

**TEACHERS' PENSION AND ANNUITY FUND  
OF NEW JERSEY**

June 30, 2007 Actuarial Valuation Report



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February 15, 2008

Board of Trustees  
Teachers' Pension and Annuity Fund of New Jersey  
State of New Jersey  
Department of the Treasury  
Division of Pensions and Benefits, CN 295  
Trenton, NJ 08625-0295

Ladies and Gentlemen:

This report presents the results of the actuarial valuation of Teachers' Pension and Annuity Fund of New Jersey as of June 30, 2007. Section I contains highlights of the valuation including a general discussion and comments on the various schedules included in the report. The subsequent Sections contain schedules summarizing the underlying calculations, asset information, participant data, plan benefits and actuarial assumptions.

### Purpose

The main purposes of this report are:

- to provide the annual state contribution in accordance with N.J. Statutes to be made in the Fiscal Year ending June 30, 2009 which represents the contribution for the valuation year beginning July 1, 2007;
- to determine the Annual Required Contribution in accordance with Governmental Accounting Standards Board Statements 25 and 27 for the Fiscal Year ending June 30, 2009 and,
- to review the experience under the plan for the valuation year ending June 30, 2007.

Calculations for purposes other than those stated above may be significantly different from the results contained in this report. Accordingly, additional calculations may be needed for other purposes.

Milliman's work product was prepared exclusively for the use or benefit of the State of New Jersey Division of Pension and Benefits for a specific and limited purpose as listed

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above. It is a complex, technical analysis that assumes a high level of knowledge concerning the Teachers Pension and Annuity Fund's operations, and uses the Division's data, which Milliman has not audited. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

#### Data Reliance

In performing this analysis, we relied on census data, asset statements and other information provided by the State of New Jersey Division of Pensions and Benefits. We have not audited or verified the census data, asset statements or other information. To the extent any of these are inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

#### Variability of Results

Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

#### Certification

We hereby certify that, to the best of our knowledge, this report, including all costs and liabilities based on actuarial assumptions and methods adopted by the Board or mandated by statute, is complete and accurate and determined in conformance with generally recognized and accepted actuarial principles and practices, which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

Board of Trustees  
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We are members of the American Academy of Actuaries and meet its Qualification Standard to render this actuarial opinion.

Respectfully submitted,

MILLIMAN, INC.

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Member American Academy of Actuaries

By:   
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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

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TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION I - SUMMARY

A. Summary of Principal Results

	PARTICIPANT DATA		June 30, 2005 Valuation	Percentage Change 2006 to 2007	Percentage Change 2005 to 2006
	June 30, 2007 Valuation	June 30, 2006 Valuation			
<b>Active Contributing Members</b>					
Number	141,943	140,831	139,245	0.8 %	1.1 %
Number of Veteran Members	1,171	1,338	1,522	(12.5)	(12.1)
Average Pay	\$ 63,959	\$ 62,130	\$ 60,723	2.9	2.3
Total Payroll	\$ 9,078,568,687	\$ 8,749,789,809	\$ 8,455,402,150	3.8	3.5
Total Appropriation Payroll	9,077,628,813	8,748,623,186	8,454,072,109	3.8	3.5
Avg. Member Accumulated Contributions	50,707	48,584	46,635	4.4	4.2
Total Member Accumulated Contributions	7,197,468,540	6,842,191,130	6,493,706,672	5.2	5.4
<b>Active Non-Contributing Members</b>					
Number	13,153	13,057	12,628	0.7 %	3.4 %
Number of Veteran Members	91	102	98	(10.8)	4.1
Average Pay	\$ 45,441	\$ 44,188	\$ 42,357	2.8	4.3
Total Payroll	\$ 597,691,622	\$ 576,959,990	\$ 534,885,076	3.6	7.9
Avg. Member Accumulated Contributions	22,237	20,957	19,386	6.1	8.1
Total Member Accumulated Contributions	292,489,528	273,630,722	244,802,590	6.9	11.8

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

**SECTION I - SUMMARY**

(continued)

**A. Summary of Principal Results (continued)**

	PARTICIPANT DATA			Percentage Change 2006 to 2007	Percentage Change 2005 to 2006
	June 30, 2007	June 30, 2006	June 30, 2005		
	Valuation	Valuation	Valuation		
<b>Service Retirees, Including Domestic Relations Beneficiaries</b>					
Number	65,347	62,212	59,301	5.0 %	4.9 %
Average Annual Pension	\$ 34,904	\$ 33,361	\$ 31,913	4.6	4.5
Total Annual Pensions	2,280,902,612	2,075,424,405	1,892,492,477	9.9	9.7
Average Retirement Age of New Retirees	60.1	59.9	59.4	0.3	0.8
Average Annual Pension of New Retirees	\$ 44,698	\$ 43,768	\$ 42,185	2.1	3.8
<b>Disabled Retirees</b>					
Number	2,534	2,447	2,370	3.6 %	3.2 %
Average Annual Pension	\$ 24,239	\$ 23,427	\$ 22,495	3.5	4.1
Total Annual Pensions	61,422,715	57,324,718	53,313,284	7.1	7.5
<b>Beneficiaries and Dependents</b>					
Number	4,116	3,955	3,774	4.1 %	4.8 %
Average Annual Pension	\$ 20,726	\$ 19,747	\$ 18,762	5.0	5.2
Total Annual Pensions	85,307,467	78,099,815	70,806,308	9.2	10.3
<b>Terminated Vested Participants</b>					
Number	751	853	903	(12.0) %	(5.5) %
Average Annual Pension	\$ 11,761	\$ 11,304	\$ 10,590	4.0	6.7
Total Annual Pensions	8,832,492	9,642,252	9,563,112	(8.4)	0.8

Section I - A

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION I - SUMMARY**

(continued)

**A. Summary of Principal Results (continued)**

**STATUTORY PENSION CONTRIBUTIONS WITH BUDGET ADJUSTMENTS**

	June 30, 2007	June 30, 2006	June 30, 2005		June 30, 2007	June 30, 2006	June 30, 2005
	Valuation (State's	Valuation (State's	Valuation (State's		Valuation (State's	Valuation (State's	Valuation (State's
	Fiscal Year 2009	Fiscal Year 2008	Fiscal Year 2007		Fiscal Year 2007	Fiscal Year 2007	Fiscal Year 2007
	<u>Contributions)</u>	<u>Contributions)</u>	<u>Contributions)</u>		<u>Contributions)</u>	<u>Contributions)</u>	<u>Contributions)</u>
					2006 to 2007	2006 to 2007	2005 to 2006
					Change	Change	Change
					Percentage	Percentage	Percentage
Normal Cost (1/60th formula) **	\$ 546,875,239	\$ 579,754,480	\$ 560,691,960		(5.7) %	(5.7) %	3.4 %
Excess Assets Available ***	N/A	0	0		N/A	N/A	0.0
Normal Contribution	546,875,239 *	579,754,480 *	560,691,960 *		(5.7)	(5.7)	3.4
Additional Formula Normal Cost	100,313,396	97,622,687	94,763,359		2.8 %	2.8 %	3.0 %
Benefit Enhancement Fund (BEF) Balance	0	0	0		0.0	0.0	0.0
Additional Formula Contribution	100,313,396 *	97,622,687 *	94,763,359 *		2.8	2.8	3.0
Accrued Liability Contribution	<u>700,917,218</u> *	<u>608,769,939</u> *	<u>500,685,252</u> *		15.1 %	15.1 %	21.6 %
<b>Total Pension Contribution by Statute</b>	<b>\$ 1,348,105,853</b> *	<b>\$ 1,286,147,106</b> *	<b>\$ 1,156,140,571</b> *		<b>4.8 %</b>	<b>4.8 %</b>	<b>11.2 %</b>
State Appropriation for Pension ****	(876,268,804)	(663,791,615)	(663,415,668)		32.0 %	32.0 %	0.1 %
<b>Pension Contribution Not Appropriated</b>	<b>\$ 471,837,049</b> *	<b>\$ 622,355,491</b> *	<b>\$ 492,724,903</b> *		<b>(24.2) %</b>	<b>(24.2) %</b>	<b>26.3 %</b>

\* These amounts should be increased for assumed interest at the rate of 8.25% per annum if payment is delayed beyond June 30, 2008, June 30, 2007 and June 30, 2006, respectively.

\*\* Excludes the non-contributory group life insurance term cost.

\*\*\* Effective June 8, 2007, Chapter 92, P.L. 2007 eliminated the use of Excess Assets to offset the State's Normal Contribution.

\*\*\*\* For the 2009 fiscal year, it is anticipated that 65% of the pension contribution will be appropriated.

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

**SECTION I - SUMMARY**

(continued)

**A. Summary of Principal Results (continued)**

**ANNUAL REQUIRED CONTRIBUTION PER GASB 25 AND 27**

	June 30, 2007 Valuation (State's Fiscal Year 2009)	June 30, 2006 Valuation (State's Fiscal Year 2008)	June 30, 2005 Valuation (State's Fiscal Year 2007)	Percentage Change 2006 to 2007	Percentage Change 2005 to 2006
Normal Cost *	\$ 722,956,661	\$ 763,269,751	\$ 742,157,093	(5.3) %	2.8 %
Amortization Payment **	<u>756,469,213</u>	<u>669,066,355</u>	<u>557,842,519</u>	13.1 %	19.9 %
Subtotal	1,479,425,874	1,432,336,106	1,299,999,612	3.3 %	10.2 %
Interest Adjustment ***	<u>122,052,634</u>	<u>118,167,729</u>	<u>107,249,968</u>	3.3 %	10.2 %
<b>Annual Required Contribution</b>	<b>\$ 1,601,478,508</b>	<b>\$ 1,550,503,835</b>	<b>\$ 1,407,249,580</b>	<b>3.3 %</b>	<b>10.2 %</b>

\* Reflects additional formula normal cost, full cost of pension adjustment benefits, and an actuarial determination of the cost of the non-contributory and contributory group life insurance benefits.

\*\* Benefit Enhancement Fund is excluded from the actuarial accrued liabilities.

\*\*\* Additional one year of interest is included to reflect payment of contributions at end of fiscal year.

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION I - SUMMARY**

(continued)

**A. Summary of Principal Results (continued)**

**TOTAL STATUTORY CONTRIBUTIONS (INCLUDING NCGI AND ERI)**

	June 30, 2007	June 30, 2006	June 30, 2005		June 30, 2007	June 30, 2006	June 30, 2005
	Valuation (State's	Valuation (State's	Valuation (State's		Valuation (State's	Valuation (State's	Valuation (State's
	Fiscal Year 2009	Fiscal Year 2008	Fiscal Year 2007		Fiscal Year 2007	Fiscal Year 2006	Fiscal Year 2005
	<u>Contributions)</u>	<u>Contributions)</u>	<u>Contributions)</u>		<u>Contributions)</u>	<u>Contributions)</u>	<u>Contributions)</u>
					2006 to 2007	2005 to 2006	2005 to 2006
					Change	Change	Percentage
							Change
Total Pension Contribution by Statute	\$ 1,348,105,853 *	\$ 1,286,147,106 *	\$ 1,156,140,571 *		4.8 %	11.2 %	
Est. Non-contributory Group Life Insurance (NCGI)	31,590,000	30,660,000 ***	27,378,591 **		3.0 %	12.0 %	
Early Retirement Incentive (ERI-3)	<u>1,231,186 *</u>	<u>1,171,289 *</u>	<u>1,138,800 *</u>		5.1 %	2.9 %	
<b>Total State Contribution for Pension, NCGI and ERI</b>	<b>\$ 1,380,927,039</b>	<b>\$ 1,317,978,395</b>	<b>\$ 1,184,657,962</b>		<b>4.8 %</b>	<b>11.3 %</b>	
<b>Total Certain State College Contribution (Included Above)</b>	<b>756,003</b>	<b>770,690</b>	<b>796,849 **</b>		<b>(1.9) %</b>	<b>(3.3) %</b>	

\* These amounts should be increased for assumed interest at the rate of 8.25% per annum if payment is delayed beyond June 30, 2008, 2007 and 2006, respectively.

\*\* Actual NCGI claims paid and actual allocation of costs for certain State colleges for fiscal year 2007.

\*\*\* Actual amount appropriated for the 2008 fiscal year is \$31,068,000. Actual claim amount will be appropriated. Amount shown reflects Milliman's estimate of NCGI claims.

