

Town of Brookline

*Actuarial Valuation and Review of Other Postemployment
Benefits (OPEB) as of June 30, 2008
In accordance with GASB Statements Number 43 and 45
DRAFT*

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October 1, 2008

*Mr. Stephen E. Cirillo
Director of Finance
333 Washington Street
Town Hall
Brookline, MA 02445*

Dear Steve:

We are pleased to submit this report on our actuarial valuation of postemployment welfare benefits as of June 30, 2008 under GASB Statements Number 43 and 45. It establishes the liabilities of the postemployment welfare benefit plan in accordance with GASB Statements Number 43 and 45 for the current year and summarizes the actuarial data.

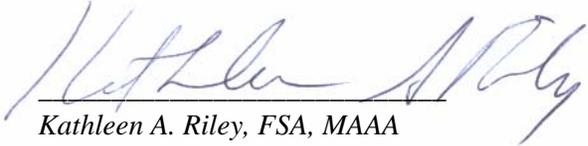
This report is based on information received from the Town. The actuarial projections were based on the assumptions and methods described in Exhibit II and on the plan of benefits as summarized in Exhibit III.

We look forward to discussing this material with you at your convenience.

Sincerely,

THE SEGAL COMPANY

By:


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

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SECTION 1: Introduction for Town of Brookline June 30, 2008 Measurement under GASB

PURPOSE

This report presents the results of our actuarial valuation of Town of Brookline (the “Employer”) postemployment welfare benefit plan as of June 30, 2008. The results are in accordance with the Governmental Accounting Standards, which prescribe an accrual methodology for accumulating the value of other postemployment benefits (OPEB) over participants’ active working lifetimes. The accounting standard supplements cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The results of the valuation show a significant increase in expense for OPEB compared to the current accounting method.

HIGHLIGHTS OF THE VALUATION

During the fiscal year ending June 30, 2009, we project the Town will pay premiums (net of retiree contributions) on behalf of retired employees of about \$9,532,000. Under prior accounting rules, this is the Town’s “cost” of those benefit programs for retirees. Under new accounting rules, the annual “cost” will increase to \$15,578,000 (pre-funded) and \$20,503,000 (pay-as-you-go).

The GASB statements provide the method for selecting the investment return assumption (discount rate). If the benefits are pre-funded, the discount rate should be based on the estimated long-term investment yield on the investments expected to be used to finance the payment of benefits. If financing continues to be pay-as-you-go, the discount rate should be based on the expected yield on the assets of the employer. For the purpose of this valuation, we have used

8.25% and 5.25%, respectively, for pre-funded and pay-as-you-go.

To be considered a prefunded plan, the “contribution in relation to the ARC” must equal the ARC. For example, if the ARC is \$15,578,000, and the employer pays premiums, claims, and expenses to retirees of \$9,532,000, then an additional contribution of the difference, or approximately \$6,045,000 will need to be added to an OPEB trust fund during the fiscal year ending June 30, 2009.

Assets set aside to fund OPEB liabilities must be held in a trust or equivalent arrangement, through which assets are accumulated and benefits are paid as they come due.

Employer contributions to the plan are irrevocable, plan assets are dedicated to providing benefits to retirees and their spouses in accordance with the terms of the plan, and plan assets are legally protected from creditors of the employer.

GASB guidelines prohibit the offset of OPEB obligations by the future value of Medicare Part D subsidies. Therefore, these calculations do not include an estimate for retiree prescription drug plan federal subsidies that the Employer may be eligible to receive for plan years beginning in 2006.

Employer decisions regarding plan design, cost sharing between the Employer and its retirees, actuarial cost method, amortization techniques, and integration with Medicare are just some of the decisions that affect the magnitude of OPEB obligations. We are available to assist you with any investigation of such options you may wish to undertake.

SECTION 1: Introduction for Town of Brookline June 30, 2008 Measurement under GASB

- The **unfunded actuarial accrued liability (UAAL)** as of June 30, 2008 is \$209,127,000 (pre-funded) and \$323,225,000 (pay-as-you-go). Going forward, net unfunded plan obligations will be expected to change due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total actuarial accrued liability, less expected benefit payments and contributions. Future valuations will analyze the difference between actual and expected unfunded actuarial accrued liabilities.
 - As of June 30, the ratio of assets to the AAL (the funded ratio) is 0%.
- The **Annual Required Contribution (ARC)** is \$15,578,000 (pre-funded) and \$20,503,000 (pay-as-you-go) this year. The ARC is expected to remain relatively level as a percentage of payroll, as long as the ARC is fully funded each year. If the ARC is not fully funded, it may be expected to increase as a percentage of payroll over time.
- **Valuation assumption and plan changes** decreased obligations by \$38,148,000. This was the net result of a *decrease* in obligations due to valuation-year per capita health costs that did not increase as much as expected due to experience and plan changes, a *decrease* in obligations due to lowering the percent married and enrollment assumptions, partially offset by an *increase* in obligations due to a change in the mortality assumption and a change in the future trend on per capita health care costs, based on our projections of what is likely to occur in the marketplace. The complete set of assumptions is shown in Exhibit II.

