Hampden County Regional Retirement System

Actuarial Valuation and Review
as of January 1, 2010

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SEGAL

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January 21, 2011

Board of Trustees
Hampden County Regional Retirement System
67 Hunt Street, Suite 106
Agawam, MA 01001

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2010. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2011 and later years and analyzes the preceding two years' experience.

The census and financial information on which our calculations were based was prepared by the staff of the Hampden County Regional Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under my supervision.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

THE SEGAL COMPANY

By: _____

Kathleen A. Riley, FSA, MAAA, EA
Senior Vice President and Actuary

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Purpose

This report has been prepared by The Segal Company to present a valuation of the Hampden County Regional Retirement System as of January 1, 2010. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of M.G.L. Chapter 32;
- The characteristics of covered active participants, inactive participants, and retired participants and beneficiaries as of January 1, 2010;
- The assets of the Plan as of December 31, 2009;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

The following key findings were the result of this actuarial valuation:

- The actuarial valuation report as of January 1, 2010 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected.
- During the plan years ended 2008 and 2009, the market value rates of return were -24.98% and 14.01%, respectively, compared to the assumed rate of return of 8.50%. Because the actuarial value of assets gradually recognizes market value fluctuations over a five-year period, the actuarial rates of return for the plan years ended 2008 and 2009 were -18.09% and 14.06%, respectively. The actuarial value of assets as of December 31, 2009 was $220.6 million, or 110.0% of the market value of assets of $200.5 million reported in the Annual Statement. For the two-year period ending December 31, 2009, there was an investment loss on an actuarial basis of $58.2 million. As of December 31, 2007, the actuarial value of assets was 101.6% of the market value.
- As indicated in Section 2, Subsection B of this report, the total unrecognized investment loss as of December 31, 2009 is $20.1 million. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, to the extent it is not offset by recognition of investment gains derived from future experience. This implies that earning the assumed rate of investment return on a market value basis will result in

investment losses on the actuarial value of assets in the next few years. The funding schedule shown in Section 3 Exhibit G reflects the deferred investment losses in accordance with the asset valuation method adopted by the Board.

- This valuation reflects the following changes in assumptions:
  - The investment return assumption was lowered from 8.50% to 8.25%.
  - An assumption has been added for the percentage of accidental disabilities that will die from the same cause as the disability of 20% for Group 1 and 60% for Group 4 accidental disabilities.
  - Call firefighters and reserve police officers are now being valued with a liability equal to a return of their employee contribution balance because call firefighters and reserve police officers are not expected to earn 10 years of creditable service.
  - Inactive members with a vested right to a deferred or immediate benefit are now valued with a liability equal to twice their employee contribution balance to approximate the liability for a deferred retirement allowance.

  Changing these assumptions resulted in a net increase in the unfunded actuarial accrued liability of $14.1 million, and increased normal cost by $0.5 million as of January 1, 2010.
- As of January 1, 2008, the System had an unfunded liability of $121.9 million. The unfunded liability was expected to increase to $124.2 million as of January 1, 2010. The actual unfunded liability of $202.2 million is $78.0 million higher than expected primarily due to the investment losses on an actuarial basis and the changes in assumptions noted above. The unfunded liability will continue to increase for the next few years as the deferred investment losses are recognized.
- The recommended contributions for fiscal 2011 and 2012 are equal to the previously budgeted amounts of $16,378,930 and $16,967,158, respectively. The results of this valuation will first be reflected in the fiscal 2013 appropriation. In projecting the unfunded actuarial accrued liability for future fiscal years, the deferred investment losses have been reflected in accordance with the asset valuation method adopted by the Board. The funding schedule in Section 3 Exhibit G fully funds the Retirement System by June 30, 2036 with amortization payments increasing 4.0% per year and an 8% cap on the increase in the appropriation. The appropriation will increase 8% per year for the fiscal years ending June 30, 2013 through June 30, 2017, with a fiscal 2013 appropriation of $18,324,531. The prior funding schedule fully funded the System by June 30, 2024 with amortization payments increasing 4.5% per year.

Summary of Key Valuation Results

	2010	2008
Contributions for plan year beginning January 1:		
Recommended for fiscal 2011 and 2009	$16,378,930	$16,427,913
Recommended for fiscal 2012 and 2010	16,967,158	15,810,364
Recommended for fiscal 2013 and 2011	18,324,531	16,378,930
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses	$12,299,899	$11,394,580
Market value of assets	200,532,573	240,361,974
Actuarial value of assets	220,585,830	241,788,905
Actuarial accrued liability	422,756,972	363,670,449
Unfunded actuarial accrued liability	202,171,142	121,881,544
GASB 25/27 for fiscal year beginning January 1:		
Annual required contributions	$16,378,930	$9,392,429
Actual contributions	--	9,392,429
Percentage contributed	--	100.00%
Funded ratio	52.18%	66.49%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	1,494	1,461
Number of inactive participants entitled to a return of their employee contributions	440	523
Number of inactive participants with a vested right to a deferred or immediate benefit	74	- -
Number of active participants	2,589	2,681
Total payroll	$87,356,409	N/A
Average payroll	33,741	30,783

Note: 2008 results based on Buck Consultants' January 1, 2008 valuation report.
With the January 1, 2010 actuarial valuation, 47 call firefighters and reserve police officers who worked in 2009 are included with the inactive participants entitled to a return of their employee contributions.

A. PARTICIPANT DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including active participants, inactive participants, retired participants and beneficiaries.

This section presents a summary of significant statistical data on these participant groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A and B.

A historical perspective of how the participant population has changed over the past two valuations can be seen in this chart.

CHART 1

Participant Population: 2006 – 2009

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries
2006	2,590	509	1,467
2007	2,681	523	1,461
2009	2,589	514	1,494

Active Participants
Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 2,589 active participants with an average age of 48.8, average years of service of 11.5 years and average payroll of $33,741. The 2,681 active participants in the prior valuation had an average payroll of $30,783.

Among the active participants, there were none with unknown age or service information.

Inactive Participants
In this year's valuation, there were 74 participants with a vested right to a deferred or immediate vested benefit and 440 participants entitled to a return of their employee contributions.

These graphs show a distribution of active participants by age and by years of service.

