June 30, 2004 Actuarial Valuation Report

1550 Liberty Ridge Drive, Suite 200 Wayne, PA 19087-5572 Tel +1 610 687.5644 Fax +1 610 687.4236 www.milliman.com

May 24, 2005

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, 2004. 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, 2006 which represents the contribution for the valuation year beginning July 1, 2004;
- to determine the Annual Required Contribution in accordance with Governmental Accounting Standards Board Statements 25 and 27 for the Fiscal Year ending June 30, 2006; and,
- to review the experience under the plan for the valuation year ending June 30, 2004.

This report may not be used for purposes other than those listed above without Milliman's prior written consent.

### Data Reliance

In performing this analysis, we relied on data and other information provided by the State of New Jersey Division of Pensions and Benefits. We have not audited or verified

**Board of Trustees** May 24, 2005 Page 2

this data and other information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

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

### Variability of Results

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

### Certification

We hereby certify that, to the best of our knowledge, this report is complete and accurate and all costs and liabilities were determined in conformance with generally accepted actuarial principles and practices based on actuarial assumptions and methods adopted by the Board or mandated by statute.

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

Respectfully submitted,

MILLIMAN, INC.

By: Scott Porter Scott F. Porter, A.S.A.

William A. Reimert, F.S.A.

Member American Academy of Actuaries Member American Academy of Actuaries

SFP:WAR:wat\JSY10 g:\cor05\itp\VAL2004 final newasps.obd

### **TABLE OF CONTENTS**

	<u>Page</u>
SECTION 1 - SUMMARY	1
SECTION II - ASSETS	22
SECTION III - LIABILITIES AND CONTRIBUTIONS	26
SECTION IV - ACTUARIAL BALANCE SHEET	34
SECTION V - ACCOUNTING INFORMATION	35
SECTION VI - CENSUS DATA	38
SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS	46
SECTION VIII - SUMMARY OF PRINCIPAL PLAN PROVISIONS	52
APPENDIX I- EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE	<b>= 60</b>

### SECTION I - SUMMARY

### A. Summary of Principal Results

	PART	ICE	PARTICIPANT DATA			-		
						Percentage	Percentage	
	June 30, 2004	, -	June 30, 2003	Į,	June 30, 2002	Change	Change	
	Valuation	1	Valuation	1	Valuation	2003 to 2004	2002 to 2003	
Active Contributing Members					-	ē.	-	
Number	136,838		134,383		131,410	1.8 %	2.3 %	
Number of Veteran Members	1,719		1,913		2,109	(10.1)	(6.3)	
Average Pay	\$ 58,819	<del>69</del>	57,330	<del>69</del>	55,935	2.6	2.5	
Total Payroll	8,048,606,703		7,704,164,859	7	7,350,386,281	4.5	4.8	
Total Appropriation Payroll	8,047,272,269		7,702,854,159	7	7,348,993,141	4.5	4.8	-
Avg. Member Accumulated Contributions	44,789		42,839		42,043	4.6	1.9	
Total Member Accumulated Contributions	6,128,804,702		5,756,897,444	νĵ	5,524,899,039	6.5	4.2	
Active Non-Contributing Members								
Number	12,259		11,499		10,750	% 9.9	7.0 %	
Number of Veteran Members	106		76		105	9.3	(7.6)	
Average Pay	\$ 41,066	<del>6/3</del>	39,769	<del>63</del>	38,670	3.3	2.8	
Total Payroll	503,424,027		457,306,414		415,697,475	10.1	10.0	
Avg. Member Accumulated Contributions	18,708		18,217		17,966	2.7	1.4	
Total Member Accumulated Contributions	229,346,018		209,479,506		193,133,949	9.5	8.5	

### SECTION I - SUMMARY

(continued)

## A. Summary of Principal Results (continued)

		PART	5	PARTICIPANT DATA					
							Percentage	Percentage	
	Ţ	June 30, 2004		June 30, 2003		June 30, 2002	Change	Change	
	1	Valuation	•	Valuation	1	Valuation	2003 to 2004	2002 to 2003	
Service Retirees, Including Domestic Relati		ons Beneficiaries							
Vumber		56,100		53,709		50,907	4.5 %	5.5 %	
Average Annual Pension	€9	30,608	69	29,417	↔	28,268	4.0	4.1	
Total Annual Pensions		1.717.126,891		1,579,974,749		1,439,037,117	8.7	8'6	
Average Retirement Age of New Retirees		60.4		60.2		60.2	0.3	0.0	
Average Annual Pension of New Retirees \$	€9	38,449	€>	37,550	<b>↔</b>	36,279	2,4	3.5	
Disabled Retirees		2,273		2,171		2,032	4.7 %	% 8.9	
Average Annual Pension	€9	21,805	€9	21,015	69	20,354	3.8	3.2	
Total Annual Pensions		49,562,156		45,623,733		41,359,301	8.6	10.3	
Beneficiaries and Dependents		3.620		3,451		3,298	4.9 %	% 9.4	
Average Annual Pension	69	17,976	69	17,143	↔	16,397	4.9	4.5	
Total Annual Pensions		65,074,906		59,160,122		54,076,253	10.0	9.4	
Terminated Vested Participants Number		925		1,030		1,161	(10.2) %	(11.3) %	
Average Annual Pension	69	10,050	69	9,714	<del>6/</del> 3	6,067	3.5	7.1	
Total Annual Pensions		9,295,908		10,005,540		10,526,280	(7.1)	(4.9)	
								Section I - A	

### SECTION I - SUMMARY

(continued)

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

# STATUTORY PENSION CONTRIBUTIONS WITH BUDGET ADJUSTMENTS

	June 30, 2004 Valuation (State's Fiscal Year 2006 Contributions)	June 30, 2003 Valuation (State's Fiscal Year 2005 Contributions)	June 30, 2002 Valuation (State's Percentage Fiscal Year 2004 Contributions) 2003 to 2004	Percentage Change	Percentage Change
Normal Cost (1/60th formula)  Excess Assets Available  Normal Contribution	\$ 567,082,557 0 567,082,557 *	\$ 479,366,540 \$ 0 479,366,540 *	448,664,518 \$ 18.3 % 0 0.0 448,664,518 * 18.3	\$ 18.3 % 0.0 18.3	% 0.0 0.0
Additional Formula Normal Cost Benefit Enhancement Fund (BEF) Balance Additional Formula Contribution	91,356,864 (380,295,561) 0 *	83,459,322 (637,266,658) 0 *	78,734,504 (761,611,740) 0	9.5 % (40.3)	6.0 % (16.3) 0.0
Accrued Liability Contribution	374,702,121 *	194,739,407 *	35,760,019	* 92.4 %	444.6 %
Total Pension Contribution by Statute Amount Covered by BEF **	941,784,678 (288,938,697) *	674,105,947 (202,495,039) *	484,424,537 (96,884,907) *	,	<b>39.2 %</b> 109.0 %
Remaining Pension Contribution ***	652,845,981 *	471,610,908 *	387,539,630	* 38.4 %	21.7 %

<sup>\*</sup> These amounts should be increased for assumed interest at the rate of 8.25% (8.75% for valuation years prior to June 30, 2004) per annum if payment is delayed beyond June 30, 2005, June 30, 2004 and June 30, 2003, respectively.

Section I - A

<sup>\*\*</sup> For the 2006 fiscal year, represents the remaining balance in the Benefit Enhancement Fund.

<sup>\*\*\*</sup> No State appropriation was made for the 2004 and 2005 fiscal years.

### SECTION I - SUMMARY

(continued)

A. Summary of Principal Results (continued)

# ANNUAL REQUIRED CONTRIBUTION FOR PENSION BENEFITS PER GASB 25 AND 27

	June 30, 2004 Valuation (State's Fiscal Year 2006)	June 30, 2003 Valuation (State's Fiscal Year 2005)	June 30, 2002 Percentage Valuation (State's Change Fiscal Year 2004) 2003 to 2004	Percentage Change 2003 to 2004	Percentage Change 2002 to 2003
Normal Cost *	\$ 734,570,135	\$ 655,014,288	\$ 632,865,897	12.1 %	3.5 %
Amortization Payment **	353,350,469	157,363,168	(1,799,368)	124.5 %	(8,845.5) %
Subtotal	1,087,920,604	812,377,456	631,066,529	33.9 %	28.7 %
Interest Adjustment ***	89,753,451	71,083,027	55.218,321	26.3 %	28.7 %
Annual Required Contribution	1,177,674,055	883,460,483	686,284,850	33.3 %	28.7 %

Reflects additional formula normal cost and full cost of pension adjustment benefits

<sup>\*\*</sup> Benefit Enhancement Fund is excluded from the actuarial accrued liabilities

<sup>\*\*\*</sup> Additional one year of interest is included to reflect payment of contributions at end of fiscal year

### SECTION I - SUMMARY

(continued)

## A. Summary of Principal Results (continued)

# TOTAL STATUTORY CONTRIBUTIONS (INCLUDING PRM AND ERI)

	June 30, 2004	June 30, 2003	June 30, 2002			
	Valuation (State's	Valuation (State's	Valuation (State's Percentage	entage	Percentage	
	Fiscal Year 2006	Fiscal Year 2005	Fiscal Year 2004 Cha	Change	Change	
	Contributions)	Contributions)	Contributions) 2003 to 2004	to 2004	2002 to 2003	
Total Pension Contribution by Statute *** \$	941,784,678 * \$	\$ 674,105,947 * \$	484,424,537 *	39.7 %	39.2 %	
Estimated Post Retirement Medical (PRM) Premiums	616,315,978	536,018,675	424,751,323 ** 1	15.0 %	26.2 %	
PRM Percent of Payroll Contribution ***	49,893,088 *	48,142,838 *	45,931,207 *	3.6 %	4.8 %	
Early Retirement Incentive (ERI-3) ***	1,095,001	954,298	N/A 1	14.7 %	N/A	
Total State Contribution for Pension, PRM and ERI, excluding amounts covered by BEF	1,609,088,745	s 1,259,221,758 s	955,107,067	27.8 %	31.8 %	
Total Certain State College Contribution (Included Above)	5,767,217	5,654,849	4,541,366	2.0 %	24.5 %	
•						

<sup>\*</sup> These amounts should be increased for assumed interest at the rate of 8.25% (8.75% for valuation years prior to June 30, 2004) per annum if payment is delayed beyond June 30, 2005, June 30, 2004 and June 30, 2003, respectively.

<sup>\*\*</sup> Actual State contribution made to the Post Retirement Medical Fund for fiscal year 2004.

<sup>\*\*\*</sup> No State appropriation was made for the 2004 and 2005 fiscal years.

### SECTION I - SUMMARY

(continued)

## A. Summary of Principal Results (continued)

# LOCAL EMPLOYER CONTRIBUTIONS AND EMPLOYEE CONTRIBUTION REDUCTIONS

Percentage

Percentage

	June 30, 2004  Valuation	June 30, 2003  Valuation	June 30, 2002 Valuation	Change 2003 to 2004	Change 2002 to 2003
Employee Contribution Reduction for 2006, 2005 and 2004 calendar years, respectively	0.0% ectively	0.0%	%0.0	% 0.0	% 0.0

## Early Retirement Incentive Contributions payable April 1, 2006,

		(20.0)		
	(6.5) %	(8.8)	N/A	8.0
	10,651,700	13,154,126	N/A	23,805,826
	€		1	89
	1,991,341	3,940,282	N/A	5,931,623
	€9		1	₩ .
	1,862,363	3,594,338	948,817	6,405,518
, respectively	<b>69</b>			49
April 1, 2005 and April 1, 2004, respectively	ERI 1 - Local Employers	ERI 2 - Local Employers	ERI 4 - Local Employers *	Total

Terminal Funding Contribution payar	payable April 1,	2006, April 1,	able April 1, 2006, April 1, 2005 and April 1, 2004, respectivel	l, 2004, r	espectively		
Location #00844	<del>6/3</del>	<b>9</b>	0	<b>↔</b>	49,287	N/A	N/A
Location #00535		0	75,277		0	N/A	N/A
Location #02075		396,878	0		0	N/A	N/A
Location #02083		125,514	0		0	N/A	N/A

<sup>\*</sup> ERI 4 was introduced by Chapter 128 and 129, P.L. 2003 for Local employers. Contributions will be payable over 15 years beginning April 1, 2006 for members retired prior to June 30, 2004.

