ACTUARIAL VALUATION REPORT

Framingham Contributory Retirement System
January 1, 2010

PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION COMMISSION
COMMONWEALTH OF MASSACHUSETTS

TABLE OF CONTENTS

Section Page

1. Introduction & Certification 1

2. Executive Summary
   A. Costs under Current Valuation 2
   B. Comparison with Prior Valuation 3
   C. Gain/Loss Analysis and Plan Funding Schedule 5

3. Summary of Valuation Results 6

4. Appropriation Development for Fiscal Year 2011
   A. Derivation of Appropriation 7
   B. Current Funding Schedule 8

5. GASB Statement No. 25: Actuarial Information 9

6. Plan Assets
   A. Breakdown of Assets by Investment Type 10
   B. Breakdown of Assets by Fund 10
   C. Market Value of Assets 10
   D. Actuarial Value of Assets 10
   E. Development of Actuarial Value of Assets 11

7. Information on System Membership
   A. Active Members 12
   B. Retirees and Survivors 14

8. Valuation Cost Methods
   A. Actuarial Cost Method 16
   B. Asset Valuation Method 16

9. Actuarial Assumptions 17

10. Summary of Plan Provisions 20

11. Glossary of Terms 26

1. INTRODUCTION & CERTIFICATION

This report presents the results of the actuarial valuation of the Framingham Contributory Retirement System. The valuation was performed as of January 1, 2010 pursuant to Chapter 32 of the General Laws of the Commonwealth of Massachusetts.

This valuation was based on member data as of December 31, 2009, which was supplied by the Retirement Board. Such tests as we deemed necessary were performed on the data to ensure accuracy. Asset information as of December 31, 2009 was provided in the Annual Statement for the Financial Condition as submitted to this office in accordance with G.L. c. 32, ss. 20(5)(h), 23(1) and 23(2)(e). Both the membership data and financial information were reviewed for reasonableness, but were not audited by us.

In our opinion, the actuarial assumptions used in this report are reasonable, are related to plan experience and expectations, and represent our best estimate of anticipated experience under the system. We believe this report represents an accurate appraisal of the actuarial status of the system performed in accordance with generally accepted actuarial principles and practices relating to pension plans.

Respectfully submitted,
Public Employee Retirement Administration Commission

James R. Lamenzo
Member of the American Academy of Actuaries
Associate of the Society of Actuaries
Enrolled Actuary Number 08-4709

Joseph E. Connarton
Executive Director

John F. Boorack
Actuarial Associate

August 11, 2010

2. EXECUTIVE SUMMARY

PART A | COSTS UNDER CURRENT VALUATION

The principal results of the January 1, 2010 actuarial valuation are shown below.

Present Value of Future Benefits

Actives	$209,660,249
Retirees, Survivors, and Inactives	141,324,709
Total	$350,984,958

Normal Cost

Total Normal Cost	$7,672,582
Expected Employee Contributions	4,547,195
Net Normal Cost	$3,125,387

Actuarial Liability and Development of Unfunded Actuarial Liability

Actives	$142,541,925
Retirees, Survivors, and Inactives	141,324,709
Total	$283,866,634
Assets	192,218,521
Unfunded Actuarial Liability	$91,648,113

The Board recently adopted a funding schedule effective in FY11. The appropriation for FY11 under this schedule is shown on page 7.

2. EXECUTIVE SUMMARY *(continued)*

PART B | COMPARISON WITH PRIOR VALUATION

The last full valuation was performed by PERAC as of January 1, 2008. Our Local Experience Study Analysis (issued in March, 2002) forms the basis for the actuarial assumptions (other than the investment return assumption) used in this valuation. Below we have shown the comparison between the two valuations.

	PERAC 1/1/10	PERAC 1/1/08	Increase (Decrease)	% Increase (Decrease)
Total Normal Cost	$7,672,582	$7,076,575	$596,007	8.4%
Expected Employee Contributions	4,547,195	4,121,028	426,167	10.3%
Net Normal Cost	$3,125,387	$2,955,547	$169,840	5.7%
Actuarial Liability				
Actives	$142,541,925	$125,334,634	$17,207,291	13.7%
Retirees and Inactives	141,324,709	137,435,838	3,888,871	2.8%
Total	$283,866,634	$262,770,472	$21,096,162	8.0%
Assets	192,218,521	197,874,938	(5,656,417)	(2.9%)
Unfunded Actuarial Liability	$91,648,113	$64,895,534	$26,752,579	41.2%
Funded Ratio	67.7%	75.3%	(7.6%)	