CHART 2

Distribution of Active Participants by Age as of December 31, 2009

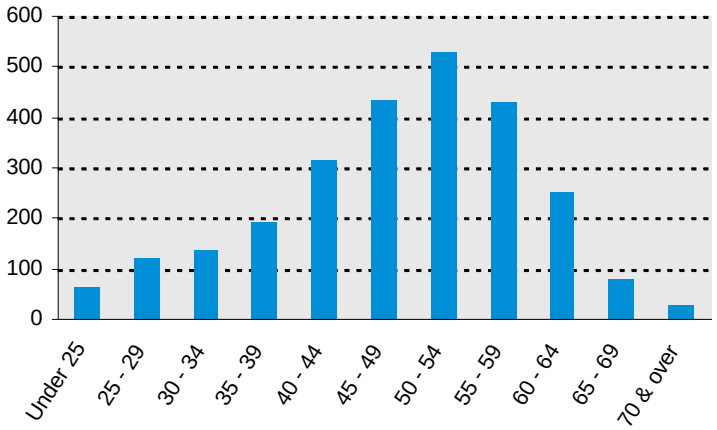
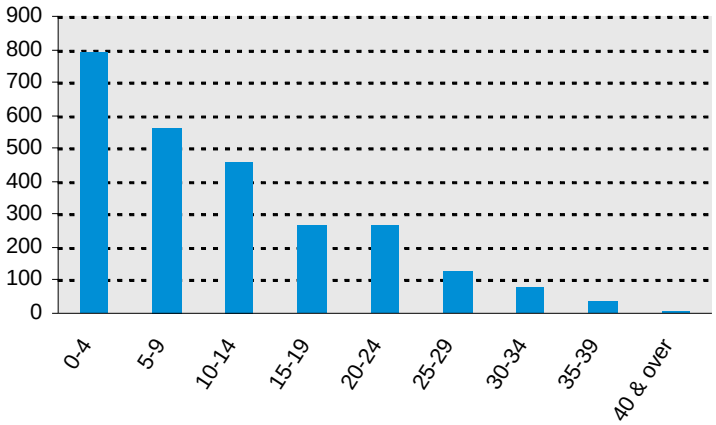


CHART 3

Distribution of Active Participants by Years of Service as of December 31, 2009



Retired Participants and Beneficiaries

As of December 31, 2009, 1,309 retired participants and 185 beneficiaries were receiving total monthly benefits of $1,945,327. For comparison, in the previous valuation, there were 1,461 retired participants and beneficiaries receiving monthly benefits of $1,733,063.

These graphs show a distribution of the current retired participants and beneficiaries based on their monthly amount and age, by type of pension.

CHART 4

Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2009

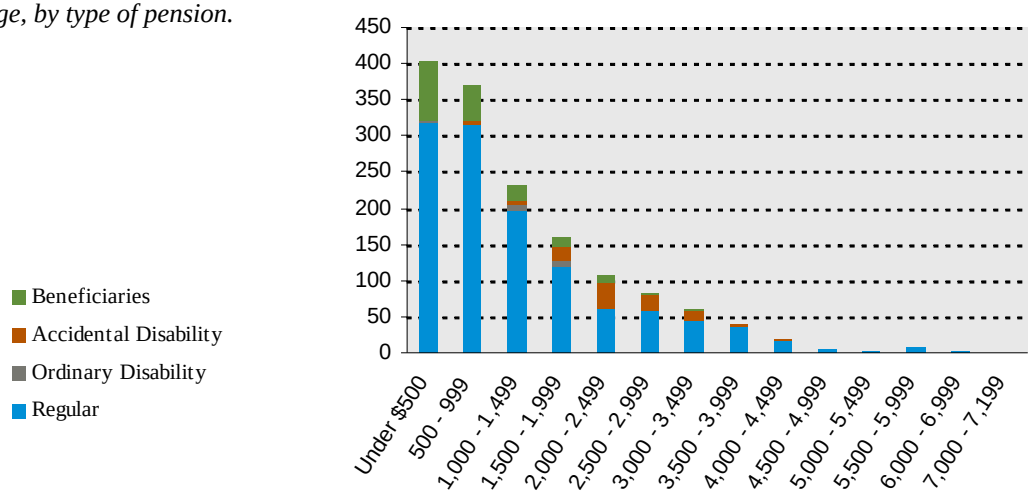
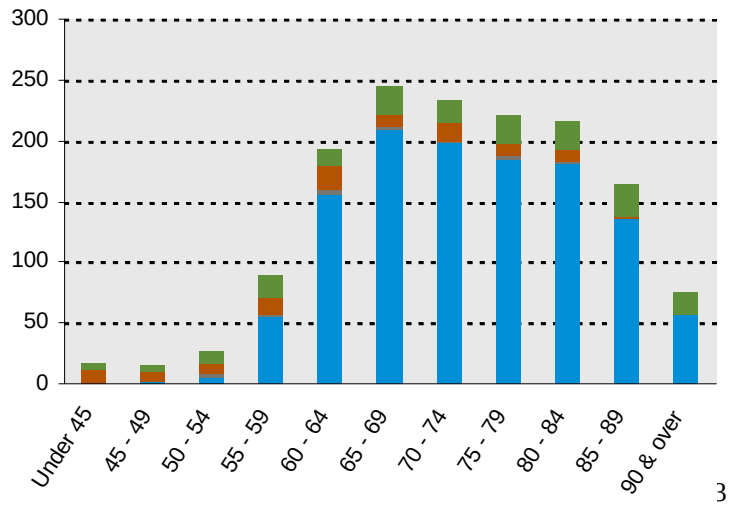


CHART 5

Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2009



B. FINANCIAL INFORMATION

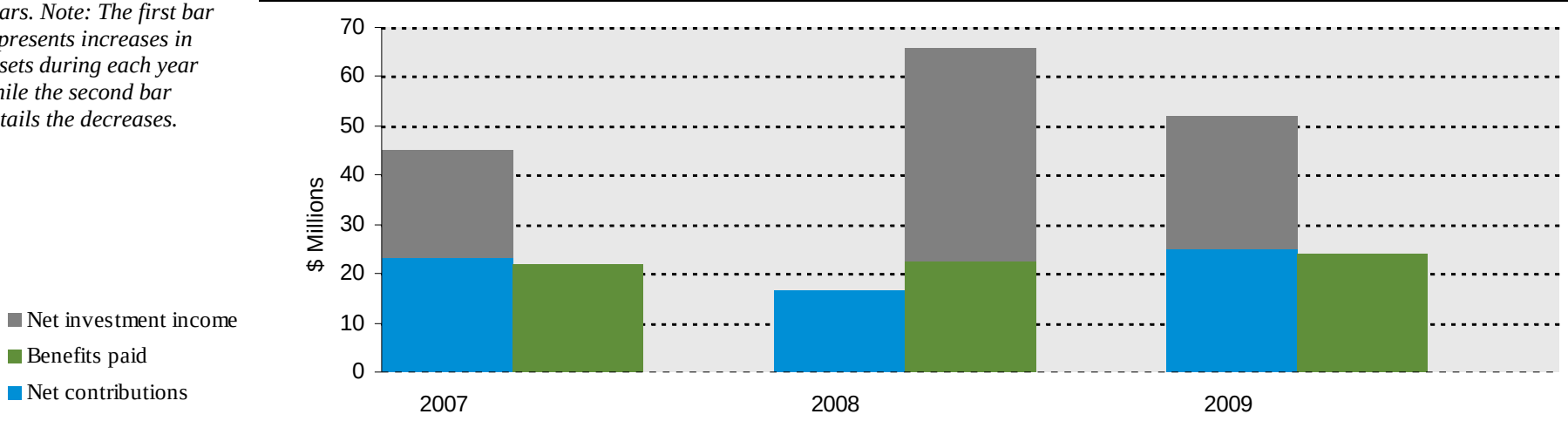
Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits C and D.

