Milliman

Town of Westport
Police Pension Fund

Actuarial Valuation as of July 1, 2012
For Fiscal Year 2013-14

Prepared by
Milliman, Inc.

Rebecca A. Sielman, FSA
Consulting Actuary

Steve A. Lemanski, FSA, FCA
Consulting Actuary

80 Lamberton Road
Windsor, CT 06095 USA
Tel +1 860.687.2410
Fax +1 860.687.2111
milliman.com

May 13, 2013

Table of Contents

Certification

We have performed an actuarial valuation of the Plan as of July 1, 2012 for fiscal year 2013-14. 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.

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

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.

	Market	Actuarial
Value as of July 1, 2011	$62,550,205	$62,550,205
Contributions	2,934,405	2,934,405
Investment Income	1,867,740	3,427,244
Benefit Payments and Administrative Expenses	(3,406,449)	(3,406,449)
Value as of July 1, 2012	63,945,901	65,505,405

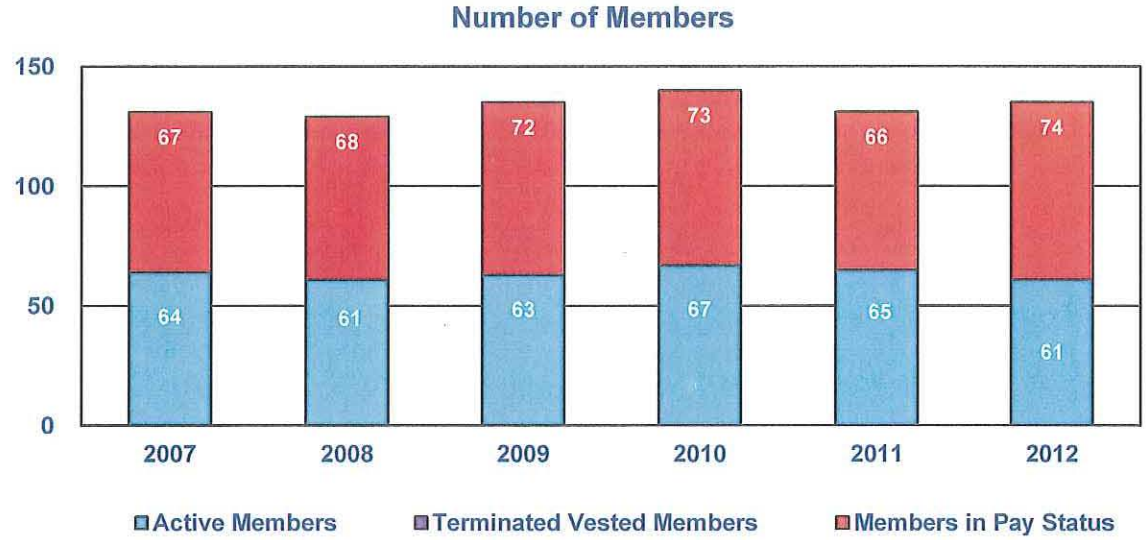
For fiscal year 2011-12, the plan's assets earned 3.00% on a Market Value basis and 5.50% on an Actuarial Value basis. The actuarial assumption for this period was 6.125%; the result is an asset loss of $1,949,400 on a Market Value basis and a loss of $389,500 on an Actuarial Value basis. Historical 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 $1,559,500. 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.

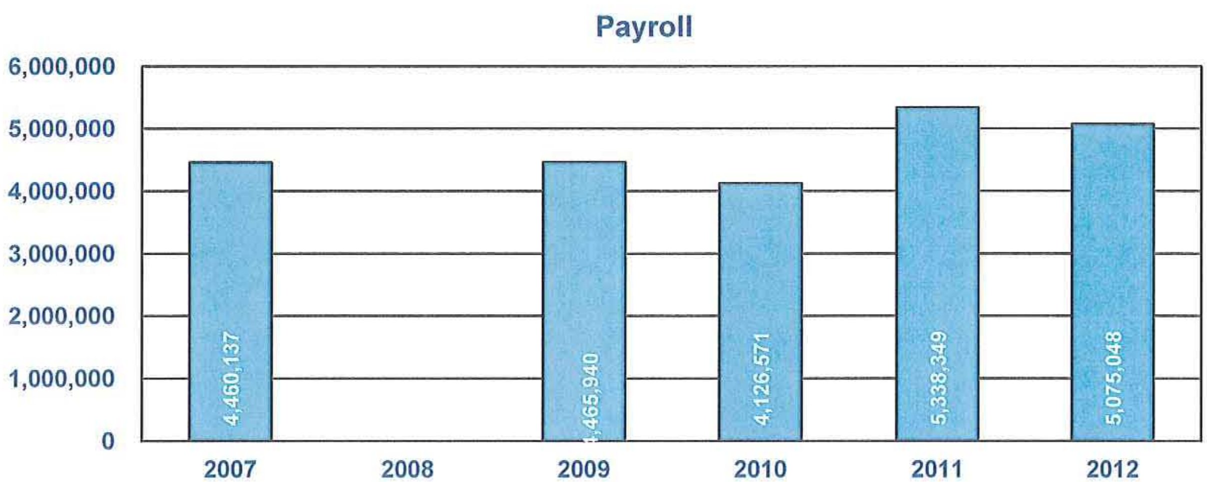
Section I - Executive Summary
A. Highlights

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, 2011 to July 1, 2012, the overall membership increased from 131 to 135. Active membership declined by 4, with 2 retirements and 2 terminations. Retired membership grew by a net of 8, largely due to the addition of 7 retirees who were not reported for the 2011 valuation.



