THE STATE POLICE RETIREMENT SYSTEM OF NEW JERSEY
ANNUAL REPORT
OF THE ACTUARY
PREPARED AS OF JULY 1, 2012

February 15, 2013
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, 2012 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, 2012 and gives the basis for determining the recommended annual contribution for the plan year beginning July 1, 2012.

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, 2008 - June 30, 2011 Experience Study and approved by the Board of Trustees at the September 25, 2012 Board meeting. The Treasurer has recommended a change in the economic assumptions used for the valuation. The rate of investment return has been revised from $7.95 \%$ per annum to $7.90 \%$ per annum. The assumed future salary increases have been revised to be $3.45 \%$ per annum for fiscal year ending 2012 through fiscal year ending 2021 and $4.45 \%$ per annum for fiscal years ending 2022 and thereafter. These assumptions will remain in effect for valuation purposes until such time the Board or the Treasurer recommends revised assumptions.

The valuation reflects the State contributions under Chapter 1, P.L. 2010. The fiscal year 2012 recommended pension contribution of $\$ 89,671,744$ has been reduced to $\$ 12,810,000$. The fiscal year 2013 recommended pension contribution of $\$ 89,535,903$ has been reduced to $\$ 25,581,686$. This amount may be subject to change per the requirements of the State's fiscal year 2013 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 2014 fiscal year to no less than $3 / 7^{\text {th }}$ 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

February 15, 2013
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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,


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# REPORT ON THE ANNUAL <br> VALUATION OF <br> THE STATE POLICE RETIREMENT SYSTEM <br> OF NEW JERSEY <br> PREPARED AS OF JULY 1, 2012 

## 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, 2012, 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.

| Valuation Data | July 1, 2012 |  | July 1, 2011 |  |
| :---: | :---: | :---: | :---: | :---: |
| Number of Members |  | 2,721 |  | 2,844 |
| Annual Compensation | \$ | 283,219,927 | \$ | 275,219,752 |
| Number of Pensioners and Beneficiaries |  | 3,030 |  | 2,818 |
| Total Annual Allowance | \$ | 169,491,353 | \$ | 152,950,538 |
| Assets |  |  |  |  |
| Market Value of Assets | \$ | 1,755,429,511* | \$ | 1,820,438,444 |
| Valuation Assets | \$ | 1,995,388,133* | \$ | 2,015,624,130 |
| Contribution Rates |  |  |  |  |
| Pension Contribution |  |  |  |  |
| a) Recommended Contribution Normal Contribution |  | 13.78\% |  | 14.34\% |
| Accrued Liability Contribution |  | 24.00 |  | 18.19 |
| Total Pension Contribution |  | 37.78\% |  | 32.53\% |
| b) Chapter 1, P.L. 2010 Minimum Contribution |  |  |  |  |
| Normal Contribution |  | 5.90\% |  |  |
| Accrued Liability Contribution |  | $10.28$ |  |  |
| Total Pension Contribution** |  | 16.18\% |  | 9.30\% |
| Non-Contributory Group Insurance Premium |  | 0.67\% |  | 0.73\% |
| Contribution Amounts |  |  |  |  |
| Pension Contribution |  |  |  |  |
| a) Recommended Contribution Normal Contribution | \$ | 39,015,307 | \$ | 39,467,678 |
| Accrued Liability Contribution |  | 67,962,316 |  | 50,068,225 |
| Total Pension Contribution | \$ | 106,977,623 | \$ | 89,535,903 |
| b) Chapter 1, P.L. 2010 Minimum Contribution |  |  |  |  |
| Normal Contribution | \$ | 16,720,846 | \$ | 11,276,479 |
| Accrued Liability Contribution |  | 29,126,707 |  | 14,305,207 |
| Total Pension Contribution** | \$ | 45,847,553 | \$ | 25,581,686 |
| Non-Contributory Group Insurance Premium | \$ | 1,900,000 | \$ | 2,000,000 |

* Assets include a fiscal year 2013 receivable contribution of \$25,581,686 instead of the \$89,535,903 contribution recommended for the July 1, 2011 valuation (potential effect of Chapter 1, P.L. 2010.)
** Chapter 1, P.L. 2010 allows the State to make a contribution for fiscal year 2014 equal to $3 / 7^{\text {th }}$ of the recommended contribution and for fiscal year 2013 equal to $2 / 7^{\text {th }}$ of the recommended contribution. The contributions could be subject to change per the requirements of the State’s fiscal year 2014 and 2013 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 State contribution under Chapter 1, P.L. 2010 for fiscal year 2012, which allowed the State Treasurer to reduce the State normal and accrued liability contributions for fiscal year 2012 of $\$ 89,671,744$ to $\$ 12,810,000$. (This amount excludes the premium paid to the Non-Contributory Insurance Fund of \$735,607 for the lump sum death benefits.)

The valuation also reflects the potential impact of Chapter 1, P.L. 2010, which allows the State Treasurer to reduce the State normal and accrued liability contributions for fiscal year 2013 to no less than $2 / 7^{\text {th }}$ of the full recommended pension contribution. Therefore, the fiscal year 2013 recommended pension contribution of $\$ 89,535,903$ has been reduced to $\$ 25,581,686$ 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 \$2,000,000 for lump sum death benefits.)

