

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

June 30, 2008 Actuarial Valuation Report

March 13, 2009

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, 2008. 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, 2010 which represents the contribution for the valuation year beginning July 1, 2008;
- to determine the Annual Required Contribution in accordance with Governmental Accounting Standards Board Statements 25 and 27 for the Fiscal Year ending June 30, 2010 and,
- to review the experience under the plan for the valuation year ending June 30, 2008.

Actuarial computations presented in this report are for purposes of determining the statutory contribution amounts for TPAF. Actuarial computations under GASB Statements No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The calculations in the enclosed report have been made on a basis consistent with our understanding of the N.J. statutes and GASB Statements No. 25 and 27. Determinations for purposes other than these requirements may be significantly

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different from the results contained in this report. Accordingly, additional determinations 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 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

Future actuarial measurements may differ significantly from the current measurements presented in this analysis due to actual plan experience deviating from the actuarial assumptions, and changes in plan provisions, actuarial assumptions, and applicable law. An assessment of the potential range and cost effect of such differences is beyond the scope of this analysis.

#### 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

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Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

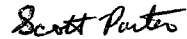
We are members of the American Academy of Actuaries and meet its Qualification Standard to render this actuarial opinion.

Respectfully submitted,

MILLIMAN, INC.

By: 

Richard L. Gordon, A.S.A.  
Member American Academy of Actuaries



Scott F. Porter, F.S.A.  
Member American Academy of Actuaries



William A. Reimert, F.S.A.  
Member American Academy of Actuaries

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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, 2008	June 30, 2007	June 30, 2006	Percentage Change 2007 to 2008	Percentage Change 2006 to 2007
	Valuation	Valuation	Valuation		
<b>Active Contributing Members</b>					
Number	142,887	141,943	140,831	0.7 %	0.8 %
Number of Veteran Members	1,019	1,171	1,338	(13.0)	(12.5)
Average Pay	\$ 65,927	\$ 63,959	\$ 62,130	3.1	2.9
Total Payroll	9,420,070,731	9,078,568,687	8,749,789,809	3.8	3.8
Total Appropriation Payroll	9,419,083,203	9,077,628,813	8,748,623,186	3.8	3.8
Avg. Member Accumulated Contributions	53,174	50,707	48,584	4.9	4.4
Total Member Accumulated Contributions	7,597,916,467	7,197,468,540	6,842,191,130	5.6	5.2
<b>Active Non-Contributing Members</b>					
Number	13,200	13,153	13,057	0.4 %	0.7 %
Number of Veteran Members	75	91	102	(17.6)	(10.8)
Average Pay	\$ 47,016	\$ 45,441	\$ 44,188	3.5	2.8
Total Payroll	620,614,734	597,691,622	576,959,990	3.8	3.6
Avg. Member Accumulated Contributions	23,976	22,237	20,957	7.8	6.1
Total Member Accumulated Contributions	316,487,024	292,489,528	273,630,722	8.2	6.9

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TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION I - SUMMARY

(continued)

A. Summary of Principal Results (continued)

	PARTICIPANT DATA				Percentage Change 2007 to 2008	Percentage Change 2006 to 2007
	June 30, 2008	June 30, 2007	June 30, 2006	June 30, 2006		
	Valuation	Valuation	Valuation	Valuation		
<b>Service Retirees, Including Domestic Relations Beneficiaries</b>						
Number	68,479	65,347	62,212		4.8 %	5.0 %
Average Annual Pension	\$ 36,056	\$ 34,904	\$ 33,361		3.3	4.6
Total Annual Pensions	2,469,099,049	2,280,902,612	2,075,424,405		8.3	9.9
Average Retirement Age of New Retirees	60.3	60.1	59.9		0.3	0.3
Average Annual Pension of New Retirees	\$ 45,786	\$ 44,698	\$ 43,768		2.4	2.1
<b>Disabled Retirees</b>						
Number	2,625	2,534	2,447		3.6 %	3.6 %
Average Annual Pension	\$ 24,916	\$ 24,239	\$ 23,427		2.8	3.5
Total Annual Pensions	65,403,886	61,422,715	57,324,718		6.5	7.1
<b>Beneficiaries and Dependents</b>						
Number	4,309	4,116	3,955		4.7 %	4.1 %
Average Annual Pension	\$ 21,577	\$ 20,726	\$ 19,747		4.1	5.0
Total Annual Pensions	92,975,389	85,307,467	78,099,815		9.0	9.2
<b>Terminated Vested Participants</b>						
Number	655	751	853		(12.8) %	(12.0) %
Average Annual Pension	\$ 12,270	\$ 11,761	\$ 11,304		4.3	4.0
Total Annual Pensions	8,036,844	8,832,492	9,642,252		(9.0)	(8.4)

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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, 2008	June 30, 2007	June 30, 2006			
	Valuation (State's Fiscal Year 2010 Contributions)	Valuation (State's Fiscal Year 2009 Contributions)	Valuation (State's Fiscal Year 2008 Contributions)	Percentage Change 2007 to 2008	Percentage Change 2006 to 2007	
Normal Cost (1/60th formula) **	\$ 564,701,264	\$ 546,875,239	\$ 579,754,480	3.3 %	(5.7) %	
Excess Assets Available ***	N/A	N/A	0	N/A	N/A	
Normal Contribution	564,701,264 *	546,875,239 *	579,754,480 *	3.3	(5.7)	
Additional Formula Normal Cost	103,469,076	100,313,396	97,622,687	3.1 %	2.8 %	
Benefit Enhancement Fund (BEF) Balance	0	0	0	0.0	0.0	
Additional Formula Contribution	103,469,076 *	100,313,396 *	97,622,687 *	3.1	2.8	
Accrued Liability Contribution	857,998,490 *	700,917,218 *	608,769,939 *	22.4 %	15.1 %	
<b>Total Pension Contribution by Statute</b>	<b>\$ 1,526,168,830 *</b>	<b>\$ 1,348,105,853 *</b>	<b>\$ 1,286,147,106 *</b>	<b>13.2 %</b>	<b>4.8 %</b>	
State Appropriation for Pension ****	(95,419,250)	(166,223,193)	(663,791,615)	(42.6) %	(75.0) %	
<b>Pension Contribution Not Appropriated</b>	<b>\$ 1,430,749,580 *</b>	<b>\$ 1,181,882,660 *</b>	<b>\$ 622,355,491 *</b>	<b>21.1 %</b>	<b>89.9 %</b>	

\* These amounts should be increased for assumed interest at the rate of 8.25% per annum if payment is delayed beyond June 30, 2009, June 30, 2008 and June 30, 2007, 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 2010 fiscal year, it is anticipated that 6.25% 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, 2008	June 30, 2007	June 30, 2006	Percentage Change	Percentage Change
	Valuation (State's Fiscal Year 2010)	Valuation (State's Fiscal Year 2009)	Valuation (State's Fiscal Year 2008)	2007 to 2008	2006 to 2007
Normal Cost *	\$ 742,319,228	\$ 722,956,661	\$ 763,269,751	2.7 %	(5.3) %
Amortization Payment **	<u>917,133,905</u>	<u>756,469,213</u>	<u>669,066,355</u>	21.2 %	13.1 %
Subtotal	1,659,453,133	1,479,425,874	1,432,336,106	12.2 %	3.3 %
Interest Adjustment ***	<u>136,904,883</u>	<u>122,052,634</u>	<u>118,167,729</u>	12.2 %	3.3 %
<b>Annual Required Contribution</b>	<b>\$ 1,796,358,016</b>	<b>\$ 1,601,478,508</b>	<b>\$ 1,550,503,835</b>	<b>12.2 %</b>	<b>3.3 %</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, 2008	June 30, 2007	June 30, 2006			
	Valuation (State's	Valuation (State's	Valuation (State's	Percentage	Percentage	Percentage
	Fiscal Year 2010	Fiscal Year 2009	Fiscal Year 2008	Change	Change	Change
	<u>Contributions)</u>	<u>Contributions)</u>	<u>Contributions)</u>	<u>2007 to 2008</u>	<u>2006 to 2007</u>	<u>2006 to 2007</u>
Total Pension Contribution by Statute	\$ 1,526,168,830 * \$	1,348,105,853 * \$	1,286,147,106 *	13.2 %	4.8 %	4.8 %
Est. Non-contributory Group Life Insurance (NCGI)	33,440,000	32,430,000 ***	31,484,196 **	3.1 %	3.0 %	3.0 %
Early Retirement Incentive (ERI-3)	<u>1,323,536 *</u>	<u>1,231,186 *</u>	<u>1,171,289 *</u>	7.5 %	5.1 %	5.1 %
<b>Total State Contribution for Pension, NCGI and ERI</b>	<b>\$ 1,560,932,366 \$</b>	<b>\$ 1,381,767,039 \$</b>	<b>\$ 1,318,802,591</b>	<b>13.0 %</b>	<b>4.8 %</b>	<b>4.8 %</b>
<b>Total Certain State College Contribution (Included Above)</b>	<b>706,747</b>	<b>756,463</b>	<b>767,587 **</b>	<b>(6.6) %</b>	<b>(1.4) %</b>	<b>(1.4) %</b>

\* These amounts should be increased for assumed interest at the rate of 8.25% per annum if payment is delayed beyond June 30, 2009, 2008 and 2007, respectively.

