REPORT ON THE ACTUARIAL VALUATION OF THE VERMONT STATE EMPLOYEES' RETIREMENT SYSTEM PREPARED AS OF JUNE 30, 2014

OCTOBER 29, 2014



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October 29, 2014

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, 2014, 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, 2014, amounts to \$43,888,005. Schedule F contains the projected contributions for the following two years.

The Board may use this report for the review of the operation of the system and as a source of information for the State financial statements. Use of this report for any other purpose, or by anyone other than the Board or staff serving the system, may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without Buck Consultants' prior written consent.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. An analysis of the potential range of future results is beyond the scope of this valuation.

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, FSA, EA, MAAA 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, 2014

<u>SECTION I - SUMMARY OF PRINCIPAL RESULTS</u>

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, 2013	June 30, 2014
Active members		
Vested	5,763	5,637
Not vested	<u>2,395</u>	<u>2,688</u>
Total	8,158	8,325
Compensation	\$416,766,032	\$437,675,917
Average age	46.17	45.21
Average service	12.15	11.77
Average compensation	51,087	52,574
Retired members and beneficiaries		
Number	5,795	5,980
Annual retirement allowances	\$98,932,427	\$104,452,793
Inactive members	796	867
Terminated vested members	741	732
Adjusted assets for valuation	\$1,469,169,902	\$1,566,075,540
Unfunded actuarial accrued liability	\$445,130,082	\$444,014,326
Annual actuarial accrued liability contribution	\$26,227,379	\$25,809,339
Normal contribution rate	3.91%	4.13%

- 2. Schedule B outlines the full set of actuarial assumptions and methods employed in the current valuation. There have been no changes in the assumptions since the last valuation. The assumptions now in use were based on an experience study covering the period from July 1, 2005, through June 30, 2010. The mortality assumptions now in use were adopted by the Board on the basis of this study. The review of assumptions in the next experience study will take account of the requirement added to the latest revision of Actuarial Standard of Practice No. 35 to consider future longevity improvements in the selection of mortality assumptions. It is beyond the scope of this valuation to evaluate the possible effect such a change might have.
- 3. Schedule C outlines the benefit provisions that were taken into account in the valuation.
- 4. 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 (described below) are incorporated in Schedule F.
- 5. The normal cost to be 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

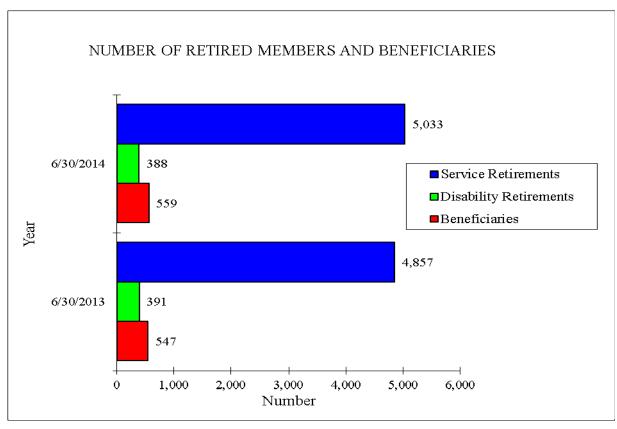
- 1. Member data were furnished in electronic format by the Retirement Division of the State

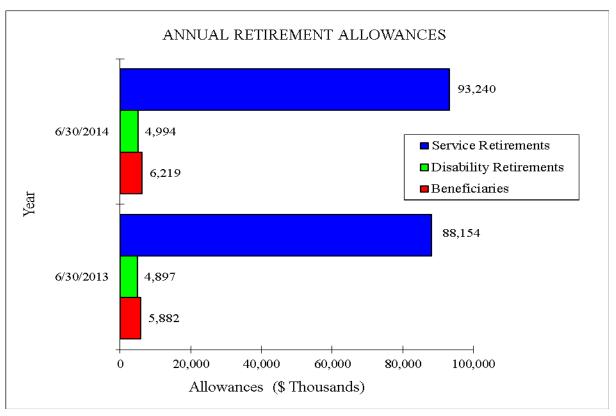
 Treasurer's Office. Buck did not audit this data but reviewed it for reasonableness and
 consistency with prior years' data. The accuracy of the results presented in this report are
 dependent on the accuracy of the data.
- 2. Twenty-six members who terminated on June 30, 2014 and retired on July 1, 2014 were included with a valuation status as members receiving benefits. Three members who were active on June 30, 2014 and terminated on July 1, 2014 were included with a valuation status as inactive members.
- 3. 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.
- 4. The following tables show a summary of membership data:

		Annual
Group	Number	Allowances
Service Retirements	5,033	\$93,239,885
Disability Retirements	388	\$4,993,803
Beneficiaries of Deceased Members	559	\$6,219,105
TOTAL	5,980	\$104,452,793

BENEFITS PAYABLE AS OF JUNE 30, 2014 TABULATED BY TYPE OF RETIREMENT AND OPTION

		Annual
Group	Number	Allowances
-		
Service Retirements		
Life Only	1,639	\$21,763,685
50% Joint and Survivor	230	4,992,812
70% Joint and Survivor	65	3,224,258
100% Joint and Survivor	426	8,405,063
50% Joint and Survivor, pop-up	495	10,513,022
100% Joint and Survivor, pop-up	595	10,431,200
Life and Return of Contributions	1,583	33,909,845
Total	5,033	\$93,239,885
Disability Retirements		
Life Only	192	\$2,093,794
50% Joint and Survivor	7	63,836
70% Joint and Survivor	14	513,918
100% Joint and Survivor	17	180,393
50% Joint and Survivor, pop-up	13	146,942
100% Joint and Survivor, pop-up	12	87,502
Life and Return of Contributions	133	1,907,418
Total	388	\$4,993,803
Beneficiaries	559	\$6,219,105
Grand Total	5,980	\$104,452,793





THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS AS OF JUNE 30, 2014

GROUP	NUMBER	ANNUAL COMPENSATION
GROCI	TVCIVIDEAC	COMI ENDIMION
Group A		
Men	5	\$342,785
Women	1	62,998
Total	6	\$405,783
10.002		ψ 102,7 03
Group C		
Men	409	\$30,681,214
Women	50	3,435,297
Total	459	\$34,116,511
Group D		
Men	36	\$3,697,177
Women	15	1,760,902
Total	51	\$5,458,079
Group F		
Men	3,631	\$193,013,311
Women	4,178	204,682,233
Total	7,809	\$397,695,544
All Members		
Men	4,081	\$227,734,487
Women	4,244	209,941,430
Total	8,325	\$437,675,917

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, 2013	\$1,469,169,902	
Cash flow during year (net of investment incom	e)	
Contributions paid	\$88,682,529	
Benefit payouts	(104,492,553)	
Expenses	(7,929,375)	
Net		(23,739,399)
Expected investment income (6.25%)		97,852,455
Preliminary asset value		\$1,543,282,958
Market value, June 30, 2014	\$1,657,245,868	
Preliminary asset value	1,543,282,958	
Unrecognized appreciation	113,962,910	
Adjustment	X 20%	\$22,792,582
Assets for valuation purposes, June 30, 2014		\$1,566,075,540

- 3 The assets for valuation purposes are 94.5% of market value.
- 4 The investment rate of return for the year ending June 30, 2014 is 8.28%, based on the adjusted asset value.

SECTION IV - COMMENTS ON VALUATION

- 1. Schedule A of the report contains a valuation balance sheet that shows the present and prospective assets and liabilities of the system as of June 30, 2014.
- 2. The adjusted assets of the system are \$1,566,075,540.
- 3. The actuarial accrued liability for current retired members, terminated vested members and beneficiaries is \$1,142,767,226 and the actuarial accrued liability for current active and inactive members' amounts to \$867,322,640, for a total actuarial accrued liability of \$2,010,089,866. Therefore, after subtracting assets of \$1,566,075,540, the unfunded actuarial accrued liability is \$444,014,326.
- 4. The State's contributions consist of a normal contribution and an accrued liability contribution. The accrued liability contribution represents the amount necessary to amortize the unfunded accrued liability as of June 30, 2014, over a period ending on June 30, 2038. These amounts are to rise by 5% per year over the term of the amortization period. Normal contributions represent the contributions needed to fund the benefits attributed by the funding method to service rendered in the coming year. Under the Entry Age Normal funding method, the normal contribution as of June 30, 2014, is \$18,078,666, or 4.13% of members' compensation.
- 5. The expected unfunded actuarial accrued liability as of June 30, 2014, 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, 2013:

1. Unfunded liability, 6/30/2013	\$445,130,082
2. Normal Cost	42,234,214
3. Contributions	(88,682,529)
4. Interest on 1, 2 and 3	27,730,939
5. Change in Actuarial Assumptions	0
6. Restart of select-and-ultimate interest structure	35,135,438
7. Change in Plan Provisions	0
8. Expected Unfunded Liability, 6/30/2014	461,548,144
9. Accrued Liability, 6/30/2014	2,010,089,868
10. Actuarial Value of Assets, 6/30/2014	1,566,075,540
11. Actual Unfunded Liability, 9 10.	444,014,328
12. Total gain/(loss), 8 11.	\$17,533,816

Sources of Gain/(Loss)	
Investment experience	\$29,552,531
Expenses (investments)	(6,979,585)
Expenses (other than investments)	(1,193,828)
Salary experience	(4,183,550)
COLA experience	6,030,176
New members and rehires	(1,541,856)
Mortality among retirees, beneficiaries	(6,465,560)
and terminated vested participants.	
Mortality among active participants	516,399
Retirement experience	(2,414,112)
Termination experience	(5,762,575)
Disability experience	735,311
Other (data corrections, purchased service, etc.)	<u>9,240,465</u>
Total	\$17,533,816

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, 2014:

Normal contribution	\$ 18,078,666
Accrued liability contribution	25,809,339
Total	\$ 43,888,005

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

Normal	4.13%
Accrued liability	<u>5.90%</u>
Total	10.03%

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.

<u>SECTION VII - ACCOUNTING INFORMATION</u>

1. Governmental Accounting Standards Board Statement No. 25 (GASB 25) is amended and replaced by Governmental Accounting Standards Board Statement No. 67 (GASB 67) effective for the fiscal year ending June 30, 2014, and a separate actuarial valuation report presenting the amounts required for disclosure under GASB 67 was prepared as of June 30, 2014.

 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	Annual Required	Interest on	Amortization	Pension Cost	Actual	Change in NPO	
June 30	Contribution	NPO	of NPO	(1)+(2)-(3)	Contribution	(4)-(5)	NPO Balance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
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 ¹	3,926,266	3,531,192	29,143,475	40,302,433	(11,158,958)	51,661,301
2013	39,389,870	3,228,831	2,970,974	39,647,727	51,370,307	(11,722,580)	39,938,721
2014	42,786,326	2,496,170	2,353,218	42,929,278	56,482,985	(13,553,707)	26,385,014

3. The Annual Required Contribution for fiscal year 2014 is derived as follows:

\$15,953,832 product of the normal rate from the 2012 valuation report (3.96%) and estimated FY 2014 payroll

24,263,834 amortization of unfunded liability (see amortization chart in 2012 valuation report)

2,568,660 administrative expenses (other than retiree medical) reimbursable by the state \$42,786,326

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 $^{^{\}rm 1}$ For 2012, one-time adjustments were made. Please refer to the 2012 actuarial valuation report.

