

**PUBLIC EMPLOYEES' RETIREMENT SYSTEM
OF NEW JERSEY
REPORT ON AN INVESTIGATION OF EXPERIENCE
PREPARED AS OF JUNE 30, 2011**

August 3, 2012

Board of Trustees
Public Employees' Retirement System
of New Jersey
Trenton, New Jersey 08625-0295

Ladies and Gentlemen:

This year an actuarial investigation of the mortality, service and compensation experience of the members and beneficiaries of the retirement system was made in accordance with the provisions of Section 19 of Chapter 15A of the New Jersey Statutes. This Section specifies that such an investigation shall be made once in every three-year period. The results of this investigation are described in detail in the attached report. I am available at the Board's convenience to discuss this report.

Buck performed the experience review based on data supplied by the State of New Jersey Division of Pensions and Benefits. Buck Consultants did not audit the data, although it was reviewed for reasonableness and consistency with prior data. The results of this review are dependent on the accuracy of the data.

The recommended assumptions contained in this report are to be used to value the pension benefits for members in the Public Employees' Retirement System. Use of these assumptions for any other purpose may not be appropriate. No one may make any representations or guarantees based on any statements or conclusions contained in this report without the written consent of Buck Consultants.

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

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 AN INVESTIGATION OF THE EXPERIENCE OF THE
PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF NEW JERSEY
PREPARED AS OF JUNE 30, 2011**

I. INTRODUCTION

Section 19 of Chapter 15A of the New Jersey Statutes provides that once in every three-year period the actuary shall examine in detail the mortality, service and compensation experience of the members and beneficiaries of the Retirement System. This investigation is designed to assure that the tables used for determining expected liabilities of the Retirement System are consistent with recent experience. If tables are not updated periodically, the liabilities of the System may be overstated or understated, and resulting contributions either too large or too small to fund the actual accruing liabilities.

This report was prepared in accordance with Actuarial Standards of Practice No. 35 (ASOP 35). ASOP 35 provides guidance to actuaries in selecting demographic and other noneconomic assumptions (including, but not limited to retirement, mortality and mortality improvement, termination of employment and disability) for measuring obligations under defined benefit plans.

This report summarizes the Retirement System experience for the period from July 1, 2008 to June 30, 2011. Experience for State employees and for employees of the various local employers participating in the System was examined separately for active members. No separate examination was made for retired members and beneficiaries since similar mortality experience should be anticipated for these groups.

Also, this study examined the effect of the following legislation:

- Chapter 366, P.L. 2001 established a special Prosecutors Part for certain members of the System. The eligibility requirements and benefits payable under this Part are similar to those applicable under the Police and Firemen’s Retirement System (“PFRS”). Beginning with the June 30, 2005 experience study, we have separately analyzed the retirement pattern of prosecutor members. Chapter 1, P.L. 2010 closed the Prosecutors Part of the System to new members enrolled on or after May 22, 2010.
- Chapter 259, P.L. 2001 created special retirement benefits, similar to those provided in the Judicial Retirement System, for members employed as Workers Compensation Judges. However, Chapter 92, P.L. 2007 closed the Workers Compensation Judges Part of the System to new members enrolled after June 8, 2007. Due to the small number of Workers Compensation Judges and the closure of this Part of the System, their experience will no longer be analyzed separately. The remaining members of the Workers Compensation Judges Part of the System will continue to use the State assumptions.
- Chapter 103, P.L. 2007 changed the early retirement reduction formula for members hired on or after July 1, 2007 and retiring with 25 years of service to be reduced by 1/12 percent for each month (up to 60 months) the retirement date precedes age 60 plus 1/4 percent for each month the retirement date precedes age 55. Chapter 89, P.L. 2008 changed the eligibility age for service retirement to age 62 for members hired after November 1, 2008

but prior to May 22, 2010. Chapter 1, P.L. 2010 changed the eligibility age to age 62 for members hired on or after May 22, 2010 but prior to June 28, 2011 and changed the basic accrual rate from 1/55th to 1/60th of final compensation for each year of service for members hired on or after May 22, 2010. Chapter 78, P.L. 2011 changed the eligibility age to age 65 for members hired on or after June 28, 2011. At this time, there is not enough data to analyze the effect that the legislation will have on the assumptions.

To avoid inflating assumed future rates of retirement that are not representative of “normal” retirement experience, we removed the effects of Chapter 59, P.L. 1999, Chapter 21, P.L. 2008 and Chapter 126, P.L. 2000 which provided Early Retirement Incentive (ERI) programs for the State and local employees. We have also removed the effect of other unauthorized ERI programs offered by various employers. To remove the effect of the ERI’s, all members who elected to retire under one of the ERI programs were excluded from the examination of the active members’ experience portion of this study.

II. EXAMINATION OF EXPERIENCE

The experience among active members has been compared with the experience expected according to the active service tables, the retirement tables and the salary increase assumption which were developed on the basis of the three-year experience investigation for the period ended June 30, 2008.

The experience among beneficiaries has also been compared with the experience expected according to the mortality tables that were also developed from the three-year experience investigation for the period ended June 30, 2008.

In the case of withdrawals who are receiving a refund of accumulated deductions, since the Board has adopted select rates of withdrawal, the data for employees with less than three years of service were tabulated separately from the data for employees with three or more years of service but prior to retirement eligibility. However, in investigating the experience with respect to death, disability, vested withdrawal entitled to a deferred benefit or early retirement and service retirement, the employees were not divided according to select and ultimate years of service but were treated in one group. The expected number of separations from service on account of withdrawal, death, disability and service retirement were calculated by multiplying the rates of separation used as a basis for the active service tables by the number of those exposed. The actual number of those who had separated from service was then compared with the expected number. The following tables give the results of these comparisons. If the ratio of actual to expected is 1.000, the tables have exactly predicted what actually occurred. If the ratio of actual to expected is greater than 1.000, then the tables have underestimated actual experience. If the ratio is less than 1.000, then the tables have overstated actual experience.

Table 1 examines experience for State employees, while Table 2 considers experience for employees of local employers.

Based on the salary increase assumption, the expected salaries of those members who remain in service from year to year were obtained and these expected salaries were compared with the actual salaries. This comparison is summarized in Table 3 and Table 4, with Table 3 showing values for State employees and Table 4 for employees of local employers. Again, a ratio of actual to expected of 1.000 would indicate actual salary increases were identical to anticipated increases, greater than 1.000 indicates salaries have increased faster than anticipated, and less than 1.000 indicates salaries have increased slower than anticipated.

Table 5 and Table 6 give a comparison of the actual and expected deaths among retired members and their beneficiaries. In obtaining the expected deaths, the rates of mortality employed as a basis for the mortality tables last adopted by the Board for pensioners and their beneficiaries were used. As noted earlier, experience was not separately analyzed for employees of the State and local employers. A ratio of actual to expected of 1.000 means deaths occurred exactly as anticipated, higher than 1.000 means more deaths occurred than expected, and less than 1.000 means fewer deaths occurred than expected.

For the Board's convenience, we have prepared a series of graphs, shown in Section IV, which present the statistical data.

TABLE 1

**COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES**

WITHDRAWALS RECEIVING REFUND OF ACCUMULATED DEDUCTIONS

YEARS OF SERVICE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
0	All	12,252	2,605	2,565.49	2,565.49	1.015	1.015
1	All	13,311	1,432	1,488.04	1,488.04	0.962	0.962
2	All	13,452	1,052	1,015.98	1,015.98	1.035	1.035
Ultimate	20	199	3	11.14	8.91	0.269	0.337
	25	6,112	198	330.05	264.04	0.600	0.750
	30	18,562	662	809.13	728.22	0.818	0.909
	35	19,303	537	607.34	578.42	0.884	0.928
	40	26,263	498	452.01	452.01	1.102	1.102
	45	35,093	436	452.54	452.54	0.963	0.963
	50	41,835	431	374.84	374.84	1.150	1.150
	55	42,649	373	376.19	376.19	0.992	0.992
Subtotal Ultimate		190,016	3,138	3,413.24	3,235.17	0.919	0.970
Total Withdrawals		229,031	8,227	8,482.75	8,304.68	0.970	0.991

Recommendation: Decrease the ultimate withdrawal rates for ages 20 through 35.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)

DEATHS DUE TO ORDINARY CAUSE

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Male	20	639	0	0.22	0.20	0.000	0.000
	25	5,116	4	1.92	1.88	2.083	2.128
	30	8,730	6	3.71	3.39		1.770
	35	8,385	6	5.91	4.78	1.617	1.015
	40	10,657	14	10.95	9.65	1.279	1.451
	45	14,212	15	20.16	17.56	0.744	0.854
	50	17,458	28	35.13	30.57	0.797	0.916
	55	17,867	43	50.54	43.77	0.851	0.982
	60	13,556	49	59.40	48.97	0.825	1.001
	65	5,931	34	40.39	34.00	0.842	1.000
	69	1,075	12	9.46	8.38	1.268	1.432
		Total	103,626	211	237.79	203.15	0.887
Female	20	879	0	0.17	0.15	0.000	0.000
	25	9,327	4	1.92	1.79	2.083	2.235
	30	17,581	4	4.48	3.66	0.893	1.093
	35	15,828	10	6.86	4.45	1.458	2.247
	40	20,126	9	13.29	9.61	0.677	0.937
	45	25,031	16	26.05	18.04	0.614	0.887
	50	28,480	39	44.51	32.18	0.876	1.212
	55	26,225	48	60.92	43.94	0.788	1.092
	60	18,595	49	66.28	46.66	0.739	1.050
	65	8,184	28	43.19	31.23	0.648	0.897
	69	1,357	5	9.14	7.07	0.547	0.707
		Total	171,613	212	276.81	198.78	0.766
	Grand Total	275,239	423	514.60	401.93	0.822	1.052

Recommendation: Change the base mortality table to RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 3 years for males and 5 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)

DEATHS DUE TO ACCIDENTAL CAUSES

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Male and Female	20	1,518	0	0.01	0.01	0.000	0.000
	25	14,443	0	0.15	0.15	0.000	0.000
	30	26,311	0	0.26	0.26	0.000	0.000
	35	24,213	0	0.23	0.23	0.000	0.000
	40	30,783	0	0.30	0.30	0.000	0.000
	45	39,243	0	0.39	0.39	0.000	0.000
	50	45,938	0	0.45	0.45	0.000	0.000
	55	44,092	0	0.44	0.44	0.000	0.000
	60	32,151	0	0.31	0.31	0.000	0.000
	65	14,115	0	0.14	0.14	0.000	0.000
	69	2,432	0	0.03	0.03	0.000	0.000
		Total	275,239	0	2.71	2.71	0.000

Recommendation: No change.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)
DISABILITY RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Due to Ordinary Causes	25	7	0	0.00	0.00	0.000	0.000
	30	905	2	0.90	0.90	2.222	2.222
	35	5,166	16	12.63	12.63	1.267	1.267
	40	13,432	40	47.64	47.64	0.840	0.840
	45	22,789	95	114.77	114.77	0.828	0.828
	50	29,723	174	178.53	178.53	0.975	0.975
	55	30,946	165	268.22	214.57	0.615	0.769
	60	22,619	190	340.76	266.90	0.558	0.712
	65	9,302	129	153.76	138.38	0.839	0.932
	69	1,520	19	29.11	26.20	0.653	0.725
	Total	136,409	830	1,146.32	1,000.52	0.724	0.830
Due to Accidental Causes	20	1,518	0	0.01	0.01	0.000	0.000
	25	14,443	0	0.20	0.20	0.000	0.000
	30	26,311	0	0.91	0.91	0.000	0.000
	35	24,213	2	2.19	2.19	0.913	0.913
	40	30,783	6	4.58	5.23	1.310	1.147
	45	39,243	8	7.48	7.48	1.070	1.070
	50	45,938	17	10.87	13.78	1.564	1.234
	55	44,092	20	14.01	17.19	1.428	1.163
	60	32,151	13	13.08	13.08	0.994	0.994
	65	14,115	11	6.84	8.47	1.608	1.299
69	2,432	0	1.24	1.51	0.000	0.000	
	Total	275,239	77	61.41	70.05	1.254	1.099
Due to All Causes	Grand Total		907	1,207.73	1,070.57	0.751	0.847

Recommendation: Reduce the ordinary disability retirement rates for ages 55 through 69. Increase the accidental disability retirement rates for ages 40 through 65.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)

DEFERRED VESTED, EARLY AND SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Deferred Vested and Early Retirement	20	0	0	0.00	0.00	0.000	0.000
	25	0	0	0.00	0.00	0.000	0.000
	30	0	0	0.00	0.00	0.000	0.000
	35	5,166	1	2.40	2.40	0.417	0.417
	40	13,435	11	7.52	7.52	1.463	1.463
	45	22,778	92	58.36	72.95	1.576	1.261
	50	29,652	462	207.57	326.18	2.226	1.416
	55	29,382	660	205.75	440.73	3.208	1.498
	Total	100,413	1,226	481.60	849.78	2.546	1.443
Service Retirement	55	2,716	541	410.95	475.30	1.316	1.138
	56	2,625	450	282.76	367.50	1.591	1.224
	57	2,418	374	260.61	314.34	1.435	1.190
	58	2,264	320	244.82	294.32	1.307	1.087
	59	2,007	338	400.05	381.33	0.845	0.886
	60	6,550	695	564.01	589.50	1.232	1.179
	61	5,880	583	517.43	529.20	1.127	1.102
	62	5,193	651	934.74	841.27	0.696	0.774
	63	4,109	452	575.26	517.73	0.786	0.873
	64	3,230	364	484.50	436.05	0.751	0.835
	65	2,634	337	608.46	474.12	0.554	0.711
	66	2,301	365	414.18	391.17	0.881	0.933
	67	1,817	259	272.55	272.55	0.950	0.950
68	1,385	175	207.75	207.75	0.842	0.842	
69	1,047	112	157.05	157.05	0.713	0.713	
Total	46,176	6,016	6,335.12	6,249.18	0.950	0.963	
Due to All Causes	Grand Total		7,242	6,816.72	7,098.96	1.062	1.020

Recommendation: Increase the deferred vested and early retirement rates for ages 45 through 55.
Change the service retirement rates to reflect experience.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Age 55 With Less Than 20 Years of Service	55	1	0	0.03	0.03	0.000	0.000
	56	1	0	0.03	0.03	0.000	0.000
	57	2	0	0.06	0.06	0.000	0.000
	58	1	0	0.03	0.03	0.000	0.000
	59	2	0	0.05	0.05	0.000	0.000
	60	1	0	0.03	0.03	0.000	0.000
	61	3	1	0.08	0.08	12.500	12.500
	62	8	3	0.21	0.21	14.286	14.286
	63	5	0	0.14	0.14	0.000	0.000
	64	3	1	0.09	0.09	11.111	11.111
	65	2	0	0.06	0.06	0.000	0.000
	66	0	0	0.00	0.00	0.000	0.000
	67	0	0	0.00	0.00	0.000	0.000
68	0	0	0.00	0.00	0.000	0.000	
69	0	0	0.00	0.00	0.000	0.000	
	Total	29	5	0.81	0.81	6.173	6.173

Recommendation: No change.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)
CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
With 20 Years of Service	40	0	0	0.00	0.00	0.000	0.000
	45	6	0	0.16	0.16	0.000	0.000
	50	6	0	0.22	0.22	0.000	0.000
	53	1	0	0.05	0.05	0.000	0.000
	54	1	0	0.05	0.05	0.000	0.000
	55	0	0	0.00	0.00	0.000	0.000
	56	1	0	0.05	0.05	0.000	0.000
	57	0	0	0.00	0.00	0.000	0.000
	58	1	0	0.05	0.05	0.000	0.000
	59	0	0	0.00	0.00	0.000	0.000
	60	0	0	0.00	0.00	0.000	0.000
	61	0	0	0.00	0.00	0.000	0.000
	62	0	0	0.00	0.00	0.000	0.000
	63	0	0	0.00	0.00	0.000	0.000
	64	0	0	0.00	0.00	0.000	0.000
	65	0	0	0.00	0.00	0.000	0.000
	66	1	1	0.03	0.03	33.333	33.333
	67	0	0	0.00	0.00	0.000	0.000
	68	0	0	0.00	0.00	0.000	0.000
	69	0	0	0.00	0.00	0.000	0.000
	Total	17	1	0.61	0.61	1.639	1.639

Recommendation: No change.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
With 21 to 24 Years of Service	40	0	0	0.00	0.00	0.000	0.000
	45	6	0	0.00	0.00	0.000	0.000
	50	45	0	0.00	0.00	0.000	0.000
	53	7	0	0.00	0.00	0.000	0.000
	54	11	0	0.00	0.00	0.000	0.000
	55	8	0	0.00	0.00	0.000	0.000
	56	7	0	0.00	0.00	0.000	0.000
	57	2	0	0.00	0.00	0.000	0.000
	58	0	0	0.00	0.00	0.000	0.000
	59	1	0	0.00	0.00	0.000	0.000
	60	0	0	0.00	0.00	0.000	0.000
	61	1	0	0.00	0.00	0.000	0.000
	62	1	0	0.00	0.00	0.000	0.000
	63	1	0	0.00	0.00	0.000	0.000
	64	0	0	0.00	0.00	0.000	0.000
	65	0	0	0.00	0.00	0.000	0.000
	66	0	0	0.00	0.00	0.000	0.000
	67	0	0	0.00	0.00	0.000	0.000
	68	0	0	0.00	0.00	0.000	0.000
	69	0	0	0.00	0.00	0.000	0.000
	Total	90	0	0.00	0.00	0.000	0.000

Recommendation: No change.

TABLE 1
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
STATE EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
With More Than 24 Years of Service	40	0	0	0.00	0.00	0.000	0.000
	45	1	0	0.23	0.23	0.000	0.000
	50	20	6	4.16	4.16	1.442	1.442
	53	7	1	1.83	1.83	0.546	0.546
	54	4	0	1.05	1.05	0.000	0.000
	55	2	0	0.52	0.52	0.000	0.000
	56	3	2	0.52	0.52	3.846	3.846
	57	1	0	0.26	0.26	0.000	0.000
	58	3	2	0.26	0.26	7.692	7.692
	59	1	1	0.34	0.34	2.941	2.941
	60	0	0	0.00	0.00	0.000	0.000
	61	0	0	0.00	0.00	0.000	0.000
	62	1	1	0.34	0.34	2.941	2.941
	63	0	0	0.00	0.00	0.000	0.000
	64	0	0	0.00	0.00	0.000	0.000
	65	0	0	0.00	0.00	0.000	0.000
	66	0	0	0.00	0.00	0.000	0.000
	67	0	0	0.00	0.00	0.000	0.000
	68	0	0	0.00	0.00	0.000	0.000
	69	0	0	0.00	0.00	0.000	0.000
	Total	43	13	9.51	9.51	1.367	1.367

Recommendation: No change.

TABLE 2

**COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES**

WITHDRAWALS RECEIVING REFUND OF ACCUMULATED DEDUCTIONS

YEARS OF SERVICE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
0	All	33,688	10,240	8,275.10	9,356.13	1.237	1.094
1	All	44,089	5,533	5,396.73	5,396.73	1.025	1.025
2	All	41,141	3,758	3,286.12	3,523.83	1.144	1.066
Ultimate	20	1,088	34	80.79	68.67	0.421	0.495
	25	11,554	619	857.88	729.80	0.722	0.848
	30	23,347	1,368	1,482.35	1,408.23	0.923	0.971
	35	29,294	1,214	1,139.07	1,139.07	1.066	1.066
	40	49,481	1,477	1,365.25	1,365.25	1.082	1.082
	45	77,486	1,826	1,865.89	1,865.89	0.979	0.979
	50	99,497	1,929	1,884.31	1,884.31	1.024	1.024
	55	117,133	1,734	1,797.76	1,797.76	0.965	0.965
Subtotal Ultimate		408,880	10,201	10,473.30	10,258.98	0.974	0.994
Total Withdrawals		527,798	29,732	27,431.25	28,535.67	1.084	1.042

Recommendation: Increase the withdrawal rates for members with no service and 2 years of service.
Decrease the ultimate withdrawal rates for ages 20 through 30.

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)

DEATHS DUE TO ORDINARY CAUSES

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS						
		Exposures	Actual	Expected		Ratio of Actual to Expected		
				Current	Proposed	Current	Proposed	
Male	20	3,752	1	1.34	1.24	0.746	0.806	
	25	14,982	8	5.65	5.55	1.416	1.441	
	30	17,144	12	7.92	6.88	1.515	1.744	
	35	18,037	12	14.02	11.56	0.856	1.038	
	40	26,310	21	28.72	25.49	0.731	0.824	
	45	36,225	51	55.15	47.88	0.925	1.065	
	50	42,099	83	90.44	78.76	0.918	1.054	
	55	39,931	115	122.16	104.83	0.941	1.097	
	60	32,294	160	157.26	129.35	1.017	1.237	
	65	18,719	85	138.74	118.45	0.613	0.718	
	69	4,419	29	40.97	36.79	0.708	0.788	
	Total	253,912	577	662.37	566.78	0.871	1.018	
Female	20	3,542	0	0.64	0.56	0.000	0.000	
	25	18,025	1	3.49	3.37	0.287	0.297	
	30	21,021	7	4.54	4.17	1.542	1.679	
	35	22,674	2	7.22	5.42	0.277	0.369	
	40	38,926	14	20.32	15.54	0.689	0.901	
	45	59,960	34	47.60	36.64	0.714	0.928	
	50	73,790	69	90.82	69.83	0.760	0.988	
	55	68,871	111	125.14	98.69	0.887	1.125	
	60	54,089	134	148.92	115.33	0.900	1.162	
	65	28,163	90	117.79	90.69	0.764	0.992	
	69	6,080	20	34.08	27.06	0.587	0.739	
		Total	395,141	482	600.56	467.30	0.803	1.031
		Grand Total	649,053	1,059	1,262.93	1,034.08	0.839	1.024

Recommendation: Change the base mortality table to the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 2 years for males and 7 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)

DEATHS DUE TO ACCIDENTAL CAUSES

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Male and Female	20	7,294	0	0.06	0.06	.000	.000
	25	33,007	0	0.32	0.32	.000	.000
	30	38,165	0	0.38	0.38	.000	.000
	35	40,711	0	0.41	0.41	.000	.000
	40	65,236	0	0.64	0.64	.000	.000
	45	96,185	0	0.96	0.96	.000	.000
	50	115,889	0	1.15	1.15	.000	.000
	55	108,802	0	1.08	1.08	.000	.000
	60	86,383	0	0.85	0.85	.000	.000
	65	46,882	0	0.47	0.47	.000	.000
	69	10,499	1	0.10	0.10	10.000	10.000
	Total	649,053	1	6.42	6.42	0.156	0.156

Recommendation: No change.

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)
DISABILITY RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Due to Ordinary Causes	25	29	0	0.00	0.00	0.000	0.000
	30	2,137	1	2.14	2.14	0.467	0.467
	35	8,786	16	20.79	20.79	0.770	0.770
	40	22,040	59	82.59	66.12	0.714	0.892
	45	38,541	135	157.82	144.53	0.855	0.934
	50	57,310	299	301.46	301.46	0.992	0.992
	55	65,398	351	474.00	426.60	0.741	0.823
	60	56,429	422	559.03	503.13	0.755	0.839
	65	29,299	263	354.37	318.94	0.742	0.825
	69	6,069	53	86.08	77.47	0.616	0.684
	Total	286,038	1,599	2,038.28	1,861.18	0.784	0.859
Due to Accidental Causes	20	7,294	0	0.06	0.06	0.000	0.000
	25	33,007	0	0.90	0.90	0.000	0.000
	30	38,165	2	1.52	1.52	1.316	1.316
	35	40,711	2	1.82	1.82	1.099	1.099
	40	65,236	7	5.22	5.87	1.341	1.193
	45	96,185	15	10.09	12.61	1.487	1.190
	50	115,889	35	16.94	19.48	2.066	1.797
	55	108,802	28	19.51	23.40	1.435	1.197
	60	86,383	27	19.62	21.58	1.376	1.251
	65	46,882	8	11.72	12.63	0.683	0.633
69	10,499	5	2.64	2.82	1.894	1.773	
	Total	649,053	129	90.04	102.69	1.433	1.256
Due to All Causes	Grand Total		1,728	2,128.32	1,963.87	0.812	0.880

Recommendation: Decrease the ordinary disability retirement rates for ages 40 through 69. Increase the accidental disability retirement rates for ages 40 through 69.

TABLE 2

**COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)**

DEFERRED VESTED, EARLY AND SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Deferred Vested and Early Retirement	20	0	0	0.00	0.00	0.000	0.000
	25	0	0	0.00	0.00	0.000	0.000
	30	1,817	1	0.55	0.55	1.818	1.818
	35	8,786	1	3.55	3.55	0.282	0.282
	40	22,040	17	12.35	12.35	1.377	1.377
	45	38,451	89	91.39	91.39	0.974	0.974
	50	57,019	523	357.88	429.46	1.461	1.218
	55	75,181	893	466.13	676.33	1.916	1.320
	Total	203,294	1,524	931.85	1,213.63	1.635	1.256
Service Retirement	55	3,128	644	365.98	365.98	1.760	1.760
	56	2,916	391	341.17	341.17	1.146	1.146
	57	2,856	384	334.15	334.15	1.149	1.149
	58	2,838	398	332.04	332.04	1.199	1.199
	59	2,782	442	795.64	584.21	0.556	0.757
	60	17,472	1,766	1,362.81	1,362.81	1.296	1.296
	61	16,322	1,372	1,371.04	1,371.04	1.001	1.001
	62	15,295	1,798	2,569.57	2,055.66	0.700	0.875
	63	12,775	1,380	1,341.37	1,341.37	1.029	1.029
	64	10,430	1,203	1,095.14	1,095.14	1.098	1.098
	65	8,828	1,144	1,946.57	1,459.93	0.588	0.784
	66	8,019	1,182	1,262.98	1,262.98	0.936	0.936
	67	6,790	802	926.84	926.84	0.865	0.865
68	5,764	678	665.75	665.75	1.018	1.018	
69	4,729	543	546.20	546.20	0.994	0.994	
	Total	120,944	14,127	15,257.25	14,045.27	0.926	1.006
Due to All Causes	Grand Total		15,651	16,189.10	15,258.90	0.967	1.026

Recommendation: Increase the deferred vested and early retirement rates for ages 50 through 55.
Decrease the service retirement rates for ages 59, 62 and 65.

