

REPORT ON THE  
ACTUARIAL VALUATION  
OF THE VERMONT STATE EMPLOYEES'  
RETIREMENT SYSTEM  
PREPARED AS OF JUNE 30, 2012

OCTOBER 23, 2012

October 23, 2012

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

Dear Board Members:

Section 471, subsection (k), of Title 3, Chapter 16, Vermont Statutes Annotated, relating to the Vermont State Employees' Retirement System, provides in part that the actuary shall make annual valuations of the system.

The actuarial valuation of the system, prepared as of June 30, 2012, 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.

The total recommended state contribution for the fiscal year beginning July 1, 2012, amounts to \$38,375,238. Schedule F contains the estimated contributions for the following two 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.  
Principal and Consulting Actuary

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REPORT ON THE ACTUARIAL VALUATION OF THE  
VERMONT STATE EMPLOYEES' RETIREMENT SYSTEM  
PREPARED AS OF JUNE 30, 2012

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, 2011	June 30, 2012
Active members		
Vested	5,693	5,735
Not vested	<u>2,075</u>	<u>2,143</u>
Total	7,768	7,878
Compensation	\$398,264,150	\$385,525,891
Average age	47.02	46.35
Average service	12.57	12.45
Average compensation	51,270	48,937
Retired members and beneficiaries		
Number	5,375	5,600
Annual retirement allowances	\$86,681,452	\$93,712,861
Inactive members	849	835
Terminated vested members	774	767
Adjusted assets for valuation	\$1,348,762,790	\$1,400,779,062
Unfunded actuarial accrued liability	\$346,537,738	\$401,824,745
Annual actuarial accrued liability contribution	\$19,479,244	\$23,108,413
Normal contribution rate	3.99%	3.96%

2. Under agreements reached by the State with its workers, salary restoration will apply to several employee groups that participate in the System. Salaries of all classified non-exempt employees who are not public safety or judiciary employees were increased by 3% in addition to a 2% across-the-board cost-of-living increase. Salaries of all classified exempt employees who are not public safety or judiciary employees were increased by 5%. Salaries of all public safety employees were increased by 3% effective July, 2012. Salaries of all Judiciary employees were increased by 4.6% effective July, 2012.
3. Schedule B outlines the full set of actuarial assumptions and methods employed in the current valuation. The assumptions were based on a recent experience study covering the period from July 1, 2005, through June 30, 2010. The mortality assumptions are adopted by the Board based on the study. The next experience study will take account of the requirement made in the latest revision of Actuarial Standard of Practice No. 35 to take account of future longevity improvements in the selection of mortality assumptions. It is beyond the scope of the valuation to evaluate the possible effect such a change might have.
4. Schedule C outlines the benefit provisions that were taken into account in the valuation.
5. Schedule F provides a projection of recommended State contributions for the next two fiscal years. Restrictions on the degree to which contributions made by the State may reflect additional amounts collected from members as a result of the increases in these rates are incorporated in Schedule F.
6. The normal cost paid by the State reflects the provisions of Act 63, Section 473 of the 2011 Legislative Session. From July 1, 2011 through June 30, 2016, should the annual value of the total increased member contributions of group C, D, and F member contributions exceed \$5,300,000 on an aggregate basis, the amount in excess of \$5,300,000 shall not serve to reduce the State's contribution.

SECTION II - MEMBER DATA

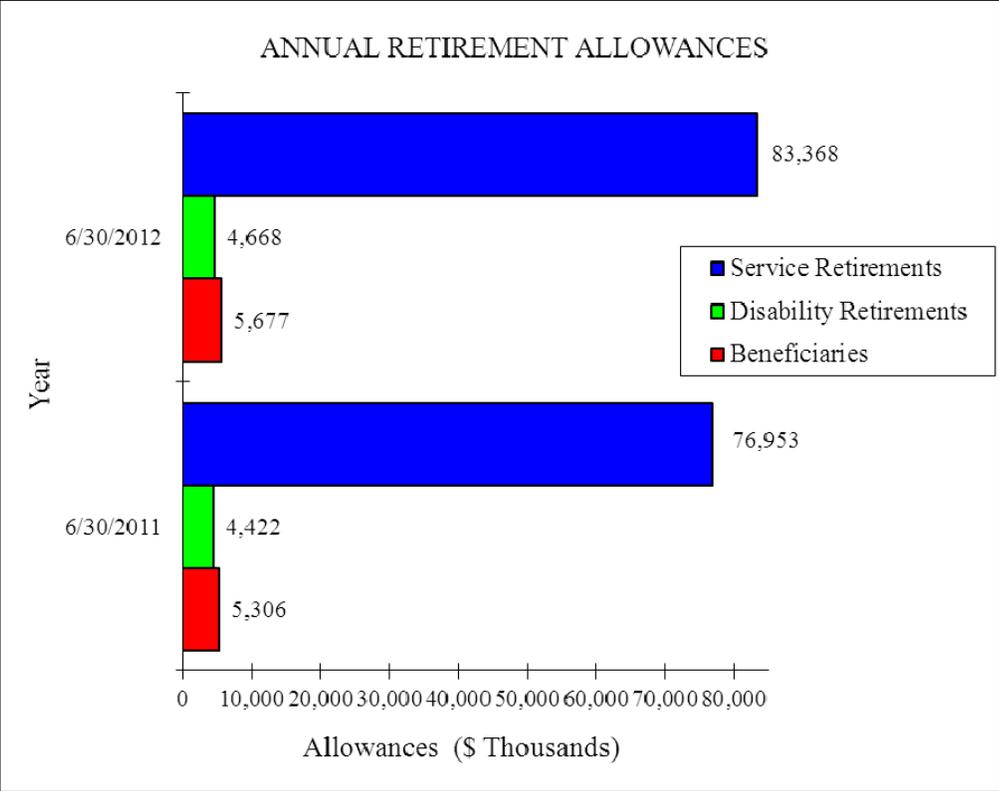
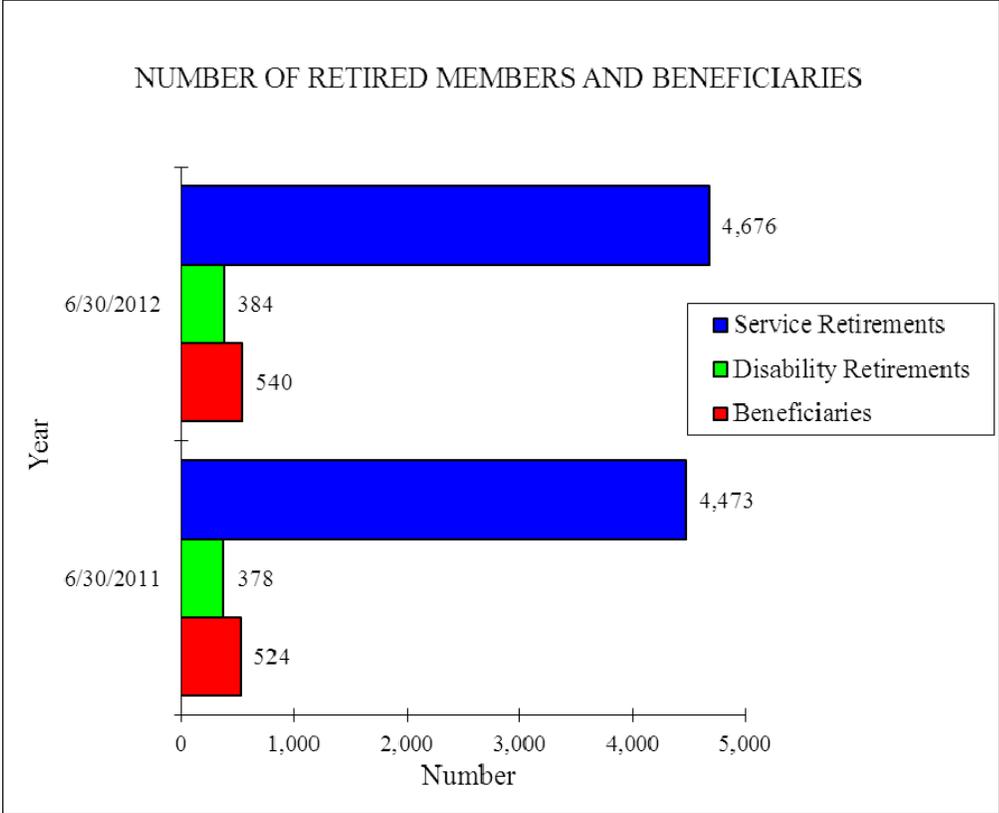
1. Member data were furnished in electronic format by the Retirement Division of the State Treasurer's Office. 31 members who terminated on June 30, 2012 and retired on July 1, 2012 were included with a valuation status as members receiving benefits. 223 members who terminated with five years of service and have not withdrawn from the Fund within three years of their termination were included with an inactive valuation status. The System will automatically vest these participants three years after their termination if no withdrawal occur.
2. Schedule D presents tables that summarize member data. Tables 1 through 5 summarize active member data by age and service. Tables 6 through 11 summarize service pensioners, disability pensioners and beneficiaries by age. Table 12 summarizes all pensioners by year of retirement.
3. The following tables show a summary of membership data:

