

REPORT ON THE
SIXTY-FOURTH ACTUARIAL VALUATION
OF THE STATE TEACHERS'
RETIREMENT SYSTEM OF VERMONT
PREPARED AS OF JUNE 30, 2011

OCTOBER 24, 2011

October 24, 2011

Board of Trustees
State Teachers' Retirement System of Vermont
Montpelier, Vermont 05609

Dear Board Members:

Section 1942, subsection (n), of Title 16, Chapter 55, Vermont Statutes Annotated, relating to the State Teachers' Retirement System of Vermont, provides in part that the actuary shall make annual valuations of the system.

The sixty-fourth actuarial valuation of the system, prepared as of June 30, 2011, has now been completed and the results are presented in this report, together with our recommendations in regard to contributions payable by the State. The Table of Contents, which immediately follows, outlines the material contained in this report.

On the basis of the current valuation, we recommend that a normal contribution of 1.80% of covered compensation and a payment of \$47,504,388 towards the liquidation of the unfunded accrued liability be made. Based on the reported payroll, the total contribution amounts to \$57,363,859 for the year beginning July 1, 2011. Schedule G provides the estimated contributions for the following two fiscal years.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet 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 I am available to answer questions concerning it.

Respectfully submitted,



David L. Driscoll, F.S.A., E.A., M.A.A.A.
Principal, Consulting Actuary

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REPORT ON THE SIXTY-FOURTH ACTUARIAL VALUATION OF THE
STATE TEACHERS' RETIREMENT SYSTEM OF VERMONT
PREPARED AS OF JUNE 30, 2011

SECTION I - SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below:

Valuation Date	June 30, 2010	June 30, 2011
Active members		
Vested	7,994	7,780
Not vested	<u>2,515</u>	<u>2,343</u>
Total	10,509	10,123
Compensation	\$562,149,916	\$547,748,405
Average age	47.10	46.94
Average service	13.80	13.75
Average compensation	\$53,492	\$54,109
Retired members and beneficiaries		
Number	6,146	7,005
Annual retirement allowances	\$95,664,775	\$117,019,135
Inactive members	2,853	2,675
Terminated vested members	718	647
Adjusted assets for valuation	\$1,410,368,434	\$1,486,698,448
Unfunded actuarial accrued liability	\$711,823,061	\$845,107,880
Annual actuarial accrued liability contribution	\$38,731,326	\$47,504,388
Normal contribution rate	1.80%	1.80%

2. Comments on the results of the valuation are given in Section IV and further discussion of the contribution levels is provided in Section V.
3. Schedule B outlines the full set of actuarial assumptions and methods employed in the current valuation. There have been changes in the assumptions since the last valuation. The assumptions were updated based on a recent experience study covering the period from July 1, 2005, through June 30, 2010.
4. Schedule C outlines the benefit provisions taken into account in the valuation. There have been no changes in benefit provisions since the last valuation.
5. An analysis of the actuarial experience of the System during the past fiscal year is presented in Section IV of this report. Some aspects of this experience are presented in graphs included in Section VI of this report.
6. Schedule F shows a graph of projected benefit payments over the next ten years.
7. Schedule G shows projected state contributions to the System for the two following fiscal years.

SECTION II - MEMBER DATA

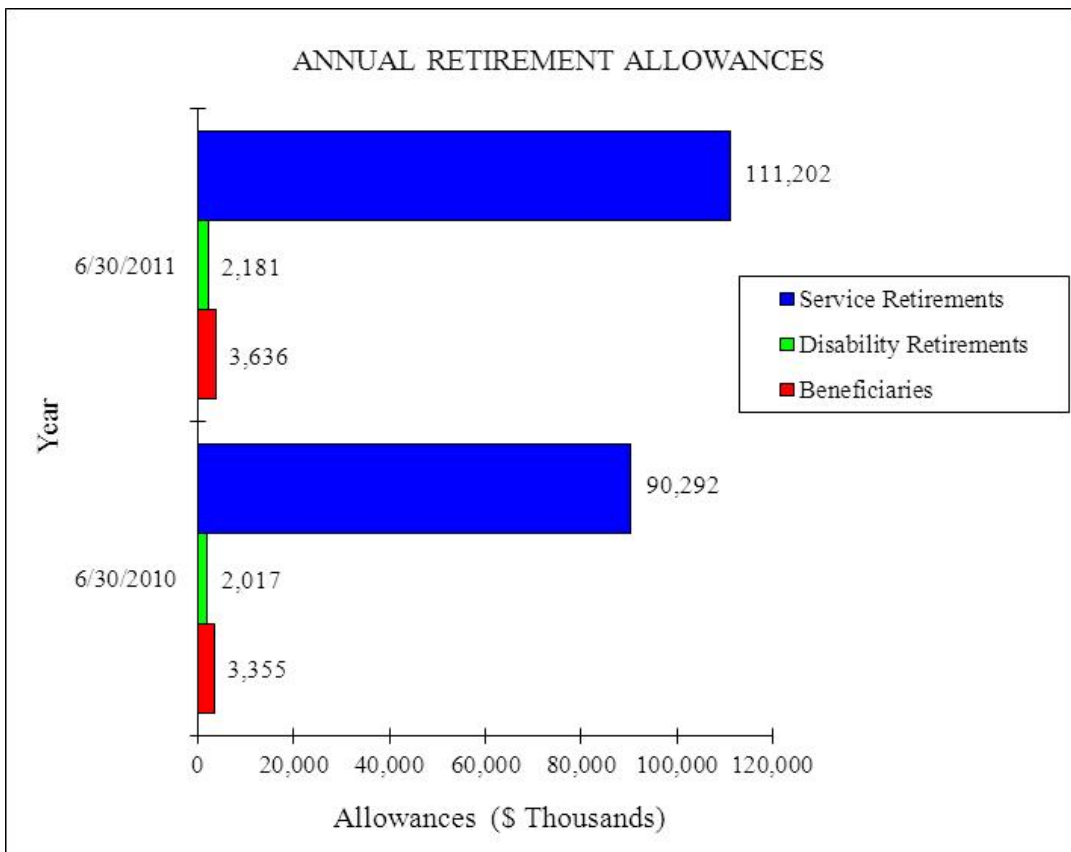
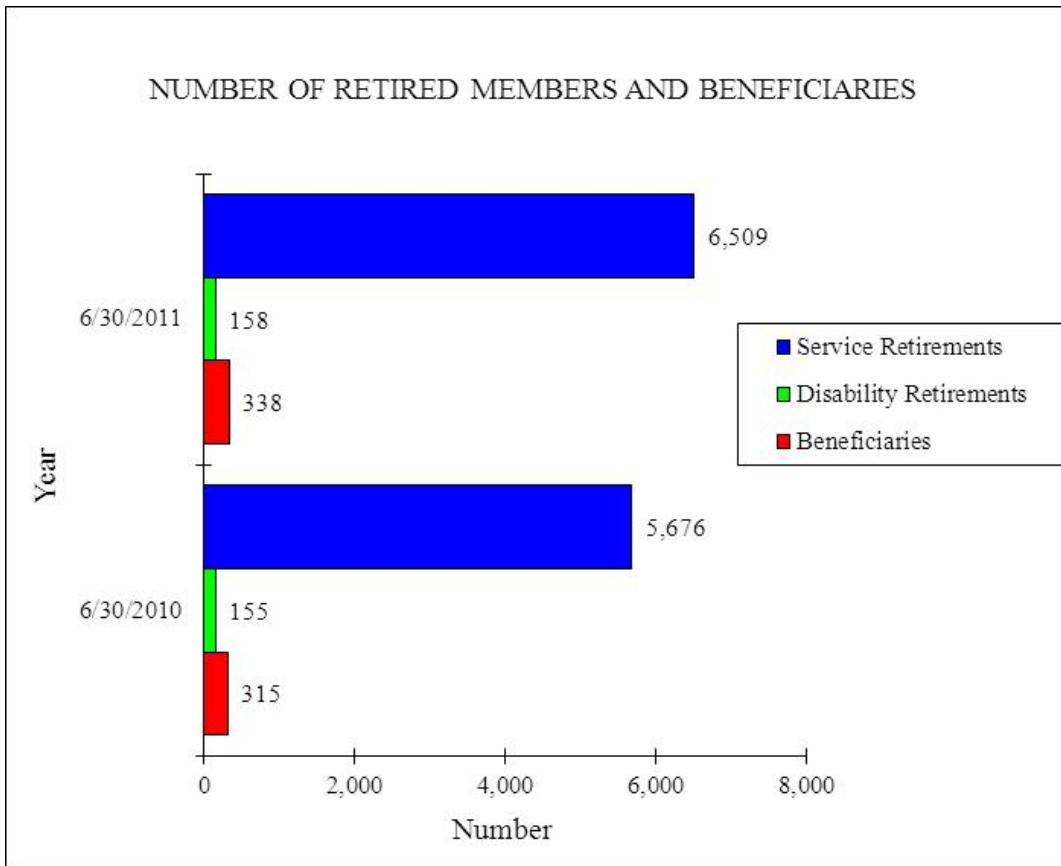
1. Member data were furnished by the Retirement Division of the State Treasurer's Office.
2. Schedule D presents tables that summarize active members, by age and service and service pensioners, disability pensioners and beneficiaries by annual benefit levels.
3. The following tables show a summary of membership of the system:

