

**PLYMOUTH COUNTY
CONTRIBUTORY RETIREMENT SYSTEM**

Actuarial Valuation Report

January 1, 2011

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Report Summary:

Highlights

January 1, 2010

January 1, 2011

Contributions

Funding Schedule FY 2012	\$46,850,764	\$46,850,764
Funding Schedule FY 2013	48,735,156	52,815,432

Funded Ratios

GAS No. 25	59.5%	56.1%
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Participants

Actives	5,987	5,775
Retirees and Beneficiaries	3,042	3,088
Vested	0	0
Inactives	2,052	2,115
Disabled	<u>347</u>	<u>354</u>
Total	11,428	11,332

Payroll

Payroll of Active Members	\$227,507,647	\$228,289,638
Average Payroll	38,000	39,531

Normal Cost

Employer	7,845,344	8,566,129
Employee	19,114,405	19,304,174
Administrative Expenses	<u>1,600,000</u>	<u>1,600,000</u>
Total	28,559,749	29,470,303

Actuarial Accrued Liabilities

Actives	539,093,493	555,167,406
Retirees, Beneficiaries, Disabilities and Inactives	<u>593,753,886</u>	<u>632,280,008</u>
Total	1,132,847,379	1,187,447,414

Actuarial Value of Assets

<u>673,709,456</u>	<u>666,730,812</u>
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Unfunded Actuarial Accrued Liabilities

\$459,137,923	\$520,716,602
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Introduction

This report presents the findings of an actuarial valuation as of January 1, 2011, of Plymouth County Contributory Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2011.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Plymouth County Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2011.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The cost of these benefits has been assumed by the State under Proposition Two and One-Half.

Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

During the last year, total unfunded actuarial accrued liability increased by 13.4% to \$520,716,602. The increase is the result of net unfavorable actuarial experience during the preceding year. The sources of the actuarial (gain)/loss are as follows:

Investment	31,752,969
Salary Increases	(10,460,808)
New Participants	11,744,869
Active - Retirements	3,090,556
Active - Terminations	10,441,598
Active - Mortality	401,727
Active - Disabilities	2,025,939
Inactive - Mortality and data adjustments	(2,143,026)
Other including data adjustments, service buybacks, and plan changes	<u>12,571,853</u>
Total (gain)/loss	59,425,677

Three plan changes were first recognized in the 2011 actuarial valuation. The maximum amount of pension benefit subject to a COLA was increased from \$12,000 to \$13,000. This change increased the unfunded liability by \$5,938,484. Also, the refund of contributions payable to members with fewer than ten years of service was changed to be contributions accumulated at an annual rate of 3%. This change increased the unfunded actuarial liability by \$5,593,780. Finally, for those hired after January 1, 2011, the salary taken into account for benefit purposes was capped at 64% of the IRC Section 401(a)(17) limit (indexed). This change has no immediate impact on the unfunded actuarial liability since members hired after January 1, 2011 are not yet included in the valuation.

Actuarial Costs and Liabilities:

Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Table I

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Superannuation	\$18,900,323	\$19,047,657
Termination	2,452,022	2,295,717
Death	1,428,795	1,419,359
Disability	4,178,609	5,107,570
Administrative Expenses	<u>1,600,000</u>	<u>1,600,000</u>
Total Normal Cost	28,559,749	29,470,303
% of Pay	12.6%	12.9%
Employee Contributions	19,114,405	19,304,174
% of Pay	8.4%	8.5%
Employer Normal Cost	\$9,445,344	\$10,166,129
% of Pay	4.2%	4.5%

Present Value of Actuarial Accrued Liabilities

The actuarial accrued liabilities (AAL) represents today's value of all benefits based on the past service of the actives and inactive. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

Table II

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Actives		
Superannuations	\$479,006,216	\$499,444,640
Termination	10,018,507	9,917,224
Death	16,425,013	17,013,447
Disability	33,643,757	28,792,095
Retirees and Inactives		
Retirees and Beneficiaries	488,720,117	521,472,438
Vested	0	0
Terminated (Refund)	10,360,905	11,665,693
Disabled	<u>94,672,864</u>	<u>99,141,877</u>
Total	\$1,132,847,379	\$1,187,447,414

Present Value of Future Benefits

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Actives		
Superannuation	\$627,797,330	\$647,443,062
Termination	19,604,583	19,016,855
Death	27,017,805	27,459,223
Disability	71,265,307	74,003,429
Retirees and Inactives		
Retirees and Beneficiaries	488,720,117	521,472,438
Vested	0	0
Terminated (Refund)	10,360,905	11,665,693
Disabled	<u>94,672,864</u>	<u>99,141,877</u>
Total	\$1,339,438,911	\$1,400,202,577

Funded Status and Appropriations:

Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

Table IV

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Cash equivalents	\$13,743,233	\$23,449,883
Short term investments	4,676,149	3,618,462
Fixed income securities	119,256,590	120,571,354
Equities	323,900,146	316,410,850
International	22,155,487	57,279,441
Real Estate	45,610,411	67,882,420
Venture Capital	0	0
Other	29,740,068	31,804,561
Accounts receivable	5,224,176	8,958,169
Accounts payable	(4,017,292)	(6,999,639)
Accrued income	<u>1,135,580</u>	<u>931,625</u>
Total Market Value	\$561,424,547	\$645,076,352
Total Actuarial Value	\$673,709,456	\$666,730,812

Actuarial Value of Assets

The actuarial value of assets is determined by projecting the market value of assets as of the beginning of the prior plan year with the assumed rate of return during that year (8.25%) and accounting for deposits and disbursements with interest at the assumed rate of return. An adjustment is then applied to recognize the difference between the actual investment return and expected return over a five year period. This preliminary actuarial value is not allowed to differ from the market value of assets by more than 20%. The calculation of the actuarial value of assets as of January 1, 2011 is presented in Table V.

Table V

	<u>January 1, 2011</u>
(1) Market value at January 1, 2010	\$561,424,547
(2) 2010 Contributions	\$67,278,249
(3) 2010 Payments	(\$96,864,521)
(4) Net interest adjustment at 8.25% on (1), (2), and (3) to December 31, 2010	\$46,084,620
(5) Expected market value on January 1, 2011	\$577,922,895
(1) + (2) + (3) + (4)	
(6) Actual market value on January 1, 2011	\$645,076,352
(7) 2010 (Gain) / Loss	(\$67,153,457)
(8) 80% of 2010 (Gain) / Loss	(\$53,722,766)
(9) 2009 (Gain) / Loss	(\$62,977,160)
(10) 60% of 2009 (Gain) / Loss	(\$37,786,296)
(11) 2008 (Gain) / Loss	\$277,847,934
(12) 40% of 2008 (Gain) / Loss	\$111,139,174
(13) 2007 (Gain) / Loss	\$10,121,742
(14) 20% of 2007 (Gain) / Loss	\$2,024,348
(15) Actuarial value on January 1, 2011, (6) + (8) + (10) + (12) + (14) but not less than 80% nor greater than 120% of (6)	\$666,730,812
(16) Ratio of actuarial value to market value	103.36%
(17) Actuarial Value Return for 2009	20.88%
(18) Actuarial Value Return for 2010	3.43%
(19) Market Value Return for 2009	21.27%
(20) Market Value Return for 2010	20.27%

Unfunded Actuarial Accrued Liabilities

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

Table VI

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Actuarial Accrued Liability	\$1,132,847,379	\$1,187,447,414
Actuarial Assets	<u>673,709,456</u>	<u>666,730,812</u>
Unfunded Actuarial Accrued Liability	\$459,137,923	\$520,716,602
Funded Status	59.5%	56.1%

Appropriations

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2030, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2030
 \$ 515,470,990 over 19 years with 4.5% increasing payments
- Level amortization of the 2002 Early Retirement Incentive June 30, 2019
 \$ 3,397,304 over 8 years
- Level amortization of the 2003 Early Retirement Incentive June 30, 2020
 \$ 1,848,307 over 9 years
- Interest adjustment for payments deposited semiannually.

The pension appropriation is shown in Table VII.

Table VII

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Normal cost	\$9,445,344	\$10,166,129
Amortization payment of the accrued liability	32,175,626	36,575,296
Amortization payment of 1992 ERI liability	0	0
Amortization payment of 2002 ERI liability	551,318	551,318
Amortization payment of 2003 ERI liability	<u>276,175</u>	<u>276,175</u>
Total cost	\$42,448,463	\$47,568,918
% of Pay	18.7%	20.8%
Fiscal 2012 cost	\$46,850,764	\$46,850,764
Fiscal 2013 cost	\$48,735,156	\$52,815,432

Appropriation Forecast

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2041 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be made at the beginning of the year.