SCHEDULE A

VALUATION BALANCE SHEET SHOWING THE ASSETS AND LIABILITIES OF THE VERMONT STATE EMPLOYEES RETIREMENT SYSTEM PREPARED AS OF JUNE 30, 2014

VALUATION BALANCE SHEET SHOWING THE ASSETS AND LIABILITIES OF THE VERMONT STATE EMPLOYEES RETIREMENT SYSTEM PREPARED AS OF JUNE 30, 2014

ASSETS

Adjusted assets of the system

Present value of prospective contributions

Members \$222,335,909

State

Accrued liability contributions 444,014,326 Normal contributions 180,152,849

Total prospective contributions \$ 846,503,084

Total assets \$2,412,578,624

LIABILITIES

Actuarial present value of benefits payable on account of present retired members, terminated vested members and beneficiaries

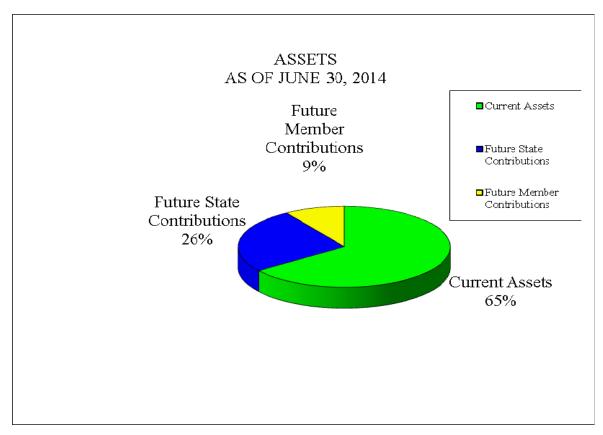
\$1,142,767,226

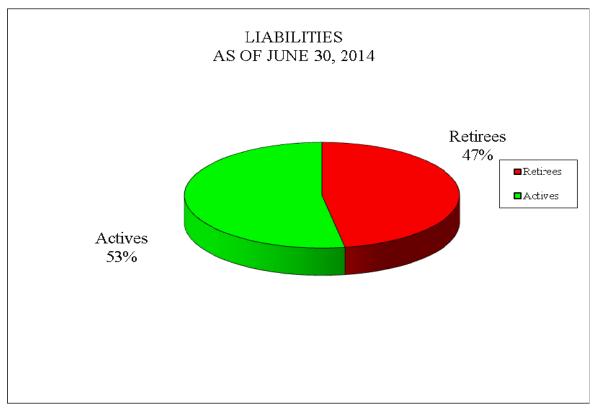
\$1,566,075,540

Actuarial present value of benefits expected to become payable on account of active and inactive members

1,269,811,398

Total liabilities \$2,412,578,624





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 ¹	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

¹ Increased during first 10 years of service.

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

Retirement-Group F ²												
Male	e 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									

 $^{^{2}}$ 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:

	Annual Rate of		Annual Rate of
Age	Salary Increase	Age	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														
	Group D	Group F	Group F	Group F											
Fiscal	Judiciary	Non Exempt	Exempt	Exempt											
Year		Non Judiciary	Non Judiciary	Judiciary											
2013	4.6%	3%	5%	4.6%											
2014	N/A	Valuation	N/A	N/A											
		Salary Scale													
		less 1.7%													
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, cost-of-living-adjustments are 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:

	Withdrawal Retire		
Age	Men Employee	Female Employee	Disability ¹
25 30 35 40 45 50 55 60	3.60% 3.60% 3.60%	7.20% 7.20% 7.20%	.15% .20 .27 .40 .65 1.09 1.82 2.93

ACTIVE SERVICE MORTALITY²: RP-2000 Table for Employees using Scale AA to 2016

Increased during first 5 years of service.
 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 30 35 40 45 50 55	7.79% 7.33 7.00 6.75 6.27 5.70 5.20
60	4.67

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.

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS (Continued) $\underline{\text{GROUP C}}$

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 Group A - General employees who did not join

noncontributory system on July 1, 1981.

Group C - State police and motor vehicle inspectors.

Group D - Judges.

Group F - All other general employees.

Average Final Compensation (AFC) Groups A and F - average annual compensation during

highest 3 consecutive years.

Group C - average annual compensation during highest

2 consecutive years.

Group D - annual compensation at retirement.

Service Retirement Allowance

Eligibility 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.

Group C - Age 55.

Group D - Age 62 with 5 years of service.

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.

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.