The chart depicts the components of changes in the actuarial value of assets over the last three years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2007 – 2009



It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

The chart shows the determination of the actuarial value of assets as of the valuation date.

CHART 7

Determination of Actuarial Value of Assets

			Year Ended December 31, 2009	Year Ended December 31, 2008
1. Market value of assets			$200,532,573	$175,028,585
2. Calculation of unrecognized return*	Original Amount	Unrecognized Return		Unrecognized Return
(a) Year ended December 31, 2009	$9,670,923	$7,736,739		N/A
(b) Year ended December 31, 2008	-79,450,205	-47,670,123		-$63,560,164
(c) Year ended December 31, 2007	-5,589,537	-2,235,815		-3,353,722
(d) Year ended December 31, 2006	7,679,150	1,535,830		3,071,660
(e) Year ended December 31, 2005	-4,246,300	N/A		-849,260
(f) Total unrecognized return			-40,633,369	-64,691,487
3. Preliminary actuarial value: (1) - (2f)			241,165,942	239,720,072
4. Adjustment to be within 10% corridor			-20,580,112	-47,188,628
5. Final actuarial value of assets: (3) + (4)			$220,585,830	$192,531,444
6. Actuarial value as a percentage of market value: (5) ÷ (1)			110.0%	110.0%

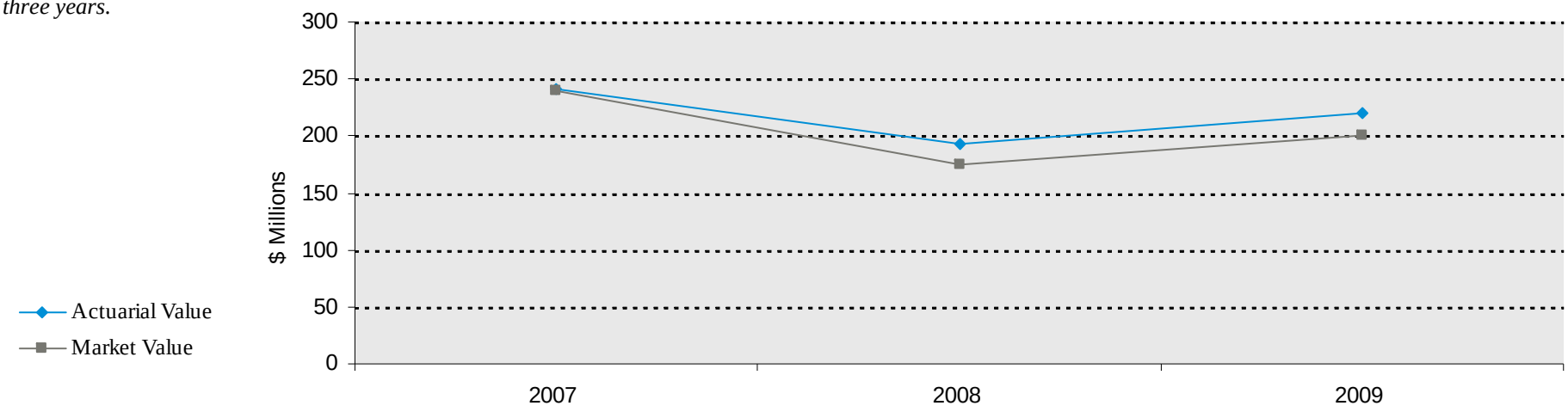
* *Unrecognized return is the difference between the total return and the expected return on a market value basis and is recognized over a five-year period.*

Both the actuarial value and market value of assets are representations of Hampden County Regional Retirement System's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial asset value is significant because the Hampden County Regional Retirement System's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in the actuarial value of assets versus the market value over the past three years.

CHART 8

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2007 – 2009



C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The total experience loss over the two-year period ending December 31, 2009 is $63,918,073. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past two years.

CHART 9

Actuarial Experience for Two-Year Period Ended December 31, 2009

1.	Net loss from investments*	-$58,159,111
2.	Net gain from administrative expenses	52,021
3.	Net loss from other experience**	-5,810,983
4.	Net experience loss: (1) + (2) + (3)	-$63,918,073

* *Details in Chart 10.*

** *Details in Chart 13.*

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Hampden County Regional Retirement System's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets was 8.50% for 2009 and 2008. The actual rate of return on an actuarial basis for the 2009 plan year was 14.06% and -18.09% for the 2008 plan year.

Since the actual returns for the last two years were less than the assumed return, the Hampden County Regional Retirement System experienced an actuarial loss of $58,159,111 during the two-year period ending December 31, 2009 with regard to its investments, including an adjustment for interest.

This chart shows the gain/(loss) due to investment experience.

CHART 10

Actuarial Value Investment Experience

	Year Ended December 31,	
	2009	**2008**
1. Actual return	$27,137,710	-$43,200,913
2. Average value of assets	192,989,782	238,760,631
3. Actual rate of return: (1) ÷ (2)	14.06%	-18.09%
4. Assumed rate of return	8.50%	8.50%
5. Expected return: (2) x (4)	$16,404,131	$20,294,654
6. Actuarial gain/(loss): (1) – (5)	$10,733,579	-$63,495,567

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial basis compared to the market value investment return for the last three years.

Based upon this experience and future expectations, we have lowered the assumed rate of return from 8.50% to 8.25%.

CHART 11

Investment Return – Actuarial Value vs. Market Value: 2007 - 2009

	Actuarial Value Investment Return		Market Value Investment Return	
Year Ended December 31	Amount	Percent	Amount	Percent
2007	$21,673,615	9.88%	$18,762,540	8.49%
2008	-43,200,913	-18.09	-59,276,841	-24.98
2009	27,137,710	14.06	24,587,312	14.01
Total	$5,610,412		-$15,926,989	

Note: Each year's yield is weighted by the average asset value in that year.

Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

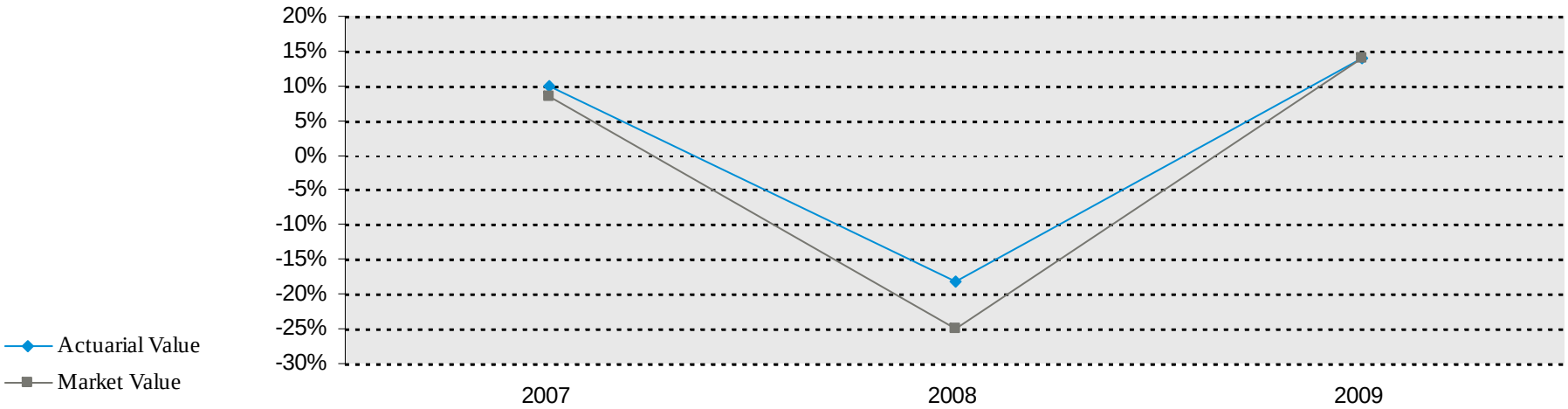
Administrative Expenses

Administrative expenses for the two years ended December 31, 2008 and 2009 were $617,237 and $507,908 respectively, compared to the assumption of $550,000 for 2008 and $574,750 for 2009. This resulted in a gain of $52,021 for the two-year period, including an adjustment for interest. We have reset the administrative expense assumption to $550,000 for calendar year 2010.

This chart illustrates how this leveling effect has actually worked over the years 2007 - 2009 .

CHART 12

Market and Actuarial Rates of Return for Years Ended December 31, 2007 - 2009



Other Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),
- the number of disability retirements, and
- salary increases different than assumed.

The net loss from this other experience for the two-year period ended December 31, 2009 amounted to $5,810,983 which is 1.4% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the Hampden County Regional Retirement System for the two-year period ending December 31, 2009 is shown in the chart below.

This valuation reflects the following changes in assumptions:

- The investment return assumption was lowered from 8.50% to 8.25%.
- An assumption has been added for the percentage of accidental disabilities that will die from the same cause as the disability of 20% for Group 1 and 60% for Group 4 accidental disabilities.
- Call firefighters and reserve police officers are now being valued with a liability equal to a return of their employee contribution balance because call firefighters and reserve police officers are not expected to earn 10 years of creditable service.
- Inactive members with a vested right to a deferred or immediate benefit are now valued with a liability equal to twice their employee contribution balance to approximate the liability for a deferred retirement allowance.

Changing these assumptions resulted in a net increase in the unfunded actuarial accrued liability of $14.1 million, and increased normal cost by $0.5 million as of January 1, 2010.

The chart shows elements of the experience gain/(loss) for the most recent year.

CHART 13

Experience Due to Changes in Demographics for Year Ended December 31, 2009

1.	Loss from net 3(8)(c) reimbursements	-$2,324,965
2.	Miscellaneous experience loss	-3,486,017
3.	Total	-$5,810,983

D. RECOMMENDED CONTRIBUTION

The amount of annual contribution required to fund the Plan is comprised of an employer normal cost payment and a payment on the unfunded actuarial accrued liability.

The preliminary recommended contribution of $17,477,518 is based on 9-year level amortization of the 2002 ERI, 10-year level amortization of the 2003 ERI and the funding holiday and 26 years (4.0% per year) amortization of the remaining unfunded liability. The prior funding schedule fully funded the System by 2024 with amortization payments increasing 4.5% per year.

Because the fiscal 2011 and 2012 appropriations have already been budgeted at $16,378,930 and $16,967,158, respectively, the results of this valuation will first be reflected in the fiscal 2013 appropriation. In projecting the unfunded actuarial accrued liability for future fiscal years, the deferred investment losses have been reflected in accordance with the asset valuation method adopted by the Board. The funding schedule in Section 3 Exhibit G fully funds the Retirement System by June 30, 2036 with amortization payments increasing 4.0% per year and an 8% cap on the increase. The appropriation will increase 8% per year for the fiscal years ending June 30, 2013 through June 30, 2017, with a fiscal 2013 appropriation of $18,324,831.

The chart compares this valuation's recommended contribution with the prior valuation.

CHART 14

Recommended Contribution

	Year Beginning January 1			
	2010		2008	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	$11,749,899	12.89%	$10,844,580	12.46%
2. Administrative expenses	550,000	0.60%	550,000	0.63%
3. Expected employee contributions	-8,162,609	-8.96%	-6,980,536	-8.02%
4. Employer normal cost: (1) + (2) + (3)	$4,137,290	4.54%	$4,414,044	5.07%
5. Actuarial accrued liability	422,756,972		363,670,449	
6. Actuarial value of assets	220,585,830		241,788,905	
7. Unfunded actuarial accrued liability: (5) - (6)	$202,171,142		$121,881,544	
8. Employer normal cost projected to July 1, 2010 and 2008, adjusted for timing*	4,314,009	4.63%	4,605,240	5.18%
9. Projected unfunded actuarial accrued liability	210,345,447		126,955,879	
10. Payment on projected unfunded actuarial accrued liability, adjusted for timing*	13,163,509	14.13%	10,666,745	11.99%
11. Total recommended contribution: (8) + (10), adjusted for timing*	17,477,518	18.76%	15,271,985	17.17%
12. Budgeted appropriation from prior valuation	$16,378,930	17.58%	$16,427,913	18.47%
13. Projected payroll	93,177,587		88,936,687	

**Recommended contributions are assumed to be paid on July 1 and December 31.*

E. INFORMATION REQUIRED BY THE GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to the GASB is the historical comparison of the GASB required contribution to the actual contributions. This comparison demonstrates whether a plan is being funded within the range of the GASB reporting requirements. Chart 15 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan as calculated under the GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other factors.

Although the GASB requires that the actuarial value of assets be used to determine the funded ratio, Chart 16 shows the funded ratio calculated using the actuarial value of assets (52.18%) and the market value of assets (47.43%).

