

State-Boston Retirement System

*Actuarial Valuation and Review
as of January 1, 2008*

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November 24, 2008

*Board of Trustees
State-Boston Retirement System
City Hall, Room 816
Boston, MA 02201*

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of January 1, 2008. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2009 and later years and analyzes the preceding two years' experience.

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

Due to the ongoing discussions regarding the Boston Teachers with the Massachusetts Teachers' Retirement System and the department of Administration and Finance, the report has been reorganized to show the results of the valuation for the State-Boston Retirement System as a whole, and separately for the Teachers and All Other Employees.

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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SECTION 1: Valuation Summary for the State-Boston Retirement System

Purpose

This report has been prepared by The Segal Company to present a valuation of the State-Boston Retirement System as of January 1, 2008. 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, 2008;
- The assets of the Plan as of December 31, 2007;
- 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, 2008 is based on financial information as of that date. Declines in the value of assets subsequent to that date are not reflected. We are prepared to work with the Board to model the effects of these and any other subsequent developments.
- Due to the ongoing discussions regarding the Boston Teachers with the Massachusetts Teachers' Retirement System and the department of Administration and Finance, the report has been reorganized to show the results of the valuation for the State-Boston Retirement System as a whole, and separately for the Teachers and All Other Employees.
- During the plan years ended 2006 and 2007, the market value rates of return for the State-Boston Retirement System (SBRs) were 13.43% and 9.53%, respectively. The actuarial rates of return for the plan years ended 2006 and 2007 were 8.79% and 8.95%, respectively. The actuarial value of assets as of December 31, 2007 was \$4.458 billion, or 96.6% of the market value of assets of \$4.614 billion (as reported in the Annual Statement). As of December 31, 2005, the actuarial value of assets was 101.3% of the market value as reported in the Annual Statement.

SECTION 1: Valuation Summary for the State-Boston Retirement System

- The unfunded liability was expected to decrease from \$2.121 billion as of January 1, 2006 to \$2.084 billion as of January 1, 2008. An experience loss of \$14.5 million (see page 7), in addition to the changes in assumptions noted below that added liability of \$40.1 million, resulted in an unfunded liability of \$2.138 billion as of January 1, 2008.
- This valuation reflects the following:
 - Salaries reported for 2007 were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts.
 - The mortality table for healthy employees was changed from the 1994 Group Annuity Mortality Table to the RP-2000 Combined Healthy Mortality Table.
 - The mortality table for disabled participants was changed from the PBGC Mortality Table for Disabled Lives Receiving Social Security Benefits to the RP-2000 Combined Healthy Mortality Table set forward five years.
 - A liability for a deferred retirement allowance has been calculated for inactive vested members.
 - The fiscal 2009 – 2014 expense assumption includes an additional allowance for the new computer system.
- The preliminary recommended contribution of \$251,357,251 for the SBRS is based on a 15-year amortization (4.5% increasing) of the unfunded actuarial accrued liability. The System will be fully funded by June 30, 2023 if all assumptions are met. Because fiscal 2009 has already been budgeted at \$244,298,788, the results of this valuation will first be reflected in the fiscal 2010 appropriation. The funding schedule for the SBRS is shown in Exhibit 3-F.
- In order to provide separate funding schedules for the Teachers and All Other Employees, it was necessary to allocate the December 31, 2007 assets of the SBRS to each group. A detailed analysis of the source of income and expenses by Teachers and All Other Employees was completed and reviewed by the State’s actuary, the Massachusetts Teachers’ Retirement System and representatives of A&F. An allocation of 27% of the SBRS assets as of December 31, 2007 to the Teachers was agreed upon.
- Income and expenses on behalf of Teachers will be accounted for separately in 2008 and later years. Consistent with the development of the 27% allocation of assets as of December 31, 2007, the pay-as-you-go reimbursement received by the City of Boston in fiscal 2009, which is a reimbursement for pension paid to Teachers in fiscal 2008, will be credited to the Teachers’ assets. The expected reimbursement of \$115.3 million is approximately equal to the amount on the Teachers funding schedule shown in Section 5.
- For fiscal 2010, the Massachusetts Teachers’ Retirement System will make the pay-as-you go reimbursement for pensions paid to Teachers in fiscal 2009 to the City of Boston in accordance with Chapter 32, Section 20 (2)(c). In addition, the Massachusetts Teachers’ Retirement System will transfer the amount shown on the Teachers’ funding schedule for fiscal

SECTION 1: Valuation Summary for the State-Boston Retirement System

2010 directly to the SBRS in accordance with the City, State and relevant pension agencies Task Force on Teachers Pension Liability.

- In fiscal 2010, the City of Boston will make an additional contribution to the SBRS of \$112 million to be credited to the All Other Employees. The funds for this contribution will be the reimbursement to the City in fiscal 2010 for the pensions paid to Teachers in fiscal 2009. This additional contribution has been referred to as the crossover payment by the Task Force.
- Underlying the Task Force recommendation is the acknowledgement that the Massachusetts Teachers' Retirement System is responsible for the Boston Teachers' pension liability.
- Sections 2 and 3 show participant and asset information, the experience analysis, liabilities and a funding schedule for the SBRS, with comparisons to the prior year. Sections 4 and 5 show participant information, liabilities and a funding schedule for the Teachers and Section 6 and 7 show the same information for All Other Employees. The experience analysis will be performed separately in future valuations.
- The preliminary fiscal 2010 appropriation is \$263,633,450. When the crossover payment of \$111,827,321 is included, the total appropriation for fiscal 2010 is \$375,460,771. Of this amount, \$122,271,467 is attributable to the Teachers and \$253,189,304 is attributable to All Other Employees.

SECTION 1: Valuation Summary for the State-Boston Retirement System

Summary of Key Valuation Results - SBRS

	January 1, 2008	January 1, 2006
Contributions:		
Recommended for fiscal 2009 and 2007	\$244,298,788	\$221,864,840
Recommended for fiscal 2010 and 2008	375,460,771*	233,778,744
Recommended for fiscal 2011 and 2009	261,226,861	244,298,788
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses	\$175,312,953**	\$154,015,044
Market value of assets	4,613,555,905	3,786,511,653
Actuarial value of assets	4,458,002,174	3,836,806,971
Actuarial accrued liability	6,596,148,098	5,957,373,104
Unfunded actuarial accrued liability	2,138,145,924	2,120,566,133
GASB 25/27:		
Annual required contributions	\$244,298,788	\$217,088,000
Actual contributions	--	217,088,000
Percentage contributed	--	100.00%
Funded ratio	67.58%	64.40%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	13,939	13,783
Number of inactive participants entitled to a return of their employee contributions	5,444	6,178
Number of inactive participants with a vested right to a deferred or immediate benefit	796	N/A
Number of active participants	21,748	20,917
Total payroll	\$1,239,486,678***	\$1,114,893,247
Average payroll	56,993***	53,301

* Includes crossover payment (refer to Section 1)

** Does not include \$2.3 million expense for new computer system since this item is first budgeted as of July 1, 2008.

*** Calendar year 2007 payroll figures were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts

SECTION 1: Valuation Summary for the State-Boston Retirement System

Summary of Key Valuation Results - SBRS

	January 1, 2008	
	Teachers	All Other Employees
Contributions:		
Recommended for fiscal 2009	\$112,638,290	\$131,660,498
Recommended for fiscal 2010	122,271,467	253,189,304*
Recommended for fiscal 2011	127,732,624	133,494,237
Funding elements for plan year beginning January 1:		
Normal cost, including administrative expenses	\$53,964,171**	\$121,348,782**
Market value of assets	1,245,660,094	3,367,895,811
Actuarial value of assets	1,203,660,587	3,254,341,587
Actuarial accrued liability	2,390,182,086	4,205,966,012
Unfunded actuarial accrued liability	1,186,521,499	951,624,425
GASB 25/27:		
Annual required contributions	\$112,638,290	\$131,660,498
Actual contributions	--	--
Percentage contributed	--	--
Funded ratio	50.36%	77.37%
Demographic data for plan year beginning January 1:		
Number of retired participants and beneficiaries	3,693	10,246
Number of inactive participants entitled to a return of their employee contributions	1,135	4,309
Number of inactive participants with a vested right to a deferred or immediate benefit	146	650
Number of active participants	5,805	15,943
Total payroll	\$419,124,229	\$820,362,449***
Average payroll	72,201	51,456***

* Includes crossover payment (refer to Section 1)

** Does not include expense for new computer system since this item is first budgeted as of July 1, 2008.

*** Calendar year 2007 payroll figures were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts.

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 Exhibits 3-A and 3-B.

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

CHART 2-1
Participant Population: 1995 – 2007

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries
1995	21,128	1,425	13,339
1996	18,641	3,703	13,492
1999	19,953	1,459	13,381
2001	22,003	3,560	13,144
2003	20,456	5,294	14,034
2005	20,917	6,178	13,783
2007	21,748	6,240	13,939

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 21,748 active participants with an average age of 44.9, average years of service of 12.8 years and average payroll of \$56,993. The 20,917 active participants in the prior valuation had an average age of 45.0, average service of 13.0 years and average payroll of \$53,301.

Among the active participants, there were 12 participants with unknown service information. The actuarial calculations were adjusted for the missing information by assuming that it was the same as information provided for other active participants with similar known characteristics.