Section I - A

(continued)

A. Summary of Principal Results (continued)

	Fercentage Fercentage Change Change 2003 to 2004 2002 to 2003	% (5 0)
£	Percentage Change 2003 to 2004	% ( &
	June 30, 2002 Valuation	130 151 151 55 B
ASSETS AND LIABILITIES	June 30, 2003 Valuation	400 000 1144
ASSETS A	June 30, 2004  Valuation *	770 770 101 10 8 400 000 077 70 9 777 077 077 00 8

Market Value of Pension Assets	\$ 28,618,463,144	\$ 26,447,330,285	\$ 27,121,744,264	<del></del>	8.2 %	(2.5) %
Actuarial Value of Pension Assets	\$ 34,633,790,549	\$ 34,651,825,932	\$ 35,148,246,433	ж.	(0.1) %	(1.4) %
Actuarial Accrued Pension Liability	\$ 40,447,690,339	\$ 37,383,732,882	\$ 35,146,591,842	8	8.2 %	6.4 %
Funded Ratio (based on Market Value)	70.8 %	% 70.7 %		77.2 %	0.1 %	% (5.9)
Funded Ratio (based on Actuarial Value)	% 92.6	% 92.7 %		%	100.0 % (7.1) %	(7.3) %

<sup>\*</sup> Reflects revised economic assumptions (8.25% interest rate, 5.45% average salary inflation rate and 3.00% assumed inflation rate).

### SECTION 1 - 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, 2004 excluding the contributory lump sum death benefits.

The statutory contribution requirements are highlighted on Summary Exhibits shown on pages 3 (pension only) and 5 (pension, PRM and ERI). Included on these exhibits is our understanding of the effect of the fiscal year 2005 State budget on contributions to the system for the 2005 and 2006 fiscal years. These exhibits are discussed in detail in the paragraphs below.

Page 4 contains a Summary Exhibit on the Annual Required Contribution (ARC) for pension benefits per GASB 25 and 27. GASB 25 and 27 do not exclude the Benefit Enhancement Fund from the Actuarial Value of Assets nor permit (1) the normal cost to be paid by the BEF, nor (2) phase-in of the pension adjustment normal cost. The ARC for the 2006 fiscal year is \$1,177.7 million as compared to the required statutory pension contribution of \$941.8 million.

The required statutory pension contribution has increased to \$941.8 million for the State's fiscal year 2006 from \$674.1 for the State's fiscal year 2005 (excluding ERI-3 contributions), the excess assets continue to remain at \$0 as of July 1, 2004 and the 2.0% member contribution reduction will not apply in 2006. (Effective January 1, 2004, the employee contribution rate returned to the 5.0% level and this level will continue for the 2005 and 2006 calendar years.) The primary reason for these changes is the adverse investment performance during the three fiscal years ending June 30, 2003 and the lack of State contributions in the system.

This valuation reflects our understanding of the effect of the fiscal year 2005 State budget on contributions to the system for the 2005 and 2006 fiscal years as outlined below:

 30% of the 2005 fiscal year pension contribution (\$202.5 million) will be covered by the Benefit Enhancement Fund (BEF). This will reduce the number of years the BEF can cover the Additional Formula Contribution, and will therefore, increase the State's contribution in future years.

### SECTION 1 - SUMMARY (continued)

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

- An appropriation to cover the remaining 70% of the 2005 fiscal year pension contribution (\$471.6 million) plus the ERI-3 contributions (\$1.0 million) was not made. This increases the Unfunded Actuarial Accrued Liability as of July 1, 2004 by \$471.6 million, prevents the ERI-3 receivables from decreasing by \$1.0 million and increases the 2006 fiscal year Accrued Liability Contribution by \$28.7 million. Including the 2004 fiscal year, the accumulated value of statutory pension contributions not appropriated by the State equals \$893.1 million. The Unfunded Actuarial Accrued Liability as of July 1, 2004 is \$5,813.9 million.
- The payroll portion of the Post-Retirement Medical Contribution for the 2005 fiscal year (\$48.1 million) is not expected to be made. Therefore, we have not anticipated the PRM Fund to increase and the expected earnings on assets for fiscal year 2006 has been set to \$0.
- For the 2006 fiscal year, only 31% of the \$941.8 million pension contribution (\$288.9 million) is anticipated to be covered by the BEF. This amount will eliminate the BEF. Furthermore, the remaining 69% of the pension contribution (\$652.8 million), the payroll portion of the PRM contribution (\$49.9 million) and the State ERI-3 contribution (\$1.1 million) are not anticipated to be appropriated. 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 to make the contribution.

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. Due to the significant drop in the equity markets since the market re-start as of 1999, the actuarial value of assets as of June 30, 2004 is 121% of market value. This is a reduction from the prior year's ratio of 131% due to the favorable investment performance (approximately a 14.2% return) during the fiscal year ending June 30, 2004. If an asset value closer to market value were used in the valuation, the statutory pension contribution would be significantly higher.

### SECTION I - SUMMARY (continued)

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

The Treasurer, upon recommendations from the Directors of the Division of Pensions and Benefits and the Division of Investments, has approved a change in the economic assumptions used for this valuation. The rate of investment return has been revised from 8.75% to 8.25% per annum, the assumed future salary increase assumption has been reduced from 5.95% to 5.45% per annum and the Cost-of-Living Adjustment assumption for future benefit increases has been decreased from 4.00% to 3.00% per annum. The adoption of these assumptions decreased the Actuarial Accrued Liability by \$670.4 million and the State pension contribution by \$7.9 million.

This valuation reflects the assumptions developed as a result of the Experience Study covering the period July 1, 2000 - June 30, 2003. The adoption of these assumptions increased the Actuarial Accrued Liability by \$1,478.4 million and the State pension contribution by \$141.2 million. Please refer to the June 30, 2003 Experience Study for a detailed presentation of the assumption changes.

The actuarial accrued liability figures reflect the full additional actuarial liability due to pension adjustment benefits for actives, retirees, terminated vested members and beneficiaries. 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 48.96% phase-in of the pension adjustment normal cost for active members.

The actuarial accrued liability excludes the actuarial liability associated with non-contributory lump sum death benefits since these benefits are financed on a term cost basis. The accrued liability shown for the post retirement medical benefits is the balance in the Post Retirement Medical Fund; an actuarially computed accrued liability was not calculated. The post retirement medical benefits are financed on a modified term cost basis.

This valuation also reflects members who retired prior to July 1, 2004 under ERI-4 pursuant to Chapters 128 and 129, P.L. 2003 for local employers. The additional actuarial liability as of July 1, 2004 due to this chapter is \$7.5 million and was added to the assets as a contribution receivable that will be payable over a 15-year period beginning in fiscal year 2006. Members retiring after June 30, 2004 under ERI-4 were treated as active members. Their additional actuarial liabilities under ERI-4 will be reflected in the first valuation subsequent to their retirement dates.

### SECTION I - SUMMARY (continued)

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

As of July 1, 2004, the actuarial liabilities of the Fund exceeded the valuation assets. Thus there are no excess assets. (If excess assets existed, they would first be applied to reductions in member contributions established in prior valuations and then used for current contribution reductions.) Since there are no excess assets, no additional member contribution reductions will result from this valuation. Therefore, the member contribution rate will continue to be 5% for the 2006 calendar year.

The balance in the Benefit Enhancement Fund (BEF) as of July 1, 2004 is \$351.3 million after reduction to reflect the application of \$202.5 million to the 2005 fiscal year pension contribution and prior to reduction for the additional formula normal cost. This fund is used to reduce the State's Additional Formula Contribution from Chapter 133, P.L. 2001. The Additional Formula Contribution equals \$84.4 million for the plan year beginning July 1, 2004. There are no excess assets as of July 1, 2004, so no additional contributions will be made to the BEF. After reduction for the additional formula normal cost as of July 1, 2004, the remaining balance is \$266.9 million as of that date. As described above, this balance will be applied to reduce the 2006 fiscal year pension contribution.

The pension normal cost based on the 1/60 formula payable as of July 1, 2004 is \$523.9 million. This is \$83.1 million more than the comparable normal cost of \$440.8 million payable on July 1, 2003. This increase is due to (1) the continued phase-in of the pension adjustments (\$3.8 million), (2) the adoption of the new demographic assumptions (\$51.5 million), (3) the adoption of the new economic assumptions (\$12.9 million), (4) increases in payroll and the number of active participants (\$13.3 million) and (5) an increase in the cost of the noncontributory death benefits (\$1.6 million).

The additional formula normal cost payable as of July 1, 2004 is \$84.4 million. This is \$7.7 million more that the additional formula normal cost of \$76.7 million payable on July 1, 2003. This increase is due to (1) the adoption of the new demographic assumptions (\$5.5 million) and (2) increases in payroll and the number of active participants (\$3.2 million) offset by (3) the adoption of the new economic assumptions (\$1.0 million).

### SECTION I - SUMMARY (continued)

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

The Post Retirement Medical Contribution increased from the \$584.2 million shown in the prior valuation to \$666.2 million. This increase of \$82.0 million, or 14%, is primarily due to the assumption changes and an increase in the premium rates. The premium rates increased by approximately 5% for retirees less than 65 and 7% for retirees greater than 65.

TPAF experienced an actuarial loss, based on the actuarial assumptions adopted in the 2000 Experience Study, during the period July 1, 2003-June 30, 2004 of \$(1,393.0) million, or 3.4% of the Actuarial Accrued Liability as of July 1, 2004. This loss combined with the lack of State contributions and the new demographic assumptions offset by the new economic assumptions resulted in an increase in the unfunded accrued liability of \$3,082.9 million from \$2,731.9 as of July 1, 2003 to \$5,814.8 as of July 1, 2004 and an increase in the accrued liability contribution of \$176.0 million from \$194.7 million payable June 30, 2004 to \$370.7 million payable June 30, 2005. The accrued liability contribution payable June 30, 2005 is based on a 30-year amortization at an interest rate of 8.25% with payments increasing by 4% per year.

The major factors contributing to this loss are summarized below and are compared to the experience for the prior two plan years.

		Gain/(Loss) (Amounts in Millions)	
	June 30, 2004	June 30, 2003	June 30, 2002
Economic Factors:			
Investment Return	\$(1,503.8)	\$(2,051.1)	\$(2,006.6)
Salary Increases	162.9	83.2	226.7
Pension Adjustments (COLA)	222.6	187.7	40.9
Expenses	(9.2)	(10.3)	(10.1)
Demographic Factors:			
Active Members	(116.2)	(194.3)	(119.8)
New Entrants	(54.8)	(50.5)	(61.9)
Non-Contributing Members	(24.0)	(19.9)	(16.6)
Retirees and Beneficiaries	36.2	124.9	75.4
Active Data Changes	(106.7)	(70.6)	<u>(73.6)</u>
Total	\$(1,393.0)	\$(2,000.9)	\$(1,945.6)

### SECTION I - SUMMARY (continued)

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

Total pension assets (excluding PRMF) earned investment returns of approximately 14.22% on a market value basis and 4.32% on an actuarial value basis for the period ending June 30, 2004. The resulting loss to the plan of \$(1,503.8) million represents the shortfall in the actuarial value of assets relative to the 8.75% assumed investment return used to prepare the prior actuarial valuation.

Salary increases for contributory members who were active on both July 1, 2003 and July 1, 2004 averaged 5.51% versus the average anticipated salary scale assumption of 5.95%. This produced an actuarial gain of \$162.9 million. Salaries for new entrants averaged \$40,356, which is significantly below the average salary of all contributory members of \$58,819. This resulted in the average salary of all contributory members increasing by only 2.6% over last year, with total contributory payroll growing by 4.5%.

For annuitants receiving benefits since 2001, the pension adjustments were based on a CPI increase of 2.23%, which is lower than the 4.0% actuarial assumption for CPI increases. This resulted in an actuarial gain of \$222.6 million.

### 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, 2004 and includes the present value of expected contributions from local employers for retirements as of June 30, 2004.

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, 2003. Subsection C summarizes the development of the actuarial value of pension assets as of July 1, 2004. The exhibit reflects the growth in the pension assets based on the expected investment income at an assumed rate of 8.75% adjusted to reflect 20% of the excess of the market value of pension assets as of the valuation date in excess of the expected actuarial value. The balance in the Post Retirement Medical Fund is added to the actuarial value of pension assets to obtain the actuarial value of total system assets.