\*\* Actual NCGI claims paid and actual allocation of costs for certain State colleges for fiscal year 2008.

\*\*\* Actual amount appropriated for the 2009 fiscal year is \$32,000,000. 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

	June 30, 2008	June 30, 2007	June 30, 2006	Percentage Change 2007 to 2008	Percentage Change 2006 to 2007
	<u>Valuation</u>	<u>Valuation</u>	<u>Valuation</u>		
<b>Early Retirement Incentive Contributions payable April 1, 2010, April 1, 2009 and April 1, 2008, respectively</b>					
ERI 1 - Local Employers	\$ 1,212,778	\$ 1,228,070	\$ 1,228,070	(1.2) %	0.0 %
ERI 2 - Local Employers	1,564,018	1,568,124	1,567,191	(0.3) %	0.1 %
ERI 4 - Local Employers *	<u>3,822,965</u>	<u>3,822,965</u>	<u>3,822,965</u>	0.0 %	0.0 %
Total	\$ 6,599,761	\$ 6,619,159	\$ 6,618,226	(0.3) %	0.0 %

**Terminal Funding Contribution payable April 1, 2010, April 1, 2009 and April 1, 2008, respectively**

No Locations	\$ 0	\$ 0	\$ 0	N/A	N/A
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\* 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)

	ASSETS AND LIABILITIES		June 30, 2006 Valuation	Percentage Change 2007 to 2008	Percentage Change 2006 to 2007
	June 30, 2008 Valuation	June 30, 2007 Valuation			
Market Value of Pension Assets	\$ 32,358,227,689	\$ 35,070,757,170	\$ 31,495,000,296	(7.7) %	11.4 %
Actuarial Value of Pension Assets	\$ 36,541,083,946	\$ 36,594,817,062	\$ 35,422,799,539	(0.1) %	3.3 %
Actuarial Accrued Pension Liability	\$ 50,658,278,274	\$ 48,127,453,410	\$ 45,439,278,166	5.3 %	5.9 %
Unfunded Pension Liability					
Based on Market Value	\$ 18,300,050,585	\$ 13,056,696,240	\$ 13,944,277,870	40.2 %	(6.4) %
Based on Actuarial Value	\$ 14,117,194,328	\$ 11,532,636,348	\$ 10,016,478,627	22.4 %	15.1 %
Funded Ratio					
Based on Market Value	63.9 %	72.9 %	69.3 %	(9.0) %	3.6 %
Based on Actuarial Value	72.1 %	76.0 %	78.0 %	(3.9) %	(2.0) %
Ratio of Actuarial Value to Market Value	112.9 %	104.3 %	112.5 %	8.6 %	(8.2) %

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## 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, 2008. Investment performance or any changes in plan provisions subsequent to June 30, 2008 are not reflected in this valuation.

This actuarial valuation is the first valuation that reflects members hired on or after July 1, 2007 affected by Chapter 103, P.L. 2007. This chapter increased the early retirement reductions for members retiring prior to age 60 and imposed a maximum salary equal to the Social Security Wage Base (\$102,000 for 2008) upon which contributions and benefits will be based. The reduction in the plan's total normal cost associated with this chapter for 8,069 affected members is approximately \$1.0 million, which is a 3% reduction.

#### 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) 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 2010 fiscal year is \$1,796.4 million as compared to the sum of the required statutory pension contribution of \$1,526.2 million and the estimated non-contributory group life insurance term cost of \$33.4 million for a total of \$1,559.6 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 2009 State budget resolution on contributions to the system for the 2009 and 2010 fiscal years. These exhibits are discussed in detail in the paragraphs below.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

The required statutory pension contribution has increased from \$1,348.1 million for the State's 2009 fiscal year to \$1,526.2 million for the State's 2010 fiscal year. This contribution consists of the Normal Contribution (\$564.7 million), the Additional Formula Contribution (\$103.5 million) and the Accrued Liability Contribution (\$858.0 million). Chapter 92 P.L. 2007 eliminated the use of any Excess Assets to offset the pension normal cost in determining the Normal Contribution. Chapter 133 P.L. 2001 established the Benefit Enhancement Fund (BEF) to reduce the State's Additional Formula Normal Contribution. As of June 30, 2008, there are no assets in the BEF so no offset occurred and there are no Excess Assets as of July 1, 2008, so no assets will be transferred to the BEF as of that date.

In addition to the pension contribution, the estimated non-contributory group life insurance contribution is expected to increase from \$32.4 million to \$33.4 million and the ERI-3 contribution has increased from \$1.23 million to \$1.32 million from the State's 2009 fiscal year to the State's 2010 fiscal year.

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 statutory contribution is not the same as the annual required contribution (ARC) determined under GASB. As stated above, the GASB ARC is \$236.8 million or 15.2% 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 2009 State budget resolution on these contributions to the system for the 2009 and 2010 fiscal years as outlined below:

- For the 2009 fiscal year, the State has appropriated \$166.4 million to cover approximately 12.3% of the pension contribution (\$166.2 million out of \$1,348.1 million) and the ERI-3 contribution (\$0.2 out of \$1.2 million). This appropriation reflects a decrease from the prior year of 75%. In addition, the appropriation for the non-contributory group life insurance claims is \$32.0

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

#### B. General Comments (continued)

million. We have estimated the amount of claims to be \$32.4 million during the 2009 fiscal year based on the actuarial mortality assumption. It is our understanding that the actual amount of claims will be appropriated.

- An appropriation to cover the remaining portion of the 2009 fiscal year pension contribution (\$1,181.9 million) was not made. This increases the Unfunded Actuarial Accrued Liability as of July 1, 2008 by \$1,181.9 million resulting in an increase in the 2010 fiscal year Accrued Liability Contribution of \$71.8 million. The accumulated value of statutory pension contributions, excluding ERI-3 contributions, not appropriated by the State in fiscal years 2004 through 2009 equals \$3,876.5 million. The Unfunded Actuarial Accrued Liability as of July 1, 2008 is \$14,117.2 million.
- For the 2010 fiscal year, it is anticipated that approximately 6.3% of the statutory pension contribution of \$1,526.2 million and ERI-3 contribution of \$1.3 million will be appropriated. In addition, it is anticipated that the State will appropriate an amount to cover the non-contributory group life insurance claims (NCGI est. \$33.4 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 financial markets since 2007, the actuarial value of assets as of June 30, 2008 is 113% of market value, which is an increase from the prior year's ratio of 104%. Section III(G) shows the impact of using the market value of assets to determine the statutory pension contribution instead of the actuarial value. Investment performance subsequent to June 30, 2008 is not reflected in this valuation.

#### 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

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

beneficiaries. It excludes the actuarial liability associated with the group life insurance benefits and post retirement medical benefits. The State will appropriate funds to cover the actual amount of the non-contributory group life insurance claims. The post retirement medical benefits are no longer financed through TPAF. The liabilities are based on the assumptions adopted in the 2006 Experience Study.

#### Normal Cost

The net pension normal cost, based on the 1/60 formula and reflecting the phase-in of the pension adjustment benefits, payable as of July 1, 2008 is \$521.7 million. This is \$16.5 million more than the comparable normal cost of \$505.2 million payable on July 1, 2007. This increase is due to the continued phase-in of the pension adjustments (\$3.7 million) and increases in payroll and the number of active participants (\$12.8 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 58.28% phase-in of the pension adjustment normal cost for active members.

The additional formula normal cost payable as of July 1, 2008 is \$95.6 million. This is \$2.9 million more than the additional formula normal cost of \$92.7 million payable on July 1, 2007. This increase is due to increases in payroll and the number of active participants.

#### Unfunded Actuarial Accrued Liability

The unfunded Actuarial Accrued Liability increased by \$2,584.6 million from \$11,532.6 million as of July 1, 2007 to \$14,117.2 million as of July 1, 2008. This increase in the unfunded liability resulted in an increase in the Accrued Liability Contribution of \$157.1 million from \$700.9 million payable June 30, 2008 to \$858.0 million payable June 30, 2009. The following table summarizes the reasons for the increase in the unfunded liability.