THE NUMBER AND ANNUAL ALLOWANCES OF RETIRED MEMBERS
AND BENEFICIARIES AS OF JUNE 30, 2011

Group	Number	Annual Allowances
Service Retirements	6,509	\$111,201,994
Disability Retirements	158	\$2,181,398
Beneficiaries of Deceased Members	338	\$3,635,743
TOTAL	7,005	\$117,019,135

THE NUMBER AND ANNUAL COMPENSATION OF
ACTIVE MEMBERS AS OF JUNE 30, 2011

Group	Number	Annual Allowances
Group A	17	\$1,161,596
Group C	10,106	\$546,586,809
TOTAL	10,123	\$547,748,405



SECTION III – ASSETS

1. The asset values and cash flow amounts shown below were taken from reports supplied by the Office of the State Treasurer. The information contained in the reports has not yet been audited but is believed to be sufficiently accurate for purposes of this valuation.
2. For actuarial purposes, the assets are valued using a method that reflects the market value of assets through gradual recognition of return on assets that differ from the assumed 8.25% rate of return, provided the adjusted asset value is within 20% of the market value. The following shows the development of the valuation assets.

Assets for valuation purposes, June 30, 2010			\$ 1,410,368,434
Cash flow during year (net of investment income)			
Contributions paid	\$	82,538,491	
Benefit payouts		(108,758,513)	
Expenses		(26,460,554)	
Net			(52,680,576)
Expected investment income (8.25%)			120,493,469
Preliminary asset value			\$ 1,478,181,327
Market value, June 30, 2011	\$	1,520,766,932	
Preliminary asset value		1,478,181,327	
Unrecognized appreciation	\$	42,585,605	
Adjustment		x 20%	\$ 8,517,121
Assets for valuation purposes, June 30, 2011			\$ 1,486,698,448

3. The assets for valuation purposes are 97.8% of market value.
4. The investment rate of return for the year ending June 30, 2011, is 9.32%, based on the valuation assets.

SECTION IV - COMMENTS ON VALUATION

1. Schedule A of the report contains the valuation balance sheet, which shows the present and prospective assets and liabilities of the system as of June 30, 2011.
2. The adjusted assets of the system amount to \$ 1,486,698,448.
3. The actuarial accrued liability for current retired members, terminated vested members and beneficiaries amounts to \$1,307,685,859, and the actuarial accrued liability for current active and inactive members amounts to \$1,024,120,469, for a total actuarial accrued liability of \$2,331,806,328. Therefore, after subtracting assets of \$1,486,698,448, the unfunded actuarial accrued liability is \$845,107,880.
4. The State's contributions consist of a normal contribution and an accrued liability contribution. The accrued liability contribution represents the amount necessary to liquidate the unfunded accrued liability as of June 30, 2011, over a 27-year period from that date in installments that increase by 5% per year. Normal contributions represent the contributions needed to fund the benefits earned during the year. Under the Entry Age Normal funding method, the normal contribution as of June 30, 2011, is \$9,859,471, or 1.80% of members' compensation.
5. The expected unfunded actuarial accrued liability as of June 30, 2011, may be compared to the actual actuarial accrued liability to determine the gain or loss during the year. The following table presents a summary of the approximate effects of major experience factors affecting the system's unfunded actuarial accrued liability since June 30, 2010.

1. Unfunded liability, 6/30/2010	\$711,823,061
2. Total Normal cost	35,846,531
3. Contribution	(82,538,491)
4. Interest on 1, 2 and 3	58,345,495
5. Changes in Actuarial Assumptions	54,067,732
6. Changes in System	0
7. Expected unfunded liability, 6/30/2011	777,544,328
8. Accrued liability, 6/30/2011	2,331,806,328
9. Actuarial value of assets, 6/30/2011	1,486,698,448
10. Actual unfunded liability, 8. - 9.	845,107,880
11. Total gain/(loss), 7. - 10.	(\$67,563,552)

Sources of gain/(loss)	
Investment experience	\$ 8,517,121
Expenses other than investment expenses	(21,240,905)
Retirement experience	(16,297,444)
Termination experience	(31,725,921)
Disability experience	(517,915)
Mortality among active participants	423,221
Mortality among retirees, beneficiaries and terminated vested participants.	(2,590,947)
Salary experience	24,546,383
COLA experience	5,771,530
New entrants with prior service	(1,054,706)
Other (Data corrections, service purchases, etc)	(33,393,969)
Total	(\$67,563,552)

SECTION V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 1942, Subsection (n), of Title 16, Chapter 55, Vermont Statutes Annotated, relating to the State Teachers' Retirement System of Vermont, indicates that the actuary shall submit to the Board of Trustees his recommendation as to the contributions payable by the State based on annual valuations of the assets and liabilities of the system.
2. On the basis of the results of the current valuation, the actuary recommends that the Board of Trustees certify the following contributions for the fiscal year commencing July 1, 2011:

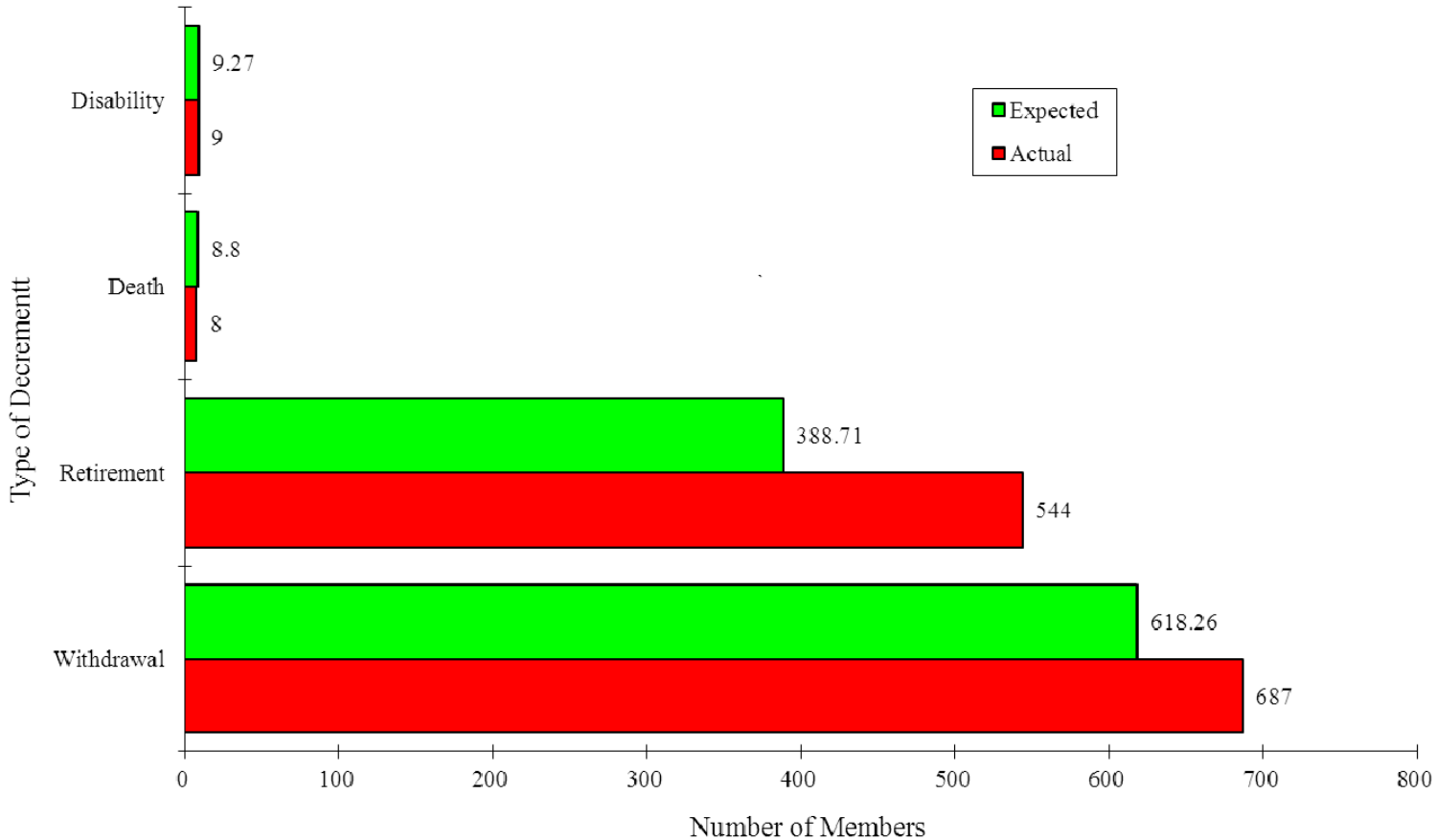
Normal contribution	\$9,859,471
Accrued liability contribution	<u>47,504,388</u>
Total	\$57,363,859