2. EXECUTIVE SUMMARY *(continued)*

PART B | COMPARISON WITH PRIOR VALUATION *(continued)*

Actives	PERAC 1/1/10	PERAC 1/1/08	% Difference
Number	1,153	1,131	1.9%
Total Payroll	$53,311,255	$48,878,418	9.1%
Average Salary	$46,237	$43,217	7.0%
Average Age	47.2	46.7	1.1%
Average Service	12.0	11.6	3.4%

Retirees and Survivors	PERAC 1/1/10	PERAC 1/1/08	% Difference
Number	771	776	(0.6%)
Total Benefits*	$15,892,839	$15,023,335	5.8%
Average Benefits*	$20,613	$19,360	6.5%
Average Age	73.7	73.0	1.0%

**excluding State reimbursed COLA*

2. EXECUTIVE SUMMARY *(continued)*

PART C | GAIN/LOSS ANALYSIS AND PLAN FUNDING SCHEDULE

Since the last valuation, there was a gain on plan liabilities of approximately $5.0 million. Salary increases for continuing actives were less than expected (average pay increased 4.2% per year for continuing actives).

There was an actuarial loss on plan assets since the actual rate of return was less than the 8.0% annual assumed rate over the 2-year period. The rates of return on a market value basis for 2008 and 2009 were -29.3% and 17.6% respectively. There was an asset loss on a market value basis of approximately $67.3 million over the 2-year period. The rates of return on an actuarial value basis for 2008 and 2009 were 4.5% and -4.6% respectively. There was an asset loss on an actuarial basis of approximately $32.3 million over the 2-year period. Note that when we calculated the actuarial value of assets, the figure was more than 115% of the market value. However, under the smoothing methodology in place, the actuarial value of assets are determined to be no more than 10% from the market value of assets. Therefore, the corridor limit applies as of January 1, 2010.

The funding schedule presented in this report was recently adopted by the board. The FY11 payment was maintained from the current schedule. The schedule amortizes the unfunded actuarial liability through 2030 with payments increasing 4.0% each year.

3. SUMMARY OF VALUATION RESULTS

A. Number of Members on Current Valuation Date	
Active Members	1,153
Vested Terminated Members	26
Retired Members and Survivors	771
Total	1,950
B. Total Regular Compensation of Active Members	$53,311,255
C. Normal Cost	
Superannuation	$5,068,638
Death	567,179
Disability	1,337,983
Termination	698,782
Total Normal Cost	$7,672,582
Expected Employee Contributions	4,547,195
Net Employer Normal Cost	$3,125,387
D. Actuarial Liability	
Active	
Superannuation	$128,279,692
Death	3,528,708
Disability	7,540,043
Termination	3,193,482
Total Active	$142,541,925
Vested Terminated Members	2,283,237
Non-Vested Terminated Members	1,439,930
Retirees and Survivors	137,601,542
Total Actuarial Liability	$283,866,634
E. Actuarial Value of Assets	192,218,521
F. Unfunded Actuarial Liability: D – E	$91,648,113
G. Funded Ratio: E/D	67.7%

4. APPROPRIATION DEVELOPMENT FOR FISCAL YEAR 2011

PART A | DERIVATION OF APPROPRIATION

Cost Under Current Funding Schedule

1. a. Normal Cost as of January 1, 2010	$3,125,387
b. For FY11 (adjusted for timing)	$3,250,402
c. Estimated Administrative Expenses	$300,000
d. Total Employer Normal Cost (b+c)	$3,550,402
2. a. Unfunded Actuarial Liability as of January 1, 2010	$91,648,113
b. FY11 amortization payment (20-year, 4.0% increasing)*	$6,869,957
3. Net 3(8)(c) payments	$120,000
4. Total FY11 Payment [Sum of 1(d), 2(b) and 3]	$10,540,359

* FY11 appropriation was maintained at the same level as the prior schedule.

