

The Prison Officers' Pension Fund of New Jersey Annual Report of the Actuary

Prepared as of July 1, 2014





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April 1, 2015

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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, 2014 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, 2014 and gives the basis for determining the required annual contribution for the plan year beginning July 1, 2014.

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 and, in accordance with actuarial standards of practice, the mortality assumption for service retirements and beneficiaries reflects the RP-2000 Combined Healthy Mortality Tables projected on a generational basis using Projection Scale AA from the base year of 2012.

The State of New Jersey's Division of Pensions and Benefits reported the individual data for members of the Prison Officers' Pension Fund of New Jersey as of the valuation date to the actuaries. 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 prepared for 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. An analysis of the potential range of future results is beyond the scope of this valuation.

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,



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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, 2014, 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, 2014	July 1, 2013
<u>Participant Data</u>		
Active Members	0	0
Retired Members and Beneficiaries	110	121
Total Participants	110	121
Annual Compensation	\$ 0	\$ 0
Annual Retirement Allowances	\$ 793,067	\$ 857,048
<u>Assets</u>		
Market Value of Assets	\$ 7,383,201	\$ 8,171,920
Actuarial Value of Assets	\$ 7,383,201	\$ 8,171,920
<u>Contribution Amounts</u>		
Normal Contribution	\$ 0	\$ 0
Accrued Liability Contribution	<u>0</u>	<u>0</u>
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.

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, 2013 and July 1, 2014 is set forth in the following table.

Table I

Comparative Balance Sheet

	2014	2013
<u>Assets</u>		
Market value of assets of Fund	\$ 7,383,201	\$ 8,171,920
Unfunded accrued liability/(surplus)	<u>(3,081,894)</u>	<u>(3,422,982)</u>
Total Assets	\$ 4,301,307	\$ 4,748,938
<u>Accrued Liabilities</u>		
Present value of benefits to present beneficiaries payable from the Retirement Reserve Fund	\$ 4,301,307	\$ 4,748,938
Present value of benefits to present active members	<u>0</u>	<u>0</u>
Total Accrued Liabilities	\$ 4,301,307	\$ 4,748,938

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, 2014 and July 1, 2013 by various categories.