SECTION VI – EXPERIENCE

1. Records are maintained whereby the actual experience of the system may be compared with the expected experience based on the tables adopted by the Board of Trustees. This experience is reviewed periodically, in accordance with the applicable statutes, and any change suggested by the cumulative experience of the system will be recommended to the Board.
2. The active service and salary experience for the latest year is summarized in graphs on the following pages.

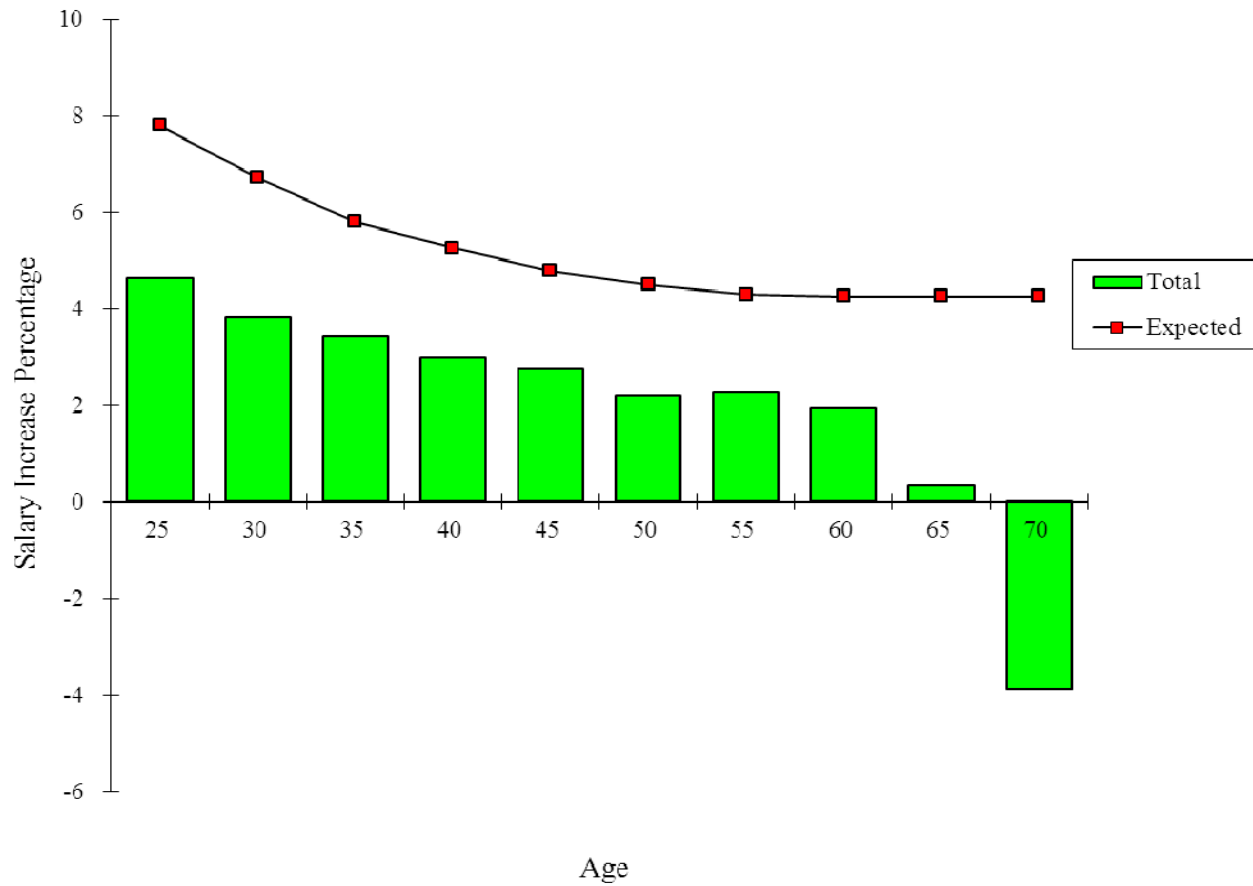
ACTIVE SERVICE EXPERIENCE

July 1, 2010
through June 30, 2011



GROUP C SALARY EXPERIENCE

JULY 1, 2010 THROUGH JUNE 30, 2011



SECTION VII - ACCOUNTING INFORMATION

1. Based on our interpretation of Statement No. 25 of the Governmental Accounting Standards Board (GASB), we are providing the following Schedule of Funding Progress for accounting purposes.

SCHEDULE OF FUNDING PROGRESS

(dollar amounts in thousands)

Year Ending June 30	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)
2011	\$1,486,698	\$2,331,806	\$845,108	63.8%	\$547,748	154.3%
2010	1,410,368	2,122,191	711,823	66.5%	562,150	126.6%
2009	1,374,079	2,101,838	727,759	65.4%	561,588	129.6%
2008	1,605,462	1,984,967	379,505	80.9%	535,807	70.8%
2007	1,541,860	1,816,650	274,790	84.9%	515,573	53.3%
2006	1,427,393	1,686,502	259,108	84.6%	499,044	51.9%
2005	1,354,006	1,492,150	138,144	90.7%	468,858	29.5%
2004	1,284,833	1,424,661	139,829	90.2%	453,517	30.8%
2003	1,218,001	1,358,822	140,821	89.6%	437,239	32.2%
2002	1,169,294	1,307,202	137,908	89.5%	418,904	32.9%
2001	1,116,846	1,254,341	137,496	89.0%	403,258	34.1%
2000	1,037,466	1,174,087	136,621	88.4%	387,999	35.2%
1999	931,056	1,065,754	134,698	87.4%	372,299	36.2%
1998	821,977	955,694	133,717	86.0%	357,899	37.4%
1997	717,396	849,179	131,783	84.5%	364,695	36.1%
1996	570,776	700,377	129,601	81.5%	355,895	36.4%

Please note: the System's funding method was changed from Entry Age Normal with Frozen Initial Liability to Entry Age Normal effective with the 2006 actuarial valuation.

2. GASB Statement No. 27 requires the development of Annual Pension Cost and Net Pension Obligation. This development is shown in the following table.

