The Public Employees' Retirement System of New Jersey

Information Required Under
Governmental Accounting Standards Board Statement No. 67 as of June 30, 2015
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February 29, 2016
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Members of the Board:
This valuation provides information concerning the Public Employees' Retirement System of New Jersey in accordance with the Governmental Accounting Standards Board (GASB) Statement No. 67. This Statement is an amendment of Statements No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans, and No. 50, Pension Disclosures, effective for the fiscal years ending June 30, 2014 and later.

We certify that the information contained in this Actuarial Report has been prepared in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information fairly presents the actuarial position of the Public Employees' Retirement System of New Jersey in accordance with the requirements of GASB Statement No. 67 as of June 30, 2015.

The Board of Trustees may use this report for the review of the operation of the Plan and as a source of information for the State financial statements. The report may also be used in the preparation of the Plan's audited financial statements.

Use of this report for any other purpose or by anyone other than the Board of Trustees or the staff of the Division of Pensions and Benefits may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. You should ask Buck to review any statement you wish to make on the results contained in this report. Buck will accept no liability for any such statement made without prior review by Buck.

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

In preparing the actuarial results, we have relied upon information provided by the Division of Pensions and Benefits regarding Plan provisions, Plan participants, Plan assets, contribution rates and other matters used in the actuarial valuation. Although we did not audit the data, we reviewed the data for reasonableness and consistency with the prior year's information. The accuracy of the results presented herein is dependent on the accuracy of the data.

As required under Chapter 84, P.L. 1954, experience studies are performed once in every threeyear period. The valuation was prepared on the basis of the demographic assumptions recommended on the basis of the July 1, 2008 - June 30, 2011 Experience Study and approved by the Board of Trustees at the September 19, 2012 Board meeting. The valuation reflects the economic assumptions which include a rate of investment return of $7.90 \%$ per annum. Assumed future salary increases are increased by $1.0 \%$ per annum beginning fiscal year ending 2022. These assumptions will remain in effect for valuation purposes until such time the Board or the Treasurer recommends revised economic assumptions.

In our opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are reasonably related to the experience of the System and to reasonable long-term expectations. The mortality improvement assumption was selected in accordance with Actuarial Standard of Practice No. 35.

If there is reason to believe that the assumptions that were used are unreasonable, that the Plan provisions are incorrectly described, that important Plan provisions relevant to this actuarial report are not described, or that conditions have changed since the calculations were made, you should contact the authors of this actuarial note prior to relying on this information.

This report was prepared under my supervision. I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Academy's qualification Standards to issue this Statement of Actuarial Opinion. This report has been prepared in accordance with all applicable Actuarial Standards of Practice. I am available to answer questions and supply any additional information.

Buck Consultants, LLC
Aaron shapoio

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Principal, Consulting Actuary

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## Section I - GASB 67 Information

Notes to the Financial Statements for the Year Ended June 30, 2015

## Summary of Significant Accounting Policies

Method used to value investments. Investments are reported at fair value.
Actuarial cost method. Entry Age Normal - Level Percentage of Pay

## Plan Description

Plan administration. The State of New Jersey Division of Pensions and Benefits administers the Public Employees' Retirement System of New Jersey (Plan), a governmental cost sharing multiple-employer defined benefit pension plan. Under the terms of Chapter 71, P.L. 1966, most public employees in New Jersey not required to become members of another contributory retirement program are required to enroll in the Plan.

The general responsibility for the proper operation of the Plan is vested in the Board of Trustees (Board), and the pension committees established pursuant to Chapter 78 P.L. 2011.

The Board of Trustees consists of two trustees appointed by the Governor, the State Treasurer or the Deputy State Treasurer, three trustees elected by the member employees of the State from among the active or retired State members of the retirement system, one trustee elected by the member employees of counties from among the active or retired county members of the retirement system, two trustees elected by the member employees of municipalities from among the active or retired municipal members of the retirement system. The Director of the Division of Pensions and Benefits of the State Department of the Treasury shall appoint a qualified employee of the division who shall be the secretary of the Board.

In accordance with Chapter 78, P.L. 2011, a pension committee is to be established for the State portion of the System and the Local employers' portion of the System when the employer's "target funded ratio" is achieved. The "target funded ratio" is defined as the ratio of the actuarial value of assets over the actuarially determined accrued liabilities expressed as a percentage that will be $75 \%$ in State fiscal year 2012, and increased annually by equal increments in each of the subsequent seven fiscal years, until the ratio reaches $80 \%$ at which time it is to remain for all subsequent fiscal years. The Local employers' portion of the System attained the required "target funded ratio" in Fiscal Year 2012, thus establishing the committee for the Local employers' portion of the Plan. The State portion of the System has not attained the required "target funded ratio" and thus the pension committee has not been established for the State portion of the System.

The pension committees consist of four members who were appointed by the Governor as representatives of public employers whose employees are enrolled in the retirement system, and four members who were appointed by the Public Employee Committee of the AFL-CIO.

Chapter 78, P.L. 2011 grants the authority to amend the benefit terms of the Plan to the pension committees. The pension committees will have the discretionary authority to modify the member contribution rate, formula for calculation of final compensation and the fraction of compensation applied to service credited after the modification, age at which a member may be eligible and the benefits for service and special retirement and benefits provided for disability benefit. The pension committees will have the authority to reactivate the cost of living adjustment and set the duration and extent of the activation. The pension committees must give priority consideration to the reactivation of the cost of living adjustment. No decision of the pension committees shall be implemented if the direct or indirect result of the decision will be that the Plan's funded ratio falls below the target funded ratio in any valuation period during the 30 years following the implementation of the decision.

Plan membership. Pension plan membership consisted of the following:

|  | June 30, 2013 | June 30, 2014 |
| :--- | ---: | ---: |
| Inactive Plan members or beneficiaries currently receiving | 156,514 | 160,716 |
| Inactive Plan members entitled to but not yet receiving | 896 | 730 |
| Active Plan members | $\underline{272,846}$ | $\underline{\underline{266,526}}$ |
|  | $\underline{430,256}$ | $\underline{\underline{427,972}}$ |

Benefits provided. Please see Section III of the report for a summary of Plan provisions.

Contributions. The Board establishes contributions based on an actuarially determined contribution recommended by an independent actuary and a contribution for the Non-Contributory Group Insurance Premium Fund (NCGIPF). The actuarially determined contribution is the estimated amount necessary to finance the costs of benefits earned by Plan members during the year, with an additional amount to finance a portion of any unfunded accrued liability. For the year ended June 30, 2015, the State and Local Employers contributed \$1,085,237,214 to the Plan, per the financial statement. This amount excludes delayed enrollments, delayed appropriations, additional employer contributions, retroactive employer contributions, and transfer from other Systems. In addition, the administrative loan fee revenue is not included and has been used as an offset to administrative expenses.