Membership - Active

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

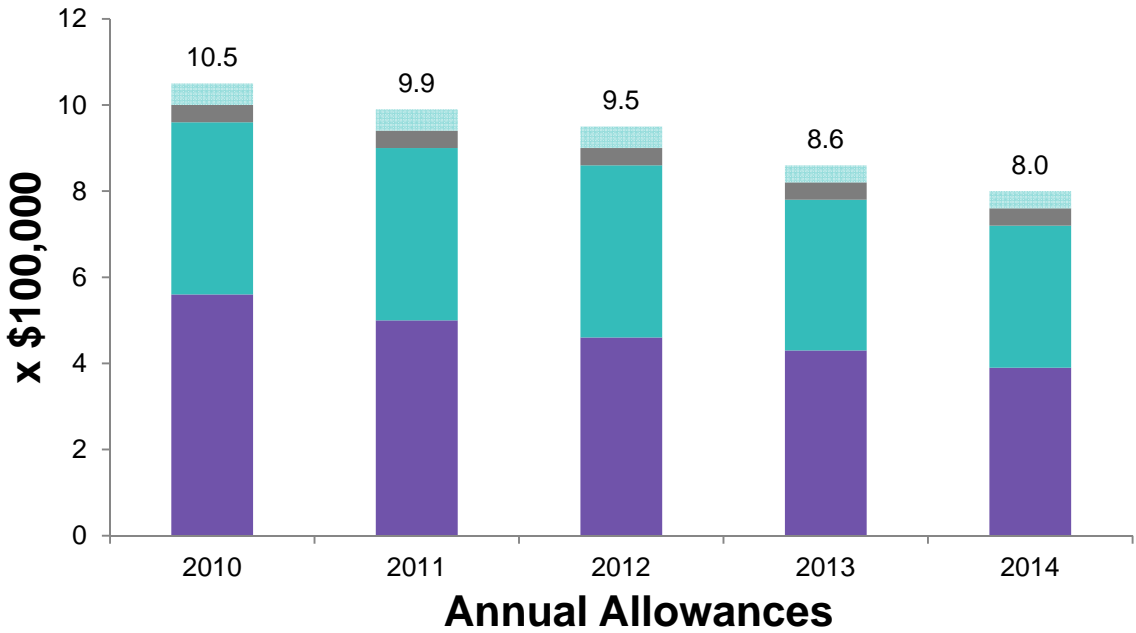
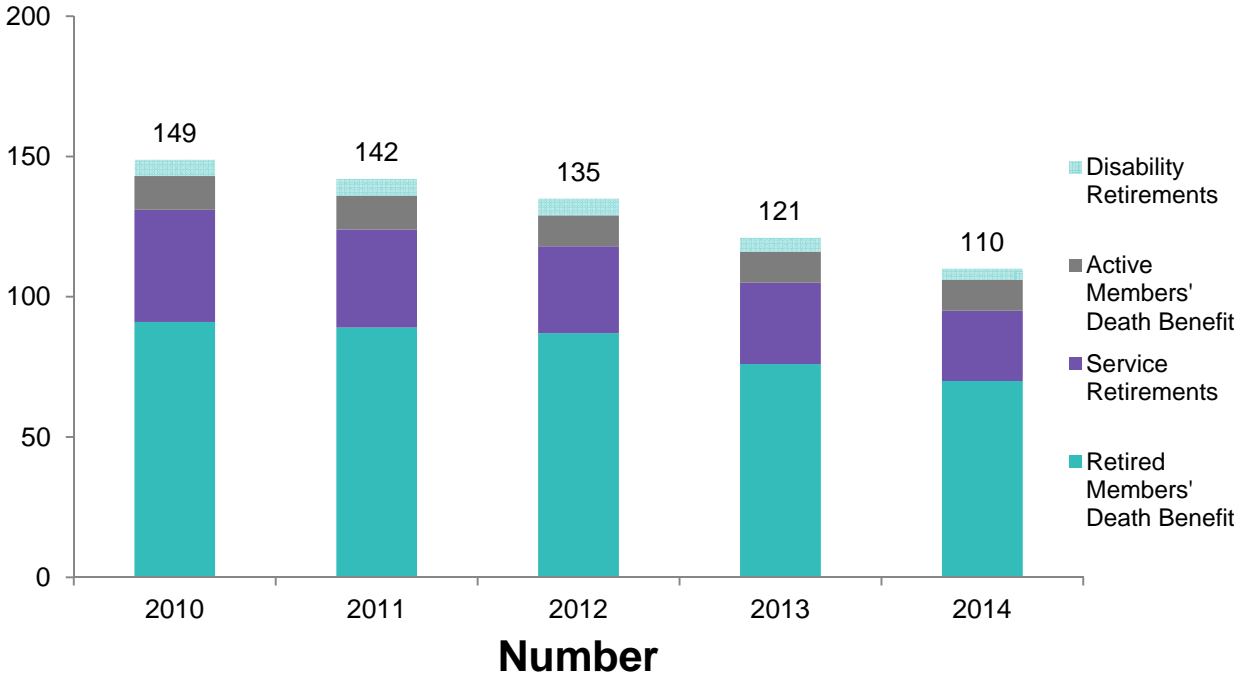
Retired Members and Beneficiaries

Group	2014		2013	
	Number	Annual Allowances	Number	Annual Allowances
Service Retirements	25	\$ 388,612	29	\$ 430,599
Ordinary Disability Retirements	2	\$ 15,356	3	\$ 21,269
Accidental Disability Retirements	2	\$ 19,649	2	\$ 19,649
Active Members' Death Benefits	11	\$ 39,323	11	\$ 39,323
Retired Members' Death Benefits	70	\$ 330,127	76	\$ 346,208

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

The Prison Officers' Pension Fund Of New Jersey

Summary of Retired Participation



Section III – Assets, Liabilities and Contributions

A. Market Value of Assets as of June 30, 2014

1.	Assets		
	a.	Cash	\$ 210,796
	b.	Investment Holdings	7,238,077
	c.	Accrued Interest	5
	d.	Pension Adjustment Receivable	<u>60,958</u>
	e.	Total	\$ 7,509,836
2.	Liabilities		
	a.	Pension Payroll Payable	\$ 38,524
	b.	Pension Adjustment Payroll Payable	67,938
	c.	Withholdings Payable	17,551
	d.	Administrative Expense Payable	0
	e.	Other Accounts Payable	<u>2,622</u>
	f.	Total	\$ 126,635
3.	Receivable Contribution		\$ 0
4.	Market Value of Assets as of June 30, 2014 = (1(e)) – (2(f)) + (3)		\$ 7,383,201

