



TOWN OF GRANBY PENSION PLAN

**Actuarial Valuation as of July 1, 2016
For Fiscal Year 2017-18**

Prepared by

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Table of Contents

	Page
CERTIFICATION	1
I EXECUTIVE SUMMARY	
A. Highlights	3
B. Summary of Principal Results	9
II PLAN ASSETS	
A. Summary of Fund Transactions	10
B. Development of Actuarial Value of Assets	11
III DEVELOPMENT OF CONTRIBUTION	
A. Past Service Cost	12
B. Actuarially Determined Contribution	13
C. Long Range Forecast	14
IV ACCOUNTING INFORMATION	
A. Notes to Required Supplementary Information	15
B. Historical Schedule of Funding Progress	16
C. Schedule of Employer Contributions	17
D. Accrued and Vested Benefits	18
E. Statement of Changes in Accrued Plan Benefits	19
V MEMBERSHIP DATA	
A. Reconciliation of Membership From Prior Valuation	20
B. Statistics of Membership	21
C. Distribution of Active Members as of July 1, 2016	22
D. Distribution of Inactive Members as of July 1, 2016	25
APPENDICES	
A. Actuarial Funding Method	28
B. Actuarial Assumptions	29
C. Summary of Plan Provisions	31

Certification

We have performed an actuarial valuation of the Plan as of July 1, 2016 for fiscal year 2017-18. 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. 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 exception(s): (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

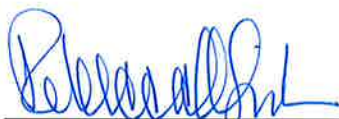
The calculations reported herein have been made on a basis consistent with our understanding of ERISA and the related sections of the tax code. Additional determinations may be needed for purposes other than meeting funding requirements, such as judging benefit security at plan termination or meeting 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.

I further certify that, in my 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. 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.

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

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.



Rebecca A. Sielman, FSA
Consulting Actuary

Section I - Executive Summary

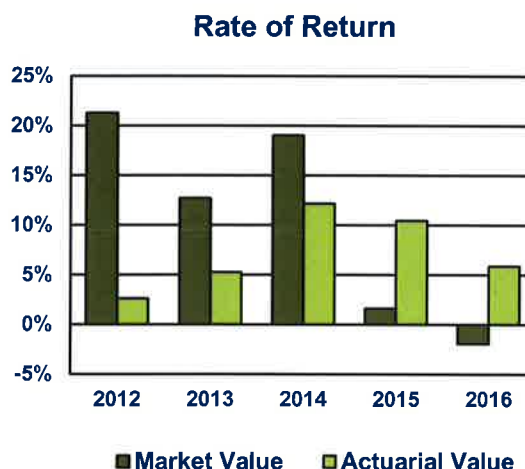
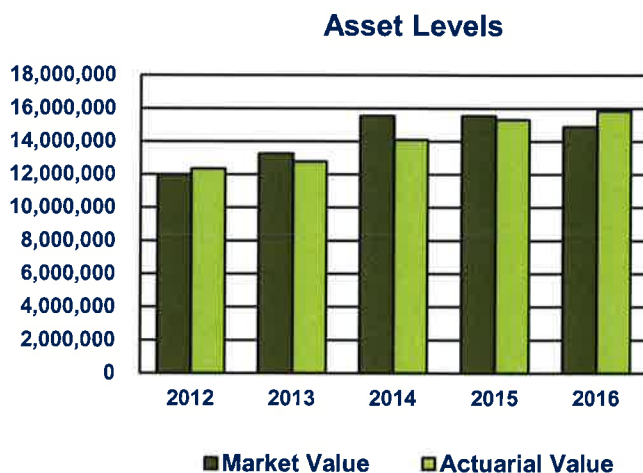
A. Highlights

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 over five years.

	Market	Actuarial
Value as of July 1, 2015	\$15,552,402	\$15,323,428
Contributions	643,769	643,769
Investment Income	(296,148)	889,291
Benefit Payments	(1,011,654)	(1,011,654)
Value as of July 1, 2016	14,888,369	15,844,834

For fiscal year 2015-16, the plan's assets earned -1.927% on a Market Value basis and 5.874% on an Actuarial Value basis. The actuarial assumption for this period was 7.375%; the result is an asset loss of \$1,429,600 on a Market Value basis and a loss of \$227,200 on an Actuarial Value basis. Historical asset values are shown in the graph below to the left; historical returns are shown in the graph below to the right.



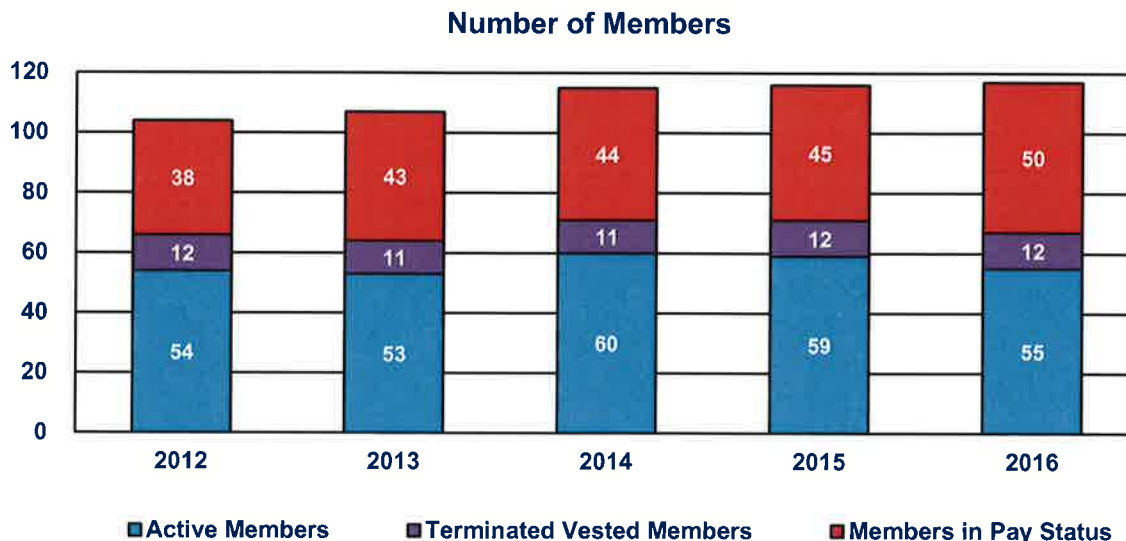
Please note that the Actuarial Value currently exceeds the Market Value by \$956,500. This figure represents investment losses that will be gradually recognized over the next five years. This process will exert upward pressure on the Town's contribution, unless there are offsetting market gains.