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

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

**B. General Comments (continued)**

Unfunded Liability as of June 30, 2007	\$11,532.6
State Appropriation Less than Statutorily Required	1,181.9
Phase-in of Pension Adjustment Benefits	72.6
Amortization Payment Less/(More) than Interest Accrual	250.5
Actuarial Loss/(Gain)	1,131.2
Member Contributions Less/(More) than anticipated	<u>(51.6)</u>
Total Change in Unfunded Liability	\$2,584.6
Unfunded Liability as of June 30, 2008	\$14,117.2

**Actuarial Gain/(Loss) Analysis**

TPAF experienced an actuarial loss of \$1,131.2 million during the period July 1, 2007 to June 30, 2008 based on the actuarial assumptions adopted in the 2006 Experience Study. This loss is approximately 2.2% of the Actuarial Accrued Liability as of June 30, 2008. The major factors contributing to this loss are summarized below and are compared to the experience for the prior two plan years.

	June 30, 2008	Gain/(Loss)	
		<i>(Amounts in Millions)</i>	
		June 30, 2007	June 30, 2006
<b>Economic Factors:</b>			
Investment Return	\$(1,045.7)	\$(381.0)	\$(981.9)
Salary Increases	20.1	112.1	158.6
Pension Adjustments (COLA)	125.2	(151.4)	(23.7)
Expenses	(14.3)	(12.8)	(10.8)
<b>Demographic Factors:</b>			
Active Members	(82.8)	(123.3)	(119.2)
New Entrants	(58.0)	(55.0)	(60.0)
Non-Contributing Members	(28.4)	(29.5)	(21.1)
Retirees and Beneficiaries	<u>(47.3)</u>	<u>(67.7)</u>	<u>(34.5)</u>
<b>Total</b>	(1,131.2)	\$(708.6)	\$(1,092.6)

Total pension assets earned investment returns of approximately -2.27% on a market value basis and 5.31% on an actuarial value basis for the period ending June 30, 2008. The resulting loss to the plan of \$(1,045.7) million represents the shortfall in the actuarial value of assets relative to the 8.25% assumed investment return.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

Salary increases for contributory members who were active on both July 1, 2007 and July 1, 2008 averaged 5.77% versus expected salary increases of 5.90% resulting in an actuarial gain of \$20.1 million. Salaries for new entrants averaged \$46,500, which is significantly below the average salary of all contributory members of \$65,927. This resulted in the average salary of all contributory members increasing by only 3.1% over last year, with total contributory payroll growing by 3.8%.

For annuitants receiving benefits since 2005, the pension adjustments were based on a CPI increase of 2.16%, which is lower than the 3.0% actuarial assumption for CPI increases. This resulted in an actuarial gain of \$125.2 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, 2008 and includes the present value of expected contributions from State and local employers for ERI and Terminal Funding retirements as of June 30, 2008.

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, 2007. Subsection C summarizes the development of the actuarial value of pension assets as of July 1, 2008. 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.

Subsection D estimates the annual rate of return for the year ending June 30, 2008 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 5.32% and 9.21%, 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, 2008. 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). 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, 2008 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, which is now \$0 since these benefits are no longer paid from the fund.

Subsection B summarizes the development of the pension Normal Cost under the 1/60 and 1/55 formulas payable July 1, 2008. 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 58.28% phase-in of the pension adjustment benefits. The Normal Cost as of July 1, 2008 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 Actuarial Accrued Liability and Gross Pension Normal Cost (1/55 formula) for active contributory members as of July 1, 2008.

Subsection D summarizes the development of the Excess Valuation Assets which are \$0 as of July 1, 2008. The Excess Valuation Assets are determined by subtracting the Actuarial Accrued Liability for basic allowances and pension

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

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 for pension adjustment benefits of active members and the BEF (prior to reduction for the additional formula normal contribution for fiscal year 2010) from the Valuation Assets.

Subsection E summarizes the development of the BEF as of July 1, 2008 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, 2008. 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 F summarizes the development of the State's estimated fiscal year 2010 Statutory Required Contributions to TPAF comprising three components: pension, non-contributory group life insurance, and ERI. The total pension contribution of \$1,526,168,830 equals the Normal Contribution of \$564,701,264 based on the 1/60 formula plus the Additional Formula Normal Contribution of \$103,469,076 plus the Accrued Liability Contribution of \$857,998,490. 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 \$33,440,000. The State's ERI-3 contribution is \$1,323,536. The Statutory Required Contribution for the State's fiscal year 2010 is estimated to be \$1,560,932,366. This is an estimate because the State will contribute the actual 2010 fiscal year non-contributory group life insurance benefits, not the estimated amount shown above.

Subsection G shows the Statutory 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 – 16.56% 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 – 20.02%.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

Subsection H summarizes these contributions as a percentage of appropriation payroll for the five previous fiscal years.

Subsection I shows the fiscal year 2010 Statutory 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 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 J 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, 2008. 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, 2008. 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, 2008, the Retirement Reserve Fund has present assets of \$27,416,040,214 including accrued interest. The liabilities of the fund amount to \$27,997,506,472 so that there is a deficit of \$581,466,258 in the fund as of the valuation date. It is recommended that the fund be put in balance as of June 30, 2008 by a transfer of assets from the Contingent Reserve Fund, and this transfer is shown in the balance sheet.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

##### (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, 2008, the Pension Fund has assets credited to it amounting to \$138,695 including accrued interest. The liabilities of the fund amount to \$128,794 so that there is a surplus of \$9,901 in the fund as of the valuation date. It is recommended that the fund be put in balance as of June 30, 2008 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 \$7,986,454,126 as of June 30, 2008 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 \$556,994,554 as of June 30, 2008 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 \$(3,625,861,703).

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.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

##### (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 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, 2008, 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 \$0 as of June 30, 2008.

#### 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). 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. 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. The portion of the ARC for the 2010 fiscal year attributable to group life insurance benefits is \$67.4 million. The total ARC for the 2010 fiscal year is \$1,796.4 million.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

Schedule B shows the projection of the Estimated Net Pension Obligation (NPO) as of June 30, 2009 and June 30, 2010. The NPO represents the cumulative difference between the Annual Pension Costs for the system and the contributions made. After the expected contributions of \$198.7 million for fiscal year 2009 and \$128.9 million for fiscal year 2010, the NPO as of June 30, 2010 is expected to be \$7,709.1 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, 2009 the employer contributions are 12.4% of the ARC and for the fiscal year ending June 30, 2010, the expected employer contributions are 7.2% 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 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

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION I - SUMMARY (continued)

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

down into 5-year age categories. The census data represents the status of plan participants as of June 30, 2008.

In performing this analysis, we relied on census data 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.

Future actuarial measurements may differ significantly from the current measurements presented in this analysis due to actual plan experience deviating from the actuarial assumptions, and changes in plan provisions, actuarial assumptions, and applicable law. An assessment of the potential range and cost effect of such differences is beyond the scope of this analysis.

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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 2010 fiscal year. It also provides the present value of the future contributions as of June 30, 2008. This list reflects locations who paid off their ERI liabilities through June 2008 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, 2008**

1. Assets		
Cash	\$	2,669,430
Investment Holdings		31,737,368,519
Employers' Contributions Receivable - NCGI		3,063,161
Employers' Contributions Receivable - State		20,257,523
Employers' Contributions Receivable - Local		53,928,476
Employers' Contributions Receivable - Delayed Enrollments		369,866
Employers' Contributions Receivable - Delayed Appropriations		3,924,996
Members' Contributions Receivable		81,169,563
Accrued Interest on Investments		248,217,869
Accounts Receivable		5,356,740
Loans Receivable		200,379,133
Dividends Receivable		<u>88,614,328</u>
Total	\$	<u>32,445,319,604</u>
2. Liabilities		
Pension Payroll Payable	\$	168,114,591
Pension Adjustment Payroll Payable		27,833,613
Withholdings Payable		30,289,807
Death Benefits Payable		3,063,161
Administration Expense Payable		686,541
Accounts Payable - Other		<u>23,391,498</u>
Total	\$	<u>253,379,211</u>
3. Market Value of Assets as of June 30, 2008: (1) - (2)	\$	32,191,940,393
4. State's FY 2009 and 2010 Receivable Contributions from Local Employers		64,103
5. State's FY 2009 Receivable Contributions from State		<u>166,223,193</u>
6. Adjusted Market Value of Assets as of June 30, 2008: (3) + (4) + (5)	\$	<u>32,358,227,689</u>

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

**SECTION II - ASSETS**

(continued)

