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February 27, 2014

***PERSONAL & CONFIDENTIAL***

Mr. Gary Conrad  
Finance Director  
Westport Town Hall  
110 Myrtle Avenue  
Westport, CT 06880

Re: Town of Westport Pension Plans  
July 1, 2013 Valuation Reports

Dear Gary:

We have enclosed 10 copies for each plan of our July 1, 2013 valuation report. We have also enclosed a single page summary showing the key figures for the five plans side by side. Please let me know if you have any questions or have any trouble finding information you need.

Sincerely,

A handwritten signature in blue ink that reads "Becky".

Rebecca A. Sielman, FSA  
Consulting Actuary

# TOWN OF WESTPORT RETIREMENT PLANS

## JULY 1, 2013 VALUATIONS

### Summary of Principal Results

	Municipal	Non-Union	Public Works	Police	Fire	Total
<b>Membership as of July 1, 2013</b>						
Active Members	356	86	30	64	67	603
Terminated Vested Members	20	2	0	0	1	23
Members in Pay Status	213	76	29	76	56	450
Total Payroll	\$16,035,031	\$6,818,264	\$1,770,145	\$5,367,727	\$5,184,152	\$35,175,319
<b>Assets and Liabilities as of July 1, 2013</b>						
Market Value of Assets	\$54,463,402	\$27,005,795	\$15,059,971	\$70,739,726	\$56,818,882	\$224,087,776
Actuarial Value of Assets	53,169,919	26,347,720	14,696,976	69,005,609	55,451,720	218,671,944
Accrued Liability for Active Members	\$34,533,225	\$18,143,853	\$10,614,929	\$32,737,658	\$32,407,289	\$128,436,954
Accrued Liability for Terminated Vested Members	970,497	258,297	0	0	8,472	1,237,266
Accrued Liability for Members in Pay Status	<u>21,141,761</u>	<u>17,410,247</u>	<u>7,181,581</u>	<u>57,948,972</u>	<u>37,694,795</u>	<u>141,377,356</u>
Total Accrued Liability	56,645,483	35,812,397	17,796,510	90,686,630	70,110,556	271,051,576
Unfunded Accrued Liability	3,475,564	9,464,677	3,099,534	21,681,021	14,658,836	52,379,632
Funded Ratio	93.9%	73.6%	82.6%	76.1%	79.1%	80.7%
<b>Annual Required Contribution for FY 2015</b>						
Net Normal Cost	\$1,926,210	\$825,308	\$236,857	\$1,393,588	\$1,400,534	\$5,782,497
Past Service Cost	205,864	560,611	183,591	1,284,208	868,270	3,102,544
Interest	130,590	84,888	25,752	164,015	138,964	544,209
Annual Required Contribution	2,262,664	1,470,807	446,200	2,841,811	2,407,768	9,429,250

This work product was prepared solely for the Town of Westport for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

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**Town of Westport  
Fire Pension Fund**

**Actuarial Valuation as of July 1, 2013  
For Fiscal Year 2014-15**

**Prepared by**

**Rebecca A. Sielman, FSA**  
Consulting Actuary

**Steve A. Lemanski, FSA, FCA**  
Consulting Actuary

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## **Certification**

We have performed an actuarial valuation of the Plan as of July 1, 2013 for fiscal year 2014-15. 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.

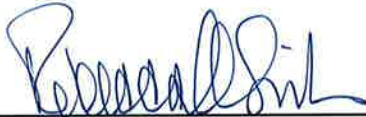
## Certification

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.

We further certify that, in our opinion, each actuarial assumption, method and technique used is reasonable taking into account the experience of the Plan and reasonable expectations or would, in the aggregate, result in a total contribution equivalent to that which would be determined if each such assumption, method, or technique were reasonable. Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of such future measurement.

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

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



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Rebecca A. Sielman, FSA  
Consulting Actuary



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Steve A. Lemanski, FSA, FCA  
Consulting Actuary

## Section I - Executive Summary

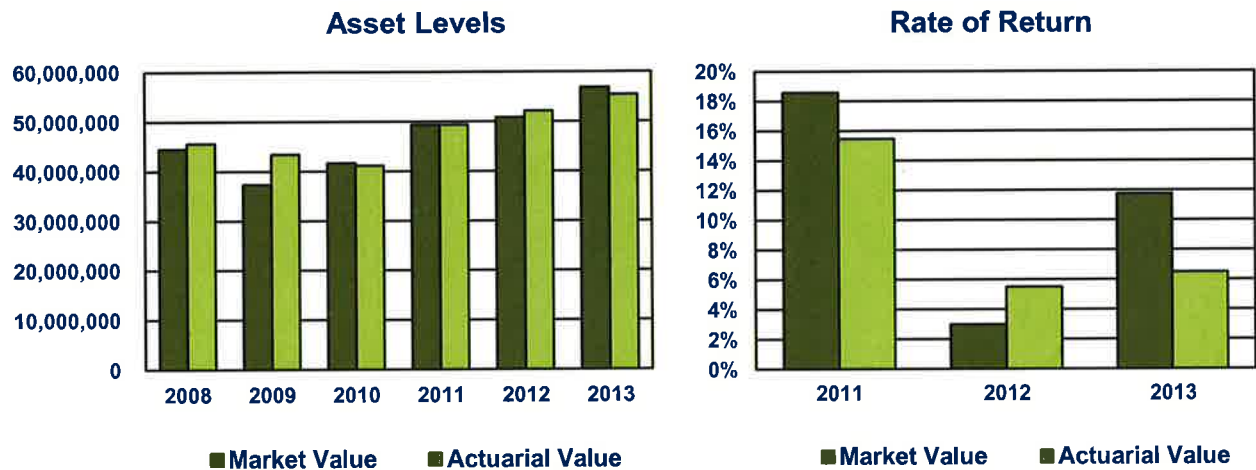
### A. Highlights

#### 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.

	<b>Market</b>	<b>Actuarial</b>
Value as of July 1, 2012	\$50,863,469	\$52,102,440
Contributions	2,366,273	2,366,273
Investment Income	5,985,055	3,378,922
Benefit Payments and Administrative Expenses	(2,395,915)	(2,395,915)
Value as of July 1, 2013	56,818,882	55,451,720

For fiscal year 2012-13, the plan's assets earned 11.77% on a Market Value basis and 6.49% on an Actuarial Value basis. The actuarial assumption for this period was 6.125%; the result is an asset gain of \$2,870,500 on a Market Value basis and a gain of \$188,600 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.



