

The Police and Firemen's Retirement System of New Jersey Annual Report of the Actuary

Actuarial Valuation
July 1, 2017

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500 Plaza Drive
Secaucus, New Jersey 07096-1533

December 1, 2017

Board of Trustees
The Police and Firemen's Retirement System
of New Jersey
Trenton, New Jersey

Members of the Board:

The law governing the operation of the Police and Firemen's Retirement System of New Jersey provides for annual actuarial valuations of the System. The results of the July 1, 2017 valuation are submitted in this report, which also includes a comparison with the results of the July 1, 2016 valuation.

The valuation provides information concerning the financial condition of the Plan as of July 1, 2017, and sets forth the basis for determining the recommended annual contribution for the State fiscal year beginning July 1, 2018.

This valuation reflects Chapter 26, P.L. 2016. This law increases the accidental death benefit payable to children if there is no surviving spouse to 70% of final compensation.

This valuation also reflects Chapter 83, P.L. 2016 which requires the State to make pension contributions on a quarterly basis: at least 25 percent by September 30, at least 50 percent by December 31, at least 75 percent by March 31, and at least 100 percent by June 30.

Finally, the valuation reflects Chapter 98, P.L. 2017 - Lottery Enterprise Contribution Act. Under the legislation, the Police and Firemen's Retirement System receives 1.2% of the proceeds of the Lottery Enterprise, based upon their members' past or present employment in schools and institutions in the State for a term of 30 years.

The valuation reflects the actual fiscal year 2017 State Pension contribution of \$195,221,000. In addition, the valuation also reflects the anticipated fiscal year 2018 State Pension contribution of \$239,447,260 paid in quarterly installments of \$59,861,815 and expected lottery revenue of \$12,011,722 assumed to be contributed to the trust on a monthly basis. This amount may be subject to change per the requirements of the State's fiscal year 2018 spending plan.

As required under Chapter 255, P.L. 1944, experience studies are performed once in every three year period. The valuation was prepared using the demographic assumptions recommended on the basis of the July 1, 2010 – June 30, 2013 Experience Study and approved by the Board of Trustees at the February 9, 2015 Board meeting. The Treasurer has recommended a change in the economic assumptions to be used effective with the July 1, 2017 valuation. The rate of investment return has been revised from 7.65% per annum to 7.00% per annum. We believe that this rate is consistent with the State's long-term capital market assumption. These assumptions will remain in effect for valuation purposes until such time the Board or Treasurer recommends revised assumptions.

The June 30, 2017 reporting requirements of the Governmental Accounting Standards Board Statements No. 67 and No. 68 are addressed in separate reports.



The State of New Jersey's Division of Pensions and Benefits reported the individual data for members of the Police and Firemen's Retirement System of New Jersey as of the valuation date for use in the preparation of this report. While we did not verify the data at their source, we did perform tests for internal consistency and reasonableness. The amount of assets in the trust fund taken into account in the valuation was based on statements provided to us by the Division of Pensions and Benefits. The accuracy of the results presented in this report is dependent on the accuracy of the data.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Any Statements regarding funded ratios have no specific relevance to any funded position that might be determined in the event a settlement is contemplated. An analysis of the potential range of future results is beyond the scope of this valuation.

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

In my opinion, the actuarial assumptions used are appropriate for purposes of the valuation and are reasonably related to the experience of the System and to reasonable long-term expectations. These assumptions were selected in accordance with applicable Actuarial Standards of Practice published by the Actuarial Standards Board.

I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the Academy to render the actuarial opinions contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and I am available to answer questions concerning it.

The Table of Contents, which follows, highlights the Sections of the Report.

Respectfully submitted,

A handwritten signature in black ink that reads "Aaron Shapiro".

Aaron Shapiro, FSA, EA, MAAA
Principal, Consulting Actuary
Conduent HR Consulting, LLC

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Section I – Summary of Key Results

The Police and Firemen's Retirement System of New Jersey was established effective July 1, 1944. Each year an actuarial valuation of the assets and liabilities of the System is made to determine the appropriate level of contributions. This report, prepared as of July 1, 2017, presents the results of the annual actuarial valuation of the Fund.

For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below.

Valuation Fiscal Year	July 1, 2017 2019	July 1, 2016 2018
<u>Number of Active Participants</u>		
• Contributory	40,140	39,389
• Non-Contributory	1,379	1,400
• Total	41,519	40,789
<u>Limited Annual Compensation</u>		
• Contributory Participants	\$ 3,805,405,665	\$ 3,729,156,464
• Non-Contributory Participants	98,224,986	99,367,896
• Total Compensation	\$ 3,903,630,651	\$ 3,828,524,360
<u>Unlimited Annual Compensation</u>		
	\$ 3,903,797,499	\$ 3,828,784,360
<u>Annual Compensation for Contribution Purposes⁴</u>		
	\$ 3,803,348,329	\$ 3,726,807,562
Number of Pensioners and Beneficiaries		
	46,547	45,625
Total Annual Allowances		
	\$ 2,405,993,568	\$ 2,315,888,032
Number of Terminated Vested Members		
	41	47
Total Annual Allowances		
	\$ 814,452	\$ 971,076
<u>Assets</u>		
Total Present Market Value of Assets ¹	\$ 26,035,086,862	\$ 24,115,866,878
Total Valuation Assets ¹	\$ 27,074,804,388	\$ 26,348,593,227
Total Valuation Assets + Special Asset Value ¹	\$ 27,226,987,161	\$ 26,499,472,224
<u>Contribution Amounts</u>		
Recommended Pension Contribution ²		
State		
Normal Contribution	\$ 137,700,806	\$ 120,325,795
Accrued Liability Contribution ³	413,944,295	382,592,169
Lottery Enterprise Contribution Offset	(12,445,783)	(12,011,722)
Total Pension Contribution ²	\$ 539,199,318	\$ 490,906,242
Expect Lottery Revenue	\$ 12,451,257	\$ 12,011,722
Local Employers		
Normal Contribution	\$ 372,680,544	\$ 276,292,403
Accrued Liability Contribution ³	763,884,979	573,020,330
Total Pension Contribution ²	\$ 1,136,565,523	\$ 849,312,733
Non-Contributory Group Insurance Premium		
	\$ 46,429,000	\$ 44,702,000

1. Includes discounted receivable contributions of \$229,573,982 and discounted expected lottery revenue of \$11,612,170 as of July 1, 2017 and \$179,796,506 as of July 1, 2016, respectively. The amounts also include the present value of receivable ERI contributions of \$9,901,667 as of July 1, 2017 and \$11,404,276 as of July 1, 2016, respectively. The amounts also include the present value of Chapter 19, P.L. 2009 contribution deferrals of \$140,587,167 as of July 1, 2017 and of \$151,610,930 as of July 1, 2016, respectively.
2. The contribution amounts were calculated assuming payment on 7/1/18 and 7/1/17 respectively. Interest should be added from this date to the actual payment dates.
3. The accrued liability contribution does not include ERI payments and Local employer contributions due to Chapter 19, P.L. 2009 deferrals.
4. The amounts exclude compensation of \$2,057,336 for 16 contributing active members in 2017 who are age 65 or older and \$2,348,902 for 17 contributing active members in 2016 who are age 65 or older.

The major benefit and contribution provisions of the statute as reflected in the valuation are summarized in Appendix A. This valuation reflects the following:

- The Appropriation Act of fiscal year 2017 which reduced the recommended State Pension contribution of \$483,877,347 to \$195,221,000. (This amount excludes the premium paid to the Non-Contributory Group Insurance Fund of \$8,168,002 for the lump sum death benefits.)
- The potential impact of the Appropriations Act of fiscal year 2018 which allows the State Treasurer to reduce the recommended State normal cost and accrued liability contribution for fiscal year 2018 from \$502,917,964 to \$251,458,982. Therefore, the fiscal year 2018 recommended State pension contribution of \$502,917,964 has been reduced to \$251,458,982 (50% of the recommended employer contribution). The State pension contribution is further reduced to \$239,447,260 due to Chapter 98, P.L. 2017 assuming a lottery enterprise contribution offset amount of \$12,011,722 for purposes of this valuation. (This amount excludes the estimated premium paid to the Non-Contributory Group Insurance Fund of \$8,893,000 for lump sum death benefits.)
- Chapter 26, P.L. 2016 increases the accidental death benefit payable to children if there is no surviving spouse to 70% of final compensation. Based on the demographic assumptions presented in Appendix B, Chapter 26, P.L. 2016 has no impact on the actuarial accrued liability and normal cost.
- Chapter 83, P.L. 2016 requires the State to make pension contributions on a quarterly basis: at least 25 percent by September 30, at least 50 percent by December 31, at least 75 percent by March 31, and at least 100 percent by June 30. Therefore, assuming the anticipated fiscal year 2018 State pension contribution of \$239,447,260 is paid in equal quarterly amounts; a discounted receivable contribution of \$ 229,573,982 is recognized for purposes of this valuation.
- Under Chapter 98, P.L. 2017 - Lottery Enterprise Contribution Act, the Police and Firemen's Retirement System receives 1.2% of the proceeds of the Lottery Enterprise, based upon their members' past or present employment in schools and institutions in the State for a term of 30 years. Revenues from Chapter 98, P.L. 2017 – Lottery Enterprise Contribution Act are assumed to be contributed to the trust on a monthly basis. Effective with the July 1, 2016 valuation date, the Chapter 78, P.L. 2010 "target funded ratio" is based on the actuarial value of assets plus the allocable special asset value to the actuarially determined accrued liabilities expressed as a percentage. The special asset value is the present value of remaining lottery contributions to the retirement systems. Effective with the fiscal year 2018, the State's pension contribution shall be reduced by the product of the allocable percentage for such retirement system, established in the adjustment percentage for such retirement system and the special asset adjustment.

There are no other changes to the benefit and contribution provisions since the previous valuation.

As required under Chapter 255, P.L. 1944, experience studies are performed once in every three year period. The valuation was prepared using demographic assumptions recommended on the basis of the July 1, 2010 – June 30, 2013 Experience Study and approved by the Board at the February 9, 2015 Board meeting. The Treasurer has recommended a change in the economic assumptions to be used effective with the July 1, 2017 valuation. The rate of investment return has been revised from 7.65% per annum to 7.00% per annum. As a result of the revised economic assumptions, the accrued liability increased by \$419,996,453 for the State and \$2,791,138,645 for the Local Employers and the gross normal cost increased by \$12,927,051 for the State and \$85,089,324 for the Local Employers. The net employer contributions increased \$28,070,000 for the State and increased \$252,594,000 for the Local Employers. These assumptions will remain in effect for valuation purposes until such time the Board or Treasurer recommends revised assumptions.

There were no other changes to the actuarial assumptions and methods from those used in the prior valuation. The actuarial assumptions and methods used in this valuation for valuing the Fund are summarized in Appendix B.

The combination of the plan provisions, actuarial assumptions and member and beneficiary data is used to generate the overall recommended level of employer contributions. The recommended contribution schedule is summarized in Sections III (I) and III (J).

The valuation generates a balance sheet, which summarizes in some detail the total present and prospective assets and liabilities of the Fund. A summary comparison of the balance sheets as of July 1, 2017 and July 1, 2016 is set forth in the following table.

Table I
Comparative Balance Sheet

	2017	2016
Assets		
Actuarial value of assets of Fund	\$ 27,074,804,388	\$ 26,348,593,227
Special Asset Value	152,182,773	150,878,997
Net unfunded accrued liability/(surplus)	<u>14,461,318,636</u>	<u>10,970,609,026</u>
Total Assets	\$ 41,688,305,797	\$ 37,470,081,250
Accrued Liabilities		
Present value of benefits to present beneficiaries payable from the Retirement Reserve Fund	\$ 27,124,987,281	\$ 24,711,984,333
Present value of benefits to present active members	<u>14,563,318,516</u>	<u>12,758,096,917</u>
Total Accrued Liabilities	\$ 41,688,305,797	\$ 37,470,081,250

Section II – Employee Data

The data employed for the valuations were furnished to the actuaries by the Division of Pensions and Benefits. While the actuaries did not verify the data at their source, they did perform tests for internal consistency and reasonableness. The accuracy of the results presented in this report is dependent on the accuracy of the data. The following summarizes and compares the Fund membership as of July 1, 2017 and July 1, 2016 by various categories.

State Membership

Active Membership

Group	2017			2016		
	Number ³	Annual Compensation	Limited Annual Compensation	Number ³	Annual Compensation	Limited Annual Compensation
Men	5,741	\$ 409,057,171	\$ 409,057,171	5,628	\$ 413,461,128	\$ 413,461,128
Women	1,331	\$ 94,967,894	\$ 94,967,894	1,283	\$ 94,341,252	\$ 94,341,252
Policemen ¹	7,029	\$ 501,191,549	\$ 501,191,549	6,866	\$ 504,788,053	\$ 504,788,053
Firemen ²	43	\$ 2,833,516	\$ 2,833,516	45	\$ 3,014,327	\$ 3,014,327
Average Compensation		\$ 71,271	\$ 71,271		\$ 73,477	\$ 73,477

1 There are 52 employer locations in 2017 and 48 employer locations in 2016 reporting payroll for policemen.

2 There are 4 employer locations in 2017 and 5 employer locations in 2016 reporting payroll for firemen.

3 There were no members hired on or after May 22, 2010 whose pay exceeded the Social Security wage base.

Retired Members and Beneficiaries

Group	2017		2016	
	Number ⁴	Annual Allowances ⁵	Number ⁴	Annual Allowances ⁵
Deferred Terminated Vesteds	7	\$ 130,092	8	\$ 168,912
Service Retirements	4,640	\$ 243,779,017	4,498	\$ 234,599,718
Ordinary Disability Retirements	735	\$ 20,328,284	732	\$ 20,143,534
Accidental Disability Retirements	355	\$ 16,011,093	344	\$ 15,438,319
Beneficiaries	818	\$ 25,489,718	772	\$ 23,569,496

4 The number counts exclude 459 Domestic Relations beneficiaries in 2017 and 461 Domestic Relations beneficiaries in 2016.

5 Includes annual allowances paid to Domestic Relations beneficiaries.

Local Employer

Active Membership

Group	2017			2016		
	Number ³	Annual Compensation	Limited Annual Compensation	Number ⁴	Annual Compensation	Limited Annual Compensation
Men	31,403	\$ 3,124,840,901	\$ 3,124,674,053	30,951	\$ 3,057,605,333	\$ 3,057,409,941
Women	3,044	\$ 274,931,533	\$ 274,931,533	2,927	\$ 263,376,647	\$ 263,312,039
Policemen ¹	27,928	\$ 2,753,747,971	\$ 2,753,584,831	27,453	\$ 2,682,398,988	\$ 2,682,222,120
Firemen ²	6,519	\$ 646,024,463	\$ 646,020,755	6,425	\$ 638,582,992	\$ 638,499,860
Average Compensation		\$ 98,696	\$ 98,691		\$ 98,028	\$ 98,020

- 1 There are 516 employer locations in 2017 and 517 employer locations in 2016 reporting payroll for policemen.
- 2 There are 143 employer locations in 2017 and 143 employer locations in 2016 reporting payroll for firemen.
- 3 There were 17 members hired on or after May 22, 2010 whose pay exceeded the Social Security wage base. In addition, there was 1 member limited by the 401(a)(17) annual compensation limit.
- 4 There were 11 members hired on or after May 22, 2010 whose pay exceeded the Social Security wage base. In addition, there were 2 members limited by the 401(a)(17) annual compensation limit.

Retired Members and Beneficiaries

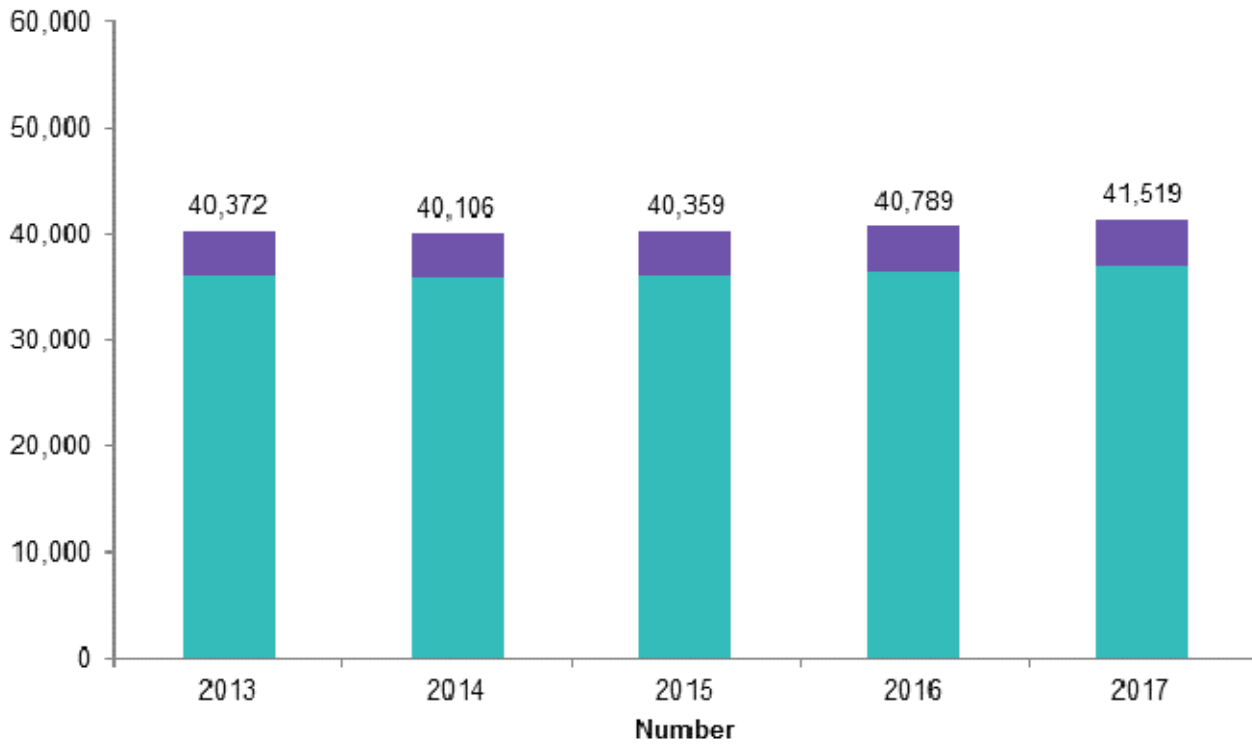
Group	2017		2016	
	Number ⁵	Annual Allowances ⁶	Number ⁵	Annual Allowances ⁶
Deferred Terminated Vesteds	34	\$ 684,360	39	\$ 802,164
Service Retirements	26,018	\$1,692,897,884	25,476	\$1,628,463,614
Ordinary Disability Retirements	2,203	\$ 65,327,095	2,190	\$ 63,887,074
Accidental Disability Retirements	2,546	\$ 131,854,181	2,477	\$ 125,453,166
Beneficiaries	6,556	\$ 210,306,296	6,522	\$ 204,333,111

- 5 The number counts exclude 2,217 Domestic Relations beneficiaries in 2017 and 2,153 Domestic Relations beneficiaries in 2016.
- 6 Includes annual allowances paid to Domestic Relations beneficiaries.

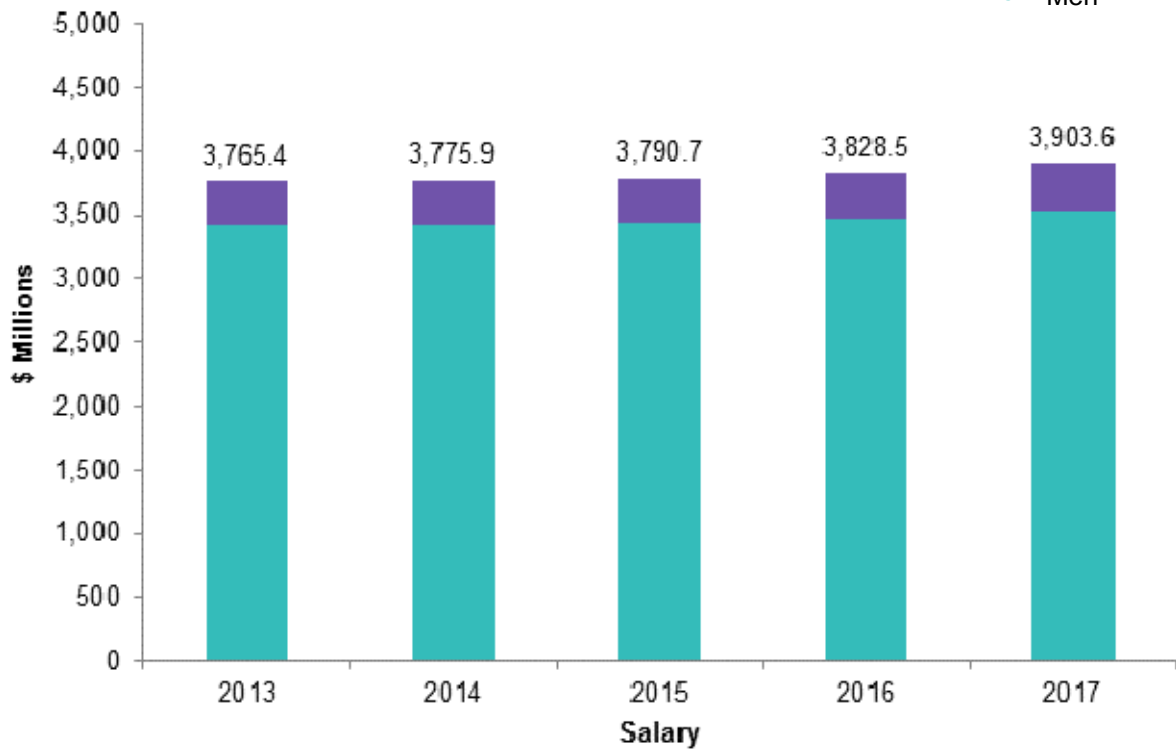
Appendix E provides a detailed distribution between groups.

Graphic presentations of the statistical data on membership are shown on the following pages.