Plan obligations of \$209,127,000 (pre-funded) as of June 30, 2008 represent an increase of \$2,106,000 from \$207,021,000 as shown in the June 30, 2006 valuation.

Plan obligations had been expected to increase \$69,518,000 due to normal plan operations, which consist of continuing accruals for active members, plus interest on the total obligation, less expected benefit payments. The decrease was the net effect of changes in the assumptions:

- An **actuarial experience gain** decreased obligations by \$29,264,000. This was the net result of gains and losses due to demographic changes.

ACCOUNTING REQUIREMENTS

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*, and Statement Number 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. Under these statements, all state and local governmental entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements.

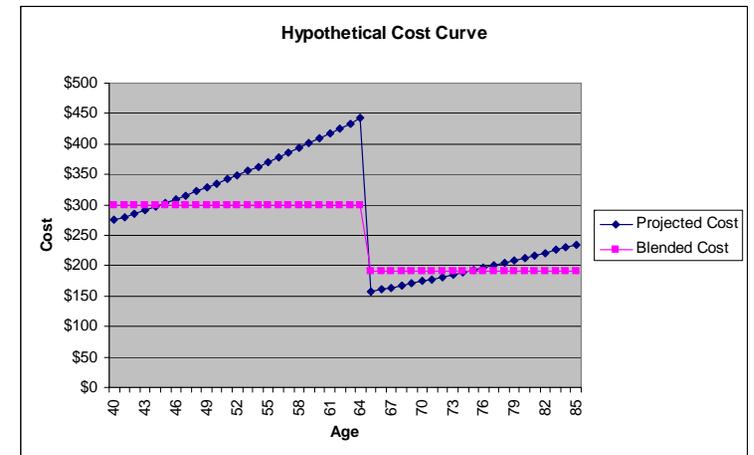
The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are *not* offered as part of a pension plan; and long-term disability insurance for employees. These benefits, referred to as OPEB, are typically financed on a pay-as-you-go basis. The new standard introduces an accrual-basis accounting requirement; thereby recognizing the employer cost of postemployment benefits over an employee’s career. The standards also introduce a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made and any difference is reported as the net OPEB obligation (NOO). In addition, required supplementary information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan.

The benefits valued in this report are limited to those described in Exhibit III of Section 4.

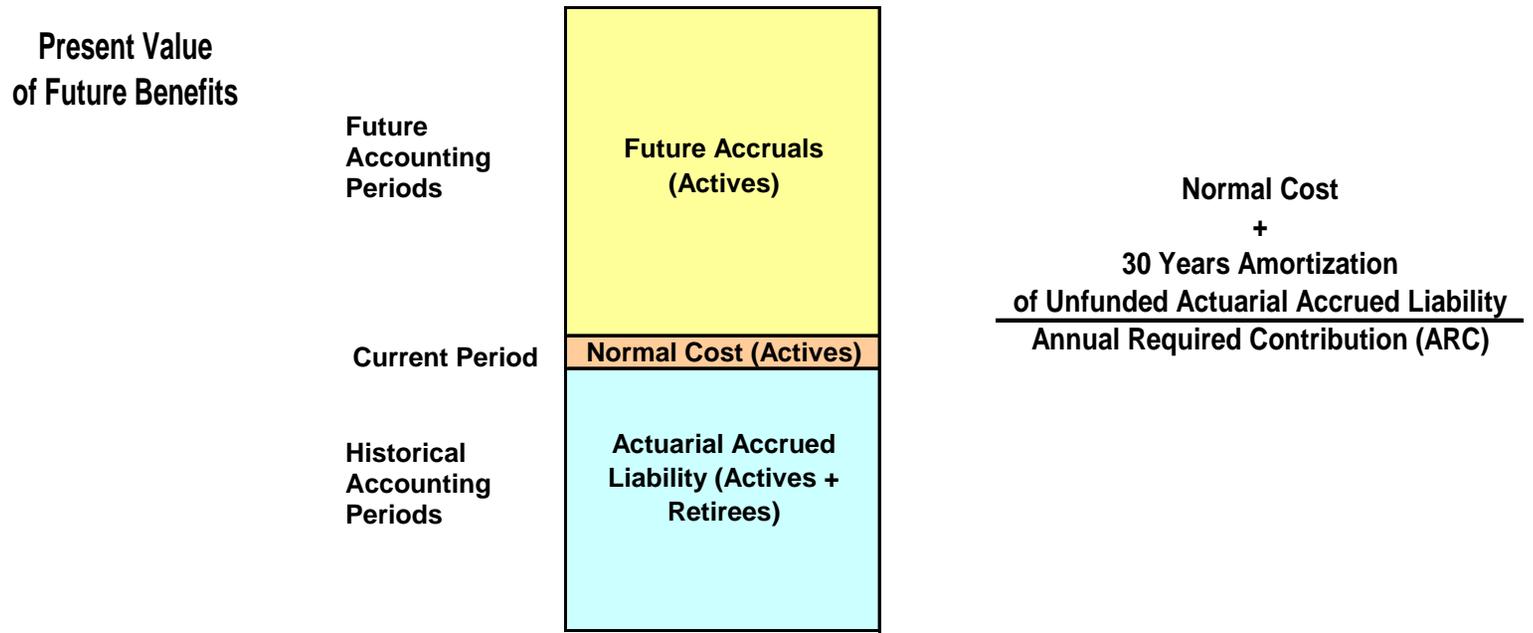
The following graph illustrates why a significant accounting obligation may exist even though the retiree contributes most or all of the blended premium cost of the plan. The average cost for retirees is likely to exceed the average cost for the whole group, leading to an implicit subsidy for these retirees. The accounting standard requires the employer to identify and account for this implicit subsidy as well as any explicit subsidies the employer may provide.