Inactive Participants

In this year's valuation, there were 796 participants with a vested right to a deferred or immediate vested benefit and 5,444 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 2-2
Distribution of Active Participants by Age as of December 31, 2007

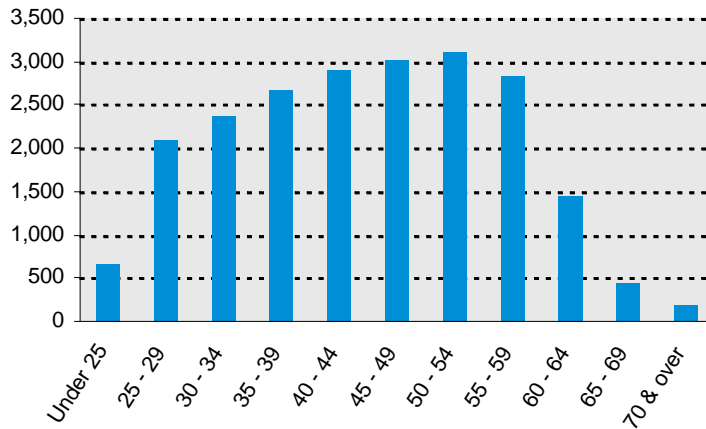
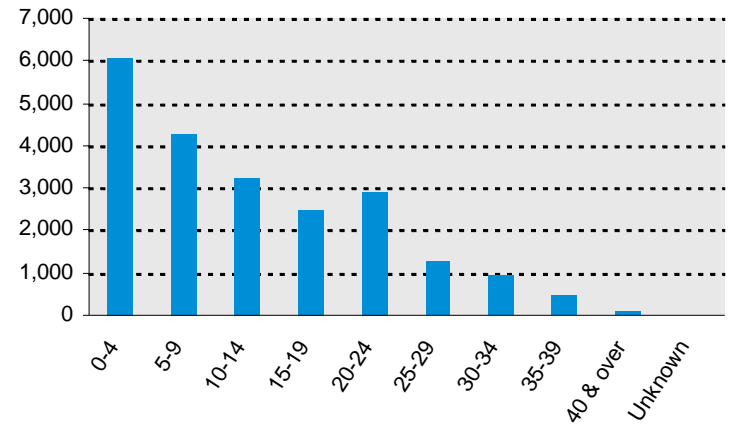


CHART 2-3
Distribution of Active Participants by Years of Service as of December 31, 2007



SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

Retired Participants and Beneficiaries

As of December 31, 2007, 11,198 retired participants and 2,741 beneficiaries were receiving total monthly benefits of \$30,923,143, excluding COLAs reimbursed by the Commonwealth. For comparison, in the previous valuation, there were 11,027 retired participants and 2,756 beneficiaries receiving monthly benefits of \$27,180,904, excluding COLAs reimbursed by the Commonwealth.

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

CHART 2-4
Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2007

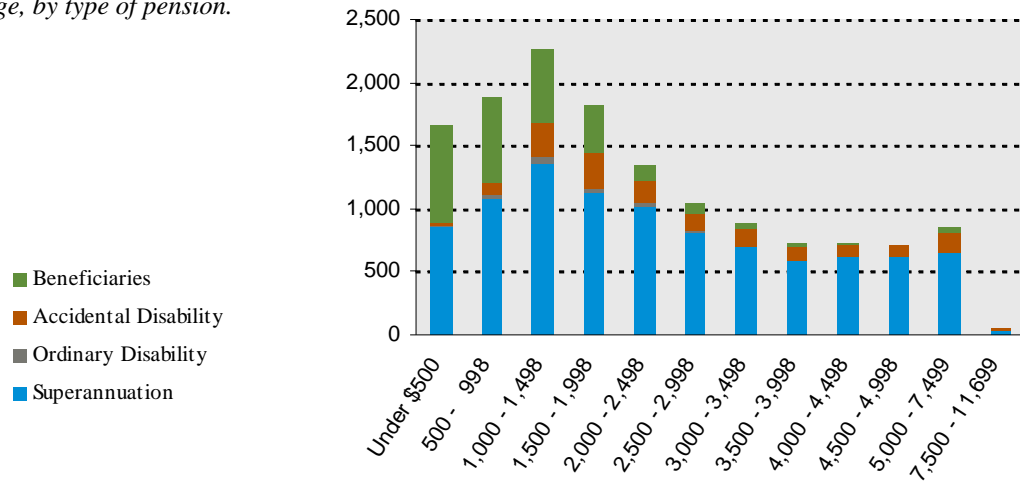
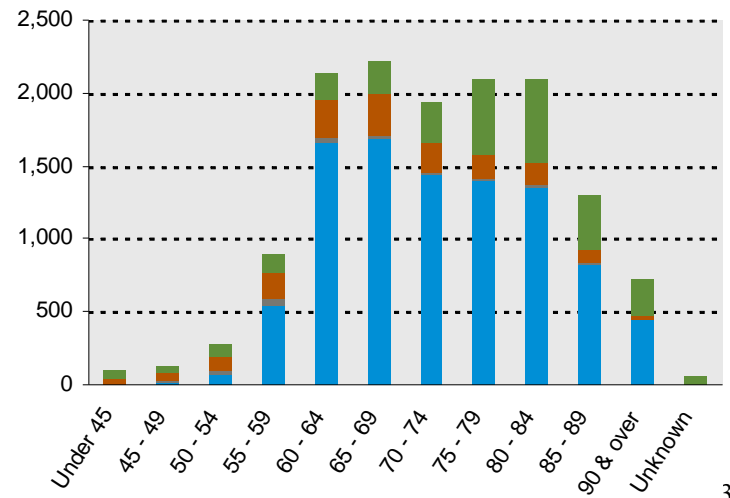


CHART 2-5
Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2007



SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

B. FINANCIAL INFORMATION

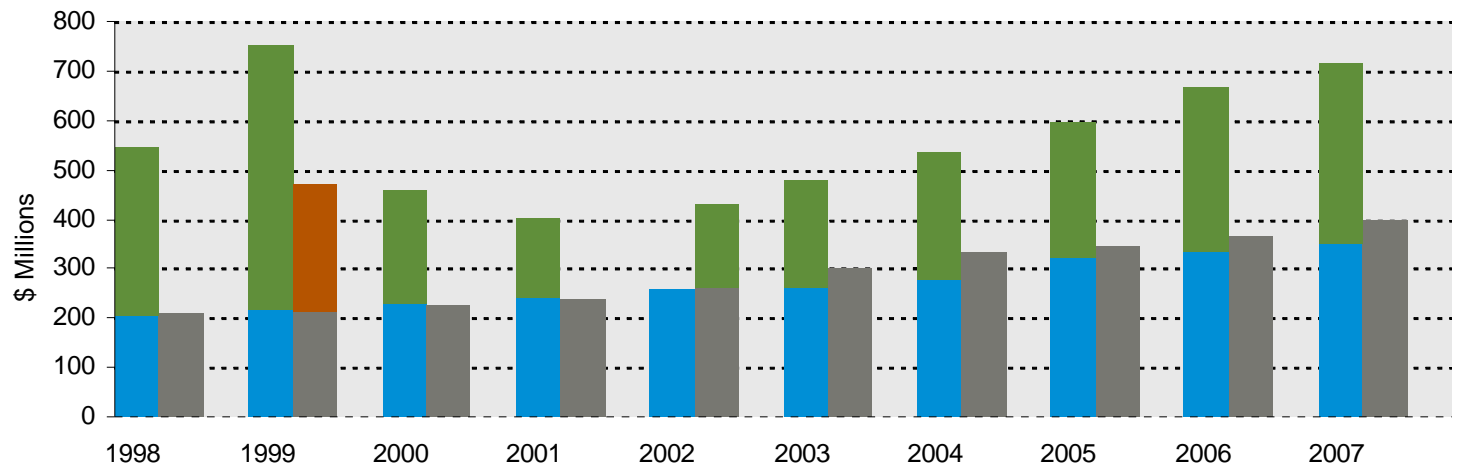
Retirement plan funding anticipates that, over the long term, both net contributions (less administrative expenses) and net investment earnings (less investment fees) will be needed to cover benefit payments.

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 Exhibits 3-C and 3-D of Section 3.

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Note: The first bar represents increases in assets during each year while the second bar details the decreases. Investment income is on a market value basis prior to 1999.

CHART 2-6
Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 1998 – 2007

- Change in asset method
- Net investment income
- Benefits paid
- Net contributions



SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 2-7 Determination of Actuarial Value of Assets

	Year Ended	
	December 31, 2007	December 31, 2006
1. Actuarial value of assets at the beginning of the year	\$4,138,145,569	\$3,836,806,971
2. Contributions, less benefit payments and expenses during the year	-48,157,186	-34,284,024
3. Average actuarial value of assets: (1) + 50% of (2)	4,114,066,976	3,819,664,959
4. Expected investment income: .08 x (3)	329,125,358	305,573,197
5. Preliminary actuarial value of assets at the end of the year: (1) + (2) + (4)	4,419,113,741	4,108,096,144
6. Market value of assets at the end of the year	4,613,555,905	4,258,343,271
7. Adjustment toward market value: 20% of [(6) - (5)]	38,888,433	30,049,425
8. Adjustment to be within 20% corridor	0	0
9. Final actuarial value of assets: (5) + (7) + (8)	<u>\$4,458,002,174</u>	<u>\$4,138,145,569</u>
10. Actuarial value as a percentage of market value: (9) ÷ (6)	96.6%	97.2%

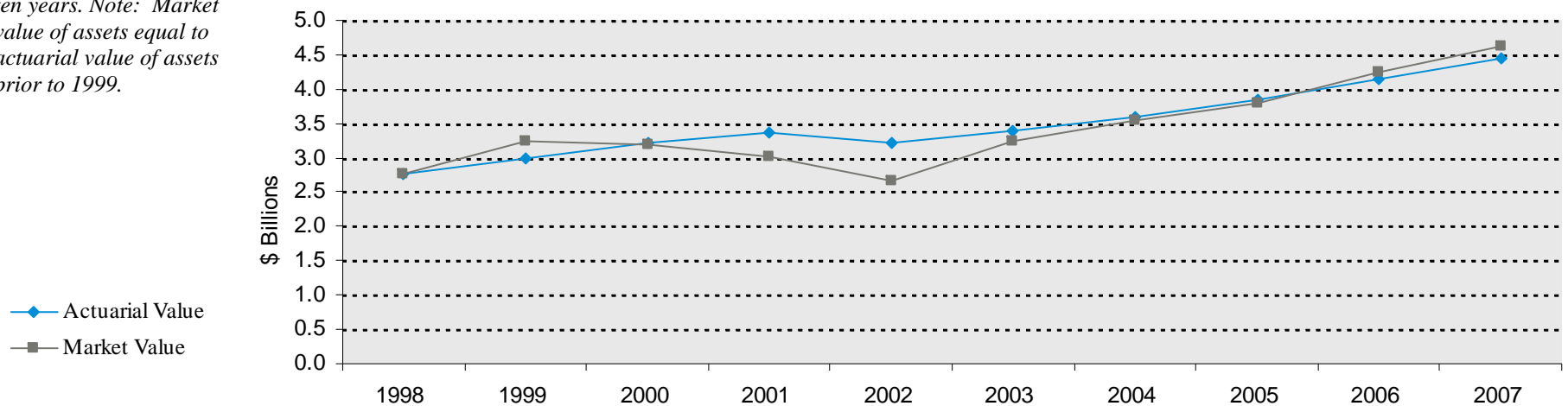
SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

Both the actuarial value and market value of assets are representations of the State-Boston 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 State-Boston 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 ten years. Note: Market value of assets equal to actuarial value of assets prior to 1999.

