

City of Joliet Police Officers' Pension Fund

Annual Actuarial Valuation for the Year Beginning
January 1, 2017



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January 5, 2018

The Pension Board
 City of Joliet Police Officers' Pension Fund
 Joliet, Illinois

Dear Board Members:

We are pleased to provide our formal annual Actuarial Valuation Report as of January 1, 2017, covering the City of Joliet Police Officers' Pension Fund. This report provides, among other things, the minimum annual contribution requirements of the Plan for the Plan Year commencing January 1, 2017, and ending on December 31, 2017 (which directly affects the City's tax levy in the 2018 fiscal year that is collected and deposited into the Pension Trust in fiscal year 2018). This actuarial valuation was based on the plan provisions as outlined in Section C of this report, the Plan participant data as provided by the City of Joliet (i.e., Plan Sponsor) and on the actuarial cost method and the set of actuarial assumptions as described in Section D of the report.

Beginning with the January 1, 2015, actuarial valuation, the Board approved a modified funding policy that shortened the amortization period used to finance the unfunded actuarial accrued liability from 31 years as of January 1, 2015, to 29 years. The modified funding policy is equal to the sum of: (a) annual normal cost plus (b) amortization of unfunded liability as a level percent of pay between January 1, 2015, and January 1, 2044, plus (c) interest on (a) and (b) to date of payment, that is projected to produce a funded ratio of 100 percent by January 1, 2044. The contribution under this modified funding policy satisfies the statutory minimum funding requirements found in Public Act 96-1495.

The actuarial assumptions and methods used in this actuarial valuation are based on an experience review performed using census data from the period January 1, 2010, to January 1, 2015, and are implemented with the current actuarial valuation. As part of this study, we reviewed all economic and demographic assumptions, including the investment and mortality assumptions, and provided recommended assumption changes. Please see pages D-2 and D-3 for additional comments on the assumption changes.

The changes in actuarial assumptions increased the Actuarial Accrued Liability as of January 1, 2017, by \$28,499,194. The plan year 2017 City contribution increased by \$2,905,842. This increase in the City's plan year 2017 contribution will be phased-in over a three-year period for budgetary purposes. Under a three-year smoothing period, the increase in the City's contribution will be phased-in according to the following schedule:

Plan Year	Portion Recognized	Portion to Subtract	Amount to Subtract from City Contribution
2017	33%	67%	\$1,946,914
2018	67%	33%	\$958,928
2019	100%	0%	\$0

Chapter 40, Act 5, Article 3 of the Illinois Compiled Statutes requires an actuarial balance sheet (i.e., actuarial valuation) be prepared by a qualified actuary in order to determine the annual tax levy to meet the annual actuarial requirements of the Pension Fund. Alex Rivera and Lance J. Weiss of Gabriel, Roeder, Smith & Company have the following qualifications:

Alex Rivera is a Fellow of the Society of Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary with over 25 years of responsible experience in the actuarial and pension consulting field.

Lance J. Weiss is a Fellow of the Conference of Consulting Actuaries, a Member of the American Academy of Actuaries and an Enrolled Actuary with over 30 years of responsible experience in the actuarial and pension consulting field.

It is our understanding, in accordance with the Illinois Compiled Statutes, that the undersigned more than satisfy the minimum requirements as set forth in the referenced Pension Code as recently amended.

In addition, it is also our understanding that the Pension Code requires that a Member of the American Academy of Actuaries perform the required annual actuarial valuation and does not mandate that the Illinois Department of Insurance's annual actuarial valuation of the Pension Fund be controlling or that the Department of Insurance accept or approve another actuarial valuation of the Pension Fund.

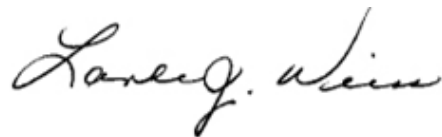
Alex Rivera and Lance J. Weiss are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We will be pleased to review this report with you at your convenience.