DEVELOPMENT OF PENSION COST AND NET PENSION OBLIGATION (NPO)

Year Ending June 30	Annual Required Contribution	Interest on NPO	Amortization of NPO	Pension Cost (1)+(2)-(3)	Actual Contribution	Change in NPO (4)-(5)	NPO Balance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1994	25,805,408	2,772,593	2,970,742	25,607,259	20,580,000	5,027,259	37,646,002
1995	27,451,926	3,199,910	3,544,821	27,107,015	18,080,000	9,027,015	46,673,017
1996	29,884,559	3,967,206	4,374,228	29,477,537	11,480,000	17,997,537	64,670,554
1997	30,954,237	5,496,997	4,228,309	32,222,925	18,080,000	14,142,925	78,813,479
1998	33,519,949	6,699,146	5,320,758	34,898,337	18,106,581	16,791,756	95,605,235
1999	27,232,542	8,126,445	6,679,063	28,679,924	18,080,000	10,599,924	106,205,159
2000	23,573,184	9,027,439	7,696,429	24,904,194	18,586,240	6,317,954	112,523,113
2001	20,882,521	9,564,465	8,481,287	21,965,699	19,143,827	2,821,872	115,344,985
2002	21,965,322	9,804,324	9,069,835	22,699,811	20,446,282	2,253,529	117,598,514
2003	23,197,088	9,995,874	9,679,438	27,711,317	20,446,282	7,267,035	124,865,549
2004	29,608,892	9,989,244	10,799,409	28,798,727	24,446,282	4,352,445	129,217,994
2005	43,592,332	10,337,440	11,445,481	42,484,291	24,446,282	18,038,009	147,256,003
2006	49,923,599	11,780,480	13,862,402	47,841,677	24,985,506	22,856,171	170,112,174
2007	38,200,000	14,034,254	17,120,008	35,114,246	38,496,410	(3,382,164)	166,730,009
2008	40,749,097	13,755,226	8,874,356	45,629,967	40,955,566	4,674,401	171,404,411
2009	37,077,050	14,140,864	9,326,363	41,891,551	37,349,818	4,541,733	175,946,144
2010	41,503,002	14,515,557	9,798,491	46,220,068	41,920,603	4,299,465	180,245,609
2011	48,233,006	14,870,263	9,807,425	53,295,844	50,268,131	3,027,713	183,273,322

3. The Annual Required Contribution for fiscal year 2011 is derived as follows:

\$10,270,041 Normal cost component of FY 2011 recommended contribution reported in letter dated May 10, 2010.

\$37,962,965 Amortization of unfunded liability in FY 2011 recommended contribution reported in letter dated May 10, 2010.

\$48,233,006 Total

SCHEDULE A

VALUATION BALANCE SHEET
SHOWING THE ASSETS AND LIABILITIES OF THE
STATE TEACHERS' RETIREMENT SYSTEM OF VERMONT
PREPARED AS OF JUNE 30, 2011

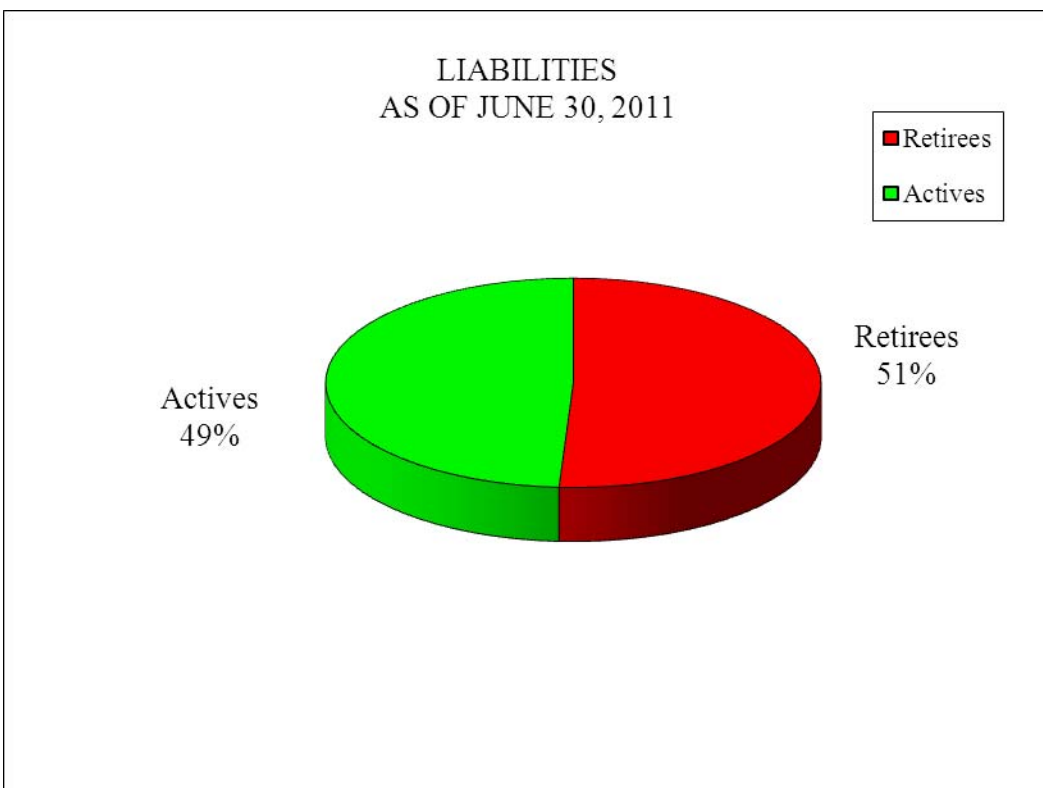
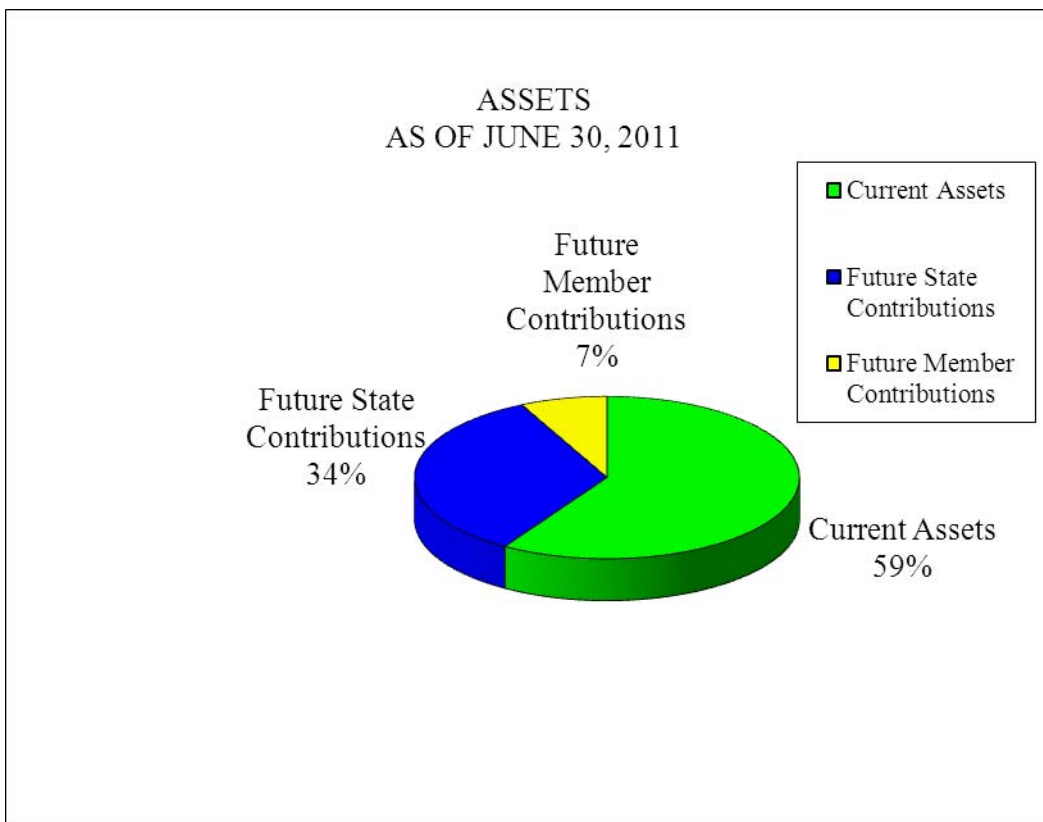
VALUATION BALANCE SHEET
 SHOWING THE ASSETS AND LIABILITIES OF THE
 STATE TEACHERS' RETIREMENT SYSTEM OF VERMONT
 PREPARED AS OF JUNE 30, 2011

ASSETS

Adjusted assets of the system		\$1,486,698,448
Present value of prospective contributions		
Members	\$187,283,493	
State		
Accrued liability contributions	845,107,880	
Normal contributions	<u>53,899,883</u>	
Total prospective contributions		<u>\$1,086,291,256</u>
Total assets		<u>\$2,572,989,704</u>

LIABILITIES

Actuarial present value of benefits payable on account of present retired members, terminated vested members and beneficiaries		\$1,307,685,859
Actuarial present value of benefits expected to become payable on account of active and inactive members		<u>1,265,303,845</u>
Total liabilities		<u>\$2,572,989,704</u>



SCHEDULE B

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: A select-and-ultimate interest rate set, specified below. A constant rate of 8.25% was used in the prior valuation.