Section I - Executive Summary

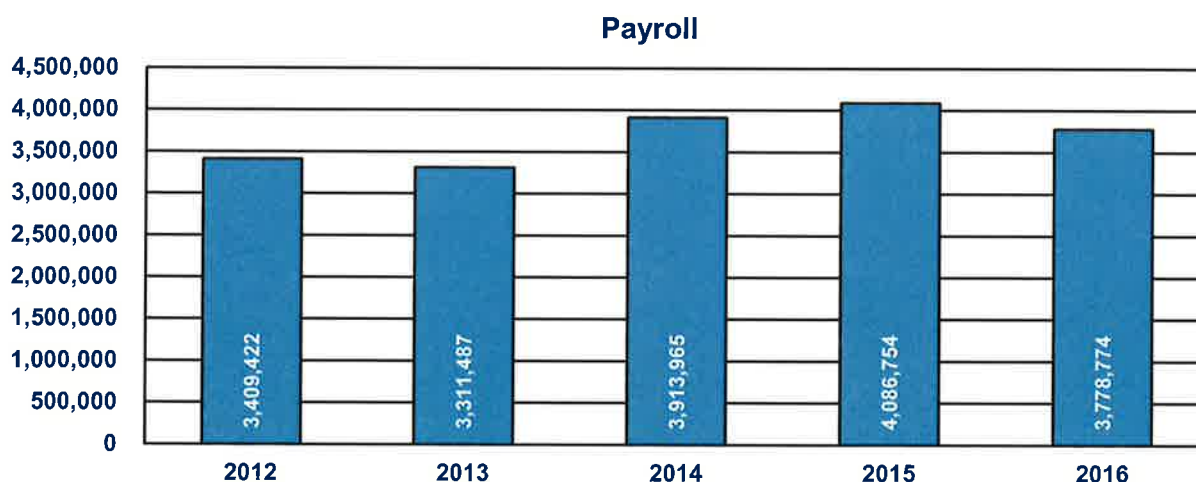
A. Highlights

Membership

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



From July 1, 2015 to July 1, 2016, the overall membership increased from 116 to 117. During this period, there were 3 new members offset by 5 members who retired, 2 members who terminated with benefits due, and 2 members who terminated and are due return of employee contributions.



Section I - Executive Summary

A. Highlights

Plan Changes

None.

Changes in Actuarial Methods or Assumptions

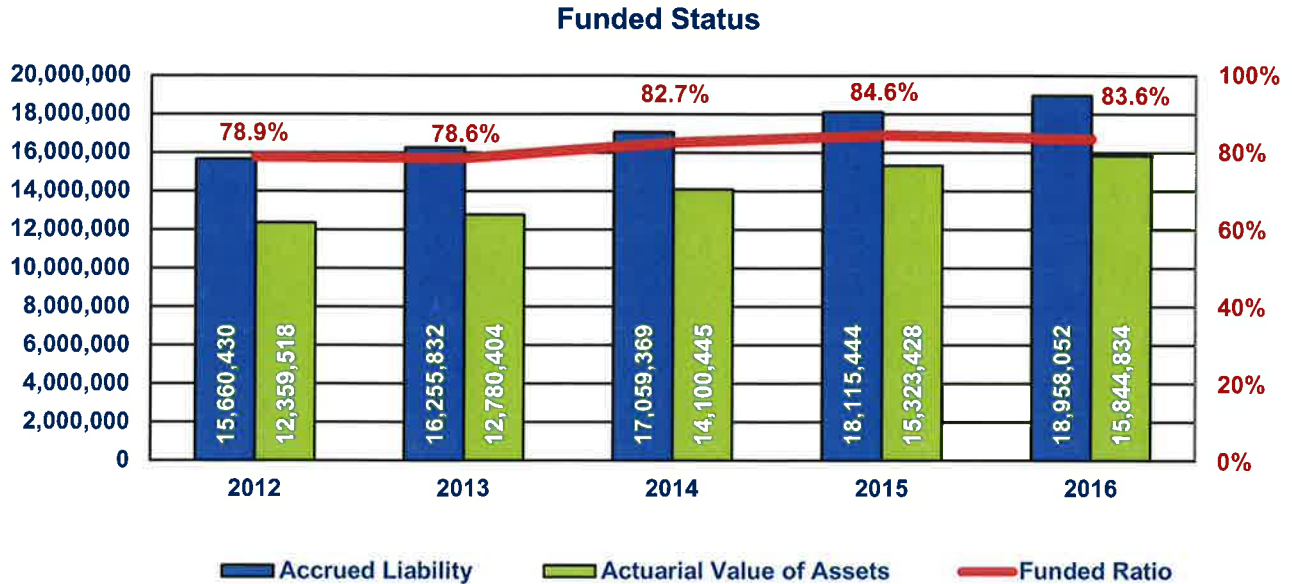
In order to better anticipate future plan experience, we lowered the interest rate assumption from 7.375% to 7.250%. Over the next few years, the interest rate assumption will continue to be reduced gradually. The impact of this change was to increase the Unfunded Accrued Liability by about \$231,000 and to increase the Actuarially Determined Contribution by approximately \$29,100.

Section I - Executive Summary

A. Highlights

Funded Status

The chart below shows the plan's Accrued Liability and Actuarial Value of Assets for the past few years.



