



Town of Trumbull Retirement Plan

Actuarial Valuation Report as of July 1, 2018, for the

Town of Trumbull Retirement Plan

November 29, 2018

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Ms. Maria Pires
Director of Finance
Town of Trumbull
5866 Main Street
Trumbull, CT 06611

Dear Ms. Pires:

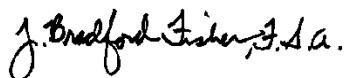
Re: Actuarial Valuation as of July 1, 2018

Attached please find our report that presents the final results of our actuarial valuation of the Town of Trumbull Retirement Plan for the Plan year beginning July 1, 2018. The purposes of this report are:

- To present the basic valuation results; and
- To determine the actuarially determined contribution to the Plan.

Highlights of the valuation are outlined in the Summary of Results section of the report. Please feel free to contact me with any questions.

Sincerely,



J. Bradford Fisher, FSA, E.A.

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Summary of Results

This report contains the results of our actuarial valuation of the Town of Trumbull Retirement Plan. The valuation was performed as of July 1, 2018 for the Plan year ending June 30, 2019. A summary of primary results is given below.

Valuation Results

	July 1, 2018	July 1, 2016	July 1, 2014
Market Value of Assets	\$ 35,368,617	\$ 28,599,503	\$ 26,560,965
Actuarial Value of Assets	35,032,614	30,705,246	24,997,527
Entry Age Actuarial Liability	85,295,652	80,087,551	71,162,375
Funded Ratio	41.1%	38.3%	35.1%
Normal Cost	\$ 711,000	\$ 745,000	\$ 802,000
Actuarially Determined Contribution	5,227,000	5,048,000	4,144,000
- Percent of covered payroll	29.1%	26.9%	24.4%

Participant Summary

Number of Participants	July 1, 2018	July 1, 2016	July 1, 2014
- Active participants	365	406	376
- Former employees due benefits	72	79	68
- Retirees and beneficiaries	372	355	340
- Total participants	809	840	784
- Covered payroll	\$17,938,000	\$18,737,000	\$16,964,000

Commentary

The Actuarially Determined Contribution (“ADC”) for the Plan year beginning July 1, 2018 increased modestly from the employer contribution last year. Asset experience and demographic experience both contributed to the increase. The ADC also increased as a percentage of payroll.

There was a decrease in the total number of Plan participants; however, the number of inactive participants increased. Town contributions during the Plan year ended June 30, 2018 added \$5,048,000 to trust holdings. The actuarial value of assets and market value of assets returned 6.5% and 6.2% respectively during the Plan year ended June 30, 2018, compared to an assumed rate of return on the actuarial value of assets of 7.50%.

The financing objective of the Plan is to fully fund all current costs based on the normal contribution rate payable by the Town, and to amortize the unfunded accrued liability as a level dollar amount over the closed amortization period of 25 years that began in 2016. The ADC described within this report is determined to be sufficient to support the benefits of the Plan and achieve the financing objective set forth above.

Actuarial Certification

Purpose and Use

This report has been prepared exclusively for Town of Trumbull to determine an appropriate contribution level for the Plan. Findley, Inc. is not responsible for consequences resulting from the use of any part of this report without prior authorization and approval. Determinations for other purposes, such as judging benefit security upon plan termination, may be significantly different from the results shown in this report. This report provides actuarial advice and does not constitute legal, accounting, tax, or investment advice.

Data

The actuarial valuation shown in this report has been prepared using employee data and plan documentation furnished by Town of Trumbull as of July 1, 2018, and plan assets furnished by the trustee for the twelve month period ending June 30, 2018. While we have not audited the data, we have reviewed it for reasonableness and internal consistency, and to the best of our knowledge, there are no material limitations to the data provided. A summary of the plan provisions can be found in the Actuarial Basis section of this report.

Assumptions, Methods and Procedures

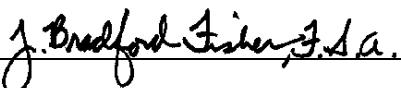
The actuarial calculations contained in the report are built on deterministic actuarial modeling, making a single determination of liabilities and costs. Further, these actuarial calculations are based on a combination of demographic and asset data, as well as assumptions concerning future changes in these data. As such, the actuarial calculations contained herein are an estimate of projected future occurrences.