The employer total cost is expected to increase during the next 19 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents 20.5% of payroll, remaining at 20.5% by the time the unfunded liabilities are fully paid off, leaving only a normal cost of 3.3% thereafter. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

Appropriation Forecast

Fiscal Year	Employee	Employer	Amortization	Employer	Employer	Funded	
<u>Ending</u>	<u>Payroll*</u>	<u>Contribution</u>	<u>Normal Cost with Interest</u>	<u>Payments with Interest</u>	<u>Total Cost with Interest</u>	<u>Total Cost % of Payroll</u>	<u>Ratio %**</u>
2012	\$228,289,638	\$19,304,174	\$10,786,766	\$36,063,998	\$46,850,764	20.5	56.1
2013	\$238,562,672	\$20,341,007	\$11,093,760	\$41,721,672	\$52,815,432	22.1	57.3
2014	\$249,297,992	\$21,432,065	\$11,406,540	\$43,559,637	\$54,966,177	22.0	59.0
2015	\$260,516,402	\$22,580,127	\$11,725,005	\$45,480,310	\$57,205,315	22.0	60.6
2016	\$272,239,640	\$23,788,114	\$12,049,034	\$47,487,414	\$59,536,448	21.9	62.3
2017	\$284,490,423	\$25,059,096	\$12,378,483	\$49,584,837	\$61,963,320	21.8	64.1
2018	\$297,292,492	\$26,396,295	\$12,713,182	\$51,776,644	\$64,489,826	21.7	66.0
2019	\$310,670,655	\$27,803,098	\$13,052,939	\$54,067,082	\$67,120,021	21.6	67.9
2020	\$324,650,834	\$29,283,060	\$13,397,529	\$55,875,615	\$69,273,144	21.3	69.9
2021	\$339,260,122	\$30,839,917	\$13,746,699	\$58,083,795	\$71,830,494	21.2	72.0
2022	\$354,526,827	\$32,477,594	\$14,100,166	\$60,697,566	\$74,797,732	21.1	74.2
2023	\$370,480,534	\$34,200,210	\$14,457,607	\$63,428,957	\$77,886,564	21.0	76.5
2024	\$387,152,158	\$36,012,095	\$14,818,665	\$66,283,260	\$81,101,925	20.9	78.9
2025	\$404,574,006	\$37,917,794	\$15,182,941	\$69,266,006	\$84,448,947	20.9	81.5
2026	\$422,779,836	\$39,922,082	\$15,549,995	\$72,382,977	\$87,932,972	20.8	84.2
2027	\$441,804,928	\$42,029,971	\$15,919,338	\$75,640,211	\$91,559,549	20.7	87.1
2028	\$461,686,150	\$44,246,729	\$16,290,433	\$79,044,020	\$95,334,453	20.6	90.1
2029	\$482,462,027	\$46,577,884	\$16,662,690	\$82,601,001	\$99,263,691	20.6	93.2
2030	\$504,172,818	\$49,029,244	\$17,035,462	\$86,318,046	\$103,353,508	20.5	96.5
2031	\$526,860,595	\$51,606,905	\$17,408,042	\$0	\$17,408,042	3.3	100.0
2032	\$550,569,322	\$54,317,272	\$17,779,657	\$0	\$17,779,657	3.2	100.0
2033	\$575,344,941	\$57,167,068	\$18,149,466	\$0	\$18,149,466	3.2	100.0
2034	\$601,235,464	\$60,163,354	\$18,516,554	\$0	\$18,516,554	3.1	100.0
2035	\$628,291,059	\$63,313,541	\$18,879,928	\$0	\$18,879,928	3.0	100.0
2036	\$656,564,157	\$66,625,415	\$19,238,508	\$0	\$19,238,508	2.9	100.0
2037	\$686,109,544	\$70,107,147	\$19,591,130	\$0	\$19,591,130	2.9	100.0
2038	\$716,984,474	\$73,767,319	\$19,936,529	\$0	\$19,936,529	2.8	100.0
2039	\$749,248,775	\$77,614,939	\$20,273,342	\$0	\$20,273,342	2.7	100.0
2040	\$782,964,970	\$81,659,467	\$20,600,097	\$0	\$20,600,097	2.6	100.0
2041	\$818,198,393	\$85,910,831	\$20,915,206	\$0	\$20,915,206	2.6	100.0
2042	\$855,017,321	\$89,776,819	\$21,856,391	\$0	\$21,856,391	2.6	100.0
2043	\$893,493,101	\$93,816,776	\$22,839,928	\$0	\$22,839,928	2.6	100.0

* Calendar basis

** Beginning of Fiscal Year

GASB Statements No. 25 and No. 27

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. As a result of the oversight of the Public Employees Retirement Administration Commission (PERAC) and the conversion of unpaid contributions to pension related debt, the Net Pension Obligation (NPO) as required by Statement No. 27 will effectively always be equal to \$0. The required disclosure information is shown in Table VIII.

Table VIII

	<u>January 1, 2010</u>	<u>January 1, 2011</u>
(1) Actuarial Accrued Liability	\$1,132,847,379	\$1,187,447,414
(2) Actuarial Value of Assets	<u>673,709,456</u>	<u>666,730,812</u>
(3) Unfunded Actuarial Accrued Liability	459,137,923	520,716,602
(4) Funded Ratio (2)/(1)	59.5%	56.1%
(5) Covered Payroll	\$227,507,647	\$228,289,638
(6) UAAL as a percentage of payroll: (3)/(5)	201.8%	228.1%
(7) Annual Required Contribution (ARC)	\$45,039,921	\$46,850,764
(8) Net Pension Obligation	\$0	\$0

PERAC Annual Statement
APPENDIX PAGE 3
ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Buck Consultants as of January 1, 2011.

The normal cost for employees on that date was:	\$19,304,174	8.5% of pay
The normal cost for the employer was:	8,566,129	3.8% of pay

The actuarial liability for active members was:	\$555,167,406
The actuarial liability for retired and inactive members was:	632,280,008
Total actuarial accrued liability:	1,187,447,414
System assets as of that date:	666,730,812
Unfunded actuarial accrued liability:	\$520,716,602

The ratio of system's assets to total actuarial liability was 56.1%

The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	8.3%
Rate of Salary Increase:	4.5%

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a percent of Covered Payroll
	(a)	(b)	(b-a)	(a/b)	(c)	(b-a)/c
01/01/11	\$666,730,812	\$1,187,447,414	\$520,716,602	56.1%	\$228,289,638	228.1%
01/01/10	673,709,456	1,132,847,379	459,137,923	59.5%	227,507,647	201.8%
01/01/09	579,877,224	1,159,210,636	579,333,412	50.0%	264,541,078	219.0%
01/01/08	683,819,938	1,056,020,215	372,200,277	64.8%	252,682,832	147.3%
01/01/07	606,629,089	987,840,418	381,211,329	61.4%	244,574,136	155.9%
01/01/06	558,533,863	918,851,707	360,317,844	60.8%	226,262,731	159.2%
01/01/04	520,104,805	802,158,453	282,053,648	64.8%	208,312,002	135.4%
01/01/02	466,325,660	733,198,204	266,872,544	63.6%	205,039,686	130.2%
01/01/00	450,210,619	611,204,058	160,993,439	73.7%	178,010,731	90.4%
01/01/98	316,253,566	492,303,777	176,050,211	64.2%	148,264,981	118.7%