Years of Service	Reduction in Benefit
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, 2014

TABLE 1
THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE AS OF JUNE 30, 2014

										Years of Se	ervice									
	0 to 4 5 to 9		to 9	10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40	& ир	Total		
AGE	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary
Under 20	7	72,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	72,158
20 to 24	201	5,999,737	2	106,911	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203	6,106,647
25 to 29	564	20,946,974	86	4,152,892	1	40,223	0	0	0	0	0	0	0	0	0	0	0	0	651	25,140,090
30 to 34	447	17,443,321	273	14,197,259	65	3,303,671	1	46,757	0	0	0	0	0	0	0	0	0	0	786	34,991,008
35 to 39	334	13,513,574	267	14,313,447	229	13,921,947	45	2,776,405	0	0	0	0	0	0	0	0	0	0	875	44,525,373
40 to 44	311	12,059,828	230	12,870,795	252	15,125,861	175	11,505,782	77	4,663,105	8	446,159	0	0	0	0	0	0	1,053	56,671,530
45 to 49	254	10,553,663	214	11,363,188	208	11,752,759	172	10,568,325	172	12,045,783	142	9,861,940	5	261,648	0	0	0	0	1,167	66,407,306
50 to 54	250	10,317,751	194	10,258,114	228	12,516,379	149	8,873,675	128	8,132,014	186	11,726,422	91	5,461,029	11	640,559	0	0	1,237	67,925,943
55 to 59	188	8,567,039	194	9,739,117	231	12,628,621	137	7,765,042	123	7,399,138	161	10,116,198	113	7,631,990	57	3,618,575	7	463,830	1,211	67,929,550
60 to 64	105	4,562,072	111	6,157,186	147	8,468,162	94	5,351,913	81	5,174,069	114	7,403,773	77	5,476,118	76	5,251,854	30	2,133,223	835	49,978,370
65 to 69	19	980,551	44	2,294,210	45	2,337,925	36	2,096,298	19	1,430,762	20	1,318,145	25	1,592,959	22	1,608,944	21	1,616,297	251	15,276,091
70 & up	8	183,791	2	61,527	8	485,017	9	450,602	5	231,749	5	412,563	2	130,680	2	136,283	8	559,638	49	2,651,851
TOTAL	2,688	105,200,457	1,617	85,514,647	1,414	80,580,566	818	49,434,798	605	39,076,620	636	41,285,200	313	20,554,424	168	11,256,215	66	4,772,988	8,325	437,675,917

TABLE 2
THE NUMBER AND ANNUAL COMPENSATION OF
ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE
AS OF JUNE 30, 2014

GENERAL EMPLOYEES - GROUP A

]	Years of Servi	ce									
	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	
AGE	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	0	0	0	0	0	0	0	0	0	0
50 to 54	0	0	0	0	0	0	0	0	0	0	0	0	1	62,998	0	0	0	0	1	62,998
55 to 59	0	0	0	0	0	0	0	0	0	0	0	0	1	55,681	0	0	0	0	1	55,681
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	166,152	0	0	2	166,152
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	2	120,952	2	120,952
TOTAL [0	0	0	0	0	0	0	0	0	0	0	0	2	118,679	2	166,152	2	120,952	6	405,783

TABLE 3
THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE AS OF JUNE 30, 2014

LAW ENFORCEMENT PERSONNEL - GROUP C

]	Years of Servi	ice									
	0 to 4		5 to 9		10 to 14		15 to 19		20	20 to 24		25 to 29		30 to 34		35 to 39		40 & ир		otal
AGE	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	16	587,537	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	587,537
25 to 29	69	3,617,730	9	585,545	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	4,203,275
30 to 34	22	1,257,279	36	2,569,420	4	250,735	0	0	0	0	0	0	0	0	0	0	0	0	62	4,077,435
35 to 39	11	650,840	25	1,694,500	38	3,188,994	8	756,285	0	0	0	0	0	0	0	0	0	0	82	6,290,620
40 to 44	5	231,441	15	986,388	38	3,297,179	32	2,934,290	7	615,198	0	0	0	0	0	0	0	0	97	8,064,496
45 to 49	5	242,424	9	590,439	19	1,501,661	15	1,289,004	30	3,172,686	25	2,691,219	0	0	0	0	0	0	103	9,487,434
50 to 54	1	56,159	2	134,819	5	320,449	3	254,686	2	146,871	7	392,786	1	99,944	0	0	0	0	21	1,405,716
55 to 59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	129	6,643,410	96	6,561,112	104	8,559,019	58	5,234,265	39	3,934,755	32	3,084,005	1	99,944	0	0	0	0	459	34,116,511

TABLE 4
THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE AS OF JUNE 30, 2014

JUDGES - GROUP D

									Y	ears of Servi	ce									
	0 t	to 4	5 t	o 9	10 t	o 14	15 t	o 19	20 i	to 24	25	to 29	30	to 34	35	to 39	40	& ир	T	otal
AGE	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	2	268,142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	268,142
50 to 54	2	261,360	2	166,629	1	130,680	1	130,680	1	130,680	0	0	0	0	0	0	0	0	7	820,029
55 to 59	4	376,351	2	261,360	3	261,360	1	130,680	0	0	1	130,680	1	130,680	0	0	0	0	12	1,291,111
60 to 64	2	201,640	4	325,622	1	130,680	3	282,239	1	130,680	2	188,034	1	130,680	1	130,680	0	0	15	1,520,255
65 to 69	2	195,792	2	182,186	1	144,019	1	45,677	3	398,822	0	0	1	130,680	1	137,462	0	0	11	1,234,638
70 & up	1	12,757	0	0	1	43,005	0	0	0	0	1	137,462	1	130,680	0	0	0	0	4	323,904
TOTAL [13	1,316,042	10	935,797	7	709,744	6	589,276	5	660,182	4	456,176	4	522,720	2	268,142	0	0	51	5,458,079