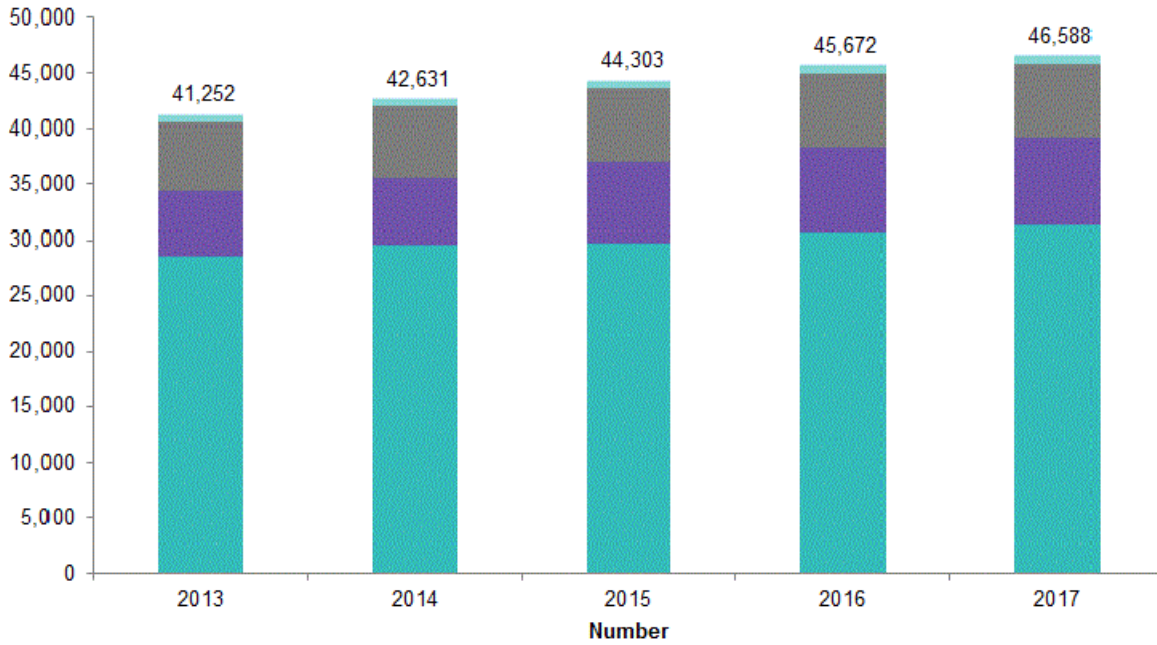
The Police and Firemen's Retirement System of New Jersey
Summary of Active Membership
(Total System)



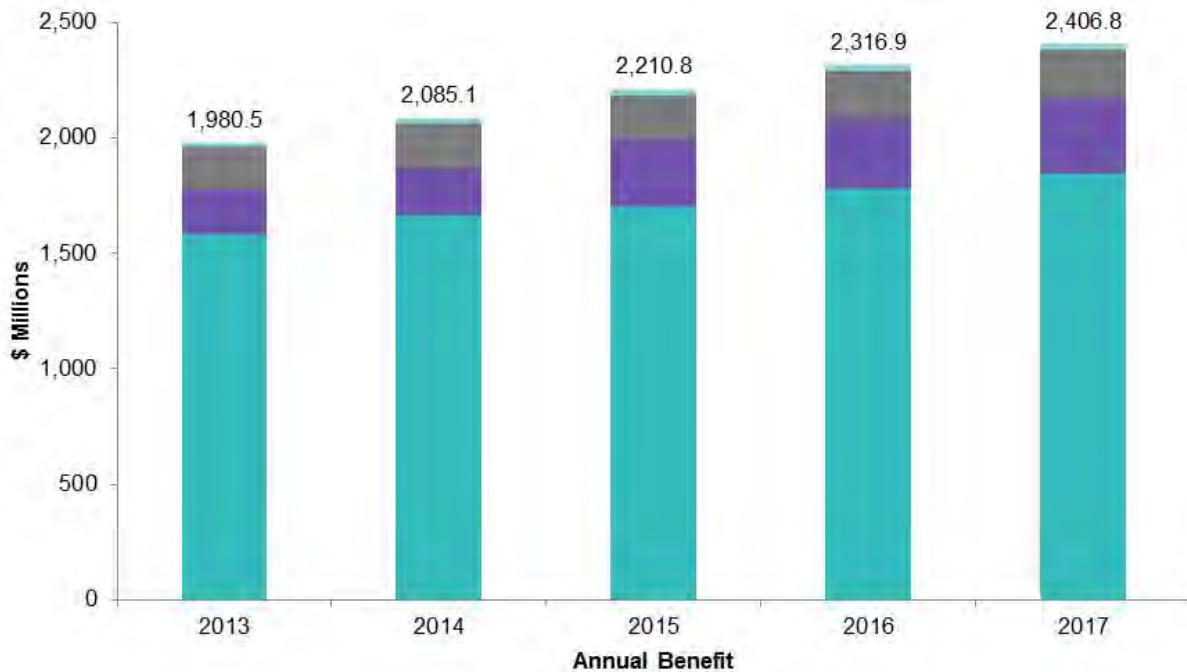
- Women
- Men



**The Police and Firemen's Retirement System of New Jersey
Summary of Retired Participation
(Total System)**



- Vested Deferreds
- Beneficiaries of Deceased Pensioners
- Beneficiaries of Deceased Active Employees
- Disability Retirements
- Service Retirements



Section III – Assets, Liabilities and Contributions

A. Market Value of Assets as of June 30, 2017

1.	Assets		
	a. Cash	\$	196,682,671
	b. Securities Lending Collateral		295,395,064
	c. Investment Holdings		23,300,044,539
	d. Accrued Interest on Investments		4,201,001
	e. Loans Receivable		299,529,474
	f. Employers' Contributions Receivable – Chapter 19		116,220,660
	g. Employers' Contributions Receivable – Local		866,023,765
	h. Employers' Contribution Receivable – Local – ERI		11,404,276
	i. Employers' Contribution Receivable – NCGI – State		175,516
	j. Employers' Contribution Receivable – NCGI – Local		35,809,000
	k. Interest Receivable on Loans		3,788,168
	l. Members' Contributions Receivable		51,842,902
	m. New Jersey Mortgage Receivable		1,158,968,103
	n. Employers' Contributions Receivable – Retro		2,416,025
	o. Employers' Contributions Receivable – Delayed Enrollments		138,968
	p. Employers' Contributions Receivable – Delayed Appropriations		685,273
	q. Securities Sold In Transit		0
	r. Accounts Receivable – Other		7,178,418
	s. Total	\$	<u>26,350,503,823</u>
2.	Liabilities		
	a. Pension Payroll Payable	\$	153,979,191
	b. Pension Adjustment Payroll Payable		16,875,609
	c. Withholdings Payable		25,884,831
	d. Death Benefits Payable		3,288,170
	e. Securities Lending Collateral and Rebates Payable		295,307,869
	f. Accounts Payable – Other		5,988,986
	g. Administrative Expenses Payable		1,460,768
	h. Total Liabilities	\$	<u>502,785,424</u>
3.	Preliminary Market Value of Assets as of June 30, 2017: 1(s) - 2(h)	\$	25,847,718,399
4.	Discounted State Receivable Contributions	\$	229,573,982 ¹
5.	Discounted Expected Lottery Revenue	\$	11,612,170 ²
6.	Adjustment to June 30, 2017 Financial Report due to Local employer deferred contributions under Chapter 19, P.L. 2009	\$	24,366,507
7.	Adjustment to June 30, 2017 Financial Report to reflect actuarial present value of receivable ERI contributions as of June 30, 2017	\$	(1,502,609)
8.	Adjustment to June 30, 2017 Financial Report for assets held in the Non-Contributory Group Insurance Premium Fund	\$	(34,659,280)
9.	Adjustment to June 30, 2017 Financial Report due to discounted fiscal year 2018 Local Employers receivable contributions	\$	<u>(42,022,307)</u>
10.	Market Value of Assets as of June 30, 2017 = 3. + 4. + 5. + 6. + 7. + 8. + 9.	\$	26,035,086,862

1 The fiscal year 2018 recommended pension contribution of \$502,917,964 has been reduced to \$229,573,982. This amount reflects the State's planned fiscal year 2018 contribution of \$239,447,260, 50% of the recommended employer contribution less lottery enterprise contribution offset, discounted to the valuation date. This amount is included as a receivable contribution but may be subject to change per the requirements of the State's fiscal year 2018 spending plan.

2 Reflects expected lottery contribution of \$12,011,722 discounted to the valuation date.

B. Reconciliation of Market Value of Assets from June 30, 2016 to June 30, 2017

	State	Local Employers	Total
1. Market Value of Assets as of June 30, 2016	\$ 1,544,970,692	\$ 22,439,755,972	\$ 23,984,726,664
2. Increases			
a. Pension Contributions			
(1) Members' Contributions	\$ 51,114,032	\$ 341,964,105	\$ 393,078,137
(2) Transfers from Other Systems	645,203	2,155,044	2,800,247
(3) Total	\$ 51,759,235	\$ 344,119,149	\$ 395,878,384
b. Employers' Contributions			
(1) Appropriations	\$ 108,754,000	\$ 935,779,733	\$ 1,044,533,733
(2) Non-Contributory Group Insurance	8,168,002	35,809,000	43,977,002
(3) Transfers from other Systems	62,367	227,593	289,960
(4) Additional Employers' Contributions	0	11,745,791	11,745,791
(5) Delayed Enrollments	4,885	174,501	179,386
(6) Delayed Appropriations	1,748	890,765	892,513
(7) Total	\$ 116,991,002	\$ 984,627,383	\$ 1,101,618,385
c. Investment Income	\$ 152,765,206	\$ 2,638,339,654	\$ 2,791,104,860
d. Total	\$ 321,515,443	\$ 3,967,086,186	\$ 4,288,601,629
3. Decreases			
a. Benefits Provided by Members			
(1) Withdrawals of Members' Contributions	\$ 1,712,731	\$ 5,544,587	\$ 7,257,318
(2) Withdrawals of Transfers' Contributions	92,625	123,435	216,060
(3) Adjustment for Loans	83,041	0	83,041
(4) Total	\$ 1,888,397	\$ 5,668,022	\$ 7,556,419
b. Benefits Provided by Employers			
(1) Transfer Withdrawals - Employers' Benefits	\$ 0	\$ 281	\$ 281
(2) Death Benefit Claims – NCGI	8,168,002	30,801,663	38,969,665
(3) Administrative Expense	658,340	3,425,655	4,083,995
(4) Miscellaneous Expense	10,436	30,026	40,462
(5) Total	\$ 8,836,778	\$ 34,257,625	\$ 43,094,403
c. Retirement Allowances	\$ 286,342,766	\$ 1,885,062,547	\$ 2,171,405,313
d. Pension Adjustment	\$ 25,733,329	\$ 177,820,430	\$ 203,553,759
e. Total Decreases	\$ 322,801,270	\$ 2,102,808,624	\$ 2,425,609,894
4. a. Preliminary Market Value of Assets as of June 30, 2017 = 1 + 2(d) – 3(e)	\$ 1,543,684,865	\$ 24,304,033,534	\$ 25,847,718,399
b. Discounted State Receivable Contributions	\$ 125,205,464	\$ 104,368,518	\$ 229,573,982 ¹
c. Discounted Expected Lottery Revenue	\$ 11,612,170	\$ 0	\$ 11,612,170 ²
d. Adjustment to June 30, 2017 Financial Report:			
(1) Reflect actual present value of receivable ERI contributions as of June 30, 2017	N/A	\$ (1,502,609)	\$ (1,502,609)
(2) Reflect actual present value of receivable Chapter 19, P.L. 2009 deferred contributions as of June 30, 2017	N/A	\$ 24,366,507	\$ 24,366,507
(3) Assets held in the Non-Contributory Group Insurance Premium Fund	\$ 0	\$ (34,659,280)	\$ (34,659,280)
(4) Adjustment to June 30, 2017 Financial Report for discounted fiscal year 2018 Local Employers receivable contributions	N/A	\$ (42,022,307)	\$ (42,022,307)
5. Market Value of Assets as of June 30, 2017 = 4(a)+4(b)+4(c)+4(d)(1)+4(d)(2)+4(d)(3)+4(d)(4)	\$ 1,680,502,499	\$ 24,354,584,363	\$ 26,035,086,862

1 The fiscal year 2018 recommended pension contribution of \$502,917,964 has been reduced to \$229,573,982. This amount reflects the State's planned fiscal year 2018 contribution of \$239,447,260, 50% of the recommended employer contribution less lottery enterprise contribution offset, discounted to the valuation date. This amount is included as a receivable contribution but may be subject to change per the requirements of the State's fiscal year 2018 spending plan.

2 Reflects expected lottery contribution of \$12,011,722 discounted to the valuation date.

C. Summary of Market Value of Assets by Source

1.	Reserve for Employers' Contributions	\$	(3,221,326,814)
2.	Reserve for Members' Contributions		3,752,205,896
3.	Reserve for Retirement Fund		25,282,180,037
4.	Reserve for Special Reserve Fund		0
5.	Discounted State Receivable Contributions		229,573,982
6.	Discounted Expected Lottery Revenue		11,612,170
6.	Adjustment to the Chapter 19, P.L. 2009 Local deferred contributions		24,366,507
7.	Adjustment to the receivable Local ERI contributions		(1,502,609)
8.	Adjustment to June 30, 2017 Financial Report for discounted fiscal year 2018 Local Employers receivable contributions		<u>(42,022,307)</u>
9.	Total Market Value of Assets as of June 30, 2017	\$	26,035,086,862

D.(I) Development of Actuarial Value of Assets as of July 1, 2017

	State	Local Employers	Total
1. Actuarial Value of Assets as of June 30, 2016 (without State receivable contribution)	\$ 1,827,246,131	\$24,248,019,359	\$ 26,075,265,490
2. Net Cash Flow excluding Investment Income and Present Value of Remaining ERI Contributions	(154,051,033)	(774,062,092)	(928,113,125)
3. Additional Employer Contributions Paid to Satisfy Remaining ERI Obligations	0	0	0
4. Investment Income at Actuarially Assumed Rate of 7.65%	<u>129,704,718</u>	<u>1,742,883,287</u>	<u>1,872,588,005</u>
5. Expected Actuarial Value of Assets as of June 30, 2017 = 1. + 2. + 3. + 4.	\$ 1,802,899,816	\$25,216,840,554	\$ 27,019,740,370
6. Mark-up percentage	20.0%	20.0%	
7. Mark-up to Reflect Growth in Preliminary Market Value of Assets (without receivable contribution)	(51,842,990)	(208,086,391)	(259,929,381)
8. Discounted State Receivable Contribution	125,205,464	104,368,518	229,573,982
9. Discounted Expected Lottery Revenue	11,612,170	0	11,612,170
10. Present Value of Local Employer Contribution Deferral under the Provisions of Chapter 19, P.L. 2009	N/A	140,587,167	140,587,167
11. Present Value of Receivable ERI Contributions as of June 30, 2017	N/A	9,901,667	9,901,667
12. Adjustment to June 30, 2017 Financial Report discounted fiscal year 2018 Local Employers receivable contributions	N/A	(42,022,307)	(42,022,307)
13. Adjustment for Assets Held in the Non-Contributory Group Insurance Premium Fund	<u>0</u>	<u>(34,659,280)</u>	<u>(34,659,280)</u>
14. Actuarial Value of Assets as of June 30, 2017 = 5. + 7. + 8. + 9. + 10 + 11. + 12. + 13.	\$ 1,887,874,460	\$ 25,186,929,928	\$ 27,074,804,388

D.(II) Development of Special Asset Value as of July 1, 2017

1. Lottery Enterprise Value as of Appraisal Date of June 30, 2017	\$13,535,103,380
2. Depreciated Value as of end of Valuation Year at June 30, 2018	13,569,630,580
3. Discounted Value as of Valuation Date of July 1, 2017	12,681,897,738
4. Allocable Percentage to PFRS	1.20%
5. Special Asset Value as of July 1, 2017	152,182,773

D.(III) Reconciliation of Fund Balances as of July 1, 2017

	Assets		
	State	Local Employers	Total
Present assets of System creditable to:			
Retirement Reserve Fund:			
Credited to fund	\$ 3,188,114,813	\$ 22,094,065,225	\$ 25,282,180,038
Add (deduct) reserve transferable from (to) Reserve for Employers' Contributions Fund	<u>397,399,952</u>	<u>1,445,407,291</u>	<u>1,842,807,243</u>
	\$ 3,585,514,765	\$ 23,539,472,516 ²	\$ 27,124,987,281
Annuity Savings Fund:			
Credited to Fund	\$ 423,017,756	\$ 3,329,188,140	\$ 3,752,205,896
Reserve for Employers' Contributions Fund:			
Credited to Fund	\$ (1,723,258,109)	\$ (236,323,437)	\$ (1,959,581,546)
Add (deduct) excess interest earnings transferable from (to) Special Reserve Fund	0	0	0
Add (deduct) reserve transferable from (to) Retirement Reserve Fund	<u>(397,399,952)</u>	<u>(1,445,407,291)</u>	<u>(1,842,807,243)¹</u>
	\$ (2,120,658,061)	\$ (1,681,730,728)	\$ (3,802,388,789)
Special Asset Value as of June 30, 2017	\$ 152,182,773	\$ 0	\$ 152,182,773
Total Present Assets ³	\$ 2,040,057,233	\$ 25,186,929,928	\$ 27,226,987,161
Present value of prospective accrued liability contributions payable by the State and Local employers to the Reserve for Employers' Contributions Fund for basic allowances	<u>\$ 3,127,739,892</u>	<u>\$ 11,333,578,744</u>	<u>\$ 14,461,318,636</u>
Total Assets	\$ 5,167,797,125	\$ 36,520,508,672	\$ 41,688,305,797

1. It is recommended that the Retirement Reserve Fund be put into balance each year by transferring assets between the Reserve for Employers' Contributions Fund and the Retirement Reserve Fund so that the Retirement Reserve Fund will contain sufficient assets to cover the retiree and beneficiary liability. Therefore, we recommend that \$1,842,807,243 be transferred from the Reserve for Employers' Contribution Fund to the Retirement Reserve Fund to put the System in balance as of July 1, 2017.
2. Includes the present value of ERI payments of \$9,901,667.
3. Actuarial Value of Asset plus Special Asset Value

E.(I) Summary of Actuarial Accrued Liability as of July 1, 2017

	State	Local Employers	Total
1. Retirees and Beneficiaries			
a. Service Retirement	\$ 2,834,244,220	\$ 18,905,228,929 ¹	\$ 21,739,473,149
b. Disability Retirement	432,415,638	2,379,529,764	2,811,945,402
c. Beneficiaries	<u>318,854,907</u>	<u>2,254,713,823</u>	<u>2,573,568,730</u>
d. Total	\$ 3,585,514,765	\$ 23,539,472,516	\$ 27,124,987,281
2. Terminated Vested Members	\$ 1,160,256	\$ 6,951,547	\$ 8,111,803
3. Active Participants			
a. Service Retirement	\$ 1,390,777,138	\$ 11,716,768,407	\$ 13,107,545,545
b. Vested Retirement	10,367,619	60,092,442	70,460,061
c. Ordinary Disability	74,939,603	503,674,981	578,614,584
d. Accidental Disability	75,926,566	501,194,088	577,120,654
e. Ordinary Death	24,974,965	168,580,817	193,555,782
f. Accidental Death	2,433,917	15,867,249	18,301,166
g. Withdrawal of Contributions	<u>1,702,296</u>	<u>7,906,625</u>	<u>9,608,921</u>
h. Total	\$ 1,581,122,104	\$ 12,974,084,609	\$ 14,555,206,713
4. Total Actuarial Accrued Liability = 1(d) + 2 + 3(h)	\$ 5,167,797,125	\$ 36,520,508,672	\$ 41,688,305,797

¹ Includes the present value of ERI contributions of \$9,901,667.

E.(II) Summary of Active Member Actuarial Accrued Liability & Normal Cost

State

Employee Type	Number of Members	Total Appropriation Salary	Actuarial Accrued Liability	Gross Pension Normal Cost
Tier 1	4,737	\$ 370,213,980	\$ 1,499,888,783	\$ 82,355,770
Tier 2	238	14,846,636	20,277,722	2,957,768
Tier 3	2,097	96,630,985	60,955,599	20,221,864
Total	7,072	\$ 481,691,601	\$ 1,581,122,104	\$ 105,535,402

Local Employers

Employee Type	Number of Members	Total Appropriation Salary	Actuarial Accrued Liability	Gross Pension Normal Cost
Tier 1	25,588	\$ 2,800,300,011	\$ 12,557,653,502	\$ 631,072,209
Tier 2	521	40,829,651	59,389,697	8,221,106
Tier 3	8,338	480,527,066	357,041,410	98,250,829
Total	34,447	\$ 3,321,656,728	\$ 12,974,084,609	\$ 737,544,144

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F. Summary of Unfunded Accrued Liability/(Surplus) and Required Contribution

I. Development of Unfunded Accrued Liability/(Surplus)	July 1, 2017			July 1, 2016		
	State	Local Employers ¹	Total	State	Local Employers ¹	Total
1. Present Value of Benefits	\$ 5,167,797,125	\$ 36,520,508,672	\$ 41,688,305,797	\$ 4,676,642,040	\$ 32,793,439,210	\$ 37,470,081,250
2. Actuarial Value of Assets	1,887,874,460	25,186,929,928	27,074,804,388	1,928,447,404	24,420,145,823	26,348,593,227
3. Unfunded Accrued Liability/(Surplus):						
(a) Basic Unfunded Accrued Liability/(Surplus) Excluding Chapters 204, 247, 428, 109 and 511	\$ 3,135,791,809	\$ 9,471,521,801	\$ 12,607,313,610	\$ 2,625,742,022	\$ 6,662,516,261	\$ 9,228,258,283
(b) Chapter 204	606,528	5,547,635	6,154,163	597,504	5,777,550	6,375,054
(c) Chapter 247	0	135,713,391	135,713,391	0	131,146,618	131,146,618
(d) Chapter 428 ²	143,524,328	760,564,718	904,089,046	121,855,110	669,777,119	791,632,229
(e) Chapter 109	0	619,676,423	619,676,423	0	580,996,007	580,996,007
(f) Chapter 511	0	340,554,776	340,554,776	0	323,079,832	323,079,832
(g) Gross Unfunded Accrued Liability/(Surplus) = (a) + (b) + (c) + (d) + (e) + (f)	\$ 3,279,922,665	\$ 11,333,578,744	\$ 14,613,501,409	\$ 2,748,194,636	\$ 8,373,293,387	\$ 11,121,488,023
4. Net adjustment to Gross Unfunded Accrued Liability to account for phase-in of State paid Local Obligations:						
(a) Chapter 247	\$ 111,693,853	\$ (111,693,853)	\$ 0	\$ 106,993,286	\$ (106,993,286)	\$ 0
(b) Chapter 428 ²	566,664,942	(566,664,942)	0	533,196,565	(533,196,565)	0
(c) Chapter 109	619,676,423	(619,676,423)	0	580,996,007	(580,996,007)	0
(d) Chapter 511	340,554,776	(340,554,776)	0	323,079,832	(323,079,832)	0
(e) Total Adjustments = (a) + (b) + (c) + (d)	\$1,638,589,994	\$(1,638,589,994)	\$ 0	\$1,544,265,690	\$(1,544,265,690)	\$ 0
5. Net Unfunded Accrued Liability/(Surplus) = 3(g) + 4(e)	\$ 4,918,512,659	\$ 9,694,988,750	\$ 14,613,501,409	\$ 4,292,460,326	\$ 6,829,027,697	\$ 11,121,488,023

1 Excludes unfunded accrued liability amounts due to Local ERI programs and Chapter 19, P.L. 2009 Local employer deferrals. The Local unfunded accrued liability amounts due to ERI programs are presented in Appendices F and G and the Chapter 19, P.L. 2009 Local employer deferrals are summarized in Appendix H.

2 The Chapter 428 unfunded accrued liability amounts include the unfunded accrued liability amounts due to Chapters 86 and 318.

II. Development of Unfunded Accrued Liability Contribution Amount	July 1, 2017			July 1, 2016		
	State	Local Employers ¹	Total	State	Local Employers ¹	Total
1. Accrued Liability Contribution due to:						
(a) Basic Unfunded Accrued Liability	\$ 236,170,265	\$ 713,341,942	\$ 949,512,207	\$ 209,549,104	\$ 531,706,580	\$ 741,255,684
(b) Chapter 204	62,237	569,253	631,490	61,311	592,844	654,155
(c) Chapter 247	0	10,221,172	10,221,172	0	10,466,244	10,466,244
(d) Chapter 428 ²	10,809,448	57,281,472	68,090,920	9,724,729	53,452,012	63,176,741
(e) Chapter 109	0	46,670,555	46,670,555	0	46,366,776	46,366,776
(f) Chapter 511	0	25,648,677	25,648,677	0	25,783,603	25,783,603
(g) Gross Unfunded Accrued Liability Contribution = (a) + (b) + (c) + (d) + (e) + (f)	\$ 247,041,950	\$ 853,733,071	\$ 1,100,775,021	\$ 219,335,144	\$ 668,368,059	\$ 887,703,203
2. Net adjustment to Gross Unfunded Accrued Liability Contribution due to State paid Local Obligations:						
(a) Chapter 247	\$ 10,221,172	\$ (10,221,172)	\$ 0	\$ 10,466,244	\$ (10,466,244)	\$ 0
(b) Chapter 428 ²	57,281,472	(57,281,472)	0	53,452,012	(53,452,012)	0
(c) Chapter 109	46,670,555	(46,670,555)	0	46,366,776	(46,366,776)	0
(d) Chapter 511	25,648,677	(25,648,677)	0	25,783,603	(25,783,603)	0
(e) Total Adjustment = (a) + (b) + (c) + (d)	\$ 139,821,876	\$ (139,821,876)	\$ 0	\$ 136,068,635	\$ (136,068,635)	\$ 0
3. Accrued Liability Contribution as of the Valuation Date = 1(g) + 2(e)	\$ 386,863,826	\$ 713,911,195	\$ 1,100,775,021	\$ 355,403,779	\$ 532,299,424	\$ 887,703,203
4. Interest to reflect 1 Year Delay in Payment	27,080,468	49,973,784	77,054,252	27,188,389	40,720,906	67,909,295
5. Accrued Liability Contribution as of July 1, 2018	\$ 413,944,294	\$ 763,884,979	\$ 1,177,829,273	\$ 382,592,168	\$ 573,020,330	\$ 955,612,498

1 Excludes Local ERI payments and Chapter 19, P.L. 2009 Local employer payments towards deferrals. The Local ERI payments are presented in Appendices F and G and the Chapter 19, P.L. 2009 Local employer payments towards deferrals are summarized in Appendix H.

2 The Chapter 428 unfunded accrued liability contribution amounts include the unfunded accrued liability contribution amounts due Chapters 86 and 318.