**B. Reconciliation of Market Value of Assets from June 30, 2007 to June 30, 2008**

	<u>Pension</u>	<u>Post Retirement Medical</u>
1. Market Value of Assets as of June 30, 2007	\$ 35,070,757,170	\$ 451,031
2. Increases		
Member Contributions excluding transfers from		
Other Systems	\$ 541,566,024	\$ 0
Member Transfer Contributions	5,376,102	0
Other Employer Contributions including Transfers		
From Other Systems, Delayed Appropriations		
And Delayed Enrollments	6,601,928	0
State and Local Appropriations	31,484,196	0
Investment Income	<u>(770,675,653)</u>	<u>0</u>
Total	\$ <u>(185,647,403)</u>	\$ <u>0</u>
3. Decreases		
Withdrawal of Member Contributions and	\$ 40,716,544	\$ 0
Transfer Contributions		
Retirement Allowances	2,295,924,794	0
Pension Adjustment Benefits	311,308,960	0
Death Benefit Claims	31,484,196	0
Administrative Expense	13,734,880	0
Medical Benefits and Expenses	<u>0</u>	<u>451,031</u>
Total	\$ <u>2,693,169,374</u>	\$ <u>451,031</u>
4. Market Value of Assets as of June 30, 2008: (1) + (2) - (3)	\$ 32,191,940,393	\$ 0
5. FY 2009 and 2010 Receivable Contributions from Local Employers	64,103	0
6. FY 2009 Receivable Contributions from State	<u>166,223,193</u>	<u>0</u>
7. Adjusted Market Value of Assets as of June 30, 2008: (4) + (5) + (6)	\$ <u>32,358,227,689</u>	\$ <u>0</u>

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

**SECTION II - ASSETS**

(continued)

**C. Development of Actuarial Value of Assets as of July 1, 2008**

1. Actuarial Value of Pension Assets as of July 1, 2007	\$ 36,594,817,062
2. Net Cash Flow without Investment Income	(2,108,141,124)
3. Investment Income at Actuarially Assumed Rate @ 8.25%	2,933,834,776
4. Receivable Contributions from State and Local Employers	<u>166,287,296</u>
5. Expected Actuarial Value of Pension Assets: (1) + (2) + (3) + (4)	37,586,798,010
6. Adjusted Market Value of Pension Assets as of June 30, 2008	32,358,227,689
7. Excess Market Value over Expected Actuarial Value Assets: (6) - (5)	(5,228,570,321)
8. 20% mark-up to reflect growth in Market Value: 20% * (7)	<u>(1,045,714,064)</u>
9. Actuarial Value of Pension Assets as of July 1, 2008: (5) + (8)	\$ 36,541,083,946
10. Post Retirement Medical Assets as of July 1, 2008	<u>0</u>
11. Total Actuarial Value of Assets as of July 1, 2008: (9) + (10)	\$ <u>36,541,083,946</u>
12. Pension Actuarial/Market Value Ratio: (9) / (6)	112.9%

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

**SECTION II - ASSETS**

(continued)

**D. Estimated Annual Rate of Return for year ending June 30, 2008**

	<u>Pension Actuarial Value</u>	<u>Pension Market Value</u>
1. Value of Assets as of July 1, 2007	\$ 36,594,817,062	\$ 35,070,757,170
2. Employee Contributions	553,544,054	553,544,054
3. State and Local Appropriations	31,484,196	31,484,196
4. Receivable Contributions - State and Local Employers	166,287,296	166,287,296
5. Benefit Payments and Expenses	2,693,169,374	2,693,169,374
6. Value of Assets as of June 30, 2008	36,541,083,946	32,358,227,689
7. Non-Investment Increment: (2) + (3) - (5)	(2,108,141,124)	(2,108,141,124)
8. Investment Increment: (6) - (1) - (4) - (7)	1,888,120,712	(770,675,653)
9. Time Weighted Value: (1) +.5 * (7)	35,540,746,500	34,016,686,608
10. Estimated Annual Rate of Return: (8) / (9)	5.31%	-2.27%

**E. Estimated Historical Rates of Return**

<u>Plan Year Ending</u>	<u>Actuarial Value</u>	<u>Market Value</u>
June 30, 2008	5.31%	-2.27%
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%
5-Year Compounded Annual Rate of Return	5.32%	9.21%

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

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

**A. Actuarial Accrued Liability as of July 1, 2008 - 1/55th Formula**

1. Projected Benefits Payable to Beneficiaries and Retirees	
Service Retirees (Including ERI Benefits)	\$ 26,566,004,366
Disability Retirees	615,813,753
Beneficiaries	<u>815,817,147</u>
Total	\$ 27,997,635,266
2. Projected Benefits for Vested Terminated Members	75,343,259
3. Projected Benefits for Non-Contributory Members	\$ 507,083,822
4. Projected Benefits for Active Members	
Service Retirement	\$ 17,939,578,068
Ordinary Disability Retirement	343,349,018
Accidental Disability Retirement	23,528,426
Return of Members' Contributions - Death	75,627,145
Return of Members' Contributions - Withdrawal	115,920,233
Deferred Retirement	345,106,604
Pension Adjustment Benefits	<u>3,235,106,433</u>
Total	\$ 22,078,215,927
5. Total Pension Accrued Liability: (1) + (2) + (3) + (4)	\$ 50,658,278,274
6. Post Retirement Medical Benefits Fund	<u>0</u>
7. Total Actuarial Accrued Liability used to develop contributions: (5) + (6)	\$ 50,658,278,274

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

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**B. Development of Normal Cost payable July 1, 2008**

	<u>1/60th Formula</u>	<u>1/55th Formula</u>
1. Basic Allowances	\$ 932,700,576	\$ 1,014,185,540
2. Pension Adjustment Benefits for active members		
a. Full Amount of Pension Adjustment Benefits	157,222,325	171,320,803
b. Phase-in Percentage	58.28%	N/A
c. Phased-in Amount of Pension Adjustment Benefits	91,629,171	N/A
3. Gross Pension Normal Cost		
a. Full Amount of Pension Normal Cost: (1) + (2a)	\$ 1,089,922,901	\$ 1,185,506,343
b. Phased-in Amount of Pension Normal Cost for Contribution Purposes: (1) + (2c)	1,024,329,747	N/A
4. Expected Member Contributions	<u>502,665,762</u>	<u>502,665,762</u>
5. Net Pension Normal Cost		
a. Full Amount of Net Pension Normal Cost: (3a) - (4)	587,257,139	682,840,581
b. Net Phased-in Amount of Pension Normal Cost for Contribution Purposes: (3b) - (4)	521,663,985	N/A

**C. Summary of Active Member Actuarial Accrued Liability & Normal Cost payable July 1, 2008**

<u>Employee Type</u>	<u>Number of Members</u>	<u>Total Salary</u>	<u>Actuarial Accrued Liability</u>	<u>Gross Pension Normal Cost (1/55th Formula)</u>
Class A & B	134,818	9,046,412,619	22,040,590,908	1,153,595,765
Class D	8,069	373,658,112	37,625,019	31,910,578
Total	142,887	9,420,070,731	22,078,215,927	1,185,506,343

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

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**D. Development of Excess Valuation Assets as of July 1, 2008**

1. Valuation Assets	\$ 36,541,083,946
2. Actuarial Accrued Liability for Basic Allowances & Pension Adjustment Benefits	50,658,278,274
3. Post Retirement Medical Premium Fund	0
4. Present Value of Total Projected Normal Cost in Excess of the Projected Phased-in Normal Cost for Pension Adjustment Benefits	502,058,289
5. Benefit Enhancement Fund (prior to reduction for additional formula normal cost)	<u>0</u>
6. Excess Valuation Assets as of July 1, 2008: (1)-(2)-(3)-(4)-(5), not less than \$0	\$ 0

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

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**E. Development of Benefit Enhancement Fund and Additional Formula Contribution  
As of July 1, 2008**

1. Benefit Enhancement Fund as of July 1, 2007	\$	0
2. Accrued Interest		<u>0</u>
3. Benefit Enhancement Fund as of July 1, 2008		0
4. Additional Formula Normal Cost to be paid by Benefit Enhancement Fund		
a. Gross Normal Cost payable July 1, 2008 - 1/55th Formula (B)(3)(a)	1,185,506,343	
b. Gross Normal Cost payable July 1, 2008 - 1/60th Formula (B)(3)(a)	<u>1,089,922,901</u>	
c. Additional Formula Normal Cost: (a) - (b)	95,583,442	
5. Net Benefit Enhancement Fund Balance as of July 1, 2008 before Fiscal Year 2010 Contribution: (3) - (4c), not less than \$0		0
6. State Additional Formula Contribution as of July 1, 2008: (4c) - (3), not less than \$0		95,583,442
7. Estimated Fiscal Year 2010 Employee Contributions as of July 1, 2008		482,930,617
8. Limit on Fiscal Year 2010 Contribution to Benefit Enhancement Fund		
a. Present Value of Future Normal Costs as of June 30, 2008 - 1/55th Formula	12,199,042,888	
b. Present Value of Future Normal Costs as of June 30, 2008 - 1/60th Formula	<u>11,195,276,662</u>	
c. Limit: (a) - (b) - (5)	1,003,766,226	
9. Excess Assets Available (C6)		0
10. Fiscal Year 2010 Allowable Contribution to Benefit Enhancement Fund: Lesser of (7), (8c), (9)	\$	0

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

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**F. Development of State's Fiscal Year 2010 Statutory Required Contributions**

