

December 24, 2018

The Honorable Dan Rosenthal
TOWN OF NEWTOWN
Edmond Town Hall
3 Primrose St.
Newtown, CT 06470

Re: Town of Newtown Pension Plan - Selectmen and
Board of Education Personnel & Elected Officials Pension Plan
Our File No. 2823

Dear First Selectman Rosenthal:

We are pleased to present your Annual Valuation Report as of July 1, 2018. Again this year we have separated the report into two sections, with Part I containing the general calculations and disclosures, and Part II covering the individual participants benefit data. Part II will be completed after the new year.

For the 2019-2020 Fiscal Year of the Town, our recommended contribution is as follows:

| As of July 1, 2019: | <u>Recommended</u> |
|----------------------------|--------------------|
| Selectmen | \$ 720,920 |
| Police (see separate rpt.) | <u>988,509</u> |
| Total Town of Newtown | \$1,709,429 |
| Board of Education: | \$ 669,083 |

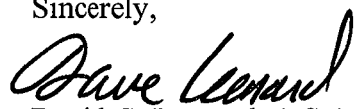
The above recommended contributions amounts are based on the second year of a three year phase in of a reduction in the assumed interest rate from 7.5% to 7.0%.

If the deposits are to be made substantially later than July 1, 2019, interest at 7.0% per annum should be added.

Please see the General Comments section of the valuation report for information regarding changes in the plan's contribution requirements. At the end of the report is the information on the Elected Officials Pension Plan.

Please let me know if you have any questions or comments concerning this report.

Sincerely,


David G. Leonard, A.S.A.
Account Executive

cc: Ellen Whelan (8 copies)

Robert Tait

MAKING A DIFFERENCE SINCE 1947

ACTUARIAL CERTIFICATION

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.

The valuation is based on employee and plan financial data which were provided by the Plan Administrator, Plan Trustee, and various financial institutions. All information submitted to us has been reviewed for reasonableness and consistency, but has otherwise been accepted and relied upon without audit. The plan provisions and other material assumptions are disclosed in report in their respective sections.

Projected mortality improvements have been recognized through the use of SOA tables RP-2014 with projection scale MP-2017. This represents a change from 2017 when the prior year's projection scale, MP-2016 was employed.

To the best of our knowledge, the information supplied in this report is complete and accurate.

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as the following: plan experience differing from that anticipated; 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.

I, David G. Leonard, A.S.A., E.A., am a member of the Society of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained here



David G. Leonard, A.S.A.

Enrollment #17-03604

12/24/18

Date

ANNUAL VALUATION REPORT
FOR
TOWN OF NEWTOWN PENSION PLAN
BOARDS OF SELECTMEN AND EDUCATION
AS OF JULY 1, 2018

Prepared by:

David G. Leonard, ASA
T R PAUL, INC.

December 24, 2018

TOWN OF NEWTOWN PENSION PLAN

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TOWN OF NEWTOWN PENSION PLAN

I. HIGHLIGHTS

This section of the report summarizes the results of the July 1, 2018 actuarial valuation and provides a comparison with the results of the prior valuation. The development of these items for the current valuation is shown in the remaining sections of the report. The percentage in parenthesis express each amount as a percentage of covered payroll:

| | July 1, 2018 <u>Valuation</u> | | July 1, 2017 <u>Valuation</u> | |
|--|----------------------------------|-------------------|----------------------------------|-------------------|
| 1. Recommended Annual Contributions:* | | | | |
| a. Board of Selectmen | \$720,920 | (9.7%) | \$626,219 | (8.6%) |
| b. Board of Education | \$669,083 | (9.1%) | \$642,711 | (8.3%) |
| c. Total Town Plan | \$1,390,003 | (9.4%) | \$1,268,930 | (8.5%) |
| 2. Covered Payroll of Participants (pension earnings projected for the fiscal year following the valuation date) | | | | |
| a. Board of Selectmen | \$7,409,789 | | \$7,282,538 | |
| b. Board of Education | \$7,335,284 | | \$7,699,003 | |
| c. Total Town Plan | \$14,745,073 | | \$14,981,541 | |
| 3. Net Normal Cost (EAN / PUC) | \$823,892 | (5.6%) | \$874,468 | (5.8%) |
| 4. Accrued Actuarial Liability (EAN / PUC) | \$32,456,485 | | \$30,630,006 | |
| 5. Assets - Market Value (MV) | \$26,552,507 | | \$24,549,593 | |
| - Valuation Assets (VA) | \$27,126,749 | | \$25,816,265 | |
| 6. Unfunded Accrued Liability (VA) | \$5,329,736 | | \$4,813,741 | |
| 7. Actuarial Value of Benefits (total plan): | | | | |
| a. Value of Vested Accrued Benefits | \$26,886,395 | | \$25,295,275 | |
| b. Value of Non-Vested Accrued Bens. | \$685,300 | | \$850,415 | |
| c. MV Assets in excess of Vested Benefits (5 minus 7a) | (\$333,888) | | (\$745,682) | |
| 8. Number of Participants: | <u>Sel.</u> | <u>Bd. of Ed.</u> | <u>Sel.</u> | <u>Bd. of Ed.</u> |
| a. Active Participants | 130 | 175 | 132 | 191 |
| b. Retired and Beneficiaries | 66 | 61 | 68 | 57 |
| c. Terminated Vested Participants (includes refunds only due) | 19 | 22 | 15 | 15 |
| d. Total | 215 | 258 | 215 | 263 |

* Calculated assuming end of the fiscal year payment, for use in following fiscal year as of July 1.