G. Development of Normal Cost as of July 1, 2018

	State	Local Employers	Total
1. Service Retirement	\$ 84,770,783	\$ 618,821,633	\$ 703,592,416
2. Ordinary Disability Retirement	5,738,478	33,907,909	39,646,387
3. Accidental Disability Retirement	9,055,759	50,826,787	59,882,546
4. Ordinary Death Benefits	1,031,230	5,433,237	6,464,467
5. Accidental Death Benefits	238,896	1,305,818	1,544,714
6. Vested Termination Retirement	921,923	5,204,750	6,126,673
7. Return of Members' Contributions Upon Withdrawal	992,106	4,463,666	5,455,772
8. Portion Attributable to Chapter 428	<u>2,786,227</u>	<u>17,580,344</u>	<u>20,366,571</u>
9. Total (without Non-Contributory Group Insurance Premium)	\$ 105,535,402	\$ 737,544,144	\$ 843,079,546
10. Expected Employee Contributions ¹	(46,769,837)	(319,317,793)	(366,087,630)
11. Portion of Local Normal Cost Payable by the State due to:			
(a) Chapter 511	\$ 15,643,324	\$ (15,643,324)	\$ 0
(b) Chapter 247	164,885	(164,885)	0
(c) Chapter 109	36,538,224	(36,538,224)	0
(d) Chapter 428	<u>17,580,344</u>	<u>(17,580,344)</u>	<u>0</u>
(e) Total	\$ 69,939,334	\$ (69,939,334)	\$ 0
12. Preliminary Pension Normal Cost as of July 1, 2017 = 9 + 10 + 11(e)	\$ 128,692,342	\$ 348,299,574	\$ 476,991,916
13. Interest to Reflect a 1 Year Delay in Payment to July 1, 2017	<u>9,008,464</u>	<u>24,380,970</u>	<u>33,389,434</u>
14. Net Pension Normal Cost as of July 1, 2018 = 12 + 13	\$ 137,700,806	\$ 372,680,544	\$ 510,381,350
15. Non-Contributory Group Insurance Fund Premium (one-year term cost)	\$ 9,419,000	\$ 37,010,000	\$ 46,429,000

¹ Member contributions of 10.0% of compensation shall reduce the normal cost contribution.

H. Development of Lottery Enterprise Contribution Offset

Fiscal Years Through 2022	
1. Special Asset Adjustment for Fiscal Year 2019	\$ 1,037,148,584
2. Allocable Percentage to PFRS	1.20%
3. Adjustment Percentage	100.00%
4. Lottery Enterprise Contribution Offset as of June 30, 2018: Based on applicable fiscal year: (1) * (2) * (3) or (9) * (12)	12,445,783
Fiscal Years Beginning 2023	
5. Special Asset Value Allocated to PFRS as of July 1, 2017	\$ 152,182,773
6. 29 Year Level Dollar Amortization payable June 30, 2018	12,395,082
7. Initial Special Asset Value allocated to PFRS as of July 1, 2016	150,878,997
8. Maximum Special Asset Adjustment (30 Year Level Dollar Amortization at 7.65%)	12,962,136
9. Special Asset Adjustment as of June 30, 2018: Lesser of (6) and (8)	12,395,082
10. Adjustment Percentage	0.00%
11. Funded Ratio for Total System based on Actuarial Value and Special Asset Value	65.31%
12. Applicable Adjustment Percentage: If (11) < 50%, (10) - 3 * (50% - (11)), (10))	0.00%

I. Summary of Total Recommended Contributions

The following chart summarizes the recommended contribution amounts:

	July 1, 2017			July 1, 2016		
	State	Local Employers	Total	State	Local Employers	Total
Active Participant Payroll	\$ 481,691,601	\$ 3,321,656,728	\$ 3,803,348,329	\$ 485,471,643	\$ 3,241,335,919	\$ 3,726,807,562
1. Normal Cost						
a) Normal Cost (without Chapters 109, 247, 428 and 511)	\$ 51,895,916	\$ 372,680,544	\$ 424,576,460	\$ 38,208,255	\$ 276,292,403	\$ 314,500,658
b) Normal Cost for Chapter 511	19,070,822	N/A	19,070,822	15,179,184	N/A	15,179,184
c) Normal Cost for Chapter 247	176,427	N/A	176,427	148,011	N/A	148,011
d) Chapter 109 Payment	44,765,410	N/A	44,765,410	44,130,992	N/A	44,130,992
e) Normal Cost for Chapter 428	21,792,231	0	21,792,231	22,659,353	0	22,659,353
f) Net Normal Cost = (a) + (b) + (c) + (d) + (e)	\$ 137,700,806	\$ 372,680,544	\$ 510,381,350	\$ 120,325,795	\$ 276,292,403	\$ 396,618,198
2. Accrued Liability ¹						
a) Basic Unfunded Actuarial Liability UAL Payment	\$ 252,702,185	\$ 763,275,878	\$ 1,015,978,063	\$ 225,579,610	\$ 572,382,133	\$ 797,961,743
b) Chapter 204 UAL Payment	66,594	609,101	675,695	66,001	638,197	704,198
c) Chapter 247 UAL Payment	10,936,654	N/A	10,936,654	11,266,912	N/A	11,266,912
d) Chapter 428 UAL Payment ²	72,857,284	N/A	72,857,284	68,009,763	N/A	68,009,763
e) Chapter 109 UAL Payment	49,937,494	N/A	49,937,494	49,913,834	N/A	49,913,834
f) Chapter 511 UAL Payment	27,444,084	N/A	27,444,084	27,756,049	N/A	27,756,049
g) Total Accrued Liability = (a)+(b)+(c)+(d)+(e)+(f)	\$ 413,944,295	\$ 763,884,979	\$ 1,177,829,274	\$ 382,592,169	\$ 573,020,330	\$ 955,612,499
3. Gross Total Pension Contribution = 1(f) + 2(g)	\$ 551,645,101	\$ 1,136,565,523	\$ 1,688,210,624	\$ 502,917,964	\$ 849,312,733	\$ 1,352,230,697
4. Lottery Enterprise Contribution Offset	(12,445,783)	0	(12,445,783)	(12,011,722)	0	(12,011,722)
5. Net Pension Contribution= 3. + 4.	\$ 539,199,318	\$ 1,136,565,523	\$ 1,675,764,841	\$ 490,906,242	\$ 849,312,733	\$ 1,340,218,975
6. Non-Contributory Group Insurance Premium (one-year term cost)	\$ 9,419,000	\$ 37,010,000	\$ 46,429,000	\$ 8,893,000	\$ 35,809,000	\$ 44,702,000

¹ Does not include ERI and Chapter 19, P.L. 2009 Local employer payments. The entries for Chapters 247, 428, 109 and 511 include a payment required to fund the portions of the State-paid Local obligations that were not contributed due to the phase-in of contributions through fiscal year 2017.

² Includes \$ 57,541,091 for the July 1, 2016 valuation and \$ 61,291,175 for the July 1, 2017 valuation attributable to Municipalities & Local Groups' liabilities which are payable by the State as required under Chapters 428, 86 and 318.

J. Summary of Recommended Contribution Rates

The following chart summarizes the rounded contribution rates that are applied to the applicable compensation for each location to produce the required contributions:

	July 1, 2017		July 1, 2016	
	State	Local Employers ⁵	State	Local Employers ⁵
1. Normal Contribution Rates:				
a) Basic Allowances	10.774%	11.221%	7.870%	8.513%
b) Chapter 511 ¹	3.959%	N/A	3.127%	N/A
c) Chapter 247 ¹				
• PERS Local normal rate applicable to pay for individuals without past service	N/A	15.400%	N/A	12.720%
• Total PERS Local rate applicable to pay for individuals with past service	N/A	2.430%	N/A	1.760%
• Portion of Municipalities & Local Groups costs payable by the State	0.039%	N/A	0.030%	N/A
d) Chapter 109 ¹	9.293%	N/A	9.090%	N/A
e) Chapter 428 ¹	4.524%	0.000%	4.667%	0.000%
2. Accrued Liability Contribution Rates:⁴				
a) Basic Allowances	52.461%	23.037%	46.466%	17.723%
b) Chapter 204	²	²	²	²
c) Chapter 247 ¹	2.270%	N/A	2.321%	N/A
d) Chapter 428 ^{1&3}	15.125%	N/A	14.009%	N/A
e) Chapter 109 ¹	10.367%	N/A	10.282%	N/A
f) Chapter 511 ¹	5.697%	N/A	5.717%	N/A
3. Non-Contributory Group Insurance Premium (one-year term cost)				
	1.955%	1.114%	1.832%	1.105%

1 Payment for certain costs under Chapters 109, 247, 511 and 428 (Chapter 8) for both Municipalities & Local Groups and State Locations are made by the State in accordance with the legislation.

2 Costs for locations affected by Chapter 204 are presented in Appendix C.

3 Includes the additional costs due to Chapter 86, P.L. 2001 and Chapter 318, P.L. 2001.

4 The rates shown for Chapters 247, 428, 109 and 511 include the rate required to fund the portions of the State-paid Local obligations that were not contributed due to the phase-in of contributions through fiscal year 2017.

5 Does not include ERI and the Chapter 19, P.L. 2009 Local employer payments. The Local ERI payments are presented in Appendices F and G and the Chapter 19, P.L. 2009 Local employer payments towards deferrals are summarized in Appendix H.

Section IV – Comments Concerning the Valuation

The variation in liabilities and contributions reflects the System's actual experience during the year. The System experienced a net actuarial loss during the year that ended June 30, 2017.

The System experienced a net liability gain among active and retired members. There was also a loss due to an actual return on System assets less than expected. For valuation purposes, a 7.65% per annum rate or return was assumed for the period July 1, 2016 through June 30, 2017. The actual return on the Fund's actuarial value of assets was 6.30% for this period. The estimated fund return on the market value of assets was 11.90%. However, due to the statutory asset smoothing method used for funding purposes, the return on the actuarial value of assets is less than the return on the market value of assets for this period.

The following shows the development of the actuarial experience and identifies the major experience components, and discusses the impact of the unfunded liability on various funded ratios:

A. Calculation of Net Actuarial Experience

1.	Unfunded Accrued Liability as of July 1, 2016	\$	11,121,488,023
2.	Normal Cost as of July 1, 2016		726,234,362
3.	Interest on (1) and (2) at 7.65%		906,350,762
4.	Actual Members' Contributions		395,878,384
5.	Discounted Expected Employer Contribution		1,289,566,994
6.	Expected interest on Members' contributions at 7.65%		<u>14,863,325</u>
7.	Expected Unfunded Accrued Liability as of July 1, 2017 = (1) + (2) + (3) – (4) – (5) – (6)	\$	11,053,764,444
8.	Change in Unfunded Accrued Liability due to revised fiscal year 2018 State contribution	\$	241,090,416
9.	Change in Unfunded Accrued Liability due to Chapter 19 adjustments for actuarial asset loss	\$	(1,575,423)
10.	Change in Unfunded Liability due to the revised economic assumptions	\$	3,211,135,098
11.	Change in Unfunded Accrued Liability due to the actual fiscal year 2017 State contribution ¹	\$	(1,670,061)
12.	Actual Unfunded Accrued Liability as of July 1, 2017	\$	14,613,501,409
13.	Actuarial (gain)/loss = (12) - (7) - (8) - (9) - (10) - (11)	\$	110,756,935

¹ The anticipated fiscal year 2017 contribution of \$193,550,939 has been increased to \$195,221,000 to reflect the actual State contribution made during fiscal year 2017.

B. Components of Actuarial Experience

1.	Investment (Gain)/Loss	\$	259,929,381
2.	Other net (Gain)/Loss, including changes in employee data		<u>(149,172,446)</u>
3.	Total Actuarial (Gain)/Loss	\$	110,756,935

C. Funded Ratios

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

	June 30, 2017	June 30, 2016	Change
Actuarial Value of Assets			
State	36.5%	41.2%	-4.7%
Local Employers ¹	69.0%	74.5%	-5.5%
Total System	64.9%	70.3%	-5.4%
Actuarial Value of Assets + Special Asset Value¹			
State	39.5%	44.5%	-5.0%
Total System	65.3%	70.7%	-5.4%
Market Value of Assets			
State	32.5%	35.2%	-2.7%
Local Employers	66.7%	68.5%	-1.8%
Total System	62.5%	64.4%	-1.9%

1. Statutory funded ratio

For purposes of Chapter 78, P.L. 2011, the "target funded ratio" is 79.285% and 80.000% for June 30, 2016 and June 30, 2017, respectively. The State's statutory funded ratio is 44.5% and 39.5% as of June 30, 2016 and June 30, 2017, respectively. Therefore, the State's statutory funded ratio did not reach the "target funded ratio" as of June 30, 2016 and remained below the "target funded ratio" as of June 30, 2017. The Local employers' statutory funded ratio is 74.5% and 69.0% as of June 30, 2016 and June 30, 2017, respectively. Therefore, the Local employers' statutory funded ratio also did not reach the "target funded ratio" as of June 30, 2016 and remained below the "target funded ratio" as of June 30 2017. However, the Local employer portion of the System did attain the required "target funded ratio" in fiscal year 2012 thus a pension committee has been established for the Local Employer portion of the System.

The funded ratio computed using assets valued on an actuarial value basis provides a different indication of the System's funded position, since the actuarial value smooths the investment (gains)/losses over time. Since July 1, 2000, the System's funded ratio on a market value basis has decreased by 51.7% (80.6% for State and 47.6% for Local). This decrease is primarily due to investment losses experienced over the period, contributions of less than the recommended contributions, the increase in benefits under Chapter 428, P.L. 1999, Chapter 86, P.L. 2001 and Chapter 318, P.L. 2001, and the strengthening of actuarial assumptions.

As of June 30, 2017, the total System market value of assets is less than the total actuarial liability attributable to retirees. If the assets contained in the Annuity Savings Fund (ASF) of \$3,752,205,896 (\$423,017,756 for State and \$3,329,188,139 for Local) are excluded, the ratio of the remaining market value of assets to the actuarial accrued liability for retirees is 82.1% (35.1% for State and 89.3% for Local).

As of June 30, 2017, the ratio of market value of assets to the prior year's benefit payment is 11.0 (5.4 for State and 11.8 for Local). This is an approximate indication of the number of years that the assets can cover benefit payments, excluding future increases in those payments, employer and member contributions, and investment income. The System ratio increased by 3.8% (0.0% for State and 3.5% for Local) from the previous year's ratio of 10.6 (5.4 for State and 11.4 for Local). If ASF assets are excluded, since they represent accumulated contributions from active and inactive members, the ratio is 9.4 (4.0 for State and 10.2 for Local).

The valuation also reflects costs attributable to the following legislation:

Chapter 204, P.L. 1989

The provisions of Chapter 204 allowed employees who were previously excluded on the basis of their titles from PFRS membership to enter the Plan. Employers of such employees are required to contribute any additional contribution necessary to fund any unfunded liability arising from Chapter 204. The valuation reflects the additional accrued liability for three State locations and fifteen Municipality and Local Groups locations with certain employees participating in the Fund under the provisions of this legislation. Appendix C lists all applicable locations and the required contributions.

Chapter 511, P.L. 1991

The provisions of Chapter 511 increased the benefit payable to the surviving spouse of a retiree from 35% to 50% of the retiree’s average final compensation. This law also raised the minimum annual spouse’s benefit from \$1,600 to \$4,500 for benefits granted prior to January 14, 1992.

Chapter 511 required that the normal cost and accrued liability contribution attributable to this chapter be separately determined. As a result of Chapter 115, P.L. 1997, the accrued liability contribution attributable to Chapter 511 was eliminated at that time. However, because of the reductions (and anticipated reductions) in the required State contributions for fiscal years 2004 through 2017 due to the various Appropriation Acts and Chapter 1, P.L. 2010, the remaining required contributions that have not been made have been set up as an unfunded accrued liability attributable to Chapter 511. The following summarizes the applicable contribution rates for the current and previous valuations:

Chapter 511 Contribution Rate	June 30, 2017	June 30, 2016
Normal Cost	3.959%	3.127%
Accrued Liability	<u>5.697</u>	<u>5.717</u>
Total Rate	9.656%	8.844%

Chapter 247, P.L. 1993 and Chapter 201 P.L. 2001

Chapter 247 requires the State to pay the difference between the PFRS normal cost rate and the PERS normal cost rate for certain members who transferred into PFRS as of January 1, 1992 or later. In addition, the law requires the State to pay the “System” unfunded accrued liability contribution for Municipalities and Local Groups that transferred into PFRS on and after January 1, 1992 without past service. The following summarizes the number of active employees affected, the applicable contribution rates, and the Chapter 247 contributions for the current and previous valuations:

Chapter 247	June 30, 2017	June 30, 2016
Number of Active Employees	92	131
<u>Contribution Rates:</u>		
Normal Cost	0.037%	0.030%
Accrued Liability	<u>2.270%</u>	<u>2.321%</u>
Total Rate	2.307%	2.351%
<u>Contributions:</u>		
Normal Cost	\$ 176,427	\$ 148,011
Accrued Liability	<u>10,936,654</u>	<u>11,266,912</u>
Total Contribution	\$ 11,113,081	\$ 11,414,923

Chapter 201, P.L. 2001 made changes to Chapter 247, P.L. 1993 with respect to the benefits payable to members who transferred from PERS to PFRS as a result of the Chapter 247 legislation. The resulting increase in the unfunded accrued liabilities due to the increased benefits was fully funded by the recognition of additional market value surplus in the determination of the actuarial value of assets in the July 1, 1999 valuation. However, because of the reductions (and anticipated reductions) in the required State contributions for fiscal years 2004 through 2018 due to the various Appropriation Acts and Chapter 1, P.L. 2010, the remaining required contributions which were not paid have been added to the Chapter 247 unfunded accrued liability and will be included in future State contributions.

Chapter 59, P.L. 1999, Chapter 126, P.L. 2000 and Chapter 130, P.L. 2003

Chapter 59, P.L. 1999 authorizes municipalities, counties and other local units of government that enter into agreements to provide governmental services on a joint or consolidated basis, municipalities that join together to establish a new consolidated municipality, or school districts that have merged with one or more other school districts due solely to a municipal consolidation, to offer incentive programs for retirement or termination of employment for employees affected by the consolidation agreements. "County ERI Section 44" of Chapter 126, P.L. 2000 permitted local units to offer early retirement or termination incentives to certain employees of county governing bodies. Chapter 130, P.L. 2003 extended an Early Retirement Incentive Program similar to that offered by the State under Chapter 23, P.L. 2002 to members of Local employer locations. Appendix G lists all applicable locations and summarizes the contribution requirement under Chapter 59, Chapter 126 and Chapter 130.

Chapter 8, P.L. 2000

Chapter 8, P.L. 2000 required that, if valuation assets are insufficient to fund the normal cost and accrued liability costs attributable to Chapter 428, P.L. 1999, the contribution required to fund these costs for the State and other employers shall be paid by the State. For both the July 1, 2016 and July 1, 2017 valuations, valuation assets were not sufficient to fund the costs attributable to Chapter 428. In addition, because of the reductions (and anticipated reductions) in the required State contributions for fiscal years 2004 through 2018 due to the various Appropriation Acts and Chapter 1, P.L. 2010, the remaining required contributions which were not paid have been added to the Chapter 428 unfunded accrued liability and will be included in future State contributions. The following chart summarizes the applicable contribution rates and the Chapter 428 contributions for the current and previous valuations:

Chapter 428	June 30, 2017	June 30, 2016
Contribution Rates:		
Normal Cost	4.524%	4.667%
Accrued Liability	<u>15.125</u>	<u>14.009</u>
Total Rate	19.649%	18.676%
Contributions:		
Normal Cost	\$ 21,792,231	\$ 22,659,353
Accrued Liability	<u>72,857,284</u>	<u>68,009,763</u>
Total Contribution	\$ 94,649,515	\$ 90,669,116

Chapter 86, P.L. 2001

Chapter 86, P.L. 2001 amended the active death benefits provided to a beneficiary of a member who died in active duty on or after January 1, 1998 and before January 18, 2000. The law required an eligible beneficiary to apply for the increased benefits within 90 days of enactment and return the member's aggregate contributions to the System. The State is liable for all costs to the System attributable to this law, and these costs have been included in the Chapter 428 accrued liability contributions.

Chapter 318, P.L. 2001

Chapter 318, P.L. 2001 amended the active death benefits provided to a beneficiary of a member with 10 or more years of service who died in active service on or after June 1, 1995 and before January 1, 1998 and whose beneficiary had, on May 1, 2001, an appeal of a denial of a benefit related to death in the line of duty pending before the Board of Trustees. The law requires that the appeal be withdrawn or denied and that an eligible beneficiary apply for the increased benefits and return the member's aggregate contributions received. The State is liable for all costs to the System attributable to this law and these costs are also included in the Chapter 428 accrued liability contributions.

Chapter 19, P.L. 2009

Chapter 19, P.L. 2009 provides that the State Treasurer will reduce for Local employers the normal and accrued liability contributions to 50 percent of the amount certified for fiscal years 2009. The additional unfunded liability will be paid by Local employers in level annual payments over a period of 15 years, with the first payment due in the fiscal year ending June 30, 2012. The unfunded liability will be adjusted annually by the rate of return on the actuarial value of assets. The legislation also provides that a Local employer may opt to pay 100 percent of the recommended contribution for fiscal year 2009. Employers making this election will be credited with the full payment. In addition, certain employers who were eligible to defer 50% of their fiscal year 2009 recommended contributions but instead paid 100% of the 2009 recommended contributions are permitted to elect to defer 50% of their recommended 2010 fiscal year contributions. The additional unfunded liability will be paid by Local employers in level annual payments over a period of 15 years, with the first payment due in the fiscal year ending June 30, 2012. The unfunded liability will be adjusted by the rate of return on the actuarial value of assets.

Chapter 1, P.L. 2010

Chapter 1, P.L. 2010 amended the definition of Compensation and Final Compensation for members hired on or after May 22, 2010. Compensation for such members is to be limited to the annual maximum wage contribution base for Social Security pursuant to the Federal Insurance Contribution Act. In addition, Final Compensation has been changed to the average annual compensation of a member for the three fiscal years providing the largest benefit.

Chapter 78, P.L. 2011

Chapter 78, P.L. 2011 increases member contributions from 8.5% to 10.0% of compensation. In addition, Chapter 78, P.L. 2011 suspends cost of living adjustments for all current and future retirees and beneficiaries until reactivated as permitted by law; however, Chapter 78, P.L. 2011 does not reduce the benefits for cost of living adjustments that were made in prior years. In addition, for members hired after June 28, 2011 the special retirement benefit is changed to 60% of final compensation at 25 years of service plus 1% of final compensation for each year of service over 25 years. The maximum retirement benefit is 65% of final compensation. Beginning with the July 1, 2010 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over an open 30 year period. Beginning with the July 1, 2018 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars it will amortize the unfunded accrued liability over a closed 30 year period (i.e., for each subsequent actuarial valuation, the amortization period will decrease by one year.) Beginning with the July 1, 2028 actuarial valuation when the remaining amortization period reaches 20 years, any increase or decrease in the unfunded accrued liability as a result of actuarial losses or gains for subsequent valuation years shall serve to increase or decrease, respectively, the amortization period for the unfunded accrued

liability, unless an increase in the amortization period will cause it to exceed 20 years. If an increase in the amortization period as a result of actuarial losses for a valuation year would exceed 20 years, the accrued liability contribution shall be computed for that valuation year using a 20 year amortization period.

Chapter 26, P.L. 2016

Chapter 26, P.L. 2016 increases the accidental death benefit payable to children if there is no surviving spouse to 70% of final compensation.

Chapter 83, P.L. 2016

Chapter 83, P.L. 2016 requires the State to make its required contributions to the State-administered defined benefit retirement systems each State fiscal year on a quarterly basis on the following schedule: at least 25 percent by September 30, at least 50 percent by December 31, at least 75 percent by March 31, and at least 100 percent by June 30.

Chapter 98, P.L. 2017

This law contributes the State Lottery Enterprise to the Teachers' Pension and Annuity Fund (TPAF), the Public Employees' Retirement System (PERS), and the Police and Firemen's Retirement System (PFRS) for a term of 30 years. Under the law, the TPAF, PERS, and PFRS receive a portion of the proceeds of the Lottery Enterprise, based upon their members' past or present employment in schools and institutions in the State.

Pursuant to Section 5, this law allocates the lottery contribution to the retirement systems in allocable percentages. The lottery contribution and all proceeds of the Lottery Enterprise are allocated among the retirement systems in the allocable percentages as follows: 77.78% for TPAF; 21.02% for PERS; and 1.20% for PFRS.

