounting opinion or advice. This report is for fiscal year July 1, 2021 to June 30, 2022. The reporting date for determining plan assets and obligations is June 30, 2022. The calculations enclosed in this report have been made on a basis consistent with our understanding of the plan provisions. Determinations for purposes other than meeting financial reporting requirements may be significantly different than the results contained in this report. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security or meeting employer funding requirements.

In preparing this report, we relied, without audit, on information as of July 1, 2021 and June 30, 2022 furnished by the Town. This information includes, but is not limited to, statutory provisions, member census data, and financial information. Please see Milliman's funding valuation report dated October 10, 2022 for more information on the plan's participant group as of July 1, 2021 as well as a summary of the plan provisions and a summary of the actuarial methods and assumptions used for funding purposes.

We performed a limited review of the census and financial information used directly in our analysis and have found them 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.

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Each of the assumptions used in this valuation with the exception of those set by law 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.

This valuation report 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.

Certification

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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurements.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. 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 models, including all input, calculations, and output may not be appropriate for any other purpose.

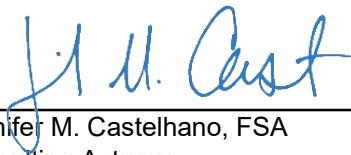
Milliman's work is prepared solely for the internal use and benefit of the Town of Simsbury. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does 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 Plan Sponsor may provide a copy of Milliman's work, in its entirety, to the Plan Sponsor'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 Plan Sponsor 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 specific needs.

The consultants who worked on this assignment are pension 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 has been prepared in accordance with generally recognized accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Overview of GASB 67 and GASB 68

The Governmental Accounting Standards Board (GASB) released accounting standards for public pension plans and participating employers in 2012. These standards, GASB Statements No. 67 and 68, have substantially revised the accounting requirements previously mandated under GASB Statements No. 25 and 27. The most notable change is the distinct separation of funding from financial reporting. The Annual Required Contribution (ARC) has been eliminated under GASB 67 and 68 and is no longer relevant for financial reporting purposes. As a result, plan sponsors have been encouraged to establish a formal funding policy that is separate from financial reporting calculations.

GASB 67 applies to financial reporting for public pension plans and is required to be implemented for plan fiscal years beginning after June 15, 2013. Note that a plan's fiscal year might not be the same as the employer's fiscal year. Even if the plan does not issue standalone financial statements, but rather is considered a pension trust fund of a government, it is subject to GASB 67. Under GASB 67, enhancements to the financial statement disclosures are required, along with certain required supplementary information.

GASB 68 governs the specifics of accounting for public pension plan obligations for participating employers and is required to be implemented for employer fiscal years beginning after June 15, 2014. GASB 68 requires a liability for pension obligations, known as the Net Pension Liability, to be recognized on the balance sheets of participating employers. Changes in the Net Pension Liability will be immediately recognized as Pension Expense on the income statement or reported as deferred inflows/outflows of resources depending on the nature of the change.

Executive Summary

Relationship Between Valuation Date, Measurement Date, and Reporting Date

The Valuation Date is July 1, 2021. This is the date as of which the actuarial valuation is performed. The Measurement Date is June 30, 2022. This is the date as of which the net pension liability is determined. The Reporting Date is June 30, 2022. This is the plan's and/or employer's fiscal year ending date.

Significant Changes

Given the substantial uncertainty regarding the impact of COVID-19 on plan costs, including whether the pandemic will increase or decrease costs during the term of our projections, we have chosen not to make an adjustment in the expected plan costs. It is possible that the COVID-19 pandemic could have a material impact on the projected costs.

Participant Data as of July 1, 2021

Actives	36
Terminated vested & other inactive	3
Retirees and beneficiaries	<u>35</u>
Total	74

Schedule of Employer Contributions

Fiscal Year Ending June 30	Actuarially Determined Contribution	Actual Employer Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contribution as a % of Covered Payroll
2013	\$465,641	\$508,111	(\$42,470)	\$2,362,484	21.51%
2014	562,233	562,233	0	2,772,281	20.28%
2015	632,679	633,000	(321)	2,866,183	22.09%
2016	631,023	727,009	(95,986)	2,918,053	24.91%
2017	677,434	677,434	0	3,143,684	21.55%
2018	600,240	600,240	0	3,400,310	17.65%
2019	586,956	586,956	0	3,400,678	17.26%
2020	651,976	651,976	0	3,589,830	18.16%
2021	809,664	809,664	0	3,932,170	20.59%
2022	857,435	857,435	0	3,834,513	22.36%

Actuarial Methods and Assumptions Used for Funding Policy

The following actuarial methods and assumptions were used in the July 1, 2021 funding valuation. Please see the valuation report dated October 10, 2022 for further details.

Valuation Timing	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which the contributions are reported.
Actuarial Cost Method	Entry Age Normal
Amortization Method	
Level percent or level dollar	Level percent
Closed, open, or layered periods	Closed
Amortization period at 07/01/2021	16 years
Amortization growth rate	3.50%
Asset Valuation Method	
Smoothing period	5 years
Recognition method	Non-asymptotic
Corridor	None
Inflation	2.75%
Salary Increases	8.25% for first 7 years and 3.00% thereafter
Investment Rate of Return	6.50%
Cost of Living Adjustments	None
Retirement Age	20% per year starting at Normal Retirement Date; 100% at age 62
Turnover	None
Mortality	PubS-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale

Money-Weighted Rate of Return

Fiscal Year Ending June 30	Net Money-Weighted Rate of Return
2013	N/A
2014	14.30%
2015	1.98%
2016	-0.08%
2017	12.00%
2018	6.34%
2019	5.88%
2020	3.07%
2021	24.19%
2022	-11.64%

Calculation of Money-Weighted Rate of Return

The money-weighted rate of return considers the changing amounts actually invested during a period and weights the amount of pension plan investments by the proportion of time they are available to earn a return during that period. External cash flows are determined on a monthly basis and are assumed to occur at the beginning of each month. External cash inflows are netted with external cash outflows, resulting in a net external cash flow in each month. The money-weighted rate of return is calculated net of investment expenses.

	Net External Cash Flows	Periods Invested	Period Weight	Net External Cash Flows With Interest
Beginning Value - July 1, 2021	\$22,259,297	12.00	1.00	\$19,668,095
Monthly net external cash flows:				
July	(101,160)	12.00	1.00	(89,384)
August	(73,385)	11.00	0.92	(65,487)
September	(66,065)	10.00	0.83	(59,616)
October	758,198	9.00	0.75	690,988
November	(77,674)	8.00	0.67	(71,493)
December	(78,069)	7.00	0.58	(72,661)
January	(72,654)	6.00	0.50	(68,294)
February	(78,401)	5.00	0.42	(74,430)
March	(58,158)	4.00	0.33	(55,831)
April	(98,913)	3.00	0.25	(95,899)
May	(73,361)	2.00	0.17	(71,834)
June	(57,986)	1.00	0.08	(57,415)
Ending Value - June 30, 2022	19,576,739			19,576,739
Money-Weighted Rate of Return	-11.64%			

Long-Term Expected Rate of Return

The assumption for the long-term expected rate of return is determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation. The capital market assumptions are per Milliman as of June 30, 2021.

Asset Class	Index	Target Allocation*	Long-Term Expected Arithmetic Real Rate of Return	Long-Term Expected Geometric Real Rate of Return
US Core Fixed Income	Bloomberg Barclays Aggregate	32.50%	1.37%	1.26%
US Inflation-Indexed Bonds	BBgBarc US Treasury US TIPS	1.75%	0.61%	0.50%
US Large Cap Equity	S&P 500	21.50%	5.15%	3.65%
US Small Cap Equity	Russell 2000	10.00%	6.58%	3.89%
Non-US Equity	MSCI ACWI Ex USA	16.00%	6.74%	4.90%
Emerging Markets Equity	MSCI EM	11.50%	8.64%	4.95%
Private Real Estate	NCREIF Property	5.00%	4.62%	3.58%
Commodities	Bloomberg Commodity	1.75%	1.93%	0.59%
Assumed Inflation - Mean			2.75%	2.75%
Assumed Inflation - Standard Deviation			1.16%	1.16%
Portfolio Real Mean Return			4.56%	3.85%
Portfolio Nominal Mean Return			7.31%	6.70%
Portfolio Standard Deviation				11.49%
Long-Term Expected Rate of Return				6.50%

* As outlined in the Plan's investment policy dated September 15, 2020

Depletion Date Projection

GASB 67 and 68 generally require that a blended discount rate be used to measure the Total Pension Liability (the Actuarial Accrued Liability calculated using the Individual Entry Age Normal Cost Method). The long-term expected return on plan investments may be used to discount liabilities to the extent that the plan's Fiduciary Net Position (fair market value of assets) is projected to cover benefit payments and administrative expenses. A 20-year high quality (AA/Aa or higher) municipal bond rate must be used for periods where the Fiduciary Net Position is not projected to cover benefit payments and administrative expenses. Determining the discount rate under GASB 67 and 68 will often require that the actuary perform complex projections of future benefit payments and asset values. GASB 67 and 68 (paragraph 29) do allow for alternative evaluations of projected solvency, if such evaluation can reliably be made. GASB does not contemplate a specific method for making an alternative evaluation of sufficiency; it is left to professional judgment.

The following circumstances justify an alternative evaluation of sufficiency for the Town of Simsbury:

- The Town of Simsbury has at least a 5-year history of paying at least 100% of the Actuarially Determined Contribution.
- The Actuarially Determined Contribution is based on a closed amortization period, which means that payment of the Actuarially Determined Contribution each year will bring the plan to a 100% funded position by the end of the amortization period.
- GASB 67 and 68 specify that the projections regarding future solvency assume that plan assets earn the assumed rate of return and there are no future changes in the plan provisions or actuarial methods and assumptions, which means that the projections would not reflect any adverse future experience which might impact the plan's funded position.

Based on these circumstances, it is our professional opinion that the detailed depletion date projections outlined in GASB 67 and 68 will show that the Fiduciary Net Position is always projected to be sufficient to cover benefit payments and administrative expenses.