1. Net Pension Normal Contribution as of July 1, 2008: B(5)(b)	\$ 521,663,985
2. Net Pension Normal Contribution as of June 30, 2009	564,701,264
3. Additional Formula Contribution as of July 1, 2008: E(6)	95,583,442
4. Additional Formula Contribution as of June 30, 2009	103,469,076
5. Accrued Liability Contribution	
a. Actuarial Accrued Liability for Basic Allowances & Pension Adjustment Benefits	\$ 50,658,278,274
b. Adjusted Actuarial Value of Assets (excluding BEF)	36,541,083,946
c. Reserve for previously earned reductions in Member Contributions	<u>0</u>
d. Unfunded Pension Accrued Liability: (a) - (b) + (c)	\$ 14,117,194,328
e. 30 - Year Amortization with 4% increasing payments of Unfunded Pension Accrued Liability payable June 30, 2009	857,998,490
6. Total Pension Contribution for State's Fiscal Year 2010: (2) + (4) + (5e)	\$ 1,526,168,830
7. State's FY 2010 Est. Non-contributory Group Life Insurance Contribution (NCGI)	33,440,000
8. State's Fiscal Year 2010 ERI-3 Contribution	<u>1,323,536</u>
9. Total State's Fiscal Year 2010 Contribution for Pension, NCGI and ERI: (6) + (7) + (8)	\$ <u>1,560,932,366</u>

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

**SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

**G. Statutory Required Contribution as a Percentage of Appropriation Payroll**

	<u>Percent of Payroll</u>
Basic Allowances Net of Member Contributions - 1/60th Formula	4.94%
Active COLA (Phase-in percentage of 58.28%)-1/60th Formula	1.05%
Additional Formula Normal Cost (after any BEF reductions)	1.10%
Accrued Liability Contribution	<u>9.11%</u>
<b>Total Pension Contribution for State's Fiscal Year 2010</b>	<b>16.20%</b>
 Estimated Non-contributory Group Life Insurance Benefits (NCGI)	 0.36%
 <b>Total State's Fiscal Year 2010 Contribution for Pension and NCGI</b>	 <b>16.56%</b>
 Increases in contribution if:	
COLA fully phased-in	0.76%
No BEF reductions existed	0.00%
Market Value of Assets used to determine the Accrued Liability Contribution	<u>2.70%</u>
Total Increases as a percent of payroll	3.46%
 <b>Total Contribution with these increases as a percent of payroll</b>	 <b>20.02%</b>

**H. Historical Statutory Required Contributions as a Percentage of Appropriation Payroll**

Fiscal Year <u>Ending</u>	Statutory Pension and <u>NCGI</u>	With Increases Above <u>Included</u>
June 30, 2010	16.56%	20.02%
June 30, 2009	15.21%	17.03%
June 30, 2008	15.13%	18.70%
June 30, 2007	14.08%	18.62%
June 30, 2006	11.71%	18.34%

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TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION III - LIABILITIES AND CONTRIBUTIONS

(continued)

I. Fiscal Year 2010 Statutory Required Contributions Payable by the State and Certain State Colleges

<u>Group</u>	Normal Contribution (1/60 Formula)	Additional Formula Contribution (After BEF reductions)	Accrued Liability Contribution	Estimated Non-Contributory Group Life Insurance	<u>Total</u>
<u>Certain State Colleges</u>					
NJ Institute of Technology	\$7,583	\$1,389	\$11,522	\$449	\$20,943
Rowan University	27,534	5,045	41,834	1,630	\$76,043
New Jersey University	52,141	9,554	79,223	3,088	\$144,006
Kean University	48,174	8,827	73,195	2,853	\$133,049
William Patterson University	47,588	8,720	72,305	2,818	\$131,431
Montclair State U. (Group 4)	31,275	5,730	47,518	1,852	\$86,375
The College of NJ	24,693	4,524	37,518	1,462	\$68,197
Stockton State College	16,910	3,098	25,694	1,001	\$46,703
<b>Total for Certain State Colleges</b>	<b>\$255,898</b>	<b>\$46,887</b>	<b>\$388,809</b>	<b>\$15,153</b>	<b>\$706,747</b>
<u>State</u>					
Dept of Higher Education	0	0	0	0	\$0
Dept of Education	1,237,722	226,785	1,880,576	73,294	\$3,418,377
County Colleges	166,422	30,493	252,859	9,855	\$459,629
Charter Schools	4,686,838	858,760	7,121,110	277,541	\$12,944,249
Other	558,354,384	102,306,151	848,355,136	33,064,157	\$1,542,079,828
<b>Total for State</b>	<b>\$564,445,366</b>	<b>\$103,422,189</b>	<b>\$857,609,681</b>	<b>\$33,424,847</b>	<b>\$1,558,902,083</b>
<b>Total for System</b>	<b>\$564,701,264</b>	<b>\$103,469,076</b>	<b>\$857,998,490</b>	<b>\$33,440,000</b>	<b>\$1,559,608,830</b>

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

**SECTION III - LIABILITIES AND CONTRIBUTION**

(continued)

**J. Analysis of Actual Experience for the Year Ended June 30, 2008**

1. Unfunded Accrued Liability as of June 30, 2007	\$	11,532,636,348
2. Gross Normal Cost as of June 30, 2007		1,149,342,956
3. Interest: ((1) + (2)) * 8.25%		1,046,263,293
4. Employee and Employer Contributions Made with Interest		<u>742,212,577</u>
5. Expected Unfunded Accrued Liability as of June 30, 2008: (1) + (2) + (3) - (4)	\$	12,986,030,020
6. Increase/(Decrease) in liability due to assumption changes		0
7. Increase/(Decrease) in liability due to statutory changes		0
8. Expected Unfunded Accrued Liability after changes as of June 30, 2008: (5) + (6) + (7)	\$	12,986,030,020
9. Actual Unfunded Accrued Liability as of June 30, 2008		<u>14,117,194,328</u>
10. Gain/(Loss): (8) - (9)	\$	<u>(1,131,164,308)</u>

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TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION IV - ACTUARIAL BALANCE SHEET AS OF JUNE 30, 2008

<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	\$27,416,040,214	Retirees, Disableds and Beneficiaries	\$27,997,506,472
Add/(deduct) reserve transferable from/(to) CRF	581,466,258		
Adjusted Total	27,997,506,472		
<u>Pension Fund (PF)</u>		<u>Payable from Pension Fund</u>	
Credited to Fund w/ Distribution of Income	138,695	Retirees, Disableds and Beneficiaries	128,794
Add/(deduct) reserve transferable from/(to) CRF	(9,901)	currently receiving benefits	
Adjusted Total	128,794		
Annuity Savings Fund (ASF) w/ Distribution of Income	7,986,454,126		
<u>Contingent Reserve Fund (CRF)</u>		<u>Payable from Annuity Savings Fund and Contingent Reserve Fund</u>	
Credited to Fund w/ Distribution of Income	1,138,450,911	Active Members	22,585,299,749
Add/(Deduct) from/(to) RRF, PF & SRF	(581,456,357)	Term Vested Members	75,343,259
Adjusted Total	556,994,554	Total	22,660,643,008
<u>Benefit Enhancement Fund (BEF)</u>	0		
<u>Special Reserve Fund (SRF)</u>	0		
Add/(deduct) reserve transferable from/(to) CRF	0		
Adjusted Total	0		
Total Actuarial Value of Assets as of June 30, 2008	\$36,541,083,946		
Present Value of Prospective Contributions to the CRF and BEF for service accrued as of July 1, 2008	14,117,194,328		
Total Assets	\$50,658,278,274	Total Liabilities	\$50,658,278,274

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

**SECTION V - GASB NO. 25 and 27 ACCOUNTING INFORMATION FOR  
STATE'S FISCAL YEAR 2010**

**A. Development of Annual Required Contribution as of June 30, 2010**

1. Actuarial Value of Assets as of July 1, 2008		
a. Actuarial Value of Pension Assets	\$36,541,083,946	
b. Post Retirement Medical Benefits Fund	0	
c. Market Value of Contributory Group Insurance Premium Fund	<u>123,543,683</u>	
d. Actuarial Value of Assets for GASB purposes: (a) - (b) + (c)		\$36,664,627,629
2. Actuarial Accrued Liability as of July 1, 2008		
a. Actuarial Accrued Liability for pension benefits	\$50,658,278,274	
b. Post Retirement Medical Benefits Fund	0	
c. Non-contributory and Contributory Group Insurance Benefits	<u>1,096,536,247</u>	
d. Accrued Liability for GASB purposes: (a) - (b) + (c)		<u>51,754,814,521</u>
3. Unfunded Accrued Liability as of July 1, 2008: (2d) - (1d)		\$15,090,186,892
4. Amortization Payment payable July 1, 2008		847,236,864
5. Net Normal Cost as of July 1, 2008		
a. Basic Allowances and pension adjustments (including full cost of pension adjustment benefits)	\$1,185,506,343	
b. Non-contributory and Contributory Group Insurance Benefits	38,657,007	
c. Expected Employee Contributions for pension benefits	502,665,762	
d. Expected Employee Contributions for Contributory Group Insurance Benefits	<u>35,752,343</u>	
e. Net Normal Cost as of July 1, 2008: (a) + (b) - (c) - (d)		<u>685,745,245</u>
6. Annual Required Contribution as of June 30, 2010		
a. Annual Required Contribution as of July 1, 2008: (4) + (5e)		\$1,532,982,109
b. Interest to Expected Payment Date		<u>263,375,907</u>
c. Annual Required Contribution: (a) + (b)		\$1,796,358,016