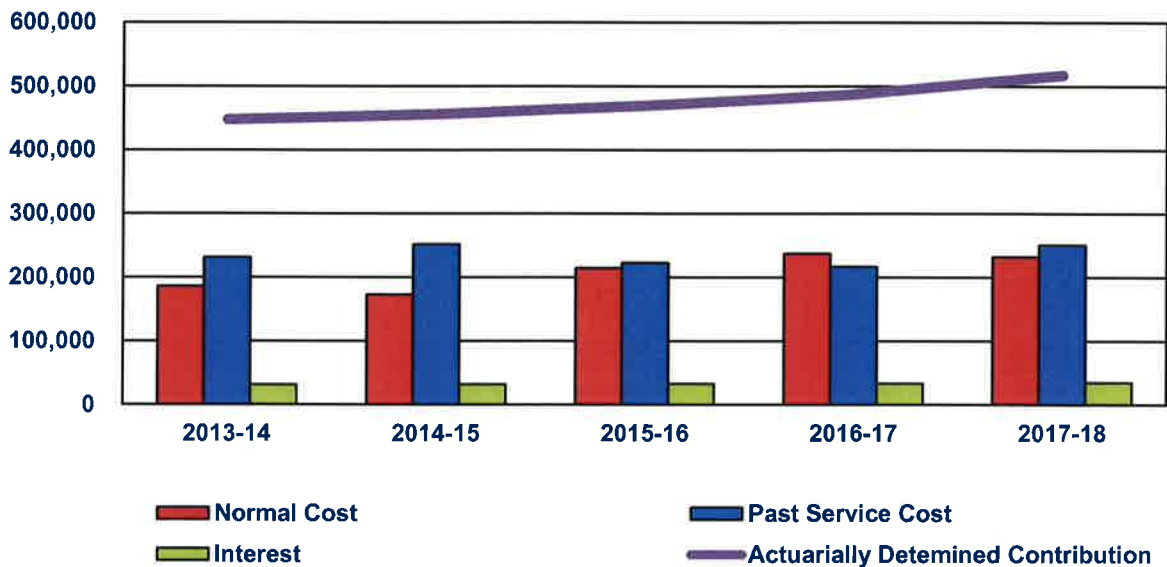
Section I - Executive Summary

A. Highlights

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 the end of the year. If the plan has a sufficiently large surplus, the Past Service Cost may be large enough to cover the Normal Cost, in which case no contribution is required.

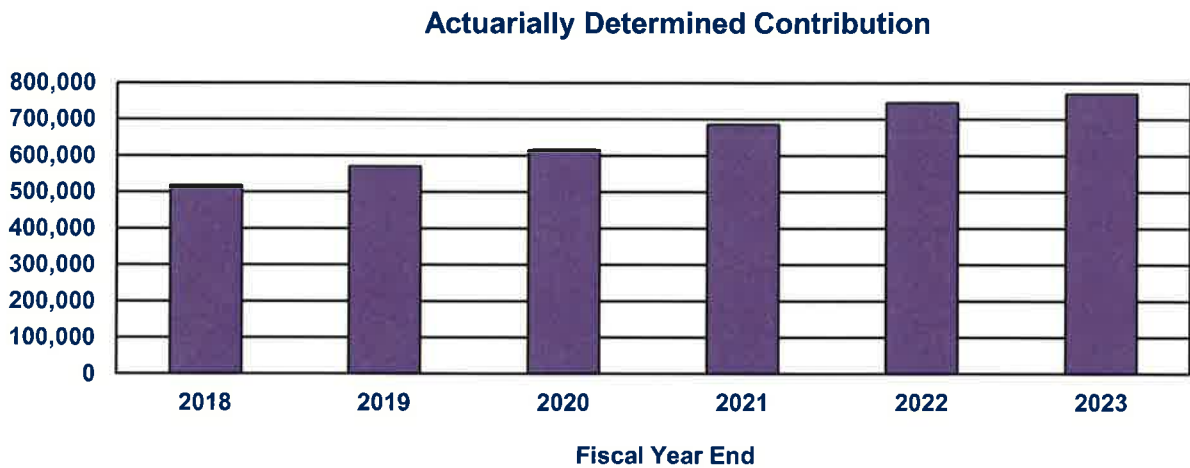
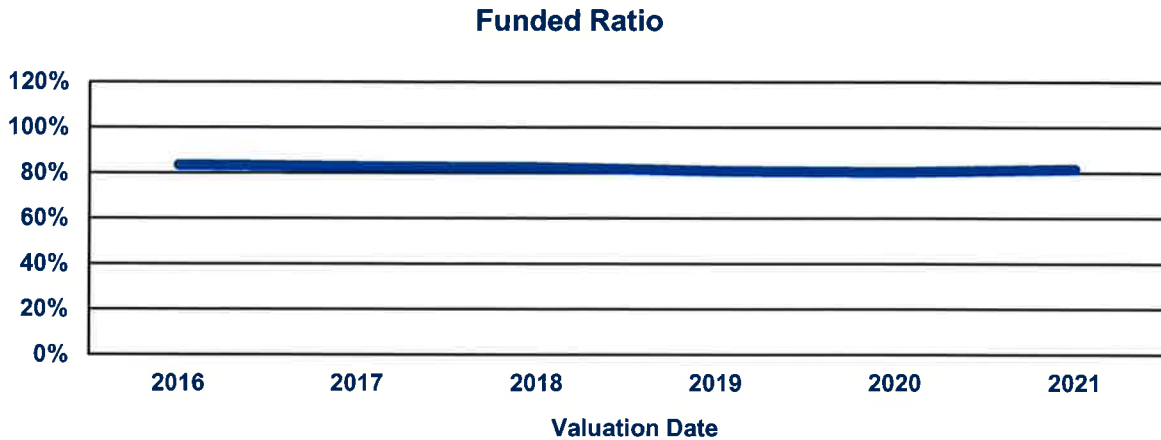
Contribution levels for the current year and the past few fiscal years are shown below.



Section I - Executive Summary

A. Highlights

Long Range Forecast



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

B. Summary of Principal Results

Membership	July 1, 2015	July 1, 2016
Active Members	59	55
Terminated Vested Members	12	12
Members in Pay Status	45	50
Payroll	\$4,086,754	\$3,778,774
Assets and Liabilities	July 1, 2015	July 1, 2016
Market Value of Assets	\$15,552,402	\$14,888,369
Actuarial Value of Assets	15,323,428	15,844,834
Accrued Liability for Active Members	\$9,255,319	\$8,885,318
Accrued Liability for Terminated Vested Members	441,314	405,925
Accrued Liability for Members in Pay Status	8,418,811	9,666,809
Total Accrued Liability	18,115,444	18,958,052
Unfunded Accrued Liability	2,792,016	3,113,218
Funded Ratio	84.6%	83.6%
Actuarially Determined Contribution for Fiscal Year	2016-17	2017-18
Normal Cost	\$237,254	\$232,125
Past Service Cost	216,847	250,719
Interest	33,490	35,006
Actuarially Determined Contribution	487,591	517,850
Allocation of Actuarially Determined Contribution*		
General Government and Police	\$256,376	\$305,894
Board of Education	231,215	211,956

* Allocated in proportion to payroll.