Section I - Executive Summary
A. Highlights

Plan Changes

None.

Changes in Actuarial Methods or Assumptions

None.

Experience Since 2011 Valuation

The plan's investments experienced modest losses, as discussed in more detail on page 3.

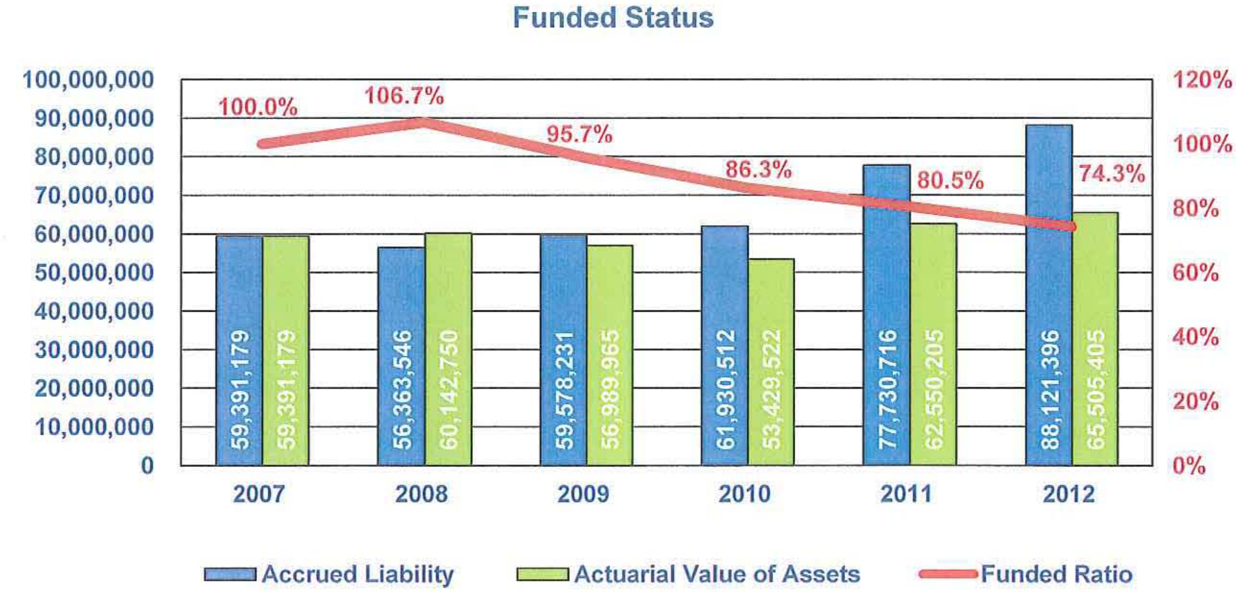
The plan had experience gains because pay levels for members who were active in both the 2011 and 2012 valuations were essentially flat, as well as experience gains because there were fewer retirements than expected.

The 2011 valuation was based on imperfect retiree census data: disabled retirees were not identified as such, there was a discrepancy in the overall retiree count, and there was uncertainty with respect to the COLAs to which individual retirees were entitled. We wish to thank the Finance Department staff for their hard work in thoroughly researching these matters and providing us with corrected information for the 2012 valuation. Unfortunately, these corrections resulted in an increase in the Accrued Liability and therefore in the Annual Required Contribution.

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.