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TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2010

(continued)

**B. Projection of Net Pension Obligation as of June 30, 2009 and June 30, 2010**

1. Net Pension Obligation as of June 30, 2008 *		\$4,414,445,985
2. Annual Pension Cost for Fiscal Year 2009		
a. Annual Required Contribution	\$1,601,478,508	
b. Interest on Net Pension Obligation	364,191,794	
c. Adjustment to ARC	<u>268,296,086</u>	
d. Annual Pension Cost: (a) + (b) - (c)		1,697,374,216
3. Expected Fiscal Year 2009 Contributions (12.3% of pension contribution plus est. NCGI)		<u>198,653,193</u>
4. Estimated Net Pension Obligation as of June 30, 2009: (1) + (2d) - (3)		\$5,913,167,008
5. Annual Pension Cost for Fiscal Year 2010		
a. Annual Required Contribution	\$1,796,358,016	
b. Interest on Net Pension Obligation	487,836,278	
c. Adjustment to ARC	<u>359,383,617</u>	
d. Annual Pension Cost: (a) + (b) - (c)		1,924,810,677
6. Expected Fiscal Year 2010 Contributions (6.3% of pension contribution plus est. NCGI)		<u>128,859,250</u>
7. Estimated Net Pension Obligation as of June 30, 2010: (4) + (5d) - (6)		\$7,709,118,435

\* The NPO as of June 30, 2008 has been updated from the estimated amount shown in the prior valuation to reflect actual employer contributions for the year ending June 30, 2008

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TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2010

(continued)

C. Schedule of Funding Progress

Valuation Year	(1) Actuarial Value of Assets for GASB Purposes	(2) Accrued Liability for GASB Purposes	(3) Unfunded Accrued Liability (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Appropriation Payroll	(6) Unfunded Accrued Liability as a % of Payroll: (3) / (5)
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%
2008	36,664,627,629	51,754,814,521	15,090,186,892	70.84%	9,419,083,203	160.21%

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

**SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2010**

(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>
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	695,275,811 *	44.84%
2009	1,601,478,508	198,653,193 **	12.40%
2010	1,796,358,016	128,859,250 **	7.17%

\* Updated from prior valuation reflecting actual contributions for fiscal year ending June 30,2008

\*\* Estimated based on current understanding of state budget resolutions

**E. Funding Policy for State's Fiscal Year 2010**

Valuation Date	July 1, 2008
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

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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, 2007	141,943	13,153	751	64,902	2,534	4,116	445	227,844
Terminated Vested	(49)	(34)	83	-	-	-	-	0
Terminated with Refund	(686)	(2,867)	-	-	-	-	-	(3,553)
Retired	(4,205)	(240)	(167)	4,612	-	-	-	0
Disabled	(119)	(39)	-	-	158	-	-	0
Died with Beneficiary	-	-	-	(313)	(17)	332	-	2
Died without Beneficiary	(74)	(18)	(8)	(1,207)	(51)	(184)	-	(1,542)
Payments Began	-	-	-	-	-	-	39	39
Payments Ceased	-	-	-	-	-	-	-	0
New Actives and Rehires	9,097	229	(4)	-	-	-	-	9,322
Changed to Contributing	2,036	(2,036)	-	-	-	-	-	0
Changed to Noncontributing	(5,053)	5,053	-	-	-	-	-	0
Data Corrections	(3)	(1)	=	1	1	45	=	43
Members as of June 30, 2008	<u>142,887</u>	<u>13,200</u>	<u>655</u>	<u>67,995</u>	<u>2,625</u>	<u>4,309</u>	<u>484</u>	<u>232,155</u>

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**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 of Employers</u>	<u>Number of Members</u>	<u>Salaries</u>
Department of Higher Education	0	0	\$ 0
Department of Education	2	241	20,644,915
New Jersey Institute of Technology	1	1	126,483
State Colleges	6	37	3,859,777
County Colleges	8	28	2,775,883
Charter Schools	54	1,553	78,175,344
Other	<u>596</u>	<u>141,016</u>	<u>9,313,500,801</u>
Total	<u>667</u>	<u>142,876</u>	\$ <u>9,419,083,203</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	68,479	\$ 2,469,099,049
Ordinary Disability Retirements	2,418	57,788,237
Accidental Disability Retirements	207	7,615,649
Ordinary Death Benefits	4	1,840
Accidental Death Benefits	2	55,760
Dependents of Deceased Beneficiaries	4,208	90,354,535
Dependents of Deceased Beneficiaries who elected to receive annuities certain instead of lump sum	<u>95</u>	<u>2,563,254</u>
Total	<u>75,413</u>	\$ <u>2,627,478,324</u>

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**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	365	3,801	4,166
Total Annual Pension	7,757,266	182,988,707	190,745,973
Average Annual Pension	21,253	48,142	45,786
Average Age at Retirement	63.6	59.9	60.3
Average Service at Retirement	15.0	32.3	30.8

\* Members indicated as retired since last actuarial valuation and have not subsequently died prior to the valuation date.



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	0	0	0	0	0	0	0	0	0	0	\$0
20-24	429	0	0	0	0	0	0	0	0	429	44,322
25-29	2,923	808	0	0	0	0	0	0	0	3,731	47,654
30-34	1,529	3,157	387	0	0	0	0	0	0	5,073	54,319
35-39	844	1,770	1,950	226	1	0	0	0	0	4,791	63,659
40-44	560	972	1,090	960	170	1	0	0	0	3,753	69,873
45-49	465	683	600	576	754	165	0	0	0	3,243	74,678
50-54	396	623	508	436	632	1,005	461	0	0	4,061	80,243
55-59	352	541	417	425	490	615	1,537	805	0	5,182	87,626
60-64	210	349	221	241	260	222	379	1,090	248	3,220	91,873
65 & Up	<u>37</u>	<u>122</u>	<u>65</u>	<u>89</u>	<u>71</u>	<u>51</u>	<u>42</u>	<u>80</u>	<u>236</u>	<u>793</u>	91,193
Total	7,745	9,025	5,238	2,953	2,378	2,059	2,419	1,975	484	34,276	

Average Age = 44.3  
 Average Service = 13.9  
 Average Age at Entry = 30.4  
 Average Annual Salary = \$70,891

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	1,982	0	0	0	0	0	0	0	0	1,982	44,453
25-29	10,563	3,410	1	0	0	0	0	0	0	13,974	47,608
30-34	4,296	8,832	1,114	1	0	0	0	0	0	14,243	52,346
35-39	2,557	4,600	4,593	629	2	0	0	0	0	12,381	57,901
40-44	2,224	2,707	2,244	2,605	575	1	0	0	0	10,356	62,469
45-49	2,083	3,016	1,858	1,754	2,886	499	1	0	0	12,097	65,991
50-54	1,430	3,018	2,627	2,188	2,365	2,991	1,066	0	0	15,685	71,050
55-59	656	1,782	1,861	2,640	3,081	2,422	3,364	1,186	0	16,992	78,012
60-64	259	584	704	1,058	1,889	1,628	910	1,400	240	8,672	81,228
65 & Up	<u>51</u>	<u>130</u>	<u>160</u>	<u>242</u>	<u>445</u>	<u>490</u>	<u>284</u>	<u>177</u>	<u>250</u>	<u>2,229</u>	82,882
Total	26,101	28,079	15,162	11,117	11,243	8,031	5,625	2,763	490	108,611	

Average Age = 44.3  
 Average Service = 13.1  
 Average Age at Entry = 31.3  
 Average Annual Salary = \$64,360

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	15	0	0	0	0	0	0	0	0	15	44,123
25-29	275	10	0	0	0	0	0	0	0	285	43,327
30-34	212	89	4	0	0	0	0	0	0	305	46,226
35-39	145	71	50	0	0	0	0	0	0	266	50,523
40-44	114	55	73	13	0	0	0	0	0	255	53,982
45-49	100	28	64	21	10	1	0	0	0	224	54,937
50-54	98	33	75	33	20	5	0	0	0	264	53,748
55-59	87	29	110	64	15	3	2	1	0	311	50,297
60-64	95	19	56	22	17	5	3	2	0	219	47,141
65 & Up	<u>71</u>	<u>8</u>	<u>11</u>	<u>14</u>	<u>8</u>	<u>7</u>	<u>2</u>	<u>1</u>	<u>2</u>	<u>124</u>	39,562
Total	1,212	342	443	167	70	21	7	4	2	2,268	