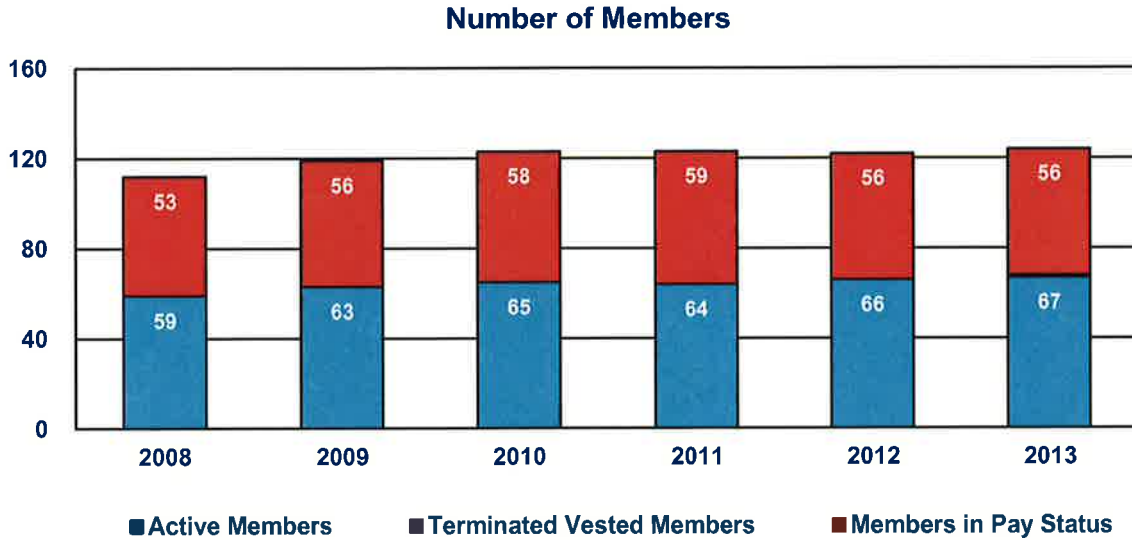
Please note that the Actuarial Value currently is less than the Market Value by \$1,367,200. This figure represents investment gains that will be gradually recognized over the next five years. This process will exert downward pressure on the Town's contribution, unless there are offsetting market losses.

## Section I - Executive Summary

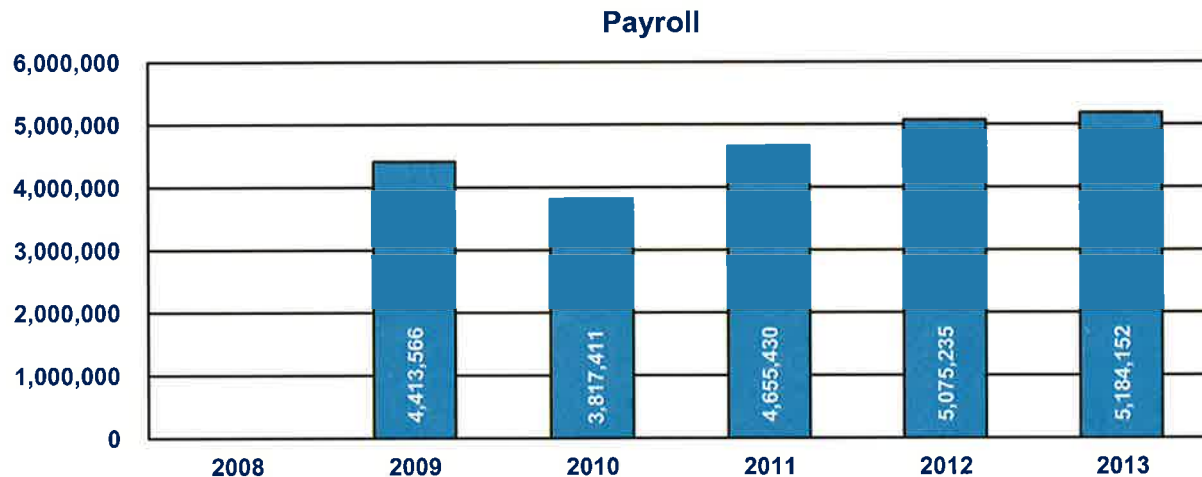
### A. Highlights

#### 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, 2012 to July 1, 2013, the overall membership increased from 122 to 124. During this period, there were 3 new active members. One member retired on a disability pension, and 1 member terminated prior to becoming vested.





## Section I - Executive Summary

### A. Highlights

#### Plan Changes

None.

#### Changes in Actuarial Methods or Assumptions

None.

#### Experience Since 2012 Valuation

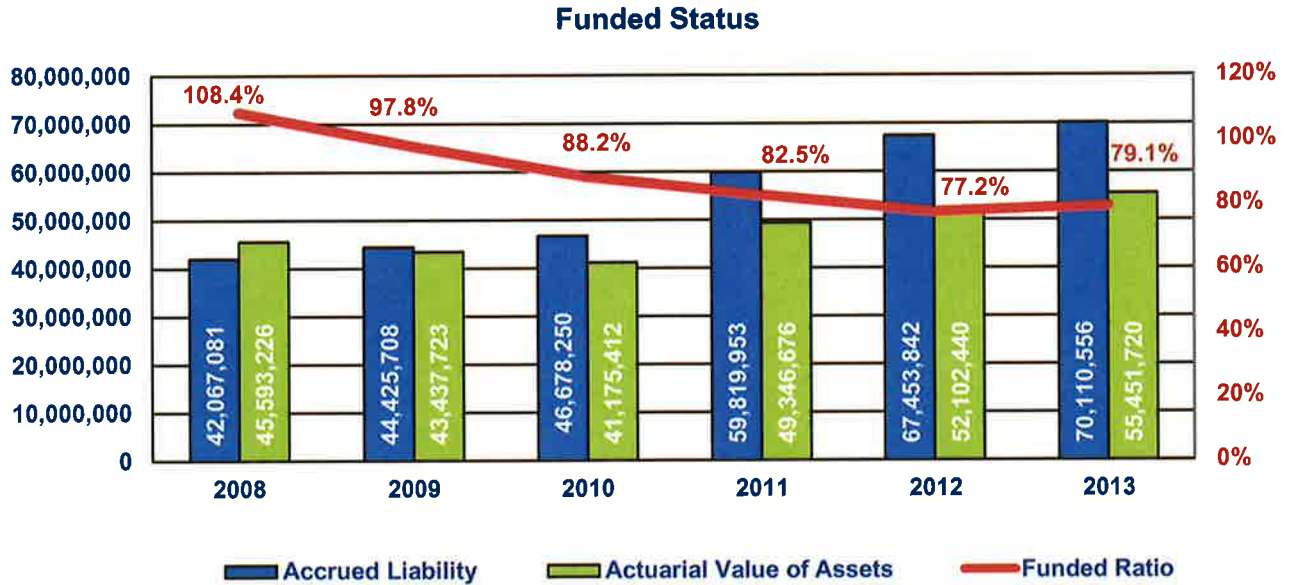
The plan's assets experienced gains, as discussed in more detail on page 3.