Section II - Plan Assets

A. Summary of Fund Transactions

	Plan Investments	Accrued Contributions	Market Value
Market Value as of July 1, 2015	\$15,550,282	\$2,120	\$15,552,402
Employer Contributions	470,130	0	470,130
Employee Contributions	173,056	583	173,639
Benefit Payments	(1,011,654)	0	(1,011,654)
Interest	77	0	77
Dividends	273,102	0	273,102
Net Appreciation/Depreciation	(528,708)	0	(528,708)
Accrued Income	17	0	17
Investment Expenses	(40,636)	0	(40,636)
Administrative Expenses	0	0	0
Market Value as of July 1, 2016	14,885,666	2,703	14,888,369
Approximate Rate of Return			-1.927%

Note: 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.

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 over a five year period. The Actuarial Value of Assets as of July 1, 2016 is determined below.

1. Expected Market Value of Assets:			
a. Market Value of Assets as of July 1, 2015			\$15,552,402
b. Employer and Employee Contributions			643,769
c. Benefit Payments			(1,011,654)
d. Expected Investment Return Based on 7.375% Interest			<u>1,133,415</u>
e. Expected Market Value of Assets as of July 1, 2016			16,317,932
2. Actual Market Value of Assets as of July 1, 2016			14,888,369
3. Market Value Gain/(Loss): (2) - (1e)			(1,429,563)
4. Delayed Recognition of Market Gains/(Losses):			
	Plan Year End	Gain/(Loss)	Percent Not Recognized
	06/30/2016	(\$1,429,563)	80%
	06/30/2015	(907,273)	60%
	06/30/2014	1,518,709	40%
	06/30/2013	620,324	20%
			<u>124,065</u>
			(956,465)
5. Actuarial Value as of July 1, 2016: (2) - (4)			15,844,834
6. Approximate Rate of Return on Actuarial Value			5.874%
7. Actuarial Value Gain/(Loss)			(227,243)

Section III - Development of Contribution

A. Past Service Cost

For determining the Past Service Cost, the Unfunded Accrued Liability is amortized as a level percent over a period of 22 years starting on July 1, 2010.

	July 1, 2015	July 1, 2016
1. Accrued Liability		
Active Members	\$9,255,319	\$8,885,318
Terminated Vested Members*	441,314	405,925
Retired Members	7,689,826	8,937,630
Disabled Members	48,890	48,447
Beneficiaries of Deceased Members	<u>680,095</u>	<u>680,732</u>
Total	18,115,444	18,958,052
2. Actuarial Value of Assets (see Section II B)	15,323,428	15,844,834
3. Unfunded Accrued Liability: (1) - (2)	2,792,016	3,113,218
4. Funded Ratio: (2) / (1)	84.6%	83.6%
5. Amortization Period	17	16
6. Amortization Growth Rate	3.50%	3.50%
7. Past Service Cost: (3) amortized over (5)	216,847	250,719

* Includes liability for former members who are due refunds.

Section III - Development of Contribution

B. Actuarially Determined Contribution

	Fiscal Year 2016-17	Fiscal Year 2017-18
1. Total Normal Cost	\$434,343	\$416,685
2. Expected Employee Contributions	197,089	184,560
3. Net Normal Cost: (1) + (2)	237,254	232,125
4. Past Service Cost (see Section III A)	216,847	250,719
5. Interest on (3) + (4) to start of next fiscal year	33,490	35,006
6. Actuarially Determined Contribution: (3) + (4) + (5)	487,591	517,850
7. Allocation of Actuarially Determined Contribution*		
Town	256,376	305,894
Board of Education	231,215	211,956

* Allocated in proportion to payroll.

Milliman Actuarial Valuation

Section III - Development of Contribution C. Long Range Forecast

This forecast is based on the results of the July 1, 2016 actuarial valuation and assumes that the Town will pay the Actuarially Determined Contribution each year, the assets will return 7.250% on a market value basis each year, there are no future changes in the actuarial methods or assumptions or in the plan provisions, and all new employees will elect to participate in the defined benefit plan. 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				Cash Flows Projected to the Following Fiscal Year				
	Accrued Liability	Actuarial Value of Assets	Unfunded		Fiscal Year Ending	Town Contributions	Employee Contributions	Benefit Payments	Net Cash Flows
			Accrued Liability	Funded Ratio					
7/1/2016	\$18,958,052	\$15,844,834	\$3,113,218	83.6%	2018	\$517,850	\$193,096	(\$1,156,308)	(\$445,362)
7/1/2017	19,881,000	16,474,000	3,407,000	82.9%	2019	570,000	195,000	(1,245,000)	(480,000)
7/1/2018	20,570,000	16,976,000	3,594,000	82.5%	2020	616,000	198,000	(1,322,000)	(508,000)
7/1/2019	21,231,000	17,188,000	4,043,000	81.0%	2021	686,000	204,000	(1,384,000)	(494,000)
7/1/2020	21,865,000	17,602,000	4,263,000	80.5%	2022	746,000	208,000	(1,446,000)	(492,000)
7/1/2021	22,492,000	18,367,000	4,125,000	81.7%	2023	771,000	210,000	(1,542,000)	(561,000)
7/1/2022	23,110,000	19,189,000	3,921,000	83.0%	2024	798,000	211,000	(1,659,000)	(650,000)
7/1/2023	23,691,000	19,999,000	3,692,000	84.4%	2025	821,000	213,000	(1,751,000)	(717,000)
7/1/2024	24,207,000	20,775,000	3,432,000	85.8%	2026	845,000	218,000	(1,821,000)	(758,000)
7/1/2025	24,682,000	21,538,000	3,144,000	87.3%	2027	860,000	223,000	(1,854,000)	(771,000)
7/1/2026	25,120,000	22,315,000	2,805,000	88.8%	2028	884,000	228,000	(1,913,000)	(801,000)
7/1/2027	25,571,000	23,134,000	2,437,000	90.5%	2029	911,000	236,000	(1,941,000)	(794,000)
7/1/2028	26,007,000	23,981,000	2,026,000	92.2%	2030	936,000	241,000	(1,976,000)	(799,000)
7/1/2029	26,458,000	24,897,000	1,561,000	94.1%	2031	956,000	247,000	(2,023,000)	(820,000)
7/1/2030	26,925,000	25,874,000	1,051,000	96.1%	2032	966,000	252,000	(2,072,000)	(854,000)
7/1/2031	27,396,000	26,900,000	496,000	98.2%	2033	942,000	248,000	(2,214,000)	(1,024,000)
7/1/2032	27,876,000	27,966,000	(90,000)	100.3%	2034	318,000	257,000	(2,310,000)	(1,735,000)
7/1/2033	28,248,000	28,932,000	(684,000)	102.4%	2035	0	267,000	(2,367,000)	(2,100,000)
7/1/2034	28,575,000	29,231,000	(656,000)	102.3%	2036	0	276,000	(2,402,000)	(2,126,000)
7/1/2035	28,883,000	29,174,000	(291,000)	101.0%	2037	143,000	286,000	(2,435,000)	(2,006,000)