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION I - SUMMARY**

(continued)

**A. Summary of Principal Results (continued)**

**LOCAL EMPLOYER CONTRIBUTIONS AND EMPLOYEE CONTRIBUTION REDUCTIONS**

	<u>June 30, 2007</u>	<u>June 30, 2006</u>	<u>June 30, 2005</u>	Percentage Change <u>2006 to 2007</u>	Percentage Change <u>2005 to 2006</u>
	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>	<u>2006 to 2007</u>	<u>2005 to 2006</u>
<b>Employee Contribution Reduction for 2009, 2008 and 2007 calendar years, respectively*</b>	N/A	N/A	0.0%	0.0%	0.0%
<b>Early Retirement Incentive Contributions payable April 1, 2009, April 1, 2008 and April 1, 2007, respectively</b>					
ERI 1 - Local Employers	\$ 1,228,070	\$ 1,228,070	\$ 1,228,070	0.0%	0.0%
ERI 2 - Local Employers	1,568,124	1,567,191	1,566,293	0.1%	0.1%
ERI 4 - Local Employers **	<u>3,822,965</u>	<u>3,822,965</u>	<u>3,436,808</u>	0.0%	11.2%
Total	\$ 6,619,159	\$ 6,618,226	\$ 6,231,171	0.0%	6.2%

**Terminal Funding Contribution payable April 1, 2009, April 1, 2008 and April 1, 2007, respectively**

Location #00200	\$ 0	\$ 0	\$ 118,630	N/A	N/A
Location #00845	0	0	2,393	N/A	N/A
Location #00980	0	0	47,069	N/A	N/A
Location #07012	0	0	64,103	N/A	N/A

\* Effective for calendars years 2008 and later, Chapter 92, P.L. 2007 eliminated any employee contribution reductions.

\*\* ERI 4 contributions will be payable over 15 years beginning April 1, 2006 for members retired prior to June 30, 2004 and April 1, 2007 for members retired prior to June 30, 2005. For members retired prior to June 30, 2006, contributions will commence April 1, 2008 and end on the same date as if the contributions began April 1, 2007.

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

**SECTION I - SUMMARY**

(continued)

**A. Summary of Principal Results (continued)**

	June 30, 2007		June 30, 2006		June 30, 2005 Valuation	Percentage Change	
	Valuation		Valuation			2006 to 2007	2005 to 2006
<b>ASSETS AND LIABILITIES</b>							
Market Value of Pension Assets	\$ 35,070,757,170	\$	\$ 31,495,000,296	\$	\$ 29,610,249,605	11.4 %	6.4 %
Actuarial Value of Pension Assets	\$ 36,594,817,062	\$	\$ 35,422,799,539	\$	\$ 34,688,666,392	3.3 %	2.1 %
Actuarial Accrued Pension Liability	\$ 48,127,453,410	\$	\$ 45,439,278,166	\$	\$ 42,926,758,983	5.9 %	5.9 %
Unfunded Pension Liability							
Based on Market Value	\$ 13,056,696,240	\$	\$ 13,944,277,870	\$	\$ 13,316,509,378	(6.4) %	4.7 %
Based on Actuarial Value	\$ 11,532,636,348	\$	\$ 10,016,478,627	\$	\$ 8,238,092,591	15.1 %	21.6 %
Funded Ratio							
Based on Market Value	72.9 %	%	69.3 %	%	69.0 %	3.6 %	0.3 %
Based on Actuarial Value	76.0 %	%	78.0 %	%	80.8 %	(2.0) %	(2.8) %

# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### **B. General Comments**

This report summarizes the results of the actuarial valuation of the Teacher's Pension and Annuity Fund (TPAF) as of June 30, 2007. This actuarial valuation reflects the adoption of the proposed assumptions from the July 1, 2003 – June 30, 2006 Experience Study. These assumptions increased the average salary scale in total with higher assumed increases for shorter service members and lower assumed increases for longer service members, increased the rates of termination and lowered the rates of both pre-retirement mortality and post-retirement mortality. The adoption of these assumptions decreased the Actuarial Accrued Liability as of June 30, 2007 by \$59.6 million or 0.1% and the Total Pension Contribution by Statute by \$13.7 million or 1.0%.

This actuarial valuation also reflects the passage of Chapter 103, P.L. 2007 and Chapter 92, P.L. 2007. Chapter 103 increased the employee contribution rate from 5% to 5.5% for all members plus for members hired on or after July 1, 2007, 1) modified the early retirement provisions, 2) imposed a maximum salary (the Social Security Taxable Wage Base or SSTWB) upon which contributions and benefits will be based, and 3) established a Defined Contribution Retirement Program for salaries in excess of the SSTWB maximum. The adoption of Chapter 103 increased the Actuarial Accrued Liability as of June 30, 2007 by \$4.6 million and decreased the Total Pension Contribution by Statute by \$44.4 million or 3.2%.

Effective June 8, 2007, Chapter 92 eliminated any future State Normal Contribution reductions and 2% member contribution reductions from Excess Assets. As of June 30, 2007, there are no Excess Assets and no State or member contribution reductions would have been scheduled. Note that in future years, if Excess Assets do exist, assets may still be transferred to the Benefit Enhanced Fund.

Also, the payment of postretirement medical premium will no longer occur through TPAF. As a result, we haven't provided an estimate of this contribution, including the 0.6% of payroll contribution.

#### GASB Annual Required Contribution

Page 4 contains a Summary Exhibit on the Annual Required Contribution (ARC) per GASB 25 and 27. GASB 25 and 27 do not (1) exclude the Benefit Enhancement Fund from the Actuarial Value of Assets, (2) permit a portion of the normal cost to be paid by the BEF, (3) permit a phase-in of the pension adjustment normal cost or 4)

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY

(continued)

#### **B. General Comments (continued)**

allow the use of a term cost funding method for the non-contributory group life insurance (NCGI). Furthermore, since the contributory group life insurance is provided through TPAF, an actuarial cost for these benefits is included in the ARC. Expected employee contributions of 0.4% of pay offset the normal cost portion of the contributory group life insurance. For the 2007 and later fiscal years, the ARC includes an actuarial determination of the cost of the non-contributory and contributory group life insurance. The ARC in prior years included the term cost for the non-contributory group life insurance. The ARC for the 2009 fiscal year is \$1,601.5 million as compared to the sum of the required statutory pension contribution of \$1,348.1 million and the estimated non-contributory group life insurance term cost of \$31.6 million for a total of \$1,379.7 million.

#### Statutory Contributions

The statutory contribution requirements are highlighted on Summary Exhibits shown on pages 3 (pension only) and 5 (pension, NCGI and ERI). Included on these exhibits is our understanding of the effect of the fiscal year 2008 State budget resolution on contributions to the system for the 2008 and 2009 fiscal years. These exhibits are discussed in detail in the paragraphs below.

The required statutory pension contribution has increased from \$1,286.1 million for the State's 2008 fiscal year to \$1,348.1 million for the State's 2009 fiscal year. This contribution consists of the Normal Contribution (\$546.9 million), the Additional Formula Contribution (\$100.3 million) and the Accrued Liability Contribution (\$700.9 million). Due to Chapter 92 P.L. 2007, Excess Assets can no longer be used to offset the pension normal cost in determining the Normal Contribution. As of June 30, 2007, there are no Excess Assets and no offset would have occurred. The Benefit Enhancement Fund (BEF) was established to reduce the State's Additional Formula Normal Contribution from Chapter 133 P.L. 2001. As of June 30, 2007, there are no assets in the BEF so no offset occurred. Also, since there are no excess assets as of July 1, 2007, no assets will be transferred to the BEF.

In addition to the pension contribution, the estimated non-contributory group life insurance contribution is expected to increase from \$30.7 million to \$31.6 million and the ERI-3 contribution has increased from \$1.17 million to \$1.23 million from the State's 2008 fiscal year to the State's 2009 fiscal year.

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY

(continued)

### **B. General Comments (continued)**

Chapter 92, P.L. 2007 states that the System shall use consistent and generally accepted actuarial standards as established by GASB for the purpose of determining asset values, obligations and employer contributions. However, the System's contribution requirements, which are defined in NJ State statute, differ from the GASB disclosure requirements that are shown in this report. Also, current budgetary practices do not assess interest on contributions to reflect payment after the start of the fiscal year to the date paid. As a result, the System's funding contribution will not be the same as the annual required contribution (ARC) determined under GASB. As stated above, the GASB ARC is \$221.8 million or 16.1% higher than the statutory pension and estimated NCGI contributions.

According to statutory and budgetary practices, we have reflected the BEF, the phase-in of the pension adjustment normal cost, the term cost funding of the non-contributory group life insurance, and did not assess interest on contributions to reflect payment after the start of the fiscal year when paid in calculating the employer contributions even though these are not generally-accepted actuarial practices for GASB purposes. As stated above, the GASB ARC is \$221.8 million or 16.1% higher than the statutory pension and estimated NCGI contributions.

The summary exhibit in Page 3 reflects our understanding of the effect of the fiscal year 2008 State budget resolution on these contributions to the system for the 2008 and 2009 fiscal years as outlined below:

- For the 2008 fiscal year, the State has appropriated \$695.5 million to cover 100% of the non-contributory group life insurance claims (\$31.1 million), 51.6% of the ERI-3 contribution (\$0.6 out of \$1.2 million), and 51.6% of the pension contribution (\$663.8 million out of \$1,286.1 million). For the non-contributory group life insurance, we have estimated the amount of claims to be \$30.7 million during the 2008 fiscal year based on the actuarial mortality assumption. It is our understanding that the actual amount will be appropriated.
- An appropriation to cover the remaining portion of the 2008 fiscal year pension contribution (\$622.3 million) was not made. This increases the Unfunded Actuarial Accrued Liability as of July 1, 2007 by \$622.3 million resulting in an increase in the 2009 fiscal year Accrued Liability Contribution

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY

(continued)

#### B. General Comments (continued)

of \$37.8 million. The accumulated value of statutory pension contributions, excluding ERI-3 contributions, not appropriated by the State in fiscal years 2004 through 2008 equals \$2,637.4 million. The Unfunded Actuarial Accrued Liability as of July 1, 2007 is \$11,528.3 million.

- For the 2009 fiscal year, it is anticipated that 65% of the statutory pension contribution of \$1,348.1 million and ERI-3 contribution of \$1.2 million will be appropriated by the State. In addition, it is anticipated that the State will appropriate an amount to cover the non-contributory group life insurance claims (NCGI est. \$31.6 million). In displaying the results of this actuarial valuation, we have not reduced the contribution otherwise due under statute to reflect the expectation that funds will not be appropriated.

#### Actuarial Value of Assets

As mandated by statute, only 20% of the difference between the expected actuarial value of assets and the market value is recognized in calculating the actuarial value of assets each year. Due to the significant drop in the equity markets since the market re-start as of 1999, offset by market value gains during the last four fiscal years, the actuarial value of assets as of June 30, 2007 is 104% of market value. This is a reduction from the prior year's ratio of 112%. Section III(F) shows the impact of using the market value of assets to determine the statutory pension contribution.

#### Actuarial Accrued Liability

The actuarial accrued liability figures reflect the full additional actuarial liability due to pension adjustment benefits for actives, retirees, terminated vested members and beneficiaries. It excludes the actuarial liability associated with the group life insurance benefits. The State will appropriate funds to cover the actual amount of the non-contributory group life insurance claims. The accrued liability shown for the post retirement medical benefits is the balance in the Post Retirement Medical Fund; an actuarially computed accrued liability was not calculated. The post retirement medical benefits are no longer financed through TPAF.

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY

(continued)

### B. General Comments (continued)

#### Normal Cost

The net pension normal cost based on the 1/60 formula payable as of July 1, 2007 is \$505.2 million. This is \$30.4 million less than the comparable normal cost of \$535.6 million payable on July 1, 2006. This decrease is due to 1) the passage of Chapter 103 increasing the member contribution rate 10% to 5.5% (\$41.2 million) and 2) the adoption of the proposed assumptions in the 2006 Experience Study (\$8.8 million) offset by 3) the continued phase-in of the pension adjustments (\$3.5 million) and increases in payroll and the number of active participants (\$16.1 million).

For purposes of calculating employer contributions, the portion of the normal cost attributable to the pension adjustment benefits for active members is reflected separately and its cost is being phased-in over a period beginning with the March 31, 1987 valuation. The current valuation reflects a 55.95% phase-in of the pension adjustment normal cost for active members.

The additional formula normal cost payable as of July 1, 2007 is \$92.7 million. This is \$2.5 million more than the additional formula normal cost of \$90.2 million payable on July 1, 2006. This increase is due to increases in payroll and the number of active participants (\$3.0 million) offset by the adoption of the proposed assumptions in the 2006 Experience Study (\$0.5 million).

#### Unfunded Actuarial Accrued Liability

The unfunded Actuarial Accrued Liability increased by \$1,516.1 million from \$10,016.5 million as of July 1, 2006 to \$11,532.6 million as of July 1, 2007. This increase is due to 1) the reduced State appropriation relative to what was required by statute for the 2008 fiscal year (\$622.3 million), 2) the continued phase-in of the pension adjustments in the normal cost (\$73.9 million), 3) an amortization methodology (30-year period amortized at 8.25% with payments increasing 4% per year) that produces an amortization payment less than the interest accrual on the unfunded liability (\$217.6 million), 4) an actuarial loss (\$708.6 million), 5) adoption of Chapter 103, P.L. 2007 (\$4.6 million) offset slightly by 6) the adoption of the proposed assumptions from the 2006 Experience Study (\$59.6 million), and 7) member contributions in excess of that anticipated (\$51.3 million). This increase in the unfunded liability resulted in an increase in the Accrued Liability Contribution of

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION I - SUMMARY**  
**(continued)**

**B. General Comments (continued)**

\$92.1 million from \$608.8 million payable June 30, 2007 to \$700.9 million payable June 30, 2008.