TOWN OF NEWTOWN PENSION PLAN

II. GENERAL COMMENTS

The July 1, 2018 valuation report was prepared on a group of 130 active members in the Selectmen's accounts, and 175 members for the Board of Education. This represents a decrease of eighteen (18) active members from 2017, mostly in the Board of Education.

The recommended contribution produced by the July 1, 2018 valuation increased \$121,073, to a recommended level of \$1,390,003 for the 2019-20 fiscal year. The Selectman group's recommended contribution again increased more than the Board of Education, \$94,701 to \$26,372 for the Board of Ed.

A summary of the factors in the change for the year reveals the following:

| | <u>Selectmen</u> | <u>Bd. of Education</u> |
|---|------------------|-------------------------|
| Change in Normal Cost: | \$ (5,659) | \$ (49,648) |
| Valuation Asset Losses: | 56,276 | 45,367 |
| New Members: | 16,612 | 2,538 |
| Change in Assumptions (phased in interest rates) | 35,477 | 32,766 |
| Misc. Actuarial Factors: | (8,005) | (4,651) |
| Total Changes: | \$ 94,701 | \$ 26,372 |

The July 1, 2018 Valuation was prepared based on the second year of the 7.00% interest rate phase in. The full 7% rate calculation would have resulted in a recommended contribution for next year of \$1,458,238, or \$68,000 more than this year's phased in amount. It is interesting to note that the full 7% recommendation increased about \$24,000 from last year to this year. Additionally, the actuarial losses under the 7% calculation were less than the 7.5% version, mainly due to "lowered expectations" for the trust asset yield. Next year's valuation will be run at 7.00%, so there will be a planned increase of perhaps another \$70,000.

A side effect of the phase in can be seen on our new schedule of funding base history, temporarily located on page 7a. Because the full 7% contribution was not made last year, the plan experienced a negative amortization on the initial 20 year base. We will address any funding concerns from this in future reports, after 7% has been fully phased in.

For now, the new base for 2018 is shown with a ten (10) year amortization, however the magnitude of the losses this year is much less than the initial base from 2017.

TOWN OF NEWTOWN PENSION PLAN

II. GENERAL COMMENTS

As projected last year, this year's recognition of previous asset losses from the smoothed valuation method did impact the recommended contribution this year by about \$100,000, not counting the Police Plan. The breakdown for this plan is shown on the table on the prior page.

The market rate of return was 7.30%, however the valuation yield came in at only 4.22%. The good news is that the unrecognized loss was reduced from more than \$2,000,000 to less than one million dollars as of July 1, 2018, with the expectation that next year the trust will show a small unrecognized gain.

Two caveats to that thought – one is that we have included an increase to the recommended contribution in anticipation of next year's loss recognition, and the other is that at the time of this writing the equity markets are in a free fall, which could cause a new round of losses. The smoothing will take any new losses as of June 30, 2019 in stride, deferring recognition of 80%, but any large losses will again weigh down the progress of the funding for several more years.

After the valuation asset losses and the continued phase in of the 7.00% interest assumption, the next most important factor in the cost calculations for the year was the participant experience, which was fairly neutral for the Selectman's departments, and very positive for the Board of Education.

For the Selectman, the number of active members decreased just slightly, however the normal cost decreased as salary increase rates came in at a 1.74% average, which is modestly under our assumed rate of 3.0%.

On the Board of Education side, with no direct new members added to the plan their active population shrank by sixteen (16), with the Normal Cost following suit with a decrease of almost \$50,000. The average continuing active member experienced a 2.99% salary increase, so that was right in line with the assumed rate.

The mortality experience for the year for the plan as a whole followed expectations reasonably well, so there was no push in either direction from the retiree population.

The plan's market value funding ratios again improved. The funding of accrued actuarial liabilities at 7% interest increased 4.7% points to 86.7%, while the accrued benefit measure increased 2.4% points to 96.3%.

Note that the trust assets in this report differ from the GASB statement in that prepaid benefits are not included in the GASB disclosures.