THE NUMBER AND ANNUAL ALLOWANCES OF RETIRED MEMBERS  
AND BENEFICIARIES AS OF JUNE 30, 2012

Group	Number	Annual Allowances
Service Retirements	4,676	\$83,368,028
Disability Retirements	384	\$4,668,173
Beneficiaries of Deceased Members	540	\$5,676,660
TOTAL	5,600	\$93,712,861

BENEFITS PAYABLE AS OF JUNE 30, 2012  
TABULATED BY TYPE OF RETIREMENT AND OPTION

Group	Number	Annual Allowances
Service Retirements		
Life Only	1,526	18,910,877
50% Joint and Survivor	222	4,671,172
70% Joint and Survivor	49	2,418,514
100% Joint and Survivor	377	7,228,551
50% Joint and Survivor, pop-up	472	9,583,814
100% Joint and Survivor, pop-up	532	9,073,231
Return of Contributions	<u>1,498</u>	<u>31,481,869</u>
Total	4,676	83,368,028
Disability Retirements		
Life Only	190	1,981,379
50% Joint and Survivor	6	44,238
70% Joint and Survivor	14	471,694
100% Joint and Survivor	19	165,432
50% Joint and Survivor, pop-up	14	147,243
100% Joint and Survivor, pop-up	11	75,901
Return of Contributions	<u>130</u>	<u>1,782,286</u>
Total	384	4,668,173
Beneficiaries	540	5,676,660
Grand Total	5,600	93,712,861



THE NUMBER AND ANNUAL COMPENSATION OF  
ACTIVE MEMBERS AS OF JUNE 30, 2012

GROUP	NUMBER	ANNUAL COMPENSATION
Group A		
Men	10	\$640,994
Women	1	57,117
Total	11	\$698,111
Group C		
Men	395	\$26,853,485
Women	46	2,815,331
Total	441	\$29,668,816
Group D		
Men	34	\$3,228,468
Women	17	1,587,728
Total	51	\$4,816,196
Group F		
Men	3,504	\$174,001,871
Women	3,871	176,340,897
Total	7,375	\$350,342,768
All Members		
Men	3,943	\$204,724,818
Women	3,935	180,801,073
Total	7,878	\$385,525,891

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 by gradual recognition of returns on assets that differ from the assumed 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, 2011		\$1,348,762,790
Cash flow during year (net of investment income)		
Contributions paid	\$68,388,004	
Benefit payouts	(92,781,097)	
Expenses	(7,190,866)	
Net		(31,583,959)
Expected investment income (6.25%)		89,172,623
Preliminary asset value		\$1,406,351,454
Market value, June 30, 2012	\$1,378,489,496	
Preliminary asset value	1,406,351,454	
Unrecognized appreciation	(27,861,958)	
Adjustment	x 20%	(\$5,572,392)
Assets for valuation purposes, June 30, 2012		\$1,400,779,062

- 3 The assets for valuation purposes are 101.6% of market value.
- 4 The investment rate of return for the year ending June 30, 2012 is 6.27%, based on the adjusted asset value.

2. Under agreements reached by the State with its workers, salary restoration will apply to several employee groups that participate in the System. Salaries of all classified non-exempt employees who are not public safety or judiciary employees were increased by 3% in addition to a 2% across-the-board cost-of-living increase. Salaries of all classified exempt employees who are not public safety or judiciary employees were increased by 5%. Salaries of all public safety employees were increased by 3% effective July, 2012. Salaries of all Judiciary employees were increased by 4.6% effective July, 2012.
3. Schedule B outlines the full set of actuarial assumptions and methods employed in the current valuation. The assumptions were based on a recent experience study covering the period from July 1, 2005, through June 30, 2010. The mortality assumptions are adopted by the Board based on the study. The next experience study will take account of the requirement made in the latest revision of Actuarial Standard of Practice No. 35 to take account of future longevity improvements in the selection of mortality assumptions. It is beyond the scope of the valuation to evaluate the possible effect such a change might have.
4. Schedule C outlines the benefit provisions that were taken into account in the valuation.
5. Schedule F provides a projection of recommended State contributions for the next two fiscal years. Restrictions on the degree to which contributions made by the State may reflect additional amounts collected from members as a result of the increases in these rates are incorporated in Schedule F.
6. The normal cost paid by the State reflects the provisions of Act 63, Section 473 of the 2011 Legislative Session. From July 1, 2011 through June 30, 2016, should the annual value of the total increased member contributions of group C, D, and F member contributions exceed \$5,300,000 on an aggregate basis, the amount in excess of \$5,300,000 shall not serve to reduce the State's contribution.

1. Unfunded liability, 6/30/2011	\$346,537,738
2. Normal Cost	41,517,079
3. Contributions	(68,388,004)
4. Interest on 1, 2 and 3	22,148,689
5. Change in Actuarial Assumptions	0
6. Restart of select-and-ultimate interest structure	31,587,726
7. Change in Plan Provisions	0
8. Expected Unfunded Liability, 6/30/2012	373,403,228
9. Accrued Liability, 6/30/2012	1,802,603,807
10. Actuarial Value of Assets, 6/30/2012	1,400,779,062
11. Actual Unfunded Liability, 9. - 10.	401,824,745
12. Total gain/(loss), 8. - 11.	(\$28,421,517)

Sources of Gain/(Loss)	
Investment experience	\$274,598
Expenses (investments)	(6,042,357)
Expenses (other than investments)	(1,369,818)
Salary experience	(10,916,553)
COLA experience	(2,278,408)
New members and rehires	(2,645,456)
Mortality among retirees, beneficiaries and terminated vested participants.	(4,418,862)
Mortality among active participants	(391,064)
Retirement experience	(8,036,027)
Termination experience	(3,006,875)
Disability experience	312,627
Other (data corrections, purchased service, etc.)	<u>10,096,678</u>
Total	(\$28,421,517)

SECTION V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 471, Subsection (k), of Title 3, Chapter 16, Vermont Statutes Annotated, relating to the Vermont State Employees' Retirement System, 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, 2012:

Normal contribution	\$ 15,266,825
Accrued liability contribution	<u>23,108,413</u>
Total	\$ 38,375,238

3. Certain towns are participating in the system. Their contributions should be based on the following rates before administrative adjustments:

Normal	3.96%
Accrued liability	<u>5.99%</u>
Total	9.95%

SECTION VI - EXPERIENCE

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. In accordance with Section 471, subsection (j), of Title 3, Chapter 16 of the Vermont Statutes Annotated, this experience is reviewed in regularly scheduled experience studies, and any changes in assumptions suggested by the cumulative experience of the system is brought to the Board's attention in reports prepared as part of such studies.