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
Age 55 With Less Than 20 Years of Service	55	8	0	0.24	0.24	0.000	0.000
	56	11	0	0.34	0.34	0.000	0.000
	57	8	1	0.24	0.24	4.167	4.167
	58	7	0	0.21	0.21	0.000	0.000
	59	5	0	0.15	0.15	0.000	0.000
	60	9	2	0.27	0.27	7.407	7.407
	61	6	2	0.17	0.17	11.765	11.765
	62	2	0	0.06	0.06	0.000	0.000
	63	2	0	0.06	0.06	0.000	0.000
	64	5	1	0.15	0.15	6.667	6.667
	65	3	0	0.09	0.09	0.000	0.000
	66	4	0	0.12	0.12	0.000	0.000
	67	2	0	0.06	0.06	0.000	0.000
	68	1	0	0.03	0.03	0.000	0.000
69	1	1	0.03	0.03	33.333	33.333	
	Total	74	7	2.22	2.22	3.153	3.153

Recommendation: No change.

TABLE 2

**COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)**

**CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS**

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
With 20 Years of Service	40	2	0	0.05	0.05	0.000	0.000
	45	42	3	0.99	0.99	3.030	3.030
	50	42	3	1.51	1.51	1.987	1.987
	53	3	0	0.15	0.15	0.000	0.000
	54	1	0	0.05	0.05	0.000	0.000
	55	1	0	0.05	0.05	0.000	0.000
	56	1	0	0.05	0.05	0.000	0.000
	57	3	0	0.15	0.15	0.000	0.000
	58	1	0	0.05	0.05	0.000	0.000
	59	2	0	0.10	0.10	0.000	0.000
	60	0	0	0.00	0.00	0.000	0.000
	61	2	0	0.10	0.10	0.000	0.000
	62	1	0	0.15	0.15	0.000	0.000
	63	0	0	0.00	0.00	0.000	0.000
	64	1	0	0.38	0.38	0.000	0.000
	65	0	0	0.00	0.00	0.000	0.000
	66	0	0	0.00	0.00	0.000	0.000
	67	0	0	0.00	0.00	0.000	0.000
	68	1	0	0.38	0.38	0.000	0.000
	69	0	0	0.00	0.00	0.000	0.000
	Total	103	6	4.16	4.16	1.442	1.442

Recommendation: No change.

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
With 21 to 24 Years of Service	40	0	0	0.00	0.00	0.000	0.000
	45	51	0	0.00	0.00	0.000	0.000
	50	212	2	0.00	0.00	0.000	0.000
	53	20	0	0.00	0.00	0.000	0.000
	54	17	0	0.00	0.00	0.000	0.000
	55	14	0	0.00	0.00	0.000	0.000
	56	8	0	0.00	0.00	0.000	0.000
	57	6	0	0.00	0.00	0.000	0.000
	58	6	0	0.00	0.00	0.000	0.000
	59	6	0	0.00	0.00	0.000	0.000
	60	8	0	0.00	0.00	0.000	0.000
	61	6	1	0.00	0.00	0.000	0.000
	62	6	3	0.00	0.00	0.000	0.000
	63	2	2	0.00	0.00	0.000	0.000
	64	1	0	0.00	0.00	0.000	0.000
	65	3	0	0.00	0.00	0.000	0.000
	66	0	0	0.00	0.00	0.000	0.000
	67	0	0	0.00	0.00	0.000	0.000
	68	0	0	0.00	0.00	0.000	0.000
	69	1	1	0.00	0.00	0.000	0.000
	Total	367	9	0.00	0.00	0.000	0.000

Recommendation: No change.

TABLE 2
COMPARISON OF ACTUAL AND EXPECTED SEPARATIONS
FROM ACTIVE SERVICE
LOCAL EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART
SERVICE RETIREMENTS

TYPE	CENTRAL AGE OF GROUP	NUMBER OF SEPARATIONS					
		Exposures	Actual	Expected		Ratio of Actual to Expected	
				Current	Proposed	Current	Proposed
With More Than 24 Years of Service	40	0	0	0.00	0.00	0.000	0.000
	45	0	0	0.00	0.00	0.000	0.000
	50	45	12	6.00	6.00	2.000	2.000
	53	15	5	2.44	2.44	2.049	2.049
	54	16	3	2.62	2.62	1.145	1.145
	55	16	1	2.80	2.80	0.357	0.357
	56	22	8	3.67	3.67	2.180	2.180
	57	17	4	2.97	2.97	1.347	1.347
	58	13	1	2.27	2.27	0.441	0.441
	59	13	0	2.96	2.96	0.000	0.000
	60	9	3	1.82	1.82	1.648	1.648
	61	11	2	2.50	2.50	0.800	0.800
	62	6	3	1.37	1.37	2.190	2.190
	63	4	2	0.68	0.68	2.941	2.941
	64	3	1	1.13	1.13	0.885	0.885
	65	3	2	2.00	2.00	1.000	1.000
	66	1	0	1.00	1.00	0.000	0.000
	67	1	0	1.00	1.00	0.000	0.000
	68	1	0	1.00	1.00	0.000	0.000
	69	1	0	1.00	1.00	0.000	0.000
	Total	197	47	39.23	39.23	1.198	1.198

Recommendation: No change.

TABLE 3**COMPARISON OF ACTUAL AND EXPECTED SALARIES OF MEMBERS
STATE EMPLOYEES**

CENTRAL AGE OF GROUP	SALARY INCREASE			
	Actual Salary from Previous Year	Actual	Expected	Ratio of Actual to Expected
20	\$ 26,794,062	\$ 29,444,111	\$ 28,557,562	1.0310
25	374,508,728	404,334,053	398,348,626	1.0150
30	926,199,127	991,965,819	983,116,843	1.0090
35	1,001,563,612	1,064,939,015	1,060,633,188	1.0041
40	1,399,964,203	1,475,976,599	1,478,977,819	0.9980
45	1,941,663,406	2,031,458,161	2,046,394,503	0.9927
50	2,384,616,532	2,482,277,631	2,507,357,559	0.9900
55	2,267,930,926	2,355,867,188	2,379,181,002	0.9902
60	1,565,093,766	1,624,315,745	1,637,687,468	0.9918
65	593,152,658	615,495,874	618,272,509	0.9955
Total	\$ 12,481,487,020	\$ 13,076,074,196	\$ 13,138,527,079	0.9952

Recommendation: Decrease the assumed future salary increases by 2.00% per annum for fiscal year ending 2012 through fiscal year ending 2016 and by 0.75% per annum for fiscal years ending 2017 and thereafter.

TABLE 4**COMPARISON OF ACTUAL AND EXPECTED SALARIES OF MEMBERS
LOCAL EMPLOYEES**

CENTRAL AGE OF GROUP	SALARY INCREASE			
	Actual Salary from Previous Year	Actual	Expected	Ratio of Actual to Expected
20	\$ 79,898,831	\$ 85,840,547	\$ 85,162,712	1.0080
25	579,059,837	616,893,689	616,009,960	1.0014
30	946,721,469	994,788,130	1,004,909,647	0.9899
35	1,194,160,374	1,247,789,063	1,264,521,881	0.9868
40	1,999,371,343	2,084,100,718	2,112,182,830	0.9867
45	3,001,585,357	3,120,709,606	3,163,469,574	0.9865
50	3,772,908,934	3,907,677,810	3,967,126,058	0.9850
55	3,692,322,215	3,817,287,894	3,873,394,796	0.9855
60	2,809,236,604	2,896,462,915	2,939,340,503	0.9854
65	1,294,719,753	1,333,715,744	1,349,509,254	0.9883
Total	\$ 19,369,984,717	\$ 20,105,266,116	\$ 20,375,627,215	0.9867

Recommendation: Decrease the assumed future salary increases by 2.00% per annum for fiscal year ending 2012 through fiscal year ending 2016 and by 0.75% per annum for fiscal years ending 2017 and thereafter.

TABLE 5

**COMPARISON OF ACTUAL AND EXPECTED CASES OF DEATH
AMONG RETIRED MEMBERS
STATE AND LOCAL COMBINED**

**SERVICE RETIREMENTS, EARLY RETIREMENTS AND
DEFERRED VESTED BENEFITS WHICH HAVE BECOME PAYABLE**

CENTRAL AGE OF GROUP	Number of Deaths					
	Exposures	Actual	Expected		Ratio of Actual to Expected	
			Current	Proposed	Current	Proposed
Male						
45 and under	103	0	0.2	0.2	0.000	0.000
50	897	8	2.1	1.9	3.810	4.211
55	4,974	39	19.9	17.6	1.960	2.216
60	15,594	152	113.5	99.9	1.339	1.522
65	24,219	327	314.5	278.9	1.040	1.172
70	24,423	542	544.5	489.8	0.995	1.107
75	23,291	895	890.1	798.8	1.006	1.120
80	20,917	1,313	1,355.8	1,216.7	0.968	1.079
85	14,175	1,417	1,545.9	1,391.8	0.917	1.018
90	6,347	983	1,118.4	1,017.6	0.879	0.966
95 and over	1,805	460	484.3	454.6	0.950	1.012
Total	136,745	6,136	6,389.2	5,767.8	0.960	1.064
Female						
45 and under	152	0	0.2	0.2	0.000	0.000
50	1,193	5	2.0	2.0	2.500	2.500
55	5,538	21	14.6	14.6	1.438	1.438
60	19,126	115	92.9	92.9	1.238	1.238
65	37,795	344	335.7	335.7	1.025	1.025
70	39,744	514	599.8	599.8	0.857	0.857
75	37,335	884	954.7	954.7	0.926	0.926
80	33,343	1,249	1,388.1	1,388.1	0.900	0.900
85	24,519	1,662	1,693.5	1,693.5	0.981	0.981
90	11,891	1,443	1,362.5	1,362.5	1.059	1.059
95 and over	4,052	897	742.4	742.4	1.208	1.208
Total	214,688	7,134	7,186.4	7,186.4	0.993	0.993

Recommendation: Change the male retirees' base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. No change to the female retirees' base mortality table which uses the RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 5

**COMPARISON OF ACTUAL AND EXPECTED CASES OF DEATH
AMONG RETIRED MEMBERS
STATE AND LOCAL COMBINED
DISABILITY RETIREMENTS**

CENTRAL AGE OF GROUP	Number of Deaths					
	Exposures	Actual	Expected		Ratio of Actual to Expected	
			Current	Proposed	Current	Proposed
Male						
45 and under	1,309	21	29.5	29.5	0.712	0.712
50	1,618	40	40.9	40.9	0.978	0.978
55	2,169	61	68.7	68.7	0.888	0.888
60	2,812	99	107.5	107.5	0.921	0.921
65	2,955	144	133.2	133.2	1.081	1.081
70	2,292	136	124.6	124.6	1.091	1.091
75	1,511	100	104.4	104.4	0.958	0.958
80	775	75	70.3	70.3	1.067	1.067
85	344	59	41.3	41.3	1.429	1.429
90	121	23	18.3	18.3	1.257	1.257
95 and over	22	7	5.0	5.0	1.400	1.400
Total	15,928	765	743.7	743.7	1.029	1.029
Female						
45 and under	1,173	12	8.9	8.9	1.348	1.348
50	1,750	28	19.1	19.1	1.466	1.466
55	2,906	55	45.3	45.3	1.214	1.214
60	3,707	87	77.6	77.6	1.121	1.121
65	4,344	131	116.3	116.3	1.126	1.126
70	3,444	125	121.0	121.0	1.033	1.033
75	1,995	112	96.1	96.1	1.165	1.165
80	992	77	66.2	66.2	1.163	1.163
85	398	46	36.4	36.4	1.264	1.264
90	134	26	16.9	16.9	1.538	1.538
95 and over	31	1	5.4	5.4	0.185	0.185
Total	20,874	700	609.2	609.2	1.149	1.149

Recommendation: No change to the disabled retirees' base mortality table (RP-2000 Disabled Mortality Tables, set back 3 years for males and set back 1 year for females).

TABLE 6

**COMPARISON OF ACTUAL AND EXPECTED CASES OF DEATH AMONG
DEPENDENTS OF ACTIVE AND RETIRED MEMBERS WHO HAVE DIED
STATE AND LOCAL COMBINED**

CENTRAL AGE OF GROUP	Number of Deaths					
	Exposures	Actual	Expected		Ratio of Actual to Expected	
			Current	Proposed	Current	Proposed
Male						
45 and under	276	1	0.3	0.3	3.333	3.333
50	187	2	0.4	0.4	5.000	5.000
55	314	4	1.2	1.1	3.333	3.636
60	421	6	2.9	2.6	2.069	2.308
65	496	5	6.5	5.8	0.769	0.862
70	586	15	13.2	11.9	1.136	1.261
75	681	29	25.9	23.2	1.120	1.250
80	639	42	41.5	37.3	1.012	1.126
85	548	45	60.6	54.5	0.743	0.826
90	308	57	53.8	48.9	1.059	1.166
95 and over	106	26	28.8	27.1	0.903	0.959
Total	4,562	232	235.1	213.1	0.987	1.089
Female						
45 and under	593	1	0.4	0.4	2.500	2.500
50	639	3	1.0	1.0	3.000	3.000
55	1,032	8	2.6	2.6	3.077	3.077
60	1,570	17	7.3	7.3	2.329	2.329
65	2,333	37	20.6	20.6	1.796	1.796
70	3,373	60	51.7	51.7	1.161	1.161
75	4,641	128	120.6	120.6	1.061	1.061
80	5,934	235	250.2	250.2	0.939	0.939
85	5,841	469	408.3	408.3	1.149	1.149
90	3,848	468	445.1	445.1	1.051	1.051
95 and over	1,521	334	283.2	283.2	1.179	1.179
Total	31,325	1,760	1,591.0	1,591.0	1.106	1.106

Recommendation: Change the male beneficiaries' base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. No change to the female beneficiaries' base mortality table which uses the RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

III. COMMENTS AND GENERAL RECOMMENDATION OF THE ACTUARY

RATES OF WITHDRAWALS RECEIVING REFUND OF ACCUMULATED DEDUCTIONS

The withdrawal experience of employees during their first, second and third years of service is evaluated separately. Table 1 shows that, for State employees, actual withdrawals during the first, second and third years of service have been about 101.5%, 96.2% and 103.5%, respectively, of the number expected. Since actual withdrawals are within an acceptable range of that expected, we recommend no changes in these rates. For withdrawals with three or more years of service, actual withdrawals are about 91.9% of the number expected. This is consistent with the two previous studies and we recommend a decrease in the rates for ages 20 through 35.

Table 2, employees of local employers, shows that actual withdrawals during the first, second and third years of service have been 123.7%, 102.5% and 114.4%, respectively, of the number expected. Therefore, we recommend an increase to the rates during the first and third years of service. The rates during the second year of service are within an acceptable range and we recommend no change in the rates. The actual member withdrawals after the first three years of service are only about 2.6% lower than expected. They are within an acceptable range and we recommend no change in the rates.

RATES OF DISABILITY RETIREMENT

For disability retirements, ordinary and accidental disability rates are examined separately. Tables 1 and 2 indicate that for both State and employees of local employers, overall, the tables presently in use result in the actual number of ordinary disabilities being less than the expected number of ordinary disabilities. This is consistent with the prior study. In addition, in 2007 the New Jersey Supreme Court in *Richardson v. Board of Trustees, Police and Firemen's Retirement System of*

New Jersey, liberalized the conditions for receiving an accidental disability pension. Therefore, we recommend a decrease in rates for State for ages 55 through 69 and a decrease in rates for employees of local employers for ages 40 through 69.

Tables 1 and 2 indicate that for both State and employees of local employers, the accidental disability rates presently in use result in the actual number of accidental disabilities being more than the expected number. Therefore, we recommend an increase in the rates.

RATES OF DEFERRED VESTED, EARLY AND SERVICE RETIREMENT

The Retirement System provides, upon withdrawal after 10 years of service, a deferred retirement allowance commencing at age 60 (or age 62 for members hired after November 1, 2008 but prior to June 28, 2011 or age 65 for members hired on or after June 28, 2011) and, upon withdrawal (or retirement) after 25 years of service (or 30 years for members hired on or after June 28, 2011), a retirement allowance commencing immediately. Upon retirement, after the attainment of age 60 (or age 62 or age 65, depending on date of hire) or after 25 years of service (or 30 years of service, depending on date of hire) and the attainment of age 55 (or age 62 for members hired after November 1, 2008 but prior to June 28, 2011 or age 65 for members hired on or after June 28, 2011), the retirement allowance payable is unreduced. All such withdrawals and retirements have been considered with vesting and service retirements in the experience.

Tables 1 and 2 show that, in total, actual withdrawals with a deferred benefit or early retirements with a reduced benefit entitlement have been significantly higher than anticipated for both State and employees of local employers. This is consistent with the results of the previous study and we

recommend an increase in the rates for ages 45 through 55 for State employees and an increase in the rates for ages 50 through 55 for employees of local employers.

With respect to service retirements, the experience indicates that, in total, actual retirements were less than those expected both among State and employees of local employer groups. This is consistent with the prior two studies. We recommend modifying the rates to reflect experience which will result in an overall decrease in these rates.

CHAPTER 366, P.L. 2001 – PROSECUTORS PART RATES OF SERVICE RETIREMENT

Chapter 366, P.L. 2001 provides benefits similar to those of the Police and Firemen’s Retirement System (PFRS) to prosecutor members of the System who are not eligible for enrollment in PFRS. The original costs for Chapter 366 were based primarily on PERS assumptions determined in the June 30, 2002 experience study, except for retirements with 20 to 24 years of service which were based on PFRS rates developed in the June 30, 2001 experience study. Beginning with the June 30, 2005 experience study, we have separately analyzed the retirement pattern of prosecutor members.

Tables 1 and 2 show that, overall, actual retirements for State and local employer members who retire after age 54 with less than 20 years of service are greater than expected. The same holds true for members retiring with 20 years of service. However, since the overall incidence is small and still within an acceptable range, we recommend no changes to either of these rates at this time.

Table 1 shows that the experience for State employed individuals retiring with 21 to 24 years of service is in line with expected and no change to the rates is recommended. Table 2, on the other hand, shows that there were 9 local members who actually retired when no one was expected to

retire. However, when compared to the 367 total number of local employer members exposed to these rates, the 2.5% incidence is well within an acceptable range. Therefore, we recommend no changes to these rates at this time.

With respect to the retirement experience for State and local employer members with more than 24 years of service, Table 1 and Table 2 indicate that there are more members retiring than expected. However, the incidence is small and within an acceptable range. Therefore, we recommend no changes to retirement rates for either group.

RATES OF SALARY INCREASE

Tables 3 and 4 indicate that actual salary increases during the past three years were less than the expected salary increases. The Treasurer, upon recommendation from the Directors of the Division of Pensions and Benefits and the Division of Investments, has recommended, effective with the July 1, 2011 actuarial valuation, reductions in the assumed future salary increases by 2.00% per annum for fiscal year ending 2012 through fiscal year ending 2016 and by 0.75% per annum for fiscal years ending 2017 and thereafter. The Board approved this salary scale assumption at the June 20, 2012 Board meeting. We believe this is a reasonable assumption given the experience of the System and in light of the recently enacted Chapter 44, P.L. 2010, which reduced the permissible annual increase in property taxes from 4% to 2%.

MORTALITY IMPROVEMENT

As noted in prior experience studies, we have seen continued and steady improvement in mortality rates over time. This trend is expected to continue into the future. In fact, Actuarial Standards of Practice No. 35 states that the actuary should “include an assumption as to expected mortality improvement after the measurement date”. In light of these recommendations, we recommend the use of a generational approach toward future mortality improvements for all active members.

The projection of mortality improvements on a generational basis results in a separate table for each year of birth. The rates of mortality decrease as the year of birth increases. For example, a participant born in 1960 will have a higher rate of mortality at each age than a participant born in 1965. The mortality table for birth year 1965 will have five more years of mortality improvement than the table for birth year 1960.

To create this dynamic mortality table, we will select a base mortality table that represents the current experience of the plan. Each year after the measurement date, this base table will be projected with an additional year of improvement. The resulting generational mortality table will better reflect expected future mortality improvements compared to a static table and should decrease the losses experienced by the plan over time.

We recommend the use of projection scale AA in the projection of the mortality tables.

The following table demonstrates the impact of the generational mortality improvement. It compares the expected age at death for members of various ages before and after incorporating the recommended mortality projections. The base table is the current mortality assumption for male

members retired on account of service retirement which is the RP-2000 Combined Healthy Male Mortality Table.

Age at Measurement Date	Expected Age at Death (Males)	
	Zero Future Mortality Improvement	Generational Mortality Improvement
50	80.8	82.9
55	81.2	82.8
60	81.7	83.0
65	82.6	83.5

RATES OF DEATH AMONG ACTIVE MEMBERS

Since different benefits are paid upon ordinary and accidental death, the mortality experience with respect to these two causes of death was investigated separately. Tables 1 and 2 show that, with respect to ordinary death, the total number of deaths for both State and employees of local employers were less than expected for males and females. Based on our analysis of the current State experience, we recommend the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 3 years for males and 5 years for females as the base mortality table. In addition, we recommend providing for future improvements in mortality using a generational approach based on projection scale AA. Similarly, for employees of local employers, we recommend the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 2 years for males and 7 years for females as the base mortality table. In addition, we recommend providing for future improvements in mortality using a generational approach based on projection scale AA.

No change is recommended in the accidental death rates for either group since their experience is close to what was expected relative to the small incidence of this event.

RATES OF MORTALITY AMONG SERVICE RETIREMENTS

Table 5 summarizes the total System mortality experience with respect to members retired on account of service retirement, early retirement or deferred vested benefits which have become payable. The experience indicates that actual deaths among male retirees were less than expected. Therefore, we recommend using the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year as the base table at the measurement date. In addition, we recommend providing for future improvements in mortality using a generational approach based on projection scale AA. Deaths among female retirees were well within acceptable limits. Therefore, we recommend the continued use of the RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year as the base table at the measurement date. However, we recommend providing for future improvements in mortality using a generational approach based on projection scale AA.

RATES OF MORTALITY AMONG DISABILITY RETIREMENTS

Table 5 summarizes the total System mortality experience for disability retirements. The actual number of deaths for males and females on account of disability was higher than expected. However, it was within an acceptable range. We recommend the continued use of the RP-2000 Disabled Mortality Tables with ages set back 3 years for males and 1 year for females as the base tables at the measurement date. We recommend zero future mortality improvement for disabled members.

RATES OF MORTALITY AMONG BENEFICIARIES

Table 6 presents the total System mortality experience for beneficiaries in receipt of a benefit.

The actual number of deaths for male dependents of deceased pensioners and beneficiaries in receipt of active death benefits was lower than expected. Therefore, we recommend using the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year as the base table at the measurement date. In addition, we recommend providing for future improvements in mortality using a generational approach based on projection scale AA. The number of deaths for females was higher than expected but is within an acceptable range when the incidence is compared to the total number exposed in the group. Therefore, we recommend the continued use of the RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year as the base table at the measurement date. However, we recommend providing for future improvements in mortality using a generational approach based on projection scale AA.

IV. PROPOSED NEW ASSUMPTIONS

The experience investigation for the period from July 1, 2008 to June 30, 2011 indicates the need for certain changes in the active service tables and the mortality tables for retired members and dependent beneficiaries. The proposed changes are summarized as follows:

<u>Rates</u>	<u>Proposed Changes</u>	
	<u>State</u>	<u>Local</u>
<u>Active Service Tables</u>		
• Withdrawal prior to eligibility for a benefit during first year of employment	No Change	Increase
• Withdrawal prior to eligibility for a benefit during second year of employment	No Change	No Change
• Withdrawal prior to eligibility for a benefit during third year of employment	No Change	Increase
• Withdrawal after the first three years of employment (ultimate withdrawal)	Decrease	Decrease
• Ordinary death		
Male	Decrease*	Decrease*
Female	Decrease*	Decrease*
• Accidental death	No Change	No Change
• Ordinary disability	Decrease	Decrease
• Accidental disability	Increase	Increase
• Deferred vested and early retirement	Increase	Increase
• Service retirement	Change	Decrease
• Chapter 366, P.L. 2001		
• Age 55 with less than 20 years of service	No Change	No Change
• With 20 years of service	No Change	No Change
• With 21 to 24 years of service	No Change	No Change
• With more than 24 years of service	No Change	No Change
• Salary increase	Decrease**	Decrease**

<u>Rates</u>	<u>Proposed Changes</u>	
	<u>Male</u>	<u>Female</u>
<u>Mortality Tables</u>		
• Retired members on account of service	Decrease [∅]	No Change ^{∅∅}
• Retired members on account of disability	No Change	No Change
• Beneficiaries of members	Decrease [∅]	No Change ^{∅∅}

* For State employees, change the base mortality table to the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 3 years for males and 5 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

For employees of local employers, change the base mortality table to the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 2 years for males and 7 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

** Effective with the July 1, 2011 actuarial valuation.

[∅] Change to the base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

^{∅∅} No change to the base mortality table (RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year for females). However, provide for future improvements in mortality using a generational approach based on projection scale AA.