Net Pension Liability

Net Pension Liability	June 30, 2021	June 30, 2022
Total pension liability	\$24,588,644	\$25,869,001
Fiduciary net position	22,259,297	19,576,739
Net pension liability	2,329,347	6,292,262
Fiduciary net position as a % of total pension liability	90.53%	75.68%
Covered payroll	3,932,170	3,834,513
Net pension liability as a % of covered payroll	59.24%	164.10%

The total pension liability was determined by an actuarial valuation as of the valuation date, calculated based on the discount rate and actuarial assumptions below, and was then projected forward to the measurement date. Any significant changes during this period have been reflected as prescribed by GASB 67 and 68.

Discount Rate

Discount rate	6.625%	6.50%
Long-term expected rate of return, net of investment expense	6.625%	6.50%
Municipal bond rate	N/A	N/A

The plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

Other Key Actuarial Assumptions

The actuarial assumptions that determined the total pension liability as of June 30, 2022 were based on the results of an actuarial experience study for the period July 1, 2008 - July 1, 2012.

Valuation date	July 1, 2020	July 1, 2021
Measurement date	June 30, 2021	June 30, 2022
Actuarial cost method	Entry Age Normal	Entry Age Normal
Inflation	2.75%	2.75%
Salary increases including inflation	8.25% for first 7 years and 3.00% thereafter	8.25% for first 7 years and 3.00% thereafter
Mortality	PubS-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale	PubS-2010 Mortality Table with generational projection per the MP-2019 Ultimate scale

Please see Milliman's funding valuation report dated October 10, 2022 for more detail.

Changes in Net Pension Liability

Changes in Net Pension Liability	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances as of June 30, 2021	\$24,588,644	\$22,259,297	\$2,329,347
Changes for the year:			
Service cost	708,680		708,680
Interest on total pension liability	1,637,478		1,637,478
Effect of plan changes	0		0
Effect of economic/demographic gains or losses	(249,802)		(249,802)
Effect of assumptions changes or inputs	364,297		364,297
Benefit payments	(1,180,296)	(1,180,296)	0
Employer contributions		857,435	(857,435)
Member contributions		267,908	(267,908)
Net investment income		(2,604,930)	2,604,930
Administrative expenses		(22,675)	22,675
Balances as of June 30, 2022	25,869,001	19,576,739	6,292,262

Sensitivity Analysis

The following presents the net pension liability of the Town, calculated using the discount rate of 6.50%, as well as what the Town's net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (5.50%) or 1 percentage point higher (7.50%) than the current rate.

	1% Decrease 5.50%	Current Discount Rate 6.50%	1% Increase 7.50%
Total pension liability	\$29,111,527	\$25,869,001	\$23,172,383
Fiduciary net position	19,576,739	19,576,739	19,576,739
Net pension liability	9,534,788	6,292,262	3,595,644

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending June 30									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Total Pension Liability										
Service cost	\$708,680	\$642,813	\$650,296	\$543,312	\$530,370	\$530,838	\$484,804	\$449,735	\$434,196	N/A
Interest on total pension liability	1,637,478	1,533,380	1,460,524	1,412,130	1,370,121	1,374,437	1,327,012	1,261,868	1,169,501	N/A
Effect of plan changes	0	0	0	0	0	0	0	266,580	0	N/A
Effect of economic/demographic gains or losses	(249,802)	(77,829)	132,645	2,931	(186,985)	(944,755)	132,622	(91,391)	1,025,203	N/A
Effect of assumption changes or inputs	364,297	1,028,208	0	578,872	0	0	0	0	0	N/A
Benefit payments	(1,180,296)	(1,204,052)	(1,110,746)	(1,246,539)	(1,010,103)	(1,032,945)	(1,054,896)	(1,092,847)	(1,914,868)	N/A
Net change in total pension liability	1,280,357	1,922,520	1,132,719	1,290,706	703,403	(72,425)	889,542	793,945	714,032	N/A
Total pension liability, beginning	24,588,644	22,666,124	21,533,405	20,242,699	19,539,296	19,611,721	18,722,179	17,928,234	17,214,202	N/A
Total pension liability, ending (a)	25,869,001	24,588,644	22,666,124	21,533,405	20,242,699	19,539,296	19,611,721	18,722,179	17,928,234	N/A
Fiduciary Net Position										
Employer contributions	\$857,435	\$809,664	\$651,976	\$586,956	\$600,240	\$677,434	\$727,009	\$633,000	\$562,233	N/A
Member contributions	267,908	244,095	294,500	270,561	244,113	239,130	196,550	190,966	152,656	N/A
Net investment income	(2,604,930)	4,388,821	547,467	1,001,959	1,039,142	1,774,219	(11,573)	295,996	1,967,506	N/A
Benefit payments	(1,180,296)	(1,204,052)	(1,110,746)	(1,246,539)	(1,010,103)	(1,032,945)	(1,054,896)	(1,092,847)	(1,914,868)	N/A
Administrative expenses	(22,675)	(16,390)	(34,126)	(51,487)	(12,953)	(24,396)	(24,051)	(44,042)	(22,195)	N/A
Net change in plan fiduciary net position	(2,682,558)	4,222,138	349,071	561,450	860,439	1,633,442	(166,961)	(16,927)	745,332	N/A
Fiduciary net position, beginning	22,259,297	18,037,159	17,688,088	17,126,638	16,266,199	14,632,757	14,799,718	14,816,645	14,071,313	N/A
Fiduciary net position, ending (b)	19,576,739	22,259,297	18,037,159	17,688,088	17,126,638	16,266,199	14,632,757	14,799,718	14,816,645	N/A
Net pension liability, ending = (a) - (b)	\$6,292,262	\$2,329,347	\$4,628,965	\$3,845,317	\$3,116,061	\$3,273,097	\$4,978,964	\$3,922,461	\$3,111,589	N/A
Fiduciary net position as a % of total pension liability	75.68%	90.53%	79.58%	82.14%	84.61%	83.25%	74.61%	79.05%	82.64%	N/A
Covered payroll	\$3,834,513	\$3,932,170	\$3,589,830	\$3,400,678	\$3,400,310	\$3,143,684	\$2,918,053	\$2,866,183	\$2,772,281	N/A
Net pension liability as a % of covered payroll	164.10%	59.24%	128.95%	113.08%	91.64%	104.12%	170.63%	136.85%	112.24%	N/A

This schedule is presented to illustrate the requirement to show information for 10 years. However, recalculations of prior years are not required, and if prior years are not reported in accordance with the current GASB standards, they should not be reported.

Pension Expense

Pension Expense	July 1, 2020 to June 30, 2021	July 1, 2021 to June 30, 2022
Service cost	\$642,813	\$708,680
Interest on total pension liability	1,533,380	1,637,478
Effect of plan changes	0	0
Administrative expenses	16,390	22,675
Member contributions	(244,095)	(267,908)
Expected investment return net of investment expenses	(1,211,638)	(1,472,120)
Recognition of Deferred Inflows/Outflows of Resources		
Recognition of economic/demographic gains or losses	(130,496)	(159,590)
Recognition of assumption changes or inputs	231,956	283,265
Recognition of investment gains or losses	(603,259)	363,059
Pension Expense	235,051	1,115,539

As of June 30, 2022, the deferred inflows and outflows of resources are as follows:

Deferred Inflows / Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources
Differences between expected and actual experience	(\$579,368)	\$97,457
Changes of assumptions	0	1,303,822
Net difference between projected and actual earnings	0	1,647,797
Contributions made subsequent to measurement date	0	0
Total	(579,368)	3,049,076

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2023	\$472,375
2024	421,109
2025	405,214
2026	1,038,692
2027	114,579
Thereafter*	17,739

* Note that additional future deferred inflows and outflows of resources may impact these numbers.

Schedule of Deferred Inflows and Outflows of Resources

	Original Amount	Date Established	Original Rec. Period*	Amount Recognized in Pension Expense for FYE 06/30/2022	Amount Recognized in Pension Expense through 06/30/2022	Balance of Deferred Inflows as of 06/30/2022	Balance of Deferred Outflows as of 06/30/2022
Economic/ demographic gains or losses	(\$249,802)	6/30/2022	7.1	(\$35,183)	(\$35,183)	(\$214,619)	\$0
	(77,829)	6/30/2021	6.6	(11,792)	(23,584)	(54,245)	0
	132,645	6/30/2020	7.7	17,227	51,681	0	80,964
	2,931	6/30/2019	7.6	386	1,544	0	1,387
	(186,985)	6/30/2018	7.7	(24,284)	(121,420)	(65,565)	0
	(944,755)	6/30/2017	8.1	(116,636)	(699,816)	(244,939)	0
	132,622	6/30/2016	7.9	16,788	117,516	0	15,106
	(91,391)	6/30/2015	7.5	(6,096)	(91,391)	0	0
		Total		(159,590)	(800,653)	(579,368)	97,457
Assumption changes or inputs	364,297	6/30/2022	7.1	51,309	51,309	0	312,988
	1,028,208	6/30/2021	6.6	155,789	311,578	0	716,630
	578,872	6/30/2019	7.6	76,167	304,668	0	274,204
		Total		283,265	667,555	0	1,303,822
Investment gains or losses	4,077,050	6/30/2022	5.0	815,410	815,410	0	3,261,640
	(3,177,183)	6/30/2021	5.0	(635,437)	(1,270,874)	(1,906,309)	0
	640,765	6/30/2020	5.0	128,153	384,459	0	256,306
	180,792	6/30/2019	5.0	36,158	144,632	0	36,160
	93,879	6/30/2018	5.0	18,775	93,879	0	0
		Total		363,059	167,506	(1,906,309)	3,554,106
Total for economic/demographic gains or losses and assumption changes or inputs						(579,368)	1,401,279
Net deferred (inflows)/outflows for investment gains or losses						0	1,647,797
Total deferred (inflows)/outflows						(579,368)	3,049,076
Total net deferrals							2,469,708

* Investment (gains)/losses are recognized in pension expense over a period of five years; economic/demographic (gains)/losses and assumption changes or inputs are recognized over the average remaining service life for all active and inactive members.