Actuarial Gain/(Loss) Analysis

TPAF experienced an actuarial loss of \$708.6 million during the period July 1, 2006 to June 30, 2007 based on the actuarial assumptions adopted in the 2003 Experience Study (the 2006 Experience Study does not apply until June 30, 2007). This loss is approximately 1.5% of the Actuarial Accrued Liability as of June 30, 2007. The major factors contributing to this loss are summarized below and are compared to the experience for the prior two plan years.

	<u>June 30, 2007</u>	<u>Gain/(Loss)</u> <i>(Amounts in Millions)</i> <u>June 30, 2006</u>	<u>June 30, 2005</u>
Economic Factors:			
Investment Return	\$ (381.0)	\$ (981.9)	\$ (1,269.6)
Salary Increases	112.1	158.6	(31.3)
Pension Adjustments (COLA)	(151.4)	(23.7)	84.5
Expenses	(12.8)	(10.8)	(14.6)
Demographic Factors:			
Active Members	(123.3)	(119.2)	7.4
New Entrants	(55.0)	(60.0)	(60.8)
Non-Contributing Members	(29.5)	(21.1)	(23.3)
Retirees and Beneficiaries	<u>(67.7)</u>	<u>(34.5)</u>	<u>(18.0)</u>
Total	\$ (708.6)	\$ (1,092.6)	\$ (1,325.7)

Total pension assets (excluding PRMF) earned investment returns of approximately 15.95% on a market value basis and 7.15% on an actuarial value basis for the period ending June 30, 2007. The resulting loss to the plan of \$(381.0) million represents the shortfall in the actuarial value of assets relative to the 8.25% assumed investment return.

Salary increases for contributory members who were active on both July 1, 2006 and July 1, 2007 averaged 5.71% versus the average anticipated salary scale assumption of 5.45%. However, members with less than 20 years of service averaged 6.92% salary increases and members with at least 20 years of service

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### **B. General Comments (continued)**

averaged 3.64%. This produced an actuarial gain of \$112.1 million as the gain for longer service higher liability members exceeded the loss for shorter service lower liability members. Salaries for new entrants averaged \$45,101, which is significantly below the average salary of all contributory members of \$63,959. This resulted in the average salary of all contributory members increasing by only 2.9% over last year, with total contributory payroll growing by 3.8%.

For annuitants receiving benefits since 2004, the pension adjustments were based on a CPI increase of 4.03%, which is higher than the 3.0% actuarial assumption for CPI increases. This resulted in an actuarial loss of \$151.4 million.

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY

(continued)

### C. Discussion of Supporting Exhibits

#### Assets

Section II summarizes the System assets taken into account in the preparation of the actuarial valuation. Subsection A summarizes the market value of System assets as of June 30, 2007 and includes the present value of expected contributions from State and local employers for ERI and Terminal Funding retirements as of June 30, 2007.

Subsection B reconciles the development of the market value of pension and post retirement medical assets separately, starting from the market values as of June 30, 2006. Subsection C summarizes the development of the actuarial value of pension assets as of July 1, 2007. The exhibit reflects the growth in the pension assets based on the expected investment income at an assumed rate of 8.25% adjusted to reflect 20% of the difference between the market value of pension assets as of the valuation date and the expected actuarial value. The balance in the Post Retirement Medical Fund is added to the actuarial value of pension assets to obtain the actuarial value of total system assets.

Subsection D estimates the annual rate of return for the year ending June 30, 2007 on the actuarial value and the market value of pension assets. Subsection E summarizes the estimated annual rates of return for the five previous plan years. The 5-year compounded annual return on the actuarial value of assets and the market value of assets are 4.81% and 10.36%, respectively.

#### Actuarial Liabilities and Contributions

Section III summarizes the actuarial liabilities and the development of the required State contribution for the plan year beginning July 1, 2007. The State is statutorily required to make three contributions, a Normal Cost Contribution, an Accrued Liability Contribution and an Additional Formula Normal Cost Contribution, which in general are determined under the Projected Unit Credit funding method. The Normal Cost and Additional Formula Normal Cost under the Projected Unit Credit funding method is defined as the present value of the benefits attributed to the current year. The Normal Cost reflects the phase-in of the cost of pension adjustment benefits. The Unfunded Accrued Liability (Surplus) is determined as the difference between the Actuarial Accrued Liability used to develop contributions and

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

the Adjusted Actuarial Value of Assets (excludes the BEF and the liability for member reductions granted in previous valuations). The actuarial liabilities used to develop contributions reflect the assumptions developed in the 2006 Experience Study and the economic assumptions prescribed by the Treasurer.

Subsection A summarizes the development of the Actuarial Accrued Liability as of July 1, 2007 for all current members and indicates the portion of those present values attributable to active participants, retirees and beneficiaries, and terminated vested participants. These liabilities include the full liability for pension adjustment benefits for all members. The non-contributory lump sum death benefits payable from active service, terminated vested status and retiree status have been excluded from the Actuarial Accrued Liability since those benefits are funded on a term cost basis. Projected benefits based on compensation in excess of the 401(a)(17) compensation cap for a group of grandfathered employees for certain School Districts under Chapter 113, P.L. 1997 have been included in the determination of the Accrued Liability.

Subsection A also indicates the balance in the Post Retirement Medical Benefits Fund.

Subsection B summarizes the development of the pension Normal Cost under the 1/60 and 1/55 formulas payable July 1, 2007. The schedule shows the portion of the Normal Cost attributable to: (1) the basic allowances and (2) pension adjustment benefits for active members and (3) expected member contributions. The Normal Cost due to pension adjustments reflects the 55.95% phase-in of the pension adjustment benefits. The Normal Cost as of July 1, 2007 was developed based on the Projected Unit Credit Method. Projected benefits based on compensation in excess of the 401(a)(17) compensation cap for a group of grandfathered employees for certain School Districts under Chapter 113, P.L. 1997 have been included in the determination of the Normal Cost.

Subsection C summarizes the development of the Excess Valuation Assets which are \$0 as of July 1, 2007. The Excess Valuation Assets are determined by subtracting the Actuarial Accrued Liability for basic allowances and pension adjustment benefits, the Post Retirement Medical Premium Fund, the present value of the total projected normal cost in excess of the projected phased-in normal cost

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

for pension adjustment benefits of active members and the BEF (prior to reduction for the additional formula normal contribution for fiscal year 2009) from the Valuation Assets.

Subsection D summarizes the development of the BEF as of July 1, 2007 and the Additional Formula Normal Contribution. Chapter 133, P.L. 2001 established the BEF as of June 30, 1999. The BEF is \$0 as of June 30, 2007. The BEF is credited with excess assets not to exceed actual member contributions made to the system nor the present value of expected additional normal costs due to the formula change. Since there are no excess assets, there is no contribution to the BEF. Since the BEF is \$0, there is no offset to the additional formula normal cost.

Subsection E summarizes the development of the State's estimated fiscal year 2009 Total Required Contributions from TPAF comprising three components: pension, non-contributory group life insurance, and ERI. The total pension contribution of \$1,348,105,853 equals the Normal Contribution of \$546,875,239 based on the 1/60 formula plus the Additional Formula Normal Contribution of \$100,313,396 plus the Accrued Liability Contribution of \$700,917,218. The non-contributory group life insurance contribution represents a one year term cost of lump sum death benefits payable during active service, terminated vested status and retiree status and is estimated to be \$31,590,000. The State's ERI-3 contribution is \$1,231,186. The Total Required Contribution for the State's fiscal year 2009 is estimated to be \$1,380,927,039. This is an estimate because the State will contribute the actual 2009 fiscal year non-contributory group life insurance benefits, not the estimated amount shown above.

Subsection F shows the Required Contribution as a percentage of appropriation payroll on two bases: (1) after reflecting the actual phase-in of the pension adjustment benefits and any BEF reductions – 15.21% and (2) as if the pension adjustment liabilities were fully phased-in, BEF reductions did not exist and the Market Value of Assets were used to determine the Accrued Liability Contribution – 17.03%.

Subsection G shows the fiscal year 2009 Required Contribution based on the 1/60 formula, the Additional Formula Contribution after application of the BEF, the Accrued Liability Contribution and the estimated non-contributory group life

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

insurance contribution payable by the State and certain State Colleges. The State's contribution is allocated between the Department of Higher Education, Department of Education, County Colleges, Charter Schools and other.

Subsection H shows the calculation of the total actuarial gain (loss). The general comments section outlines the areas where experience differed from that expected.

#### Actuarial Balance Sheet

Section IV provides the actuarial balance sheet summarizing the assets and liabilities by Fund as of June 30, 2007. The assets credited to the various funds include the portion of the investment income allocated to each fund for the year and ending June 30, 2007. The liabilities presented are based on the actuarial accrued liabilities summarized in Section III without any phase-in adjustments.

The actuarial balance sheet indicates the following transfers should be made:

#### (1) Retirement Reserve Fund

When a member retires, or when he dies and an allowance is payable to his beneficiary, the allowance including cost-of-living adjustments is paid from the Retirement Reserve Fund. The member's own contributions with interest are transferred from the Annuity Savings Fund, and the balance of the reserve on the total allowance is transferred from the Contingent Reserve Fund. As of June 30, 2007, the Retirement Reserve Fund has present assets of \$24,798,887,979 including accrued interest. The liabilities of the fund amount to \$25,900,913,530 so that there is a deficit of \$1,102,025,551 in the fund as of the valuation date. It is recommended that the fund be put in balance as of June 30, 2007 by a transfer of assets from the Contingent Reserve Fund, and this transfer is shown in the balance sheet.

#### (2) Pension Fund

The reserves held in the Pension Fund represent the reserves on retirement allowances payable to non-veteran members who retired prior to 1956. As of June 30, 2007, the Pension Fund has assets credited to it amounting to

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

\$134,827 including accrued interest. The liabilities of the fund amount to \$130,668 so that there is a surplus of \$4,159 in the fund as of the valuation date. It is recommended that the fund be put in balance as of June 30, 2007 by a transfer of assets to the Contingent Reserve Fund, and this transfer is shown in the balance sheet.

#### (3) Annuity Savings Fund and Contingent Reserve Fund

The Annuity Savings Fund, which is the fund to which members' contributions with interest are credited, has assets amounting to \$7,563,158,194 as of June 30, 2007 after accrued interest has been added. The Contingent Reserve Fund is the fund to which contributions made by the State and local employers to provide the benefits paid from retirement fund monies are credited. The assets creditable on an actuarial value basis to the Contingent Reserve Fund amount to \$2,791,780,483 as of June 30, 2007 after adjustment is made on account of accrued interest and the amounts transferable to the Retirement Reserve Fund and from the Pension Fund. If a market value basis was used, assets creditable to the Contingent Reserve Fund after transfers would amount to \$1,267,720,591.

If a member withdraws from active service before qualifying for retirement, the amount of his accumulated deductions is paid to him from the Annuity Savings Fund. If he dies before retirement and no survivorship benefit is payable, his accumulated deductions are paid to his beneficiary from the Annuity Savings Fund. If he retires, or if he dies leaving a beneficiary eligible for a survivorship benefit, his accumulated deductions are transferred from the Annuity Savings Fund to the Retirement Reserve Fund, and the reserve on the allowance which is not provided by his own deductions is transferred from the Contingent Reserve Fund to the Retirement Reserve Fund. Any lump sum benefit payable upon the death of a member before or after retirement is paid by The Prudential Insurance Company of America.

#### (4) Benefit Enhancement Fund

The reserves held in the BEF are used to fund the additional formula normal contributions. The BEF is credited with excess assets not to exceed actual

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

member contributions made to the system nor the present value of the expected additional formula normal contributions. No additional excess assets will be credited to the BEF after the maximum amount is attained. If excess assets permit, monies are transferred from the Contingent Reserve Fund. As of June 30, 2007, the BEF has no assets.

#### (5) Special Reserve Fund

The Special Reserve Fund is the fund to which any excess interest earnings are transferred and against which any losses from the sale of securities are charged. The maximum limit on the accumulations in this fund is set at one percent of the market value of the investments of the retirement fund; any amounts in excess of this limit are creditable to the Contingent Reserve Fund. The Special Reserve Fund is considered as an asset of the retirement fund. This fund has assets amounting to \$338,834,187 as of June 30, 2007, which is at the statutory limit.

#### (6) Post Retirement Medical Benefits Fund

The Post Retirement Medical Benefits Fund is established to hold contributions in respect to future post retirement medical benefits. The fund has assets of \$451,031 as of June 30, 2007. These assets will be transferred out of TPAF after June 30, 2007.

### Accounting Information

Section V presents the accounting information required under Governmental Accounting Standards Statement No. 25 (GASB 25). Schedule A outlines the development of the Annual Required Contribution (ARC). The ARC comprises the employer's normal cost plus a specified amortization of the unfunded actuarial accrued liability (UAAL). For 2007 and later fiscal years (the 2005 and subsequent valuations), an actuarial determination of the cost for non-contributory and contributory group life insurance benefits is included in the calculation since these benefits are paid from TPAF. Prior years included a term cost for the non-contributory group life insurance and excluded the contributory group life insurance.