Year 1: 6.25%	Year 10: 8.50%
Year 2: 6.75%	Year 11: 8.50%
Year 3: 7.00%	Year 12: 8.50%
Year 4: 7.50%	Year 13: 8.50%
Year 5: 7.75%	Year 14: 8.50%
Year 6: 8.25%	Year 15: 8.50%
Year 7: 8.25%	Year 16: 8.75%
Year 8: 8.25%	Year 17 and later: 9.00%
Year 9: 8.50%	

SEPARATIONS BEFORE NORMAL RETIREMENT: Representative values of the assumed annual rates of withdrawal, vested retirement, early retirement, disability and death are as follows:

Age	Withdrawal and Vested Retirement		Disability				Death	
			Current Valuation		Prior Valuation			
	Males	Females	Males	Females	Males	Females	Males	Females
25	20.00%	20.00%	.010%	.015%	.010%	.015%	.02%	.02%
30	12.00	14.00	.015	.015	.015	.015	.02	.02
35	8.00	11.30	.020	.015	.020	.015	.02	.02
40	6.50	8.60	.030	.020	.030	.020	.05	.02
45	5.80	6.00	.053	.045	.053	.045	.05	.04
50	5.40	5.00	.067	.070	.180	.180	.07	.06
55	5.40	4.84	.088	.095	.440	.390	.07	.10
59	5.40	4.84	.234	.142	1.170	.710	.09	.14
60	5.40	4.84	.294	.168	1.470	.840	.09	.15
61	5.40	4.84	.366	.202	1.830	1.010	.297	.17

Age	Reduced Early Retirement		Full Early Retirement	
	Grandfathered	Non-Grandfathered	Grandfathered	Non-Grandfathered
50	-	-	40.00%	25.00%
55	8.75%	8.75%	20.00	20.00
56	6.25	6.25	10.00	10.00
57	6.25	6.25	10.00	10.00
58	6.25	6.25	10.00	10.00
59	6.25	6.25	10.00	10.00
60	12.50	12.50	30.00	17.00
61	12.50	12.50	17.00	17.00

SERVICE RETIREMENTS: Occur between ages 62 (60 for Group A) and 70. The assumed rates of service retirement are as follows:

Age	Annual Rate of Retirement	
	Grandfathered	Non-Grandfathered
62	25.0%	20.0%
63	20.0	20.0
64	20.0	20.0
65	30.0	30.0
66	30.0	30.0
67	30.0	30.0
68	20.0	20.0
69	30.0	30.0
70	100.0	100.0

SALARY INCREASES: Representative values of the assumed annual rates of future salary increase are as follows:

Age	Annual Rate of Salary Increase	
	Current Valuation	Prior Valuation
25	8.40%	10.68%
30	7.05	8.10
35	6.15	7.30
40	5.45	6.03
45	4.95	5.49
50	4.60	4.95
55	4.35	4.59
60	4.25	4.41
64	4.25	4.41

DEATHS AFTER RETIREMENT: The 1995 Buck Mortality Tables set back three years for males and one year for females, for retirees, terminated vested members and beneficiaries (the 1995 Buck Mortality Tables with a one-year set-back for males and females were used for these populations in the prior valuation); the RP-2000 Disabled Life Table with projection to 2016 using Scale AA for disabled retirees (the RP-2000 Disabled Life Table was used for disabled retirees in the prior valuation). The tables used contain a margin to reflect anticipated mortality improvement after the valuation date.

INFLATION: The separately stated assumptions for investment return, salary increases and cost of living adjustments are consistent with an expected annual inflation rate of 3.00% to 3.25% per year.

FUTURE EXPENSES: No provision made.

ACTUARIAL COST METHOD: The individual entry age normal actuarial cost method was used. For actuarial valuations prior to June 30, 2006, the entry age normal method with frozen initial liability was used.

SPOUSE'S AGE: Husbands are assumed to be three years older than their wives.

PERCENT MARRIED: 85% of the male members and 35% of the female members are assumed to be married.

COST-OF-LIVING ADJUSTMENTS: Assumed to occur on January 1 following one year of retirement at the rate of 3% per annum for Group A members and 1.5% per annum for Group C member (beginning at age 62 for Group C members who elect reduced early retirement).

ASSET VALUATION METHOD: The amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between the market and preliminary asset values. The preliminary asset value is equal to the previous year's asset value (for valuation purposes) adjusted for contributions less benefit payments and expenses and expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value.

INACTIVE MEMBERS: A liability equal to 350% of accumulated contributions of inactive members is included in the valuation liabilities. In the prior valuation, the provision for such participants was 300% of their accumulated contributions.

HEALTH AND MEDICAL BENEFITS FOR RETIREES: Not included in this valuation.

SCHEDULE C

BRIEF SUMMARY OF PRINCIPAL PLAN PROVISIONS
AS INTERPRETED FOR VALUATION PURPOSES

BRIEF SUMMARY OF PRINCIPAL PLAN PROVISIONS
AS INTERPRETED FOR VALUATION PURPOSES

Effective Date	July 1, 1947.
Creditable Service	Service as a member plus purchased service.
Average Final Compensation (AFC)	Average annual compensation during highest 3 successive years.
Membership	Immediate upon employment.
Grandfathered status	Group C members who were within five years of normal retirement eligibility as defined prior to July 1, 2010, are “grandfathered”

GROUP A

GROUP C

Service Retirement Allowance

Eligibility

Age 60 or 30 years of creditable service.

Grandfathered: Age 62 or 30 years of creditable service for.

Non-Grandfathered: Age 65 or age plus creditable service equal 90.

	<u>GROUP A</u>	<u>GROUP C</u>
Amount of Allowance	Member annuity based on accumulated contributions plus a pension which, with member annuity, equals 1/60 of AFC times creditable service.	<p>Grandfathered:</p> <p>Member annuity based on accumulated contributions plus a pension which, with member annuity, equals 1/80 of AFC times creditable service prior to July 1, 1990 plus 1/60 of AFC times creditable service after July 1, 1990.</p> <p>Non Grandfathered:</p> <p>Member annuity based on accumulated contributions plus a pension which, with member annuity, equals 1/80 of AFC times creditable service prior to July 1, 1990 plus 1/60 of AFC times creditable service after July 1, 1990 up to 20 years of service, plus 1/50 of AFC for years of service after 20.</p> <p>If member already has 20 or more years of service on June 30, 2010, the 1/50 will be applied to all service accrued after July 1, 2010.</p>
Minimum	\$6,600 after 30 years of creditable service (pro-rata portion if less than 30 years).	N/A

	<u>GROUP A</u>	<u>GROUP C</u>
Maximum	None	Grandfathered: 50% of AFC up to June 30, 2010. May continue to accrue up to 53.34% of AFC with service earned after July 1, 2010. Non-Grandfathered: 60% of AFC.
Early Retirement Allowance		
Eligibility	Age 55.	Age 55 and 5 years of creditable service.
Amount of Allowance	Actuarial equivalent of service allowance using AFC and creditable service at early retirement.	Grandfathered: Accrued normal benefit reduced 6% for each year under age 62. Non-Grandfathered: Accrued normal benefit reduced by actuarial reduction from normal retirement age.
Vested Retirement Allowance		
Eligibility	5 years of creditable service.	5 years of creditable service.
Amount of Allowance	Commencing at age 60 calculated as a service allowance using AFC and creditable service at termination.	Commencing at age 62, calculated as a service allowance using AFC and creditable service at termination.
Disability Retirement Allowance		
Eligibility	Total and permanent disability after 5 years of creditable service (5 years preceding retirement served in State).	Total and permanent disability after 5 years of creditable service (5 years preceding retirement served in State).