Milliman Financial Reporting Valuation

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Deferred (Inflows)	Deferred Outflows	Net Investment (Inflows)/ Outflows	Net Deferrals	Net Pension Liability plus Net Deferrals	Annual Expense
Balances as of June 30, 2021	(\$24,588,644)	\$22,259,297	(\$2,329,347)	(\$523,557)	\$1,354,648	(\$2,066,194)	(\$1,235,103)	(\$3,564,450)	
Service cost	(708,680)		(708,680)						708,680
Interest on total pension liability	(1,637,478)		(1,637,478)						1,637,478
Effect of plan changes	0		0						0
Effect of liability gains or losses	249,802		249,802	(249,802)			(249,802)		
Effect of assumption changes or inputs	(364,297)		(364,297)		364,297		364,297		
Benefit payments	1,180,296	(1,180,296)	0						
Administrative expenses		(22,675)	(22,675)						22,675
Member contributions		267,908	267,908						(267,908)
Expected net investment income		1,472,120	1,472,120						(1,472,120)
Investment gains or losses		(4,077,050)	(4,077,050)			4,077,050	4,077,050		
Employer contributions		857,435	857,435					857,435	
Recognition of liability gains or losses				193,991	(34,401)		159,590		(159,590)
Recognition of assumption changes or inputs					(283,265)		(283,265)		283,265
Recognition of investment gains or losses						(363,059)	(363,059)		363,059
Annual expense								(1,115,539)	1,115,539
Balances as of June 30, 2022	(25,869,001)	19,576,739	(6,292,262)	(579,368)	1,401,279	1,647,797	2,469,708	(3,822,554)	

Glossary

Actuarially Determined Contribution	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined based on the funding policy and most recent measurement available when the contribution for the reporting period was adopted.
Deferred Inflows/Outflows of Resources	Portion of changes in net pension liability that is not immediately recognized in Pension Expense. These changes include differences between expected and actual experience, changes in assumptions, and differences between expected and actual earnings on plan investments.
Discount Rate	<p>Single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the sum of:</p> <ol style="list-style-type: none">1) The actuarial present value of benefit payments projected to be made in future periods where the plan assets are projected to be sufficient to meet benefit payments, calculated using the Long-Term Expected Rate of Return.2) The actuarial present value of projected benefit payments not included in (1), calculated using the Municipal Bond Rate.
Fiduciary Net Position	Equal to market value of assets.
Long-Term Expected Rate of Return	Long-term expected rate of return on pension plan investments expected to be used to finance the payment of benefits, net of investment expenses.
Money-Weighted Rate of Return	The internal rate of return on pension plan investments, net of investment expenses.
Municipal Bond Rate	Yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher.
Net Pension Liability	Total Pension Liability minus the Plan's Fiduciary Net Position (unfunded accrued liability).
Projected Benefit Payments	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and expected future service.
Service Cost	The portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.
Total Pension Liability	The portion of actuarial present value of projected benefit payments that is attributable to past periods of member service using the Entry Age Normal cost method based on the requirements of GASB 67 and 68.



TOWN OF SIMSBURY POLICE RETIREMENT INCOME PLAN

**Actuarial Valuation as of July 1, 2021
To Determine Funding for Fiscal Year 2022-23**

Prepared by

Jennifer M. Castelhana, FSA
Consulting Actuary

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Certification

We have performed an actuarial valuation of the Plan as of July 1, 2021 to determine funding for fiscal year 2022-23. This report presents the results of our valuation.

The ultimate cost of a pension plan is the total amount needed to provide benefits for plan members and beneficiaries and to pay the expenses of administering the plan. Pension costs are met by contributions and by investment return on plan assets. The principal purpose of this report is to set forth an actuarial recommendation of the contribution, or range of contributions, which will properly fund the plan, in accordance with applicable government regulations. In addition, this report provides:

- A valuation of plan assets and liabilities to review the year-to-year progress of funding.
- Information needed to meet disclosure requirements.
- Review of plan experience for the previous year to ascertain whether the assumptions and methods employed for valuation purposes are reflective of actual events and remain appropriate for prospective application.
- Assessment of the relative funded position of the plan, i.e., through a comparison of plan assets and projected plan liabilities.
- Comments on any other matters which may be of assistance in the funding and operation of the plan.

This report may not be used for purposes other than those listed above without Milliman's prior written consent. If this report is distributed to other parties, it must be copied in its entirety, including this certification section.

Milliman's work is prepared solely for the internal business use of the Town of Simsbury ("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.

In preparing this report, we relied on employee census data and financial information as of the valuation date, furnished by the Town. We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have found them to be reasonably consistent and comparable with data used for other purposes. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete and our calculations may need to be revised. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Certification

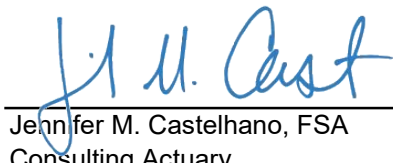
The calculations reported herein have been made on a basis consistent with our understanding of ERISA and the related sections of the tax code. Additional determinations may be needed for purposes other than meeting funding requirements, such as judging benefit security at plan termination or meeting employer accounting requirements. On the basis of the foregoing, we hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. In addition to the models described previously, Milliman has developed certain models to develop the expected long term rate of return on assets used in this analysis. 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 (ASOP). The models, including all input, calculations, and output may not be appropriate for any other purpose.

We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations. 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 the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

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

We are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Jennifer M. Castelhana, FSA
Consulting Actuary

Section I - Executive Summary

Changes Since the Prior Valuation

Plan Changes

None.

Changes in Actuarial Methods and Assumptions

In order to better anticipate future plan experience, we lowered the investment return assumption from 6.625% to 6.50%.

This change caused the Unfunded Accrued Liability to increase by about \$0.3 million and the Actuarially Determined Contribution to increase by about \$47,000.

Other Significant Changes

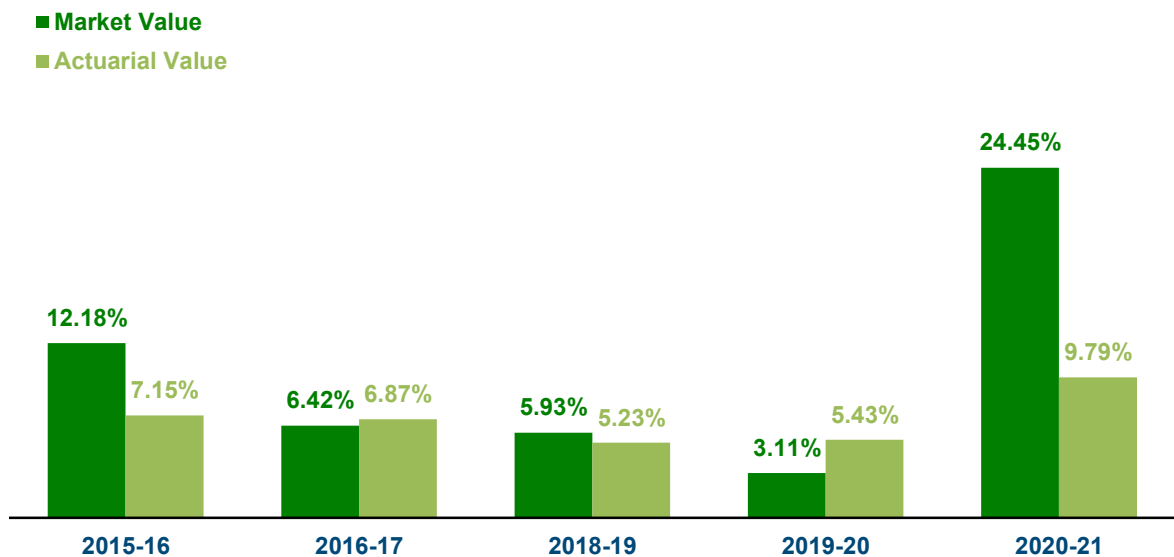
Although it is possible that the COVID-19 pandemic could have a material impact on the projected mortality, liabilities, and contribution requirements, we have chosen not to make an adjustment in the projections at this time, given the substantial current uncertainty regarding the impact of COVID-19 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, 2020	\$18,037,159	\$18,519,543
Town and Member Contributions	1,053,759	1,053,759
Investment Income	4,388,821	1,805,590
Benefit Payments and Administrative Expenses	(1,220,442)	(1,220,442)
Value as of July 1, 2021	22,259,297	20,158,450

For fiscal year 2020-21, the plan's assets earned 24.445% on a Market Value basis and 9.794% on an Actuarial Value basis. The actuarial assumption for this period was 6.625%; the result is an asset gain of about \$3,199,000 on a Market Value basis and a gain of about \$584,000 on an Actuarial Value basis. Historical rates of return are shown in the graph below.

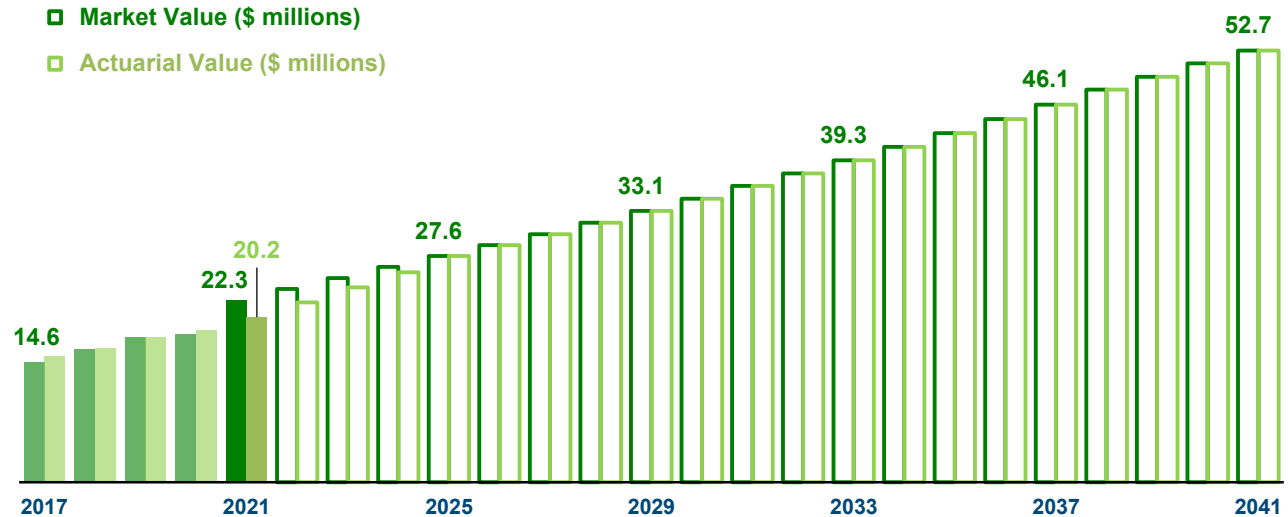


Please note that the Actuarial Value currently is less than the Market Value by \$2,101,000. This figure represents investment gains that will be gradually recognized in future years. This process will exert downward pressure on the Town's contribution, unless there are offsetting market losses.