TABLE 5
THE NUMBER AND ANNUAL COMPENSATION OF ACTIVE MEMBERS DISTRIBUTED BY AGE AND SERVICE AS OF JUNE 30, 2014

GENERAL EMPLOYEES - GROUP F

										Years of Se	ervice									
	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	& ир	7	Total
AGE	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary	No.	Salary
Under 20	7	72,158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	72,158
20 to 24	185	5,412,200	2	106,911	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187	5,519,111
25 to 29	495	17,329,244	77	3,567,347	1	40,223	0	0	0	0	0	0	0	0	0	0	0	0	573	20,936,815
30 to 34	425	16,186,041	237	11,627,839	61	3,052,936	1	46,757	0	0	0	0	0	0	0	0	0	0	724	30,913,573
35 to 39	323	12,862,733	242	12,618,947	191	10,732,953	37	2,020,120	0	0	0	0	0	0	0	0	0	0	793	38,234,753
40 to 44	306	11,828,387	215	11,884,407	214	11,828,682	143	8,571,492	70	4,047,908	8	446,159	0	0	0	0	0	0	956	48,607,034
45 to 49	247	10,043,097	205	10,772,749	189	10,251,097	157	9,279,321	142	8,873,097	117	7,170,721	5	261,648	0	0	0	0	1,062	56,651,730
50 to 54	247	10,000,231	190	9,956,666	222	12,065,250	145	8,488,308	125	7,854,462	179	11,333,636	89	5,298,087	11	640,559	0	0	1,208	65,637,200
55 to 59	184	8,190,688	192	9,477,757	228	12,367,261	136	7,634,362	123	7,399,138	160	9,985,518	111	7,445,629	57	3,618,575	7	463,830	1,198	66,582,759
60 to 64	103	4,360,432	107	5,831,563	146	8,337,482	91	5,069,674	80	5,043,389	112	7,215,739	76	5,345,438	73	4,955,022	30	2,133,223	818	48,291,963
65 to 69	17	784,759	42	2,112,024	44	2,193,906	35	2,050,621	16	1,031,939	20	1,318,145	24	1,462,279	21	1,471,482	21	1,616,297	240	14,041,453
70 & up	7	171,034	2	61,527	7	442,013	9	450,602	5	231,749	4	275,100	1	0	2	136,283	6	438,685	43	2,206,994
TOTAL	2,546	97,241,006	1,511	78,017,738	1,303	71,311,803	754	43,611,257	561	34,481,683	600	37,745,019	306	19,813,081	164	10,821,921	64	4,652,035	7,809	397,695,544

TABLE 6

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

ALL EMPLOYEES

	Service P	Pensioners	Disabilit	y Pensioners	Beneficiaries		
		Annual		Annual		Annual	
Age	Number	Allowance	Number	Allowance	Number	Allowance	
30 and Under	4	\$ 27,263	9	\$ 89,651	41	\$ 209,512	
31	-	-	1	34,369	-	-	
34	-	-	1	8,892	-	-	
35	-	-		=	1	7,119	
37	-	-	1	10,640	1	5,399	
40	-	-	1	8,057	-	-	
41	-	-	2	35,491	1	7,744	
42	-	-	1	9,754	2	22,715	
43	1	2,547	1	17,502	1	9,846	
44	-	-	4	54,235	1	11,480	
45	-	-	1	10,935	-	-	
46	4	64,593	3	66,868	1	7,526	
47	4	101,427	2	54,331	-	-	
48	1	21,618	3	61,618	1	7,397	
49	-	-	9	176,892	2	32,175	
50	12	579,076	4	91,355	3	45,930	
51	20	908,635	8	104,088	-	-	
52	24	750,618	12	174,157	2	17,478	
53	22	723,357	10	136,130	3	44,905	
54	36	1,334,748	4	54,399	3	17,213	
55	48	1,352,705	9	100,318	1	8,815	
56	57	1,868,859	7	86,923	8	99,261	
57	73	2,285,070	12	207,683	4	59,053	
58	81	1,912,129	7	111,551	8	97,943	
59	103	2,821,045	15	173,672	9	89,402	
60	127	2,796,194	15	162,746	13	204,485	
61	111	2,843,392	20	271,867	12	164,665	
62	204	3,576,208	25	256,924	5	65,990	
63	235	4,556,813	17	223,089	10	112,343	
64	284	5,703,029	19	242,800	8	92,806	
65	270	4,868,945	24	303,759	10	92,383	
66	307	5,646,371	14	167,630	12	197,955	
67	324	6,392,952	13	216,843	14	179,318	
68	225	4,408,267	13	154,519	10	121,469	
69	212	3,759,615	7	82,912	15	131,748	
70	202	3,359,978	13	167,271	21	283,635	
71	221	4,040,894	10	109,072	20	259,471	
72	183	3,437,734	9	84,937	19	236,974	
73	158	2,469,379	7	78,073	17	227,373	
74	141	2,166,233	9	139,636	18	157,937	
75	130	1,840,127	3	16,828	21	237,347	
76	109	1,677,959	9	105,475	12	142,065	
77	109	1,731,256	6	48,659	12	115,698	