Subsection D estimates the annual rate of return for the year ending June 30, 2004 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 5.73% and 1.69%, 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, 2004. 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 the Adjusted Actuarial Value of Assets (excludes the BEF and the liability for member reductions granted in previous valuations). The actuarial liabilities used to

### SECTION I - SUMMARY (continued)

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

develop contributions reflect the assumptions developed in the 2003 Experience Study and the new economic assumptions prescribed by the Treasurer.

Subsection A summarizes the development of the Actuarial Accrued Liability as of July 1, 2004 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 as of July 1, 2004 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 has been included in the determination of the Accrued Liability.

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

Subsection B summarizes the development of the pension Normal Cost under the 1/60 and 1/55 formulas payable July 1, 2004. The schedule shows the portion of the Normal Cost attributable to: (1) the basic allowances offset by expected employee contributions, (2) a one-year term cost of lump sum non-contributory death benefits payable during active service, terminated vested status and retiree status and (3) pension adjustment benefits for active members. The Normal Cost due to pension adjustments reflects the 48.96% phase-in of the pension adjustment benefits. The Normal Cost as of July 1, 2004 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 has been included in the determination of the Normal Cost.

Subsection C summarizes the development of the Excess Valuation Assets which are \$0 as of July 1, 2004. The Excess Valuation Assets are determined by subtracting the Actuarial Accrued Liability for basic allowances and pension adjustment benefits, the Post Retirement Medical Premium Fund, the present value of the total projected normal cost in excess of the projected phased-in normal cost for pension adjustment benefits of active members and the BEF (prior to reduction

### SECTION I - SUMMARY (continued)

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

for the additional formula normal contribution for fiscal year 2006) from the Valuation Assets.

Subsection D shows the development of the Contribution Reductions from Excess Assets. The contribution reductions include member contribution reductions, the pension normal contribution based on the 1/60 formula and the BEF contribution. Since there are no Excess Assets as of June 30, 2004, there will be no 2006 calendar year member contribution reduction, no offset to the pension Normal Contribution based on the 1/60 formula and no BEF contribution based on the statutory method for determining the State contributions.

Subsection E summarizes the development of the BEF as of July 1, 2004 and the Additional Formula Normal Contribution. Chapter 133, P.L. 2001 established the BEF as of June 30, 1999. The BEF has been reduced by 30% of the State's fiscal year 2005 pension contribution in accordance with the fiscal year 2005 State budget. 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. The Additional Formula Normal Contribution payable by the State has been reduced to \$0 due to the balance in the BEF.

Schedule F summarizes the development of the State's estimated fiscal year 2006 Total Required Contributions comprising three components: pension, postretirement medical and ERI. The total pension contribution of \$941,784,678 equals the Normal Contribution of \$567,082,557 based on the 1/60 formula plus the Additional Formula Normal Contribution of \$0 plus the Accrued Liability Contribution of \$374,702,121. The estimated Post Retirement Medical Contribution of \$666,209,066 comprises three pieces: (1) an estimated amount necessary to pay anticipated premiums for the State's 2006 fiscal year's benefits of \$616,315,978 less (2) the expected return on the Post Retirement Medical Benefits Fund assets of \$0 plus (3) 3/5% of the valuation year payroll of active members (fiscal year 2005 payroll) of \$49,893,088. The State's ERI-3 contribution is \$1,095,001. The Total Required Contribution for the State's fiscal year 2006 is estimated to be \$1,609,088,745. This is an estimate because the state will contribute the actual 2006 fiscal year post retirement medical premiums and not the estimated amount shown above.

Subsection G shows the Required Contribution (before and after the reduction due to Excess Valuation Assets and the BEF) as a percentage of appropriation payroll

### SECTION I - SUMMARY (continued)

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

on two bases: (1) after reflecting the actual phase-in of the pension adjustment benefits and (2) as if the pension adjustment liabilities were fully phased-in.

Subsection H shows the fiscal year 2006 Required Contribution based on the 1/60 formula, the Additional Formula Contribution, the Accrued Liability Contribution and the estimated Post Retirement Medical Contribution payable by the State and certain State Colleges before and after application of the excess assets and the BEF. The contributions attributable to these State Colleges assume that these locations would receive an allocated portion of the excess assets and the BEF. The State's contribution is allocated between the Department of Higher Education, Department of Education, County Colleges, Charter Schools and other.

Subsection I 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, 2004. 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, 2004. 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, 2004, the Retirement Reserve Fund has present assets of \$19,195,745,024 including accrued interest. The liabilities of the fund amount to \$19,194,122,605 so that there is a surplus of \$1,622,419 in the fund as of the valuation date. It is recommended that the fund be put in balance as of June

### SECTION I - SUMMARY (continued)

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

30, 2004 by a transfer of assets to the Contingent Reserve Fund, and this transfer is shown in the balance sheet.

### (2) Pension Fund

The reserves held in the Pension Fund represent the reserves on retirement allowances payable to non-veteran members who retired prior to 1956. As of June 30, 2004, the Pension Fund has assets credited to it amounting to \$116,659 including accrued interest. The liabilities of the fund amount to \$130,077 so that there is a deficit of \$13,418 in the fund as of the valuation date. It is recommended that the fund be put in balance as of June 30, 2004 by a transfer of assets from 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 \$6,430,036,106 as of June 30, 2004 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 to the Contingent Reserve Fund amount to \$8,459,672,176 as of June 30, 2004 after adjustment is made on account of accrued interest and the amounts transferable to the Pension Fund and from the Retirement Reserve Fund and the BEF.

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.

### 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, 2004, the BEF has present assets including accrued interest of \$553,807,336. The additional formula normal contribution payable June 30, 2004 is \$84,394,332. For the 2005 fiscal year, the BEF is covering 30% of the State's pension contribution in the amount of \$202,495,039 for a total reduction of \$286,889,371. This amount is to be transferred to the Contingent Reserve Fund, and this transfer is shown in the balance sheet.

### (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 \$282,911,620 as of June 30, 2004.

### (6) Post Retirement Medical Benefits Fund

The Post Retirement Medical Benefits Fund is established to hold contributions in respect to future post retirement medical benefits. The fund has assets of \$426,066 as of June 30, 2004. These assets have been included as retirement system assets. The balance in the fund should increase by 3/5 of 1% of payroll. An offsetting liability equal to this fund balance has also been established.

### SECTION I - SUMMARY (continued)

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

### 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 a closed level percentage of projected payroll based on an assumed payroll growth rate of 4.0% for 30 years.

Schedule B shows the projection of the Estimated Net Pension Obligation (NPO) as of June 30, 2006. The NPO represents the cumulative difference between the Annual Pension Costs for the system and the contributions made. After the expected contribution of \$0, the NPO as of June 30, 2006 is expected to be \$2,802,483,520.

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, 2006, the expected employer contributions are 0.0% of the ARC. The expected employer contributions are offset by any excess valuation assets in accordance with Chapter 115, P.L. 1997 and by the BEF in accordance with Chapter 133, P.L. 2001. 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.

### SECTION I - SUMMARY (continued)

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

### 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. Subsections D and E present a profile of Contributory and Non-contributory members split by gender, summarized by 5-year age and service groupings. Subsection F provides a profile of terminated vested members, retired members, disabled members, and beneficiaries broken down into 5-year age categories. The census data represents the status of plan participants as of June 30, 2004.

In performing this analysis, we relied on data and other information provided by Teacher's Pension and Annuity Fund of New Jersey. We have not audited or verified this data and other information. If the underlying data or information is 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, 2000 to June 30, 2003 and the new 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 and 133, P.L. 2001.

### SECTION I - SUMMARY (continued)

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

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

### 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 2006 fiscal year. It also provides the present value of the future contributions as of June 30, 2004. This list reflects locations who paid off their ERI liabilities through August 2004 as a result of Chapter 42, P.L. 2002.

### **SECTION II - ASSETS**

### A. Market Value of Assets as of June 30, 2004

1.	Assets		
	Cash	\$	(1,977,121)
:	Investment Holdings		28,291,161,975
	Employers' Contributions Receivable - State		16,567,122
	Employers' Contributions Receivable - Local		35,723,328
	Employers' Contributions Receivable - Delayed Enrollments		183,328
•	Employers' Contributions Receivable - Delayed Appropriations		1,756,946
÷.	Members' Contributions Receivable		75,634,792
:	Accrued Interest on Investments		71,678,911
	Accounts Receivable		1,038,145
÷	Loans Receivable		225,813,161
	Dividends Receivable		<u>62,928,730</u>
i.	Total	\$	<u>28,780,509,317</u>
*,		1	÷
Ź.	Liabilities	. * .	
•	Pension Payroll Payable	\$	117,174,896
	Pension Adjustment Payroll Payable		17,847,298
	Withholdings Payable		17,746,792
	Death Benefits Payable		2,055,669
	Administration Expense Payable		1,181,259
	Accounts Payable - Other		13,749,015
	Total	\$	169,754,929
3.	Market Value of Assets as of June 30, 2004: (1) - (2)	\$	28,610,754,388
4.	2003 and 2004 Receivable Contributions from Local Employers		<u>8,134,822</u>
5.	Adjusted Market Value of Assets as of June 30, 2004: (3) + (4)	\$	28,618,889,210

### **SECTION II - ASSETS**

(continued)

### B. Reconciliation of Market Value of Assets from June 30, 2003 to June 30, 2004

		Pension		Post Retirement Medical
1. Market Value of Assets as of June 30, 2003	\$	26,447,330,286	\$	317,186
2. Increases				
Member Contributions excluding transfers from				
Other Systems	\$	368,856,101	\$	424,751,323
Member Transfer Contributions		3,748,721		0
Other Employer Contributions including Transfers				* :
From Other Systems, Delayed Appropriations				•
And Delayed Enrollments		6,771,976		0.0
Post Retirement Medical Contribution Adjustment		N/A	ξ.	0
Investment Income		3,652,847,307		45,104
Total	\$	4,032,224,105	\$	424,796,427
3. Decreases				:
Withdrawal of Member Contributions and	\$	28,737,720	\$	0
Transfer Contributions				
Retirement Allowances		1,615,493,788		0
Pension Adjustment		206,200,619		0
Death Benefit Claims		26,572,103		0
Administrative Expense		8,788,961		0
Medical Benefits and Expenses		<u>o</u>		424,687,547
Total	\$	1,885,793,191	\$	424,687,547
4. Market Value of Assets as of June 30, 2004:	\$	28,593,761,200	\$	426,066
(1) + (2) - (3)				
5. Employers' Contribution Receivable - State ERI-3		16,567,122		0
6. 2003 and 2004 Receivable Contributions from Local	s	<u>8,134,822</u>		<u>0</u>
<ul> <li>7. Adjusted Market Value of Assets as of June 30, 2004</li> <li>(4) + (5) + (6)</li> </ul>		28,618,463,144	\$	426,066

### **SECTION II - ASSETS**

(continued)

### C. Development of Actuarial Value of Assets as of July 1, 2004

1. Actuarial Value of Pension Assets as of July 1, 2003	\$	34,651,825,932
2. Net Cash Flow without Investment Income		(1,506,416,393)
3. Investment Income at Actuarially Assumed Rate @ 8.75%		2,967,510,917
4. Receivable Contributions from State and Local Employers		<u>24,701,944</u>
5. Expected Actuarial Value of Pension Assets: (1) + (2) + (3) + (4)		36,137,622,400
6. Market Value of Pension Assets as of June 30, 2004		28,618,463,144
7. Excess Market Value over Expected Actuarial Value Assets: (6) - (5)		(7,519,159,256)
8. 20% mark-up to reflect growth in Market Value: 20% * (7)		(1,503,831,851)
9. Actuarial Value of Pension Assets as of July 1, 2004: (5) + (8)	\$	34,633,790,549
10. Post Retirement Medical Assets as of July 1, 2004		426,066
11. Total Actuarial Value of Assets as of July 1, 2004: (9) + (10)		34,634,216,615
12. Pension Actuarial Value Ratio: (9)/(6)	•	121.0%

### **SECTION II - ASSETS**

(continued)

D. Estimated Annual Rate of Return for year ending June 30, 2004						
		Pension				
		Actuarial Value	Market Value			
	1. Value of Assets as of July 1, 2003	\$ 34,651,825,932 \$	26,447,330,286			
٠.	2. Employee Contributions	379,376,798	379,376,798			
	3. Receivablec Contributions from State and Locals	24,701,944	24,701,944			
· · · · · · · · · · · · · · · · · · ·	4. Benefit Payments and Expenses	1,885,793,191	1,885,793,191			
	5. Value of Assets as of June 30, 2004	34,633,790,549	28,618,463,144			
:	6. Non-Investment Increment: (2) - (4)	(1,506,416,393)	(1,506,416,393)			
	7. Investment Increment: (5) - (1) - (3) - (6)	1,463,679,066	3,652,847,307			
	8. Time Weighted Value: (1) +.5 * (6)	33,898,617,736	25,694,122,090			
	9. Estimated Annual Rate of Return: (7)/(8)	4.32%	14.22%			

