



CONSULTING GROUP



A DEFINED BENEFIT **ACTUARIAL VALUATION**

For:

**Warwick School Committee
Employee Retirement Plan**

As of:

July 1, 2018

Prepared by:

USI Consulting Group



CONSULTING GROUP

September 28, 2018

CONFIDENTIAL

Mr. Anthony Ferrucci
Warwick School Department
34 Warwick Lake Avenue
Warwick, RI 02889

Re: Warwick School Committee Employee Retirement Plan

Dear Tony:

We are pleased to present our revised actuarial valuation report for the plan year beginning July 1, 2018. A summary of the principal results of the report is provided for your convenience. Details supporting the cost calculations are also included, as well as other information designed to assist you and your accountant in preparing your reports.

The minimum contribution for the plan year ending June 30, 2019 is \$1,000,253. The alternate contribution to the plan is \$1,248,580.

I would be happy to answer any questions you may have regarding this report.

Sincerely,

USI Consulting Group

A handwritten signature in cursive script, appearing to read "Bill Beck".

Bill Beck, EA, MAAA
Associate Vice President and Actuary

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

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**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

VALUATION AS OF 7/1/2018

PRINCIPAL RESULTS OF THE VALUATION

Below is a summary of the principal results of this year's valuation compared with the previous valuation. Amounts for each valuation period reflect the actuarial cost method, assumptions and plan benefits in effect at that time.

	<u>As of July 1, 2017</u>	<u>As of July 1, 2018</u>
<u>CONTRIBUTION LIMITATIONS</u>		
Minimum Suggested Contribution	\$1,109,882	\$1,000,253
Alternate Contribution	\$1,386,090	\$1,248,580
<u>SUPPORTING INFORMATION</u>		
Actuarial Value of Assets	\$48,797,539	\$53,002,896
Present Value of Vested Benefits	\$42,386,510	\$46,926,712
Present Value of Non-Vested Benefits	\$1,584,983	\$1,475,553
Present Value of Accumulated Benefits	\$43,971,493	\$48,402,265
Funding Ratio - Plan Assets as a Percentage of Present Value of Accumulated Benefits	111.0%	109.5%
Number of Lives Included in Valuation	473	507
Discount Rate	7.0%	7.0%

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

VALUATION AS OF 7/1/2018

EXECUTIVE SUMMARY

Purpose and Scope

The principal purposes of this actuarial valuation report are:

1. To present our calculations of the minimum and alternate contributions for the plan year beginning July 1, 2018, and
2. To review plan experience during the plan year ending June 30, 2018 and the funded status of the plan as of July 1, 2018.

The valuation is based upon employee data provided by Warwick School Committee and financial information provided by Aetna and USI. This data was not audited or otherwise verified by us other than for tests of reasonable consistency with prior year data.

Plan Provisions

This valuation is based on plan provisions effective as of July 1, 2018 which were unchanged from the previous plan year.

Actuarial Methods and Assumptions

The actuarial cost method is the same as last year. The mortality assumption was updated from 2017 IRS Static Mortality to 2018 IRS Static Mortality. The retirement assumption and the disability rates are the same as last year. The salary scale also remains at 3.00%.

Plan Experience

The actuarial value of assets increased from \$48,797,539 to \$53,002,896. The gross rate of investment return was 9.74%, which is higher than the 7.00% interest assumption, resulting in an investment gain of about \$1,402,000. The average salary for continuing active employees increased by 0.54%, which is lower than the expected annual increase of 3.00%. There was a liability loss of about \$1,105,000 due to data changes. The overall actuarial gain was \$297,000. The minimum contribution decreased from \$1,109,882 to \$1,000,253. This is about 9.88% lower than last year.

Plan Contributions

The minimum contribution for the 2018 plan year is \$1,121,181. The alternate contribution is \$1,248,580.

WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN

VALUATION AS OF 7/1/2018

EXECUTIVE SUMMARY
(Continued)

Pension Benefit Obligation

The Projected Benefit Obligation is \$52,510,276 which is \$492,620 lower than the plan assets of \$53,002,896. The assumptions are the same as the Valuation Assumptions.

Funded Status

Over the past five years the plan assets as a percentage of accrued liability has increased from 89.27% to 92.95% on July 1, 2018. The unfunded liability of the plan as a percentage of payroll has decreased from 38% to 34% over the past five years.