TOWN OF NEWTOWN PENSION PLAN
III. PLAN ASSETS

A. Summary

| Investment | 07/01/2017 Beginning Balance | Employer Contribs. | Employee Contribs. | Net Investment Income | Trust Expenses | Transfer EEs Distributions | Transfers out | 06/30/2018 Ending Balance |
|----------------------------------|------------------------------------|-----------------------|-----------------------|-----------------------------|-------------------|-------------------------------|---------------|---------------------------------|
| ER Contrib. Receivable/(Payable) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EE Contrib. Receivable | 14,126 | 0 | (11,688) | 0 | 0 | 0 | 0 | 2,439 |
| Distribution Due PARS | 42 | 0 | 0 | (42) | 0 | (3,095) | 0 | (3,095) |
| Prepaid Benefits | 178,330 | 0 | 0 | 0 | 0 | (11,553) | 0 | 166,777 |
| Wells Fargo / Westport Resources | | | | | | | | 0 |
| Cash | 701,182 | 1,896,113 | 490,574 | 1,274,144 | (112,775) | (2,099,811) | (1,802,504) | 346,923 |
| Investments | 38,762,085 | 0 | 0 | 1,885,941 | 0 | 0 | 1,802,504 | 42,450,530 |
| Accrued Interest | 118,448 | 0 | 0 | (115,843) | 0 | 0 | 0 | 2,604 |
| <u>PLAN TOTALS</u> | 39,774,214 | 1,896,113 | 478,886 | 3,044,199 | (112,775) | (2,114,459) | 0 | 42,966,178 |

Distribution of Assets by Department

| Plan Category | 07/01/2017 Beginning Balance | Employer Contribs. | Employee Contribs. | Net Investment Income* | Distributions | 06/30/2018 Ending Balance | 06/30/2018 Valuation Asset Balance |
|-------------------|------------------------------------|-----------------------|-----------------------|------------------------------|---------------|---------------------------------|--|
| Town Plan | 24,549,593 | 1,070,329 | 282,586 | 1,780,926 | (1,130,926) | 26,552,508 | 27,126,749 |
| Elected officials | 150,979 | 10,810 | 3,434 | 10,362 | (75,182) | 100,404 | N/A |
| Police Plan | 15,073,641 | 814,974 | 192,867 | 1,140,136 | (908,350) | 16,313,268 | 16,666,070 |
| Grand Total | 39,774,214 | 1,896,113 | 478,887 | 2,931,424 | (2,114,459) | 42,966,179 | 43,792,819 |

* Income reduced for trust expenses; allocated on a weighted basis by Wells Fargo.

TOWN OF NEWTOWN PENSION PLAN

III. PLAN ASSETS (Continued)

B. Development of Valuation Assets (Actuarial Value of Assets)

The Actuarial Valuation of Assets is calculated by recognizing 20% of the current year's actuarial gain or loss (to the 7.5% assumed rate of return), along with recognition of prior year's gains or losses that are also being recognized 20% per year. The final Valuation Asset level is subject to a corridor of 80% to 120% of the Market Value.

The prior smoothed actuarial asset valuation method was changed for the July 1, 2015 valuation, using the initial unrecognized gains from July 1, 2015 as the only prior base in place.

This method was then modified slightly for 2016 to anticipate Market Value yield at the assumed rate, rather than Expected Valuation Asset Value yield. Please see following page for additional detail.

The following illustrates the calculation of the Actuarial Value of Assets for June 30, 2018:

| | |
|--|---------------------|
| 1. Assumed market value yield at valuation rate* | \$2,792,502 |
| 2. Actual MV Yield for June 30, 2017 ** | 2,921,062 |
| 3. Current Year (Gain)/Loss on Market value yield* (1) - (2) | (128,559) |
| 4. Portion of Curr. Yr. Loss to be Recognized in 2017 (3) x 20% | (25,712) |
| 5. Portion of Current Years (Gain)/Loss Not Recognized in 2017 | (102,848) |
| 6. Prior Unrec. (Gains)/ losses - June 30, 2018 - see next page | 1,029,890 |
| 7. Total Unrecognized (Gains)/Losses (5) + (6) | 927,043 |
| 8. Market Value of Trust Assets as of June 30, 2018 | 42,865,776 |
| 9. Preliminary Actuarial Value of Assets - June 30, 2018 (7)+(8) | \$43,792,819 |
| 10. (a) 80% corridor of Market Value | 34,292,621 |
| (b) 120% corridor of Market Value | 51,438,931 |
| 11. Final Actuarial Value of Assets - June 30, 2018*** | \$43,792,819 |

The Preliminary Actuarial Value of Assets is 102.2% of the Market Value, and thus falls within the 80% to 120% corridor of actual June 30, 2018 Market Value.

The yield on Valuation Assets for the 2017-2018 Plan Year was 4.22%.

* Assumed income is calculated based on a weighted balance which takes into account the date that the contributions and distributions are made to the fund.

** All items shown exclude the Money Purchase Plan assets. There were no receivable contributions as of the end of the fiscal year.