This graph shows how the actuarial present value of the total projected benefits (APB) is broken down and allocated to various accounting periods.

The exact breakdown depends on the actuarial cost method and amortization methods selected by the employer.

GASB 43/45 Measurement



$$\text{Net OPEB Obligation} = \text{ARC}_1 + \text{ARC}_2 + \text{ARC}_3 + \dots - \text{Contribution}_1 - \text{Contribution}_2 - \text{Contribution}_3 - \dots$$

Actuarial computations under GASB statements are for purposes of fulfilling certain welfare plan accounting requirements. The calculations shown in this report have been made on a basis consistent with our understanding of GASB. Determinations for purposes other than meeting the financial accounting requirements of GASB may differ significantly from the results reported here.

Calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the employer and plan members. The projection of benefits does not incorporate the potential effect of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

SECTION 2: Valuation Results for the Town of Brookline June 30, 2008 Measurement under GASB

**SUMMARY OF VALUATION RESULTS
ALL DEPARTMENTS**

The key results and significant assumptions for the current year are shown on a pre-funded basis and a pay-as-you-go basis.

	Pre-funded (8.25% interest rate)	Pay-as-you-go (5.25% interest rate)
Actuarial Accrued Liability by Participant Category		
1. Current retirees, beneficiaries and dependents	\$101,706,543	\$135,031,267
2. Current active members	<u>107,420,441</u>	<u>188,194,105</u>
3. Total as of July 1, 2008: (1) + (2)	\$209,126,984	\$323,225,372
Annual Required Contribution for Fiscal Year Ending June 30, 2009		
4. Normal cost as of July 1, 2008	\$3,230,752	\$7,241,367
5. Adjustment for timing	<u>130,628</u>	<u>187,654</u>
6. Normal cost adjusted for timing: (4) + (5)	\$3,361,380	\$7,429,021
Amortization payments increasing at 4.0% per year		
7. Amortization of the unfunded actuarial accrued liability (UAAL) as of July 1, 2008	\$11,741,411	\$12,743,879
8. Adjustment for timing	<u>474,736</u>	<u>330,247</u>
9. Amortization payment adjusted for timing: (7) + (8)	\$12,216,147	\$13,074,126
10. Total Annual Required Contribution (ARC): (6) + (9)	\$15,577,527	\$20,503,147

Note: Adjustment for timing assumes payment in the middle of the fiscal year.

SECTION 2: Valuation Results for the Town of Brookline June 30, 2008 Measurement under GASB