EXHIBITS

P:\Actrl\Plymouth\Val11\Report[salACT1.xls]Actives

Age/Service Distribution with Salary as of January 1, 2011

Attained Age	Average Salary	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	2	0	0	0	0	0	0	0	0	0	2
	14,277	0	0	0	0	0	0	0	0	0	14,277
20-24	83	0	0	0	0	0	0	0	0	0	83
	25,477	0	0	0	0	0	0	0	0	0	25,477
25-29	268	43	1	0	0	0	0	0	0	0	312
	29,103	45,234	38,068	0	0	0	0	0	0	0	31,355
30-34	151	91	40	4	0	0	0	0	0	0	286
	33,896	45,734	58,252	56,160	0	0	0	0	0	0	41,380
35-39	140	114	141	40	0	0	0	0	0	0	435
	29,215	44,053	58,350	59,309	0	0	0	0	0	0	45,315
40-44	243	172	132	91	52	9	0	0	0	0	699
	23,085	35,286	49,021	62,200	66,393	67,815	0	0	0	0	39,875
45-49	291	304	187	108	111	45	3	0	0	0	1,049
	23,241	28,781	39,008	52,258	63,978	68,784	89,442	0	0	0	37,098
50-54	185	283	263	131	115	70	50	1	0	0	1,098
	24,044	30,004	31,234	38,245	55,312	68,664	70,522	69,751	0	0	37,274
55-59	103	178	221	169	133	66	41	30	2	943	
	26,440	30,200	31,243	35,422	45,499	56,646	77,404	68,847	45,300	38,292	
60-64	60	92	105	107	98	58	41	24	8	593	
	25,869	31,034	38,892	36,949	40,607	48,144	55,527	62,047	67,253	39,663	
65-69	17	36	39	25	26	22	21	4	2	192	
	21,391	30,593	31,879	31,266	31,930	37,299	47,268	51,116	42,987	33,457	
70+	7	6	17	16	15	9	9	4	0	83	
	27,465	29,224	19,951	25,716	30,733	32,896	27,802	35,560	0	27,322	
Total Employees	1,550	1,319	1,146	691	550	279	165	63	12	5,775	
Average Salary	26,325	33,318	39,394	43,479	51,340	57,920	63,560	63,032	59,550	38,011	

Retiree Distribution as of January 1, 2011

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	6	1	7	49,729	7,008	56,737
45-49	10	4	14	173,516	56,705	230,220
50-54	26	15	41	869,994	159,484	1,029,478
55-59	116	89	205	4,660,806	924,582	5,585,388
60-64	231	219	450	8,340,058	2,930,344	11,270,402
65-69	320	346	666	9,849,811	4,936,382	14,786,193
70-74	229	296	525	5,364,030	4,384,087	9,748,117
75-79	183	259	442	3,500,039	3,310,891	6,810,930
80-84	147	188	335	2,312,601	1,967,444	4,280,045
85-89	93	170	263	1,169,633	1,489,368	2,659,001
90-94	36	65	101	290,105	493,629	783,733
95-99	20	19	39	166,289	163,019	329,308
Total	1,417	1,671	3,088	36,746,609	20,822,944	57,569,554
Average (Age/Payment)	71.4	73.6	72.6	25,933	12,461	18,643
Frequency Percent	45.9%	54.1%	100.0%	63.8%	36.2%	100.0%

Disabled Retiree Distribution as of January 1, 2011

Attained Age	Number of Employees			Total Payments		
	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	4	1	5	151,987	5,859	157,846
40-44	8	2	10	232,189	64,066	296,256
45-49	21	5	26	634,391	145,578	779,969
50-54	27	7	34	1,012,162	165,244	1,177,406
55-59	42	5	47	1,248,465	46,344	1,294,809
60-64	68	9	77	2,021,362	166,647	2,188,009
65-69	45	8	53	1,317,276	178,284	1,495,560
70-74	44	4	48	1,187,796	58,303	1,246,099
75-79	25	1	26	619,528	5,293	624,821
80-84	15	2	17	298,526	30,463	328,989
85-89	9	0	9	177,378	0	177,378
90-94	2	0	2	36,317	0	36,317
95-99	0	0	0	0	0	0
Total	310	44	354	8,937,375	866,082	9,803,457
Average (Age/Payment)	64.4	60.4	63.9	28,830	19,684	27,693
Frequency Percent	87.6%	12.4%	100.0%	91.2%	8.8%	100.0%

EXHIBIT 4 - CASHFLOW FORECAST:

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2011	\$85,979,966	\$19,304,174	\$46,850,764	\$56,032,082	\$36,207,055
2012	78,753,879	20,341,007	52,815,432	55,449,138	49,851,698
2013	83,243,298	21,432,065	54,966,177	59,419,157	52,574,101
2014	87,511,087	22,580,127	57,205,315	63,624,964	55,899,319
2015	91,797,964	23,788,114	59,536,448	68,106,678	59,633,275
2016	96,528,532	25,059,096	61,963,320	72,880,981	63,374,865
2017	101,349,309	26,396,295	64,489,826	77,962,932	67,499,744
2018	106,172,409	27,803,098	67,120,021	83,387,846	72,138,556
2019	111,063,431	29,283,060	69,273,144	89,183,796	76,676,569
2020	116,000,659	30,839,917	71,830,494	95,361,229	82,030,981
2021	120,777,499	32,477,594	74,797,732	101,996,039	88,493,866
2022	125,643,739	34,200,210	77,886,564	109,163,827	95,606,862
2023	130,350,433	36,012,095	81,101,925	116,928,476	103,692,062
2024	134,854,752	37,917,794	84,448,947	125,372,119	112,884,108
2025	139,031,989	39,922,082	87,932,972	134,591,316	123,414,380
2026	143,084,873	42,029,971	91,559,549	144,688,489	135,193,135
2027	146,811,395	44,246,729	95,334,453	155,775,032	148,544,819
2028	150,215,176	46,577,884	99,263,691	167,980,801	163,607,201
2029	153,122,424	49,029,244	103,353,508	181,454,208	180,714,537
2030	155,419,924	51,606,905	17,408,042	195,196,605	108,791,629
2031	157,117,190	54,317,272	17,779,657	204,154,533	119,134,272
2032	158,349,511	57,167,068	18,149,466	213,987,900	130,954,923
2033	159,056,990	60,163,354	18,516,554	224,821,263	144,444,182
2034	159,065,572	63,313,541	18,879,928	236,799,530	159,927,427
2035	158,505,727	66,625,415	19,238,508	250,082,155	177,440,351
2036	157,490,489	70,107,147	19,591,130	264,832,247	197,040,035
2037	155,856,677	73,767,319	19,936,529	281,228,813	219,075,984
2038	153,639,770	77,614,939	20,273,342	299,471,670	243,720,181
2039	150,789,765	81,659,467	20,600,097	319,778,298	271,248,097
2040	147,511,427	85,910,831	20,915,206	342,378,615	301,693,225

EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2011, and does not take into account any subsequent changes.

1. Administration

Each of the 107 contributory retirement systems for public employees of the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

2. Participation

Participation is mandatory for all full-time employees whose employment commences prior to age 65. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) Group 2: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

3. **Salary**

Salary is defined as gross regular compensation. Salary does not include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

4. **Member Contributions**

Member contributions vary depending upon date hired as follows:

<u>Date of Hire</u>	<u>Member Contribution Rate</u>
Prior to 1975	5.0% of Salary
1975 to 1983	7.0% of Salary
1984 to 1996	8.0% of Salary
1996 and Later plus	9.0% of Salary
1979 and Later	2.0% of Salary in excess of \$30,000

5. **Average Salary**

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.) For those hired on or after January 1, 2011, salary taken into account for benefit purposes is capped at 64% of the IRC Section 401(a)(17) limit (indexed).

6. **Creditable Service**

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

7. Service Retirement

a. Eligibility:

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table:

<u>Age at Retirement</u>	<u>Percentage of Average Salary</u>		
	<u>Group 1</u>	<u>Group 2</u>	<u>Group 4</u>
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001

8. Deferred Vested Retirement

a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

b. Benefit Amount:

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

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with fewer than ten years of service are entitled to their contributions accumulated at an annual rate of 3%.

9. Accidental Disability

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$729.84 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. Ordinary Disability**a. Eligibility:**

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55. If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55, he will receive not less than the superannuation allowance to which he is entitled.

11. Survivor Benefits**a. Occupational Death:**

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

b. Non-Occupational Death:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

12. Cost-of-Living Increases

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$13,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A – Life annuity
- (ii) Option B – Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C – Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

1. Member Data

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

2. Valuation Date

January 1, 2011.

3. Actuarial Cost Method

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

4. Rate of Investment Return

It is assumed that the assets of the fund will accumulate at a compound annual rate of 8.25% per annum.

5. Salary Scale

It is assumed that salaries including longevity will increase at a rate of 4.0% per year.

6. Cost-of-Living Increases

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$13,000 per year. The assumption for the previous actuarial valuation was \$12,000 per year.

7. Value of Investments

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC). The actuarial value is based on a 5 year smoothing of realized and unrealized investment earnings greater than or less than the expected return. The result must be within 20% of market value.

8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<u>Service</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>	<u>Jail Employees</u>
0	0.1500	0.0150	0.4500
10	0.0540	0.0150	0.1620
20	0.0200	0.0000	0.0600
30	0.0000	0.0000	0.0000

9. Annual Rate of Mortality

It is assumed that both pre-retirement and post retirement mortality are represented by the RP-2000 Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Mortality Table set forward two years.

