# THE STATE POLICE RETIREMENT SYSTEM OF NEW JERSEY ANNUAL REPORT OF THE ACTUARY PREPARED AS OF JULY 1, 2011

**REVISED ECONOMIC ASSUMPTIONS** 

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June 12, 2012

Board of Trustees The State Police Retirement System of New Jersey Trenton, New Jersey 08625

Members of the Board:

The law governing the operation of the State Police Retirement System of New Jersey provides for annual actuarial valuations of the System. The results of the July 1, 2011 valuation are submitted in this report, which also includes a comparison with the preceding year's valuation.

The valuation shows the financial condition of the Plan as of July 1, 2011 and gives the basis for determining the recommended annual contribution for the plan year beginning July 1, 2011.

As required under Section 32 of Chapter 89, P.L. 1965, experience studies are performed once in every three year period. The valuation was prepared on the basis of the demographic assumptions that were determined from the July 1, 2005 – June 30, 2008 Experience Study and approved by the Board of Trustees at the May 2009 Board meeting. As mandated by the statute, these assumptions will remain in effect for valuation purposes until such time the Board adopts revised demographic assumptions.

The Treasurer, upon recommendation from the Directors of the Division of Pensions and Benefits and the Division of Investments, has approved a change in the economic assumptions used for the valuation. The rate of investment return has been revised from 8.25% per annum to 7.95% per annum and the assumed future salary increases have been revised from 5.45% per annum to 3.45% per annum for fiscal year ending 2012 through fiscal year ending 2016 and 4.70% per annum for fiscal years ending 2017 and thereafter. These assumptions will remain in effect until such time the Treasurer approves revised economic assumptions.

The valuation reflects the final provisions of the Appropriation Act for fiscal year 2011. The fiscal year 2011 recommended pension contribution of \$103,745,281 has been reduced to \$0. The valuation also reflects the effect of Chapter 1, P.L. 2010 for fiscal year 2012. The fiscal year 2012 recommended pension contribution of \$89,671,744 has been reduced to \$12,810,249. This amount may be subject to change per the requirements of the State's fiscal year 2012 spending plan. Lastly, the valuation reflects the provisions of Chapter 1, P.L. 2010 which allows the State Treasurer to reduce the recommended pension contribution for the 2013 fiscal year to no less than 2/7<sup>th</sup> of the recommended contribution.

The report does not take into account any changes in U.S. equity prices and bond yields that have occurred after the valuation date. Taking these into account may significantly change the market and actuarial value of assets shown. The effect of these events on any funded ratios shown, and on Retirement System calculations, is not known. Retirement System funding and financial accounting rules generally prohibit reflection of changes in assets and underlying economic conditions that occur after the valuation date.

Board of Trustees June 12, 2012 Page 2

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent qualified actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board and generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the System, and on actuarial assumptions that are individually and in the aggregate internally consistent and reasonable based on the actual experience of the System.

The Table of Contents, which follows, highlights the Sections of the Report.

Respectfully submitted,

Ash

Janet H. Cranna, F.S.A., E.A., M.A.A.A., F.C.A. Principal, Consulting Actuary

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#### REPORT ON THE ANNUAL VALUATION OF THE STATE POLICE RETIREMENT SYSTEM OF NEW JERSEY PREPARED AS OF JULY 1, 2011

#### SECTION I - SUMMARY OF KEY RESULTS

The State Police Retirement System of New Jersey became effective July 1, 1965 under terms of Chapter 89 of the Laws of 1965. This report, prepared as of July 1, 2011, presents the results of the annual actuarial valuation of the Fund.

For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized on the following pages.

July 1, 2011						
			ŕ –	ior to Reflecting the	_	
		flecting the Revised	]	Revised Economic		
Valuation Data	Eco	onomic Assumptions		Assumptions		July 1, 2010
Number of Members		2,844		2,844		3,030
Annual Compensation	\$	2,844 275,219,752	\$	2,844 275,219,752	\$	3,030 289,980,657
A mudar Compensation	Ψ	275,217,752	Ψ	273,219,752	Ψ	209,900,097
Number of Pensioners and Beneficiaries		2,818		2,818		2,652
Total Annual Allowance	\$	152,950,538	\$	152,950,538	\$	138,873,702
Assets						
Market Value of Assets	\$	1,820,438,444*	\$	1,820,438,444*	\$	1,656,194,924
Valuation Assets	\$	2,015,624,130*	\$	2,015,624,130*	\$	2,019,350,048
Contribution Rates						
Pension Contribution						
a) Recommended Contribution						
Normal Contribution		14.34%		15.71%		15.94%
Accrued Liability Contribution		18.19		18.57		14.98
Total Pension Contribution		32.53%		34.28%		30.92%
b) Chapter 1, P.L. 2010 Minimum						
Contribution						
Normal Contribution		4.10%		4.49%		2.28%
Accrued Liability Contribution		5.20		5.31		2.14
Total Pension Contribution**		9.30%		9.80%		4.42%
Non-Contributory Group Insurance Premium		0.73%		0.73%		0.62%
Contribution Amounts						
Pension Contribution						
a) Recommended Contribution						
Normal Contribution	\$	39,467,678	\$	43,227,022	\$	46,230,040
Accrued Liability Contribution	<u>_</u>	50,068,225	<u>_</u>	51,118,047	<u>_</u>	43,441,704
Total Pension Contribution	\$	89,535,903	\$	94,345,069	\$	89,671,744
b) Chapter 1, P.L. 2010 Minimum						
Contribution	¢		¢	10.050.550	¢	
Normal Contribution	\$	11,276,479	\$	12,350,578	\$	6,604,291
Accrued Liability Contribution Total Pension Contribution**	\$	<u>14,305,207</u> 25 581 686	\$	<u>14,605,156</u> 26,955,734	\$	<u>6,205,958</u> 12,810,249
Total rension Contribution	φ	25,581,686	р Ф	20,933,734	Ф	12,010,249
Non-Contributory Group Insurance Premium	\$	2,000,000	\$	2,000,000	\$	1,800,000

\* Assets include a fiscal year 2012 receivable contribution of \$12,810,249 instead of the \$89,671,744 contribution recommended for the July 1, 2010 valuation (potential effect of Chapter 1, P.L. 2010.)

\*\* Chapter 1, P.L. 2010 allows the State to make a contribution for fiscal year 2013 equal to 2/7<sup>th</sup> of the recommended contribution and for fiscal year 2012 equal to 1/7<sup>th</sup> of the recommended contribution. The contributions could be subject to change per the requirements of the State's fiscal year 2013 and 2012 spending plans.

The major benefit and contribution provisions of the statute as reflected in the valuation are summarized in Appendix A.

The valuation reflects the final provisions of the Appropriation Act for fiscal year 2011, which allowed the State Treasurer to reduce the State normal and accrued liability contributions for fiscal year 2011 of \$103,745,281 to \$0. (This amount excludes the estimated premium paid to the Non-Contributory Insurance Fund of \$1,600,000 for the lump sum death benefit during active service.)

The valuation also reflects the impact of Chapter 1, P.L. 2010, which allows the State Treasurer to reduce the State normal and accrued liability contributions for fiscal year 2012 to no less than 1/7<sup>th</sup> of the full recommended pension contribution. Therefore, the fiscal year 2012 recommended pension contribution of \$89,671,744 has been reduced to \$12,810,249 and has been recognized as a receivable contribution for purposes of this valuation. (This amount excludes the estimated premium paid to the Non-Contributory Insurance Fund of \$1,800,000 for lump sum death benefits during active service.)

There were no other changes to the benefit and contribution provisions.

As required under Chapter 89, P.L. 1965, experience studies are performed once in every three year period. The valuation was prepared on the basis of the demographic assumptions that were determined from the July 1, 2005 – June 30, 2008 Experience Study and approved by the Board of Trustees at the May 2009 Board meeting. As mandated by the statute, these assumptions will remain in effect for valuation purposes until such time the Board adopts revised demographic assumptions. The Treasurer, upon recommendation from the Directors of the Division of Pensions and Benefits and the Division of Investments, has approved a change in the economic assumptions used for the valuation. The rate of investment return has been revised from 8.25% per annum to 7.95% per annum, and the assumed future salary increases have been revised from 5.45% per annum to 3.45% per annum for fiscal year ending 2012 through fiscal year ending 2016 and 4.70% per annum for fiscal years ending 2017 and thereafter. These economic assumptions will remain in

effect for valuation purposes until such time the Treasurer approves revised economic assumptions. There were no other changes to the actuarial assumptions and methods used in the prior valuation. The actuarial assumptions and methods used for valuing the Fund are summarized in Appendix B.