FUNDING SCHEDULES

**30 Years Closed (8.25% discount rate, payments increasing at 4.0%)
Projected Unit Credit cost method**

Fiscal Year Ended June 30	(1) Projected Benefit Payments	(2) Normal Cost with Interest	(3) Amortization of UAAL	(4) Total Funding Requirement	(5) Additional Funding (4) - (1)	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) - (6)
2009	\$9,532,102	\$3,361,380	\$12,216,147	\$15,577,527	\$6,045,425	\$6,289,857	\$219,959,740	\$213,669,883
2010	10,706,924	3,529,449	12,704,793	16,234,242	5,527,318	12,559,572	230,638,739	218,079,167
2011	11,891,709	3,705,921	13,212,985	16,918,906	5,027,197	18,826,197	241,149,675	222,323,478
2012	12,840,030	3,891,218	13,741,504	17,632,722	4,792,692	25,365,831	251,733,887	226,368,056
2013	13,766,599	4,085,778	14,291,164	18,376,942	4,610,343	32,255,263	262,429,691	230,174,428
2014	14,699,822	4,290,067	14,862,811	19,152,878	4,453,056	39,549,427	273,249,493	233,700,066
2015	15,580,648	4,504,571	15,457,323	19,961,894	4,381,246	47,370,646	284,268,664	236,898,018
2016	16,475,252	4,729,799	16,075,616	20,805,415	4,330,163	55,783,967	295,500,477	239,716,510
2017	17,398,825	4,966,289	16,718,641	21,684,930	4,286,105	64,845,548	306,944,050	242,098,503
2018	18,254,727	5,214,604	17,387,386	22,601,990	4,347,263	74,718,339	318,699,565	243,981,226
2019	19,209,104	5,475,334	18,082,882	23,558,216	4,349,112	85,407,560	330,703,217	245,295,657
2020	20,169,559	5,749,101	18,806,197	24,555,298	4,385,739	97,016,750	342,982,717	245,965,967
2021	21,178,037	6,036,556	19,558,445	25,595,001	4,416,964	109,616,185	355,525,100	245,908,915
2022	22,236,939	6,338,383	20,340,783	26,679,166	4,442,227	123,281,358	368,314,545	245,033,187
2023	23,348,786	6,655,302	21,154,414	27,809,716	4,460,930	138,093,367	381,332,051	243,238,683
2024	24,516,225	6,988,068	22,000,591	28,988,659	4,472,434	154,139,336	394,555,078	240,415,742
2025	25,742,037	7,337,471	22,880,614	30,218,085	4,476,048	171,512,858	407,957,162	236,444,304
2026	27,029,138	7,704,345	23,795,839	31,500,184	4,471,046	190,314,491	421,507,482	231,192,992
2027	28,380,595	8,089,562	24,747,672	32,837,234	4,456,639	210,652,269	435,170,397	224,518,128
2028	29,799,625	8,494,040	25,737,579	34,231,619	4,431,994	232,642,272	448,904,929	216,262,658
2029	31,289,606	8,918,742	26,767,082	35,685,824	4,396,218	256,409,228	462,664,209	206,254,982
2030	32,854,087	9,364,679	27,837,766	37,202,445	4,348,358	282,087,162	476,394,861	194,307,699
2031	34,496,791	9,832,913	28,951,276	38,784,189	4,287,398	309,820,102	490,036,334	180,216,232
2032	36,221,630	10,324,559	30,109,327	40,433,886	4,212,256	339,762,829	503,520,174	163,757,345
2033	38,032,712	10,840,786	31,313,700	42,154,486	4,121,774	372,081,690	516,769,222	144,687,532
2034	39,934,348	11,382,826	32,566,249	43,949,075	4,014,727	406,955,483	529,696,749	122,741,266
2035	41,931,065	11,951,967	33,868,898	45,820,865	3,889,800	444,576,385	542,205,500	97,629,115
2036	44,027,618	12,549,565	35,223,654	47,773,219	3,745,601	485,150,982	554,186,661	69,035,679
2037	46,228,999	13,177,044	36,632,601	49,809,645	3,580,646	528,901,359	565,518,729	36,617,370
2038	48,540,449	13,835,896	38,097,905	51,933,801	3,393,352	576,066,275	576,066,275	-

Note: Adjustment for timing assumes payment in the middle of the fiscal year.

SECTION 2: Valuation Results for the Town of Brookline June 30, 2008 Measurement under GASB

FUNDING SCHEDULES

**30 Years Open (5.25% discount rate, payments increasing at 4.0%)
Projected Unit Credit cost method**

Fiscal Year Ended June 30	(1) Projected Benefit Payments	(2) Normal Cost with Interest	(3) Amortization of UAAL	(4) ARC	(5) Additional Funding (4) - (1)	(6) Assets at End of Year	(7) AAL at End of Year	(8) UAAL at End of Year (7) - (6)
2009	\$9,532,102	\$7,429,021	\$13,074,126	\$20,503,147	\$0	\$0	\$338,037,123	\$338,037,123
2010	10,706,924	7,800,472	13,673,245	21,473,717	-	-	352,802,302	352,802,302
2011	11,891,709	8,190,496	14,270,481	22,460,977	-	-	367,527,295	367,527,295
2012	12,840,030	8,600,020	14,866,092	23,466,112	-	-	382,472,592	382,472,592
2013	13,766,599	9,030,021	15,470,613	24,500,634	-	-	397,693,081	397,693,081
2014	14,699,822	9,481,523	16,086,266	25,567,789	-	-	413,218,440	413,218,440
2015	15,580,648	9,955,599	16,714,251	26,669,850	-	-	429,141,590	429,141,590
2016	16,475,252	10,453,379	17,358,325	27,811,704	-	-	445,493,598	445,493,598
2017	17,398,825	10,976,048	18,019,746	28,995,794	-	-	462,292,793	462,292,793
2018	18,254,727	11,524,850	18,699,257	30,224,107	-	-	479,658,888	479,658,888
2019	19,209,104	12,101,092	19,401,697	31,502,789	-	-	497,548,769	497,548,769
2020	20,169,559	12,706,147	20,125,323	32,831,470	-	-	516,013,259	516,013,259
2021	21,178,037	13,341,454	20,872,193	34,213,647	-	-	535,064,293	535,064,293
2022	22,236,939	14,008,527	21,642,787	35,651,314	-	-	554,713,524	554,713,524
2023	23,348,786	14,708,953	22,437,578	37,146,531	-	-	574,972,257	574,972,257
2024	24,516,225	15,444,401	23,257,022	38,701,423	-	-	595,851,387	595,851,387
2025	25,742,037	16,216,621	24,101,561	40,318,182	-	-	617,361,325	617,361,325
2026	27,029,138	17,027,452	24,971,615	41,999,067	-	-	639,511,923	639,511,923
2027	28,380,595	17,878,825	25,867,584	43,746,409	-	-	662,312,383	662,312,383
2028	29,799,625	18,772,766	26,789,839	45,562,605	-	-	685,771,172	685,771,172
2029	31,289,606	19,711,404	27,738,721	47,450,125	-	-	709,895,916	709,895,916
2030	32,854,087	20,696,975	28,714,542	49,411,517	-	-	734,693,298	734,693,298
2031	34,496,791	21,731,823	29,717,570	51,449,393	-	-	760,168,934	760,168,934
2032	36,221,630	22,818,414	30,748,032	53,566,446	-	-	786,327,253	786,327,253
2033	38,032,712	23,959,335	31,806,109	55,765,444	-	-	813,171,356	813,171,356
2034	39,934,348	25,157,302	32,891,925	58,049,227	-	-	840,702,871	840,702,871
2035	41,931,065	26,415,167	34,005,546	60,420,713	-	-	868,921,791	868,921,791
2036	44,027,618	27,735,925	35,146,971	62,882,896	-	-	897,826,306	897,826,306
2037	46,228,999	29,122,722	36,316,128	65,438,850	-	-	927,412,614	927,412,614
2038	48,540,449	30,578,858	37,512,864	68,091,722	-	-	957,674,724	957,674,724