*** Includes both Town Plan and Police Plan

TOWN OF NEWTOWN PENSION PLAN

III. PLAN ASSETS (Continued)

C. SMOOTHED VALUATION ASSET AND UNRECONGNIZED (G)/L DETAIL- INCLUDES TOWN AND POLICE PLAN

Smoothed Valuation Asset Calculation

| | Transition Year <u>07/01/2014</u> | <u>06/30/2015</u> | <u>06/30/2016</u> | <u>06/30/2017</u> | <u>06/30/2018</u> | <u>06/30/2019</u> | <u>06/30/2020</u> |
|--|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Actuarial Value of Assets | \$36,445,798 | | | | | | |
| Market Value of Assets | 34,676,083 | 35,698,524 | 34,740,866 | 39,623,234 | 42,865,776 | | |
| Unrecognized (G)/L | 1,769,715 | | | | | | |
| Recognized in Year (for 6/30/15) | (442,429) | | | | | | |
| Expected Earnings at Market Value (7.50%/7.00%)* | | 2,662,813 | 2,730,057 | 2,680,400 | 2,792,502 | | |
| Actual Earnings MV | | 977,145 | (1,017,424) | 4,614,032 | 2,921,062 | | |
| Actuarial (Gain)/Loss on MV | | 1,685,668 | 3,747,481 | (1,933,631) | (128,559) | | |
| Recognition of current years (Gain)/Loss | | (337,134) | (749,496) | 386,726 | 25,712 | | |

Anticipated Unrecognized (Gain)/Loss for Future Years

| | | | | | | |
|--|--------------|--------------|--------------|--------------|-----------|-----------|
| Remaining Unrecognized (G)/L - 7/1/14 Trans. | 1,327,286 | 1,061,829 | 707,886 | 353,943 | 0 | 0 |
| Remaining Unrecognized (G)/L - 6/30/15 (G)/L | 1,348,534 | 1,011,401 | 674,267 | 337,134 | 0 | 0 |
| Remaining Unrecognized (G)/L - 6/30/16 (G)/L | | 2,997,985 | 2,248,489 | 1,498,992 | 749,496 | 0 |
| Remaining Unrecognized (G)/L - 6/30/17 (G)/L | | | (1,546,905) | (1,160,179) | (773,452) | (386,726) |
| Remaining Unrecognized (G)/L - 6/30/18 (G)/L | | | | (102,848) | (102,848) | (102,848) |
| Remaining Unrecognized (G)/L - 6/30/19 (G)/L | | | | | 0 | 0 |
| Total Unrecognized (Gains)/Losses | 2,675,820 | 5,071,214 | 2,083,737 | 927,043 | (126,804) | (489,574) |
| Market Value of Assets - EOY | 35,698,524 | 34,740,866 | 39,623,234 | 42,865,776 | | |
| Total Unrecognized (Gain)/Loss | 2,675,820 | 5,071,214 | 2,083,737 | 927,043 | | |
| Actuarial Value of Assets - EOY | \$38,374,344 | \$39,812,081 | \$41,706,971 | \$43,792,819 | | |

* Calculated using weighted contributions - ER by date, EE at 50%, Distrib at 50%. 7.00% interest assumption effective July 1, 2017 forward.

Note: 6/30/2015 Valuation Assets shown above based on the "new" method and do not equal the Valuation Assets used for the July 1, 2015 valuation Report.
Outstanding balance of 2018 unrecognized gain for 2021 Valuation not shown.

TOWN OF NEWTOWN PENSION PLAN

IV. ANNUAL VALUATION - JULY 1, 2018

a. Calculation of Recommended Contributions Assumes 7.50%

| | SELECTMEN | BOARD OF ED. | TOTALS |
|--|--------------|-----------------|--------------|
| 1. Gross Normal Cost as of 7/1/2018 | \$503,277 | \$490,278 | \$993,554 |
| 2. Expenses | 6,728 | 6,272 | 13,000 |
| 3. Expected Employee Contributions | 139,786 | 140,722 | 280,508 |
| 4. Net Normal Cost (1 + 2 - 3) as of 7/1/2018 | 370,218 | 355,828 | 726,047 |
| 5. Accrued Liability: | | | |
| i. Active Employees | 9,896,148 | 9,514,882 | 19,411,029 |
| ii. Inactive Employees | 801,091 | 858,779 | 1,659,870 |
| iii. Retired Participants | 5,928,439 | 3,888,366 | 9,816,804 |
| 6. Total Accrued Liability | \$16,625,677 | \$14,262,027 | \$30,887,704 |
| 7. Plan Assets - Blended Value | 14,647,302 | 12,479,447 | 27,126,749 |
| 8. Unfunded (overfunded) Accrued Liability (6 - 7) | 1,978,376 | 1,782,579 | 3,760,955 |
| 9. Amortization of Unfunded (Overfunded) Accd. Liability* | 199,670 | 178,921 | 378,591 |
| 10. Normal Cost plus Amortization 7/1/2018 (4 + 9) | 569,889 | 534,749 | 1,104,638 |
| 11. Recommended Contrib.- 2019-2020 to be paid 7/01/2019 (10 adjusted for time passage**) | \$649,974 | \$603,558 | \$1,253,532 |

* Initial EAN Base amortized over 20 years. (Gains)/losses starting with July 1, 2018 will be amortized over 10 years.