SECTION VII - ACCOUNTING INFORMATION

1. Based on our interpretation of Statement No. 25 of the Governmental Accounting Standards Board, 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)
2012	\$1,400,779	\$1,802,604	\$401,825	77.7%	\$385,526	104.2%
2011	1,348,763	1,695,301	346,538	79.6%	398,264	87.0%
2010	1,265,404	1,559,324	293,920	81.2%	393,829	74.6%
2009	1,217,638	1,544,144	326,506	78.9%	404,516	80.7%
2008	1,377,101	1,464,202	87,101	94.1%	404,593	21.5%
2007	1,318,687	1,307,643	(11,044)	100.8%	386,917	-2.9%
2006	1,223,323	1,232,367	9,044	99.3%	369,310	2.5%
2005	1,148,908	1,174,796	25,889	97.8%	349,258	7.4%
2004	1,081,359	1,107,634	26,275	97.6%	336,615	7.8%
2003	1,025,469	1,052,004	26,535	97.5%	319,855	8.3%
2002	990,450	1,017,129	26,679	97.4%	300,994	8.9%
2001	954,821	1,026,993	72,172	93.0%	278,507	25.9%
2000	895,151	967,064	71,913	92.6%	266,519	27.0%
1999	804,970	876,412	71,442	91.9%	238,281	30.0%
1998	733,716	804,501	70,785	91.2%	235,956	30.0%
1997	639,128	753,883	114,755	84.8%	227,000	50.6%
1996	560,659	664,173	103,514	84.4%	226,792	45.6%

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 (NPO). 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)
1998	22,597,786	3,253,410	3,216,421	22,634,775	23,426,108	(791,333)	37,484,076
1999	23,268,197	3,186,146	3,288,077	23,166,266	22,956,245	210,021	37,694,097
2000	19,548,817	3,203,998	3,306,500	19,446,315	19,012,608	433,707	38,127,804
2001	19,679,398	3,240,863	3,344,544	19,575,717	19,548,598	27,119	38,154,924
2002	24,189,000	3,243,169	3,346,923	24,085,246	23,788,282	296,964	38,451,887
2003	24,715,309	3,076,151	3,372,972	24,418,488	24,394,934	23,554	38,475,441
2004	29,023,431	3,078,035	3,375,039	28,726,427	26,645,619	2,080,808	40,556,249
2005	36,019,056	3,244,500	3,686,932	35,576,624	36,493,435	(916,811)	39,639,438
2006	38,214,704	3,171,155	3,603,585	37,782,274	36,866,451	915,823	40,555,261
2007	40,189,812	3,244,421	4,179,681	39,254,552	39,297,002	(42,450)	40,512,811
2008	42,375,068	3,342,307	4,269,499	41,447,876	39,193,942	2,253,934	42,766,745
2009	28,997,554	3,528,257	3,110,436	29,415,375	25,134,235	4,281,140	47,047,885
2010	37,417,824	3,881,451	2,504,166	38,795,109	31,468,885	7,326,224	54,374,109
2011	44,491,459	4,485,864	2,958,574	46,018,749	37,572,599	8,446,150	62,820,259
2012	28,748,401	3,926,266	3,531,192	29,143,475	40,302,433	(11,158,958)	51,661,301

3. The Annual Required Contribution for fiscal year 2012 is derived as follows:

\$19,795,614	product of the normal rate from the 2010 valuation report (4.81%) and estimated FY 2012 payroll
16,792,250	amortization of unfunded liability (see amortization chart in 2010 valuation report)
<u>2,587,809</u>	administrative expenses (other than retiree medical) reimbursable by the state
\$39,175,673 <sup>1</sup>	

<sup>1</sup> For 2012, this is further adjusted by \$5,000,000 to reflect the provisions of Act 63, Section 473 of the 2011 Legislative Session and by \$5,427,272 to correct for prior year contribution "true-ups" that were erroneously categorized as expenses.

SCHEDULE A

VALUATION BALANCE SHEET  
SHOWING THE ASSETS AND LIABILITIES OF THE  
VERMONT STATE EMPLOYEES RETIREMENT SYSTEM  
PREPARED AS OF JUNE 30, 2012

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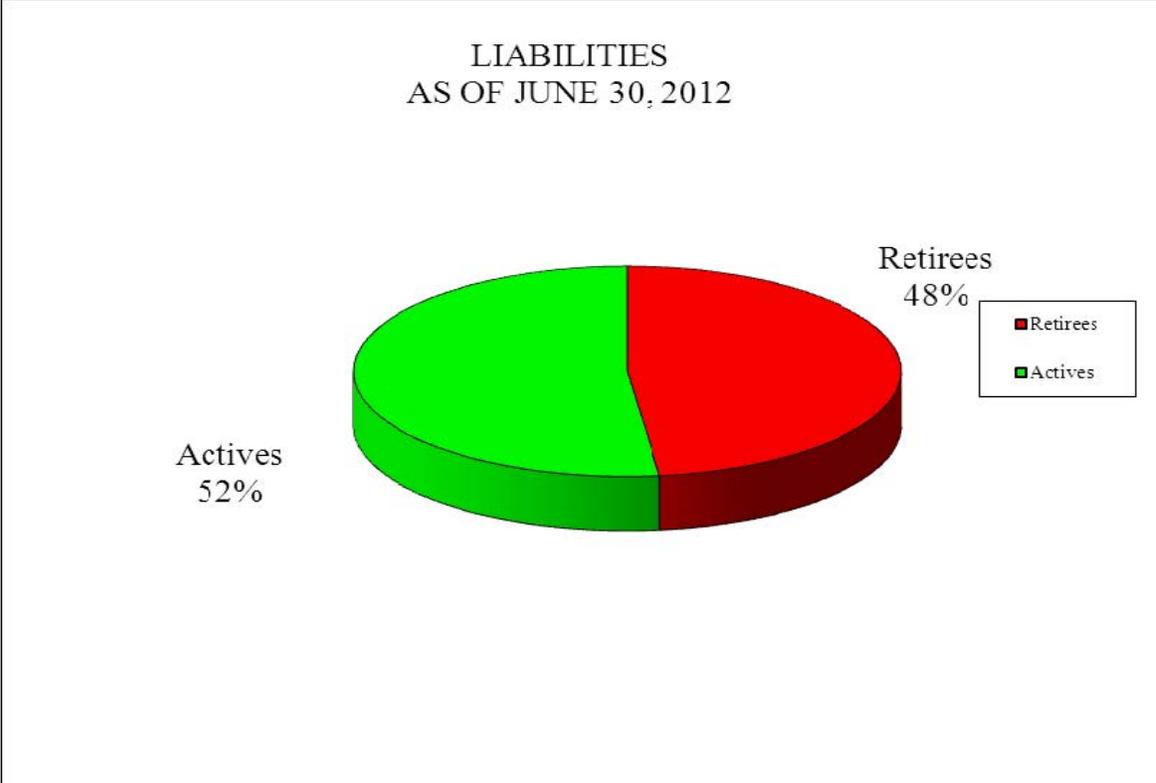
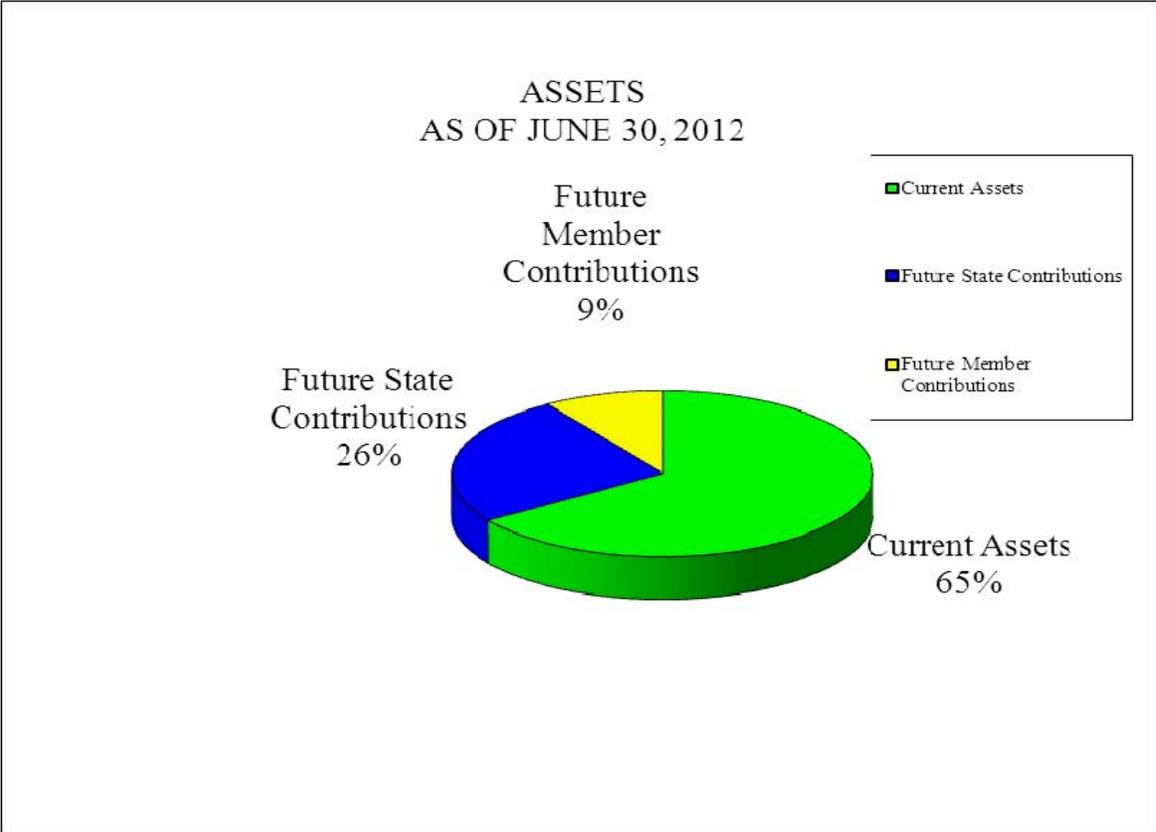
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ASSETS