CHART 2-8

Actuarial Value of Assets vs. Market Value of Assets as of December 31, 1998 – 2007



SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 for the two-year period ended December 31, 2007 is \$14,536,904. A discussion of the major components of the actuarial experience is on the following pages.

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

**CHART 2-9
Actuarial Experience for Two-Year Period Ended December 31, 2007**

1. Net gain from investments*	\$68,937,858
2. Net gain from administrative expenses	1,999,760
3. Net loss from other experience**	<u>-85,474,522</u>
4. Net experience loss: (1) + (2) + (3)	<u>-\$14,536,904</u>

* Details in Chart 2-10

** Details in Chart 2-13

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 State-Boston Retirement System’s investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets is 8.00%. The actual rates of return on an actuarial basis for the 2007 and 2006 plan years were 8.95% and 8.79%, respectively.

Since the actual return for the year was greater than the assumed return, the State-Boston Retirement System experienced an actuarial gain during the two-year period ending December 31, 2007 with regard to its investments.

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

**CHART 2-10
Actuarial Value Investment Experience**

	Year Ended	
	December 31, 2007	December 31, 2006
1. Actual return	\$368,013,791	\$335,622,622
2. Average value of assets	4,114,066,976	3,819,664,959
3. Actual rate of return: (1) ÷ (2)	8.95%	8.79%
4. Assumed rate of return	8.00%	8.00%
5. Expected return: (2) x (4)	\$329,125,358	\$305,573,197
6. Actuarial gain/(loss): (1) – (5)	<u>\$38,888,433</u>	<u>\$30,049,425</u>

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 ten years, including five-year and ten-year averages.

Based upon this experience and future expectations, we have maintained the assumed rate of return of 8.00%.

CHART 2-11

Investment Return – Actuarial Value vs. Market Value: 1998 - 2007

Year Ended December 31	Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent
1998	\$342,723,960	14.54%	\$342,723,960	14.54%
1999	279,508,594	10.36	534,161,685	19.80
2000	230,167,878	7.72	-57,650,028	-1.78
2001	163,719,630	5.10	-176,101,089	-5.54
2002	-169,224,346	-5.01	-330,387,570	-11.00
2003	217,873,886	6.84	604,025,038	22.78
2004	258,709,416	7.71	367,429,124	11.45
2005	273,445,360	7.65	262,427,939	7.42
2006	335,622,622	8.79	506,115,642	13.43
2007	<u>368,013,791</u>	8.95	<u>403,369,820</u>	9.53
Total	\$2,300,560,791		\$2,456,114,521	
	Five-year average return	8.05%		12.32%
	Ten-year average return	7.04%		7.71%

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

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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.

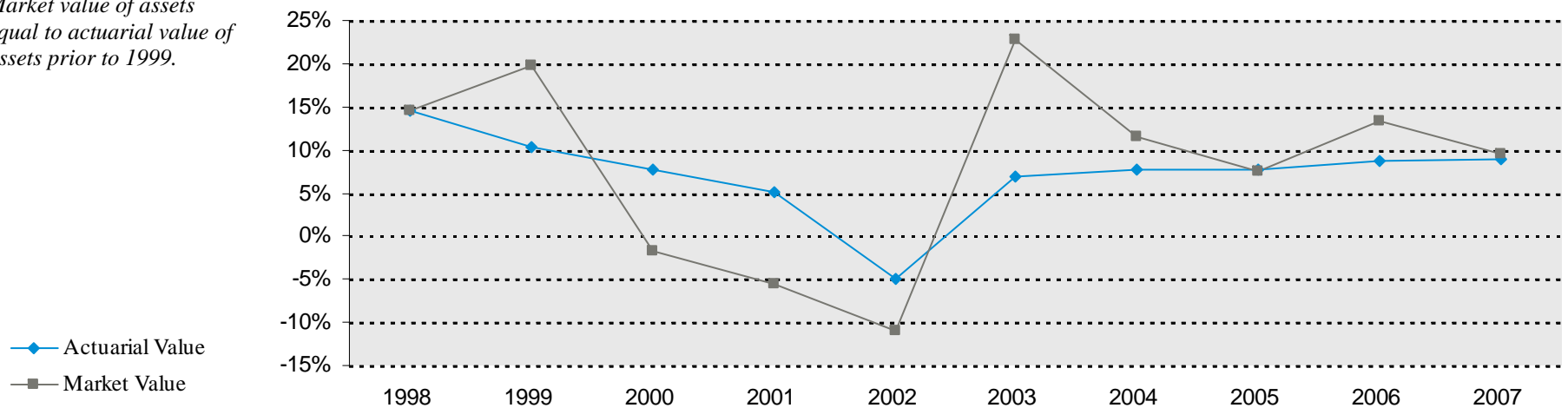
Administrative Expenses

Administrative expenses for the years ended December 31, 2006 and 2007 were \$2,694,034 and \$3,457,556, respectively compared to the assumption of \$3,800,000 for calendar year 2006 and \$3,971,000 for calendar year 2007. This resulted in a gain of \$1,999,760 for the two-year period, including an adjustment for interest. We have maintained the assumption of \$3,800,000 for calendar year 2008.

In addition, fiscal 2009 through fiscal 2014 includes an additional expense allowance to reflect the costs associated with the new computer system (see Exhibit V of Section 9).

This chart illustrates how this leveling effect has actually worked over the years 1999 - 2007. Note: Market value of assets equal to actuarial value of assets prior to 1999.

CHART 2-12
Market and Actuarial Rates of Return for Years Ended December 31, 1998 - 2007



SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 ending December 31, 2007 amounted to \$85,474,522 which is 1.3% of the actuarial accrued liability.

A brief summary of the demographic gain/(loss) experience of the State-Boston Retirement System for the two-year period ending December 31, 2007 is shown in the chart below.

This valuation reflects the following:

- The mortality table for healthy employees was changed from the 1994 Group Annuity Mortality Table to the RP-2000 Combined Healthy Mortality Table.
- The mortality table for disabled participants was changed from the PBGC Mortality Table for Disabled Lives Receiving Social Security Benefits to the RP-2000 Combined Healthy Mortality Table set forward five years.
- A liability for a deferred retirement allowance has been calculated for inactive vested members.

Changing these assumptions resulted in an increase in the unfunded liability of \$40,094,067.

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

CHART 2-13
Experience Due to Changes in Demographics for Two-Year Period Ended December 31, 2007

1. Deaths among retired members and beneficiaries, impact of change in status from Superannuation to Disability or change in benefit amount	-\$25,326,762
2. Salary increases less than expected for continuing actives	8,955,503
3. New retired members previously unreported (23 superannuations, 17 disabilities)	-8,841,430
4. Net 3(8)c reimbursements to other systems	-15,584,018
5. Loss due to retirement from inactive status	-21,925,526
6. Miscellaneous loss	<u>-22,752,289</u>
7. Total	-\$85,474,522

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

D. RECOMMENDED CONTRIBUTION

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

We have determined a preliminary recommended contribution of \$251,357,251 based on a 15-year increasing (4.5% per year) amortization payment. Because the fiscal 2009 appropriation has already been budgeted at

\$244,298,788, the results of this valuation will first be reflected in the fiscal 2010 appropriation. Exhibit 3-F in Section 3 shows the recommended contribution through fiscal 2028 based on this funding schedule, including the crossover payment (refer to Section 1) in fiscal 2010.

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

CHART 2-14
Recommended Contribution

	Year Beginning January 1		Year Beginning January 1	
	2008		2006	
	Amount	% of Payroll	Amount	% of Payroll
1. Total normal cost	\$171,512,953	13.20%	\$150,215,044	12.85%
2. Administrative expenses	3,800,000	0.29%	3,800,000	0.33%
3. Expected employee contributions	<u>-121,534,236</u>	<u>-9.35%</u>	<u>-106,485,861</u>	<u>-9.11%</u>
4. Employer normal cost: (1) + (2) + (3)	\$53,778,717	4.14%	\$47,529,183	4.07%
5. Actuarial accrued liability	6,596,148,098		5,957,373,104	
6. Actuarial value of assets	<u>4,458,002,174</u>		<u>3,836,806,971</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$2,138,145,924		\$2,120,566,133	
8. Employer normal cost projected to July 1, 2008 and 2006, adjusted for timing	59,432,136	4.48%	50,492,907	4.23%
9. Projected unfunded actuarial accrued liability	2,222,026,425		2,203,756,971	
10. 15-year and 17-year increasing payment on projected unfunded actuarial accrued liability, adjusted for timing	191,925,115	14.45%	173,079,236	14.49%
11. Preliminary recommended contribution: (8) + (10)	251,357,251	18.93%	223,572,143	18.71%
12. Budgeted appropriation	<u>244,298,788</u>	<u>18.40%</u>	<u>221,864,840</u>	<u>18.57%</u>
13. Projected payroll	\$1,328,020,847		\$1,194,816,375	

Notes: Recommended contributions are assumed to be paid monthly.

Amortization payments increase at 4.5% per year.

\$2.3 million was added to the expense assumption for fiscal 2009 to reflect the costs associated with the new computer system.

SECTION 2: Valuation Results for the State-Boston Retirement System - All Employees

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 contributions to actual contributions. This comparison demonstrates whether a plan is being funded within the range of the GASB reporting requirements. Chart 2-15 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 2-16 shows the funded ratio calculated using both the actuarial value of assets (67.58%) and the market value of assets (69.94%).

The details regarding the calculations of these values and other GASB numbers may be found in Section 5, Exhibits II, III, and IV.

These graphs show key GASB factors.