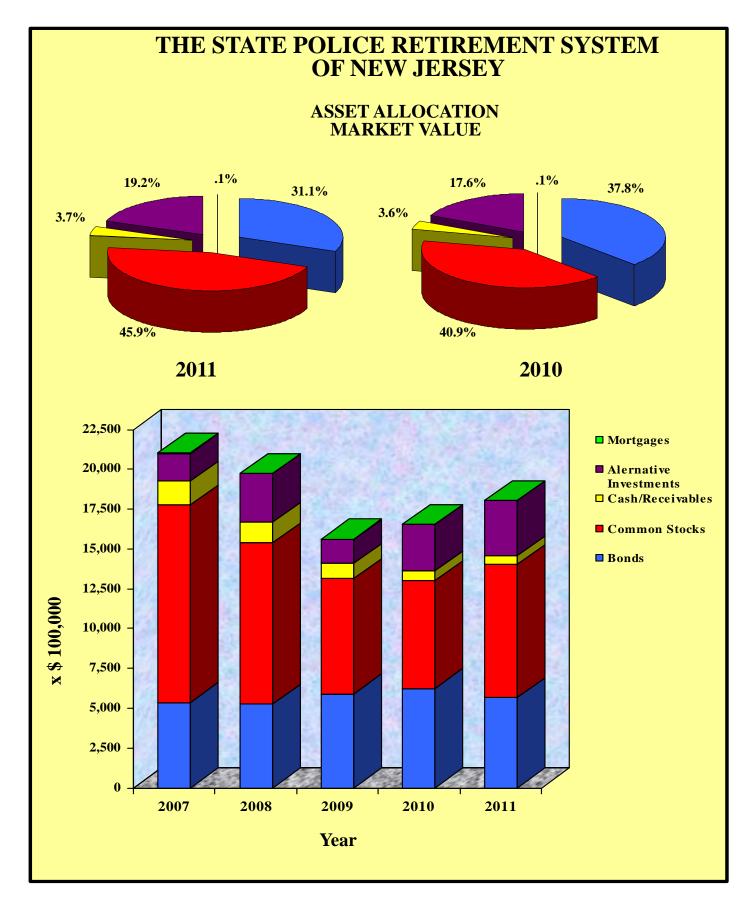
The combination of the plan provisions, actuarial assumptions and member and beneficiary data is used to generate the overall required level of employer contributions. These contributions are composed of two separate portions, an "accrued liability contribution" and a "normal contribution". The recommended contribution is developed in Section III F.

The valuation generates a balance sheet which summarizes in some detail the total present and prospective assets and liabilities of the Fund. A summary comparison of the balance sheets as of July 1, 2010 and July 1, 2011 is set forth in the following table. The allocation of assets among the various investment alternatives is shown in graphic form on page 6.

# TABLE I

	20		
	Reflecting the Revised Economic Assumptions	Prior to Reflecting the Revised Economic Assumptions	2010
ASSETS			
Actuarial value of assets of Fund	\$ 2,015,624,130	\$ 2,015,624,130	\$ 2,019,350,048
Unfunded accrued liability/(surplus)	566,326,716	562,163,595	477,744,089
Total Assets	\$ 2,581,950,846	\$ 2,577,787,725	\$ 2,497,094,137
<u>LIABILITIES</u>			
Present value of benefits to present beneficiaries payable from the Retirement Reserve Fund	\$ 1,634,856,377	\$ 1,593,829,260	\$ 1,466,806,024
Present value of benefits to present active members and terminated vested members	947,094,469	983,958,465	1,030,288,113
Total Liabilities	\$ 2,581,950,846	\$ 2,577,787,725	\$ 2,497,094,137

# **COMPARATIVE BALANCE SHEET**



#### SECTION II - EMPLOYEE DATA

The data employed for the valuations were furnished to the actuary by the Division of Pensions and Benefits. The following summarizes and compares the Fund membership as of July 1, 2010 and July 1, 2011 by various categories.

#### **ACTIVE MEMBERSHIP**

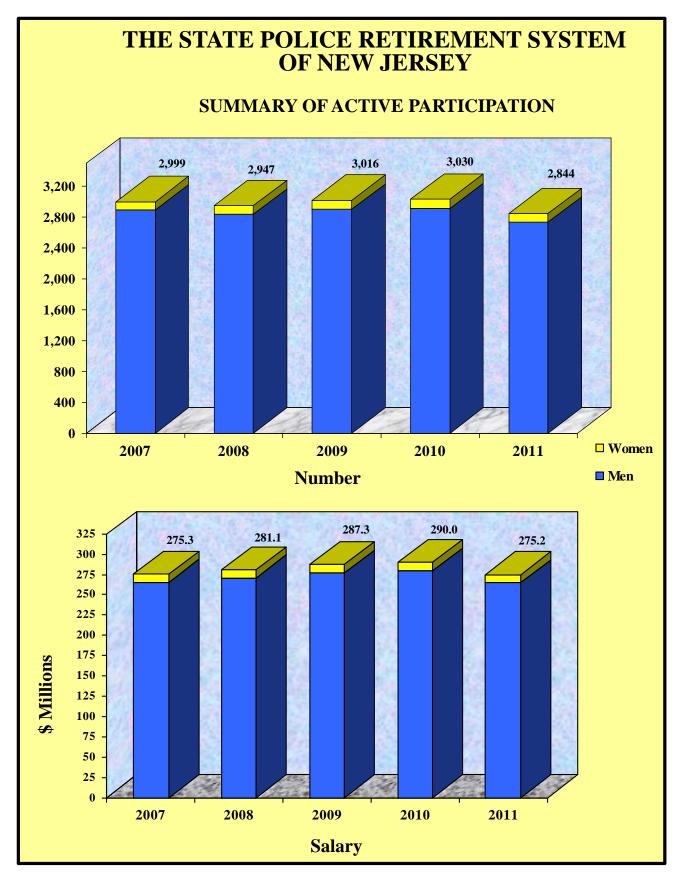
	2011		2010		
		Annual		Annual	
Group	Number	Compensation	Number	Compensation	
Men	2,736	\$ 265,021,985	2,913	\$ 279,027,807	
Women	108	\$ 10,197,767	117	\$ 10,952,850	

20	)11	2010			
	Annual		Annual		
Number	Allowances	Number	Allowances		
2,181	\$ 129,127,114	2,036	\$ 116,713,617		
127	\$ 4,210,163	129	\$ 3,990,172		
130	\$ 6,888,228	123	\$ 6,279,338		
212	¢ 10.174.000	200	¢ 0.452.190		
313	\$ 10,174,626	300	\$ 9,453,180		
67	\$ 2 550 407	64	\$ 2,437,395		
	<b>Number</b> 2,181	Number         Allowances           2,181         \$ 129,127,114           127         \$ 4,210,163           130         \$ 6,888,228           313         \$ 10,174,626	Annual Allowances         Number           2,181         \$ 129,127,114         2,036           127         \$ 4,210,163         129           130         \$ 6,888,228         123           313         \$ 10,174,626         300		

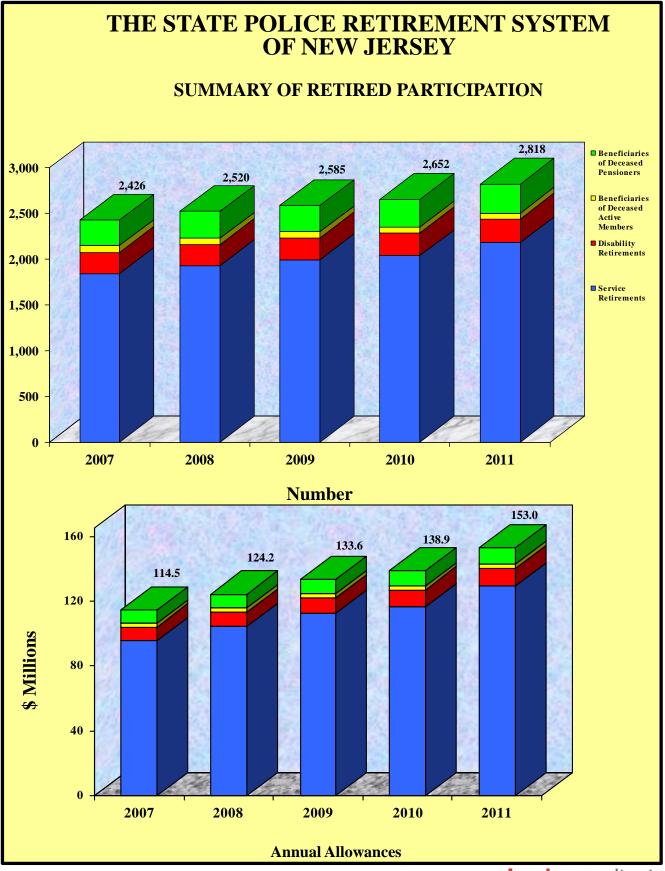
#### **RETIRED MEMBERS AND BENEFICIARIES**

Appendix C provides a detailed distribution between groups.