The plan's liabilities were lower than expected, primarily due to pay increases being lower than expected. There was also a modest gain arising from no retirements during the year.

## 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.



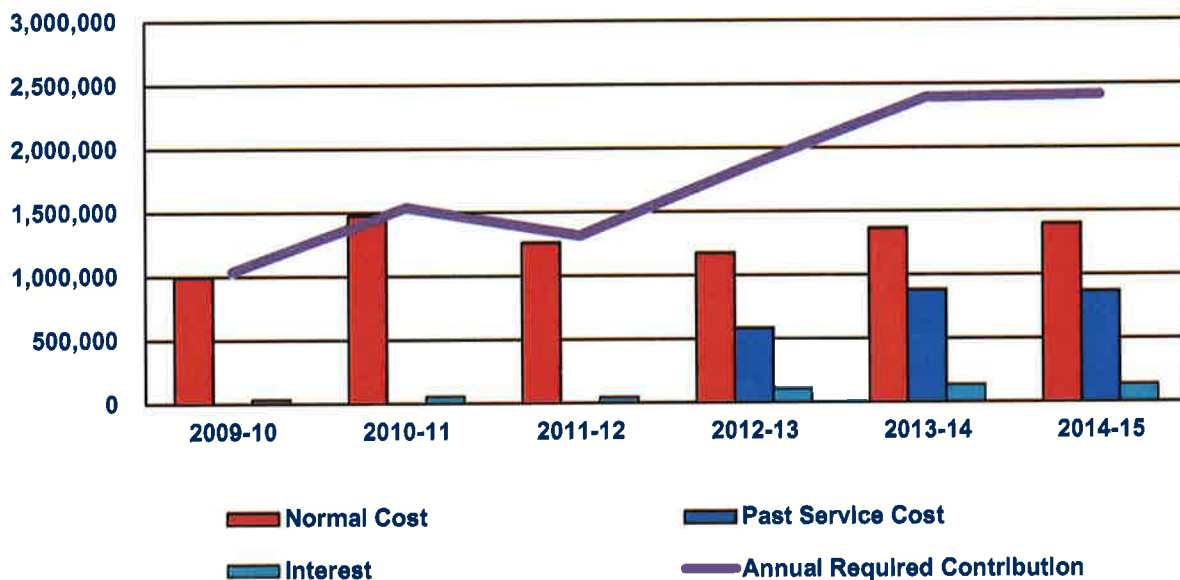
## Section I - Executive Summary

### A. Highlights

#### Annual Required Contribution

The Annual Required 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.



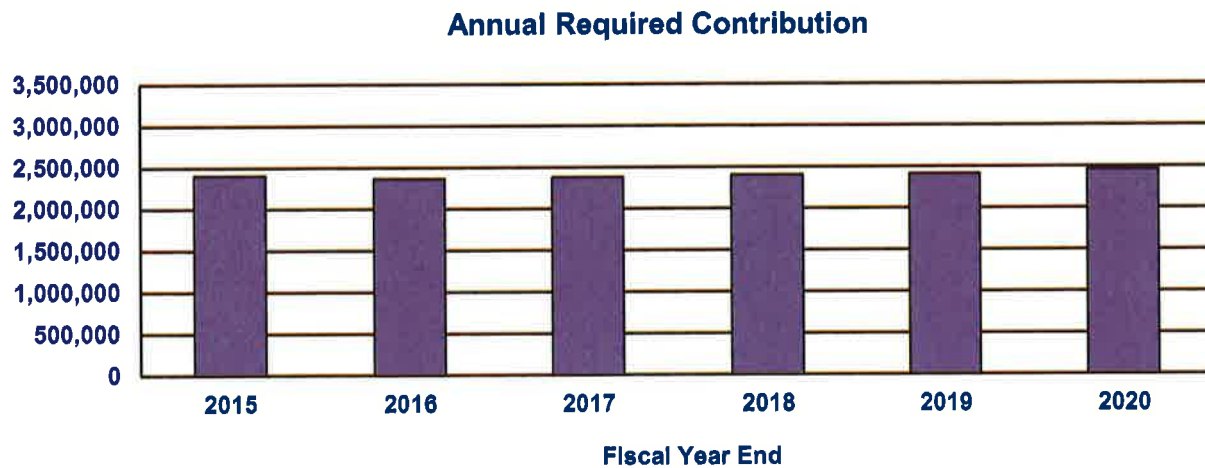
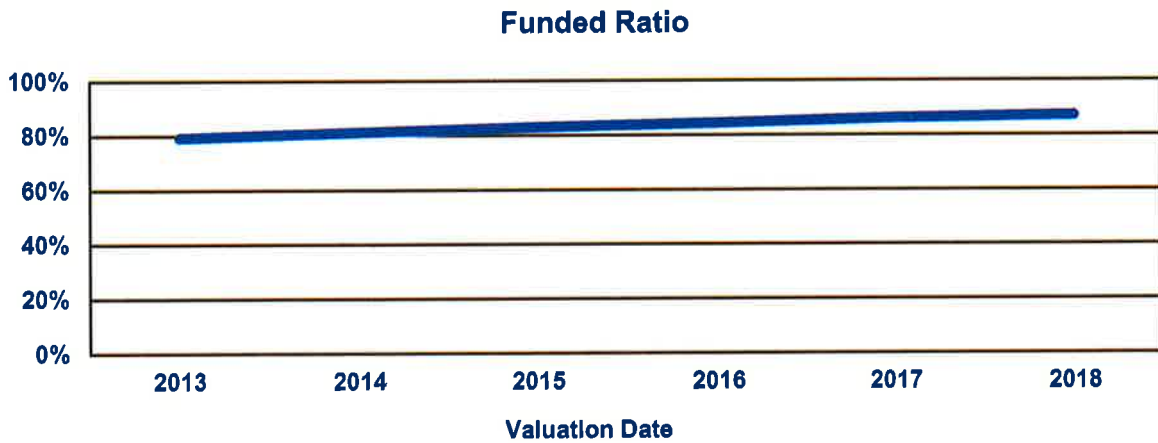
The upward trend in the Annual Required Contribution during this period is due primarily to the large market losses suffered in 2008.