TABLE 6, continued

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

ALL EMPLOYEES

	Service Pensioners		Disability	Pensioners	Beneficiaries		
		Annual		Annual		Annual	
Age	Number	Allowance	Number	Allowance	Number	Allowance	
78	128	1,973,053	4	30,939	20	252,457	
79	99	1,674,200	4	34,698	22	220,638	
80	98	1,489,921	3	46,995	11	89,446	
81	96	1,344,168	2	11,836	12	164,683	
82	72	781,187	2	16,610	15	150,101	
83	85	1,095,009	2	10,561	20	273,078	
84	75	930,169	2	23,435	17	196,541	
85	58	758,585	1	4,816	14	163,751	
86	44	592,978	2	34,421	18	170,413	
87	45	588,716	1	7,203	5	32,709	
88	45	557,992	-	-	12	111,602	
89	32	341,279	-	-	11	117,245	
90	22	226,098	1	9,110	8	42,947	
91	28	303,793	2	26,063	4	66,281	
92	12	89,985	-	-	5	60,456	
93	13	103,977	1	14,648	11	127,258	
94	15	108,912	-	-	1	7,665	
95	10	92,073	-	-	4	39,500	
96	5	55,999	1	9,917	3	30,039	
97	2	12,791	-	-	1	38,411	
98	4	37,515	-	-	-	-	
99	2	49,780	-	-	-	-	
100	0	-	-	-	1	14,433	
102	1	2,669	-	-	-	-	
103	0	-	-	-	1	22,590	
111	0	-	-	-	1	2,286	
Total	5,033	93,239,885	388	4,993,803	559	6,219,105	

TABLE 7

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA
BY ATTAINED AGE AS OF JUNE 30, 2014

GENERAL EMPLOYEES - GROUP A

	Serv	ice Pensioners	Disability	Pensioners	Beneficiaries		
				Annual		Annual	
Age	Number	Annual Allowance	Number	Allowance	Number	Allowance	
56	1	\$ 52,851	-	\$ -	1	\$ 6,711	
59	2	80,780	1	13,990	-	-	
60	1	1,484	-	-	-	-	
61	-	-	1	16,206	1	8,832	
62	4	97,208	1	7,126	-	-	
63	3	73,313	-	-	-	-	
64	1	36,149	-	_	_	-	
65	4	99,130	1	20,287	-	-	
66	5	121,971	1	7,513	1	22,412	
67	4	93,420	-	-	1	37,000	
68	7	192,366	1	17,507	-	-	
69	-	-	-	-	2	9,301	
70	3	86,962	-	-	1	14,864	
71	-	-	-	-	1	13,855	
72	6	184,547	-	-	2	23,636	
73	6	128,967	-	-	3	36,908	
74	3	55,721	-	-	-	-	
75	6	170,216	-	-	-	-	
76	4	86,828	1	11,037	-	-	
77	7	137,019	1	12,003	-	-	
78	4	103,589	1	9,825	-	-	
79	12	336,065	-	-	-	-	
80	4	90,535	-	-	-	-	
81	3	79,657	-	-	-	-	
82	3	45,829	-	-	2	20,043	
83	5	134,171	1	5,900	3	35,169	
84	8	159,716	1	17,243	3	27,044	
85	5	85,903	-	-	2	16,990	
86	4	85,422	2	34,421	3	29,669	
87	1	7,099	1	7,203	2	13,262	
88	6	100,155	-	-	7	58,000	
89	5	62,114	-	-	3	28,305	
90	5	57,637	1	9,110	2	10,187	
91	5	37,187	2	26,063	-	-	
92	2	19,641	-	-	2	17,906	
93	4	38,153	1	14,648	7	93,082	
94	5	31,998	-	-	1	7,665	
95	5	61,871	=	-	3	30,726	
96	4	34,452	1	9,917	2	18,071	
97	1	9,891	-	-	-	-	
98	4	37,515	-	-	-	-	
99	2	49,780	=	-	-	-	
100	_	-	-	-	1	14,433	

TABLE 7, continued

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

GENERAL EMPLOYEES - GROUP A

	Service Pensioners		Disability	Pensioners	Beneficiaries		
				Annual		Annual	
Age	Number	Annual Allowance	Number	Allowance	Number	Allowance	
102	1	2,669	-	-	-	-	
103	-	-	-	-	1	22,590	
111	-	-	-	-	1	2,286	
Total	165	3,369,981	19	239,999	58	618,947	

TABLE 8

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

STATE POLICE AND MOTOR VEHICLE INSPECTORS - GROUP B

	Service 1	Pensioners	Disability	Pensioners	Bene	ficiaries
		Annual		Annual		Annual
Age	Number	Allowance	Number	Allowance	Number	Allowance
41	-	\$ -	-	\$ -	1	\$ 19,365
56	1	10,938	-	-	-	-
60	1	9,397	-	-	-	-
63	1	4,782	-	-	-	-
65	-	-	1	20,135	-	-
67	2	40,550	-	-	-	-
68	2	63,688	-	-	-	-
69	1	25,315	-	-	-	-
70	-	-	1	21,017	-	-
71	1	8,674	-	-	1	16,626
72	1	25,156	-	-	-	-
Total	10	188,500	2	41,152	2	35,991