The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 15

Required Versus Actual Contributions

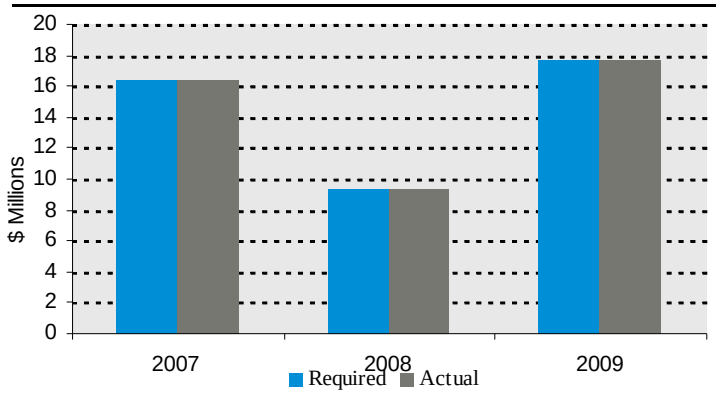


CHART 16

Funded Ratio

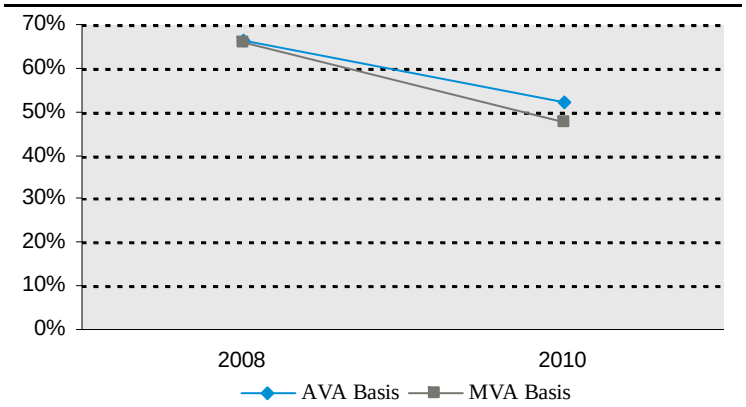


EXHIBIT A

Table of Plan Coverage

Category	Year Ended December 31 2009	Year Ended December 31 2007	Change From Prior Year
Active participants in valuation:			
Number	2,589	2,681	-3.4%
Average age	48.8	- -*	N/A
Average service	11.5	- -*	N/A
Total payroll	$87,356,409	- -*	N/A
Average payroll	33,741	$30,783	9.7%
Member contributions	72,849,910	0	N/A
Inactive participants with a vested right to a deferred or immediate benefit	74	0	N/A
Inactive participants entitled to a return of their employee contributions	440**	523	N/A
Retired participants:			
Number in pay status	1,182	1,343***	N/A
Average age	74.0	73.6	N/A
Average monthly benefit	$1,280	$1,105	N/A
Disabled participants:			
Number in pay status	127	118	7.6%
Average age	63.2	63.1	0.2%
Average monthly benefit	$2,208	$2,105	4.9%
Beneficiaries in pay status	185	- -*	N/A

* *Information unavailable.*

** *With the January 1, 2010 actuarial valuation, 47 call firefighters and reserve police officers who worked in 2009 are included with the inactive participants entitled to a return of their employee contributions.*

*** *Includes retirees and beneficiaries.*

EXHIBIT B

Participants in Active Service as of December 31, 2009
By Age, Years of Service, and Average Payroll

	Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	63	62	1	- -	- -	- -	- -	- -	- -	- -
	$19,845	$19,505	$40,905	- -	- -	- -	- -	- -	- -	- -
25 - 29	123	99	23	1	- -	- -	- -	- -	- -	- -
	$32,529	$29,392	$45,095	$54,010	- -	- -	- -	- -	- -	- -
30 - 34	140	68	44	25	3	- -	- -	- -	- -	- -
	$36,948	$30,328	$38,132	$49,854	$62,080	- -	- -	- -	- -	- -
35 - 39	194	90	41	45	18	- -	- -	- -	- -	- -
	$39,447	$25,109	$44,753	$56,730	$55,839	- -	- -	- -	- -	- -
40 - 44	316	128	82	54	23	23	6	- -	- -	- -
	$34,235	$24,337	$30,455	$43,717	$54,798	$53,224	$60,097	- -	- -	- -
45 - 49	435	130	101	83	37	52	30	2	- -	- -
	$33,921	$21,570	$27,715	$32,286	$48,310	$53,375	$59,079	$68,670	- -	- -
50 - 54	529	106	133	103	71	50	32	30	4	- -
	$32,235	$22,564	$27,452	$26,136	$33,207	$40,499	$57,112	$61,094	$68,513	- -
55 - 59	429	64	76	85	73	64	21	27	18	1
	$36,265	$25,813	$27,723	$29,450	$34,346	$38,481	$56,090	$65,950	$69,273	$120,182
60 - 64	254	27	37	47	34	59	22	12	11	5
	$32,574	$22,126	$25,344	$33,502	$29,880	$30,445	$33,633	$54,842	$57,050	$65,272
65 - 69	78	14	19	9	8	11	11	3	3	- -
	$26,084	$16,062	$17,880	$29,804	$20,900	$32,821	$41,691	$37,016	$34,611	- -
70 & over	28	2	3	6	1	4	4	4	3	1
	$28,126	$28,334	$19,964	$27,892	$21,712	$29,556	$32,063	$32,635	$29,421	$16,613
Total	2,589	790	560	458	268	263	126	78	39	7
	$33,741	$24,409	$30,326	$35,151	$38,466	$40,924	$51,311	$59,622	$60,016	$66,165

EXHIBIT C

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2009		Year Ended December 31, 2008	
Age				
Employer contributions	$17,676,386		$9,392,429*	
Employee contributions	7,732,199		7,693,249	
Other contributions	3,357		12,145	
Less administrative expenses	-507,908		-617,237	
Net contribution income		$24,904,034		$16,480,586
Net investment income		27,137,710		-43,200,913
Total income available for benefits		$52,041,744		-$26,720,327
Less benefit payments:				
Pensions	-$22,013,790		-$20,642,923	
Net 3(8)(c) reimbursements	-1,169,452		-1,155,513	
Refunds, annuities, & Option B refunds	-804,116		-738,698	
Net benefit payments		-$23,987,358		-$22,537,134
Change in reserve for future benefits		$28,054,386		-$49,257,461

** Number was adjusted for account receivable reflected in 2007.*

EXHIBIT D

Development of the Fund Through December 31, 2009

Year Ended December 31	Employer Contributions	Employee Contributions	Other Contributions	Net Investment Return*	Administrative Expenses	Benefit Payments	Actuarial Value of Assets at End of Year
2007	$16,469,215	$7,259,670	$5,876	$21,673,615	$542,399	$21,815,716	$241,788,905
2008	9,392,429**	7,693,249	12,145	-43,200,913	617,237	22,537,134	192,531,444
2009	17,676,386	7,732,199	3,357	27,137,710	507,908	23,987,358	220,585,830

* *Net of investment fees*

** *Number was adjusted for account receivable reflected in 2007.*

EXHIBIT E

Development of Unfunded Actuarial Accrued Liability

	Year Ended			
	December 31, 2009		December 31, 2008	
1. Unfunded actuarial accrued liability at beginning of year		$126,850,480		$121,881,544
2. Normal cost at beginning of year		11,907,336		11,394,580
3. Total contributions		-25,411,942		-17,097,823
4. Interest				
(a) For whole year on (1) + (2)	$11,794,414		$11,328,471	
(b) For half year on (3)	-975,426		-656,292	
(c) Total interest		10,818,988		10,672,179
5. Expected unfunded actuarial accrued liability		$124,164,862		$126,850,480
6. Changes due to:				
(a) Experience loss	$63,918,073		- -	
(b) Assumption changes	14,088,207		- -	
(c) Total changes		78,006,280		- -
7. Unfunded actuarial accrued liability at end of year		$202,171,142		- -

EXHIBIT F

Table of Amortization Bases as of July 1, 2010

Type	Annual Payment	Years Remaining	Outstanding Balance
2002 ERI	$142,998	9	$938,237
2003 ERI	71,705	10	504,910
Funding Holiday	33,851	10	238,362
Remaining unfunded liability	12,914,955	26	208,663,938
Total	$13,163,509		$210,345,447

Notes: Payments assumed to be made on July 1 and December 31.
Amortization payments increasing 4.0% per year.
Does not reflect adjustment to set fiscal 2011 and 2012 appropriations to budgeted amounts.