Adjusted assets of the system		\$1,400,779,062
Present value of prospective contributions		
Members	\$195,996,444	
State		
Accrued liability contributions	401,824,745	
Normal contributions	<u>143,082,193</u>	
Total prospective contributions		<u>\$740,903,382</u>
Total assets		<u>\$2,141,682,444</u>

LIABILITIES

Actuarial present value of benefits payable on account of present retired members, terminated vested members and beneficiaries		\$1,030,219,077
Actuarial present value of benefits expected to become payable on account of active and inactive members		<u>\$1,111,463,367</u>
Total liabilities		<u>\$2,141,682,444</u>



SCHEDULE B

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

GROUPS A, D AND F

INTEREST RATE: A select-and-ultimate interest rate set, specified below. The interest rate set is restarted every year.

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 FROM SERVICE: Representative values of the assumed annual rates of withdrawal, vested retirement, disability and death are as follows:

Age	Withdrawal and Vested Retirement <sup>1</sup>	Disability
25	4.1%	.03%
30	3.3	.04
35	2.7	.05
40	2.5	.08
45	2.2	.13
50	1.9	.21
55	N/A	.35
59	N/A	.52
60	N/A	.57
61	N/A	.62

<sup>1</sup> Increased during first 10 years of service.

ACTIVE SERVICE MORTALITY: RP-2000 Table for Employees using Scale AA to 2016

## OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

GROUPS A, D AND F

Retirement-Group F <sup>2</sup>			
Male Employee		Female Employee	
Age	Rate	Age	Rate
50	20.0%	50	6.0%
51	20.0	51	6.0
52	10.0	52	8.0
53	10.0	53	9.0
54	10.0	54	10.0
55	5.0	55	5.0
56	4.2	56	4.2
57	5.6	57	5.6
58	6.3	58	6.3
59	7.0	59	7.0
60	7.0	60	7.0
61	14.0	61	14.0
62	28.0	62	28.0
63	17.5	63	17.5
64	17.5	64	17.5
65	25.0	65	25.0
66	15.0	66	15.0
67	17.5	67	17.5
68	17.5	68	17.5
69	20.0	69	20.0
70	100.0	70	100.0

<sup>2</sup> All Group A and D members are assumed to retire when first eligible.

## OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

GROUPS A, D AND F

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

Age	Annual Rate of Salary Increase	Age	Annual Rate of Salary Increase
25	7.79%	50	5.70%
30	7.33%	55	5.20%
35	7.00%	60	4.67%
40	6.75%	64	4.50%
45	6.27%		

Salary increases of several classes of employees in Groups D and F are assumed to follow the schedule shown below:

Annual Rate of Salary Adjustment				
Fiscal Year	Group D Judiciary	Group F Non Exempt Non Judiciary	Group F Exempt Non Judiciary	Group F Exempt Judiciary
2013	4.6%	3%	5%	4.6%
2014	N/A	Valuation Salary Scale less 1.7%	N/A	N/A
2015	N/A	N/A	N/A	N/A

## DEATHS AFTER RETIREMENT:

For service retirees and beneficiaries, the RP-2000 Mortality Tables for Employees and Healthy Annuitants projected with Scale AA to 2010.

For disabled retirees, the RP-2000 Combined Mortality Tables for Employees and Healthy Annuitants with a three-year set-forward.

The post-retirement mortality assumption was chosen to recognize improved longevity experienced as well as that expected prior to the next review of assumptions.

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

GROUPS A, D AND F

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

**FUTURE EXPENSES:** No provision made; expenses of the system are paid by the State.

**ACTUARIAL COST METHOD:** The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

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

**PERCENT MARRIED:** 75.4% (71.4% for Group F) of male members and 64.0% (63.1% for Group F) of female members are assumed to be married.

**COST-OF-LIVING ADJUSTMENTS:** Assumed to occur at the rate of 3% per annum for Groups A and D and 1½% per annum for Group F (beginning at age 62 for deferred retirements). For Group F employees retiring after July 1, 2009, the cost-of-living-adjustment is assumed to increase from 1.5% to 3% per annum effective January 1, 2014.

**INACTIVE MEMBERS:** Valuation liability equals 250% of accumulated contributions.

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

**ASSET VALUATION METHOD:** The amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between 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 plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value.

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

GROUP C

INTEREST RATE: A select-and-ultimate interest rate set, specified below. The interest rate set is restarted every year.

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

Age	Withdrawal and Vested Retirement <sup>1</sup>		Disability <sup>1</sup>
	Men Employee	Female Employee	
25	3.60%	7.20%	.15%
30	3.60%	7.20%	.20
35	3.60%	7.20%	.27
40			.40
45			.65
50			1.09
55			1.82
60			2.93

ACTIVE SERVICE MORTALITY<sup>2</sup>: RP-2000 Table for Employees using Scale AA to 2016

<sup>1</sup> Increased during first 5 years of service.

<sup>2</sup> 20% of disabilities and 30% of deaths assumed to be accidental.

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

GROUP C

EARLY AND NORMAL RETIREMENT RATES: All members are assumed to retire when first eligible to do so.

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

Age	Annual Rate of Salary Increase
25	7.79%
30	7.33
35	7.00
40	6.75
45	6.27
50	5.70
55	5.20
60	4.67

Salary increases over the next three fiscal years are assumed to follow the schedule shown below:

Annual Rate of Salary Adjustment		
Fiscal Year	Non Exempt Non State Police	Non Exempt State Police
2013	3%	3%
2014	Valuation Salary Scale less 1.7%	Valuation Salary Scale less 2.4%
2015	N/A	N/A

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued)

GROUP C

DEATHS AFTER RETIREMENT:

For service retirees and beneficiaries, the RP-2000 Mortality Tables for Employees and Healthy Annuitants projected with Scale AA to 2010.

For disabled retirees, the RP-2000 Combined Mortality Tables for Employees and Healthy Annuitants with a three-year set-forward.

The post-retirement mortality assumption was chosen to recognize improved longevity experienced as well as that expected prior to the next review of assumptions.

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

FUTURE EXPENSES: No provision made; expenses of the system are paid by the State.

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

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

PERCENT MARRIED: 73.3% of male members and 61.0% of female members are assumed to be married.

COST-OF-LIVING ADJUSTMENTS: Assumed to occur at the rate of 3% per annum.