### E. Estimated Historical Rates of Return

Plan Year Ending	Actuarial Value	Market Value		
June 30, 2004	4.32%	14.22%		
June 30, 2003	2.79%	2.97%		
June 30, 2002	2.98%	-8.25%		
June 30, 2001	5.47%	-9.70%		
June 30, 2000	13.43%	11.57%		
5-Year Compounded Annual Rate of Return	5.73%	1.69%		

### **SECTION III - LIABILITIES AND CONTRIBUTIONS**

### A. Actuarial Accrued Liability as of July 1, 2004 - 1/55th Formula

1. Projected Benefits Payable to Beneficiaries and Retirees	
Service Retirees (Including ERI Benefits)	\$ 18,131,827,023
Disability Retirees	478,321,950
Beneficiaries	<u>584,103,709</u>
Total	\$ 19,194,252,682
2. Projected Benefits for Vested Terminated Members	85,632,063
3. Projected Benefits for Active Members	
Service Retirement	\$ 17,003,661,392
Ordinary Disability Retirement	266,807,549
Accidental Disability Retirement	19,631,834
Return of Members' Contributions - Death	90,770,866
Return of Members' Contributions - Withdrawal	77,470,702
Deferred Retirement	258,983,863
Pension Adjustment Benefits	3,087,841,433
Non-contributory Members	<u>362,637,955</u>
Total	\$ 21,167,805,594
4. Total Pension Accrued Liability: (1) + (2) + (3)	\$ 40,447,690,339
5. Post Retirement Medical Benefits Fund	<u>426,066</u>
6. Total Actuarial Accrued Liability used to develop contributions:	
<b>(4)</b> + <b>(5)</b>	\$ 40,448,116,405

### **SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

### B. Development of Normal Cost payable July 1, 2004

		1/60th Formula	1/55th Formula
1. Basic Allowances			•
a. Basic Allowances	\$	822,268,893	\$ 894,154,419
b. Expected Employee Contributions	-,	389,786,721	<u>389,786,721</u>
Subtotal: (a) - (b)	\$	432,482,172	\$ 504,367,698
2. Non-Contributory Lump Sum Death Benefits		23,919,073	23,919,073
3. Pension Adjustment Benefits for active member	ers (reflect	s	
48.96% of liability due to cola)		<u>67,462,549</u>	<u>73,586,860</u>
4. Total Pension Normal Cost: (1) + (2) + (3)	\$	523,863,794	\$ 601,873,631

### **SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

### C. Development of Excess Valuation Assets as of July 1, 2004

1. Valuation Assets	\$ 34	1,634,216,615
2. Actuarial Accrued Liability for Basic Allowances & Pension Adjustment Benefits	40	0,447,690,339
3. Post Retirement Medical Premium Fund		426,066
4. Present Value of Total Projected Normal Cost in Excess of the Projected Phased-in Normal Cost for Pension Adjustment Benefits		622,496,392
5. Benefit Enhancement Fund (prior to reduction for additional formula normal cost)	: :	351,312,297
6. Excess Valuation Assets as of July 1, 2004: (1)-(2)-(3)-(4)-(5), not less than \$0	: : <b>\$</b>	·
D. Development of Contribution Reductions from Excess Assets		
1. Excess Valuation Assets as of July 1, 2004	\$	0
<ol> <li>Liability for Reduction in Employee Contributions by 2%</li> <li>For July 1, 2004 - December 31, 2004 (established in 2002 valuation)</li> </ol>		0
3. Liability for Reduction in Employee Contributions by 2% For Calander Year 2005 (established in 2003 valuation)		0
4. Excess Assets Available for Current Year Reductions: [(1)-(2)-(3)] x 50%, not less than \$0		0
<ol> <li>Liability for Reduction in Employee Contributions by 2%</li> <li>For Calander Year 2006</li> </ol>		0
6. Pension Normal Cost as of July 1, 2004 - 1/60th Formula		523,863,794
7. Net Normal Contribution as of July 1, 2004: (6) - [(4) - (5)], not less that	n \$0	523,863,794
8. Net Excess Assets as of July 1, 2004 prior to Benefit Enhancement Fund Contribution: (4) - (5) - (6), not less than \$0	\$	0
28	Sect	ion III - C & D

### **SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

### E. Development of Benefit Enhancement Fund and Additional Formula Contribution As of July 1, 2004

1. Benefit Enhancement Fund as of July 1, 2003	\$	509,248,125
2. Accrued Interest		44,559,211
3. Benefit Enhancement Fund as of July 1, 2004		3553,80 <b>7,3</b> 36
4. 2005 Fiscal Year Contribution Covered by the Benefit Enhancement Fund (30% of the total 2005 FY Contribution)		202,495,039
5. Additional Formula Normal Cost to be paid by Benefit Enhancement Fund		
a. Gross Normal Cost payable July 1, 2004 - 1/55th Formula		1,044,454,378
b. Gross Normal Cost payable July 1, 2004 - 1/60th Formula		960,060,046
c. Additional Formula Normal Cost: (a) - (b)		84,394,332
6. Net Benefit Enhancement Fund Balance as of July 1, 2004 before		
Fiscal Year 2006 Contribution: (3) - (4) - (5c)		266,917,965
7. State Additional Formula Contribution as of July 1, 2004:		
(5c) - [(3) - (4)], not less than \$0		0
8. Estimated Fiscal Year 2006 Employee Contributions		374,483,315
9. Limit on Fiscal Year 2006 Contribution to Benefit Enhancement Fund		
a. Present Value of Future Normal Costs as of June 30, 2004 - 1/55th Formul	a	10,245,231,853
b. Present Value of Future Normal Costs as of June 30, 2004 - 1/60th Formul	a	9,402,526,668
c. Limit: (a) - (b) - (6)		575,787,220
10. Excess Assets Available (D8)		0
11. Fiscal Year 2006 Allowable Contribution to Benefit Enhancement Fund: Lesser of (8), (9c), (10)	\$	0

### **SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

### F. Development of State's Fiscal Year 2006 Required Contributions

1.	Net Pension Normal Contribution as of July 1, 2004: De	(7)	•		\$	523,863,794
<b>2</b> .	Net Pension Normal Contribution as of June 30, 2005					567,082,557
3.	Additional Formula Contribution as of July 1, 2004: E(	7)			٠	. 0
: <b>4.</b>	Additional Formula Contribution as of June 30, 2005				·	0
5.	Accrued Liability Contribution					
	a. Actuarial Accrued Liability for Basic Allowances & I	Pensi	on			
٠	Adjustment Benefits (excluding PRMF)	\$ 4	10,447,690,3	39		
· :	b. Adjusted Actuarial Value of Assets		*			
	(excluding PRMF & BEF)	3	4,282,478,2	52		
.,	c. Reserve for previously earned reductions		4		٠	-
	in Member Contributions			<u>0</u>	_	•
	d. Unfunded Pension Accrued Liability: (a) - (b) + (c)	\$	6,165,212,0	87		
	e. 30 - Year Amortization with 5% increasing payments	of				
	Unfunded Pension Accrued Liability payable June 30		5			374,702,121
6.	Total Pension Contribution for State's Fiscal Year 2006:	(2)	+ (4) + (5e)			941,784,678
7.	State's Fiscal Year 2006 Estimated Post Retirement Med	lical	Contribution	ı		
	a. Anticipated Fiscal Year 2006 Premiums	\$	616,315,9	78		
	b. Expected Asset Return on Balance			0		
	c. 3/5% of Estimated FY 2005 Payroll		49,893,0	88		
	Subtotal: (a) - (b) + (c)					666,209,066
8.	State's Fiscal Year 2006 ERI-3 Contribution					1,095,001
9. 1	Total State's Fiscal Year 2006 Contribution for Pension,					
	Post Retirement Medical, and ERI: (6) + (7) + (8)				\$	1,609,088,745

### **SECTION III - LIABILITIES AND CONTRIBUTIONS**

(continued)

### G. Required Contribution as a Percentage of Appropriation Payroll

	Prior to	Reflecting
	Reduction due	Reduction due
	to Benefit	to Benefit
	Enhancement	<b>Enhancement</b>
	Fund and	Fund and
	Excess Assets	Excess Assets
Basic Allowances - 1/60th Formula	5.82%	5.82%
Non-Contributory Lump Sum Death Benefits	0.32%	0.32%
Active COLA (Phase-in percentage of 48.96%)-1/60th Formula	0.91%	0.91%
Additional Formula Normal Cost	1.14%	0.00%
Accrued Liability	4.66%	4.66%
Post Retirement Medical Benefits*	8.28%	<u>8.28%</u>
Total	21.13%	19.99%
If COLA fully phased-in, total percentage of payroll		
would equal:	22.07%	20.93%

<sup>\*</sup> Contributions are the estimated 2006 fiscal year's actual post retirement medical premiums less anticipated interest on PRM Fund plus the 3/5% of compensation additional state contribution.

### SECTION III - LIABILITIES AND CONTRIBUTIONS (continued)

H. Fiscal Year 2006 Required Contributions Payable by the State and Certain State Colleges

Post Retirement Medical Benefits		\$325,913	939,181	756,736	817,674	633,435	881,103	704,359	6,488	39,366	Ø	\$5,107,255	<		3,431,605	1,077,209	438,021	656.154.976	\$661,101,811	\$666,209,066
Accrued Liability Contribution		\$14,051	29,068	44,216	52,708	37,979	45,700	23,457	0	15,396	O	\$262,575	•	>	1,041,582	203,804	2,191,429	371.002.731	\$374,439,546	\$374,702,121
ess Assets & BEF Additional Formula Contribution		\$0	0	0	0	0	0	0	0	0	01	08	•	0	0	0	0	a	8	3
After Application of Excess Assets & BEF  Normal Additional  Contribution Formula  (1/60 Formula)		\$21,265	43,993	66,918	79,770	57,478	69,163	35,500	0	23,300	O	8397,387	•	•	1,576,353	308,442	3,316,558	561,483,817	\$566,685,170	\$567,082,557
•		\$3,426	7,087	10,780	12,851	9,260	11,142	5,719	0	3,754	a	864,019	•	0	253,950	49,690	534,297	90.454.908	\$91,292,845	\$91,356,864
Before Application of Excess Assets & BEF Normal Additional Contribution Formula (1/60 Formula)		\$21,265	43,993	66,918	077,67	57,478	69,163	35,500	0	23,300	Ö	\$397,387	•	0	1,576,353	308,442	3,316,558	561.483.817	\$566,685,170	\$567,082,557
Group	Certain State Colleges	NJ Institute of Technology	Rowan University	New Jersey University	Kean University	William Patterson University	Montclair State U. (Group 4)	The College of NJ	Ramapo State College	Stockton State College	Montclair State U. (Group 6)	Total for Certain State Colleges	State	Dept of Higher Education	Dept of Education	County Colleges	Charter Schools	Other	Total for State	Total for System

Section III - H

### **SECTION III - LIABILITIES AND CONTRIBUTION**

(continued)

### I. Analysis of Actual Experience for the Year Ended June 30, 2004

1. Unfunded Accrued Liability as of June 30, 2003	\$ 2,731,906,950
2. Gross Normal Cost as of June 30, 2003	976,834,543
3. Interest: ((1) + (2)) * 8.75%	324,514,881
4. Employee and Employer Contributions Made with Interest	420,328,467
5. Expected Unfunded Accrued Liability as of June 30, 2004: (1) + (2) + (3) - (4)	\$ 3,612,927,907
6. Increase in liability due to demographic assumption changes	1,478,405,779
7. Increase in liability due to economic assumption changes	(670,401,691)
8. Expected Unfunded Accrued Liability after changes as of June 30, 2004: (5) + (6) + (7)	\$ 4,420,931,995
9. Actual Unfunded Accrued Liability as of June 30, 2004	5,813,899,790
10. Gain/(Loss): (8) - (9)	\$ (1,392,967,795)