Sincerely,



Alex Rivera, F.S.A., E.A., M.A.A.A., F.C.A.
Senior Consultant



Lance J. Weiss, E.A., M.A.A.A., F.C.A.
Senior Consultant

AR/LW:rg



Additional Disclosures Required by Actuarial Standards of Practice

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

This report should not be relied on for any purpose other than the purpose stated.

The signing actuaries are independent of the plan sponsor.



SECTION A

ACTUARIAL VALUATION RESULTS

Summary of Actuarial Valuation Results

Valuation Date as of		January 1, 2017		
		January 1, 2016	Before Changes in Assumptions	After Changes in Assumptions
Employee Data	Number of Active Police Officers	269	263	263
	Number of Service Retirees	130	136	136
	Number of Disabled Lives	14	14	14
	Number of Widow Beneficiaries	27	26	26
	Number of Children Beneficiaries	0	0	0
	Number of Separated Deferred Police Officers	10	9	9
	Number of Handicapped Beneficiaries	2	2	2
	TOTAL	452	450	450
	Total Annual Salaries of Police Officers	\$ 27,759,332	\$ 27,660,834	\$ 27,660,834
Plan Liabilities	Gross Actuarial Accrued Liability:			
	Active Police Officers	\$ 168,526,708	\$ 170,838,213	\$ 182,307,013
	Retirees, Beneficiaries & Disabled	176,938,927	187,278,985	204,309,379
	TOTAL	\$ 345,465,635	\$ 358,117,198	\$ 386,616,392
	Actuarial Value of Assets at Valuation Date	\$ 198,940,171	\$ 213,348,423	\$ 213,348,423
	Unfunded/(Overfunded) Actuarial Accrued Liability	\$ 146,525,464	\$ 144,768,775	\$ 173,267,969
	Funded Position of Plan's Gross Actuarial Accrued Liability ^a	57.6 %	59.6 %	55.2 %
Normal Cost		For the 2016 Fiscal Year	For the 2017 Fiscal Year	For the 2017 Fiscal Year
	Gross Annual Normal Cost	\$ 8,813,638	\$ 8,711,872	\$ 9,944,802
	Less Expected Member Contributions (for Applicable Plan Year)	2,750,950	2,741,189	2,741,189
	Net Annual Normal Cost (Municipality Paid)	\$ 6,062,688	\$ 5,970,683	\$ 7,203,613
	Net Annual Normal Cost (As a percentage of pay) ^b	21.8 %	21.6 %	26.0 %

^a Equals the ratio of the actuarial value of assets to the total gross actuarial accrued liability.

^b Percents shown represent annual plan contributions expressed as percentages of covered Police Officers' salaries.

Summary of Actuarial Valuation Results (Continued)

Annual Contribution Requirements Plan Year End	Plan Year End December 31, 2016 ^a	Plan Year End December 31, 2017 ^b		
		Before Assumption Changes	After Assumption Changes	Phase-in Assumption Changes
Net Annual Normal Cost (Municipality Paid)	\$ 6,062,688	\$ 5,970,683	\$ 7,203,613	\$ 7,203,613
Annual Amortization Payments for Funding Unfunded Actuarial Accrued Liability as a level percentage of payroll	7,280,505	7,374,328	8,832,330	8,832,330
Adjustment Due to Three-year Phase-in of Contribution Rate Increase Resulting from Change in Actuarial Assumptions	-	-	-	(1,946,914)
Interest Adjustment to Expected Date of Payment into the Fund (Optional)	<u>1,373,546</u>	<u>1,373,733</u>	<u>1,588,643</u>	<u>1,395,767</u>
Total Minimum Annual Contribution Requirement for the Current Plan Year	<u>\$ 14,716,739</u>	<u>\$ 14,718,744</u>	<u>\$ 17,624,586</u>	<u>\$ 15,484,796</u>
Minimum Annual Contribution (As a percentage of pay as of the valuation date)	53.0%	53.2%	63.7%	56.0%
PA 96-1495 Minimum Annual Contribution Requirement for the Current Plan Year	<u>\$ 13,397,518</u>	<u>\$ 13,325,505</u>	<u>\$ 16,077,575</u>	<u>\$ 14,233,688</u>
PA 96-1495 Minimum Annual Contribution (As a percentage of projected pay)	44.9%	44.9%	55.2%	48.9%

^a Unfunded Actuarial Accrued Liability is amortized over a 28-year closed period.