TABLE 9

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

LAW ENFORCEMENT PERSONNEL - GROUP C

	Service Pensioners		Disability	Pensioners	Beneficiaries		
		Annual		Annual		Annual	
Age	Number	Allowance	Number	Allowance	Number	Allowance	
30 and Under	3	\$ 21,570	9	\$ 89,651	7	\$ 58,148	
31	_	-	1	34,369	_	-	
41	_	-	1	30,063	_	-	
42	-	-	_	-	1	11,829	
43	1	2,547	_	_	_	-	
46	2	36,135	1	40,883	-	-	
47	-	-	1	43,652	-	-	
48	_	_	1	41,587	_	_	
49	_	_	2	92,735	_	_	
50	7	425,133	2	74,039	1	22,841	
51	11	682,256	1	25,303	_	,-	
52	8	338,116		25,505	_	_	
53	6	309,087	1	53,747	_	_	
54	15	831,949		-	_	_	
55	14	571,757	_	_	_	_	
56	15	876,362	1	35,581	1	19,834	
57	18	1,021,334	1	44,210	1		
58	14		1	37,254	1	27,280 34,799	
		641,331	1	37,234			
59	17	1,010,479	-	-	1	22,022	
60	7	386,116	-	71.624	1	30,213	
61	13	776,357	2	71,624	2	41,692	
62	8	332,361	-	-	1	11,424	
63	5	237,807	-	-	1	29,479	
64	14	578,928	1	34,143	-	-	
65	4	138,602	1	30,008	-	-	
66	9	331,416	1	43,213	1	31,351	
67	13	572,006	2	78,533	2	42,917	
68	11	435,682	1	41,588	-	-	
69	1	26,634	1	33,459	-	-	
70	5	184,613	1	32,082	3	84,102	
71	10	453,047	-	-	1	39,200	
72	8	343,779	-	-	1	27,562	
73	5	183,827	-	-	3	92,754	
74	4	170,853	2	61,579	1	20,080	
75	3	128,713	-	-	2	47,539	
76	4	178,890	1	27,776	2	35,404	
77	3	144,952	-	-	1	18,232	
78	2	72,263	-	-	1	36,998	
79	3	137,366	-	-	2	76,458	
80	3	112,071	1	32,705	-	-	
81	4	156,078	-	-	3	94,784	
82	2	63,956	-	-	1	29,690	
83	5	165,427	-	-	5	110,237	
84	2	87,652	-	-	3	65,705	
85	5	197,013	-	-	1	28,047	
86	-	-	_	-	2	53,076	
87	2	64,024	-	-	-	=	
88	1	36,679	-	-	2	43,816	
89	_	-	_	_	3	62,204	
93	1	18,154	_	_	1	22,337	
95	-	-	-	-	1	8,774	
Total	288	13,483,322	37	1,129,784	60	1,380,828	

TABLE 10
SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA
BY ATTAINED AGE AS OF JUNE 30, 2014

JUDGES - GROUP D

	Service Pensioners		Disability	Pensioners	Beneficiaries		
		Annual		Annual		Annual	
Age	Number	Allowance	Number	Allowance	Number	Allowance	
50	-	-	-	-	1	10,888	
56	1	25,176	-	-	-	-	
63	2	143,089	-	-	-	-	
64	4	295,507	-	-	-	-	
65	2	52,491	-	-	-	-	
66	1	98,009	-	-	-	-	
67	2	180,986	-	-	-	-	
68	2	43,436	-	-	1	25,926	
69	1	16,304	-	-	-	-	
70	1	33,527	-	-	-	-	
71	4	275,173	-	-	-	-	
72	3	247,313	-	-	-	-	
74	1	73,506	-	-	-	-	
75	1	34,481	-	-		-	
76	1	78,690	-	-		-	
77	3	167,948	-	-		-	
78	2	145,079	-	-	1	32,350	
79	1	97,259	-	-	-	-	
81	2	164,028	-	-	-	-	
82	2	63,584	-	-	-	-	
84	1	38,832	-	-	1	28,093	
85	-	-	-	-	1	65,068	
86	2	134,473	-	-	-	-	
87	2	131,451	-	-	-	-	
88	1	38,762	-	-	-	-	
89	2	66,617	-	-	-	-	
90	1	9,776	-	-	-	-	
91	1	56,259	-	-	1	46,941	
92	-	-	-	-	2	37,387	
96	1	21,547	-	-	-	-	
97	-	-	-	-	1	38,411	
Total	47	2,733,303	-	-	9	285,064	

TABLE 11
SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

GENERAL EMPLOYEES - GROUPS E/F

	Service Pensioners		Disability	Pensioners	Beneficiaries		
		Annual		Annual		Annual	
Age	Number	Allowance	Number	Allowance	Number	Allowance	
30 and Under	1	\$ 5,693	-	\$ -	34	\$ 151,364	
34	-	-	1	8,892	_	-	
35	-	_	-	-	1	7,119	
37	-	_	1	10,640	1	5,399	
40	-	-	1	8,057	-	-	
41	-	-	1	5,428	1	7,744	
42	-	_	1	9,754	1	10,886	
43	-	-	1	17,502	1	9,846	
44	-	-	4	54,235	1	11,480	
45	-	-	1	10,935	-	-	
46	2	28,458	2	25,985	1	7,526	
47	4	101,427	1	10,679	-	-	
48	1	21,618	2	20,031	1	7,397	
49	-	-	7	84,157	1	12,810	
50	5	153,943	2	17,316	1	12,201	
51	9	226,379	7	78,785	-	-	
52	16	412,502	12	174,157	2	17,478	
53	16	414,270	9	82,383	3	44,905	
54	21	502,799	4	54,399	3	17,213	
55	34	780,948	9	100,318	1	8,815	
56	39	903,532	6	51,342	6	72,716	
57	55	1,263,736	11	163,473	3	31,773	
58	67	1,270,798	6	74,297	7	63,144	
59	84	1,729,786	14	159,682	8	67,380	
60	118	2,399,197	15	162,746	12	174,272	
61	98	2,067,035	17	184,037	9	114,141	
62	192	3,146,639	24	249,798	4	54,566	
63	224	4,097,822	17	223,089	9	82,864	
64	265	4,792,445	18	208,657	8	92,806	
65	260	4,578,722	21	233,329	10	92,383	
66	292	5,094,975	12	116,904	10	144,192	
67	303	5,505,990	11	138,310	11	99,401	
68	203	3,673,095	11	95,424	9	95,543	
69	209	3,691,362	6	49,453	13	122,447	
70	193	3,054,876	11	114,172	17	184,669	
71	206	3,304,000	10	109,072	17	189,790	
72	165	2,636,939	9	84,937	16	185,776	
73	147	2,156,585	7	78,073	11	97,711	
74	133	1,866,153	7	78,057	17	137,857	
75	120	1,506,717	3	16,828	19	189,808	
76	100	1,333,551	7	66,662	10	106,661	
77	96	1,281,337	5	36,656	11	97,466	
78	120	1,652,122	3	21,114	18	183,109	