B. Reconciliation of Market Value of Assets from June 30, 2013 to June 30, 2014

1.	Market Value of Assets as of June 30, 2013		\$ 8,171,920
2.	Increases		
	a.	Members' Contributions @ 6%	\$ 0
	b.	State Appropriations	0
	c.	Pension Adjustment	793,174
	d.	Investment Income	<u>7,368</u>
	e.	Total	\$ 800,542
3.	Decreases		
	a.	Retirement Allowances	\$ 790,234
	b.	Benefit Expense – Pension Adjustment	793,174
	c.	Administrative Expenses	<u>5,853</u>
	d.	Total	\$ 1,589,261
4.	Receivable Contribution		\$ 0
5.	Market Value of Assets as of June 30, 2014 = (1) + (2(e)) – (3(d)) + (4)		\$ 7,383,201

C. Reconciliation of Actuarial Value of Assets and Ledger Assets

1.	Actuarial Value of Assets (Retirement Reserve Fund)	\$	7,383,201
2.	Pension Adjustment Fund: A(2)(b) - A(1)(d)		<u>6,980</u>
3.	Total Ledger Assets	\$	7,390,181

D. Accrued Liabilities as of July 1, 2014

1.	Active Members		
	a. Service Retirement	\$	0
	b. Death Before Retirement		0
	c. Death After Retirement		<u>0</u>
	d. Total	\$	0
2.	Service Retirees	\$	2,093,847
3.	Disability Retirees	\$	171,550
4.	Beneficiaries	\$	<u>2,035,910</u>
5.	Total Accrued Liabilities = 1(d) + (2) + (3) + (4)	\$	4,301,307

E. Tracking of Unfunded Accrued Liability/(Surplus)

1.	Unfunded Accrued Liability/(Surplus) as of July 1, 2013	\$	(3,422,982)
2.	Interest on (1) at 5.00%		(171,149)
3.	Contributions received		0
4.	Interest on (3) at 5.00%		<u>0</u>
5.	Expected Unfunded Accrued Liability/(Surplus) as of July 1, 2014 = (1) + (2) - (3) - (4)	\$	(3,594,131)
6.	Actual Unfunded Accrued Liability/(Surplus) as of July 1, 2014	\$	<u>(3,081,894)</u>
7.	Actuarial Loss/(Gain) = (6) - (5)	\$	512,237

F. Development of State Contribution

1.	Accrued Liability	\$	4,301,307
2.	Present Value of Future Contributions:		
	a. Future State Appropriations	\$	0
	b. Future Employee Contributions		0
	c. Future State Normal Contributions		0
	d. Total	\$	0
3.	Actuarial Value of Assets as of July 1, 2014	\$	7,383,201
4.	Actuarial Surplus: (1) – (2(d)) – (3)	\$	(3,081,894)
5.	Amortization of Loss/Gain	\$	0
6.	State Appropriations from prior valuation	\$	0
7.	State Appropriations Payable July 1, 2015: (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
2014	\$ 7,383,201	\$ 0	\$ 0	\$ 755,351	\$ 350,507

Section IV – Comments Concerning the Valuation

A. Components of Actuarial Experience

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, 2014.

The actuarial loss was primarily due to the investment return on actual Fund assets, which was less 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 0.09% for the period July 1, 2013 through June 30, 2014. In addition, there was a liability loss.

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

• Investment Loss (Gain)	\$ 381,569
• Other Loss (Gain), including mortality, changes in employee data	<u>130,668</u>
• Total Actuarial Loss (Gain)	\$ 512,237

B. Schedule of Assets and Liabilities

The following presents a ten-year schedule of the System's assets, liabilities and funded ratio. The System's assets and funded ratio are provided on a market value (including receivables) basis and actuarial value of assets (including receivables) basis.