^b Unfunded Actuarial Accrued Liability is amortized over a 27-year closed period.

Derivation of Experience Gain/(Loss)

Year Ended January 1, 2017

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is expected that gains and losses will cancel each other out over time, but year-to-year fluctuations are not uncommon. Detail on the derivation of the experience gain/(loss) is shown below, along with a year-by-year comparative schedule.

1. Unfunded Actuarial Accrued Liability at 01/01/2016	\$ 146,525,464
2. Normal Cost Due at 01/01/2016	8,813,638
3. Interest on (1) and (2) to 12/31/2016 (at 6.75% per annum)	10,485,389
4. Contributions (Employer and Employee) applicable to the 2016 Plan Year, with interest to 12/31/2016	17,898,022
5. Expected Unfunded Actuarial Accrued Liability at 01/01/2017 [(1) + (2) + (3) - (4)]	\$ 147,926,469
6. Effect of Assumption Changes on Unfunded Actuarial Accrued Liability at 01/01/2017 ¹	\$ 28,499,194
7. Expected Unfunded Actuarial Accrued Liability at 01/01/2017 [(5) + (6)]	\$ 176,425,663
8. Actual Unfunded Actuarial Accrued Liability at 01/01/2017	\$ 173,267,969
9. Gain/(Loss) for the 2016 Plan Year [(7) - (8)]	\$ 3,157,694

Valuation Date January 01	Experience Gain/(Loss) As % of Accrued Liability at the Prior Valuation Date ^a
2008	1.38 %
2009	(1.33)
2010	(8.87)
2011	(4.14)
2012	(4.27)
2013	1.56
2014	0.58
2015	0.73
2016	(0.20)
2017	0.91

^a Excluding Plan and assumption changes.

¹Please see pages D-2 and D-3 for a summary of the assumption changes.

Comments and Analysis

The valuation results pertaining to the current Plan Year are analyzed and discussed below.

Plan History

The following table provides a summary of the Plan's rate of return on assets and salary increase experience over the last 20 actuarial valuations performed by Gabriel, Roeder, Smith & Company:

Plan Year Ending	Rate of Return On Plan Assets	Salary Scale Increase
12/31/1997	7.1 %	3.6 %
12/31/1998	8.8	5.8
12/31/1999	5.5	8.7
12/31/2000	6.9	6.0
12/31/2001	3.4	5.4
12/31/2002	(0.3)	7.6
12/31/2003	9.4	7.4
12/31/2004	4.9	9.9
12/31/2005	3.8	2.7
12/31/2006	9.0	22.0
12/31/2007	7.1	6.5
12/31/2008	(8.6)	1.6
12/31/2009	7.7	6.4
12/31/2010	6.3	10.2
12/31/2011	0.2	9.3
12/31/2012	7.4	0.8
12/31/2013	12.1	2.2
12/31/2014	4.4	2.2
12/31/2015	(0.8)	4.3
12/31/2016	7.0	2.9

The Salary Scale increase has averaged 6.2% over the last 20 years. The current long-term assumption of 4.25% was reviewed as part of the experience review performed for the period January 1, 2010, to January 1, 2015, and updated from 5.25%. As part of each annual valuation, we will review salary scale increases and determine whether the current assumption continues to be appropriate.

Over the same 20-year period, the Plan's assets have averaged an annual rate of investment return of 5.0%. We have reviewed the investment return assumption as part of the experience review performed for the period January 1, 2010, to January 1, 2015, and updated the assumption to 6.50%. We recommend that the City continue to monitor this assumption for continuing reasonableness at each future valuation.