Note: Adjustment for timing assumes payment in the middle of the fiscal year.

October 1, 2008

ACTUARIAL CERTIFICATION

This is to certify that The Segal Company has conducted an actuarial valuation of certain benefit obligations of the Town of Brookline other postemployment benefit programs as of June 30, 2008, in accordance with generally accepted actuarial principles and practices. The actuarial calculations presented in this report have been made on a basis consistent with our understanding of GASB Statements Number 43 and 45 for the determination of the liability for postemployment benefits other than pensions.

The actuarial valuation is based on the plan of benefits verified by the Town and on participant and premium data provided by the Town or from vendors employed by the Town.

The actuarial computations made are for purposes of fulfilling plan accounting requirements. Determinations for purposes other than meeting financial accounting requirements may be significantly different from the results reported here. Accordingly, additional determinations may be needed for other purposes, such as judging benefit security at termination or adequacy of funding an ongoing plan.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with GASB Statements Number 43 and 45 with respect to the benefit obligations addressed. The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations and collectively meet their "General Qualification Standards for Statements of Actuarial Opinions" to render the actuarial opinion contained herein.



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



Howard Atkinson, Jr., ASA, MAAA, FCA
Vice President and Health Actuary

SECTION 3: Valuation Details for the Town of Brookline June 30, 2008 Measurement under GASB

CHART 1

**Required Supplementary Information – Schedule of Employer Contributions
Pay-As-You-Go Assumptions (5.25%)
Amortization Payments Increasing at 4.0%**

Fiscal Year Ended June 30,	Annual Required Contributions	Actual Contributions	Percentage Contributed
2008	\$21,528,296	\$9,513,010	44.2%
2009	20,503,147	--	--

SECTION 3: Valuation Details for the Town of Brookline June 30, 2008 Measurement under GASB

This schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 2

**Required Supplementary Information – Schedule of Funding Progress
Pay-As-You-Go Assumptions (5.25%)**

Actuarial Valuation Date	Actuarial Value of Assets* (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a) / (c)]
6/30/2006	\$0	\$325,834,939	\$325,834,939	0%	N/A	N/A
6/30/2008	0	323,225,372	323,225,372	0%	N/A	N/A

SECTION 3: Valuation Details for the Town of Brookline June 30, 2008 Measurement under GASB

CHART 3

**Required Supplementary Information – Net OPEB Obligation (NOO)
 Projected Unit Credit, Pay-As-You-Go Assumptions (5.25%)
 Amortization Payments Increasing at 4.0%**

Fiscal Year Ended June 30,	Annual Required Contribution (a)	Interest on Existing NOO (b)	ARC Adjustment (c)	Annual OPEB Cost (a) + (b) + (c) (d)	Actual Contribution Amount (e)	Net Increase in NOO (d) - (e) (f)	NOO as of Following Date (g)
2008	\$21,528,296	\$0	\$0	\$21,528,296	\$9,513,010	\$12,015,286	\$12,015,286
2009	\$20,989,760	\$630,803	(\$486,005)	\$21,134,558	--	--	--

SECTION 3: Valuation Details for the Town of Brookline June 30, 2008 Measurement under GASB

CHART 4

Required Supplementary Information

Valuation date	June 30, 2008
Actuarial cost method	Projected Unit Credit
Amortization method	Increasing
Remaining amortization period	30 years open
Asset valuation method	Market value

Actuarial assumptions:

Investment rate of return	5.25%
Inflation rate	4.00%
Medical/drug cost trend rate	10.00% decreasing by 0.75% for 6 years and by 0.50% for 1 year to an ultimate level of 5.00% per year.

Plan membership:

Current retirees, beneficiaries, and dependents	1,523
Current active members	<u>1,444</u>
Total	2,967

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

This exhibit summarizes the participant data used for the current valuation.