## SECTION IV - ACTUARIAL BALANCE SHEET AS OF JUNE 30, 2004

\$19,194,122,605	130,077		21,167,805,594 <u>85,632,063</u> 21,253,437,657			426,066			\$40,448,116,405
Liabilities  Payable from Retirement Reserve Fund Retirees, Disableds and Beneficiaries currently receiving benefits	Payable from Pension Fund Retirees, Disableds and Beneficiaries currently receiving benefits	Payable from Annuity Savings Fund	Active Members Tetal			Post Retirement Medical Benefits Fund			Total Liabilities
\$19,195,745,024 (1.622,419) 19,194,122,605	116,659 13.418 130,077	6,430,036,106	8,171,173,804 288,498,372 8,459,672,176	553,807,336 (286,889,371) 266,917,965	282,911,620	426,066	\$34,634,216,615	5.813.899.790	\$40,448,116,405
Assets Retirement Reserve Fund (RRF) Credited to Fund w/ Distribution of Income Add/(deduct) reserve transferable from/(to) CRF Adjusted Total	Pension Fund (PF) Credited to Fund w/ Distribution of Income Add/(deduct) reserve transferable from/(to) CRF Adjusted Total	Annuity Savings Fund (ASF) w/ Distribution of Income	Contingent Reserve Fund (CRF) Credited to Fund w/ Distribution of Income Add/(Deduct) from/(to) RRF, PF & SRF Adjusted Total	Benefit Enhancement Fund (BEF) Add/(deduct) reserve transferable from/(to) CRF Adjusted Total	Special Reserve Fund (SRF)	Post Retirement Medical Benefits Fund	Total Actuarial Value of Assets as of June 30, 2004	Present Value of Prospective Contributions to the CRF and BEF excluding payments due July 1, 2004 for basic allowances with cola adjustments	Total Assets

Section IV

### SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2006

### A. Development of Annual Required Contribution as of June 30, 2006 for Pension Benefits

1.	Actuarial Value of Assets as of July 1, 2004  a. Actuarial Value of Assets as of July 1, 2004  b. Post Retirement Medical Benefits Fund  c. Actuarial Value of Assets for GASB purposes:  (a) - (b)	\$34,634,216,615 <u>426,066</u>	\$34,633,790,549
2.	Actuarial Accrued Liability as of July 1, 2004  a. Total Actuarial Accrued Liability  b. Post Retirement Medical Benefits Fund  c. Accrued Liability for GASB purposes: (a) - (b)	\$40,448,116,405 <u>426,066</u>	40,447,690,339
3.	Unfunded Accrued Liability as of July 1, 2004: (2) - (1)		\$5,813,899,790
4.	Amortization Payment payable July 1, 2004	A	326,420,757
5.	<ul> <li>Net Normal Cost as of July 1, 2004</li> <li>a. Basic Allowances and pension adjustments (including full cost of pension adjustment benefits)</li> <li>b. Expected Employee Contributions</li> <li>c. Non-contributory Lump Sum Death Benefits</li> <li>d. Net Normal Cost as of July 1, 2004: (a) - (b) + (c)</li> </ul>	\$1,044,454,378 389,786,721 23,919,073	<u>678,586,730</u>
6.	Annual Required Contribution as of June 30, 2006  a. Annual Required Contribution as of July 1, 2004: (4) + (5)  b. Interest to Expected Payment Date		\$1,005,007,487 172,666,568
	o. morest to Expected I aymon Date		172,000,300

\$1,177,674,055

c. Annual Required Contribution: (a) + (b)

# SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2006 (continued)

### B. Projection of Net Pension Obligation as of June 30, 2006

\$1,590,263,911	177,674,055 131,196,773 <u>96,651,219</u> 1,212,219,609	O	\$2,802,483,520	(6) Unfunded Acorued ciation Liability as a %  of Payroll: (3) / (5)	6,254,198,406 -30.56%	6,571,641,181 -42.59%	6,948,381,383 -37.51%	7,348,993,141 -0.02%	7,702,854,159 35.47%	8 047 272 269 72.25%
	\$1,177,674,055 131,196,773 <u>26,651,219</u>			(5) Appropriation <u>Payroll</u>	6,254,1	6,571,6	6,948,3	7,348,9	7,702,8	8.047.2
				(4) Funded Ratio (1)/(2)	107.48%	110.21%	107.96%	100.00%	92.69%	85.63%
			(1) + (2) - (3)	(3) Unfunded Accrued Liability (2) - (1)	(1,911,368,389)	(2,798,587,271)	(2,606,022,326)	(1,654,591)	2,731,906,950	5.813.899.790
n as of June 30, 2005	ear 2006 1 ation 5) - (c)	ibutions	n as of June 30, 2006:	(2) Accrued Liability for GASB Purposes	25,546,083,289	27,404,618,051	32,745,357,185	35,146,591,842	37,383,732,882	40,447,690,339
1. Estimated Net Pension Obligation as of June 30, 2005	<ul> <li>2. Annual Pension Cost for Fiscal Year 2006</li> <li>a. Annual Required Contribution</li> <li>b. Interest on Net Pension Obligation</li> <li>c. Adjustment to ARC</li> <li>d. Annual Pension Cost: (a) + (b) - (c)</li> </ul>	3. Expected Fiscal Year 2006 Contributions	4. Estimated Net Pension Obligation as of June 30, 2006: $(1) + (2) - (3)$	Funding Progress (1) Actuarial Value of Assets for GASB Purposes	27,457,451,678	30,203,205,322	35,351,379,511	35,148,246,433	34,651,825,932	34.633.790.549
1. Estimated	<ol> <li>Annual Pension Cos</li> <li>Annual Required</li> <li>Interest on Net P</li> <li>Adjustment to Al</li> <li>Annual Pension</li> </ol>	3. Expected F	4. Estimated ]	C. Schedule of Funding   Actual Valuation of As	1999	2000	2001	2002	2003	2004

Section V - B&C

### SECTION V - ACCOUNTING INFORMATION FOR STATE'S FISCAL YEAR 2006 (continued)

### D. Schedule of Employer Contributions

State's Fiscal Year	Annual Required Contribution	Employer Contributions	Percentage of ARC Contributed
2001	\$0	\$0	100.00%
2002	0	0	100.00%
2003	194,435,594	0	0.00%
2004	686,284,850	0	0.00%
2005	883,460,483	0	0.00%
2006	1,177,674,055	. 0	0.00%

### E. Funding Policy for State's Fiscal Year 2006

Valuation Date	July 1, 2004
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level Percent, Closed
Payroll Growth Rate for Amortization	4.00%
Remaining Amortization Period	30 years
Asset Valuation Method	Actuarial Value
Actuarial Assumptions	
Investment Rate of Return	8.25%
Projected Salary Increases**	5.45%
Cost-of-Living Adjustments	60% of the assumed CPI
	at 3%

<sup>\*\*</sup> Variable scale, designed to average 5.45%

### SECTION VI - CENSUS DATA

		•														
	Total	206,243	0	(2,896)	0	0	0	(1,653)	22	9	10,231	0	0	33	212,015	Section VI - A
Domestic Relations	Beneficiaries	263	4	•	4	•	4		57	9	•	•	1	11	314	<b>ઝ</b>
	Beneficiaries	3,451		•	4	•	322	(179)	•			1		56	3,620	
	Disableds	2,171	•	•	•	180	(20)	(09)	i	1	•	•	•	୍ଧା	2,273	
	Retirees	53,446	1	•	3,908	•	(772)	(1,302)	•	ŧ		•	•	Ħ	55,786	•
- Company	Vested	1,030	93	4	(163)	•	(1)	(5)	•	•	(29)	•	1	H .	925	3,8
A	NonContrib	11,499	(40)	(2,352)	(164)	(39)	(2)	(20)	t	•	241	(1,719)	4,855	21	12,259	
	Contrib	134,383	(53)	(544)	(3,581)	(141)	(22)	(87)	•	*	10,019	1,719	(4,855)		136,838	
A. Reconciliation with Prior Year		Members as of June 30, 2003	Terminated Vested	Terminated Non-Vested	Retired	Disabled	Died with Beneficiary	Died without Beneficiary	Payments Began	Payments Ceased	New Actives and Rehires	Changed to Contributing	Changed to Noncontributing	Data Corrections	Members as of June 30, 2004	

38

MILLIMAN

### SECTION VI - CENSUS DATA

(continued)

### B. Appropriation Number and Salary by Group •

Group	Number		Sal	<u>aries</u>
Department of Higher Education	0	\$	:	0
Department of Education	311		22,369,	479
New Jersey Institute of Technology	<b>3</b> ,		301,	766
State Colleges	58		5,006,	773
County Colleges	49		4,376,	990
Charter Schools	1,063		47,064,	129
Other	<u>135,339</u>	<u>7</u> ,	968,153,	<u>132</u>
Total	136,823	\$ <u>8</u> .	047,272,	<u> 269</u>

<sup>\*</sup> Excludes veterans hired prior to 1955 and Chapter 198 members

### **SECTION VI - CENSUS DATA**

(continued)

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

Group	Number	Annual <u>Benefit</u>
Service and Early Retirements	56,100	\$ 1,717,126,891
Ordinary Disability Retirements	2,085	43,466,304
Accidental Disability Retirements	188	6,095,852
Ordinary Death Benefits	5	2,086
Accidental Death Benefits	4	83,344
Dependents of Deceased Beneficiaries	3,514	63,008,889
Dependents of Deceased Beneficiaries who elected to receive annuities certain instead of lump sum	<u>97</u>	1,980,587
Total	61,993	\$ <u>1,831,763,953</u>

### SECTION VI - CENSUS DATA

(continued)

### D. Age, Service and Salary Profile of Active Contributing Participants

•	Males										
Age				Year	rs of Servic	æ					Annual
Group	<u>0-4</u>	<u>5-9</u>	10-14	15-19	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	35-39	<del>40+</del>	<u>Total</u>	Salary
15-19	1	0	0	0	0	0	0	0	0	1	<b>\$</b> 2 <b>7,</b> 893
20-24	458	0	0	0	0	0	0	0	0	458	38,608
<b>25-29</b>	3,179	554	1	0	0	0	0	0	0	3,734	40,836
30-34	1,797	2,268	262	1	0	0	0	0	0	4,328	46,165
35-39	987	1,377	1,146	163	0	0	0	0	0	3,673	53,204
<b>4</b> 0-44	784	677	677	770	171	0	0	0	0	3,079	59,165
45-49	<b>6</b> 69	543	482	611	958	405	0	0	0	3,668	66,190
<b>50</b> -54	588	452	434	557	680	1,834	1,176	2	0	5,723	74,569
55-59	499	299	349	364	423	805	2,717	1,138	1	6,595	81,534
<b>60</b> -64	223	121	140	128	145	166	344	890	166	2,323	81,938
65 & Up	<u>48</u>	<u>44</u>	<u>63</u>	<u>52</u>	<u>35</u>	<u>43</u>	<u>39</u>	<u>77</u>	<u>146</u>	<u>547</u>	81,340
Total	9,233	6,335	3,554	2,646	2,412	3,253	4,276	2,107	313	34,129	

 Average Age
 =
 45.2

 Average Service
 =
 15.4

 Average Age at Entry
 =
 29.8

 Average Annual Salary
 =
 \$64,159

					Females						Average
Age				Yes	ars of Serv	ice					Annual
<u>Group</u>	<u>0-4</u>	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40+</u>	Total	Salary
15-19	0	0	0	0	θ	0	0	0	0	0	\$0
20-24	2,308	0	0	0	0	0	0	0	0	2,308	37,955
25-29	10,655	2,190	3	. 0	0	0	0	0	0	12,848	40,610
<b>30</b> -34	4,991	6,342	818	1	0	0	0	0	0	12,152	44,303
35-39	2,770	2,623	3,004	530	1	0	0	0	0	8,928	49,209
40-44	2,725	1,960	1,626	2,870	567	0	0	0	0	9,748	54,135
<b>45-4</b> 9	2,863	2,742	2,029	2,285	2,754	972	1	0	0	13,646	57,835
50-54	2,035	2,348	2,696	3,080	2,734	4,458	2,080	0	0	19,431	65,064
<b>55</b> -59	<b>86</b> 6	1,027	1,524	2,547	2,883	2,403	3,802	1,101	1	16,154	70,430
60-64	218	240	420	<b>79</b> 9	1,289	1,254	770	796	171	5,957	72,732
65 & Up	<u>39</u>	<u>61</u>	<u>89</u>	<u>187</u>	<u>264</u>	<u>349</u>	<u>238</u>	<u>157</u>	<u>153</u>	1,537	74,426
Total	29,470	19,533	12,209	12,299	10,492	9,436	6,891	2,054	325	102,709	