Graphic presentations of the statistical data on membership for the five preceding years are shown on the following pages.



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# SECTION III - ASSETS, LIABILITIES AND CONTRIBUTIONS

# A. <u>Market Value of Assets as of June 30, 2011</u>

1.	Assets	
	a. Cash	\$ 559,431
	b. Securities Lending Collateral	20,235,655
	c. Accounts Receivable	18,362
	d. Investment Holdings	1,785,576,113
	e. Interest Receivable on Investments	8,104,531
	f. Employer Contribution Receivable – NCGI	402,065
	g. Members' Contributions Receivable	776
	h. Dividends Receivable	2,177,104
	i. Loans Receivable	23,790,961
	j. Interest Receivable – Member Loans	 134,633
	k. Total	\$ 1,840,999,631
2.	Liabilities	
	a. Pension Payroll Payable	\$ 8,725,763
	b. Securities Lending Collateral and Rebates Payable	20,209,694
	c. Pension Adjustment Payroll Payable	2,016,167
	d. Withholdings Payable	1,981,973
	e. Securities Purchased in Transit	0
	f. Accounts Payable – Other	35,774
	g. Death Benefits Payable	 402,065
	h. Total	\$ 33,371,436
3.	Preliminary Market Value of Assets	
	as of June 30, 2011: 1(k) - 2(h)	\$ 1,807,628,195
4.	State Appropriations Receivable	 12,810,249 *
5.	Market Value of Assets as of June 30, 2011: 3. + 4.	\$ 1,820,438,444 **

\* The fiscal year 2012 recommended pension contribution of \$89,671,744 has been reduced to \$12,810,249 to reflect Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2012 spending plan.

\*\* Excludes assets held in the Non-Contributory Group Insurance Fund.

# B. <u>Reconciliation of Market Value of Assets: June 30, 2010 to June 30, 2011</u>

1.	Market Value of Assets as of June 30, 2010	\$ 1,656,194,924
2.	Increases	
	a. Pension Contributions Members' Contributions Transfer from Other Systems	\$ 18,162,134 2,703
	Transfer from Other Systemsb.Employers' Contributions State Appropriations Non-Contributory Group Insurance Transfer from Other Systems Administrative Fee Loans	2,703 0 2,201,604 0 6,736
	c. Income	
	Per Statement d. Total	\$ <u>280,447,556</u> 300,820,733
3.	Decreases	
	a. Benefits Provided by Members Withdrawals – Members' Contributions Regular	\$ 121,749
	Suspense Adjustment – Member Account Loans – State b. Benefits Provided by Employers and Members	17,275 14,731
	Retirement Allowances	122,990,229
	c. Benefits Provided by Employers Benefit Expense – Pension Adjustment Administrative Expense Administrative Expense Loans Adjusted Member Accounts Expense- State NCGI Premium Expense	23,741,072 296,148 6,912 (2,258) 2,201,604
	d. Total	\$ 149,387,462
4.	Preliminary Market Value of Assets as of June 30, 2011: $1. + 2.(d) - 3.(d)$	\$ 1,807,628,195
5.	State Appropriations Receivable	12,810,249 *
6.	Market Value of Assets as of June 30, 2011: 4. + 5.	\$ 1,820,438,444 **

\* The fiscal year 2012 recommended pension contribution of \$89,671,744 has been reduced to \$12,810,249 to reflect Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2012 spending plan.

\*\* Excludes assets held in the Non-Contributory Group Insurance Fund.

## C. <u>Development of Actuarial Value of Assets as of July 1, 2011</u>

The actuarial value of plan assets is determined using a five-year average market value with write up. The following summary shows the development of the actuarial value of plan assets for the current valuation:

1.	Actuarial Value of Assets as of July 1, 2010	\$	2,019,350,048
2.	Net Cash Flow (excluding investment income)		(129,014,285)
3.	Expected Investment Income at 8.25%		
	<ul><li>a. Interest on assets as of July 1, 2010</li><li>b. Interest on Net Cash Flow</li><li>c. Total</li></ul>	\$ <del>\$</del>	166,596,379 (5,321,839) 161,274,540
4.	Expected Actuarial Value of Assets as of July 1, 2011: 1. + 2. + 3.(c)	\$	2,051,610,303
5.	20% of Difference from Preliminary Market Value of Assets		(48,796,422)
6.	Receivable Employer Contributions		12,810,249*
7.	Actuarial Value of Assets as of July 1, $2011 = 4. + 5. + 6.$	\$	2,015,624,130**

\* The fiscal year 2012 recommended pension contribution of \$89,671,744 has been reduced to \$12,810,249 to reflect Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2012 spending plan.

\*\* Excludes assets held in the Non-Contributory Group Insurance Fund.

#### D. <u>Present Value of Projected Benefits as of July 1, 2011</u>

		Reflecting the Revised Economic <u>Assumptions</u>		Prior to Reflecting the Revised Economic <u>Assumptions</u>	
1.	Retirees and Beneficiaries				
	a. Service Retirements	\$	1,385,067,909	\$	1,350,981,818
	b. Disability Retirements		127,109,511		123,518,347
	c. Beneficiaries		101,009,973		98,493,219
	d. Death Benefits		21,668,984		20,835,876
	e. Total	\$	1,634,856,377	\$	1,593,829,260
2.	Terminated Vested Members	\$	0	\$	0
3.	Contributing Active Participants				
	a. Service Retirement	\$	867,213,984	\$	900,741,684
	b. Ordinary Disability		20,002,178		20,819,169
	c. Accidental Disability		23,063,095		24,056,735
	d. Ordinary Death		8,394,142		8,779,453
	e. Accidental Death		8,003,055		8,630,068
	f. Vested Termination		1,389,035		1,342,249
	g. Withdrawal Benefits		213,171		212,389
	h. Lump Sum Death Benefits*		7,852,791		7,976,671
	i. Total	\$	936,131,451	\$	972,558,418
4.	Non-Contributing Active Participants	\$	10,963,018	\$	11,400,047
5.	Total Present Value of Benefits =				
*Excl	1.(e) + 2. + 3.(i) + 4.	\$	2,581,950,846	\$	2,577,787,725

\*Excludes lump sum death benefits payable during active service.

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# E. Development of Normal Cost as of July 1, 2011

2011		Revi	Reflecting the Revised Economic <u>Assumptions</u>		Prior to Reflecting the Revised Economic <u>Assumptions</u>	
1.	Service Retirement	\$	47,337,302	\$	50,340,994	
2.	Ordinary Disability		1,908,620		2,015,043	
3.	Accidental Disability		2,194,894		2,318,286	
4.	Ordinary Death		732,832		777,099	
5.	Accidental Death		818,007		900,090	
6.	Vested Termination		144,175		137,759	
7.	Withdrawal Benefits		40,959		40,814	
8.	Lump Sum Death Benefits*		473,373		491,588	
9. :	Total Pension Normal Cost* = 1. + 2. + 3. + 4. + 5. + 6. + 7. + 8.	\$	53,650,162	\$	57,021,673	

\*Excludes Non-Contributory Group Insurance Premium (term cost for lump sum death benefits payable during active service.)