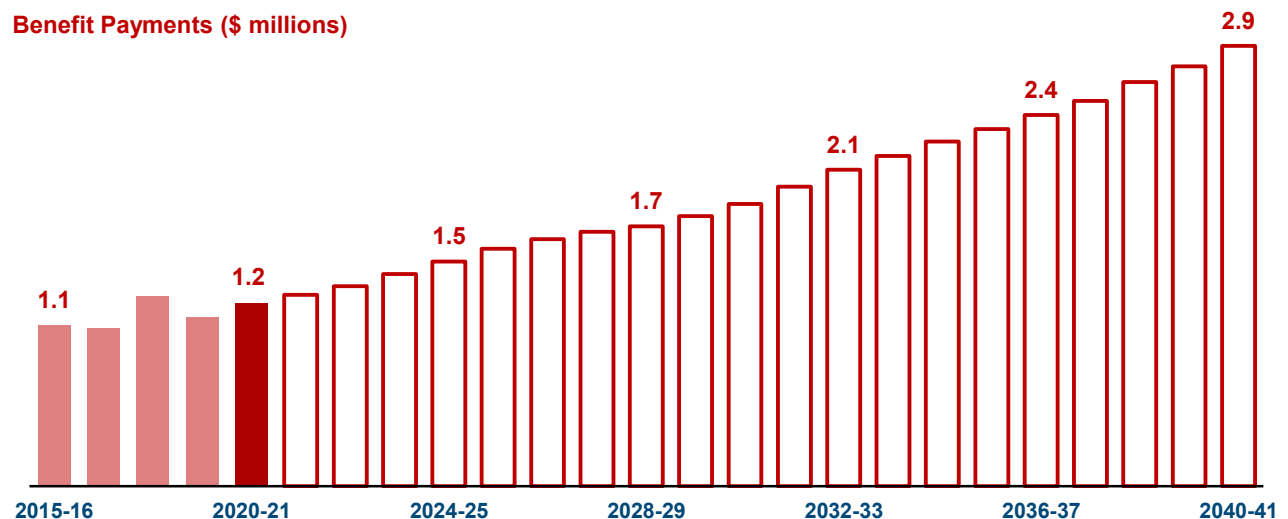
Section I - Executive Summary

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.



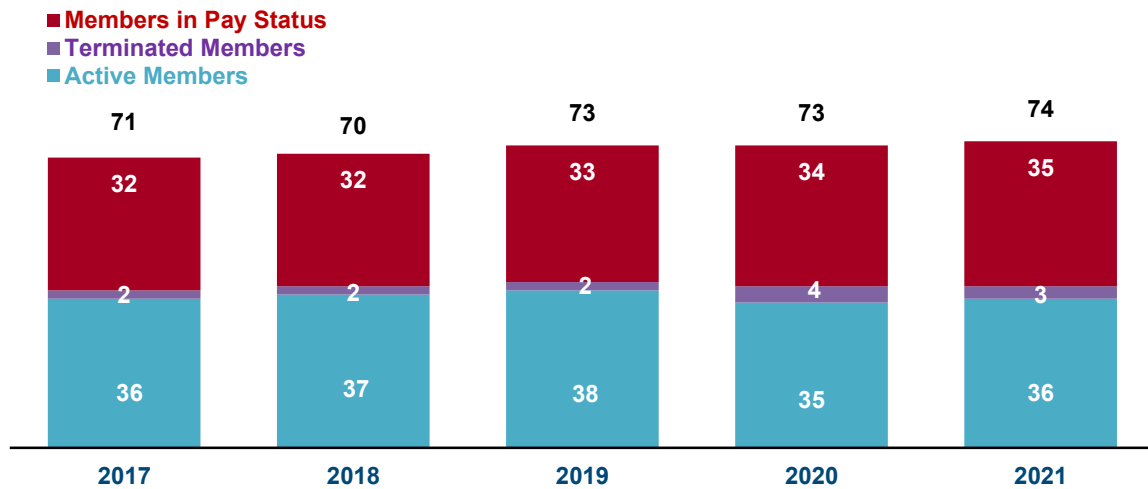
In 2020-21, the plan paid out \$1.2 million in benefits to members. Over the next 20 years, the plan is projected to pay out a total of \$40 million in benefits to members.



Section I - Executive Summary

Membership

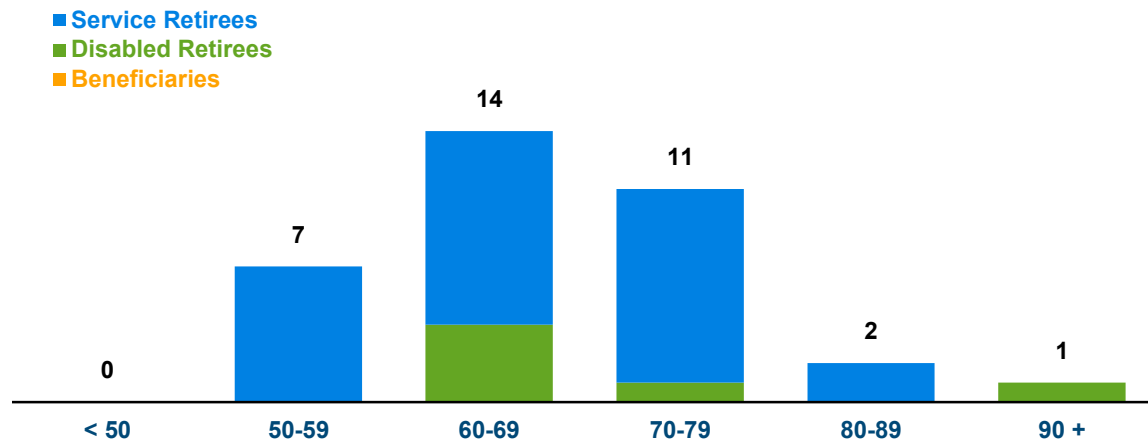
There are three basic categories of plan members included in the valuation: (1) members who are receiving monthly pension benefits, (2) former employees who have a vested right to benefits but have not yet started collecting, and (3) active employees who have met the eligibility requirements for membership.



Members in Pay Status on July 1, 2021

Service Retirees	29	Average Age	68.5
Disabled Retirees	0	Total Annual Benefit	\$1,182,965
Beneficiaries	6	Average Annual Benefit	33,799
Total	35		

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



Section I - Executive Summary

Membership (continued)

Terminated Vested Members on July 1, 2021

Count	2
Average Age	46.1
Total Annual Benefit	\$97,592
Average Annual Benefit	48,796

Nonvested Members Due Refunds on July 1, 2021

Count	1
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Active Members on July 1, 2021

Count	36
Average Age	41.0
Average Service	11.3
Payroll	\$4,014,271
Average Payroll	111,508

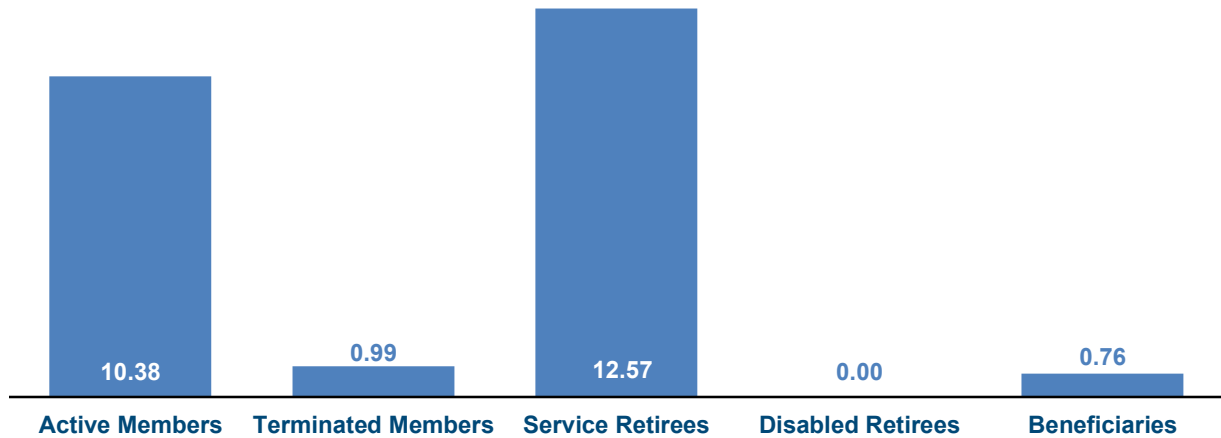
The table below illustrates the age and years of service of the active membership:

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30+	
< 25	1							1
25-29	4	1						5
30-34	2	2						4
35-39	1	3	3	2				9
40-44	1	2		1	1			5
45-49		1		1	3			5
50-54			1	3	2			6
55-59								0
60-64								0
65+					1			1
Total	9	9	4	7	7	0	0	36