10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages:

<u>Age</u>	<u>Male General Employees</u>	<u>Female General Employees</u>	<u>Male and Female Police and Fire Employees</u>
45	0.0000	0.0000	0.0100
46	0.0000	0.0000	0.0100
47	0.0000	0.0000	0.0100
48	0.0000	0.0000	0.0100
49	0.0000	0.0000	0.0100
50	0.0100	0.0150	0.0200
51	0.0100	0.0150	0.0200
52	0.0100	0.0200	0.0200
53	0.0100	0.0250	0.0500
54	0.0200	0.0250	0.0750
55	0.0200	0.0550	0.1500
56	0.0250	0.0650	0.1000
57	0.0250	0.0650	0.1000
58	0.0500	0.0650	0.1000
59	0.0650	0.0650	0.1500
60	0.1200	0.0500	0.2000
61	0.2000	0.1300	0.2000
62	0.3000	0.1500	0.2500
63	0.2500	0.1250	0.2500
64	0.2200	0.1800	0.3000
65	0.4000	0.1500	1.0000
66	0.2500	0.2000	1.0000
67	0.2500	0.2000	1.0000
68	0.3000	0.2500	1.0000
69	0.3000	0.2000	1.0000
70	1.0000	1.0000	1.0000

11. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

<u>Attained Age</u>	<u>General Employees</u>	<u>Police and Fire Employees</u>
20	0.0001	0.0010
30	0.0003	0.0030
40	0.0010	0.0030
50	0.0019	0.0125

In addition, it is assumed for the general employees that 40% of all disabilities are ordinary (60% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

12. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

13. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2010 is \$1,600,000 and is anticipated to increase at 4.5% per year.

EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

1. Actuarial Accrued Liability

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

2. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

3. Actuarial Cost Method

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

4. Actuarial Present Value

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

5. Forecast

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

6. Normal Cost

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

7. Unfunded Actuarial Accrued Liability

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

8. Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.


9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

CERTIFICATION:

This report fairly represents the actuarial position of the Bristol County Contributory Retirement System contributing as of January 1, 2011, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience. Daniel Sherman is an Associate of the Society of Actuaries. He is a Member of the American Academy of Actuaries and meets the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions concerning it.

Buck Consultants, LLC



Daniel W. Sherman, ASA, MAAA
Enrolled Actuary No. 11-4086

December 2011

BREAKOUTS

County of Plymouth

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	82
Inactives	86
Retirees and Disableds	342
Total	510
Payroll	3,983,262
Average	48,576

Valuation Results

Normal Cost	
Employee	327,254
Employer	62,641
Administrative Expense	107,190
Total	497,085
Actuarial Accrued Liability	
Actives	11,588,892
Inactives	2,006,426
Retirees and Disableds	65,955,892
Total	79,551,210
Assets	\$44,666,604
Unfunded Actuarial Accrued Liability	\$34,884,606
Estimated FY13 Contribution - semiannual payments	\$2,923,261
Estimated FY13 Contribution - July payment	\$2,866,460
Estimated FY14 Contribution - semiannual payments	\$3,053,444
Estimated FY14 Contribution - July payment	\$2,994,114

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Abington

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	200
Inactives	150
Retirees and Disableds	125
Total	<u>475</u>
Payroll	7,673,520
Average	38,368

Valuation Results

Normal Cost	
Employee	645,583
Employer	321,051
Administrative Expense	58,735
Total	<u>1,025,369</u>
Actuarial Accrued Liability	
Actives	19,693,679
Inactives	667,117
Retirees and Disableds	23,229,661
Total	<u>43,590,457</u>
Assets	\$24,475,274
Unfunded Actuarial Accrued Liability	\$19,115,183
Estimated FY13 Contribution - semiannual payments	\$1,938,777
Estimated FY13 Contribution - July payment	\$1,901,105
Estimated FY14 Contribution - semiannual payments	\$2,017,909
Estimated FY14 Contribution - July payment	\$1,978,699

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Bridgewater

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	144
Inactives	30
Retirees and Disableds	152
Total	<u>326</u>
Payroll	8,081,055
Average	56,118

Valuation Results

Normal Cost	
Employee	704,429
Employer	346,933
Administrative Expense	79,438
Total	<u>1,130,800</u>
Actuarial Accrued Liability	
Actives	22,583,837
Inactives	270,124
Retirees and Disableds	36,101,063
Total	<u>58,955,024</u>
Assets	\$33,102,208
Unfunded Actuarial Accrued Liability	\$25,852,816
Estimated FY13 Contribution - semiannual payments	\$2,595,870
Estimated FY13 Contribution - July payment	\$2,545,430
Estimated FY14 Contribution - semiannual payments	\$2,700,520
Estimated FY14 Contribution - July payment	\$2,648,047

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Bridgewater Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	5
Inactives	0
Retirees and Disableds	5
Total	<u>10</u>
Payroll	238,289
Average	47,658

Valuation Results

Normal Cost	
Employee	21,136
Employer	8,583
Administrative Expense	1,688
Total	<u>31,407</u>
Actuarial Accrued Liability	
Actives	465,916
Inactives	0
Retirees and Disableds	786,908
Total	<u>1,252,824</u>
Assets	\$703,439
Unfunded Actuarial Accrued Liability	\$549,385
Estimated FY13 Contribution - semiannual payments	\$71,019
Estimated FY13 Contribution - July payment	\$69,639
Estimated FY14 Contribution - semiannual payments	\$73,276
Estimated FY14 Contribution - July payment	\$71,852

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Bridgewater/Raynham Regional School

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	162
Inactives	130
Retirees and Disableds	107
Total	<u>399</u>
Payroll	5,513,392
Average	34,033

Valuation Results

Normal Cost	
Employee	448,639
Employer	151,651
Administrative Expense	34,714
Total	<u>635,004</u>
Actuarial Accrued Liability	
Actives	12,589,250
Inactives	515,497
Retirees and Disableds	12,658,317
Total	<u>25,763,064</u>
Assets	\$14,465,507
Unfunded Actuarial Accrued Liability	\$11,297,557
Estimated FY13 Contribution - semiannual payments	\$1,205,145
Estimated FY13 Contribution - July payment	\$1,181,728
Estimated FY14 Contribution - semiannual payments	\$1,250,877
Estimated FY14 Contribution - July payment	\$1,226,572

Carver

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	210
Inactives	85
Retirees and Disableds	74
Total	<u>369</u>
Payroll	6,566,983
Average	31,271

Valuation Results

Normal Cost	
Employee	555,353
Employer	226,391
Administrative Expense	42,187
Total	<u>823,931</u>
Actuarial Accrued Liability	
Actives	15,564,957
Inactives	328,770
Retirees and Disableds	15,415,544
Total	<u>31,309,271</u>
Assets	\$17,579,604
Unfunded Actuarial Accrued Liability	\$13,729,667
Estimated FY13 Contribution - semiannual payments	\$1,504,769
Estimated FY13 Contribution - July payment	\$1,475,530
Estimated FY14 Contribution - semiannual payments	\$1,561,492
Estimated FY14 Contribution - July payment	\$1,531,151

Carver/Marion/Wareham Regional Refuse

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	3
Inactives	0
Retirees and Disableds	2
Total	5
Payroll	95,590
Average	31,863

Valuation Results

Normal Cost	
Employee	5,861
Employer	5,939
Administrative Expense	1,091
Total	12,891
Actuarial Accrued Liability	
Actives	336,587
Inactives	0
Retirees and Disableds	473,354
Total	809,941
Assets	\$454,768
Unfunded Actuarial Accrued Liability	\$355,173
Estimated FY13 Contribution - semiannual payments	\$35,530
Estimated FY13 Contribution - July payment	\$34,840
Estimated FY14 Contribution - semiannual payments	\$37,000
Estimated FY14 Contribution - July payment	\$36,281

Duxbury

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	366
Inactives	177
Retirees and Disableds	170
Total	713
Payroll	14,177,080
Average	38,735

Valuation Results

Normal Cost	
Employee	1,199,417
Employer	465,493
Administrative Expense	77,289
Total	1,742,199
Actuarial Accrued Liability	
Actives	33,921,329
Inactives	967,476
Retirees and Disableds	22,471,839
Total	57,360,644
Assets	\$32,206,991
Unfunded Actuarial Accrued Liability	\$25,153,653
Estimated FY13 Contribution - semiannual payments	\$2,565,128
Estimated FY13 Contribution - July payment	\$2,515,285
Estimated FY14 Contribution - semiannual payments	\$2,670,427
Estimated FY14 Contribution - July payment	\$2,618,539