#### F. <u>Development of Recommended State Pension Contributions</u>

	F		Reflecting the Revised Economic <u>Assumptions</u>		o Reflecting vised Economic umptions
1. l	Present Value of Benefits	\$	2,581,950,846	\$	2,577,787,725
2.	Actuarial Value of Assets		2,015,624,130		2,015,624,130
	Unfunded Actuarial Accrued Liability/(Surplus) = 1 2.	\$	566,326,716	\$	562,163,595
4.	Amortization Period		30		30
	Amortization of Unfunded Actuarial Accrued Liability payable July 1, 2012 (Level Dollar)	\$	50,068,225	\$	51,118,047
	<ul> <li>a. Gross Normal Cost (excluding Non-Contributory Group Insurance Premium)</li> <li>b. Expected Member Contributions*</li> <li>c. State Normal Cost = (a) - (b)</li> <li>d. State Normal Cost payable July 1, 2012 = (c) * (1 + interest credit**)</li> </ul>	\$ 	53,650,162 <u>17,089,089</u> 36,561,073 39,467,678	\$ \$	57,021,673 <u>17,089,089</u> 39,932,584 43,227,022
	Total Recommended Pension Contribution as of July 1, $2012 = 5. + 6.(d)$	\$	89,535,903	\$	94,345,069

\* Reflects only member contributions of 7.5% of compensation. Based on discussions with the Division of Pension and Benefits, any member contributions in excess of 7.5% of compensation shall not reduce the State's normal cost contribution.

\*\* The revised economic assumptions reflect a 7.95% annual interest credit. The interest credit prior to reflecting the revised economic assumptions is 8.25% per annum.

#### G. <u>Development of Chapter 1, P.L. 2010 Minimum Required Pension Contributions</u>\*

		Revise	ecting the d Economic umptions	Prior to Reflecting the Revised Economic <u>Assumptions</u>	
1.	State Normal Cost payable July 1, 2012 = F.6(d). x 2/7	\$	11,276,479	\$	12,350,578
2.	Amortization of Unfunded Actuarial Accrued Liability payable July 1, 2012 = F.5. x 2/7		14,305,207	. <u> </u>	14,605,156
3.	Total Minimum Contribution** = $1. + 2$ .	\$	25,581,686	\$	26,955,734

\* Chapter 1, P.L. 2010 allows the State Treasurer to reduce the recommended contribution for the 2013 fiscal year to no less than 2/7<sup>th</sup> of the recommended contribution.

\*\*Contribution could be subject to change per the requirements of the State's fiscal year 2013 spending plan.

## H. <u>Non-Contributory Group Insurance Premium</u> (One-Year Term Cost)

Revised	ting the Economic nptions	Prior to Reflecting the Revised Economic <u>Assumptions</u>		
\$	2,000,000	\$	2,000,000	

#### SECTION IV - COMMENTS CONCERNING THE VALUATION

The variation in liabilities and contributions reflects the System's actual experience during the year. The System experienced a net actuarial loss during the year that ended June 30, 2011.

The loss is primarily due to an actual return on System assets less than expected. For valuation purposes, an 8.25% per annum rate of return was assumed for the period July 1, 2010 through June 30, 2011. The actual return on the Fund's actuarial value of assets was 5.75% for this period. There was a liability gain due to experience among active and retired members.

The following shows the development of the actuarial experience and identifies the major experience components:

#### A. <u>Calculation of Actuarial Experience for the Year Ended June 30, 2011</u>

В.

1.	Unfunded Accrued Liability/(Surplus) as of July 1, 2010	\$	477,744,089	
2.	Gross Normal Cost as of July 1, 2010		60,866,174	
3.	Interest on (1) and (2)		44,435,347	
4.	Actual Members' Contributions Received		18,162,134	
5.	Employers' Contributions (including receivable)		12,810,249	
6.	Interest on Contributions		749,188	
7.	Expected Unfunded Accrued Liability/(Surplus) as of July 1, $2011 = (1) + (2) + (3) - (4) - (5) - (6)$	\$	551,324,039	
8.	Change in Unfunded Accrued Liability due to the Revised Economic Assumptions		4,163,121	
9.	Actual Unfunded Accrued Liability as of July 1, 2011		566,326,716	
10.	Actuarial (Gain)/Loss = $(9) - (7) - (8)$	\$	10,839,556	
<u>Co</u>	mponents of Actuarial Experience			
1.	Investment (Gain)/Loss	\$	48,796,422	
<ol> <li>Other (Gain)/Loss, including mortality, changes in employee data and salary increases different than expected</li></ol>				
3.	. Total Actuarial (Gain)/Loss \$ 10,839,556			

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#### C. <u>Funded Ratios</u>

The following table presents the System's funded ratios based on the actuarial value of assets (including receivables) and market value basis (including receivables).

	June 3	0, 2011		Cha	nge
	Reflecting the	Prior to Reflecting		Reflecting the	Prior to Reflecting
	Revised Economic	Revised Economic		Revised Economic	Revised Economic
	Assumptions	Assumptions	June 30, 2010	Assumptions	Assumptions
	(1)	(2)	(3)	(1) - (3)	(2) - (3)
Actuarial Value of Assets*	78.1%	78.2%	80.9%	(2.8)%	(2.7)%
Market Value of					
Assets	70.5%	70.6%	66.3%	4.2%	4.3%

\*Statutory funded ratio.

The System's statutory funded ratio is 80.9% and 78.1% as of June 30, 2010 and June 30, 2011, respectively. For purposes of Chapter 78, P.L. 2011, the "target funded ratio" is 75.000% and 75.714% for June 30, 2010 and June 30, 2011, respectively. Therefore, the System's statutory funded ratio reached the "target funded ratio" for June 30, 2010 and remained above the "target funded ratio" for June 30, 2011.

There is a difference on a market value basis since the actuarial value smoothes the investment gains and losses over time. Since July 1, 2000, the funded ratio on a market value basis has decreased by 62.3%. This decrease is primarily due to investment losses experienced over the period, State contributions less than the GASB Annual Required Contribution, and the strengthening of actuarial assumptions.

As of June 30, 2011, the market value of assets is greater than the actuarial liability attributable to retirees. However, if the assets contained in the Annuity Savings Fund (ASF) of \$187,530,427 are excluded, the funded ratio of the remaining market value of assets to the actuarial accrued liability for retirees is 99.9%.

As of June 30, 2011, the ratio of market value of assets to the prior year's benefit payment is 12.4. This is a simplistic measure of the number of years that the assets can cover benefit payments, excluding: future increases in those payments, State and member contributions, and investment income. This ratio increased by 3% from the previous year's ratio of 12.0. If ASF assets are excluded, since they represent accumulated contributions from active and inactive members, the ratio is 11.1.

#### **SECTION V - ACCOUNTING INFORMATION**

Statement No. 5 of the Governmental Accounting Standards Board, issued November 1986, established standards of disclosure of pension information by public retirement systems. Statement No. 25 of the Governmental Accounting Standards Board, issued November 1994, established financial reporting standards for defined benefit pension plans and for the notes to the financial statements of defined contribution plans of state and local governmental liabilities and superseded Statement No. 5 effective for periods beginning after June 15, 1996. Statement No. 27, Accounting for Pensions by State and Local Governmental Employers superseded Statement 5 for employers participating in pension plans and is effective for periods beginning after June 15, 1997. Statement No. 50, Accounting for Pensions by State and Local Governmental Employers amends the note disclosure and required supplementary information (RSI) of Statements No. 25 and No. 27 to conform with applicable changes adopted in Statements No. 43 and 45 for Postemployment Benefit Plans other than Pension Plans. Statement No. 50 is intended to improve the transparency of reported information about pensions by State and Local governmental plans and employers. Statement No. 50 is effective for periods beginning after June 15, 2007.

The information required by Statements No. 25, No. 27 and No. 50 is presented in the following tables. These include the development of the Annual Required Contribution (ARC), the development of the Net Pension Obligation (NPO), the Schedule of Funding Progress and the Schedule of Employer Contributions.

#### (A) Development of the Annual Required Contribution (ARC) as of June 30, 2013

1. Actuarial Value of Plan Assets as of June 30, 2011

(a)	Valuation Assets as of June 30, 2011	\$ 2,015,624,130
(b)	Adjustment for Receivable Contributions included in (a)	 12,810,249 *
(c)	Valuation Assets as of June 30, 2011 for GASB Disclosure = $(a) - (b)$	\$ 2,002,813,881

\* Receivable contribution for fiscal year 2012.