** 2019 adjustment takes into account the expected increases from unrecognized trust asset losses for 2019, plus normal cost increases assumed in the funding method.

TOWN OF NEWTOWN PENSION PLAN

IV. ANNUAL VALUATION - JULY 1, 2018

b. Calculation of Recommended Contributions Assumes 7.00%

| | SELECTMEN | BOARD OF ED. | TOTALS |
|--|--------------|-----------------|--------------|
| 1. Gross Normal Cost as of 7/1/2018 | \$550,649 | \$540,750 | \$1,091,400 |
| 2. Expenses | 6,728 | 6,272 | 13,000 |
| 3. Expected Employee Contributions | 139,786 | 140,722 | 280,508 |
| 4. Net Normal Cost (1 + 2 - 3) as of 7/1/2018 | 417,591 | 406,300 | 823,892 |
| 5. Accrued Liability: | | | |
| i. Active Employees | 10,463,636 | 10,070,699 | 20,534,335 |
| ii. Inactive Employees | 861,842 | 890,602 | 1,752,444 |
| iii. Retired Participants | 6,145,827 | 4,023,879 | 10,169,706 |
| 6. Total Accrued Liability | \$17,471,305 | \$14,985,180 | \$32,456,485 |
| 7. Plan Assets - Blended Value | 14,647,302 | 12,479,447 | 27,126,749 |
| 8. Unfunded (overfunded) Accrued Liability (6 - 7) | 2,824,003 | 2,505,733 | 5,329,736 |
| 9. Amortization of Unfunded (Overfunded) Accd. Liability* | 255,534 | 224,013 | 479,547 |
| 10. Normal Cost plus Amortization 7/1/2018 (4 + 9) | 673,125 | 630,313 | 1,303,438 |
| 11. Recommended Contrib.- 2019-2020 to be paid 7/01/2019 (10 adjusted for time passage**) | \$756,393 | \$701,845 | \$1,458,238 |

* Initial EAN Base amortized over 20 years. (Gains)/losses starting with July 1, 2018 will be amortized over 10 years.

** 2019 adjustment takes into account the expected increases from unrecognized trust asset losses for 2019, plus normal cost increases assumed in the funding method.

TOWN OF NEWTOWN PENSION PLAN

IV. ANNUAL VALUATION - JULY 1, 2018

b. Summary of Funding Bases

SELECTMEN

| Summary of Funding Bases | Initial Base | Rem. Bal. -18 | Min. Amort. | Rem. Yrs (at min) |
|----------------------------------|--------------|---------------|-------------|----------------------|
| Initial Base - 7/1/17 | \$ 2,447,983 | \$ 2,546,016 | \$ 215,955 | 19 |
| (Gain)/Loss/Amend/Changes - 2018 | \$ 277,987 | \$ 277,987 | \$ 39,579 | 10 |
| Totals | \$ 2,725,970 | \$ 2,824,003 | \$ 255,534 | |

BOARD OF EDUCATION

| Summary of Funding Bases | Initial Base | Rem. Bal. -18 | Min. Amort. | Rem. Yrs (at min) |
|----------------------------------|--------------|---------------|-------------|----------------------|
| Initial Base - 7/1/17 | \$ 2,365,758 | \$ 2,398,196 | \$ 208,702 | 19 |
| (Gain)/Loss/Amend/Changes - 2018 | \$ 107,537 | \$ 107,537 | \$ 15,311 | 10 |
| Totals | \$ 2,473,295 | \$ 2,505,733 | \$ 224,013 | |

Funding Bases shown at 7.0% only.

If remaining balance is greater than the initial base, then negative amortization has occurred.

- this is an expected result based on the phasing in of the 7.0% discount assumption.