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, 2008 - June 30, 2011 Experience Study and approved by the Board of Trustees at the September 25, 2012 Board meeting. The Treasurer has recommended a change in the economic assumptions used for the valuation. The rate of investment return has been revised from $7.95 \%$ per annum to $7.90 \%$ per annum. The assumed future salary increases have been revised to be $3.45 \%$ per annum for fiscal year ending 2012 through fiscal year ending 2021 and $4.45 \%$ per annum for fiscal years ending 2022 and thereafter. These assumptions will remain in effect for valuation purposes until such time the Board or the Treasurer recommends revised 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, 2011 and July 1, 2012 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

## 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, 2011 and July 1, 2012 by various categories.

## ACTIVE MEMBERSHIP

|  | 2012 |  | 2011 |  |
| :--- | :---: | :---: | :---: | :---: |
| Group | Number | Annual <br> Compensation |  | Number |

## RETIRED MEMBERS AND BENEFICIARIES

| Group | 2012 |  | 2011 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number | Annual Allowances | Number | Annual Allowances |
| Service Retirements | 2,366 | \$ 144,028,362 | 2,181 | \$ 129,127,114 |
| Ordinary Disability <br> Retirements | 134 | \$ 4,612,430 | 127 | \$ 4,210,163 |
| Accidental Disability Retirements | 140 | \$ 7,551,546 | 130 | \$ 6,888,228 |
| Beneficiaries of Deceased Pensioners | 329 | \$ 10,777,588 | 313 | \$ 10,174,626 |
| Beneficiaries of Deceased Active Employees | 61 | \$ 2,521,427 | 67 | \$ 2,550,407 |

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.

## THE STATE POLICE RETIREMENT SYSTEM OF NEW JERSEY

SUMMARY OF ACTIVE PARTICIPATION



## THE STATE POLICE RETIREMENT SYSTEM OF NEW JERSEY

SUMMARY OF RETIRED PARTICIPATION



## SECTION III - ASSETS, LIABILITIES AND CONTRIBUTIONS

## A. Market Value of Assets as of June 30, 2012

## 1. Assets

a. Cash
\$ 14,482,638
b. Securities Lending Collateral
c. Accounts Receivable
d. Investment Holdings
e. Interest Receivable on Investments
29,163,423
f. Employer Contribution Receivable - NCGI 76,940
g. Members' Contributions Receivable 776
h. Dividends Receivable 0
i. Loans Receivable 19,845,996
j. Interest Receivable - Member Loans 231,386
k. Total
\$ 1,772,937,738
2. Liabilities
a. Pension Payroll Payable
\$ 9,884,245
b. Securities Lending Collateral and Rebates Payable 29,118,498
c. Pension Adjustment Payroll Payable 1,992,513
d. Withholdings Payable 1,963,643
e. Securities Purchased in Transit 0
f. Accounts Payable - Other 54,074
g. Death Benefits Payable

76,940
h. Total
\$ 43,089,913
3. Preliminary Market Value of Assets as of June 30, 2012: 1(k) - 2(h)
\$ 1,729,847,825
4. State Appropriations Receivable
5. Market Value of Assets as of June 30, 2012: 3. + 4.


* The fiscal year 2013 recommended pension contribution of $\$ 89,535,903$ has been reduced to $\$ 25,581,686$ to reflect Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2013 spending plan.
** Excludes assets held in the Non-Contributory Group Insurance Fund.


## B. Reconciliation of Market Value of Assets: June 30, 2011 to June 30, 2012

1. Market Value of Assets as of June 30, 2011
2. Increases
a. Pension Contributions
Members' Contributions
\$ 23,124,399

Transfer from Other Systems
b. Employers’ Contributions

State Appropriations
Non-Contributory Group Insurance
Transfer from Other Systems
Administrative Fee Loans
c. Income

Per Statement
d. Total
3. Decreases
a. Benefits Provided by Members

Withdrawals - Members’ Contributions
Regular
Adjustment - Member Account Loans - State
b. Benefits Provided by Employers and Members

Retirement Allowances
c. Benefits Provided by Employers

Benefit Expense - Pension Adjustment
Administrative Expense
Administrative Expense Loans 6,736
Adjusted Member Accounts Expense- State 12,477
NCGI Premium Expense
d. Total
4. Preliminary Market Value of Assets
as of June 30, 2012: 1. + 2.(d) - 3.(d)
5. State Appropriations Receivable
6. Market Value of Assets as of June 30, 2012:
4. +5 .
\$ 1,755,429,511 **

* The fiscal year 2013 recommended pension contribution of $\$ 89,535,903$ has been reduced to $\$ 25,581,686$ to reflect Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2013 spending plan.
** Excludes assets held in the Non-Contributory Group Insurance Fund.


## C. Development of Actuarial Value of Assets as of July 1, 2012

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, 2011 \$ 2,002,813,881
2. Net Cash Flow (excluding investment income)
3. Expected Investment Income at $7.95 \%$
a. Interest on assets as of July 1, 2011
\$ 159,223,704
b. Interest on Net Cash Flow
c. Total
\$ 153,678,336
4. Expected Actuarial Value of Assets as of July 1, 2012:
5.     + 2.             + 3.(c)
1. $20 \%$ of Difference from Preliminary Market Value of Assets
2. Receivable Employer Contributions
3. Actuarial Value of Assets as of July 1, $2012=4 .+5 .+6$.

* The fiscal year 2013 recommended pension contribution of $\$ 89,535,903$ has been reduced to $\$ 25,581,686$ to reflect Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2013 spending plan.
** Excludes assets held in the Non-Contributory Group Insurance Fund.


## D. Present Value of Projected Benefits as of July 1, 2012

1. Retirees and Beneficiaries
a. Service Retirements
b. Disability Retirements 140,376,900
c. Beneficiaries
d. Total
2. Terminated Vested Members
3. Contributing Active Participants
a. Service Retirement
\$ 869,333,190
b. Ordinary Disability 21,453,396
c. Accidental Disability 24,263,426
d. Ordinary Death 8,154,377
e. Accidental Death 8,305,894
f. Vested Termination 1,551,240
g. Withdrawal Benefits
h. Total
4. Non-Contributing Active Participants
5. Total Present Value of Benefits* $=$ 1. (d) $+2 .+3$.(h) +4 . \$ 2,767,768,813
*Excludes lump sum death benefits payable from the Non-Contributory Group Insurance Premium Fund.

## E. Development of Normal Cost as of July 1, 2012

1. Service Retirement
\$ 47,514,629
2. Ordinary Disability 2,032,561
3. Accidental Disability 2,339,674
4. Ordinary Death 717,346
5. Accidental Death 889,523
6. Vested Termination 154,566
7. Withdrawal Benefits 46,358
8. Total Pension Normal Cost* \$ 53,694,657 $=1 .+2 .+3 .+4 .+5 .+6 .+7$.
*Excludes lump sum death benefits payable from the Non-Contributory Group Insurance Premium Fund.