Comments and Analysis (Continued)

Analysis of the Experience Gain/ (Loss)	The experience gain/(loss) reported on page A-3, is the net result of the following:	
	(a) From plan asset performance	\$ (3,614,710)
	(b) Other sources ("net effect" of salary increases, terminations, new entrants, retirements, etc.)	<u>6,772,404</u>
	Total Gain/(Loss): [(a) + (b)]	\$ 3,157,694

Changes in the Annual Contribution Magnitude

The dollar amount of the plan's annual minimum required contribution of \$15,484,796 is approximately 5.2% higher than the level for the prior plan year of \$14,716,739. As a percentage of payroll, the contribution requirement is higher than last year (i.e., increasing from 53.0% to 56.0%). The important factors producing this change are summarized as follows:

1. Minimum Annual Contribution Requirement for prior plan year	\$ 14,716,739
2. Actual Asset Performance (based on actuarial value of assets)	198,095
3. Increase in Normal Cost and Amortization Amount due to anticipated pay increases	588,670
4. Changes in Assumptions Resulting from an Experience Review for the Period from January 1, 2010, to January 1, 2015	2,905,842
5. Adjustment Due to Three-year Phase-in of Contribution Increase Resulting from Change in Actuarial Assumptions	(1,946,914)
6. Other Sources (demographic and salary (gains)/losses)	(977,636)
7. Minimum Annual Contribution Requirement for current plan year (sum of items 1 through 6)	<u><u>\$ 15,484,796</u></u>

Comments and Analysis (Continued)

**Comments on
Actuarial Value
of Assets**

The Pension Fund uses market-related value of assets for funding purposes. This market-related value of assets will recognize gains and losses due to return on plan assets over a four-year period. Hence, only a portion of this year's investment loss (see Section B for details) is included in the current year actuarial value of assets. The remainder of the gain or loss will be incorporated into Pension Fund assets over the next three years. The purpose of this technique is to minimize contribution volatility due to fluctuations in the market value of assets. Finally, receivables for plan years prior to the current plan year which are not in Plan assets by December 31, 2016, are included in assets for funding purposes.

**GASB
Statements
Nos. 67 and 68**

Effective with Fiscal Year Ending December 31, 2014, GASB No. 67 replaced GASB No. 25 for pension plan financial reporting requirements. GASB No. 68 replaced GASB No. 27 for employer financial reporting effective with fiscal year ending December 31, 2015.

The measurements required under GASB Statements Nos. 67 and 68 are provided in a separate report.

**City
Contribution
Phase-in
Schedule**

The actuarial assumption changes outlined in Section D increased the Actuarial Accrued Liability as of January 1, 2017, by \$28,499,194. The plan year 2017 City contribution increased by \$2,905,842. This increase in the City's plan year 2017 contribution will be phased-in over a three-year period for budgetary purposes. Under a three-year smoothing period, the increase in the City's contribution will be phased-in according to the following schedule:

Plan Year	Portion Recognized	Portion to Subtract	Amount to Subtract from City Contribution
2017	33%	67%	\$1,946,914
2018	67%	33%	\$958,928
2019	100%	0%	\$0

SECTION B

PROJECTIONS

City of Joliet Police Officers' Pension Fund

Actuarial Valuation Projection Results Based on P.A. 96-1495 as of January 1, 2017 (Based on Projected Unit Credit Cost Method)

Includes Changes in Actuarial Assumptions Resulting from the 2016 Experience Review with Impact of Assumption Changes on City Contributions Phased-in Over a Three-year Period

(\$ in Thousands)