## Investments

Rate of return. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. A system specific money-weighted rate of return has not been calculated. The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, for the comingled trust fund is as follows:

$$
\frac{\text { June } 30,2014}{16.636 \%} \quad \frac{\text { June } 30,2015}{4.05 \%}
$$

## Receivables

Short term contributions due as of the end of the reporting period. The statutorily required Local employers' receivable pension contributions due by the end of the reporting period. The Local employers' statutorily required contribution is calculated as of the July 1 preceding the fiscal year in which contributions are made. The fiscal year ended June 30, 2014 Plan Fiduciary Net Position includes the statutorily required contribution of $\$ 789,965,173$ which was determined by the July 1,

2013 actuarial valuation and is payable by June 30, 2015 and a contribution of \$57,681,561 for the NCGIPF. The fiscal year ended June 30, 2015 Plan Fiduciary Net Position includes the statutorily required contribution of $\$ 816,039,804$ which was determined by the July 1, 2014 actuarial valuation and is payable by June 30, 2016 and a contribution of $\$ 43,692,000$ for the NCGIPF.

Contributions that are payable to the pension plan more than one year after the end of the reporting period. The present value as of the end of the Plan's reporting period of statutorily required contributions to the Plan by certain Local employers who participated in Chapter 19, P.L. 2009 and/or incurred additional liabilities due to adoption of prior early retirement incentive programs. Please see Section III of the report for a summary of Plan provisions.

The Plan Fiduciary Net Pension includes the following Local employers' receivables which are contributions that are payable to the pension plan more than one year after the end of the reporting period:

|  | Present Value as of Fiscal Year Ended |  |
| :--- | ---: | ---: |
| Chapter 19, P.L. 2009 | $\frac{\text { June 30, 2014 }}{\$ 51,817,665}$ | $\frac{\text { June 30, 2015 }}{\$ 47,843,029}$ |
| Early Retirement Incentive | $\frac{72,650,800}{124,468,465}$ | $\$ \frac{66,308,533}{114,151,562}$ |
| Programs | $\$ 10$ |  |

## Net Pension Liability

The components of the net pension liability were as follows:

| Total pension liability | $\$ \frac{\text { June } 30,2014}{67,849,420,727}$ | $\$ \frac{\text { June } 30,2015}{74,723,698,562}$ |
| :--- | ---: | ---: |
| Plan fiduciary net position |  |  |
| Plan's net pension liability |  |  |
| $\quad$Plan fiduciary net position as a <br> percentage of the total pension liability | $\$ \frac{(28,999,581,774)}{38,849,838,953}$ | $\$ \frac{(28,553,566,907)}{46,170,131,655}$ |
| $\quad$ | $42.74 \%$ | $38.21 \%$ |

## Actuarial assumptions

The total pension liability as of June 30, 2015 was determined by rolling forward the Plan's total pension liability as of July 1, 2014 to June 30, 2015 using the following actuarial assumptions, applied to all periods included in the measurement. In addition, an amount of $\$ 1,651,542$ has been added to the total pension liability as of June 30, 2015 equal to the amount in the June 30, 2015 Plan Fiduciary Net Position for transfers from other systems. All other methods and assumptions used to determine the total pension liability are set forth in Section II.

## Long-Term Expected Rate of Return

The arithmetic mean return on the portfolio was determined using a building block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2015 are summarized in the following table. The capital market assumptions are per Buck's investment consulting practice for 2015.

| Asset Class |  | Target <br> Allocation* | Iong-Term <br> Expected <br> Real Rate <br> of Return |
| :--- | :--- | :---: | :---: |
|  |  |  |  |
| Cash | Citigroup 90-Day T-Bills | $5.00 \%$ | $1.04 \%$ |
| U.S. Treasuries | Barclays Long U.S. Treasury | $1.75 \%$ | $1.64 \%$ |
| Investment Grade Credit | Aggregate Bonds | $10.00 \%$ | $1.79 \%$ |
| Mortgages | Barclays Mortgage | $2.10 \%$ | $1.62 \%$ |
| High Yield Bonds | Barclays High Yield | $2.00 \%$ | $4.03 \%$ |
| Inflation-Indexed Bonds | Barclays U.S. TPS | $1.50 \%$ | $3.25 \%$ |
| Broad US Equities | Wilshire 5000/Russell 3000 | $27.25 \%$ | $8.52 \%$ |
| Developed Foreign Equities | MSCI EAFE | $12.00 \%$ | $6.88 \%$ |
| Emerging Market Equities | Cambridgerging Markets | $6.40 \%$ | $10.00 \%$ |
| Private Equity | HFRI Fund of Funds | $9.25 \%$ | $12.41 \%$ |
| Hedge Funds/Absolute Return | NCREIF Property Index | $12.00 \%$ | $4.72 \%$ |
| Real Estate (Property) | S\&P GSCI | $2.00 \%$ | $6.83 \%$ |
| Commodities | Barclays Global Aggregate ex US | $1.00 \%$ | $5.32 \%$ |
| Global Debt ex US | FTSE NAREIT | $4.25 \%$ | $-0.40 \%$ |
| REIT |  |  | $5.12 \%$ |
|  |  |  | $3.04 \%$ |
| Assumed Inflation - Mean |  |  | $2.59 \%$ |
| Assumed Inflation - Standard |  |  |  |
| Deviation |  |  |  |
|  |  |  |  |
| Portfolio Arithmetic Mean Return |  |  |  |
| Portfolio Standard Derivation |  |  |  |
| Long-Term Expected Rate of Return <br> selected by State Treasurer |  |  |  |

*Based on target asset allocation for 2015.

The Tables presented in pages 8 through 11 illustrate the projections and calculations used to determine the discount rate as required by paragraphs 40-45 of this Statement as of June 30, 2015. A similar analysis was performed in determining the discount rate as of June 30, 2014. In determining the discount rate on Tables 1 and 2, the Fiduciary Net Plan Position at the beginning of each year does not reflect receivable contributions as those amounts are not available at the beginning of the year to pay plan benefits. The discount rate is the single rate that reflects (1) the long-term expected rate of return on Plan investments that are expected to be used to finance the payment of benefits, to the extent that the Plan's fiduciary net position is projected to be sufficient to make projected benefit payments and Plan assets are expected to be invested using a strategy to achieve that return, and (2) a yield or index rate for 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another scale), to the extent that the conditions for use of the long-term expected rate of return are not met.

Discount rate. The discount rate used to measure the total pension liability as of June 30, 2014 was $5.39 \%$ and as of June 30, 2015 was $4.90 \%$. As discussed with the Division of Pensions and Benefits and in accordance with Paragraph 42 of the GASB Statement No. 67, the projection of cash flows used to determine the discount rate assumed that the Local employers will contribute $100.0 \%$ of their actuarially determined contribution and the NCGIPF contribution and the State will contribute $15.1 \%$ of its actuarially determined contribution and $100 \%$ of its NCGIPF contribution. The contribution percentage is the average percentage of the annual actual contribution paid over the annual actuarially determined contribution during the most recent fiveyear period. Based on those assumptions, the pension Plan's fiduciary net position was projected to be available to make projected future benefit payments of current Plan members until fiscal year 2033. Municipal bond rates of $4.29 \%$ as of June 30, 2014 and $3.80 \%$ as of June 30, 2015 were used in the development of the blended GASB discount rate after that point. As selected by the State Treasurer, the rates are based on the Bond Buyer Go 20-Bond Municipal Bond Index. Based on the long-term rate of return of $7.90 \%$ and the municipal bond rates of $4.29 \%$ and $3.80 \%$, the blended GASB discount rates are 5.39\% as of June 30, 2014 and $4.90 \%$ as of June 30, 2015. The assumed discount rate has been determined in accordance with the method prescribed by GASB Statement No. 67. We believe this assumption is reasonable for the purposes of the measurements required by the Statement.