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.

Section IV - Accounting Information

A. Notes to Required Supplementary Information

The information presented in Section IV has been determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date	July 1, 2016
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent
Amortization Period	Closed 22 years from July 1, 2010
Asset Valuation Method	5 year smoothing of market gains/losses
Actuarial Assumptions	
Investment Rate of Return	7.25%
Projected Salary Increases	3.50%
Amortization Growth Rate	3.50%
Inflation	2.75%
Cost-of-Living Adjustments	None

Milliman Actuarial Valuation

**Section IV - Accounting Information
B. Historical Schedule of Funding Progress**

	(1)	(2)	(3)	(4)	(5)	(6)
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAAL) (2) - (1)	Funded Ratio (1) / (2)	Covered Payroll	UAAAL as a Percentage of Covered Payroll (3) / (5)
07/01/2007	\$10,100,140	\$12,094,823	\$1,994,683	83.5%	\$3,680,749	54.2%
07/01/2008	11,082,294	12,948,590	1,866,296	85.6%	3,619,257	51.6%
07/01/2009	11,434,769	13,775,802	2,341,033	83.0%	3,735,252	62.7%
07/01/2010	11,574,971	14,205,226	2,630,255	81.5%	3,402,929	77.3%
07/01/2011	12,140,206	15,118,477	2,978,271	80.3%	3,637,892	81.9%
07/01/2012	12,359,518	15,660,430	3,300,912	78.9%	3,409,422	96.8%
07/01/2013	12,780,404	16,255,832	3,475,428	78.6%	3,311,487	105.0%
07/01/2014	14,100,445	17,059,369	2,958,924	82.7%	3,913,965	75.6%
07/01/2015	15,323,428	18,115,444	2,792,016	84.6%	4,086,754	68.3%
07/01/2016	15,844,834	18,958,052	3,113,218	83.6%	3,778,774	82.4%

Section IV - Accounting Information

C. Schedule of Employer Contributions

	(1)	(2)	(3)	(4)	(5)
Fiscal Year Ending June 30	Actuarially Determined Contribution	Contribution in Relation to the Actuarially Determined Contribution	Contribution Deficiency/ (Excess) (1) - (2)	Covered Payroll	Contribution as a Percentage of Covered Payroll (2) / (4)
2009	\$291,266	\$291,266	\$0	\$3,680,749	8%
2010	275,958	275,958	0	3,619,257	8%
2011	286,664	286,664	0	3,735,252	8%
2012	359,226	359,226	0	3,402,929	11%
2013	361,909	361,909	0	3,637,892	10%
2014	448,025	448,025	0	3,409,422	13%
2015	456,702	456,702	0	3,311,487	14%
2016	470,130	470,130	0	3,913,965	12%
2017	487,591	TBD	TBD	4,086,754	TBD
2018	517,850	TBD	TBD	3,778,774	TBD

Section IV - Accounting Information

D. Accrued and Vested Benefits

The actuarially computed Value of Accrued Benefits represents the present value of (a) the benefits based on earnings and service to date expected to become payable at future dates to present employees, (b) the benefits expected to become payable to former employees who have terminated service with vested rights or who have become inactive, and (c) the benefits currently payable to retired participants and beneficiaries.

	As of July 1, 2015	As of July 1, 2016
1. Value of Vested Benefits		
Active Members	\$7,014,350	\$6,646,785
Terminated Vested Members*	441,314	405,925
Retired Members	7,689,826	8,937,630
Disabled Members	48,890	48,447
Beneficiaries of Deceased Members	<u>680,095</u>	<u>680,732</u>
Total Value of Vested Benefits	15,874,475	16,719,519
2. Value of Non-Vested Benefits	70,339	97,062
3. Total Value of Accrued Benefits: (1) + (2)	15,944,814	16,816,581
4. Market Value of Assets	15,552,402	14,888,369
5. Vested Funded Ratio: (4) / (1)	98.0%	89.0%
6. Accrued Funded Ratio: (4) / (3)	97.5%	88.5%

* Includes liability for former members who are due refunds.

Section IV - Accounting Information

E. Statement of Changes in Accrued Plan Benefits

Increase/(Decrease) during the 2015-2016 plan year attributable to:

Increase for interest due to the decrease in the discount period	\$1,138,679
Benefits Accumulated/(Forfeited)	545,235
Benefit Payments	(1,011,654)
Plan Amendments	0
Changes in Actuarial Assumptions	199,507
Net Increase/(Decrease)	871,767

Value of Accrued Plan Benefits:

July 1, 2016	\$16,816,581
July 1, 2015	15,944,814
Net Increase/(Decrease)	871,767

Section V - 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 V.