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Duxbury Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	2
Inactives	0
Retirees and Disableds	4
Total	6
Payroll	83,510
Average	41,755

Valuation Results

Normal Cost	
Employee	6,983
Employer	3,430
Administrative Expense	547
Total	10,960
Actuarial Accrued Liability	
Actives	221,142
Inactives	0
Retirees and Disableds	184,735
Total	405,877
Assets	\$227,893
Unfunded Actuarial Accrued Liability	\$177,984
Estimated FY13 Contribution - semiannual payments	\$18,299
Estimated FY13 Contribution - July payment	\$17,943
Estimated FY14 Contribution - semiannual payments	\$19,048
Estimated FY14 Contribution - July payment	\$18,677

East Bridgewater

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	207
Inactives	87
Retirees and Disableds	122
Total	<u>416</u>
Payroll	8,233,504
Average	39,775

Valuation Results

Normal Cost	
Employee	706,823
Employer	265,550
Administrative Expense	56,316
Total	<u>1,028,689</u>
Actuarial Accrued Liability	
Actives	18,554,450
Inactives	451,746
Retirees and Disableds	22,788,626
Total	<u>41,794,822</u>
Assets	\$23,467,057
Unfunded Actuarial Accrued Liability	\$18,327,765
Estimated FY13 Contribution - semiannual payments	\$1,788,935
Estimated FY13 Contribution - July payment	\$1,754,175
Estimated FY14 Contribution - semiannual payments	\$1,863,658
Estimated FY14 Contribution - July payment	\$1,827,445

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East Bridgewater Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	4
Inactives	3
Retirees and Disableds	4
Total	11
Payroll	169,896
Average	42,474

Valuation Results

Normal Cost	
Employee	15,148
Employer	6,528
Administrative Expense	812
Total	22,488
Actuarial Accrued Liability	
Actives	193,895
Inactives	52,762
Retirees and Disableds	355,919
Total	602,576
Assets	\$338,336
Unfunded Actuarial Accrued Liability	\$264,240
Estimated FY13 Contribution - semiannual payments	\$34,864
Estimated FY13 Contribution - July payment	\$34,186
Estimated FY14 Contribution - semiannual payments	\$36,014
Estimated FY14 Contribution - July payment	\$35,315

Halifax

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	124
Inactives	50
Retirees and Disableds	46
Total	<u>220</u>
Payroll	4,162,441
Average	33,568

Valuation Results

Normal Cost	
Employee	356,540
Employer	169,131
Administrative Expense	25,260
Total	<u>550,931</u>
Actuarial Accrued Liability	
Actives	8,702,649
Inactives	144,461
Retirees and Disableds	9,899,397
Total	<u>18,746,507</u>
Assets	\$10,525,834
Unfunded Actuarial Accrued Liability	\$8,220,673
Estimated FY13 Contribution - semiannual payments	\$856,825
Estimated FY13 Contribution - July payment	\$840,177
Estimated FY14 Contribution - semiannual payments	\$891,701
Estimated FY14 Contribution - July payment	\$874,375

Hanover

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	272
Inactives	109
Retirees and Disableds	155
Total	536

Payroll	12,019,254
Average	44,188

Valuation Results

Normal Cost	
Employee	1,014,253
Employer	464,674
Administrative Expense	70,269
Total	1,549,196

Actuarial Accrued Liability	
Actives	26,941,303
Inactives	437,906
Retirees and Disableds	24,770,895
Total	52,150,104

Assets \$29,281,365

Unfunded Actuarial Accrued Liability \$22,868,739

Estimated FY13 Contribution - semiannual payments	\$2,377,229
Estimated FY13 Contribution - July payment	\$2,331,038
Estimated FY14 Contribution - semiannual payments	\$2,474,091
Estimated FY14 Contribution - July payment	\$2,426,018

Hanson

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	98
Inactives	27
Retirees and Disableds	54
Total	179
Payroll	4,908,989
Average	50,092

Valuation Results

Normal Cost	
Employee	410,145
Employer	204,824
Administrative Expense	32,437
Total	647,406
Actuarial Accrued Liability	
Actives	13,783,078
Inactives	189,516
Retirees and Disableds	10,100,964
Total	24,073,558
Assets	\$13,516,879
Unfunded Actuarial Accrued Liability	\$10,556,679
Estimated FY13 Contribution - semiannual payments	\$1,086,847
Estimated FY13 Contribution - July payment	\$1,065,729
Estimated FY14 Contribution - semiannual payments	\$1,131,297
Estimated FY14 Contribution - July payment	\$1,109,316

Kingston

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	197
Inactives	63
Retirees and Disableds	74
Total	334
Payroll	8,003,613
Average	40,627

Valuation Results

Normal Cost	
Employee	689,585
Employer	278,123
Administrative Expense	47,897
Total	1,015,605
Actuarial Accrued Liability	
Actives	20,153,184
Inactives	251,063
Retirees and Disableds	15,142,467
Total	35,546,714
Assets	\$19,958,854
Unfunded Actuarial Accrued Liability	\$15,587,860
Estimated FY13 Contribution - semiannual payments	\$1,578,368
Estimated FY13 Contribution - July payment	\$1,547,700
Estimated FY14 Contribution - semiannual payments	\$1,643,342
Estimated FY14 Contribution - July payment	\$1,611,410

Kingston Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	1
Inactives	0
Retirees and Disableds	0
Total	1
Payroll	36,494
Average	36,494

Valuation Results

Normal Cost	
Employee	3,189
Employer	176
Administrative Expense	83
Total	3,448
Actuarial Accrued Liability	
Actives	61,320
Inactives	0
Retirees and Disableds	0
Total	61,320
Assets	\$34,430
Unfunded Actuarial Accrued Liability	\$26,890
Estimated FY13 Contribution - semiannual payments	\$2,392
Estimated FY13 Contribution - July payment	\$2,346
Estimated FY14 Contribution - semiannual payments	\$2,496
Estimated FY14 Contribution - July payment	\$2,448

Lakeville

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	126
Inactives	38
Retirees and Disableds	57
Total	<u>221</u>
Payroll	4,274,441
Average	33,924

Valuation Results

Normal Cost	
Employee	359,367
Employer	161,318
Administrative Expense	25,683
Total	<u>546,368</u>
Actuarial Accrued Liability	
Actives	10,863,945
Inactives	136,238
Retirees and Disableds	8,060,218
Total	<u>19,060,401</u>
Assets	\$10,702,080
Unfunded Actuarial Accrued Liability	\$8,358,321
Estimated FY13 Contribution - semiannual payments	\$859,591
Estimated FY13 Contribution - July payment	\$842,888
Estimated FY14 Contribution - semiannual payments	\$894,761
Estimated FY14 Contribution - July payment	\$877,376

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Marion

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	89
Inactives	41
Retirees and Disableds	48
Total	178
Payroll	3,791,585
Average	42,602

Valuation Results

Normal Cost	
Employee	327,399
Employer	111,533
Administrative Expense	22,433
Total	461,365
Actuarial Accrued Liability	
Actives	7,850,483
Inactives	194,291
Retirees and Disableds	8,603,670
Total	16,648,444
Assets	\$9,347,808
Unfunded Actuarial Accrued Liability	\$7,300,636
Estimated FY13 Contribution - semiannual payments	\$718,861
Estimated FY13 Contribution - July payment	\$704,893
Estimated FY14 Contribution - semiannual payments	\$748,782
Estimated FY14 Contribution - July payment	\$734,233

Marshfield

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	535
Inactives	170
Retirees and Disableds	240
Total	<u>945</u>
Payroll	19,943,881
Average	37,278

Valuation Results

Normal Cost	
Employee	1,685,024
Employer	922,388
Administrative Expense	126,348
Total	<u>2,733,760</u>
Actuarial Accrued Liability	
Actives	45,741,333
Inactives	878,288
Retirees and Disableds	47,150,013
Total	<u>93,769,634</u>
Assets	\$52,649,998
Unfunded Actuarial Accrued Liability	\$41,119,636
Estimated FY13 Contribution - semiannual payments	\$4,368,942
Estimated FY13 Contribution - July payment	\$4,284,050
Estimated FY14 Contribution - semiannual payments	\$4,545,468
Estimated FY14 Contribution - July payment	\$4,457,147

Marshfield Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	4
Inactives	0
Retirees and Disableds	3
Total	7
Payroll	156,229
Average	39,057