TOWN OF NEWTOWN PENSION PLAN

IV. ANNUAL VALUATION - JULY 1, 2018

c. Calculation of Blended Contributions

| | SELECTMEN | BOARD OF ED. | TOTALS |
|--|-----------|-----------------|-------------|
| 1. Recommended Contrib. - 7.5% | \$649,974 | \$603,558 | \$1,253,532 |
| 2. Recommended Contrib. - 7.0% | \$756,393 | \$701,845 | \$1,458,238 |
| 3. Recommended Contrib.- 2019-2020 Blended: 1/3 (7.5%) + 2/3 (7.0%) | \$720,920 | \$669,083 | \$1,390,003 |

d. Comparison of Results

| | SELECTMEN | BOARD OF ED. | TOTALS |
|---|--------------|-----------------|--------------|
| 4. Gross Normal Cost | | | |
| a. Normal Cost at 7.5% | \$503,277 | \$490,278 | \$993,554 |
| b. Normal Cost at 7.0% | 550,649 | 540,750 | 1,091,400 |
| c. Difference | 47,373 | 50,472 | 97,845 |
| 5. Accrued Liability: | | | |
| a. Liability at 7.5% | \$16,625,677 | \$14,262,027 | \$30,887,704 |
| b. Liability at 7.0% | 17,471,305 | 14,985,180 | 32,456,485 |
| c. Difference | 845,627 | 723,154 | 1,568,781 |
| 6. Plan Assets - Blended Value | 14,647,302 | 12,479,447 | 27,126,749 |
| 7. Unfunded (overfunded) Accrued Liability (5 - 6) | | | |
| a. Unfunded at 7.5% | 1,978,376 | 1,782,579 | 3,760,955 |
| b. Unfunded at 7.0% | 2,824,003 | 2,505,733 | 5,329,736 |
| c. Difference | 845,627 | 723,154 | 1,568,781 |

* Initial EAN Base amortized over 20 years. Future (gains)/losses will be amortized over 10 years.

TOWN OF NEWTOWN PENSION PLAN

IV. ANNUAL VALUATION - JULY 1, 2018

e. GASB Statement 67 and FASB Statement 35/36 Information

| | SELECTMEN | BOARD OF ED. | TOTALS |
|---|--------------|-----------------|--------------|
| I. ACTUARIAL ACCRUED LIABILITY - 7.00% | | | |
| a. Retirees/Benefic./Terminated | \$7,007,669 | \$4,914,481 | \$11,922,150 |
| b. Current Employees | | | |
| I. EE Contr. & Intr. | 2,139,737 | 2,009,098 | 4,148,835 |
| II. ER Financed Vested | 6,911,037 | 6,261,448 | 13,172,485 |
| III. ER Financed Non-Vested | 430,411 | 963,987 | 1,394,399 |
| c. TOTALS | \$16,488,854 | \$14,149,015 | \$30,637,869 |
| d. ASSETS - Market Value | \$14,337,235 | \$12,215,272 | \$26,552,507 |
| e. FUNDED RATIO (7/1/2018) at 7.0% | 86.95% | 86.33% | 86.67% |
| f. FUNDED RATIO (7/1/2017) at 7.0% | 83.19% | 80.71% | 82.05% |
| <i>- These results will differ from the actual GASB disclosures, which are based on projected liabilities in order to ensure timely delivery.</i> | | | |
| II. PRESENT VALUE OF ACCRUED BENEFITS - 7.00% | | | |
| a. Retirees/Benefic./Terminated | \$7,007,669 | \$4,914,481 | \$11,922,150 |
| b. Current Employees | | | |
| I. EE Contr. & Intr. | 2,139,737 | 2,009,098 | 4,148,835 |
| II. ER Financed Vested | 5,491,758 | 5,323,652 | 10,815,410 |
| III. ER Financed Non-Vested | 221,569 | 463,731 | 685,300 |
| c. TOTALS | \$14,860,733 | \$12,710,962 | \$27,571,695 |
| d. ASSETS - Market Value | \$14,337,235 | \$12,215,272 | \$26,552,507 |
| e. FUNDED RATIO (7/1/2018) | 96.48% | 96.10% | 96.30% |
| f. FUNDED RATIO (7/1/2017) | 94.80% | 92.82% | 93.90% |