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2.	Actuarial Accrued Liability as of June 30, 2011	\$ 2,581,950,846			
3.	Unfunded Actuarial Accrued Liability/(Surplus) as of June 30, $2011 = 2 1$ .	\$ 579,136,965			
4.	Amortization of Unfunded Actuarial Accrued Liability/(Surplus) over 30 years (Level Dollar)	\$ 47,430,072			
5.	Normal Cost as of June 30, 2011 (excludes NCGIPF)	\$ 36,561,073			
6.	Annual Required Contribution as of June 30, 2013				
	(a) Annual Required Contribution as of June 30, 2011 = $4. + 5$ .	\$ 83,991,145			
	(b) Interest Adjustment to June 30, 2013	13,885,437			
	(c) Non-Contributory Group Insurance Premium	2,000,000			
	(d) Annual Required Contribution as of June 30, 2013 = $(a) + (b) + (c)$	\$ 99,876,582			

# (B) <u>Development of the Net Pension Obligation (NPO) as of June 30, 2013</u>

1.	Annual Required Contribution as of June 30, 2013	\$ 99,876,582
2.	Interest on Net Pension Obligation	56,172,432
3.	Adjustment to Annual Required Contribution	 (62,467,085)
4.	Annual Pension Cost = $1. + 2. + 3.$	\$ 93,581,929
5.	Expected Employer Contributions for Fiscal Year 2013	\$ 27,581,686*
6.	Net Pension Obligation at June 30, 2012	\$ 706,571,468**
7.	Increase in Net Pension Obligation $= 4 5.$	\$ 66,000,243
8.	Net Pension Obligation at June 30, 2013 $= 6. + 7.$	\$ 772,571,711

- \* The recommended contribution of \$91,535,903 has been reduced to \$27,581,686 in accordance with Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2013 spending plan. Included in the Expected Employer Contribution for fiscal year 2013 is 100% of the Non-Contributory Group Insurance premium of \$2,000,000.
- \*\* The June 30, 2012 Net Pension Obligation amount has been revised from the amount shown in the prior year's report to reflect the adjustment to the fiscal year 2011 employer contribution.

#### (C) Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	Unfunded Actuarial Accrued Liability as a Percentage of Covered Payroll ( <u>b-a)</u> c
6/30/2006 6/30/2007 6/30/2008 6/30/2009 6/30/2010 <sup>ø</sup> 6/30/2011 <sup>ø</sup>	<ul> <li>\$ 1,970,398,511</li> <li>\$ 2,066,754,160</li> <li>\$ 2,127,263,509</li> <li>\$ 2,063,962,877</li> <li>\$ 2,019,350,048</li> <li>\$ 2,002,813,881</li> </ul>	\$ 2,319,656,532 \$ 2,485,649,230 \$ 2,609,164,869 \$ 2,825,455,568 \$ 2,497,094,137 \$ 2,581,950,846	<ul> <li>\$ 349,258,021</li> <li>\$ 418,895,070</li> <li>\$ 481,901,360</li> <li>\$ 761,492,691</li> <li>\$ 477,744,089</li> <li>\$ 579,136,965</li> </ul>	84.9% 83.1% 81.5% 73.0% 80.9% 77.6%	<ul> <li>\$ 263,220,592</li> <li>\$ 275,301,995</li> <li>\$ 281,087,566</li> <li>\$ 287,267,502</li> <li>\$ 289,980,657</li> <li>\$ 275,219,752</li> </ul>	132.7% 152.2% 171.4% 265.1% 164.8% 210.4%

<sup>ø</sup>Reflects Chapter 78, P.L. 2011.

#### (D) <u>Schedule of Employer Contributions</u>

Fiscal Year <sup>##</sup>	Annual Required Contribution		Employer Contribution	Percentage Contributed
2008	\$	78,761,279	\$ 36,443,502*	46.3%
2009	\$	86,385,254	\$ 5,574,860**	6.5%
2010	\$	91,411,237	\$ 1,018,200 <sup>ø</sup>	1.1%
2011	\$	114,120,061	\$ 1,600,000 <sup>ØØ</sup>	1.4%
2012###	\$	98,869,662	\$ 14,610,249#	14.8%
2013###	\$	99,876,582	\$ $27{,}581{,}686^\dagger$	27.6%

\* The fiscal year 2008 recommended contribution of \$70,942,933 was reduced to \$36,443,502 in accordance with the provisions of the Appropriation Act for fiscal year 2008.

\*\* The fiscal year 2009 recommended contribution of \$77,679,416 was reduced to \$5,574,860 in accordance with the provisions of the Appropriation Act for fiscal year 2009.

<sup>Ø</sup> The fiscal year 2010 recommended contribution of \$84,031,012 was reduced to \$1,018,200 in accordance with the provisions of the Appropriation Act for fiscal year 2010.

<sup>60</sup> The fiscal year 2011 recommended contribution of \$105,345,281 was reduced to \$1,600,000 in accordance with provisions of the Appropriation Act for fiscal year 2011.

<sup>#</sup> The fiscal year 2012 recommended contribution of \$91,471,744 has been reduced to \$14,610,249 in accordance with Chapter 1, P.L. 2010. This amount could be subject to change per the requirements of the State's fiscal year 2012 spending plan.

<sup>##</sup> The contribution amounts reflect premiums paid to the Non-Contributory Group Insurance Premium Fund.

<sup>###</sup> Reflects Chapter 78, P.L. 2011.

<sup>†</sup> The fiscal year 2013 recommended contribution of \$91,535,903 has been reduced to \$27,581,686 in accordance with Chapter 1, P.L. 2010. This amount could be subject to change per the requirements of the State's fiscal year 2013 spending plan.

The information presented in the required supplementary schedules were determined as part of the actuarial valuation. Additional information follows: **(E)** 

Valuation Date	June 30, 2011
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Dollar, Open
Remaining Amortization Period	30 years
Asset Valuation Method	Five-Year Average of Market Value
Actuarial Assumptions:	
Investment Rate of Return	7.95%
Projected Salary Increase	3.45% for fiscal year ending 2012 through fiscal
	year ending 2016 and 4.70% for fiscal years
	ending 2017 and thereafter
Cost of Living Adjustments	0.00%

#### SECTION VI - LEVEL OF FUNDING

Although the value of accrued benefits and the funding ratios shown in the previous section are required for the State's financial statements, it is instructive to also look at these values under an alternative approach. For this purpose, we are presenting liabilities determined on a Financial Accounting Standards Board Statement No. 87 Accumulated Benefit Obligation (ABO) basis. This is the same approach as GASB Statement No. 25 except that no assumption is made as to future salary increases.

FASB 87 ABO Funded Ratios		
Actuarial present value of accumulated benefits:		
	June 30, 2011	June 30, 2010
Vested benefits		
Participants currently		
receiving payments	\$ 1,634,856,377	\$ 1,466,806,024
Other participants	672,805,445	675,431,659
	\$ 2,307,661,822	\$ 2,142,237,683
Non-vested benefits	123,069,533	123,495,425
Total	\$ 2,430,731,355	\$ 2,265,733,108
Assets at market value	\$ 1,820,438,444	\$ 1,656,194,924
Ratio of assets to total present value	74.9%	73.1%

As in the case of the Governmental Accounting Standard Board Statement No. 25, the actuarial present value of vested and non-vested accrued benefits was based on an interest rate of 7.95% for 2011 and 8.25% for 2010.

# APPENDIX A

#### BRIEF SUMMARY OF THE BENEFIT AND CONTRIBUTION PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

#### Eligibility for Membership

1.

All members of the former State Police and Benevolent Fund: full-time commissioned officers, noncommissioned officers or troopers of the Division of State Police. Membership is a condition of employment.