 Average Age
 =
 44.5

 Average Service
 =
 13.4

 Average Age at Entry
 =
 31.2

 Average Annual Salary
 =
 \$56,992

### SECTION VI - CENSUS DATA

(continued)

### E. Age, Service and Salary Profile of Non-Contributing Participants

- 4 <u>_</u>	Males								Average		
Age	Years of Service								Annual		
Group	0-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40+</u>	<u>Total</u>	Salary
15-19	0	0	0	0	0	0	0	0	0	0	\$0
20-24	11	0	0	0	0	0	0	0	0	11	36,267
25-29	271	2	0	0	0	0	0	0	0	273	36,496
30-34	192	50	0	0	0	0	0	0	0	242	38,944
35-39	145	46	44	3	0	0	0	. 0	0	238	43,431
40-44	118	21	41	15	0	0	0	0	0	195	46,594
45-49	100	25	56	<b>2</b> 6	8	0	0	0	0	215	44,910
<b>50</b> -54	109	19	104	52	22	8	1	Ó	0	315	45,796
<b>55</b> -59	108	16	116	<b>6</b> 6	48	10	4	1	0	369	45,109
60-64	67	5	21	16	9	5	3	3	0	129	42,894
65 & Up	<u>39</u>	<u>3</u>	5	7	4	4	1	1	1	<u>65</u>	34,385
Total	1,160	187	387	185	91	27	9	5	1	2,052	

 Average Age
 =
 45.1

 Average Service
 =
 7.0

 Average Age at Entry
 =
 38.1

 Average Annual Salary
 =
 \$42,741

	<u> </u>				Females						Average
Age	Years of Service								Annual		
Group	<u>0-4</u>	5-9	<u>10-14</u>	15-19	20-24	<u>25-29</u>	30-34	<u>35-39</u>	40+	Total	<u>Salary</u>
15-19	0	0	0	0	0	0	0	0	0	0	\$0
20-24	70	0	0	0	0	0	0	0	0	70	<b>34,4</b> 65
<b>25-2</b> 9	1,300	110	0	0	0	0	0	0	0	1,410	37,684
30-34	1,373	1,040	65	0	0	0	0	0	0	2,478	40,760
35-39	626	525	552	16	0	0	0	0	0	1,719	42,495
40-44	361	130	436	90	2	0	0	0	0	1,019	42,189
45-49	378	80	316	108	34	3	0	0	0	919	41,519
50-54	356	86	480	183	44	21	1	0	0	1,171	40,230
<b>55-5</b> 9	209	36	438	259	68	12	9	4	0	1,035	40,979
60-64	85	17	77	49	23	5	6	5	0	267	42,951
65 & Up	<u>59</u>	<u>10</u>	<u>17</u>	<u>14</u>	<u>8</u>	<u>5</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>119</u>	33,488
Total	4,817	2,034	2,381	719	179	46	17	12	2	10,207	

Average Age = 40.5 Average Service = 7.0 Average Age at Entry = 33.5 Average Annual Salary = \$40,729

### SECTION VI - CENSUS DATA

(continued)

### F. Age and Benefit Profiles

### **Terminated Vested Participants**

	Male			Female		Total
ſ		Annual		Annual		Annual
Age	Number	<u>Pension</u>	Number	<u>Pension</u>	Number	<b>Pension</b>
Under 35	0	\$0	0	\$0	0	\$0
35-39	0	. 0	6	55 <b>,7</b> 76	6	55 <b>,7</b> 76
40-44	. 6	47,880	17	193,188	23	241,068
45-49	. 11	89,760	31	291,504	42	381,264
50-54	42	438,312	141	1,263,888	183	1,702,200
55-59	125	1,090,788	455	4,768,896	580	5,859,684
60 & Up	<u>10</u>	<u>114,936</u>	<u>81</u>	<u>940,980</u>	<u>91</u>	1,055,916
Total	194	\$1,781,676	731	\$7,514,232	925	\$9,295,908
		Average Ag	e	= 55.7		,
		Average Annual P	ension	= \$10,050		

### Service Retired Participants

		Male	T i	Female			Total
	-	Annual		A	nnual		Annual
Age	Number	<u>Pension</u>	Number	<u>P</u>	ension	<u>Number</u>	Pension
Under 50	7	\$184,093	28		\$475,761	35	<b>\$</b> 659,854
50-54	175	5,460,074	480	1	13,730,173	655	19,190,247
55-59	2,413	96,144,939	3,712	13	36,271,592	6,125	232,416,531
60-64	4,458	179,464,898	6,721	22	21,470,009	11,179	400,934,907
65-69	3,945	155,847,811	6,369	19	7,935,151	10,314	353,782,962
70-74	3,904	142,278,363	5,776	16	53,380,137	9,680	305,658,500
75-79	2,944	92,488,799	4,946	13	15,846,980	7,890	208,335,779
80-84	1,658	41,641,207	3,436	(	55,712,452	5,094	107,353,659
85-89	765	15,746,495	2,197		35,650,690	2,962	51,397,185
90-94	307	6,017,521	1,218	]	19,798,276	1,525	25,815,797
95-99	69	1,639,365	495		8,659,320	564	10,298,685
100 & Up	<u>3</u>	<u>45,493</u>	<u>74</u>		1,237,292	<u>77</u>	1,282,785
Total	20,648	<b>\$</b> 736,959,058	35,452	\$98	30,167,833	56,100	\$1,717,126,891
		Average A	ge	=	70.5		
		Average Annual	Pension	=	\$30,608		

### SECTION VI - CENSUS DATA

(continued)

### F. Age and Benefit Profiles (continued)

### Disabled Retired Participants

	N	[ale	Fer	nale	T	otal
1		Annual		Annual		Annual
Age	<u>Number</u>	<u>Pension</u>	<u>Number</u>	<b>Pension</b>	Number	<u>Pension</u>
Under 35	0	\$0	0	\$0	0	\$0 .
35-39	2 .	44,579	10	178,680	12	223,259
40-44	4	85,983	18	353,631	22	439,614
45-49	21	517,905	93	2,113,940	114	2,631,845
50-54	64	1,652,971	221	5,208,690	285	6,861,661
55-59	151	3,588,944	363	8,607,066	514	12,196,010
60-64	107	2,454,900	<b>3</b> 63	8,420,004	470	10,874,904
65-69	81	1,823,124	<b>2</b> 59	5,836,267	340	7,659,391
70-74	56	983,998	183	3,430,794	239	4,414,792
75-79	37	569,477	116	1,921,890	153	2,491,367
80-84	25	393,417	· 56	881,704	81	1,275,121
85 & Up	<u>10</u>	134,041	<u>33</u>	<u>360,151</u>	<u>43</u>	494,192
Total	558	\$12,249,339	1,715	\$37,312,817	2,273	\$49,562,156
		Average Ag	e =	62.6		
		Average Annual I	Pension =	\$21,805		

### SECTION VI - CENSUS DATA

(continued)

### F. Age and Benefit Profiles (continued)

### Beneficiaries and Dependents

	N	<b>lale</b>	Fe	male	T	otal
Ī		Annual		Annual		Annual
Age	<u>Number</u>	<u>Pension</u>	Number	Pension Pension	Number	<b>Pension</b>
Under 25	5	<b>\$</b> 58,644	6	\$86,615	11	\$145,259
25-29	4	<b>73,8</b> 67	1 -	18,986	5	92,853
30-34	1	12,080	5 .	91,703	6	103,783
35-39	. 5	105,168	5	80,028	10	185,196
40-44	8	169,039	9	163,016	17	332,055
45-49	20	318,414	40 .	810,581	60	1,128,995
50-54	. 34	618,486	<b>7</b> 5	1,494,178	109	2,112,664
55-59	<b>. 78</b>	1,468,059	120	3,066,535	198	4,534,594
60-64	. <b>7</b> 6	1,608,901	234	5,606,132	310	7,215,033
65-69	<b>8</b> 6	1,782,377	345	8,195,523	431	9,977,900
70-74	90	1,649,583	396	8,948,711	486	10,598,294
75-79	86	1,275,621	547	10,474,544	633	11,750,165
80-84	80	994,671	505	7,142,349	585	8,137,020
85-89	56	622,930	414	5,114,540	470	5,737,470
90-94	<b>2</b> 5	217,137	212	2,370,007	237	2,587,144
95-99	6	38,948	36	323,807	42	362,755
100 & Up	<u>1</u>	<u>6,751</u>	<u>9</u>	<u>66,975</u>	<u>10</u>	<u>73,726</u>
Total	661	\$11,020,676	2,959	\$54,054,230	3,620	\$65,074,906
<del></del>		Average Ag		74.3	· · · · · · · · · · · · · · · · · · ·	
		Average Annual I	ension =	<b>\$17,97</b> 6		

### SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS AS OF JUNE 30, 2004

### 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 which average 5.45% (as prescribed by the State Treasurer) and is shown below.

Years of	Annual
Employment	Rate
0-3	5.70%
4-15	6.60
16	5.70
17-19	4.80
20	5.50
21-25	4.80
26-30	4.60
31+	4.40

### SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS AS OF JUNE 30, 2004

### A. Actuarial Assumptions (continued)

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

Less Than 10 Years of Employment

Years of			
Employment	<u>Male</u>	<u>Fem</u>	<u>ale</u>
	-	<40	<u>40+</u>
0	8.29%	7.61%	7.61%
. 1	6.36	6.58	6.58
2	5.61	5.77	5.77
3	4.18	6.68	3.60
4	3.44	6.53	2.38
5	2.90	6.15	1.84
6	2.53	6.15	1.65
7	2.19	5.86	1.65
8	1.65	5.47	1.27
9	1.45	4.35	1.08

Annual Rates for Those Annual Rates for Receiving With Deferred Annuity Benefits\* Return of Contributions

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.83%	2.28%	0.55%	0.76%
30	0.83	2.28	0.55	0.76
<b>3</b> 5	0.68	1.80	0.46	0.61
40	0.46	0.98	0.30	0.29
45	0.39	0.57	0.18	0.13
50	0.52	0.64	0.11	0.09
<b>5</b> 5	0.93	1.04	80.0	0.08

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

### SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS AS OF JUNE 30, 2004

### 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). Illustrative rates are shown below.

	ess than		Fii <u>Eligi</u>	rst bilitv	After F Eligib	
Age	Male	<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
<b>5</b> 0	1.9	2.0	N/A	N/A	N/A	N/A
51.	2.3	2.5	N/A	N/A	N/A	N/A
52-54	2.8	3.0	N/A	N/A	N/A	N/A
<b>5</b> 5	N/A	N/A	15.0%	16.0%	N/A	N/A
<del>5</del> 6	N/A	N/A	18.0	19.0	12.0%	13.0%
<b>5</b> 7	N/A	N/A	18.0	19.0	13.0	13.5
<b>5</b> 8	N/A	N/A	20.0	20.0	14.0	14.0
59	N/A	N/A	20.0	20.0	15.0	14.5
60	12.0%	10.0%	22.0	32.0	21.0	20.0
61	12.0	10.0	23.0	34.0	23.0	22.0
62	12.0	10.0	40.0	48.0	36.0	32.0
63	12.0	10.0	43.0	45.0	30.0	26.5
64	12.0	10.0	43.0	45.0	30.0	26.5
65	17.0	20.0	43.0	57.0	38.0	36.0
66-70	18.0	16.0	50.0	50.0	30.0	30.0
71	20.0	20.0	50.0	50.0	30.0	30.0

### SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS AS OF JUNE 30, 2004

### A. Actuarial Assumptions (continued)

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

	<u>Ordii</u>	nary	<u>Accidental</u>		
<u>Age</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	

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

	<u>Ordir</u>	nary
<u>Age</u>	<u>Male</u>	<u>Female</u>
25	0.0369%	0.0284%
30	0.0348	0.0291
35	0.0582	0.0351
40	0.0866	0.0478
<b>4</b> 5	0.1287	0.0709
.50	0.1867	0.0973
<b>5</b> 5	0.2602	0.1428
60	0.4074	0.2294
<b>6</b> 5	0.6466	0.4439
70	0.9387	0.8636

### SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS AS OF JUNE 30, 2004

### A. Actuarial Assumptions (continued)

<u>Post-retirement Mortality</u>: 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:

Service Retirements and Beneficiaries			Scale AA		Disability <u>Retirement</u>	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
45	0.4158%	0.1565%	1.3%	1.6%	2.2570%	0.7450%
50	0.5593	0.2447	1.8	1.7	2.8975	1.1535
55	0.7210	0.3489	1.9	8.0	3.5442	1.6544
60	1.0556	0.5617	1.6	0.6	4.2042	2.1839
65	1.2047	0.7511	1.4	0.5	5.0174	2.8026
70	1.9959	1.1942	1.5	0.6	6.2583	3.7635
<b>7</b> 5	3.4828	1.9731	1.4	8.0	8.2067	5.2230
80	6.1521	3.4266	1.0	0.7	10.9372	7.2312
85	10.8381	7.2836	0.7	0.6	14.1603	10.0203

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

<u>Marriage</u>: 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.

