THE PRISON OFFICERS' PENSION FUND
OF NEW JERSEY
ANNUAL REPORT
OF THE ACTUARY
PREPARED AS OF JULY 1, 2012

buckconsultants

A Xerox Company

December 14, 2012

Board of Trustees Prison Officers' Pension Fund of New Jersey Trenton, New Jersey

Members of the Board:

The law governing the operation of the Prison Officers' Pension Fund of New Jersey provides for annual actuarial valuations of the Fund. The results of the July 1, 2012 valuation are submitted in this report, which also includes a comparison with the preceding year's valuation.

The valuation shows the financial condition of the Fund as of July 1, 2012 and gives the basis for determining the required annual contribution for the plan year beginning July 1, 2012.

The valuation was prepared on the basis of the same assumptions as were employed for the previous valuation, which include an interest rate of 5% per year, with the exception of the mortality assumption. In accordance with actuarial standards of practice, the mortality assumption for service retirements and beneficiaries was updated to the RP-2000 Combined Healthy Mortality Tables projected on a generational basis using Projection Scale AA.

The report does not take into account any changes in U.S. equity prices and bond yields that have occurred after the valuation date. Taking these into account may significantly change the market and actuarial value of assets shown. The effect of these events on any funded ratios shown, and on the Fund's calculations, is not known. The Fund's funding and financial accounting rules generally prohibit reflection of changes in assets and underlying economic conditions that occur after the valuation date.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent qualified actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board and generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the Fund, and on actuarial assumptions that are individually and in the aggregate internally consistent and reasonable based on the actual experience of the Fund.

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

Respectfully submitted,

Janet H. Cranna, F.S.A., E.A., M.A.A.A., F.C.A.

Principal, Consulting Actuary

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REPORT ON THE ANNUAL VALUATION OF THE PRISON OFFICERS' PENSION FUND OF NEW JERSEY PREPARED AS OF JULY 1, 2012

SECTION I - SUMMARY OF KEY RESULTS

The Prison Officer's Pension Fund of New Jersey was established under Chapter 220 of the Laws of 1941 and permitted prison officer members of the then State Employees' Retirement System to transfer to the new Fund. Effective January 1, 1960, the Fund was closed to new employees. This report, prepared as of July 1, 2012, 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 on the following pages.

Valuation Date	July 1, 2012	July 1, 2011	
Participant Data			
Active Members Retired Members and Beneficiaries Total Participants	0 <u>135</u> 135	0 <u>142</u> 142	
Annual Compensation Annual Retirement Allowances	\$ 0 \$ 937,046	\$ 0 \$ 993,290	
Assets Market Value of Assets Actuarial Value of Assets	\$ 9,044,236 \$ 9,044,236	\$ 9,997,650 \$ 9,997,650	
Contribution Amounts Normal Contribution Accrued Liability Contribution	\$ 0 0	\$ 0 0	
Total Contribution	\$ 0	\$ 0	

The major benefit and contribution provisions of the statute as reflected in the valuation are summarized in Appendix A. There were no changes from the provisions used in the previous valuation.

The actuarial assumptions and methods used for valuing the Fund are summarized in Appendix B. There were no changes in actuarial assumptions and methods since the previous valuation with the exception of the mortality assumption. In accordance with actuarial standards of practice, the mortality assumption for service retirements and beneficiaries was updated to the RP-2000 Combined Healthy Mortality Tables projected on a generational basis using Projection Scale AA.

The combination of the plan provisions, actuarial assumptions and member and beneficiary data is used to generate the overall required level of employer contributions. The required contribution is developed in Section III F.

The valuation also 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, 2011 and July 1, 2012 is set forth in the following table.