Should contributions to the Plan be different from those outlined above, the results shown in Tables 1 and 2 would be different and may result in the Fiduciary Net Plan Position not being sufficient to cover the Plan's benefit payments at some other future date and thus changing the discount rate used to determine the Plan's Total Pension Liability.

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability, calculated using the discount rate of $4.90 \%$, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower $(3.90 \%)$ or 1-percentage-point higher $(5.90 \%)$ than the current rate:

| $1 \%$ |  |
| :---: | :---: |
| Decrease |  |
| Net Pension Liability | $\$ 55,702,235,475$ |

Current
Discount Rate
$\left(\frac{(4.90 \%)}{170,131,655}\right.$

1\%
Increase
(5.90\%)
\$ 38,191,749,890

## Schedules of Required Supplementary Information

## Schedule of Changes in the Net Pension Liability and Related Ratios

| Changes in Net Pension Liability | Increase (Decrease) |  |  |
| :---: | :---: | :---: | :---: |
|  | Total Pension Liability (a) | Plan Fiduciary Net Position <br> (b) | Net Pension Liability (a) - (b) |
| Balances as of June 30, 2014 | \$67,849,420,727 | \$ 28,999,581,774 | \$38,849,838,953 |
| Changes for the year: |  |  |  |
| Service cost | 1,523,631,386 |  | 1,523,631,386 |
| Interest on total pension liability | 3,647,688,354 |  | 3,647,688,354 |
| Effect of plan changes |  |  |  |
| Effect of economic/demographic (gains) or losses | 1,050,795,158 |  | 1,050,795,158 |
| Effect of assumptions changes or inputs | 4,091,557,461 |  | 4,091,557,461 |
| Benefit payments | $(3,441,046,066)$ | $(3,441,046,066)$ |  |
| Administrative expenses |  | $(23,761,860)$ | 23,761,860 |
| Member contributions |  | 805,232,235 | $(805,232,235)$ |
| Net investment income |  | 1,117,827,113 | $(1,117,827,113)$ |
| Employer contributions |  | 1,085,237,214 | $(1,085,237,214)$ |
| Transfers from other system | 1,651,542 | 1,651,542 |  |
| Employer contribution - Delayed |  |  |  |
| Enrollments |  | 594,844 | $(594,844)$ |
| Employer contribution - Delayed |  |  |  |
| Appropriations |  | 1,664,415 | $(1,664,415)$ |
| Employer contribution - Retroactive |  | 6,504,878 | $(6,504,878)$ |
| Employer contribution - Additional |  | 111,824 | $(111,824)$ |
| Other - NCGIPF adjustment |  | $(31,006)$ | 31,006 |
| Balances as of June 30, 2015 | \$ 74,723,698,562 | \$28,553,566,907 | \$46,170,131,655 |
| Plan fiduciary net position as a percentage of the total pension liability |  |  | 38.21\% |
| Covered-employee payroll as of the July 1, 2014 actuarial valuation |  |  | \$ 11,441,433,226 |
| Net pension liability as a percentage of covered-employee payroll |  |  | 403.53\% |

## Notes to Schedule:

Benefit changes. None.

Changes of assumptions. The discount rate changed from 5.39\% as of June 30, 2014 to 4.90\% as of June 30, 2015 in accordance with Paragraph 44 of the GASB Statement No. 67. In addition, an assumption with regard to future increases in the Social Security Wage Base and the 401(a)(17) compensation limit have been added as indicated in Section II.

Employer Contributions. Includes the State's actual contributions of $\$ 195,986,374$, Local employers' receivable contributions of $\$ \$ 816,039,804$ and contributions to the NCGIPF of \$73,365,036.

## Schedule of Contributions

|  | 2014 | 2015 |
| :---: | :---: | :---: |
| Actuarially determined contribution | \$ 1,797,073,081 ${ }^{1}$ | \$ 1,935,315,246 ${ }^{2}$ |
| Contributions related to the actuarially determined contribution | 941,023,184 | 1,067,584,583 ${ }^{3}$ |
| Contribution deficiency (excess) | \$ (856,049,897) | \$ (867,730,663) |

1. The above actuarially determined contributions are based on the assumption and methods in effect as of July 1, 2012.
2. The above actuarially determined contributions are based on the assumption and methods in effect as of July 1, 2013.
3. The amount represents the actual employer contributions made during fiscal year ending June 30, 2015.

## Notes to Schedule

Valuation date: Actuarially determined contributions are calculated as of the July 1 preceding the fiscal year in which contributions are made. That is, the contribution calculated as of the July 1, 2013 actuarial valuation will be made during the fiscal year ended June 30, 2015.

The methods and assumptions used to determine the actuarially determined contributions to the Plan are set forth in Appendix B of the July 1, 2013 valuation report.

## Schedule of Investment Returns

| Annual money-weighted rate of return, | $\underline{2014}$ | $\underline{2015}$ |
| :--- | :---: | :---: |
| net of investment expenses |  |  |$\quad 16.636 \% ~ 4.05 \%$

Table 1
Projection of Fiduciary Net Position


Table 1
(continued)
Projection of Fiduciary Net Position
(000's omitted)