The following tables and graphs give a comparison of the present, actual and proposed average rates of separation from active service and average rates of mortality for retirement members at quinquennial ages.

TABLE 7

**RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES**

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Select Rates of Withdrawal For Members with 0 Years of Service*			
20	0.2890	0.2579	0.2890
25	0.2890	0.1734	0.2890
30	0.2890	0.1919	0.2890
35	0.2133	0.1814	0.2133
40	0.1736	0.1547	0.1736
45	0.1633	0.1368	0.1633
50	0.1633	0.1442	0.1633
55	0.1633	0.5910	0.1633
Select Rates of Withdrawal For Members with 1 Year of Service*			
20	0.1353	0.0643	0.1353
25	0.1353	0.1110	0.1353
30	0.1353	0.1341	0.1353
35	0.1113	0.1171	0.1113
40	0.0888	0.1112	0.0888
45	0.0826	0.0930	0.0826
50	0.0765	0.0858	0.0765
55	0.0765	0.0930	0.0765
Select Rates of Withdrawal For Members with 2 Years of Service*			
20	0.0952	0.0562	0.0952
25	0.0952	0.0741	0.0952
30	0.0952	0.0911	0.0952
35	0.0823	0.0858	0.0823
40	0.0639	0.0764	0.0639
45	0.0579	0.0703	0.0579
50	0.0521	0.0774	0.0521
55	0.0521	0.0674	0.0521

*No change in the current rates.

TABLE 7
RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES

(continued)

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Ultimate Rates of Withdrawal			
20	0.0560	0.0151	0.0448
25	0.0560	0.0324	0.0448
30	0.0440	0.0357	0.0396
35	0.0315	0.0278	0.0300
40	0.0173	0.0190	0.0173
45	0.0130	0.0124	0.0130
50	0.0090	0.0103	0.0090
55	0.0088	0.0087	0.0088

TABLE 7
RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES

(continued)

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Male Ordinary Death*			
20	0.0003	0.0000	0.0003
25	0.0004	0.0008	0.0004
30	0.0004	0.0007	0.0004
35	0.0007	0.0007	0.0006
40	0.0010	0.0013	0.0009
45	0.0014	0.0011	0.0012
50	0.0020	0.0016	0.0017
55	0.0028	0.0024	0.0025
60	0.0045	0.0036	0.0036
65	0.0070	0.0057	0.0059
69	0.0088	0.0112	0.0081
Female Ordinary Death*			
20	0.0002	0.0000	0.0002
25	0.0002	0.0004	0.0002
30	0.0003	0.0002	0.0002
35	0.0004	0.0006	0.0003
40	0.0007	0.0004	0.0005
45	0.0010	0.0006	0.0007
50	0.0016	0.0014	0.0011
55	0.0023	0.0018	0.0017
60	0.0036	0.0026	0.0025
65	0.0054	0.0034	0.0039
69	0.0068	0.0037	0.0054

* Change the base mortality table to the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 3 years for males and 5 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 7
RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES

(continued)

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Accidental Death*			
20	0.00001	0.00000	0.00001
25	0.00001	0.00000	0.00001
30	0.00001	0.00000	0.00001
35	0.00001	0.00000	0.00001
40	0.00001	0.00000	0.00001
45	0.00001	0.00000	0.00001
50	0.00001	0.00000	0.00001
55	0.00001	0.00000	0.00001
60	0.00001	0.00000	0.00001
65	0.00001	0.00000	0.00001
69	0.00001	0.00000	0.00001
Ordinary Disability			
20	0.00005	0.00000	0.00005
25	0.00008	0.00000	0.00008
30	0.00090	0.00221	0.00090
35	0.00234	0.00310	0.00234
40	0.00347	0.00298	0.00347
45	0.00500	0.00417	0.00500
50	0.00598	0.00585	0.00598
55	0.00874	0.00533	0.00699
60	0.01520	0.00840	0.01180
65	0.01670	0.01387	0.01503
69	0.01923	0.01250	0.01731
Accidental Disability			
20	0.00001	0.00000	0.00001
25	0.00001	0.00000	0.00001
30	0.00003	0.00000	0.00003
35	0.00009	0.00008	0.00009
40	0.00015	0.00019	0.00017
45	0.00019	0.00020	0.00019
50	0.00024	0.00037	0.00030
55	0.00032	0.00045	0.00039
60	0.00041	0.00040	0.00041
65	0.00049	0.00078	0.00060
69	0.00052	0.00000	0.00062

*No change in the current rates.

TABLE 7**RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES****(continued)**

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Withdrawal after Eligibility for a Benefit (Deferred Vested and Early Retirement)			
30	0.0000	0.0000	0.0000
35	0.0005	0.0002	0.0005
40	0.0006	0.0008	0.0006
45	0.0025	0.0040	0.0032
50	0.0070	0.0156	0.0110
55	0.0070	0.0225	0.0150
Service Retirement			
55	0.1540	0.1992	0.1750
56	0.1120	0.1714	0.1400
57	0.1120	0.1547	0.1300
58	0.1120	0.1413	0.1300
59	0.2100	0.1684	0.1900
60	0.0880	0.1061	0.0900
61	0.0880	0.0991	0.0900
62	0.1800	0.1254	0.1620
63	0.1400	0.1100	0.1260
64	0.1500	0.1127	0.1350
65	0.2310	0.1279	0.1800
66	0.1800	0.1586	0.1700
67	0.1500	0.1425	0.1500
68	0.1500	0.1264	0.1500
69	0.1500	0.1070	0.1500

TABLE 7
RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES
 (continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART

AGE	Age 55 with Less Than 20 Years of Service			With 20 Years of Service		
	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*
40				0.0200	0.0000	0.0200
45				0.0250	0.0000	0.0250
50				0.0375	0.0000	0.0375
53				0.0500	0.0000	0.0500
54				0.0500	0.0000	0.0500
55	0.0259	0.0000	0.0259	0.0500	0.0000	0.0500
56	0.0259	0.0000	0.0259	0.0500	0.0000	0.0500
57	0.0259	0.0000	0.0259	0.0500	0.0000	0.0500
58	0.0263	0.0000	0.0263	0.0500	0.0000	0.0500
59	0.0263	0.0000	0.0263	0.0500	0.0000	0.0500
60	0.0263	0.0000	0.0263	0.0500	0.0000	0.0500
61	0.0263	0.3333	0.0263	0.0500	0.0000	0.0500
62	0.0263	0.3750	0.0263	0.1500	0.0000	0.1500
63	0.0263	0.0000	0.0263	0.1500	0.0000	0.1500
64	0.0263	0.3333	0.0263	0.3750	0.0000	0.3750
65	0.0263	0.0000	0.0263	0.3750	0.0000	0.3750
66	0.0263	0.0000	0.0263	0.3750	1.0000	0.3750
67	0.0263	0.0000	0.0263	0.3750	0.0000	0.3750
68	0.0263	0.0000	0.0263	0.3750	0.0000	0.3750
69	0.0263	0.0000	0.0263	0.3750	0.0000	0.3750

*No change in the current rates.

TABLE 7
RATES OF SEPARATION FROM ACTIVE SERVICE
OF STATE EMPLOYEES
(continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART

AGE	With 21 to 24 Years of Service			With More than 24 Years of Service		
	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*
40	0.0000	0.0000	0.0000	0.2310	0.0000	0.2310
45	0.0000	0.0000	0.0000	0.2310	0.0000	0.2310
50	0.0000	0.0000	0.0000	0.2310	0.3000	0.2310
53	0.0000	0.0000	0.0000	0.2622	0.1429	0.2622
54	0.0000	0.0000	0.0000	0.2622	0.0000	0.2622
55	0.0000	0.0000	0.0000	0.2622	0.0000	0.2622
56	0.0000	0.0000	0.0000	0.2622	0.6667	0.2622
57	0.0000	0.0000	0.0000	0.2622	0.0000	0.2622
58	0.0000	0.0000	0.0000	0.2622	0.6667	0.2622
59	0.0000	0.0000	0.0000	0.3417	1.0000	0.3417
60	0.0000	0.0000	0.0000	0.3417	0.0000	0.3417
61	0.0000	0.0000	0.0000	0.3417	0.0000	0.3417
62	0.0000	0.0000	0.0000	0.3417	1.0000	0.3417
63	0.0000	0.0000	0.0000	0.3417	0.0000	0.3417
64	0.0000	0.0000	0.0000	0.5670	0.0000	0.5670
65	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
66	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
67	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
68	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
69	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000

*No change in the current rates.

TABLE 8**RATES OF SEPARATION FROM ACTIVE SERVICE
EMPLOYEES OF LOCAL EMPLOYERS**

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Select Rates of Withdrawal For Members with 0 Years of Service			
20	0.2923	0.2788	0.3215
25	0.2923	0.3513	0.3215
30	0.2708	0.3493	0.3114
35	0.2262	0.3227	0.2714
40	0.2140	0.2824	0.2568
45	0.2066	0.2773	0.2480
50	0.2068	0.2663	0.2275
55	0.2033	0.2525	0.2237
Select Rates of Withdrawal For Members with 1 Year of Service*			
20	0.1512	0.0895	0.1512
25	0.1512	0.1459	0.1512
30	0.1471	0.1760	0.1471
35	0.1193	0.1393	0.1193
40	0.1054	0.1131	0.1054
45	0.1008	0.1098	0.1008
50	0.0961	0.1114	0.0961
55	0.0940	0.1039	0.0940
Select Rates of Withdrawal For Members with 2 Years of Service			
20	0.1219	0.0475	0.1219
25	0.1219	0.1065	0.1219
30	0.1012	0.1242	0.1114
35	0.0770	0.1086	0.0847
40	0.0695	0.0825	0.0764
45	0.0649	0.0796	0.0713
50	0.0602	0.0800	0.0662
55	0.0581	0.0841	0.0639

*No change in the current rates.

TABLE 8

**RATES OF SEPARATION FROM ACTIVE SERVICE
EMPLOYEES OF LOCAL EMPLOYERS**

(continued)

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Ultimate Rates of Withdrawal			
20	0.0743	0.0313	0.0631
25	0.0743	0.0536	0.0631
30	0.0638	0.0586	0.0606
35	0.0391	0.0414	0.0391
40	0.0277	0.0298	0.0277
45	0.0242	0.0236	0.0242
50	0.0190	0.0194	0.0190
55	0.0154	0.0148	0.0154

TABLE 8
RATES OF SEPARATION FROM ACTIVE SERVICE
EMPLOYEES OF LOCAL EMPLOYERS

(continued)

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Male Ordinary Death*			
20	0.0004	0.0003	0.0003
25	0.0004	0.0005	0.0004
30	0.0005	0.0007	0.0004
35	0.0008	0.0007	0.0006
40	0.0011	0.0008	0.0010
45	0.0015	0.0014	0.0013
50	0.0022	0.0020	0.0019
55	0.0031	0.0029	0.0026
60	0.0049	0.0050	0.0040
65	0.0076	0.0045	0.0065
69	0.0093	0.0066	0.0084
Female Ordinary Death*			
20	0.0002	0.0000	0.0002
25	0.0002	0.0001	0.0002
30	0.0002	0.0003	0.0002
35	0.0003	0.0001	0.0002
40	0.0005	0.0004	0.0004
45	0.0008	0.0006	0.0006
50	0.0012	0.0009	0.0009
55	0.0018	0.0016	0.0014
60	0.0028	0.0025	0.0021
65	0.0043	0.0032	0.0033
69	0.0056	0.0033	0.0045

* Change the base mortality table to the RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 2 years for males and 7 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 8

**RATES OF SEPARATION FROM ACTIVE SERVICE
EMPLOYEES OF LOCAL EMPLOYERS**

(continued)

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Accidental Death*			
20	0.00001	0.00000	0.00001
25	0.00001	0.00000	0.00001
30	0.00001	0.00000	0.00001
35	0.00001	0.00000	0.00001
40	0.00001	0.00000	0.00001
45	0.00001	0.00000	0.00001
50	0.00001	0.00000	0.00001
55	0.00001	0.00000	0.00001
60	0.00001	0.00000	0.00001
65	0.00001	0.00000	0.00001
69	0.00001	0.00010	0.00001
Ordinary Disability			
20	0.00000	0.00000	0.00000
25	0.00000	0.00000	0.00000
30	0.00081	0.00047	0.00081
35	0.00224	0.00182	0.00224
40	0.00370	0.00268	0.00300
45	0.00407	0.00350	0.00375
50	0.00522	0.00522	0.00522
55	0.00725	0.00537	0.00653
60	0.00995	0.00748	0.00896
65	0.01227	0.00898	0.01104
69	0.01442	0.00873	0.01280
Accidental Disability			
20	0.00001	0.00000	0.00001
25	0.00003	0.00000	0.00003
30	0.00004	0.00005	0.00004
35	0.00004	0.00005	0.00004
40	0.00008	0.00011	0.00009
45	0.00010	0.00016	0.00013
50	0.00015	0.00030	0.00017
55	0.00018	0.00026	0.00022
60	0.00023	0.00031	0.00025
65	0.00025	0.00017	0.00027
69	0.00025	0.00048	0.00029

*No change in the current rates.

TABLE 8**RATES OF SEPARATION FROM ACTIVE SERVICE
EMPLOYEES OF LOCAL EMPLOYERS****(continued)**

AGE	PRESENT RATES	ACTUAL RATES	PROPOSED RATES
Withdrawal after Eligibility for a Benefit (Deferred Vested and Early Retirement)			
30	0.0003	0.0006	0.0003
35	0.0004	0.0001	0.0004
40	0.0006	0.0008	0.0006
45	0.0023	0.0023	0.0023
50	0.0062	0.0092	0.0074
55	0.0062	0.0119	0.0090
Service Retirement			
55	0.1170	0.2059	0.1170
56	0.1170	0.1341	0.1170
57	0.1170	0.1345	0.1170
58	0.1170	0.1402	0.1170
59	0.2860	0.1589	0.2100
60	0.0780	0.1011	0.0780
61	0.0840	0.0841	0.0840
62	0.1680	0.1176	0.1344
63	0.1050	0.1080	0.1050
64	0.1050	0.1153	0.1050
65	0.2205	0.1296	0.1654
66	0.1575	0.1474	0.1575
67	0.1365	0.1181	0.1365
68	0.1155	0.1176	0.1155
69	0.1155	0.1148	0.1155

TABLE 8
RATES OF SEPARATION FROM ACTIVE SERVICE
OF LOCAL EMPLOYEES
 (continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART

AGE	Age 55 with Less Than 20 Years of Service			With 20 Years of Service		
	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*
40				0.0200	0.0000	0.0200
45				0.0250	0.0714	0.0250
50				0.0375	0.0714	0.0375
53				0.0500	0.0000	0.0500
54				0.0500	0.0000	0.0500
55	0.0306	0.0000	0.0306	0.0500	0.0000	0.0500
56	0.0306	0.0000	0.0306	0.0500	0.0000	0.0500
57	0.0306	0.1250	0.0306	0.0500	0.0000	0.0500
58	0.0306	0.0000	0.0306	0.0500	0.0000	0.0500
59	0.0306	0.0000	0.0306	0.0500	0.0000	0.0500
60	0.0306	0.2222	0.0306	0.0500	0.0000	0.0500
61	0.0306	0.3333	0.0306	0.0500	0.0000	0.0500
62	0.0306	0.0000	0.0306	0.1500	0.0000	0.1500
63	0.0306	0.0000	0.0306	0.1500	0.0000	0.1500
64	0.0306	0.2000	0.0306	0.3750	0.0000	0.3750
65	0.0306	0.0000	0.0306	0.3750	0.0000	0.3750
66	0.0306	0.0000	0.0306	0.3750	0.0000	0.3750
67	0.0306	0.0000	0.0306	0.3750	0.0000	0.3750
68	0.0306	0.0000	0.0306	0.3750	0.0000	0.3750
69	0.0306	1.0000	0.0306	0.3750	0.0000	0.3750

*No change in the current rates.

TABLE 8
RATES OF SEPARATION FROM ACTIVE SERVICE
OF LOCAL EMPLOYEES
 (continued)

CHAPTER 366, P.L. 2001 – PROSECUTORS PART

AGE	With 21 to 24 Years of Service			With More than 24 Years of Service		
	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*	PRESENT RATES	ACTUAL RATES	PROPOSED RATES*
40	0.0000	0.0000	0.0000	0.1540	0.0000	0.1540
45	0.0000	0.0000	0.0000	0.1540	0.0000	0.1540
50	0.0000	0.0094	0.0000	0.1540	0.2667	0.1540
53	0.0000	0.0000	0.0000	0.1748	0.3333	0.1748
54	0.0000	0.0000	0.0000	0.1748	0.1875	0.1748
55	0.0000	0.0000	0.0000	0.1748	0.0625	0.1748
56	0.0000	0.0000	0.0000	0.1748	0.3636	0.1748
57	0.0000	0.0000	0.0000	0.1748	0.2353	0.1748
58	0.0000	0.0000	0.0000	0.1748	0.0769	0.1748
59	0.0000	0.0000	0.0000	0.2278	0.0000	0.2278
60	0.0000	0.0000	0.0000	0.2278	0.3333	0.2278
61	0.0000	0.1667	0.0000	0.2278	0.1818	0.2278
62	0.0000	0.5000	0.0000	0.2278	0.5000	0.2278
63	0.0000	1.0000	0.0000	0.2278	0.5000	0.2278
64	0.0000	0.0000	0.0000	0.3780	0.3333	0.3780
65	0.0000	0.0000	0.0000	1.0000	0.6667	1.0000
66	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
67	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
68	0.0000	0.0000	0.0000	1.0000	0.0000	1.0000
69	0.0000	1.0000	0.0000	1.0000	0.0000	1.0000

*No change in the current rates.

TABLE 9
COMPARISON OF ACTUAL AND EXPECTED
SALARY INCREASES

STATE

AGE	CURRENT RATES	ACTUAL RATES	PROPOSED RATES	
			Fiscal Year Ending 2012 through Fiscal Year Ending 2016	Fiscal Years Ending 2017 and Thereafter
20	6.63%	9.89%	4.63%	5.88%
25	6.40%	7.96%	4.40%	5.65%
30	6.15%	7.10%	4.15%	5.40%
35	5.90%	6.33%	3.90%	5.15%
40	5.65%	5.43%	3.65%	4.90%
45	5.40%	4.62%	3.40%	4.65%
50	5.15%	4.10%	3.15%	4.40%
55	4.90%	3.88%	2.90%	4.15%
60	4.62%	3.78%	2.62%	3.87%
65	4.21%	3.77%	2.21%	3.46%

LOCAL EMPLOYERS

AGE	CURRENT RATES	ACTUAL RATES	PROPOSED RATES	
			Fiscal Year Ending 2012 through Fiscal Year Ending 2016	Fiscal Years Ending 2017 and Thereafter
20	6.63%	7.44%	4.63%	5.88%
25	6.40%	6.53%	4.40%	5.65%
30	6.15%	5.08%	4.15%	5.40%
35	5.90%	4.49%	3.90%	5.15%
40	5.65%	4.24%	3.65%	4.90%
45	5.40%	3.97%	3.40%	4.65%
50	5.15%	3.57%	3.15%	4.40%
55	4.90%	3.38%	2.90%	4.15%
60	4.62%	3.10%	2.62%	3.87%
65	4.21%	3.01%	2.21%	3.46%

TABLE 10**RATES OF MORTALITY FOR RETIRED MEMBERS ON ACCOUNT OF SERVICE****STATE AND LOCAL EMPLOYEES COMBINED****(continued)**

Age	MALE			FEMALE		
	Present Rate	Actual Rate	Proposed Rate*	Present Rate	Actual Rate	Proposed Rate**
45	0.00151	0.00000	0.00141	0.00103	0.00000	0.00103
50	0.00222	0.00892	0.00204	0.00157	0.00419	0.00157
55	0.00373	0.00784	0.00332	0.00249	0.00379	0.00249
60	0.00688	0.00975	0.00607	0.00454	0.00601	0.00454
65	0.01290	0.01350	0.01144	0.00872	0.00910	0.00872
70	0.02235	0.02219	0.02011	0.01516	0.01293	0.01516
75	0.03824	0.03843	0.03431	0.02563	0.02368	0.02563
80	0.06539	0.06277	0.05867	0.04197	0.03746	0.04197
85	0.11182	0.09996	0.10071	0.07043	0.06778	0.07043
90	0.18336	0.15488	0.16725	0.11981	0.12135	0.11981
95	0.26712	0.25485	0.25047	0.18215	0.22137	0.18215

* Change the base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

** No change to the base mortality table (RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year). However, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 10**RATES OF MORTALITY FOR RETIRED MEMBERS ON ACCOUNT OF DISABILITY****STATE AND LOCAL EMPLOYEES COMBINED
(continued)**

Age	MALE			FEMALE		
	Present Rate	Actual Rate	Proposed Rate*	Present Rate	Actual Rate	Proposed Rate*
45	0.02257	0.01604	0.02257	0.00760	0.01023	0.00760
50	0.02513	0.02472	0.02513	0.01067	0.01600	0.01067
55	0.03156	0.02812	0.03156	0.01551	0.01893	0.01551
60	0.03804	0.03521	0.03804	0.02078	0.02347	0.02078
65	0.04508	0.04873	0.04508	0.02672	0.03016	0.02672
70	0.05467	0.05934	0.05467	0.03553	0.03630	0.03553
75	0.06973	0.06618	0.06973	0.04911	0.05614	0.04911
80	0.09244	0.09677	0.09244	0.06806	0.07762	0.06806
85	0.12201	0.17151	0.12201	0.09425	0.11558	0.09425
90	0.15532	0.19008	0.15532	0.13154	0.19403	0.13154
95	0.21683	0.31818	0.21683	0.18261	0.03226	0.18261

* No change to the base mortality table (RP-2000 Disabled Mortality Tables with ages set back 3 years for males and 1 year for females).

TABLE 10**RATES OF MORTALITY FOR ALL BENEFICIARIES OF DECEASED MEMBERS****STATE AND LOCAL EMPLOYEES COMBINED****(continued)**

Age	MALE			FEMALE		
	Present Rate	Actual Rate	Proposed Rate*	Present Rate	Actual Rate	Proposed Rate**
45	0.00151	0.00362	0.00141	0.00103	0.00168	0.00103
50	0.00222	0.01070	0.00204	0.00157	0.00472	0.00157
55	0.00373	0.01274	0.00332	0.00249	0.00775	0.00249
60	0.00688	0.01425	0.00607	0.00454	0.01083	0.00454
65	0.01290	0.01008	0.01144	0.00872	0.01586	0.00872
70	0.02235	0.02560	0.02011	0.01516	0.01779	0.01516
75	0.03824	0.04258	0.03431	0.02563	0.02760	0.02563
80	0.06539	0.06573	0.05867	0.04197	0.03964	0.04197
85	0.11182	0.08212	0.10071	0.07043	0.08029	0.07043
90	0.18336	0.18506	0.16725	0.11981	0.12162	0.11981
95	0.26712	0.24528	0.25047	0.18215	0.21960	0.18215

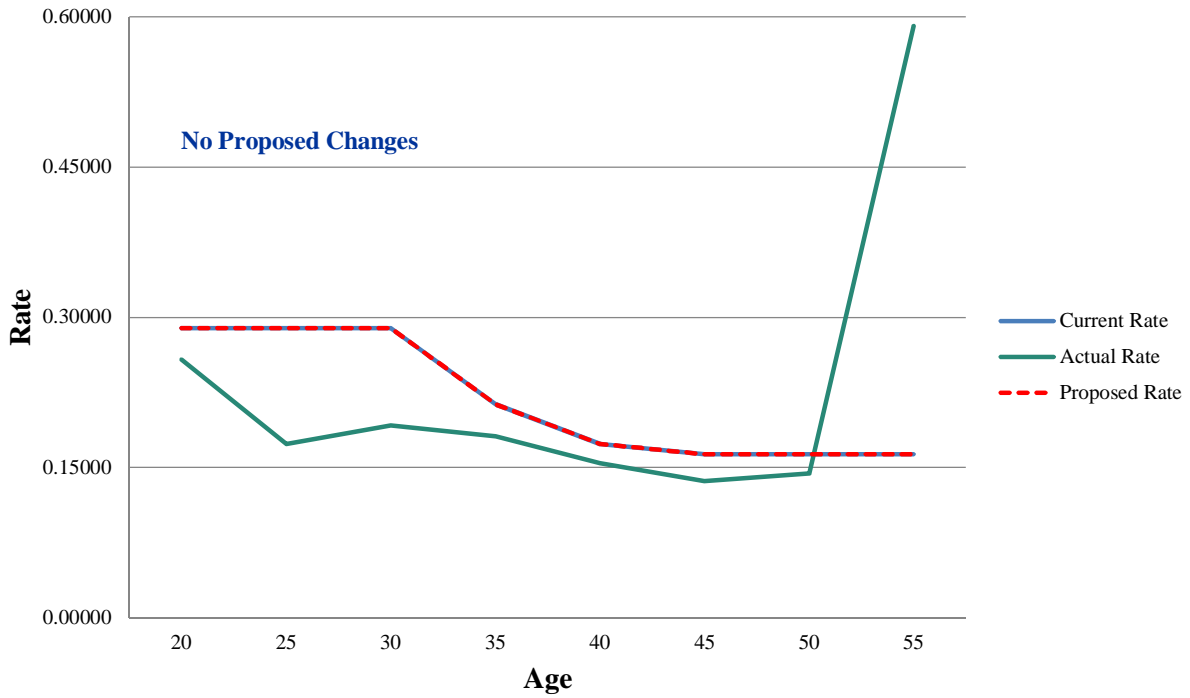
* Change the base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

** No change to the base mortality table (RP-2000 Combined Healthy Female Mortality Table with ages set back 1 year). However, provide for future improvements in mortality using a generational approach based on projection scale AA.