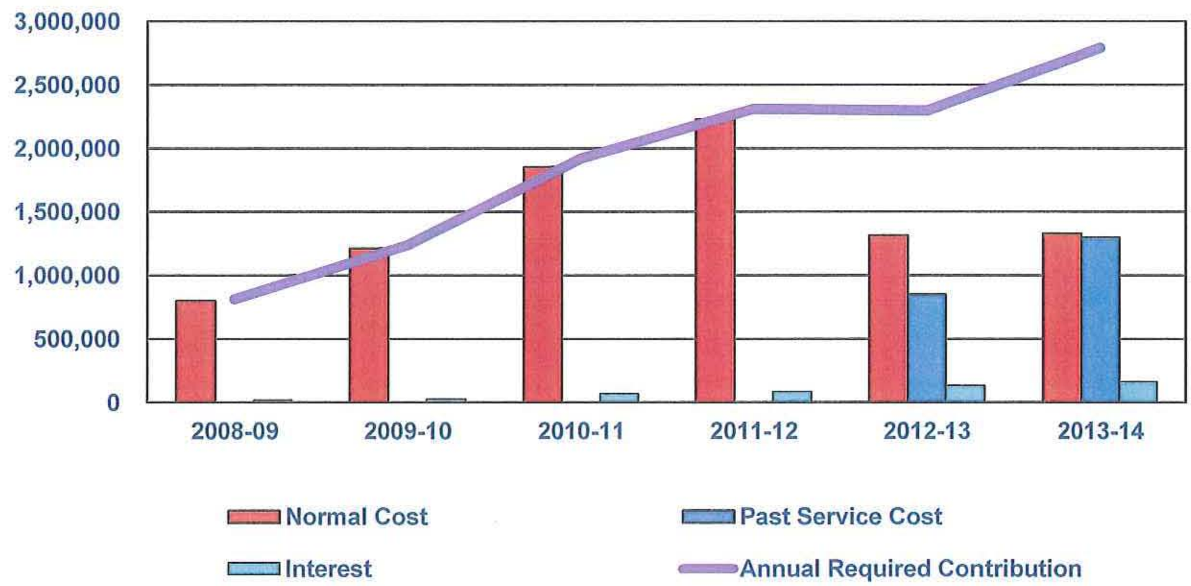


Section I - Executive Summary
A. Highlights

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.

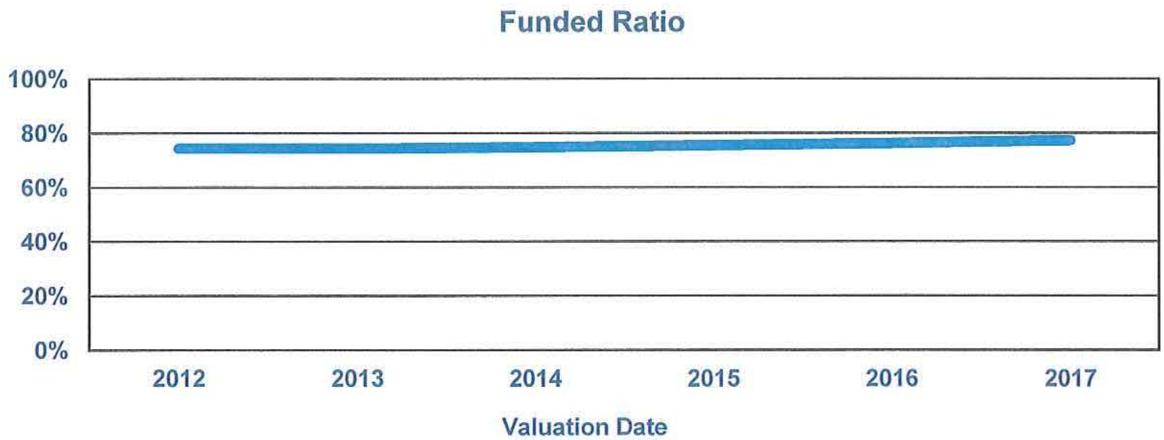


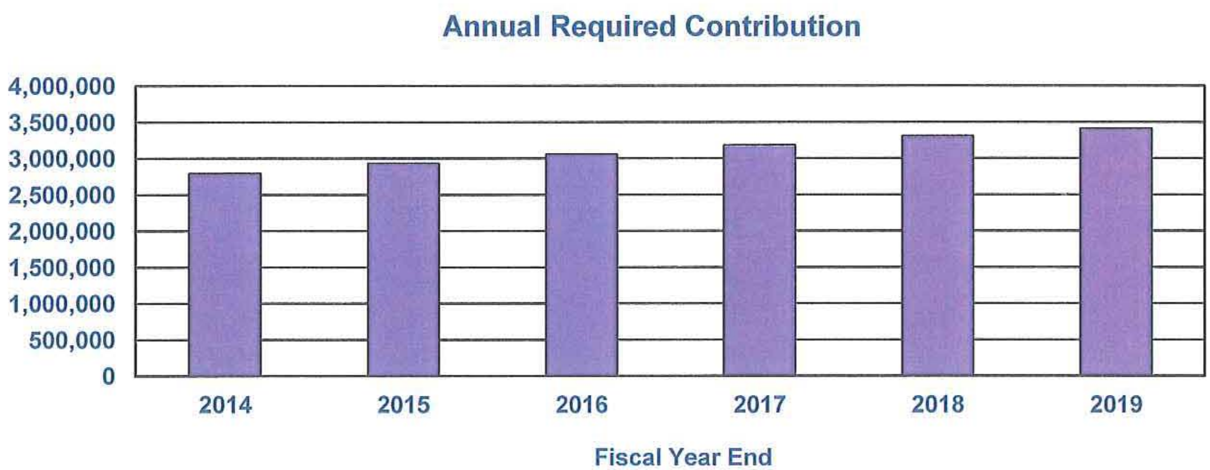
The upward trend in the Annual Required Contribution during this period is due primarily to the large market losses suffered in 2008.