## Section I - Executive Summary

### A. Highlights

#### Long Range Forecast

We expect the valuation results for the next several years to follow the patterns illustrated below:



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**

<b>Membership</b>	<b>July 1, 2012</b>	<b>July 1, 2013</b>
Active Members	66	67
Terminated Vested Members	0	1
Members in Pay Status	56	56
Payroll	\$5,075,235	\$5,184,152
<b>Assets and Liabilities</b>	<b>July 1, 2012</b>	<b>July 1, 2013</b>
Market Value of Assets	\$50,863,469	\$56,818,882
Actuarial Value of Assets	52,102,440	55,451,720
Accrued Liability for Active Members	\$30,844,317	\$32,407,289
Accrued Liability for Terminated Vested Members	0	8,472
Accrued Liability for Members in Pay Status	36,609,525	37,694,795
Total Accrued Liability	67,453,842	70,110,556
Unfunded Accrued Liability	15,351,402	14,658,836
Funded Ratio	77.2%	79.1%
<b>Annual Required Contribution for Fiscal Year</b>	<b>2013-14</b>	<b>2014-15</b>
Normal Cost	\$1,368,375	\$1,400,534
Past Service Cost	882,992	868,270
Interest	137,896	138,964
Annual Required Contribution	2,389,263	2,407,768

## Section II - Plan Assets

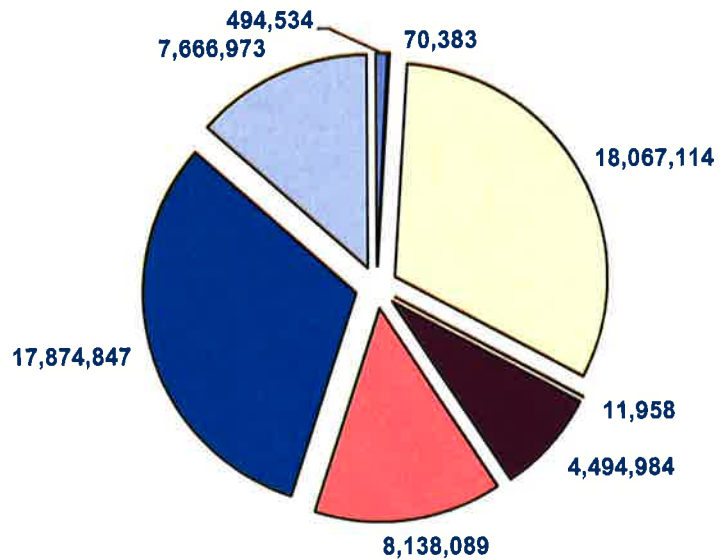
### A. Summary of Fund Transactions

<b>Market Value as of July 1, 2012</b>	<b>\$50,863,469</b>
Employer Contributions	1,870,427
Employee Contributions	495,846
Benefit Payments	(2,395,915)
Investment Income	6,081,562
Investment Expenses	(96,507)
 <b>Market Value as of July 1, 2013</b>	 <b>56,818,882</b>
 <b>Approximate Rate of Return</b>	 <b>11.77%</b>

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.

#### Asset Allocation

- Cash Equivalent
- Investment Cash
- Fixed Income
- Preferred Stock
- Common Stock
- Collective Equity Funds
- Mutual Equity Funds
- Other Funds



## 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 starting on July 1, 2011. The Actuarial Value of Assets as of July 1, 2013 is determined below.

---

1.	Expected Market Value of Assets:		
	a. Market Value of Assets as of July 1, 2012		\$50,863,469
	b. Employer and Employee Contributions		2,366,273
	c. Benefit Payments and Administrative Expenses		(2,395,915)
	d. Expected Investment Return Based on 6.125% Interest		<u>3,114,568</u>
	e. Expected Market Value of Assets as of July 1, 2013		53,948,395
2.	Actual Market Value of Assets as of July 1, 2013		56,818,882
3.	Market Value (Gain)/Loss: (1e) - (2)		(2,870,487)
4.	Delayed Recognition of Market (Gains)/Losses:		
		<b>Percent Not</b>	<b>Amount Not</b>
	<b>Plan Year End</b>	<b>(Gain)/Loss</b>	<b>Recognized</b>
	06/30/2013	(\$2,870,487)	80%
	06/30/2012	1,548,714	60%
	06/30/2011	0	40%
	06/30/2010	0	20%
			<u>0</u>
			(1,367,162)
5.	Actuarial Value as of July 1, 2013: (2) + (4)		55,451,720
6.	Approximate Rate of Return on Actuarial Value		6.49%
7.	Actuarial Value (Gain)/Loss		(188,557)

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**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 25 years starting on July 1, 2011.