4. APPROPRIATION DEVELOPMENT FOR FISCAL YEAR 2011
(continued)

PART B | CURRENT FUNDING SCHEDULE

Fiscal Year	Normal Cost	Net 3(8)(c)	Amort. of UAL	Total Cost	Unfunded Act. Liab.
2011	3,550,402	120,000	6,869,957	10,540,359	95,314,038
2012	3,745,675	120,000	6,912,156	10,777,831	95,519,607
2013	3,951,687	120,000	7,188,642	11,260,329	95,696,048
2014	4,169,029	120,000	7,476,188	11,765,217	95,587,998
2015	4,398,326	120,000	7,775,235	12,293,561	95,160,755
2016	4,640,234	120,000	8,086,245	12,846,479	94,376,361
2017	4,895,447	120,000	8,409,695	13,425,142	93,193,326
2018	5,164,697	120,000	8,746,082	14,030,779	91,566,321
2019	5,448,755	120,000	9,095,926	14,664,680	89,445,858
2020	5,748,436	120,000	9,459,763	15,328,199	86,777,927
2021	6,064,600	120,000	9,838,153	16,022,754	83,503,618
2022	6,398,153	120,000	10,231,679	16,749,833	79,558,702
2023	6,750,052	120,000	10,640,946	17,510,998	74,873,184
2024	7,121,305	120,000	11,066,584	18,307,889	69,370,817
2025	7,512,976	120,000	11,509,248	19,142,224	62,968,571
2026	7,926,190	120,000	11,969,618	20,015,808	55,576,069
2027	8,362,131	120,000	12,448,402	20,930,533	47,094,967
2028	8,822,048	120,000	12,946,338	21,888,386	37,418,290
2029	9,307,260	120,000	13,464,192	22,891,452	26,429,708
2030	9,819,160	120,000	14,002,760	23,941,919	14,002,757
2031	10,359,213	120,000		10,479,213	0

All amounts assume payments will be made July 1 of each fiscal year.
Amortization of unfunded liability on 4.0% annual increasing basis to FY2030.
FY11 appropriation was maintained at the same level as the prior schedule.

5. GASB STATEMENT NO. 25: ACTUARIAL INFORMATION

The actuarial information required by Governmental Accounting Standards Board (GASB) Statement No. 25 is shown below.

Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)* (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Cov. Payroll ((b-a)/c)
1/1/2010	$192,218,521	$283,866,634	$91,648,113	67.7%	$53,311,255	171.9%
1/1/2008	$197,874,938	$262,770,472	$64,895,534	75.3%	$48,878,418	132.8%
1/1/2006	$157,611,528	$241,752,245	$84,140,717	65.2%	$45,438,514	185.2%

**excludes State reimbursed COLA*

Notes To Schedules

Additional information as of the latest actuarial valuation follows.

Valuation Date	January 1, 2010
Actuarial Cost Method	Individual entry age normal
Amortization Method	4.0% increasing
Remaining Amortization Period	20 years
Asset Valuation Method	Actuarial value, 5-year smoothing

Principal Actuarial Assumptions:

Investment Rate of Return	8.0%
Projected Salary Increases	Service based table with ultimate rates of 4.75%, 5.00%, and 5.25% for groups 1, 2, and 4 respectively.

6. PLAN ASSETS

A | BREAKDOWN OF ASSETS BY INVESTMENT TYPE

Cash and Cash Equivalents	$309,366
PRIT Cash	825,406
PRIT Fund	173,610,238
Accounts Payable	(900)
Total	$174,744,110

B | BREAKDOWN OF ASSETS BY FUND

Annuity Savings Fund	$51,888,103
Annuity Reserve Fund	13,092,810
Military Fund	4,948
Pension Fund	2,403,336
Pension Reserve Fund	107,354,913
Total	$174,744,110

C | MARKET VALUE OF ASSETS $174,744,110

D | ACTUARIAL VALUE OF ASSETS $192,218,521

6. PLAN ASSETS *(continued)*

E | DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

	2009	2010
A. Development of total investment income including appreciation		
1. Beginning of year market value	151,396,618	174,744,110
2a. Employee contributions	4,851,774	
b. Employer contributions	10,220,000	
c. Other receipts	1,475,035	
d. Total receipts: (a) + (b) + (c)	16,546,809	
e. Benefit payments	16,242,317	
f. Expenses	1,189,620	
g. Other disbursements	1,840,758	
h. Total disbursements: (e) + (f) + (g)	19,272,695	
i. Cash flow before receivables: (d) – (h)	(2,725,886)	
j. Net receivables current year	(900)	
k. Net receivables prior year	(11,753)	
l. Total cash flow after receivables: (i) + (j) – (k)	(2,715,033)	
3. End of year market value	174,744,110	
4. Investment income including appreciation: (3) – (1) – (2(l))	26,062,525	
B. Expected market value development		
1. Beginning of year market value	151,396,618	
2. Cash flow (A2(l))	(2,715,033)	
3. Expected Return on (1)	12,111,729	
4. Expected return on cash flow excluding receivables A2(i) x 0.08 / 2	(109,035)	
5. Expected market value end of year (1)+(2)+(3)+(4)	160,684,279	
C. Gain/(loss) for year: A3-B5	14,059,831	
D. Development of Actuarial Value of Assets		
1. Beginning of year market value	151,396,618	174,744,110
2a. Asset gain/(loss) in prior year	(81,356,567)	14,059,831
b. Asset gain/(loss) in 2nd prior year	7,999,102	(81,356,567)
c. Asset gain/(loss) in 3rd prior year	15,117,269	7,999,102
d. Asset gain/(loss) in 4th prior year	7,148,813	15,117,269
3. Unrecognized gain/(loss) .8 x [2a] + .6 x [2b] + .4 x [2c] +.2 x [2d]	(52,809,123)	(31,342,981)
4. Beginning of year actuarial value of assets: [1] - [3]	204,205,741	206,087,091
5. Actuarial value / Market value	134.9%	117.9%
6. Adjusted actuarial value: (4) but not less than 90% nor greater than 110% of market value		192,218,521

7. INFORMATION ON SYSTEM MEMBERSHIP

A critical element of an actuarial valuation is accurate and up-to-date membership information. PERAC conducted an extensive review of member data submitted for this valuation.