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

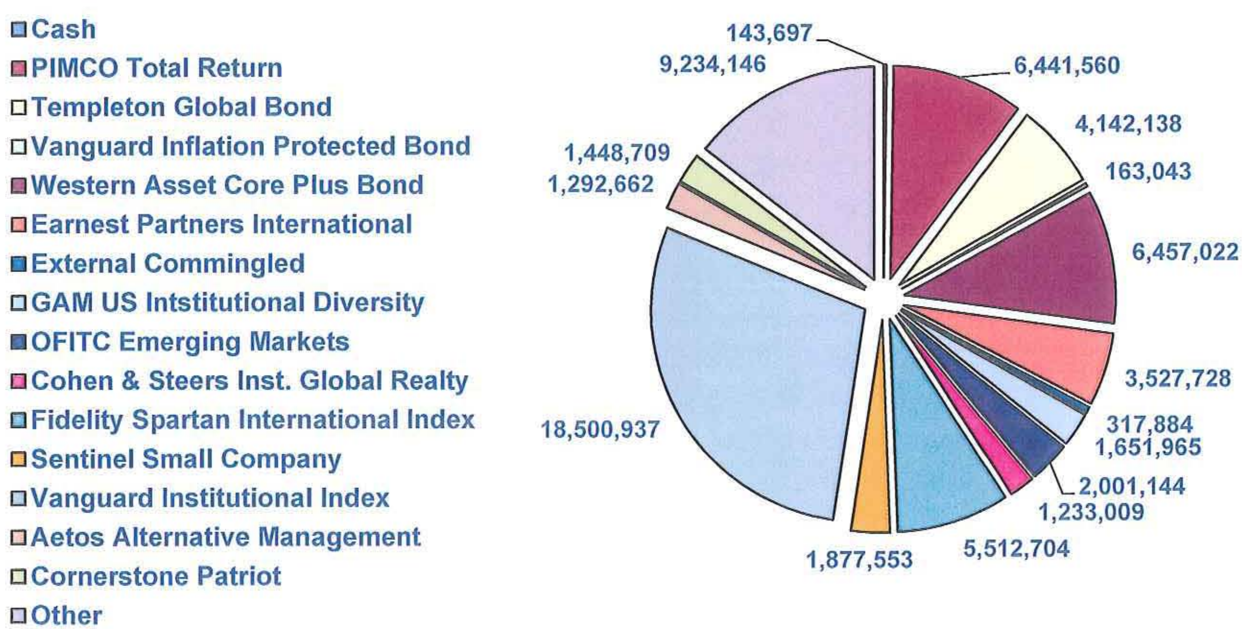
Membership	July 1, 2011	July 1, 2012
Active Members	65	61
Terminated Vested Members	0	0
Members in Pay Status	66	74
Payroll	$5,338,349	$5,075,048
Assets and Liabilities	**July 1, 2011**	**July 1, 2012**
Market Value of Assets	$62,550,205	$63,945,901
Actuarial Value of Assets	62,550,205	65,505,405
Accrued Liability for Active Members	$30,261,739	$31,025,592
Accrued Liability for Terminated Vested Members	0	0
Accrued Liability for Members in Pay Status	47,468,977	57,095,804
Total Accrued Liability	77,730,716	88,121,396
Unfunded Accrued Liability	15,180,511	22,615,991
Funded Ratio	80.5%	74.3%
Annual Required Contribution for Fiscal Year	**2012-13**	**2013-14**
Normal Cost	$1,315,912	$1,331,102
Past Service Cost	849,320	1,300,842
Interest	132,620	161,207
Annual Required Contribution	2,297,852	2,793,151

Section II - Plan Assets
A. Summary of Fund Transactions

Market Value as of July 1, 2011	$62,550,205
Employer Contributions	2,413,000
Employee Contributions	521,405
Benefit Payments	(3,406,449)
Investment Income	1,959,313
Investment Expenses	(91,573)
Market Value as of July 1, 2012	63,945,901
Approximate Rate of Return	3.00%

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



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, 2012 is determined below.

1.	Expected Market Value of Assets:	
	a. Market Value of Assets as of July 1, 2011	$62,550,205
	b. Employer and Employee Contributions	2,934,405
	c. Benefit Payments and Administrative Expenses	(3,406,449)
	d. Expected Investment Return Based on 6.125% Interest	3,817,120
	e. Expected Market Value of Assets as of July 1, 2012	65,895,281
2.	Actual Market Value of Assets as of July 1, 2012	63,945,901
3.	Market Value (Gain)/Loss: (1e) - (2)	1,949,380
4.	Delayed Recognition of Market (Gains)/Losses:	

Plan Year End	(Gain)/Loss	Percent Not Recognized	Amount Not Recognized	
06/30/2012	$1,949,380	80%	$1,559,504	
06/30/2011	0	60%	0	
06/30/2010	0	40%	0	
06/30/2009	0	20%	0	
				1,559,504

5.	Actuarial Value as of July 1, 2012: (2) + (4)	65,505,405
6.	Approximate Rate of Return on Actuarial Value	5.50%
7.	Actuarial Value (Gain)/Loss	389,460

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.