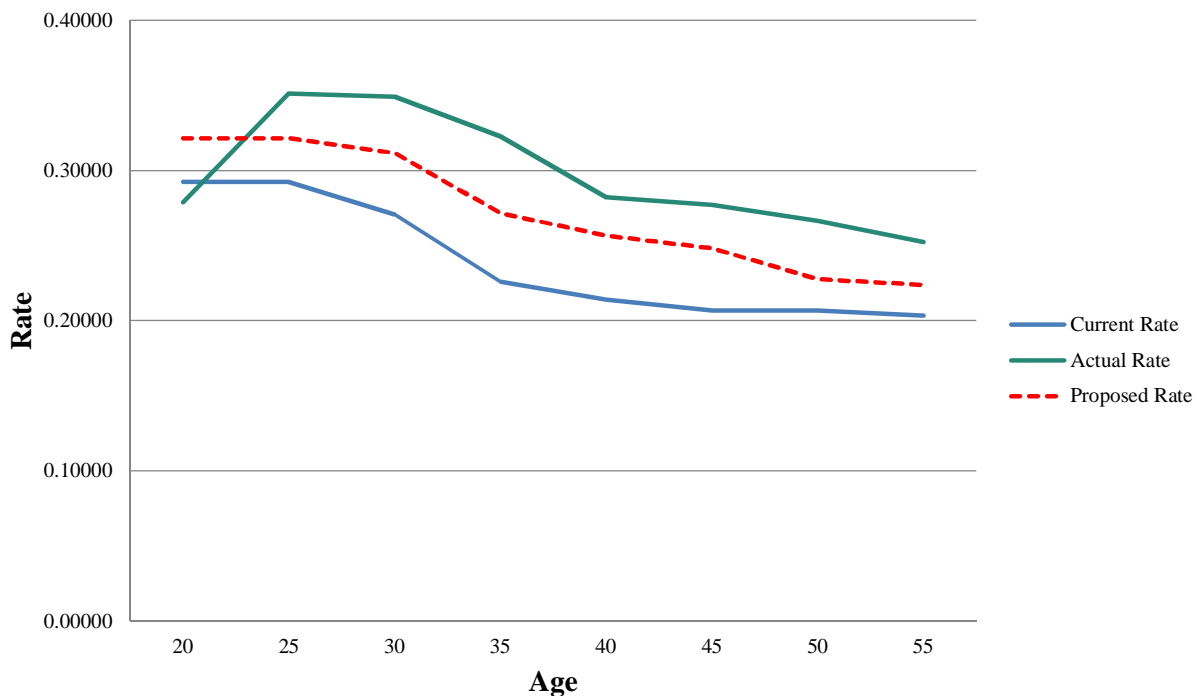
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Withdrawals During First Year of Employment

State



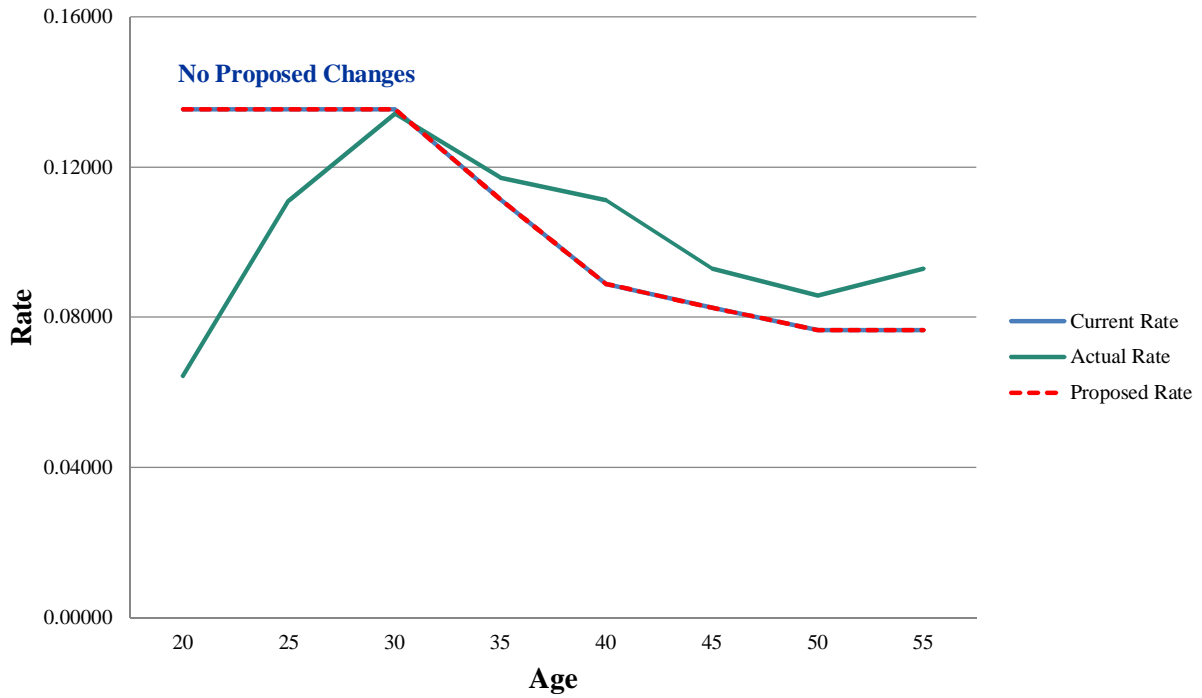
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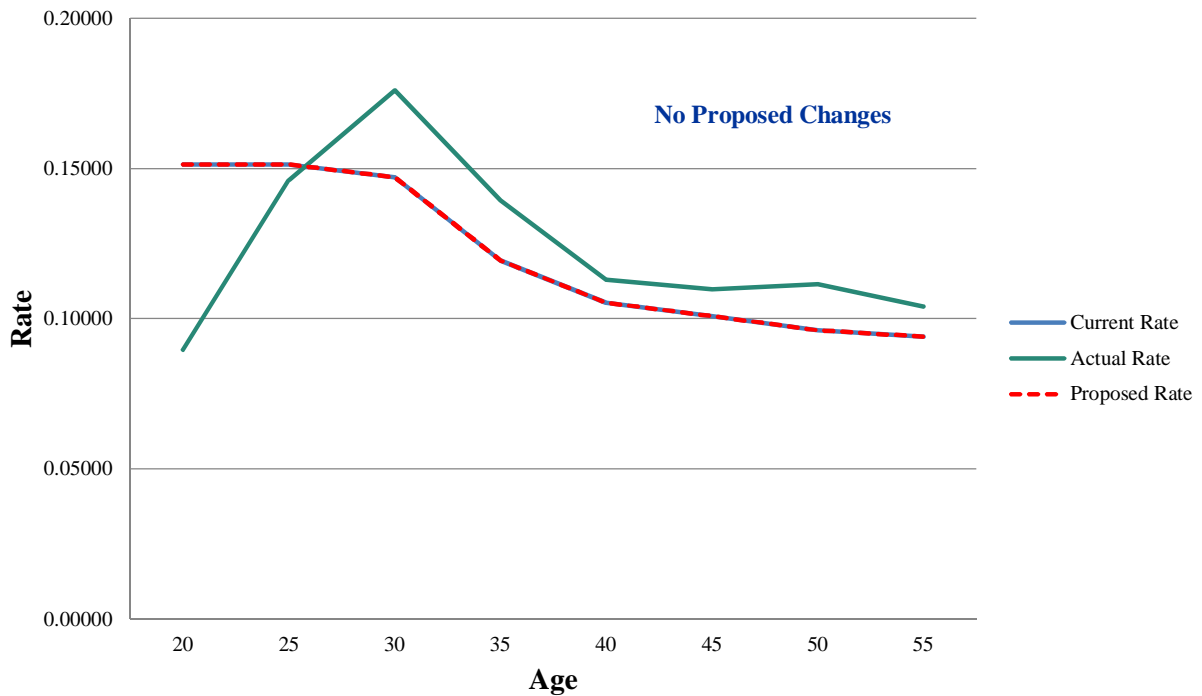
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Withdrawals During Second Year of Employment

State



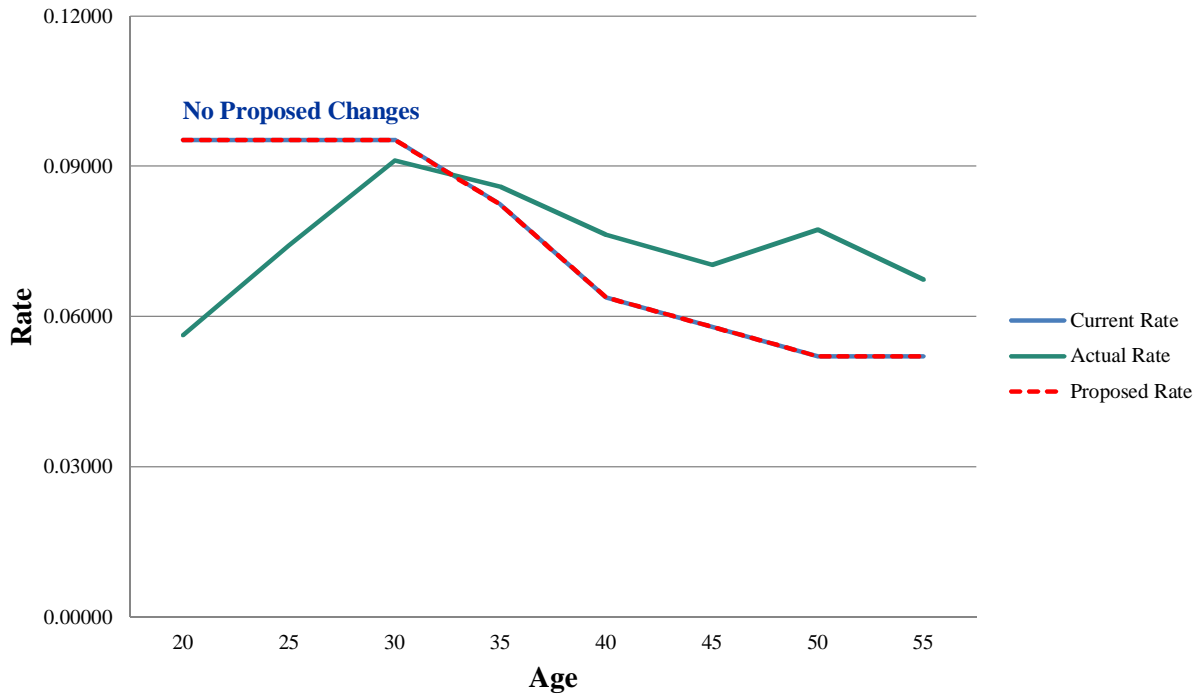
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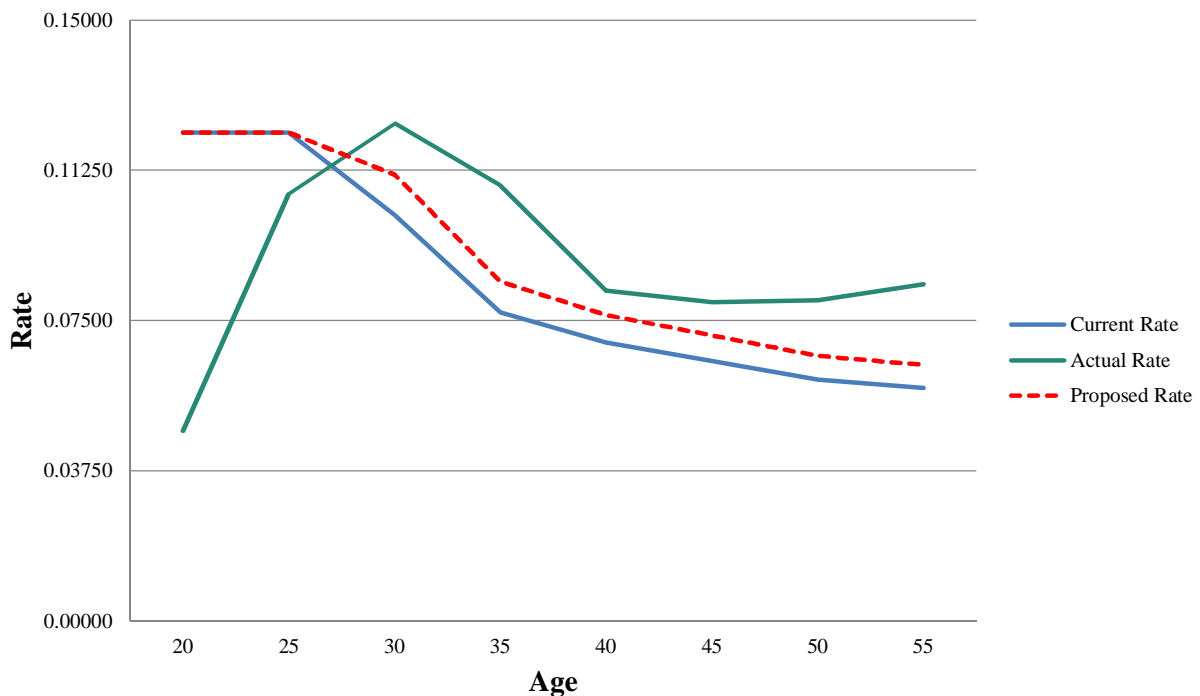
Public Employees' Retirement System of New Jersey July 1, 2008 through June 30, 2011

Withdrawals During Third Year of Employment

State



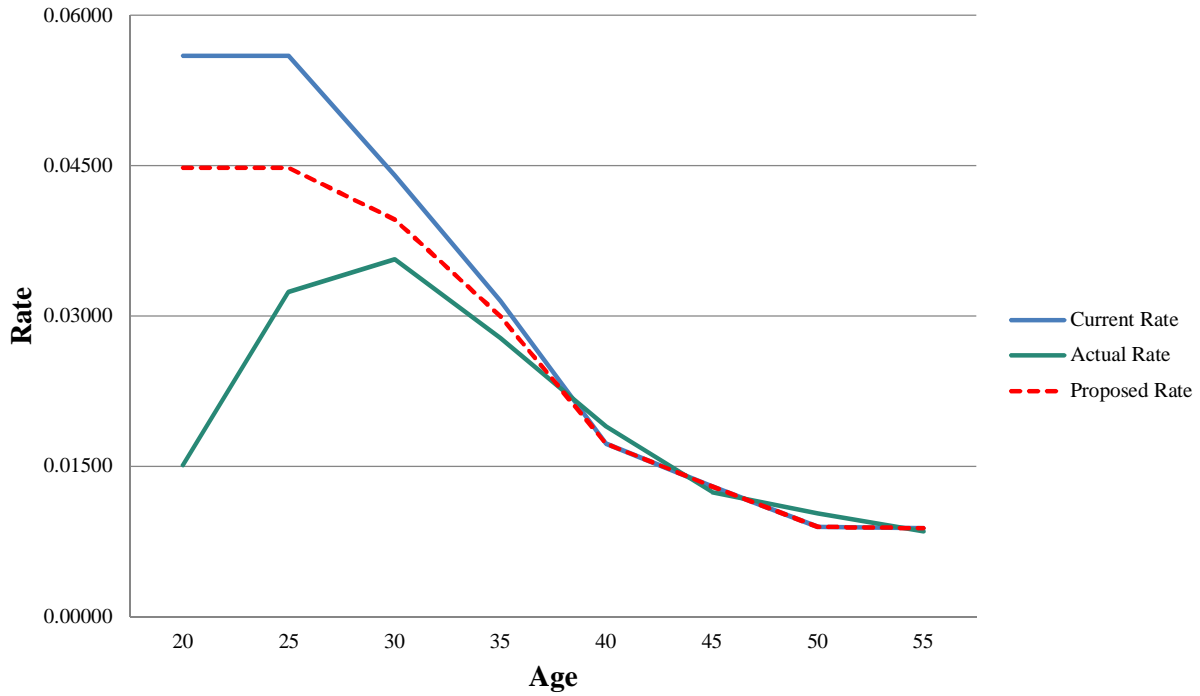
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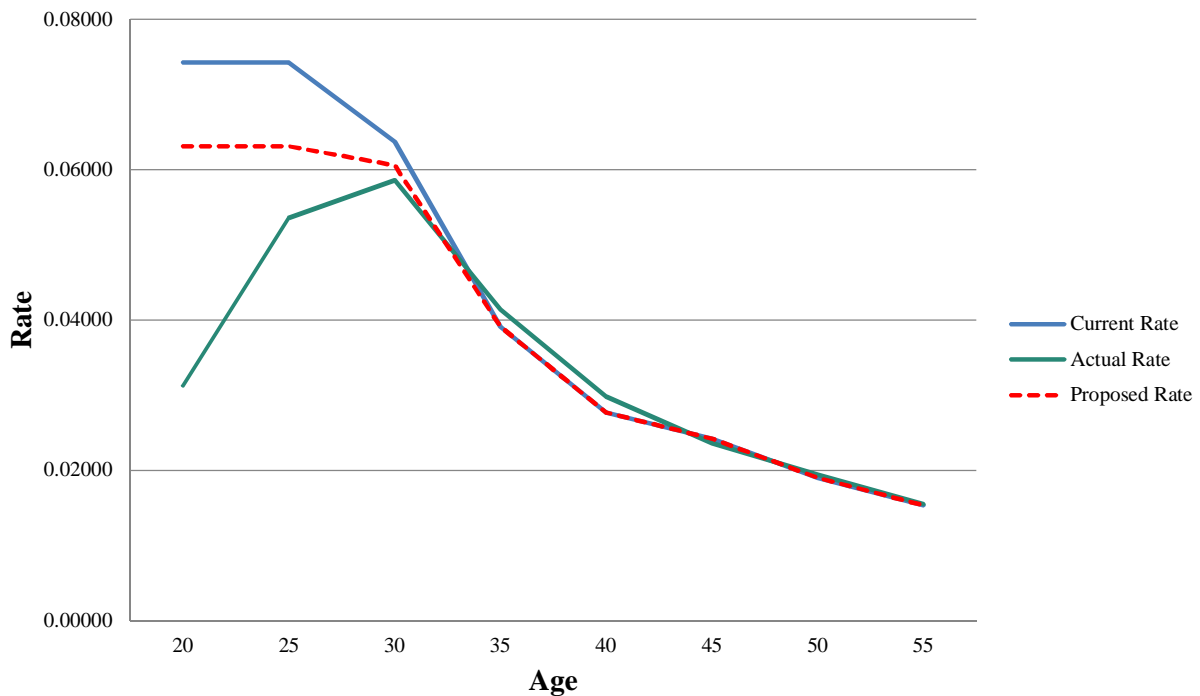
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Ultimate Rates of Withdrawal

State



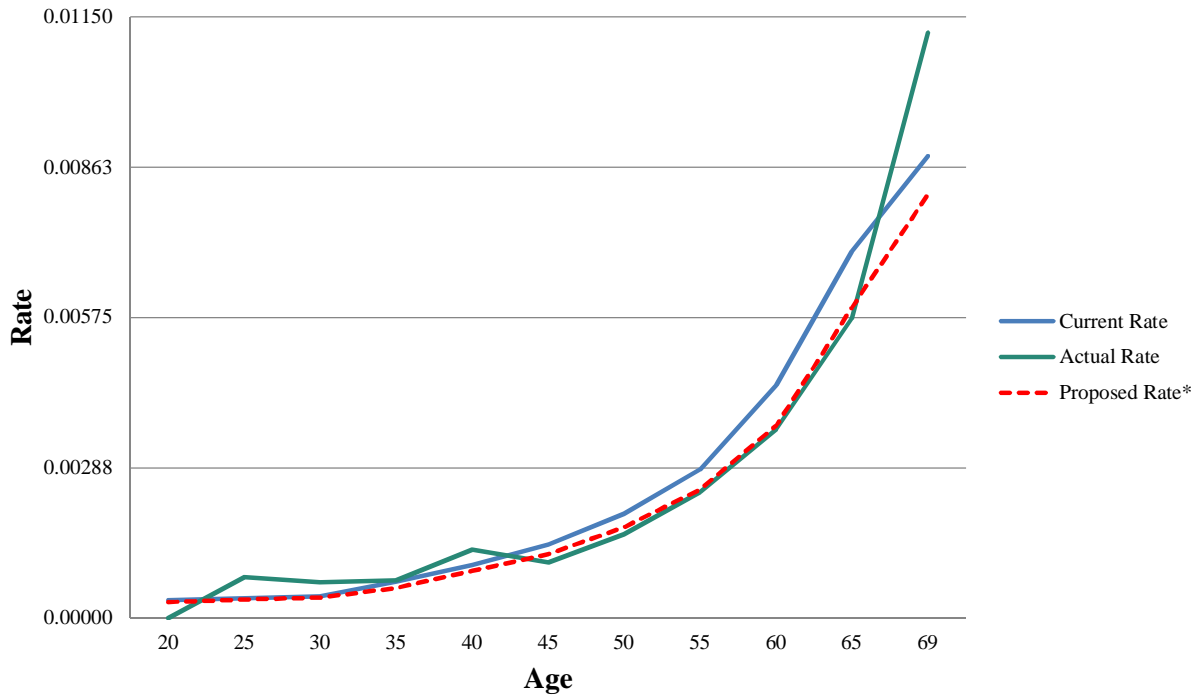
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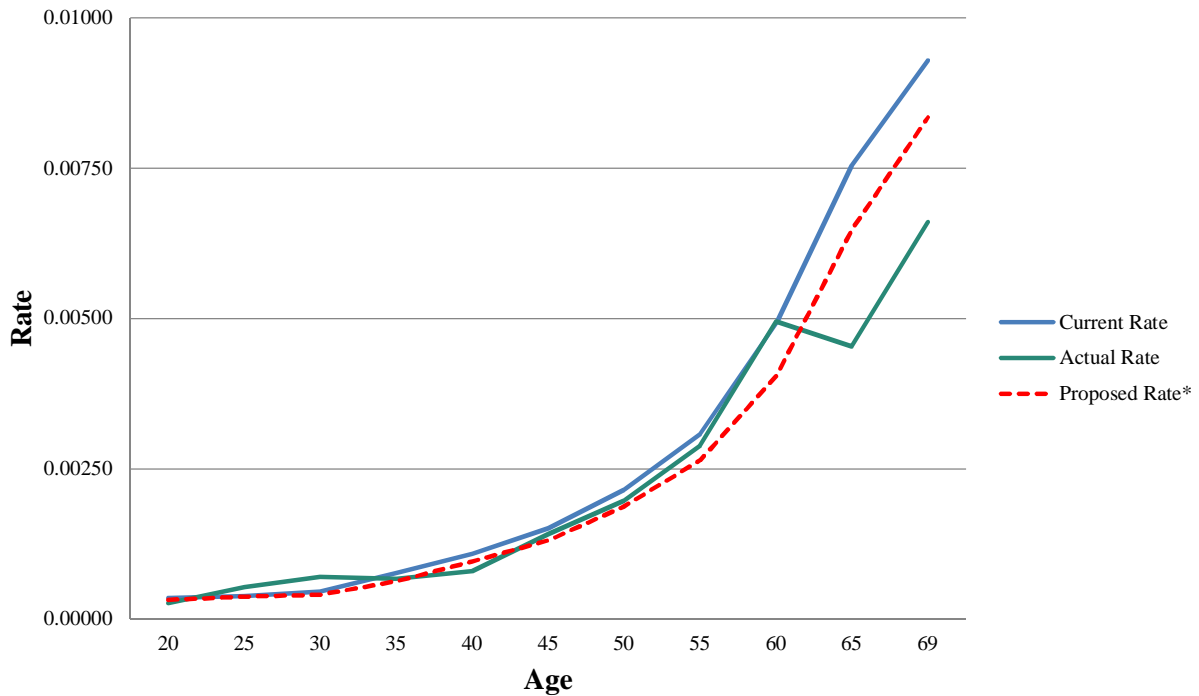
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Ordinary Death Among Male Active Members