## F. Development of Recommended State Pension Contributions

1. Present Value of Benefits \$ 2,767,768,813
2. Actuarial Value of Assets $\quad 1,995,388,133$
3. Unfunded Actuarial Accrued

Liability/(Surplus) = 1. - 2 .
\$ 772,380,680
4. Amortization Period
5. Amortization of Unfunded Actuarial Accrued

Liability payable July 1, 2013 (Level Dollar)
\$ 67,962,316
6. a. Gross Normal Cost (excluding NonContributory Group Insurance Premium) \$ 53,694,657
b. Expected Member Contributions*

17,535,892
c. State Normal Cost = (a) - (b) \$ 36,158,765
d. State Normal Cost payable July 1, 2013 $=(\mathrm{c}) * 1.079 \quad \$ \quad 39,015,307$
7. Total Recommended Pension Contribution as
\$ 106,977,623
of July 1, $2013=5 .+6$.(d)

* 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.
G. Development of Chapter 1, P.L. 2010 Minimum Required Pension Contributions*

1. State Normal Cost payable July 1, 2013
$=$ F.6(d). x 3/7 \$ 16,720,846
2. Amortization of Unfunded Actuarial Accrued

Liability payable July 1, 2013 = F.5. x 3/7
29,126,707
3. Total Minimum Contribution** $=1 .+2$.
\$ 45,847,553

* Chapter 1, P.L. 2010 allows the State Treasurer to reduce the recommended contribution for the 2014 fiscal year to no less than $3 / 7^{\text {th }}$ of the recommended contribution.
**Contribution could be subject to change per the requirements of the State's fiscal year 2014 spending plan.
H. Non-Contributory Group Insurance Premium
(One-Year Term Cost)
\$ 1,900,000


## 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, 2012.

The loss is primarily due to an actual return on System assets less than expected. For valuation purposes, a 7.95\% per annum rate of return was assumed for the period July 1, 2011 through June 30, 2012. The actual return on the Fund's actuarial value of assets was $4.83 \%$ for this period for the period July 1, 2011 through June 30, 2012. There was a liability loss due to experience among active and retired members.

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

## A. Calculation of Actuarial Experience for the Year Ended June 30, 2012

1. Unfunded Accrued Liability/(Surplus) as of July 1, 2011
2. Gross Normal Cost as of July 1, 2011
\$ 566,326,716
3. Interest on (1) and (2) at $7.95 \%$ 53,650,162
4. Actual Members' Contributions Received 49,288,162
5. Employers' Contributions (including receivable)
6. Interest on Contributions at 7.95\%
7. Expected Unfunded Accrued Liability/(Surplus) as of July $1,2012=(1)+(2)+(3)-(4)-(5)-(6)$
\$ 619,639,760
8. Change in Unfunded Accrued Liability due to the Revised Demographic Assumptions

30,836,414
9. Change in Unfunded Accrued Liability due to the Revised Rate of Investment Return and Salary Scale Assumptions
$(3,515,957)$
10. Actual Unfunded Accrued Liability as of July 1, 2012
11. Actuarial (Gain)/Loss $=(10)-(7)-(8)-(9)$
\$ 125,420,463

## B. Components of Actuarial Experience

1. Investment (Gain)/Loss
2. Other (Gain)/Loss, including mortality, changes in employee data and salary increases different than expected

65,430,808
3. Total Actuarial (Gain)/Loss
\$ 125,420,463

## C. Funded Ratios

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

| Actuarial Value of Assets* <br> Market Value of Assets | June 30, 2012 | June 30, 2011 | Change |
| :---: | :---: | :---: | :---: |
|  | $72.1 \%$ | $78.1 \%$ | $(6.0) \%$ |

*Statutory funded ratio.
The System's statutory funded ratio is $78.1 \%$ and $72.1 \%$ as of June 30, 2011 and June 30, 2012, respectively. For purposes of Chapter 78, P.L. 2011, the "target funded ratio" is $75.714 \%$ and $76.428 \%$ for June 30, 2011 and June 30, 2012, respectively. Therefore, the System's statutory funded ratio reached the "target funded ratio" for June 30, 2011 but fell below the "target funded ratio" for June 30, 2012.

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 $69.4 \%$. 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, 2012, the market value of assets is less than the actuarial liability attributable to retirees. Furthermore, if the assets contained in the Annuity Savings Fund (ASF) of \$190,825,488 are excluded, the funded ratio of the remaining market value of assets to the actuarial accrued liability for retirees is $85.8 \%$.

As of June 30, 2012, the ratio of market value of assets to the prior year's benefit payment is 10.8. 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 decreased by $13 \%$ from the previous year's ratio of 12.4. If ASF assets are excluded, since they represent accumulated contributions from active and inactive members, the ratio is 9.6.

## 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, 2014

1. Actuarial Value of Plan Assets as of June 30, 2012
(a) Valuation Assets as of June 30, 2012
(b) Adjustment for Receivable Contributions included in (a)
(c) Valuation Assets as of June 30, 2012 for GASB Disclosure = (a) - (b)
\$ 1,995,388,133
25,581,686*
\$ 1,969,806,447

* Receivable contribution for fiscal year 2013.