	July 1, 2011	July 1, 2012
1. Accrued Liability		
Active Members	$30,261,739	$31,025,592
Terminated Vested Members	0	0
Retired Members	45,721,177	40,666,001
Disabled Members	0	13,750,826
Beneficiaries of Deceased Members	1,747,800	2,678,977
Total	77,730,716	88,121,396
2. Actuarial Value of Assets (see Section II B)	62,550,205	65,505,405
3. Unfunded Accrued Liability: (1) - (2)	15,180,511	22,615,991
4. Funded Ratio: (2) / (1)	80.5%	74.3%
5. Amortization Period	25	24
6. Amortization Growth Rate	3.00%	3.00%
7. Past Service Cost: (3) amortized over (5)	849,320	1,300,842

SECTION III - DEVELOPMENT OF CONTRIBUTION
B. Annual Required Contribution

	Fiscal Year 2012-13	Fiscal Year 2013-14
1. Total Normal Cost	$1,848,439	$1,835,304
2. Expected Employee Contributions	532,527	504,202
3. Expected Expenses	0	0
4. Net Normal Cost: (1) - (2) + (3)	1,315,912	1,331,102
5. Past Service Cost (see Section III A)	849,320	1,300,842
6. Interest on (4) + (5) to start of next fiscal year	132,620	161,207
7. Annual Required Contribution: (4) + (5) + (6)	2,297,852	2,793,151

SECTION III - DEVELOPMENT OF CONTRIBUTION
C. Long Range Forecast

This forecast is based on the results of the July 1, 2012 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
7/1/2012	$88,121,396	$65,505,405	$22,615,991	74.3%	2014	$2,793,151	$519,000	($3,614,000)	($301,849)
7/1/2013	91,852,000	68,304,000	23,548,000	74.4%	2015	2,935,000	535,000	(3,722,000)	(252,000)
7/1/2014	95,761,000	71,715,000	24,046,000	74.9%	2016	3,057,000	551,000	(3,834,000)	(226,000)
7/1/2015	99,858,000	75,410,000	24,448,000	75.5%	2017	3,182,000	568,000	(3,949,000)	(199,000)
7/1/2016	104,152,000	79,382,000	24,770,000	76.2%	2018	3,309,000	585,000	(4,067,000)	(173,000)
7/1/2017	108,655,000	84,039,000	24,616,000	77.3%	2019	3,412,000	603,000	(4,189,000)	(174,000)
7/1/2018	113,378,000	89,008,000	24,370,000	78.5%	2020	3,516,000	621,000	(4,315,000)	(178,000)
7/1/2019	118,332,000	94,281,000	24,051,000	79.7%	2021	3,623,000	640,000	(4,444,000)	(181,000)
7/1/2020	123,530,000	99,872,000	23,658,000	80.8%	2022	3,733,000	659,000	(4,577,000)	(185,000)
7/1/2021	128,986,000	105,802,000	23,184,000	82.0%	2023	3,847,000	679,000	(4,714,000)	(188,000)
7/1/2022	134,713,000	112,092,000	22,621,000	83.2%	2024	3,965,000	699,000	(4,855,000)	(191,000)
7/1/2023	140,726,000	118,764,000	21,962,000	84.4%	2025	4,087,000	720,000	(5,001,000)	(194,000)
7/1/2024	147,041,000	125,841,000	21,200,000	85.6%	2026	4,211,000	742,000	(5,151,000)	(198,000)
7/1/2025	153,673,000	133,349,000	20,324,000	86.8%	2027	4,341,000	764,000	(5,306,000)	(201,000)
7/1/2026	160,640,000	141,313,000	19,327,000	88.0%	2028	4,474,000	787,000	(5,465,000)	(204,000)
7/1/2027	167,960,000	149,761,000	18,199,000	89.2%	2029	4,611,000	811,000	(5,629,000)	(207,000)
7/1/2028	175,653,000	158,724,000	16,929,000	90.4%	2030	4,753,000	835,000	(5,798,000)	(210,000)
7/1/2029	183,739,000	168,232,000	15,507,000	91.6%	2031	4,901,000	860,000	(5,972,000)	(211,000)
7/1/2030	192,240,000	178,320,000	13,920,000	92.8%	2032	5,054,000	886,000	(6,151,000)	(211,000)
7/1/2031	201,179,000	189,025,000	12,154,000	94.0%	2033	5,212,000	913,000	(6,336,000)	(211,000)

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, 2012
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent
Amortization Period	Closed 25 years from July 1, 2011
Asset Valuation Method	5 Year Smoothed Market Value
Actuarial Assumptions	
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%.