TABLE I COMPARATIVE BALANCE SHEET

	2012	2011
<u>ASSETS</u>		
Market value of assets of Fund	\$ 9,044,236	\$ 9,997,650
Unfunded accrued liability/(surplus)	(3,648,731)	(4,900,858)
Total Assets	\$ 5,395,505	\$ 5,096,792
<u>LIABILITIES</u>		
Present value of benefits to present beneficiaries payable from the Retirement Reserve Fund	\$ 5,395,505	\$ 5,096,792
Present value of benefits to present active members	0	0
Total Liabilities	\$ 5,395,505	\$ 5,096,792

SECTION II - EMPLOYEE DATA

The data employed for the valuation was furnished to the actuary by the Division of Pensions and Benefits. Appendix C contains summary tables which present the number and retirement allowances of members classified by age. The following summarizes and compares the Fund membership as of July 1, 2011 and July 1, 2012 by various categories.

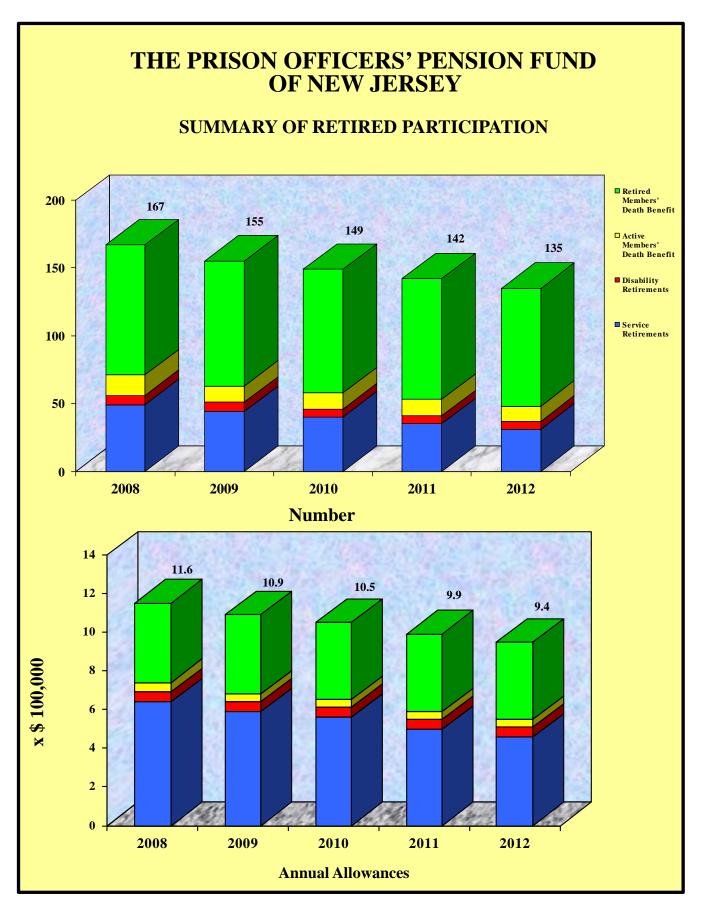
MEMBERSHIP - ACTIVE

• There have been no active participants in the Plan since July 1, 1994.

RETIRED MEMBERS AND BENEFICIARIES

	2012			2012		2	2011	
GROUP	Number		Annual lowances	Number	A	Annual llowances		
Service Retirements	31	\$	457,670	35	\$	512,622		
Ordinary Disability Retirements	4	\$	26,985	4	\$	26,985		
Accidental Disability Retirements	2	\$	19,649	2	\$	19,649		
Active Members' Death Benefits	11	\$	39,323	12	\$	41,994		
Retired Members' Death Benefits	87	\$	393,419	89	\$	392,040		

Graphic presentations of the statistical data on membership for the five preceding years are shown on the following page.