TOWN OF NEWTOWN PENSION PLAN

V. HISTORY OF PLAN CONTRIBUTIONS AND LIABILITIES

| Plan Year Beginning | Participants Act. - Other | | Compensation* | Accrued Liability*** | Market Value Assets | Unfunded Accrued Liability** | Recommended Contribution | (***) | Actual Town Contribution |
|------------------------|------------------------------|-----|------------------|-------------------------|---------------------------|------------------------------------|-----------------------------|-----------|--------------------------------|
| 1/1/1990 | 91 | 37 | \$2,050,023 | \$1,902,884 | \$2,141,739 | (\$238,855) | \$102,982 | (5.02%) | \$114,531 |
| 7/1/1995 | 130 | 35 | 3,708,414 | 3,751,830 | 3,840,917 | (89,087) | 208,274 | (5.62%) | 208,274 |
| 7/1/2000 | 161 | 58 | 5,400,600 | 6,647,849 | 8,409,663 | (1,761,814) | 79,486 | (1.47%) | 80,297 |
| 7/1/2005 | 274 | 86 | 9,809,015 | 11,515,670 | 11,857,942 | (342,272) | 416,365 | (4.24%) | 420,381 |
| 7/1/2010 | 341 | 111 | 13,109,110 | 17,709,414 | 14,861,965 | 2,847,449 | 663,805 | (5.06%) | 651,581 |
| 7/1/2014 | 338 | 129 | 14,332,155 | 22,250,733 | 20,979,551 | 1,271,182 | 757,780 | (5.29%) | 731,579 |
| 7/1/2015 | 340 | 130 | 14,648,086 | 24,619,393 | 21,638,928 | 2,980,465 | 836,136 | (5.71%) | 836,137 |
| 7/1/2016 | 321 | 147 | 14,390,882 | 26,188,592 | 21,154,338 | 5,034,254 | 1,001,871 | (6.96%) | 1,001,870 |
| 2017 Select. | 132 | 83 | 7,282,538 | 16,587,728 | 13,467,334 | 3,120,394 | 495,371 | (6.80%) | 495,370 |
| 2017 Board | 191 | 72 | 7,699,003 | 14,042,278 | 10,777,797 | 3,264,481 | 574,958 | (7.47%) | 574,958 |
| 07/01/2017 (tot) | 323 | 155 | 14,981,541 | 30,630,006 | 24,245,131 | 6,384,875 | 1,070,329 | (7.14%) | 1,070,328 |
| 2018 Select. | 130 | 85 | 7,409,789 | 17,471,305 | 14,337,235 | 3,134,070 | 626,219 | (8.45%) | |
| 2018 Board | 175 | 83 | <u>7,335,284</u> | <u>14,985,180</u> | <u>12,215,272</u> | <u>2,769,908</u> | <u>642,711</u> | (8.76%) | |
| 07/01/2018 (tot) | 305 | 168 | 14,745,073 | 32,456,485 | 26,552,507 | 5,903,978 | 1,268,930 | (8.61%) | |

* Compensation shown is expected for the twelve months following the valuation date for active members only.

**Based on Market Value, not Valuation Assets.

*** Figures in parenthesis are Recommended Contribution as a percentage of compensation. Recommended Contribution is based on prior year's valuation rolled forward, not on current valuation. The 2018 valuation produced a Recommended Contribution of \$1,390,003 for the 2019-2020

**** Beginning 7/1/2017 the actuarial liability is calculated at a 7.0% interest rate.

TOWN OF NEWTOWN PENSION PLAN

VI. PARTICIPANT DATA RECONCILIATION

The total number of active plan participants as of the current valuation date is reconciled with the total number as of the prior valuation date as follows:

| | <u>Selectmen's Accounts</u> | <u>Board of Education</u> | <u>Plan Totals</u> |
|---|---------------------------------|-------------------------------|------------------------|
| Number of Active Participants as of July 1, 2017: | 132 | 191 | 323 |
| Decreases: | | | |
| Non-Vested Terminations: | (4) | (8) | (12) |
| Vested Terminations: | (2) | (3) | (5) |
| Retirements: | (1) | (6) | (7) |
| Deaths, Transfers: | <u>0</u> | <u>0</u> | <u>0</u> |
| Total Increases/(Decreases): | (7) | (17) | (24) |
| New Entrants during 2017-2018: - includes rehires/reinstatements | <u>5</u> | <u>1</u> | <u>6</u> |
| Net Change: | <u>(2)</u> | <u>(16)</u> | <u>(18)</u> |
| Number of Active Participants as of July 1, 2018: | 130 | 175 | 305 |
| Also as of July 1, 2018: | | | |
| **Total Vested Terminated: | 19 | 22 | 41 |
| Total Retired: | <u>66</u> | <u>61</u> | <u>127</u> |
| TOTAL PARTICIPANTS: | 215 | 258 | 473 |

* Active participants include Late Retirees and exclude Inactives.

** Includes 9 participants due refunds of contributions and interest,
and other inactive participants who may not have terminated.

TOWN OF NEWTOWN PENSION PLAN

APPENDIX APENSION TRUST SUMMARY

PLAN SPONSOR: Town of Newtown
 EFFECTIVE DATE: July 1, 1965
 ANNIVERSARY DATE: July 1 of each year.
 VALUATION DATE: JULY 1, 2018

DEFINITIONS

Compensation: Base Salary as of July 1 each year. For departments that do not report base salary, actual earnings from prior plan year are used. Final Average Compensation includes the participants five (5) highest consecutive years.

Participation: Eligibility - Service: 6 Months
 Maximum Age: 60

Entry Date: On the first day of the month following satisfaction of eligibility, with the participant's election to make employee contributions (2% of base salary).

Service: Continuous employment with the Town.

Credited Service: Service used in the determination of plan benefits. Includes all service except:

- (1) Service in excess of 30 years.
- (2) Service after July 1, 1965 during which an employee could have made employee contributions but did not.
- (3) Service prior to July 1, 1965 if an employee did not elect to be covered on that date.

Normal Retirement Benefit: Greater of:

- (1) 2% of Final Average Compensation times years of Credited Service, less 50% of Social Security (at SSNRA),
- or
- (2) 1.15% of Final Average Compensation times years of Credited Service.