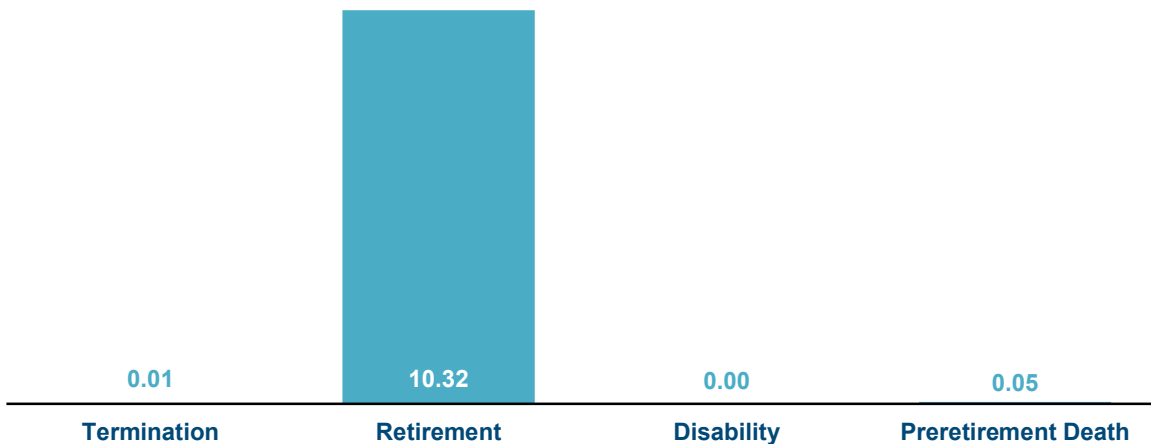
Section I - Executive Summary

Accrued Liability

The Accrued Liability as of July 1, 2021 equals \$24,704,267, which consists of the following pieces (in \$ millions):



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

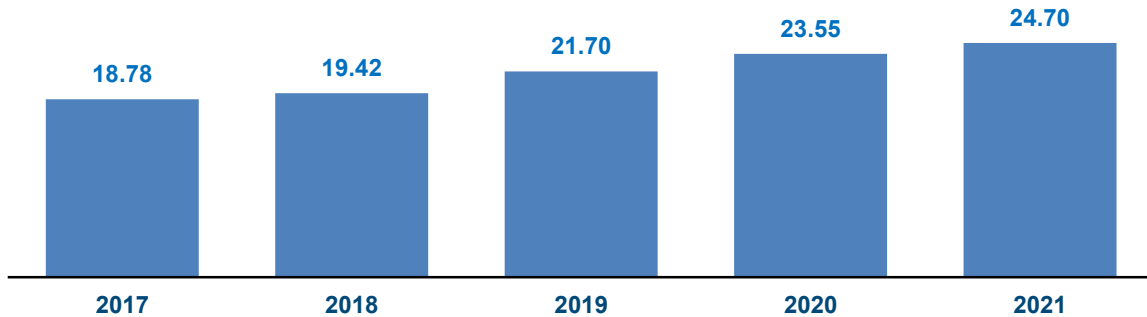


Section I - Executive Summary

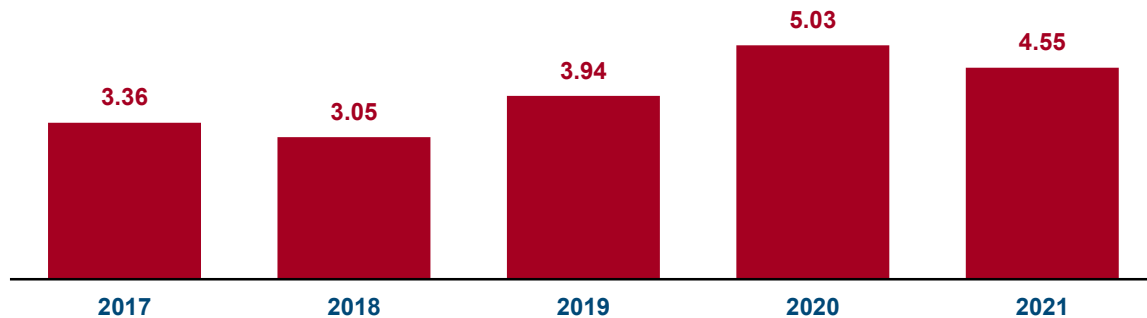
Funded Status

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.

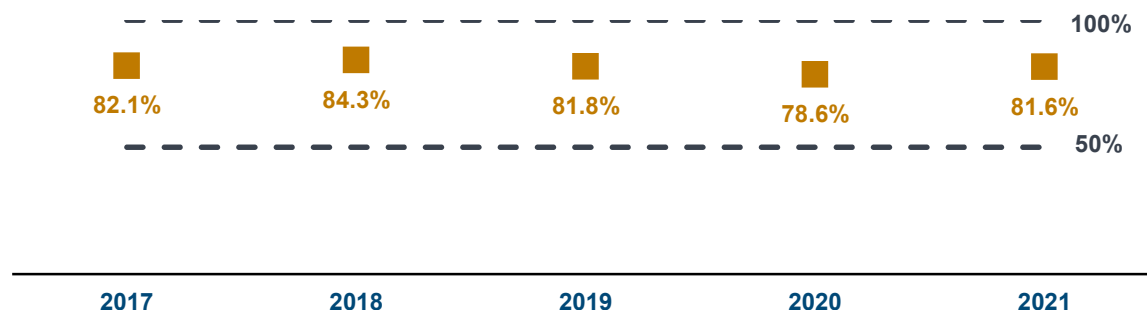
Accrued Liability (\$ millions)



Unfunded Accrued Liability (\$ millions)



Funded Ratio

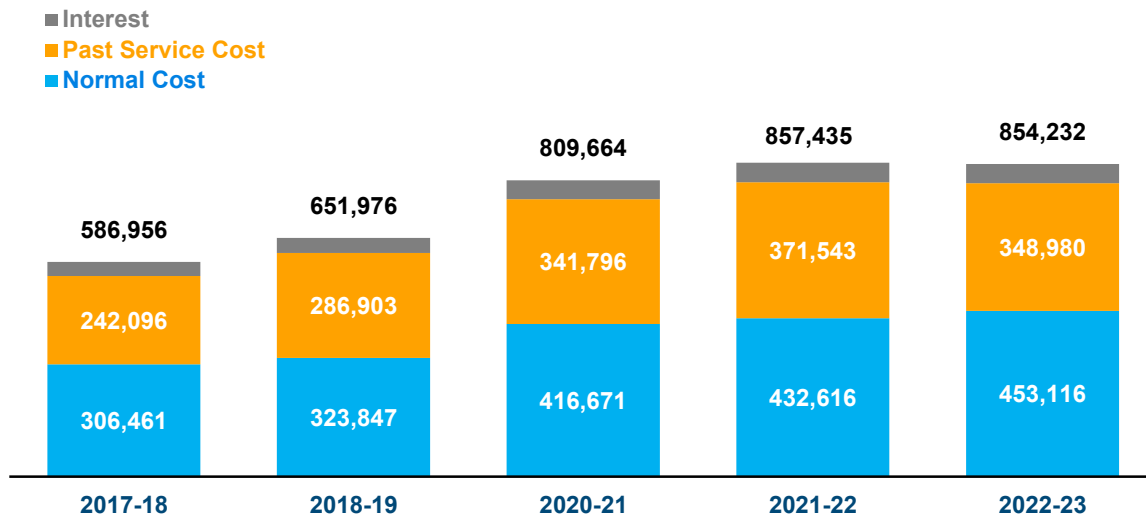


Section I - Executive Summary

Actuarially Determined Contribution

The Actuarially Determined Contribution 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 to reflect the timing of the contribution relative to the valuation date.

The Actuarially Determined Contribution for fiscal year 2022-23 is shown graphically below, along with the comparable figures for the preceding four fiscal years. Note that the Normal Cost is relatively consistent from year to year, whereas the Past Service Cost tends to be more volatile since it reflects the impact of asset performance.

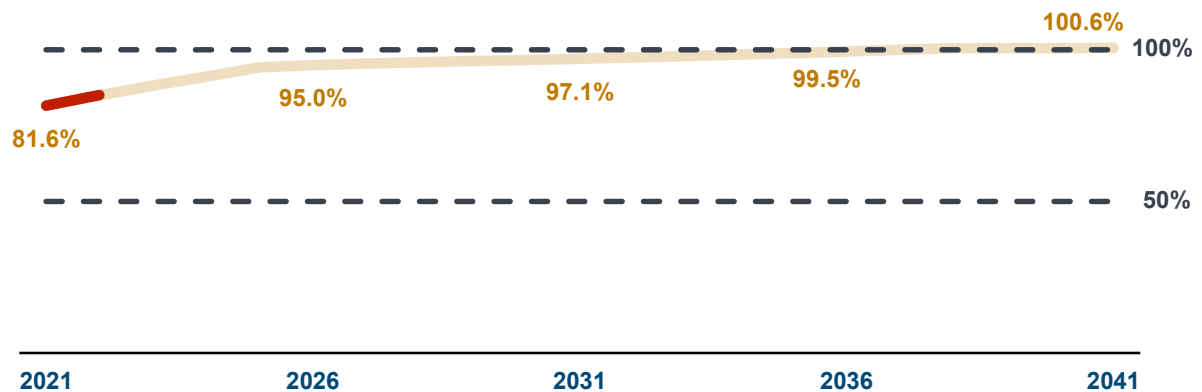


Section I - Executive Summary

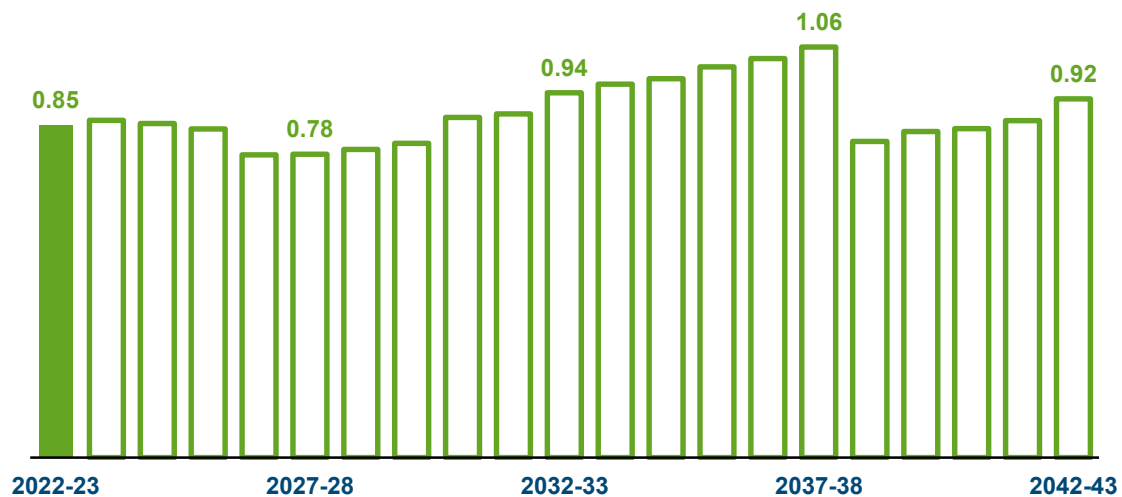
Long-Range Forecast

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 changes in the plan's funded status and the long-range contribution levels:

Funded Ratio



Actuarially Determined Contribution (\$ millions)

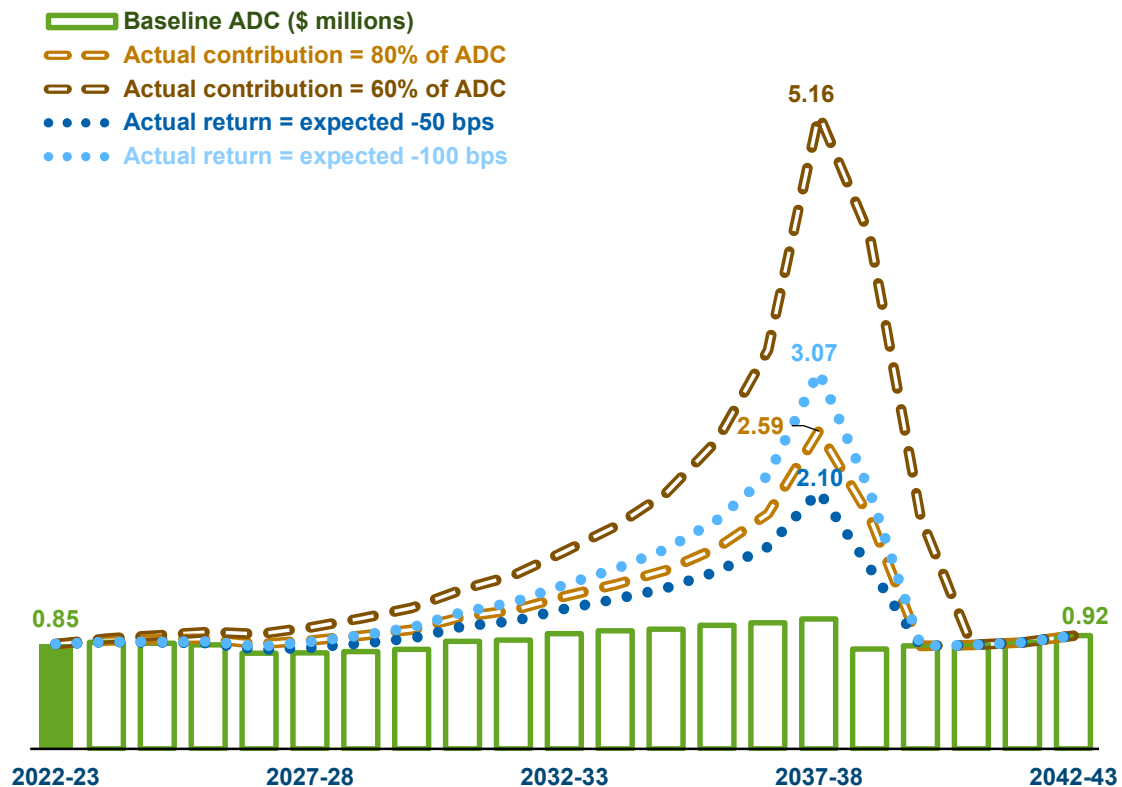


To the extent that there are future investment or liability gains or losses, changes in the actuarial assumptions or methods, or plan changes, the actual valuation results will differ from these forecasts. Please see Section III C for more details of the long range forecast.

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 Summary of Principal Results

Membership as of	July 1, 2020	July 1, 2021
Active Members	35	36
Terminated Members	4	3
Members in Pay Status	<u>34</u>	<u>35</u>
Total Count	73	74
Payroll	\$3,834,513	\$4,014,271
Assets and Liabilities as of	July 1, 2020	July 1, 2021
Market Value of Assets	\$18,037,159	\$22,259,297
Actuarial Value of Assets	18,519,543	20,158,450
Accrued Liability for Active Members	10,307,530	10,381,107
Accrued Liability for Terminated Members	754,498	990,992
Accrued Liability for Members in Pay Status	<u>12,489,163</u>	<u>13,332,168</u>
Total Accrued Liability	23,551,191	24,704,267
Unfunded Accrued Liability	5,031,648	4,545,817
Funded Ratio	78.6%	81.6%
Actuarially Determined Contribution for Fiscal Year	2021-22	2022-23
Normal Cost	\$432,616	\$453,116
Past Service Cost	371,543	348,980
Interest	<u>53,276</u>	<u>52,136</u>
Actuarially Determined Contribution	857,435	854,232

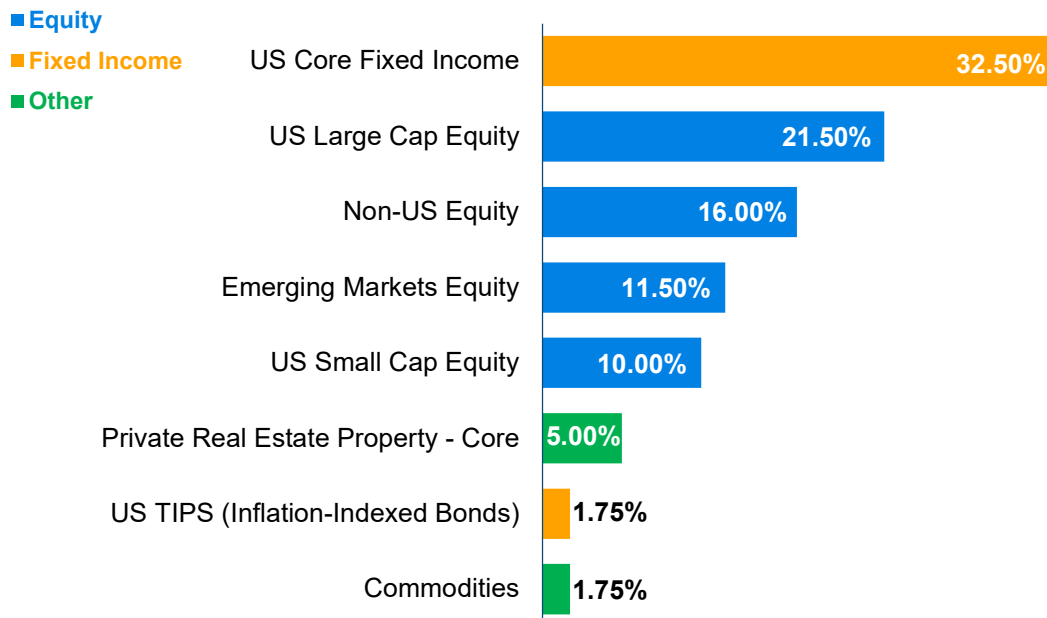
Section II - Plan Assets

A. Summary of Fund Transactions

Market Value as of July 1, 2020	\$18,037,159
Town Contributions	809,664
Member Contributions	244,095
Net Investment Income	4,388,821
Benefit Payments	(1,204,052)
Administrative Expenses	(16,390)
Market Value as of June 30, 2021	22,259,297
Expected Return on Market Value of Assets	1,189,443
Market Value (Gain)/Loss	(3,199,378)
Approximate Rate of Return *	24.445%

* 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, 2021



Section II - Plan Assets

B. Development of Actuarial 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 in equal installments ('non-asymptotically') over a five year period. The Actuarial Value of Assets as of July 1, 2021 is determined below.

1.	Expected Market Value of Assets:		
	a. Market Value of Assets as of July 1, 2020		\$18,037,159
	b. Town and Member Contributions		1,053,759
	c. Benefit Payments and Administrative Expenses		(1,220,442)
	d. Expected Earnings Based on 6.625% Interest		<u>1,189,443</u>
	e. Expected Market Value of Assets as of July 1, 2021		19,059,919
2.	Actual Market Value of Assets as of July 1, 2021		22,259,297
3.	Market Value (Gain)/Loss: (1e) - (2)		(3,199,378)
4.	Delayed Recognition of Market (Gains)/Losses		
		Percent Not	Amount Not
	Plan Year End	Recognized	Recognized
	06/30/2021	80%	(\$2,559,502)
	06/30/2020	60%	384,459
	06/30/2019	40%	55,420
	06/30/2018	20%	<u>18,776</u>
			(2,100,847)
5.	Actuarial Value of Assets as of July 1, 2021: (2) + (4)		20,158,450
6.	Return on Actuarial Value of Assets		1,805,590
7.	Approximate Rate of Return on Actuarial Value of Assets		9.794%
8.	Actuarial Value (Gain)/Loss		(584,227)

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 period of 17 years starting on July 1, 2020.

	July 1, 2020	July 1, 2021
1. Accrued Liability		
Active Members	\$10,307,530	\$10,381,107
Terminated Members	754,498	990,992
Service Retirees	11,721,383	12,573,748
Disabled Retirees	0	0
Beneficiaries	<u>767,780</u>	<u>758,420</u>
Total Accrued Liability	23,551,191	24,704,267
2. Actuarial Value of Assets (see Section IIB)	18,519,543	20,158,450
3. Unfunded Accrued Liability: (1) - (2)	5,031,648	4,545,817
4. Funded Ratio: (2) / (1)	78.6%	81.6%
5. Amortization Period	17	16
6. Amortization Growth Rate	3.50%	3.50%
7. Past Service Cost: (3) amortized over (5)	371,543	348,980

Section III - Development of Contribution

B. Actuarially Determined Contribution

	2021-22	2022-23
1. Total Normal Cost	\$675,717	\$729,586
2. Expected Member Contributions	278,201	293,370
3. Expected Administrative Expenses	35,100	16,900
4. Net Normal Cost: (1) - (2) + (3)	432,616	453,116
5. Past Service Cost (see Section IIIA)	371,543	348,980
6. Interest on (4) + (5) to the start of the fiscal year	53,276	52,136
7. Actuarially Determined Contribution: (4) + (5) + (6)	857,435	854,232

Section III - Development of Contribution

C. Long Range Forecast

This forecast is based on the results of the July 1, 2021 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.