EXHIBIT G
Funding Schedule
Fully funded by 2036 with current $12,000 COLA

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of 2002 ERI Liability	(4) Amortization of 2003 ERI Liability	(5) Amortization of Funding Holiday Liability	(6) Amortization of Remaining Liability	(7) Total Plan Cost: (2) + (3) + (4) + (5) + (6)	(8) Total Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year	(9) Total Plan Cost: % Increase
2011	$4,314,009	$142,998	$71,705	$33,851	$11,816,366	$16,378,930	$210,345,447	
2012	4,508,140	142,998	71,705	33,851	12,210,464	16,967,158	215,474,142	3.59%
2013	4,711,006	142,998	71,705	33,851	13,364,970	18,324,531	231,744,104	8.00%
2014	4,923,001	142,998	71,705	33,851	14,618,938	19,790,493	252,309,548	8.00%
2015	5,144,536	142,998	71,705	33,851	15,980,642	21,373,733	255,604,164	8.00%
2016	5,376,040	142,998	71,705	33,851	17,459,037	23,083,631	259,998,286	8.00%
2017	5,617,962	142,998	71,705	33,851	19,063,805	24,930,322	263,206,677	8.00%
2018	5,870,770	142,998	71,705	33,851	19,876,441	25,995,765	265,001,549	4.27%
2019	6,134,955	142,998	71,705	33,851	20,719,636	27,103,145	266,123,856	4.26%
2020	6,411,028	-	71,705	33,851	21,548,421	28,065,006	265,826,421	3.55%
2021	6,699,524	-	-	-	22,410,358	29,109,882	264,776,648	3.72%
2022	7,001,003	-	-	-	23,306,772	30,307,775	262,837,552	4.12%
2023	7,316,048	-	-	-	24,239,043	31,555,091	259,787,154	4.12%
2024	7,645,270	-	-	-	25,208,605	32,853,875	255,495,718	4.12%
2025	7,989,307	-	-	-	26,216,950	34,206,257	249,821,284	4.12%
2026	8,348,826	-	-	-	27,265,627	35,614,453	242,608,596	4.12%
2027	8,724,523	-	-	-	28,356,253	37,080,776	233,687,943	4.12%
2028	9,117,127	-	-	-	29,490,502	38,607,629	222,873,902	4.12%
2029	9,527,398	-	-	-	30,670,123	40,197,521	209,963,971	4.12%
2030	9,956,131	-	-	-	31,896,928	41,853,059	194,737,089	4.12%
2031	10,404,157	-	-	-	33,172,805	43,576,962	176,952,033	4.12%
2032	10,872,344	-	-	-	34,499,717	45,372,061	156,345,675	4.12%
2033	11,361,599	-	-	-	35,879,706	47,241,305	132,631,097	4.12%
2034	11,872,871	-	-	-	37,314,894	49,187,765	105,495,542	4.12%
2035	12,407,150	-	-	-	38,807,489	51,214,639	74,598,199	4.12%
2036	12,965,472	-	-	-	40,359,789	53,325,261	39,567,796	4.12%

Notes: Recommended contributions are assumed to be paid on July 1 and December 31.
Item (2) increases at 4.5% per year.
Item (6) increases at 4.0% per year.
Assumes contribution of budgeted amount for fiscal 2011 and 2012.
Anticipates deferred investment losses.
Maximum increase in the appropriation from one fiscal year to the next is 8%.

EXHIBIT H

Department Results

Unit	Pension Fund Appropriation Percentage	Pension Fund Appropriation for FY 2012	ERI Appropriation for FY 2012	Pension Holiday Appropriation for FY 2012	Total Appropriation for FY 2012
Town of Agawam	20.95%	$3,502,548	$0	$0	$3,502,548
Agawam Housing Authority	0.24%	40,125	0	0	40,125
Town of Blandford	0.16%	26,750	0	0	26,750
Town of Blandford- Water Dept	0.03%	5,016	0	0	5,016
Town of Brimfield	0.90%	150,467	2,930	0	153,397
Brimfield Housing Authority	0.07%	11,703	0	0	11,703
Town of Chester	0.47%	78,577	0	0	78,577
Town of East Longmeadow	11.24%	1,879,171	13,441	0	1,892,612
East Longmeadow Housing Authority	0.22%	36,781	8,032	0	44,813
East Hampden Vets Service	0.00%	0	0	0	0
Town of Granville	0.81%	135,421	3,215	0	138,636
Town of Hampden	1.30%	217,342	0	0	217,342
Hampden Housing Authority	0.08%	13,375	0	0	13,375
Hampden/Wilbraham School District	5.46%	912,836	0	0	912,836
Town of Holland	0.79%	132,077	0	0	132,077
Town of Longmeadow	12.46%	2,083,138	0	0	2,083,138
Town of Ludlow- Town	8.57%	1,432,784	0	0	1,432,784
Town of Ludlow- Schools	4.98%	832,586	0	0	832,586
Ludlow Housing Authority	0.23%	38,453	8,817	0	47,270
Town of Monson- Town	3.05%	509,917	0	0	509,917
Town of Monson- Schools	2.46%	411,278	0	0	411,278
Monson Housing Authority	0.15%	25,078	8,572	0	33,650
Town of Montgomery	0.13%	21,734	0	0	21,734
Town of Palmer- Town	3.44%	575,120	98,865	33,851	707,836
Town of Palmer- Library	0.52%	86,937	0	0	86,937

SECTION 3: Supplemental Information for the Hampden County Regional Retirement System

Unit	Pension Fund Appropriation Percentage	Pension Fund Appropriation for FY 2012	ERI Appropriation for FY 2012	Pension Holiday Appropriation for FY 2012	Total Appropriation for FY 2012
Town of Palmer- Schools	1.99%	332,700	0	0	332,700
Town of Palmer- WWTP	0.58%	96,968	0	0	96,968
Palmer Fire District #1	0.53%	88,609	0	0	88,609
Palmer Housing Authority	0.06%	10,031	0	0	10,031
Pathfinder Regional High School	1.18%	197,280	0	0	197,280
Town of Russell	0.47%	78,577	0	0	78,577
Town of Southwick	3.89%	650,354	56,569	0	706,923
Town of Southwick- Water Department	0.28%	46,812	0	0	46,812
Southwick/Tolland School District	3.42%	571,776	0	0	571,776
Southwick Housing Authority	0.05%	8,359	0	0	8,359
Three Rivers Fire District	0.17%	28,422	0	0	28,422
Town of Tolland	0.25%	41,797	8,213	0	50,010
Town of Wales	0.54%	90,280	6,049	0	96,329
Western Hampden Vets District	0.13%	21,734	0	0	21,734
Town of Wilbraham- Town	6.83%	1,141,881	0	0	1,141,881
Town of Wilbraham- Solid Waste	0.14%	23,406	0	0	23,406
Town of Wilbraham- Sewer	0.19%	31,765	0	0	31,765
Town of Wilbraham- Water Dept.	0.40%	66,874	0	0	66,874
Wilbraham Housing Authority	0.19%	31,765	0	0	31,765
Hampden County Regional Retirement Board	0.00%	0	0	0	0
Total:	100.00%	$16,718,604	$214,703	$33,851	$16,967,158

EXHIBIT I

Definitions of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Assumptions or actuarial assumptions: The estimates on which the cost of the Plan is calculated including:

(a) Investment return — the rate of investment yield that the Plan will earn over the long-term future;

(b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates;

(c) Retirement rates — the rate or probability of retirement at a given age;

(d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

Normal cost: The amount of contributions required to fund the benefit allocated to the current year of service.