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	<b>July 1, 2012</b>	<b>July 1, 2013</b>
1. Accrued Liability		
Active Members	\$30,844,317	\$32,407,289
Terminated Vested Members	0	8,472
Retired Members	23,097,143	23,159,931
Disabled Members	12,373,711	13,428,055
Beneficiaries of Deceased Members	<u>1,138,671</u>	<u>1,106,809</u>
Total	67,453,842	70,110,556
2. Actuarial Value of Assets (see Section II B)	52,102,440	55,451,720
3. Unfunded Accrued Liability: (1) - (2)	15,351,402	14,658,836
4. Funded Ratio: (2) / (1)	77.2%	79.1%
5. Amortization Period	24	23
6. Amortization Growth Rate	3.00%	3.00%
7. Past Service Cost: (3) amortized over (5)	882,992	868,270

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**Section III - Development of Contribution**  
**B. Annual Required Contribution**

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	Fiscal Year 2013-14	Fiscal Year 2014-15
1. Total Normal Cost	\$1,870,765	\$1,908,971
2. Expected Employee Contributions	502,390	508,437
3. Expected Expenses	0	0
4. Net Normal Cost: (1) - (2) + (3)	1,368,375	1,400,534
5. Past Service Cost (see Section III A)	882,992	868,270
6. Interest on (4) + (5) to start of next fiscal year	137,896	138,964
7. Annual Required Contribution: (4) + (5) + (6)	2,389,263	2,407,768

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**Milliman Actuarial Valuation**

**Section III - Development of Contribution  
C. Long Range Forecast**

This forecast is based on the results of the July 1, 2013 actuarial valuation and assumes that the Town will pay the Annual Required Contribution each year, the assets will return 6.125% on a market value basis each year, and there are no future changes in the actuarial methods or assumptions or in the plan provisions. Actual results at each point in time will yield different values, reflecting the actual experience of the plan membership and assets.

Values as of the Valuation Date				Cash Flows Projected to the Following Fiscal Year					
Valuation Date	Accrued Liability	Actuarial Value of Assets	Unfunded Accrued Liability	Funded Ratio	Fiscal Year Ending	Town Contributions	Employee Contributions	Benefit Payments	Net Cash Flows
7/1/2013	\$70,110,556	\$55,451,720	\$14,658,836	79.1%	2015	\$2,407,768	\$514,684	(\$2,907,310)	\$15,142
7/1/2014	73,404,000	59,502,000	13,902,000	81.1%	2016	2,367,000	523,000	(3,136,000)	(246,000)
7/1/2015	76,675,000	63,494,000	13,181,000	82.8%	2017	2,384,000	536,000	(3,337,000)	(417,000)
7/1/2016	80,003,000	67,445,000	12,558,000	84.3%	2018	2,405,000	552,000	(3,512,000)	(555,000)
7/1/2017	83,425,000	71,755,000	11,670,000	86.0%	2019	2,412,000	568,000	(3,680,000)	(700,000)
7/1/2018	86,941,000	75,578,000	11,363,000	86.9%	2020	2,463,000	584,000	(3,848,000)	(801,000)
7/1/2019	90,582,000	79,486,000	11,096,000	87.8%	2021	2,532,000	600,000	(4,024,000)	(892,000)
7/1/2020	94,324,000	83,529,000	10,795,000	88.6%	2022	2,607,000	615,000	(4,210,000)	(988,000)
7/1/2021	98,183,000	87,727,000	10,456,000	89.4%	2023	2,669,000	629,000	(4,398,000)	(1,100,000)
7/1/2022	102,130,000	92,081,000	10,049,000	90.2%	2024	2,726,000	640,000	(4,616,000)	(1,250,000)
7/1/2023	106,201,000	96,587,000	9,614,000	90.9%	2025	2,789,000	651,000	(4,838,000)	(1,398,000)
7/1/2024	110,341,000	101,215,000	9,126,000	91.7%	2026	2,835,000	665,000	(5,048,000)	(1,548,000)
7/1/2025	114,534,000	105,974,000	8,560,000	92.5%	2027	2,877,000	678,000	(5,256,000)	(1,701,000)
7/1/2026	118,801,000	110,869,000	7,932,000	93.3%	2028	2,916,000	684,000	(5,491,000)	(1,891,000)
7/1/2027	123,144,000	115,906,000	7,238,000	94.1%	2029	2,940,000	693,000	(5,746,000)	(2,113,000)
7/1/2028	127,554,000	121,057,000	6,497,000	94.9%	2030	2,954,000	706,000	(5,985,000)	(2,325,000)
7/1/2029	131,990,000	126,294,000	5,696,000	95.7%	2031	2,991,000	718,000	(6,242,000)	(2,533,000)
7/1/2030	136,419,000	131,633,000	4,786,000	96.5%	2032	2,980,000	719,000	(6,557,000)	(2,858,000)
7/1/2031	140,922,000	137,085,000	3,837,000	97.3%	2033	2,937,000	729,000	(6,861,000)	(3,195,000)
7/1/2032	145,387,000	142,535,000	2,852,000	98.0%	2034	2,897,000	737,000	(7,162,000)	(3,528,000)

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.

This work product was prepared solely for the Town for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

**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:

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<b>Valuation Date</b>	July 1, 2013
<b>Actuarial Cost Method</b>	Entry Age Normal
<b>Amortization Method</b>	Level percent
<b>Amortization Period</b>	Closed 25 years from July 1, 2011
<b>Asset Valuation Method</b>	5 Year Smoothed Market Value
<b>Actuarial Assumptions</b>	
Investment Rate of Return	6.125%
Projected Salary Increases	Service based scale
Amortization Growth Rate	3.000%
Inflation	2.500%
Cost-of-Living Adjustments	Pre-2005 retirees with 75% Joint & Survivor annuities - 1.25%. Pre-2005 retirees with 100% Joint & Survivor annuities - 0.625%.