CHART 2-14
Required Versus Actual Contributions

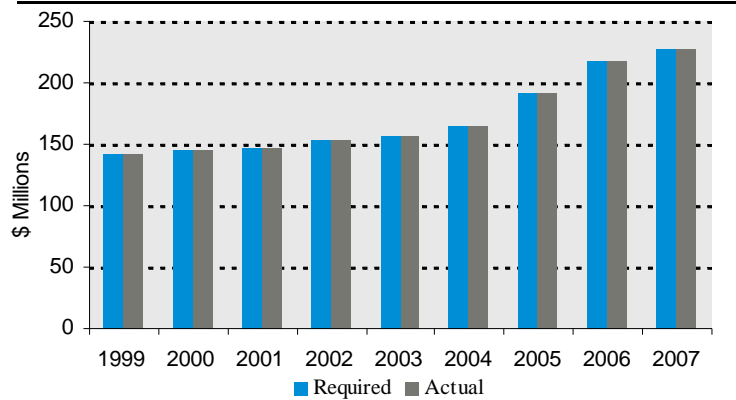
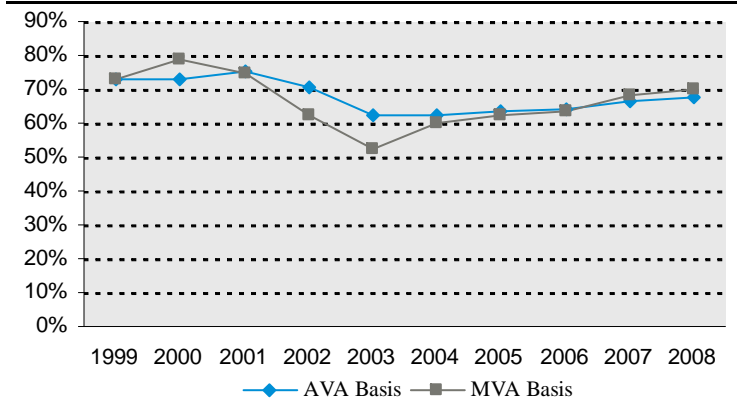


CHART 2-15
Funded Ratio



SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-A

Table of Plan Coverage

Category	Year Ended December 31		Change From Prior Year
	2007	2005	
Active participants in valuation:			
Number	21,748	20,917	4.0%
Average age	44.9	45.0	N/A
Average service	12.8	13.0	N/A
Total payroll*	\$1,239,486,678	\$1,114,893,247	11.2%
Average payroll*	56,993	53,301	6.9%
Member contributions	1,096,173,895	986,843,952	11.1%
Number with unknown age and/or service information	12	164	-92.7%
Inactive participants with a vested right to a deferred or immediate benefit	796	N/A	N/A
Inactive participants entitled to a return of their employee contributions	5,444	6,178	N/A
Retired participants:			
Number in pay status	9,450	9,369	0.9%
Average age	72.7	72.6	N/A
Average monthly benefit	\$2,445	\$2,193	11.5%
Disabled participants:			
Number in pay status	1,748	1,658	5.4%
Average age	67.1	67.7	N/A
Average monthly benefit	\$2,655	\$2,246	18.2%
Beneficiaries in pay status	2,741	2,756	-0.5%

* Calendar year 2007 payroll figures were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts.

SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-B

**Participants in Active Service as of December 31, 2007
By Age, Years of Service, and Average Payroll**

Age	Years of Service										
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	Unknown
Under 25	671	661	10	--	--	--	--	--	--	--	--
	\$37,148	\$37,234	\$31,474	--	--	--	--	--	--	--	--
25 - 29	2,106	1,732	353	17	--	--	--	--	--	--	4
	\$47,246	\$46,879	\$49,509	\$42,461	--	--	--	--	--	--	\$26,888
30 - 34	2,364	1,113	943	290	18	--	--	--	--	--	--
	\$53,704	\$49,737	\$57,583	\$55,960	\$59,423	--	--	--	--	--	--
35 - 39	2,669	715	760	800	298	95	--	--	--	--	1
	\$57,057	\$44,164	\$56,393	\$66,530	\$61,673	\$64,573	--	--	--	--	\$111,760
40 - 44	2,899	529	580	592	675	499	22	--	--	--	2
	\$58,283	\$40,139	\$50,566	\$62,452	\$68,450	\$67,488	\$67,352	--	--	--	\$33,121
45 - 49	3,025	492	513	475	525	776	229	12	--	--	3
	\$58,168	\$37,761	\$45,437	\$55,993	\$65,529	\$71,711	\$71,605	\$80,580	--	--	\$20,179
50 - 54	3,099	366	477	414	425	675	475	250	16	--	1
	\$60,726	\$40,542	\$44,584	\$50,848	\$60,447	\$71,355	\$77,616	\$76,615	\$64,633	--	\$124,879
55 - 59	2,835	273	319	337	286	523	353	506	217	20	1
	\$65,847	\$39,103	\$47,744	\$56,181	\$57,192	\$66,226	\$78,687	\$85,759	\$84,038	\$71,713	\$3,320
60 - 64	1,458	112	205	200	158	260	138	121	222	42	--
	\$61,598	\$37,339	\$42,028	\$52,524	\$55,115	\$59,989	\$67,433	\$76,607	\$91,799	\$77,306	--
65 - 69	429	44	58	75	63	72	33	30	18	36	--
	\$46,286	\$20,352	\$30,283	\$40,624	\$49,121	\$47,525	\$57,883	\$56,205	\$67,028	\$78,852	--
70 & over	193	29	35	25	29	25	13	12	14	11	--
	\$32,976	\$11,431	\$23,944	\$29,267	\$43,234	\$36,558	\$52,100	\$35,736	\$31,734	\$67,735	--
Total	21,748	6,066	4,253	3,225	2,477	2,925	1,263	931	487	109	12
	\$56,993	\$43,435	\$50,622	\$58,298	\$62,640	\$67,758	\$74,756	\$80,450	\$84,806	\$75,825	\$39,524

Note: Calendar year 2007 payroll figures were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts.

SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-C

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2007	Year Ended December 31, 2006
Contribution income:		
Employer contributions	\$233,897,163	\$221,746,521
Employee contributions	118,156,250	110,896,863
Other contributions	0	3,220,540
Less administrative expenses	<u>-3,457,556</u>	<u>-2,694,034</u>
Net contribution income	\$348,595,857	\$333,169,890
Net investment income	<u>368,013,791</u>	<u>335,622,622</u>
Total income available for benefits	\$716,609,648	\$668,792,512
Less benefit payments:		
Pensions and annuities	\$376,491,501	\$346,647,638
Net 3(8)(c) reimbursements	6,823,598	8,760,420
Refunds to members	<u>13,437,944</u>	<u>12,045,856</u>
Net benefit payments	\$396,753,043	\$367,453,914
Change in reserve for future benefits	\$319,856,605	\$301,338,598

SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-D

Development of the Fund Through December 31, 2007

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
1999	\$147,225,211	\$70,973,269	\$2,591,390	\$279,508,594	\$1,846,794	\$214,187,596	\$2,979,952,843
2000	143,856,789	82,030,990	4,381,849	230,167,878	1,787,246	226,911,018	3,211,692,085
2001	149,820,000	88,766,628	2,945,817	163,719,630	2,129,838	238,636,445	3,376,177,877
2002	156,085,648	98,611,982	4,826,625	-169,224,346	2,145,099	259,440,141	3,204,892,546
2003	158,243,772	100,900,869	4,942,603	217,873,886	1,996,345	300,043,792	3,384,813,539
2004	170,043,070	103,058,989	5,300,071	258,709,415	2,415,427	332,391,543	3,587,118,114
2005	212,307,963	107,336,415	3,303,180	273,445,360	2,399,871	344,304,190	3,836,806,971
2006	221,746,521	110,896,863	3,220,540	335,622,622	2,694,034	367,453,914	4,138,145,569
2007	233,897,163	118,156,250	0	368,013,791	3,457,556	396,753,043	4,458,002,174

* Net of investment fees

SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-E

Development of Unfunded Actuarial Accrued Liability and (Gain)/Loss

	Year Ended	
	December 31, 2007	December 31, 2006
1. Unfunded actuarial accrued liability at beginning of year	\$2,107,249,189	\$2,120,566,133
2. Normal cost at beginning of year	160,945,721	154,015,044
3. Total contributions	-352,053,413	-335,863,924
4. Interest		
(a) For whole year on (1) + (2)	\$181,455,593	\$181,966,494
(b) For half year on (3)	<u>-14,082,137</u>	<u>-13,434,558</u>
(c) Total interest	<u>167,373,456</u>	<u>168,531,936</u>
5. Expected unfunded actuarial accrued liability	\$2,083,514,953	\$2,107,249,189
6. Changes due to:		
(a) Experience loss	-\$14,536,904	--
(b) Assumption changes	<u>40,094,067</u>	--
(c) Total changes	<u>54,540,971</u>	
7. Unfunded actuarial accrued liability at end of year	<u>\$2,138,145,924</u>	

SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-F

Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of Unfunded Liability	(4) Crossover Payments and Future Savings	(5) Total Employer Contributions: (2) + (3) + (4)	(6) Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year
2009	\$59,432,136	\$184,866,652	\$-	\$244,298,788	\$2,222,026,425
2010	62,403,082	201,230,368	111,827,321	375,460,771	2,207,669,478
2011	65,089,721	210,285,735	(14,148,595)	261,226,861	2,058,943,943
2012	67,897,258	219,748,593	(14,148,595)	273,497,256	2,019,827,763
2013	70,831,135	229,637,279	(14,148,595)	286,319,819	1,967,748,198
2014	72,497,036	239,970,957	(14,148,595)	298,319,398	1,901,225,644
2015	74,400,902	250,769,650	(14,148,595)	311,021,957	1,818,642,212
2016	77,748,943	262,054,284	(14,148,595)	325,654,632	1,718,229,775
2017	81,247,645	273,846,727	(14,148,595)	340,945,777	1,598,057,007
2018	84,903,789	286,169,830	(14,148,595)	356,925,024	1,456,015,352
2019	88,724,460	299,047,472	(14,148,595)	373,623,337	1,289,803,820
2020	92,717,061	312,504,608	(14,148,595)	391,073,074	1,096,912,528
2021	96,889,329	326,567,316	(14,148,595)	409,308,050	874,604,866
2022	101,249,349	341,262,845	(14,148,595)	428,363,599	619,898,196
2023	105,805,570	356,619,673	(14,148,595)	448,276,648	329,542,951
2024	110,566,821	-	-	110,566,821	-
2025	115,542,328	-	-	115,542,328	-
2026	120,741,733	-	-	120,741,733	-
2027	126,175,111	-	-	126,175,111	-
2028	131,852,991	-	-	131,852,991	-
2029	137,786,376	-	-	137,786,376	-
2030	143,986,763	-	-	143,986,763	-

Notes: Item (3) increases at 4.50% per year.

Recommended contributions are assumed to be paid monthly.

Fiscal 2009 appropriation set to the prior budgeted amount.

Includes additional expense allowance for fiscal 2009 - 2014 to reflect the costs associated with the new computer system.

SECTION 3: Supplemental Information for the State-Boston Retirement System - All Employees

EXHIBIT 3-G

Department Results

Below is an estimate of the allocation of total employer contributions to each department based on projected July 1, 2008 salaries. Actual contributions will be allocated based on September 1, 2008 salaries.