TABLE 11, continued

SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA BY ATTAINED AGE AS OF JUNE 30, 2014

GENERAL EMPLOYEES - GROUPS E/F

	Service F	Pensioners	Disability	Pensioners	Benet	ficiaries
		Annual		Annual		Annual
Age	Number	Allowance	Number	Allowance	Number	Allowance
79	83	1,103,510	4	34,698	20	144,180
80	91	1,287,315	2	14,290	11	89,446
81	87	944,405	2	11,836	9	69,899
82	65	607,818	2	16,610	12	100,368
83	75	795,411	1	4,661	12	127,672
84	64	643,969	1	6,192	10	75,699
85	48	475,669	1	4,816	10	53,646
86	38	373,083	-	-	13	87,668
87	40	386,142	-	-	3	19,447
88	37	382,396	-	-	3	9,786
89	25	212,548	-	-	5	26,736
90	16	158,685	-	-	6	32,760
91	22	210,347	-	-	3	19,340
92	10	70,344	-	-	1	5,163
93	8	47,670	-	-	3	11,839
94	10	76,914	-	-	-	-
95	5	30,202	-	-	-	-
96	-	-	-	-	1	11,968
97	1	2,900	-	-	-	-
Total	4,523	73,464,779	330	3,582,868	430	3,898,275

TABLE 12 ${\small \textbf{SUMMARY OF RETIRED MEMBER AND BENEFICIARY DATA}}$ ${\small \textbf{BY YEAR OF RETIREMENT}}$

Year of Retirement	Number	Annual Allowance	Average Allowance
1957	2	\$ 9,910	\$ 4,955
1972	2	29,320	14,660
1974 1975	2 2	17,006 28,456	8,503 14,228
1975	2	17,918	8,959
1977	8	79,336	9,917
1978	7	104,944	14,992
1979	7	106,842	15,263
1980	13	96,845	7,450
1981	8	92,951	11,619
1982	18	164,301	9,128
1983	22	243,711	11,078
1984	24	396,066	16,503
1985	32	388,105	12,128
1986	36	460,102	12,781
1987	56	735,210	13,129
1988	55	796,801	14,487
1989	57	809,979	14,210
1990	99	1,127,469	11,389
1991	102	1,604,428	15,730
1992	70	638,515	9,122
1993	104	1,436,406	13,812
1994	76	1,035,071	13,619
1995	121	1,536,383	12,697
1996	379	5,860,634	15,463
1997	108	1,829,512	16,940
1998	106	1,720,410	16,230
1999 2000	135 169	2,058,185 2,501,178	15,246
2000	174	2,492,923	14,800 14,327
2001	190	3,188,414	16,781
2003	212	4,030,135	19,010
2004	272	5,173,031	19,018
2005	266	4,718,555	17,739
2006	265	5,149,918	19,434
2007	301	5,624,307	18,685
2008	314	6,203,045	19,755
2009	523	10,501,855	20,080
2010	368	7,240,980	19,677
2011	354	6,754,903	19,082
2012	367	7,030,688	19,157
2013	341	6,367,979	18,674
2014	211	4,050,066	19,195
Total	5,980	104,452,793	17,467

SCHEDULE E

AMORTIZATION SCHEDULE FOR THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

AMORTIZATION SCHEDULE FOR THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

		Amortization	
		Payment	
Date	Balance	(Year Following)	
6/30/2014	444,014,326	25,809,339	
6/30/2015	445,161,564	27,099,806	
6/30/2016	447,210,479	28,454,796	
6/30/2017	449,081,343	29,877,536	
6/30/2018	451,784,755	31,371,413	
6/30/2019	454,233,701	32,939,983	
6/30/2020	457,436,149	34,586,982	
6/30/2021	459,189,207	36,316,332	
6/30/2022	459,287,621	38,132,148	
6/30/2023	458,607,353	40,038,756	
6/30/2024	455,883,275	42,040,693	
6/30/2025	450,842,366	44,142,728	
6/30/2026	443,183,430	46,349,864	
6/30/2027	432,574,458	48,667,358	
6/30/2028	418,649,745	51,100,726	
6/30/2029	401,006,755	53,655,762	
6/30/2030	380,140,864	56,338,550	
6/30/2031	355,534,368	59,155,477	
6/30/2032	325,772,330	62,113,251	
6/30/2033	290,243,702	65,218,914	
6/30/2034	248,275,090	68,479,859	
6/30/2035	199,124,776	71,903,852	
6/30/2036	141,976,179	75,499,045	
6/30/2037	75,930,718	79,273,997	
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, 2014 actuarial valuation, the recommended contribution for the fiscal year ending June 30, 2015, is \$43,888,005, which is based on the following:

Payroll \$437,675,916 Normal rate 4.13% Accrued liability contribution \$25,809,339

The projections for the following two years are as follows:

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			CONTRIBUTIONS		
Fiscal				Accrued	
Year	Projected Payroll	Normal Rate*	Normal	Liability	Total
2016	\$ 457,371,333	4.13%	\$ 19,138,047	\$27,099,806	\$46,237,853
2017	477,953,043	4.13%	20,245,098	28,454,796	48,699,894

*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.