| Fiscal Year June 30 | Beginning <br> Fiduciary Net <br> Plan Position | Member Contributions | Employer Contributions | Benefit Payments | Administrative Expenses | Projected Investment Earnings | Ending <br> Fiduciary Net Plan Position |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2061 | \$ 0 | \$ 0 | \$ 0 | \$ 2,353,474 | \$ 14,279 | \$ 0 | 0 |
| 2062 | 0 | 0 | 0 | 2,185,823 | 13,249 | 0 | 0 |
| 2063 | 0 | 0 | 0 | 2,023,741 | 12,255 | 0 | 0 |
| 2064 | 0 | 0 | 0 | 1,868,229 | 11,302 | 0 | 0 |
| 2065 | 0 | 0 | 0 | 1,719,606 | 10,394 | 0 | 0 |
| 2066 | 0 | 0 | 0 | 1,577,967 | 9,530 | 0 | 0 |
| 2067 | 0 | 0 | 0 | 1,443,085 | 8,709 | 0 | 0 |
| 2068 | 0 | 0 | 0 | 1,314,851 | 7,931 | 0 | 0 |
| 2069 | 0 | 0 | 0 | 1,193,011 | 7,193 | 0 | 0 |
| 2070 | 0 | 0 | 0 | 1,077,456 | 6,495 | 0 | 0 |
| 2071 | 0 | 0 | 0 | 968,101 | 5,836 | 0 | 0 |
| 2072 | 0 | 0 | 0 | 864,905 | 5,215 | 0 | 0 |
| 2073 | 0 | 0 | 0 | 767,895 | 4,631 | 0 | 0 |
| 2074 | 0 | 0 | 0 | 677,128 | 4,086 | 0 | 0 |
| 2075 | 0 | 0 | 0 | 592,695 | 3,579 | 0 | 0 |
| 2076 | 0 | 0 | 0 | 514,688 | 3,111 | 0 | 0 |
| 2077 | 0 | 0 | 0 | 443,138 | 2,681 | 0 | 0 |
| 2078 | 0 | 0 | 0 | 378,096 | 2,290 | 0 | 0 |
| 2079 | 0 | 0 | 0 | 319,523 | 1,938 | 0 | 0 |
| 2080 | 0 | 0 | 0 | 267,309 | 1,623 | 0 | 0 |
| 2081 | 0 | 0 | 0 | 221,278 | 1,345 | 0 | 0 |
| 2082 | 0 | 0 | 0 | 181,167 | 1,103 | 0 | 0 |
| 2083 | 0 | 0 | 0 | 146,639 | 894 | 0 | 0 |
| 2084 | 0 | 0 | 0 | 117,297 | 716 | 0 | 0 |
| 2085 | 0 | 0 | 0 | 92,684 | 567 | 0 | 0 |
| 2086 | 0 | 0 | 0 | 72,331 | 443 | 0 | 0 |
| 2087 | 0 | 0 | 0 | 55,740 | 342 | 0 | 0 |
| 2088 | 0 | 0 | 0 | 42,404 | 260 | 0 | 0 |
| 2089 | 0 | 0 | 0 | 31,844 | 196 | 0 | 0 |
| 2090 | 0 | 0 | 0 | 23,608 | 145 | 0 | 0 |
| 2091 | 0 | 0 | 0 | 17,281 | 107 | 0 | 0 |
| 2092 | 0 | 0 | 0 | 12,489 | 77 | 0 | 0 |
| 2093 | 0 | 0 | 0 | 8,912 | 55 | 0 | 0 |
| 2094 | 0 | 0 | 0 | 6,282 | 39 | 0 | 0 |
| 2095 | 0 | 0 | 0 | 4,375 | 27 | 0 | 0 |
| 2096 | 0 | 0 | 0 | 3,010 | 19 | 0 | 0 |
| 2097 | 0 | 0 | 0 | 2,046 | 13 | 0 | 0 |
| 2098 | 0 | 0 | 0 | 1,375 | 9 | 0 | 0 |
| 2099 | 0 | 0 | 0 | 913 | 6 | 0 | 0 |
| 2100 | 0 | 0 | 0 | 600 | 4 | 0 | 0 |
| 2101 | 0 | 0 | 0 | 391 | 2 | 0 | 0 |
| 2102 | 0 | 0 | 0 | 253 | 2 | 0 | 0 |
| 2103 | 0 | 0 | 0 | 162 | 1 | 0 | 0 |
| 2104 | 0 | 0 | 0 | 103 | 1 | 0 | 0 |
| 2105 | 0 | 0 | 0 | 66 | 0 | 0 | 0 |
| 2106 | 0 | 0 | 0 | 42 | 0 | 0 | 0 |
| 2107 | 0 | 0 | 0 | 27 | 0 | 0 | 0 |
| 2108 | 0 | 0 | 0 | 18 | 0 | 0 | 0 |
| 2109 | 0 | 0 | 0 | 13 | 0 | 0 | 0 |
| 2110 | 0 | 0 | 0 | 9 | 0 | 0 | 0 |
| 2111 | 0 | 0 | 0 | 7 | 0 | 0 | 0 |
| 2112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 2
Actuarial Present Values of Projected Benefit Payments (000's omitted)


Table 2
Actuarial Present Values of Projected Benefit Payments (000's omitted)
(continued)