### SECTION VII - ACTUARIAL ASSUMPTIONS AND METHODS AS OF JUNE 30, 2004

### A. Actuarial Assumptions (continued)

<u>Post Retirement Medical</u>: Projected 2005-2006 Per Retiree Benefit Costs (based on June 30, 2004 health plan distribution, 2005 estimated renewal rates provided by the Division, medical trends of 18%-19% for those less than age 65 and 19%-20% for those greater than 65, and the Social Security Standard premium for Medicare Part B trend at 12.0%):

Pre-Medicare: \$15,019.43 Medicare Eligible: \$9,747.01

### **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.

### 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.

### D. Changes in Actuarial Assumptions

The per capita benefit costs for postretirement medical benefits have changed since the previous valuation. The costs were previously \$14,317.38 for pre-Medicare and \$9,148.44 for Medicare eligible.

This valuation reflects changes to the economic assumption as prescribed by the Treasurer. Specifically, the investment return decreased from 8.75% to 8.25%, the average salary inflation rate decreased from 5.95% to 5.45% and the Cost-of-Living inflation rate decreased from 4.00% to 3.00%.

The assumptions shown above in Section A are the assumptions recommended as a result of the 2000 to 2003 Experience Study. These assumptions are first reflected in this report.

Section VII – A, B, C & D

### SECTION VIII - SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 1. Type of Plan

The Plan is a contributory, defined benefit plan. Contributions by Members are 5% of compensation. If the Fund has excess assets, member contributions may be reduced by as much as 2%.

### 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. <u>Fiscal Year</u>: A Fiscal Year is a 12-month period beginning on July 1 and ending on June 30.
- b. <u>Credited Service</u>: 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.
- c. <u>Final Compensation</u>: This is the average annual compensation for the three consecutive years of Creditable Service immediately preceding retirement or the highest three fiscal years of Membership Service.
- d. <u>Final Year Compensation</u>: This is the compensation upon which contributions by a Member to the Annuity Savings Fund are based in the last year of Membership Service.

### SECTION VIII - SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 4. Definitions (continued)

- e. <u>Aggregate Member Contributions</u>: 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. <u>Class A Member</u>: Any member who contributes towards retirement allowance based on 1/64th benefit rate per year of creditable service.
- g. <u>Class B Member</u>: Any member who contributes towards a retirement allowance based on 1/55th benefit rate per year of creditable service.

### 5. Retirement Benefits

### a. Service Retirement

<u>Service Retirement Eligibility</u>: Eligibility means age 60 with no minimum service requirement.

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

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

### b. Early Retirement

<u>Early Retirement Eligibility</u>: 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.

### SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 6. Termination Benefits

### a. Lump Sum Withdrawal

Eligibility: A Member is eligible upon termination of service.

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

### b. Deferred Retirement

<u>Eligibility</u>: 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. <u>Ordinary Death (Insured) Benefit - Lump Sum</u> (Non-Contributory)

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

<u>Pre-retirement Death Benefit</u>: 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.

### SECTION VIII - SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 7. Death Benefits (continued)

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

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

<u>Post-retirement Death Benefit After Age 60 Eligibility</u>: 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).

<u>Post-retirement Death Benefit After Age 60 Benefit</u>: 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:

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

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

### SECTION VIII - SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 7. Death Benefits (continued)

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

- (i) The annuity benefit to a widow or widower is equal to 50% of Compensation, payable for life until remarriage.
- (ii) The annuity benefit, when there is no spouse, or the spouse is remarried, is equal to 20% of Compensation for one child, 35% for two children, 50% for three or more children. The benefit is payable while the children are under age 18 and it is payable for life if they are disabled.
- (iii) The annuity benefit, when there is no spouse or children, is equal to 25% of Compensation for one dependent parent and 40% for two dependent parents.
- (iv) The benefit, when there is no relation is 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

<u>Eligibility</u>: 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.

<u>Ordinary Disability Retirement Benefit</u>: 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.

### SECTION VIII - SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 8. Disability Benefits (continued)

### b. Accidental Disability Retirement

<u>Eligibility</u>: 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.

- 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. <u>Additional Old-Plan Benefit</u>: 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. <u>Special Minimum Benefit</u>: 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. <u>Service Retirement</u>: 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. <u>Chapter 97 Benefit</u>: Eligible if age 55 and completes 35 years of service. Benefit equals 1/55th of final year compensation for each year of service.
- 13. <u>Post Retirement Medical Benefits</u>: The Fund pays medical premiums including Medicare for retired members who retire after 25 years of service or under the disability provisions of the Fund.

### SECTION VIII - SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

### 14. 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 \$165,000 and the 401(a)(17) compensation cap is \$205,000 and is applied on a calendar year basis.

### 15. 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.

### 16. Contributions

- a. <u>Member Contributions</u>: Each member becoming a member on or after January 1, 1956 contributes at the rate of contribution applicable to Class B members.
  - (i) Class B Membership: Any member on December 31, 1955 may elect to be classified as a Class B member and contribute at the rate of contribution applicable to Class B members at his age at membership. Any such member may elect to increase his accumulated deductions by the amount required by the Board to receive credit as a Class B member for all or part of his service prior to such election.

### SECTION VIII – SUMMARY OF PRINCIPAL PLAN APROVISIONS AS OF JUNE 30, 2004

(ii) <u>Class A Membership</u>: Any member who is not a veteran and does not elect to be classified as a Class B member continues to contribute at the rate of contribution applicable to his age at membership which was payable prior to the establishment of the integrated system, except that if he became a member subsequent to June 30, 1946 he will pay after January 1, 1955 at the rate of contribution in effect on June 30, 1946 applicable to his age at membership.

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

### b. Local Employer Contributions

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

### 17. Changes in Plan Provisions Since Prior Valuation

There have been no changes since the previous valuation.

### APPENDIX I - EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE

Group Nu	ımber	Location Name	ERI 1 Present Value June 30, 2004	ERI I Fiscal Year 2006 Payment	ERI 2 Present Value June 30, 2004	ERI 2 Fiscal Year 2006 Payment
3	981	NJ INST OF TECH	\$234,416	\$25,621	<b>\$</b> 337,674	\$21,575
		ATLANTIC COMMUNITY COLLEGE	75,996	8,306	N/A	N/A
		ESSEX CO COMMUNITY COLLEGE	N/A	N/A	N/A	N/A
		MIDDLESEX COUNTY COLLEGE	N/A	N/A	N/A	N/A
		OCEAN COUNTY COLLEGE	N/A	N/A	N/A	N/A
6	911	ALLAMUCHY BD OF ED	N/A	N/A	118,043	10,609
6 2		ALLENDALE BORO BD OF ED	N/A	N/A	N/A	: N/A
6	300	ASBURY PARK BD OF ED	3,807,304	416,124	N/A	N/A
6	1000	ATLANTIC CITY BD OF ED	<b>N</b> /A	N/A	N/A	N/A
6	969	ATLANTIC CO VOCATIONAL SCHOOLS	229,042	25,033	N/A	N/A
6 4	4011	AUDUBON BOROUGH BD OF ED	N/A	N/A	N/A	N/A
6 1	8010	BAYONNE BOARD OF ED	N/A	N/A	N/A	N/A
6 4	4013	BELLMAWR BORO BD OF ED	N/A	N/A	N/A	N/A
6	324	BELMAR BORO BD OF ED	N/A	N/A	N/A	N/A
6	980	BERGEN CO VOCATIONAL	N/A	N/A	N/A	N/A
		BERLIN BORO BD OF ED	N/A	N/A	191,854	36,464
.6 4	4015	BERLIN TWP BD OF ED	218,039	23,831	200,541	26,439
6	3012	BEVERLY CITY BD OF ED	N/A	N/A	N/A	N/A
6		BOONTON TWP BD OF ED	148,489	16,229	N/A	N/A
6	514	BRICK TWP BD OF ED	N/A	N/A	N/A	N/A
6	326	BRIELLE BORO BD OF ED	N/A	N/A	N/A	N/A
6 3		BURLINGTON CO BD OF SPCL SRVCS	N/A	N/A	N/A	N/A
6		BYRAM TWP BD OF ED	261,158	28,544	N/A	N/A
6 2		CARLSTADT BD OF ED	N/A	N/A	N/A	N/A
6		CARTERET BD OF ED	N/A	N/A	N/A	N/A
6 4		CHESILHURST BORO BD OF ED	33,152	3,623	30,489	4,020
6		CHESTER TWP BD OF ED	N/A	N/A	N/A	N/A
6 4	4018	CLEMENTON BD OF ED	123,352	13,482	113,452	14,958
6	232	CRANBURY TWP BD OF ED	N/A	N/A	11,089	6,124
6	121	EAST WINDSOR REG SCHOOL DIST	N/A	N/A	250,135	32,978
6	4010	EASTERN CAMDEN CO REG SCH DIST	N/A	N/A	N/A	N/A
6 2	2036	ENGLEWOOD CITY BD OF ED	N/A	N/A	N/A	N/A
6 (	6012	ESSEX CO EDUCATIONAL SERV COMM	227,641	24,880	N/A	N/A
6	122	EWING TWP BD OF ED	N/A	N/A	N/A	N/A
6 (	6082	FAIRFIELD TWP BD OF ED ESSEX CO	N/A	N/A	N/A	N/A
6 2	2039	FAIRVIEW BORO BD OF ED	N/A	N/A	N/A	N/A
6	329	FARMINGDALE BD OF ED	N/A	N/A	223,715	42,519
6	775	FRANKFORD TWP BD OF ED	N/A	N/A	N/A	N/A
6	748	FRANKLIN TWP BD OF ED	N/A	N/A	N/A	N/A
6 4	4032	GIBBSBORO BORO BD OF ED	N/A	N/A	N/A	N/A
6 4	4033	GLOUCESTER CITY BD OF ED	N/A	N/A	305,951	168,957
6	753	GREEN BROOK BD OF ED	346,844	37,909	N/A	N/A
6 8	8082	GUTTENBERG BORO BD OF ED	186,544	20,389	N/A	N/A