	<u>GROUP A</u>	<u>GROUP C</u>
Amount of Allowance	Calculated as a service allowance based on AFC and creditable service at disability retirement, subject to a 25% of AFC minimum.	Calculated as a service allowance based on AFC and creditable service at disability retirement, subject to a 25% of AFC minimum.
Death Benefits		
Eligibility	Age 60 or 30 years of creditable service; 10 years of creditable service if in service at death.	Age 55 and 5 years of creditable service or 10 years of creditable service.
Amount of Allowance	Accrued allowance paid under 100% survivorship option. If the eligibility requirements are not met or if beneficiary so elects, the member's accumulated contributions are paid to the beneficiary or estate. Certain children's benefits may also be payable.	Accrued allowance paid under 100% survivorship option. If the eligibility requirements are not met or if beneficiary so elects, the member's accumulated contributions are paid to the beneficiary or estate. Certain children's benefits may also be payable.
Return of Contributions	If no other beneficiary is payable, a terminated member receives his accumulated contributions with interest.	If no other beneficiary is payable, a terminated member receives his accumulated contributions with interest.
Options	The allowance may be paid in various optional forms at the election of the member.	The allowance may be paid in various optional forms at the election of the member.

	<u>GROUP A</u>	<u>GROUP C</u>
Post-retirement Adjustments	On each December 31 allowances in payment for at least one year are adjusted for cost-of-living changes based on the Consumer Price Index, but not in excess of 5%.	On each December 31, allowances in payment for at least one year are adjusted for cost-of-living changes based on one-half of the increase in the Consumer Price Index, but not in excess of 5%. For members receiving a reduced early retirement allowance, the adjustment will not apply before age 62.
Contributions		
Members	5.5% of earnable compensation. Contributions stop after 25 years of creditable service.	5% of earnable compensation.
State	Normal and accrued liability contributions actuarially determined to keep the system financially sound.	Normal and accrued liability contributions actuarially determined to keep the system financially sound.

SCHEDULE D

SUMMARY TABLES OF MEMBER DATA AS OF JUNE 30, 2011

TABLE 1
THE NUMBER AND ANNUAL COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
AS OF JUNE 30, 2011

AGE	<i>0 to 4</i>		<i>5 to 9</i>		<i>10 to 14</i>		<i>15 to 19</i>		<i>20 to 24</i>		<i>25 to 29</i>		<i>30 to 34</i>		<i>35 to 39</i>		<i>40 & up</i>		<i>Total</i>	
	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	114	3,568,743	1	15,127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	3,583,870
25 to 29	532	19,637,914	132	5,755,838	0	0	0	0	0	0	0	0	0	0	0	0	0	0	664	25,393,752
30 to 34	488	19,032,165	486	22,646,928	112	5,832,066	0	0	0	0	0	0	0	0	0	0	0	0	1,086	47,511,159
35 to 39	301	12,052,416	414	20,359,420	392	21,235,136	62	3,718,687	0	0	0	0	0	0	0	0	0	0	1,169	57,365,659
40 to 44	268	11,046,356	339	17,179,418	355	20,270,052	278	17,013,391	60	3,818,903	0	0	0	0	0	0	0	0	1,300	69,328,120
45 to 49	208	8,892,149	263	13,665,360	274	15,782,882	240	15,299,122	208	13,425,022	67	4,301,087	1	77,552	0	0	0	0	1,261	71,443,174
50 to 54	196	8,125,753	247	12,987,074	293	16,558,692	222	13,637,942	253	16,294,099	267	17,500,486	60	4,132,851	0	0	0	0	1,538	89,236,897
55 to 59	140	6,943,403	179	8,733,438	296	16,866,734	252	15,374,681	289	18,643,050	239	16,124,551	284	19,568,886	62	4,217,780	0	0	1,741	106,472,523
60 to 64	76	3,859,719	91	4,730,670	155	8,691,801	154	9,161,929	180	11,482,080	142	9,251,001	137	9,796,838	123	8,597,580	7	540,778	1,065	66,112,396
65 to 69	17	810,079	15	846,200	20	1,200,293	13	874,801	28	1,753,832	28	1,905,421	15	1,006,575	25	1,683,181	4	253,448	165	10,333,830
70 & up	3	126,748	3	105,092	4	128,269	0	0	0	0	2	108,813	1	81,715	2	121,066	4	295,322	19	967,025
TOTAL	2,343	94,095,445	2,170	107,024,565	1,901	106,565,925	1,221	75,080,553	1,018	65,416,986	745	49,191,359	498	34,664,417	212	14,619,607	15	1,089,548	10,123	547,748,405

TABLE 2
 THE NUMBER AND ANNUAL COMPENSATION OF
 ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
 AS OF JUNE 30, 2011

GROUP A

AGE	<i>0 to 4</i>		<i>5 to 9</i>		<i>10 to 14</i>		<i>15 to 19</i>		<i>20 to 24</i>		<i>25 to 29</i>		<i>30 to 34</i>		<i>35 to 39</i>		<i>40 & up</i>		<i>Total</i>		
	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	0	0	0	0	0	0	2	131,447	2	139,900	0	0	0	0	4	271,347	
55 to 59	0	0	0	0	0	0	1	54,780	0	0	2	111,980	4	259,021	1	51,486	0	0	8	477,267	
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	2	147,953	2	187,477	0	0	4	335,430	
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	1	77,552	0	0	0	0	1	77,552	
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	1	54,780	0	0	4	243,427	9	624,426	3	238,963	0	0	17	1,161,596	

TABLE 3
THE NUMBER AND ANNUAL COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
AS OF JUNE 30, 2011

GROUP C

AGE	<i>0 to 4</i>		<i>5 to 9</i>		<i>10 to 14</i>		<i>15 to 19</i>		<i>20 to 24</i>		<i>25 to 29</i>		<i>30 to 34</i>		<i>35 to 39</i>		<i>40 & up</i>		<i>Total</i>	
	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	114	3,568,743	1	15,127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	3,583,870
25 to 29	532	19,637,914	132	5,755,838	0	0	0	0	0	0	0	0	0	0	0	0	0	0	664	25,393,752
30 to 34	488	19,032,165	486	22,646,928	112	5,832,066	0	0	0	0	0	0	0	0	0	0	0	0	1,086	47,511,159
35 to 39	301	12,052,416	414	20,359,420	392	21,235,136	62	3,718,687	0	0	0	0	0	0	0	0	0	0	1,169	57,365,659
40 to 44	268	11,046,356	339	17,179,418	355	20,270,052	278	17,013,391	60	3,818,903	0	0	0	0	0	0	0	0	1,300	69,328,120
45 to 49	208	8,892,149	263	13,665,360	274	15,782,882	240	15,299,122	208	13,425,022	67	4,301,087	1	77,552	0	0	0	0	1,261	71,443,174
50 to 54	196	8,125,753	247	12,987,074	293	16,558,692	222	13,637,942	253	16,294,099	265	17,369,039	58	3,992,951	0	0	0	0	1,534	88,965,550
55 to 59	140	6,943,403	179	8,733,438	296	16,866,734	251	15,319,901	289	18,643,050	237	16,012,571	280	19,309,865	61	4,166,294	0	0	1,733	105,995,256
60 to 64	76	3,859,719	91	4,730,670	155	8,691,801	154	9,161,929	180	11,482,080	142	9,251,001	135	9,648,885	121	8,410,103	7	540,778	1,061	65,776,966
65 to 69	17	810,079	15	846,200	20	1,200,293	13	874,801	28	1,753,832	28	1,905,421	14	929,023	25	1,683,181	4	253,448	164	10,256,278
70 & up	3	126,748	3	105,092	4	128,269	0	0	0	0	2	108,813	1	81,715	2	121,066	4	295,322	19	967,025
TOTAL	2,343	94,095,445	2,170	107,024,565	1,901	106,565,925	1,220	75,025,773	1,018	65,416,986	741	48,947,932	489	34,039,991	209	14,380,644	15	1,089,548	10,106	546,586,809

TABLE 4

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA
BY LEVEL OF ANNUAL ALLOWANCE AS OF JUNE 30, 2011