Valuation Date	Values as of the Valuation Date				Fiscal Year	Cash Flows Projected to the Following Fiscal Year			
	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio		Town Contributions	Member Contributions	Benefit Payments	Net Cash Flows
7/1/2021	\$24,704,267	\$20,158,450	\$4,545,817	81.6%	2022-23	\$854,232	\$287,566	(\$1,311,461)	(\$169,663)
7/1/2022	25,791,000	21,945,000	3,846,000	85.1%	2023-24	867,000	286,000	(1,391,000)	(238,000)
7/1/2023	26,937,000	23,769,000	3,168,000	88.2%	2024-25	859,000	273,000	(1,473,000)	(341,000)
7/1/2024	28,109,000	25,638,000	2,471,000	91.2%	2025-26	845,000	295,000	(1,557,000)	(417,000)
7/1/2025	29,293,000	27,614,000	1,679,000	94.3%	2026-27	778,000	316,000	(1,619,000)	(525,000)
7/1/2026	30,487,000	28,959,000	1,528,000	95.0%	2027-28	780,000	336,000	(1,668,000)	(552,000)
7/1/2027	31,721,000	30,279,000	1,442,000	95.5%	2028-29	792,000	355,000	(1,704,000)	(557,000)
7/1/2028	33,012,000	31,656,000	1,356,000	95.9%	2029-30	808,000	325,000	(1,772,000)	(639,000)
7/1/2029	34,381,000	33,119,000	1,262,000	96.3%	2030-31	875,000	348,000	(1,852,000)	(629,000)
7/1/2030	35,798,000	34,589,000	1,209,000	96.6%	2031-32	884,000	319,000	(1,964,000)	(761,000)
7/1/2031	37,241,000	36,165,000	1,076,000	97.1%	2032-33	938,000	331,000	(2,075,000)	(806,000)
7/1/2032	38,682,000	37,707,000	975,000	97.5%	2033-34	960,000	347,000	(2,166,000)	(859,000)
7/1/2033	40,122,000	39,301,000	821,000	98.0%	2034-35	975,000	343,000	(2,261,000)	(943,000)
7/1/2034	41,581,000	40,945,000	636,000	98.5%	2035-36	1,005,000	356,000	(2,343,000)	(982,000)
7/1/2035	43,059,000	42,606,000	453,000	98.9%	2036-37	1,026,000	353,000	(2,435,000)	(1,056,000)
7/1/2036	44,569,000	44,336,000	233,000	99.5%	2037-38	1,056,000	375,000	(2,528,000)	(1,097,000)
7/1/2037	46,105,000	46,100,000	5,000	100.0%	2038-39	813,000	365,000	(2,652,000)	(1,474,000)
7/1/2038	47,667,000	47,937,000	(270,000)	100.6%	2039-40	839,000	391,000	(2,754,000)	(1,524,000)
7/1/2039	49,223,000	49,503,000	(280,000)	100.6%	2040-41	846,000	393,000	(2,889,000)	(1,650,000)
7/1/2040	50,806,000	51,117,000	(311,000)	100.6%	2041-42	866,000	370,000	(3,001,000)	(1,765,000)

Section III - Development of Contribution

D. History of Funded Status

Valuation Date	Actuarial Value of Assets	Accrued Liability	Unfunded Accrued Liability	Funded Ratio
July 1, 2012	\$13,162,518	\$16,826,819	\$1,169,963	91.9%
July 1, 2013	13,441,812	17,214,202	3,664,301	78.2%
July 1, 2014	13,862,224	18,114,145	3,772,390	78.1%
July 1, 2015	14,807,158	18,991,042	4,251,921	76.5%
July 1, 2016	15,411,042	18,775,019	4,183,884	78.0%
July 1, 2017	16,366,441	19,420,468	3,363,977	82.1%
July 1, 2018	17,305,660	20,802,711	3,054,027	84.3%
July 1, 2019	17,758,277	21,702,700	3,944,423	81.8%
July 1, 2020	18,519,543	23,551,191	5,031,648	78.6%
July 1, 2021	20,158,450	24,704,267	4,545,817	81.6%

Section III - Development of Contribution

E. History of Town Contributions

Fiscal Year	Actuarially Determined Contribution	Actual Town Contribution	Payroll	Actual Contribution as a Percent of Payroll
2012-13	\$562,233	\$634,223	\$2,687,341	23.6%
2013-14	632,679	561,010	2,866,183	19.6%
2014-15	631,023	727,009	2,918,053	24.9%
2015-16	677,434	677,434	3,143,684	21.5%
2016-17	600,240	600,240	3,400,310	17.7%
2017-18	586,956	586,956	3,400,678	17.3%
2018-19	651,976	651,976	3,589,830	18.2%
2020-21	809,664	809,664	3,932,170	20.6%
2021-22	857,435	TBD	3,834,513	TBD
2022-23	854,232	TBD	4,014,271	TBD

\$71,990 was held as an accrued contribution at July 1, 2014 and is shown above as a contribution for FYE 2015.

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, 2020	35	3	1	28	0	6	73
Terminated							
- no benefits due	-	-	-	-	-	-	0
- paid refund	-	(1)	-	-	-	-	(1)
- vested benefits due	(1)	1	-	-	-	-	0
Retired	(1)	(1)	-	2	-	-	0
Died							
- with beneficiary	-	-	-	-	-	-	0
- no beneficiary	-	-	-	(1)	-	-	(1)
Benefits expired	-	-	-	-	-	-	0
New member	3	-	-	-	-	-	3
Rehired	-	-	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	-	0
Correction	-	-	-	-	-	-	0
Count July 1, 2021	36	2	1	29	0	6	74

Section IV - Membership Data

B. Statistics of Active Membership

	As of July 1, 2020	As of July 1, 2021
Number of Active Members	35	36
Average Age	41.8	41.0
Average Service	12.1	11.3
Total Payroll	\$3,834,513	\$4,014,271
Average Payroll	109,558	111,508

Section IV - Membership Data

D. Statistics of Inactive Membership

	As of July 1, 2020	As of July 1, 2021
Terminated Vested Members		
Number	3	2
Total Annual Benefit	\$85,958	\$97,592
Average Annual Benefit	28,653	48,796
Average Age	38.4	46.1
Nonvested Members Due Refunds		
Number	1	1
Service Retirees		
Number	28	29
Total Annual Benefit	\$1,044,892	\$1,102,106
Average Annual Benefit	37,318	38,004
Average Age	67.8	67.9
Disabled Retirees		
Number	0	0
Total Annual Benefit	\$0	\$0
Average Annual Benefit	0	0
Average Age	0.0	0.0
Beneficiaries		
Number	6	6
Total Annual Benefit	\$80,859	\$80,859
Average Annual Benefit	13,477	13,477
Average Age	70.2	71.2

Section IV - Membership Data

E. Distribution of Inactive Members as of July 1, 2021

	Age	Number	Annual Benefits
Terminated Vested Members /	< 50	1	\$27,372
Nonvested Members Due Refunds	50 - 59	2	70,220
	60 - 69	0	0
	70 - 79	0	0
	80 - 89	0	0
	90 +	<u>0</u>	<u>0</u>
	Total	3	97,592
 Service Retirees	< 50	0	\$0
	50 - 59	7	343,015
	60 - 69	10	433,351
	70 - 79	10	316,885
	80 - 89	2	8,854
	90 +	<u>0</u>	<u>0</u>
	Total	29	1,102,106
 Beneficiaries and Alternate Payees	< 50	0	\$0
	50 - 59	0	0
	60 - 69	4	49,906
	70 - 79	1	12,648
	80 - 89	0	0
	90 +	1	<u>18,304</u>
	Total	6	80,859

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 C for more information on the basis for the projected results shown on the following pages.

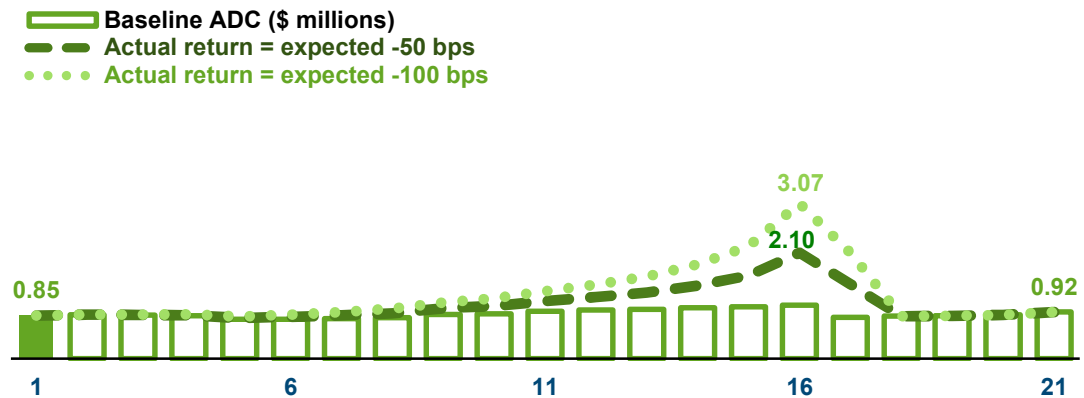
Section V - Analysis of Risk

B. Risk Identification and Assessment

Investment Risk

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

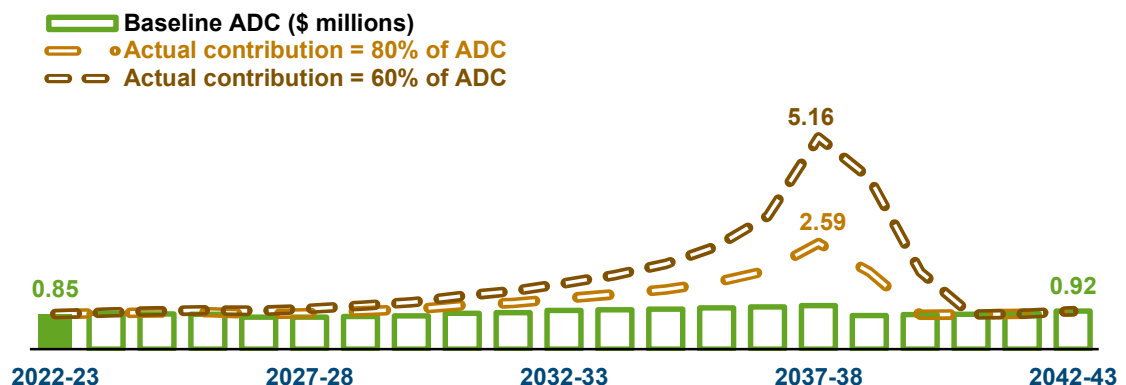
Identification: To the extent that actual investment returns differ from the assumed investment return, the plan's future assets, Actuarially Determined Contributions, and funded status may differ significantly from those presented in this valuation. The consequences of persistent underperformance on 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 101.9% 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.