### APPENDIX I - EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE (continued)

			ERI 1 Present Value	ERI 1 Fiscal Year	ERI 2 Present Value	ERI 2 Fiscal Year
Group	Number	Location Name	June 30, 2004	2006 Payment	June 30, 2004	2006 Payment
6	4037	HADDON HEIGHTS BD OF ED	N/A	<b>N</b> /A	N/A	N/A
6	8083	HARRISON TWP BD OF ED	N/A	N/A	N/A	N/A
6	780	HIGH POINT REG HIGH SCHOOL	N/A	N/A	N/A	N/A
6	922	HOPE TWP BD OF ED	N/A	N/A	N/A	N/A
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	792,941	71,263
6	9030	HUNTERDON CENTRAL HIGH SCHOOL	N/A	N/A	N/A	N/A
6	6040	IRVINGTON TWP BD OF ED	N/A	N/A	3,991,575	526,252
6	518	JACKSON TWP BD OF ED	N/A	N/A	N/A	· N/A
6	8030	KEARNY TWP BD OF ED	N/A	N/A	661,891	365,519
. 6	810	KENILWORTH BORO BD OF ED	N/A	N/A	N/A	N/A
6	<b>7</b> 95	KITTATINNY REGIONAL H S	N/A	N/A	N/A	N/A
6	521	LAKEHURST BORO BD OF ED	97,462	10,652	'N/A	N/A
6	645	LAKELAND REGIONAL	876,234	95,769	N/A	· N/A
6	500	LAKEWOOD TWP BD OF ED	N/A	N/A	N/A	N/A
6	4038	LAUREL SPRINGS BORO BD OF ED	N/A	N/A	N/A	N/A
6	124	LAWRENCE TWP BD OF ED	· N/A	N/A	N/A	N/A
6	3005	LENAPE REGIONAL H S BD OF ED	N/A	N/A	N/A	N/A
- 6	790	LENAPE VALLEY REG H S DIST	N/A	N/A	228,220	126,031
6	4068	LINDENWOLD BORO BD OF ED	N/A	N/A	N/A	N/A
6	2052	LITTLE FERRY BD OF ED	N/A	N/A	13,122	<b>7,24</b> 6
: 6	2053	LODI BD OF ED	N/A	N/A	N/A	N/A
6	310	LONG BRANCH BD OF ED	N/A	N/A	N/A	N/A
6	4045	LOWER CAMDEN CO REG HS DIST 1	N/A	N/A	N/A	N/A
6	2055	LYNDHURST TWP BD OF ED	N/A	N/A	N/A	N/A
6	1096	MAINLAND REGIONAL	N/A	N/A	N/A	N/A
6	524	MANCHESTER TWP BD OF ED	N/A	N/A	N/A	N/A
6	1060	MARGATE CITY BD OF ED	N/A	N/A	N/A	N/A
6	343	MATAWAN-ABERDEEN REG SCHOOL	N/A	N/A	N/A	N/A
6	2056	MAYWOOD BD OF ED	N/A	N/A	N/A	N/A
. 6	3027	MEDFORD TWP BD OF ED	N/A	N/A	224,813	124,150
6	111	MERCER CO SPECIAL SERVICES	433,241	47,352	N/A	N/A
6	953	MERCER CO VOCATIONAL SCHOOLS	N/A	N/A	429,023	81,540
6	972	MIDDLESEX CO VOCATIONAL SCHOOL	N/A	N/A	N/A	N/A
. 6	242	MILLTOWN BORO BD OF ED	N/A	N/A	N/A	N/A
6	346	MONMOUTH BEACH BD OF ED	118,803	12,985	N/A	N/A
6	987	MONMOUTH CO VOCATIONAL SCHOOLS	700,985	76,615	N/A	N/A
6	372	MONMOUTH REGIONAL_HIGH SECHOOL	N/A	N/A	N/A	N/A
6	243	MONROE TWP BD OF ED	N/A	N/A	N/A	N/A
6	6050	MONTCLAIR BD OF ED	N/A	N/A	N/A	N/A

### <u>APPENDIX I - EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE</u> (continued)

Group No	umber	Location Name	ERI 1 Present Value June 30, 2004	ERI 1 Fiscal Year 2006 Payment	ERI 2 Present Value June 30, 2004	ERI 2 Fiscal Year 2006 Payment
6	2059	MOONACHIE BORO BD OF ED	N/A	N/A	N/A	N/A
6	3029	MOUNT LAUREL TWP BD OF ED	<b>N</b> /A	N/A	N/A	N/A
6	4043	MT EPHRAIM BD OF ED	N/A	N/A	\$22,421	\$12,382
6	436	MT OLIVE TWP BD OF ED	N/A	N/A	N/A	N/A
6	2063	NORTH ARLINGTON BD OF ED	N/A	N/A	N/A	N/A
6	8040	NORTH BERGEN BD OF ED	N/A	N/A	N/A	N/A
6	3033	NORTH HANOVER TWP BD OF ED	N/A	N/A	N/A	<b>N</b> /A
6	901	NORTH WARREN REG HIGH SCHOOL	N/A	· N/A	N/A	N/A
6	1089	NORTHFIELD BD OF ED	N/A	N/A	N/A	N/A
6	351	OCEAN TWP BD OF ED	N/A	N/A	N/A	N/A
6	2068	ORADELL BD OF ED	N/A	N/A	N/A	N/A
6	2071	PALISADES PARK BD OF ED	N/A	N/A	N/A	N/A
6	952	PASSAIC CO VOC SCH	N/A	N/A	N/A	N/A
6	3035	PEMBERTON BORO BD OF ED	N/A	N/A	N/A	N/A
6	3036	PEMBERTON TWP BD OF ED	\$2,404,216	<b>\$262,772</b>	\$271,307	\$149,826
6		PERTH AMBOY BD OF ED	N/A	N/A	\$2,069,270	\$393 <b>,2</b> 83
6:	4069	PINE HILL BORO BD OF ED	\$315,368	\$34,468	\$172,503	\$22,743
6.	502	PINELANDS REG SCH DIST	N/A	N/A	N/A	N/A
6	245	PISCATAWAY TWP BD OF ED	N/A	N/A	N/A	N/A
6		PITTSGROVE TWP BD OF ED	N/A	N/A	N/A	N/A
6		PLEASANTVILLE BD OF ED	\$1,298,931	\$141,968	\$1,223,881	\$161,357
6		RAHWAY CITY BD OF ED	N/A	N/A	·N/A	N/A
6	-	RED BANK BD OF ED	N/A	N/A	N/A	N/A
6		RED BANK REGIONAL H S DISTRICT	N/A	N/A	N/A	N/A
		ROCHELLE PARK TWP BD OF ED	N/A	N/A	N/A	N/A
6		ROCKAWAY TWP BD OF ED	N/A	N/A	N/A	N/A
6		ROXBURY TWP BD OF ED	N/A	N/A	N/A	N/A
		SADDLE BROOK BD OF ED	N/A	N/A	N/A	N/A
6		SALEM CO VOCATIONAL SCHOOL	\$61,817	<b>\$15,292</b>	N/A	N/A
6		SEA GIRT BD OF ED	N/A	N/A	N/A	N/A
6	531	SEASIDE HEIGHTS BD OF ED	N/A	N/A	\$12,874	\$2,447
6	8084	SECAUCUS TWP BD OF ED	N/A	N/A	N/A	N/A
6	5071	SHILOH BOROUGH BD OF ED	\$12,954	\$1,416	N/A	N/A
6		SHORE REGIONAL H S DISTRICT	N/A	N/A	N/A	N/A
6	356	SHREWSBURY BORO BD OF ED	N/A	N/A	N/A	N/A
6		SOMERVILLE BORO BD OF ED	N/A	N/A	N/A	N/A
6	249	SOUTH AMBOY BD OF ED	\$412,182	\$45,050	N/A	N/A
6	254	SPOTSWOOD BORO BD OF ED	N/A	N/A	N/A	N/A
6	844	SPRINGFIELD TWP BD OF ED	N/A	N/A	N/A	N/A
6	4062	STRATFORD BD OF ED	N/A	N/A	N/A	N/A

### APPENDIX I - EARLY RETIREMENT INCENTIVE CONTRIBUTION SCHEDULE (continued)

		ERI I Present Value	ERI 1 Fiscal Year	ERI 2 Present Value	ERI 2 Fiscal Year
Group Number	Location Name	June 30, 2004	2006 Payment	June 30, 2004	2006 Payment
6 2083	TEANECK BD OF ED	N/A	N/A	N/A	N/A
6 100	TRENTON CITY BD OF ED	N/A	N/A	N/A	N/A
6 359	UNION BEACH BORO BD OF ED	N/A	N/A	N/A	N/A
6 8050	UNION CITY BD OF ED	\$1,808,070	\$447,275	\$1,009,521	<b>\$</b> 557 <b>,</b> 492
6 988	UNION COUNTY VOCATIONAL SCHS	N/A	N/A	N/A	N/A
6 1070	VENTNOR CITY BD OF ED	N/A	N/A	N/A	N/A
6 794	VERNON TWP BD OF ED	N/A	N/A	<b>\$</b> 633,471	\$349,824
6 6092	VERONA BORO BD OF ED	N/A	N/A	N/A	N/A
6 362	WALL TWP BD OF ED	N/A	N/A	N/A	N/A
6 641	WANAQUE BD OF ED	N/A	N/A	\$312,672	•
6 758	WATCHUNG BORO BD OF ED	N/A	N/A	N/A	N/A
6 4064	WATERFORD TWP BD OF ED	N/A	N/A	N/A	N/A
6 8060	WEEHAWKEN TWP BD OF ED	N/A	N/A	N/A	N/A
6 451	WEST MORRIS RÉGIONAL DIST	N/A	N/A	N/A	N/A
6 8070	WEST NEW YORK TWP BD OF ED	N/A	N/A	\$2,784,413	\$250,240
6 934	WHITE TWP BD OF ED	\$245,002	<b>\$</b> 26,778	N/A	N/A
6 4065	WINSLOW TWP BD OF ED	N/A	N/A	N/A	N/A
i f	Grand total for Local Employers	\$14,677,242	\$1,862,363	\$16,636,861	<b>\$</b> 3,594,338
	5	ERI 3	ERI 3		
	*	Present Value	Fiscal Year		
Group Number	Location Name	June 30, 2004	2006 Payment		
2 90400	EDUCATION DEPARTMENT	<b>\$</b> 9,405,954	\$621,685		
2 90408	EDUCATION PROJECT CO ED	N/A	N/A		
2 90416	MARIE KATZENBACK SCH FOR DEAF	\$1,673,857	\$110,633		
2 90207	OFFICE OF ADM LAW	\$396,031	626 126		
		4570,051	\$26,176		
3 981	NJ INST OF TECH	\$392,727	\$20,176 \$25,957		
	NI INST OF TECH NEW JERSEY UNIVERSITY	•			
4 90411		\$392,727	\$25,957		
4 90411 4 90412	NEW JERSEY UNIVERSITY	\$392,727 \$1,952,872	<b>\$25,957</b> <b>\$129,07</b> 5		
4 90411 4 90412 4 90414	NEW JERSEY UNIVERSITY KEAN UNIVERSITY	\$392,727 \$1,952,872 \$1,021,462	\$25,957 \$129,075 \$67,513		
4 90411 4 90412 4 90414 4 90410	NEW JERSEY UNIVERSITY KEAN UNIVERSITY MONTCLAIR STATE UNIVERSITY	\$392,727 \$1,952,872 \$1,021,462 \$808,095	\$25,957 \$129,075 \$67,513 \$53,411		
4 90411 4 90412 4 90414 4 90410 4 90415	NEW JERSEY UNIVERSITY KEAN UNIVERSITY MONTCLAIR STATE UNIVERSITY ROWAN UNIVERSITY	\$392,727 \$1,952,872 \$1,021,462 \$808,095 \$331,253	\$25,957 \$129,075 \$67,513 \$53,411 \$21,894		
4 90411 4 90412 4 90414 4 90410 4 90415	NEW JERSEY UNIVERSITY KEAN UNIVERSITY MONTCLAIR STATE UNIVERSITY ROWAN UNIVERSITY THE COLLEGE OF NEW JERSEY	\$392,727 \$1,952,872 \$1,021,462 \$808,095 \$331,253 \$207,695	\$25,957 \$129,075 \$67,513 \$53,411 \$21,894 \$13,728		
4 90411 4 90412 4 90414 4 90410 4 90415	NEW JERSEY UNIVERSITY KEAN UNIVERSITY MONTCLAIR STATE UNIVERSITY ROWAN UNIVERSITY THE COLLEGE OF NEW JERSEY WILLIAM PATERSON UNIVERSITY	\$392,727 \$1,952,872 \$1,021,462 \$808,095 \$331,253 \$207,695 \$377,176	\$25,957 \$129,075 \$67,513 \$53,411 \$21,894 \$13,728 \$24,929		
4 90411 4 90412 4 90414 4 90410 4 90415	NEW JERSEY UNIVERSITY KEAN UNIVERSITY MONTCLAIR STATE UNIVERSITY ROWAN UNIVERSITY THE COLLEGE OF NEW JERSEY WILLIAM PATERSON UNIVERSITY	\$392,727 \$1,952,872 \$1,021,462 \$808,095 \$331,253 \$207,695 \$377,176	\$25,957 \$129,075 \$67,513 \$53,411 \$21,894 \$13,728 \$24,929 \$1,095,001		
4 90411 4 90412 4 90414 4 90410 4 90415	NEW JERSEY UNIVERSITY KEAN UNIVERSITY MONTCLAIR STATE UNIVERSITY ROWAN UNIVERSITY THE COLLEGE OF NEW JERSEY WILLIAM PATERSON UNIVERSITY Grand total for State Locations	\$392,727 \$1,952,872 \$1,021,462 \$808,095 \$331,253 \$207,695 \$377,176 \$16,567,122 ERI 4	\$25,957 \$129,075 \$67,513 \$53,411 \$21,894 \$13,728 \$24,929 \$1,095,001 ERI 4		