	Active	Due Refund	Term. Vested	Retirees	Disabled	Bene- ficiaries	Total
General Government							
Count as of July 1, 2015	17	0	3	14	0	2	36
Terminated, paid refund	-	-	-	-	-	-	0
Terminated, benefits due	-	-	-	-	-	-	0
Retired	-	-	-	-	-	-	0
Died, with beneficiary	-	-	-	-	-	-	0
Died, no beneficiary	-	-	-	-	-	-	0
New member	1	-	-	-	-	-	1
Correction	-	-	-	-	-	-	0
Count as of July 1, 2016	18	0	3	14	0	2	37
Board of Education							
Count as of July 1, 2015	32	6	2	22	1	1	64
Terminated, paid refund	(2)	-	-	-	-	-	(2)
Terminated, benefits due	(1)	-	1	-	-	-	0
Retired	(2)	-	(2)	4	-	-	0
Died, with beneficiary	-	-	-	-	-	-	0
Died, no beneficiary	-	-	-	-	-	-	0
New member	1	-	-	-	-	-	1
Correction	-	-	-	-	-	-	0
Count as of July 1, 2016	28	6	1	26	1	1	63
Police							
Count as of July 1, 2015	10	0	1	4	0	1	16
Terminated, paid refund	-	-	-	-	-	-	0
Terminated, benefits due	(1)	1	-	-	-	-	0
Retired	(1)	-	-	1	-	-	0
Died, with beneficiary	-	-	-	-	-	-	0
Died, no beneficiary	-	-	-	-	-	-	0
New member	1	-	-	-	-	-	1
Correction	-	-	-	-	-	-	0
Count as of July 1, 2016	9	1	1	5	0	1	17

Section V - Membership Data

B. Statistics of Active Membership

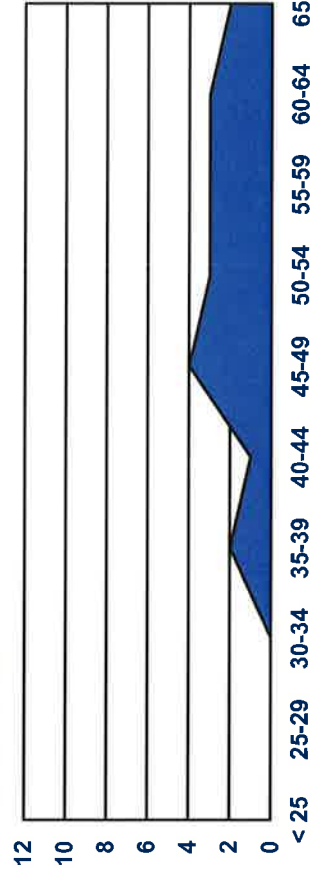
	As of July 1, 2015	As of July 1, 2016
Number of Active Members		
General Government	17	18
Board of Education	32	28
Police	<u>10</u>	<u>9</u>
Total	59	55
Total Annual Compensation		
General Government	\$1,300,955	\$1,319,799
Board of Education	1,901,469	1,540,886
Police	<u>884,330</u>	<u>918,089</u>
Total	4,086,754	3,778,774
Average Compensation		
General Government	\$76,527	\$73,322
Board of Education	59,421	55,032
Police	88,433	102,010
Total	69,267	68,705
Average Age		
General Government	51.6	52.9
Board of Education	52.7	53.7
Police	44.9	43.1
Total	51.1	51.7
Average Service		
General Government	15.7	15.9
Board of Education	12.9	13.1
Police	11.5	11.0
Total	13.5	13.7

Section V - Membership Data

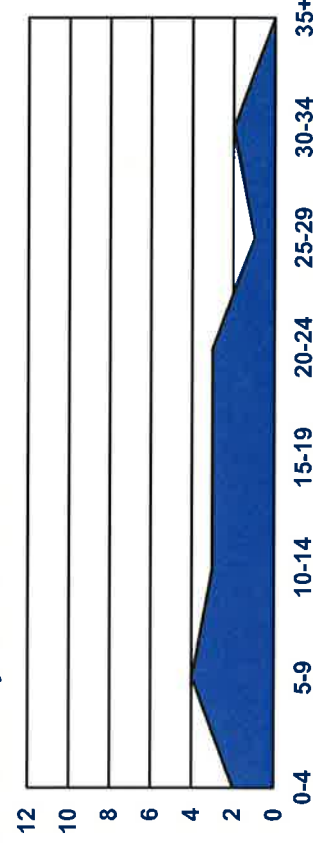
C. Distribution of Active Members as of July 1, 2016 - General Government

Age	Years of Service								Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	
< 25	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	1	1	0	0	0	0	0	2
40-44	0	0	1	0	0	0	0	0	1
45-49	0	2	0	2	0	0	0	0	4
50-54	0	1	0	0	1	1	0	0	3
55-59	1	0	1	0	1	0	0	0	3
60-64	0	0	0	0	1	0	2	0	3
65 +	1	0	0	1	0	0	0	0	2
Total	2	4	3	3	3	1	2	0	18

Distribution By Age



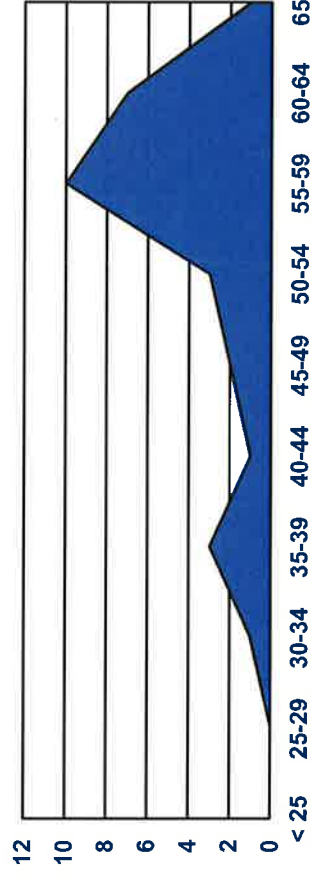
Distribution by Years of Service



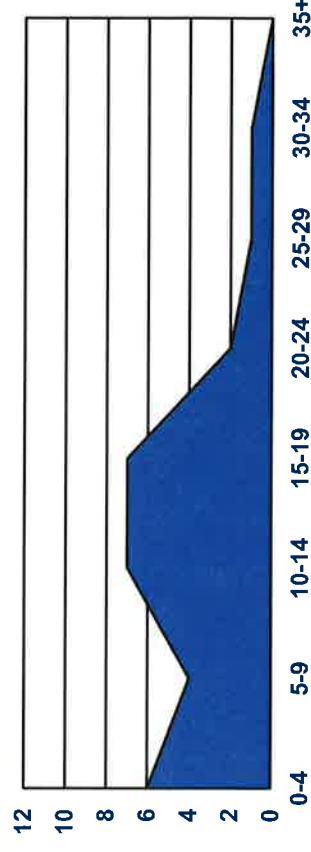
Section V - Membership Data C. Distribution of Active Members as of July 1, 2016 - Board of Education