Department Allocation of Cost

Department	Total Payroll July 1, 2008	Allocation of Cost
Boston Housing Authority	\$37,114,488	\$5,557,727
Boston Redevelopment Authority	9,714,846	1,454,754
Boston Water and Sewer Commission	28,102,354	4,208,201
Public Housing Commission	51,288,022	7,680,150
Suffolk County	62,553,288	9,367,072
All other	<u>690,455,497</u>	<u>103,392,594</u>
Total, excluding Teachers	\$879,228,495	\$131,660,498
Teachers	<u>448,792,352</u>	<u>112,638,290</u>
Total	\$1,328,020,847	\$244,298,788

SECTION 4: Valuation Results for the State-Boston Retirement System - Teachers

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 for the Teachers of the State-Boston Retirement System.

More detailed information for this valuation year can be found in Exhibits 5-A and 5-B.

CHART 4-1
Participant Population

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries	Ratio of Non-Actives to Actives
2007	5,805	1,281	3,693	0.86

SECTION 4: Valuation Results for the State-Boston Retirement System - Teachers

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year's valuation, there were 5,805 active teachers with an average age of 43.8, average years of service of 12.5 years and average payroll of \$72,201.

Among the active teachers, there were 2 participants with unknown service information. The actuarial calculations were adjusted for the missing information by assuming that it was the same as information provided for other active participants with similar known characteristics.

Inactive Participants

In this year's valuation, there were 146 teachers with a vested right to a deferred or immediate vested benefit and 1,135 teachers entitled to a return of their employee contributions.

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

CHART 4-2

Distribution of Active Teachers by Age as of December 31, 2007

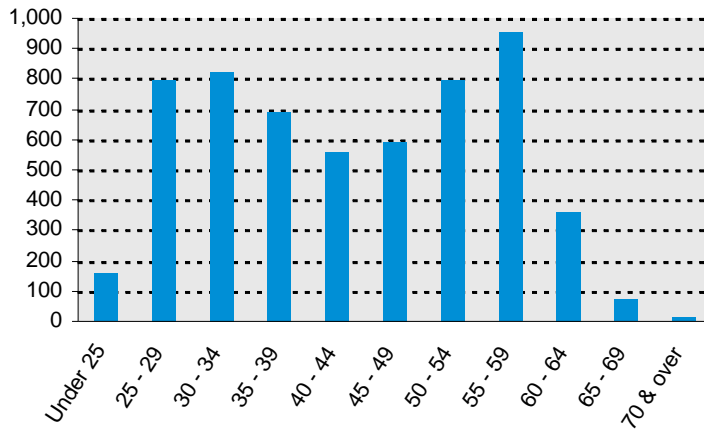
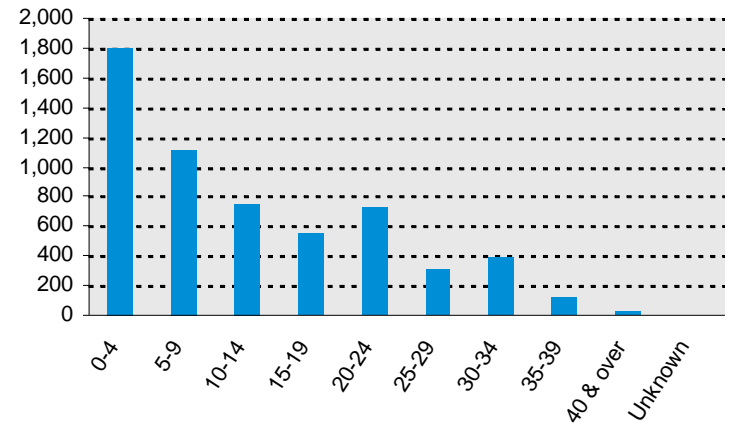


CHART 4-3

Distribution of Active Teachers by Years of Service as of December 31, 2007



SECTION 4: Valuation Results for the State-Boston Retirement System - Teachers

Retired Participants and Beneficiaries

As of December 31, 2007, 3,430 retired teachers and 263 beneficiaries of teachers were receiving total monthly benefits of \$12,027,780, excluding COLAs reimbursed by the Commonwealth.

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

- Beneficiaries
- Accidental Disability
- Ordinary Disability
- Superannuation

CHART 4-4
Distribution of Retired Teachers and Beneficiaries of Teachers by Type and by Monthly Amount as of December 31, 2007

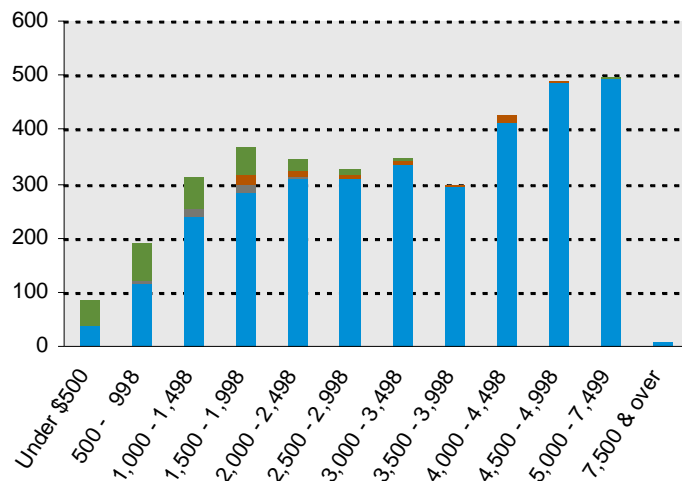
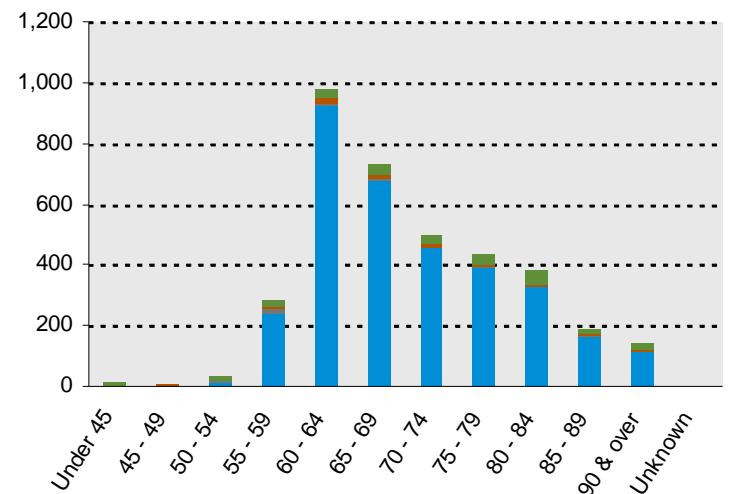


CHART 4-5
Distribution of Retired Teachers and Beneficiaries of Teachers by Type and by Age as of December 31, 2007



SECTION 4: Valuation Results for the State-Boston Retirement System - Teachers

B. FINANCIAL INFORMATION

As discussed in Section 1, 27% of the market value of assets as of December 31, 2007, or \$1,245,660,094, was allocated to the teachers. Similarly, 27% of the actuarial value of assets, or \$1,203,660,587, was allocated to the Teachers.

Income and expenses on behalf of Teachers and All Other Employees will be accounted for separately in 2008 and later years. Future valuation reports will provide a reconciliation of the assets for the Teachers.

SECTION 4: Valuation Results for the State-Boston Retirement System - Teachers

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.

A detailed gain/loss analysis will be done separately for the Teachers with the next valuation.

This valuation reflects the following:

- The mortality table for healthy employees was changed from the 1994 Group Annuity Mortality Table to the RP-2000 Combined Healthy Mortality Table.
- The mortality table for disabled participants was changed from the PBGC Mortality Table for Disabled Lives Receiving Social Security Benefits to the RP-2000 Combined Healthy Mortality Table set forward five years.
- A liability for a deferred retirement allowance has been calculated for inactive vested members.
- An additional allowance to reflect the cost associated with the new computer system has been included in the expense assumption for fiscal 2009 through fiscal 2014. 33.8% of the total expense assumption was allocated to the Teachers based on payroll.

SECTION 4: Valuation Results for the State-Boston Retirement System - Teachers

D. RECOMMENDED CONTRIBUTION

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

We have determined a preliminary recommended contribution of \$116,555,244 based on a 15-year increasing

(4.5% per year) amortization payment. Because the fiscal 2009 appropriation has already been budgeted, the results of this valuation will first be reflected in the fiscal 2010 appropriation. Exhibit 5-C in Section 5 shows the recommended contribution through fiscal 2028 based on this funding schedule.

**CHART 4-6
Recommended Contribution**

	Year Beginning January 1, 2008	
	Amount	% of Payroll
1. Total normal cost	\$52,679,996	12.00%
2. Administrative expenses	1,284,175	0.29%
3. Expected employee contributions	<u>-45,235,496</u>	<u>-10.30%</u>
4. Employer normal cost: (1) + (2) + (3)	\$8,728,675	1.99%
5. Actuarial accrued liability	2,390,182,086	
Retired participants and beneficiaries	\$1,337,282,896	
Active participants	1,022,273,688	
Inactive participants	30,625,502	
6. Actuarial value of assets	<u>1,203,660,587</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$1,186,521,499	
8. Employer normal cost projected to July 1, 2008, adjusted for timing	10,050,223	2.24%
9. Projected unfunded actuarial accrued liability	1,233,069,312	
10. 15-year increasing payment on projected unfunded actuarial accrued liability, adjusted for timing	106,505,021	23.73%
11. Preliminary recommended contribution: (8) + (10)	116,555,244	25.97%
12. Budgeted appropriation	<u>112,638,290</u>	<u>25.10%</u>
13. Projected payroll	\$448,792,352	

Notes: Recommended contributions are assumed to be paid monthly.

Amortization payments increase at 4.5% per year.

\$2.3 million was added to the expense assumption for fiscal 2009 to reflect the costs associated with the new computer system.

This additional \$2.3 million was allocated between Teachers and All Other Employees by payroll.