Average Age = 45.2  
 Average Service = 6.8  
 Average Age at Entry = 38.5  
 Average Annual Salary = \$49,242

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	64	0	0	0	0	0	0	0	0	64	41,029
25-29	1,309	145	0	0	0	0	0	0	0	1,454	43,621
30-34	1,136	1,298	67	0	0	0	0	0	0	2,501	46,864
35-39	601	677	628	13	0	0	0	0	0	1,919	49,685
40-44	375	210	572	79	5	0	0	0	0	1,241	49,396
45-49	322	123	383	102	25	3	0	0	0	958	46,392
50-54	292	91	364	139	38	14	3	0	0	941	46,826
55-59	199	107	550	261	67	15	5	1	0	1,205	44,732
60-64	118	26	169	90	31	8	4	5	0	451	42,192
65 & Up	<u>106</u>	<u>16</u>	<u>25</u>	<u>22</u>	<u>10</u>	<u>6</u>	<u>4</u>	<u>6</u>	<u>3</u>	<u>198</u>	38,354
Total	4,522	2,693	2,758	706	176	46	16	12	3	10,932	

Average Age = 41.0  
 Average Service = 7.3  
 Average Age at Entry = 33.8  
 Average Annual Salary = \$46,555

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

**SECTION VI - CENSUS DATA**

(continued)

**G. Age and Benefit Profiles**

**Terminated Vested Participants**

Age	Male		Female		Total	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
Under 35	0	\$0	0	\$0	0	\$0
35-39	4	\$80,568	7	\$67,812	11	148,380
40-44	1	\$18,744	25	\$291,492	26	310,236
45-49	10	\$123,768	23	\$301,296	33	425,064
50-54	17	\$179,508	85	\$1,029,528	102	1,209,036
55-59	67	\$714,432	314	\$3,877,020	381	4,591,452
60 & Up	14	\$135,084	88	\$1,217,592	102	1,352,676
Total	113	\$1,252,104	542	\$6,784,740	655	\$8,036,844
Average Age		=	55.8			
Average Annual Pension		=	\$12,270			

**Service Retired Participants**

Age	Male		Female		Total	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
Under 50	3	\$69,626	24	\$415,406	27	\$485,032
50-54	110	3,752,217	272	8,624,503	382	12,376,720
55-59	1,658	73,948,818	3,747	153,893,839	5,405	227,842,657
60-64	5,649	255,884,209	10,258	395,821,176	15,907	651,705,385
65-69	5,575	247,785,836	9,598	348,471,592	15,173	596,257,428
70-74	3,853	163,079,816	6,592	222,362,694	10,445	385,442,510
75-79	3,455	134,102,036	5,442	163,771,840	8,897	297,873,876
80-84	2,234	74,236,413	4,183	101,734,623	6,417	175,971,036
85-89	1,006	26,923,442	2,525	50,807,533	3,531	77,730,975
90-94	353	8,185,412	1,269	22,653,089	1,622	30,838,501
95-99	81	1,925,240	469	8,160,351	550	10,085,591
100 & Up	13	340,699	110	2,148,639	123	2,489,338
Total	23,990	\$990,233,764	44,489	\$1,478,865,285	68,479	\$2,469,099,049
Average Age		=	70.3			
Average Annual Pension		=	\$36,056			

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

**SECTION VI - CENSUS DATA**

(continued)

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

**Disabled Retired Participants**

Age	Male		Female		Total	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
Under 35	0	\$0	1	\$21,231	1	\$21,231
35-39	0	0	9	193,934	9	193,934
40-44	8	184,891	21	439,153	29	624,044
45-49	13	284,586	67	1,729,490	80	2,014,076
50-54	47	1,323,940	170	4,568,983	217	5,892,923
55-59	104	2,831,040	349	9,056,044	453	11,887,084
60-64	174	4,763,643	476	12,757,752	650	17,521,395
65-69	105	2,610,286	398	10,315,186	503	12,925,472
70-74	77	1,864,299	248	5,880,177	325	7,744,476
75-79	45	869,972	141	2,797,426	186	3,667,398
80-84	24	401,743	91	1,651,886	115	2,053,629
85 & Up	14	209,587	43	648,637	57	858,224
Total	611	\$15,343,987	2,014	\$50,059,899	2,625	\$65,403,886
Average Age		=	64.2			
Average Annual Pension		=	\$24,916			

TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

**SECTION VI - CENSUS DATA**

(continued)

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

**Beneficiaries and Dependents**

Age	Male		Female		Total	
	Number	Annual Pension	Number	Annual Pension	Number	Annual Pension
Under 25	5	\$56,931	6	\$101,912	11	\$158,843
25-29	7	110,965	11	164,472	18	275,437
30-34	2	26,395	9	204,521	11	230,916
35-39	9	152,107	14	279,707	23	431,814
40-44	4	53,845	12	201,116	16	254,961
45-49	15	293,862	27	589,107	42	882,969
50-54	32	670,927	58	1,233,433	90	1,904,360
55-59	87	1,795,073	157	4,086,131	244	5,881,204
60-64	153	3,694,856	242	7,017,791	395	10,712,647
65-69	123	2,732,294	364	9,677,309	487	12,409,603
70-74	128	3,026,184	501	13,252,141	629	16,278,325
75-79	132	2,678,339	556	13,985,224	688	16,663,563
80-84	94	1,486,929	592	11,825,407	686	13,312,336
85-89	83	1,066,153	500	7,611,120	583	8,677,273
90-94	25	330,245	260	3,477,163	285	3,807,408
95-99	11	119,783	83	928,813	94	1,048,596
100 & Up	<u>1</u>	<u>4,388</u>	<u>6</u>	<u>40,746</u>	<u>7</u>	<u>45,134</u>
Total	911	18,299,276	3,398	74,676,113	4,309	92,975,389
		Average Age	=	74.6		
		Average Annual Pension	=	\$21,577		

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

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2008**

**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

Increases in Compensation Limits: The IRC Section 401(a)(17) limit is assumed to increase 3.0% per annum, compounded annually. The Social Security Taxable Wage Base is assumed to increase 4.0% per annum, compounded annually.

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

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2008**

**A. Actuarial Assumptions (Continued)**

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

<u>Years of Employment</u>	<u>Less Than 10 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

<u>Age</u>	<u>More Than 10 Years of Employment</u>		<u>More Than 10 Years of Employment</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, 2008**

**A. Actuarial Assumptions (Continued)**

Retirement: Rates of retirement vary by age, gender and eligibility for an unreduced pension and post-retirement medical benefits (attainment of age 55 and 25 years of service).

The rates listed below are for members hired prior to July 1, 2007. Illustrative rates are shown below.

	<u>Less than Age 55 or</u>		<u>Attainment of Age 55 and 25 Years of Service</u>			
	<u>Less than 25</u>		<u>First</u>		<u>After First</u>	
	<u>Years of Service</u>		<u>Eligibility</u>		<u>Eligibility</u>	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
<47	1.1%	1.3%	N/A	N/A	N/A	N/A
48	1.4	1.5	N/A	N/A	N/A	N/A
49	1.6	1.7	N/A	N/A	N/A	N/A
50	1.9	2.0	N/A	N/A	N/A	N/A
51	2.2	2.5	N/A	N/A	N/A	N/A
52	2.5	3.0	N/A	N/A	N/A	N/A
53	3.5	4.0	N/A	N/A	N/A	N/A
54	4.5	5.0	N/A	N/A	N/A	N/A
55	N/A	N/A	15.0%	16.0%	N/A	N/A
56	N/A	N/A	20.0	19.0	12.0%	13.0%
57	N/A	N/A	20.0	19.0	13.0	14.0
58	N/A	N/A	22.0	22.0	14.0	14.0
59	N/A	N/A	22.0	22.0	15.0	15.0
60	11.0	8.0	24.0	30.0	21.0	20.0
61	11.0	8.0	26.0	32.0	23.0	22.0
62	11.0	10.0	38.0	46.0	36.0	32.0
63	11.0	10.0	40.0	44.0	30.0	26.5
64	11.0	10.0	40.0	44.0	30.0	26.5
65	17.0	18.0	50.0	50.0	38.0	35.0
66-70	17.0	15.0	50.0	50.0	30.0	30.0
71+	20.0	20.0	50.0	50.0	30.0	30.0

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

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2008**

**A. Actuarial Assumptions (Continued)**

The rates listed below are for members hired on or after July 1, 2007. Illustrative rates are shown below.