EXHIBIT I

Summary of Participant Data

Active employees covered for medical benefits as of July 1, 2008*

Number of employees	
Male	673
Female	<u>771</u>
Total	1,444
Average age	43.3
Average service	11.7

Retired employees, spouses and beneficiaries covered for medical benefits as of July 1, 2008

Number of individuals	1,523
Average age	71.9

Retired employees eligible life insurance as of July 1, 2008

Number of individuals	832
Average age	72.2

** Excludes COBRA participants*

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

EXHIBIT II

Actuarial Assumptions and Actuarial Cost Method

Data:	Detailed census data, premium rates, and summary plan descriptions for postemployment welfare benefits were provided by the Town of Brookline.
Actuarial Cost Method:	Projected Unit Credit and Entry Age Normal
Per Capita Cost Development:	Per capita costs were based on the fully-insured premium rates effective July 1, 2006, trended to the midpoint of the valuation year at assumed trend rates. Actuarial factors were then applied to the premium to estimate individual retiree and spouse costs by age and by gender.
Measurement Date:	June 30, 2008
Discount Rate:	8.25% prefunding and 5.25% pay-as-you-go
Mortality Rates:	
<i>Pre-Retirement (Non-Teachers)</i>	RP-2000 Healthy Employee Mortality Table projected 10 years with Scale AA (previously, RP-2000 Healthy Employee Mortality Table)
<i>Healthy (Non-Teachers)</i>	RP-2000 Healthy Annuitant Mortality Table projected 10 years with Scale AA (previously, RP-2000 Healthy Annuitant Mortality Table)
<i>Disabled (Non-Teachers)</i>	RP-2000 Healthy Annuitant Mortality Table projected 10 years with Scale AA set forward 2 years (Previously, RP-2000 Healthy Annuitant Mortality Table set forward 2 years)
<i>Pre-Retirement (Teachers)</i>	RP-2000 Healthy Employee Mortality Table projected 10 years with Scale AA
<i>Healthy (Teachers)</i>	RP-2000 Healthy Annuitant Mortality Table projected 10 years with Scale AA
<i>Disabled (Teachers)</i>	RP-2000 Healthy Annuitant Mortality Table set forward 3 years for males

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Termination Rates before Retirement: Groups 1 and 2 (Excluding Teachers) – Rate per year (%)

Age	Mortality		Disability
	Male	Female	
20	0.03	0.02	0.01
25	0.03	0.02	0.02
30	0.04	0.02	0.03
35	0.07	0.04	0.06
40	0.10	0.06	0.20
45	0.13	0.10	0.29
50	0.18	0.14	0.58
55	0.25	0.23	0.71
60	0.42	0.37	0.84

Note: 55% of the rates shown represent accidental disability and death.

Group 4 – Rate per year (%)

Age	Mortality		Disability
	Male	Female	
20	0.03	0.02	0.10
25	0.03	0.02	0.20
30	0.04	0.02	0.30
35	0.07	0.04	0.30
40	0.10	0.06	0.60
45	0.13	0.10	2.00
50	0.18	0.14	3.75
55	0.25	0.23	3.60
60	0.42	0.37	2.55

Note: 90% of the rates shown represent accidental disability and death.

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Teachers - Rate per year (%)			
Age	Mortality		Disability
	Male	Female	
20	0.03	0.02	0.00
25	0.03	0.02	0.01
30	0.04	0.02	0.01
35	0.07	0.04	0.01
40	0.10	0.06	0.01
45	0.13	0.10	0.03
50	0.18	0.14	0.05
55	0.25	0.23	0.08
60	0.42	0.37	0.10

*Notes: 35% of the disability rates shown represent accidental disability.
55% of the death rates shown represent accidental death.*

Withdrawal Rates:

Rate per year (%)			
Years of Service	Groups 1 and 2 (Excluding Teachers)		Group 4
	Years of Service		
0	15.0	0 – 10	1.5
1	12.0	11+	0.0
2	10.0		
3	9.0		
4	8.0		
5 – 9	7.6		
10 – 14	5.4		
15 – 19	3.3		
20 – 24	2.0		
25 - 29	1.0		
30+	0.0		

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Teachers – Rate per year (%)

Age	0 – 4 Years of Service		5 – 9 Years of Service		10+ Years of Service	
	Male	Female	Male	Female	Male	Female
20	9.0	6.0	4.0	9.0	1.0	4.0
30	10.8	11.6	4.3	9.0	1.0	4.0
40	9.3	11.4	4.9	7.0	1.5	3.1
50	5.9	6.8	4.2	4.5	1.9	1.9

Retirement Rates:

Age	Rate per year (%)	
	Groups 1 and 2 (Excluding Teachers)	Group 4
55	5.0	15.0
56 – 58	2.5	10.0
59	2.5	15.0
60	10.0	20.0
61	15.0	20.0
62 - 63	10.0	25.0
64	10.0	30.0
65	40.0	100.0
66 - 67	25.0	--
68 - 69	30.0	--
70	100.0	--