PART A | ACTIVE MEMBERS

	Actives	Vested Terminations
Number of Members	1,153	26
Average Age	47.2	52.7
Average Service	12.0	14.1
Average Salary	$46,237	$34,569
Average Annuity Savings Fund Balance	$42,921	$36,726

Age by Service Distribution of Active Members

Years of Service

Present Age	0 - 4	5 –9	10 - 14	15 - 19	20 - 24	25 - 29	30+	Total
0 - 24	21							21
25 - 29	63	11						74
30 - 34	53	32	6					91
35 - 39	45	37	29	6	2			119
40 - 44	46	30	33	20	19	1		149
45 - 49	50	37	43	21	37	9		197
50 - 54	29	49	33	21	34	33	18	217
55 - 59	18	23	22	16	20	12	25	136
60 - 64	6	20	17	17	15	7	13	95
65+	6	12	7	8	5	8	8	54
Total	337	251	190	109	132	70	64	1,153

7. INFORMATION ON SYSTEM MEMBERSHIP *(continued)*

PART A | ACTIVE MEMBERS *(continued)*

Salary by Age Distribution of Active Members

Present Age	Number of Members	Total Salary	Average Salary
0 - 24	21	$582,937	$27,759
25 - 29	74	$2,828,040	$38,217
30 - 34	91	$4,070,370	$44,729
35 - 39	119	$5,502,808	$46,242
40 - 44	149	$7,191,678	$48,266
45 - 49	197	$9,219,907	$46,802
50 - 54	217	$11,068,864	$51,009
55 - 59	136	$6,810,129	$50,074
60 - 64	95	$4,181,951	$44,021
65+	54	$1,854,571	$34,344
Total	1,153	$53,311,255	$46,237

7. INFORMATION ON SYSTEM MEMBERSHIP *(continued)*

PART B | RETIREES AND SURVIVORS

	Superannuation	Ordinary Disability	Accidental Disability	Survivors	Total
Number of Members	575	22	66	108	771
Average Age	74.6	65.0	64.7	76.1	73.7
Average Annual Benefit	$20,789	$16,515	$33,496	$15,643	$21,034

Benefit by Payment and Retirement Type

	Superannuation	Ordinary Disability	Accidental Disability	Survivors	Total
Total Annuity	$1,848,265	$54,653	$180,164	$137,305	$2,220,387
Pension (excluding State reimbursed COLA)	$9,906,832	$294,444	$1,977,112	$1,494,064	$13,672,452
State reimbursed COLA	$198,311	$14,226	$53,488	$58,120	$324,145
Total	$11,953,408	$363,323	$2,210,764	$1,689,489	$16,216,984

7. INFORMATION ON SYSTEM MEMBERSHIP *(continued)*

PART B | RETIREES & SURVIVORS *(continued)*

Benefit by Age Distribution

Present Age	Number of Members	Total Benefits	Average Benefits
Less than 40	1	$50,969	$50,969
40 - 44	6	$173,836	$28,973
45 - 49	11	$316,453	$28,768
50 - 54	13	$334,111	$25,701
55 - 59	33	$1,001,220	$30,340
60 - 64	97	$2,827,574	$29,150
65 - 69	115	$3,139,772	$27,302
70 - 74	132	$2,921,832	$22,135
75 - 79	130	$2,347,448	$18,057
80 - 84	127	$1,983,122	$15,615
85 - 89	79	$895,626	$11,337
90+	27	$225,021	$8,334
Totals	771	$16,216,984	$21,034

8. VALUATION COST METHODS

PART A | ACTUARIAL COST METHOD

The Actuarial Cost Method which was used to determine pension liabilities in this valuation is known as the *Entry Age Normal Cost Method***.** Under this method the *Normal Cost* for each active member on the valuation date is determined as the level percent of salary, which, if paid annually from the date the employee first became a member of the retirement system, would fully fund by retirement, death, disability or termination, the projected benefits which the member is expected to receive. The *Actuarial Liability* for each member is determined as the present value as of the valuation date of all projected benefits which the member is expected to receive, minus the present value of future annual Normal Cost payments expected to be made to the fund. Since only active members have a Normal Cost, the Actuarial Liability for inactives, retirees and survivors is simply equal to the present value of all projected benefits. The sum of Normal Cost and Actuarial Liability for each member is equal to the Normal Cost and Actuarial Liability for the Plan. The *Unfunded Actuarial Liability* is the Actuarial Liability less current assets.