SECTION III - ASSETS, LIABILITIES AND CONTRIBUTIONS

A. Market Value of Assets as of June 30, 2012

	1.	Assets		
		 a. Cash b. Investment Holdings c. Accrued Interest d. Pension Adjustment Receivable 	\$	367,693 8,823,536 8 0
	2.	e. Total Liabilities	\$	9,191,237
	2.	Liabilities		
		 a. Pension Payroll Payable b. Pension Adjustment Payroll Payable c. Withholdings Payable d. Administrative Expense Payable e. Other Accounts Payable 	\$	50,526 86,266 9,384 0 825
		f. Total	\$	147,001
	3.	Receivable Contribution	\$	0
	4.	Market Value of Assets as of June 30, $2012 = (1(e)) - (2(f)) + (3)$	\$	9,044,236
В.	Recor	nciliation of Market Value of Assets from June 30, 2011 to J	une 30, 201	<u>2</u>
	1.	Market Value of Assets as of June 30, 2011	\$	9,997,650
	2.	Increases		
		 a. Members' Contributions @ 6% b. State Appropriations c. Pension Adjustment d. Investment Income 	\$	0 0 994,367 9,94 <u>6</u>
		e. Total	\$	1,004,313
	3.	Decreases		
		 a. Retirement Allowances b. Benefit Expense – Pension Adjustment c. Administrative Expenses 	\$	956,438 994,367 6,922
		d. Total	\$	1,957,727
	4.	Receivable Contribution	\$	0
	5.	Market Value of Assets as of June 30, 2012 = $(1) + (2(e)) - (3(d)) + (4)$	\$	9,044,236

C. Reconciliation of Actuarial Value of Assets and Ledger Assets

1.	Actuarial Value of Assets (Retirement Reserve Fund)	\$ 9,044,236
2.	Pension Adjustment Fund: A(2)(b) - A(1)(d)	 86,266

\$

\$

\$

9,130,502

(4,900,858)

Present Value of Benefits

3.

2.

3.

4.

5.

1.

8.

D.

Total Ledger Assets

1. Active Members

a.	Service Retirement	\$	0
b.	Death Before Retirement		0
c.	Death After Retirement		0
d.	Total	\$	0
Servi	ice Retirees	\$	2,638,351
Disal	bility Retirees	\$	250,968
Bene	eficiaries	<u>\$</u>	2,506,186
Total	1 = (1(d)) + (2) + (3) + (4)	\$	5,395,505

E. Tracking of Unfunded Accrued Liability/(Surplus)

Actuarial Loss/(Gain) = (7) - (5) - (6)

Unfunded Accrued Liability/(Surplus) as of July 1, 2011

2.	Interest on (1) at 5.00%		(245,043)
3.	Contributions received		0
4.	Interest on (3) at 5.00%		0
5.	Expected Unfunded Accrued Liability/(Surplus) as of July 1, $2012 = (1) + (2) - (3) - (4)$	\$	(5,145,901)
6.	Change in Unfunded Accrued Liability due to revised actuarial assumptions	\$	813,420
7.	Actual Unfunded Accrued Liability/(Surplus) as of July 1, 2012	<u>\$</u>	(3,648,731)

683,750

F. <u>Development of Required Contribution</u>

1.	Present Value of Benefits as of July 1, 2012	\$ 5,395,505
2.	Present Value of Future Contributions:	
	a. Future State Appropriationsb. Future Employee Contributionsc. Future State Normal Contributions	\$ 0 0 0
	d. Total	\$ 0
3.	Actuarial Value of Assets as of July 1, 2012	\$ 9,044,236
4.	Actuarial Surplus: $(1) - (2(d)) - (3)$	\$ (3,648,731)
5.	Amortization of Loss/Gain	\$ 0
6.	State Appropriations from prior valuation	\$ 0
7.	State Appropriations Payable July 1, 2013: (5) + (6); not less than zero	\$ 0

G. Fund Projection

The following is an estimate of the expected receipts and disbursements for the Fund over the next year. The projection is based on the assumptions set forth in Appendix B. All receipts and disbursements are assumed to occur mid-year.

Year	July 1 Fund Balance	State Appropriations	Member Contributions	Pension Payments	Interest
2012	\$ 9,044,236	\$ 0	\$ 0	\$ 894,488	\$ 430,122

SECTION IV - COMMENTS CONCERNING THE VALUATION

The variation in liabilities and contributions reflects the Fund's actual experience during the year. The Fund experienced a net actuarial loss during the year that ended June 30, 2012.

The actuarial loss was due to the investment return on actual Fund assets, which was less than expected.

There was also an actuarial loss due to retired, disabled members and beneficiaries of deceased members who are living longer than expected.