<u>Definitions</u>	
Plan Year	The 12-month period beginning on July 1 and ending on June 30.
Service	Service rendered while a member as described above.
Credited Service	A year is credited for each year of service as an officer or trooper in the State Police. Service with other State Retirement Systems is included in the calculation of the retirement benefit at the rate of 1% of final compensation for each year of service credit.
Compensation	Based on contractual salary, including maintenance allowance, received by the member in the last 12 months of credited service preceding retirement, termination or death. Compensation does not include individual salary adjustments granted primarily in anticipation of the retirement or for temporary or extracurricular duties beyond the ordinary work day. (Effective June 30, 1996, Chapter 113, P.L. 1997 provided that the amount of compensation used for employer and member contributions and benefits under the program cannot exceed the compensation limitation of Section 401(a)(17) of the Internal Revenue Code; Chapter 1, P.L. 2010 provides that for members hired on or after May 22, 2010, the amount of compensation used for employer and member contributions and benefits under the System cannot exceed the annual maximum wage contribution base for Social Security, pursuant to the Federal Insurance Contributions Act.)
Final Compensation	Average compensation received by member in last 12 months of credited service preceding retirement or death. Such term includes the value of the member's maintenance allowance for the same period. (Chapter 1, P.L. 2010 provides that for members hired on or after May 22, 2010, Final Compensation means the average annual salary for service for which contributions are made during any three fiscal years of membership providing the largest possible benefit to the member or the member's beneficiary. Such term shall include the value of the member's maintenance allowance.)
Aggregate Contributions	The sum of all amounts deducted from the compensation of a member or contributed by him or on his behalf. For contribution

purposes, compensation does not include overtime, bonuses, maintenance or any adjustments before retirement.

Adjusted Final Compensation The amount of compensation or compensation as adjusted, as the case may be, increased by the same percentage increase which is applied in any adjustments of the compensation schedule of active members after the member's death and before the date on which the deceased member of the retirement system would have accrued 25 years of service under an assumption of continuous service, at which time that amount will become fixed. Adjustments to compensation or adjusted compensation shall take effect at the same time as any adjustments in the compensation schedule of active members.

2. Benefits

- Service Retirement Mandatory retirement at age 55. Voluntary retirement prior to age 55 with 20 years of credited service. Benefit is an annual retirement allowance equal to the greater of (a), (b), or (c), as follows:
  - (a) 50% of final compensation;
  - (b) For members retiring with 25 or more years of service, 65% of final compensation, <u>plus</u> 1% for each year of service in excess of 25 years, to a maximum of 70% of final compensation.
  - (c) For members as of August 29, 1985 who would not have 20 years of service by age 55, benefit as defined in (a) above. For members as of August 29, 1985 who would have 20 years of service but would not have 25 years of service at age 55, benefit as defined in (a) above plus 3% for each year of service in excess of 20 years.
- Vested Termination Termination of service prior to age 55. Benefit for 10 to 20 years of service Refund of aggregate contributions, or a deferred life annuity beginning at age 55 equal to 2% of final compensation for each year of service up to 20 years.

# Non-Vested TerminationTermination of service prior to age 55 and less than 10 years of<br/>service – Return of aggregate contributions.Ordinary Death

#### Before Retirement Death of an active member of the plan. Benefit is equal to:

- (a) Lump sum payment equal to 3-1/2 times compensation, plus
- (b) Spousal life annuity of 50% of final compensation payable until spouse's death or remarriage. If there is no surviving

		spouse, or upon death or remarriage, a total of 20%, 35% or 50% of final compensation payable to one, two or three dependent children. If there is no surviving spouse (or dependent children), 25% or 40% of final compensation to one or two dependent parents.
	Minin	num benefit: Aggregate contributions.
After Retirement	Death	of a retired member of the plan. The benefit is equal to:
	(a)	Lump sum of 50% of compensation, plus
	(b)	Spousal life annuity of 50% of final compensation payable until spouse's death or remarriage. If there is no surviving spouse, or upon death or remarriage, a total of 20%, 35% or 50% of final compensation payable to one, two or three dependent children, respectively.
Accidental Death		of an active member of the plan resulting during mance of duties. Benefit is equal to:
	(a)	Lump sum payment equal to 3-1/2 times compensation, plus
	(b)	Spousal life annuity of 70% of adjusted final compensation payable until spouse's death. If there is no surviving spouse, or upon death of the surviving spouse, a total of 20%, 35% or 50% of adjusted final compensation payable to one, two or three dependent children. If there is no surviving spouse or dependent children, 25% or 40% of adjusted final compensation to one or two dependent parents.
Ordinary Disability		
Retirement	usual	ally or physically incapacitated for the performance of his duty and of any other available duty in the Division of State and such incapacity is likely to be permanent.
	(a)	The benefit for members with less than four years of service is a refund of the member's aggregate contributions.
	(b)	For members with at least four years of service, the benefit is an immediate life annuity equal to 40% of final compensation plus 1-1/2% of final compensation for years of creditable service in excess of 26-2/3.
	(c)	For members who are forced to retire with 20 but less than 25 years of service, the benefit is 50% of the member's final compensation plus 3% of final compensation for

	each year of service in excess of 20 years, to a maximum of 65% of final compensation.
	For death following disability retirement, a lump sum equal to $3-1/2$ times compensation if death occurs prior to age 55 or $1/2$ of compensation after age 55.
Accidental Disability	
Retirement	Totally and permanently disabled as a direct result of a traumatic event occurring during and as a result of his regular or assigned duties. Benefit is an immediate life annuity equal to 2/3 of final compensation. Upon death after disability retirement, lump sum benefit of 3-1/2 times final compensation if death occurs before 55 and 1/2 times final compensation if death occurs after 55.
Loan Provision	Eligible if an active member of the State Police Retirement System with at least 3 years of contributory service. If eligible, a member may borrow an amount which is greater than \$50, but not more than 50% of aggregate contributions. The loan accrues interest at a rate set by the State Treasurer, which is based on a commercially reasonable rate as required by the Internal Revenue Code. An administrative fee may be charged for the loan.
Member Contributions	Each member contributes 7.5% of Compensation. Chapter 78, P.L. 2011 increased Member Contributions from 7.5% to 9.0% of Compensation effective October 2011.

#### APPENDIX B

#### OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

VALUATION INTEREST RATE: 7.95% per annum, compounded annually.

COLA: No future COLA is assumed.

SALARY INCREASES: Salaries are assumed to increase by 3.45% per year for fiscal year ending 2012 through fiscal year ending 2016 and 4.70% per year for fiscal years ending 2017 and thereafter.

TERMINATION: Withdrawal rates vary by length of service. Illustrative rates are shown below:

Lives per 7	<u> Thousand</u>
Less Than	Five to Nineteen
5 Years of Service	Years of Service
5.0	0.0
5.0	4.0
8.3	1.0
0.0	1.5
0.0	2.0
0.0	0.0
	Less Than <u>5 Years of Service</u> 5.0 5.0 8.3 0.0 0.0

SEPARATIONS FROM SERVICE: Representative mortality, disability and retirement rates are as follows:

		Ann	ual Rates of*		
	<u>Ordina</u>	ry Death			
			Accidental	Ordinary	Accidental
Age	Male	<b>Female</b>	<b>Death</b>	<b>Disability</b>	<b>Disability</b>
25	0.4	0.2	0.4	0.6	0.3
30	0.4	0.3	0.5	0.9	0.5
35	0.6	0.5	0.5	2.4	1.9
40	0.9	0.7	0.5	2.5	2.1
45	1.2	1.1	0.6	3.1	2.1
50	1.7	1.7	0.9	5.4	2.2

\*Per one thousand lives.

MARRIAGE: Husbands are assumed to be 3 years older than wives. Among the active population, 83.3% of participants are assumed married. No children are assumed. Neither the percentage married nor the number of children assumption is individually explicit but are considered reasonable as a single combined assumption.

VALUATION METHOD: Projected Unit Credit Method. This method essentially funds the System's benefits accrued to the valuation date. Experience gains and losses are recognized in future accrued liability contributions. In accordance with Chapter 78, P.L. 2011, beginning with the July 1, 2010 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over an open 30 year period. Beginning with the

July 1, 2019 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars it will amortize the unfunded accrued liability over a closed 30 year period (i.e., for each subsequent valuation, the amortization period shall decrease by one year.) Beginning with the July 1, 2029 actuarial valuation, when the remaining amortization period reaches 20 years, any increase or decrease in the unfunded accrued liability as a result of actuarial losses or gains for subsequent valuation years shall serve to increase or decrease, respectively, the amortization period for the unfunded accrued liability, unless an increase in the amortization period will cause it to exceed 20 years. If an increase in the amortization period as a result of actuarial losses for a valuation year would exceed 20 years, the accrued liability contribution shall be computed for the valuation year using a 20 year amortization period.

Chapter 78, P.L. 2011 increased the member contributions from 7.5% to 9.0% of compensation. Based on discussions with the Division of Pension and Benefits, member contributions in excess of 7.5% of compensation shall not reduce the State normal cost contribution.