The Normal Cost for a member will remain a level percent of salary for each year of membership except for changes in provisions of the Plan or the actuarial assumptions employed in projection of benefits and present value determinations. The Normal Cost for the entire system will also change due to the addition of new members or the retirement, death or termination of members. The Actuarial Liability for a member will increase each year to reflect the additional accrual of Normal Cost. It will also change if the Plan provisions or actuarial assumptions are changed.

Differences each year between the actual experience of the Plan and the experience projected by the actuarial assumptions are reflected by adjustments to the Unfunded Actuarial Liability. An experience difference which increases the Unfunded Actuarial Liability is called an *Actuarial Loss* and one which decreases the Unfunded Actuarial Liability is called an *Actuarial Gain.*

PART B | ASSET VALUATION METHOD

The actuarial value of assets is determined in accordance with the deferred recognition method under which 20% of the gains or losses occurring in the prior year are recognized, 40% of those occurring 2 years ago, etc., so that 100% of gains or losses occurring 5 years ago are recognized. The actuarial value of assets will be adjusted, if necessary, in order to remain between 90% and 110% of market value.

9. ACTUARIAL ASSUMPTIONS

INVESTMENT RETURN

8.0% per year

INTEREST RATE CREDITED TO THE ANNUITY SAVINGS FUND

3.5% per year

COST OF LIVING INCREASES

3.0% per year (of the first $12,000)

SALARY INCREASE

Service	Group 1	Group 2	Group 4
0	7.00%	7.00%	8.00%
1	6.50%	6.50%	7.50%
2	6.50%	6.50%	7.00%
3	6.00%	6.00%	6.50%
4	6.00%	6.00%	6.00%
5	5.50%	5.50%	6.00%
6	5.50%	5.50%	5.50%
7	5.00%	5.00%	5.50%
8	5.00%	5.00%	5.25%
9	4.75%	5.00%	5.25%
10+	4.75%	5.00%	5.25%

MORTALITY

Pre-retirement rates reflect the RP-2000 Employees table (gender distinct). Post-retirement rates reflect the RP- 2000 Healthy Annuitant table (gender distinct). For disabled retirees, this table is set forward 2 years. It is assumed that 55% of pre-retirement deaths are job-related for Group 1 and 2 members and 90% are job-related for Group 4 members. For members retired under an Accidental Disability, 40% of deaths are assumed to be from the same cause as the disability.

9. ACTUARIAL ASSUMPTIONS *(continued)*

WITHDRAWAL

Based on analysis of past experience. Annual rates are based on years of service. Sample annual rates for Groups 1 and 2 are shown below. For Group 4 members the rate is 0.015 each year for service up to and including 10 years. No withdrawal is assumed thereafter.

Service	Groups 1 & 2
0	0.150
5	0.076
10	0.054
15	0.033
20	0.020

DISABILITY

Based on an analysis of past experience. It is also assumed that the percentage of job-related disabilities is 55% for Groups 1 & 2 and 90% for Group 4.

Age	Groups 1 & 2	Group 4
20	0.00010	0.0010
30	0.00030	0.0030
40	0.00101	0.0030
50	0.00192	0.0125
60	0.00280	0.0085

ADMINISTRATIVE EXPENSES

An amount of $300,000 has been included in the Normal Cost for FY11. This amount is assumed to increase by the salary increase assumption each year.

9. ACTUARIAL ASSUMPTIONS *(continued)*

RETIREMENT (SUPERANNUATION)

Age	Groups 1 & 2		Group 4
	Male	Female	
45-49	0.000	0.000	0.010
50	0.010	0.015	0.020
51	0.010	0.015	0.020
52	0.010	0.020	0.020
53	0.010	0.025	0.050
54	0.020	0.025	0.075
55	0.020	0.055	0.150
56	0.025	0.065	0.100
57	0.025	0.065	0.100
58	0.050	0.065	0.100
59	0.065	0.065	0.150
60	0.120	0.050	0.200
61	0.200	0.130	0.200
62	0.300	0.150	0.250
63	0.250	0.125	0.250
64	0.220	0.180	0.300
65	0.400	0.150	1.000
66	0.250	0.200	1.000
67	0.250	0.200	1.000
68	0.300	0.250	1.000
69	0.300	0.200	1.000
70 and after	1.000	1.000	1.000

10. SUMMARY OF PLAN PROVISIONS

ADMINISTRATION

There are 105 contributory retirement systems for public employees in Massachusetts. Each system is governed by a retirement board and all boards, although operating independently, are governed by Chapter 32 of the Massachusetts General Laws. This law in general provides uniform benefits, uniform contribution requirements and a uniform accounting and funds structure for all systems.