INACTIVE MEMBERS: Liability equals 250% of accumulated contributions.

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

ASSET VALUATION METHOD: The amount of the assets for valuation purposes equals the preliminary asset value plus 20% of the difference between 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 plus expected investment income. If necessary, a further adjustment is made to ensure that the valuation assets are within 20% of the market value.

SCHEDULE C

BRIEF SUMMARY OF PRINCIPAL PLAN PROVISIONS  
AS INTERPRETED FOR VALUATION PURPOSES

BRIEF SUMMARY OF BENEFIT PROVISIONS  
AS INTERPRETED FOR VALUATION PURPOSES

Effective Date	July 1, 1972 (for consolidated system).
Creditable Service	Service as a member plus purchased service.
Membership	<p>Group A - General employees who did not join noncontributory system on July 1, 1981.</p> <p>Group C - State police and motor vehicle inspectors.</p> <p>Group D - Judges.</p> <p>Group F - All other general employees.</p>
Average Final Compensation (AFC)	<p>Groups A and F - average annual compensation during highest 3 consecutive years.</p> <p>Group C - average annual compensation during highest 2 consecutive years.</p> <p>Group D - annual compensation at retirement.</p>
Service Retirement Allowance	
Eligibility	<p>Group A – Earlier of age 65, with five years of service for members hired after July 1, 2004, and age 62 with 20 years of service.</p> <p>Group C - Age 55.</p> <p>Group D - Age 62 with 5 years of service.</p> <p>Group F - Age 62 or 30 years of service. For members hired after June 30, 2008, age 65 or a sum of age plus service greater than or equal to 87.</p>

## Amount

Group A - 1.67% of AFC times service.

Group C - 2.5% of AFC times service up to 20 years.

Group D - 3.33% of AFC times service up to 30 years.

Group F - 1.25% of AFC times service prior to January 1, 1991, plus 1.67% of AFC times service after 1990, up to a maximum benefit of 50% of AFC. For members hired on or after July 1, 2008, the maximum benefit is 60% of AFC.

The above amounts include the portion of the allowance provided by member contributions.

## Early Retirement Allowance

## Eligibility

Groups A and D - Age 55 with 5 years of service or 30 years of service.

Group C - Age 50 with 20 years of service.

Group F - Age 55 with 5 years of service.

## Amount

Group A - Actuarial equivalent of normal retirement allowance. For members with 30 years of service, there is no reduction.

Group C - Same as normal retirement allowance.

Group D - Normal allowance reduced by 3% for each year commencement precedes age 62.

Group F – For members hired prior to July 1, 2008, no reduction if 30 years of service; otherwise normal allowance reduced by 6% for each year commencement precedes age 62. For members hired on or after July 1, 2008, no reduction if combination of years and service equal to 87; otherwise reduced from age 65 based on the following table.

<u>Years of Service</u>	<u>Reduction in Benefit</u>
35	One eighth of 1% per year
30	One quarter of 1% per year
25	One third of 1% per year
20	Five twelfths of 1% per year
Less than 20	Five ninths of 1% per year

#### Vested Retirement Allowance

##### Eligibility

All Groups - 5 years of service.

Allowance beginning at normal retirement age based on AFC and service at termination.

#### Ordinary Disability Retirement

##### Allowance

##### Eligibility

All Groups - 5 years of service and incapacitated, not work related, for performance of duty.

##### Amount

Immediate allowance based on service to date of disability. Benefit is the greater of 25% of AFC and unreduced accrued benefit as of date of disability.

#### Accidental Disability Retirement Allowance

##### Eligibility

All Groups - incapacitated as a result of work related accident.

##### Amount

Groups A, D and F - immediate allowance based on service projected to normal retirement. Benefit is the greater of 25% of AFC and unreduced accrued benefit as of date of disability.

Group C - Immediate allowance equal to 50% of AFC with additional 10% of AFC for each dependent child (up to 30%).

### Ordinary Death Benefit

#### Eligibility

Groups A and F - Death after eligibility for early retirement or 10 years of service.

Group C - Death after normal retirement age or 10 years of service.

Group D - Death after normal retirement age or 10 years of service.

#### Amount

Groups A, D and F – maximum of reduced allowance under 100% survivor option and disability allowance under 100% disability survivor option, commencing immediately.

Group C - 70% of the allowance which would have been payable to the member plus additional allowance equal to 10% of AFC for each dependent child (up to 30%).

### Accidental Death Benefit

#### Eligibility

All Groups - Death as a result of work related accident.

#### Amount

Groups A, D and F - Allowance equal to 25% of AFC payable to spouse.

Group C - Allowance equal to 35% of AFC payable to spouse plus 10% of AFC for each dependent child (up to 30%).

### Optional Benefit and Death after Retirement

Lifetime allowance or actuarially equivalent allowance with survivor benefit as elected by member upon retirement.

Upon death of a Group C member, an allowance equal to 70% of the member's allowance is continued to the surviving spouse.

### Refund of Contribution

Upon termination, if the member so elects or if no other benefit is payable, the member's accumulated contributions are refunded.

Post-Retirement Adjustments

Groups A, C and D - allowances in payment for at least one year increased on each January 1 by the percentage increase in Consumer Price Index but not more than 5%.

Group F – Same, but increase is based on half of the Consumer Price Index increase. Increase is based on the full Consumer Price index Increase starting in 2014 for employees retiring after July 1, 2008.

Member Contributions

Groups A and D – 6.40% (until June 30, 2016).

Group C – 8.28% (until June 30, 2016).

Group F

– 6.40% through June 30, 2016

– 5.10% from July 1, 2016 through June 30, 2019

– 4.85% thereafter

SCHEDULE D

SUMMARY TABLES OF MEMBER DATA AS OF JUNE 30, 2012

TABLE 1  
THE NUMBER AND ANNUAL COMPENSATION OF  
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE  
AS OF JUNE 30, 2012

AGE	<i>Years of Service</i>																			
	<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 &amp; 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	3	54,984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	54,984
20 to 24	203	5,354,113	3	114,138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	5,468,251
25 to 29	417	13,733,404	105	4,504,690	2	72,898	0	0	0	0	0	0	0	0	0	0	0	0	524	18,310,992
30 to 34	337	11,592,730	285	13,347,154	56	2,907,796	0	0	0	0	0	0	0	0	0	0	0	0	678	27,847,680
35 to 39	246	8,884,475	298	14,855,883	219	11,895,930	48	2,484,929	5	206,027	0	0	0	0	0	0	0	0	816	38,327,244
40 to 44	243	8,803,780	269	13,220,598	260	14,287,984	168	9,662,576	119	7,314,198	3	218,730	0	0	0	0	0	0	1,062	53,507,866
45 to 49	213	7,546,252	251	12,338,153	233	12,207,919	151	8,477,238	182	11,767,877	138	8,380,022	11	668,972	0	0	0	0	1,179	61,386,434
50 to 54	208	7,625,780	246	11,934,010	218	10,928,177	112	6,245,133	178	10,272,752	135	7,803,802	109	6,071,492	14	767,909	0	0	1,220	61,649,056
55 to 59	168	6,974,696	190	9,472,994	219	11,158,986	133	7,128,484	159	8,928,432	157	9,204,427	130	8,359,902	54	3,463,270	4	271,861	1,214	64,963,051
60 to 64	79	3,303,705	113	5,296,357	136	6,915,035	81	4,467,448	88	5,260,055	94	5,843,333	79	4,968,077	63	4,227,457	23	1,483,923	756	41,765,391
65 to 69	21	1,024,836	34	1,634,636	31	1,593,899	12	744,673	17	924,747	20	1,253,636	24	1,566,405	15	952,564	11	819,412	185	10,514,808
70 & up	5	138,734	4	187,046	8	301,469	4	201,841	1	48,714	2	125,608	2	129,353	4	241,135	5	356,234	35	1,730,134
TOTAL	2,143	75,037,489	1,798	86,905,661	1,382	72,270,094	709	39,412,323	749	44,722,801	549	32,829,558	355	21,764,200	150	9,652,335	43	2,931,429	7,878	385,525,891