ALL TEACHERS

Allowance Level	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
0 - 500	6	\$ 1,069	-	\$ -	-	\$ -
501 - 1,000	17	13,504	-	-	-	-
1,001 - 1,500	29	36,928	-	-	5	6,820
1,501 - 2,000	52	92,519	-	-	8	14,672
2,001 - 2,500	89	200,555	-	-	5	11,191
2,501 - 3,000	119	327,951	-	-	7	19,409
3,001 - 3,500	103	336,464	-	-	10	32,338
3,501 - 4,000	142	537,006	-	-	14	52,279
4,001 - 4,500	140	594,882	-	-	8	34,087
4,501 - 5,000	140	667,929	-	-	10	47,281
5,001 - 5,500	126	662,681	-	-	8	42,616
5,501 - 6,000	108	622,466	-	-	6	34,581
6,001 - 6,500	125	780,751	3	18,979	17	106,187
6,501 - 7,000	138	929,363	3	20,389	16	107,802
7,001 - 7,500	111	804,690	4	29,305	6	43,731
7,501 - 8,000	113	874,838	3	22,714	10	76,771
8,001 - 8,500	111	917,107	5	41,780	14	114,754
8,501 - 9,000	127	1,111,550	5	43,859	16	140,412
9,001 - 9,500	100	927,284	7	65,016	8	74,061
9,501 - 10,000	114	1,110,523	7	68,150	16	155,295
10,001 - 10,500	104	1,065,717	12	123,892	8	82,143
10,501 - 11,000	114	1,224,700	8	86,567	9	97,261
11,001 - 11,500	100	1,123,683	7	78,192	12	134,604
11,501 - 12,000	93	1,092,655	5	59,059	11	129,613
12,001 - 12,500	92	1,127,041	6	74,152	15	183,679
12,501 - 13,000	90	1,146,153	10	128,159	8	101,385
13,001 - 13,500	82	1,086,428	7	92,891	5	66,147
13,501 - 14,000	94	1,292,496	3	41,163	1	13,821
14,001 - 14,500	77	1,098,245	8	113,873	7	100,045
14,501 - 15,000	90	1,329,981	4	59,209	8	118,609
15,001 - 15,500	85	1,297,756	3	45,670	2	30,360
15,501 - 16,000	78	1,228,901	5	78,681	7	109,843
16,001 - 16,500	98	1,591,971	3	48,637	6	97,687
16,501 - 17,000	82	1,371,962	4	66,678	7	117,847
17,001 - 17,500	94	1,619,828	3	51,302	5	86,679
17,501 - 18,000	93	1,649,863	4	70,762	4	71,073
18,001 - 18,500	103	1,881,868	2	36,491	3	54,985
18,501 - 19,000	92	1,724,225	5	93,715	2	37,417
19,001 - 19,500	110	2,121,465	2	38,552	3	57,775
19,501 - 20,000	115	2,271,262	-	-	3	59,148
20,001 - 20,500	109	2,204,529	5	101,237	2	40,263
20,501 - 21,000	133	2,760,690	4	83,055	-	-

TABLE 4, continued
SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA
BY LEVEL OF ANNUAL ALLOWANCE AS OF JUNE 30, 2011

ALL TEACHERS

Allowance Level	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
21,001 - 21,500	114	2,423,073	2	42,605	4	84,932
21,501 - 22,000	132	2,870,427	2	43,408	2	43,454
22,001 - 22,500	133	2,956,105	1	22,389	2	44,254
22,501 - 23,000	106	2,412,222	-	-	1	22,522
23,001 - 23,500	114	2,651,360	-	-	1	23,058
23,501 - 24,000	94	2,231,718	-	-	1	23,710
24,001 - 24,500	82	1,989,679	-	-	1	24,203
24,501 - 25,000	103	2,549,160	-	-	-	-
25,001 - 25,500	102	2,576,331	-	-	-	-
25,501 - 26,000	98	2,521,137	-	-	1	25,902
26,001 - 26,500	97	2,547,655	-	-	-	-
26,501 - 27,000	89	2,380,803	1	26,927	1	26,954
27,001 - 27,500	110	2,998,845	-	-	2	54,062
27,501 - 28,000	82	2,274,581	-	-	1	27,619
28,001 - 28,500	70	1,978,966	-	-	-	-
28,501 - 29,000	58	1,667,699	1	28,988	-	-
29,001 - 29,500	71	2,076,881	1	29,448	-	-
29,501 - 30,000	59	1,758,986	-	-	-	-
30,001 - 30,500	51	1,543,060	-	-	1	30,485
30,501 - 31,000	53	1,630,152	1	30,868	1	30,511
31,001 - 31,500	48	1,501,862	-	-	-	-
31,501 - 32,000	34	1,079,036	-	-	-	-
32,001 - 32,500	41	1,320,980	-	-	1	32,058
32,501 - 33,000	49	1,604,522	-	-	1	32,915
33,001 - 33,500	26	863,988	-	-	-	-
33,501 - 34,000	25	843,704	-	-	-	-
34,001 - 34,500	29	994,565	-	-	1	34,333
34,501 - 35,000	30	1,044,666	1	34,751	1	34,680
35,001 - 35,500	21	738,468	-	-	-	-
35,501 - 36,000	27	965,253	-	-	-	-
36,001 - 36,500	20	724,381	-	-	-	-
36,501 - 37,000	19	698,112	-	-	-	-
37,001 - 37,500	13	483,872	-	-	-	-
37,501 - 38,000	8	301,185	-	-	-	-
38,001 - 38,500	13	497,907	-	-	-	-
38,501 - 39,000	14	542,772	-	-	-	-
39,001 - 39,500	11	431,902	-	-	-	-
39,501 - 40,000	8	317,626	1	39,885	-	-
Over 40,000	117	5,346,874	-	-	3	135,420
Total	6,509	\$ 111,201,994	158	\$ 2,181,398	338	\$ 3,635,743

TABLE 5
 SERVICE PENSIONERS
 AGE/SERVICE DISTRIBUTION WITH AVERAGE ALLOWANCE AS OF JUNE 30, 2011

Attained Age	Service at termination										Total	
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45+		
< 45	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	1	0	0	0	0	1
	0	0	0	0	0	0	27,028	0	0	0	0	27,028
50-54	13	0	0	0	0	0	28	1	0	0	0	42
	25,615	0	0	0	0	0	30,004	42,211	0	0	0	28,936
55-59	115	13	50	46	39	1	260	9	0	0	0	533
	24,011	4,022	6,020	8,693	11,176	21,110	27,394	29,341	0	0	0	21,309
60-64	245	87	252	176	198	80	661	108	4	0	0	1,811
	23,163	4,361	6,346	10,566	16,123	23,343	26,455	31,019	40,880	0	0	19,643
65-69	84	73	279	225	237	123	504	122	21	0	0	1,668
	16,814	5,202	6,469	10,594	15,830	20,105	24,100	29,608	30,825	0	0	17,153
70-74	26	33	152	144	167	106	220	91	15	0	0	954
	6,991	5,369	6,660	9,973	13,666	19,071	23,235	27,447	31,498	0	0	15,926
75-79	19	28	88	84	90	80	144	69	15	2	0	619
	2,010	5,234	6,084	10,230	12,839	14,722	20,356	24,104	27,555	53,787	0	14,585
80-84	9	22	66	70	72	48	75	53	11	0	0	426
	3,237	3,903	5,286	8,207	10,724	13,779	18,392	21,271	24,573	0	0	12,322
85-89	14	15	42	43	36	34	57	17	11	2	0	271
	4,052	3,616	5,174	6,979	9,472	12,421	16,873	16,829	19,807	20,881	0	10,698
90-94	4	10	25	17	23	24	17	8	1	0	0	129
	1,915	4,083	6,024	7,535	9,563	11,379	15,407	20,218	12,719	0	0	9,741
95+	2	3	6	8	10	4	7	10	4	1	0	55
	7,209	5,606	7,401	11,049	12,937	16,318	19,000	18,347	22,890	24,578	0	14,387
Total Pensioners	531	284	960	813	872	500	1,974	488	82	5	0	6,509
Average Allowance	19,792	4,693	6,264	9,877	14,083	17,966	24,520	27,025	27,916	34,783	0	17,084