Jan. 1,	Actuarial Accrued Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Liability	Actuarial Value Funded Ratio	Uncapped Payroll	Capped Payroll	Employer Normal Cost	Statutory Minimum Contribution ^a	Statutory Contribution % of Projected Pay	Employee Contributions	Benefit Payments
2017	\$380,720	\$191,982	\$199,105	\$181,615	52.30%	\$27,661	\$27,661	\$7,268	\$14,234	48.88%	\$2,741	\$13,360
2018	402,342	208,625	211,662	190,679	52.61%	28,341	28,341	7,375	15,632	52.19%	2,809	14,456
2019	424,424	224,788	224,675	199,749	52.94%	29,117	29,114	7,475	17,204	55.85%	2,885	15,583
2020	446,968	242,359	242,359	204,608	54.22%	29,956	29,924	7,533	17,657	55.85%	2,965	16,792
2021	469,876	261,527	261,527	208,348	55.66%	30,806	30,701	7,530	18,140	55.85%	3,042	18,134
2022	492,967	281,102	281,102	211,865	57.02%	31,618	31,387	7,490	18,666	55.85%	3,110	19,590
2023	516,086	301,013	301,013	215,073	58.33%	32,482	32,068	7,425	19,200	55.85%	3,178	21,133
2024	539,119	321,237	321,237	217,882	59.59%	33,425	32,750	7,312	19,791	55.85%	3,245	22,795
2025	561,886	341,680	341,680	220,205	60.81%	34,381	33,362	7,175	20,423	55.85%	3,306	24,495
2026	584,296	362,368	362,368	221,928	62.02%	35,439	33,998	7,010	21,121	55.85%	3,369	26,292
2027	606,201	383,262	383,262	222,939	63.22%	36,571	34,598	6,835	21,851	55.85%	3,429	28,099
2028	627,542	404,430	404,430	223,112	64.45%	37,820	35,208	6,639	22,682	55.85%	3,489	29,930
2029	648,236	425,899	425,899	222,337	65.70%	39,127	35,752	6,448	23,549	55.85%	3,543	31,778
2030	668,222	447,768	447,768	220,454	67.01%	40,616	36,333	6,243	24,477	55.85%	3,601	33,645
2031	687,423	470,085	470,085	217,339	68.38%	42,168	36,846	6,026	25,462	55.85%	3,651	35,536
2032	705,744	492,909	492,909	212,835	69.84%	43,830	37,332	5,805	26,468	55.85%	3,700	37,444
2033	723,104	516,314	516,314	206,790	71.40%	45,594	37,784	5,566	27,557	55.85%	3,744	39,361
2034	739,406	540,345	540,345	199,062	73.08%	47,395	38,147	5,331	28,713	55.85%	3,780	41,252
2035	754,604	565,147	565,147	189,458	74.89%	49,346	38,515	5,104	29,960	55.85%	3,817	43,127
2036	768,652	590,856	590,856	177,797	76.87%	51,415	38,866	4,906	31,252	55.85%	3,852	44,982
2037	781,526	617,642	617,642	163,883	79.03%	53,648	39,254	4,740	32,611	55.85%	3,890	46,753
2038	793,272	645,716	645,716	147,556	81.40%	55,962	39,641	4,620	34,048	55.85%	3,928	48,387
2039	804,008	675,369	675,369	128,640	84.00%	58,396	40,071	4,550	35,512	55.85%	3,971	49,906
2040	813,846	706,908	706,908	106,939	86.86%	60,969	40,527	4,519	9,295	14.01%	4,016	51,346
2041	822,852	740,566	740,566	82,285	90.00%	63,590	40,989	4,544	9,476	13.69%	4,062	52,680
2042	831,140	748,026	748,026	83,114	90.00%	66,335	41,523	4,615	9,683	13.41%	4,115	53,851
2043	838,892	755,003	755,003	83,889	90.00%	69,204	42,094	4,731	9,901	13.16%	4,171	54,880
2044	846,269	761,642	761,642	84,627	90.00%	72,221	42,717	4,870	10,125	12.94%	4,233	55,810
2045	853,378	768,040	768,040	85,338	90.00%	75,254	43,324	5,018	10,355	12.73%	4,293	56,699
2046	860,254	774,228	774,228	86,025	90.00%	78,243	43,892	5,179	10,575	12.54%	4,350	57,538
2047	866,941	780,247	780,247	86,694	90.00%	81,311	44,462	5,333	10,789	12.34%	4,406	58,342
2048	873,456	786,111	786,111	87,346	90.00%	84,356	44,987	5,480	10,987	12.14%	4,458	59,144
2049	879,780	791,802	791,802	87,978	90.00%	87,438	45,500	5,610	11,172	11.93%	4,509	59,948
2050	885,877	797,289	797,289	88,588	90.00%	90,514	45,979	5,723	11,339	11.72%	4,557	60,774

^a Statutory minimum contribution deposited in the following fiscal year. Increase in contributions due to assumption changes are phased-in over a three-year period.