TABLE 2  
 THE NUMBER AND ANNUAL COMPENSATION OF  
 ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE  
 AS OF JUNE 30, 2012

GENERAL EMPLOYEES - GROUP A

AGE	<i>Years of Service</i>																				
	<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 &amp; 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	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	
30 to 34	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	
40 to 44	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	1	57,117	0	0	0	0	0	0	0	1	57,117
50 to 54	0	0	0	0	0	0	0	0	0	0	0	0	1	52,083	1	64,958	0	0	2	117,041	
55 to 59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	94,302	0	0	1	94,302	
60 to 64	0	0	0	0	0	0	0	0	0	0	1	49,992	1	60,195	0	0	0	0	2	110,188	
65 to 69	0	0	0	0	0	0	0	0	0	0	1	77,792	1	52,940	1	74,651	0	0	3	205,384	
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	114,080	2	114,080	
TOTAL	0	0	0	0	0	0	0	0	0	0	3	184,901	3	165,219	3	233,911	2	114,080	11	698,111	

TABLE 3  
THE NUMBER AND ANNUAL COMPENSATION OF  
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE  
AS OF JUNE 30, 2012

LAW ENFORCEMENT PERSONNEL - GROUP C

AGE	<i>Years of Service</i>																			
	<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 &amp; 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	24	789,995	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	789,995
25 to 29	46	1,995,799	9	507,607	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	2,503,407
30 to 34	22	1,023,733	37	2,265,893	4	325,839	0	0	0	0	0	0	0	0	0	0	0	0	63	3,615,465
35 to 39	8	387,567	33	2,094,214	34	2,599,960	3	216,318	0	0	0	0	0	0	0	0	0	0	78	5,298,058
40 to 44	7	269,308	21	1,283,090	44	3,268,764	20	1,652,616	20	2,007,468	0	0	0	0	0	0	0	0	112	8,481,247
45 to 49	3	93,935	6	333,992	15	1,082,077	7	571,242	36	3,510,758	19	1,740,702	0	0	0	0	0	0	86	7,332,707
50 to 54	1	44,932	2	111,238	7	462,877	1	80,655	3	223,139	6	566,827	1	74,473	0	0	0	0	21	1,564,141
55 to 59	0	0	0	0	2	83,796	0	0	0	0	0	0	0	0	0	0	0	0	2	83,796
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	111	4,605,271	108	6,596,034	106	7,823,313	31	2,520,832	59	5,741,365	25	2,307,529	1	74,473	0	0	0	0	441	29,668,816

TABLE 4  
 THE NUMBER AND ANNUAL COMPENSATION OF  
 ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE  
 AS OF JUNE 30, 2012

JUDGES - GROUP D

AGE	Years of Service																			
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 & up		Total	
	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	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
30 to 34	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
40 to 44	1	22,210	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	22,210
45 to 49	3	206,014	1	117,195	1	117,667	0	0	0	0	0	0	0	0	0	0	0	0	5	440,876
50 to 54	1	32,069	2	150,429	0	0	1	117,195	1	117,195	0	0	0	0	0	0	0	0	5	416,888
55 to 59	1	26,936	7	791,631	2	187,607	2	204,352	0	0	1	117,195	2	234,390	0	0	0	0	15	1,562,111
60 to 64	1	117,195	3	176,376	2	159,230	2	200,730	3	304,934	4	404,036	1	123,266	0	0	0	0	16	1,485,768
65 to 69	2	176,538	3	230,883	0	0	1	117,195	0	0	1	123,266	2	240,461	0	0	0	0	9	888,342
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	9	580,961	16	1,466,515	5	464,505	6	639,472	4	422,129	6	644,497	5	598,116	0	0	0	0	51	4,816,196

TABLE 5  
 THE NUMBER AND ANNUAL COMPENSATION OF  
 ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE  
 AS OF JUNE 30, 2012

## GENERAL EMPLOYEES - GROUP F

AGE	Years of Service																			
	0 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 & up		Total	
	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary
Under 20	3	54,984	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	54,984
20 to 24	179	4,564,118	3	114,138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	4,678,256
25 to 29	371	11,737,605	96	3,997,082	2	72,898	0	0	0	0	0	0	0	0	0	0	0	0	469	15,807,585
30 to 34	315	10,568,997	248	11,081,262	52	2,581,958	0	0	0	0	0	0	0	0	0	0	0	0	615	24,232,216
35 to 39	238	8,496,908	265	12,761,669	185	9,295,970	45	2,268,611	5	206,027	0	0	0	0	0	0	0	0	738	33,029,185
40 to 44	235	8,512,262	248	11,937,508	216	11,019,220	148	8,009,960	99	5,306,730	3	218,730	0	0	0	0	0	0	949	45,004,409
45 to 49	207	7,246,303	244	11,886,967	217	11,008,174	144	7,905,996	146	8,257,119	118	6,582,203	11	668,972	0	0	0	0	1,087	53,555,734
50 to 54	206	7,548,779	242	11,672,342	211	10,465,301	110	6,047,283	174	9,932,418	129	7,236,975	107	5,944,936	13	702,951	0	0	1,192	59,550,986
55 to 59	167	6,947,760	183	8,681,362	215	10,887,582	131	6,924,132	159	8,928,432	156	9,087,232	128	8,125,512	53	3,368,969	4	271,861	1,196	63,222,842
60 to 64	78	3,186,510	110	5,119,981	134	6,755,805	79	4,266,718	85	4,955,121	89	5,389,304	77	4,784,615	63	4,227,457	23	1,483,923	738	40,169,435
65 to 69	19	848,298	31	1,403,753	31	1,593,899	11	627,478	17	924,747	18	1,052,578	21	1,273,004	14	877,913	11	819,412	173	9,421,082
70 & up	5	138,734	4	187,046	8	301,469	4	201,841	1	48,714	2	125,608	2	129,353	4	241,135	3	242,154	33	1,616,054
TOTAL	2,023	69,851,257	1,674	78,843,112	1,271	63,982,276	672	36,252,019	686	38,559,307	515	29,692,631	346	20,926,392	147	9,418,425	41	2,817,349	7,375	350,342,768

TABLE 6

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

ALL EMPLOYEES

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
30 and Under	1	\$ 7,592	7	\$ 64,237	37	\$ 187,250
32	-	-	1	8,717	-	-
33	-	-	-	-	1	6,979
35	-	-	1	10,379	1	5,399
38	-	-	1	7,898	-	-
39	-	-	2	34,502	1	7,744
40	-	-	1	9,561	2	22,153
41	1	2,509	2	26,025	1	9,846
42	-	-	1	14,047	1	11,480
43	-	-	1	10,719	-	-
44	2	27,856	3	62,577	-	-
45	1	28,029	2	52,840	-	-
46	-	-	3	59,941	1	7,397
47	-	-	6	110,732	2	31,293
48	2	53,704	3	32,164	3	44,941
49	7	165,486	7	94,199	-	-
50	13	427,463	9	125,933	2	17,478
51	17	573,924	9	127,135	2	21,236
52	30	1,227,466	4	53,278	2	8,047
53	28	938,496	6	61,619	1	8,815
54	33	1,366,731	7	84,904	7	86,100
55	52	1,872,758	9	145,041	4	57,733
56	64	1,542,088	7	108,928	6	70,085
57	75	2,347,900	13	143,451	8	80,107
58	97	2,055,893	16	169,379	12	190,793
59	89	2,400,800	20	265,776	12	160,945
60	126	2,782,809	22	207,825	5	64,444
61	142	3,301,592	16	205,871	10	109,855
62	227	4,619,708	21	257,390	6	59,641
63	228	3,926,314	23	288,050	9	64,110
64	278	4,936,100	13	149,564	9	127,167
65	299	5,753,124	14	223,504	9	140,361
66	215	4,016,763	13	150,908	9	103,382
67	212	3,670,764	7	80,957	13	114,518
68	196	3,188,244	13	163,463	18	248,277
69	217	3,897,925	13	124,469	18	222,896
70	188	3,417,185	10	92,480	15	167,016
71	160	2,418,390	8	84,828	20	270,115
72	147	2,238,254	9	136,292	16	126,993
73	135	1,949,527	4	35,663	19	178,109
74	112	1,650,794	10	119,493	10	125,272
75	116	1,770,256	7	55,469	11	124,056
76	135	2,040,967	4	30,235	18	215,236