Valuation Results

Normal Cost	
Employee	13,649
Employer	3,370
Administrative Expense	886
Total	17,905
Actuarial Accrued Liability	
Actives	279,085
Inactives	0
Retirees and Disableds	378,175
Total	657,260
Assets	\$369,040
Unfunded Actuarial Accrued Liability	\$288,220
Estimated FY13 Contribution - semiannual payments	\$27,256
Estimated FY13 Contribution - July payment	\$26,726
Estimated FY14 Contribution - semiannual payments	\$28,409
Estimated FY14 Contribution - July payment	\$27,857

Mattapoisett

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	104
Inactives	25
Retirees and Disableds	55
Total	<u>184</u>
Payroll	4,118,530
Average	39,601

Valuation Results

Normal Cost	
Employee	354,528
Employer	120,541
Administrative Expense	26,394
Total	<u>501,463</u>
Actuarial Accrued Liability	
Actives	9,853,766
Inactives	108,900
Retirees and Disableds	9,625,552
Total	<u>19,588,218</u>
Assets	\$10,998,439
Unfunded Actuarial Accrued Liability	\$8,589,779
Estimated FY13 Contribution - semiannual payments	\$834,170
Estimated FY13 Contribution - July payment	\$817,962
Estimated FY14 Contribution - semiannual payments	\$869,084
Estimated FY14 Contribution - July payment	\$852,197

Middleborough

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	387
Inactives	75
Retirees and Disableds	259
Total	721
Payroll	18,725,876
Average	48,387

Valuation Results

Normal Cost	
Employee	1,587,368
Employer	793,862
Administrative Expense	147,046
Total	2,528,276
Actuarial Accrued Liability	
Actives	49,473,562
Inactives	371,600
Retirees and Disableds	59,285,523
Total	109,130,685
Assets	\$61,274,958
Unfunded Actuarial Accrued Liability	\$47,855,727
Estimated FY13 Contribution - semiannual payments	\$4,798,117
Estimated FY13 Contribution - July payment	\$4,704,887
Estimated FY14 Contribution - semiannual payments	\$4,995,958
Estimated FY14 Contribution - July payment	\$4,898,883

Middleborough Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	7
Inactives	0
Retirees and Disableds	4
Total	11
Payroll	338,155
Average	48,308

Valuation Results

Normal Cost	
Employee	29,231
Employer	4,783
Administrative Expense	2,710
Total	36,724
Actuarial Accrued Liability	
Actives	968,437
Inactives	0
Retirees and Disableds	1,042,668
Total	2,011,105
Assets	\$1,129,200
Unfunded Actuarial Accrued Liability	\$881,905
Estimated FY13 Contribution - semiannual payments	\$79,164
Estimated FY13 Contribution - July payment	\$77,626
Estimated FY14 Contribution - semiannual payments	\$82,542
Estimated FY14 Contribution - July payment	\$80,938

Norwell

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	244
Inactives	68
Retirees and Disableds	131
Total	<u>443</u>
Payroll	9,168,191
Average	37,575

Valuation Results

Normal Cost	
Employee	776,267
Employer	344,464
Administrative Expense	55,059
Total	<u>1,175,790</u>
Actuarial Accrued Liability	
Actives	21,311,582
Inactives	383,115
Retirees and Disableds	19,167,301
Total	<u>40,861,998</u>
Assets	\$22,943,292
Unfunded Actuarial Accrued Liability	\$17,918,706
Estimated FY13 Contribution - semiannual payments	\$1,841,312
Estimated FY13 Contribution - July payment	\$1,805,534
Estimated FY14 Contribution - semiannual payments	\$1,916,674
Estimated FY14 Contribution - July payment	\$1,879,432

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Norwell Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	3
Inactives	1
Retirees and Disableds	1
Total	<u>5</u>
Payroll	126,309
Average	42,103

Valuation Results

Normal Cost	
Employee	11,071
Employer	3,843
Administrative Expense	462
Total	<u>15,376</u>
Actuarial Accrued Liability	
Actives	287,668
Inactives	1,774
Retirees and Disableds	53,636
Total	<u>343,078</u>
Assets	\$192,632
Unfunded Actuarial Accrued Liability	\$150,446
Estimated FY13 Contribution - semiannual payments	\$16,494
Estimated FY13 Contribution - July payment	\$16,174
Estimated FY14 Contribution - semiannual payments	\$17,153
Estimated FY14 Contribution - July payment	\$16,820

Old Rochester Regional School

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	78
Inactives	41
Retirees and Disableds	41
Total	160
Payroll	2,421,558
Average	31,046

Valuation Results

Normal Cost	
Employee	197,107
Employer	85,595
Administrative Expense	13,427
Total	296,129
Actuarial Accrued Liability	
Actives	4,680,200
Inactives	178,030
Retirees and Disableds	5,106,540
Total	9,964,770
Assets	\$5,595,043
Unfunded Actuarial Accrued Liability	\$4,369,727
Estimated FY13 Contribution - semiannual payments	\$450,762
Estimated FY13 Contribution - July payment	\$442,004
Estimated FY14 Contribution - semiannual payments	\$469,184
Estimated FY14 Contribution - July payment	\$460,067

Onset Fire District

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	17
Inactives	4
Retirees and Disableds	14
Total	35
Payroll	673,105
Average	39,594

Valuation Results

Normal Cost	
Employee	58,363
Employer	29,176
Administrative Expense	5,504
Total	93,043
Actuarial Accrued Liability	
Actives	1,616,454
Inactives	22,942
Retirees and Disableds	2,445,244
Total	4,084,640
Assets	\$2,293,453
Unfunded Actuarial Accrued Liability	\$1,791,187
Estimated FY13 Contribution - semiannual payments	\$190,116
Estimated FY13 Contribution - July payment	\$186,422
Estimated FY14 Contribution - semiannual payments	\$197,506
Estimated FY14 Contribution - July payment	\$193,669

Pembroke

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	272
Inactives	78
Retirees and Disableds	112
Total	462
Payroll	11,013,568
Average	40,491

Valuation Results

Normal Cost	
Employee	927,317
Employer	439,343
Administrative Expense	66,247
Total	1,432,907
Actuarial Accrued Liability	
Actives	26,847,590
Inactives	199,277
Retirees and Disableds	22,118,829
Total	49,165,696
Assets	\$27,605,672
Unfunded Actuarial Accrued Liability	\$21,560,024
Estimated FY13 Contribution - semiannual payments	\$2,373,229
Estimated FY13 Contribution - July payment	\$2,327,115
Estimated FY14 Contribution - semiannual payments	\$2,468,398
Estimated FY14 Contribution - July payment	\$2,420,435

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Plymouth County Mosquito Control

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	11
Inactives	0
Retirees and Disableds	7
Total	18
Payroll	623,792
Average	56,708

Valuation Results

Normal Cost	
Employee	53,886
Employer	7,394
Administrative Expense	4,698
Total	65,978
Actuarial Accrued Liability	
Actives	1,592,636
Inactives	0
Retirees and Disableds	1,893,822
Total	3,486,458
Assets	\$1,957,585
Unfunded Actuarial Accrued Liability	\$1,528,873
Estimated FY13 Contribution - semiannual payments	\$154,745
Estimated FY13 Contribution - July payment	\$151,738
Estimated FY14 Contribution - semiannual payments	\$160,577
Estimated FY14 Contribution - July payment	\$157,456

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Plympton

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	34
Inactives	10
Retirees and Disableds	19
Total	63

Payroll	1,054,997
Average	31,029

Valuation Results

Normal Cost	
Employee	87,199
Employer	53,885
Administrative Expense	8,432
Total	149,516

Actuarial Accrued Liability	
Actives	2,523,643
Inactives	75,066
Retirees and Disableds	3,659,364
Total	6,258,073

Assets \$3,513,798

Unfunded Actuarial Accrued Liability \$2,744,275

Estimated FY13 Contribution - semiannual payments	\$300,248
Estimated FY13 Contribution - July payment	\$294,414
Estimated FY14 Contribution - semiannual payments	\$311,820
Estimated FY14 Contribution - July payment	\$305,761

Rochester

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	80
Inactives	37
Retirees and Disableds	23
Total	<u>140</u>
Payroll	2,969,838
Average	37,123

Valuation Results

Normal Cost	
Employee	256,223
Employer	119,989
Administrative Expense	14,082
Total	<u>390,294</u>
Actuarial Accrued Liability	
Actives	5,883,905
Inactives	215,634
Retirees and Disableds	4,351,419
Total	<u>10,450,958</u>
Assets	\$5,868,029
Unfunded Actuarial Accrued Liability	\$4,582,929
Estimated FY13 Contribution - semiannual payments	\$535,217
Estimated FY13 Contribution - July payment	\$524,817
Estimated FY14 Contribution - semiannual payments	\$555,359
Estimated FY14 Contribution - July payment	\$544,568