State



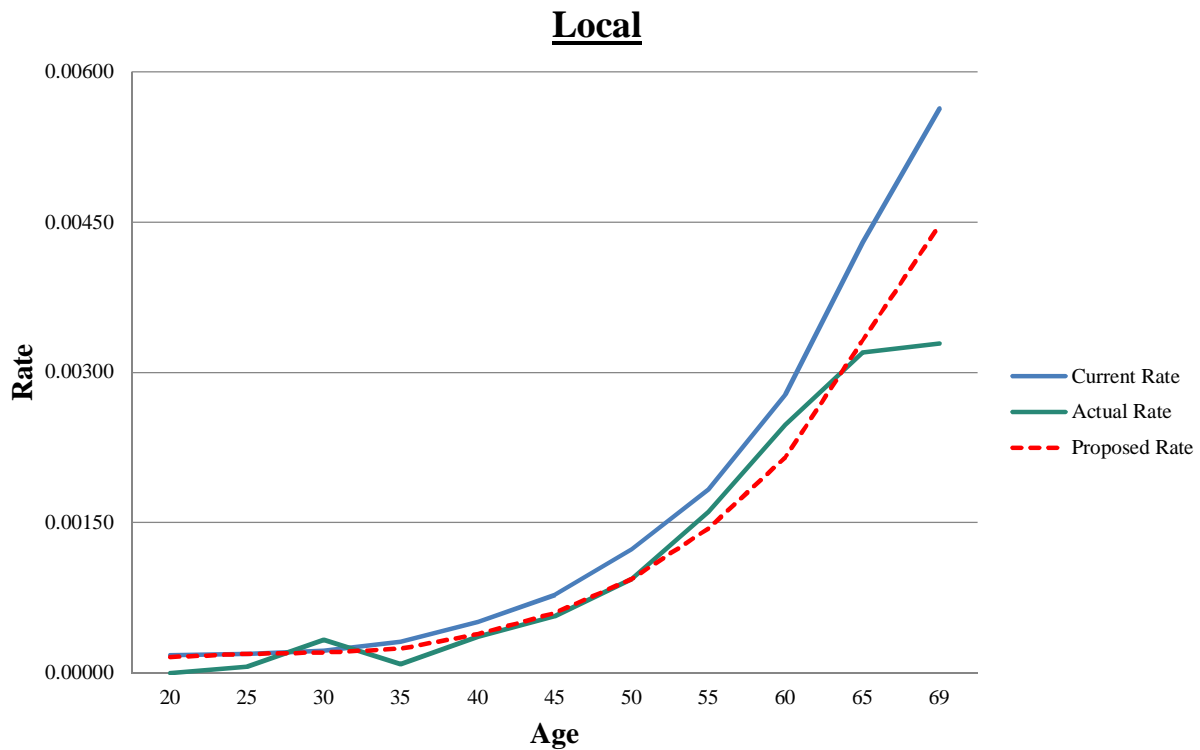
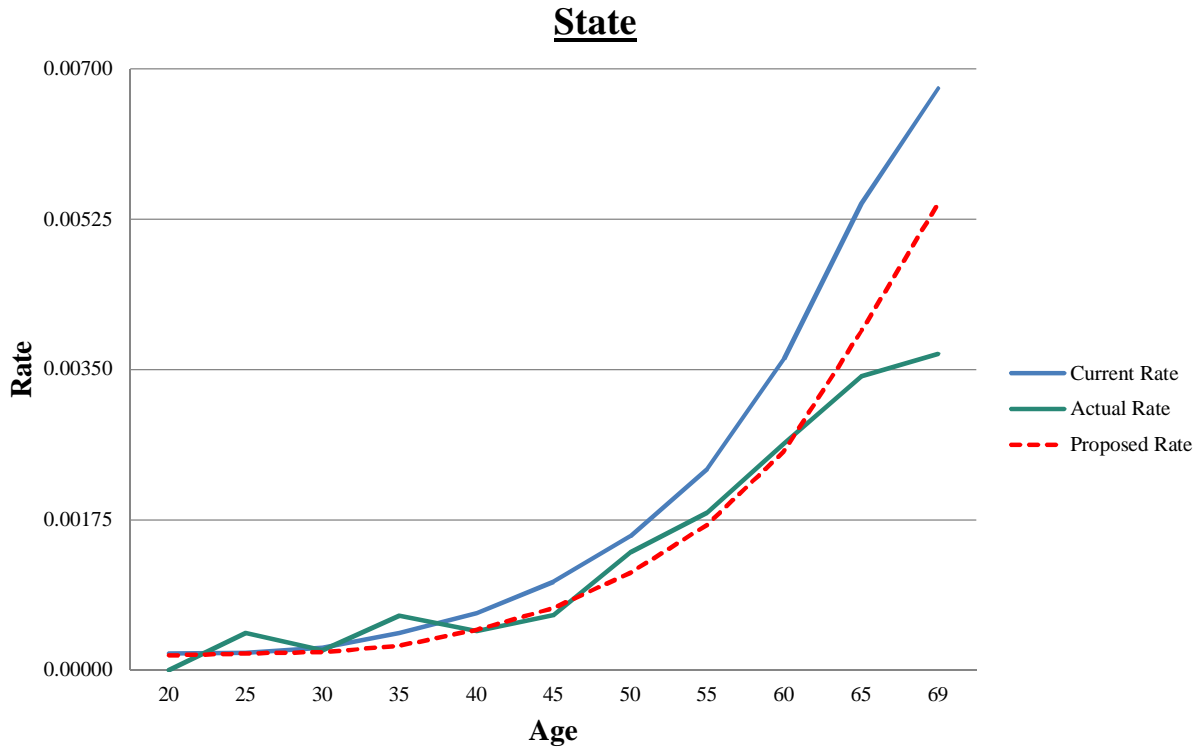
Local



* Base mortality table is the RP-2000 Combined Healthy Mortality Table for Males with ages set back 3 years for State and 2 years for local members. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Ordinary Death Among Female Active Members

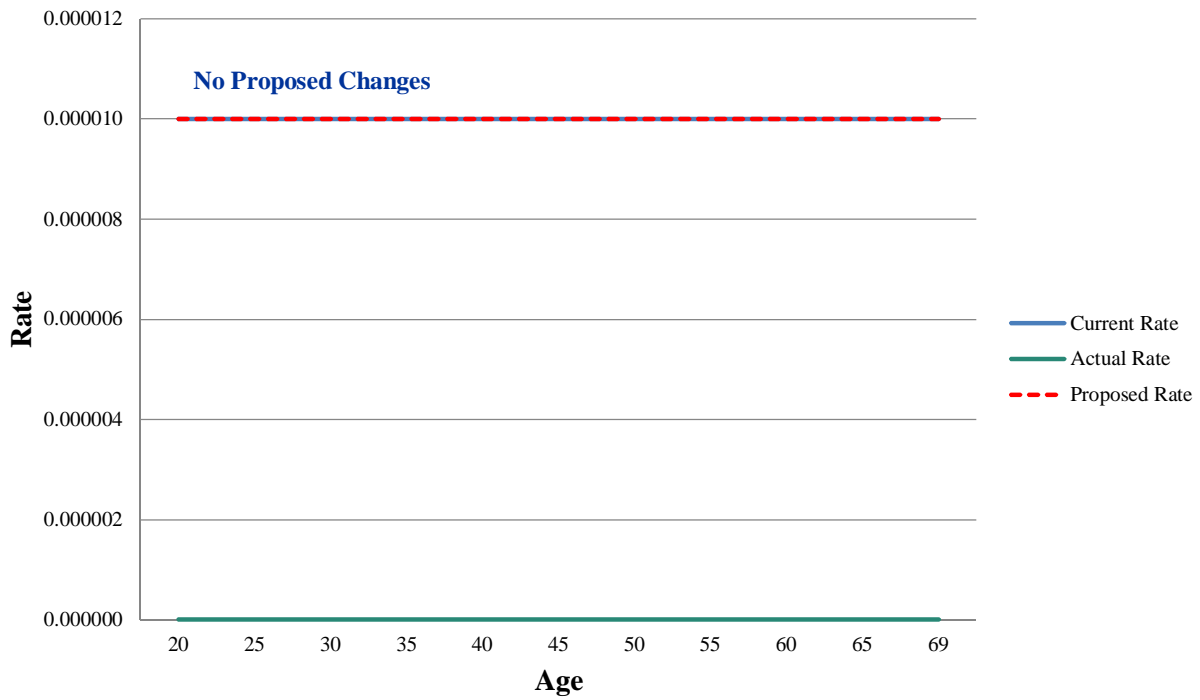


* Base mortality table is the RP-2000 Combined Healthy Mortality Table for Females with ages set back 5 years for State and 7 years for local members. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

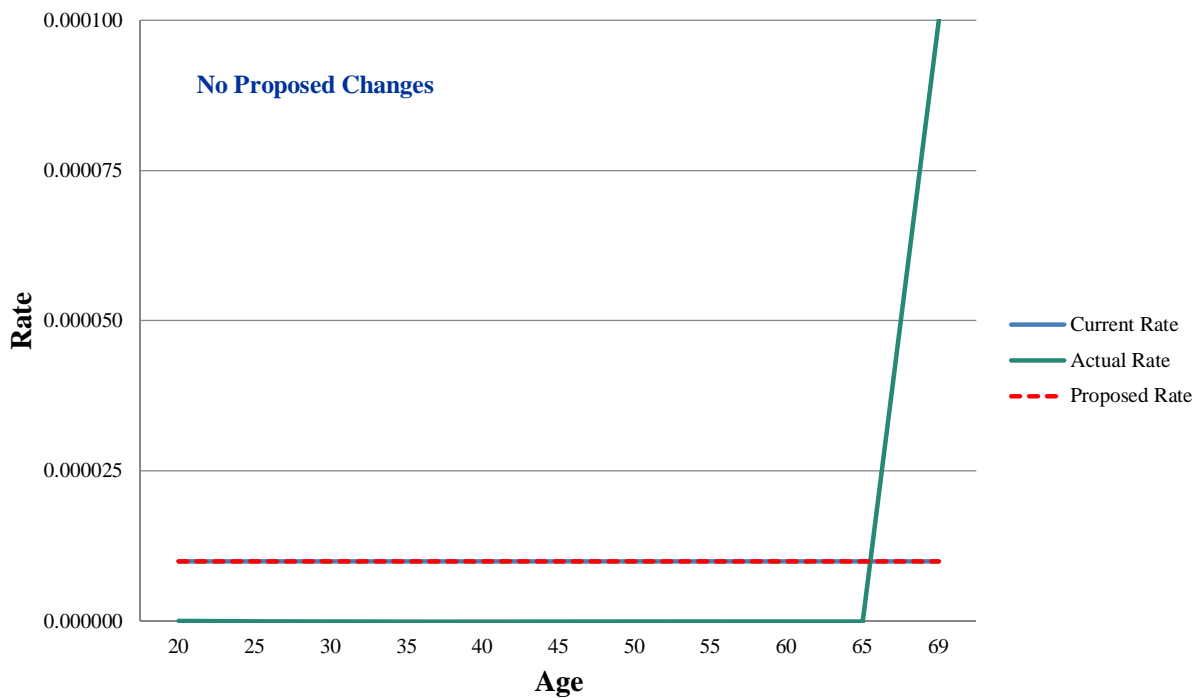
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Accidental Death Among Active Members

State



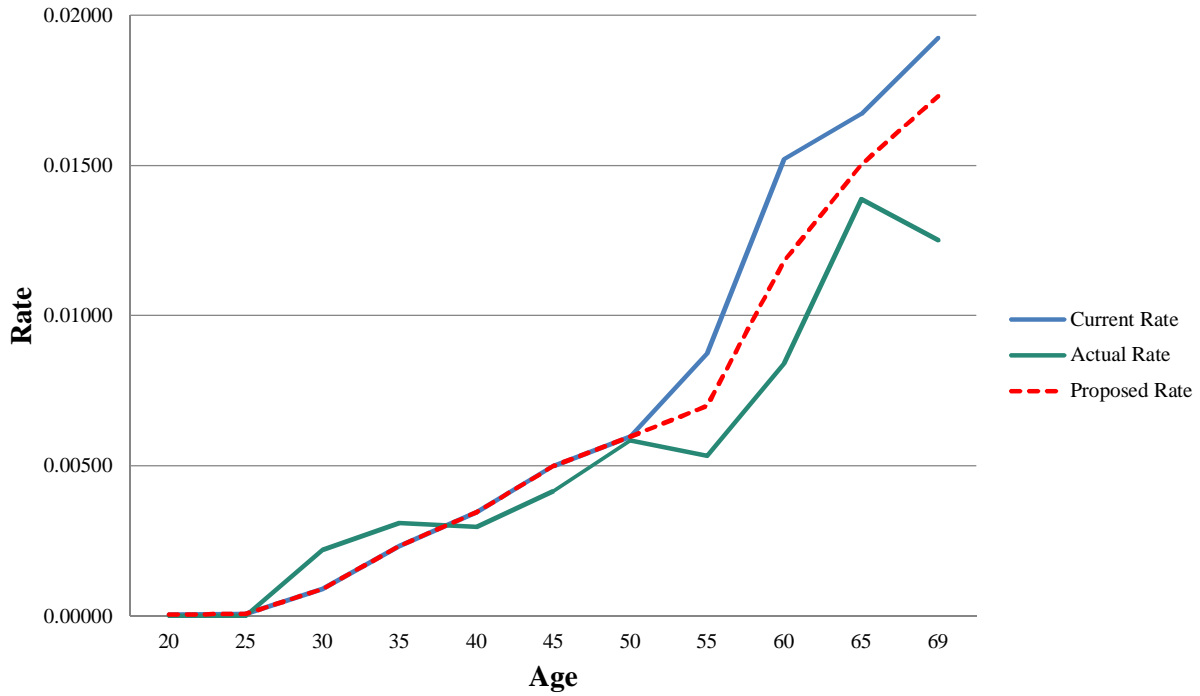
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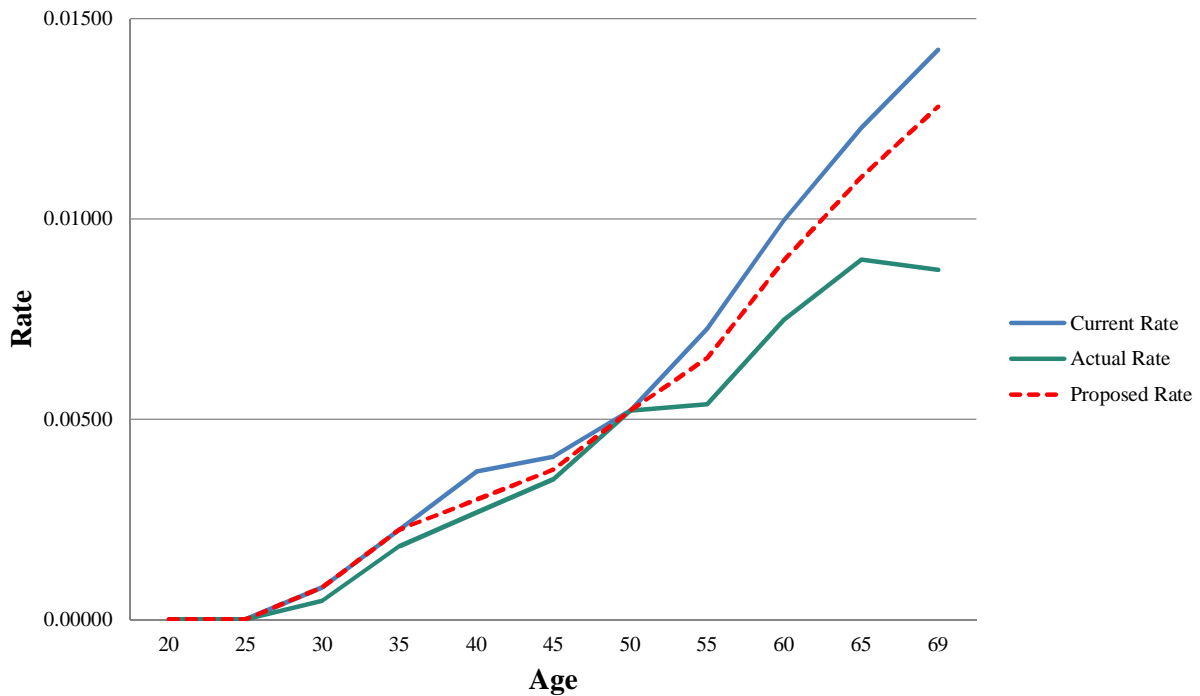
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Ordinary Disability Retirement

State

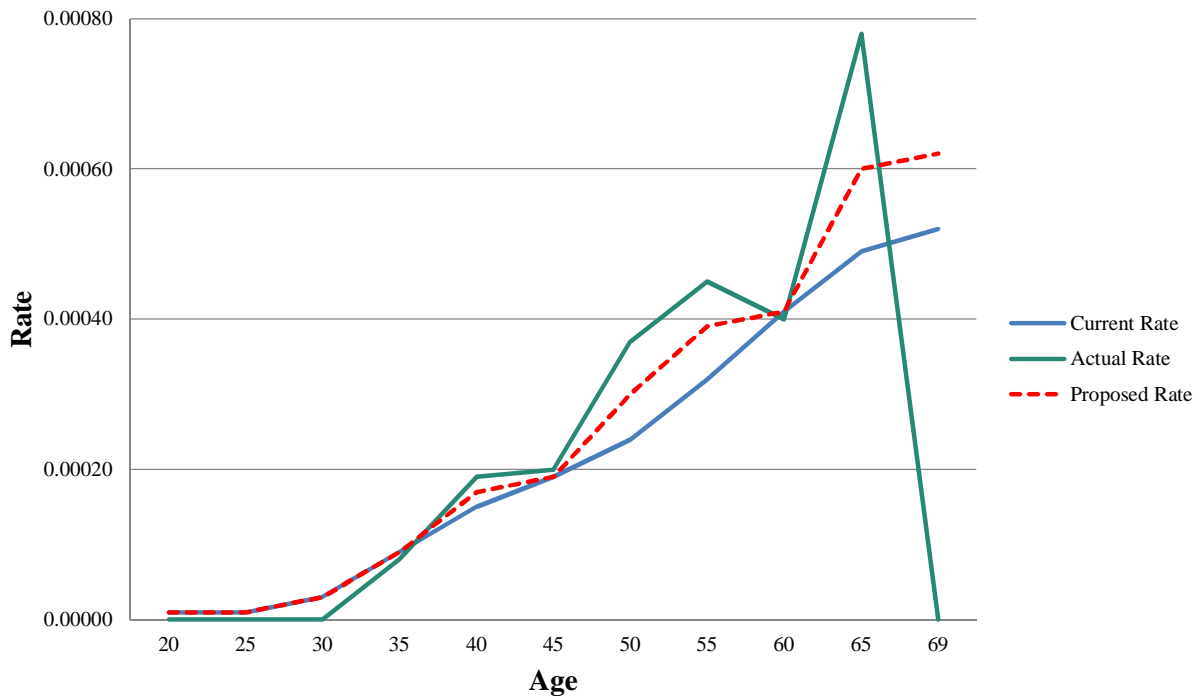


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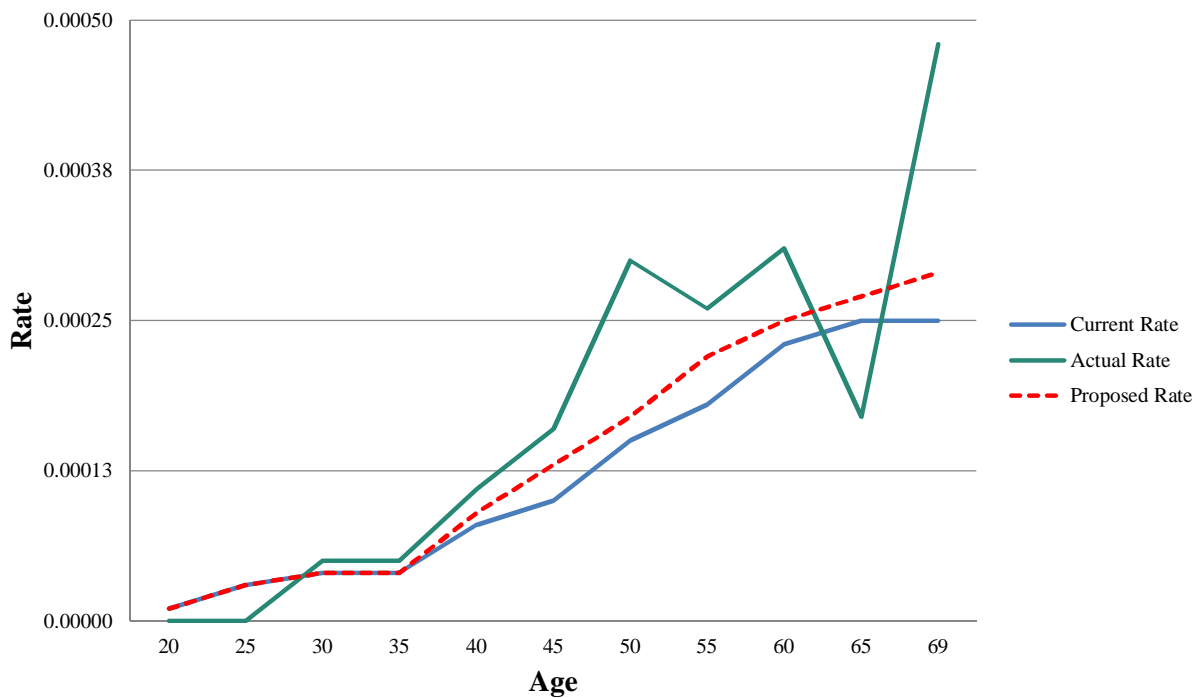


Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011
Accidental Disability Retirement

State

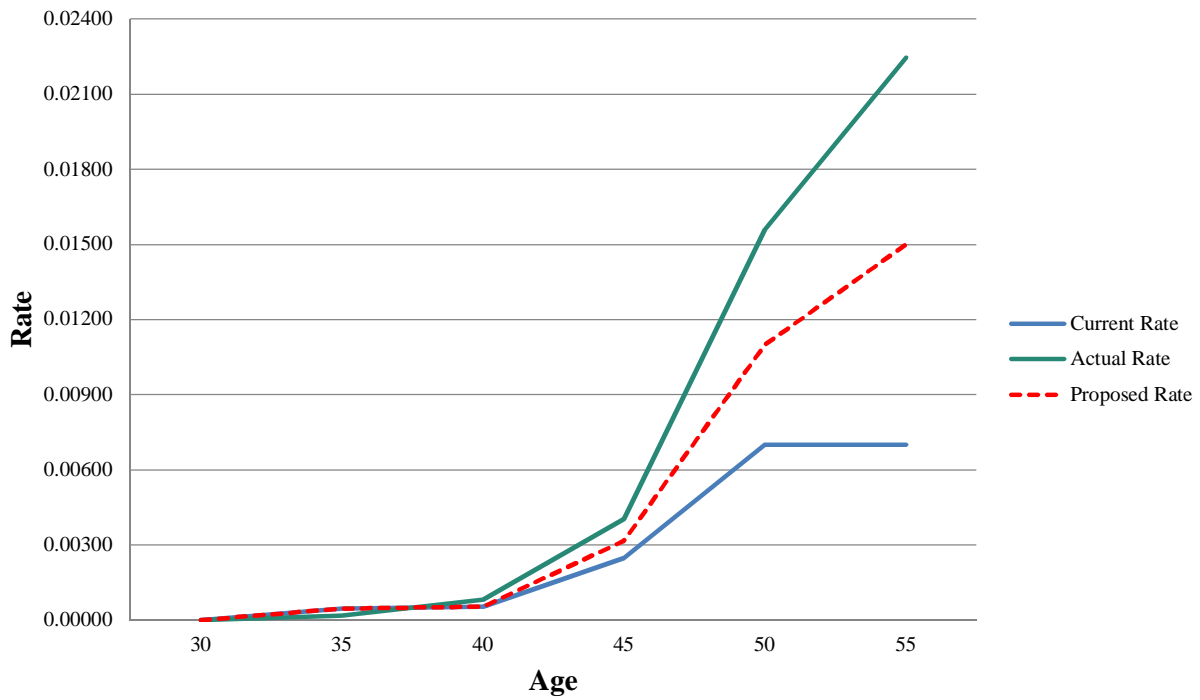


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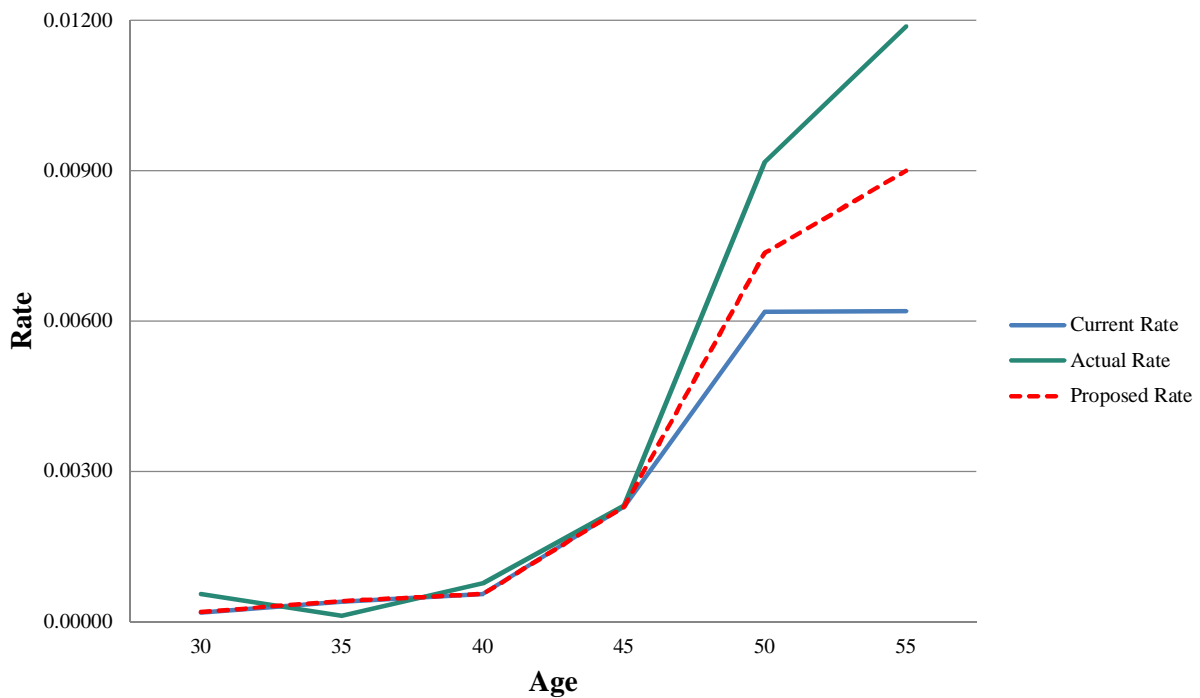


Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011
Deferred Vested and Early Retirement

State



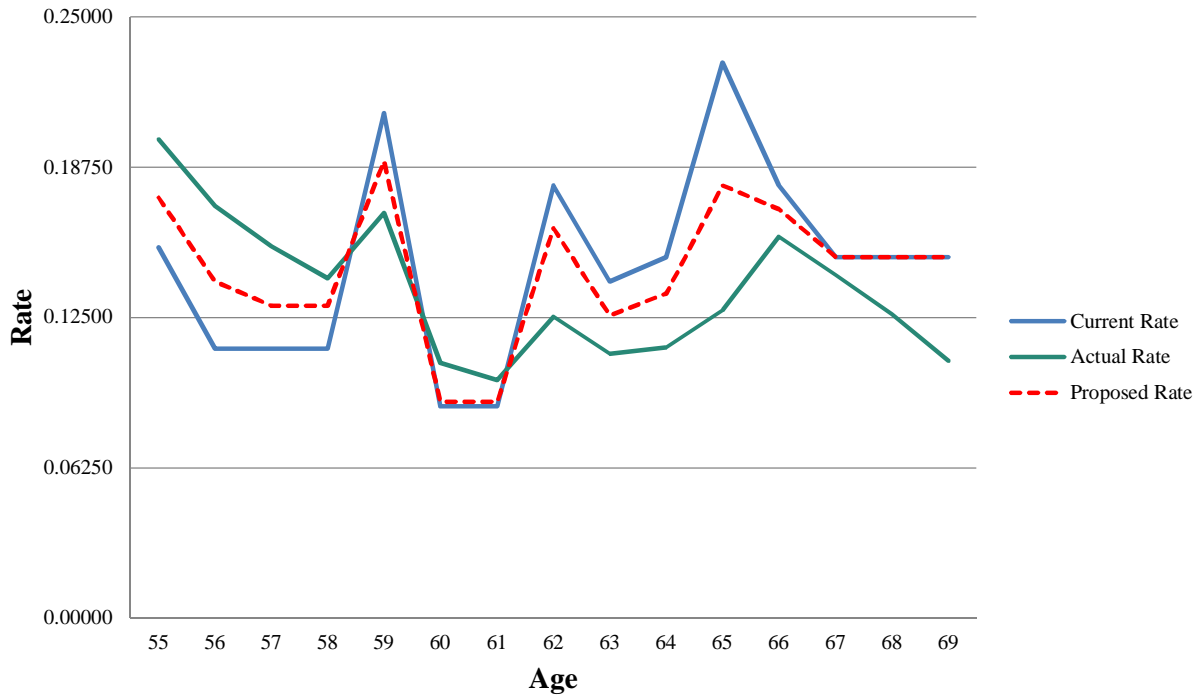
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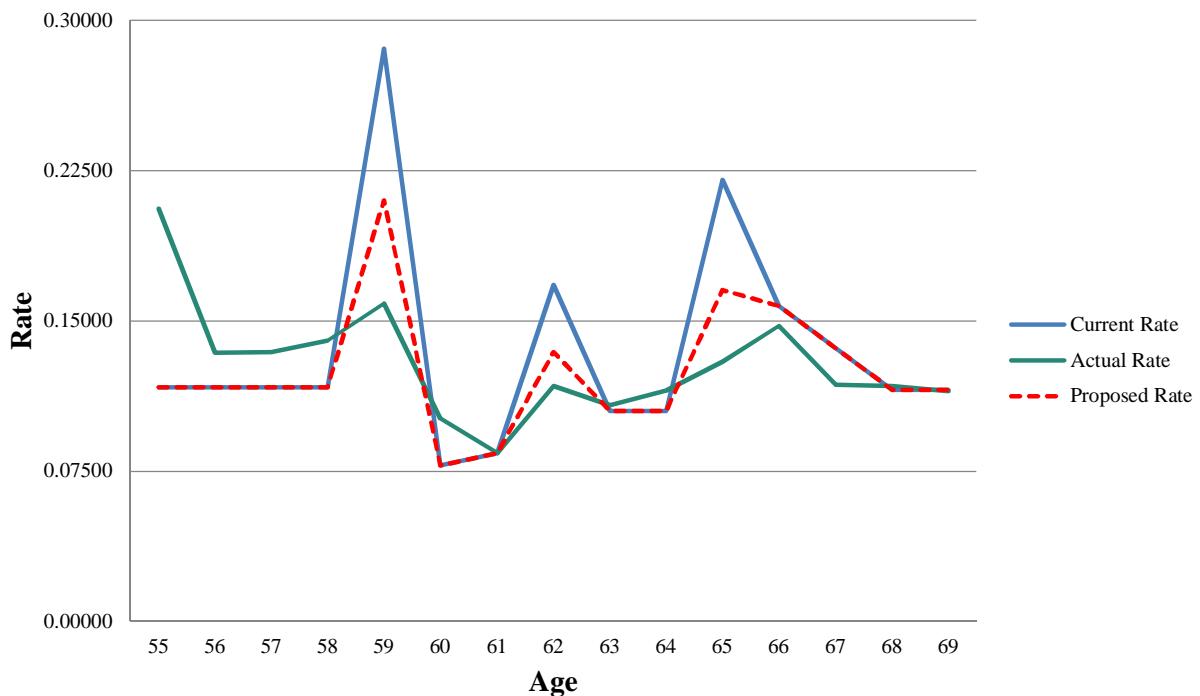
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Service Retirement

State



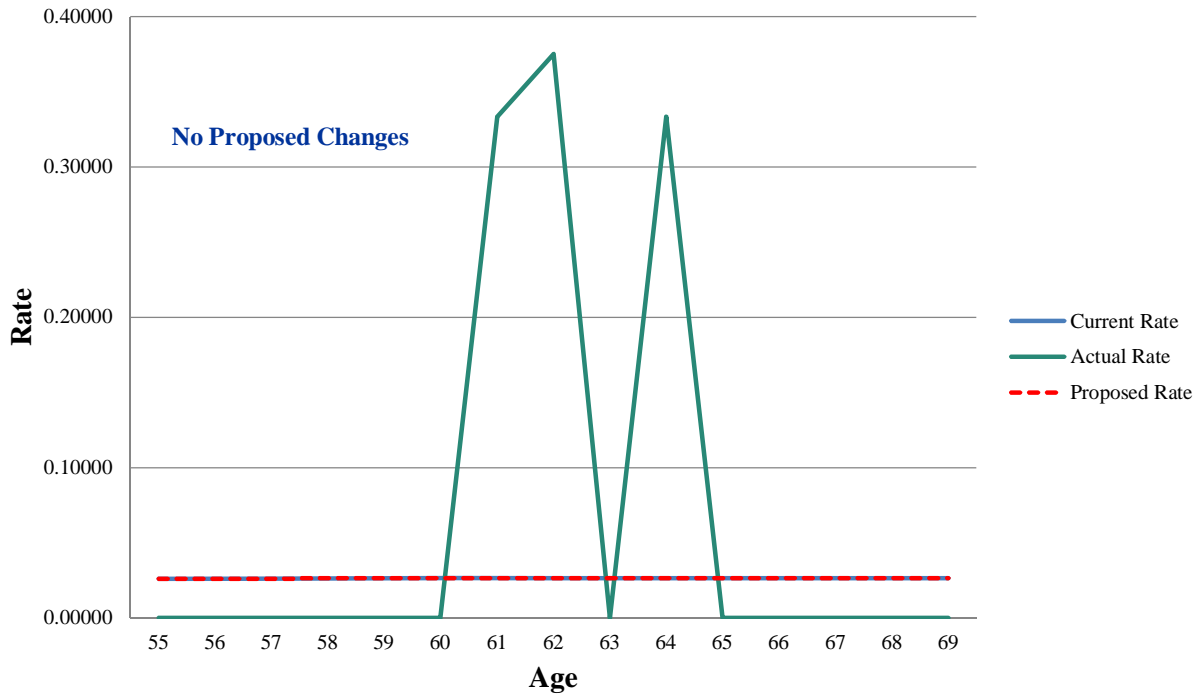
Local



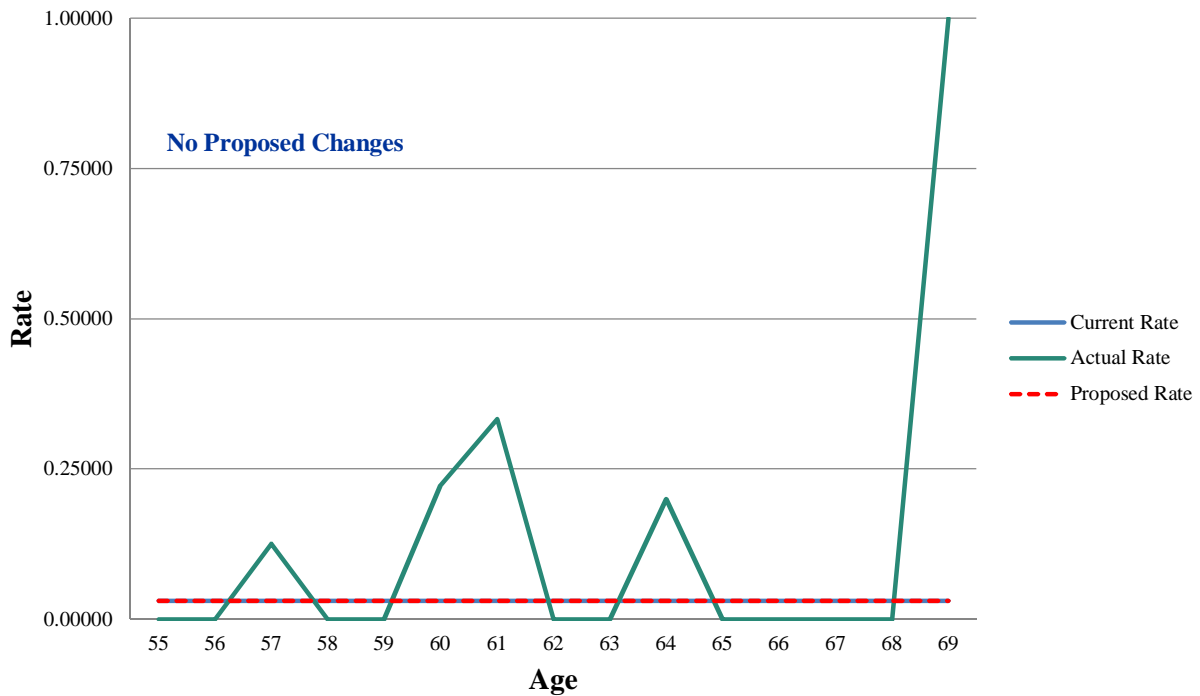
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

**Prosecutors' Part Service Retirements
Age 55 with Less than 20 Years of Service**

State



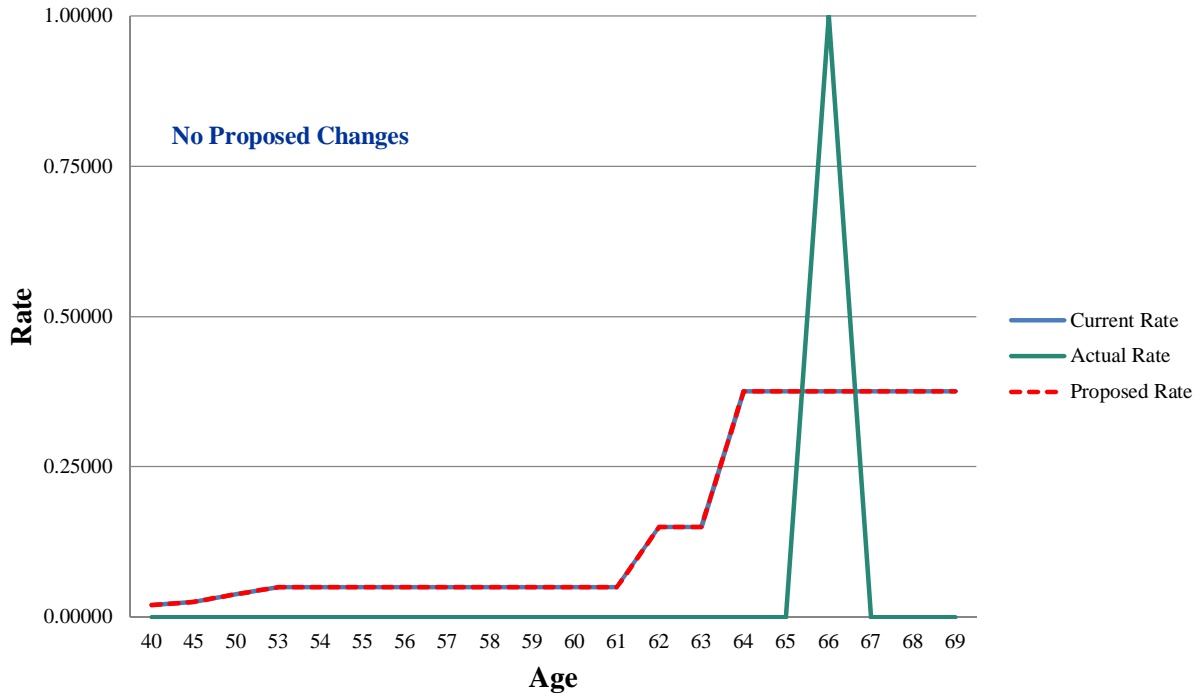
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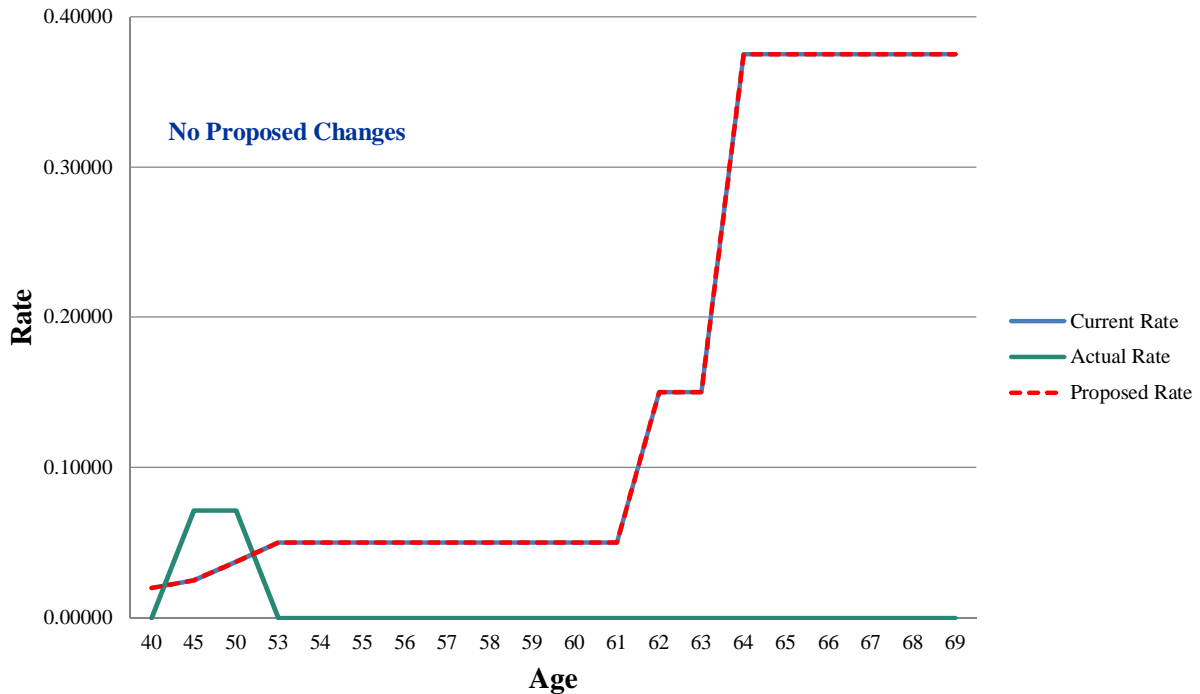
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

**Prosecutors' Part Service Retirements
With 20 Years of Service**

State



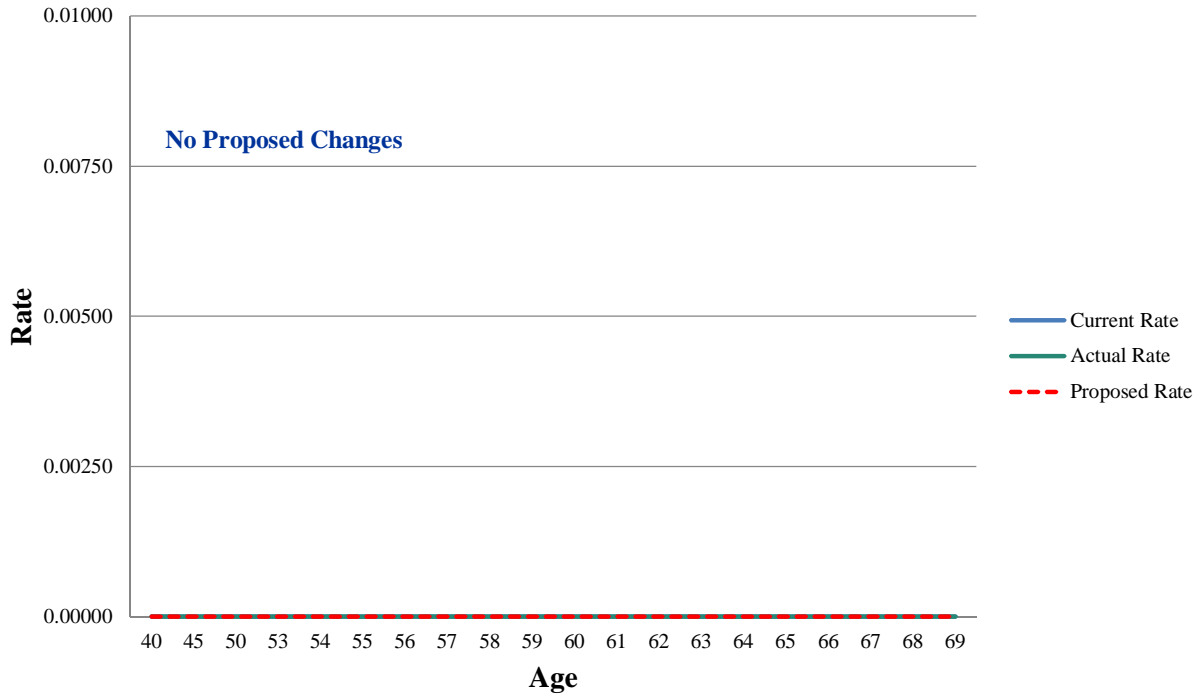
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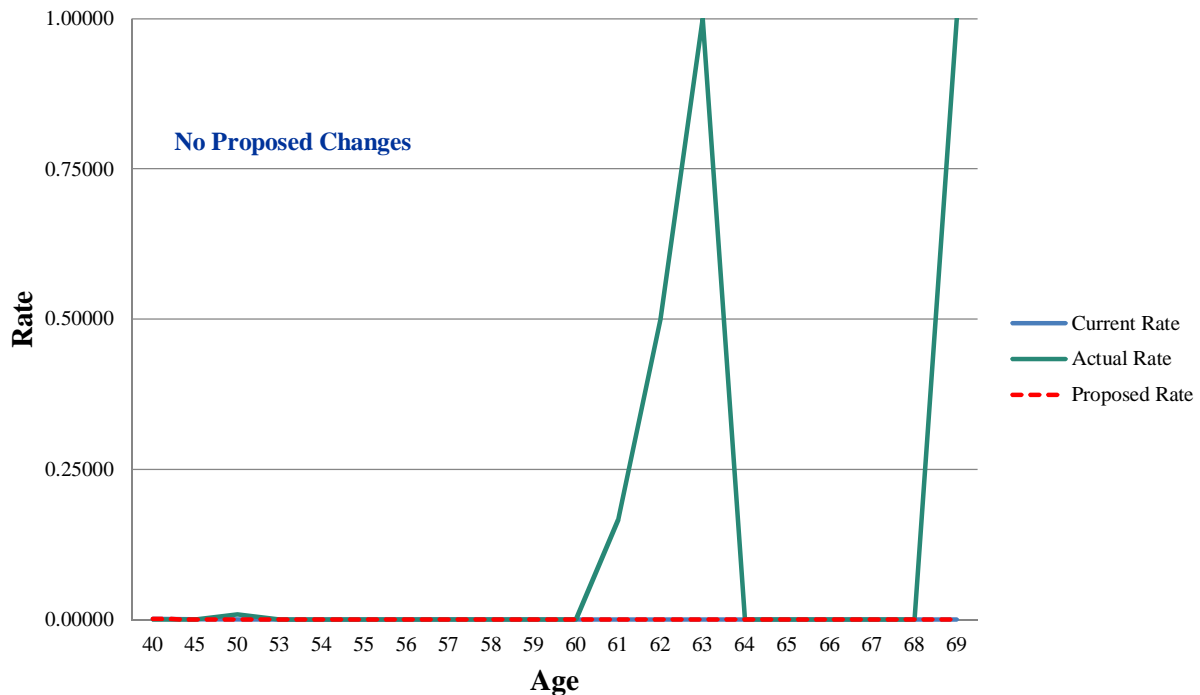
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

**Prosecutors' Part Service Retirements
With 21 to 24 Years of Service**

State

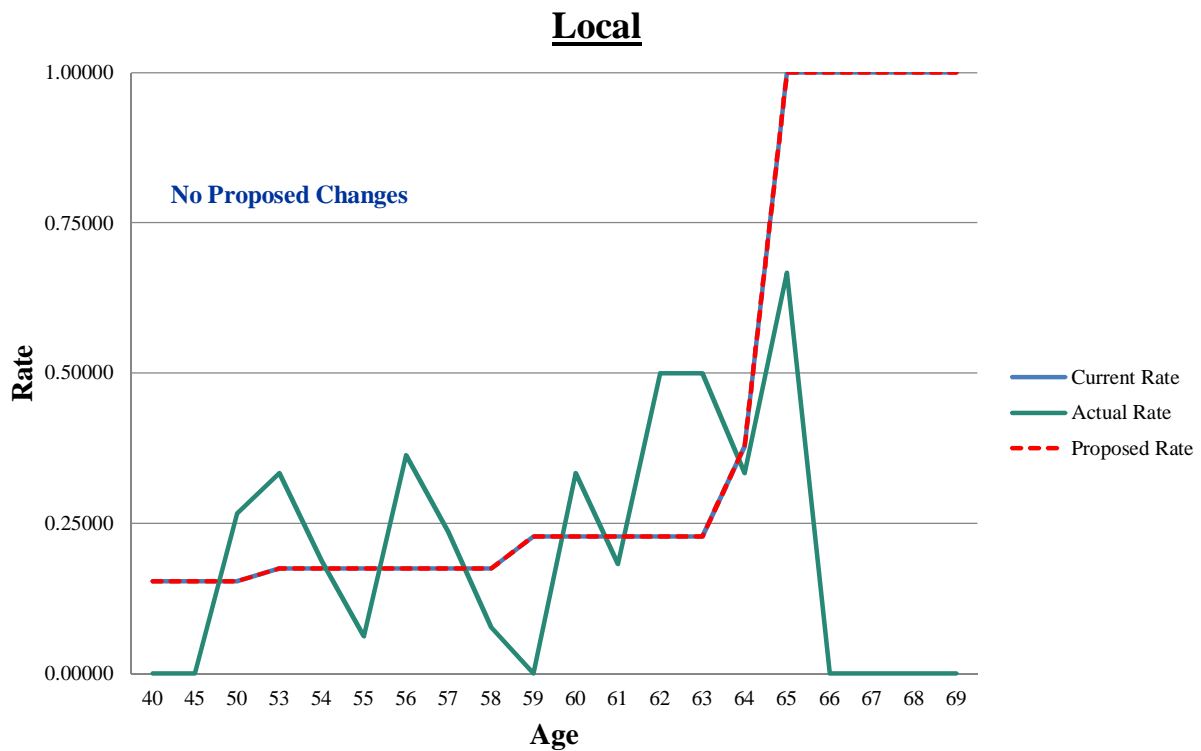
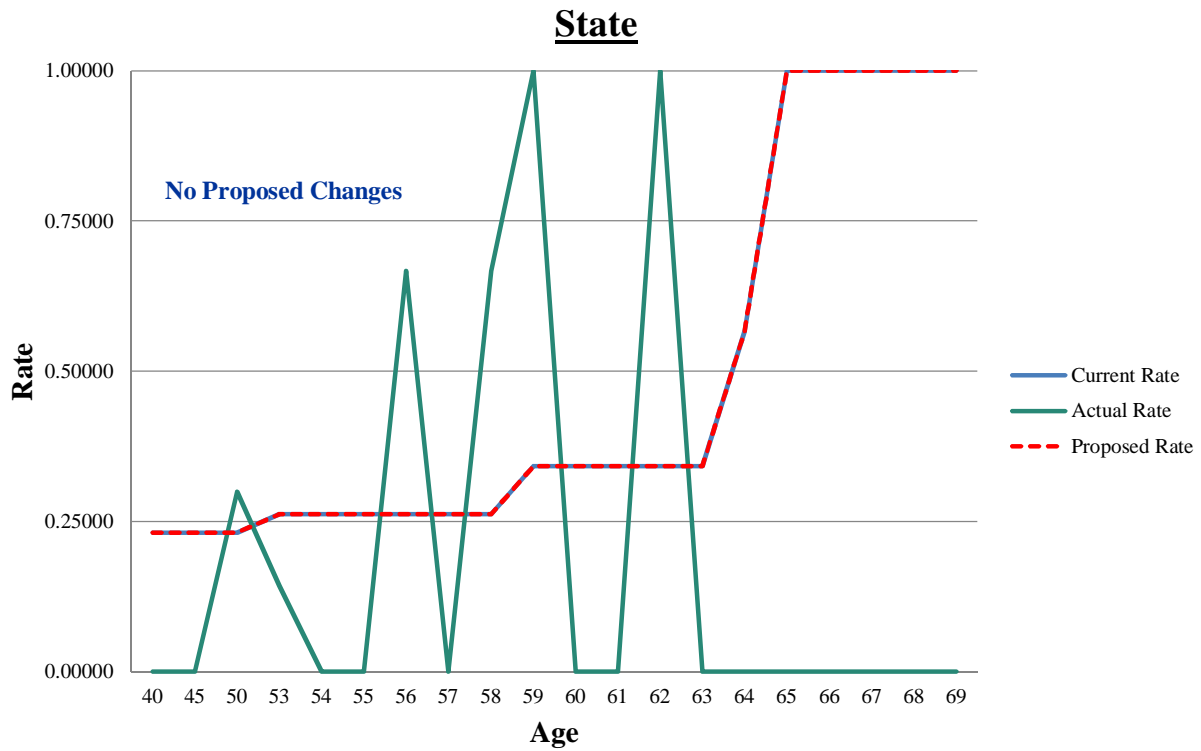