Age	Years of Service							Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+
< 25	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0
30-34	0	1	0	0	0	0	0	1
35-39	2	1	0	0	0	0	0	3
40-44	0	0	0	1	0	0	0	1
45-49	1	0	1	0	0	0	0	2
50-54	1	1	1	0	0	0	0	3
55-59	1	0	3	5	1	0	0	10
60-64	1	1	2	1	0	1	1	7
65 +	0	0	0	0	1	0	0	1
Total	6	4	7	7	2	1	1	28

Distribution By Age



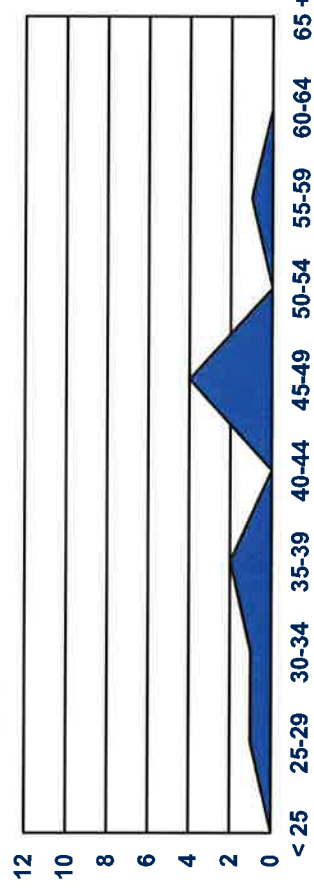
Distribution by Years of Service



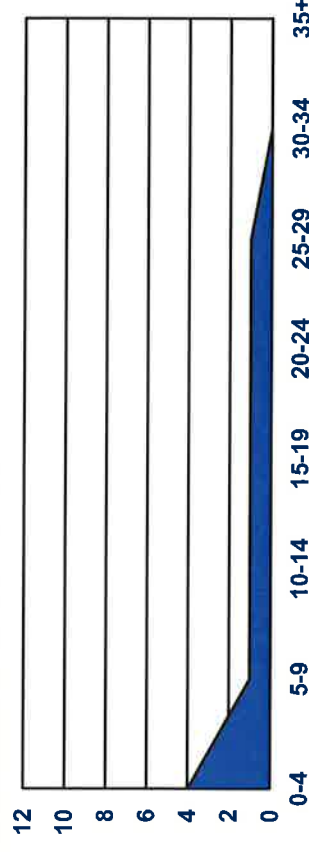
Section V - Membership Data C. Distribution of Active Members as of July 1, 2016 - Police

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

Distribution By Age



Distribution by Years of Service



Section V - Membership Data

D. Distribution of Inactive Members as of July 1, 2016

General Government

		Age	Number	Annual Benefits
Terminated Vested Members /				
Members Due Refunds		< 30	0	\$0
		30 - 39	0	0
		40 - 49	0	0
Count	3	50 - 59	2	20,413
Average Age	55.3	60 - 64	1	4,001
Total Annual Benefit	\$24,414	65 +	0	0
Average Annual Benefit	8,138	Total	3	24,414
Retired Members				
		< 50	0	\$0
		50 - 59	0	0
Count	14	60 - 69	3	91,839
Average Age	75.0	70 - 79	7	241,079
Total Annual Benefit	\$356,140	80 - 89	3	20,196
Average Annual Benefit	25,439	90 +	1	3,026
		Total	14	356,140
Disabled Retirees				
		< 50	0	\$0
		50 - 59	0	0
Count	0	60 - 69	0	0
Average Age	0.0	70 - 79	0	0
Total Annual Benefit	\$0	80 - 89	0	0
Average Annual Benefit	0	90 +	0	0
		Total	0	0
Beneficiaries				
		< 50	0	\$0
		50 - 59	0	0
Count	2	60 - 69	1	4,441
Average Age	66.0	70 - 79	1	3,316
Total Annual Benefit	\$7,757	80 - 89	0	0
Average Annual Benefit	3,879	90 +	0	0
		Total	2	7,757

Section V - Membership Data
D. Distribution of Inactive Members as of July 1, 2016
Board of Education

		Age	Number	Annual Benefits
Terminated Vested Members /				
Members Due Refunds		< 30	0	\$0
		30 - 39	0	0
		40 - 49	1	0
Count	7	50 - 59	4	10,955
Average Age	57.4	60 - 64	1	0
Total Annual Benefit	\$10,955	65 +	1	0
Average Annual Benefit	1,565	Total	7	10,955
Retired Members				
		< 50	0	\$0
		50 - 59	0	0
Count	26	60 - 69	9	176,054
Average Age	71.9	70 - 79	14	181,288
Total Annual Benefit	\$384,016	80 - 89	3	26,674
Average Annual Benefit	14,770	90 +	0	0
		Total	26	384,016
Disabled Retirees				
		< 50	0	\$0
		50 - 59	0	0
Count	1	60 - 69	1	6,314
Average Age	61.0	70 - 79	0	0
Total Annual Benefit	\$6,314	80 - 89	0	0
Average Annual Benefit	6,314	90 +	0	0
		Total	1	6,314
Beneficiaries				
		< 50	0	\$0
		50 - 59	1	11,425
Count	1	60 - 69	0	0
Average Age	59.0	70 - 79	0	0
Total Annual Benefit	\$11,425	80 - 89	0	0
Average Annual Benefit	11,425	90 +	0	0
		Total	1	11,425

Section V - Membership Data
D. Distribution of Inactive Members as of July 1, 2016
Police

		Age	Number	Annual Benefits
Terminated Vested Members /		< 30	0	\$0
Members Due Refunds		30 - 39	0	0
		40 - 49	1	0
Count	2	50 - 59	0	0
Average Age	54.5	60 - 64	0	0
Total Annual Benefit	\$17,247	65 +	1	17,247
Average Annual Benefit	8,624	Total	2	17,247
Retired Members		< 50	0	\$0
		50 - 59	2	104,457
Count	5	60 - 69	2	74,834
Average Age	64.8	70 - 79	1	21,871
Total Annual Benefit	\$201,162	80 - 89	0	0
Average Annual Benefit	40,232	90 +	0	0
		Total	5	201,162
Disabled Retirees		< 50	0	\$0
		50 - 59	0	0
Count	0	60 - 69	0	0
Average Age	0.0	70 - 79	0	0
Total Annual Benefit	\$0	80 - 89	0	0
Average Annual Benefit	0	90 +	0	0
		Total	0	0
Beneficiaries		< 50	0	\$0
		50 - 59	1	40,207
Count	1	60 - 69	0	0
Average Age	58.0	70 - 79	0	0
Total Annual Benefit	\$40,207	80 - 89	0	0
Average Annual Benefit	40,207	90 +	0	0
		Total	1	40,207

Appendix A - Actuarial Funding Method

The actuarial funding method used in the valuation of this Plan is known as the **Entry Age Normal Cost Method**. Actuarially determined contributions until the accrued liability is completely funded will consist of two pieces: Normal Cost plus a payment towards the Unfunded Accrued Liability.