For valuation purposes, a 5.00% per annum rate of return on investments was assumed. The actual return on the Fund's actuarial value of assets was approximately 0.10% for the period July 1, 2011 through June 30, 2012.

The following outlines the effect of the primary actuarial experience components:

SECTION V - ACCOUNTING INFORMATION

Statement No. 5 of the Governmental Accounting Standards Board, issued November 1986, established standards of disclosure of pension information by public retirement systems. Statement No. 25 of the Governmental Accounting Standards Board, issued November 1994, established financial reporting standards for defined benefit pension plans and for the notes to the financial statements of defined contribution plans of state and local governmental liabilities and superseded Statement No. 5 effective for periods beginning after June 15, 1996. Statement No. 27, Accounting for Pensions by State and Local Governmental Employers superseded Statement 5 for employers participating in pension plans and is effective for periods beginning after June 15, 1997. Statement No. 50, Accounting for Pensions by State and Local Governmental Employers amends the note disclosure and required supplementary information (RSI) of Statements No. 25 and No. 27 to conform with applicable changes adopted in Statements No. 43 and 45 for Postemployment Benefit Plans other than Pension Plans. Statement No. 50 is intended to improve the transparency of reported information about pensions by State and Local governmental plans and employers. Statement No. 50 is effective for periods beginning after June 15, 2007.

The information required by Statements No. 25, No. 27 and No. 50 is presented in the following tables. These include the development of the Annual Required Contribution (ARC), the development of the Net Pension Obligation (NPO), the Schedule of Funding Progress and the Schedule of Employer Contributions.

(A) <u>Development of the Annual Required Contribution (ARC) as of June 30, 2014:</u>

1.	Actuarial Value of Plan Assets as of June 30, 2012	
	(a) Valuation Assets as of June 30, 2012	\$ 9,044,236
	(b) Adjustment for Receivable Contributions included in (a)	 0
	(c) Valuation Assets as of June 30, 2012 for GASB Disclosure = (a) - (b)	\$ 9,044,236
2.	Actuarial Accrued Liability as of June 30, 2012 for GASB Disclosure	\$ 5,395,505
3.	Unfunded Actuarial Accrued Liability/(Surplus) as of June 30, 2012 = (2) – (1 (c))	\$ (3,648,731)
4.	Amortization of Unfunded Actuarial Accrued Liability/(Surplus) over 1 year	\$ (3,648,731)
5.	Normal Cost as of June 30, 2012	\$ 0
6.	Annual Required Contribution as of June 30, 2014	
	(a) Annual Required Contribution as of June 30, $2012 = (4) + (5)$	\$ (3,648,731)
	(b) Interest Adjustment to June 30, 2014	 (373,995)
	(c) Annual Required Contribution as of June 30, 2014 = (a) + (b)	\$ (4,022,726)
(B)	Development of the Net Pension Obligation (NPO) as of June 30, 2014:	
1.	Annual Required Contribution as of June 30, 2014	\$ (4,022,726)
2.	Interest on Net Pension Obligation	(270,160)
3.	Adjustment to Annual Required Contribution	 5,673,356
4.	Annual Pension Cost = $(1) + (2) + (3)$	\$ 1,380,470
5.	Expected Employer Contributions For Fiscal Year 2014	\$ 0
6.	Increase in Net Pension Obligation = $(4) - (5)$	\$ 1,380,470
7.	Net Pension Obligation at June 30, 2013	 (5,403,196)
8.	Net Pension Obligation at June 30, 2014 $= (6) + (7)$	\$ (4,022,726)