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**Milliman Actuarial Valuation**

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

	(1)	(2)	(3)	(4)	(5)	(6)
<b>Actuarial Valuation Date</b>	<b>Actuarial Value of Assets</b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Unfunded AAL (UAAL) (2) - (1)</b>	<b>Funded Ratio (1) / (2)</b>	<b>Covered Payroll</b>	<b>UAAAL as a Percentage of Covered Payroll (3) / (5)</b>
07/01/2009	\$43,437,723	\$44,425,708	\$987,985	97.8%	\$4,413,566	22.4%
07/01/2010	41,175,412	46,678,250	5,502,838	88.2%	3,817,411	144.2%
07/01/2011	42,797,937	45,554,846	2,756,909	93.9%	4,641,204	59.4%
07/01/2011	49,346,676	59,819,953	10,473,277	82.5%	4,655,430	225.0%
07/01/2012	52,102,440	67,453,842	15,351,402	77.2%	5,075,235	302.5%
07/01/2013	55,451,720	70,110,556	14,658,836	79.1%	5,184,152	282.8%

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**Section IV - Accounting Information**  
**C. Schedule of Employer Contributions**

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<b>Fiscal Year Ending June 30</b>	<b>Annual Required Contribution</b>	<b>Actual Contribution</b>	<b>Percent Funded</b>
2007	\$0	\$80,700	-
2008	771,469	95,625	12.4%
2009	93,395	143,738	153.9%
2010	1,034,423	895,000	86.5%
2011	1,534,510	1,675,000	109.2%
2012	1,310,377	1,946,736	148.6%
2013	1,870,427	1,870,427	100.0%
2014	2,389,263	TBD	TBD
2015	2,407,768	TBD	TBD

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**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, 2012	As of July 1, 2013
1. Value of Vested Benefits		
Active Members	\$22,064,468	\$23,202,541
Terminated Vested Members	0	8,472
Retired Members	23,097,143	23,159,931
Disabled Members	12,373,711	13,428,055
Beneficiaries of Deceased Members	<u>1,138,671</u>	<u>1,106,809</u>
Total Value of Vested Benefits	58,673,993	60,905,808
2. Value of Non-Vested Benefits	4,778,281	4,960,751
3. Total Value of Accrued Benefits: (1) + (2)	63,452,274	65,866,559
4. Market Value of Assets	50,863,469	56,818,882
5. Vested Funded Ratio: (4) / (1)	86.7%	93.3%
6. Accrued Funded Ratio: (4) / (3)	80.2%	86.3%

**Section IV - Accounting Information**  
**E. Statement of Changes in Accrued Plan Benefits**

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**Increase/(Decrease) during the 2012-2013 plan year attributable to:**

Increase for interest due to the decrease in the discount period	\$3,814,167
Benefits Accumulated/(Forfeited)	996,033
Benefit Payments	(2,395,915)
Plan Amendments	0
Changes in Actuarial Assumptions	0
Net Increase/(Decrease)	2,414,285

**Value of Accrued Plan Benefits:**

July 1, 2013	\$65,866,559
July 1, 2012	63,452,274
Net Increase/(Decrease)	2,414,285

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**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	Term. Vested	Retirees	Disabled	Bene- ficiaries	Total
<b>Count as of July 1, 2012</b>	66	0	29	19	8	122
Terminated, due refund	(1)	1	-	-	-	0
Terminated, benefits due	-	-	-	-	-	0
Retired	-	-	-	-	-	0
Disabled	(1)	-	-	1	-	0
Died, with beneficiary	-	-	(1)	-	-	(1)
Died, no beneficiary	-	-	-	-	(1)	(1)
Paid refund	-	-	-	-	-	0
New member	3	-	-	-	-	3
New beneficiary	-	-	-	-	1	1
Correction	-	-	-	-	-	0
<b>Count as of July 1, 2013</b>	67	1	28	20	8	124



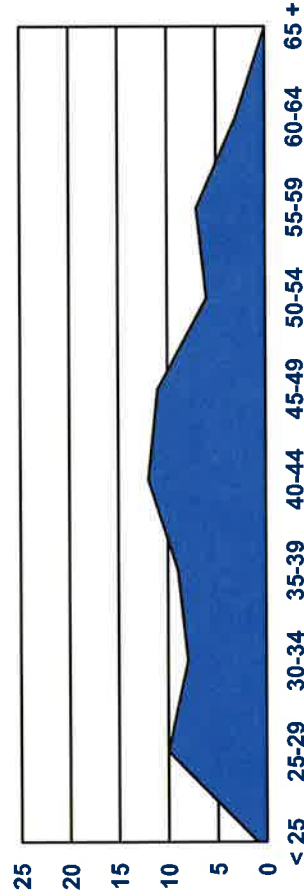
**Section V - Membership Data**  
**B. Statistics of Membership**

	As of July 1, 2012	As of July 1, 2013
<b>Number of Active Members</b>		
Number	66	67
Average Age	41.6	41.8
Average Service	13.3	13.5
Total Payroll	\$5,075,235	\$5,184,152
Average Payroll	76,898	77,375
<b>Terminated Vested Members</b>		
Number	0	1
Total Annual Benefit	\$0	\$0
Average Annual Benefit	0	0
Average Age	0.0	33.0
<b>Retired Members</b>		
Number	29	28
Total Annual Benefit	\$1,383,407	\$1,397,840
Average Annual Benefit	47,704	49,923
Average Age	67.7	68.0
<b>Disabled Members</b>		
Number	19	20
Total Annual Benefit	\$849,660	\$926,220
Average Annual Benefit	44,719	46,311
Average Age	65.7	66.5
<b>Beneficiaries of Deceased Members</b>		
Number	8	8
Total Annual Benefit	\$133,647	\$130,069
Average Annual Benefit	16,706	16,259
Average Age	80.0	79.9

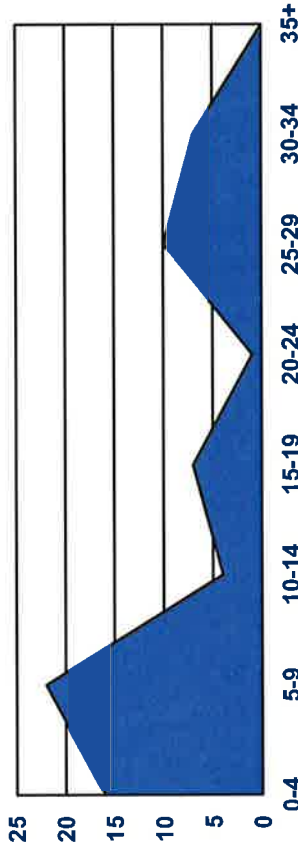
**Section V - Membership Data**  
**C. Distribution of Active Members as of July 1, 2013 - Count**