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Age	Teachers				
	Rate per year (%)				
	Years of Service				
	Less than 20	20 - 29		30 or more	
		Male	Female	Male	Female
50 – 53	--	1.0	1.0	1.0	1.0
54	--	2.0	1.0	3.5	3.5
55	2.0	3.0	4.0	6.0	6.0
56	4.0	3.0	4.0	18.0	18.0
57	7.0	5.0	5.0	30.0	30.0
58	8.0	7.0	7.0	40.0	40.0
59	9.0	10.0	11.0	40.0	40.0
60	12.0	20.0	16.0	35.0	35.0
61	15.0	30.0	20.0	35.0	35.0
62	18.0	35.0	25.0	40.0	40.0
63	15.0	35.0	25.0	35.0	25.0
64	25.0	30.0	30.0	30.0	30.0
65	40.0	50.0	40.0	50.0	40.0
66	40.0	30.0	30.0	30.0	30.0
67	40.0	30.0	25.0	30.0	25.0
68	40.0	30.0	35.0	30.0	35.0
69	40.0	40.0	35.0	40.0	35.0
70	100.0	100.0	100.0	100.0	100.0

Dependents:

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives. For future retirees who elect to continue their health coverage at retirement, 65% (previously, 80%) were assumed to have an eligible spouse who also opts for health coverage at that time.

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Per Capita Health Costs:

Fiscal 2008 – 2009 medical and prescription drug claims costs are shown in the table below for retirees and for spouses at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

Age	BCBS Blue Choice/HMO Blue				BCBS Medex/ Managed Blue for Seniors			
	Retiree		Spouse		Retiree		Spouse	
	Male	Female	Male	Female	Male	Female	Male	Female
45	\$7,392	\$9,273	\$4,585	\$6,922	N/A	N/A	N/A	N/A
50	8,774	9,993	6,128	8,024	N/A	N/A	N/A	N/A
55	10,419	10,757	8,200	9,288	N/A	N/A	N/A	N/A
60	12,374	11,595	10,978	10,772	N/A	N/A	N/A	N/A
65	14,696	12,492	14,696	12,492	\$3,950	\$3,358	\$3,950	\$3,358
70	17,033	13,462	17,033	13,462	4,578	3,618	4,578	3,618
75	18,355	14,490	18,355	14,490	4,934	3,895	4,934	3,895
80	19,766	15,622	19,766	15,622	5,313	4,199	5,313	4,199

**Annual Medicare Part B
Reimbursement**

\$578 (portion paid by Town)

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Health Care Cost Trend Rates:

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that must be applied to that year’s cost to yield the next year’s projected cost.

Year Ending June 30	Medical/Drug	Medicare Part B Premium
2009	10.00%	6.00%
2010	9.25%	6.00%
2011	8.50%	6.00%
2012	7.75%	6.00%
2013	7.00%	6.00%
2014	6.25%	6.00%
2015	5.50%	6.00%
2016 & later	5.00%	6.00%

Retiree Contribution Increase Rate:

Retiree contributions for medical and prescription drug coverage are expected to increase with medical trend.

Participation and Coverage Election:

100% of active employees with coverage are assumed to elect retiree coverage. We have loaded active liabilities by 20% (previously, 30%) to account for current employees who have waived health coverage but are expected to receive coverage through the Town as retirees.

100% of retirees over age 65 are assumed to remain in their current medical plan for life.

For future retirees hired prior to 1986 and current retirees under age 65, 90% are assumed to enroll in a Blue Cross Medicare Supplement plan upon reaching age 65 and 10% are assumed to remain enrolled in a non-Medicare plan.

For future retirees hired in 1986 or later, 100% are assumed to enroll in a Medicare Supplement plan upon reaching age 65.

100% of current retirees who have life benefit coverage and 100% of future retirees with medical coverage are assumed to have life insurance coverage.

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Plan Design:	Development of plan liabilities was based on the substantive plan of benefits in effect as described in Exhibit III.
Administrative Expenses:	Administrative expenses are assumed to be included in the fully insured premium rates.
Annual Maximum Benefits:	No increase in the annual maximum benefit levels was assumed.
Lifetime Maximum Benefits:	No information was available regarding accumulations toward lifetime maximum benefits and no such accumulations were assumed.
Missing Participant Data:	A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known.

EXHIBIT III

Summary of Plan

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the measurement date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Eligibility: Retired and receiving a pension from the Town of Brookline Contributory Retirement System or Massachusetts State Teachers Retirement System.

Group 1 and Group 2 (including Teachers):

- Retirees with at least 10 years of creditable service are eligible at age 55;
- Retirees with at least 20 years of creditable service are eligible at any age.

Group 4:

- Retirees with at least 10 years of creditable service are eligible at age 45;
- Retirees with at least 20 years of creditable service are eligible at any age.

Disability: Accidental (job-related) Disability has no age or service requirement. Ordinary (non-job related) Disability has no age requirement but requires 10 years of creditable service.

Pre-Retirement Death: Surviving spouses of members who die in active service on Accidental (job-related) Death are eligible at any age. Surviving spouses of members who die in active service on Ordinary (non-job related) Death are eligible after two years of service.