City of Joliet Police Officers' Pension Fund
Actuarial Valuation Projection Results Based on 27 Years Closed Amortization as of January 1, 2017 (Based on Entry Age Normal Cost Method)
Includes Changes in Actuarial Assumptions Resulting from the 2016 Experience Review with Impact of Assumption Changes on City Contributions Phased-in Over a Three-year Period
(\$ in Thousands)

Jan. 1,	Actuarial Accrued Liability	Market Value of Assets	Actuarial Value of Assets	Unfunded Liability	Actuarial Funded Ratio	Uncapped Payroll	Capped Payroll	Employer Normal Cost	City Contribution^a	City Contribution % of Pay	Employee Contributions	Benefit Payments
2017	\$386,616	\$191,982	\$213,348	\$173,268	55.18%	\$27,661	\$27,661	\$7,204	\$15,485	55.98%	\$2,741	\$13,423
2018	408,503	208,625	226,667	181,836	55.49%	28,341	28,341	7,258	17,380	61.33%	2,809	14,521
2019	430,795	226,079	242,808	187,987	56.36%	29,117	29,114	7,313	19,151	65.77%	2,885	15,649
2020	453,511	245,538	264,095	189,415	58.23%	29,956	29,924	7,340	19,597	65.42%	2,965	16,860
2021	476,568	266,922	285,911	190,657	59.99%	30,806	30,701	7,316	20,008	64.95%	3,042	18,204
2022	499,794	288,849	308,237	191,557	61.67%	31,618	31,387	7,269	20,412	64.56%	3,110	19,662
2023	523,048	311,191	330,970	192,077	63.28%	32,482	32,068	7,206	20,816	64.09%	3,178	21,206
2024	546,224	333,878	354,049	192,175	64.82%	33,425	32,750	7,109	21,200	63.43%	3,245	22,869
2025	569,160	356,811	377,354	191,805	66.30%	34,381	33,362	6,994	21,585	62.78%	3,306	24,571
2026	591,772	379,937	400,853	190,920	67.74%	35,439	33,998	6,859	21,965	61.98%	3,369	26,370
2027	613,922	403,172	424,457	189,465	69.14%	36,571	34,598	6,712	22,354	61.13%	3,429	28,178
2028	635,553	426,506	448,167	187,386	70.52%	37,820	35,208	6,542	22,739	60.12%	3,489	30,010
2029	656,582	449,929	471,963	184,619	71.88%	39,127	35,752	6,373	23,147	59.16%	3,543	31,859
2030	676,946	473,418	495,847	181,099	73.25%	40,616	36,333	6,191	23,563	58.02%	3,601	33,727
2031	696,575	496,987	519,820	176,755	74.63%	42,168	36,846	6,002	23,996	56.91%	3,651	35,620
2032	715,379	520,618	543,870	171,509	76.03%	43,830	37,332	5,807	24,448	55.78%	3,700	37,529
2033	733,280	544,310	568,001	165,279	77.46%	45,594	37,784	5,597	24,909	54.63%	3,744	39,446
2034	750,189	568,077	592,214	157,975	78.94%	47,395	38,147	5,391	25,401	53.60%	3,780	41,338
2035	766,063	591,948	616,562	149,501	80.48%	49,346	38,515	5,188	25,927	52.54%	3,817	43,214
2036	780,856	615,982	641,105	139,751	82.10%	51,415	38,866	5,005	26,504	51.55%	3,852	45,070
2037	794,537	640,240	665,922	128,616	83.81%	53,648	39,254	4,836	27,128	50.57%	3,890	46,841
2038	807,141	664,882	691,168	115,972	85.63%	55,962	39,641	4,694	27,816	49.71%	3,928	48,477
2039	818,765	690,121	717,075	101,690	87.58%	58,396	40,071	4,577	28,568	48.92%	3,971	49,996
2040	829,497	716,187	743,870	85,628	89.68%	60,969	40,527	4,478	29,380	48.19%	4,016	51,438
2041	839,382	743,283	771,752	67,630	91.94%	63,590	40,989	4,415	30,280	47.62%	4,062	52,773
2042	848,512	771,647	800,988	47,524	94.40%	66,335	41,523	4,380	31,271	47.14%	4,115	53,945
2043	857,045	801,629	831,931	25,115	97.07%	69,204	42,094	4,369	32,550	47.03%	4,171	54,975
2044	865,118	833,577	865,118	-	100.00%	72,221	42,717	4,369	4,949	6.85%	4,233	55,907
2045	872,819	868,024	872,819	-	100.00%	75,254	43,324	4,379	4,961	6.59%	4,293	56,797
2046	880,176	875,369	880,176	-	100.00%	78,243	43,892	4,403	4,989	6.38%	4,350	57,638
2047	887,230	882,395	887,230	-	100.00%	81,311	44,462	4,428	5,018	6.17%	4,406	58,443
2048	893,997	889,134	893,997	-	100.00%	84,356	44,987	4,460	5,054	5.99%	4,458	59,245
2049	900,464	895,567	900,464	-	100.00%	87,438	45,500	4,491	5,089	5.82%	4,509	60,051
2050	906,607	901,676	906,607	-	100.00%	90,514	45,979	4,524	5,127	5.66%	4,557	60,878