Age	Years of Service										Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+			
< 25	1	0	0	0	0	0	0	0	0	0	1
25-29	8	2	0	0	0	0	0	0	0	0	10
30-34	3	5	0	0	0	0	0	0	0	0	8
35-39	3	2	4	0	0	0	0	0	0	0	9
40-44	0	11	0	1	0	0	0	0	0	0	12
45-49	1	0	0	5	0	5	0	0	0	0	11
50-54	0	2	0	0	1	2	1	0	0	0	6
55-59	0	0	0	1	0	3	3	0	0	0	7
60-64	0	0	0	0	0	0	3	0	0	0	3
65 +	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>16</b>	<b>22</b>	<b>4</b>	<b>7</b>	<b>1</b>	<b>10</b>	<b>7</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>67</b>

**Distribution By Age**



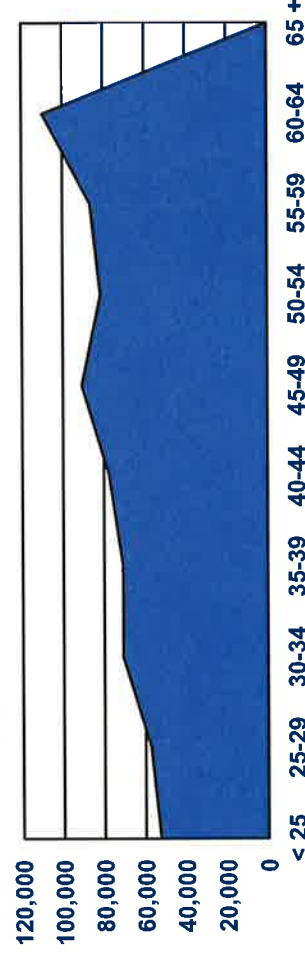
**Distribution by Years of Service**



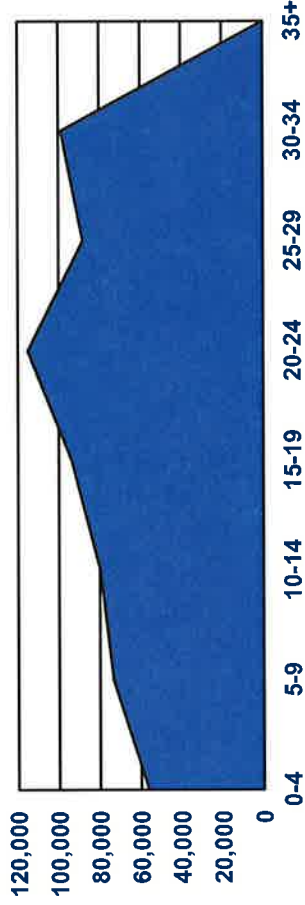
**Section V - Membership Data**  
**D. Distribution of Active Members as of July 1, 2013 - Average Pay**

Age	Years of Service											Total		
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	35+	35+	35+			
< 25	52,568	0	0	0	0	0	0	0	0	0	0	0	0	52,568
25-29	54,908	66,913	0	0	0	0	0	0	0	0	0	0	0	57,309
30-34	62,664	75,694	0	0	0	0	0	0	0	0	0	0	0	70,808
35-39	56,529	74,383	79,913	0	0	0	0	0	0	0	0	0	0	70,890
40-44	0	74,026	0	115,303	0	0	0	0	0	0	0	0	0	77,466
45-49	51,939	0	0	89,175	0	100,218	0	0	0	0	0	0	0	90,810
50-54	0	70,657	0	0	115,282	73,671	85,938	0	0	0	0	0	0	81,646
55-59	0	0	0	95,357	0	77,895	92,275	0	0	0	0	0	0	86,552
60-64	0	0	0	0	0	0	109,931	0	0	0	0	0	0	109,931
65 +	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>56,334</b>	<b>73,485</b>	<b>79,913</b>	<b>93,791</b>	<b>115,282</b>	<b>88,212</b>	<b>98,937</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>77,375</b>

**Distribution By Age**



**Distribution by Years of Service**



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**Section V - Membership Data**  
**E. Distribution of Inactive Members as of July 1, 2013**

	Age	Number	Annual Benefits
<b>Terminated Vested Members /</b>	< 30	0	\$0
<b>Members Due Refunds</b>	30 - 39	1	0
	40 - 49	0	0
	50 - 59	0	0
	60 - 64	0	0
	65 +	0	0
	Total	1	0
<b>Retired Members</b>	< 50	0	\$0
	50 - 59	9	644,151
	60 - 69	7	432,492
	70 - 79	5	162,843
	80 - 89	6	150,326
	90 +	1	8,031
	Total	28	1,397,843
<b>Disabled Retirees</b>	< 50	0	\$0
	50 - 59	5	216,608
	60 - 69	7	365,727
	70 - 79	8	343,884
	80 - 89	0	0
	90 +	0	0
	Total	20	926,219
<b>Beneficiaries</b>	< 50	0	\$0
	50 - 59	0	0
	60 - 69	2	65,117
	70 - 79	1	9,002
	80 - 89	4	41,881
	90 +	1	14,070
	Total	8	130,070

## 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**. Recommended annual 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, 2011, the amortization period is 25 years; the amortization period will decrease each year until it reaches 10 years, after which point it will remain at 10 years.

Effective July 1, 2011, the **Actuarial Value of Assets** was reset to equal the market value. In future years, the **Actuarial Value** is determined by recognizing asset gains and losses over **five** years.

## Appendix B - Actuarial Assumptions

**Interest** 6.125%

**Amortization Growth Rate** 3.000%

**Salary Scale** According to the following table:

Service	Rate
0-1	9.00%
2-5	11.50%
6+	3.50%

**Expenses** None.

**Mortality** RP-2000 Mortality Tables for employees (assumed 20% in-service and 80% non-service), healthy annuitants, and disabled annuitants, with generational projection of future mortality improvements per Scale AA. This assumption includes a margin for improvements in longevity beyond the valuation date.

**Turnover** None.

**Rate of Retirement** Active members are assumed to retire according to the following table:

Age	Rate
49	15%
50-53	5%
54-55	10%
56	20%
57	15%
58	20%
59-61	50%
62	100%

Terminated vested members are assumed to retire at their Normal Retirement Date.