2. Actuarial Accrued Liability as of June 30, 2012
\$2,767,768,813
3. Unfunded Actuarial Accrued Liability/(Surplus) as of June 30, $2012=2 .-1$.
\$ 797,962,366
4. Amortization of Unfunded Actuarial Accrued Liability/(Surplus) over 30 years (Level Dollar)
\$ 65,072,535
5. Normal Cost as of June 30, 2012 (excludes NCGIPF)
\$ 36,158,765
6. Annual Required Contribution as of June 30, 2014
(a) Annual Required Contribution as of June 30, 2012 $=4 .+5$.
\$ 101,231,300
(b) Interest Adjustment to June 30, 2014 16,626,330
(c) Non-Contributory Group Insurance Premium

1,900,000
(d) Annual Required Contribution as of June 30, 2014 $=(\mathrm{a})+(\mathrm{b})+(\mathrm{c})$
\$ 119,757,630

## (B) Development of the Net Pension Obligation (NPO) as of June 30, 2014

1. Annual Required Contribution as of June 30, 2014
\$ 119,757,630
2. Interest on Net Pension Obligation 61,116,523
3. Adjustment to Annual Required Contribution (68,071,968)
4. Annual Pension Cost $=1 .+2 .+3$. \$ 112,802,185
5. Expected Employer Contributions for Fiscal Year 2014
\$ 47,747,553*
6. Net Pension Obligation at June 30, 2013
\$ 773,626,868**
7. Increase in Net Pension Obligation = 4. - 5.
\$ 65,054,632
8. Net Pension Obligation at June 30, 2014 $=6 .+7$.
\$ 838,681,500

* The recommended contribution of $\$ 108,877,623$ has been reduced to $\$ \$ 47,747,553$ in accordance with Chapter 1, P.L. 2010. This amount may be subject to change per the requirements of the State's fiscal year 2014 spending plan. Included in the Expected Employer Contribution for fiscal year 2014 is $100 \%$ of the Non-Contributory Group Insurance premium of $\$ 1,900,000$.
** The June 30, 2013 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 2012 employer contribution.
(C) Schedule of Funding Progress

| Actuarial <br> Valuation Date |  | tuarial Value of Assets <br> (a) | Actuarial Accrued Liability (b) | Unfunded Actuarial Accrued Liability (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | Unfunded <br> Actuarial <br> Accrued <br> Liability as a <br> Percentage <br> of Covered <br> Payroll <br> (b-a) <br> c |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6/30/2007 | \$ | 2,066,754,160 | \$ 2,485,649,230 | \$ 418,895,070 | 83.1\% | \$ 275,301,995 | 152.2\% |
| 6/30/2008 |  | 2,127,263,509 | \$ 2,609,164,869 | \$ 481,901,360 | 81.5\% | \$ 281,087,566 | 171.4\% |
| 6/30/2009 | S | 2,063,962,877 | \$ 2,825,455,568 | \$ 761,492,691 | 73.0\% | \$ 287,267,502 | 265.1\% |
| 6/30/2010 ${ }^{\text {® }}$ | \$ | 2,019,350,048 | \$ 2,497,094,137 | \$ 477,744,089 | 80.9\% | \$ 289,980,657 | 164.8\% |
| 6/30/2011 ${ }^{\text {® }}$ | \$ | 2,002,813,881 | \$ 2,581,950,846 | \$ 579,136,965 | 77.6\% | \$ 275,219,752 | 210.4\% |
| 6/30/2012 ${ }^{\text {® }}$ |  | 1,969,806,447 | \$ 2,767,768,813 | \$ 797,962,366 | 71.2\% | \$ 283,219,927 | 281.7\% |

${ }^{\varnothing}$ Reflects Chapter 78, P.L. 2011.

## (D) Schedule of Employer Contributions

| Fiscal Year ${ }^{\#}$ | Annual Required <br> Contribution | Employer <br> Contribution | Percentage <br> Contributed |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 2009 | $\$$ | $86,385,254$ | $\$$ | $5,574,860^{*}$ |

* 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.
** 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.
$\varnothing$ The fiscal year 2011 recommended contribution of $\$ 105,345,281$ was reduced to $\$ 2,201,604$ in accordance with provisions of the Appropriation Act for fiscal year 2011.
øø The fiscal year 2012 recommended contribution of $\$ 91,471,744$ was reduced to $\$ 13,545,607$ in accordance with Chapter 1, P.L. 2010.
$\dagger$ 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.
\#t The fiscal year 2014 recommended contribution of $\$ 108,877,623$ has been reduced to $\$ 47,747,553$ in accordance with Chapter 1, P.L. 2010. This amount could be subject to change per the requirements of the State's fiscal year 2014 spending plan.
\# The contribution amounts reflect premiums paid to the Non-Contributory Group Insurance Premium Fund.
\# Reflects Chapter 78, P.L. 2011.
(E) The information presented in the required supplementary schedules were determined as part of the actuarial valuation. Additional information follows:

| Valuation Date | June 30, 2012 |
| :--- | :--- |
| 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: | $7.90 \%$ <br> Investment Rate of Return <br> Projected Salary Increase$3.45 \%$ for fiscal year ending 2012 through fiscal <br> year ending 2021 and 4.45\% for fiscal years <br> ending 2022 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 <br> Actuarial present value of accumulated benefits: | June 30, 2012 |  | June 30, 2011 |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  |  |
| Vested benefits |  |  |  |  |
| Participants currently    <br> receiving payments $\$ 01,822,707,659$ $\$$ $1,634,856,377$ |  |  |  |  |
| Other participants |  | 668,573,170 |  | 672,805,445 |
|  | \$ | 2,491,280,829 | \$ | 2,307,661,822 |
| Non-vested benefits |  | 127,734,627 |  | 123,069,533 |
| Total | \$ | 2,619,015,456 | \$ | 2,430,731,355 |
| Assets at market value | \$ | 1,755,429,511 | \$ | 1,820,438,444 |
| Ratio of assets to total present value |  | 67.0\% |  | 74.9\% |

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 $7.90 \%$ for 2012 and $7.95 \%$ for 2011.

## APPENDIX A <br> BRIEF SUMMARY OF THE BENEFIT AND CONTRIBUTION PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

## Eligibility for Membership

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.

## 1. Definitions

Plan Year
Service
Credited Service

Compensation

Final Compensation

Aggregate Contributions

The 12-month period beginning on July 1 and ending on June 30 .
Service rendered while a member as described above.
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.

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.)

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.)

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

Vested Termination

Non-Vested Termination

Ordinary Death
Before 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, plus $1 \%$ 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.

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.

Termination of service prior to age 55 and less than 10 years of service - Return of aggregate contributions.

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 23
buckconsultants
$20 \%$, $35 \%$ 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.

Minimum benefit: Aggregate contributions.