^a City contribution deposited in the following fiscal year. Increase in contributions due to assumption changes are phased-in over a three-year period.

^b The Funded Ratio under the Modified Funding Policy is greater than the Funded Ratio produced under the Statutory Funding Policy in each plan year.

SECTION C

BENEFIT PROVISIONS AND ACTUARIAL VALUATION DATA

Brief Summary of Plan Provisions (January 1, 2017)

Plan Police Pension Fund as Incorporated in Chapter 40, Act 5, Article 3 of the Illinois Compiled Statutes

Effective Date Enacted: July 25, 1963

Last Amended Effective: July 9, 2015

Eligibility to Participate

Generally, any person who is in the Police Department of a city, village or incorporated town (whose population is 500,000 or less) which has adopted the provisions of Chapter 40, Act 5, Article 3 of the Illinois Compiled Statutes concerning Police Officers' pensions, is eligible to participate, subject to the following:

- (a) The person has been appointed to the Police force of a Police Department and sworn and commissioned to perform Police duties; and
- (b) Within three months after receiving his/her first appointment (or within three months after any re-appointment) the person makes written application to the Board to be covered under the provisions of the Article; and
- (c) The person is found to be physically and mentally fit to perform the duties of a Police Officer.

Notwithstanding, the following persons are not considered eligible for participation in this Fund: part-time Police Officers, special Police Officers, night watchmen, temporary employees, traffic guards, or auxiliary Police Officers (specially appointed to aid or direct traffic at or near schools or public functions, or to aid in civil defense), municipal parking lot attendants, clerks or other civilian employees of a Police Department who perform clerical duties exclusively.

Brief Summary of Plan Provisions (Continued)

**Employee
Contributions
(Mandatory)**

In order to participate in the plan, each Police Officer must contribute 9.910% of his/her regular salary. "Salary" in this instance means annual salary and includes longevity pay attached to the Police Officer's rank but excludes overtime pay, holiday pay, bonus pay, merit pay or any other cash benefit over and above the salary established by the appropriation ordinance.

Creditable Service

"Creditable Service" is the time period during which a person serves as a Police Officer of a regularly constituted Police force of a municipality. Furloughs without pay exceeding 30 days in any one year shall not be counted, but all leaves of absence for illness or accident, regardless of length, shall be counted. Also, time attributable to disability for which the Police Officer does not receive disability pension benefits under this Article shall be counted as "Creditable Service."

In addition, Creditable Service includes all periods of service in the Military, Naval or Air Forces of the United States of America, entered into when the person was an active Police Officer, provided that the Police Officer contributes to the Fund the amount that he/she would have paid had he/she been a regular contributor during such Military service. Not more than five years may be counted under this provision.