Actuarial accrued liability for actives: The equivalent of the accumulated normal costs allocated to the years before the valuation date.

Actuarial accrued liability for pensioners: The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

Unfunded actuarial accrued liability: The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There are many approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.

Amortization of the unfunded actuarial accrued liability:	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.
Investment return:	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

EXHIBIT I

Summary of Actuarial Valuation Results

The valuation was made with respect to the following data supplied to us:

1.	Retired participants as of the valuation date (including 185 beneficiaries in pay status)	1,494
2.	Inactive participants with a right to a return of their contributions	440
3.	Inactive participants with a vested right to a deferred or immediate benefit as of December 31, 2009	74
4.	Participants active during the year ended December 31, 2009 with total accumulated contributions of $72,849,910 and projected payroll of $91,149,295	2,589

The actuarial factors as of the January 1, 2010 are as follows:

1.	Normal cost		$11,749,899
2.	Administrative expenses		550,000
3.	Expected employee contributions		-8,162,609
4.	Employer normal cost: (1) + (2) + (3)		$4,137,290
5.	Actuarial accrued liability		422,756,972
	Retired participants and beneficiaries	$204,440,348	
	Active participants	213,308,377	
	Inactive participants	5,008,247	
6.	Actuarial value of assets ($200,532,573 at market value as reported on the Annual Statement)		220,585,830
7.	Unfunded actuarial accrued liability: (5) – (6)		202,171,142

The actuarial factors projected to July 1, 2010 are as follows:

1.	Employer normal cost projected to July 1, 2010, adjusted for timing*	$4,314,009
2.	Projected unfunded actuarial accrued liability	210,345,447
3.	Payment on projected unfunded actuarial accrued liability (increasing 4.0% per year), adjusted for timing[1]	13,163,509
4.	Preliminary recommended contribution: (1) + (3), adjusted for timing*	$17,477,518
5.	Budgeted appropriation	$16,378,930
6.	Projected payroll	$93,177,587

** Recommended contributions are assumed to be paid on July 1 and December 31.*

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
2007	$16,469,215	$16,469,215	100.0%
2008	9,392,429	9,392,429	100.0%
2009	17,676,386	17,676,386	100.0%

EXHIBIT III

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
01/01/2002	$168,722,805	$268,661,316	$99,938,511	62.80%	$69,512,256	143.77%
01/01/2003	175,587,680	281,630,496	106,042,816	62.35%	68,912,960	153.88%
01/01/2004	187,556,932	294,799,663	107,242,731	63.62%	69,403,424	154.52%
01/01/2005	191,979,825	317,047,443	125,067,618	60.55%	74,555,992	167.75%
01/01/2006	200,497,347	332,139,489	131,642,142	60.37%	77,836,219	169.13%
01/01/2007	218,738,644	354,535,380	135,796,736	61.70%	81,740,364	166.13%
01/01/2008	241,788,905	363,670,449	121,881,544	66.49%	87,000,711	140.09%
01/01/2010	220,585,830	422,756,972	202,171,142	52.18%	91,149,295	221.80%

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	January 1, 2010
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Level dollar for the 2002 and 2003 ERI and funding holiday liabilities and increasing 4.0% per year for the remaining unfunded liability.
Remaining amortization period	As of July 1, 2010, 9 years remaining on the 2002 ERI, 10 years remaining on the 2003 ERI and funding holiday, and 26 years for remaining unfunded liability
Asset valuation method	The difference between the expected return and the actual investment return on a market value basis is recognized over a five-year period as described by Revenue Procedure 2000-40. Asset value is adjusted, if necessary to be within 10% of the market value.
Actuarial assumptions:	
Investment rate of return	8.25% (previously, 8.50%)
Projected salary increases	4.50%
Cost of living adjustments	3.00% for the first $12,000 of retirement income.
Plan membership:	
Retired participants and beneficiaries receiving benefits	1,494
Inactive participants entitled to a return of their employee contributions	440
Inactive participants with a vested right to a deferred or immediate benefit	74
Active participants	2,589
Total	4,597

EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy: RP-2000 Combined Healthy Mortality Table (sex-distinct)

Disabled: RP-2000 Combined Healthy Mortality Table (sex-distinct) set forward 2 years

Termination Rates before Retirement:

	Groups 1 and 2 - Rate (%)		
	Mortality		Disability
Age	Male	Female	
20	0.03	0.02	0.01
25	0.04	0.02	0.02
30	0.04	0.03	0.03
35	0.08	0.05	0.06
40	0.11	0.07	0.10
45	0.15	0.11	0.15
50	0.21	0.17	0.19
55	0.36	0.27	0.24
60	0.67	0.51	0.28

Notes: 55% of the disability rates shown represent accidental disability.
20% of the accidental disabilities will die from the same cause as the disability.
55% of the death rates shown represent accidental death.

	Group 4 - Rate (%)		
	Mortality		Disability
Age	Male	Female	
20	0.03	0.02	0.10
25	0.04	0.02	0.20
30	0.04	0.03	0.30
35	0.08	0.05	0.30
40	0.11	0.07	0.30
45	0.15	0.11	1.00
50	0.21	0.17	1.25
55	0.36	0.27	1.20
60	0.67	0.51	0.85

Notes: 90% of the disability rates shown represent accidental disability.
60% of the accidental disabilities will die from the same cause as the disability.
90% of the death rates shown represent accidental death.

Withdrawal Rates:

Rate per year (%)			
Years of Service	**Groups 1 and 2**	**Years of Service**	**Group 4**
0	15.0	0 – 10	1.5
1	12.0	11+	0.0
2	10.0		
3	9.0		
4	8.0		
5	7.6		
6	7.5		
7	6.7		
8	6.3		
9	5.9		
10	5.4		
11	5.0		
12	4.6		
13	4.1		
14	3.7		
15	3.3		
16 – 20	2.0		
21 - 29	1.0		
30+	0.0		

Retirement Rates:

Age	Rate per year (%) Groups 1 and 2 Male	Groups 1 and 2 Female	Group 4
50 – 51	1.0	1.5	2.0
52	1.0	2.0	2.0
53	1.0	2.5	5.0
54	2.0	2.5	7.5
55	2.0	5.5	15.0
56 – 57	2.5	6.5	10.0
58	5.0	6.5	10.0
59	6.5	6.5	15.0
60	12.0	5.0	20.0
61	20.0	13.0	20.0
62	30.0	15.0	25.0
63	25.0	12.5	25.0
64	22.0	18.0	30.0
65	40.0	15.0	100.0
66 - 67	25.0	20.0	- -
68	30.0	25.0	- -
69	30.0	20.0	- -
70	100.0	100.0	- -

Unknown Data for Participants: Same as those exhibited by participants with similar known characteristics.