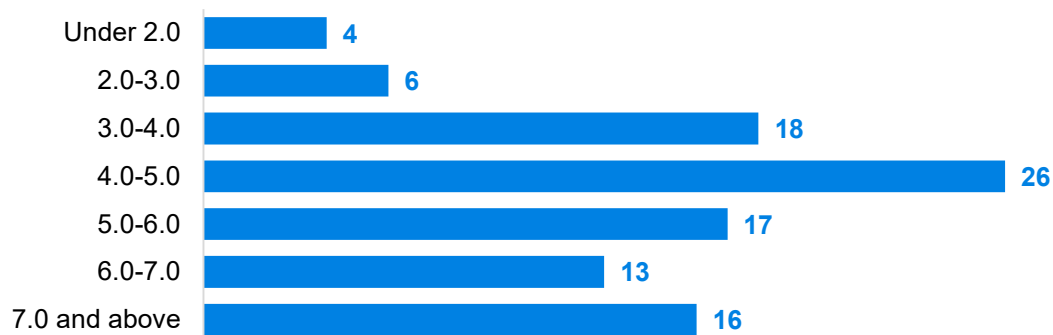
Identification: In 2020-21, the plan had negative cash flow, with town and member contributions to the plan of \$1,053,759 compared to \$1,220,442 of benefit payments and administrative expenses paid out of the plan. We suggest that you consult with your investment advisors with respect to the liquidity 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, 2021, the plan's Asset Volatility Ratio (the ratio of the market value of plan assets to payroll) is 5.5. According to Milliman's 2021 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.

Retirement Risk

Definition: This is the potential for members to retire and receive subsidized benefits that are more valuable than expected.

Identification: This plan has moderate early retirement benefits. If members retire at earlier ages than are anticipated by the actuarial assumptions, this will put upward pressure on subsequent Actuarially Determined Contributions.

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.

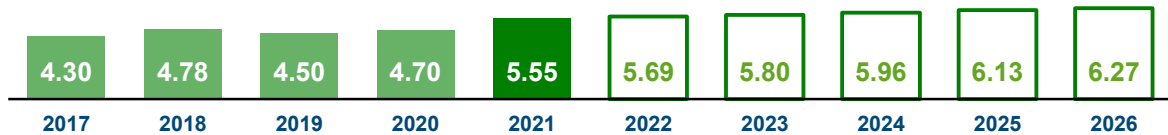
Identification: This plan uses basic compensation plus additional earnings up to 10% over base pay.

Section V - Analysis of Risk

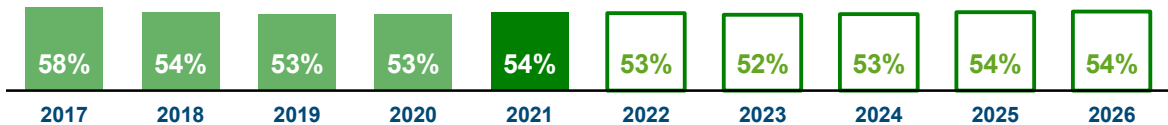
C. Maturity Measures

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.

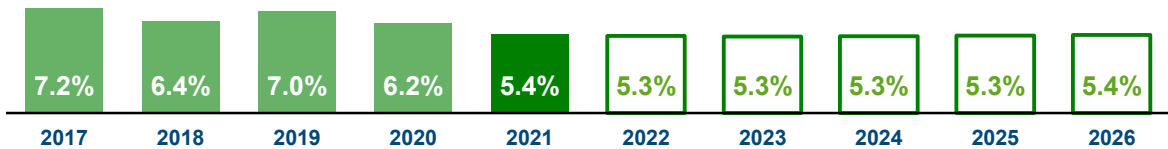
Asset Volatility Ratio: Market Value of Assets compared to Payroll



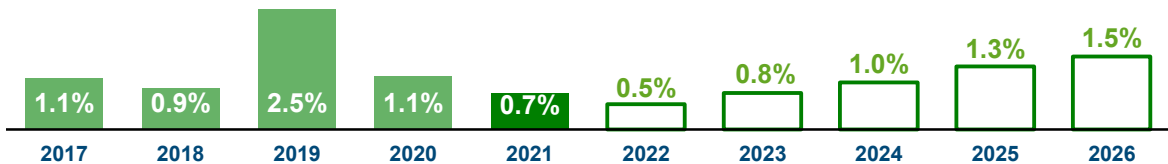
Accrued Liability for members in pay status compared to total Accrued Liability



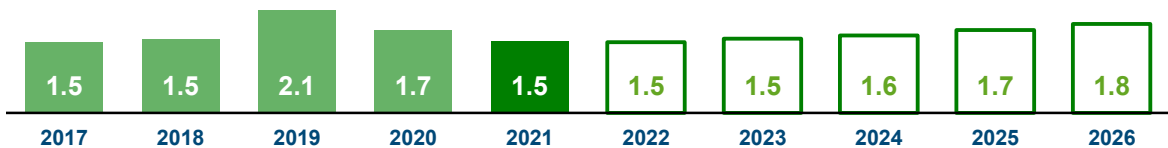
Benefit Payments compared to Market Value of Assets



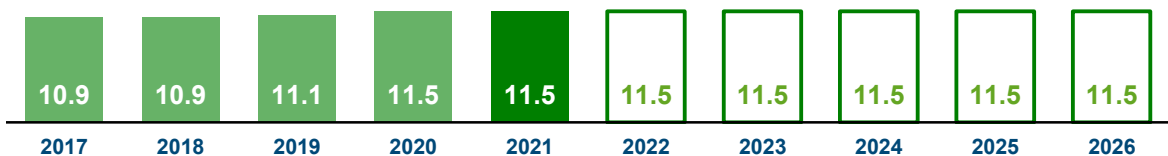
Net Cash Flows compared to Market Value of Assets



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 timing of the contribution relative to the valuation date.

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 period of 17 years starting on July 1, 2020. The amortization period will decrease each year until it reaches 10 years, after which point it will remain at 10 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. For those unions whose new employees are eligible to participate in this plan, members who are projected to leave active employment are assumed to be replaced by new active members with the same age, service, gender, and pay characteristics as those hired in the past few years.

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	6.50% (prior: 6.625%)
Inflation	2.75%
Amortization Growth Rate	3.50%
Salary Scale	8.25% for first 7 years and 3.00% thereafter
Expenses	Administrative expenses paid in the prior year, increased by 3% and rounded to the nearest \$100.
Turnover	None.
Mortality	PubS-2010 Mortality Table with generational projection per the MP-2019 ultimate scale, with employee rates before benefit commencement and healthy or disabled annuitant rates after benefit commencement. This assumption includes a margin for improvements in longevity beyond the valuation date.
Marital Status	90% of male members and 60% of female members are assumed to be married with wives 3 years younger than husbands.
Retirement	20% per year starting at Normal Retirement Date; 100% at age 62.

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	All full time Police Officers in the employ of the Town of Simsbury whose customary employment is at least 32½ hours per week on a regular schedule.
Employee Contributions	8% of Earnings as of July 1, 2016. Interest is credited at 5% per annum. No contributions are required after Normal Retirement Date.
Credited Service	Whole years and full months from date of participation, but not greater than 25 years.
Compensation	Basic Compensation excluding overtime, commissions, bonuses, and any other form of additional compensation, plus additional earnings up to an additional 10% over the base pay rate.
Final Average Compensation	Average Earnings paid to a member during the highest 5 consecutive years out of the last 10 years of active employment.
Normal Retirement Date	Earlier of age 53 or 25 years of service.
Normal Retirement Benefit	2.5% of Final Average Compensation times Credited Service.
Early Retirement Date	Earlier of 5 years early with 10 years of service or 20 years of Credited Service.
Early Retirement Benefit	Benefit is based on Credited Service and Final Average Compensation as of the actual retirement date, then actuarially reduced for each month by which the participant's retirement date precedes Normal Retirement Date.
Normal Form of Annuity	5 Year Certain & Life Annuity.
Deferred Retirement Date	Members may continue to work beyond Normal Retirement.
Deferred Retirement Benefit	Benefit based on Credited Service and Final Average Compensation to actual date of retirement.
Death Benefits Before Retirement	Refund of Employee Contributions with interest to date of death.

Appendix C - Summary of Plan Provisions

Death Benefits After Retirement

Based on form of benefit elected at retirement.

Vesting

Vested according to the following table.

Years of Service	Vesting Percentage
Less than 5 years	0%
5 years	50%
6 years	60%
7 years	70%
8 years	80%
9 years	90%
10 years and over	100%

Termination Benefit Pre-Retirement

Refund of Employee Contributions with interest to date of termination.

Termination Benefit Post-Retirement

On or after Normal Retirement Date but prior to annuity commencement date: Annuity payments to the beneficiary for the five year period commencing on the first of the month following the member's death.

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.