Rockland

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	309
Inactives	115
Retirees and Disableds	173
Total	<u>597</u>
Payroll	11,722,707
Average	37,938

Valuation Results

Normal Cost	
Employee	967,971
Employer	417,587
Administrative Expense	87,555
Total	<u>1,473,113</u>
Actuarial Accrued Liability	
Actives	32,671,465
Inactives	293,474
Retirees and Disableds	32,014,227
Total	<u>64,979,166</u>
Assets	\$36,484,657
Unfunded Actuarial Accrued Liability	\$28,494,509
Estimated FY13 Contribution - semiannual payments	\$2,867,706
Estimated FY13 Contribution - July payment	\$2,811,985
Estimated FY14 Contribution - semiannual payments	\$2,984,007
Estimated FY14 Contribution - July payment	\$2,926,026

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Scituate

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	381
Inactives	129
Retirees and Disableds	214
Total	724
Payroll	15,034,855
Average	39,462

Valuation Results

Normal Cost	
Employee	1,271,765
Employer	671,961
Administrative Expense	104,422
Total	2,048,148
Actuarial Accrued Liability	
Actives	37,554,948
Inactives	619,549
Retirees and Disableds	39,322,605
Total	77,497,102
Assets	\$43,513,258
Unfunded Actuarial Accrued Liability	\$33,983,844
Estimated FY13 Contribution - semiannual payments	\$3,512,460
Estimated FY13 Contribution - July payment	\$3,444,211
Estimated FY14 Contribution - semiannual payments	\$3,655,896
Estimated FY14 Contribution - July payment	\$3,584,859

Scituate Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	5
Inactives	0
Retirees and Disableds	7
Total	12

Payroll	232,467
Average	46,493

Valuation Results

Normal Cost	
Employee	20,613
Employer	17,219
Administrative Expense	2,226
Total	40,058

Actuarial Accrued Liability	
Actives	210,597
Inactives	0
Retirees and Disableds	1,441,506
Total	1,652,103

Assets	\$927,627
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Unfunded Actuarial Accrued Liability	\$724,476
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Estimated FY13 Contribution - semiannual payments	\$95,839
Estimated FY13 Contribution - July payment	\$93,976
Estimated FY14 Contribution - semiannual payments	\$98,975
Estimated FY14 Contribution - July payment	\$97,052

Silver Lake Regional School

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	108
Inactives	38
Retirees and Disableds	45
Total	191
Payroll	3,253,210
Average	30,122

Valuation Results

Normal Cost	
Employee	264,486
Employer	96,352
Administrative Expense	17,711
Total	378,549
Actuarial Accrued Liability	
Actives	8,127,653
Inactives	155,344
Retirees and Disableds	4,860,973
Total	13,143,970
Assets	\$7,380,108
Unfunded Actuarial Accrued Liability	\$5,763,862
Estimated FY13 Contribution - semiannual payments	\$491,771
Estimated FY13 Contribution - July payment	\$482,216
Estimated FY14 Contribution - semiannual payments	\$511,804
Estimated FY14 Contribution - July payment	\$501,859

South Shore Regional School

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	40
Inactives	8
Retirees and Disableds	21
Total	<u>69</u>
Payroll	1,484,487
Average	37,112

Valuation Results

Normal Cost	
Employee	123,796
Employer	51,161
Administrative Expense	8,247
Total	<u>183,204</u>
Actuarial Accrued Liability	
Actives	2,796,411
Inactives	56,170
Retirees and Disableds	3,267,776
Total	<u>6,120,357</u>
Assets	\$3,436,473
Unfunded Actuarial Accrued Liability	\$2,683,884
Estimated FY13 Contribution - semiannual payments	\$275,322
Estimated FY13 Contribution - July payment	\$269,973
Estimated FY14 Contribution - semiannual payments	\$286,599
Estimated FY14 Contribution - July payment	\$281,030

Wareham

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	323
Inactives	90
Retirees and Disableds	195
Total	<u>608</u>
Payroll	11,755,149
Average	36,394

Valuation Results

Normal Cost	
Employee	988,492
Employer	339,950
Administrative Expense	83,001
Total	<u>1,411,443</u>
Actuarial Accrued Liability	
Actives	28,860,736
Inactives	812,665
Retirees and Disableds	31,926,467
Total	<u>61,599,868</u>
Assets	\$34,587,241
Unfunded Actuarial Accrued Liability	\$27,012,627
Estimated FY13 Contribution - semiannual payments	\$2,788,837
Estimated FY13 Contribution - July payment	\$2,734,648
Estimated FY14 Contribution - semiannual payments	\$2,897,569
Estimated FY14 Contribution - July payment	\$2,841,268

Wareham Fire District

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	48
Inactives	2
Retirees and Disableds	21
Total	71
Payroll	2,306,507
Average	48,052

Valuation Results

Normal Cost	
Employee	198,322
Employer	88,188
Administrative Expense	14,090
Total	300,600
Actuarial Accrued Liability	
Actives	7,067,697
Inactives	2,817
Retirees and Disableds	3,386,755
Total	10,457,269
Assets	\$5,871,572
Unfunded Actuarial Accrued Liability	\$4,585,697
Estimated FY13 Contribution - semiannual payments	\$486,992
Estimated FY13 Contribution - July payment	\$477,529
Estimated FY14 Contribution - semiannual payments	\$506,279
Estimated FY14 Contribution - July payment	\$496,442

Wareham Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	3
Inactives	0
Retirees and Disableds	1
Total	4

Payroll	88,519
Average	29,506

Valuation Results

Normal Cost	
Employee	6,558
Employer	4,260
Administrative Expense	518
Total	11,336

Actuarial Accrued Liability	
Actives	296,888
Inactives	0
Retirees and Disableds	87,513
Total	384,401

Assets \$215,834

Unfunded Actuarial Accrued Liability \$168,567

Estimated FY13 Contribution - semiannual payments	\$18,431
Estimated FY13 Contribution - July payment	\$18,073
Estimated FY14 Contribution - semiannual payments	\$19,168
Estimated FY14 Contribution - July payment	\$18,795

West Bridgewater

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	150
Inactives	49
Retirees and Disableds	84
Total	<u>283</u>
Payroll	6,212,305
Average	41,415

Valuation Results

Normal Cost	
Employee	532,770
Employer	248,286
Administrative Expense	40,938
Total	<u>821,994</u>
Actuarial Accrued Liability	
Actives	14,137,874
Inactives	218,907
Retirees and Disableds	16,025,471
Total	<u>30,382,252</u>
Assets	\$17,059,099
Unfunded Actuarial Accrued Liability	\$13,323,153
Estimated FY13 Contribution - semiannual payments	\$1,360,553
Estimated FY13 Contribution - July payment	\$1,334,116
Estimated FY14 Contribution - semiannual payments	\$1,416,374
Estimated FY14 Contribution - July payment	\$1,388,853

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Whitman

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	110
Inactives	19
Retirees and Disableds	119
Total	<u>248</u>
Payroll	5,761,386
Average	52,376

Valuation Results

Normal Cost	
Employee	511,625
Employer	248,868
Administrative Expense	46,532
Total	<u>807,025</u>
Actuarial Accrued Liability	
Actives	12,136,129
Inactives	119,512
Retirees and Disableds	22,278,022
Total	<u>34,533,663</u>
Assets	\$19,390,044
Unfunded Actuarial Accrued Liability	\$15,143,619
Estimated FY13 Contribution - semiannual payments	\$1,510,181
Estimated FY13 Contribution - July payment	\$1,480,837
Estimated FY14 Contribution - semiannual payments	\$1,572,723
Estimated FY14 Contribution - July payment	\$1,542,164

Whitman/Hanson Regional School

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	197
Inactives	75
Retirees and Disableds	95
Total	<u>367</u>
Payroll	5,216,934
Average	26,482

Valuation Results

Normal Cost	
Employee	432,130
Employer	137,870
Administrative Expense	28,842
Total	<u>598,842</u>
Actuarial Accrued Liability	
Actives	11,229,053
Inactives	315,658
Retirees and Disableds	9,860,142
Total	<u>21,404,853</u>
Assets	\$12,018,448
Unfunded Actuarial Accrued Liability	\$9,386,405
Estimated FY13 Contribution - semiannual payments	\$918,223
Estimated FY13 Contribution - July payment	\$900,381
Estimated FY14 Contribution - semiannual payments	\$956,542
Estimated FY14 Contribution - July payment	\$937,956