TABLE 6, continued

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

ALL EMPLOYEES

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
77	109	1,786,022	4	34,014	21	188,668
78	101	1,493,128	2	39,928	10	71,921
79	112	1,463,330	4	23,896	14	159,924
80	80	911,108	3	34,181	14	147,664
81	94	1,149,248	2	10,296	19	249,796
82	83	1,035,020	3	26,245	18	197,257
83	64	815,554	2	21,174	16	120,982
84	52	666,974	4	44,750	21	196,545
85	54	642,237	2	23,213	5	31,741
86	55	644,618	1	8,017	13	134,832
87	40	419,160	-	-	12	122,126
88	36	325,592	2	28,233	10	52,998
89	36	343,078	2	25,298	7	87,727
90	21	195,255	1	8,883	3	43,416
91	24	218,948	1	14,218	12	117,958
92	25	191,791	-	-	6	49,523
93	15	156,460	1	9,815	6	60,408
94	7	83,828	1	9,626	3	29,375
95	7	57,253	-	-	2	46,953
96	7	51,895	-	-	2	22,984
97	2	48,319	-	-	1	4,355
98	2	8,949	1	15,943	2	18,091
100	3	19,325	-	-	-	-
101	0	-	-	-	1	21,928
102	1	18,591	-	-	-	-
105	1	4,934	-	-	-	-
109	0	-	-	-	1	2,219
Total	4,676	83,368,028	384	4,668,173	540	5,676,660

TABLE 7

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

GENERAL EMPLOYEES - GROUP A

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
30 and Under	-	\$ -	-	\$ -	-	\$ -
57	2	78,409	1	13,580	-	-
58	1	1,440	-	-	-	-
59	-	-	1	15,730	1	8,573
60	3	84,798	1	6,917	-	-
61	3	71,161	-	-	-	-
62	1	35,088	-	-	-	-
63	4	96,221	1	19,692	-	-
64	5	118,393	1	7,292	1	21,754
65	2	19,339	-	-	1	35,524
66	6	162,972	1	16,994	-	-
67	-	-	-	-	2	9,029
68	3	84,410	-	-	1	14,428
69	1	40,616	-	-	1	13,449
70	6	179,133	-	-	2	22,942
71	6	125,184	-	-	3	35,825
72	3	54,086	-	-	-	-
73	8	226,644	-	-	-	-
74	4	84,280	1	10,713	-	-
75	7	132,998	2	19,535	1	16,991
76	4	98,192	1	9,537	-	-
77	12	326,202	-	-	-	-
78	5	109,026	-	-	-	-
79	3	77,320	-	-	-	-
80	4	76,977	1	17,898	2	19,456
81	6	134,579	1	5,727	4	50,315
82	8	155,030	1	16,737	4	33,129
83	6	106,101	1	16,453	3	30,834
84	4	82,916	2	33,412	3	28,799
85	2	16,153	2	23,213	2	12,873
86	8	114,379	1	8,017	7	56,301
87	6	65,346	-	-	3	27,476
88	9	107,012	2	28,233	4	21,056
89	7	49,677	2	25,298	-	-
90	2	19,065	1	8,883	1	7,126
91	4	37,034	1	14,218	8	84,670
92	9	72,526	-	-	1	7,440
93	9	113,394	1	9,815	4	43,641
94	6	62,862	1	9,626	2	17,643
95	5	49,157	-	-	1	9,669
96	7	51,895	-	-	1	6,060
97	2	48,319	-	-	1	4,355
98	2	8,949	1	15,943	2	18,091

TABLE 7, continued

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

GENERAL EMPLOYEES - GROUP A

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
100	3	19,325	-	-	-	-
101	-	-	-	-	1	21,928
102	1	18,591	-	-	-	-
105	1	4,934	-	-	-	-
109	-	-	-	-	1	2,219
Total	200	3,620,133	28	353,463	69	688,110

TABLE 8

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

STATE POLICE AND MOTOR VEHICLE INSPECTORS - GROUP B

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
41	-	\$ -	-	\$ -	1	\$ 18,797
58	1	9,121	-	-	-	-
61	1	4,642	-	-	-	-
63	-	-	1	19,544	-	-
65	1	35,738	-	-	-	-
66	2	61,819	-	-	-	-
67	1	24,572	-	-	-	-
68	-	-	1	20,400	-	-
69	2	32,559	-	-	-	-
70	2	60,642	-	-	-	-
Total	10	229,093	2	39,944	1	18,797

TABLE 9

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

LAW ENFORCEMENT PERSONNEL - GROUP C

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
30 and Under	1	\$ 7,592	7	\$ 64,237	6	\$ 47,446
39	-	-	1	29,181	-	-
40	-	-	-	-	1	11,482
41	1	2,509	-	-	-	-
44	-	-	1	37,174	-	-
45	-	-	1	42,371	-	-
46	-	-	1	40,367	-	-
47	-	-	1	46,212	-	-
48	-	-	1	15,135	1	22,171
49	-	-	1	24,561	-	-
50	5	235,381	-	-	-	-
51	5	277,534	1	52,170	-	-
52	16	895,066	-	-	-	-
53	8	402,157	-	-	-	-
54	14	833,944	1	34,729	1	19,252
55	16	962,505	1	42,913	1	26,480
56	14	622,996	1	36,161	1	33,778
57	17	981,307	-	-	1	21,375
58	7	374,787	-	-	1	29,327
59	13	753,582	2	69,523	2	40,468
60	8	437,110	-	-	1	11,088
61	5	267,296	-	-	1	28,615
62	14	562,084	1	33,141	-	-
63	4	134,307	1	29,128	-	-
64	9	321,694	1	41,945	-	-
65	13	555,225	2	76,230	2	41,659
66	11	422,897	1	40,368	-	-
67	1	25,853	1	32,477	-	-
68	5	179,197	1	31,140	3	80,485
69	10	439,849	-	-	1	38,050
70	8	333,695	-	-	1	26,753
71	5	178,433	-	-	4	120,684
72	4	165,840	2	59,772	1	19,491
73	3	124,936	1	19,167	1	32,728
74	4	173,642	1	26,961	2	34,366
75	3	140,699	-	-	1	17,697
76	2	70,143	-	-	1	28,236
77	4	184,639	-	-	2	47,919
78	3	108,782	1	31,745	-	-
79	4	149,136	-	-	4	101,604
80	3	101,404	-	-	1	27,872
81	5	160,573	-	-	6	112,631
82	3	131,969	-	-	3	63,591
83	5	191,233	-	-	2	47,741
84	-	-	-	-	3	52,762
85	2	62,146	-	-	-	-
86	2	67,191	-	-	2	42,530
87	-	-	-	-	3	59,683
89	-	-	-	-	1	15,913
91	2	46,568	-	-	1	21,682
92	-	-	-	-	-	-
93	-	-	-	-	1	8,517
96	-	-	-	-	1	16,924
Total	259	12,085,901	33	956,808	65	1,369,784

TABLE 10

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

JUDGES - GROUP D

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
48	-	-	-	-	1	10,569
61	1	39,132	-	-	-	-
62	2	168,505	-	-	-	-
63	1	43,762	-	-	-	-
64	1	95,247	-	-	-	-
65	2	176,053	-	-	-	-
66	2	42,189	-	-	1	25,166
67	1	15,826	-	-	-	-
68	1	32,543	-	-	-	-
69	4	267,315	-	-	-	-
70	3	240,104	-	-	-	-
72	1	71,349	-	-	-	-
73	1	33,470	-	-	-	-
74	1	76,381	-	-	-	-
75	3	163,031	-	-	-	-
76	2	140,823	-	-	1	31,401
77	1	94,405	-	-	-	-
79	2	159,215	-	-	-	-
80	2	61,719	-	-	-	-
82	1	37,841	-	-	1	27,268
84	3	148,942	-	-	-	-
85	2	127,595	-	-	-	-
86	1	37,625	-	-	-	-
87	2	64,673	-	-	-	-
88	1	9,489	-	-	-	-
89	1	54,608	-	-	1	45,068
90	2	84,089	-	-	2	36,290
94	1	20,966	-	-	-	-
95	-	-	-	-	1	37,284
Total	45	2,506,897	-	-	8	213,046