Local



**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

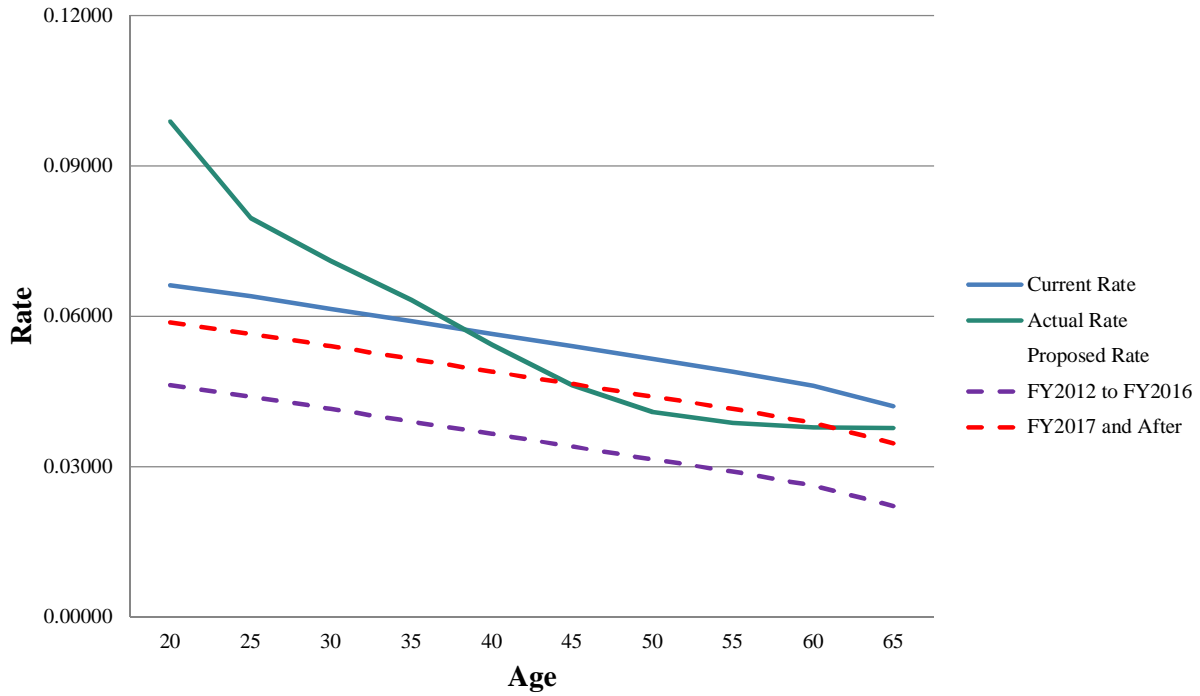
**Prosecutors' Part Service Retirements
With More Than 24 Years of Service**



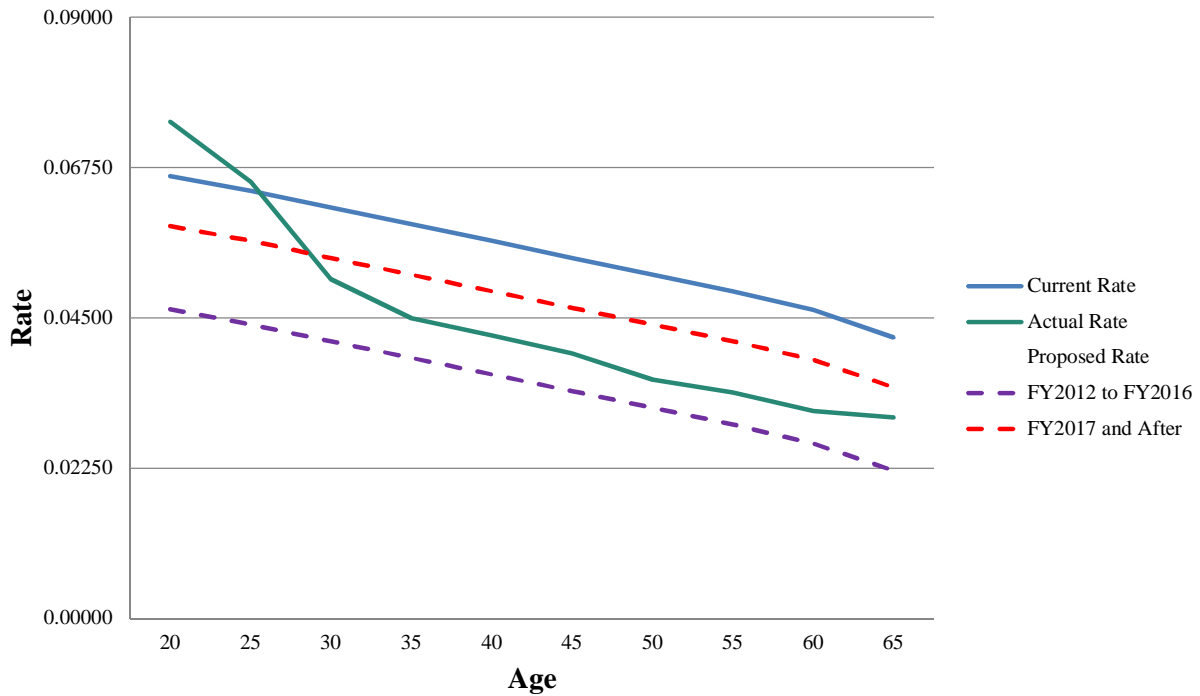
**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Salary Increases

State

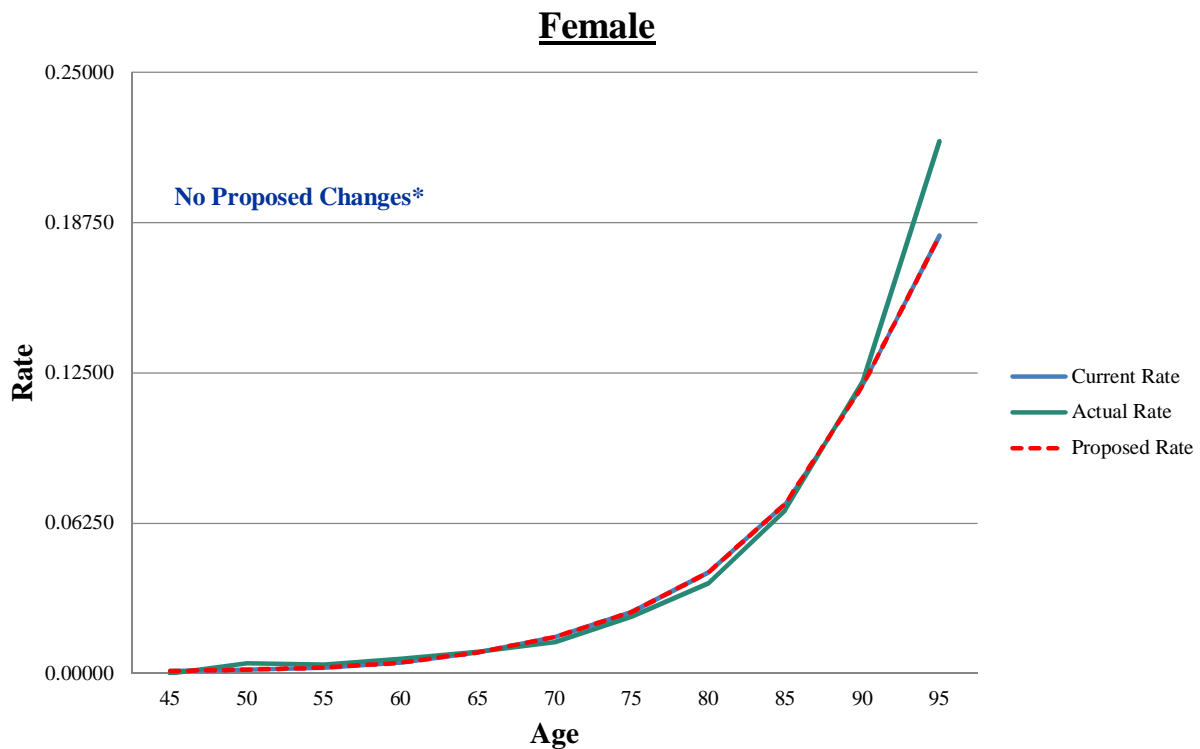
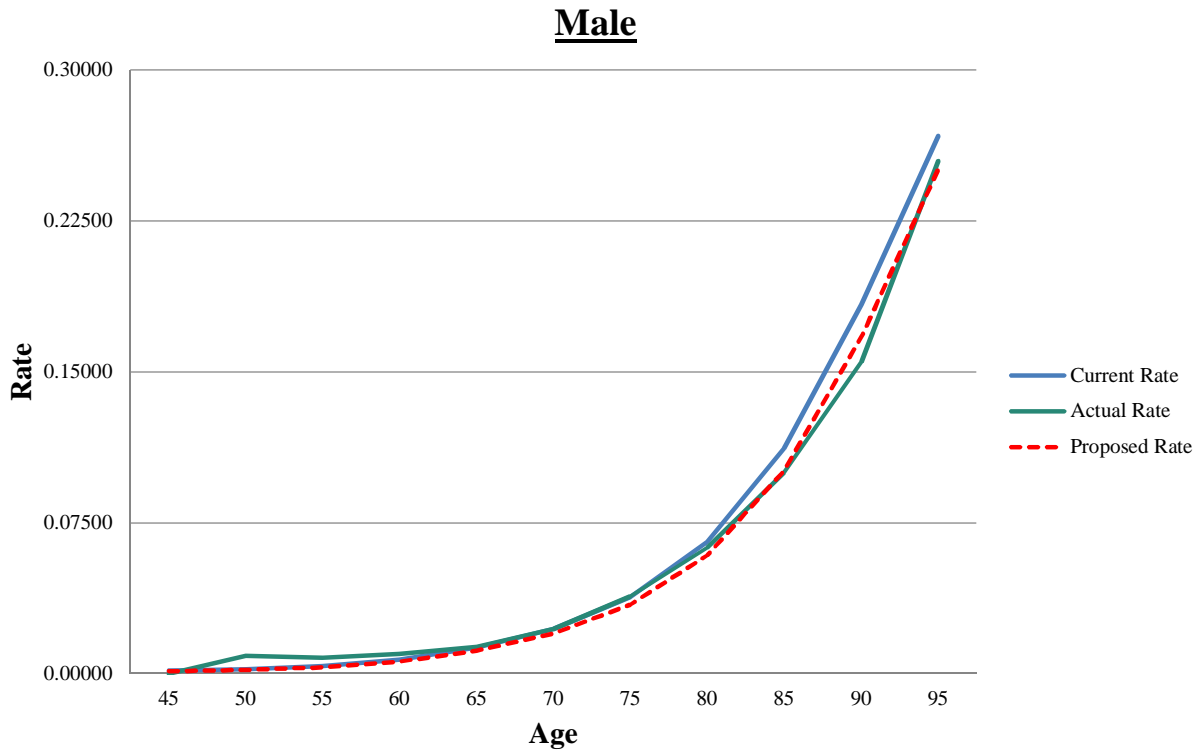


Local



**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

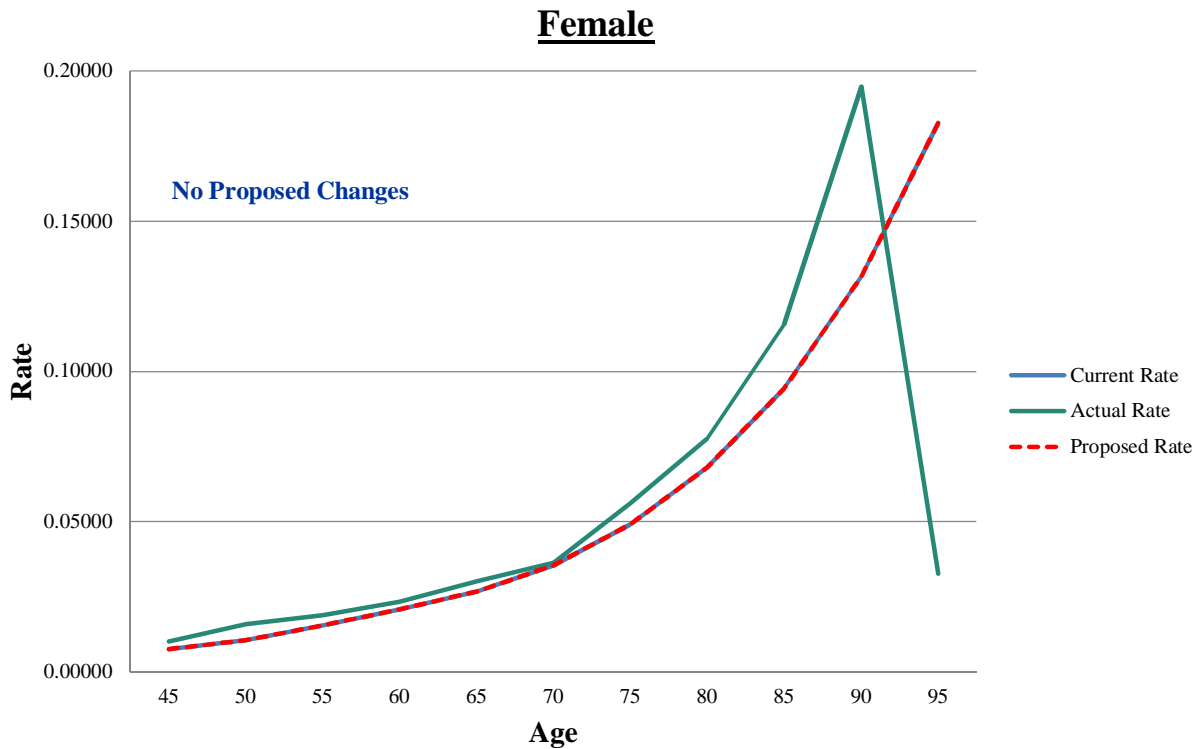
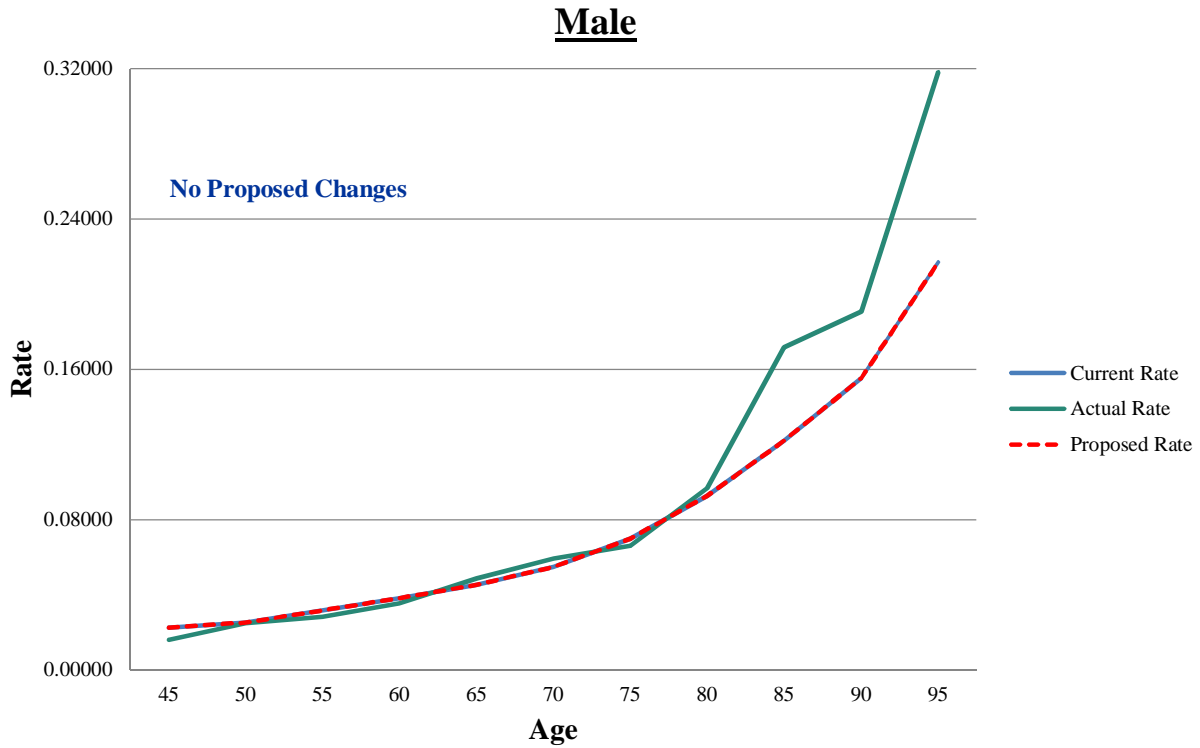
Rates of Mortality for Retired Members on Account of Service



* Change the male base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. No change to the female base mortality table (RP-2000 Female Healthy Mortality Table with ages set back 1 year). In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

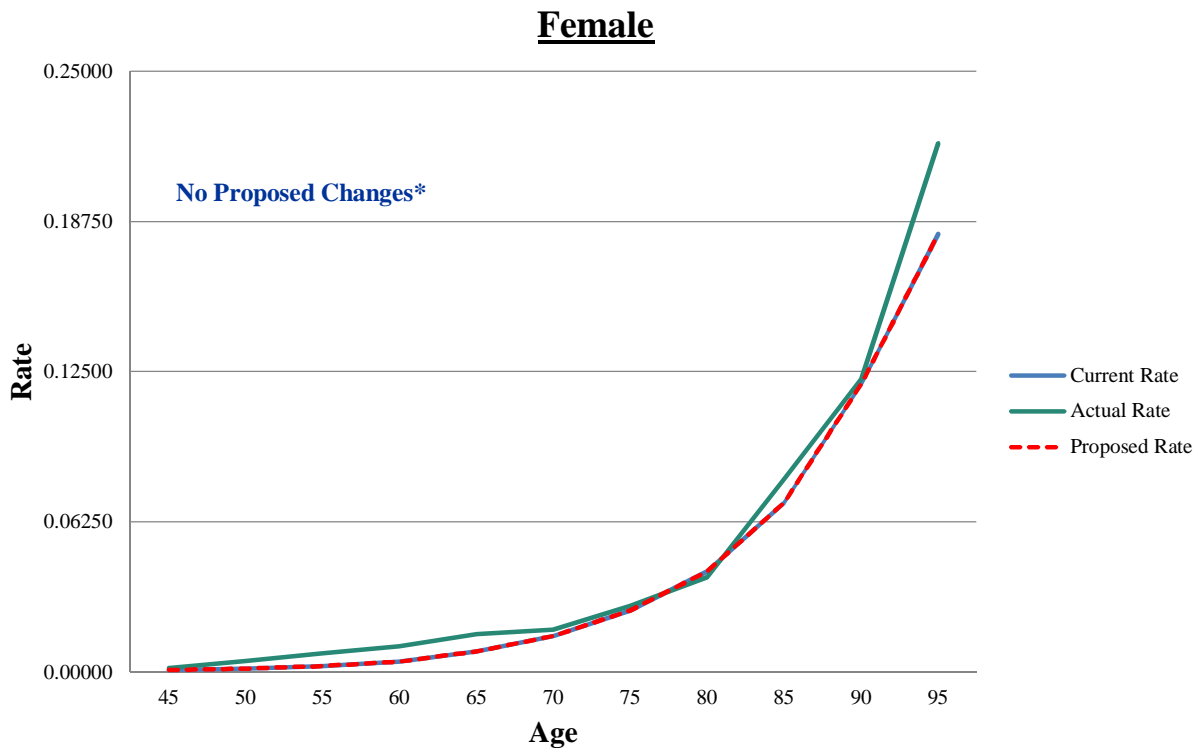
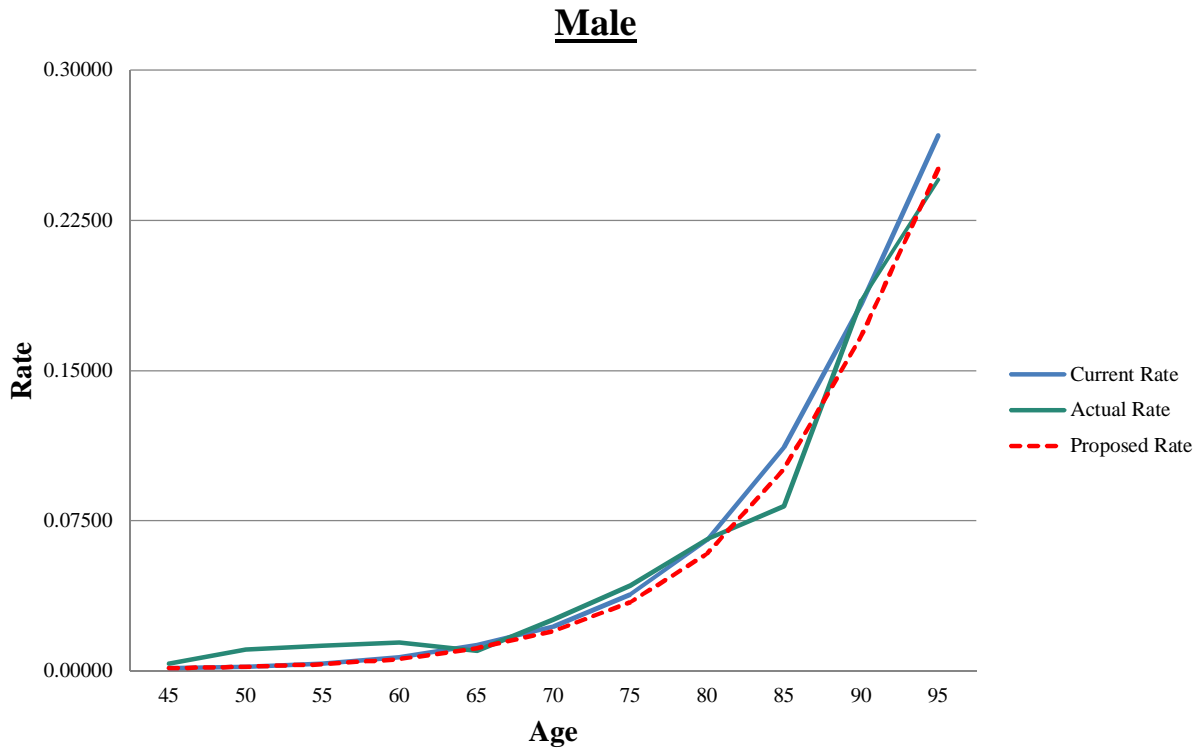
Public Employees' Retirement System of New Jersey July 1, 2008 through June 30, 2011

Rates of Mortality for Retired Members on Account of Disability



**Public Employees' Retirement System of New Jersey
July 1, 2008 through June 30, 2011**

Rates of Mortality for Beneficiaries of Deceased Members



* Change the male base mortality table to the RP-2000 Combined Healthy Male Mortality Table with ages set back 1 year. No change to the female base mortality table (RP-2000 Female Healthy Mortality Table with ages set back 1 year). In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

V. COST IMPACT OF THE PROPOSED ASSUMPTIONS

The overall effect of the proposed changes in assumptions would be to increase the normal cost and accrued liability obligation for both State and local employers. The following chart presents a summary of the liabilities and contributions under the current and proposed assumptions using the July 1, 2011 valuation results.