ASSET VALUATION METHOD: A five-year average of market values with write-up. (This method takes into account appreciation (depreciation) in investments in order to smooth asset values by averaging the excess of the actual over the expected income, on a market value basis, over a five-year period).

DEATHS AFTER RETIREMENT: For healthy inactive members and beneficiaries of deceased members the RP 2000 Combined Healthy Male (set back 3 years) and RP 2000 Combined Healthy Female Mortality tables are used. For disabled members the RP 2000 Combined Healthy Male (set forward 5 years) and RP 2000 Combined Healthy Female Mortality (set forward 5 years) tables are used. There has been no provision made for mortality improvement after the valuation date. Illustrative rates of mortality are shown below:

	Lives per ThousandRetired Members andBeneficiaries of DeceasedMembersDisabled Members								
Age	<u>Males</u>	<b>Females</b>	Males	<b>Females</b>					
55	2.7	2.7	6.8	5.1					
60	4.7	5.1	12.7	9.7					
65	8.8	9.7	22.2	16.7					
70	16.1	16.7	37.8	28.1					
75	27.3	28.1	64.4	45.9					
80	46.9	45.9	110.8	77.5					
85	80.5	77.5	183.4	131.7					
90	136.0	131.7	267.5	194.5					

RATES OF RETIREMENT: Rates of retirement vary by length of service and age (if more than 24 years of service) with 100% of those remaining at age 55 retiring at age 55. The rates are shown below:

Service	Lives Per 100
20	2.0
21	0.5
22	0.0
23	0.0
24	0.0
25	40.0
Greater than 25 :	
(a) through age 42	5.0
(b) ages 43-47	25.0
(c) ages 48-53	30.0
(d) age 54	55.0

# APPENDIX C

## TABULATIONS USED AS A BASIS FOR THE 2011 VALUATION

The following tables give a reconciliation of data from July 1, 2010 to June 30, 2011. Tables are also given showing active member number and salaries by age and length of service as of July 1, 2011 and showing the number and retirement allowances of beneficiaries classified by age as of July 1, 2011.

# TABLE 1

# **RECONCILIATION OF DATA FROM JULY 1, 2010 TO JUNE 30, 2011**

	Actives		Deferred	Retirees					Domestic Relations Beneficiaries			
	Contrib.	Noncontrib.	Vested	Service	Special	Deferred	Disabled	Beneficiaries	Dependents	Retirees	Disabilities	Total
Members as of July 1, 2010	2,988	42	0	412	1,511	4	231	359	5	109	21	5,682
Changed to Contributing	7	(7)										
Changed to Noncontributing	(6)	6										
Terminated Vested		(2)										(2)
Terminated Non-Vested		(3)										(3)
Service Retirement	(9)			9								
Special Retirement	(158)				158							
New Disabled	(11)	(1)					12					
New Death	(2)			(22)	(14)		(4)	(16)				(58)
Payments Began												
Payments Ceased									(1)	(5)	(4)	(10)
New Actives												
Rehires												
New Beneficiaries								30	3	18	1	52
Data Corrections				1								1
Members as of June 30, 2011	2,809	35	0	400	1,655	4	239	373	7	122	18	5,662

# TABLE 2

# DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE

	SERVICE	1	5	10	15	20	25	30	35	TOTAL
AGE										
25	Number	30	90	1						121
	Salary	2,072,598	6,543,064	71,775						8,687,437
30	Number	47	436	79						562
	Salary	3,249,758	34,126,562	7,108,038						44,484,358
35	Number	10	216	313	17					556
	Salary	690,866	17,343,954	29,639,806	1,589,932					49,264,558
40	Number		62	174	254	16	3			509
	Salary		5,126,880	17,144,271	26,594,380	1,657,663	314,427			50,837,621
45	Number			29	123	171	324	3		650
	Salary			2,843,622	12,911,153	18,557,140	36,719,747	358,458		71,390,113
50 and over	Number			4	16	68	302	54	2	446
	Salary			301,508	1,714,980	7,382,212	34,409,370	6,491,762	255,833	50,555,665
TOTAL	Number	87	804	600	410	255	629	57	2	2,844
	Salary	6,013,222	63,140,460	57,109,020	42,810,445	27,597,015	71,443,544	6,850,220	255,833	275,219,752

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

		MEN		WOMEN			
AGE	NUMBER		NUMBER AMOUNT		NUMBER		AMOUNT
25	10	\$	706,994				
26	32	Ψ	2,264,531	1	\$	71,775	
20 27	43		3,075,562	1	Ψ	/1,//5	
28	79		5,842,266	2		148,927	
29	81		6,117,545	9		680,921	
30	110		8,513,558	5		380,382	
31	124		9,867,423	3		234,143	
32	124		10,146,898	4		341,074	
33	116		9,967,535	4		335,698	
34	129		11,112,805	8		663,879	
35	97		8,441,043	4		352,428	
36	110		9,823,222	8		689,745	
37	86		7,884,183	5		477,577	
38	84		7,965,718	6		535,729	
39	90		8,856,931	4		384,505	
40	108		10,596,083	8		787,775	
41	106		10,848,992	7		724,979	
42	92		9,407,591	2		199,195	
43	84		8,739,510	2		199,195	
44	97		10,328,166	3		313,357	
45	130		14,195,437	3		312,104	
46	141		15,724,795	5		582,840	
47	158		17,469,478	2		205,120	
48	142		16,008,953	4		472,384	
49	103		11,562,705	4		505,271	
50	79		8,874,586	3		354,204	
51	49		5,590,316	1		115,206	
52	48		5,442,717				
53	31		3,543,941				
54	53		6,102,501	1		129,352	
TOTAL	2,736	\$	265,021,985	108	\$	10,197,767	

Of the 2,844 active members included in the June 30, 2011 valuation data, 1,669 are vested and 1,175 have not yet completed the vesting service requirement.

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

YEARS OF	MEN		WOM	WOMEN			
SERVICE	NUMBER		AMOUNT	NUMBER	AMOUN		
1							
2	83	\$	5,736,876	1	\$	69,087	
3	145		10,388,501	7		502,422	
4	64		4,736,147	7		521,245	
5	91		6,988,796	5		383,070	
6	251		20,119,863	11		886,303	
7	168		13,794,930	4		336,273	
8	115		10,012,709	11		969,145	
9	53		4,669,478	3		256,564	
10	281		27,190,501	14		1,346,416	
11	33		2,962,818	3		278,722	
12	31		2,847,616	1		101,086	
13	118		12,042,552	6		588,529	
14	102		10,366,799	5		522,497	
15	18		1,759,246	1		104,035	
16	149		15,772,734	9		993,836	
17	102		10,866,452	4		429,814	
18	84		8,983,209				
19	8		833,113				
20	6		621,311				
21	10		1,035,021	1		104,035	
22	73		7,911,881	2		238,998	
23	186		20,311,070	3		354,230	
24	253		28,510,597	4		459,439	
25	178		20,645,157	4		507,463	
26	48		5,677,229				
27	21		2,477,965	1		115,206	
28	24		2,829,923				
29	23		2,776,732				
30	9		1,094,036				
31	1		127,160	1		129,352	
32	4		456,490				
33	3		364,200				
34	1		110,873				
TOTAL	2,736	\$	265,021,985	108	\$	10,197,767	

Of the 2,844 active members included in the June 30, 2011 valuation data, 1,669 are vested and 1,175 have not yet completed the vesting service requirement.

## State Police Retirement System of New Jersey

	Service Retirement		nt	Special R (25 Years			Ordinary	v Disał	oility	Accidenta	l Disat	oility	Sur	vivors	
		Aver	rage		Aver	age		A	Average		Α	verage		Av	erage
	Average Age	Annual	Benefit	Average Age	Annual l	Benefit	Average Age	Ann	ual Benefit	Average Age	Annu	al Benefit	Average Age	Annua	al Benefit
	At Retirement	At Reti	rement	At Retirement	At Retir	rement	At Retirement	At I	Retirement	At Retirement	At R	etirement	At Retirement *	At Re	tirement
All Retirees	50.5	\$	26,634	51.4	\$	60,631	41.3	\$	31,650	39.8	\$	48,443	46.8	\$	21,197
New Retirees	55.0	\$	50,775	49.3	\$	78,752	47.2	\$	55,723	41.8	\$	61,423	45.8	\$	23,439
						<i>.</i>			,			· ·			,

#### (Based on the July 1, 2011 Actuarial Valuations)

	All Retirements						
	(excluding	Survi	vors)				
	Average						
	Average Age	Average Age Annual Bene					
	At Retirement	At Retirement					
All Retirees	50.1	\$	52,599				

Note: The Average Annual Benefit at Retirement does not reflect COLA's granted after retirement.