Age of Spouse: Females three years younger than their spouses

Percent Married: 80%

Net Investment Return: 8.25% (previously, 8.50%)

Interest on Employee Contributions: 3.5%

Salary Increases: 4.50% per year

2009 Salary: 2009 salaries are equal to salaries provided in the data.

Total Service: Total creditable service reported in the data.

Administrative Expenses:	$550,000 for calendar year 2010
Cost of Living Increases:	3.00% on first $12,000 of retirement allowance.
Actuarial Value of Assets:	Market value of assets as reported in the System's Annual Statement less unrecognized return in each of the last five years. Unrecognized return is equal to the difference between the actual market value return and the expected market value return and is recognized over a five-year period, further adjusted, if necessary, to be within 10% of the market value.
Actuarial Cost Method:	Entry Age Normal Actuarial Cost Method. Entry age is attained age of the participant less Total Service. Normal Cost and Actuarial Accrued Liability are calculated on an individual bases and are allocated by salary.
Changes in Assumptions:	This valuation reflects the following changes in assumptions: ➢ The investment return assumption was lowered from 8.50% to 8.25%. ➢ An assumption has been added for the percentage of accidental disabilities that will die from the same cause as the disability of 20% for Group 1 and 60% for Group 4 accidental disabilities. ➢ Call firefighters and reserve police officers are now being valued with a liability equal to a return of their employee contribution balance because call firefighters and reserve police officers were not expected to earn 10 years of creditable service. ➢ Inactive members with a vested right to a deferred or immediate benefit are now valued with a liability equal to twice their employee contribution balance to approximate the liability for a deferred retirement allowance.

EXHIBIT VI

Summary of Plan Provisions

This exhibit summarizes the major provisions of Chapter 32 of the Laws of Massachusetts.

Plan Year: January 1 – December 31

Retirement Benefits

Employees covered by the Contributory Retirement Law are classified into one of four groups depending on job classification. Group 1 comprises most positions in state and local government. It is the general category of public employees. Group 4 comprises mainly police and firefighters. Group 2 is for other specified hazardous occupations. (Officers and inspectors of the State Police are classified as Group 3.)

The annual amount of the retirement allowance is based on the member's final three-year average salary multiplied by the number of years and full months of creditable service at the time of retirement and multiplied by a percentage according to the following table based on the age of the member at retirement:

	Age Last Birthday at Date of Retirement		
Percent	**Group 1**	**Group 2**	**Group 4**
2.5	65 or over	60 or over	55 or over
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	--	49
1.8	58	--	48
1.7	57	--	47
1.6	56	--	46
1.5	55	--	45

A member's final three-year average salary is defined as the greater of the highest consecutive three-year average annual rate of regular compensation and the average

annual rate of regular compensation received during the last three years of creditable service prior to retirement.

The maximum annual amount of the retirement allowance is 80 percent of the member's final three-year average salary. Any member who is a veteran also receives an additional yearly retirement allowance of $15 per year of creditable service, not exceeding $300. The veteran allowance is paid in addition to the 80 percent maximum.

Employee Contributions

Date of Hire	Contribution Rate
Prior to January 1, 1975	5%
January 1, 1975 – December 31, 1983	7%
January 1, 1984 – June 30, 1996	8%
July 1, 1996 onward	9%

In addition, employees hired after December 31, 1978 contribute an additional 2 percent of salary in excess of $30,000.

Employees hired after 1983 who leave with less than five years of credited service receive no interest on their contributions, and employees who leave with five but less than ten years receive one-half the rate of regular interest otherwise payable.

Retirement Benefits (Superannuation)

Members of Group 1, 2 or 4 may retire upon the attainment of age 55. For retirement at ages below 55, twenty years of creditable service is required.

Members who terminate before age 55 with ten or more years of creditable service are eligible for a retirement allowance upon the attainment of age 55 (provided they have not withdrawn their accumulated deductions from the Annuity Savings Fund of the System).

Ordinary Disability Benefits

A member who is unable to perform his or her job due to a non-occupational disability will receive a retirement allowance if he or she has ten or more years of creditable service and has not reached age 55. The annual amount of such allowance shall be determined as if the member retired for superannuation at age 55, based on the amount

of creditable service at the date of disability. For veterans, there is a minimum benefit of 50 percent of the member's most recent year's pay plus an annuity based on his or her own contributions.

Accidental Disability Benefit

For a job-connected disability, the benefit is 72 percent of the member's most recent annual pay plus an annuity based on his or her own contributions, plus additional amounts for surviving children. Benefits are capped at 75 percent of annual rate of regular compensation for employees who become members after January 1, 1988.

Death Benefits

In general, the beneficiary of an employee who dies in active service will receive a refund of the employee's own contributions. Alternatively, if the employee were eligible to retire on the date of death, a spouse's benefit will be paid equal to the amount the employee would have received under Option C. The surviving spouse of a member who dies with two or more years of credited service has the option of a refund of the employee's contributions or a monthly benefit regardless of eligibility to retire, if they were married for at least one year. There is also a minimum widow's pension of $750 per month (previously, $500 per month), and there are additional amounts for surviving children.

If an employee's death is job-connected, the spouse will receive 72 percent of the member's most recent annual pay in addition to a refund of the member's accumulated deductions, plus additional amounts for surviving children. However, in accordance with Section 100 of Chapter 32, the surviving spouse of a police officer, firefighter or corrections officer is killed in the line of duty will be eligible to receive an annual benefit equal to the maximum salary held be the member at the time of death.

"Heart And Lung Law" And Cancer Presumption

Any case of hypertension or heart disease resulting in total or partial disability or death to a uniformed fireman, permanent member of a police department, or certain employees of a county correctional facility is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. Any case of disease of the lungs or respiratory tract resulting in total disability or death to a uniformed

	fireman is presumed to have been suffered in the line of duty, unless the contrary is shown by competent evidence. There is an additional presumption for uniformed firemen that certain types of cancer are job-related if onset occurs while actively employed or within five years of retirement.
Options	Members may elect to receive a full retirement allowance payable for life under Option A. Under Option B a member may elect to receive a lower monthly allowance in exchange for a guarantee that at the time of death any contributions not expended for annuity payments will be refunded to the beneficiary. Option C allows the member to take a lesser retirement allowance in exchange for providing a survivor with two-thirds of the lesser amount. Option C pensioners will have benefits converted from a reduced to a full retirement if the beneficiary predeceases the retiree.
Post-Retirement Benefits	The Board has adopted the provisions of Section 51 Chapter 127 of the Acts of 1999, which provide that the Retirement Board may approve an annual COLA in excess of the Consumer Price Index but not to exceed a 3% COLA on the first $12,000 of a retirement allowance. Cost-of-living increases granted prior to July 1, 1998 are reimbursed by the Commonwealth and not reflected in this report.
Changes in Plan Provisions	There have been no changes in the plan provisions from the prior valuation.