	State		Local Employers	
	Current	Proposed	Current	Proposed
Actuarial Accrued Liability	\$ 18,290,829,021	\$ 18,755,229,267	\$ 24,679,095,575	\$ 25,118,137,000
Additional Accrued Liability		\$ 464,400,246		\$ 439,041,425
Unfunded Accrued Liability/(Surplus)	\$ 8,228,180,403	\$ 8,692,580,649	\$ 5,681,711,792	\$ 6,120,753,217
Funded Ratio				
Market Value of Assets	49.7%	48.5%	67.4%	66.2%
Actuarial Value of Assets	55.0%	53.7%	77.0%	75.6%
Recommended Contribution*:				
• Normal Cost				
(i) Basic	\$ 155,320,834	\$ 168,225,829	\$ 218,403,616	\$ 229,603,802
(ii) Chapters 133, 259 and 366	34,776,759	36,795,574	51,572,178	53,192,020
• Accrued Liability Payment				
(i) Basic/COLA	725,905,975	766,925,424	522,208,646	560,709,284
(ii) Chapters 259 and 366	1,935,187	1,935,187	6,066,994	6,066,994
(iii) ERI Contributions	N/A	N/A	11,648,475	11,648,475
(iv) Chapter 19	N/A	N/A	8,969,115	8,969,115
• Total Legislation Offsets	6,494,186	6,706,805	(57,639,172)	(59,259,014)
• Total Contributions	\$ 924,432,941	\$ 980,588,819	\$ 761,229,852	\$ 810,930,676
Additional Annual Contribution**		\$ 56,155,878		\$ 49,700,824

* Does not reflect Chapter 1, P.L. 2010 phase-in of contributions.

** The "true" additional annual cost (excluding reductions for Legislation Offsets) is \$55,943,259 for State and \$51,320,666 for local employers.

The calculations were based on the same data and actuarial methods as were used in the July 1, 2011 valuation. Note that the July 1, 2011 valuation reflects the revised economic assumptions which include a 7.95% per annum interest rate and a salary increase assumption which reduced the current assumption by 2.00% per annum for fiscal year ending 2012 through fiscal year ending 2016 and by 0.75% per annum for fiscal years ending 2017 and thereafter.

If the Board approves of these recommendations, the attached resolutions may be used in adopting the tables.

VI. RESOLUTIONS PROVIDING FOR ADOPTION OF
SERVICE AND MORTALITY TABLES FOR THE
PUBLIC EMPLOYEES' RETIREMENT SYSTEM OF NEW JERSEY

WHEREAS, the investigation of the experience of members and beneficiaries of the Public Employees' Retirement System which was prepared as of June 30, 2011 indicated that the active service tables previously adopted by the Board required modification in order that they reflect more closely the actual past experience of the membership, and

WHEREAS, The actuary has prepared new tables, which he recommends for adoption, therefore be it

RESOLVED, That in accordance with Section 19 of Chapter 15A of the New Jersey Statutes, and on the basis of the recommendations of the actuary, the Board of Trustees hereby approves for use the attached active service tables for use in calculating the employers' rates of contribution and in valuing the liabilities on account of both active and retired members on and after July 1, 2012, and be it further

RESOLVED, That any resolutions heretofore adopted by the Board of Trustees with respect to mortality and service tables not inconsistent with the resolutions herein presented be continued in full force and effect.

TABLE 1**ACTIVE SERVICE AND RETIREMENT TABLES**

AGE	SELECT RATES OF WITHDRAWAL – STATE EMPLOYEES			SELECT RATES OF WITHDRAWAL – LOCAL EMPLOYEES		
	1st Year	2nd Year	3rd Year	1st Year	2nd Year	3rd Year
20	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
21	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
22	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
23	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
24	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
25	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
26	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
27	0.28899	0.13532	0.09522	0.32152	0.15122	0.12193
28	0.28899	0.13532	0.09522	0.32879	0.15705	0.12174
29	0.28899	0.13532	0.09522	0.31975	0.15187	0.11636
30	0.28899	0.13532	0.09522	0.31072	0.14667	0.11098
31	0.28899	0.13532	0.09522	0.30283	0.14214	0.10628
32	0.28899	0.13532	0.09522	0.29492	0.13759	0.10145
33	0.22876	0.12026	0.09132	0.28373	0.12605	0.09175
34	0.21893	0.11671	0.08560	0.27592	0.12174	0.08730
35	0.20911	0.10831	0.07988	0.26810	0.11744	0.08283
36	0.20626	0.10658	0.07822	0.26576	0.11616	0.08150
37	0.20341	0.10486	0.07657	0.26344	0.11486	0.08017
38	0.17830	0.09167	0.06659	0.26108	0.10760	0.07884
39	0.17577	0.09014	0.06513	0.25876	0.10638	0.07750
40	0.17324	0.08861	0.06366	0.25642	0.10516	0.07616
41	0.17128	0.08741	0.06251	0.25476	0.10429	0.07521
42	0.16933	0.08622	0.06137	0.25308	0.10342	0.07427
43	0.16330	0.08502	0.06023	0.25142	0.10256	0.07332
44	0.16330	0.08383	0.05909	0.24977	0.10169	0.07237
45	0.16330	0.08264	0.05794	0.24810	0.10082	0.07142
46	0.16330	0.08136	0.05672	0.24620	0.09983	0.07033
47	0.16330	0.08008	0.05550	0.24430	0.09883	0.06925
48	0.16330	0.07654	0.05210	0.23074	0.09783	0.06816
49	0.16330	0.07654	0.05210	0.22891	0.09684	0.06707
50	0.16330	0.07654	0.05210	0.22711	0.09584	0.06598
51	0.16330	0.07654	0.05210	0.22598	0.09523	0.06531
52	0.16330	0.07654	0.05210	0.22487	0.09463	0.06464
53	0.16330	0.07654	0.05210	0.22365	0.09395	0.06398
54	0.16330	0.07654	0.05210	0.22365	0.09395	0.06332
55	0.16330	0.07654	0.05210	0.22365	0.09395	0.06263
56	0.16330	0.07654	0.05210	0.22365	0.09395	0.06409
57	0.16330	0.07654	0.05210	0.22365	0.09395	0.06554
58	0.16330	0.07654	0.05210	0.22365	0.09395	0.06699
59	0.16330	0.07654	0.05210	0.22365	0.09395	0.06844

TABLE 1
ACTIVE SERVICE AND RETIREMENT TABLES
(CONTINUED)

AGE	RATES OF:									
	Ultimate Withdrawal				Death					
	Before Eligibility for Benefit		After Eligibility for Benefit* (Vested Termination)		Ordinary				Accidental	
	State Employees	Local Employees	State Employees	Local Employees	State**		Local***		State Employees	Local Employees
				Males	Females	Males	Females			
20	0.04480	0.06311			0.00030	0.00017	0.00032	0.00015	0.00001	0.00001
21	0.04480	0.06311			0.00032	0.00018	0.00033	0.00016	0.00001	0.00001
22	0.04480	0.06311			0.00033	0.00018	0.00034	0.00017	0.00001	0.00001
23	0.04691	0.06311			0.00034	0.00019	0.00036	0.00018	0.00001	0.00001
24	0.04691	0.06311			0.00036	0.00019	0.00037	0.00018	0.00001	0.00001
25	0.04691	0.06311			0.00037	0.00019	0.00037	0.00019	0.00001	0.00001
26	0.04339	0.06311			0.00037	0.00019	0.00038	0.00019	0.00001	0.00001
27	0.03988	0.06311			0.00038	0.00019	0.00038	0.00019	0.00001	0.00001
28	0.04737	0.06591			0.00038	0.00020	0.00038	0.00019	0.00001	0.00001
29	0.04279	0.06348			0.00038	0.00020	0.00038	0.00019	0.00001	0.00001
30	0.03821	0.06106	0.00000	0.00030	0.00038	0.00021	0.00039	0.00020	0.00001	0.00001
31	0.03596	0.05780	0.00000	0.00030	0.00039	0.00021	0.00041	0.00020	0.00001	0.00001
32	0.03371	0.05455	0.00000	0.00031	0.00041	0.00022	0.00044	0.00021	0.00001	0.00001
33	0.03333	0.04345	0.00040	0.00038	0.00044	0.00024	0.00050	0.00021	0.00001	0.00001
34	0.03095	0.04070	0.00044	0.00039	0.00050	0.00025	0.00056	0.00022	0.00001	0.00001
35	0.02857	0.03795	0.00048	0.00039	0.00056	0.00026	0.00063	0.00024	0.00001	0.00001
36	0.02857	0.03718	0.00048	0.00041	0.00063	0.00031	0.00070	0.00025	0.00001	0.00001
37	0.02857	0.03642	0.00048	0.00043	0.00070	0.00035	0.00077	0.00026	0.00001	0.00001
38	0.01799	0.02894	0.00053	0.00050	0.00077	0.00039	0.00084	0.00031	0.00001	0.00001
39	0.01799	0.02832	0.00053	0.00053	0.00084	0.00043	0.00090	0.00035	0.00001	0.00001
40	0.01799	0.02770	0.00053	0.00055	0.00090	0.00047	0.00096	0.00039	0.00001	0.00001
41	0.01679	0.02707	0.00057	0.00058	0.00096	0.00051	0.00102	0.00043	0.00001	0.00001
42	0.01561	0.02645	0.00060	0.00061	0.00102	0.00055	0.00108	0.00047	0.00001	0.00001
43	0.01467	0.02583	0.00214	0.00170	0.00108	0.00060	0.00114	0.00051	0.00001	0.00001
44	0.01345	0.02521	0.00225	0.00179	0.00114	0.00065	0.00121	0.00055	0.00001	0.00001
45	0.01223	0.02459	0.00237	0.00187	0.00121	0.00071	0.00130	0.00060	0.00001	0.00001
46	0.01223	0.02336	0.00380	0.00266	0.00130	0.00077	0.00140	0.00065	0.00001	0.00001
47	0.01223	0.02213	0.00524	0.00345	0.00140	0.00085	0.00151	0.00071	0.00001	0.00001
48	0.00896	0.02090	0.01100	0.00545	0.00151	0.00094	0.00162	0.00077	0.00001	0.00001
49	0.00896	0.01967	0.01100	0.00647	0.00162	0.00103	0.00173	0.00085	0.00001	0.00001
50	0.00896	0.01845	0.01100	0.00748	0.00173	0.00112	0.00186	0.00094	0.00001	0.00001
51	0.00896	0.01811	0.01100	0.00839	0.00186	0.00122	0.00200	0.00103	0.00001	0.00001
52	0.00896	0.01777	0.01100	0.00900	0.00200	0.00133	0.00214	0.00112	0.00001	0.00001
53	0.00882	0.01585	0.01500	0.00900	0.00214	0.00143	0.00229	0.00122	0.00001	0.00001
54	0.00882	0.01524	0.01500	0.00900	0.00229	0.00155	0.00245	0.00133	0.00001	0.00001
55	0.00882	0.01524	0.01500	0.00900	0.00245	0.00168	0.00262	0.00143	0.00001	0.00001
56	0.00882	0.01524	0.01500	0.00900	0.00262	0.00181	0.00281	0.00155	0.00001	0.00001
57	0.00882	0.01524	0.01500	0.00900	0.00281	0.00197	0.00303	0.00168	0.00001	0.00001
58	0.00882	0.01524	0.01500	0.00900	0.00303	0.00213	0.00331	0.00181	0.00001	0.00001
59	0.00882	0.01524	0.01500	0.00900	0.00331	0.00232	0.00363	0.00197	0.00001	0.00001
60					0.00363	0.00253	0.00400	0.00213	0.00001	0.00001
61					0.00400	0.00276	0.00441	0.00232	0.00001	0.00001
62					0.00441	0.00301	0.00488	0.00253	0.00001	0.00001
63					0.00488	0.00329	0.00538	0.00276	0.00001	0.00001
64					0.00538	0.00360	0.00592	0.00301	0.00001	0.00001
65					0.00592	0.00393	0.00647	0.00329	0.00001	0.00001
66					0.00647	0.00428	0.00703	0.00360	0.00001	0.00001
67					0.00703	0.00466	0.00757	0.00393	0.00001	0.00001
68					0.00757	0.00504	0.00810	0.00428	0.00001	0.00001
69					0.00810	0.00543	0.00860	0.00466	0.00001	0.00001

* The sum of the rates of withdrawal after eligibility for a benefit and those prior to eligibility are the rates assumed for members withdrawing with a benefit.

** RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 3 years for males and 5 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

*** RP-2000 Pre-Retirement Mortality Table for Males and Females with ages set back 2 years for males and 7 years for females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 1
ACTIVE SERVICE AND RETIREMENT TABLES
(CONTINUED)

AGE	RATES OF:					
	DISABILITY				Service Retirement	
	Ordinary		Accidental			
	State Employees	Local Employees	State Employees	Local Employees	State Employees	Local Employees
20	0.00005	0.00000	0.00001	0.00001		
21	0.00005	0.00000	0.00001	0.00001		
22	0.00005	0.00000	0.00001	0.00001		
23	0.00006	0.00000	0.00001	0.00002		
24	0.00006	0.00000	0.00001	0.00002		
25	0.00006	0.00000	0.00001	0.00002		
26	0.00009	0.00000	0.00001	0.00003		
27	0.00013	0.00000	0.00002	0.00004		
28	0.00067	0.00043	0.00002	0.00004		
29	0.00081	0.00057	0.00003	0.00004		
30	0.00097	0.00071	0.00003	0.00004		
31	0.00102	0.00101	0.00004	0.00004		
32	0.00106	0.00131	0.00005	0.00004		
33	0.00180	0.00162	0.00007	0.00004		
34	0.00210	0.00192	0.00008	0.00004		
35	0.00240	0.00222	0.00009	0.00004		
36	0.00260	0.00256	0.00010	0.00004		
37	0.00279	0.00289	0.00011	0.00006		
38	0.00299	0.00290	0.00015	0.00009		
39	0.00318	0.00295	0.00016	0.00009		
40	0.00338	0.00300	0.00017	0.00009		
41	0.00373	0.00305	0.00018	0.00009		
42	0.00408	0.00312	0.00018	0.00009		
43	0.00443	0.00361	0.00018	0.00011		
44	0.00478	0.00362	0.00018	0.00013		
45	0.00513	0.00363	0.00019	0.00013		
46	0.00526	0.00384	0.00020	0.00014		
47	0.00539	0.00405	0.00021	0.00015		
48	0.00551	0.00464	0.00026	0.00016		
49	0.00564	0.00487	0.00028	0.00016		
50	0.00577	0.00510	0.00029	0.00016		
51	0.00625	0.00553	0.00031	0.00017		
52	0.00674	0.00596	0.00034	0.00018		
53	0.00675	0.00597	0.00034	0.00019		
54	0.00687	0.00644	0.00037	0.00020		
55	0.00699	0.00691	0.00039	0.00022	0.17500	0.11700
56	0.00712	0.00675	0.00041	0.00023	0.14000	0.11700
57	0.00724	0.00656	0.00044	0.00024	0.13000	0.11700
58	0.01036	0.00797	0.00037	0.00024	0.13000	0.11700
59	0.01135	0.00882	0.00039	0.00024	0.19000	0.21000
60	0.01234	0.00893	0.00041	0.00025	0.09000	0.07800
61	0.01244	0.00933	0.00043	0.00025	0.09000	0.08400
62	0.01252	0.00975	0.00045	0.00027	0.16200	0.13440
63	0.01440	0.01015	0.00056	0.00027	0.12600	0.10500
64	0.01463	0.01057	0.00059	0.00027	0.13500	0.10500
65	0.01488	0.01097	0.00061	0.00027	0.18000	0.16538
66	0.01517	0.01149	0.00062	0.00027	0.17000	0.15750
67	0.01607	0.01202	0.00062	0.00028	0.15000	0.13650
68	0.01690	0.01254	0.00062	0.00029	0.15000	0.11550
69	0.01771	0.01306	0.00062	0.00029	0.15000	0.11550
70	0.00000	0.00000	0.00000	0.00000	1.00000	1.00000

TABLE 1
ACTIVE SERVICE AND RETIREMENT TABLE
(CONTINUED)

AGE	State and Local Employees Rates of: Prosecutors Part Service Retirement with Service					
	Less than 20 Years		20 Years	21 to 24 Years	More than 24 Years	
	State	Local			State	Local
20	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
21	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
22	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
23	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
24	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
25	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
27	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
28	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
29	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
30	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
31	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
32	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
33	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
34	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
35	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
36	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
37	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
38	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
39	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
40	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
41	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
42	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
43	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
44	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
45	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
46	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
47	0.00000	0.00000	0.02500	0.00000	0.23100	0.15400
48	0.00000	0.00000	0.03750	0.00000	0.23100	0.15400
49	0.00000	0.00000	0.03750	0.00000	0.23100	0.15400
50	0.00000	0.00000	0.03750	0.00000	0.23100	0.15400
51	0.00000	0.00000	0.03750	0.00000	0.23100	0.15400
52	0.00000	0.00000	0.03750	0.00000	0.23100	0.15400
53	0.00000	0.00000	0.05000	0.00000	0.26220	0.17480
54	0.00000	0.00000	0.05000	0.00000	0.26220	0.17480
55	0.02585	0.03060	0.05000	0.00000	0.26220	0.17480
56	0.02585	0.03060	0.05000	0.00000	0.26220	0.17480
57	0.02585	0.03060	0.05000	0.00000	0.26220	0.17480
58	0.02630	0.03060	0.05000	0.00000	0.26220	0.17480
59	0.02630	0.03060	0.05000	0.00000	0.34170	0.22780
60	0.02630	0.03060	0.05000	0.00000	0.34170	0.22780
61	0.02630	0.03060	0.05000	0.00000	0.34170	0.22780
62	0.02630	0.03060	0.15000	0.00000	0.34170	0.22780
63	0.02630	0.03060	0.15000	0.00000	0.34170	0.22780
64	0.02630	0.03060	0.37500	0.00000	0.56700	0.37800
65	0.02630	0.03060	0.37500	0.00000	1.00000	1.00000
66	0.02630	0.03060	0.37500	0.00000	1.00000	1.00000
67	0.02630	0.03060	0.37500	0.00000	1.00000	1.00000
68	0.02630	0.03060	0.37500	0.00000	1.00000	1.00000
69	0.02630	0.03060	0.37500	0.00000	1.00000	1.00000
70	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

TABLE 2
ACTIVE SALARY INCREASE TABLE

Age	Increase Rate		Age	Increase Rate	
	Fiscal Year Ending 2012 through Fiscal Year Ending 2016	Fiscal Years Ending 2017 and Thereafter		Fiscal Year Ending 2012 through Fiscal Year Ending 2016	Fiscal Years Ending 2017 and Thereafter
20	0.0465	0.0590	45	0.0340	0.0465
21	0.0460	0.0585	46	0.0335	0.0460
22	0.0455	0.0580	47	0.0330	0.0455
23	0.0450	0.0575	48	0.0325	0.0450
24	0.0445	0.0570	49	0.0320	0.0445
25	0.0440	0.0565	50	0.0315	0.0440
26	0.0435	0.0560	51	0.0310	0.0435
27	0.0430	0.0555	52	0.0305	0.0430
28	0.0425	0.0550	53	0.0300	0.0425
29	0.0420	0.0545	54	0.0295	0.0420
30	0.0415	0.0540	55	0.0290	0.0415
31	0.0410	0.0535	56	0.0285	0.0410
32	0.0405	0.0530	57	0.0280	0.0405
33	0.0400	0.0525	58	0.0275	0.0400
34	0.0395	0.0520	59	0.0270	0.0395
35	0.0390	0.0515	60	0.0265	0.0390
36	0.0385	0.0510	61	0.0255	0.0380
37	0.0380	0.0505	62	0.0245	0.0370
38	0.0375	0.0500	63	0.0235	0.0360
39	0.0370	0.0495	64	0.0225	0.0350
40	0.0365	0.0490	65	0.0215	0.0340
41	0.0360	0.0485	66	0.0215	0.0340
42	0.0355	0.0480	67	0.0215	0.0340
43	0.0350	0.0475	68	0.0215	0.0340
44	0.0345	0.0470	69	0.0215	0.0340

TABLE 3
MORTALITY TABLES FOR SERVICE RETIREMENTS AND
BENEFICIARIES OF DECEASED MEMBERS

AGE	RATES OF MORTALITY		AGE	RATES OF MORTALITY	
	MEN	WOMEN		MEN	WOMEN
20	0.00033	0.00019	63	0.00876	0.00666
21	0.00034	0.00019	64	0.01001	0.00765
22	0.00036	0.00019	65	0.01128	0.00862
23	0.00037	0.00019	66	0.01274	0.00971
24	0.00037	0.00020	67	0.01441	0.01095
25	0.00038	0.00020	68	0.01608	0.01216
26	0.00038	0.00021	69	0.01787	0.01345
27	0.00038	0.00021	70	0.01980	0.01486
28	0.00038	0.00022	71	0.02221	0.01674
29	0.00039	0.00024	72	0.02457	0.01858
30	0.00041	0.00025	73	0.02728	0.02066
31	0.00044	0.00026	74	0.03039	0.02297
32	0.00050	0.00031	75	0.03390	0.02546
33	0.00056	0.00035	76	0.03783	0.02811
34	0.00063	0.00039	77	0.04217	0.03097
35	0.00070	0.00043	78	0.04691	0.03411
36	0.00077	0.00047	79	0.05212	0.03759
37	0.00084	0.00051	80	0.05793	0.04151
38	0.00090	0.00055	81	0.06437	0.04588
39	0.00096	0.00060	82	0.07204	0.05078
40	0.00102	0.00065	83	0.08049	0.05629
41	0.00108	0.00071	84	0.08972	0.06251
42	0.00114	0.00077	85	0.09978	0.06952
43	0.00121	0.00085	86	0.11076	0.07745
44	0.00130	0.00094	87	0.12280	0.08638
45	0.00140	0.00103	88	0.13604	0.09634
46	0.00151	0.00112	89	0.15059	0.10730
47	0.00162	0.00122	90	0.16642	0.11915
48	0.00173	0.00133	91	0.18341	0.13168
49	0.00186	0.00143	92	0.19977	0.14460
50	0.00200	0.00155	93	0.21661	0.15762
51	0.00214	0.00168	94	0.23366	0.17043
52	0.00245	0.00185	95	0.25069	0.18280
53	0.00267	0.00202	96	0.26749	0.19451
54	0.00292	0.00221	97	0.28391	0.20538
55	0.00320	0.00242	98	0.29985	0.21524
56	0.00362	0.00272	99	0.31530	0.22395
57	0.00420	0.00309	100	0.33021	0.23139
58	0.00469	0.00348	101	0.34456	0.23747
59	0.00527	0.00392	102	0.35863	0.24483
60	0.00595	0.00444	103	0.37169	0.25450
61	0.00675	0.00506	104	0.38304	0.26604
62	0.00768	0.00581	105	0.39200	0.27905

RP-2000 Combined Healthy Male and Female Mortality Tables with ages set back 1 year for both male and females. In addition, provide for future improvements in mortality using a generational approach based on projection scale AA.

TABLE 3
MORTALITY TABLES FOR DISABILITY RETIREMENTS

AGE	RATES OF MORTALITY		AGE	RATES OF MORTALITY	
	MEN	WOMEN		MEN	WOMEN
20	0.00000	0.00000	63	0.04204	0.02408
21	0.00000	0.00000	64	0.04347	0.02529
22	0.00000	0.00745	65	0.04498	0.02660
23	0.00000	0.00745	66	0.04658	0.02803
24	0.02257	0.00745	67	0.04831	0.02959
25	0.02257	0.00745	68	0.05017	0.03132
26	0.02257	0.00745	69	0.05221	0.03323
27	0.02257	0.00745	70	0.05445	0.03534
28	0.02257	0.00745	71	0.05691	0.03763
29	0.02257	0.00745	72	0.05961	0.04014
30	0.02257	0.00745	73	0.06258	0.04285
31	0.02257	0.00745	74	0.06584	0.04577
32	0.02257	0.00745	75	0.06941	0.04890
33	0.02257	0.00745	76	0.07329	0.05223
34	0.02257	0.00745	77	0.07751	0.05578
35	0.02257	0.00745	78	0.08207	0.05954
36	0.02257	0.00745	79	0.08695	0.06354
37	0.02257	0.00745	80	0.09215	0.06779
38	0.02257	0.00745	81	0.09764	0.07231
39	0.02257	0.00745	82	0.10339	0.07713
40	0.02257	0.00745	83	0.10937	0.08230
41	0.02257	0.00745	84	0.11554	0.08784
42	0.02257	0.00745	85	0.12188	0.09379
43	0.02257	0.00745	86	0.12834	0.10020
44	0.02257	0.00745	87	0.13492	0.10710
45	0.02257	0.00745	88	0.14160	0.11451
46	0.02257	0.00745	89	0.14837	0.12246
47	0.02257	0.00818	90	0.15523	0.13097
48	0.02257	0.00896	91	0.16219	0.14005
49	0.02385	0.00977	92	0.16923	0.14970
50	0.02512	0.01063	93	0.18341	0.15992
51	0.02640	0.01153	94	0.19977	0.17043
52	0.02769	0.01248	95	0.21661	0.18280
53	0.02898	0.01346	96	0.23366	0.19451
54	0.03027	0.01446	97	0.25069	0.20538
55	0.03156	0.01550	98	0.26749	0.21524
56	0.03286	0.01654	99	0.28391	0.22395
57	0.03415	0.01760	100	0.29985	0.23139
58	0.03544	0.01865	101	0.31530	0.23747
59	0.03673	0.01971	102	0.33021	0.24483
60	0.03803	0.02077	103	0.34456	0.25450
61	0.03933	0.02184	104	0.35863	0.26604
62	0.04067	0.02294	105	0.37169	0.27905

RP-2000 Disabled Mortality Tables with ages set back 3 years for males and 1 year for females.

ADOPTION AND CERTIFICATION OF TABLES AND PROCEDURES PRESENTED

The foregoing tables and procedures, recommended by the actuary for adoption by the Board of Trustees, were considered by the Board at its regular meeting on _____, 2012 and officially approved in accordance with the resolutions passed.

Secretary, Board of Trustees

_____, 2012