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Whitman Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	6
Inactives	1
Retirees and Disableds	5
Total	<u>12</u>
Payroll	272,608
Average	45,435

Valuation Results

Normal Cost	
Employee	23,112
Employer	3,292
Administrative Expense	1,961
Total	<u>28,365</u>
Actuarial Accrued Liability	
Actives	641,727
Inactives	9,457
Retirees and Disableds	803,989
Total	<u>1,455,173</u>
Assets	\$817,054
Unfunded Actuarial Accrued Liability	\$638,119
Estimated FY13 Contribution - semiannual payments	\$59,964
Estimated FY13 Contribution - July payment	\$58,799
Estimated FY14 Contribution - semiannual payments	\$62,404
Estimated FY14 Contribution - July payment	\$61,191

Abington Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	2
Inactives	0
Retirees and Disableds	3
Total	5
Payroll	104,295
Average	52,148

Valuation Results

Normal Cost	
Employee	8,020
Employer	(188)
Administrative Expense	839
Total	8,671
Actuarial Accrued Liability	
Actives	296,810
Inactives	0
Retirees and Disableds	325,962
Total	622,772
Assets	\$349,676
Unfunded Actuarial Accrued Liability	\$273,096
Estimated FY13 Contribution - semiannual payments	\$27,090
Estimated FY13 Contribution - July payment	\$26,564
Estimated FY14 Contribution - semiannual payments	\$28,091
Estimated FY14 Contribution - July payment	\$27,545

Pembroke Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	5
Inactives	0
Retirees and Disableds	3
Total	8
Payroll	219,503
Average	43,901

Valuation Results

Normal Cost	
Employee	18,611
Employer	5,140
Administrative Expense	1,656
Total	25,407
Actuarial Accrued Liability	
Actives	465,849
Inactives	0
Retirees and Disableds	762,909
Total	1,228,758
Assets	\$689,926
Unfunded Actuarial Accrued Liability	\$538,832
Estimated FY13 Contribution - semiannual payments	\$49,693
Estimated FY13 Contribution - July payment	\$48,727
Estimated FY14 Contribution - semiannual payments	\$51,817
Estimated FY14 Contribution - July payment	\$50,810

Hanson Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	3
Inactives	1
Retirees and Disableds	2
Total	6
Payroll	110,306
Average	36,769

Valuation Results

Normal Cost	
Employee	9,431
Employer	3,805
Administrative Expense	643
Total	13,879
Actuarial Accrued Liability	
Actives	188,394
Inactives	1,105
Retirees and Disableds	287,632
Total	477,131
Assets	\$267,901
Unfunded Actuarial Accrued Liability	\$209,230
Estimated FY13 Contribution - semiannual payments	\$21,264
Estimated FY13 Contribution - July payment	\$20,851
Estimated FY14 Contribution - semiannual payments	\$22,138
Estimated FY14 Contribution - July payment	\$21,708

Rockland Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	4
Inactives	0
Retirees and Disableds	4
Total	8
Payroll	192,126
Average	48,032

Valuation Results

Normal Cost	
Employee	16,132
Employer	14,827
Administrative Expense	1,244
Total	32,203
Actuarial Accrued Liability	
Actives	238,443
Inactives	0
Retirees and Disableds	684,811
Total	923,254
Assets	\$518,391
Unfunded Actuarial Accrued Liability	\$404,863
Estimated FY13 Contribution - semiannual payments	\$49,267
Estimated FY13 Contribution - July payment	\$48,310
Estimated FY14 Contribution - semiannual payments	\$51,161
Estimated FY14 Contribution - July payment	\$50,167

Halifax Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	2
Inactives	0
Retirees and Disableds	0
Total	2
Payroll	170,039
Average	85,020

Valuation Results

Normal Cost	
Employee	13,859
Employer	1,815
Administrative Expense	1,068
Total	16,742
Actuarial Accrued Liability	
Actives	792,778
Inactives	0
Retirees and Disableds	0
Total	792,778
Assets	\$445,131
Unfunded Actuarial Accrued Liability	\$347,647
Estimated FY13 Contribution - semiannual payments	\$30,428
Estimated FY13 Contribution - July payment	\$29,836
Estimated FY14 Contribution - semiannual payments	\$31,757
Estimated FY14 Contribution - July payment	\$31,140

Mattapoissett Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	2
Inactives	0
Retirees and Disableds	0
Total	<u>2</u>
Payroll	76,582
Average	38,291

Valuation Results

Normal Cost	
Employee	5,702
Employer	953
Administrative Expense	434
Total	<u>7,089</u>
Actuarial Accrued Liability	
Actives	322,066
Inactives	0
Retirees and Disableds	0
Total	<u>322,066</u>
Assets	\$180,834
Unfunded Actuarial Accrued Liability	\$141,232
Estimated FY13 Contribution - semiannual payments	\$12,596
Estimated FY13 Contribution - July payment	\$12,351
Estimated FY14 Contribution - semiannual payments	\$13,142
Estimated FY14 Contribution - July payment	\$12,887

Acushnet/Rochester/Marion Health District

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	1
Inactives	0
Retirees and Disableds	0
Total	1
Payroll	62,624
Average	62,624

Valuation Results

Normal Cost	
Employee	5,364
Employer	(1,215)
Administrative Expense	337
Total	4,486
Actuarial Accrued Liability	
Actives	249,869
Inactives	0
Retirees and Disableds	0
Total	249,869
Assets	\$140,297
Unfunded Actuarial Accrued Liability	\$109,572
Estimated FY13 Contribution - semiannual payments	\$7,646
Estimated FY13 Contribution - July payment	\$7,497
Estimated FY14 Contribution - semiannual payments	\$8,016
Estimated FY14 Contribution - July payment	\$7,861

West Bridgewater Housing

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	1
Inactives	0
Retirees and Disableds	0
Total	1
Payroll	48,044
Average	48,044

Valuation Results

Normal Cost	
Employee	3,806
Employer	3,908
Administrative Expense	328
Total	8,042
Actuarial Accrued Liability	
Actives	243,232
Inactives	0
Retirees and Disableds	0
Total	243,232
Assets	\$136,570
Unfunded Actuarial Accrued Liability	\$106,662
Estimated FY13 Contribution - semiannual payments	\$12,981
Estimated FY13 Contribution - July payment	\$12,729
Estimated FY14 Contribution - semiannual payments	\$13,481
Estimated FY14 Contribution - July payment	\$13,219

South Shore Tri Town Development

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	7
Inactives	3
Retirees and Disableds	0
Total	<u>10</u>
Payroll	538,270
Average	76,896

Valuation Results

Normal Cost	
Employee	47,272
Employer	29,488
Administrative Expense	2,051
Total	<u>78,811</u>
Actuarial Accrued Liability	
Actives	1,509,030
Inactives	13,016
Retirees and Disableds	0
Total	<u>1,522,046</u>
Assets	\$854,602
Unfunded Actuarial Accrued Liability	\$667,444
Estimated FY13 Contribution - semiannual payments	\$86,709
Estimated FY13 Contribution - July payment	\$85,024
Estimated FY14 Contribution - semiannual payments	\$89,969
Estimated FY14 Contribution - July payment	\$88,221



Retirement Board

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	0
Inactives	0
Retirees and Disableds	0
Total	0
Payroll	0
Average	#DIV/0!

Valuation Results

Normal Cost	
Employee	0
Employer	0
Administrative Expense	0
Total	0
Actuarial Accrued Liability	
Actives	0
Inactives	0
Retirees and Disableds	0
Total	0
Assets	\$0
Unfunded Actuarial Accrued Liability	\$0
Estimated FY13 Contribution - semiannual payments	\$0
Estimated FY13 Contribution - July payment	\$0
Estimated FY14 Contribution - semiannual payments	\$0
Estimated FY14 Contribution - July payment	\$0

Other

Actuarial Valuation as of January 1, 2011

Participant Information

Participants	
Actives	1
Inactives	0
Retirees and Disableds	4
Total	<u>5</u>
Payroll	79,788
Average	79,788

Valuation Results

Normal Cost	
Employee	6,614
Employer	2,047
Administrative Expense	684
Total	<u>9,345</u>
Actuarial Accrued Liability	
Actives	326,323
Inactives	0
Retirees and Disableds	181,456
Total	<u>507,779</u>
Assets	\$285,109
Unfunded Actuarial Accrued Liability	\$222,670
Estimated FY13 Contribution - semiannual payments	\$20,451
Estimated FY13 Contribution - July payment	\$20,054
Estimated FY14 Contribution - semiannual payments	\$21,327
Estimated FY14 Contribution - July payment	\$20,913