(C) <u>Schedule of Funding Progress</u>

Actuarial Valuation	Actuarial Value of Assets	Actuarial Accrued Liability		Unfunded Actuarial Accrued Liability		Funded Covered Ratio Payroll		Unfunded Actuarial Accrued Liability as a Percentage of Covered Payroll (b-a)
Date	(a)		(b)		(b-a)	(a/b)	(c)	C
6/30/07	\$ 13,499,361	\$	7,378,386	\$	(6,120,975)	183.0%	N/A	N/A
6/30/08	\$ 12,890,441	\$	6,789,017	\$	(6,101,424)	189.9%	N/A	N/A
6/30/09	\$ 11,986,919	\$	6,136,441	\$	(5,850,478)	195.3%	N/A	N/A
6/30/10	\$ 11,018,367	\$	5,635,024	\$	(5,383,343)	195.5%	N/A	N/A
6/30/11	\$ 9,997,650	\$	5,096,792	\$	(4,900,858)	196.2%	N/A	N/A
6/30/12	\$ 9,044,236	\$	5,395,505	\$	(3,648,731)	167.6%	N/A	N/A

(D) Schedule of Employer Contributions

Fiscal Year	Annual Required Contribution			Employer Contribution	Percentage Contributed
2009	\$	0	\$	0	100.0%
2010	\$	0	\$	0	100.0%
2011	\$	0	\$	0	100.0%
2012	\$	0	\$	0	100.0%
2013	\$	0	\$	0	100.0%
2014	\$	0	\$	0	100.0%

(E) The information presented in the required supplementary schedules was determined as part of the actuarial valuation. Additional information follows:

Valuation Date June 30, 2012

Actuarial Cost Method Projected Unit Credit

Amortization Method Level Dollar, Closed

Remaining Amortization Period 1 year

Asset Valuation Method Market Value

Actuarial Assumptions:

Investment Rate of Return 5.00%

APPENDIX A

BRIEF SUMMARY OF THE BENEFIT AND CONTRIBUTION PROVISIONS AS INTERPRETED FOR VALUATION PURPOSES

Eligibility for Membership

Employees of State penal institutions, employed prior to January 1, 1960 who did not transfer to the Police & Firemen's Retirement System in accordance with Chapter 205 of Public Law 1989. The System no longer accepts new members.

1. Definitions

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

Service A year is credited for each year an employee is a member of the

retirement system.

Average Final

Compensation (AFC) Average annual compensation (or base salary) for 3 years of

Service immediately preceding retirement. (Effective June 30, 1996, Chapter 113, P.L. 1997 provided that the amount of compensation used for employer and member contributions and benefits under the program cannot exceed the compensation limitation of Section 401(a)(17) of the Internal Revenue Code.)

Accumulated Deductions

The sum (without interest) of all required amounts deducted from the compensation of a member or contributed by him or on his

behalf.

2. Benefits

Service Retirements 25 years of service, or age 55 and 20 years of service. The benefit is a life annuity equal to the greater of (A), (B), and (C) below:

- (A) 2% of AFC up to 30 years of service plus 1% for each year in excess of 30 and prior to age 65;
- (B) 50% of final pay; and
- (C) For a member with 25 years of service, 2% of AFC up to 30 years of service plus 1% for each year in excess of 30.

Vested Retirements

Eligible upon termination of employment. Benefits are summarized as follows:

Termination with 10 or more years of service: Benefit is a deferred life annuity equal to 2% of AFC for service up to 30 years plus 1% for service over 30 years.

Termination with less than 10 years of service: Refund of accumulated deductions.

Ordinary Disability Retirement

Permanent and total disability for causes other than as a direct result of a traumatic event occurring during the performance of regular or assigned duties. Benefit is an immediate life annuity equal to 1/2 of AFC.

Accidental Disability Retirement

Permanent and total disabled as a direct result of a traumatic event occurring while performing regular or assigned duties. Benefit is an immediate life annuity equal to 2/3 of AFC.

Death Benefits

Death of member of system. Spouse must be married to member prior to retirement, or at least five years before member's death. Benefit is an annuity equal to 25% of member's AFC plus an additional 15% (25%) for one (two or more) surviving dependent child (children). If there is no spouse or if the spouse dies or remarries, 20% (35%, 50%) of AFC to one (two, three or more) surviving child (children). If there is no surviving spouse or children, 25% (40%) of AFC to one (two) dependent parent(s). The provision for a survivor annuity payable to dependent parents does not apply in the death of a retired member of the system.