TABLE 6
 DISABILITY PENSIONERS
 AGE/SERVICE DISTRIBUTION WITH AVERAGE ALLOWANCE AS OF JUNE 30, 2011

Attained Age	Service at termination										Total
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45+	
< 45	1	2	0	0	0	0	0	0	0	0	3
	12,185	9,882	0	0	0	0	0	0	0	0	10,650
45-49	0	1	1	0	2	0	0	0	0	0	4
	0	10,776	9,298	0	14,115	0	0	0	0	0	12,076
50-54	0	0	0	1	0	1	0	0	0	0	2
	0	0	0	10,720	0	21,588	0	0	0	0	16,154
55-59	2	2	13	10	4	1	0	0	0	0	32
	14,626	10,277	11,480	12,110	22,148	20,032	0	0	0	0	13,399
60-64	3	4	9	9	11	7	0	0	0	0	43
	23,959	12,459	9,736	15,322	15,810	20,999	0	0	0	0	15,538
65-69	0	4	10	3	7	6	1	0	0	0	31
	0	11,277	12,551	11,456	14,620	19,329	28,988	0	0	0	14,590
70-74	0	0	2	5	5	3	1	0	0	0	16
	0	0	9,006	11,007	11,979	21,980	15,596	0	0	0	13,405
75-79	0	0	1	3	1	4	0	0	0	0	9
	0	0	7,395	12,386	8,451	12,857	0	0	0	0	11,604
80-84	1	0	1	3	2	2	1	0	0	0	10
	10,800	0	8,375	13,106	7,288	15,435	11,784	0	0	0	11,572
85-89	0	0	2	1	0	2	1	0	0	0	6
	0	0	7,565	7,530	0	16,209	11,994	0	0	0	11,179
90-94	0	0	0	1	1	0	0	0	0	0	2
	0	0	0	10,993	6,937	0	0	0	0	0	8,965
95+	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
Total Pensioners	7	13	39	36	33	26	4	0	0	0	158
Average Allowance	17,730	11,234	10,784	12,614	14,634	18,663	17,091	0	0	0	13,806

SCHEDULE E

AMORTIZATION SCHEDULE FOR THE UNFUNDED ACTUARIAL
ACCRUED LIABILITY

AMORTIZATION SCHEDULE FOR THE UNFUNDED ACTUARIAL
ACCRUED LIABILITY

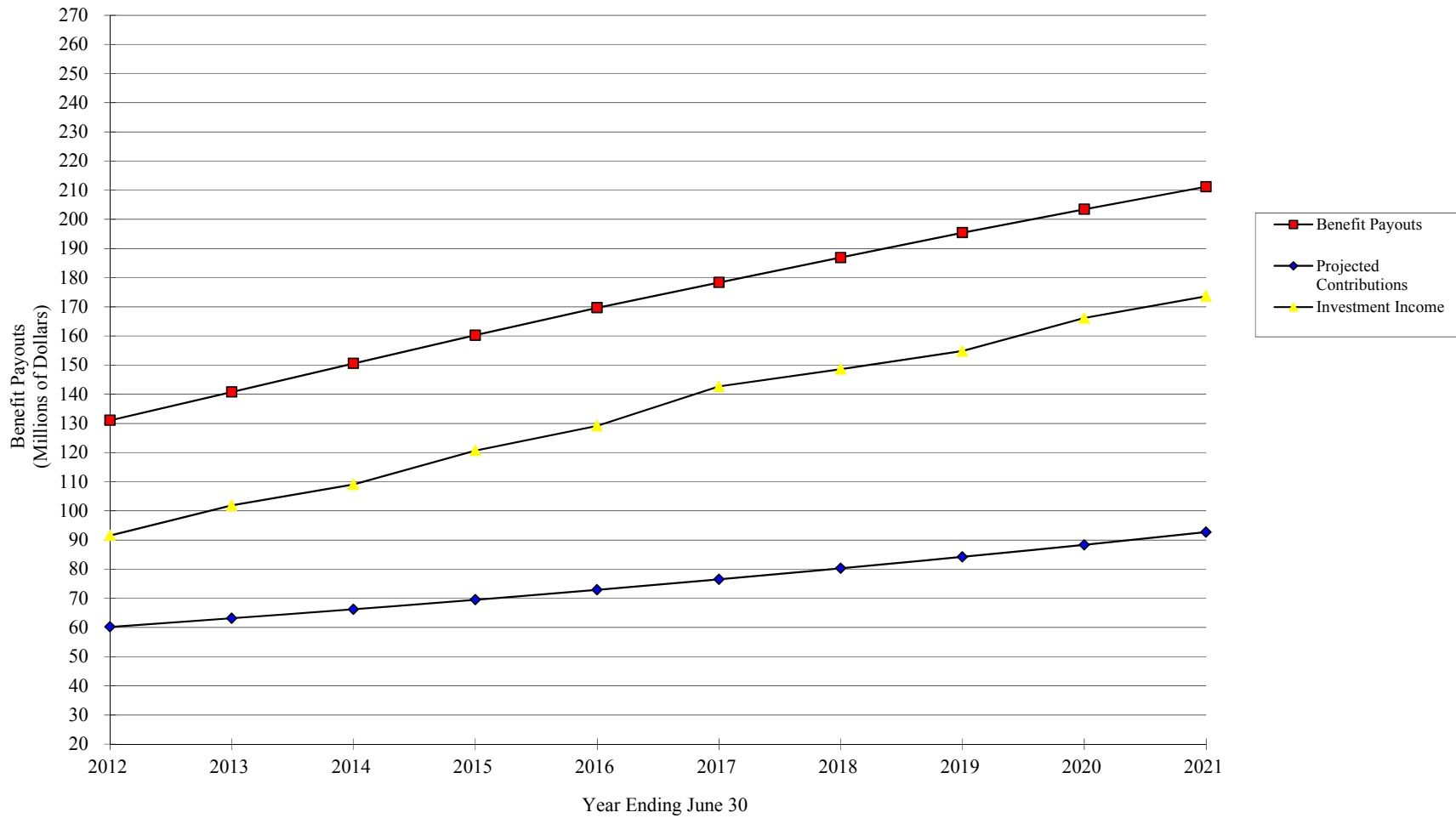
Date	Balance	Contribution (Year Following)
6/30/2011	845,107,880	47,504,388
6/30/2012	850,422,734	49,879,608
6/30/2013	857,946,661	52,373,588
6/30/2014	865,629,339	54,992,267
6/30/2015	875,559,273	57,741,880
6/30/2016	885,673,236	60,628,974
6/30/2017	898,112,304	63,660,423
6/30/2018	908,546,146	66,843,444
6/30/2019	916,657,759	70,185,616
6/30/2020	924,388,053	73,694,897
6/30/2021	929,266,140	77,379,642
6/30/2022	930,874,120	81,248,624
6/30/2023	928,749,796	85,311,055
6/30/2024	922,382,474	89,576,608
6/30/2025	911,208,377	94,055,438
6/30/2026	894,605,651	98,758,210
6/30/2027	874,125,435	103,696,121
6/30/2028	849,100,603	108,880,927
6/30/2029	816,638,730	114,324,973
6/30/2030	775,811,243	120,041,222
6/30/2031	725,593,033	126,043,283
6/30/2032	664,853,123	132,345,447
6/30/2033	592,344,457	138,962,719
6/30/2034	506,692,739	145,910,855
6/30/2035	406,384,231	153,206,398
6/30/2036	289,752,413	160,866,718
6/30/2037	154,963,413	168,910,054
6/30/2038	0	0

SCHEDULE F

PROJECTED BENEFIT PAYOUTS AND
CONTRIBUTIONS FOR THE PERIOD
JULY 1, 2011 THROUGH JUNE 30, 2021

PROJECTED BENEFIT PAYOUTS AND CONTRIBUTIONS

JULY 1, 2011 THROUGH JUNE 30, 2021



SCHEDULE G

PROJECTION OF CONTRIBUTIONS FOR FOLLOWING TWO FISCAL YEARS

PROJECTION OF CONTRIBUTIONS FOR FOLLOWING TWO FISCAL YEARS

On the basis of the June 30, 2011, actuarial valuation, the recommended contribution for the fiscal year ending June 30, 2012, is \$57,363,859, based on the following:

Payroll	\$547,748,405
Normal rate	1.80%
Accrued liability contribution	\$47,504,388

On this basis, the projected contributions for the following two fiscal years are as follows:

Fiscal Year	Projected Payroll	Normal Rate	CONTRIBUTIONS		
			Normal	Accrued Liability	Total
2013	\$572,397,083	1.80%	\$10,303,147	\$ 49,879,608	\$ 60,182,755
2014	598,154,952	1.80%	10,766,789	52,373,588	63,140,377

In these projections, we assumed that total payroll would increase by 4½% each year.