Effective with the fiscal year 2016, the Chapter 78, P.L. 2010 "target funded ratio" is based on the actuarial value of assets plus the allocable special asset value to the actuarially determined accrued liabilities expressed as a percentage. The special asset value is the present value of remaining lottery contributions to the retirement systems.

Effective with the fiscal year 2018, the State's pension contribution shall be reduced by the product of the allocable percentage for such retirement system, established in the adjustment percentage for such retirement system and the special asset adjustment.

D. Schedule of Assets and Liabilities

State

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value ¹ (b)/(c)
7/1/2017 ²	\$ 1,680,502,499	\$ 2,040,057,233	\$5,167,797,125	32.5%	39.5%
7/1/2016 ²	\$ 1,646,171,965	\$ 2,079,326,401	\$4,676,642,040	35.2%	44.5%
7/1/2016 ³	\$ 1,646,171,965	\$ 1,928,447,404	\$4,676,642,040	35.2%	41.2%
7/1/2015	\$ 1,831,003,301	\$ 2,004,579,109	\$4,516,438,165	40.5%	44.4%
7/1/2014	\$ 1,950,490,493	\$ 2,062,185,965	\$4,365,609,664	44.7%	47.2%
7/1/2013	\$ 1,896,198,371	\$ 2,127,491,585	\$4,188,523,037	45.3%	50.8%
7/1/2012	\$ 1,829,418,795	\$ 2,137,727,566	\$4,026,954,882	45.4%	53.1%
7/1/2011	\$ 1,944,214,316	\$ 2,173,255,647	\$3,926,525,679	49.5%	55.3%
7/1/2010	\$ 1,771,575,807	\$ 2,190,654,958	\$3,672,361,258	48.2%	59.7%
7/1/2009	\$ 1,742,699,083	\$ 2,268,272,056	\$3,993,259,480	43.6%	56.8%
7/1/2008	\$ 2,131,625,019	\$ 2,343,170,793	\$3,749,118,910	56.9%	62.5%

Local Employers

Actuarial Valuation Date	Market Value of Assets ¹ (a)	Actuarial Value of Assets ¹ (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
7/1/2017	\$24,354,584,363	\$25,186,929,928	\$36,520,508,672	66.7%	69.0%
7/1/2016	\$22,469,694,913	\$24,420,145,823	\$32,793,439,210	68.5%	74.5%
7/1/2015	\$23,360,020,456	\$23,935,037,150	\$31,205,965,303	74.9%	76.7%
7/1/2014	\$23,143,934,984	\$23,066,498,788	\$30,239,286,907	76.5%	76.3%
7/1/2013	\$20,734,802,380	\$22,170,221,173	\$28,811,698,272	72.0%	76.9%
7/1/2012	\$19,296,197,115	\$21,549,327,079	\$27,705,168,437	69.6%	77.8%
7/1/2011	\$19,405,816,249	\$21,051,681,692	\$26,978,632,188	71.9%	78.0%
7/1/2010	\$17,108,014,883	\$20,367,865,987	\$25,601,998,126	66.8%	79.6%
7/1/2009	\$16,283,683,457	\$20,669,565,701	\$28,448,841,765	57.2%	72.7%
7/1/2008	\$18,907,241,962	\$20,404,804,535	\$26,871,106,532	70.4%	75.9%

1. The information in the above tables has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in the actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.
2. Effective with the fiscal year 2016, the actuarial value of assets information provided for funded ratios includes Special Asset Values due to Chapter 98, P.L. 2017. The special asset value is the present value of remaining lottery contributions to the retirement systems and discounted to the valuation date using the valuation discount rate.
3. Prior to reflecting Chapter 98, P.L. 2017.

E. Schedule of Employer Pension Contributions¹

State

Fiscal Year Ending June 30	Actuarially Determined Contribution ³ (a)	Actual Pension Contribution (b)	Expected Lottery Revenue (c)	Contribution Deficiency (a) – (b) – (c)	Percentage of Contribution Made	
					Annual ((b)+(c))/(a)	Five-Year Average
2018 ⁴	\$ 502,917,964	\$ 239,447,260	\$ 12,011,722	\$ 251,458,982	50.0%	36.7%
2018 ⁵	\$ 502,917,964	\$ 251,458,982	N/A	\$ 251,458,982	50.0%	36.7%
2017	\$ 483,877,347	\$ 195,221,000	N/A	\$ 288,656,347	40.3%	32.4%
2016	\$ 461,081,051	\$ 138,324,000	N/A	\$ 322,757,051	30.0%	27.2%
2015	\$ 414,316,953	\$ 139,297,000	N/A	\$ 275,019,953	33.6%	21.2%
2014	\$ 389,689,529	\$ 115,623,000	N/A	\$ 274,066,529	29.7%	14.5%
2013	\$ 393,637,547	\$ 112,468,000	N/A	\$ 281,169,547	28.6%	9.5%
2012	\$ 375,234,766	\$ 53,606,000	N/A	\$ 321,628,766	14.3%	14.1%
2011	\$ 339,480,900	\$ 0	N/A	\$ 339,480,900	0.0%	22.7%
2010	\$ 299,131,628	\$ 0	N/A	\$ 299,131,628	0.0%	29.6%
2009	\$ 271,788,383	\$ 13,038,000	N/A	\$ 258,750,383	4.8%	

Local Employers

Fiscal Year Ending June 30	Actuarially Determined Contribution ³ (a)	Actual Pension Contribution (b)	Contribution Deficiency (a) – (b)	Percentage of Contribution Made	
				Annual (b)/(a)	Five-Year Average
2018	\$ 877,147,545	\$ 877,147,545	\$ 0	100.0%	100.0%
2017	\$ 807,438,390	\$ 807,438,390	\$ 0	100.0%	100.0%
2016	\$ 804,063,662	\$ 804,063,662	\$ 0	100.0%	100.0%
2015	\$ 760,533,458	\$ 760,533,458	\$ 0	100.0%	100.0%
2014	\$ 726,928,577	\$ 726,928,577	\$ 0	100.0%	100.0%
2013	\$ 776,511,374	\$ 776,511,374	\$ 0	100.0%	94.9%
2012	\$ 762,531,584	\$ 762,531,584	\$ 0	100.0%	94.9%
2011	\$ 857,072,909	\$ 857,072,909	\$ 0	100.0%	90.9%
2010	\$ 718,078,464	\$ 717,576,451 ²	\$ 502,013	99.9%	83.0%
2009	\$ 671,753,023	\$ 500,500,162 ²	\$ 171,252,861	74.5%	

1 Excludes contribution for the NCGIPF.

2 Reflects contribution reductions due to Chapter 19, P.L. 2009.

3 The information in the above tables has been taken directly from the final valuation reports for each plan year and does not reflect subsequent changes in the actual employer contribution amounts from the reported receivable contribution after the valuation reports were issued.

4 Reflects enactment of Chapter 98, P.L. 2017 - Lottery Enterprise Contribution Act: State contribution expected to be gross contribution multiplied by phase-in percentage less lottery enterprise contribution offset. The fiscal year 2018 contribution amount reflects the State's planned contribution of 50% of the recommended employer contribution. This amount is subject to change per the requirements of the State's fiscal year 2018 spending plan.

5 Reflects information from July 1, 2016 valuation prior to enactment of Chapter 98, P.L. 2017 - Lottery Enterprise Contribution Act.

Section V – Level of Funding

Although the value of accrued benefits and the funding ratios shown in the previous section are required for the State's financial statements, it is instructive to also look at these values under an alternative approach. For this purpose, we are presenting liabilities determined on a Financial Accounting Standards ASC715 (formerly Statement No. 87) Accumulated Benefit Obligation (ABO) basis. This is the same approach as was used under GASB Statement No. 5 except that no assumption is made as to future salary increases and assets are at market value with receivables.

ASC 715 ABO Funded Ratios

Valuation Date: June 30, 2017			
	<u>State</u>	<u>Local Employers</u>	<u>Total</u>
Actuarial present value of accumulated benefits:			
Vested benefits			
Participants currently receiving payments	\$ 3,585,514,765	\$ 23,539,472,516	\$ 27,124,987,281
Other participants	<u>952,061,258</u>	<u>8,744,706,109</u>	<u>9,696,767,367</u>
	\$ 4,537,576,023	\$ 32,284,178,625	\$ 36,821,754,648
Non-vested benefits	<u>449,308,416</u>	<u>3,022,453,756</u>	<u>3,471,762,172</u>
Total	\$ 4,986,884,439	\$ 35,306,632,381	\$ 40,293,516,820
Assets at market value ¹	\$ 1,543,684,865	\$ 24,141,749,318	\$ 25,685,434,183
Ratio of assets to total present value	31.0%	68.4%	63.7%

Valuation Date: June 30, 2016			
	<u>State</u>	<u>Local Employers</u>	<u>Total</u>
Actuarial present value of accumulated benefits:			
Vested benefits			
Participants currently receiving payments	\$ 3,226,044,658	\$ 21,445,939,675	\$ 24,711,984,333
Other participants	<u>824,933,013</u>	<u>7,742,946,447</u>	<u>8,567,879,460</u>
	\$ 4,090,977,671	\$ 29,188,886,122	\$ 33,279,863,793
Non-vested benefits	<u>430,675,413</u>	<u>2,570,571,552</u>	<u>3,001,246,965</u>
Total	\$ 4,521,653,084	\$ 31,759,457,674	\$ 36,281,110,758
Assets at market value ¹	\$ 1,544,970,692	\$ 22,270,023,681	\$ 23,814,994,373
Ratio of assets to total present value	34.2%	70.1%	65.6%

1. Assets at market value do not include any receivable contribution for the State and exclude the present value of Chapter 19 and ERI contributions for the Local employers.

The actuarial present value of vested and non-vested accrued benefits was based on an interest rate of 7.65% for 2016 and 7.00% in 2017.

Appendix A

Brief Summary of the Benefit and Contribution Provisions as Interpreted For Valuation Purposes

Eligibility for Membership

Enrollment is restricted to eligible policemen and firemen who are permanent and full-time and who pass the physical and mental fitness requirements. The maximum enrollment age is 35.

1. Definitions

Plan Year

The 12-month period beginning on July 1 and ending on June 30.

Credited Service

A year of service is credited for each year an employee is a Member of the Retirement System plus service, if any, covered by a prior service liability.

Average Final Compensation (AFC)

The average annual compensation for the three consecutive years of Service immediately preceding retirement or the highest three consecutive fiscal years of Membership Service.

Compensation

Base salary upon which contributions by a Member to the Annuity Savings Fund were based in the last year of Service. For Accidental Death, benefits are computed at the annual rate of salary. In accordance with Chapter 1, P.L. 2010, for members hired on or after May 22, 2010 Compensation cannot exceed the annual maximum wage contribution base for Social Security pursuant to the Federal Insurance Contribution Act.

Final Compensation (FC)

Annual compensation received by the member in the last 12 months of Credited Service preceding his retirement. In accordance with Chapter 1, P.L. 2010, for members hired on or after May 22, 2010, FC means the average annual compensation for the three fiscal years of membership providing the largest benefit.

Accumulated Deductions

The sum of all amounts deducted from the compensation of a Member or contributed by him or on his behalf without interest.

2. Benefits

Service Retirement

Eligibility means age 55 or 20 years of credited service for an employee who was a member of the Retirement System as of January 18, 2000 and age 55 for an employee who became a member of the Retirement System after January 18, 2000; mandatory at age 65 (except that a member hired prior to January 1, 1987 may remain a member of the Retirement System until the member attains the earlier of age 68 or 25 years of creditable service). Benefit is an annual retirement allowance equal to a member annuity plus an employer pension which together equals the greater of:

- i. 1/60th of FC for each year of Credited Service; or
- ii. 2% of FC multiplied by years of Credited Service up to 30 plus 1% of FC multiplied by years of Service over 30. (Prior to January 18, 2000, this benefit was based on AFC rather than FC. However, Policy Memorandum 4-2000, which interpreted the provisions of Chapter 428, P.L. 1999, authorized the change in the salary basis).
- iii. 50% of FC if the member has 20 or more years of Credited Service.

Chapter 428 also requires that, in addition to the 50% of FC benefit, any member as of January 18, 2000 who will have 20 or more years of Credited Service and is required to retire upon attaining age 65 (except that a member hired prior to January 1, 1987 may remain a member of the System until the member attains the earlier of age 68 or 25 years of creditable service), shall receive an additional benefit equal to 3% of FC for each year of Credited Service over 20 years but not over 25 years.

Special Retirement

After completion of 25 years of Credited Service. The annual retirement benefit is equal to a member annuity plus an employer pension which together equal 65% of FC plus 1% of FC for each year of Credited Service over 25. Effective for members hired after June 28, 2011, the annual retirement benefit is equal to a member annuity plus an employer pension which together equal 60% of FC plus 1% of FC for each year of Credited Service over 25. There is a maximum benefit of 70% of FC (65% of FC for members hired after June 28, 2011) except for those members with 30 or more years of Credited Service on June 30, 1979.

Vested Termination

- A. Eligible upon termination of service prior to age 55 and prior to 10 years of Credited Service. The benefit equals a refund of Accumulated Deductions less any outstanding loans.
- B. Eligible upon termination of service prior to age 55 and after 10 years of Credited Service (but less than 20 years of Credited Service if a member on or prior to January 18, 2000 or less than 25 years of service if a member after January 18, 2000). The benefit is a deferred retirement benefit, commencing at age 55, equal to a member annuity plus an employer pension which together provide a retirement allowance equal to 2% of FC multiplied by years of Credited Service up to 30 plus 1% of FC multiplied by years of Credited Service over 30.

Death Benefits

Ordinary Death Benefit - Lump Sum

1. If a member dies prior to retirement, the benefit payable is as follows:
A lump sum amount equal to 3-1/2 times FC payable to the member's beneficiary.
2. After retirement but prior to age 55, the benefit is as follows:
 - i. For death while a Disabled Retiree the benefit is equal to 3-1/2 times Compensation.
 - ii. For death while a Deferred Retiree the benefit is equal to his Accumulated Deductions.
 - iii. For death while a Retiree who has completed 20 years of Credited Service, the benefit is equal to 1/2 times FC.
3. After retirement and after age 55, the benefit payable is equal to 1/2 times Compensation. (Note: If a Member is not disabled, 10 years of Credited Service is required for Members enrolling after July 1, 1971.)

Ordinary Death Benefit - Survivor Annuity

1. If a member dies prior to retirement, the benefit payable to a widow (widower) is equal to 50% of FC (20% of FC payable to one child, 35% of FC payable to two children or 50% of FC payable to three or more children if there is no surviving widow or widower or if the widow or widower dies or remarries or 25% of FC payable to one parent or 40% of FC payable to two parents if no surviving widow, widower or child. If no widow, widower, child or parent, the benefit payable to a beneficiary is the aggregate Accumulated Contributions at the time of death).
2. For any member who retired after December 18, 1967, the benefit payable to a widow (widower) is equal to 50% of FC plus 15% of FC for one child and 25% of FC for two or more children.

If no spouse, or spouse remarries, the benefit is equal to 20% of FC for one child, 35% for two children, and 50% for three or more children.

There is also a minimum benefit payable to widows (widowers) of \$4,500 a year.
3. For any member who retired with an Accidental Disability Benefit, the benefit payable is equal to \$4,500 a year to the widow (widower). If there is no widow (widower) the benefit payable is \$600 a year for 1 child, \$960 a year for 2 children, and \$1,500 a year for 3 or more children. The benefit for children is payable until age 18.

Accidental Death Benefit

A death while active resulting from injuries received from an accident during performance of duty is eligible for a lump sum equal to the Accumulated Deductions plus 3-1/2 times Compensation plus an annuity benefit payable is as follows:

- i. The benefit to a widow or widower is equal to 70% of Compensation.
- ii. The benefit, when there is no spouse, or spouse is remarried, is equal to 70% of Compensation payable to surviving children in equal shares. The benefit is payable while the children are under age 18, or until age 24 if they are full-time students, or it is payable for life if they are disabled.
- iii. The benefit, when there is no spouse or children, is equal to 25% of Compensation for one parent and 40% for two parents.
- iv. The benefit, when there is no relation as stated above, is equal to the Accumulated Deductions and is payable to a beneficiary or to the Member's estate. This is also the minimum benefit payable under i., ii. and iii.

Disability Benefits

Ordinary Disability Retirement

A Member is eligible for Ordinary Disability Retirement if he (she) has 4 years of Service and is totally and permanently incapacitated from the performance of usual or available duties. The benefit is equal to the greater of:

- i. 1-1/2% of FC times the number of years of Credited Service; or
- ii. 40% of FC.

In addition, a member who has at least 20 years but less than 25 years of Credited Service and who is required to retire upon application by the employer on and after January 18, 2000 shall receive a benefit equal to a member annuity plus an employer pension which together provide a total retirement allowance equal to 50% of FC plus 3% of FC multiplied by the number of years of Credited Service over 20 but not over 25.

Accidental Disability Retirement

A Member is eligible upon total and permanent incapacitation from the performance of usual or available duties as a result of injury during the performance of regular duties. The benefit payable is equal to a Member annuity plus an employer pension which together equals 2/3 of the Compensation at date of injury.

Special Disability Retirement

A member is eligible for Special Disability Retirement if he (she) has 5 years of Credited Service, is under age 55, and has received a heart transplant. The benefit payable is equal to a Member annuity plus an employer pension which together equals 50% of FC.

3. Member Contributions

Each Member contributes 10.0% of Compensation effective October 2011.

Summary of Changes from the July 1, 2016 Valuation

The accidental death benefit payable to dependent children if there is no surviving spouse has been increased to 70% of adjusted final compensation from a total of 20%, 35% or 50% of final compensation payable to one, two or three dependent children. The impact of these plan changes is the accrued liability of \$0 due to these plan changes.

Appendix B

Outline of Actuarial Assumptions and Method

Valuation Interest Rate

7.00% per annum, compounded annually.

COLA

No future COLA is assumed.

401(a)(17) Pay Limit

\$270,000 for 2017 increasing 3.00% per annum, compounded annually.

Social Security Wage Base

\$127,200 for 2017 increasing 4.00% per annum, compounded annually

Separations From Service and Salary Increases

Representative values of the assumed annual rates of separation and annual rates of salary increases are as follows:

Age	<u>Annual Rates of</u>					<u>Ultimate Withdrawal</u>
	<u>Select Withdrawal</u>					
	<u>Up to the 1st Year</u>	<u>2nd Year</u>	<u>3rd Year</u>	<u>4th Year</u>	<u>5 to 9 Years</u>	<u>After 9 Years</u>
25	6.90%	2.03%	1.18%	0.60%	0.35%	0.00%
30	9.30	2.75	1.76	1.31	0.60	0.24
35	9.80	3.17	1.76	1.57	0.77	0.24
40	13.70	2.25	1.85	1.74	0.67	0.27
45	3.50	2.25	1.85	2.32	1.35	0.28
50	0.00	2.25	1.85	2.00	1.60	0.30
55	0.00	0.00	0.00	0.00	0.00	0.00

Age	<u>Annual Rates of</u>			<u>Disability</u>	
	<u>Death</u>			<u>Ordinary</u>	<u>Accidental</u>
	<u>Ordinary</u>	<u>Female*</u>	<u>Accidental</u>	<u>Ordinary</u>	<u>Accidental</u>
25	.034%	.019%	.006%	.045%	.029%
30	.041	.025	.006	.147	.278
35	.072	.045	.008	.265	.393
40	.099	.065	.008	.362	.423
45	.136	.102	.009	.394	.396
50	.193	.155	.009	.449	.179
55	.279	.231	.014	.554	.161
60	.432	.332	.013	1.024	.161
64	.588	.440	.008	1.680	.161
65					
and over	0.000	0.000	0.000	0.000	0.000

* RP2000 Employee Pre-Retirement mortality tables projected thirteen-years using Projection Scale BB and then projected on a generational basis using the Conduent Modified 2014 Projection Scales. The above tables are representative for the 2017 valuation.

<u>Age</u>	<u>Service Retirements</u> <u>Length of Service</u>				<u>Salary Increases</u> <u>Effective July 1, 2016</u>	
	<u>Less Than</u> <u>21 Years*</u>	<u>21 to 24</u> <u>Years</u>	<u>25 Years</u>	<u>26 or</u> <u>More</u> <u>Years</u>	<u>FY2016 to</u> <u>FY2026</u>	<u>and</u> <u>FY2026</u> <u>and</u> <u>thereafter</u>
25					8.98%	9.98%
30					5.97	6.97
35					4.17	5.17
40	4.00%	0.60%	45.57%	15.40%	3.33	4.33
45	4.00	0.60	54.83	15.40	2.90	3.90
50	4.30	0.60	57.62	18.48	2.75	3.75
55	6.00	0.00	64.94	24.47	2.60	3.60
60	3.20	0.00	77.49	27.34	2.35	3.35
64	37.50	0.00	85.24	51.03	2.10	3.10
65						
and over	100.00	100.00	100.00	100.00		

* Retirement assumption prior to age 55 is for any member as of January 18, 2000 upon completion of 20 years of service.

Deaths After Retirement

RP-2000 Combined Healthy Mortality Tables projected one year using Projection Scale AA and four years using the Conduent Modified 2014 Projection Scales is the base table as of the 2017 measurement date for male service retirements and will be further projected on a generational basis using the Conduent Modified 2014 Projection Scales. RP-2000 Combined Healthy Mortality Tables projected thirteen-years using Projection Scale BB and then four years projected using the Conduent Modified 2014 Projection Scales is the base table as of the 2017 measurement date for female service retirements and beneficiaries and will be further projected on a generational basis using the Conduent Modified 2014 Projection Scales. Special mortality tables are used for the period after disability retirement. The following representative values of the assumed annual rates of mortality are effective 2017:

<u>Age</u>	<u>Service Retirements</u>		<u>Beneficiaries</u>		<u>Age</u>	<u>Disability</u> <u>Retirements</u>
	<u>Men</u>	<u>Women</u>	<u>Men</u>	<u>Women</u>		
55	0.340%	0.248%	0.334%	0.248%	35	0.598%
60	0.644	0.427	0.597	0.427	40	0.634
65	1.211	0.786	1.050	0.786	45	0.803
70	2.076	1.345	1.731	1.345	50	1.058
75	3.507	2.261	2.922	2.261	55	1.210
80	5.977	3.695	4.961	3.695	60	1.426
85	10.331	6.228	8.548	6.228	65	1.949

Marriage

Husbands are assumed to be 3 years older than wives. Among the active population, 90% of participants are assumed married. No children are assumed.

Valuation Method

Projected Unit Credit Method. This method essentially funds the System's benefits accrued to the valuation date. Experience gains and losses are recognized in future accrued liability contributions. In accordance with Chapter 78, P.L. 2011, beginning with the July 1, 2010 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over an open 30 year period. Beginning with the July 1, 2018 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars it will amortize the unfunded accrued liability over a closed 30 year period (i.e., for each subsequent valuation, the amortization period shall decrease by one year.) Beginning with the July 1, 2028 actuarial valuation, when the remaining amortization period reaches 20 years, any increase or decrease in the unfunded accrued liability as a result of actuarial losses or gains for subsequent valuation years shall serve to increase or decrease, respectively, the amortization period for the unfunded accrued liability, unless an increase in the amortization period will cause it to exceed 20 years. If an increase in the amortization period as a result of actuarial losses for a valuation year would exceed 20 years, the accrued liability contribution shall be computed for the valuation year using a 20 year amortization period.

To the extent that the amortization period remains an open period in future years and depending upon the specific circumstances, it should be noted that in the absence of emerging actuarial gains or contributions made in excess of the actuarially determined contribution, any existing unfunded accrued liability may not be fully amortized in the future.

State Contribution Payable Dates

Prior to the July 1, 2017 valuation, it is assumed the State will make pension contributions the June 30th following the valuation date. Effective with the July 1, 2017 valuation, Chapter 83, P.L. 2016 requires the State to make pension contributions on a quarterly basis: at least 25 percent by September 30, at least 50 percent by December 31, at least 75 percent by March 31, and at least 100 percent by June 30.

In addition, revenues from Chapter 98, P.L. 2017 – Lottery Enterprise Contribution Act are assumed to be contributed to the trust on a monthly basis.

Receivable Contributions

For the July 1, 2016 valuation, State contributions are expected to be paid the June 30th following the valuation date and are discounted by the valuation interest rate of 7.65% to the valuation date. Effective with the July 1, 2017 valuation, State contributions are expected to be paid in equal quarterly amounts as of September 30th, December 31st, March 31st, and June 30th following the valuation date and are discounted by the interest rate of 7.00% to the valuation date.