SECTION IV - ACCOUNTING INFORMATION
B. Schedule of Funding Progress

Actuarial Valuation Date	For Fiscal Year	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL)	(3) Unfunded AAL (UAAL) (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll	(6) UAAL as a Percentage of Covered Payroll (3) / (5)
07/01/2009	2009-10	$56,989,965	$59,578,231	$2,588,266	95.7%	$4,465,940	58.0%
07/01/2010	2010-11	53,429,522	61,930,512	8,500,990	86.3%	4,126,571	206.0%
07/01/2011	2011-12	54,799,778	66,958,711	12,158,933	81.8%	5,294,796	229.6%
07/01/2011	2012-13	62,550,205	77,730,716	15,180,511	80.5%	5,338,349	284.4%
07/01/2012	2013-14	65,505,405	88,121,396	22,615,991	74.3%	5,075,048	445.6%

SECTION IV - ACCOUNTING INFORMATION
C. Schedule of Employer Contributions

Fiscal Year Ending June 30	Annual Required Contribution	Actual Contribution	Percent Funded
2007	$0	$30,600	-
2008	792,258	34,500	4.4%
2009	815,940	36,052	4.4%
2010	1,239,465	913,000	73.7%
2011	1,922,372	2,100,000	109.2%
2012	2,312,683	2,336,000	101.0%
2013	2,297,852	TBD	TBD
2014	2,793,151	TBD	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, 2011	As of July 1, 2012
1. Value of Vested Benefits		
Active Members	$19,706,354	$21,221,448
Terminated Vested Members	0	0
Retired Members	45,721,177	40,666,001
Disabled Members	0	13,750,826
Beneficiaries of Deceased Members	1,747,800	2,678,977
Total Value of Vested Benefits	67,175,331	78,317,252
2. Value of Non-Vested Benefits	5,167,644	4,614,287
3. Total Value of Accrued Benefits: (1) + (2)	72,342,975	82,931,539
4. Market Value of Assets	62,550,205	63,945,901
5. Vested Funded Ratio: (4) / (1)	93.1%	81.6%
6. Accrued Funded Ratio: (4) / (3)	86.5%	77.1%

SECTION IV - ACCOUNTING INFORMATION
E. Statement of Changes in Accrued Plan Benefits

Increase/(Decrease) during the 2011-2012 plan year attributable to:

Increase for interest due to the decrease in the discount period	$4,328,235
Benefits Accumulated/(Forfeited)	9,666,778
Benefit Payments	(3,406,449)
Plan Amendments	0
Changes in Actuarial Assumptions	0
Net Increase/(Decrease)	10,588,564

Value of Accrued Plan Benefits:

July 1, 2012	$82,931,539
July 1, 2011	72,342,975
Net Increase/(Decrease)	10,588,564

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
Count as of July 1, 2011	65	0	54	0	12	131
Terminated, due refund	-	-	-	-	-	0
Terminated, benefits due	-	-	-	-	-	0
Retired	(2)	-	2	-	-	0
Disabled	-	-	-	-	-	0
Died, with beneficiary	-	-	(3)	-	-	(3)
Died, no beneficiary	-	-	-	-	(1)	(1)
Paid refund	(2)	-	-	-	-	(2)
Net transfers	-	-	-	-	-	0
New member *	-	-	7	-	-	7
New beneficiary	-	-	-	-	3	3
Correction **	-	-	(21)	21	-	0
Count as of July 1, 2012	61	0	39	21	14	135

* Retirees not reported for 2011 valuation.

** 2011 census data did not distinguish between service retirees and disability retirees; 2012 census data includes this categorization.

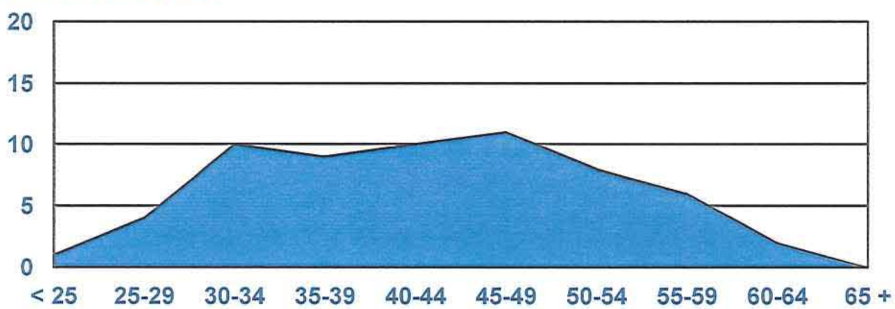
SECTION V - MEMBERSHIP DATA
B. Statistics of Membership