| Fiscal Year Ending June 30 | Beginning Fiduciary Net Plan Position | Benefit Payments |  | efit | ym | ts |  | , | a |  | ay |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Funded Portion | Unfunded Portion |  | Funded Portion at 7.90\% |  | Unfunded Portion at$3.80 \%$ |  | Using Single Discount Rate of 4.90\% |  |
| 2063 | \$ 0 | \$ | 2,023,741 | \$ 0 | \$ | 2,023,741 | \$ | 0 | \$ | 331,576 | \$ | 199,014 |
| 2064 | 0 |  | 1,868,229 | 0 |  | 1,868,229 |  | 0 |  | 294,891 |  | 175,142 |
| 2065 | 0 |  | 1,719,606 | 0 |  | 1,719,606 |  | 0 |  | 261,495 |  | 153,681 |
| 2066 | 0 |  | 1,577,967 | 0 |  | 1,577,967 |  | 0 |  | 231,171 |  | 134,437 |
| 2067 | 0 |  | 1,443,085 | 0 |  | 1,443,085 |  | 0 |  | 203,672 |  | 117,205 |
| 2068 | 0 |  | 1,314,851 | 0 |  | 1,314,851 |  | 0 |  | 178,780 |  | 101,803 |
| 2069 | 0 |  | 1,193,011 | 0 |  | 1,193,011 |  | 0 |  | 156,275 |  | 88,057 |
| 2070 | 0 |  | 1,077,456 | 0 |  | 1,077,456 |  | 0 |  | 135,971 |  | 75,814 |
| 2071 | 0 |  | 968,101 | 0 |  | 968,101 |  | 0 |  | 117,698 |  | 64,938 |
| 2072 | 0 |  | 864,905 | 0 |  | 864,905 |  | 0 |  | 101,303 |  | 55,307 |
| 2073 | 0 |  | 767,895 | 0 |  | 767,895 |  | 0 |  | 86,648 |  | 46,811 |
| 2074 | 0 |  | 677,128 | 0 |  | 677,128 |  | 0 |  | 73,609 |  | 39,350 |
| 2075 | 0 |  | 592,695 | 0 |  | 592,695 |  | 0 |  | 62,071 |  | 32,835 |
| 2076 | 0 |  | 514,688 | 0 |  | 514,688 |  | 0 |  | 51,929 |  | 27,182 |
| 2077 | 0 |  | 443,138 | 0 |  | 443,138 |  | 0 |  | 43,073 |  | 22,310 |
| 2078 | 0 |  | 378,096 | 0 |  | 378,096 |  | 0 |  | 35,405 |  | 18,147 |
| 2079 | 0 |  | 319,523 | 0 |  | 319,523 |  | 0 |  | 28,825 |  | 14,620 |
| 2080 | 0 |  | 267,309 | 0 |  | 267,309 |  | 0 |  | 23,232 |  | 11,659 |
| 2081 | 0 |  | 221,278 | 0 |  | 221,278 |  | 0 |  | 18,527 |  | 9,201 |
| 2082 | 0 |  | 181,167 | 0 |  | 181,167 |  | 0 |  | 14,614 |  | 7,181 |
| 2083 | 0 |  | 146,639 | 0 |  | 146,639 |  | 0 |  | 11,395 |  | 5,541 |
| 2084 | 0 |  | 117,297 | 0 |  | 117,297 |  | 0 |  | 8,782 |  | 4,226 |
| 2085 | 0 |  | 92,684 | 0 |  | 92,684 |  | 0 |  | 6,685 |  | 3,183 |
| 2086 | 0 |  | 72,331 | 0 |  | 72,331 |  | 0 |  | 5,026 |  | 2,368 |
| 2087 | 0 |  | 55,740 | 0 |  | 55,740 |  | 0 |  | 3,731 |  | 1,740 |
| 2088 | 0 |  | 42,404 | 0 |  | 42,404 |  | 0 |  | 2,735 |  | 1,262 |
| 2089 | 0 |  | 31,844 | 0 |  | 31,844 |  | 0 |  | 1,978 |  | 903 |
| 2090 | 0 |  | 23,608 | 0 |  | 23,608 |  | 0 |  | 1,413 |  | 638 |
| 2091 | 0 |  | 17,281 | 0 |  | 17,281 |  | 0 |  | 996 |  | 445 |
| 2092 | 0 |  | 12,489 | 0 |  | 12,489 |  | 0 |  | 694 |  | 307 |
| 2093 | 0 |  | 8,912 | 0 |  | 8,912 |  | 0 |  | 477 |  | 209 |
| 2094 | 0 |  | 6,282 | 0 |  | 6,282 |  | 0 |  | 324 |  | 140 |
| 2095 | 0 |  | 4,375 | 0 |  | 4,375 |  | 0 |  | 217 |  | 93 |
| 2096 | 0 |  | 3,010 | 0 |  | 3,010 |  | 0 |  | 144 |  | 61 |
| 2097 | 0 |  | 2,046 | 0 |  | 2,046 |  | 0 |  | 94 |  | 40 |
| 2098 | 0 |  | 1,375 | 0 |  | 1,375 |  | 0 |  | 61 |  | 25 |
| 2099 | 0 |  | 913 | 0 |  | 913 |  | 0 |  | 39 |  | 16 |
| 2100 | 0 |  | 600 | 0 |  | 600 |  | 0 |  | 25 |  | 10 |
| 2101 | 0 |  | 391 | 0 |  | 391 |  | 0 |  | 16 |  | 6 |
| 2102 | 0 |  | 253 | 0 |  | 253 |  | 0 |  | 10 |  | 4 |
| 2103 | 0 |  | 162 | 0 |  | 162 |  | 0 |  | 6 |  | 2 |
| 2104 | 0 |  | 103 | 0 |  | 103 |  | 0 |  | 4 |  | 1 |
| 2105 | 0 |  | 66 | 0 |  | 66 |  | 0 |  | 2 |  | 1 |
| 2106 | 0 |  | 42 | 0 |  | 42 |  | 0 |  | 1 |  | 1 |
| 2107 | 0 |  | 27 | 0 |  | 27 |  | 0 |  | 1 |  | 0 |
| 2108 | 0 |  | 18 | 0 |  | 18 |  | 0 |  | 1 |  | 0 |
| 2109 | 0 |  | 13 | 0 |  | 13 |  | 0 |  | 0 |  | 0 |
| 2110 | 0 |  | 9 | 0 |  | 9 |  | 0 |  | 0 |  | 0 |
| 2111 | 0 |  | 7 | 0 |  | 7 |  | 0 |  | 0 |  | 0 |
| 2112 | 0 |  | 0 | 0 |  | 0 |  | 0 |  | 0 |  | 0 |

## Section II - Actuarial Assumptions and Methods

## Valuation Interest Rate

7.90\% per annum, compounded annually.

Employee Contribution Interest Rate
7.90\% per annum.

COLA
No future COLA is assumed.

## Compensation Limit Increase

401(a)(17) limit - 3.00\% per annum, Social Security Wage Base - 4.00\% per annum
Separations from Service and Salary Increases
Representative values of the assumed annual rates of separation and annual rates of salary increases are as follows:

Annual Rates of

| Age | Select Withdrawal |  |  |  |  |  | Ultimate Withdrawal ${ }^{\text { }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st Year |  | 2nd Year |  | 3rd Year |  | Prior to Eligibility For Benefit |  | After Eligibility For Benefit |  |
|  | State | Local | State | Local | State | Local | State | Local | State | Local |
| 25 | 28.90\% | 32.15\% | 13.53\% | 15.12\% | 9.52\% | 12.19\% | 4.69\% | 6.31\% |  |  |
| 30 | 28.90 | 31.07 | 13.53 | 14.67 | 9.52 | 11.10 | 3.82 | 6.11 |  | .03\% |
| 35 | 20.91 | 26.81 | 10.83 | 11.74 | 7.99 | 8.28 | 2.86 | 3.80 | .05\% | . 04 |
| 40 | 17.32 | 25.64 | 8.86 | 10.52 | 6.37 | 7.62 | 1.80 | 2.77 | . 05 | . 06 |
| 45 | 16.33 | 24.81 | 8.26 | 10.08 | 5.79 | 7.14 | 1.22 | 2.46 | . 24 | . 19 |
| 50 | 16.33 | 22.71 | 7.65 | 9.58 | 5.21 | 6.60 | . 90 | 1.85 | 1.10 | . 75 |
| 55 | 16.33 | 22.37 | 7.65 | 9.40 | 5.21 | 6.26 | . 88 | 1.52 | 1.50 | . 90 |

${ }^{1}$ The rates of withdrawal prior to eligibility for a benefit assume a refund of contributions. The rates assumed for members withdrawing with a benefit are the sum of the rates of withdrawal after eligibility for a benefit and those prior to eligibility.
Annual Rates of

|  | Ordinary Death ${ }^{2}$ |  |  |  | Accidental Death |  | Ordinary Disability |  | Accidental Disability |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | State |  | Local |  | State | Local | State | Local | State | Local |
|  | Men | Women | Men | Women |  |  |  |  |  |  |
| 25 | .04\% | .02\% | .04\% | .02\% | 0.001\% | 0.001\% | .01\% |  | 0.001\% | 0.002\% |
| 30 | . 04 | . 02 | . 04 | . 02 | 0.001 | 0.001 | . 10 | .07\% | 0.003 | 0.004 |
| 35 | . 06 | . 03 | . 06 | . 02 | 0.001 | 0.001 | . 24 | . 22 | 0.009 | 0.004 |
| 40 | . 09 | . 05 | . 10 | . 04 | 0.001 | 0.001 | . 34 | . 30 | 0.017 | 0.009 |
| 45 | . 12 | . 07 | . 13 | . 06 | 0.001 | 0.001 | . 51 | . 36 | 0.019 | 0.013 |
| 50 | . 17 | . 11 | . 19 | . 09 | 0.001 | 0.001 | . 58 | . 51 | 0.029 | 0.016 |
| 55 | . 25 | . 17 | . 26 | . 14 | 0.001 | 0.001 | . 70 | . 69 | 0.039 | 0.022 |
| 60 | . 36 | . 25 | . 40 | . 21 | 0.001 | 0.001 | 1.23 | . 89 | 0.041 | 0.025 |
| 65 | . 59 | . 39 | . 65 | . 33 | 0.001 | 0.001 | 1.49 | 1.10 | 0.061 | 0.027 |
| 69 | . 81 | . 54 | . 86 | . 47 | 0.001 | 0.001 | 1.77 | 1.31 | 0.062 | 0.029 |