Local contributions expected to be paid the April 1st, following the valuation are discounted by the valuation interest rate of 7.65% to the valuation date for the July 1, 2016 valuation and by an interest rate of 7.00% to the valuation date effective with the July 1, 2017 valuation.

Asset Valuation Method

A five year average of market values with write-up was used. This method takes into account appreciation (depreciation) in investments in order to smooth asset values by averaging the excess of the actual over the expected income, on a market value basis, over a five-year period.

Summary of Changes from the July 1, 2016 Valuation

The rate of investment return has been revised from 7.65% per annum to 7.00% per annum. The impact of these assumption changes is shown in Section IV.A. which indicates an increase in the accrued liability of \$419,996,453 for the State and \$2,791,138,645 for the Local.

Appendix C

Additional Contribution Schedules

A. Additional Accrued Liability Contribution Schedule Due to Chapter 204, P.L. 1989

	July 1, 2017 Valuation		July 1, 2016 Valuation	
	Fiscal Year 2019 Payment*		Fiscal Year 2018 Payment*	
	Recommended	Years Remaining	Recommended	Years Remaining
State Locations				
• Location #00053:Juv. Jus. Comm/Community Prog.	\$ 1,914	15	\$ 1,897	16
• Location #00323:Dept. Div. of Human Resources	61,464	15	60,917	16
• Location #00498:Rutgers University	<u>3,215</u>	15	<u>3,187</u>	16
Total	\$ 66,593		\$ 66,001	
Municipalities & Local Groups				
• Location #21202: Camden City	\$ 88,670	15	\$ 92,906	16
• Location #39300: Belmar Borough	11,862	15	12,428	16
• Location #46800: Roxbury Township	22,447	15	23,520	16
• Location #49700: West Windsor Township	33,296	15	34,886	16
• Location #57700: Sea Isle City	6,024	15	6,312	16
• Location #62400: NJ Institute of Technology	96,061	15	100,650	16
• Location #62500: Brookdale Community College	104,383	15	109,369	16
• Location #62700: Essex County College	31,370	15	32,869	16
• Location #75000: Lakewood Twp Fire District #1	16,659	15	17,455	16
• Location #75700: Middlesex County College	116,029	15	121,571	16
• Location #76200: Lower Camden Regional High School – District 1	2,505	15	2,624	16
• Location #77500: Hopewell Twp Fire District #1	10,324	15	10,817	16
• Location #78600: South Jersey Transit Authority	50,670	15	53,091	16
• Location #78700: Washington Township Board of Fire Comm	17,724	15	18,571	16
• Location #79600: Upper Freehold Twp	<u>1,077</u>	15	<u>1,128</u>	16
Total	\$ 609,101		\$ 638,197	

* Dollar amounts include one year of interest at 7.65% for fiscal year 2018 and 7.00% for fiscal year 2019.

B. Summary of Fiscal Year 2019 Recommended Contributions For State College Locations

Location	Location Name	Number of Members	2017 Appropriation Payroll	Normal Cost	Accrued Liability Contribution	Lottery Enterprise Contribution Offset ¹	Total Fiscal Year 2019 Pension Contribution	Non-Contributory Group Insurance Premium Fund
00410	Rowan University	27	\$ 1,873,096	\$ 535,518	\$ 1,609,402	\$ (838,067)	\$ 1,306,853	\$ 36,619
00412	Kean University	13	953,750	272,677	819,481	(426,730)	665,428	18,646
00413	William Paterson University of NJ	16	1,132,362	323,742	972,948	(506,645)	790,045	22,138
00414	Montclair State University	32	2,420,438	692,003	2,079,689	(1,082,961)	1,688,731	47,320
00415	The College of New Jersey	12	821,891	234,979	706,185	(367,733)	573,431	16,068
00421	Stockton University	19	1,169,902	334,475	1,005,203	(523,442)	816,236	22,872
00498	Rutgers University	121	9,326,657	2,666,491	8,016,866	(4,172,964)	6,510,393	182,336
62400	NJ Institute of Technology	<u>26</u>	<u>2,098,956</u>	<u>600,091</u>	<u>1,899,526</u>	<u>(939,122)</u>	<u>1,560,495</u>	<u>41,035</u>
Total		266	\$ 19,797,052	\$ 5,659,976	\$ 17,109,300	\$ (8,857,664)	\$ 13,911,612	\$ 387,034

1. 71.17% of the total lottery enterprise contribution offset as of June 30, 2018 is allocated to each State college location based on the location's 2017 appropriation payroll.

Appendix D

Additional Census Data Statistics

In response to prior requests from the Board of Trustees, we have performed additional calculations and constructed additional exhibits based on the July 1, 2017 valuation data.

Age Breakdown

1. Average Age at Retirement – split by Special/Service Retirements

The exhibit on page 43 provides information split between Police and Firemen and by type of retirement. The average age at retirement is 53.1, 52.6 and 55.0 for service, special, and deferred retirement, respectively.

2. Average Age at Entry

The average age at entry for Contributing active participants at July 1, 2017 is 26.4. The average age at entry for Non-Contributing active participants at July 1, 2016 is 31.7. The average age at entry for all actives at July 1, 2017 is 26.6.

3. & 4. Average Age at Death for Active participants and Retired participants.

We have assumed that all deaths between July 1, 2016 and June 30, 2017 occurred at the middle of the plan year; January 1, 2017. Based on this assumption, the average age at death for the various groups is as follows:

Active Contributing members at July 1, 2016	46.0
Active Non-Contributing members at July 1, 2016	45.2
Retired at July 1, 2016	77.8
Disabled at July 1, 2016	69.1
Beneficiary at July 1, 2016	85.0
Terminated Vested at July 1, 2016	N/A

5. & 6. Average Age at Retirement for those who retired under ordinary and accidental disability.

Specific information by category is contained on page 44. The average age at retirement is 42.4 and 40.5 for ordinary and accidental disability, respectively.

Breakdown of Members

1. Police/Firemen split for Active and Retirees

The Police/Firemen split summarized below for plan members can be found in Appendix E of this report.

	Policemen	Firemen	Unknown	Total
Active Contributing Members	33,684	6,456	0	40,140
Active Non-Contributing Members	1,273	106	0	1,379
Vested Terminated Participants	39	2	0	41
Retired Participants	24,693	5,421	544	30,658
Disabled Retired Participants	5,210	506	123	5,839
Beneficiaries	<u>4,193</u>	<u>1,204</u>	<u>1,977</u>	<u>7,374</u>
Total	69,092	13,695	2,644	85,431

Breakdown of Retired Members and Beneficiaries

1-6. Number of members receiving various benefits.

This information is included in Appendix E of this report and is summarized as follows:

	Number of Members
Receiving Special Retirement Benefits	28,267
Receiving Service Retirement Benefits	2,200
Receiving Deferred Retirement Benefits	191
Receiving Ordinary Disability Benefits	2,938
Receiving Accidental Disability Benefits	2,901

7. Members who died as a result of Accidental Death

We did not receive any information that indicates cause of death for deceased members.

8.-10. Number of Widows, Children, and Other Dependents

This information is included in Tables 9 and 10 of Appendix E of this report and is summarized as follows:

	Number
Widows/Widowers	7,066
Children	307
Other Dependents	<u>1</u>
	7,374

13. The Number of Beneficiaries and Children receiving benefits due to the accidental death of a member is 99 (95 Beneficiaries, 3 Children and 1 other dependent). We have no information to perform a further S.H.B.P./Local Health Benefits split.

Breakdown of Costs

The information contained in this section, "Breakdown of Costs", has been calculated in a manner consistent with that shown in prior reports.

1. Cost per member for Insurance.

Dividing the total death benefit cost of \$ 46,429,000 (\$9,419,000 for State location and \$37,010,000 for Local groups) by the number of active contributing members of 40,140 gives the total cost per member for insurance \$1,156.68.

2. Cost per member for Administration

Dividing the Administrative cost per member = \$4,083,995/85,431 members = \$47.80.

- 3.&4. The normal contribution rates for State Locations and Municipalities and Local Groups are summarized in Section III(I) of this report.

- 5.&6. The Accrued Liability rates for State Locations and Municipalities and Local Groups are also summarized in Section III(I) of this report.

Breakdown of Purchases

We do not receive information on the active data file regarding service purchases.

Breakdown of Inactive Members

To demonstrate the effect that inactive participants have on costs, we have split the liabilities attributable to beneficiaries used to calculate the Accrued Liability into specific categories. The information summarized below can be found in Section III.E.1 of this report.

	Actuarial Accrued Liability	Percentage of Total Accrued Liability
Service/Special Retirements	\$ 21,739,473,149	52.15%
Disableds	2,811,945,402	6.75%
Beneficiaries	2,573,568,730	6.17%
Deferred Terminated Vesteds	<u>8,111,803</u>	<u>0.02%</u>
Total	\$ 27,133,099,084	65.09%

The percentage shown on the right is the percent attributable to each inactive piece of the total Accrued Liability of \$41,688,305,797.

Additional Information Provided for Item 1. on Page 40

All Healthy Retirees as of July 1, 2017

Sex	Police or Firemen	Type of Retirement	Counts	Average Years of Service	Average Age at Retirement	Average Annual Benefit	Average Current Age
M	Police	Service	1,649	21.7	53.0	\$ 44,193	61.7
M	Police	Special	21,412	27.2	52.2	63,956	63.9
M	Police	Deferred	121	15.0	55.0	13,863	68.7
M	Firemen	Service	158	26.6	56.2	55,774	66.5
M	Firemen	Special	5,206	28.4	54.1	65,655	67.7
M	Firemen	Deferred	48	15.7	55.0	11,007	72.7
M	Unknown	Service	83	26.2	53.2	24,094	92.2
M	Unknown	Special	455	27.3	53.5	30,586	87.9
M	Unknown	Deferred	5	17.3	55.0	9,330	86.6
F	Police	Service	309	19.8	52.3	39,403	61.0
F	Police	Special	1185	25.8	52.3	62,708	59.4
F	Police	Deferred	17	15.0	54.6	20,245	60.5
F	Firemen	Special	9	26.7	56.3	65,088	63.3
F	Unknown	Service	1	25.0	56.0	19,031	97.0

New Healthy Retirees as of July 1, 2017

Sex	Police or Firemen	Type of Retirement	Counts	Average Years of Service	Average Age at Retirement	Average Annual Benefit	Average Current Age
M	Police	Service	99	22.9	51.6	\$ 56,729	52.3
M	Police	Special	882	27.2	52.2	79,175	52.8
M	Police	Deferred	8	13.8	55.0	19,780	55.5
M	Firemen	Service	8	19.7	53.1	44,222	54.1
M	Firemen	Special	246	28.3	54.1	84,135	54.6
M	Firemen	Deferred	1	17.6	55.0	30,275	55.0
F	Police	Service	25	20.0	52.0	48,039	52.9
F	Police	Special	73	26.0	52.2	70,833	52.8
F	Police	Deferred	2	18.5	55.0	31,736	55.0

Additional Information Provided For Items 5. & 6. on Page 40

All Disabilities as of July 1, 2017

Sex	Police or Firemen	Type of Retirement	Counts	Average Years of Service	Average Age at Retirement	Average Annual Benefit	Average Current Age
M	Police	Ordinary	2,069	13.7	42.3	\$ 28,228	57.9
M	Police	Accidental	2,333	13.5	40.2	50,592	54.2
M	Firemen	Ordinary	286	14.3	42.7	29,387	59.2
M	Firemen	Accidental	212	15.6	43.3	52,708	57.9
M	Unknown	Ordinary	43	13.0	40.8	13,924	79.5
M	Unknown	Accidental	79	12.8	39.8	21,449	83.4
F	Police	Ordinary	533	12.9	42.7	29,468	54.2
F	Police	Accidental	275	11.9	39.4	51,778	49.6
F	Firemen	Ordinary	6	10.7	36.3	28,282	43.8
F	Firemen	Accidental	2	13.7	38.5	46,701	39.5
F	Unknown	Ordinary	1	17.3	54.0	14,424	86.0

New Disabilities as of July 1, 2017

Sex	Police or Firemen	Type of Retirement	Counts	Average Years of Service	Average Age at Retirement	Average Annual Benefit	Average Current Age
M	Police	Ordinary	58	15.3	43.9	\$ 39,054	45.1
M	Police	Accidental	75	15.4	42.2	67,890	43.2
M	Firemen	Ordinary	21	16.4	44.8	42,001	45.9
M	Firemen	Accidental	18	20.1	49.1	71,220	49.9
F	Police	Ordinary	21	14.9	44.0	35,336	45.4
F	Police	Accidental	11	14.2	41.0	67,701	42.3
F	Firemen	Ordinary	2	13.7	38.5	46,701	39.5

Reconciliation of Census Data

The following chart presents a reconciliation of census data from July 1, 2016 to June 30, 2017:

	Actives		Deferred Vested	Retirees				Beneficiaries	Dependents	Domestic Relations Beneficiaries	Total
	Contrib.	Noncontrib.		Service	Special	Deferred	Disabled				
Members as of July 1, 2016	39,389	1,400	47	2,124	27,665	185	5,743	6,966	328	2,614	86,461
Status Change											
To Contributing	298	(298)									0
To Noncontributing	(492)	492									0
Terminated Vested		(1)	1								0
Terminated Non-Vested	(100)	(130)									(230)
Service Retirement	(116)	(17)		133							0
Special Retirement	(1,188)	(16)			1,204						0
Deferred Vesteds Now Payable		(4)	(7)			11					0
New Disabled	(124)	(84)					206				(2)
New Death	(26)	(13)		(58)	(604)	(5)	(110)	(333)		(7)	(1,156)
Payments Began										235	235
Payments Ceased								(1)	(42)	(166)	(209)
New Actives	2,499	50									2,549
Rehires											0
New Beneficiaries								434	22		456
Data Corrections				1	2						3
Members as of June 30, 2017	40,140	1,379	41	2,200	28,267	191	5,839	7,066	308	2,676	88,107

Active Member Fifth Age and Service Distribution

The following charts present distributions of active members by age and service.

State Locations And Municipalities And Local Groups¹

Age	Service	1	5	10	15	20	25	30	35	40 and Above	Total
20	Number	398	6								404
	Salary	17,772,878	301,753								18,074,631
25	Number	3,060	907	14							3,981
	Salary	151,015,193	57,440,712	957,511							209,413,416
30	Number	2,089	2,939	1,560	43						6,631
	Salary	107,013,113	211,251,426	138,744,951	4,114,310						461,123,800
35	Number	760	1,380	3,582	1,619	18					7,359
	Salary	39,882,181	102,973,436	341,679,178	170,360,026	1,953,840					656,848,661
40	Number	120	517	1,899	3,383	1,346	32				7,297
	Salary	6,437,049	39,478,832	180,425,702	360,707,125	155,607,208	4,020,170				746,676,086
45	Number	7	60	980	2,324	3,792	1,053	31			8,247
	Salary	364,764	5,098,527	91,459,062	241,036,028	444,371,754	132,096,527	4,127,368			918,554,030
50	Number	9	3	152	914	2,005	1,525	390	2		5,000
	Salary	290,963	117,893	13,108,287	91,872,851	227,669,643	193,957,813	55,964,609	262,992		583,245,051
55	Number	1	6	40	104	696	549	406	96		1,898
	Salary	39,310	271,204	2,352,550	9,686,053	76,705,924	66,532,998	56,638,264	14,146,870		226,373,173
60	Number	1	5	15	16	141	176	98	117	38	607
	Salary	15,489	426,184	953,125	1,167,258	14,292,694	20,924,388	12,849,930	17,971,697	6,342,349	74,943,114
63	Number	1	5	9	11	28	9	12	7	13	95
	Salary	17,735	174,252	377,730	499,525	1,969,162	889,531	1,354,908	1,050,124	2,045,722	8,378,689
Total	Number	6,446	5,828	8,251	8,414	8,026	3,344	937	222	51	41,519
	Salary	322,848,675	417,534,219	770,058,096	879,443,176	922,570,225	418,421,427	130,935,079	33,431,683	8,388,071	3,903,630,651

¹ Based on limited annual compensation.

Average Age: 40.1 Years

Average Service: 13.6 Years

Average Salary: \$94,020

Number Vested: 27,770

Number Non Vested: 13,749

Active Member Fifth Age and Service Distribution (Continued)

State Locations¹

Age	Service	1	5	10	15	20	25	30	35	40 and Above	Total
20	Number	167	3								170
	Salary	6,889,554	136,077								7,025,631
25	Number	674	167	1							842
	Salary	29,410,758	9,041,783	44,479							38,497,020
30	Number	418	484	198	7						1,107
	Salary	19,025,321	28,604,810	13,496,217	488,378						61,614,726
35	Number	145	270	570	201	3					1,189
	Salary	6,679,800	16,258,884	41,569,474	16,388,786	234,408					81,131,352
40	Number	17	112	379	597	227	1				1,333
	Salary	784,021	6,954,579	28,397,395	50,517,272	20,188,071	83,030				106,924,368
45	Number	2	14	209	511	534	88	2			1,360
	Salary	95,654	960,959	15,829,009	42,810,555	48,570,459	8,151,779	178,900			116,597,315
50	Number	2	1	34	244	324	143	10			758
	Salary	57,641	38,669	2,397,697	20,596,588	28,671,291	13,169,268	898,655			65,829,809
55	Number	1		8	18	114	55	21	2		219
	Salary	39,310		472,862	1,353,395	10,004,477	4,918,449	1,906,482	248,030		18,943,005
60	Number	1		3	6	38	19	5	2	1	75
	Salary	15,489		161,465	408,652	3,242,222	1,644,974	427,358	188,921	124,077	6,213,158
63	Number	1		5	2	9	2				19
	Salary	17,735		253,786	117,385	652,668	207,107				1,248,681
Total	Number	1,428	1,051	1,407	1,586	1,249	308	38	4	1	7,072
	Salary	63,015,283	61,995,761	102,622,384	132,681,011	111,563,596	28,174,607	3,411,395	436,951	124,077	504,025,065

¹ Based on limited annual compensation.

Average Age: 39.11 Years

Average Service: 11.8 Years

Average Salary: \$71,271

Number Vested: 4,266

Number Non Vested: 2,806

There are 52 State employer locations who have reported payroll for the July 1, 2017 valuation.

Active Member Fifth Age and Service Distribution (continued)

Municipalities And Local Groups¹

Age	Service	1	5	10	15	20	25	30	35	40 and Above	Total
20	Number	231	3								234
	Salary	10,883,324	165,676								11,049,000
25	Number	2,386	740	13							3,139
	Salary	121,604,435	48,398,929	913,032							170,916,396
30	Number	1,671	2,455	1,362	36						5,524
	Salary	87,987,792	182,646,616	125,248,734	3,625,932						399,509,074
35	Number	615	1,110	3,012	1,418	15					6,170
	Salary	33,202,381	86,714,552	300,109,704	153,971,240	1,719,432					575,717,309
40	Number	103	405	1,520	2,786	1,119	31				5,964
	Salary	5,653,028	32,524,253	152,028,307	310,189,853	135,419,137	3,937,140				639,751,718
45	Number	5	46	771	1,813	3,258	965	29			6,887
	Salary	269,110	4,137,568	75,630,053	198,225,473	395,801,295	123,944,748	3,948,468			801,956,715
50	Number	7	2	118	670	1,681	1,382	380	2		4,242
	Salary	233,322	79,224	10,710,590	71,276,263	198,998,352	180,788,545	55,065,954	262,992		517,415,242
55	Number		6	32	86	582	494	385	94		1,679
	Salary		271,204	1,879,688	8,332,658	66,701,447	61,614,549	54,731,782	13,898,840		207,430,168
60	Number		5	12	10	103	157	93	115	37	532
	Salary		426,184	791,660	758,606	11,050,472	19,279,414	12,422,572	17,782,776	6,218,272	68,729,956
63	Number		5	4	9	19	7	12	7	13	76
	Salary		174,252	123,944	382,140	1,316,494	682,424	1,354,908	1,050,124	2,045,722	7,130,008
Total	Number	5,018	4,777	6,844	6,828	6,777	3,036	899	218	50	34,447
	Salary	259,833,392	355,538,458	667,435,712	746,762,165	811,006,629	390,246,820	127,523,684	32,994,732	8,263,994	3,399,605,586

¹ Based on limited annual compensation.

Average Age: 40.3 Years

Average Service: 13.9 Years

Average Salary: \$98,691

Number Vested: 23,504

Number Non Vested: 10,943

There are 585 Local employer locations who have reported payroll for the July 1, 2017 valuation.

Average Age And Average Annual Benefit At Retirement

	Service Retirement		Special Retirement (25 Years of Service)		Ordinary Disability		Accidental Disability		Survivors	
	Average Age At Retirement	Average Annual Benefit At Retirement	Average Age At Retirement	Average Annual Benefit At Retirement	Average Age At Retirement	Average Annual Benefit At Retirement	Average Age At Retirement	Average Annual Benefit At Retirement	Average Age At Retirement *	Average Annual Benefit At Retirement
State										
All Retirees	56.1	\$ 32,131	52.0	\$ 52,709	45.6	\$ 25,701	40.5	\$ 42,545	45.9	\$ 31,161
New Retirees	53.7	\$ 43,229	51.9	\$ 61,122	43.5	\$ 32,268	40.8	\$ 53,137	46.6	\$ 30,470
Local										
All Retirees	52.6	\$ 42,855	52.7	\$ 61,908	41.3	\$ 26,707	40.4	\$ 47,619	47.5	\$ 24,445
New Retirees	51.6	\$ 57,254	52.7	\$ 87,054	44.3	\$ 42,807	43.5	\$ 73,452	47.0	\$ 32,009

	All Retirements (excluding Survivors)	
	Average Age At Retirement	Average Annual Benefit At Retirement
State		
All Retirees	50.9	\$ 46,773
Local		
All Retirees	50.8	\$ 57,042

Note: The Average Annual Benefit at Retirement does not reflect COLA's granted after retirement.

*** Calculated as of Member's Date of Retirement**

Appendix E

Tabulations Used as a Basis for the 2017 Valuation

The following tables give the distribution of the number and salaries of members by age and length of service as of July 1, 2017. Tables are also given showing the number and retirement allowances of beneficiaries classified by age as of July 1, 2017.

Table 1

The Number And Annual Compensation Of
Contributing Active Members Distributed By Age
As Of July 1, 2017

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
19	1	\$ 38,100		
21	26	1,045,242	5	\$ 204,947
22	102	4,484,828	17	729,783
23	221	10,114,985	26	1,179,355
24	339	15,840,923	34	1,565,096
25	496	24,825,377	80	3,783,947
26	702	36,627,361	89	4,409,411
27	907	49,009,914	113	5,752,453
28	943	54,185,168	111	6,159,851
29	1,048	64,106,715	121	7,063,220
30	1,149	75,188,475	131	7,866,125
31	1,148	80,225,442	138	8,558,232
32	1,259	94,859,515	130	9,467,902
33	1,199	95,343,306	135	9,395,791
34	1,277	105,666,666	143	11,280,024
35	1,316	116,614,168	165	13,379,431
36	1,329	120,273,571	191	16,339,380
37	1,185	110,809,218	174	15,355,927
38	1,190	115,232,633	185	16,707,665
39	1,317	130,756,146	188	17,092,964
40	1,291	130,008,867	178	16,459,588
41	1,206	125,715,419	150	14,645,387
42	1,161	124,684,780	151	14,293,873
43	1,304	140,808,030	165	16,291,943
44	1,297	144,138,840	165	16,625,357
45	1,441	161,223,862	143	14,621,647
46	1,513	169,539,957	189	19,113,911
47	1,524	174,495,682	157	16,404,864
48	1,437	167,181,685	138	14,169,358
49	1,201	140,689,608	95	9,593,276
50	983	115,180,458	86	8,567,388
51	837	100,845,119	81	8,233,881
52	762	92,315,810	66	6,694,425
53	662	81,571,400	33	3,741,869
54	463	55,717,427	47	5,000,484
55	387	47,569,404	26	2,695,919
56	324	41,089,681	15	1,602,716
57	279	35,203,675	21	1,991,039
58	220	26,953,762	13	1,396,641

Table 1

The Number And Annual Compensation Of
Contributing Active Members Distributed By Age
As Of July 1, 2017

State And Local
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
59	177	\$ 23,081,259	9	\$ 1,040,028
60	117	14,596,110	12	1,287,310
61	95	12,242,669	6	552,195
62	79	10,701,867	3	314,630
63	57	7,307,977	3	312,938
64	36	4,835,388	5	517,005
Total	36,007	\$ 3,452,946,489	4,133	\$ 352,459,176

The 40,140 total active contributing participants included in the July 1, 2017 valuation data consist of 33,684 policemen and 6,456 firemen.