	As of July 1, 2011	As of July 1, 2012
Number of Active Members		
Number	65	61
Average Age	41.5	42.5
Average Service	13.7	14.6
Total Payroll	$5,338,349	$5,075,048
Average Payroll	82,128	83,198
Terminated Vested Members		
Number	0	0
Total Annual Benefit	$0	$0
Average Annual Benefit	0	0
Average Age	0.0	0.0
Retired Members		
Number	54	39
Total Annual Benefit	$2,759,400	$2,382,542
Average Annual Benefit	51,100	61,091
Average Age	66.4	67.6
Disabled Members		
Number	0	21
Total Annual Benefit	$0	$943,502
Average Annual Benefit	0	44,929
Average Age	0.0	64.3
Beneficiaries of Deceased Members		
Number	12	14
Total Annual Benefit	$191,631	$274,553
Average Annual Benefit	15,969	19,611
Average Age	74.1	74.7

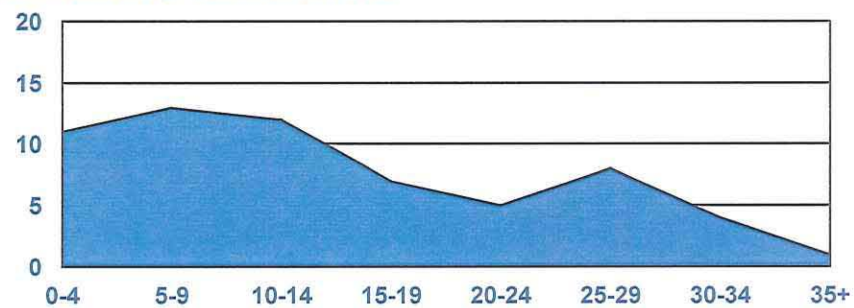
SECTION V - MEMBERSHIP DATA
C. Distribution of Active Members as of July 1, 2012 - Count

	Years of Service								
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35+**	**Total**
< 25	1	0	0	0	0	0	0	0	1
25-29	2	2	0	0	0	0	0	0	4
30-34	4	5	1	0	0	0	0	0	10
35-39	1	3	5	0	0	0	0	0	9
40-44	1	1	4	4	0	0	0	0	10
45-49	1	2	2	3	2	1	0	0	11
50-54	1	0	0	0	2	4	1	0	8
55-59	0	0	0	0	1	3	2	0	6
60-64	0	0	0	0	0	0	1	1	2
65 +	0	0	0	0	0	0	0	0	0
Total	11	13	12	7	5	8	4	1	61

Distribution By Age



Distribution by Years of Service

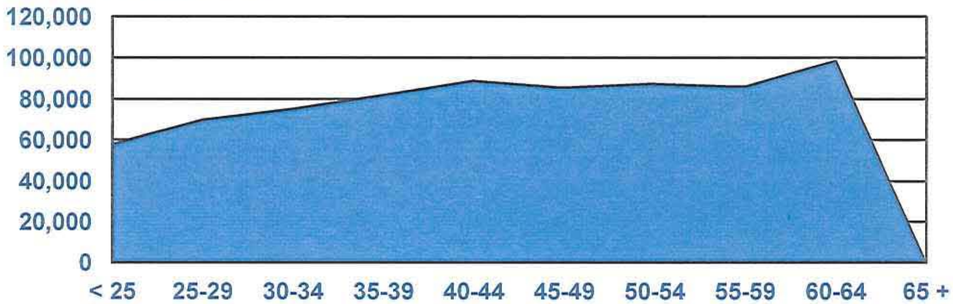


SECTION V - MEMBERSHIP DATA

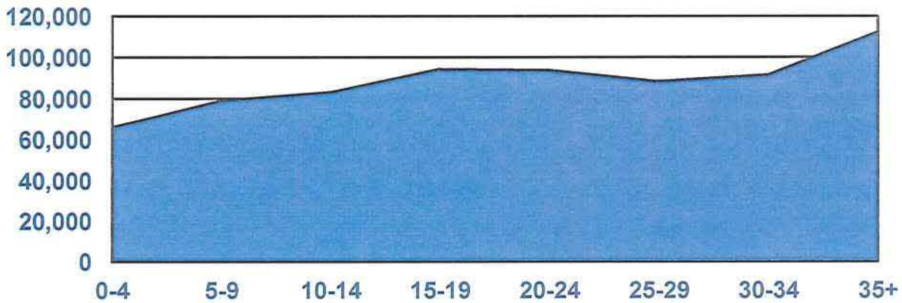
D. Distribution of Active Members as of July 1, 2012 - Average Pay

	Years of Service								
Age	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
< 25	57,878	0	0	0	0	0	0	0	57,878
25-29	61,129	79,028	0	0	0	0	0	0	70,078
30-34	69,371	79,286	78,950	0	0	0	0	0	75,286
35-39	70,812	78,931	86,215	0	0	0	0	0	82,076
40-44	61,886	77,913	83,474	103,875	0	0	0	0	88,920
45-49	65,809	80,346	78,269	81,696	115,331	83,989	0	0	85,707
50-54	71,866	0	0	0	80,677	95,970	82,778	0	87,485
55-59	0	0	0	0	77,913	79,832	99,487	0	86,064
60-64	0	0	0	0	0	0	84,701	112,381	98,541
65 +	0	0	0	0	0	0	0	0	0
Total	66,181	79,222	83,372	94,369	93,986	88,421	91,613	112,381	83,198