SECTION 5: Supplemental Information for the State-Boston Retirement System - Teachers

EXHIBIT 5-A

Table of Plan Coverage

Category	Year Ended December 31, 2007
Active participants in valuation:	
Number	5,805
Average age	43.8
Average service	12.5
Total payroll	\$419,124,229
Average payroll	72,201
Member contributions	\$359,746,906
Number with unknown age and/or service information	2
Inactive participants with a vested right to a deferred or immediate benefit	146
Inactive participants entitled to a return of their employee contributions	1,135
Retired participants:	
Number in pay status	3,316
Average age	70.0
Average monthly benefit	\$3,441
Disabled participants:	
Number in pay status	114
Average age	67.3
Average monthly benefit	\$2,460
Beneficiaries in pay status	263

SECTION 5: Supplemental Information for the State-Boston Retirement System - Teachers

EXHIBIT 5-B

**Participants in Active Service as of December 31, 2007
By Age, Years of Service, and Average Payroll**

Age	Years of Service										Unknown	
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	155	155	--	--	--	--	--	--	--	--	--	--
	\$50,425	\$50,425	--	--	--	--	--	--	--	--	--	--
25 - 29	793	687	103	3	--	--	--	--	--	--	--	--
	\$55,915	\$54,718	\$63,763	\$60,535	--	--	--	--	--	--	--	--
30 - 34	820	407	347	60	6	--	--	--	--	--	--	--
	\$64,754	\$59,199	\$69,476	\$73,957	\$76,486	--	--	--	--	--	--	--
35 - 39	692	189	224	220	48	10	--	--	--	--	--	1
	\$70,226	\$61,297	\$70,704	\$75,755	\$76,049	\$74,554	--	--	--	--	--	\$111,760
40 - 44	560	111	127	125	143	52	2	--	--	--	--	--
	\$74,442	\$64,561	\$71,015	\$77,852	\$80,453	\$79,474	\$66,640	--	--	--	--	--
45 - 49	595	100	102	104	110	152	27	--	--	--	--	--
	\$74,555	\$61,244	\$71,896	\$75,347	\$79,994	\$78,921	\$84,111	--	--	--	--	--
50 - 54	793	74	99	97	115	192	135	81	--	--	--	--
	\$79,455	\$62,942	\$73,183	\$79,165	\$79,833	\$82,654	\$85,147	\$84,947	--	--	--	--
55 - 59	951	61	74	90	79	224	92	263	66	1	1	1
	\$82,930	\$65,730	\$77,856	\$79,152	\$83,205	\$81,624	\$86,310	\$88,125	\$89,469	\$88,944	\$88,944	\$3,320
60 - 64	362	15	35	40	42	85	42	34	56	13	--	--
	\$84,262	\$96,028	\$76,407	\$78,676	\$83,149	\$82,409	\$83,669	\$89,630	\$90,100	\$87,452	--	--
65 - 69	70	4	2	8	8	10	8	8	4	18	--	--
	\$81,589	\$57,183	\$58,283	\$74,809	\$79,984	\$80,400	\$77,687	\$86,793	\$88,701	\$91,832	--	--
70 & over	14	--	1	--	4	3	3	1	1	1	--	--
	\$81,253	--	\$77,594	--	\$83,945	\$76,078	\$78,291	\$63,977	\$84,541	\$112,550	--	--
Total	5,805	1,803	1,114	747	555	728	309	387	127	33	2	2
	\$72,201	\$58,077	\$70,683	\$76,842	\$80,424	\$81,132	\$84,822	\$87,502	\$89,684	\$90,647	\$57,541	--

SECTION 5: Supplemental Information for the State-Boston Retirement System - Teachers

EXHIBIT 5-C

Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of Unfunded Liability	(4) Total Employer Contributions: (2) + (3)	(5) Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year
2009	\$10,050,223	\$102,588,067	\$112,638,290	\$1,233,069,312
2010	10,602,682	111,668,785	122,271,467	1,225,102,211
2011	11,038,743	116,693,881	127,732,624	1,207,060,782
2012	11,494,427	121,945,106	133,439,533	1,182,353,807
2013	11,970,616	127,432,635	139,403,251	1,150,213,040
2014	11,995,117	133,167,104	145,162,221	1,109,798,204
2015	12,075,805	139,159,622	151,235,427	1,060,190,747
2016	12,619,216	145,421,806	158,041,022	1,000,387,085
2017	13,187,081	151,965,786	165,152,867	929,291,278
2018	13,780,500	158,804,247	172,584,747	845,707,102
2019	14,400,623	165,950,438	180,351,061	748,329,456
2020	15,048,651	173,418,208	188,466,859	635,735,058
2021	15,725,840	181,222,029	196,947,869	506,372,375
2022	16,433,503	189,377,020	205,810,523	358,550,708
2023	17,173,011	197,898,985	215,071,996	190,428,392
2024	17,945,796	-	17,945,796	-
2025	18,753,357	-	18,753,357	-
2026	19,597,258	-	19,597,258	-
2027	20,479,135	-	20,479,135	-
2028	21,400,696	-	21,400,696	-
2029	22,363,727	-	22,363,727	-
2030	23,370,095	-	23,370,095	-

Notes: Item (3) increases at 4.50% per year.

Recommended contributions are assumed to be paid monthly.

Fiscal 2009 appropriation set to the prior budgeted amount.

Includes additional expense allowance for fiscal 2009 - 2014 to reflect the costs associated with the new computer system.

SECTION 6: Valuation Results for the State-Boston Retirement System – All Other Employees

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 for All Other Employees of the State-Boston Retirement.

More detailed information for this valuation year can be found in Exhibits 7-A and 7-B.

CHART 6-1

Participant Population:

Year Ended December 31	Active Participants	Inactive Participants	Retired Participants and Beneficiaries	Ratio of Non-Actives to Actives
2007	15,943	4,959	10,246	0.95

SECTION 6: Valuation Results for the State-Boston Retirement System – All Other Employees

Active Participants

Plan costs are affected by the age, years of service and payroll of active participants. In this year’s valuation, there were 15,943 active participants with an average age of 45.3, average years of service of 12.9 years and average payroll of \$51,456.

Among the active participants, there were 10 participants with unknown service information. The actuarial calculations were adjusted for the missing information by assuming that it was the same as

information provided for other active participants with similar known characteristics.

Inactive Participants

In this year’s valuation, there were 650 participants with a vested right to a deferred or immediate vested benefit and 4,309 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 6-2
Distribution of Active Participants by Age as of December 31, 2007

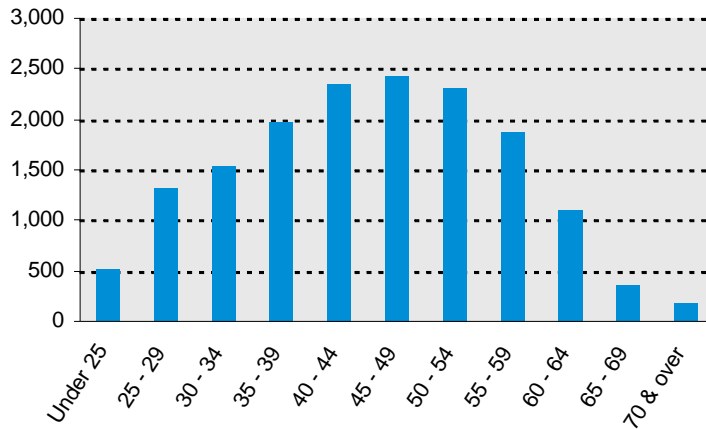
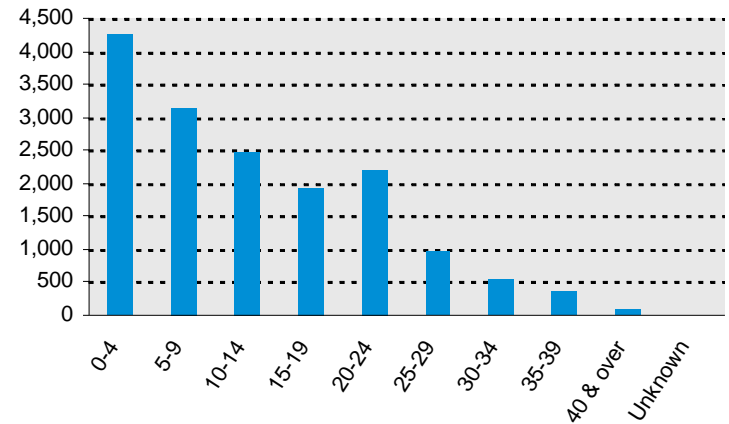


CHART 6-3
Distribution of Active Participants by Years of Service as of December 31, 2007



SECTION 6: Valuation Results for the State-Boston Retirement System – All Other Employees

Retired Participants and Beneficiaries

As of December 31, 2007, 7,768 retired participants and 2,478 beneficiaries were receiving total monthly benefits of \$18,895,361, excluding COLAs reimbursed by the Commonwealth.

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

CHART 6-4
Distribution of Retired Participants and Beneficiaries by Type and by Monthly Amount as of December 31, 2007

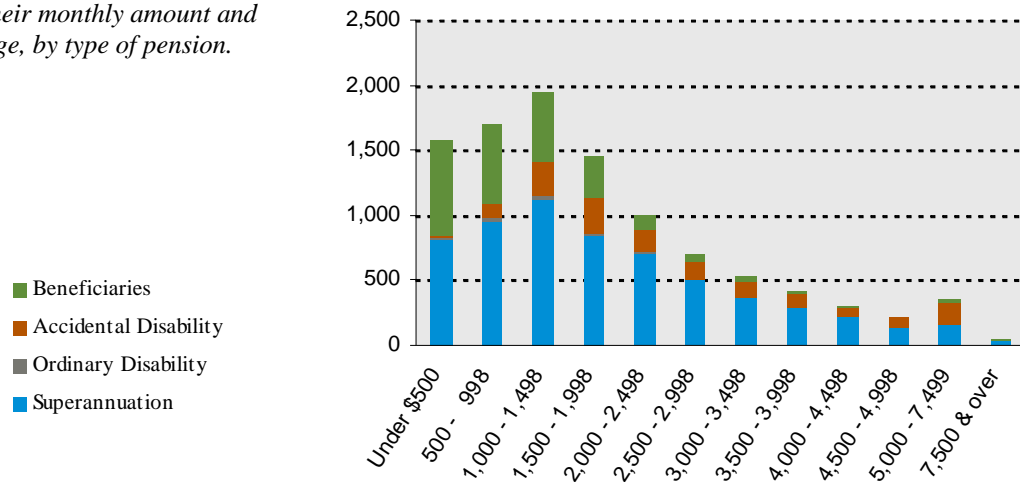
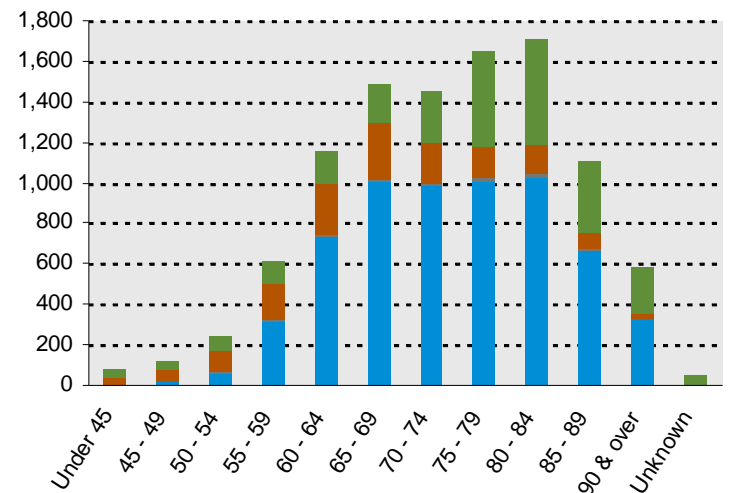


CHART 6-5
Distribution of Retired Participants and Beneficiaries by Type and by Age as of December 31, 2007



SECTION 6: Valuation Results for the State-Boston Retirement System – All Other Employees

B. FINANCIAL INFORMATION

The assets allocated to All Other Employees as of December 31, 2007 were \$3,367,895,811 on a market value basis and \$3,254,341,587 on an actuarial value basis.