If a participant retires on or after his Normal Retirement Age (earlier of 30 years of Service or age 65), he will receive an additional temporary benefit equal to 50% of Social Security from his retirement date to his 65th birthday.

Normal Form of Benefit: Modified Cash Refund Annuity.

Death Benefits: Greater of Qualified Survivor Annuity or return of Employee Contributions plus interest (active and terminated only).

Vesting: 100% vesting in Employer portion of Normal Retirement Benefit at the completion of 10 years of Credited Service. Town Hall contract employees and department heads are eligible for 100% vesting after 5 years of Credited Service.

TOWN OF NEWTOWN PENSION PLAN

APPENDIX BACTUARIAL ASSUMPTIONSFUNDING METHOD

Entry Age Normal Method – This method calculates an annual normal cost for each active employee, and adds an amortization of the unfunded accrued actuarial liability for all participants. The initial funding base was re-established as of July 1, 2017 (when the funding method was changed from Projected Unit Credit), and will be amortized over 20 years. Future changes in accrued liability due to experience gains or losses, changes in assumptions, and/or plan provisions will be amortized over 10 years.

For funding purposes, change in interest rate from 7.5% to 7.0% will be phased in over three years. July 1, 2018 is the first year of the phase in and thus the Actuarially Determined Contribution is based on 33.3% of the 7.5% valuation results and 66.6% of the 7.0% valuation results.

| | | |
|----------------------------|------------------|--------------------------|
| <u>INTEREST ASSUMPTION</u> | Pre-Retirement: | 7.0% Compounded Annually |
| | Post-Retirement: | 7.0% Compounded Annually |

MORTALITY ASSUMPTION

RP-2014 Society of Actuaries Mortality Table, with future generational increases projected with the MP-2017 scale.

TURNOVER Participants are assumed to terminate at the following rates:

| <u>Age</u> | <u>Males</u> | <u>Females</u> |
|------------|--------------|----------------|
| 25 | 10 % | 15 % |
| 30 | 7½ | 10 |
| 35 | 5 | 7½ |
| 40 | 3 | 5 |
| 45 | 1½ | 2½ |
| 50 | 0 | 0 |

SALARY SCALE & SOCIAL SECURITY BENEFITS

Salaries are assumed to increase at 3% per year. Since prospective salaries are reported, the increase applies after the end of the valuation year. Social Security laws projected using 3% COLA, with increases of 3% for the TWB and the NAMW.

RETIREMENT AGE

Participants are assumed to retire 50% of the time at their Normal Retirement Age and the remainder of the time at age 65. Participants past age 65 are assumed to retire one year after the valuation date.

ESTIMATED EXPENSES Direct expenses of the trust are assumed to be \$13,000.

TOWN OF NEWTOWN ELECTED OFFICIALS PENSION PLAN

ALLOCATION REPORT for the Period
 July 1, 2017 to June 30, 2018

| | 7/1/2017 BEGINNING BALANCE | PAYMENTS | CONTRI- BUTIONS | 11.89% INVESTMENT EARNINGS | 06/30/2018 ENDING BALANCE |
|-------------------------|----------------------------------|------------|--------------------|----------------------------------|---------------------------------|
| <u>DEBBIE HALSTEAD</u> | | | | | |
| EMPLOYER ACCOUNT | 59,733.00 | 0.00 | 4,496.46 | 7,372.21 | 71,601.67 |
| EMPLOYEE ACCOUNT | 19,802.74 | 0.00 | 1,492.66 | 2,444.16 | 23,739.56 |
| | ----- | ----- | ----- | ----- | ----- |
| Participant Total | 79,535.74 | 0.00 | 5,989.12 | 9,816.38 | 95,341.24 |
| <u>DANIEL ROSENTHAL</u> | | | | | |
| EMPLOYER ACCOUNT | 0.00 | 0.00 | 3,712.74 | 220.80 | 3,933.54 |
| EMPLOYEE ACCOUNT | 0.00 | 0.00 | 1,065.48 | 63.37 | 1,128.85 |
| | ----- | ----- | ----- | ----- | ----- |
| Participant Total | 0.00 | 0.00 | 4,778.22 | 284.17 | 5,062.39 |
| <u>PATRICIA LLODRA</u> | | | | | |
| EMPLOYER ACCOUNT | 53,714.07 | -56,583.27 | 2,600.80 | 268.40 | 0.00 |
| EMPLOYEE ACCOUNT | 17,642.79 | -18,599.19 | 876.04 | 80.36 | 0.00 |
| | ----- | ----- | ----- | ----- | ----- |
| Participant Total | 71,356.86 | -75,182.46 | 3,476.84 | 348.76 | 0.00 |
| Plan Totals | 150,892.60 | -75,182.46 | 14,244.18 | 10,449.30 | 100,403.62 |