After Retirement

Accidental Death

Ordinary Disability
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.

Death of an active member of the plan resulting during performance 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.

Mentally or physically incapacitated for the performance of his usual duty and of any other available duty in the Division of State Police 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

Loan Provision

Member Contributions

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.

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.

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: 7.90\% 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 2021 and 4.45\% per year for fiscal years ending 2022 and thereafter.

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

|  | Less Than | Five to Nineteen |
| :---: | :---: | :---: |
| Age | 5 Years of Service | Years of Service |
| 25 | 5.0 | 0.0 |
| 30 | 5.0 | 4.0 |
| 35 | 8.3 | 1.0 |
| 40 | 0.0 | 1.5 |
| 45 | 0.0 | 2.0 |
| 50 | 0.0 | 0.0 |

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


* Per one thousand lives.
** RP-2000 Combined Healthy Male (set back 3 years) and RP-2000 Combined Healthy Female Mortality Tables projected on a generational basis from the base year of 2012 using Projection Scale AA. Rates shown above are unadjusted for Projection Scale AA.

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 projected on a generational basis from the base year of 2012 using Projection Scale AA. 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. Illustrative rates of mortality unadjusted for Projection Scale AA are shown below:

## Lives per Thousand

## Retired Members and

 Beneficiaries of Deceased Members| Age | Males | Females | Males | Females |
| :---: | :---: | :---: | :---: | :---: |
| 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 |
| :---: | :---: |
|  | 2.0 |
| 21 | 0.5 |
| 22 | 0.0 |
| 23 | 0.0 |
| 24 | 0.0 |
| 25 | 45.5 |

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 2012 VALUATION

The following tables give a reconciliation of data from July 1, 2011 to June 30, 2012. Tables are also given showing active member number and salaries by age and length of service as of July 1, 2012 and showing the number and retirement allowances of beneficiaries classified by age as of July 1, 2012.

TABLE 1
RECONCILIATION OF DATA FROM JULY 1, 2011 TO JUNE 30, 2012

|  | Actives |  | Deferred Vested | Retirees |  |  |  | Beneficiaries | Dependents | Domestic Relations Beneficiaries |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contrib. | Noncontrib. |  | Service | Special | Deferred | Disabled |  |  | Retirees | Disabilities |  |
| Members as of July 1, 2011 | 2,809 | 35 | 0 | 400 | 1,655 | 4 | 239 | 373 | 7 | 122 | 18 | 5,662 |
| Changed to Contributing | 4 | (4) |  |  |  |  |  |  |  |  |  |  |
| Changed to Noncontributing | (9) | 9 |  |  |  |  |  |  |  |  |  |  |
| Terminated Vested |  | (1) |  |  |  |  |  |  |  |  |  | (1) |
| Terminated Non-Vested | (1) |  |  |  |  |  |  |  |  |  |  | (1) |
| Service Retirement | (10) | (1) |  | 11 |  |  |  |  |  |  |  |  |
| Special Retirement | (181) |  |  |  | 181 |  |  |  |  |  |  |  |
| New Disabled | (14) |  |  |  |  |  | 14 |  |  |  |  |  |
| New Death |  |  |  | (16) | (13) |  | (1) | (11) |  |  |  | (41) |
| Payments Began |  |  |  |  |  |  |  |  |  |  |  |  |
| Payments Ceased |  |  |  |  |  |  |  |  | (1) | (1) | (1) | (3) |
| New Actives | 85 |  |  |  |  |  |  |  |  |  |  | 85 |
| Rehires |  |  |  |  |  |  |  |  |  |  |  |  |
| New Beneficiaries |  |  |  |  |  |  |  | 22 |  | 23 | 5 | 50 |
| Data Corrections |  |  |  |  |  |  |  |  |  |  |  |  |
| Members as of June 30, 2012 | 2,683 | 38 | 0 | 395 | 1,823 | 4 | 252 | 384 | 6 | 144 | 22 | 5,751 |

TABLE 2

DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE

| AGE | SERVICE | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 25 | Number Salary | $\begin{array}{r} \hline 51 \\ 3,644,572 \\ \hline \end{array}$ | $\begin{array}{r} 64 \\ 5,045,792 \\ \hline \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 115 \\ 8,690,364 \\ \hline \end{array}$ |
| 30 | Number Salary | $\begin{array}{r} 26 \\ 1,854,962 \\ \hline \end{array}$ | $\begin{array}{r} 457 \\ 39,372,137 \\ \hline \end{array}$ | $\begin{array}{r} \hline 51 \\ 4,792,486 \\ \hline \end{array}$ |  |  |  |  |  | $\begin{array}{r} \hline 534 \\ 46,019,585 \\ \hline \end{array}$ |
| 35 | Number Salary | $\begin{array}{r} 6 \\ 428,773 \\ \hline \end{array}$ | $\begin{array}{r} 247 \\ 21,981,454 \\ \hline \end{array}$ | $\begin{array}{r} 293 \\ 29,970,826 \\ \hline \end{array}$ | $\begin{array}{r} 31 \\ 3,297,818 \\ \hline \end{array}$ |  |  |  |  | $\begin{array}{r} 577 \\ 55,678,871 \\ \hline \end{array}$ |
| 40 | Number Salary |  | $\begin{array}{r} 59 \\ 5,347,665 \end{array}$ | $\begin{array}{r} 153 \\ 16,072,796 \end{array}$ | $\begin{array}{r} 294 \\ 33,251,485 \end{array}$ | $\begin{array}{r} 11 \\ 1,255,176 \end{array}$ | $\begin{array}{r} 1 \\ 111,995 \end{array}$ |  |  | $\begin{array}{r} 518 \\ 56,039,117 \end{array}$ |
| 45 | Number Salary |  |  | $\begin{array}{r} 33 \\ 3,441,184 \\ \hline \end{array}$ | $\begin{array}{r} 177 \\ 20,313,018 \\ \hline \end{array}$ | $\begin{array}{r} 80 \\ 9,308,334 \\ \hline \end{array}$ | $\begin{array}{r} 257 \\ 31,398,575 \\ \hline \end{array}$ | $\begin{array}{r} 1 \\ 126,037 \end{array}$ |  | $\begin{array}{r} 548 \\ 64,587,148 \\ \hline \end{array}$ |
| 50 and over | Number Salary |  |  | $\begin{array}{r} 5 \\ 383,488 \end{array}$ | $\begin{array}{r} 25 \\ 2,912,630 \\ \hline \end{array}$ | $\begin{array}{r} 29 \\ 3,303,506 \\ \hline \end{array}$ | $\begin{array}{r} 331 \\ 40,565,809 \\ \hline \end{array}$ | $\begin{array}{r} 37 \\ 4,784,699 \\ \hline \end{array}$ | $\begin{array}{r} 2 \\ 254,710 \\ \hline \end{array}$ | $\begin{array}{r} 429 \\ 52,204,842 \\ \hline \end{array}$ |
| TOTAL | Number Salary | $\begin{array}{r} 83 \\ 5,928,307 \\ \hline \end{array}$ | $\begin{array}{r} 827 \\ 71,747,048 \end{array}$ | $\begin{array}{r} 535 \\ 54,660,780 \\ \hline \end{array}$ | $\begin{array}{r} 527 \\ 59,774,951 \\ \hline \end{array}$ | $\begin{array}{r} 120 \\ 13,867,016 \\ \hline \end{array}$ | $\begin{array}{r} 589 \\ 72,076,379 \\ \hline \end{array}$ | $\begin{array}{r} 38 \\ 4,910,736 \\ \hline \end{array}$ | 2 254,710 | $\begin{array}{r} 2,721 \\ 283,219,927 \\ \hline \end{array}$ |