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 liability for the plan 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. Beginning on July 1, 2010, the amortization period is 22 years; 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 or losses over a five year period.

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	Current: 7.250%
	Prior: 7.375%
Salary Scale	3.50%
Amortization Growth Rate	3.50%
Healthy Mortality	RP-2000 Mortality Tables for Employees and Healthy Annuitants, Male and Female, with generational projection of future mortality improvements per Scale AA. This assumption includes a margin for improvements in longevity beyond the valuation date.
Disabled Mortality	RP-2000 Disabled Mortality Table, Male and Female. This assumption does not include a margin for improvements in longevity beyond the valuation date.

Turnover	Age	Male	Female
	20	6.00%	15.00%
	25	4.80%	15.00%
	30	3.60%	10.00%
	35	2.75%	7.50%
	40	2.05%	5.00%
	45	1.40%	2.50%
	50	0.75%	0.00%

Rate of Retirement	General Government
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Age	Rate
55-59	2%
60-61	10%
62	50%
63-64	30%
65-69	40%
70	100%

Appendix B - Actuarial Assumptions

Retirement

Board of Education

Age	Rate
55-59	5%
60-61	15%
62	50%
63-64	30%
65-69	40%
70	100%

Police

75% of members are assumed to retire at age 55 with 20 years of Credited Service.

At all other ages:

Age	Rate
56-64	20%
65	100%

Marital Status

75% of participants are assumed to be married with husbands assumed to be 3 years older than their wives.

Cost of Living Adjustment

None.

Expenses

It is assumed that all expenses will be paid directly by the Town.

Form of Annuity

Life annuity with Modified Cash Refund.

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	Non-bargaining unit members hired prior to age 25 may elect to participate on date of hire. Participation is mandatory at age 25.						
	Bargaining unit members may elect to participate after 1 year of Continuous Service. Participation is retroactive to date of hire. The Town will pay the Member Contributions for the first year of service.						
Final Average Earnings	Certified Police Officers: Average of the 5 calendar years with the highest gross earnings. Gross earnings include overtime, educational incentive pay and longevity pay.						
	Others: Average of the 5 consecutive calendar years with the highest gross earnings. Gross earnings include overtime and any other form of additional compensation.						
Continuous Service	Continuous employment with the Town.						
Credited Service	All service counted in years and completed months from date of participation. Participation is retroactive to date of hire.						
Member Contributions	Certified Police Officers: Effective July 1, 2000, 6% of earnings.						
	Others: Effective July 1, 2004, 5% of earnings.						
	Member contributions stop at Normal Retirement Date.						
	Interest is credited from January 1 following the date of the contribution to the date of the distribution as follows:						
	<table> <tr> <td>06/01/1966 to 12/31/1969</td><td>3.5%</td></tr> <tr> <td>01/01/1970 to 06/30/1986</td><td>4.5%</td></tr> <tr> <td>07/01/1986 and after</td><td>5.5%</td></tr> </table>	06/01/1966 to 12/31/1969	3.5%	01/01/1970 to 06/30/1986	4.5%	07/01/1986 and after	5.5%
06/01/1966 to 12/31/1969	3.5%						
01/01/1970 to 06/30/1986	4.5%						
07/01/1986 and after	5.5%						
Normal Form of Benefit	Life Annuity with Modified Cash Refund. Optional forms of benefit are available on an actuarially equivalent basis.						
Normal Retirement Date	Certified Police Officers: The earlier of age 65 or age 55 with 20 years of Continuous Service.						
	Others: Earlier of age 65 or the date the member's age plus Continuous Service total 80.						

Appendix C - Summary of Plan Provisions

Normal Retirement Benefit	<p>Certified Police Officers: 2.5% of Final Average Earnings multiplied by Credited Service up to 20 years plus 1.5% of Final Average Earnings multiplied by Credited Service in excess of 20 years; maximum benefit is 65% of Final Average Earnings.</p> <p>Others: 2.0% of Final Average Earnings multiplied by Credited Service.</p>
Early Retirement Date	<p>Certified Police Officers: None.</p> <p>Others: Age 55 with 15 years of Continuous Service.</p>
Early Retirement Benefit	Benefit calculated at Early Retirement Date reduced actuarially for commencement prior to Normal Retirement Date.
Late Retirement Date	Any date beyond Normal Retirement Date.
Late Retirement Benefit	Benefit calculated at Late Retirement Date.
Vesting	100% vested after 5 years of Continuous Service.
Termination Benefit	If Member is not vested as of date of termination, the Member shall receive a return of Member Contributions with interest. If a Member is vested as of termination, the Member shall be entitled to a Normal Retirement Benefit. The Member with a vested benefit can elect to receive Member contributions with interest. If the Member contributions are withdrawn, any employer provided benefit is forfeited.
Disability Retirement Date	Available at total and permanent disability after age 50 with 15 years of Continuous Service.
Disability Retirement Benefit	Benefit is the same as for Early Retirement.
Pre-Retirement Survivor Benefit	If the member has at least 5 years of Continuous Service and is married at time of death, the surviving spouse will receive an immediate benefit equal to 50% of the benefit that would have payable had the member terminated immediately before death, elected to retire at the member's earliest retirement eligibility date or date of death if later, and elected a 50% joint and survivor annuity. The surviving spouse's benefit is payable on the date that would have been the member's earliest retirement date.
Pre-Retirement Death Benefit	Return of Member Contributions with interest, in lieu of any Pre-Retirement Survivor Benefit if applicable.
Post-Retirement Death Benefit	Return of Member Contributions with interest, less any retirement benefits paid.