Regulatory Issues

The determinations of this report have been prepared based on applicable law, final and proposed regulations, and other regulatory guidance provided by the Internal Revenue Service and the Department of Labor. Events such as the enactment of technical corrections to current law, issuance of final regulations, and other guidance may impact the determinations of this report. Findley, Inc. reserves the right to reissue this report should such events materially impact the determinations found in this report.

Professional Qualifications

This report has been prepared under the supervision of J. Bradford Fisher, a member of the American Academy of Actuaries, a Fellow of the Society of Actuaries, and a consulting actuary with Findley, Inc. of Brentwood, Tennessee, who has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. To the best of our knowledge this report has been prepared in accordance with generally accepted actuarial standards, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. We are not aware of any direct or material indirect financial interest or relationship, including investment management or other services that could create, or appear to create, a conflict of interest that would impair the objectivity of our work.



J. Bradford Fisher
Fellow, Society of Actuaries
Enrolled Actuary No. 17-03869

November 29, 2018

Date

Actuarially Determined Contribution (“ADC”)

The Actuarially Determined Contribution for the Plan year beginning July 1, 2018 is based on the Plan’s normal cost plus an amortization amount for unfunded actuarial liability. The Actuarially Determined Contribution includes interest through the end of the 2018-19 Plan year.

Normal Cost	\$711,000
Amortization of Unfunded Liability	4,327,000
Interest	<u>189,000</u>
Actuarially Determined Contribution	\$5,227,000

Allocation of ADC by Department

The Actuarially Determined Contribution is allocated to departments relative to the plan compensation amounts of those departments, as follows:

	Compensation	ADC Allocation
Board of Education		
A: Teachers Aides	\$ 3,176,000	\$ 913,000
C: Custodians	3,268,000	940,000
L: Lunch Program	526,000	151,000
S: Supervisors, Dept. Heads, Non-Represented	1,358,000	390,000
T: Secretaries	<u>1,925,000</u>	<u>554,000</u>
Sub-Total	\$ 10,253,000	\$ 2,948,000
Town		
H: Highway Local 1303	\$ 2,590,000	\$ 745,000
M: Municipal Association	565,000	162,000
N: Nurses	542,000	156,000
S: Supervisors, Dept. Heads, Non-Represented	3,631,000	1,044,000
Y: Administrators	<u>597,000</u>	<u>172,000</u>
Sub-Total	\$ 7,925,000	\$ 2,279,000
Total	\$ 18,178,000	\$ 5,227,000

Normal Cost and Amortization of Unfunded Liability

The Actuarially Determined Contribution would equal the normal cost plus interest if there were no unfunded actuarial liability. Unfunded actuarial liability and normal cost are determined under the Plan's funding method. Additional unfunded liability for changes in Plan provisions, or actuarial methods, as of the valuation date is amortized as a level dollar amount over a closed future period.

	<u>July 1, 2018</u>	<u>July 1, 2016</u>
Present Value of Future Benefits	\$96,542,234	\$92,330,937
Actuarial Value of Assets	(35,032,614)	(30,705,246)
Unfunded Actuarial Liability	<u>(50,263,038)</u>	<u>(49,382,305)</u>
Present Value of Future Normal Costs	\$11,246,582	\$12,243,386
Normal Cost, Gross	1,567,000	1,635,000
Employee Portion	(856,000)	(890,000)
Normal Cost, Net of Employee Contributions	711,000	745,000

Amortization Schedule:

- Unfunded Actuarial Liability	\$ 50,263,038	\$ 49,382,305
- Amortization Factor (23 / 25 years)	11.617191	11.982967
- Annual Amortization	<u>\$ 4,327,000</u>	<u>\$ 4,121,000</u>

Valuation Assets

Valuation assets are based on the market value of assets as reported by the trustee, with excess investment gains and losses recognized $\frac{1}{3}$ per year for three years. Changes in market value are identified below, along with a development of the actuarial value of assets.