\* Calculated as of Member's Date of Retirement

#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### SERVICE RETIREMENTS

MEN

#### WOMEN

AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
40			1	\$ 21,376
41				
42			1	8,841
43				
44	2	\$ 113,307	1	10,352
45	3	192,462	2	82,407
46	11	782,911	2	111,925
47	20	1,512,311	4	174,706
48	24	1,832,171	6	230,478
49	37	2,836,841	3	64,187
50	43	3,308,038	10	278,127
51	28	2,146,971	7	301,384
52	60	4,695,385	14	567,879
53	60	4,553,107	10	268,030
54	66	5,139,562	8	395,249
55	72	5,418,292	7	266,568
56	62	4,545,013	11	328,253
57	83	6,187,684	8	380,101
58	51	3,809,777	5	82,526
59	61	4,416,299	2	84,158
60	70	4,720,077	5	78,619
61	50	3,531,795	2	36,575
62	69	4,756,504	6	148,715
63	66	4,110,526	1	18,000
64	88	5,727,179	9	203,648
65	96	5,793,452	8	161,733
66	75	4,409,659	8	145,833
67	68	3,788,638	1	16,049
68	89	4,996,579		
69	82	4,363,509	1	12,000
70	87	4,465,063	3	52,717
71	58	3,006,238		
72	43	2,238,633	3	77,010
73	51	2,493,193	3	64,272
74	29	1,407,631		
75	30	1,330,076	1	2,600

#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### SERVICE RETIREMENTS (CONTINUED)

WOMEN

AGE	NUMBER	AMOUNT		NUMBER	AMOUNT	
76	25	\$	1,189,146			
77	17		841,655	1	\$	25,930
78	16		683,856			
79	28		1,280,062			
80	33		1,421,823			
81	30		1,169,137			
82	23		911,341			
83	35		1,502,313			
84	18		623,594			
85	16		522,865			
86	16		513,951			
87	16		501,325			
88	5		143,761			
89	4		107,067			
90	4		142,450			
91	2		82,915			
92	2		63,507			
93	1		27,160			
94	1		38,138			
96	1		31,919			
TOTAL	2,027	\$	124,426,868	154	\$	4,700,246

#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### **BENEFICIARIES OF DECEASED PENSIONERS**

		MEN	WOMEN			
AGE	NUMBER	AN	IOUNT	NUMBER	AMOUNT	
40						
45				1	\$ 45,844	
48				1	49,190	
49				1	47,558	
50						
52				2	101,055	
53	1	\$	10,083	1	40,622	
54				4	160,548	
55				1	61,792	
56				1	49,003	
57				2	69,348	
58				1	36,467	
59				2	75,569	
60				1	54,000	
61				7	322,775	
62				_		
63				7	282,919	
64	1		10,114	11	450,678	
65				4	154,906	
66				7	294,517	
67				5	196,716	
68			44.040	9	310,966	
69	1		41,249	11	464,372	
70				11	395,024	
71				9	318,357	
72				4	160,841	
73				12	418,011	
74 75				6	196,148	
75 76				6	177,801	
76 77				8	273,540	
77 78				6	181,435	
78 70				10	318,279	
79				19	577,961	

#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2011

# BENEFICIARIES OF DECEASED PENSIONERS (CONTINUED)

		MEN		V	VOMEN	
AGE	NUMBER		AMOUNT	NUMBER		AMOUNT
80				15	\$	417,668
81				15		436,516
82				19		560,170
83				17		451,779
84				12		364,557
85				10		289,198
86				8		209,132
87				8		230,510
88				6		150,869
89				5		141,087
90				5		137,041
91				4		105,525
92				5		107,367
93				5		110,445
94				1		21,787
95				2		46,960
96				2		26,684
97				1		19,646
TOTAL	3	\$	61,446	310	\$	10,113,180

#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### BENEFICIARIES OF DECEASED ACTIVE EMPLOYEES

MEN

#### WOMEN

AGE	NUMBER	AMOUNT	NUMBER	AMOUNT
19			1	\$ 13,155
31			1	57,774
35			1	68,681
36			1	46,125
43			1	42,625
45			1	70,744
46			1	70,744
47			1	37,528
48			2	145,985
49			1	70,744
50			1	52,511
52			1	65,042
53			2	111,709
56			1	40,873
57			1	45,825
59			2	106,869
60			2	83,961
61			1	56,136
62			3	100,827
64			1	36,719
65			1	50,709
66			3	113,416
67			3	115,664
68			3	146,504
69			1	47,701
70			2	80,845
71			2	62,792
72			1	21,930
73			1	22,713
74			1	40,977
76			1	29,343
77			1	36,568
79			2	47,997
81			3	97,162
82			1	22,483
83			1	38,740
84			1	24,167
85			1	32,492
86			1	19,431
87			2	52,197

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#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### BENEFICIARIES OF DECEASED ACTIVE EMPLOYEES (CONTINUED)

#### MEN

### WOMEN

AGE	NUMBER	AMOUNT	NUMBER	A	MOUNT
90			2	\$	33,182
91			1		20,424
92			1		17,618
95			1		15,963
TOTAL			63	\$	2,515,596



#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### CHILDREN OF DECEASED MEMBERS

	Ν	IEN	WOMEN				
AGE	NUMBER	AMOUNT	NUMBER	AMOUNT			
10			1	\$	7,641		
11							
12							
13							
14			1		11,889		
15			1		7,641		
16							
17							
18			1		7,641		
19							
TOTAL			4	\$	34,811		

#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### **ORDINARY DISABILITY RETIREMENTS**

MEN

WOMEN

AGE NUMBER		A	MOUNT	NUMBER	AMOUNT	
32	1	\$	31,970			
35			40,794			
39			36,524			
40			40,411	1	\$	28,558
42			30,516			
43	3		86,761			
44	2		73,568			
45	7		266,554	2		29,299
46	4		112,693			
47	8		293,205	1		36,999
48	4		154,619	3		108,619
49	5		197,800	3		70,994
50	5		187,198	4		77,578
51	1		37,223	1		18,470
52	6		296,501	2		65,213
53	4		178,036	1		8,996
54	2		88,431	1		51,060
55	3		82,643	1		9,600
56			56,808			
57	4		205,814	1		26,202
58			83,757			
59			143,315			
60	2		29,302	1		8,141
61	1		26,314	1		21,804
62			50,930			
63			28,532			
64			132,223	1		32,489
66			85,582			
67			105,735	1		13,739
68			23,812			
69			82,438			
70			39,258			
71			105,167			
72			75,202			
73			57,235			
74			19,279			
86	1		16,253			
TOTAL	102	\$	3,602,402	25	\$	607,761

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#### THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JUNE 30, 2011

#### ACCIDENTAL DISABILITY RETIREMENTS

MEN

#### WOMEN

AGE	NUMBER	А	MOUNT NUMBER		AI	AMOUNT	
29	1	\$	48,700	1	\$	50,082	
30		Ŧ	47,708		Ŧ	,	
33			121,202				
36			58,530				
37			130,109				
38			159,204				
39			173,577				
40			312,141				
41	1		60,765				
42			49,954				
43			288,883				
44			353,926	2		139,898	
45			187,835				
46			456,463	1		57,061	
47			541,710	2		12,212	
48			444,101	1		61,027	
49			346,885			,	
50			420,866	2		14,763	
51			264,045	1		40,934	
52			129,853				
53			96,712	1		31,367	
54			71,460	2		112,359	
55	4		206,359				
56	1		63,857				
57	3		177,417				
59			140,423	1		9,984	
61	3		176,701	1		51,760	
64	1		54,648				
65	1		36,295				
66			74,305				
67			64,995				
68			28,218				
69			161,207				
70	1		26,679				
71	1		25,249				
72			105,278				
73			45,334				
74			51,232				
80			29,049				
86	2		74,908				
TOTAL	115	\$	6,306,781	15	\$	581,447	
			43	b	buckconsultants <sup>-</sup>		