Minimum benefits: Minimum spousal annuity is \$1,600 per annum. If no other benefit is payable prior to retirement, the member's beneficiary shall receive the accumulated deductibles.

3. Employee Contributions

Each member contributes 6% of compensation.

APPENDIX B

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

VALUATION INTEREST RATE: 5.0% per annum, compounded annually.

<u>DEATHS AFTER RETIREMENT</u>: RP-2000 Combined Healthy Mortality Tables for service retirements and beneficiaries projected on a generational basis from the base year of 2012 using Projection Scale AA. Special mortality tables are used for the period after disability retirement with no provisions made for mortality improvement after the valuation date for disability retirements. Representative values of the assumed annual rates of mortality unadjusted for Projection Scale AA for current retirees are as follows:

Age	Service Retiremen	Disability Retirement		
	Men	Women		
60	0.675%	0.506%	2.722%	
65	1.274	0.971	3.969	
70	2.221	1.674	5.909	
75	3.783	2.811	8.906	
80	6.437	4.588	13.458	
85	11.076	7.745	20.220	
90	18.341	13.168	29.873	

MARRIAGE: Husbands are assumed to be 3 years older than wives.

VALUATION METHOD:

The unfunded accrued liability (the difference between the present value of benefits and the valuation assets) was determined as of July 1, 1988 and was amortized over the 14-year period beginning July 1, 1989, and ending on July 1, 2002. Each year the amortization payments were adjusted to reflect any experience gains or losses that occurred during the previous plan year. All gains and losses were amortized over the remaining original amortization period. (Without any guidance, we have assumed that any unfunded accrued liability that develops after the July 1, 2001 valuation will be amortized over 1 year.)

ASSET VALUATION METHOD

Assets are valued at book value which is equivalent to market value.

APPENDIX C

TABULATIONS USED AS A BASIS FOR THE 2012 VALUATION

The following tables give the number and retirement allowances of retired members and beneficiaries classified by age as of July 1,2012.

TABLE 1

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 2012

SERVICE RETIREMENTS

		-	MEN			WOMEN			
AGE	NUMBER		AMOUNT		NUMB	ER	AMOUNT		
	78	1	\$	25,660					
	80	3		51,518					
	81	2		37,393					
	82	3		52,665					
	83	3		33,699					
	84	3		39,033					
	86	2		20,505					
	87	1		8,710					
	89	2		36,991					
	90	3		66,875					
	91	1		15,851					
	92	1		15,845					
	93	4		39,945	1		\$	7,389	
	95	1		5,591					
TOTAL	,	30	\$	450,281	1		\$	7,389	

TABLE 2

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 2012

ORDINARY DISABILITY RETIREMENTS

]	MEN		WOMEN		
AGE		NUMBER	A	MOUNT	NUMBER	AMOUNT	
	77	1	\$	7,701			
	80	1		7,655			
	83	1		5,716			
	84	1		5,913			
TOTAL		4	\$	26,985			

TABLE 3

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF RETIRED MEMBERS DISTRIBUTED BY AGE AS OF JULY 1, 2012

ACCIDENTAL DISABILITY RETIREMENTS

			MEN	WOMEN		
AGE		NUMBER	A	MOUNT	NUMBER	AMOUNT
	84	1	\$	7,258		
	86	1		12,391		
TOTAL	,	2	\$	19,649		

TABLE 4

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JULY 1, 2012

ACTIVE MEMBERS' DEATH BENEFITS

MEN WOMEN AGE NUMBER AMOUNT NUMBER **AMOUNT** 59 1 \$ 5,174 78 1 \$ 2,976 79 1 7,622 80 3,535 82 1 2,798 83 1 5,431 84 2,428 87 4 9,359 TOTAL 1 \$ 2,976 10 36,347

TABLE 5

THE NUMBER AND ANNUAL RETIREMENT ALLOWANCES OF BENEFICIARIES DISTRIBUTED BY AGE AS OF JULY 1, 2012

RETIRED MEMBERS' DEATH BENEFITS

87

TOTAL

393,419