Actuarial Valuation Date	Market Value of Assets (a)	Actuarial Value of Assets (b)	Actuarial Accrued Liability (c)	Funded Ratio	
				Market Value (a)/(c)	Actuarial Value (b)/(c)
6/30/2014	\$ 7,383,201	\$ 7,383,201	\$ 4,301,307	171.7%	171.7%
6/30/2013	\$ 8,171,920	\$ 8,171,920	\$ 4,748,938	172.1%	172.1%
6/30/2012	\$ 9,044,236	\$ 9,044,236	\$ 5,395,505	167.6%	167.6%
6/30/2011	\$ 9,997,650	\$ 9,997,650	\$ 5,096,792	196.2%	196.2%
6/30/2010	\$ 11,018,367	\$ 11,018,367	\$ 5,635,024	195.5%	195.5%
6/30/2009	\$ 11,986,919	\$ 11,986,919	\$ 6,136,441	195.3%	195.3%
6/30/2008	\$ 12,890,441	\$ 12,890,441	\$ 6,789,017	189.9%	189.9%
6/30/2007	\$ 13,499,361	\$ 13,499,361	\$ 7,378,386	183.0%	183.0%
6/30/2006	\$ 14,014,718	\$ 14,014,718	\$ 8,236,295	170.2%	170.2%
6/30/2005	\$ 14,783,465	\$ 14,783,465	\$ 9,077,157	162.9%	162.9%

C. Schedule of Employer Pension Contributions

The following table presents a ten-year schedule that provides information about the System's actuarially determined contribution and the percentage of the actuarially determined contribution recognized by the System as contributed.

Fiscal Year Ending June 30	Actuarially Determined Contribution (a)	Actual Pension Contribution (b)	Contribution Deficiency (a) – (b)	Percentage of Contribution Made	
				Annual (b)/(a)	Five-Year Average
2015	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2014	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2013	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2012	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2011	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2010	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2009	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2008	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2007	\$ 0	\$ 0	\$ 0	100.0%	100.0%
2006	\$ 0	\$ 0	\$ 0	100.0%	100.0%

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.

Deaths After Retirement

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 Retirement and Beneficiaries		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 2014 Valuation

The following tables give the number and retirement allowances of retired members and beneficiaries classified by age as of July 1, 2014.

Table 1

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2014

Service Retirements

Age	Men		Women	
	Number	Amount	Number	Amount
80	1	\$ 25,660		
82	3	51,518		
83	1	19,319		
84	3	52,665		
85	3	33,699		
86	2	19,804		
88	2	20,505		
89	1	8,710		
91	1	26,744		
92	3	66,875		
93	1	15,851		
94	1	15,845		
95	2	24,028	1	\$ 7,389
Total	24	\$ 381,223	1	\$ 7,389

Table 2

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2014

Ordinary Disability Retirements

Age	Men		Women	
	Number	Amount	Number	Amount
79	1	\$ 7,701		
82	1	7,655		
Total	2	\$ 15,356		

Table 3

The Number And Annual Retirement Allowances Of Retired Members Distributed By Age As Of July 1, 2014

Accidental Disability Retirements

Age	Men		Women	
	Number	Amount	Number	Amount
86	1	\$ 7,258		
88	1	12,391		
Total	2	\$ 19,649		

Table 4

The Number And Annual Retirement Allowances Of Beneficiaries Distributed By Age As Of July 1, 2014

Active Members' Death Benefits

Age	Men		Women	
	Number	Amount	Number	Amount
61			1	\$ 5,174
80	1	\$ 2,976		
81			1	7,622
82			1	3,535
84			1	2,798
85			1	5,431
86			1	2,428
89			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, 2014

Retired Members' Death Benefits

Age	Men		Women	
	Number	Amount	Number	Amount
73			1	\$ 6,210
74			1	7,533
75			1	10,079
76			1	3,894
78			1	9,745
79			2	6,420
80			1	5,466
81			3	15,590
82			1	4,758
83			4	18,625
84			3	13,674
85			4	20,229
86			5	33,668
87			4	15,416
88			1	3,062
89			5	19,453
90			5	39,720
91			5	17,329
92			4	16,173
93			3	13,205
94			6	20,760
95			4	11,513
96			1	6,952
97			1	1,945
99			1	3,108
103			1	4,000
113			1	1,600
Total			70	\$ 330,127