PARTICIPATION

Participation is mandatory for all full-time employees. Eligibility with respect to part-time, provisional, temporary, seasonal or intermittent employment is governed by regulations promulgated by the retirement board, and approved by PERAC. Membership is optional for certain elected officials.

There are 3 classes of membership in the retirement system:

Group 1:

General employees, including clerical, administrative, technical and all other employees not otherwise classified.

Group 2:

Certain specified hazardous duty positions.

Group 4:

Police officers, firefighters, and other specified hazardous positions.

MEMBER CONTRIBUTIONS

Member contributions vary depending on the most recent date of membership:

Prior to 1975:	5% of regular compensation
1975 - 1983:	7% of regular compensation
1984 to 6/30/96:	8% of regular compensation
7/1/96 to present:	9% of regular compensation
1979 to present:	an additional 2% of regular compensation in excess of $30,000.

RATE OF INTEREST

Interest on regular deductions made after January 1, 1984 is a rate established by PERAC in consultation with the Commissioner of Banks. The rate is obtained from the average rates paid on individual savings accounts by a representative sample of at least 10 financial institutions.

10. SUMMARY OF PLAN PROVISIONS *(continued)*

RETIREMENT AGE

The mandatory retirement age for some Group 2 and Group 4 employees is age 65. Most Group 2 and Group 4 members may remain in service after reaching age 65. Group 4 members who are employed in certain public safety positions are required to retire at age 65. There is no mandatory retirement age for employees in Group 1.

SUPERANNUATION RETIREMENT

A member is eligible for a superannuation retirement allowance (service retirement) upon meeting the following conditions:

- completion of 20 years of service, or
- attainment of age 55 if hired prior to 1978, or if classified in Group 4, or
- attainment of age 55 with 10 years of service, if hired after 1978, and if classified in Group 1 or 2

AMOUNT OF BENEFIT

A member's annual allowance is determined by multiplying average salary by a benefit rate related to the member's age and job classification at retirement, and the resulting product by his creditable service. The amount determined by the benefit formula cannot exceed 80% of the member's highest three year average salary. For veterans as defined in G.L. c. 32, s. 1, there is an additional benefit of $15 per year for each year of creditable service, up to a maximum of $300.

- Salary is defined as gross regular compensation.

- Average Salary is the average annual rate of regular compensation received during the 3 consecutive years that produce the highest average, or, if greater, during the last three years (whether or not consecutive) preceding retirement.

- The Benefit Rate varies with the member's retirement age, but the highest rate of 2.5% applies to Group 1 employees who retire at or after age 65, Group 2 employees who retire at or after age 60, and to Group 4 employees who retire at or after age 55. A .1% reduction is applied for each year of age under the maximum age for the member's group. For Group 2 employees who terminate from service under age 55, the benefit rate for a Group 1 employee shall be used.

10. SUMMARY OF PLAN PROVISIONS *(continued)*

DEFERRED VESTED BENEFIT

A participant who has completed 10 or more years of creditable service is eligible for a deferred vested retirement benefit. Elected officials and others who were hired prior to 1978 may be vested after 6 years in accordance with G.L. c. 32, s. 10.

The participant's accrued benefit is payable commencing at age 55, or the completion of 20 years, or may be deferred until later at the participant's option.

WITHDRAWAL OF CONTRIBUTIONS

Member contributions may be withdrawn upon termination of employment. Employees who first become members on or after January 1, 1984, may receive only limited interest on their contributions if they voluntarily terminate their service. Those who leave service with less than 5 years receive no interest; those who leave service with greater than 5 but less than 10 years receive 50% of the interest credited.

DISABILITY RETIREMENT

The Massachusetts Retirement Plan provides 2 types of disability retirement benefits:

ORDINARY DISABILITY

Eligibility: Non-veterans who become totally and permanently disabled by reason of a non-job related condition with at least 10 years of creditable service (or 15 years creditable service in systems in which the local option contained in G.L. c. 32, s.6(1) has not been adopted).

Veterans with ten years of creditable service who become totally and permanently disabled by reason of a non-job related condition prior to reaching "maximum age".

Retirement Allowance: Equal to the accrued superannuation retirement benefit as if the member was age 55. If the member is a veteran, the benefit is 50% of the member's final rate of salary during the preceding 12 months, plus an annuity based upon accumulated member contributions plus credited interest. If the member is over age 55, he or she will receive not less than the superannuation allowance to which he or she is entitled.