Distribution By Age



Distribution by Years of Service



SECTION V - MEMBERSHIP DATA
E. Distribution of Inactive Members as of July 1, 2012

	Age	Number	Annual Benefits
Terminated Vested Members / Members Due Refunds	< 30	0	$0
	30 - 39	0	0
	40 - 49	0	0
	50 - 59	0	0
	60 - 64	0	0
	65 +	0	0
	Total	0	0
Retired Members	< 50	0	$0
	50 - 59	7	604,342
	60 - 69	18	1,187,478
	70 - 79	12	571,519
	80 - 89	1	9,725
	90 +	1	9,480
	Total	39	2,382,544
Disabled Retirees	< 50	1	$73,921
	50 - 59	3	133,310
	60 - 69	12	555,279
	70 - 79	5	180,993
	80 - 89	0	0
	90 +	0	0
	Total	21	943,503
Beneficiaries	< 50	0	$0
	50 - 59	0	0
	60 - 69	5	124,811
	70 - 79	2	43,442
	80 - 89	7	106,300
	90 +	0	0
	Total	14	274,553

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.

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

Age	Rate
<54	5%
54-56	20%
57	15%
58	20%
59-61	30%
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):

	In-Service		Non-Service	
Age	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

Cost of Living Adjustments	Pre-2005 retirees with 75% Joint & Survivor annuities - 1.25%. Pre-2005 retirees with 100% Joint & Survivor annuities - 0.625%.
Marriage Assumption	80% of members are assumed to be married and husbands are assumed to be 3 years older than their wives.
Form of Benefit	100% Joint & Survivor for members hired before January 1, 1985. 75% Joint & Survivor for members hired on or after January 1, 1985.
Load for Unused Sick Days	The Accrued Liability and Total Normal Cost for active members are loaded by 2.00% 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.

Eligibility

Each regular full-time Police Officer is eligible to participate as of date of employment.

Employee Contributions

10% of Compensation, with no contributions required after 34.5 years of service. Contributions are credited with 5% interest.

Credited Service

Service from date of hire rounded to nearest 0.25 of a year up to a maximum of 32.5 years of continuous service. Credited Service includes unused sick time up to 120 days.

Compensation

Base Salary plus any additional increments and allowances for college credit, weapons qualification and "pick-up" contributions. Compensation excludes overtime or any other income.

Final Average Earnings

Compensation earned during the last 12 months of service, or Compensation earned prior to the member's 34.5th year of service, if earlier.

Normal Retirement Date

If hired before January 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 January 1, 1985, the later of July 1 following attainment of age 49 or the first day of the month following completion of 20 years of Credited Service. Mandatory retirement upon completion of 34.5 years of Credited Service.

Normal Retirement Benefit

2.5% of Final Average Compensation times Credited Service (maximum of 32.5 years).

Early Retirement Date

None provided.

Disability Retirement (On Duty)

For a disability governed by State of Connecticut Statute Section 7-433c (Heart and Hypertension Act): 66⅔% 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): 66⅔% of base salary or, if greater, the Normal Retirement Benefit calculated as if the member terminated employment at date of disability. If the disability is deemed to be at a level of severity of less than 30%, then commencing with the 6th year of disability, the benefit will be reduced to 50% of base salary or, if greater, accrued benefit.

Payable as a 100% Joint & Survivor annuity.

APPENDIX C - SUMMARY OF PLAN PROVISIONS

Disability Retirement (On Duty)

For members hired after January 1, 1985, 75% of the amount described above is payable. The benefit will be adjusted by a Pension Adjustment beginning on the July 1 after 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 January 1, 1985, 66⅔% of base salary or, if greater, the Normal Retirement Benefit calculated assuming the member terminated employment at date of death. For members hired on or after January 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 terminated employment at date of death. The monthly 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 January 1, 1985. 75% Joint & Survivor for members hired on or after January 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.

Vesting

100% vested after completion of 10 years of service from date of hire.

Vested Retirement

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 monthly benefit is not subject to Pension Adjustments. Can opt to receive a refund of employee contributions with interest in lieu of monthly benefits.

Termination Benefit

If not vested at termination, a refund of accumulated employee contributions with interest will be paid.

APPENDIX C - SUMMARY OF PLAN PROVISIONS

Pension Adjustment

Retirements prior to July 1, 2001:

- elected 75% Joint & Survivor annuity - COLA is ⅓ of active member pay increases but not more than 2%.
- elected 100% Joint & Survivor annuity - COLA is ⅙ of active member pay increases but not more than 1%.

Retirements on or after November 1, 2005:

- elected 75% Joint & 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.
- elected 100% Joint & 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.

Retirements between July 1, 2001 and November 1, 2005 - member could elect either COLA structure.

Pre-1985 retirees and certain surviving spouses may not be eligible for COLAs.