	2017/2018	2016/2017
Market Value of Assets, Beginning of Year	\$ 32,705,584	\$ 28,599,503
Employer contributions	5,048,000	4,243,000
Employee contributions	973,039	1,014,599
Benefit Payments	(5,300,450)	(5,131,375)
Contribution Refunds	(73,974)	(13,113)
Administrative Expenses	(27,815)	(27,012)
Net Investment return	<u>2,044,233</u>	<u>4,019,982</u>
Market Value of Assets, End of Year	\$ 35,368,617	\$ 32,705,584
Rate of Return		
Market Value	6.2%	14.0%
Actuarial Value	6.5%	4.9%
Investment Gain/(Loss)		
Expected return at 7.50% Interest	\$ 2,476,124	\$ 2,148,191
Actual return	2,044,233	4,019,982
Investment (gain)/loss	431,891	(1,871,791)
Actuarial Value of Assets	<u>July 1, 2018</u>	<u>July 1, 2017</u>
Market value of assets	\$ 35,368,617	\$ 32,705,584
2/3 prior year (gain)/loss	287,927	(1,247,861)
1/3 second prior year (gain)/loss	<u>(623,930)</u>	<u>834,451</u>
Actuarial Value of Assets	\$ 35,032,614	\$ 32,292,174

Actuarial Basis

This summary is not a Summary Plan Description or a Plan document. You should not rely solely on this summary in making a determination of eligibility for the Plan or its benefits.

Summary of Principal Plan Provisions

Effective Date:	The original effective date is July 1, 1973; amended and restated effective July 1, 2015.
Eligibility:	Previously, all full-time employees not otherwise covered by a plan to which the Town makes a contribution. At its August 2011 meeting, the Trumbull Town Council took action to close the plan to new entrants at various future dates. No employees hired in the future are eligible for this plan.
Service:	Continuous employment with the Town. A period of six months or more but less than one year shall be deemed to be a full year of service; a period of less than six months shall be disregarded. Service will not be credited without corresponding employee contributions for participants who, prior to current plan, did not contribute when first eligible.
Normal Retirement Age:	Later of age 62 and 10 th anniversary of service, or age 60 and age plus service is at least 85.
Normal Retirement Benefit:	A monthly benefit equal to the number of years of service (maximum of 30) multiplied by 2.00% of his average monthly compensation, determined as his average base compensation during the 36 consecutive calendar months preceding his retirement date (or other date of calculation) which produce the highest average. The minimum annual pension is \$1,200.
Early Retirement Benefit:	On termination of employment on or after age 55 with at least 10 years of service, a monthly benefit is payable computed in the same manner as the normal retirement benefit. If payment commences prior to normal retirement age, the immediate benefit is reduced at the rate of 0.5% for each month by which the early retirement date precedes the member's normal retirement date.
Disability Retirement Benefit:	A participant who becomes Social Security disabled after completing 10 years of Service shall be entitled to a monthly benefit, payable immediately and during his continued disability. The amount of the monthly benefit shall be 100% of the participant's deferred accrued benefit, calculated as of the date of his disability. If the disability is work related, the 10 year service requirement does not apply, and the minimum benefit will be 66-2/3% of salary at time of disability. In no event will the pension benefit plus workers compensation and social security disability benefit exceed 100% of salary at time of disability.

Termination Benefit:

If a participant terminates employment after completion of 5 or more years of service, he is entitled to a deferred vested benefit to commence at his normal retirement date, or age 62 if earlier. The amount of the benefit is computed in the same manner as the deferred benefit for normal retirement described above, with the computation being made as of his date of termination, and is multiplied by the vesting percentage in the following table:

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

Employee contributions must remain in the Plan or vested benefit will be forfeited. A cash refund of contributions with credited interest to the date of termination is made to non-vested terminations and vested terminations who agree to forfeit retirement benefit.

Death Benefit
(Prior to Retirement):

Employee contributions will be paid with credited interest to date of death. In addition, the Pension Board will maintain a \$25,000 term life insurance policy for each participating employee (not part of pension plan).

Beneficiaries of fully vested deceased participants have the option to receive 120 months of retirement benefits at the deceased participant's normal retirement date. To receive this benefit, however, the beneficiary may not receive the participant's employee contributions with interest, and must assign the proceeds from the \$25,000 life insurance policy to the pension plan.

Forms of Benefit Payment:

Optional payment forms available include 120 months certain and life annuity, 100% joint and survivor annuity, and 66 2/3% joint and survivor annuity.

Participant Contributions:

Each participant contributes to the plan at rates varying from 3.5% to 6.0% of earnings depending on Town/BOE contract. Interest is credited at the rate of 5.0% per year compounded annually.

Employer Contributions:

Town of Trumbull contributes actuarially determined amounts to finance the plan benefits not provided by participant contributions.

Plan Funding:

All contributions are held in a tax-exempt trusts custodied by Wells Fargo Bank, N.A. and ALPS Holdings, Inc.

Changes from Prior Year:

None.