${ }^{2}$ RP-2000 Employee Preretirement Mortality Table for male and female active participants. For State, mortality tables are set back 3 years for males and 5 years for females. For Employees of Local employers, mortality tables are set back 2 years for males and 7 years for females. In addition, the tables provide for future improvements in mortality from the base year of 2012 using a generational approach based on Projection Scale AA. Rates shown above are unadjusted for Projection Scale AA.

| Age | Service Retirement |  | Salary Increases |  |
| :---: | :---: | :---: | :---: | :---: |
|  | State | Local | $\begin{aligned} & \text { FY2012 to } \\ & \text { FY2021 } \end{aligned}$ | FY2022 and thereafter |
| 25 |  |  | 4.40\% | 5.40\% |
| 30 |  |  | 4.15 | 5.15 |
| 35 |  |  | 3.90 | 4.90 |
| 40 |  |  | 3.65 | 4.65 |
| 45 |  |  | 3.40 | 4.40 |
| 50 |  |  | 3.15 | 4.15 |
| 55 | 17.50\% | 11.70\% | 2.90 | 3.90 |
| 60 | 9.00 | 7.80 | 2.65 | 3.65 |
| 65 | 18.00 | 16.54 | 2.15 | 3.15 |
| 69 | 15.00 | 11.55 | 2.15 | 3.15 |

Prosecutors Part (Chapter 366, P.L. 2001)
This legislation introduced special retirement eligibility for certain benefits. The valuation used the following annual rates of service retirement:

|  | Less than 20 Years |  | 25 or More Years |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | State | Local | 20 Years | 21 to 24 Years | State | Local |
| 40 | $0.00 \%$ | $0.00 \%$ | $2.50 \%$ | $0.00 \%$ | $23.10 \%$ | $15.40 \%$ |
| 45 | 0.00 | 0.00 | 2.50 | 0.00 | 23.10 | 15.40 |
| 50 | 0.00 | 0.00 | 3.75 | 0.00 | 23.10 | 15.40 |
| 55 | 2.59 | 3.06 | 5.00 | 0.00 | 26.22 | 17.48 |
| 60 | 2.63 | 3.06 | 5.00 | 0.00 | 34.17 | 22.78 |
| 65 | 2.63 | 3.06 | 37.50 | 0.00 | 100.00 | 100.00 |
| 69 | 2.63 | 3.06 | 37.50 | 0.00 | 100.00 | 100.00 |

## Deaths After Retirement

The RP-2000 Combined Healthy Male and Female Mortality Tables (set back 1 year for males and females) for service retirement and beneficiaries of former members. The RP-2000 Disabled Mortality Tables (set back 3 years for males and set back 1 year for females) are used to value disabled retirees. In addition, the tables for service retirement and beneficiaries of former members provide for future improvements in mortality from the base year of 2012 using a generational approach based on Projection Scale AA. Illustrative rates of mortality unadjusted for Projection Scale AA are shown below:

| Age | Service Retirements |  | Age | Disability Retirements |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women |  | Men | Women |
| 55 | 0.32\% | 0.24\% | 35 | 2.26\% | 0.75\% |
| 60 | 0.60 | 0.44 | 40 | 2.26 | 0.75 |
| 65 | 1.13 | 0.86 | 45 | 2.26 | 0.75 |
| 70 | 1.98 | 1.49 | 50 | 2.51 | 1.06 |
| 75 | 3.39 | 2.55 | 55 | 3.16 | 1.55 |
| 80 | 5.79 | 4.15 | 60 | 3.80 | 2.08 |
| 85 | 9.98 | 6.95 | 65 | 4.50 | 2.66 |

## Marriage

Husbands are assumed to be 3 years older than wives. Among the active population, 100\% of participants are assumed married.

## Valuation Method

Projected Unit Credit Method. This method essentially funds the System's benefits accrued to the valuation date. Experience gains or 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 actuarial 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.

## Asset Valuation Method

A five year average of market values with write-up was used. 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.

## Section III - Summary of Plan Provisions

New Jersey Statutes, Title 43, Chapter 15A.

## 1. Definitions

Final Compensation (FC)

Accumulated Deductions

Class B Member
Class D Member

Class E Member

Class F Member

Class G Member

## 2. Benefits*

Service Retirement

Average annual compensation for the three years of creditable service immediately preceding retirement or the highest three fiscal years of membership service. 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 103, P.L. 2007 provides that for Class D, Class E, Class F and Class $G$ members, 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. Chapter 1, P.L. 2010 provides that for Class F and Class G members FC is the average annual compensation for the five years of creditable service immediately preceding retirement or the highest five fiscal years of membership service.

Sum of all required amounts deducted from the compensation of a member or contributed by him.

Any member who was hired prior to July 1, 2007.
Any member who was hired on or after July 1, 2007 but prior to November 2, 2008.

Any member who was hired after November 1, 2008 but prior to May 22, 2010.

Any member who was hired on or after May 22, 2010 but prior to June 28, 2011.

Any member who was hired on or after June 28, 2011.

Eligible at age 60. Benefit equals a member annuity plus an employer pension, which together, equal 1/55th of FC for each year of service. Chapter 89, P.L. 2008 changed the eligibility age to age 62 for Class E members, Chapter 1, P.L. 2010 changed the eligibility age to age 62 for Class $F$ members and changed the basic accrual rate from $1 / 55^{\text {th }}$ to $1 / 60^{\text {th }}$ of FC for each year of service for Class F and Class G members and Chapter 78, P.L. 2011 changed the eligibility age to age 65 for Class G members.