Table 1A

The Number And Annual Compensation Of
Contributing Active Members Distributed By Age
As Of July 1, 2017

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
21	19	\$ 768,958	2	\$ 84,479
22	46	1,857,916	7	284,479
23	76	3,182,369	17	722,951
24	85	3,605,744	17	715,832
25	119	5,211,174	34	1,547,113
26	142	6,483,827	29	1,335,095
27	159	7,239,262	30	1,432,752
28	150	7,253,508	36	1,845,867
29	177	9,092,881	37	1,948,518
30	185	10,005,099	43	2,243,359
31	165	9,356,942	36	1,918,392
32	169	9,653,499	36	2,116,882
33	177	10,870,514	46	2,738,919
34	202	12,946,616	33	2,087,088
35	183	11,914,027	45	3,070,383
36	183	12,344,260	53	3,616,620
37	179	12,778,815	37	2,601,069
38	167	12,284,065	53	3,883,803
39	213	15,920,914	46	3,594,104
40	231	18,313,015	49	3,839,104
41	196	15,867,825	42	3,430,651
42	193	16,144,354	47	3,750,341
43	213	17,995,790	54	4,465,101
44	201	16,890,212	50	4,084,487
45	213	18,169,018	35	2,920,399
46	235	20,438,491	56	4,698,495
47	229	20,042,326	44	3,900,576
48	180	15,928,635	52	4,482,514
49	174	15,208,270	34	2,925,074
50	134	11,728,394	40	3,568,582
51	108	9,419,879	24	2,113,759
52	89	7,755,978	28	2,436,215
53	75	6,726,720	8	736,645
54	58	5,164,993	15	1,361,052
55	42	3,751,590	5	439,271
56	20	1,783,221	4	344,328
57	19	1,644,551	7	605,331
58	24	2,126,522	3	291,813
59	13	1,215,791		

Table 1A

The Number And Annual Compensation Of
Contributing Active Members Distributed By Age
As Of July 1, 2017

State Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
60	13	\$ 1,052,654	3	\$ 261,298
61	7	616,805	3	255,799
62	10	871,347	1	83,030
63	10	910,093	1	83,030
64	4	332,120	1	124,077
Total	5,487	\$ 392,868,984	1,243	\$ 88,988,677

The 6,730 total State active contributing participants included in the July 1, 2017 valuation data consist of 6,689 policemen and 41 firemen.

Table 1B

The Number And Annual Compensation Of
Contributing Active Members Distributed By Age
As Of July 1, 2017

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
19	1	\$ 38,100		
21	7	276,284	3	\$ 120,468
22	56	2,626,912	10	445,304
23	145	6,932,616	9	456,404
24	254	12,235,179	17	849,264
25	377	19,614,203	46	2,236,834
26	560	30,143,534	60	3,074,316
27	748	41,770,652	83	4,319,701
28	793	46,931,660	75	4,313,984
29	871	55,013,834	84	5,114,702
30	964	65,183,376	88	5,622,766
31	983	70,868,500	102	6,639,840
32	1,090	85,206,016	94	7,351,020
33	1,022	84,472,792	89	6,656,872
34	1,075	92,720,050	110	9,192,936
35	1,133	104,700,141	120	10,309,048
36	1,146	107,929,311	138	12,722,760
37	1,006	98,030,403	137	12,754,858
38	1,023	102,948,568	132	12,823,862
39	1,104	114,835,232	142	13,498,860
40	1,060	111,695,852	129	12,620,484
41	1,010	109,847,594	108	11,214,736
42	968	108,540,426	104	10,543,532
43	1,091	122,812,240	111	11,826,842
44	1,096	127,248,628	115	12,540,870
45	1,228	143,054,844	108	11,701,248
46	1,278	149,101,466	133	14,415,416
47	1,295	154,453,356	113	12,504,288
48	1,257	151,253,050	86	9,686,844
49	1,027	125,481,338	61	6,668,202
50	849	103,452,064	46	4,998,806
51	729	91,425,240	57	6,120,122
52	673	84,559,832	38	4,258,210
53	587	74,844,680	25	3,005,224
54	405	50,552,434	32	3,639,432
55	345	43,817,814	21	2,256,648
56	304	39,306,460	11	1,258,388
57	260	33,559,124	14	1,385,708
58	196	24,827,240	10	1,104,828

Table 1B

The Number And Annual Compensation Of
Contributing Active Members Distributed By Age
As Of July 1, 2017

Local Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
59	164	\$ 21,865,468	9	\$ 1,040,028
60	104	13,543,456	9	1,026,012
61	88	11,625,864	3	296,396
62	69	9,830,520	2	231,600
63	47	6,397,884	2	229,908
64	32	4,503,268	4	392,928
Total	30,520	\$ 3,060,077,505	2,890	\$ 263,470,499

The 33,410 total Local active contributing participants included in the July 1, 2017 valuation data consist of 26,995 policemen and 6,415 firemen.

Table 2

The Number And Annual Compensation Of
Contributing Active Members Distributed By Service
As Of July 1, 2017

State And Local

Years of Service	Men		Women	
	Number	Amount	Number	Amount
0	346	\$ 14,309,474	62	\$ 2,488,810
1	1,791	81,635,754	262	11,931,381
2	1,694	87,875,670	198	10,190,309
3	1,563	89,132,694	204	11,082,322
4	1,483	94,363,484	181	10,905,824
5	1,197	83,200,932	119	7,475,572
6	904	66,990,372	83	5,885,695
7	598	46,777,524	67	4,986,039
8	898	76,169,525	120	9,629,628
9	1,305	113,189,308	149	11,904,462
10	1,355	124,770,262	178	14,701,450
11	1,429	136,588,701	201	18,214,156
12	1,602	159,222,645	227	20,950,420
13	1,233	124,485,900	163	14,600,064
14	1,278	131,545,128	240	22,976,208
15	1,343	139,397,397	243	23,456,712
16	1,428	149,950,302	180	17,684,569
17	1,593	171,388,422	188	18,968,456
18	1,478	163,437,263	149	15,540,853
19	1,453	163,371,443	167	17,443,504
20	1,580	174,416,278	134	13,795,764
21	1,169	134,245,892	130	13,977,108
22	1,408	170,214,633	140	15,311,364
23	1,599	195,215,639	108	11,843,717
24	1,089	132,676,540	88	9,369,585
25	839	105,277,412	59	6,275,099
26	459	60,326,453	22	2,433,526
27	415	53,808,668	23	2,609,615
28	314	41,862,370	16	1,792,627
29	313	42,597,920	14	1,807,065
30	224	30,934,303	7	882,508
31	143	20,649,705	4	504,852
32	130	18,867,420	3	356,052
33	87	13,050,228	2	203,640
34	42	6,289,378		
35	46	6,770,468	1	165,944
36	49	7,215,049		
37	39	5,979,024		
38	44	6,921,384		
39	21	3,428,016	1	114,276

Table 2

The Number And Annual Compensation Of
Contributing Active Members Distributed By Service
As Of July 1, 2017

State And Local
(Continued)

Years of Service	Men		Women	
	Number	Amount	Number	Amount
40	10	\$ 1,691,400		
41	6	1,110,012		
42	2	285,517		
43	6	895,664		
44	2	414,916		
Total	36,007	\$ 3,452,946,489	4,133	\$ 352,459,176

The 40,140 total active contributing participants included in the July 1, 2017 valuation data consist of 33,684 policemen and 6,456 firemen.

Table 2A

The Number And Annual Compensation Of
Contributing Active Members Distributed By Service
As Of July 1, 2017

State Only

Years of Service	Men		Women	
	Number	Amount	Number	Amount
0	142	\$ 5,680,000	33	\$ 1,320,000
1	424	17,879,596	104	4,532,271
2	284	13,044,929	52	2,520,530
3	238	11,165,523	69	3,386,726
4	200	10,032,297	47	2,354,996
5	232	13,427,504	51	2,961,724
6	224	14,103,748	37	2,354,147
7	71	4,536,649	15	900,451
8	105	6,982,716	24	1,637,928
9	272	18,815,818	45	3,133,726
10	171	12,123,366	50	3,525,358
11	225	16,720,000	50	3,741,220
12	179	13,296,307	64	4,826,422
13	190	14,807,837	51	3,978,662
14	179	14,301,476	64	5,083,000
15	253	21,076,935	86	7,122,834
16	285	23,884,092	53	4,355,145
17	278	23,827,504	52	4,429,130
18	222	19,109,555	43	3,872,081
19	219	19,256,615	53	4,767,392
20	397	35,727,826	52	4,589,716
21	178	15,712,392	32	2,929,480
22	115	10,305,945	29	2,615,086
23	117	10,727,641	25	2,404,849
24	107	9,755,806	26	2,414,067
25	73	6,597,024	22	2,000,475
26	19	1,808,263	7	623,090
27	26	2,475,676	3	256,515
28	22	1,999,186	2	161,475
29	13	1,205,654	2	190,181
30	12	1,110,095		
31	4	293,553		
32	4	346,024		
33	2	170,404		
34	1	83,030		
36	2	188,921		
37	1	165,000		
42	1	124,077		
Total	5,487	\$ 392,868,984	1,243	\$ 88,988,677

The 6,730 total State active contributing participants included in the July 1, 2017 valuation data consist of 6,689 policemen and 41 firemen.

Table 2B

The Number And Annual Compensation Of
Contributing Active Members Distributed By Service
As Of July 1, 2017

Local Only

Years of Service	Men		Women	
	Number	Amount	Number	Amount
0	204	\$ 8,629,474	29	\$ 1,168,810
1	1,367	63,756,158	158	7,399,110
2	1,410	74,830,741	146	7,669,779
3	1,325	77,967,171	135	7,695,596
4	1,283	84,331,187	134	8,550,828
5	965	69,773,428	68	4,513,848
6	680	52,886,624	46	3,531,548
7	527	42,240,875	52	4,085,588
8	793	69,186,809	96	7,991,700
9	1,033	94,373,490	104	8,770,736
10	1,184	112,646,896	128	11,176,092
11	1,204	119,868,701	151	14,472,936
12	1,423	145,926,338	163	16,123,998
13	1,043	109,678,063	112	10,621,402
14	1,099	117,243,652	176	17,893,208
15	1,090	118,320,462	157	16,333,878
16	1,143	126,066,210	127	13,329,424
17	1,315	147,560,918	136	14,539,326
18	1,256	144,327,708	106	11,668,772
19	1,234	144,114,828	114	12,676,112
20	1,183	138,688,452	82	9,206,048
21	991	118,533,500	98	11,047,628
22	1,293	159,908,688	111	12,696,278
23	1,482	184,487,998	83	9,438,868
24	982	122,920,734	62	6,955,518
25	766	98,680,388	37	4,274,624
26	440	58,518,190	15	1,810,436
27	389	51,332,992	20	2,353,100
28	292	39,863,184	14	1,631,152
29	300	41,392,266	12	1,616,884
30	212	29,824,208	7	882,508
31	139	20,356,152	4	504,852
32	126	18,521,396	3	356,052
33	85	12,879,824	2	203,640
34	41	6,206,348		
35	46	6,770,468	1	165,944
36	47	7,026,128		
37	38	5,814,024		
38	44	6,921,384		
39	21	3,428,016	1	114,276

Table 2B

The Number And Annual Compensation Of
Contributing Active Members Distributed By Service
As Of July 1, 2017

Local Only
(Continued)

Years of Service	Men		Women	
	Number	Amount	Number	Amount
40	10	\$ 1,691,400		
41	6	1,110,012		
42	1	161,440		
43	6	895,664		
44	2	414,916		
Total	30,520	\$ 3,060,077,505	2,890	\$ 263,470,499

The 33,410 total Local active contributing participants included in the July 1, 2017 valuation data consist of 26,995 policemen and 6,415 firemen.

Table 3

The Number And Annual Compensation Of
 Non-Contributing Active Members Distributed By Age
 As Of July 1, 2017

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
22	3	\$ 158,472		
23	1	44,479	2	\$ 74,440
24	15	605,462	5	196,897
25	24	1,061,787	4	187,471
26	28	1,228,339	5	225,628
27	32	1,349,329	10	430,379
28	41	1,850,542	3	118,082
29	32	1,542,188	6	279,767
30	36	1,846,571	6	301,050
31	30	1,501,136	5	262,325
32	25	1,200,143	3	149,144
33	22	1,372,136	8	594,619
34	24	1,680,392	6	375,152
35	37	2,747,312	6	395,088
36	25	1,725,670	6	477,644
37	40	2,991,392	15	1,080,248
38	39	3,141,203	6	575,873
39	28	2,312,210	11	795,229
40	24	2,333,748	8	626,898
41	29	2,602,138	7	711,911
42	30	2,545,009	9	724,628
43	31	2,567,315	9	700,004
44	35	2,941,070	9	719,923
45	43	3,696,074	5	453,380
46	40	3,544,962	11	1,009,921
47	50	4,566,606	9	878,059
48	36	2,850,693	5	378,167
49	31	2,790,087	10	789,762
50	37	3,233,469	7	623,006
51	33	2,473,955	5	418,304
52	21	1,580,849	11	890,879
53	34	2,643,640	5	367,876
54	24	1,563,413	3	165,378
55	18	1,226,064	3	227,354
56	20	1,589,710	4	242,157
57	12	723,743	2	129,656
58	15	1,129,892	2	155,060
59	11	802,367	1	53,332
60	9	618,751	2	106,576
61	9	764,848	2	125,935
62	4	210,264	2	196,294

Table 3

The Number And Annual Compensation Of
Non-Contributing Active Members Distributed By Age
As Of July 1, 2017

State And Local
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
63	8	\$ 537,328	1	\$ 90,436
64	51	2,889,977	3	136,319
Total	1,137	\$ 80,784,735	242	\$ 17,440,251

The 1,379 total active non-contributing participants included in the July 1, 2017 valuation data consist of 1,273 policemen and 106 firemen.

Table 3A

The Number And Annual Compensation Of
Non-Contributing Active Members Distributed By Age
As Of July 1, 2017

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
22	1	\$ 40,000		
23	1	44,479	1	\$ 40,000
24	1	40,000	2	84,479
25	6	276,383	2	93,039
26	7	307,184	3	137,518
27	10	446,034	1	40,000
28	7	313,251	2	88,958
29	8	321,838	3	149,195
30	6	305,707	3	150,870
31	5	204,479		
32	6	244,489		
33	3	160,462	2	132,681
34	5	291,226	3	179,324
35	10	662,686	1	75,689
36	8	467,646	3	214,020
37	8	543,012	3	205,024
38	12	899,195	1	66,785
39	5	350,060	5	361,985
40	5	392,348	2	116,165
41	6	409,784	1	78,445
42	5	400,251	6	474,378
43	10	718,099	4	301,652
44	8	590,930	3	227,067
45	11	873,694		
46	8	653,510	6	474,685
47	12	900,858	3	225,469
48	11	836,603	3	259,347
49	4	321,639	2	195,572
50	4	239,275	1	80,396
51	7	528,531		
52	8	542,147	6	491,739
53	9	616,194	3	194,800
54	4	276,581	3	165,378
55	3	166,886	2	127,328
56	1	58,192	2	147,611
57	2	109,967	1	80,396
58	3	221,054	1	76,940
59	1	52,127		
60	4	244,825	1	57,508
61	3	214,512	2	125,935
63	3	168,404		
63	13	733,645	1	58,839
Total	254	\$ 16,188,187	88	\$ 5,979,217

The 342 total State active non-contributing participants included in the July 1, 2017 valuation data consist of 340 policemen and 2 firemen.

Table 3B

The Number And Annual Compensation Of
 Non-Contributing Active Members Distributed By Age
 As Of July 1, 2017

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
22	2	\$ 118,472		
23			1	\$ 34,440
24	14	565,462	3	112,418
25	18	785,404	2	94,432
26	21	921,155	2	88,110
27	22	903,295	9	390,379
28	34	1,537,291	1	29,124
29	24	1,220,350	3	130,572
30	30	1,540,864	3	150,180
31	25	1,296,657	5	262,325
32	19	955,654	3	149,144
33	19	1,211,674	6	461,938
34	19	1,389,166	3	195,828
35	27	2,084,626	5	319,399
36	17	1,258,024	3	263,624
37	32	2,448,380	12	875,224
38	27	2,242,008	5	509,088
39	23	1,962,150	6	433,244
40	19	1,941,400	6	510,733
41	23	2,192,354	6	633,466
42	25	2,144,758	3	250,250
43	21	1,849,216	5	398,352
44	27	2,350,140	6	492,856
45	32	2,822,380	5	453,380
46	32	2,891,452	5	535,236
47	38	3,665,748	6	652,590
48	25	2,014,090	2	118,820
49	27	2,468,448	8	594,190
50	33	2,994,194	6	542,610
51	26	1,945,424	5	418,304
52	13	1,038,702	5	399,140
53	25	2,027,446	2	173,076
54	20	1,286,832		
55	15	1,059,178	1	100,026
56	19	1,531,518	2	94,546
57	10	613,776	1	49,260
58	12	908,838	1	78,120
59	10	750,240	1	53,332
60	5	373,926	1	49,068
61	6	550,336		

Table 3B

**The Number And Annual Compensation Of
Non-Contributing Active Members Distributed By Age
As Of July 1, 2017**

**Local Only
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
62	4	\$ 210,264	2	\$ 196,294
63	5	368,924	1	90,436
64	38	2,156,332	2	77,480
Total	883	\$ 64,596,548	154	\$ 11,461,034

The 1,037 total Local active non-contributing participants included in the July 1, 2017 valuation data consist of 933 policemen and 104 firemen.

Table 4A

The Number And Annual Compensation Of
 Non-Contributing Active Members Distributed By Service
 As Of July 1, 2017

State Only

Years of Service	Men		Women	
	Number	Amount	Number	Amount
0	9	\$ 327,063	1	\$ 40,000
1	35	1,461,816	2	80,000
2	13	555,826	8	354,744
3	8	363,011	6	303,248
4	11	547,007	3	169,628
5	3	157,247		
6	6	393,514	2	111,902
7	8	507,233	2	109,589
8	6	431,140	4	276,341
9	6	415,557	6	428,980
10	13	905,410	6	377,125
11	19	1,295,357	9	630,936
12	16	1,029,246	7	500,491
13	21	1,559,463	7	511,102
14	14	1,063,614	7	537,271
15	10	694,260	1	83,030
16	8	652,778	5	405,995
17	11	881,866	4	402,517
18	10	820,838	1	77,092
19	6	434,203		
20	9	712,719	3	261,544
21	4	352,350	1	80,396
22	1	77,668	3	237,286
23	5	370,487		
25	1	83,030		
30	1	95,484		
Total	254	\$ 16,188,187	88	\$ 5,979,217

The 342 total State active non-contributing participants included in the July 1, 2017 valuation data consist of 340 policemen and 2 firemen.

Table 5

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Service Retirements

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
41	1	\$ 53,696	1	\$ 51,638
42	5	230,718	1	53,305
43	13	684,636	3	154,083
44	15	789,794	5	222,074
45	23	1,277,651	4	215,675
46	38	2,010,454	5	261,049
47	47	2,431,614	17	852,740
48	68	3,382,684	8	369,246
49	56	2,740,352	4	251,904
50	72	3,399,962	7	333,379
51	62	3,119,139	18	828,321
52	61	2,976,480	13	573,882
53	73	3,469,632	14	669,215
54	42	1,888,477	12	576,384
55	62	2,674,774	13	521,755
56	52	2,071,281	14	601,284
57	65	2,613,691	6	246,302
58	55	2,210,019	5	147,263
59	52	1,840,555	16	605,960
60	43	1,680,171	14	478,871
61	64	2,198,024	6	195,123
62	54	2,154,066	9	246,005
63	45	1,742,348	11	406,982
64	45	2,029,944	9	249,651
65	33	1,736,404	7	252,552
66	47	2,631,053	9	440,817
67	50	2,560,423	2	91,678
68	59	3,079,307	5	170,158
69	65	2,926,036	7	273,243
70	60	3,239,945	13	542,116
71	71	3,499,096	3	98,081
72	33	1,570,140	8	280,192
73	49	2,094,419	7	199,350
74	53	2,421,844	6	208,463
75	45	2,006,744	5	149,486
76	34	1,178,067	1	13,375
77	40	1,698,672	2	43,823
78	41	1,337,882	7	158,595
79	38	949,069	8	136,346
80	34	1,466,244	3	73,219

Table 5

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Service Retirements

**State And Local
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
81	22	\$ 636,501	1	\$ 25,136
82	13	483,332	1	20,576
83	12	287,279	6	109,089
84	15	287,877	2	41,055
85	13	193,944	2	37,695
86	8	104,925	2	41,093
87	9	174,705	1	14,557
88	14	362,813	2	33,967
89	10	215,329		
90	12	272,652		
91	12	267,071		
92	14	318,973		
93	15	398,969	1	11,482
94	7	167,107		
95	8	201,135		
96	7	175,103		
97	3	72,144	1	19,031
98	2	45,835		
99	2	48,092		
101	1	29,099		
Total	2,064	\$ 88,808,392	327	\$ 12,597,266

The 2,391 total service retirements consist of 2,096 policemen, 206 firemen and 89 retirees for whom the information was not reported.

Table 5A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Service Retirements

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
42	2	\$ 89,146		
43	1	41,090		
44	1	40,204		
45	3	136,140	1	\$ 55,023
46	6	281,636		
47	3	119,074	4	180,729
48	12	551,336		
49	13	573,106		
50	10	434,973	1	41,503
51	5	246,528	4	169,458
52	7	292,976	2	92,979
53	10	421,205	3	124,743
54	6	234,107	4	164,321
55	10	377,035	8	311,670
56	9	357,936	3	120,628
57	11	375,306	2	65,044
58	10	303,398	4	92,128
59	6	148,518	8	281,195
60	8	310,266	6	231,553
61	14	473,795	2	64,913
62	10	341,561	5	110,378
63	5	152,903	2	59,571
64	11	415,844	4	103,881
65	7	277,613	2	82,042
66	11	433,317	2	62,357
67	16	633,664		
68	11	432,855	3	97,430
69	20	656,969	3	117,950
70	9	324,490	5	225,433
71	13	431,318	2	60,357
72	10	318,463	2	57,350
73	17	466,212	4	104,407
74	18	470,839	4	158,948
75	11	333,391	3	98,476
76	11	326,040		
77	9	244,983	2	43,823
78	13	261,109	3	39,866
79	15	277,093	2	40,703
80	14	361,383	1	25,243

Table 5A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Service Retirements

**State Only
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
81	6	\$ 182,187		
82	3	83,079	1	\$ 20,576
83	1	16,729	1	18,636
84	4	63,779		
85	5	68,683		
86			1	23,515
88	1	21,416	1	15,817
89	1	22,686		
90	2	32,385		
91	2	44,186		
92	1	6,350		
93	3	37,057		
94	1	21,457		
Total	408	\$ 13,567,816	105	\$ 3,562,646

The 513 total service retirements consist of 505 policemen, 2 firemen and 6 retirees for whom the information was not reported.

Table 5B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Service Retirements

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
41	1	\$ 53,696	1	\$ 51,638
42	3	141,572	1	53,305
43	12	643,546	3	154,083
44	14	749,590	5	222,074
45	20	1,141,512	3	160,652
46	32	1,728,818	5	261,049
47	44	2,312,540	13	672,011
48	56	2,831,349	8	369,246
49	43	2,167,246	4	251,904
50	62	2,964,990	6	291,876
51	57	2,872,610	14	658,863
52	54	2,683,504	11	480,903
53	63	3,048,427	11	544,471
54	36	1,654,371	8	412,063
55	52	2,297,739	5	210,085
56	43	1,713,345	11	480,656
57	54	2,238,385	4	181,259
58	45	1,906,621	1	55,135
59	46	1,692,036	8	324,766
60	35	1,369,905	8	247,317
61	50	1,724,230	4	130,210
62	44	1,812,506	4	135,626
63	40	1,589,445	9	347,410
64	34	1,614,100	5	145,769
65	26	1,458,791	5	170,509
66	36	2,197,737	7	378,461
67	34	1,926,759	2	91,678
68	48	2,646,453	2	72,728
69	45	2,269,068	4	155,293
70	51	2,915,455	8	316,683
71	58	3,067,779	1	37,724
72	23	1,251,677	6	222,842
73	32	1,628,207	3	94,943
74	35	1,951,004	2	49,515
75	34	1,673,352	2	51,011
76	23	852,026	1	13,375
77	31	1,453,688		
78	28	1,076,771	4	118,729
79	23	671,975	6	95,643
80	20	1,104,861	2	47,976

Table 5B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Service Retirements

**Local Only
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
81	16	\$ 454,315	1	\$ 25,136
82	10	400,252		
83	11	270,548	5	90,453
84	11	224,097	2	41,054
85	8	125,261	2	37,696
86	8	104,925	1	17,580
87	9	174,705	1	14,557
88	13	341,397	1	18,150
89	9	192,644		
90	10	240,267		
91	10	222,886		
92	13	312,623		
93	12	361,912	1	11,482
94	6	145,650		
95	8	201,135		
96	7	175,103		
97	3	72,144	1	19,031
98	2	45,835		
99	2	48,092		
101	1	29,099		
Total	1,656	\$ 75,240,576	222	\$ 9,034,620

The 1,878 total service retirements consist of 1,591 policemen, 204 firemen and 83 retirees for whom the information was not reported.