**Disability** 1985 Pension Class 4 Table (assumed 80% in-service, 20% non-service)

Age	In-Service		Non-Service	
	Male	Female	Male	Female
25	0.20%	0.14%	0.05%	0.04%
35	0.41%	0.37%	0.10%	0.09%
45	0.75%	0.71%	0.19%	0.18%
55	1.83%	1.70%	0.46%	0.43%
65	3.70%	2.30%	0.94%	0.58%

## Appendix B - Actuarial Assumptions

<b>Cost of Living Adjustments</b>	Pre-2005 retirees with 75% Joint & Survivor annuities - 1.25%. Pre-2005 retirees with 100% Joint & Survivor annuities - 0.625%.
<b>Marital Status</b>	80% of members are assumed to be married with wives 3 years younger than husbands.
<b>Form of Benefit</b>	100% Joint & Survivor for members hired before January 1, 1985. 75% Joint & Survivor for members hired on or after January 1, 1985.
<b>Load for Unused Sick Days</b>	The Accrued Liability and Total Normal Cost for active members are loaded by 2.0% to anticipate the trade of unused sick days for additional pension service.

## 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.

<b>Eligibility</b>	Each regular full-time firefighter is eligible to participate as of the date of employment.
<b>Employee Contributions</b>	10% of Compensation for up to 34.5 years of service. Contributions are credited with 5% interest.
<b>Credited Service</b>	Service from date of hire rounded to nearest 0.25 of a year up to a maximum of 32.5 years of continuous Credited Service. Credited Service includes unused sick time up to 90 days.
<b>Compensation</b>	Base Salary including additional increments and allowances for college credit and stand-by pay, and excluding overtime pay, bonuses, gratuities, commissions, retainer fees, benefits, severance pay, allowance for expenses or other special remuneration paid, but including "pick-up" contributions.
<b>Final Average Earnings</b>	Compensation earned during the last 12 months of service, or Compensation earned prior to the member's 34.5th year of service, if earlier.
<b>Normal Retirement Date</b>	If hired before July 1, 1985, the first day of the month coincident with or next following completion of 20 years of Credited Service. If hired on or after July 1, 1985, the later of July 1 following attainment of age 49 or the first day of the month coincident with or next following completion of 20 years of Credited Service. Mandatory retirement upon completion of 34.5 years of Credited Service.
<b>Normal Retirement Benefit</b>	2.5% of Final Average Compensation times Credited Service (maximum 32.5 years).
<b>Early Retirement Date</b>	None provided.



## Appendix C - Summary of Plan Provisions

### Disability Retirement (On Duty)

For a disability governed by State of Connecticut Statute Section 7-433c (Heart and Hypertension Act): 66 $\frac{2}{3}$ % of base salary or, if greater, the Normal Retirement Benefit calculated as if the member terminated employment at date of disability.

For a disability not governed by State of Connecticut Statute Section 7-433c (Heart and Hypertension Act): 66 $\frac{2}{3}$ % of base salary or, if greater, the Normal Retirement Benefit calculated as if the member terminated employment at date of disability. However, if such disability is deemed to be at a level of severity of less than 30%, then commencing with the 6th year of such disability, the benefit will be reduced to 50% of base salary or, if greater, the accrued benefit.

For members hired after July 1, 1985, 75% of the amount described above is payable as a 100% Joint & Survivor annuity.

The benefit will be adjusted by a Pension Adjustment beginning on the July 1 following the date the member attains age 49.

### Disability Retirement (Non Duty)

Refund of accumulated employee contributions with interest. The Pension Board may award an annual pension equal to 50% of base salary or, if greater, the Normal Retirement Benefit calculated as if the member terminated employment at date of disability. The benefit is subject to the appropriate Pension Adjustment upon approval of the Pension Board. Payable as a 100% Joint & Survivor annuity.

### Death Benefits (On Duty)

For members hired prior to July 1, 1985, 66 $\frac{2}{3}$ % of base salary or, if greater, the Normal Retirement Benefit calculated as if the member terminated employment at date of death. For members hired on or after July 1, 1985, 75% of the amount described above is payable to the beneficiary. The benefit will be adjusted by a Pension Adjustment beginning on the July 1 following the date the member would have attained age 49.

### Death Benefits (Non Duty)

Refund of accumulated employee contributions with interest. The Pension Board may award an Annual pension equal to 50% of base salary or, if greater, the Normal Retirement Benefit calculated assuming the member had terminated employment at date of death. The benefit is subject to the appropriate Pension Adjustment upon approval of the Pension Board.

### Normal Form of Payment

100% Joint & Survivor for members hired before July 1, 1985. 75% Joint & Survivor for members hired on or after July 1, 1985. Upon the death of the member and any beneficiaries, the excess of employee contributions with interest over the sum of benefits previously paid is payable to the member's estate.

## Appendix C - Summary of Plan Provisions

<b>Vesting</b>	100% vested after completion of 10 years of service from date of hire.
<b>Vested Retirement</b>	If vested, Normal Retirement Benefit payable at the July 1 coincident with or next following the earlier of age 65 or when the member would have completed 34 years of service. The benefit is not subject to the Pension Adjustment. Can opt to receive a refund of employee contributions with interest in lieu of monthly benefits.
<b>Pension Adjustment</b>	<p>Retirements prior to July 1, 2001:</p> <ul style="list-style-type: none"><li>• elected 75% Joint &amp; Survivor annuity - COLA is <math>\frac{1}{3}</math> of active member pay increases but not more than 2%.</li><li>• elected 100% Joint &amp; Survivor annuity - COLA is <math>\frac{1}{6}</math> of active member pay increases but not more than 1%.</li></ul> <p>Retirements on or after November 1, 2005:</p> <ul style="list-style-type: none"><li>• elected 75% Joint &amp; Survivor annuity - COLA is 1.5% until member's 60th birthday, then 2.0% until member's or surviving spouse's 65th birthday, then 4.0% thereafter.</li><li>• elected 100% Joint &amp; Survivor annuity - COLA is 0.75% until member's 60th birthday, then 1.25% until member's or surviving spouse's 65th birthday, then 3.25% thereafter.</li></ul> <p>Retirements between July 1, 2001 and November 1, 2005 - member could elect either COLA structure.</p> <p>Pre-1985 retirees and certain surviving spouses may not be eligible for COLAs.</p>
<b>Termination Benefit</b>	If not vested at termination, a refund of accumulated employee contributions with interest will be paid.