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY

(continued)

### **C. Discussion of Supporting Exhibits (continued)**

The portion of the ARC attributable to group life insurance benefits is \$63.6 million. The amortization method selected for this system is an open level percentage of projected payroll based on an assumed payroll growth rate of 4.0% for 30 years.

Schedule B shows the projection of the Estimated Net Pension Obligation (NPO) as of June 30, 2008 and June 30, 2009. The NPO represents the cumulative difference between the Annual Pension Costs for the system and the contributions made. After the expected contributions of \$694.5 million for fiscal year 2008 and \$907.9 million for fiscal year 2009, the NPO as of June 30, 2009 is expected to be \$5,204.8 million.

Schedule C is the Schedule of Funding Progress. This schedule presents the Actuarial Accrued Liability, the Actuarial Value of Assets, the Unfunded Accrued Liability, the funded ratio (assets as a percentage of Actuarial Accrued Liability), and the Unfunded Accrued Liability as a percentage of covered payroll. Six years of historical information are shown in compliance with GASB 25.

Schedule D is the Schedule of Employer Contributions. This schedule presents the ARC for the fiscal year, the employer contributions made for that fiscal year and the percentage of the ARC those contributions represent. For the fiscal year ending June 30, 2008 the employer contributions are 44.8% of the ARC and for the fiscal year ending June 30, 2009, the expected employer contributions are 56.7% of the ARC. Six years of historical information are shown in compliance with GASB 25. Schedule E presents the funding policy for the fiscal year. This disclosure includes the valuation date, the Actuarial Cost Method, the amortization period and method, the Asset Valuation Method, and certain key actuarial assumptions.

### Census Data

Section VI summarizes the census data provided by the Division of Pensions and Benefits and utilized in the preparation of the actuarial valuation. Subsection A provides a reconciliation of the current year participant counts from the prior valuation. Subsection B shows the appropriation count and salary information by group. Subsection C shows the number and annual retirement allowances with pension adjustments by beneficiary type. Subsection D shows information on members who retired since the last valuation split between those who retired with less than and more than 25 years of service. Subsections E and F present a profile

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

of Contributory and Non-contributory members split by gender, summarized by 5-year age and service groupings. Subsection G provides a profile of terminated vested members, retired members, disabled members, and beneficiaries broken down into 5-year age categories. The census data represents the status of plan participants as of June 30, 2007.

In performing this analysis, we relied on census data, asset statements and other information provided by the State of New Jersey Division of Pension and Benefits. We have not audited or verified this census data, asset statements or other information. To the extent any of these are inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

#### Actuarial Assumptions and Methods

Section VII summarizes the actuarial assumptions and methods utilized in the preparation of this actuarial valuation. Subsection A identifies the various assumptions. These assumptions are based on the assumptions developed in the Experience Study from July 1, 2003 to June 30, 2006 and the economic assumptions prescribed by the Treasurer. Subsection B summarizes the actuarial valuation methodology set forth in Chapter 62, P.L. 1994 as modified by Chapters 115, P.L. 1997, 133, P.L. 2001 and 92 P.L. 2007.

Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION I - SUMMARY (continued)

### C. Discussion of Supporting Exhibits (continued)

#### Summary of Principal Plan Provisions

Section VIII summarizes the principal plan provisions as of the valuation date and denotes any changes from the previous valuation.

#### Early Retirement Incentive Contribution Schedule

Appendix I presents the contribution schedule for the early retirement incentive programs (ERI-1, ERI-2, ERI-3 and ERI-4) by location for the 2009 fiscal year. It also provides the present value of the future contributions as of June 30, 2007. This list reflects locations who paid off their ERI liabilities through June 2007 as a result of Chapter 42, P.L. 2002.

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# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION II - ASSETS

### A. Market Value of Assets as of June 30, 2007

1. Assets		
Cash	\$	324,041
Investment Holdings		33,883,418,757
Employers' Contributions Receivable - NCGI		2,329,625
Employers' Contributions Receivable - State		19,271,970
Employers' Contributions Receivable - Local		57,638,593
Employers' Contributions Receivable - Delayed Enrollments		439,621
Employers' Contributions Receivable - Delayed Appropriations		3,476,870
Members' Contributions Receivable		74,622,578
Accrued Interest on Investments		149,156,978
Accounts Receivable		1,613,951
Loans Receivable		222,155,276
Dividends Receivable		<u>70,302,378</u>
Total	\$	<u>34,484,750,638</u>
2. Liabilities		
Pension Payroll Payable	\$	25,235,800
Pension Adjustment Payroll Payable		4,610,318
Withholdings Payable		27,549,499
Death Benefits Payable		2,329,625
Administration Expense Payable		1,115,662
Accounts Payable - Other		<u>16,557,251</u>
Total	\$	<u>77,398,155</u>
3. Market Value of Assets as of June 30, 2007: (1) - (2)	\$	34,407,352,483
4. State's FY 2008 and 2009 Receivable Contributions from Local Employers		64,103
5. State's FY 2008 Receivable Contributions from State		<u>663,791,615</u>
6. Adjusted Market Value of Assets as of June 30, 2007: (3) + (4) + (5)	\$	<u>35,071,208,201</u>

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION II - ASSETS**

(continued)

**B. Reconciliation of Market Value of Assets from June 30, 2006 to June 30, 2007**

	<u>Pension</u>	<u>Post Retirement Medical</u>
1. Market Value of Assets as of June 30, 2006	\$ 31,495,000,296	\$ 2,492,303
2. Increases		
Member Contributions excluding transfers from Other Systems	\$ 482,921,402	\$ 0
Member Transfer Contributions	4,298,538	0
Other Employer Contributions including Transfers From Other Systems, Delayed Appropriations And Delayed Enrollments	2,849,481	0
State and Local Appropriations	27,303,443	592,708,536
Investment Income	<u>4,866,092,306</u>	<u>426,184</u>
Total	\$ <u>5,383,465,170</u>	\$ <u>593,134,720</u>
3. Decreases		
Withdrawal of Member Contributions and Transfer Contributions	\$ 36,509,132	\$ 0
Retirement Allowances	2,117,640,036	0
Pension Adjustment Benefits	277,692,328	0
Death Benefit Claims	27,378,591	0
Administrative Expense	12,343,927	0
Medical Benefits and Expenses	<u>0</u>	<u>595,175,992</u>
Total	\$ <u>2,471,564,014</u>	\$ <u>595,175,992</u>
4. Market Value of Assets as of June 30, 2007: (1) + (2) - (3)	\$ 34,406,901,452	\$ 451,031
5. FY 2008 and 2009 Receivable Contributions from Local Employers	64,103	0
6. FY 2008 Receivable Contributions from State	<u>663,791,615</u>	<u>0</u>
7. Adjusted Market Value of Assets as of June 30, 2007: (4) + (5) + (6)	\$ <u>35,070,757,170</u>	\$ <u>451,031</u>

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION II - ASSETS

(continued)

C. Development of Actuarial Value of Assets as of July 1, 2007

1. Actuarial Value of Pension Assets as of July 1, 2006	\$ 35,422,799,539
2. Net Cash Flow without Investment Income	(1,954,191,150)
3. Investment Income at Actuarially Assumed Rate @ 8.25%	2,843,367,928
4. Receivable Contributions from State and Local Employers	<u>663,855,718</u>
5. Expected Actuarial Value of Pension Assets: (1) + (2) + (3) + (4)	36,975,832,035
6. Adjusted Market Value of Pension Assets as of June 30, 2007	35,070,757,170
7. Excess Market Value over Expected Actuarial Value Assets: (6) - (5)	(1,905,074,865)
8. 20% mark-up to reflect growth in Market Value: 20% * (7)	<u>(381,014,973)</u>
9. Actuarial Value of Pension Assets as of July 1, 2007: (5) + (8)	\$ 36,594,817,062
10. Post Retirement Medical Assets as of July 1, 2007	<u>451,031</u>
11. Total Actuarial Value of Assets as of July 1, 2007: (9) + (10)	\$ <u>36,595,268,093</u>
12. Pension Actuarial/Market Value Ratio: (9) / (6)	104.3%

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION II - ASSETS**

(continued)

**D. Estimated Annual Rate of Return for year ending June 30, 2007**

	<u>Pension</u> <u>Actuarial Value</u>	<u>Pension</u> <u>Market Value</u>
1. Value of Assets as of July 1, 2006	\$ 35,422,799,539	\$ 31,495,000,296
2. Employee Contributions	490,069,421	490,069,421
3. State and Local Appropriations	27,303,443	27,303,443
4. Receivable Contributions - State and Local Employers	663,855,718	663,855,718
5. Benefit Payments and Expenses	2,471,564,014	2,471,564,014
6. Value of Assets as of June 30, 2007	36,594,817,062	35,070,757,170
7. Non-Investment Increment: (2) +(3) - (4)	(1,954,191,150)	(1,954,191,150)
8. Investment Increment: (6) - (1) - (4) - (7)	2,462,352,955	4,866,092,306
9. Time Weighted Value: (1) +.5 * (7)	34,445,703,964	30,517,904,721
10. Estimated Annual Rate of Return: (8) / (9)	7.15%	15.95%

**E. Estimated Historical Rates of Return**

<u>Plan Year Ending</u>	<u>Actuarial Value</u>	<u>Market Value</u>
June 30, 2007	7.15%	15.95%
June 30, 2006	5.35%	10.30%
June 30, 2005	4.50%	8.84%
June 30, 2004	4.32%	14.22%
June 30, 2003	2.79%	2.97%
5-Year Compounded Annual Rate of Return	4.81%	10.36%

# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION III - LIABILITIES AND CONTRIBUTIONS

### A. Actuarial Accrued Liability as of July 1, 2007 - 1/55th Formula

1. Projected Benefits Payable to Beneficiaries and Retirees	
Service Retirees (Including ERI Benefits)	\$ 24,564,892,106
Disability Retirees	584,034,052
Beneficiaries	<u>752,118,040</u>
Total	\$ 25,901,044,198
2. Projected Benefits for Vested Terminated Members	82,650,303
3. Projected Benefits for Active Members	
Service Retirement	\$ 17,635,651,095
Ordinary Disability Retirement	321,489,026
Accidental Disability Retirement	22,411,494
Return of Members' Contributions - Death	71,687,876
Return of Members' Contributions - Withdrawal	105,743,346
Deferred Retirement	327,409,174
Pension Adjustment Benefits	3,236,914,694
Non-contributory Members	<u>422,452,204</u>
Total	\$ 22,143,758,909
4. Total Pension Accrued Liability: (1) + (2) + (3)	\$ 48,127,453,410
5. Post Retirement Medical Benefits Fund	<u>451,031</u>
6. Total Actuarial Accrued Liability used to develop contributions: (4) + (5)	\$ 48,127,904,441

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**B. Development of Normal Cost payable July 1, 2007**

	<u>1/60th Formula</u>	<u>1/55th Formula</u>
1. Basic Allowances	\$ 904,421,753	\$ 983,274,729
2. Pension Adjustment Benefits for active members		
a. Full Amount of Pension Adjustment Benefits	152,252,939	166,068,227
b. Phase-in Percentage	55.95%	N/A
c. Phased-in Amount of Pension Adjustment Benefits	85,185,519	N/A
3. Gross Pension Normal Cost		
a. Full Amount of Pension Normal Cost: (1) + (2a)	\$ 1,056,674,692	\$ 1,149,342,956
b. Phased-in Amount of Pension Normal Cost for Contribution Purposes: (1) + (2c)	989,607,272	N/A
4. Expected Member Contributions	<u>484,410,746</u>	<u>484,410,746</u>
5. Net Pension Normal Cost		
a. Full Amount of Net Pension Normal Cost: (3a) - (4)	572,263,946	664,932,210
b. Net Phased-in Amount of Pension Normal Cost for Contribution Purposes: (3b) - (4)	505,196,526	N/A

# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION III - LIABILITIES AND CONTRIBUTIONS

(continued)

### C. Development of Excess Valuation Assets as of July 1, 2007

1. Valuation Assets	\$ 36,595,268,093
2. Actuarial Accrued Liability for Basic Allowances & Pension Adjustment Benefits	48,127,453,410
3. Post Retirement Medical Premium Fund	451,031
4. Present Value of Total Projected Normal Cost in Excess of the Projected Phased-in Normal Cost for Pension Adjustment Benefits	534,168,688
5. Benefit Enhancement Fund (prior to reduction for additional formula normal cost)	<u>0</u>
6. Excess Valuation Assets as of July 1, 2007: (1)-(2)-(3)-(4)-(5), not less than \$0	\$ 0

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION III - LIABILITIES AND CONTRIBUTIONS

(continued)