Table 6

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Special Retirements

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
43	1	\$ 85,041		
44	10	684,569		
45	26	1,899,457	3	\$ 198,342
46	79	5,675,786	6	434,331
47	151	11,116,114	13	839,446
48	262	19,318,797	15	1,029,874
49	373	27,548,268	33	2,271,055
50	505	38,018,893	45	3,046,679
51	658	49,567,230	55	3,763,024
52	738	54,639,352	54	4,004,367
53	841	63,221,131	66	4,344,253
54	873	65,100,583	62	4,323,697
55	807	58,526,208	72	4,391,710
56	936	68,348,337	69	4,439,572
57	903	65,300,222	57	3,827,948
58	906	66,044,933	67	4,410,524
59	882	64,566,773	58	3,672,563
60	991	71,679,391	57	3,834,224
61	958	68,689,629	42	2,730,008
62	1049	73,297,083	61	3,487,553
63	966	67,182,569	48	2,857,019
64	912	62,459,713	45	2,662,720
65	863	58,428,398	25	1,451,272
66	886	58,740,887	41	2,402,900
67	855	56,407,968	37	2,186,219
68	918	58,654,926	25	1,362,369
69	882	56,764,167	17	943,380
70	970	58,330,682	19	1,081,015
71	910	54,160,536	17	889,412
72	656	38,084,190	11	615,618
73	626	34,896,720	9	502,990
74	714	40,046,102	11	529,297
75	731	39,261,499	7	354,737
76	522	28,904,003	10	433,384
77	471	24,385,557	4	174,477
78	432	23,022,348	4	167,516
79	411	20,883,208	3	143,087
80	343	17,171,400	8	399,918
81	324	15,982,289	4	166,112
82	267	12,552,325	4	207,143
83	216	9,666,913	4	167,496
84	210	9,438,132		

Table 6

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Special Retirements

State And Local
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
85	179	\$ 7,810,641		
86	186	7,781,550	2	\$ 100,808
87	153	6,165,847		
88	106	4,201,064	1	49,379
89	89	3,529,670		
90	88	3,347,866		
91	85	3,161,481		
92	47	1,852,993		
93	37	1,206,980	1	29,176
94	26	973,028	1	34,598
95	14	508,571		
96	16	558,205		
97	4	144,145	1	27,057
98	4	129,554		
99	2	88,792		
100	2	47,655		
101	1	22,603		
Total	27,073	\$ 1,760,282,974	1,194	\$ 74,988,269

The 28,267 total special retirements consist of 22,597 policemen, 5,215 firemen and 455 retirees for whom the information was not reported.

Table 6A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Special Retirements

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
44	6	\$ 368,563		
45	8	438,938		
46	21	1,214,348	2	\$ 120,852
47	29	1,710,052	3	161,595
48	46	2,742,729	3	184,832
49	73	4,310,944	9	531,204
50	91	5,388,600	14	802,944
51	134	8,007,101	26	1,550,953
52	153	8,873,515	14	926,488
53	160	9,523,062	28	1,601,349
54	152	8,761,127	20	1,113,891
55	168	9,511,475	29	1,582,800
56	177	10,062,865	35	1,990,708
57	188	10,526,582	21	1,158,253
58	154	8,709,105	23	1,353,941
59	137	7,714,316	26	1,495,624
60	174	9,732,223	16	913,820
61	153	8,506,638	15	835,570
62	169	9,369,623	31	1,632,575
63	141	7,752,287	16	848,422
64	130	7,182,305	17	992,909
65	123	6,569,262	8	453,119
66	125	6,691,077	19	1,034,810
67	101	5,366,761	13	721,253
68	120	6,361,881	10	507,996
69	100	5,433,388	8	422,120
70	101	5,224,122	5	269,357
71	88	4,324,970	5	255,412
72	57	2,898,918	4	215,374
73	59	2,859,463	7	358,208
74	36	1,801,039	5	215,935
75	54	2,668,213	2	82,777
76	38	1,755,172	6	244,811
77	42	1,951,974	2	85,768
78	23	1,069,336	1	36,178
79	29	1,320,866		
80	21	895,295	4	197,685
81	19	914,752		
82	16	708,133	3	154,593
83	6	291,634	1	39,285
84	7	318,798		

Table 6A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Special Retirements

State Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
85	12	\$ 416,340		
86	11	375,814		
87	13	549,661		
88	6	201,648		
89	4	156,697		
90	1	23,532		
Total	3,676	\$ 201,555,144	451	\$ 25,093,411

The 4,127 total special retirements consist of 4,034 policemen, 52 firemen and 41 retirees for whom the information was not reported.

Table 6B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Special Retirements

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
43	1	\$ 85,041		
44	4	316,007		
45	18	1,460,519	3	\$ 198,342
46	58	4,461,438	4	313,479
47	122	9,406,062	10	677,851
48	216	16,576,068	12	845,041
49	300	23,237,323	24	1,739,850
50	414	32,630,292	31	2,243,734
51	524	41,560,130	29	2,212,070
52	585	45,765,838	40	3,077,879
53	681	53,698,069	38	2,742,904
54	721	56,339,456	42	3,209,806
55	639	49,014,733	43	2,808,910
56	759	58,285,473	34	2,448,864
57	715	54,773,640	36	2,669,696
58	752	57,335,828	44	3,056,583
59	745	56,852,457	32	2,176,939
60	817	61,947,169	41	2,920,404
61	805	60,182,991	27	1,894,438
62	880	63,927,459	30	1,854,978
63	825	59,430,282	32	2,008,597
64	782	55,277,408	28	1,669,811
65	740	51,859,136	17	998,154
66	761	52,049,809	22	1,368,090
67	754	51,041,207	24	1,464,967
68	798	52,293,044	15	854,374
69	782	51,330,779	9	521,260
70	869	53,106,560	14	811,658
71	822	49,835,566	12	634,000
72	599	35,185,272	7	400,244
73	567	32,037,257	2	144,782
74	678	38,245,063	6	313,362
75	677	36,593,286	5	271,960
76	484	27,148,831	4	188,573
77	429	22,433,584	2	88,708
78	409	21,953,013	3	131,338
79	382	19,562,343	3	143,087
80	322	16,276,105	4	202,233
81	305	15,067,537	4	166,113
82	251	11,844,192	1	52,550
83	210	9,375,279	3	128,211

Table 6B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Special Retirements

**Local Only
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
84	203	\$ 9,119,334		
85	167	7,394,302		
86	175	7,405,735	2	\$ 100,808
87	140	5,616,185		
88	100	3,999,415	1	49,379
89	85	3,372,972		
90	87	3,324,334		
91	85	3,161,481		
92	47	1,852,993		
93	37	1,206,980	1	29,176
94	26	973,028	1	34,598
95	14	508,571		
96	16	558,205		
97	4	144,145	1	27,057
98	4	129,554		
99	2	88,792		
100	2	47,655		
101	1	22,603		
Total	23,397	\$ 1,558,727,830	743	\$ 49,894,858

The 24,140 total special retirements consist of 18,563 policemen, 5,163 firemen and 414 retirees for whom the information was not reported.

Table 7

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Ordinary Disability Retirements

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
30	1	\$ 24,609		
31	2	65,473		
32	2	49,320		
33	5	151,253	1	\$ 28,256
34	6	198,354		
35	7	238,313	2	51,515
36	11	327,564	6	159,074
37	12	418,704	3	99,532
38	17	528,846	4	121,101
39	19	662,243	7	203,404
40	21	679,757	10	278,401
41	22	765,605	7	208,631
42	34	1,093,970	11	330,621
43	29	1,002,892	12	365,379
44	36	1,188,575	11	355,185
45	50	1,518,807	31	991,755
46	67	2,120,269	26	820,093
47	77	2,511,340	19	521,175
48	69	2,286,914	14	454,107
49	82	2,615,171	20	597,889
50	78	2,631,753	30	992,014
51	76	2,454,337	22	664,797
52	92	3,095,460	26	777,200
53	78	2,558,149	29	843,537
54	67	2,195,394	16	451,675
55	90	2,834,868	18	487,075
56	76	2,311,205	12	337,752
57	70	2,423,770	18	492,825
58	67	2,147,744	23	773,593
59	54	1,900,520	21	576,813
60	70	2,269,656	19	594,145
61	67	2,096,328	11	289,116
62	70	2,219,600	11	348,009
63	69	1,860,734	11	289,744
64	63	1,792,700	9	245,069
65	51	1,418,324	7	212,291
66	66	1,688,183	9	246,940
67	56	1,525,129	10	305,297
68	66	1,613,151	9	267,227
69	67	1,615,831	7	193,461
70	70	1,561,018	3	79,831

Table 7

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Ordinary Disability Retirements

**State And Local
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
71	55	\$ 1,275,105	4	\$ 104,500
72	34	689,039	5	99,902
73	29	615,432	3	81,702
74	48	969,967	2	47,946
75	27	485,484	8	221,962
76	37	672,537	3	79,773
77	28	537,198	2	47,743
78	26	466,359		
79	16	320,912	2	58,786
80	12	219,193	1	21,547
81	10	167,098		
82	8	161,829	1	22,856
83	9	138,245	1	19,151
84	8	100,007	1	22,912
85	6	77,477	1	18,838
86	1	12,901	1	14,424
87	5	73,673		
89	1	15,405		
90	1	17,419		
91	3	39,207		
92	2	22,488		
Total	2,398	\$ 69,738,808	540	\$ 15,916,571

The 2,938 ordinary disability retirees consist of 2,602 policemen, 292 firemen and 44 retirees for whom the information was not reported.

Table 7A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Ordinary Disability Retirements

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
32	1	\$ 29,852		
34	3	83,870		
35	2	47,530	2	\$ 51,515
36	1	24,309	4	101,327
37	1	26,548	1	26,797
38	3	77,362	3	87,386
39	1	27,587	3	80,487
40	4	111,245	3	80,016
41	5	144,031	1	21,188
42	5	117,702	4	115,034
43	4	118,921	4	119,014
44	8	214,581	5	151,051
45	11	316,611	10	308,156
46	15	448,426	6	169,277
47	14	403,542	6	160,941
48	13	324,290	5	150,084
49	14	418,958	6	167,868
50	16	472,319	11	324,964
51	11	292,875	7	192,649
52	22	624,889	12	351,769
53	15	420,765	8	227,327
54	12	313,038	3	72,174
55	20	518,705	7	185,140
56	13	332,144	5	141,216
57	14	433,075	7	180,474
58	18	523,943	11	307,869
59	13	395,259	7	195,298
60	18	584,261	10	301,332
61	17	501,563	7	174,614
62	21	631,973	5	149,250
63	12	308,525	8	214,357
64	14	406,018	3	79,804
65	18	452,180	4	113,083
66	15	378,718	7	204,423
67	14	386,986	7	199,210
68	17	420,219	6	165,557
69	15	414,228	3	73,628
70	17	486,442	2	57,775
71	14	386,844	3	84,437
72	9	205,374	2	51,520

Table 7A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Ordinary Disability Retirements

State Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
73	7	\$ 161,464	3	\$ 81,702
74	11	273,384	1	25,455
75	4	111,009	4	106,049
76	6	144,917	3	79,774
77	8	207,698	1	23,651
78	7	170,438		
79	4	99,842		
80	1	23,730	1	21,547
81	1	22,645		
82	1	33,538	1	22,856
83	1	27,403		
85	1	15,680		
92	1	11,783		
Total	513	\$ 14,129,239	222	\$ 6,199,045

The 735 ordinary disability retirees consist of 724 policemen, 4 firemen and 7 retirees for whom the information was not reported.

Table 7B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Ordinary Disability Retirements

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
30	1	\$ 24,609		
31	2	65,473		
32	1	19,468		
33	5	151,253	1	\$ 28,256
34	3	114,483		
35	5	190,781		
36	10	303,254	2	57,746
37	11	392,155	2	72,735
38	14	451,483	1	33,716
39	18	634,655	4	122,917
40	17	568,512	7	198,383
41	17	621,574	6	187,443
42	29	976,268	7	215,587
43	25	883,971	8	246,365
44	28	973,994	6	204,134
45	39	1,202,196	21	683,599
46	52	1,671,843	20	650,816
47	63	2,107,798	13	360,234
48	56	1,962,624	9	304,023
49	68	2,196,213	14	430,021
50	62	2,159,434	19	667,050
51	65	2,161,462	15	472,149
52	70	2,470,571	14	425,431
53	63	2,137,384	21	616,210
54	55	1,882,356	13	379,501
55	70	2,316,164	11	301,935
56	63	1,979,061	7	196,535
57	56	1,990,696	11	312,351
58	49	1,623,801	12	465,724
59	41	1,505,260	14	381,516
60	52	1,685,395	9	292,813
61	50	1,594,765	4	114,501
62	49	1,587,627	6	198,759
63	57	1,552,209	3	75,387
64	49	1,386,682	6	165,265
65	33	966,144	3	99,208
66	51	1,309,466	2	42,517
67	42	1,138,143	3	106,087
68	49	1,192,932	3	101,670
69	52	1,201,604	4	119,833

Table 7B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Ordinary Disability Retirements

Local Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
70	53	\$ 1,074,576	1	\$ 22,056
71	41	888,261	1	20,063
72	25	483,666	3	48,382
73	22	453,969		
74	37	696,583	1	22,492
75	23	374,476	4	115,913
76	31	527,620		
77	20	329,500	1	24,092
78	19	295,922		
79	12	221,070	2	58,786
80	11	195,463		
81	9	144,454		
82	7	128,290		
83	8	110,841	1	19,151
84	8	100,007	1	22,912
85	5	61,797	1	18,838
86	1	12,901	1	14,424
87	5	73,673		
89	1	15,405		
90	1	17,419		
91	3	39,207		
92	1	10,706		
Total	1,885	\$ 55,609,569	318	\$ 9,717,526

The 2,203 ordinary disability retirees consist of 1,878 policemen, 288 firemen and 37 retirees for whom the information was not reported.

Table 8

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Accidental Disability Retirements

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
30			1	\$ 31,216
31	3	\$ 192,185		
32	5	236,808	1	50,632
33	9	527,915		
34	13	756,565	1	41,587
35	14	680,059	5	224,731
36	23	1,293,418	2	112,313
37	21	1,216,901	6	274,488
38	28	1,581,396	11	613,178
39	29	1,728,866	6	319,334
40	38	2,302,231	8	423,987
41	44	2,693,556	18	1,004,312
42	58	3,442,686	5	285,369
43	67	4,011,439	9	524,740
44	81	4,619,785	12	747,855
45	86	5,013,154	13	700,428
46	92	5,496,001	14	780,700
47	107	6,333,657	9	514,272
48	114	6,561,093	12	610,728
49	126	7,430,316	15	782,773
50	96	5,553,891	11	623,481
51	104	5,996,243	19	981,018
52	106	6,428,522	7	336,278
53	111	6,197,617	8	412,984
54	85	4,813,141	9	501,967
55	82	4,523,169	7	378,534
56	62	3,417,420	6	270,589
57	75	3,912,488	10	472,426
58	59	3,313,196	6	310,199
59	55	3,029,505	6	337,081
60	60	3,011,909	4	212,709
61	40	1,966,482	10	435,019
62	54	2,311,031	3	117,043
63	52	2,115,666	8	365,772
64	45	1,997,325	4	139,183
65	26	1,139,110		
66	48	2,115,622	2	94,870
67	38	1,550,868	2	62,698

Table 8

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Accidental Disability Retirements

State And Local
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
68	42	\$ 1,739,538	1	\$ 12,914
69	55	2,007,769		
70	43	1,337,281	1	39,353
71	44	1,371,185	1	55,043
72	35	1,103,612	1	46,430
73	31	816,149		
74	25	774,121	2	93,253
75	33	943,898		
76	20	509,723		
77	16	458,330		
78	8	201,528	1	15,584
79	14	383,411		
80	11	273,708		
81	9	198,201		
82	13	308,388		
83	15	366,639		
84	14	319,458		
85	5	114,444		
86	10	231,362		
87	3	56,658		
88	4	83,745		
89	2	41,041		
90	3	64,690		
91	3	70,564		
92	5	125,048		
93	2	43,262		
94	1	10,028		
96	2	43,186		
Total	2,624	\$ 133,508,203	277	\$ 14,357,071

The 2,901 accidental disability retirees consist of 2,608 policemen, 214 firemen and 79 retirees for whom the information was not reported.

Table 8A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Accidental Disability Retirements

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
33	2	\$ 75,770		
34	1	39,047		
35	5	190,689	2	\$ 75,364
36	3	126,385	1	42,775
37	4	177,658	1	48,708
38	4	173,112	2	84,203
39	4	181,202	3	147,585
40	5	223,813	3	132,032
41	6	313,233	5	230,651
42	9	422,582	2	117,427
43	8	370,762		
44	12	550,952	3	174,139
45	9	437,726	3	146,904
46	10	478,793	3	139,935
47	12	560,447	2	103,081
48	15	696,673	3	119,321
49	11	526,986	4	161,375
50	14	642,656	2	133,212
51	10	512,918	6	297,841
52	15	711,758	1	44,244
53	11	474,433		
54	9	393,363	2	92,599
55	8	339,876	3	139,850
56	4	195,326	2	98,735
57	7	331,376	5	217,223
58	11	514,495		
59	8	384,354	1	59,661
60	8	310,158		
61	7	320,165	3	134,283
62	5	171,004	1	42,053
63	4	181,757	4	175,341
64	8	341,315	1	41,064
66	3	151,796	2	94,870
67	3	128,636		
68	2	83,111	1	12,914
69	8	344,580		
70	2	68,221	1	39,353
71	4	149,448		
73	1	39,582		
74	1	19,641		

Table 8A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Accidental Disability Retirements

State Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
75	2	\$ 87,416		
77	1	23,846		
78	1	31,804		
81	1	40,026		
82	1	31,926		
83	2	51,192		
84	1	23,537		
85	1	18,804		
Total	283	\$ 12,664,350	72	\$ 3,346,743

The 355 accidental disability retirees consist of 349 policemen and 6 retirees for whom the information was not reported.

Table 8B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Accidental Disability Retirements

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
30			1	\$ 31,216
31	3	\$ 192,185		
32	5	236,808	1	50,632
33	7	452,145		
34	12	717,518	1	41,588
35	9	489,370	3	149,368
36	20	1,167,033	1	69,538
37	17	1,039,243	5	225,780
38	24	1,408,284	9	528,975
39	25	1,547,665	3	171,749
40	33	2,078,420	5	291,955
41	38	2,380,323	13	773,661
42	49	3,020,104	3	167,942
43	59	3,640,678	9	524,740
44	69	4,068,833	9	573,716
45	77	4,575,428	10	553,524
46	82	5,017,208	11	640,765
47	95	5,773,210	7	411,190
48	99	5,864,420	9	491,406
49	115	6,903,330	11	621,398
50	82	4,911,235	9	490,269
51	94	5,483,325	13	683,177
52	91	5,716,764	6	292,034
53	100	5,723,184	8	412,984
54	76	4,419,779	7	409,368
55	74	4,183,294	4	238,684
56	58	3,222,094	4	171,854
57	68	3,581,112	5	255,203
58	48	2,798,701	6	310,199
59	47	2,645,150	5	277,421
60	52	2,701,750	4	212,709
61	33	1,646,317	7	300,736
62	49	2,140,026	2	74,990
63	48	1,933,910	4	190,432
64	37	1,656,010	3	98,118
65	26	1,139,110		
66	45	1,963,826		
67	35	1,422,232	2	62,698
68	40	1,656,426		

Table 8B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Accidental Disability Retirements

Local Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
69	47	\$ 1,663,189		
70	41	1,269,060		
71	40	1,221,735	1	\$ 55,043
72	35	1,103,612	1	46,429
73	30	776,567		
74	24	754,480	2	93,253
75	31	856,481		
76	20	509,723		
77	15	434,484		
78	7	169,724	1	15,584
79	14	383,411		
80	11	273,708		
81	8	158,176		
82	12	276,462		
83	13	315,447		
84	13	295,921		
85	4	95,639		
86	10	231,362		
87	3	56,658		
88	4	83,745		
89	2	41,041		
90	3	64,690		
91	3	70,564		
92	5	125,048		
93	2	43,262		
94	1	10,028		
96	2	43,186		
Total	2,341	\$ 120,843,853	205	\$ 11,010,328

The 2,546 accidental disability retirees consist of 2,259 policemen, 214 firemen and 73 retirees for whom the information was not reported.

Table 9

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
4			1	\$ 14,404
5	1	\$ 13,013	1	10,041
6	1	24,102		
7			1	13,521
8	1	10,560	2	36,904
9	1	8,811	1	50,200
10			4	42,801
11	1	12,923	2	26,768
12	3	42,940	4	82,405
13	1	19,959	1	12,712
14	1	11,533		
15	1	13,552	7	86,878
16	4	51,042	7	110,602
17	1	20,569	5	88,194
18	3	38,120	5	55,656
19	1	11,707	3	38,619
21			1	9,038
24			1	89,465
26			1	13,036
27			2	94,410
29			1	11,194
31	1	11,705	1	44,280
33			3	133,305
34			4	173,677
35	1	11,973	6	261,449
36			5	213,092
37			7	272,279
38	1	43,716	3	134,411
39			4	143,427
40			7	274,846
41			6	256,203
42	1	38,840	8	349,036
43	2	75,810	9	355,277
44			14	545,416
45	1	31,518	20	948,880
46			16	736,878
47	1	33,669	10	417,487
48			19	815,528

Table 9

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

State And Local
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
49	1	\$ 36,262	14	\$ 611,320
50	1	45,006	20	840,755
51			12	507,315
52			18	821,876
53	1	23,344	17	823,263
54	1	65,421	18	794,572
55			29	1,267,789
56	1	33,367	17	754,075
57			19	886,272
58			22	900,843
59			17	744,727
60			13	600,926
61			23	1,000,334
62			15	606,174
63			14	657,135
64			13	557,145
65			16	639,466
66	1	39,264	22	945,192
67			13	582,194
68			9	376,535
69			12	486,343
70			10	396,042
71	1	36,607	9	339,394
72			8	250,691
73			5	157,961
74			6	209,653
75			6	226,470
76			6	190,764
77			5	152,876
79			2	64,505
80			3	81,188
82			1	56,798
83			2	72,976
84			1	23,882
86			1	27,708
87			3	66,761
88			3	59,041
89			2	44,494

Table 9

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

**State And Local
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
90			1	\$ 29,682
91			1	43,548
92			2	41,941
94			3	57,951
95			3	60,010
97			1	15,158
99			1	613
102			1	14,247
Total	35	\$ 805,333	631	\$ 25,050,924

The 666 beneficiaries are receiving active members' death benefits on behalf of 195 deceased policemen and 39 deceased firemen. Information was not reported for the other 432 beneficiaries.

Table 9A

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
5	1	\$ 13,013	1	\$ 10,041
7			1	13,521
8	1	10,560		
10			2	23,273
12	1	18,993	1	12,605
13			1	12,712
15	1	13,552	2	22,673
16	1	15,007	3	34,387
17	1	20,569	2	31,081
18			3	27,818
26			1	13,036
29			1	11,194
33			1	40,597
34			1	30,830
35	1	11,973	4	166,818
36			1	29,811
37			1	41,286
39			1	31,225
40			1	33,377
42	1	38,841	2	90,740
43	1	28,422	1	24,880
44			6	198,734
45	1	31,518	3	138,370
46			2	75,364
47			2	70,116
48			4	143,289
49	1	36,262	2	60,052
50			4	136,141
51			1	30,193
52			2	89,155
53	1	23,344		
54			4	149,497
55			7	220,538
56	1	33,367	3	106,853
57			2	72,424
58			5	165,414
59			3	115,512
60			4	143,458
61			5	181,490
62			2	54,689

Table 9A

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

State Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
63			5	\$ 214,457
64			4	139,618
65			4	147,057
66	1	\$ 39,264	4	153,303
67			3	107,687
68			1	33,481
69			1	29,156
70			3	101,548
71			1	33,853
72			1	39,054
74			2	81,111
75			1	29,348
76			1	30,137
77			1	32,025
83			1	28,579
88			1	32,069
Total	14	\$ 334,685	126	\$ 4,085,677

The 140 beneficiaries are receiving active members' death benefits on behalf of 49 deceased policemen and 1 deceased fireman. Information was not reported for the other 90 beneficiaries.