Income and expenses on behalf of Teachers and All Other Employees will be accounted for separately in 2008 and later years. Future valuation reports will provide a reconciliation of the assets for All Other Employees.

SECTION 6: Valuation Results for the State-Boston Retirement System – All Other Employees

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.

A detailed gain/loss analysis will be done separately for All Other Employees with the next valuation.

This valuation reflects the following:

- The mortality table for healthy employees was changed from the 1994 Group Annuity Mortality Table to the RP-2000 Combined Healthy Mortality Table.
- The mortality table for disabled participants was changed from the PBGC Mortality Table for Disabled Lives Receiving Social Security Benefits to the RP-2000 Combined Healthy Mortality Table set forward five years.
- A liability for a deferred retirement allowance has been calculated for inactive vested members.
- An additional allowance to reflect the cost associated with the new computer system has been included in the expense assumption for fiscal 2009 through fiscal 2014. 66.2% of the total expense assumption was allocated to All Other Employees based on payroll.

SECTION 6: Valuation Results for the State-Boston Retirement System – All Other Employees

D. RECOMMENDED CONTRIBUTION

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

We have determined a preliminary recommended contribution of \$134,802,007 on a 15-year increasing (4.5% per year) amortization payment. Because the fiscal

2009 appropriation has already been budgeted, the results of this valuation will first be reflected in the fiscal 2010 appropriation. Exhibit 7-C in Section 7 shows the recommended contribution through fiscal 2028 based on this funding schedule, including the crossover payment (refer to Section 1) in fiscal 2010.

**CHART 6-6
Recommended Contribution**

	Year Beginning January 1, 2008	
	Amount	% of Payroll
1. Total normal cost	\$118,832,957	13.82%
2. Administrative expenses	2,515,825	0.29%
3. Expected employee contributions	<u>-76,298,740</u>	<u>-8.87%</u>
4. Employer normal cost: (1) + (2) + (3)	\$45,050,042	5.24%
5. Actuarial accrued liability	4,205,966,012	
Retired participants and beneficiaries	\$2,009,560,600	
Active participants	2,125,745,731	
Inactive participants	70,659,681	
6. Actuarial value of assets	<u>3,254,341,587</u>	
7. Unfunded actuarial accrued liability: (5) - (6)	\$951,624,425	
8. Employer normal cost projected to July 1, 2008, adjusted for timing	49,381,913	5.62%
9. Projected unfunded actuarial accrued liability	988,957,112	
10. 15-year increasing payment on projected unfunded actuarial accrued liability, adjusted for timing	85,420,094	9.72%
11. Preliminary recommended contribution: (8) + (10)	134,802,007	15.33%
12. Budgeted appropriation	<u>131,660,498</u>	<u>14.97%</u>
13. Projected payroll	\$879,228,494	

Notes: Recommended contributions are assumed to be paid monthly.
Amortization payments increase at 4.5% per year.

\$2.3 million was added to the expense assumption for fiscal 2009 to reflect the costs associated with the new computer system.
This additional \$2.3 million was allocated between Teachers and All Other Employees by payroll.

SECTION 7: Supplemental Information – All Other Employees

EXHIBIT 7-A

Table of Plan Coverage

Category	Year Ended December 31, 2007
Active participants in valuation:	
Number	15,943
Average age	45.3
Average service	12.9
Total payroll*	\$820,362,449
Average payroll*	51,456
Member contributions	\$736,426,989
Number with unknown age and/or service information	10
Inactive participants with a vested right to a deferred or immediate benefit	
	650
Inactive participants entitled to a return of their employee contributions	
	4,309
Retired participants:	
Number in pay status	6,134
Average age	74.2
Average monthly benefit	\$1,907
Disabled participants:	
Number in pay status	1,634
Average age	67.1
Average monthly benefit	\$2,669
Beneficiaries in pay status	
	2,478

* Calendar year 2007 payroll figures were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts.

SECTION 7: Supplemental Information – All Other Employees

EXHIBIT 7-B

**Participants in Active Service as of December 31, 2007
By Age, Years of Service, and Average Payroll**

Age	Years of Service										
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	Unknown
Under 25	516	506	10	--	--	--	--	--	--	--	--
	\$33,159	\$33,193	\$31,474	--	--	--	--	--	--	--	--
25 - 29	1,313	1,045	250	14	--	--	--	--	--	--	4
	\$42,011	\$41,726	\$43,636	\$38,588	--	--	--	--	--	--	\$26,888
30 - 34	1,544	706	596	230	12	--	--	--	--	--	--
	\$47,835	\$44,282	\$50,658	\$51,265	\$50,891	--	--	--	--	--	--
35 - 39	1,977	526	536	580	250	85	--	--	--	--	--
	\$52,447	\$38,008	\$50,412	\$63,031	\$58,913	\$63,399	--	--	--	--	--
40 - 44	2,339	418	453	467	532	447	20	--	--	--	2
	\$54,414	\$33,654	\$44,833	\$58,330	\$65,224	\$66,093	\$67,423	--	--	--	\$33,121
45 - 49	2,430	392	411	371	415	624	202	12	--	--	3
	\$54,156	\$31,770	\$38,870	\$50,567	\$61,695	\$69,955	\$69,933	\$80,580	--	--	\$20,179
50 - 54	2,306	292	378	317	310	483	340	169	16	--	1
	\$54,286	\$34,865	\$37,094	\$42,184	\$53,256	\$66,864	\$74,626	\$72,621	\$64,633	--	\$124,879
55 - 59	1,884	212	245	247	207	299	261	243	151	19	--
	\$57,224	\$31,441	\$38,649	\$47,811	\$47,264	\$54,690	\$76,001	\$83,199	\$81,664	\$70,806	--
60 - 64	1,096	97	170	160	116	175	96	87	166	29	--
	\$54,112	\$28,263	\$34,949	\$45,986	\$44,965	\$49,100	\$60,330	\$71,517	\$92,372	\$72,758	--
65 - 69	359	40	56	67	55	62	25	22	14	18	--
	\$39,402	\$16,669	\$29,283	\$36,542	\$44,632	\$42,223	\$51,546	\$45,082	\$60,836	\$65,873	--
70 & over	179	29	34	25	25	22	10	11	13	10	--
	\$29,201	\$11,431	\$22,367	\$29,267	\$36,720	\$31,169	\$44,243	\$33,169	\$27,672	\$63,253	--
Total	15,943	4,263	3,139	2,478	1,922	2,197	954	544	360	76	10
	\$51,456	\$37,242	\$43,503	\$52,707	\$57,504	\$63,326	\$71,496	\$75,434	\$83,085	\$69,389	\$35,921

Note: Calendar year 2007 payroll figures were increased by 3.275% for firefighters and police superior officers to reflect unsettled bargaining contracts.

SECTION 7: Supplemental Information – All Other Employees

EXHIBIT 7-C

Funding Schedule

(1) Fiscal Year Ended June 30	(2) Employer Normal Cost	(3) Amortization of Unfunded Liability	(4) Crossover Payments and Future Savings	(5) Total Employer Contributions: (2) + (3) + (4)	(6) Unfunded Actuarial Accrued Liability at Beginning of Fiscal Year
2009	\$49,381,914	\$82,278,584	\$-	\$131,660,498	\$988,957,112
2010	51,800,401	89,561,582	111,827,321	253,189,304	982,567,268
2011	54,050,979	93,591,853	(14,148,595)	133,494,237	851,883,162
2012	56,402,833	97,803,485	(14,148,595)	140,057,723	837,473,959
2013	58,860,520	102,204,643	(14,148,595)	146,916,568	817,535,163
2014	60,501,920	106,803,852	(14,148,595)	153,157,178	791,427,446
2015	62,325,099	111,610,026	(14,148,595)	159,786,530	758,451,473
2016	65,129,728	116,632,477	(14,148,595)	167,613,610	717,842,700
2017	68,060,566	121,880,939	(14,148,595)	175,792,910	668,765,741
2018	71,123,291	127,365,581	(14,148,595)	184,340,277	610,308,264
2019	74,323,839	133,097,032	(14,148,595)	193,272,276	541,474,381
2020	77,668,412	139,086,398	(14,148,595)	202,606,215	461,177,490
2021	81,163,491	145,345,285	(14,148,595)	212,360,181	368,232,515
2022	84,815,848	151,885,823	(14,148,595)	222,553,076	261,347,516
2023	88,632,561	158,720,686	(14,148,595)	233,204,652	139,114,591
2024	92,621,026	-	-	92,621,026	-
2025	96,788,972	-	-	96,788,972	-
2026	101,144,476	-	-	101,144,476	-
2027	105,695,977	-	-	105,695,977	-
2028	110,452,296	-	-	110,452,296	-
2029	115,422,649	-	-	115,422,649	-
2030	120,616,668	-	-	120,616,668	-

Notes: Item (3) increases at 4.50% per year.
 Recommended contributions are assumed to be paid monthly.
 Fiscal 2009 appropriation set to the prior budgeted amount.
 Includes additional expense allowance for fiscal 2009 - 2014 to reflect the costs associated with the new computer system.

SECTION 8: Definitions of 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

SECTION 8: Definitions of Terms

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.