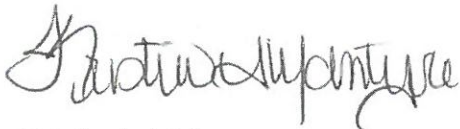
This report has been prepared in accordance with generally accepted actuarial standards and procedures, and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. It is based on the employee and financial data submitted to USI Consulting Group by the plan sponsor and the retirement plan provisions as outlined herein.

I, Bill Beck, EA, 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.

USI CONSULTING GROUP



Bill Beck, EA, MAAA
Associate Vice President and Actuary



Kristin A. McIntyre
Actuarial Team Leader

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

FINANCIAL STATEMENT AS OF 7/1/2018

	<u>7/1/2017</u>	<u>7/1/2018</u>
Cash (and money market funds)	970,594.37	336,238.83
Receivables	0.00	0.00
Investments		
Government Securities	0.00	0.00
Corporate (debt and equity instruments)	0.00	0.00
Pooled Funds/Mutual Funds	43,211,135.83	48,390,650.47
Gartmore Stable Fund	0.00	0.00
Other	8.93	9.56
Total Investments	43,211,144.76	48,390,660.03
Buildings & Other Property used in Plan Operation	0.00	0.00
Insurance Contracts	4,191,137.57	3,946,232.01
Other Assets	424,662.11	329,764.88
Total Assets	48,797,538.81	53,002,895.75
 LIABILITIES AND NET ASSETS		
Payables	0.00	0.00
Acquisition Indebtedness	0.00	0.00
Other Liabilities	0.00	0.00
Total Liabilities	0.00	0.00
Net Assets	48,797,538.81	53,002,895.75
 STATEMENT OF RECEIPTS AND DISBURSEMENTS		
Net Assets at Beginning of Year		48,797,538.81
Contributions Received or Receivable		
Employers	1,152,310.03	
Employees	721,712.03	
Others	0.00	
Miscellaneous Receipts	73,868.12	1,947,890.18
Interest and Dividends		2,927,375.52
Market Adjustment		30.73
Net Unrealized Gain (Loss)		1,795,926.18
Total Income		6,671,222.61
Distribution of Benefits		
Directly to Participants or Beneficiaries	2,265,754.99	
Annuity Purchase	0.00	2,265,754.99
Administrative Expenses		200,110.68
Total Expenses		2,465,865.67
Net Income (loss)		4,205,356.94
Net Assets at End of Year		53,002,895.75

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

VALUATION RESULTS AS OF 7/1/2018

A. Present Value of Future Benefits

The value of all projected retirement, death, and vested termination benefits expected to be paid to current plan participants, discounted to the valuation date with interest, mortality and withdrawal rates.

	<u>Participants</u>	<u>Total</u>
Active	326	43,968,751
Terminated/Inactive/Disabled	35	2,835,562
Retired	146	19,114,120
Total	507	65,918,433

B. Accrued Liability

The portion of the present value of future benefits attributable to prior service.

Active		35,072,033
Terminated/Inactive/Disabled		2,835,562
Retired		19,114,120
Total		57,021,715

C. Valuation Assets 53,002,896

D. Unfunded Accrued Liability [(B) - (C)] 4,018,819

E. Normal Cost

1. Total Normal Cost		1,148,322
2. Expected Employee Contributions		721,181
3. Normal Cost Expense Load		205,000
4. Employer Normal Cost [(1) - (2) + (3)]		632,141

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

CONTRIBUTION CALCULATION FOR PLAN YEAR ENDING 6/30/2019

MINIMUM SUGGESTED CONTRIBUTION

(1) Normal Cost	632,141
(2) 30 Year Amortization of Unfunded Liability	302,675
(3) Interest Adjustment	65,437
(3) Minimum Suggested Contribution	1,000,253

ALTERNATE CONTRIBUTION

(1) Normal Cost	632,141
(2) 10 Year Amortization of Unfunded Liability	534,756
(3) Interest Adjustment	81,683
(4) Alternate Contribution (1) + (2) + (3)	1,248,580

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

PARTICIPANT DATA AS OF 7/1/2018

Active employees under normal retirement age	
Number	269
Total annual compensation	11,769,567
Average accrued benefit	906.87
Average projected benefit	2,887.08
Average attained age	51.21
Average prior service	13.83
Other active and inactive employees	
Number	67
Average accrued benefit	1,237.59
Average attained age	63.98
Deferred vested and disabled employees	
Number	25
Average accrued benefit	974.16
Average attained age	56.67
Retired employees, beneficiaries and contingent annuitants	
Number	146
Average accrued benefit	1,162.38
Average attained age	74.10