10. SUMMARY OF PLAN PROVISIONS *(continued)*

ACCIDENTAL DISABILITY

Eligibility: Applies to members who become permanently and totally unable to perform the essential duties of the position as a result of a personal injury sustained or hazard undergone while in the performance of duties. There are no minimum age or service requirements.

Retirement Allowance: 72% of salary plus an annuity based on accumulated member contributions, with interest. This amount is not to exceed 100% of pay. For those who became members in service after January 1, 1988 or who have not been members in service continually since that date, the amount is limited to 75% of pay. There is an additional pension of $708.60 per year (or $312.00 per year in systems in which the local option contained in G.L. c. 32, s. 7(2)(a)(iii) has not been adopted), per child who is under 18 at the time of the member's retirement, with no age limitation if the child is mentally or physically incapacitated from earning. The additional pension may continue up to age 22 for any child who is a full time student at an accredited educational institution. For systems that have adopted Chapter 157 of the Acts of 2005, veterans as defined in G.L. c. 32, s. 1 receive an additional benefit of $15 per year for each year of creditable service, up to a maximum of $300.

ACCIDENTAL DEATH

Eligibility: Applies to members who die as a result of a work-related injury or if the member was retired for accidental disability and the death was the natural and proximate result of the injury or hazard undergone on account of which such member was retired.

Allowance: An immediate payment to a named beneficiary equal to the accumulated deductions at the time of death, plus a pension equal to 72% of current salary and payable to the surviving spouse, dependent children or the dependent parent, plus a supplement of $708.60 per year, per child (or $312.00 per year in systems in which the local option contained in G.L. c. 32, s. 9(2)(d)(ii) has not been adopted), payable to the spouse or legal guardian until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

The surviving spouse of a member of a police or fire department or any corrections officer who, under specific and limited circumstances detailed in the statute, suffers an accident and is killed or sustains injuries resulting in his death, may receive a pension equal to the maximum salary for the position held by the member upon his death.

In addition, an eligible family member may receive a one time payment of $100,000.00 from the State Retirement Board.

10. SUMMARY OF PLAN PROVISIONS *(continued)*

DEATH AFTER ACCIDENTAL DISABILITY RETIREMENT

Effective November 7, 1996, Accidental Disability retirees were allowed to select Option C at retirement and provide a benefit for an eligible survivor. For Accidental Disability retirees prior to November 7, 1996, who could not select Option C, if the member's death is from a cause unrelated to the condition for which the member received accidental disability benefits, a surviving spouse will receive an annual allowance of $6,000.

DEATH IN ACTIVE SERVICE

Allowance: An immediate allowance equal to that which would have been payable had the member retired and elected Option C on the day before his or her death. For death occurring prior to the member's superannuation retirement age, the age 55 benefit rate is used. The minimum annual allowance payable to the surviving spouse of a member in service who dies with at least two years of creditable service is $3,000, provided that the member and the spouse were married for at least one year and living together on the member's date of death.

The surviving spouse of such a member in service receives an additional allowance equal to the sum of $1,440 per year for the first child and $1,080 per year for each additional child until all dependent children reach age 18 or 22 if a full time student, unless mentally or physically incapacitated.

COST OF LIVING

If a system has accepted Chapter 17 of the Acts of 1997, and the Retirement Board votes to pay a cost of living increase for that year, the percentage is determined based on the increase in the Consumer Price Index used for indexing Social Security benefits, but cannot exceed 3.0%. Section 51 of Chapter 127 of the Acts of 1999, if accepted, allows boards to grant COLA increases greater than that determined by CPI but not to exceed 3.0%. The first $12,000 of a retiree's total allowance is subject to a cost-of-living adjustment. The total Cost-of-Living adjustment for periods from 1981 through 1996 is paid for by the Commonwealth of Massachusetts.

10. SUMMARY OF PLAN PROVISIONS *(continued)*

METHODS OF PAYMENT

A member may elect to receive his or her retirement allowance in one of 3 forms of payment.

Option A: Total annual allowance, payable in monthly installments, commencing at retirement and terminating at the member's death.

Option B: A reduced annual allowance, payable in monthly installments, commencing at retirement and terminating at the death of the member, provided, however, that if the total amount of the annuity portion received by the member is less than the amount of his or her accumulated deductions, including interest, the difference or balance of his accumulated deductions will be paid in a lump sum to the retiree's beneficiary or beneficiaries of choice.