Post-Retirement Death: Surviving spouse is eligible.

Benefit Types: Medical and prescription drug benefits are provided to all eligible retirees through a variety of plans offered by Blue Cross Blue Shield of Massachusetts. The Town of Brookline also pays 50% of the retiree life insurance premium and 50% of the Medicare Part B premium.

Duration of Coverage: Lifetime.

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Dependent Benefits:

Medical and Prescription Drugs.

Dependent Coverage:

Benefits are payable to a spouse for their lifetime, regardless of when the retiree dies. Upon the death of a retiree, the surviving spouse's contribution increases from 25% to 50%.

Retiree Contributions:

Premium rates and retiree contributions as of July 1, 2008 are summarized on the following page:

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

	Subscribers			Monthly Premium effective 7/1/2008	Town cost (\$) as of 7/1/2008	Retiree cost (\$) as of 7/1/2008	Retiree cost (%) as of 7/1/2008
	Active	Retiree	Retirees 65 and over*				
<u>Non-Medicare Actives and Retirees</u>							
BCBS Blue Choice							
Individual	256	100	39	\$636.61	\$477.46	\$159.15	25.0%
Family	262	89	4	\$1,703.28	\$1,277.46	\$425.82	25.0%
BCBS HMO Blue							
Individual	493	58	6	\$594.86	\$446.14	\$148.72	25.0%
Family	433	52	14	\$1,596.37	\$1,197.28	\$399.09	25.0%
<u>Total Non- Medicare Retirees</u>		299	63				
				Monthly Premium	Town cost (\$)	Retiree cost (\$)	Retiree cost (%)
				effective 1/1/2008	as of 7/1/2008	as of 7/1/2008	as of 7/1/2008
<u>Medicare Supplement Plans</u>							
BCBS Managed Blue for Seniors	N/A	169	169	\$345.51	\$259.13	\$86.38	25.0%
BCBS Medex	N/A	432	429	\$357.33	\$268.00	\$89.33	25.0%
<u>Total Medicare Retirees</u>		601	598				
<u>Retiree Total</u> **		900	661				
<u>Medicare Part B Premium</u>				\$96.40	\$48.20	\$48.20	50.0%

* 63 of 661 over-65 retirees are in a non-Medicare plan.

** In addition, there are 623 spouses of retirees and surviving spouses covered under an individual or family policy.

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

Benefit Descriptions:

BCBS Blue Choice	PCP Approved	Self-Referred
Medical		
<i>Annual Deductible</i>	None	\$250 individual/\$500 family
<i>Coinsurance</i>	100%	80%
<i>Physicians Office Visit Copay</i>	\$10	Coinsurance & deductible
<i>Emergency Room Copay</i>	\$25	Coinsurance & deductible
<i>Coinsurance Maximum</i>	None	\$1,000 individual/\$2,000 family
Prescription Drugs		
<i>Retail Copay</i>		\$10 generic/\$20 brand
<i>Mail Copay</i>		\$10 generic/\$20 brand

BCBS Blue Care Elect Preferred PPO	In-Network	Out-of-Network
Medical		
<i>Annual Deductible</i>	None	\$250 individual/\$500 family
<i>Coinsurance</i>	100%	80%
<i>Physicians Office Visit Copay</i>	\$10	Coinsurance & deductible
<i>Emergency Room Copay</i>	\$25	Coinsurance & deductible
<i>Coinsurance Maximum</i>	None	\$1,000 individual/\$2,000 family
Prescription Drugs		
<i>Retail Copay</i>		\$10 generic/\$20 brand
<i>Mail Copay</i>		\$10 generic/\$20 brand

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

BCBS HMO Blue	
Medical	
<i>Annual Deductible</i>	None
<i>Coinsurance</i>	100%
<i>Physicians Office Visit</i>	\$10
<i>Emergency Room</i>	\$25
<i>Maximum Out-Of-Pocket Expense</i>	None
Prescription Drugs	
<i>Retail Copay</i>	\$10 generic/\$20 brand
<i>Mail Copay</i>	\$10 generic/\$20 brand

BCBS Managed Blue for Seniors / Medicare Rx	
Medical	
<i>Hospital Inpatient</i>	Covered in full
<i>Outpatient and Physician Services</i>	\$10 copay per visit
<i>Emergency Room</i>	\$50 copay per visit
Prescription Drugs	
<i>Retail Copay</i>	
<i>Mail Copay</i>	

SECTION 4: Supporting Information for the Town of Brookline June 30, 2008 Measurement under GASB

BCBS Medex 2 / Medicare Rx	
Medical	
<i>Hospital Inpatient</i>	Covered in full
<i>Office Visits</i>	Covered in full
<i>Emergency Room</i>	Covered in full
Prescription Drugs	
<i>Retail Copay</i>	\$5/\$10/\$25
<i>Mail Copay</i>	\$10/\$20/\$50
<i>Catastrophic Coverage (after \$4,050 in out-of-pocket costs)</i>	\$2.25 generic/formulary brand, \$5.60 non-formulary brand or 5% of cost, whichever is greater

Retiree Life: \$5,000

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