RECONCILIATION OF PARTICIPANT STATUS

	<u>Active</u>	<u>Inactive</u>	<u>Deferred Vested</u>	<u>Disabled</u>	<u>Retired</u>	<u>Total</u>
Prior Valuation	311	9	19	7	127	473
Inactive	(1)	1	0	0	0	0
Terminated - not vested	(1)	0	0	0	0	(1)
Terminated - vested	(1)	0	1	0	0	0
Cashed Out	(1)	0	0	0	0	(1)
Deceased	0	0	0	0	(6)	(6)
Disabled	0	0	(2)	2	0	0
Retired	(20)	0	(2)	0	22	0
New Entrants	39	0	0	0	3	42
Rehired	0	0	0	0	0	0
Annuity Purchased	0	0	0	0	0	0
Other	0	0	0	0	0	0
Current Valuation	326	10	16	9	146	507

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

SUMMARY OF PLAN PROVISIONS

<u>Effective Date</u>	6/15/1965
<u>Plan Year Beginning</u>	7/1/2018
<u>Eligibility</u>	
Requirements	Minimum age: 0 Minimum months of service: 3
Eligible Class	An elected School Committee Member or a member covered by the collective bargaining statement.
Entry Dates	1 st day of the month coinciding with or next following the date the requirements are met.
<u>Employee Contributions</u>	5% of earnings during the plan year.
<u>Normal Retirement Date</u>	First day of the month coinciding with or next following attainment of age 62 or, if later, the 10 th anniversary of plan entry, or 32 years of service with 10 years of plan participation.
<u>Normal Retirement Benefit</u>	
Benefit Formula	1.67% of the member's Average Monthly Earnings multiplied by years of participation, plus 0.33% times average monthly earnings times years of participation greater than 20. The yearly amount of annuity for a School Committee Member who becomes a retired member is \$1,000 plus 4.8% times the salary amount for each Plan Year in which one made mandatory Employee contributions.
Average Monthly Earnings	Monthly average of total compensation for the 3 consecutive years of highest compensation of the last 10 years.
Maximum Annual Benefit	\$220,000 as adjusted per IRC sec. 415 for retirement age other than Social Security retirement age and annuity form.
Normal Form of Benefit	Life Annuity
Accrued Benefit	Normal Retirement Benefit based on earnings and Participation to date.

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

SUMMARY OF PLAN PROVISIONS (cont.)

Early Retirement Benefit

Minimum age: 52
Minimum service: 10 Years
Benefit Amount: Accrued Benefit, reduced by 7% for each year by which early retirement precedes normal retirement.

Pre-Retirement Death Benefit

Member contributions with interest plus a \$5,000 lump sum benefit.

Disability Benefit

Determined in the same manner as the normal retirement benefit.

Vested Termination Benefit

Upon termination after 10 years of service, 100% of the accrued benefit, deferred to normal retirement date. A school committee member is 100% vested after 6 years of plan participation.

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

ACTUARIAL COST METHOD

Entry age normal cost. Under this method, the minimum contribution is equal to normal cost with interest to the end of the year plus interest on the unfunded accrued liability. The alternate contribution is equal to the normal cost with interest to the end of the plan year, plus a 10-year amortization of the unfunded accrued liability.

The normal cost is the sum of the individual normal costs, determined as the level percentage of compensation which would have been necessary to fund the employee's projected retirement, death and withdrawal benefits, from entry age (the age at which he would have entered the plan had it been in effect on his employment date), to his retirement age. Thus, the dollar normal cost is expected to increase with the salary projection assumption.

The actuarial accrued liability is the accumulation, based on the actuarial assumptions, of all assumed prior normal costs. Thus, it represents the amount of reserves which would be held by the plan had it always been in effect for the present group of participants and had plan experience followed that predicted by the actuarial assumptions. The unfunded accrued liability is the excess, if any, of the accrued liability over the plan assets.

Actuarial gains and losses arise from differences between plan experience and that predicted by the actuarial assumptions.

The minimum contribution is affected by interest on the net actuarial gain or loss (assets and liabilities). The minimum contribution is also affected by the change in normal cost attributable to liability gains or losses.

The alternate contribution is affected by a 10-year amortization of the net actuarial gain or loss (assets and liabilities). The alternate contribution is also affected by the change in normal cost attributable to liability gains or losses.

ATTRIBUTION PARAMETERS

Attribution parameters determine how growth in the benefit formula is allocated to years of service.

Accrual rate proration, by component – This method attributes the benefit separately for each component of the benefit formula, based on the credited service. If there are no accrual definitions in the benefit formula, then the entire projected benefit is assigned to past service (and considered fully accrued as of the valuation date). This results in "natural" or "direct differencing" attribution.