**D. Development of Benefit Enhancement Fund and Additional Formula Contribution  
As of July 1, 2007**

1. Benefit Enhancement Fund as of July 1, 2006	\$	0
2. Accrued Interest		<u>0</u>
3. Benefit Enhancement Fund as of July 1, 2007		0
4. Additional Formula Normal Cost to be paid by Benefit Enhancement Fund		
a. Gross Normal Cost payable July 1, 2007 - 1/55th Formula		1,149,342,956
b. Gross Normal Cost payable July 1, 2007 - 1/60th Formula		<u>1,056,674,692</u>
c. Additional Formula Normal Cost: (a) - (b)		92,668,264
5. Net Benefit Enhancement Fund Balance as of July 1, 2007 before Fiscal Year 2009 Contribution: (3) - (4c), not less than \$0		0
6. State Additional Formula Contribution as of July 1, 2007: (4c) - (3), not less than \$0		92,668,264
7. Estimated Fiscal Year 2009 Employee Contributions as of July 1, 2007		465,392,310
8. Limit on Fiscal Year 2009 Contribution to Benefit Enhancement Fund		
a. Present Value of Future Normal Costs as of June 30, 2007 - 1/55th Formula		11,667,596,011
b. Present Value of Future Normal Costs as of June 30, 2007 - 1/60th Formula		<u>10,707,589,612</u>
c. Limit: (a) - (b) - (5)		960,006,399
9. Excess Assets Available (C6)		0
10. Fiscal Year 2009 Allowable Contribution to Benefit Enhancement Fund: Lesser of (7), (8c), (9)	\$	0

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**E. Development of State's Fiscal Year 2009 Required Contributions**

1. Net Pension Normal Contribution as of July 1, 2007: B(5)(b)	\$ 505,196,526
2. Net Pension Normal Contribution as of June 30, 2008	546,875,239
3. Additional Formula Contribution as of July 1, 2007: D(6)	92,668,264
4. Additional Formula Contribution as of June 30, 2008	100,313,396
5. Accrued Liability Contribution	
a. Actuarial Accrued Liability for Basic Allowances & Pension	
Adjustment Benefits (excluding PRMF)	\$ 48,127,453,410
b. Adjusted Actuarial Value of Assets	
(excluding PRMF & BEF)	36,594,817,062
c. Reserve for previously earned reductions	
in Member Contributions	<u>0</u>
d. Unfunded Pension Accrued Liability: (a) - (b) + (c)	\$ 11,532,636,348
e. 30 - Year Amortization with 4% increasing payments of	
Unfunded Pension Accrued Liability payable June 30, 2008	700,917,218
6. Total Pension Contribution for State's Fiscal Year 2009: (2) + (4) + (5e)	\$ 1,348,105,853
7. State's FY 2009 Est. Non-contributory Group Life Insurance	
Contribution (NCGI)	31,590,000
8. State's Fiscal Year 2009 ERI-3 Contribution	<u>1,231,186</u>
9. Total State's Fiscal Year 2009 Contribution for Pension, NCGI and ERI:	
(6) + (7) + (8)	\$ <u>1,380,927,039</u>

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**F. Required Contribution as a Percentage of Appropriation Payroll**

	<u>Percent of Payroll</u>
Basic Allowances Net of Member Contributions - 1/60th Formula	5.01%
Active COLA (Phase-in percentage of 55.95%)-1/60th Formula	1.02%
Additional Formula Normal Cost (after any BEF reductions)	1.11%
Accrued Liability Contribution	<u>7.72%</u>
Total Pension Contribution for State's Fiscal Year 2009	14.86%
Estimated Non-contributory Group Life Insurance Benefits (NCGI)	0.35%
<b>Total State's Fiscal Year 2009 Contribution for Pension and NCGI</b>	<b>15.21%</b>
Increases in contribution if:	
COLA fully phased-in	0.80%
No BEF reductions existed	0.00%
Market Value of Assets used to determine the Accrued Liability Contribution	<u>1.02%</u>
Total Increases as a percent of payroll	1.82%
<b>Total Contribution with these increases as a percent of payroll</b>	<b>17.03%</b>

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**G. Fiscal Year 2009 Required Contributions Payable by the State and Certain State Colleges**

<u>Group</u>	<u>Normal Contribution (1/60 Formula)</u>	<u>Additional Formula Contribution (After BEF reductions)</u>	<u>Accrued Liability Contribution</u>	<u>Estimated Non-Contributory Group Life Insurance</u>	<u>Total</u>
<b><u>Certain State Colleges</u></b>					
NJ Institute of Technology	\$7,573	\$1,389	\$9,706	\$437	\$19,105
Rowan University	32,287	5,922	41,382	1,865	\$81,456
New Jersey University	66,840	12,260	85,667	3,861	\$168,628
Kean University	60,423	11,083	77,443	3,490	\$152,439
William Patterson University	52,298	9,593	67,029	3,021	\$131,941
Montclair State U. (Group 4)	35,627	6,535	45,663	2,058	\$89,883
The College of NJ	23,979	4,398	30,734	1,385	\$60,496
Stockton State College	<u>20,633</u>	<u>3,785</u>	<u>26,445</u>	<u>1,192</u>	<u>\$52,055</u>
<b>Total for Certain State Colleges</b>	<b>\$299,660</b>	<b>\$54,965</b>	<b>\$384,069</b>	<b>\$17,309</b>	<b>\$756,003</b>
<b><u>State</u></b>					
Dept of Higher Education	0	0	0	0	\$0
Dept of Education	1,263,201	231,709	1,619,015	72,968	\$3,186,893
County Colleges	191,593	35,144	245,560	11,067	\$483,364
Charter Schools	3,915,838	718,283	5,018,838	226,197	\$9,879,156
Other	<u>541,204,947</u>	<u>99,273,295</u>	<u>693,649,736</u>	<u>31,262,459</u>	<u>\$1,365,390,437</u>
<b>Total for State</b>	<b><u>\$546,575,579</u></b>	<b><u>\$100,258,431</u></b>	<b><u>\$700,533,149</u></b>	<b><u>\$31,572,691</u></b>	<b><u>\$1,378,939,850</u></b>
<b>Total for System</b>	<b><u>\$546,875,239</u></b>	<b><u>\$100,313,396</u></b>	<b><u>\$700,917,218</u></b>	<b><u>\$31,590,000</u></b>	<b><u>\$1,379,695,853</u></b>

# TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

## SECTION III - LIABILITIES AND CONTRIBUTION

(continued)

### H. Analysis of Actual Experience for the Year Ended June 30, 2007

1. Unfunded Accrued Liability as of June 30, 2006	\$	10,016,478,627
2. Gross Normal Cost as of June 30, 2006		1,117,649,264
3. Interest: ((1) + (2)) * 8.25%		918,565,551
4. Employee and Employer Contributions Made with Interest		<u>1,173,661,735</u>
5. Expected Unfunded Accrued Liability as of June 30, 2007: (1) + (2) + (3) - (4)	\$	10,879,031,707
6. Increase/(Decrease) in liability due to assumption changes		(59,595,549)
7. Increase/(Decrease) in liability due to Chapter 103, P.L. 2007		4,571,184
8. Expected Unfunded Accrued Liability after changes as of June 30, 2007: (5) + (6) + (7)	\$	10,824,007,342
9. Actual Unfunded Accrued Liability as of June 30, 2007		<u>11,532,636,348</u>
10. Gain/(Loss): (8) - (9)	\$	<u>(708,629,006)</u>

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION IV - ACTUARIAL BALANCE SHEET AS OF JUNE 30, 2007

<u>Assets</u>		<u>Liabilities</u>	
<u>Retirement Reserve Fund (RRF)</u>		<u>Payable from Retirement Reserve Fund</u>	
Credited to Fund w/ Distribution of Income	\$24,798,887,979	Retirees, Disableds and Beneficiaries	\$25,900,913,530
Add/(deduct) reserve transferable from/(to) CRF	<u>1,102,025,551</u>		
Adjusted Total	25,900,913,530		
<u>Pension Fund (PF)</u>		<u>Payable from Pension Fund</u>	
Credited to Fund w/ Distribution of Income	134,827	Retirees, Disableds and Beneficiaries	130,668
Add/(deduct) reserve transferable from/(to) CRF	<u>(4,159)</u>		
Adjusted Total	130,668		
Annuity Savings Fund (ASF) w/ Distribution of Income	7,563,158,194	<u>Payable from Annuity Savings Fund</u>	
		and <u>Contingent Reserve Fund</u>	
<u>Contingent Reserve Fund (CRF)</u>		Active Members	22,143,758,909
Credited to Fund w/ Distribution of Income	3,893,801,875	Term Vested Members	<u>82,650,303</u>
Add/(Deduct) from/(to) RRF, PF & SRF	<u>(1,102,021,392)</u>	Total	22,226,409,212
Adjusted Total	2,791,780,483		
<u>Benefit Enhancement Fund (BEF)</u>	0		
<u>Special Reserve Fund (SRF)</u>		<u>Post Retirement Medical Benefits Fund</u>	
Add/(deduct) reserve transferable from/(to) CRF	338,834,187		451,031
Adjusted Total	<u>0</u>		
<u>Post Retirement Medical Benefits Fund</u>	451,031		
Total Actuarial Value of Assets as of June 30, 2007	\$36,595,268,093		
Present Value of Prospective Contributions to the CRF and BEF for service accrued as of July 1, 2007	<u>11,532,636,348</u>		
Total Assets	\$48,127,904,441	Total Liabilities	\$48,127,904,441

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION V - GASB NO. 25 and 27 ACCOUNTING INFORMATION FOR  
STATE'S FISCAL YEAR 2009**

**A. Development of Annual Required Contribution as of June 30, 2009**

1. Actuarial Value of Assets as of July 1, 2007		
a. Actuarial Value of Pension Assets	\$36,595,268,093	
b. Post Retirement Medical Benefits Fund	451,031	
c. Market Value of Contributory Group Insurance Premium Fund	<u>119,761,683</u>	
d. Actuarial Value of Assets for GASB purposes: (a) - (b) + (c)		\$36,714,578,745
2. Actuarial Accrued Liability as of July 1, 2007		
a. Actuarial Accrued Liability for pension benefits	\$48,127,904,441	
b. Post Retirement Medical Benefits Fund	451,031	
c. Non-contributory and Contributory Group Insurance Benefits	<u>1,033,793,953</u>	
d. Accrued Liability for GASB purposes: (a) - (b) + (c)		<u>49,161,247,363</u>
3. Unfunded Accrued Liability as of July 1, 2007: (2d) - (1d)		\$12,446,668,618
4. Amortization Payment payable July 1, 2007		698,816,825
5. Net Normal Cost as of July 1, 2007		
a. Basic Allowances and pension adjustments (including full cost of pension adjustment benefits)	\$1,149,342,956	
b. Non-contributory and Contributory Group Insurance Benefits	37,344,001	
c. Expected Employee Contributions for pension benefits	484,410,746	
d. Expected Employee Contributions for Contributory Group Insurance Benefits	<u>34,417,864</u>	
e. Net Normal Cost as of July 1, 2007: (a) + (b) - (c) - (d)		<u>667,858,347</u>
6. Annual Required Contribution as of June 30, 2009		
a. Annual Required Contribution as of July 1, 2007: (4) + (5e)		\$1,366,675,172
b. Interest to Expected Payment Date		<u>234,803,336</u>
c. Annual Required Contribution: (a) + (b)		\$1,601,478,508

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2009**

(continued)

**B. Projection of Net Pension Obligation as of June 30, 2008 and June 30, 2009**

1. Estimated Net Pension Obligation as of June 30, 2007		\$3,483,544,376
2. Annual Pension Cost for Fiscal Year 2008		
a. Annual Required Contribution	\$1,550,503,835	
b. Interest on Net Pension Obligation	287,392,411	
c. Adjustment to ARC	<u>211,718,826</u>	
d. Annual Pension Cost: (a) + (b) - (c)		1,626,177,420
3. Expected Fiscal Year 2008 Contributions (51.6% of pension contribution plus est. NCGI)		<u>694,451,615</u>
4. Estimated Net Pension Obligation as of June 30, 2008: (1) + (2d) - (3)		\$4,415,270,181
5. Annual Pension Cost for Fiscal Year 2009		
a. Annual Required Contribution	\$1,601,478,508	
b. Interest on Net Pension Obligation	364,259,790	
c. Adjustment to ARC	<u>268,346,178</u>	
d. Annual Pension Cost: (a) + (b) - (c)		1,697,392,120
6. Expected Fiscal Year 2009 Contributions (65% of pension contribution plus est. NCGI)		<u>907,858,804</u>
7. Estimated Net Pension Obligation as of June 30, 2009: (1) + (2d) - (3)		\$5,204,803,497

Section V - B

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2009**

(continued)

**C. Schedule of Funding Progress**

Valuation Year	(1) Actuarial Value of Assets for <u>GASB Purposes</u>	(2) Accrued Liability for <u>GASB Purposes</u>	(3) Unfunded Accrued Liability <u>(2) - (1)</u>	(4) Funded Ratio <u>(1) / (2)</u>	(5) Appropriation Payroll	(6) Unfunded Accrued Liability as a % of Payroll: <u>(3) / (5)</u>
2002	35,148,246,433	35,146,591,842	(1,654,591)	100.00%	7,348,993,141	-0.02%
2003	34,651,825,932	37,383,732,882	2,731,906,950	92.69%	7,702,854,159	35.47%
2004	34,633,790,549	40,447,690,339	5,813,899,790	85.63%	8,047,272,269	72.25%
2005	34,789,389,875	43,967,927,299	9,178,537,424	79.12%	8,454,072,109	108.57%
2006	35,531,294,790	46,539,868,653	11,008,573,863	76.35%	8,748,623,186	125.83%
2007	36,714,578,745	49,161,247,363	12,446,668,618	74.68%	9,077,628,813	137.11%