Ordinary Disability
Retirement
Eligible after 10 years of service. Benefit equals a member annuity plus an employer pension which, together, equal $1.64 \%$ of $F C$ for each year of service; minimum benefit of $43.6 \%$ of $F C$. Class F and Class G members are not eligible for an Ordinary Disability Retirement benefit in accordance with Chapter 3, P.L. 2010.
*Special benefits for veterans, law enforcement officers, legislators, prosecutors and workers compensation judges are summarized at the end of this section.
$\left.\begin{array}{ll}\text { Accidental Disability } & \begin{array}{l}\text { Eligible upon total and permanent disability prior to age } 65 \\ \text { as a result of a duty injury. Benefit equals a member } \\ \text { annuity plus an employer pension which, together, equal } \\ \\ 72.7 \% \text { of contributory compensation at the date of injury. }\end{array} \\ & \text { Class } F \text { and Class } G \text { members are not eligible for an }\end{array}\right\}$

| After Retirement | Before Age 60 |
| :---: | :---: |
|  | Eligible if disabled or vested terminated. Benefit equals $1-1 / 2$ times last contributory compensation if disabled, accumulated deductions only if vested terminated. |
|  | After Age 60 or Early Retirement |
|  | Eligible after early retirement or after attainment of age 60 for other types of retirement (if not disabled, 10 years of service credit required on members enrolling after July 1 , 1971). Benefit equals $3 / 16$ of last contributory compensation. |
| Voluntary Death Benefit (CGIPF) | An additional, employee-paid, death benefit is also available through the purchase of group insurance with an outside carrier. |
| Accidental Death | Eligible upon death resulting during performance of duty. Benefit varies as follows: |
|  | Widow(er) - $50 \%$ of contributory compensation paid as pension. |
|  | Child(ren) - No spouse - 20\% (1 child), 35\% (2 children), $50 \%$ ( 3 or more children) of contributory compensation paid as pension to age 18 or life if disabled. |
|  | Surviving dependent parent - No spouse or child <br> $25 \%$ (1 parent) or $40 \%$ <br> $(2$ <br> contributory <br>  compensation of <br> cons <br> pension. |
|  | No relation above - Accumulated deductions paid to other beneficiary or estate. |
|  | In addition the employer-paid lump sum ordinary death benefit is paid. |
| Optional Benefits | Various forms of payment of equivalent actuarial value are available to retirees. |
| Special Benefits |  |
| Veterans |  |
| Service Retirement | Eligible if member on January 2, 1955, attains age 60, completes 20 years of service. Benefit equals $54.5 \%$ of final contributory compensation (veteran members after January 2, 1955 must attain age 55 with 25 years of service or age 60 with 20 years of service). |

Chap 220 Benefit Eligible if age 55 and completes 35 years of service. Benefit equals $1 / 55$ th of the compensation for the 12 month period of membership that provides the largest possible benefit multiplied by the member's total years of service.

Law Enforcement

Service Retirement

Chapter 4, P.L. 2001
Special Retirement
Ordinary Disability

Death After
Retirement

Eligible at age 55 after 20 years of service. Benefit equals a member annuity plus an employer pension which, together, equal $2 \%$ of final contributory compensation for each of the first 25 years of service plus $1 \%$ of such compensation for non-contributory service or service over 25 years plus 1-2/3\% for non-law enforcement service.

After completion of 25 years of service, an additional retirement benefit equal to $5 \%$ of final contributory pay is added to the above service related retirement benefit. There is a maximum total benefit of $70 \%$ of final contributory pay.

Eligible after 5 years of service. Benefit is the same as for regular members.

Eligible upon death after an accidental disability retirement. Benefit is the same as for a regular member with a $\$ 5,000$ minimum.

Legislators
Service Retirement

Vested Retirement
Eligible at age 60 and termination of all public service. Benefit is equal to a member annuity plus an employer pension which, together, equal $3 \%$ of final contributory compensation for each year of service to a maximum of 2/3 of final compensation.

Eligible after 8 years of legislative service. Benefit is a service retirement benefit deferred to age 60 or, alternatively, a lump sum equal to his accumulated deductions.

Eligibility means age 55 or 20 years of credited service. Mandatory retirement at age 70. Benefit is an annual retirement allowance equal to a member annuity plus an employer pension, which together equals the greater of:
(i) $1 / 60^{\text {th }}$ of FC for each year service; or
(ii) $2 \%$ of FC multiplied by years of service up to 30 plus $1 \%$ of FC multiplied by years of service over 30; or
(iii) $50 \%$ of final contributory compensation if the member has 20 or more years of service.

Chapter 366 also requires that, in addition to the $50 \%$ of final contributory compensation benefit, any member as of January 7, 2002 who will have 20 or more years of service and is required to retire upon attaining age 70 , shall receive an additional benefit equal to $3 \%$ of final contributory compensation for each year of service over 20 years but not over 25 years.

Special Retirement

Vested Termination

Death Benefits
follows:

After completion of 25 years of service. The annual retirement benefit is equal to a member annuity plus an employer pension which together equal $65 \%$ of final contributory compensation plus $1 \%$ of final contributory compensation for each year of service over 25 . There is a maximum benefit of $70 \%$ of final contributory compensation.

Eligible upon termination of service prior to age 55 and after 10 years of Service (but less than 20 years). The benefit is a deferred retirement benefit, commencing at age 55, equal to a member annuity plus an employer pension which together provide a retirement allowance equal to $2 \%$ of final contributory compensation multiplied by service up to 30 plus $1 \%$ of final contributory compensation multiplied by years of service in excess of 30.

Ordinary Death Benefit - Lump Sum
After retirement but prior to age 55 , the benefit is as
(i) For death while a Disabled Retiree the benefit is equal to $1 \frac{1}{2}$ times Compensation.
(ii) For death while a Deferred Retiree the benefit is equal to his Accumulated Deductions.
(iii) For death while a Retiree who has completed 20 years of Service, the benefit is equal to $1 / 2$ times final contributory compensation.
(3) After retirement and after age 55, the benefit payable is equal to $1 / 2$ times final contributory compensation.

Chapter 1, P.L. 2010 closes the Prosecutors Part of the System to new members enrolled on or after May 22, 2010.

Workers Compensation
Judges Part (Chapter 259, P.L. 2001)
Service Retirement (A) Mandatory retirement at age 70. Voluntary retirement prior to age 70 as follows:
(a) Age 70 and 10 years of service as a judge of compensation;
(b) Age 65 and 15 years of service as a judge of compensation; or
(c) Age 60 and 20 years of as of judge of compensation service.

Benefit is an annual retirement allowance equal to the greater of $75 \%$ of final salary or the regular service retirement benefit above.
(B) Age 65 while serving as a judge of compensation, 5 consecutive years of service as a judge of compensation and 15 years in the aggregate of public service; or

Age 60 while serving as a judge, 5 consecutive years of service as a judge of compensation and 20 years in the aggregate of public service.

Benefit is an annual retirement allowance equal to the greater of $50 \%$ of final salary or the regular service retirement benefit above.
(C) Age 60 while serving as a judge of compensation, 5 consecutive years of service as a judge of compensation and 15 years in the aggregate of public service. Benefit is an annual retirement allowance equal to the greater of $2 \%$ of final salary for each year of public service up to 25 years plus $1 \%$ of final salary for each year in excess of 25 years or the regular service retirement benefit above.
(D) Age 60 while serving as a judge of compensation. Benefit is an annual retirement allowance equal to the greater of $2 \%$ of final salary for each year of service as a judge of compensation up to 25 years plus $1 \%$ for each year in excess of 25 years or the regular service retirement benefit above.

Early Retirement

Vested Termination

Prior to age 60 while serving as a judge of compensation, 5 consecutive years of service as a judge of compensation and 25 or more years in the aggregate of public service. Benefit is an annual retirement allowance equal to $2 \%$ of final salary for each year of public service up to 25 years plus $1 \%$ of final salary for each year of public service in excess of 25 years, actuarially reduced for commencement prior to age 60.