TABLE 11

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

## GENERAL EMPLOYEES - GROUPS E/F

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
30 and Under	-	\$ -	-	\$ -	31	\$ 139,804
32	-	-	1	8,717	-	-
33	-	-	-	-	1	6,979
35	-	-	1	10,379	1	5,399
38	-	-	1	7,898	-	-
39	-	-	1	5,321	1	7,744
40	-	-	1	9,561	1	10,671
41	-	-	2	26,025	1	9,846
42	-	-	1	14,047	1	11,480
43	-	-	1	10,719	-	-
44	2	27,856	2	25,403	-	-
45	1	28,029	1	10,469	-	-
46	-	-	2	19,574	1	7,397
47	-	-	5	64,520	1	12,496
48	2	53,704	2	17,029	1	12,201
49	7	165,486	6	69,638	-	-
50	8	192,082	9	125,933	2	17,478
51	12	296,390	8	74,965	2	21,236
52	14	332,400	4	53,278	2	8,047
53	20	536,339	6	61,619	1	8,815
54	19	532,787	6	50,175	5	60,334
55	36	910,253	8	102,128	3	31,253
56	50	919,092	6	72,767	5	36,307
57	56	1,288,184	12	129,871	7	58,732
58	88	1,670,545	16	169,379	11	161,466
59	76	1,647,218	17	180,523	9	111,904
60	115	2,260,901	21	200,908	4	53,356
61	132	2,919,361	16	205,871	9	81,240
62	210	3,854,031	20	224,249	6	59,641
63	219	3,652,024	20	219,686	9	64,110
64	263	4,400,766	11	100,327	8	105,413
65	281	4,966,769	12	147,274	6	63,178
66	194	3,326,886	11	93,546	8	78,216
67	209	3,604,513	6	48,480	11	105,489
68	187	2,892,094	11	111,923	14	153,364
69	200	3,117,586	13	124,469	16	171,397
70	169	2,603,611	10	92,480	12	117,321
71	149	2,114,773	8	84,828	13	113,606
72	139	1,946,979	7	76,520	15	107,502
73	123	1,564,477	3	16,496	18	145,381
74	103	1,316,491	8	81,819	8	90,906
75	103	1,333,528	5	35,934	9	89,368
76	127	1,731,809	3	20,698	16	155,599

TABLE 11, continued

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY ATTAINED AGE AS OF JUNE 30, 2012

GENERAL EMPLOYEES - GROUPS E/F

Age	Service Pensioners		Disability Pensioners		Beneficiaries	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
77	92	1,180,776	4	34,014	19	140,749
78	93	1,275,320	1	8,183	10	71,921
79	103	1,077,659	4	23,896	10	58,320
80	71	671,008	2	16,283	11	100,336
81	83	854,096	1	4,569	9	86,850
82	71	710,180	2	9,508	10	73,269
83	53	518,220	1	4,721	11	42,407
84	45	435,116	2	11,338	15	114,984
85	48	436,343	-	-	3	18,868
86	44	425,423	-	-	4	36,001
87	32	289,141	-	-	6	34,967
88	26	209,091	-	-	6	31,942
89	28	238,793	-	-	5	26,746
90	17	92,101	-	-	-	-
91	18	135,346	-	-	3	11,606
92	16	119,265	-	-	4	23,299
93	6	43,066	-	-	1	8,250
94	-	-	-	-	1	11,732
95	2	8,096	-	-	-	-
Total	4,162	64,926,004	321	3,317,958	397	3,386,923

TABLE 12

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA  
BY YEAR OF RETIREMENT

Year of Retirement	Number	Annual Allowance	Average Allowance
1957	3	\$ 14,717	\$ 4,906
1971	1	4,082	4,082
1972	3	47,051	15,684
1974	4	35,770	8,943
1975	2	27,621	13,811
1976	4	36,090	9,023
1977	12	132,320	11,027
1978	13	142,782	10,983
1979	12	143,148	11,929
1980	21	201,086	9,576
1981	14	172,330	12,309
1982	23	208,314	9,057
1983	27	276,724	10,249
1984	40	583,616	14,590
1985	47	488,168	10,387
1986	41	480,577	11,721
1987	66	823,094	12,471
1988	63	856,770	13,600
1989	66	902,848	13,680
1990	114	1,233,514	10,820
1991	114	1,684,415	14,776
1992	81	739,960	9,135
1993	110	1,450,568	13,187
1994	85	1,123,720	13,220
1995	130	1,624,191	12,494
1996	400	6,034,761	15,087
1997	117	1,901,732	16,254
1998	118	1,857,744	15,744
1999	147	2,144,212	14,586
2000	178	2,516,072	14,135
2001	183	2,611,694	14,272
2002	198	3,341,776	16,878
2003	221	4,095,115	18,530
2004	278	5,189,624	18,668
2005	273	4,736,911	17,351
2006	277	5,154,602	18,609
2007	314	5,789,975	18,439
2008	322	6,192,702	19,232
2009	532	10,481,797	19,703
2010	380	7,315,493	19,251
2011	351	6,617,605	18,854
2012	215	4,297,570	19,989
Total	5,600	93,712,861	16,734

SCHEDULE E

AMORTIZATION SCHEDULE FOR THE UNFUNDED ACTUARIAL ACCRUED  
LIABILITY

AMORTIZATION SCHEDULE  
FOR THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

Date	Balance	Amortization Payment (Year Following)
6/30/2012	401,824,745	23,108,413
6/30/2013	403,830,379	24,263,834
6/30/2014	406,825,095	25,477,026
6/30/2015	409,825,826	26,750,877
6/30/2016	413,811,886	28,088,421
6/30/2017	417,793,886	29,492,842
6/30/2018	422,769,039	30,967,484
6/30/2019	426,680,001	32,515,858
6/30/2020	429,365,243	34,141,651
6/30/2021	431,719,638	35,848,734
6/30/2022	432,567,073	37,641,171
6/30/2023	431,694,103	39,523,230
6/30/2024	428,864,872	41,499,392
6/30/2025	423,818,994	43,574,362
6/30/2026	416,269,247	45,753,080
6/30/2027	405,899,053	48,040,734
6/30/2028	393,374,486	50,442,771
6/30/2029	378,335,419	52,964,910
6/30/2030	359,420,696	55,613,156
6/30/2031	336,155,403	58,393,814
6/30/2032	308,015,575	61,313,505
6/30/2033	274,423,472	64,379,180
6/30/2034	234,742,405	67,598,139
6/30/2035	188,271,082	70,978,046
6/30/2036	134,237,433	74,526,948
6/30/2037	71,791,854	78,253,295
6/30/2038	0	0

SCHEDULE F

PROJECTION OF CONTRIBUTIONS FOR  
FOLLOWING TWO FISCAL YEARS

PROJECTION OF CONTRIBUTIONS FOR  
FOLLOWING TWO FISCAL YEARS

On the basis of the June 30, 2012 actuarial valuation, the recommended contribution for the fiscal year ending June 30, 2013, is \$38,375,238, which is based on the following:

Payroll	\$385,525,892
Normal rate	3.96%
Accrued liability contribution	\$23,108,413

The projections for the following two years are as follows:

Fiscal Year	Projected Payroll	Normal Rate*	CONTRIBUTIONS		
			Normal	Accrued Liability	Total
2014	\$ 402,874,556	3.96%	\$ 15,953,832	\$24,263,834	\$40,217,666
2015	421,003,911	3.96%	16,671,755	\$25,477,026	42,148,781

\*In these projections, total payroll is assumed to increase by 4.5% each year. The offset to normal cost paid by the State is constrained in accordance with the provisions of Act 63, Section 473 of the 2011 Legislative Session.