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

MEN

| AGE | NUMBER | AMOUNT |  | NUMBER | AMOUNT |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | 6 | \$ | 428,773 | 2 | \$ | 142,924 |
| 25 | 10 |  | 714,622 | 2 |  | 142,924 |
| 26 | 21 |  | 1,576,028 | 1 |  | 71,462 |
| 27 | 45 |  | 3,459,147 | 1 |  | 80,153 |
| 28 | 50 |  | 3,935,235 | 2 |  | 142,924 |
| 29 | 83 |  | 6,810,958 | 2 |  | 166,100 |
| 30 | 87 |  | 7,263,556 | 11 |  | 905,671 |
| 31 | 114 |  | 9,878,837 | 5 |  | 427,649 |
| 32 | 130 |  | 11,593,226 | 3 |  | 264,446 |
| 33 | 125 |  | 11,409,946 | 6 |  | 518,921 |
| 34 | 118 |  | 11,235,235 | 4 |  | 373,387 |
| 35 | 129 |  | 12,386,687 | 9 |  | 850,914 |
| 36 | 97 |  | 9,407,417 | 4 |  | 396,981 |
| 37 | 110 |  | 10,914,043 | 8 |  | 770,630 |
| 38 | 85 |  | 8,708,906 | 5 |  | 526,594 |
| 39 | 84 |  | 8,805,032 | 6 |  | 590,851 |
| 40 | 90 |  | 9,731,031 | 4 |  | 423,055 |
| 41 | 108 |  | 11,685,011 | 8 |  | 878,292 |
| 42 | 105 |  | 11,751,223 | 7 |  | 774,622 |
| 43 | 92 |  | 10,317,755 | 2 |  | 207,886 |
| 44 | 84 |  | 9,566,831 | 2 |  | 217,622 |
| 45 | 95 |  | 11,043,961 | 3 |  | 340,527 |
| 46 | 125 |  | 14,851,658 | 3 |  | 335,986 |
| 47 | 128 |  | 15,575,874 | 4 |  | 485,643 |
| 48 | 138 |  | 16,525,033 | 1 |  | 119,355 |
| 49 | 112 |  | 13,589,017 | 3 |  | 377,015 |
| 50 | 82 |  | 9,973,668 | 3 |  | 410,683 |
| 51 | 55 |  | 6,552,639 | 2 |  | 248,054 |
| 52 | 36 |  | 4,477,243 | 1 |  | 124,027 |
| 53 | 27 |  | 3,308,564 |  |  |  |
| 54 | 36 |  | 4,427,473 |  |  |  |
| TOTAL | 2,607 | \$ | 271,904,629 | 114 | \$ | 11,315,298 |

Of the 2,721 active members included in the June 30, 2012 valuation data, 1,657 are vested and 1,064 have not yet completed the vesting service requirement.

TABLE 4

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

| YEARS OF SERVICE | MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | NUMBER | AMOUNT |  | NUMBER | AMOUNT |  |
| 0 | 65 | \$ | 4,645,043 | 11 | \$ | 786,084 |
| 1 | 2 |  | 142,924 |  |  |  |
| 2 | 5 |  | 354,255 |  |  |  |
| 3 | 79 |  | 6,097,446 | 1 |  | 77,256 |
| 4 | 149 |  | 11,901,094 | 7 |  | 561,072 |
| 5 | 63 |  | 5,173,674 | 7 |  | 581,351 |
| 6 | 94 |  | 8,010,813 | 5 |  | 426,839 |
| 7 | 251 |  | 22,664,457 | 12 |  | 1,083,018 |
| 8 | 165 |  | 15,652,222 | 3 |  | 286,345 |
| 9 | 115 |  | 11,166,644 | 12 |  | 1,187,757 |
| 10 | 57 |  | 5,598,448 | 3 |  | 289,972 |
| 11 | 274 |  | 29,157,868 | 14 |  | 1,478,152 |
| 12 | 35 |  | 3,422,213 | 3 |  | 306,127 |
| 13 | 31 |  | 3,173,895 | 1 |  | 108,811 |
| 14 | 117 |  | 13,067,086 | 6 |  | 650,177 |
| 15 | 104 |  | 11,483,074 | 5 |  | 568,824 |
| 16 | 17 |  | 1,838,827 |  |  |  |
| 17 | 149 |  | 17,243,315 | 10 |  | 1,193,241 |
| 18 | 101 |  | 11,829,568 | 4 |  | 467,373 |
| 19 | 83 |  | 9,675,326 |  |  |  |
| 20 | 7 |  | 801,192 |  |  |  |
| 21 | 6 |  | 680,480 |  |  |  |
| 22 | 14 |  | 1,570,986 | 1 |  | 111,995 |
| 23 | 67 |  | 7,937,403 | 2 |  | 260,921 |
| 24 | 179 |  | 21,493,010 | 3 |  | 372,813 |
| 25 | 207 |  | 25,491,312 | 2 |  | 256,249 |
| 26 | 103 |  | 12,919,178 | 1 |  | 136,894 |
| 27 | 26 |  | 3,301,725 |  |  |  |
| 28 | 10 |  | 1,258,176 | 1 |  | 124,027 |
| 29 | 14 |  | 1,798,784 |  |  |  |
| 30 | 11 |  | 1,427,877 |  |  |  |
| 31 | 4 |  | 534,710 |  |  |  |
| 32 | 1 |  | 136,894 |  |  |  |
| 33 | 1 |  | 108,811 |  |  |  |
| 34 | 1 |  | 145,899 |  |  |  |
| TOTAL | 2,607 | \$ | 271,904,629 | 114 | \$ | 11,315,298 |