SECTION 9: Reporting Information for the State-Boston Retirement System

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 2,741 beneficiaries in pay status)	13,939
2. Participants active during the year ended December 31, 2007 (including 12 participants with unknown years of service with total accumulated contributions of \$1,096,173,895 and projected payroll of \$1,299,112,457)	21,748
3. Inactive participants as of December 31, 2007 with a right to a return of their employee contributions	5,444
4. Inactive participants as of December 31, 2007 with a vested right to a deferred or immediate benefit	796

The actuarial factors as of January 1, 2008 are as follows:

1. Total normal cost	\$171,512,953
2. Administrative expenses	3,800,000
3. Expected employee contributions	<u>-121,534,236</u>
4. Employer normal cost: (1) + (2) + (3)	\$53,778,717
5. Actuarial accrued liability	6,596,148,098
Retired participants and beneficiaries	\$3,346,843,496
Active participants	3,148,019,419
Inactive participants	101,285,183
6. Actuarial value of assets (\$4,613,555,905 at market value as reported in the Annual Statement)	4,458,002,174
7. Unfunded actuarial accrued liability: (5) – (6)	2,138,145,924

The actuarial factors projected to July 1, 2008 are as follows:

1. Projected employer normal cost, adjusted for timing	\$59,432,136
2. Projected unfunded actuarial accrued liability	2,222,026,425
3. 15-year payment on projected unfunded actuarial accrued liability, adjusted for timing	191,925,115
4. Preliminary recommended contribution: (1) + (3)	251,357,251
5. Budgeted appropriation based on 2006 valuation	244,298,788
6. Projected payroll	1,328,020,847

Notes: Payments increase at 4.50% per year.

Recommended contributions are assumed to be paid monthly.

\$2.3 million was added to the expense assumption for fiscal 2009 to reflect the costs associated with the new computer system.

SECTION 9: Reporting Information for the State-Boston Retirement System

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
1999	\$142,502,000	\$142,502,000	100.0%
2000	145,541,000	145,541,000	100.0%
2001	146,882,000	146,882,000	100.0%
2002	152,882,000	152,882,000	100.0%
2003	157,064,000	157,064,000	100.0%
2004	164,069,000	164,069,000	100.0%
2005	191,132,000	191,132,000	100.0%
2006	217,088,000	217,088,000	100.0%
2007	227,822,000	227,822,000	100.0%

SECTION 9: Reporting Information for the State-Boston Retirement System

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)
01/01/1999	\$2,772,000,000	\$3,793,000,000	\$1,021,000,000	73.08%	\$803,000,000	127.15%
01/01/2000	2,979,953,000	4,101,383,000	1,121,430,000	72.66%	943,167,000	118.90%
01/01/2001	3,211,692,000	4,256,714,000	1,045,022,000	75.45%	990,325,000	105.52%
01/01/2002	3,371,716,000	4,796,130,000	1,424,414,000	70.30%	1,052,420,000	135.35%
01/01/2003	3,204,893,000	5,121,319,000	1,916,426,000	62.58%	1,099,779,000	174.26%
01/01/2004	3,384,814,000	5,420,842,000	2,036,028,000	62.44%	1,067,492,000	190.73%
01/01/2005	3,587,118,000	5,664,288,000	2,077,170,000	63.33%	1,115,529,000	186.20%
01/01/2006	3,836,807,000	5,957,373,000	2,120,566,000	64.40%	1,168,808,000	181.43%
01/01/2007	4,138,146,000	6,223,154,000	2,085,008,000	66.50%	1,221,404,000	170.71%
01/01/2008	4,458,002,000	6,596,148,000	2,138,146,000	67.58%	1,299,112,000	164.59%

* *Not less than zero*

SECTION 9: Reporting Information for the State-Boston Retirement System

EXHIBIT IV

Supplementary Information Required by the GASB

Valuation date	January 1, 2008
Actuarial cost method	Entry Age Normal Cost Method
Amortization method	Payments increasing 4.50% per year
Remaining amortization period	15 years remaining as of January 1, 2008
Asset valuation method	Sum of actuarial value at beginning of the year, contributions and investment earnings based on the actuarial interest assumption less benefit payments and operating expenses plus 20% of market value at end of year in excess of that sum, plus additional adjustment toward market value as necessary so that final actuarial value is within 20% of market value. Similar formula used for negative adjustment toward market value if actuarial value exceeds market value.
Actuarial assumptions:	
Investment rate of return	8.00%
Projected salary increases	5.00%
Cost of living adjustments	3.00% for the first \$12,000 of retirement income
Plan membership:	
Retired participants and beneficiaries receiving benefits	13,939
Inactive participants entitled to a return of their employee contributions	5,444
Inactive participants with a vested right to a deferred or immediate benefit	796
Active participants	<u>21,748</u>
Total	41,927

SECTION 9: Reporting Information for the State-Boston Retirement System

EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy: RP-2000 Combined Healthy Mortality Table (previously, 1994 Group Annuity Mortality Table)

Disabled: RP-2000 Combined Healthy Mortality Table set forward five years (previously, PBGC Mortality Table for disabled lives receiving Social Security benefits)

Termination Rates before Retirement:

Age	Groups 1 and 2 - Rate (%)			
	Mortality		Disability	Withdrawal
	Male	Female		
20	0.03	0.02	0.06	6.58
25	0.04	0.02	0.09	5.27
30	0.04	0.03	0.11	4.83
35	0.08	0.05	0.15	4.47
40	0.11	0.07	0.22	3.84
45	0.15	0.11	0.36	3.21
50	0.21	0.17	0.61	1.52
55	0.36	0.27	1.01	0.33
60	0.67	0.51	1.63	0.00

Notes: 50% of the disability rates shown represent accidental disability.
 20% of the accidental disabilities will die from the same cause as the disability.
 20% of the death rates shown represent accidental death.

SECTION 9: Reporting Information for the State-Boston Retirement System

Age	Group 4 - Rate (%)			
	Mortality		Disability	Withdrawal
	Male	Female		
20	0.03	0.02	0.12	0.00
25	0.04	0.02	0.17	0.00
30	0.04	0.03	0.22	0.00
35	0.08	0.05	0.29	0.00
40	0.11	0.07	0.44	0.00
45	0.15	0.11	0.72	0.00
50	0.21	0.17	1.21	0.00
55	0.36	0.27	2.02	0.00
60	0.67	0.51	3.25	0.00

*Notes: 90% of the disability rates shown represent accidental disability.
 60% of the accidental disabilities will die from the same cause as the disability.
 50% of the death rates shown represent accidental death.*

Retirement Rates:

Age	Rate (%)			
	Groups 1 and 2	TARP	Age	Group 4
55	3.0	3.0	50	1.0
56	3.0	7.5	51	1.0
57	3.0	25.0	52	1.0
58	3.0	25.0	53	1.0
59	3.0	25.0	54	1.0
60	8.0	18.0	55	10.0
61	8.0	18.0	56	5.0
62	15.0	25.0	57	5.0
63	10.0	20.0	58	5.0
64	10.0	20.0	59	5.0
65	35.0	35.0	60	10.0
66	20.0	20.0	61	15.0

SECTION 9: Reporting Information for the State-Boston Retirement System

Retirement Rates (continued):

		Rate (%)			
Age	Groups 1 and 2	TARP	Age	Group 4	
67	20.0	20.0	62	15.0	
68	20.0	20.0	63	15.0	
69	20.0	20.0	64	25.0	
70	100.00	100.0	65	100.00	

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

Age of Spouse: Females 3 years younger than their spouses.

Percent Married: 75%

Net Investment Return: 8.00%

Salary Increases:

Age	Present salary as a percent of salary at 65	Annual increase rate (%)
20	11.13%	5.0
25	14.20	5.0
30	18.13	5.0
35	23.14	5.0
40	29.53	5.0
45	37.69	5.0
50	48.10	5.0
55	61.39	5.0
60	78.35	5.0

Includes allowance for inflation of 4.5%.

Interest on Employee Contributions: 3.5%

SECTION 9: Reporting Information for the State-Boston Retirement System

Administrative Expenses: \$3,800,000 for calendar 2008, increasing 4.5% per year plus the following amounts to reflect the costs associated with the new computer system:

Fiscal 2009	\$2,300,000	Fiscal 2012	\$2,700,000
Fiscal 2010	2,700,000	Fiscal 2013	2,700,000
Fiscal 2011	2,700,000	Fiscal 2014	1,300,000

2007 Salary: 2007 salary equal to salaries provided in the data, except for new hires where salaries were annualized.

The salaries of firefighters and superior police officers were increased by 3.275% to reflect unsettled bargaining agreements.

Total Service: Total creditable service based on date of hire.

Actuarial Value of Assets: A preliminary actuarial value is first determined by taking the actuarial value of assets at the beginning of the year and adding assumed investment earnings (at the assumed actuarial rate of return) and the net new money during the year (contributions less benefit payments and administrative expenses). Twenty percent of the difference between the market value of assets and the preliminary actuarial value of assets is added to the preliminary actuarial value. In order that the actuarial value not differ too significantly from the market value of assets (as reported in the Annual Statement), the final actuarial value of assets must be within 20% of the market value of assets.

Market value of assets as reported in the Annual Statement.

Actuarial Cost Method: Entry Age Normal Actuarial Cost Method. Entry Age is the age of the participant at Date of Hire. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salary.

SECTION 9: Reporting Information for the State-Boston Retirement System

Changes in Assumptions:

This valuation reflects the following:

- The mortality table for healthy employees was changed from the 1994 Group Annuity Mortality Table to the RP-2000 Combined Healthy Mortality Table.
- The mortality table for disabled participants was changed from the PBGC Mortality Table for Disabled Lives Receiving Social Security Benefits to the RP-2000 Combined Healthy Mortality Table set forward five years.
- A liability for a deferred retirement allowance has been calculated for inactive vested members.

SECTION 9: Reporting Information for the State-Boston Retirement System

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

SECTION 9: Reporting Information for the State-Boston Retirement System

TARP – Chapter 114 of the Acts of 2000 provides enhanced retirement benefits to teachers who elect to participate in the program and to all teachers hired on or after July 1, 2001. The retirement allowance of a participating teacher with 30 or more years of service is increased by an additional 2 percent for each full year of creditable service in excess of 24 years, up to the statutory maximum of 80 percent of the member’s three-year salary average.

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 \$30,000 cap on salary used in a benefit determination for any employee hired after January 1, 1979 has been removed.

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

<u>Date of Hire</u>	<u>Contribution Rate</u>
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.

SECTION 9: Reporting Information for the State-Boston Retirement System

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 \$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

SECTION 9: Reporting Information for the State-Boston Retirement System

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 by 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 plan provisions since the last valuation.