Termination of service prior to age 60, with 5 consecutive years of service as a judge of compensation and 10 years in the aggregate of public service. Benefit is a refund of accumulated deductions, or a deferred life annuity beginning at age 60 equal to $2 \%$ of final salary for each year of public service up to 25 years, plus $1 \%$ for service in excess of 25 years.

Death Benefits (NCGIPF)
Before Retirement Death of an active member of the plan. Benefit is equal to
(a) Lump sum payment equal to $1-1 / 2$ times final salary, plus
(b) Spousal life annuity of $25 \%$ of final salary plus $10 \%$ (15\%) to one (two or more) surviving children payable until spouse's death or remarriage. If there is no surviving spouse, or upon death or remarriage, a total of $15 \%$ (20\%, $30 \%$ ) of final salary payable to one (two, three or more) dependent child (children). If there is no surviving spouse (or dependent children), $20 \%$ or $30 \%$ of final salary to one or two dependent parents.

After Retirement Death of a retired member of the plan. Benefit is equal to a lump sum of $25 \%$ of final salary for a member retired under normal, early retirement or vested termination. If a member were receiving a disability benefit, a lump sum 1-1/2 times final salary if death occurred before the member attained age 60 and $1 / 4$ times final salary if death occurred after age 60.

Chapter 92, P.L. 2007 closes the Workers Compensation Judges Part of the System to new members enrolled after June 8, 2007.

## 3. Contributions

By Members
Members enrolling in the retirement system on or after July 1, 1994 will contribute $5 \%$ of compensation. Members enrolled prior to July 1, 1994 will contribute 5\% of compensation to the retirement system effective July 1, 1995 unless they previously had contributed less than 6\% in which case they will contribute $4 \%$ of compensation beginning July 1, 1995 and $5 \%$ of compensation beginning July 1, 1996. Chapter 103, P.L. 2007 increases the contribution rate to $5.5 \%$ of compensation effective, generally, July 1, 2007 for State employees and July 1, 2008 for Local employees. Chapter 78, P.L. 2011 increases the contribution rate from $5.5 \%$ to $6.5 \%$ of compensation with the increase effective October 2011. Further, beginning July 2012, the member contribution rate will increase by $1 / 7^{\text {th }}$ of $1 \%$ each July until a $7.5 \%$ member contribution rate is reached in July 2018.

A $7.50 \%$ member contribution rate for members who are eligible to retire under the Prosecutors Part of the Retirement System as provided by Chapter 366, P.L. 2001 was used prior to July 1, 2008. Effective July 1, 2008 the member contribution rate was increased to $8.50 \%$. Chapter 78, P.L. 2011 increases the contribution rate from $8.5 \%$ to $10.0 \%$ of compensation with the increase effective October 2011.

## By Employers

Normal Contribution
The State and Local employers pay annually a normal contribution to the retirement System. This contribution is determined each year on the basis of the annual valuation and represents the value of the benefits to be earned in the year following the valuation date. The normal contributions for active members' COLA are being phased in. Chapter 78, P.L. 2011 suspended future COLAs for current and future retirees and beneficiaries until reactivated as permitted by law.

In accordance with the provisions of Chapter 79, P.L. 1960, the monies appropriated for payment of the noncontributory life insurance coverage shall be held separate from the retirement System monies.

In accordance with the provisions of Chapter 133, P.L. 2001, the Benefit Enhancement Fund (BEF) was established to fund the additional annual employer normal contribution due to the law's increased benefits. (Chapter 353, P.L. 2001 extended this coverage to this law's additional annual employer normal contribution.) If the assets in the BEF are insufficient to cover the normal contribution for the increased benefits for a valuation period, the State will pay such amount for both the State and local employers.

In accordance with the provisions of Chapter 259, P.L. 2001, the additional normal contributions for increased benefits to judges of compensation for a valuation period will be funded by transfers from the Second Injury Fund.

Chapter 19, P.L. 2009 provides that the State Treasurer will reduce for Local employers the normal contribution to $50 \%$ of the amount certified for fiscal year 2009. This unfunded liability will be paid by the Local employers in level annual payments over a period of 15 years with the first payment due in the fiscal year ending June 30, 2012. The unfunded liability will be adjusted by the rate of return on the actuarial value of assets. The legislation also provides that a Local employer may pay $100 \%$ of the recommended contribution for fiscal year 2009. Local employers who were eligible but did not elect to take advantage of Chapter 19, P.L. 2009 were permitted to elect to defer $50 \%$ of the 2010 fiscal year required contribution with the first payment due in the fiscal year ending June 30, 2012.

The State and Local employers pay contributions to cover any unfunded accrued liability. An unfunded accrued liability was established for active life COLAs. The amortization periods for funding these liabilities were set initially at 40 years. Experience gains or losses for the 10 valuation years following the March 31, 1992 valuation will increase or decrease the unfunded accrued liability. Thereafter, actuarial gains or losses will increase or decrease the amortization period unless an increase will cause it to exceed 30 years. Chapter 78, P.L. 2011 suspended future COLAs for current and future retirees and beneficiaries until reactivated as permitted by law and changed the methodology used to amortize the unfunded accrued liability. 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 actuarial 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 366, P.L. 2001 requires the State be liable for any increase in pension costs to a county that results from the enrollment of prosecutors in the Prosecutors Part. Any increase in the unfunded accrued liability in the Retirement System arising from the benefits established for the Prosecutors Part are to be amortized over a period of 30 years in the manner provided for other such liability in the Retirement System.

In accordance with the provisions of Chapter 259, P.L. 2001, the additional accrued liability contribution for increased benefits to judges of compensation for a valuation period will be funded by transfers from the Second Injury Fund.

Chapter 19, P.L. 2009 provides that the State Treasurer will reduce for Local employers the accrued liability contribution to $50 \%$ of the amount certified for fiscal year 2009. This unfunded liability will be paid by the Local
employers in level annual payments over a period of 15 years with the first payment due in the fiscal year ending June 30, 2012. The unfunded liability will be adjusted by the rate of return on the actuarial value of assets. The legislation also provides that a Local employer may pay $100 \%$ of the recommended contribution for fiscal year 2009. Local employers who were eligible but did not elect to defer $50 \%$ of the 2009 fiscal year contribution were permitted to elect to defer $50 \%$ of the 2010 fiscal year contribution with the first payment due in the fiscal year ending June 30, 2012.

The following legislation provides additional retirement benefits to certain employees of Local employers: Chapter 137, P.L. 1991, Chapter 229, P.L. 1991, Chapter 231, P.L. 1991, Chapter 138, P.L. 1993, Chapter 163, P.L. 1993, Chapter 44, P.L. 1993, Chapter 59, P.L. 1999, Chapter 126, P.L. 2000, Chapter 23, P.L. 2002, Chapter 127, P.L. 2003, Chapter 128, P.L. 2003 and Chapter 129, P.L. 2003. The cost of the enhanced pension benefits will be funded by employer contributions to the retirement system and paid by the employer that elected to participate. The additional pension liability shall be paid by each electing employer entity over a period of years provided by the legislation.