Of the 2,721 active members included in the June 30, 2012 valuation data, 1,657 are vested and 1,064 have not yet completed the vesting service requirement.

TABLE 5

## State Police Retirement System of New Jersey

|  | Service Retirement |  |  | Special Retirement (25 Years of Service) |  |  | Ordinary Disability |  |  | Accidental Disability |  |  | Survivor |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Age At Retirement | Average Annual Benefit At Retirement* |  | Average Age At Retirement | AverageAnnual BenefitAt Retirement* |  | Average Age <br> At Retirement |  | erage <br> al Benefit tirement* | Average Age At Retirement |  | verage <br> al Benefit tirement* | Average Age At <br> Retirement** | Ann At R | erage <br> al Benefit irement* |
| All Retirees | 50.6 | \$ | 27,733 | 51.3 | \$ | 63,148 | 41.8 | \$ | 33,662 | 40.0 | \$ | 50,623 | 46.9 | \$ | 21,828 |
| New Retirees | 53.5 | \$ | 56,663 | 50.4 | \$ | 82,635 | 52.4 | \$ | 81,647 | 44.1 | \$ | 73,099 | 48.2 | \$ | 24,922 |


| All Retirees | All Retirements <br> (excluding Survivors) |  |
| :---: | :---: | :---: |
|  | Average Age <br> At Retirement | Average <br> Annual Benefit <br> At Retirement* |
|  | 50.1 | $\$ \quad 55,370$ |

* The Average Annual Benefit at Retirement does not reflect COLA's granted after retirement.
** Calculated as of member's date of retirement.

TABLE 6

THE NUMBER AND ANNUAL RETIREMENT
ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED
BY AGE AS OF JUNE 30, 2012

SERVICE RETIREMENTS

MEN


TABLE 6

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED

BY AGE AS OF JUNE 30, 2012

SERVICE RETIREMENTS
(CONTINUED)

|  | MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | NUMBER |  | AMOUNT | NUMBER |  | AMOUNT |
| 76 | 30 | \$ | 1,331,970 | 1 | \$ | 2,600 |
| 77 | 24 |  | 1,133,324 |  |  |  |
| 78 | 17 |  | 842,863 | 1 |  | 25,968 |
| 79 | 16 |  | 684,861 |  |  |  |
| 80 | 27 |  | 1,230,524 |  |  |  |
| 81 | 30 |  | 1,299,150 |  |  |  |
| 82 | 28 |  | 1,109,804 |  |  |  |
| 83 | 21 |  | 852,291 |  |  |  |
| 84 | 35 |  | 1,504,587 |  |  |  |
| 85 | 16 |  | 552,750 |  |  |  |
| 86 | 15 |  | 481,247 |  |  |  |
| 87 | 15 |  | 490,023 |  |  |  |
| 88 | 12 |  | 355,929 |  |  |  |
| 89 | 5 |  | 144,006 |  |  |  |
| 90 | 3 |  | 75,202 |  |  |  |
| 91 | 3 |  | 108,511 |  |  |  |
| 92 | 2 |  | 83,057 |  |  |  |
| 93 | 1 |  | 33,294 |  |  |  |
| 94 | 1 |  | 27,208 |  |  |  |
| 95 | 1 |  | 38,196 |  |  |  |
| 97 | 1 |  | 31,975 |  |  |  |
| TOTAL | 2,186 | \$ | 138,571,415 | 180 | \$ | 5,456,947 |

TABLE 7

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED

BY AGE AS OF JUNE 30, 2012
BENEFICIARIES OF DECEASED PENSIONERS

|  | MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | NUMBER |  | AMOUNT | NUMBER |  | AMOUNT |
| 46 |  |  |  | 1 | \$ | 45,902 |
| 49 |  |  |  | 1 |  | 49,252 |
| 50 |  |  |  | 1 |  | 47,618 |
| 52 |  |  |  |  |  |  |
| 53 |  |  |  | 3 |  | 153,297 |
| 54 | 1 | \$ | 10,100 | 1 |  | 40,675 |
| 55 |  |  |  | 5 |  | 224,658 |
| 56 |  |  |  | 1 |  | 61,868 |
| 57 |  |  |  | 1 |  | 49,065 |
| 58 |  |  |  | 2 |  | 69,443 |
| 59 |  |  |  | 1 |  | 36,516 |
| 60 |  |  |  | 2 |  | 75,671 |
| 61 |  |  |  | 1 |  | 54,071 |
| 62 |  |  |  | 9 |  | 416,517 |
| 63 |  |  |  |  |  |  |
| 64 |  |  |  | 8 |  | 292,517 |
| 65 | 1 |  | 10,132 | 12 |  | 506,871 |
| 66 |  |  |  | 4 |  | 155,118 |
| 67 |  |  |  | 7 |  | 294,929 |
| 68 |  |  |  | 6 |  | 231,085 |
| 69 |  |  |  | 10 |  | 361,948 |
| 70 | 1 |  | 41,306 | 12 |  | 507,743 |
| 71 |  |  |  | 12 |  | 426,400 |
| 72 |  |  |  | 10 |  | 347,913 |
| 73 |  |  |  | 4 |  | 161,067 |
| 74 |  |  |  | 12 |  | 418,623 |
| 75 |  |  |  | 7 |  | 245,067 |
| 76 |  |  |  | 6 |  | 178,070 |
| 77 |  |  |  | 9 |  | 304,277 |
| 78 |  |  |  | 7 |  | 212,426 |
| 79 |  |  |  | 10 |  | 330,652 |