Option C: A reduced annual allowance, payable in monthly installments, commencing at retirement. At the death of the retired employee, 2/3 of the allowance is payable to the member's designated beneficiary (who may be the spouse, or former spouse who remains unmarried for a member whose retirement becomes effective on or after February 2, 1992, child, parent, sister, or brother of the employee) for the life of the beneficiary. For members who retired on or after January 12, 1988, if the beneficiary pre-deceases the retiree, the benefit payable increases (or "pops up") based on the factor used to determine the Option C benefit at retirement. For members who retired prior to January 12, 1988, if the System has accepted Section 288 of Chapter 194 of the Acts of 1998 and the beneficiary pre-deceases the retiree, the benefit payable "pops up" in the same fashion. The Option C became available to accidental disability retirees on November 7, 1996.

ALLOCATION OF PENSION COSTS

If a member's total creditable service was partly earned by employment in more than one retirement system, the cost of the "pension portion" is allocated between the different systems pro rata based on the member's service within each retirement system.

11. GLOSSARY OF TERMS

ACTUARIAL ACCRUED LIABILITY

That portion of the Actuarial Present Value of pension plan benefits which is not provided by future Normal Costs or employee contributions. It is the portion of the Actuarial Present Value attributable to service rendered as of the Valuation Date.

ACTUARIAL ASSUMPTIONS

Assumptions, based upon past experience or standard tables, used to predict the occurrence of future events affecting the amount and duration of pension benefits, such as: mortality, withdrawal, disablement and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; and any other relevant items.

ACTUARIAL COST METHOD (OR FUNDING METHOD)

A procedure for allocating the Actuarial Present Value of all past and future pension plan benefits to the Normal Cost and the Actuarial Accrued Liability.

ACTUARIAL GAIN OR LOSS (OR EXPERIENCE GAIN OR LOSS)

A measure of the difference between actual experience and that expected based upon the set of Actuarial Assumptions, during the period between two Actuarial Valuation dates.

Note: The effect on the Accrued Liability and/or the Normal Cost resulting from changes in the Actuarial Assumptions, the Actuarial Cost Method or pension plan provisions would be described as such, not as an Actuarial Gain (Loss).

ACTUARIAL PRESENT VALUE

The dollar value on the valuation date of all benefits expected to be paid to current members based upon the Actuarial Assumptions and the terms of the Plan.

AMORTIZATION PAYMENT

That portion of the pension plan appropriation which represents payments made to pay interest on and the reduction of the Unfunded Accrued Liability.

11. GLOSSARY OF TERMS *(continued)*

ANNUAL STATEMENT

The statement submitted to PERAC each year that describes the asset holdings and Fund balances as of December 31 and the transactions during the calendar year that affected the financial condition of the retirement system.

ANNUITY RESERVE FUND

The fund into which total accumulated deductions, including interest, is transferred at the time a member retires, and from which annuity payments are made.

ANNUITY SAVINGS FUND

The fund in which employee contributions plus interest credited are held for active members and for former members who have not withdrawn their contributions and are not yet receiving a benefit (inactive members).

ASSETS

The value of securities as described in Section VIII.

COST OF BENEFITS

The estimated payment from the pension system for benefits for the fiscal year. This is the minimum amount payable during the first six years of some Funding Schedules.

FUNDING SCHEDULE

The schedule based upon the most recently approved actuarial valuation which sets forth the amount which would be appropriated to the pension system in accordance with Section 22D of M.G.L. Chapter 32.

GASB

Governmental Accounting Standards Board

11. GLOSSARY OF TERMS *(continued)*

NORMAL COST

Total Normal Cost is that portion of the Actuarial Present Value of pension plan benefits, which is to be paid in a single fiscal year. The Employee Normal Cost is the amount of the expected employee contributions for the fiscal year. The Employer Normal Cost is the difference between the Total Normal Cost and the Employee Normal Cost.

PENSION FUND

The fund into which appropriation amounts as determined by PERAC are paid and from which pension benefits are paid.

PENSION RESERVE FUND

The fund which shall be credited with all amounts set aside by a system for the purpose of establishing a reserve to meet future pension liabilities. These amounts would include excess interest earnings.

SPECIAL FUND FOR MILITARY SERVICE CREDIT

The fund which is credited with amounts paid by the retirement board equal to the amount which would have been contributed by a member during a military leave of absence as if the member had remained in active service of the retirement board. In the event of retirement or a non-job related death, such amount is transferred to the Annuity Reserve Fund. In the event of termination prior to retirement or death, such amount shall be transferred to the Pension Fund.

UNFUNDED ACCRUED LIABILITY

The excess of the Actuarial Accrued Liability over the Assets.

PERAC
Five Middlesex Avenue
Suite 304
Somerville, MA 02145
Ph 617 666 4446
Fax 617 628 4002
TTY 617 591 8917
Web www.mass.gov/PERAC