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2009**

(continued)

**D. Schedule of Employer Contributions**

	<u>State's Fiscal Year</u>	<u>Annual Required Contribution</u>	<u>Employer Contributions</u>	<u>Percentage of ARC Contributed</u>
	2004	\$686,284,850	\$0	0.00%
	2005	883,460,483	0	0.00%
	2006	1,177,674,055	94,226,363	8.00%
	2007	1,407,249,580	690,794,259	49.09%
	2008	1,550,503,835	694,451,615	44.79%
	2009	1,601,478,508	907,858,804	56.69%

**E. Funding Policy for State's Fiscal Year 2009**

Valuation Date	July 1, 2007
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Percent, Open
Payroll Growth Rate for Amortization	4.00%
Remaining Amortization Period	30 years
Asset Valuation Method	Actuarial Value
<u>Actuarial Assumptions</u>	
Investment Rate of Return	8.25%
Projected Salary Increases**	5.74%
Cost-of-Living Adjustments	60% of the assumed CPI at 3%

\*\* Variable scale, averaging approximately 5.74% based on 2006 Experience Study

Section V - D&E

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION VI - CENSUS DATA

A. Reconciliation with Prior Year

	Active Contrib	Active NonContrib	Deferred Vested	Retirees	Disableds	Beneficiaries	Beneficiaries	Domestic Relations Beneficiaries	Total
Members as of June 30, 2006	140,831	13,057	853	61,812	2,447	3,955	400	223,355	
Terminated Vested	(78)	(39)	117	-	-	-	-	0	
Terminated Non-Vested	(710)	(2,818)	-	-	-	-	-	(3,528)	
Retired	(4,183)	(187)	(205)	4,575	-	-	-	0	
Disabled	(112)	(40)	-	-	152	-	-	0	
Died with Beneficiary	-	-	-	(294)	(9)	309	-	6	
Died without Beneficiary	(77)	(21)	(9)	(1,192)	(58)	(185)	-	(1,542)	
Payments Began	-	-	-	-	-	-	60	60	
Payments Ceased	-	-	-	-	-	-	(15)	(15)	
New Actives and Rehires	9,286	194	(5)	-	-	-	-	9,475	
Changed to Contributing	2,131	(2,131)	-	-	-	-	-	0	
Changed to Noncontributing	(5,138)	5,138	-	-	-	-	-	0	
Data Corrections	(7)	-	-	1	2	37	-	33	
Members as of June 30, 2007	<u>141,943</u>	<u>13,153</u>	<u>751</u>	<u>64,902</u>	<u>2,534</u>	<u>4,116</u>	<u>445</u>	<u>227,844</u>	

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION VI - CENSUS DATA

(continued)

**B. Appropriation Number and Salary by Group \***

<u>Group</u>	<u>Number</u>	<u>Salaries</u>
Department of Higher Education	0	\$ 0
Department of Education	254	20,967,981
New Jersey Institute of Technology	1	125,700
State Colleges	45	4,505,906
County Colleges	34	3,180,263
Charter Schools	1,346	64,999,323
Other	<u>140,252</u>	<u>8,983,849,640</u>
Total	<u>141,932</u>	\$ <u>9,077,628,813</u>

\* Excludes veterans hired prior to 1955 and Chapter 198 members

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION VI - CENSUS DATA

(continued)

**C. Number and Annual Benefits Including Pension Adjustments of Retirees, Beneficiaries, and Dependents on Roll**

<u>Group</u>	<u>Number</u>	<u>Annual Benefit</u>
Service and Early Retirements	65,347	\$ 2,280,902,612
Ordinary Disability Retirements	2,328	54,094,205
Accidental Disability Retirements	206	7,328,510
Ordinary Death Benefits	5	2,086
Accidental Death Benefits	2	54,903
Dependents of Deceased Beneficiaries	4,003	82,730,002
Dependents of Deceased Beneficiaries who elected to receive annuities certain instead of lump sum	<u>106</u>	<u>2,520,476</u>
Total	<u>71,997</u>	\$ <u>2,427,632,794</u>

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VI - CENSUS DATA**

(continued)

**D. New\* Retirees from Active Contributory Status**

	<u>Less than 25 years of service</u>	<u>At least 25 years of service</u>	<u>Total</u>
Number of Retirements	349	3,799	4,148
Total Annual Pension	7,732,056	177,676,861	185,408,917
Average Annual Pension	22,155	46,769	44,698
Average Age at Retirement	63.7	59.8	60.1
Average Service at Retirement	15.2	32.2	30.8

\* Members indicated as retired since last actuarial valuation.

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VI - CENSUS DATA**

(continued)

**E. Age, Service and Salary Profile of Active Contributing Participants**

Age Group	Males									Total	Average Annual Salary
	Years of Service										
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
15-19	1	0	0	0	0	0	0	0	0	1	\$43,503
20-24	438	0	0	0	0	0	0	0	0	438	43,197
25-29	3,018	825	1	0	0	0	0	0	0	3,844	45,968
30-34	1,541	2,917	318	0	0	0	0	0	0	4,776	52,035
35-39	897	1,897	1,689	220	1	0	0	0	0	4,704	60,861
40-44	599	923	952	853	165	0	0	0	0	3,492	67,072
45-49	536	689	536	535	779	225	0	0	0	3,300	72,190
50-54	454	641	481	445	635	1,175	530	0	0	4,361	78,368
55-59	408	496	415	429	456	714	1,864	868	3	5,653	86,013
60-64	219	299	179	186	225	228	375	1,096	204	3,011	89,780
65 & Up	<u>44</u>	<u>95</u>	<u>71</u>	<u>72</u>	<u>58</u>	<u>48</u>	<u>31</u>	<u>77</u>	<u>212</u>	<u>708</u>	88,650
Total	8,155	8,782	4,642	2,740	2,319	2,390	2,800	2,041	419	34,288	

Average Age = 44.5  
 Average Service = 14.2  
 Average Age at Entry = 30.4  
 Average Annual Salary = \$68,945

Age Group	Females									Total	Average Annual Salary
	Years of Service										
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
15-19	0	0	0	0	0	0	0	0	0	0	\$0
20-24	2,047	2	0	0	0	0	0	0	0	2,049	42,513
25-29	10,759	3,379	4	0	0	0	0	0	0	14,142	45,773
30-34	4,236	8,320	917	0	0	0	0	0	0	13,473	50,115
35-39	2,584	4,528	4,080	580	0	0	0	0	0	11,772	55,584
40-44	2,310	2,676	1,853	2,537	622	1	0	0	0	9,999	60,176
45-49	2,163	3,109	1,778	1,879	2,757	604	3	0	0	12,293	63,736
50-54	1,532	3,100	2,466	2,410	2,458	3,398	1,080	0	0	16,444	69,272
55-59	750	1,668	1,739	2,670	3,130	2,575	3,679	1,208	1	17,420	76,285
60-64	259	517	605	983	1,771	1,568	855	1,294	210	8,062	78,901
65 & Up	<u>50</u>	<u>119</u>	<u>141</u>	<u>208</u>	<u>398</u>	<u>408</u>	<u>277</u>	<u>177</u>	<u>223</u>	<u>2,001</u>	80,611
Total	26,690	27,418	13,583	11,267	11,136	8,554	5,894	2,679	434	107,655	

Average Age = 44.3  
 Average Service = 13.1  
 Average Age at Entry = 31.3  
 Average Annual Salary = \$62,371

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VI - CENSUS DATA**

(continued)

**F. Age, Service and Salary Profile of Non-Contributing Participants**

Age Group	Males									Total	Average Annual Salary
	Years of Service										
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
15-19	0	0	0	0	0	0	0	0	0	0	\$0
20-24	18	0	0	0	0	0	0	0	0	18	43,370
25-29	289	12	0	0	0	0	0	0	0	301	42,638
30-34	210	86	3	0	0	0	0	0	0	299	44,633
35-39	164	83	51	0	0	0	0	0	0	298	48,435
40-44	116	43	67	17	2	0	0	0	0	245	52,436
45-49	112	24	65	20	10	0	0	0	0	231	50,915
50-54	111	28	82	33	16	6	1	0	0	277	50,539
55-59	99	27	120	62	25	2	5	1	0	341	49,739
60-64	86	16	48	23	21	6	3	2	0	205	45,871
65 & Up	<u>66</u>	<u>5</u>	<u>6</u>	<u>9</u>	<u>5</u>	<u>6</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>101</u>	36,751
<b>Total</b>	<b>1,271</b>	<b>324</b>	<b>442</b>	<b>164</b>	<b>79</b>	<b>20</b>	<b>9</b>	<b>4</b>	<b>3</b>	<b>2,316</b>	

Average Age = 45.0  
 Average Service = 6.8  
 Average Age at Entry = 38.2  
 Average Annual Salary = \$47,529

Age Group	Females									Total	Average Annual Salary
	Years of Service										
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
15-19	1	0	0	0	0	0	0	0	0	1	\$50,850
20-24	69	0	0	0	0	0	0	0	0	69	40,288
25-29	1,306	146	0	0	0	0	0	0	0	1,452	42,391
30-34	1,205	1,251	61	0	0	0	0	0	0	2,517	45,445
35-39	621	660	628	7	0	0	0	0	0	1,916	47,880
40-44	379	192	506	97	2	0	0	0	0	1,176	47,103
45-49	335	95	356	94	26	2	0	0	0	908	44,897
50-54	308	112	405	153	32	12	3	0	0	1,025	44,889
55-59	210	86	533	273	71	10	9	0	0	1,192	43,234
60-64	119	18	148	80	29	7	3	2	0	406	41,541
65 & Up	<u>92</u>	<u>16</u>	<u>25</u>	<u>15</u>	<u>11</u>	<u>5</u>	<u>4</u>	<u>5</u>	<u>2</u>	<u>175</u>	37,348
<b>Total</b>	<b>4,645</b>	<b>2,576</b>	<b>2,662</b>	<b>719</b>	<b>171</b>	<b>36</b>	<b>19</b>	<b>7</b>	<b>2</b>	<b>10,837</b>	

Average Age = 40.9  
 Average Service = 7.2  
 Average Age at Entry = 33.8  
 Average Annual Salary = \$44,995

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VI - CENSUS DATA**

(continued)

**G. Age and Benefit Profiles**

**Terminated Vested Participants**

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>
Under 35	0	\$0	1	\$7,884	1	\$7,884
35-39	2	\$35,724	7	\$78,984	9	114,708
40-44	4	\$43,932	22	\$277,248	26	321,180
45-49	9	\$121,008	24	\$278,892	33	399,900
50-54	17	\$174,192	106	\$1,227,888	123	1,402,080
55-59	85	\$824,316	351	\$4,304,484	436	5,128,800
60 & Up	<u>23</u>	<u>\$218,076</u>	100	<u>\$1,239,864</u>	<u>123</u>	<u>1,457,940</u>
<b>Total</b>	<b>140</b>	<b>\$1,417,248</b>	<b>611</b>	<b>\$7,415,244</b>	<b>751</b>	<b>\$8,832,492</b>
		Average Age	=	55.8		
		Average Annual Pension	=	\$11,761		

**Service Retired Participants**

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>
Under 50	4	\$94,428	20	\$290,339	24	\$384,767
50-54	121	4,054,016	310	9,678,568	431	13,732,584
55-59	1,934	84,575,277	3,962	158,790,140	5,896	243,365,417
60-64	5,583	247,718,534	9,446	353,750,037	15,029	601,468,571
65-69	5,009	218,261,465	8,536	299,140,343	13,545	517,401,808
70-74	3,808	155,639,017	6,187	202,117,289	9,995	357,756,306
75-79	3,392	125,908,229	5,441	155,041,242	8,833	280,949,471
80-84	2,063	64,652,311	3,907	89,600,781	5,970	154,253,092
85-89	954	23,845,025	2,446	46,703,148	3,400	70,548,173
90-94	343	7,621,075	1,216	21,095,180	1,559	28,716,255
95-99	75	1,671,014	488	8,590,293	563	10,261,307
100 & Up	<u>11</u>	<u>305,235</u>	<u>91</u>	<u>1,759,626</u>	<u>102</u>	<u>2,064,861</u>
<b>Total</b>	<b>23,297</b>	<b>\$934,345,626</b>	<b>42,050</b>	<b>\$1,346,556,986</b>	<b>65,347</b>	<b>\$2,280,902,612</b>
		Average Age	=	70.2		
		Average Annual Pension	=	\$34,904		

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VI - CENSUS DATA**

(continued)