TABLE 7

## THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED <br> BY AGE AS OF JUNE 30, 2012 <br> BENEFICIARIES OF DECEASED PENSIONERS (CONTINUED)

|  | MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | NUMBER |  | AMOUNT | NUMBER |  | AMOUNT |
| 80 |  |  |  | 19 | \$ | 578,854 |
| 81 |  |  |  | 16 |  | 442,106 |
| 82 |  |  |  | 16 |  | 455,500 |
| 83 |  |  |  | 19 |  | 561,060 |
| 84 |  |  |  | 18 |  | 479,180 |
| 85 |  |  |  | 12 |  | 365,139 |
| 86 |  |  |  | 9 |  | 261,651 |
| 87 |  |  |  | 6 |  | 162,317 |
| 88 |  |  |  | 10 |  | 300,173 |
| 89 |  |  |  | 5 |  | 128,252 |
| 90 |  |  |  | 5 |  | 141,329 |
| 91 |  |  |  | 3 |  | 86,902 |
| 92 |  |  |  | 4 |  | 105,681 |
| 93 |  |  |  | 5 |  | 107,550 |
| 94 |  |  |  | 5 |  | 110,641 |
| 95 |  |  |  | 1 |  | 21,826 |
| 96 |  |  |  | 2 |  | 47,043 |
| 97 |  |  |  | 2 |  | 26,732 |
| TOTAL | 3 | \$ | 61,538 | 322 | \$ | 10,681,195 |

## TABLE 8

## THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED <br> BY AGE AS OF JUNE 30, 2012

BENEFICIARIES OF DECEASED ACTIVE EMPLOYEES

|  | MEN | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: |
| AGE | NUMBER AMOUNT | NUMBER |  | UNT |
| 32 |  | 1 | \$ | 66,297 |
| 36 |  | 1 |  | 75,469 |
| 37 |  | 1 |  | 47,113 |
| 44 |  | 1 |  | 42,679 |
| 46 |  | 1 |  | 76,449 |
| 47 |  | 1 |  | 76,449 |
| 48 |  | 1 |  | 37,577 |
| 49 |  | 2 |  | 151,689 |
| 50 |  | 1 |  | 76,449 |
| 51 |  | 1 |  | 52,511 |
| 53 |  | 1 |  | 65,123 |
| 54 |  | 2 |  | 111,851 |
| 57 |  | 1 |  | 40,928 |
| 58 |  | 1 |  | 45,884 |
| 60 |  | 2 |  | 107,005 |
| 61 |  | 2 |  | 84,074 |
| 62 |  | 1 |  | 56,211 |
| 63 |  | 3 |  | 100,966 |
| 65 |  | 1 |  | 36,769 |
| 66 |  | 1 |  | 50,776 |
| 67 |  | 3 |  | 113,570 |
| 68 |  | 3 |  | 115,826 |
| 69 |  | 3 |  | 146,710 |
| 70 |  | 1 |  | 47,768 |
| 71 |  | 2 |  | 80,957 |
| 72 |  | 2 |  | 62,886 |
| 73 |  | 1 |  | 21,964 |
| 75 |  | 1 |  | 41,037 |
| 77 |  | 1 |  | 29,387 |
| 78 |  | 1 |  | 36,622 |
| 80 |  | 2 |  | 48,074 |
| 82 |  | 3 |  | 97,247 |
| 83 |  | 1 |  | 22,518 |
| 84 |  | 1 |  | 38,740 |
| 85 |  | 1 |  | 24,205 |
| 86 |  | 1 |  | 32,548 |
| 87 |  | 1 |  | 19,466 |
| 88 |  | 2 |  | 52,289 |
| 91 |  | 2 |  | 33,242 |
| 92 |  | 1 |  | 20,460 |

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2012

BENEFICIARIES OF DECEASED ACTIVE EMPLOYEES
(CONTINUED)

|  | MEN |  | WOMEN |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: |
| AGE | NUMBER | AMOUNT | NUMBER | AMOUNT |  |
| 93 |  |  | 1 | $\$$ | 17,650 |
| 96 |  | 1 |  | 15,992 |  |
| TOTAL |  | 61 | $\$$ | $2,521,427$ |  |

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JUNE 30, 2012

## CHILDREN OF DECEASED MEMBERS

|  | MEN |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | NUMBER | AMOUNT | NUMBER |  | AMOUNT |
| 11 |  |  | 1 | \$ | 7,650 |
| 14 |  |  |  |  |  |
| 15 |  |  | 1 |  | 11,905 |
| 16 |  |  | 1 |  | 7,650 |
| 17 |  |  |  |  |  |
| 18 |  |  |  |  |  |
| 19 |  |  | 1 |  | 7,650 |
| TOTAL |  |  | 4 | \$ | 34,855 |

TABLE 10

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED

BY AGE AS OF JUNE 30, 2012
ORDINARY DISABILITY RETIREMENTS

|  |  | MEN |  |  |
| :---: | :---: | :---: | :---: | :---: |
| AGE WOMEN |  |  |  |  |
|  |  | NUMBER | AMOUNT | NUMBER |

TABLE 11

THE NUMBER AND ANNUAL RETIREMENT
ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED
BY AGE AS OF JUNE 30, 2012
ACCIDENTAL DISABILITY RETIREMENTS