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

ACCRUED AND VESTED BENEFITS

Vested benefits are based on the plan document's vesting schedule based on years of service. Please refer to the Summary of Plan Provisions section of this report for requirements for particular benefits.

Early retirement subsidies are only valued once participants become eligible by meeting the specified requirements.

Disability and death benefits are treated as vested benefits for liability calculation purposes.

ACTUARIAL ASSUMPTIONS

Post-Retirement

Male Mortality – 2018 IRS Static Mortality for Males

Female Mortality – 2018 IRS Static Mortality for Females

Investment Return – 7.00% per annum

Pre-Retirement

Male Mortality – 2018 IRS Static Mortality for Males

Female Mortality – 2018 IRS Static Mortality for Females

Investment Return – 7.00% per annum

Salary projection – 3.00% per annum

Retirement Rates –	<u>Age</u>	<u>Rate</u>
	62	15%
	63	15%
	64	15%
	65	100%

Expense loading – Administrative Expenses at \$205,000 is assumed

Withdrawal rates – See rates illustrated in table on the next page

Disability rates – See rates illustrated in table on the next page

Interest rate for accumulating employee contributions – 3% per annum

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

ACTUARIAL ASSUMPTIONS *(continued)*

Cost of Living Adjustment – N/A

Long-Term Inflation: 2%

This assumption reflects the following factors:

- Consumer price indices
- Forecasts of inflation
- Yields on government securities of various maturities
- Yields on nominal and inflation-indexed debt

Age	Pre-retirement Decrement Rates					
	Mortality		Withdrawal		Disability	
	Male	Female	Male	Female	Male	Female
25	0.027%	0.013%	4.740%	8.640%	0.030%	0.030%
30	0.038%	0.019%	3.540%	6.990%	0.030%	0.030%
35	0.066%	0.033%	2.661%	5.561%	0.045%	0.045%
40	0.083%	0.043%	1.867%	4.117%	0.092%	0.092%
45	0.098%	0.066%	1.094%	2.744%	0.153%	0.153%
50	0.117%	0.095%	0.258%	1.308%	0.246%	0.246%
55	0.161%	0.194%	0.000%	0.000%	0.402%	0.402%
60	0.287%	0.333%	0.000%	0.000%	0.601%	0.601%

The actuarial assumptions were selected by Warwick Public Schools subsequent to an actuarial experience study dated July 6, 2012.

ASSET VALUATION

Current book value of plan assets as reported by Aetna, Schwab, United of Omaha, and the market value of assets reported by USI Securities, Inc., plus accrued contributions.

**WARWICK SCHOOL COMMITTEE
EMPLOYEE RETIREMENT PLAN**

FAS 35 ACCOUNTING INFORMATION

The following information has been prepared to assist in meeting the requirements of Statement of Financial Accounting Standards No. 35. The information presented is calculated in accordance with our understanding of the Statement. The actuarial assumptions are set forth in the Summary of Actuarial Methods and Assumptions section of this report.

<u>Actuarial Present Value of Accumulated Plan Benefits</u>	<u>7/1/2017</u>	<u>7/1/2018</u>
Vested Benefits		
Participants Currently Receiving Payments	15,983,764	19,114,120
Other Participants		
Active Employees	24,740,062	24,977,030
Deceased and Disabled Employees	943,496	1,809,606
Deferred Vested Terminated Employees	719,188	1,025,956
Total Vested Benefits	<u>42,386,510</u>	<u>46,926,712</u>
Nonvested Benefits	<u>1,584,983</u>	<u>1,475,553</u>
Total Actuarial Present Value of Accumulated Plan Benefits	43,971,493	48,402,265
Assets Available for Benefits	<u>\$ 48,797,539</u>	<u>\$ 53,002,896</u>
Assets as a Percentage of Present Value of		
Vested Benefits	115.1%	112.9%
Accumulated Benefits	111.0%	109.5%
Discount Rate:	7.0%	7.0%

Statement of Changes in Accumulated Plan Benefits

Actuarial Present Value of Accumulated Plan Benefits as of 7/1/2017	43,971,493
Increase (Decrease) Attributable to:	
Benefits Paid	(2,265,755)
Interest Due to Change in the Discount Period	3,000,045
Plan Amendment	0
Change in Assumptions	70,626
Additional Benefits Earned, Including Experience Gains and Losses	<u>3,625,856</u>
Actuarial Present Value of Accumulated Plan Benefits as of 7/1/2018	48,402,265
Projected Benefit Obligation	52,510,276