**G. Age and Benefit Profiles (continued)**

**Disabled Retired Participants**

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>
Under 35	0	\$0	1	\$21,031	1	\$21,031
35-39	1	19,059	4	78,189	5	97,248
40-44	11	247,566	23	478,329	34	725,895
45-49	9	203,779	71	1,751,219	80	1,954,998
50-54	53	1,386,478	179	4,705,085	232	6,091,563
55-59	113	3,109,233	356	9,115,942	469	12,225,175
60-64	173	4,554,237	468	12,015,238	641	16,569,475
65-69	84	2,043,631	359	9,002,791	443	11,046,422
70-74	76	1,709,298	220	4,984,920	296	6,694,218
75-79	41	744,824	140	2,704,990	181	3,449,814
80-84	25	419,192	81	1,459,593	106	1,878,785
85 & Up	<u>13</u>	<u>220,372</u>	<u>33</u>	<u>447,719</u>	<u>46</u>	<u>668,091</u>
<b>Total</b>	<b>599</b>	<b>\$14,657,669</b>	<b>1,935</b>	<b>\$46,765,046</b>	<b>2,534</b>	<b>\$61,422,715</b>
		Average Age	=	63.8		
		Average Annual Pension	=	\$24,239		

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VI - CENSUS DATA**

(continued)

**G. Age and Benefit Profiles (continued)**

**Beneficiaries and Dependents**

<u>Age</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>	<u>Number</u>	<u>Annual Pension</u>
Under 25	6	\$68,863	7	\$128,363	13	\$197,226
25-29	5	94,584	12	182,033	17	276,617
30-34	4	81,871	5	105,597	9	187,468
35-39	6	102,176	15	271,465	21	373,641
40-44	7	104,288	9	133,543	16	237,831
45-49	17	338,774	33	714,211	50	1,052,985
50-54	35	711,629	56	1,146,639	91	1,858,268
55-59	71	1,431,408	146	3,783,103	217	5,214,511
60-64	140	3,176,254	253	6,819,166	393	9,995,420
65-69	115	2,673,760	352	9,080,281	467	11,754,041
70-74	108	2,350,585	475	12,380,067	583	14,730,652
75-79	111	2,068,374	561	13,208,897	672	15,277,271
80-84	93	1,371,084	574	10,695,213	667	12,066,297
85-89	72	916,869	471	6,910,631	543	7,827,500
90-94	28	321,499	238	2,935,664	266	3,257,163
95-99	8	91,248	71	796,761	79	888,009
100 & Up	<u>1</u>	<u>4,306</u>	<u>11</u>	<u>108,261</u>	<u>12</u>	<u>112,567</u>
<b>Total</b>	<b>827</b>	<b>15,907,572</b>	<b>3,289</b>	<b>69,399,895</b>	<b>4,116</b>	<b>85,307,467</b>
		Average Age	=	74.5		
		Average Annual Pension	=	\$20,726		

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2007**

**A. Actuarial Assumptions**

Interest: 8.25% per annum, compounded annually (as prescribed by the State Treasurer).

CPI: 3.0% per annum, compounded annually (as prescribed by the State Treasurer). The pension adjustment is 60% of the cumulative increase.

Future Payroll Growth: 4.0% per annum, compounded annually.

Salary Scale: Salary increases vary by years of employment averaging 5.74% (based on the 2006 Experience Study). Schedule of rates are shown below.

<u>Years of Employment</u>	<u>Annual Rate</u>
0-12	7.35%
13	7.00
14	6.70
15	6.40
16	5.80
17	5.25
18	5.05
19	4.80
20	4.80
21	4.45
22	4.35
23-25	4.10
26-30	3.75
31+	3.50

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Section VII - A

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2007**

**A. Actuarial Assumptions (Continued)**

Termination: Withdrawal rates vary by age, years of employment and gender. Illustrative rates are shown below:

Less Than 10 Years of Employment

<u>Years of Employment</u>	<u>Male</u>	<u>Female</u>	
		<u>&lt;40</u>	<u>40+</u>
0	8.19%	7.61%	7.61%
1	6.72	7.00	7.00
2	5.90	6.09	6.09
3	4.17	6.55	3.80
4	3.39	6.28	2.59
5	2.68	6.16	2.19
6	2.36	6.16	1.80
7	2.12	5.95	1.68
8	1.59	5.91	1.43
9	1.52	4.52	1.28

More Than 10 Years of Employment

<u>Age</u>	<u>Annual Rates for Those With Deferred Annuity Benefits*</u>		<u>Annual Rates for Receiving Return of Contributions</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.65%	3.91%	0.44%	0.43%
30	0.65	3.91	0.44	0.43
35	0.68	2.92	0.41	0.31
40	0.57	1.36	0.27	0.16
45	0.47	0.63	0.17	0.06
50	0.57	0.64	0.12	0.06
55	1.09	1.22	0.08	0.08

\*Members must have attained 10 years of service or 60 years of age in order to receive an annuity benefit.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2007**

**A. Actuarial Assumptions (Continued)**

Disability: Incidence of disabilities among active members only apply upon the attainment of 10 years of service until the attainment of age 55 and 25 years of service. The rates vary by age, gender and type of disability. Illustrative rates are shown below:

<u>Age</u>	<u>Ordinary</u>		<u>Accidental</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.0301%	0.0379%	0.0090%	0.0060%
30	0.0473	0.0550	0.0090	0.0060
35	0.0609	0.0674	0.0090	0.0060
40	0.0701	0.0893	0.0090	0.0060
45	0.1023	0.1317	0.0090	0.0060
50	0.1421	0.1759	0.0090	0.0060
55	0.3732	0.3506	0.0090	0.0060

Pre-retirement Mortality: Illustrative rates of mortality of active members which vary by age and gender are shown below. No accidental deaths are assumed.

<u>Age</u>	<u>Ordinary</u>	
	<u>Male</u>	<u>Female</u>
25	0.0326%	0.0242%
30	0.0365	0.0286
35	0.0348	0.0294
40	0.0582	0.0373
45	0.0869	0.0512
50	0.1290	0.0768
55	0.1873	0.1033
60	0.2594	0.1568
65	0.4062	0.2563
70	0.6446	0.5093

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2007**

**A. Actuarial Assumptions (Continued)**

Post-retirement Mortality: Rates of mortality vary by age, gender and type of retirement. A generational approach is applied using Scale AA to account for future mortality improvement for non-disabled annuitants. The base year is 2003. Illustrative rates for the base year and Scale AA are shown below:

<u>Age</u>	<u>Service Retirements and Beneficiaries</u>		<u>Scale AA</u>		<u>Disability Retirement</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
45	0.3791%	0.1528%	1.3%	1.6%	2.2571%	0.7450%
50	0.5100	0.2390	1.8	1.7	2.8975	1.1535
55	0.6574	0.3407	1.9	0.8	3.5442	1.6544
60	0.9625	0.5486	1.6	0.6	4.2042	2.1839
65	1.0985	0.7335	1.4	0.5	5.0174	2.8026
70	1.8200	1.1663	1.5	0.6	6.2583	3.7635
75	3.1758	1.9269	1.4	0.8	8.2067	5.2230
80	5.6098	3.3464	1.0	0.7	10.9372	7.2312
85	9.8827	7.1132	0.7	0.6	14.1603	10.0203

Non-contributory Members: 30% are assumed to return to contributory status.

Marriage: Husbands are assumed to be 3 years older than wives. Among the active population, 80% of participants are assumed to be married. No children are assumed. Neither the percentage married nor the number of children assumptions are necessarily individually explicit, but they are considered reasonable, when viewed as a single combined assumption.

Form of Payment: Modified Cash Refund Annuity.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2007**

**B. Actuarial Valuation Method**

The Projected Unit Credit Method was used as required by Chapter 62, P.L. 1994 as modified by Chapters 115, P.L. 1997 and 133, P.L. 2001. Non-contributory life insurance benefits are funded on a term cost basis.

**C. Asset Valuation Method**

A five year average of market value 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. Cash flows are based on an accrual accounting approach. This method is prescribed by statute. The market value of assets is used for the Postretirement Medical Fund and the Contributory Group Insurance Premium Fund for GASB purposes.

**D. Changes in Actuarial Assumptions**

This is first valuation reflecting the 2006 Experience Study.

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Section VII – B, C & D

## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2007

This summary of plan provisions is intended only to describe the essential features of the plan. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself.

#### 1. Type of Plan

The Plan is a contributory, defined benefit plan. Effective July 1, 2007, contributions by Members are 5.5% of compensation. For members hired on or after July 1, 2007, contributions are capped at the Social Security Taxable Wage Base. For compensation in excess of the Social Security Taxable Wage Base, contributions of 5.5% of compensation are made to the Defined Contribution Retirement Program.

#### 2. Effective Date

The Plan was established in 1919. It was reorganized and integrated with Social Security in 1955. Social Security integration was eliminated in 1966, i.e., reductions in retirement benefits based on Social Security benefits were eliminated.

#### 3. Eligibility for Membership

Employees appointed to positions requiring certification as members of a regular teaching or professional staff of a public school system in New Jersey are required to enroll as a condition of employment. Employees of the Department of Education holding unclassified, professional and certificated titles are eligible for membership. Temporary or substitute employees are not eligible.

#### 4. Definitions

- a. Fiscal Year: A Fiscal Year is a 12-month period beginning on July 1 and ending on June 30.
- b. Credited Service: A year of Credited Service for each year an employee is a Member of the Retirement System plus service, if any, covered by a prior service liability.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
**AS OF JUNE 30, 2007**

4. Definitions (continued)

- c. Final Compensation: This is the average annual compensation upon which contributions by a member are based on for the three consecutive years of Creditable Service immediately preceding retirement or the highest three fiscal years of Membership Service.
- d. Final Year Compensation: This is the compensation upon which contributions by a Member to the Annuity Savings Fund are based in the last year of Membership Service.
- e. Aggregate Member Contributions: This is the sum of all amounts deducted from the compensation of a Member or contributed by him or on his behalf without interest.
- f. Class A Member: Any member who contributes towards retirement allowance based on 1/64th benefit rate per year of creditable service.
- g. Class B Member: Any member who contributes towards a retirement allowance based on 1/55th benefit rate per year of creditable service.

5. Retirement Benefits

a. Service Retirement

Service Retirement Eligibility: Eligibility means age 60 with no minimum service requirement.

Service Retirement Benefit: An employee's annual service retirement allowance is equal to a member annuity plus an employer pension which together equals 1/64th of Final Compensation for each year of service for Class A members and 1/55th of Final Compensation for each year of service for Class B members.

Note: See Section 12 for special benefits for veteran members.

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Section VIII

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
**AS OF JUNE 30, 2007**

5. Retirement Benefits (continued)

b. Early Retirement

Early Retirement Eligibility: A Member may retire after completion of 25 years of Creditable Service.

Early Retirement Benefit: The benefit may be either:

- (i) the lump sum withdrawal benefit described in 6.a. below; or
- (ii) the Service Retirement Benefit reduced by 1/4 of one percent for each month the retirement date precedes age 55, for members hired prior to July 1,2007.
- (iii) the Service Retirement Benefit reduced by 1/12 of one percent for each month the retirement data precedes age 60 but over age 55 and by ¼ of one percent for each month the retirement date precedes age 55, for members hired on or after July 1, 2007.

6. Termination Benefits

a. Lump Sum Withdrawal

Eligibility: A Member is eligible upon termination of service.

Lump Sum Withdrawal Benefit: The benefit equals a refund of Aggregate Member Contributions plus, if the member has completed three years of service, interest accumulated at 2.0% per annum allowed thereon.

b. Deferred Retirement

Eligibility: A Member is eligible upon termination of service prior to age 60 and after 10 years of Creditable Service.

Deferred Retirement Benefit: The benefit may be either:

- (i) the lump sum withdrawal benefit described in 6.a. above; or

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**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
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6. Termination Benefits (continued)

- (ii) a deferred retirement benefit, commencing at age 60, equal to a member annuity plus an employer pension which together provide a retirement allowance equal to the service retirement benefit based on Final Compensation and Creditable Service at date of termination.

7. Death Benefits

a. Ordinary Death (Insured) Benefit - Lump Sum (Non-Contributory)

Pre-retirement Death Benefit Eligibility: Any current active member is eligible.

Pre-retirement Death Benefit: The benefit is a lump sum benefit equal to the Aggregate Contributions with interest allowed thereon plus an amount equal to 1-1/2 times Compensation at date of death.

Post-retirement Death Benefit Prior to Age 60 Eligibility: Eligible if disabled or retired early.

Post-retirement Death Benefit Prior to Age 60 Benefit: The benefit is as follows:

- (i) For death while a Disabled Retiree the benefit is equal to 1-1/2 times Compensation.
- (ii) For death while an Early Retiree, the benefit is equal to 3/16 times Compensation.
- (iii) For death while vested terminated, the benefit is equal to his Aggregate Contributions with interest allowed thereon.

Post-retirement Death Benefit After Age 60 Eligibility: Eligible after attainment of age 60 for service, deferred and disabled retirements (if not disabled, 10 years of Creditable Service required for members enrolling on or after July 1, 1971).

Post-retirement Death Benefit After Age 60 Benefit: The benefit payable is equal to 3/16 times Compensation.