Table 9B

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
4			1	\$ 14,404
5				
6	1	\$ 24,102		
8			2	36,904
9	1	8,811	1	50,200
10			2	19,528
11	1	12,923	2	26,768
12	2	23,947	3	69,800
13	1	19,959		
14	1	11,533		
15			5	64,206
16	3	36,035	4	76,215
17			3	57,113
18	3	38,120	2	27,838
19	1	11,706	3	38,619
21			1	9,038
24			1	89,465
27			2	94,410
31	1	11,705	1	44,280
33			2	92,708
34			3	142,847
35			2	94,631
36			4	183,281
37			6	230,993
38	1	43,716	3	134,411
39			3	112,202
40			6	241,469
41			6	256,203
42			6	258,296
43	1	47,388	8	330,397
44			8	346,682
45			17	810,509
46			14	661,513
47	1	33,669	8	347,372
48			15	672,240
49			12	551,267
50	1	45,006	16	704,613
51			11	477,122

Table 9B

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

Local Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
52			16	\$ 732,720
53			17	823,263
54	1	\$ 65,421	14	645,075
55			22	1,047,251
56			14	647,223
57			17	813,848
58			17	735,428
59			14	629,215
60			9	457,468
61			18	818,844
62			13	551,485
63			9	442,678
64			9	417,527
65			12	492,409
66			18	791,889
67			10	474,507
68			8	343,054
69			11	457,187
70			7	294,494
71	1	36,607	8	305,542
72			7	211,637
73			5	157,961
74			4	128,542
75			5	197,122
76			5	160,628
77			4	120,851
79			2	64,505
80			3	81,188
82			1	56,798
83			1	44,397
84			1	23,882
86			1	27,708
87			3	66,761
88			2	26,972
89			2	44,494
90			1	29,682
91			1	43,548
92			2	41,941
94			3	57,951

Table 9B

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Active Members' Death Benefits

**Local Only
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
95			3	\$ 60,010
97			1	15,158
99			1	613
102			1	14,247
Total	21	\$ 470,648	505	\$ 20,965,247

The 526 beneficiaries are receiving active members' death benefits on behalf of 146 deceased policemen and 38 deceased firemen. Information was not reported for the other 342 beneficiaries.

Table 10

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
5			2	\$ 11,186
6			5	56,311
7	1	\$ 17,163	2	18,159
8			3	31,127
9			3	34,255
10			5	51,691
11			7	85,079
12	1	18,375	16	172,646
13	3	29,906	11	119,083
14	1	6,048	11	115,437
15			21	227,982
16	2	16,037	19	233,594
17	2	19,730	20	262,181
18	3	33,506	23	299,053
19	2	25,065	16	198,465
20	2	13,255	9	116,772
21			1	15,259
22			2	19,892
23			1	17,225
24			1	11,032
25			1	11,375
28			1	41,249
32			2	40,762
33	1	52,346	1	24,814
34			1	10,738
35			1	56,788
36			1	8,618
38	1	33,558	3	108,528
39	1	47,833	7	192,074
40	1	7,878	4	102,832
41			4	140,033
42			5	169,871
43			6	193,678
44			8	362,819
45			7	278,301
46	2	88,151	17	729,876
47	2	49,781	16	580,913
48			11	518,304
49			18	714,691
50	1	31,334	20	880,893
51	2	75,170	32	1,344,258

Table 10

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

State And Local
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
52			40	\$ 1,570,275
53			34	1,463,422
54	1	\$ 2,592	42	1,627,400
55	2	22,425	40	1,662,831
56	3	96,891	55	2,312,884
57	3	74,379	51	1,978,944
58	1	5,550	55	2,164,487
59	3	79,842	69	2,827,920
60			95	4,027,207
61	2	94,479	122	4,796,090
62	1	38,637	120	4,573,742
63			100	4,066,098
64	1	7,765	100	3,951,067
65	2	37,008	121	4,376,222
66	1	29,618	137	5,032,609
67	2	75,745	132	4,911,514
68	2	94,075	161	6,198,606
69	1	15,849	168	6,101,776
70	4	141,903	208	7,374,054
71	1	38,727	189	6,812,852
72	1	15,793	155	5,157,381
73	1	30,613	191	6,305,914
74	3	128,635	210	7,252,635
75	1	45,281	220	7,313,771
76			235	7,797,165
77			196	6,433,398
78	2	44,859	199	6,557,394
79			203	5,986,802
80	2	69,760	208	6,113,162
81			219	6,192,872
82	1	59,225	205	5,716,690
83			188	5,502,157
84	2	57,824	180	4,783,988
85			187	5,044,140
86	2	47,882	157	4,117,590
87			206	5,275,307
88			176	4,509,494
89	1	17,456	184	4,553,556
90	1	28,961	179	4,337,557
91			122	2,842,763

Table 10

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

**State And Local
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
92	1	\$ 35,296.00	126	\$ 3,021,668.00
93			88	2,039,998
94			78	1,706,140
95			40	829,088
96			37	789,523
97			30	675,395
98			23	478,511
99			2	36,219
100			2	59,739
101			1	24,162
103			2	45,528
Total	76	\$ 2,002,206	6,632	\$ 207,937,551

The 6,708 beneficiaries are receiving retired members' death benefits on behalf of 3,998 deceased policemen, 1,165 deceased firemen and 1,545 deceased retirees for whom the information was not reported.

Table 10A

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
5			2	\$ 11,186
6			2	13,906
7			1	9,477
8			2	15,530
10			1	3,880
11			2	15,010
12			2	14,196
13	1	\$ 11,130	4	40,046
14			5	44,004
15			4	28,045
16			6	62,560
17			6	56,029
18			4	55,902
19			3	34,867
20	1	5,253	2	17,267
25			1	11,375
32			2	40,762
33	1	52,346		
34			1	10,738
38	1	33,558		
39	1	47,833	2	46,058
40			2	38,156
41			4	140,033
42			1	31,035
44			2	98,997
45			3	128,848
46			6	202,349
47			3	108,995
48			3	105,999
49			2	93,869
50			3	102,891
51	2	75,170	6	233,623
52			8	246,432
53			6	216,638
54			5	192,111
55			8	293,289
56			9	385,339
57			7	237,797
58			12	423,371
59	1	21,603	11	415,432
60			11	415,172

Table 10A

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

State Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
61	2	\$ 94,478	19	\$ 749,496
62	1	38,637	24	818,958
63			11	488,082
64			11	384,866
65			15	525,832
66	1	29,618	23	822,150
67	1	35,304	17	613,499
68	1	49,553	21	729,227
69			21	738,677
70	3	109,776	26	916,627
71			19	676,186
72	1	15,793	16	509,510
73			15	453,107
74	1	45,912	20	638,644
75			23	736,284
76			14	434,011
77			20	563,542
78			17	499,425
79			22	633,634
80	2	69,760	11	315,003
81			12	324,984
82			16	527,344
83			15	437,716
84	1	27,472	11	253,724
85			9	253,739
86	1	28,086	8	199,736
87			11	280,551
88			11	322,364
89			8	185,065
90			11	297,304
91			3	72,840
92			3	69,403
93			3	74,142
95			4	72,764
97			1	18,424
Total	23	\$ 791,282	655	\$ 20,278,074

The 678 beneficiaries are receiving retired members' death benefits on behalf of 594 deceased policemen, 17 deceased firemen and 67 deceased retirees for whom the information was not reported.

Table 10B

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
6			3	\$ 42,405
7	1	\$ 17,163	1	8,682
8			1	15,597
9			3	34,255
10			4	47,812
11			5	70,069
12	1	18,375	14	158,450
13	2	18,775	7	79,037
14	1	6,048	6	71,434
15			17	199,936
16	2	16,037	13	171,035
17	2	19,730	14	206,152
18	3	33,506	19	243,151
19	2	25,066	13	163,596
20	1	8,002	7	99,505
21			1	15,259
22			2	19,892
23			1	17,225
24			1	11,032
28			1	41,249
33			1	24,814
35			1	56,788
36			1	8,618
38			3	108,528
39			5	146,016
40	1	7,878	2	64,677
42			4	138,836
43			6	193,678
44			6	263,822
45			4	149,454
46	2	88,151	11	527,527
47	2	49,781	13	471,918
48			8	412,305
49			16	620,822
50	1	31,334	17	778,002
51			26	1,110,635
52			32	1,323,842
53			28	1,246,784
54	1	2,592	37	1,435,289
55	2	22,425	32	1,369,543
56	3	96,891	46	1,927,546

Table 10B

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

Local Only
(Continued)

Age	Men		Women	
	Number	Amount	Number	Amount
57	3	\$ 74,378	44	\$ 1,741,147
58	1	5,550	43	1,741,116
59	2	58,240	58	2,412,488
60			84	3,612,035
61			103	4,046,594
62			96	3,754,784
63			89	3,578,018
64	1	7,765	89	3,566,201
65	2	37,008	106	3,850,391
66			114	4,210,459
67	1	40,441	115	4,298,015
68	1	44,522	140	5,469,379
69	1	15,849	147	5,363,099
70	1	32,127	182	6,457,427
71	1	38,727	170	6,136,666
72			139	4,647,871
73	1	30,613	176	5,852,807
74	2	82,724	190	6,613,991
75	1	45,282	197	6,577,487
76			221	7,363,153
77			176	5,869,856
78	2	44,859	182	6,057,968
79			181	5,353,167
80			197	5,798,158
81			207	5,867,889
82	1	59,225	189	5,189,345
83			173	5,064,441
84	1	30,351	169	4,530,264
85			178	4,790,401
86	1	19,796	149	3,917,852
87			195	4,994,756
88			165	4,187,130
89	1	17,456	176	4,368,490
90	1	28,961	168	4,040,253
91			119	2,769,923
92	1	35,296	123	2,952,265
93			85	1,965,856
94			78	1,706,140
95			36	756,325
96			37	789,523

Table 10B

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2017

Retired Members' Death Benefits

**Local Only
(Continued)**

Age	Men		Women	
	Number	Amount	Number	Amount
97			29	\$ 656,971
98			23	478,511
99			2	36,219
100			2	59,739
101			1	24,162
103			2	45,528
Total	53	\$ 1,210,924	5,977	\$ 187,659,477

The 6,030 beneficiaries are receiving retired members' death benefits on behalf of 3,404 deceased policemen, 1,148 deceased firemen and 1,478 deceased retirees for whom the information was not reported.

Table 11

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Deferred Terminated Vesteds

State And Local

Age	Men		Women	
	Number	Amount	Number	Amount
40	4	\$ 69,816		
41	1	26,364		
43	1	32,940		
44	1	20,856		
46	4	62,340	1	\$ 14,424
47	3	64,980		
48	7	148,032		
49	1	9,804		
50	4	76,404		
51	6	128,748		
52	2	35,412		
53			2	33,312
54	2	50,340		
55	1	31,812		
70	1	8,868		
Total	38	\$ 766,716	3	\$ 47,736

The 41 deferred terminated vested members consist of 39 policemen and 2 firemen.

Table 11A

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Deferred Terminated Vesteds

State Only

Age	Men		Women	
	Number	Amount	Number	Amount
41	1	\$ 26,364		
46	1	18,840		
47	2	39,840		
48	1	15,792		
51	1	10,260		
52	1	18,996		
Total	7	\$ 130,092		

The 7 deferred terminated vested members consist of 7 policemen.

Table 11B

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2017

Deferred Terminated Vesteds

Local Only

Age	Men		Women	
	Number	Amount	Number	Amount
40	4	\$ 69,816		
43	1	32,940		
44	1	20,856		
46	3	43,500	1	\$ 14,424
47	1	25,140		
48	6	132,240		
49	1	9,804		
50	4	76,404		
51	5	118,488		
52	1	16,416		
53			2	33,312
54	2	50,340		
55	1	31,812		
70	1	8,868		
Total	31	\$ 636,624	3	\$ 47,736

The 34 deferred terminated vested members consist of 31 policemen and 3 firemen.

Appendix F - Early Retirement Incentive (ERI) Contribution Schedule

Location Number	Location Name	ERI 1 Information	
		Current Payment	Present Value as of 7/1/2017
22100	East Rutherford Borough	\$ 77,785	\$ 804,651
25500	Glen Ridge Borough	55,931	578,586
34600	Wallington Borough	36,568	378,282
38800	Phillipsburg Town	10,947	113,237
43400	Bound Brook Borough	32,503	336,227
54400	Linwood City	50,965	527,207
57100	Mine Hill Township	17,768	183,800
61200	Raritan Township	<u>53,562</u>	<u>554,072</u>
	Total	\$ 336,029	\$ 3,476,062

Appendix G - Early Retirement Incentive (ERI) Contribution Schedule
Additional Contribution Schedules Due to Recent
Early Retirement Incentive (ERI) Legislation

Location Number	Location Name	Years and Form of Payment	ERI Information	
			Current Payment	Present Value as of 7/1/17
Chapter 126, P.L. 2000				
71600	Passaic County	15 Year - Level	\$ 173,463	\$ 298,106
71603	Passaic County	15 Year - Level	27,498	47,256
72000	Union County	15 Year - Level	48,620	220,282
72001	Union County	15 Year - Level	17,384	78,763
72003	Union County	15 Year - Level	53,986	134,667
72003	Union County (Effective 2006)	15 Year - Level	195,405	885,323
	Sub-Total		\$ 516,356	\$ 1,664,397
Chapter 130, P.L. 2003				
20300	Bayonne City	15 Year - Increasing	\$ 311,601	\$ 799,765
22100	East Rutherford Borough	15 Year - Increasing	51,251	172,153
22400	Union City	15 Year - Increasing	36,442	93,533
28300	Montclair Township	15 Year - Increasing	288,597	740,721
31800	Harrison Town	15 Year - Increasing	209,213	536,973
32500	Nutley Township	15 Year - Increasing	114,136	292,944
33300	Wood-Ridge Borough	15 Year - Increasing	35,300	118,573
35400	Belleville Township	15 Year - Increasing	49,080	164,860
36000	Livingston Township	15 Year - Increasing	77,433	260,099
43100	Ewing Township	15 Year - Increasing	167,168	429,058
43600	Roseland Borough	15 Year - Increasing	41,204	138,406
49300	Berkeley Heights Township	15 Year - Increasing	40,373	135,614
56500	Franklin Township	15 Year - Increasing	36,798	123,607
61200	Raritan Township	15 Year - Increasing	25,512	85,696
62600	Monroe Township	15 Year - Increasing	20,676	69,451
71100	Mercer County	15 Year - Increasing	161,163	413,645
72000	Union County	15 Year - Increasing	1,191	4,002
72003	Union County	15 Year - Increasing	54,215	182,108
	Sub-Total		\$ 1,721,353	\$ 4,761,208
	Total		\$ 2,237,709	\$ 6,425,605

**Appendix H - Local Employer Chapter 19, P,L. 2009
Deferral And Payment Schedule**

Location Number	Location Name	Fiscal Year 2019 Payment	Present Value as of July 1, 2017
20300	Bayonne City	\$ 602,403	\$ 3,419,152
20400	Salem City	23,776	134,949
20600	Plainfield City	344,536	1,955,533
21001	Elizabeth City	481,287	2,731,714
21002	Elizabeth City	344,526	1,955,477
21101	Newark City	1,797,952	10,204,908
21102	Newark City	877,892	4,982,786
21202	Camden City	298,954	1,696,818
21300	North Plainfield Borough	107,373	609,431
21600	Somerville Borough	42,492	241,179
21800	Roselle Borough	138,275	784,826
22000	Freehold Borough	51,284	291,080
22400	Union City	292,473	1,660,031
22501	Passaic City	260,931	1,481,004
22502	Passaic City	173,126	982,639
22800	Metuchen Borough	37,601	213,419
23000	West New York Town	169,777	963,629
23200	Oradell Borough	33,699	191,271
23301	Hoboken City	212,366	1,205,355
23302	Hoboken City	204,259	1,159,344
23400	Audubon Borough	24,573	139,475
23800	East Orange City	529,492	3,005,317
23900	Maplewood Township	152,920	867,950
24100	Hightstown Borough	19,324	109,679
24200	West Milford Township	77,402	439,322
24400	Saddle Brook Township	65,142	369,738
24500	Perth Amboy City	263,724	1,496,860
24600	Secaucus Town	100,541	570,656
24800	Lyndhurst Township	86,898	493,222
24900	Orange City	243,377	1,381,374
25500	Glen Ridge Borough	35,889	203,701
25600	Guttenberg Town	29,631	168,183
25801	Collingswood Borough	42,323	240,219
25802	Collingswood Borough	18,139	102,955
26100	Dunellen Borough	18,130	102,903
26600	Fairview Borough	51,642	293,110
26700	Keansburg Borough	43,158	244,958
27300	New Milford Borough	55,796	316,687
27400	Paramus Borough	180,502	1,024,500

**Appendix H - Local Employer Chapter 19, P.L. 2009
Deferral And Payment Schedule**

Location Number	Location Name	Fiscal Year 2019 Payment	Present Value as of July 1, 2017
27600	South Amboy City	\$ 36,523	\$ 207,297
27700	Weehawken Township	88,712	503,518
28000	Hackensack City	374,771	2,127,144
28500	Penns Grove Borough	18,113	102,809
28600	Matawan Borough	32,485	184,382
28700	Cedar Grove Township	49,286	279,738
28900	Bogota Borough	20,950	118,908
29100	Irvington Township	435,712	2,473,037
29200	Cinnaminson Township	62,291	353,557
29500	Little Ferry Borough	27,932	158,537
29700	Garwood Borough	22,500	127,705
30701	Paterson City	471,694	2,677,262
30702	Paterson City	373,269	2,118,620
30801	Atlantic City	462,509	2,625,130
30802	Atlantic City	342,835	1,945,882
31100	Fanwood Borough	27,388	155,450
31300	East Hanover Township	60,032	340,731
31600	Rutherford Borough	68,721	390,051
31800	Harrison Township	157,303	892,830
32200	Gloucester City	70,984	402,896
32600	Union Township	345,204	1,959,325
32700	Bloomfield Township	325,058	1,844,983
32900	Morristown Town	120,910	686,265
33200	Asbury Park City	181,005	1,027,359
33401	Trenton City	459,011	2,605,277
33402	Trenton City	342,752	1,945,410
33800	Lakewood Township	186,444	1,058,228
34000	North Arlington Borough	57,103	324,108
34100	Rahway City	200,368	1,137,256
34200	Verona Township	47,484	269,512
34301	Hillside Township	106,561	604,824
34302	Hillside Township	73,719	418,417
34600	Wallington Borough	38,580	218,976
34700	East Newark Borough	6,773	38,441
34800	Clifton City	457,698	2,597,828
34900	Wildwood City	77,251	438,464
35000	Palisades Park Borough	52,447	297,679
35100	Pleasantville City	155,861	884,642
35400	Belleville Township	278,312	1,579,660
35500	Dover Town	60,902	345,668
35600	South Orange Village	144,377	819,465
35800	Garfield City	104,829	594,992
35900	Linden City	380,434	2,159,284

**Appendix H - Local Employer Chapter 19, P.L. 2009
Deferral And Payment Schedule**

Location Number	Location Name	Fiscal Year 2019 Payment	Present Value as of July 1, 2017
36200	Bridgeton City	\$ 84,609	\$ 480,230
36400	Washington Borough	17,001	96,496
36700	Fairfield Township	56,749	322,097
36900	Middlesex Borough	45,413	257,759
37000	Middletown Township	162,927	924,747
37400	Maywood Borough	43,856	248,920
37700	Piscataway Township	131,553	746,673
38101	Jersey City	1,211,721	6,877,550
38102	Jersey City Fire Dept.	918,665	5,214,203
38500	Runnemede Borough	27,408	155,564
39500	Mountainside Borough	35,065	199,023
39900	Long Branch City	163,419	927,539
40400	Wanaque Borough	35,423	201,053
41000	Manville Borough	35,392	200,879
41400	Oceanport Borough	23,335	132,445
41500	Haworth Borough	18,831	106,880
41600	Little Falls Twp	31,700	179,927
41900	North Haledon Borough	25,246	143,290
42000	Haledon Borough	26,032	147,754
42500	Wharton Borough	29,757	168,897
43000	West Paterson Borough	37,977	215,554
43100	Ewing Township	137,344	779,545
43400	Bound Brook Borough	33,542	190,379
43500	Emerson Borough	33,143	188,117
43600	Roseland Borough	40,069	227,424
43700	Norwood Borough	22,862	129,762
43800	Prospect Park Borough	22,165	125,808
44100	Englewood Cliffs Borough	57,937	328,842
44800	Englishtown Borough	5,332	30,264
44900	Ringwood Borough	32,957	187,057
46300	Borough_Of Lake Como	13,489	76,560
46400	Aberdeen Township	45,553	258,550
46600	West Long Branch Borough	26,064	147,938
46700	Pt Pleasant Beach Borough	38,040	215,909
47300	Brooklawn Borough	5,919	33,595
47800	Hopatcong Borough	39,289	222,996
47900	West Deptford Township	52,884	300,162
48200	South Bound Brook Borough	19,104	108,431
48600	Gloucester Township	147,441	836,852
48800	Upper Saddle River Boro	32,140	182,421
49100	Willingboro Township	111,141	630,819
50000	Brielle Borough	24,557	139,383
50700	South Brunswick Township	122,745	696,682

**Appendix H - Local Employer Chapter 19, P.L. 2009
Deferral And Payment Schedule**

Location Number	Location Name	Fiscal Year 2019 Payment	Present Value as of July 1, 2017
51100	Jefferson Township	\$ 57,156	\$ 324,411
51600	Wall Township	124,437	706,288
52800	Berlin Borough	22,947	130,246
53500	Winslow Township	106,794	606,144
53900	Berkeley Township Municipal Bld	119,416	677,788
54100	Mansfield Township	16,695	94,759
54300	Lebanon Township	11,279	64,020
54700	Seaside Heights Borough	31,224	177,224
54800	Manchester Township	86,914	493,309
55100	Pine Hill Borough	25,869	146,826
55300	Lindenwold Borough	54,844	311,288
55700	Bloomington Borough	24,292	137,879
56000	Howell Township	152,051	863,020
56200	Plainsboro Township	56,566	321,061
56300	Marlboro Township	127,628	724,400
56500	Franklin Township	33,679	191,158
58200	Egg Harbor Township	118,328	671,611
58400	Holmdel Township	69,236	392,975
58500	Milltown Borough	21,994	124,833
58900	Buena Borough	6,840	38,821
59000	Eastampton Township	21,796	123,710
59800	Chesilhurst Borough	8,125	46,119
59900	Egg Harbor City	14,360	81,507
60000	Harrison Township	16,511	93,712
60100	Woodbury Heights Borough	7,538	42,787
60600	Waterfront Comm Of Ny Harbor	1,861	10,560
61000	Somerdale Borough	14,331	81,338
61200	Raritan Township	53,520	303,773
62300	Nj Transit Corporation	258,368	1,466,459
63100	Allentown Borough	6,878	39,036
63300	Barnegat Township	38,006	215,717
67700	Lambertville City	9,646	54,750
68000	Lawnside Borough	7,586	43,055

**Appendix H - Local Employer Chapter 19, P,L. 2009
 Deferral And Payment Schedule**

Location Number	Location Name	Fiscal Year 2019 Payment	Present Value as of July 1, 2017
68800	Mount Arlington Borough	\$ 13,374	\$ 75,907
69000	National Park Borough	4,325	24,547
70404	Camden County Regional	525,464	2,982,456
71600	Passaic County	870,786	4,942,452
71603	Passaic County	124,519	706,753
72000	Union County	406,474	2,307,087
72001	Union County	66,887	379,638
72003	Union County	313,112	1,777,175
72700	South Toms River Borough	7,194	40,833
73500	Union Beach Borough	12,217	69,340
74000	West Amwell Township	3,278	18,605
74100	Winfield Township	5,809	32,972
74400	Hamilton Twp Fire Comm Dist 2	10,011	56,820
75000	Lakewood Twp Fire District #1	4,893	27,773
75900	Gloucester Twp Fire District #2	3,325	18,874
79000	North Hudson Reg Fire & Rescue	504,501	2,863,474
	Total	\$ 24,769,358	\$ 140,587,167