Summary of Actuarial Cost Methods

Actuarial Valuation Method

Entry Age Normal (level percentage of pay)

Asset Valuation Method

The actuarial value of assets used in the development of plan contributions phases in recognition of gains and losses (the difference between actual and expected asset value). Gain and losses are recognized over a three year period at 1/3 per year.

Amortization Method

Level dollar, closed period

Changes from Prior Year

None

Summary of Actuarial Assumptions

Unless noted below, all assumptions are a combination of estimated future experience and estimates inherent in market data or plan experience.

Mortality Rates

UP-1994 Mortality Table, with current and future mortality improvement estimated by projecting improvement to the year of the valuation using Scale AA (dynamic)

Withdrawal Decrements

Age	Males	Females
20	7.94%	7.94%
25	7.72%	7.72%
30	7.40%	7.40%
35	6.86%	6.86%
40	6.11%	6.11%
45	5.16%	5.16%
50	3.62%	3.62%
55	1.37%	1.37%
60	0.13%	0.13%

Disability Decrements

0.25% per year at each age (non-occupational)

Rate of Retirement

Age	Rate
55-59	3.00%
60-64	10.00%
65-74	20.00%
75-79	25.00%
80+	100.00%

Salary Scale

3.50% per annum

Discount Rate/Rate of Investment Return

7.50% per annum

Other Assumptions

85% of participants are married with spouses assumed to be 3-years younger for male participants and 3-years older for female participants

Changes from Prior Year

None

Summary of Participant Data

Distribution of Active Participants and Average Compensation

Age Group	Years of Service										TOTAL
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-UP		
1-24	1	0	0	0	0	0	0	0	0	0	1
	18,094	0	0	0	0	0	0	0	0	0	18,094
25-29	2	2	1	0	0	0	0	0	0	0	5
	28,594	29,058	57,737	0	0	0	0	0	0	0	34,608
30-34	2	4	0	0	0	0	0	0	0	0	6
	52,990	49,533	0	0	0	0	0	0	0	0	50,685
35-39	1	11	0	2	0	0	0	0	0	0	14
	55,933	56,884	0	72,529	0	0	0	0	0	0	59,051
40-44	0	2	7	3	1	0	0	0	0	0	13
	0	50,059	41,639	72,921	60,649	0	0	0	0	0	51,616
45-49	5	13	15	5	5	0	0	0	0	0	43
	35,936	44,414	55,849	55,577	68,741	0	0	0	0	0	51,544
50-54	3	16	27	19	2	5	5	0	0	0	77
	28,987	41,251	40,248	51,500	69,517	75,947	63,071	0	0	0	47,354
55-59	5	17	24	15	5	7	3	0	0	0	76
	38,472	40,354	32,812	46,247	69,886	56,059	79,785	0	0	0	43,958
60-64	3	12	22	22	14	4	3	1	2	0	83
	41,625	50,990	49,084	49,967	46,752	58,851	62,939	71,751	73,904	0	50,773
65-69	0	8	6	6	4	5	1	2	0	0	32
	0	63,955	43,877	49,289	42,852	66,165	90,963	90,251	0	0	57,635
70-UP	0	1	3	1	5	1	2	1	1	0	15
	0	52,372	29,357	61,249	42,906	67,044	45,373	29,864	79,047	0	45,528
TOTAL	22	86	105	73	36	22	14	4	3	0	365
	37,321	47,458	42,784	51,646	53,703	63,883	66,088	70,529	75,618	0	49,145

Distribution of Inactive Participants with Average Annual Benefit

Attained Age	Retirees and Beneficiaries		Former Employees Due Benefits		
	Number	Average Annual Benefits	Number	Average Annual Benefits	Average Refund of Contributions
Under 30					
30 to 34			2	1,589	
35 to 39	1	18,225	1	9,577	
40 to 44			5	9,717	462
45 to 49			10	6,340	
50 to 54	1	24,778	10	8,418	
55 to 59	5	23,119	17	7,036	
60 to 64	24	19,569	11	7,739	
65 to 69	78	17,803	7	2,193	
70 to 74	88	16,906	4	11,179	
75 to 79	62	14,070	1	2,592	
80 to 84	55	11,667	2	2,305	
85 to 89	34	8,191			
90 to 94	18	7,936	2	2,442	
95 & up	6	4,010			
Total	372	14,688	72	6,747	32

* Six beneficiaries with unidentified ages and receiving certain benefits only are shown in the 65 to 69 age grouping.