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7. Death Benefits (continued)

b. Contributory Death Benefit: An additional, employee-paid, death benefit is also available through group insurance purchased by the Board of Trustees. Contributions for this benefit are required by Members during the first year of enrollment. Participation may be terminated after the first year. The benefit prior to retirement is 2 times compensation. The benefit after retirement is 1/4 times final year compensation (coverage at retirement, and 10 years of participation for Members enrolling on or after July 1, 1970, is required).

c. Pre-retirement Accidental Death Benefit:

Eligibility: A death resulting from injuries received from an accident during performance of duty and not a result of willful negligence is eligible.

Pre-retirement Lump Sum Benefit: The benefit is a lump sum equal to 1-1/2 times Compensation.

Pre-retirement Accidental Death Benefit: The benefit payable is as follows:

- (i) The annuity benefit to a widow or widower is equal to 50% of Compensation, payable for life until remarriage.
- (ii) The annuity benefit, when there is no spouse, or the spouse is remarried, is equal to 20% of Compensation for one child, 35% for two children, 50% for three or more children. The benefit is payable while the children are under age 18 and it is payable for life if they are disabled.
- (iii) The annuity benefit, when there is no spouse or children, is equal to 25% of Compensation for one dependent parent and 40% for two dependent parents.
- (iv) The benefit, when there is no relation as stated above, is equal to the Aggregate Contributions with interest allowed thereon and is payable to a beneficiary or to the Member's estate. This is also the minimum benefit payable under (i), (ii) and (iii) above.

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8. Disability Benefits

a. Ordinary Disability Retirement

Eligibility: A Member is eligible for Ordinary Disability Retirement if he (she) has 10 years of Creditable Service and is totally and permanently incapacitated from the performance of usual or available duties.

Ordinary Disability Retirement Benefit: The total retirement allowance is equal to the greater of:

- (i) 1.64% of Final Compensation times the number of years of Creditable Service; or
- (ii) 43.6% of Final Compensation.

Note: See Section 12 for special benefits for veteran members.

b. Accidental Disability Retirement

Eligibility: A Member is eligible upon total and permanent incapacitation as a direct result of a traumatic event occurring during and as a result of the performance of regular or assigned duties.

Accident Disability Retirement Benefit: The benefit payable is equal to a Member annuity plus an employer pension which together equals 72.7% of the Compensation at date of injury.

9. Cost-of-Living Pension Adjustment Benefits: All retirees and eligible beneficiaries will receive an annual adjustment of at least 60% of the cumulative change in the Consumer Price Index. This adjustment is first available on the 25th month after retirement or death.

10. Additional Old-Plan Benefit: An additional pension is payable to any retiree who was a member of the old Teachers' Retirement Fund. This pension is the actuarial equivalent of his contributions to the old Teachers' Retirement Fund without interest.

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### SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2007

11. Special Minimum Benefit: A member who retired prior to 1955 with 20 or more years of service may receive a minimum pension of \$500 a month inclusive of any amounts payable under any pension adjustments.

12. Special Benefits for Veterans:

- a. Service Retirement: Eligible if member attains age 60 and completes 20 years of service or attains age 55 and completes 25 years of service. Benefit equals 54.5% of highest 12-month contributory compensation.
- b. Chapter 97 Benefit: Eligible if age 55 and completes 35 years of service. Benefit equals 1/55th of final year compensation for each year of service.

13. Benefit and Compensation Limits

The provisions of IRC Section 415 and IRC Section 401(a)(17), which limit benefits paid and limit compensation used in determining benefits, has been reflected in this report.

The IRC Section 415 limit is \$180,000 and the 401(a)(17) compensation cap is \$225,000 and is applied on a calendar year basis.

14. Forms of Payment

- a. Maximum Option – Single life annuity.
- b. Option 1 – Single life annuity with return of reserve option.
- c. Option 2 – 100% joint and survivor annuity.
- d. Option 3 – 50% joint and survivor annuity.
- e. Option 4 – Other percentage joint and survivor annuity.
- f. Option A – 100% pop-up joint and survivor annuity.
- g. Option B – 75% pop-up joint and survivor annuity.
- h. Option C – 50% pop-up joint and survivor annuity.
- i. Option D – 25% pop-up joint and survivor annuity.

15. Contributions

- a. Member Contributions: Each member becoming a member on or after January 1, 1956 contributes at the rate of contribution applicable to Class B members.

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15. Contributions (continued)

- (i) Class B Membership: Any member on December 31, 1955 may elect to be classified as a Class B member and contribute at the rate of contribution applicable to Class B members at his age at membership. Any such member may elect to increase his accumulated deductions by the amount required by the Board to receive credit as a Class B member for all or part of his service prior to such election.
- (ii) Class A Membership: Any member who is not a veteran and does not elect to be classified as a Class B member continues to contribute at the rate of contribution applicable to his age at membership which was payable prior to the establishment of the integrated system, except that if he became a member subsequent to June 30, 1946 he will pay after January 1, 1955 at the rate of contribution in effect on June 30, 1946 applicable to his age at membership.

Prior to July 1, 1979 different contribution rates were established for men and women. Effective on that date members contribute at rates intermediate between the rates previously applicable to male and female members, computed to provide the same present value of future employee contributions at each entry age on the basis of the membership as constituted on the effective date.

b. Local Employer Contributions

- (i) Early Retirement Incentive Contributions: The State and Local employers which elected to participate in the early retirement incentive programs authorized by Chapters 137, 229 and 231, P.L. 1991, Chapters 48, 138 and 163, P.L. 1993, Chapter 23, P.L. 2001 and Chapters 128 and 129, P.L. 2003 pay contributions to cover the additional liability for these programs over amortization periods chosen by the employer (15 years for Chapters 128 and 129) or the amortization period for the Unfunded Accrued Liability of the system (Chapter 23).
- (ii) Chapter 113 Contributions: Certain School Districts have elected to exempt a select group of employees from the compensation limit under IRC Section 401(a)(17) incorporated under Chapter 113. These school districts will pay the full cost of this exemption at a member's date of retirement.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
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**16. Changes in Plan Provisions Since Prior Valuation**

This valuation reflects the adoption of Chapters 103, P.L. 2007, and 92 P.L. 2007.

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APPENDIX I - EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE

<u>Group Number</u>	<u>Location Name</u>	ERI 1	ERI 1	ERI 2	ERI 2
		<u>Present Value June 30, 2007</u>	<u>Fiscal Year 2009 Payment</u>	<u>Present Value June 30, 2007</u>	<u>Fiscal Year 2009 Payment</u>
3	981 NJ INST OF TECH	\$212,360	\$25,621	\$362,382	\$24,269
5	1001 ATLANTIC COMMUNITY COLLEGE	68,844	8,306	N/A	N/A
6	911 ALLAMUCHY BD OF ED	N/A	N/A	114,468	10,609
6	300 ASBURY PARK BD OF ED	3,449,045	416,124	N/A	N/A
6	969 ATLANTIC CO VOCATIONAL SCHOOLS	207,486	25,033	N/A	N/A
6	4014 BERLIN BORO BD OF ED	N/A	N/A	122,508	36,464
6	4015 BERLIN TWP BD OF ED	197,523	23,831	166,730	26,439
6	412 BOONTON TWP BD OF ED	134,514	16,229	N/A	N/A
6	774 BYRAM TWP BD OF ED	236,587	28,544	N/A	N/A
6	4017 CHESILHURST BORO BD OF ED	30,029	3,623	25,351	4,020
6	4018 CLEMENTON BD OF ED	111,746	13,482	94,328	14,958
6	232 CRANBURY TWP BD OF ED	N/A	N/A	N/A	N/A
6	121 EAST WINDSOR REG SCHOOL DIST	N/A	N/A	207,966	32,978
6	6012 ESSEX CO EDUCATIONAL SERV COMM	206,218	24,880	N/A	N/A
6	329 FARMINGDALE BD OF ED	N/A	N/A	142,851	42,519
6	4033 GLOUCESTER CITY BD OF ED	N/A	N/A	N/A	N/A
6	753 GREEN BROOK BD OF ED	314,209	37,909	N/A	N/A
6	8082 GUTTENBERG BORO BD OF ED	168,994	20,389	N/A	N/A
6	956 HUDSON CO VOCATIONAL SCHOOL	N/A	N/A	768,910	71,263
6	6040 IRVINGTON TWP BD OF ED	N/A	N/A	3,318,657	526,252
6	8030 KEARNY TWP BD OF ED	N/A	N/A	N/A	N/A
6	521 LAKEHURST BORO BD OF ED	88,289	10,652	N/A	N/A
6	645 LAKELAND REGIONAL	793,782	95,769	N/A	N/A
6	790 LENAPE VALLEY REG H S DIST	N/A	N/A	N/A	N/A
6	2052 LITTLE FERRY BD OF ED	N/A	N/A	N/A	N/A
6	3027 MEDFORD TWP BD OF ED	N/A	N/A	N/A	N/A
6	111 MERCER CO SPECIAL SERVICES	392,477	47,352	N/A	N/A
6	953 MERCER CO VOCATIONAL SCHOOLS	N/A	N/A	273,951	81,540
6	346 MONMOUTH BEACH BD OF ED	107,626	12,985	N/A	N/A
6	987 MONMOUTH CO VOCATIONAL SCHOOLS	635,024	76,615	N/A	N/A
6	4043 MT EPHRAIM BD OF ED	N/A	N/A	N/A	N/A
6	3036 PEMBERTON TWP BD OF ED	\$2,177,987	\$262,772	N/A	N/A
6	210 PERTH AMBOY BD OF ED	N/A	N/A	\$1,321,316	\$393,283
6	4069 PINE HILL BORO BD OF ED	\$285,688	\$34,468	\$143,422	\$22,743
6	1010 PLEASANTVILLE BD OF ED	N/A	N/A	N/A	N/A
6	984 SALEM CO VOCATIONAL SCHOOL	\$27,720	\$15,292	N/A	N/A
6	531 SEASIDE HEIGHTS BD OF ED	N/A	N/A	\$8,221	\$2,447
6	5071 SHILOH BOROUGH BD OF ED	\$11,737	\$1,416	N/A	N/A
6	794 VERNON TWP BD OF ED	N/A	N/A	N/A	N/A
6	641 WANAQUE BD OF ED	N/A	N/A	\$303,192	\$28,100
6	8070 WEST NEW YORK TWP BD OF ED	N/A	N/A	\$2,700,026	\$250,240
6	934 WHITE TWP BD OF ED	\$221,950	\$26,778	N/A	N/A
<b>Grand total for Local Employers</b>		<b>\$10,079,835</b>	<b>\$1,228,070</b>	<b>\$10,074,279</b>	<b>\$1,568,124</b>

**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**

**APPENDIX I - EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE**

(continued)

<u>Group Number</u>	<u>Location Name</u>	ERI 3	ERI 3	ERI 4	ERI 4
		Present Value June 30, 2007	Fiscal Year 2009 Payment	Present Value June 30, 2007	Fiscal Year 2009 Payment
2	90400 EDUCATION DEPARTMENT	\$10,941,632	\$699,005	N/A	N/A
2	90416 MARIE KATZENBACK SCH FOR DEAF	\$1,947,133	\$124,392	N/A	N/A
2	90207 OFFICE OF ADM LAW	\$460,697	\$29,432	N/A	N/A
3	981 NJ INST OF TECH	\$456,838	\$29,185	N/A	N/A
4	90411 NEW JERSEY UNIVERSITY	\$2,271,717	\$145,128	N/A	N/A
4	90412 KEAN UNIVERSITY	\$1,188,235	\$75,910	N/A	N/A
4	90414 MONTCLAIR STATE UNIVERSITY	\$940,024	\$60,053	N/A	N/A
4	90410 ROWAN UNIVERSITY	\$385,337	\$24,617	N/A	N/A
4	90415 THE COLLEGE OF NEW JERSEY	\$241,610	\$15,435	N/A	N/A
4	90413 WILLIAM PATERSON UNIVERSITY	\$438,747	\$28,029	N/A	N/A
6	8010 BAYONNE BOARD OF ED	N/A	N/A	\$7,545,268	\$948,817
6	122 EWING TWP BD OF ED	N/A	N/A	N/A	N/A
6	110 HAMILTON TWP BD OF ED	N/A	N/A	N/A	N/A
6	8083 HARRISON TWP BD OF ED	N/A	N/A	\$1,678,356	\$202,492
6	335 HOWELL TWP BD OF ED	N/A	N/A	N/A	N/A
6	956 HUDSON CO VOCATIONAL SCHOOL	N/A	N/A	\$1,322,945	\$159,612
6	242 MILLTOWN BORO BD OF ED	N/A	N/A	N/A	N/A
6	620 PASSAIC BD OF ED	N/A	N/A	\$20,714,107	\$2,499,137
6	9034 STOCKTON BOROUGH BD OF ED	N/A	N/A	\$106,980	\$12,907
6	515 TOMS RIVER SCHOOL DIST	N/A	N/A	N/A	N/A
<b>Grand total for State Locations and Local Employers</b>		<b>\$19,271,970</b>	<b>\$1,231,186</b>	<b>\$31,367,656</b>	<b>\$3,822,965</b>