	<u>Less than Age 60 or</u>		<u>Attainment of Age 60 and 25 Years of Service</u>			
	<u>Less than 25</u>		<u>First</u>		<u>After First</u>	
	<u>Years of Service</u>		<u>Eligibility</u>		<u>Eligibility</u>	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
<47	0.55%	0.65%	N/A	N/A	N/A	N/A
48	0.70	0.75	N/A	N/A	N/A	N/A
49	0.80	0.85	N/A	N/A	N/A	N/A
50	0.95	1.00	N/A	N/A	N/A	N/A
51	1.10	1.25	N/A	N/A	N/A	N/A
52	1.25	1.50	N/A	N/A	N/A	N/A
53	1.75	2.00	N/A	N/A	N/A	N/A
54	2.25	2.50	N/A	N/A	N/A	N/A
55	11.00	12.00	N/A	N/A	N/A	N/A
56	12.00	12.00	N/A	N/A	N/A	N/A
57	12.50	12.50	N/A	N/A	N/A	N/A
58	13.50	13.50	N/A	N/A	N/A	N/A
59	14.00	14.00	N/A	N/A	N/A	N/A
60	11.00	8.00	26.0%	30.0%	N/A	N/A
61	11.00	8.00	26.0	32.0	23.0%	22.0%
62	11.00	10.00	38.0	46.0	36.0	32.0
63	11.00	10.00	40.0	44.0	30.0	26.5
64	11.00	10.00	40.0	44.0	30.0	26.5
65	17.00	18.00	50.0	50.0	38.0	35.0
66-70	17.00	15.00	50.0	50.0	30.0	30.0
71+	20.00	20.00	50.0	50.0	30.0	30.0

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

**SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS**  
**AS OF JUNE 30, 2008**

**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 first eligibility for retirement. 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, 2008**

**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, 2008**

**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 Contributory Group Insurance Premium Fund for GASB purposes.

**D. Changes in Actuarial Assumptions**

Due to the inclusion of Class D members in the valuation, new retirement assumptions were utilized. These assumptions were developed in 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, 2008**

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, compensation for contributions is capped at the Social Security Taxable Wage Base (\$102,000 for 2008). For compensation in excess of the Social Security Taxable Wage Base, contributions of 5.5% of the excess 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, 2008**

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 hired prior to July 1, 2007 who contributes towards a retirement allowance based on 1/55th benefit rate per year of creditable service.
- h. Class D Member: Any member hired on or after July 1, 2007 who contributes up to the Social Security Taxable Wage Base towards a retirement allowance based on 1/55th benefit rate per year of creditable service payable at age 60.

5. Retirement Benefits

a. Service Retirement

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

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
**AS OF JUNE 30, 2008**

5. Retirement Benefits (continued)

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 and D members.

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

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 Class B members; or
- (iii) the Service Retirement Benefit reduced by 1/12 of one percent for each month the retirement date precedes age 60 but over age 55 and by 1/4 of one percent for each month the retirement date precedes age 55, for Class D members.

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.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
**AS OF JUNE 30, 2008**

6. Termination Benefits (continued)

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
- (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.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
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**AS OF JUNE 30, 2008**

7. Death Benefits (continued)

(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.

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.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
**AS OF JUNE 30, 2008**

7. Death Benefits (continued)

- (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.

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.

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## TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY

### SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2008

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.
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 \$185,000 and the 401(a)(17) compensation cap is \$230,000 and is applied on a calendar year basis.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS**  
**AS OF JUNE 30, 2008**

**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 and prior to June 30, 2007 contributes at the rate of contribution applicable to Class B members. Any member hired after June 30, 2007 are Class D members.
  - (i) Class D Membership: Any member becoming a member on or after July 1, 2007 contributes at the rate of contribution applicable to Class D members.
  - (ii) 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.
  - (iii) 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.

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**TEACHERS' PENSION AND ANNUITY FUND OF NEW JERSEY**  
**SECTION VIII – SUMMARY OF PRINCIPAL PLAN PROVISIONS**  
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15. Contributions (continued)

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.

16. Changes in Plan Provisions Since Prior Valuation

None.

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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</u> <u>June 30, 2008</u>	<u>Fiscal Year</u> <u>2010 Payment</u>	<u>Present Value</u> <u>June 30, 2008</u>	<u>Fiscal Year</u> <u>2010 Payment</u>
3 981	NJ INST OF TECH	\$203,746	\$25,621	\$368,469	\$25,240
5 1001	ATLANTIC COMMUNITY COLLEGE	66,052	8,306	N/A	N/A
6 911	ALLAMUCHY BD OF ED	N/A	N/A	113,091	10,609
6 300	ASBURY PARK BD OF ED	3,309,139	416,124	N/A	N/A
6 969	ATLANTIC CO VOCATIONAL SCHOOLS	199,070	25,033	N/A	N/A
6 4014	BERLIN BORO BD OF ED	N/A	N/A	95,421	36,464
6 4015	BERLIN TWP BD OF ED	189,511	23,831	153,517	26,439
6 412	BOONTON TWP BD OF ED	129,058	16,229	N/A	N/A
6 774	BYRAM TWP BD OF ED	226,990	28,544	N/A	N/A
6 4017	CHESILHURST BORO BD OF ED	28,811	3,623	23,342	4,020
6 4018	CLEMENTON BD OF ED	107,213	13,482	86,853	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	191,485	32,978
6 6012	ESSEX CO EDUCATIONAL SERV COMM	197,853	24,880	N/A	N/A
6 329	FARMINGDALE BD OF ED	N/A	N/A	111,267	42,519
6 4033	GLOUCESTER CITY BD OF ED	N/A	N/A	N/A	N/A
6 753	GREEN BROOK BD OF ED	301,463	37,909	N/A	N/A
6 8082	GUTTENBERG BORO BD OF ED	162,139	20,389	N/A	N/A
6 956	HUDSON CO VOCATIONAL SCHOOL	N/A	N/A	759,655	71,263
6 6040	IRVINGTON TWP BD OF ED	N/A	N/A	3,055,660	526,252
6 8030	KEARNY TWP BD OF ED	N/A	N/A	N/A	N/A
6 521	LAKEHURST BORO BD OF ED	84,708	10,652	N/A	N/A
6 645	LAKELAND REGIONAL	761,583	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	376,557	47,352	N/A	N/A
6 953	MERCER CO VOCATIONAL SCHOOLS	N/A	N/A	213,379	81,540
6 346	MONMOUTH BEACH BD OF ED	103,260	12,985	N/A	N/A
6 987	MONMOUTH CO VOCATIONAL SCHOOLS	609,265	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	\$2,089,639	\$262,772	N/A	N/A
6 210	PERTH AMBOY BD OF ED	N/A	N/A	\$1,029,169	\$393,283
6 4069	PINE HILL BORO BD OF ED	\$274,100	\$34,468	\$132,056	\$22,743
6 1010	PLEASANTVILLE BD OF ED	N/A	N/A	N/A	N/A
6 984	SALEM CO VOCATIONAL SCHOOL	\$14,409	N/A	N/A	N/A
6 531	SEASIDE HEIGHTS BD OF ED	N/A	N/A	\$6,403	\$2,447
6 5071	SHILOH BOROUGH BD OF ED	\$11,260	\$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	\$245,423	\$23,023
6 8070	WEST NEW YORK TWP BD OF ED	N/A	N/A	\$2,667,530	\$250,240
6 934	WHITE TWP BD OF ED	\$212,946	\$26,778	N/A	N/A
<b>Grand total for Local Employers</b>		<b>\$9,658,772</b>	<b>\$1,212,778</b>	<b>\$9,252,720</b>	<b>\$1,564,018</b>

Appendix I

**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 <u>June 30, 2008</u>	Fiscal Year <u>2010 Payment</u>	Present Value <u>June 30, 2008</u>	Fiscal Year <u>2010 Payment</u>
2 90400	EDUCATION DEPARTMENT	\$11,501,179	\$751,435	N/A	N/A
2 90416	MARIE KATZENBACK SCH FOR DEAF	\$2,046,708	\$133,723	N/A	N/A
2 90207	OFFICE OF ADM LAW	\$484,257	\$31,639	N/A	N/A
3 981	NJ INST OF TECH	\$480,200	\$31,374	N/A	N/A
4 90411	NEW JERSEY UNIVERSITY	\$2,387,891	\$156,014	N/A	N/A
4 90412	KEAN UNIVERSITY	\$1,249,000	\$81,604	N/A	N/A
4 90414	MONTCLAIR STATE UNIVERSITY	\$988,096	\$64,558	N/A	N/A
4 90410	ROWAN UNIVERSITY	\$405,042	\$26,464	N/A	N/A
4 90415	THE COLLEGE OF NEW JERSEY	\$253,966	\$16,593	N/A	N/A
4 90413	WILLIAM PATERSON UNIVERSITY	\$461,184	\$30,132	N/A	N/A
6 8010	BAYONNE BOARD OF ED	N/A	N/A	\$7,199,944	\$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	\$1,610,275	\$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	\$1,269,281	\$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	\$19,873,861	\$2,499,137
6 9034	STOCKTON BOROUGH BD OF ED	N/A	N/A	\$102,640	\$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>\$20,257,523</b>	<b>\$1,323,536</b>	<b>\$30,056,001</b>	<b>\$3,822,965</b>

Appendix I