**Eligibility For and
Amount of Regular
Retirement Benefits**

**I. Age 50 (or
More) and 20
or More Years
of Creditable
Service**

Benefit: A Police Officer who is age 50 (or more) and has 20 years (or more) of Creditable Service and is no longer in service as a Police Officer is entitled to a pension payable for life equal to 50% of his/her monthly salary attached to the rank held by the Officer one year immediately prior to retirement.

Brief Summary of Plan Provisions (Continued)

Effective July 1, 1987, for persons terminating service on or after that date, the applicable salary will be the greater of: (1) the salary attached to the rank held on the last day of service; or (2) the salary one year prior to the last day of service.

For Creditable Service over 20 years, the pension is increased as follows:

- 2.5% of the Police Officer's monthly salary for each additional year over 20 to the limitation that the monthly pension does not exceed 75% of his/her monthly salary.

Notwithstanding the above, no Pension in effect or granted for a Police Officer with 20 or more years of service after January 1999 is to be less than \$600.00 per month. This increases to \$800.00 per month on January 1, 2000, and \$1,000.00 per month on January 1, 2001.

**II. Eligibility—
Age 60 (or
More) and 8
(but Less than
20) Years of
Creditable
Service**

Benefit: A Police Officer who retires or is separated from service having at least eight years (but less than 20) of Creditable Service and who does not apply for a refund of contributions at separation from service, is entitled to a monthly pension upon attaining age 60, payable for life, equal to years of Creditable Service multiplied by 2½% of the salary attached to the rank he/she held in the Police force one year prior to retirement. Effective July 1, 1987, for persons terminating service on or after that date, the applicable salary will be the greater of: (1) the salary attached to the rank held on the last day of service; or (2) the salary one year prior to the last day of service.

Brief Summary of Plan Provisions (Continued)

A Police Officer who is mandatorily retired from service by reason of age through an operation of law, and has accumulated at least 8 years (but less than 20 years) of Creditable Service, is entitled to a pension payable for life equal to years of Creditable Service multiplied by 2½% of the salary attached to the rank he/she held on the Police force one year immediately prior to retirement. Effective July 1, 1987, for persons terminating service on or after that date, the applicable salary will be the greater of: (1) the salary attached to the rank held on the last day of service; or (2) the salary one year prior to the last day of service.

III. Pension Allowance Increases

- A Police Officer who retired from service with 20 or more years of Creditable Service on or before July 1, 1971, is entitled to an increase of 3% of his/her original monthly pension for each year the Police Officer was in receipt of pension payments; such increase takes effect in the January of the year following the year in which he/she attains age 65, or January of 1972, if then age 65. Each subsequent January thereafter, the monthly pension is increased by 3% of the original monthly pension amount.
- A Police Officer who retired from service after July 1, 1971, and prior to January 1, 1986, is entitled to an increase of 3% of his/her original monthly pension either upon: (a) the first of the month following the first anniversary of his/her date of retirement if he/she was age 60 or more on the retirement date, or (b) the first of the month following the Police Officer's attainment of age 60 (if such occurs after the first anniversary of his/her retirement date). Each subsequent January thereafter, the monthly pension is increased by 3% of the original monthly pension amount.

Brief Summary of Plan Provisions (Continued)

- A Police Officer who retired from service on or after January 1, 1986, is entitled to an increase of 3% of his/her original monthly pension for each full year that has elapsed since the pension began. This occurs upon either: (a) the first of the month following the anniversary of his/her date of retirement if he/she was age 55 or older on the retirement date, or (b) the first of the month following the Police Officer's attainment of age 55 (if such occurs after the first anniversary of his/her retirement date). Each subsequent January thereafter, the monthly pension is increased by 3% of the original monthly pension amount.
 - Notwithstanding the provisions of the second paragraph listed above, a Police Officer who retired from service after January 1, 1977, and prior to January 1, 1986, and did not receive a pension increase before July 1, 1987, is entitled to a 3% increase of his/her original monthly pension for each full year that has elapsed since the pension began. This occurs on the first day of the month following the later of either: (a) the first anniversary of the date of retirement, or (b) the attainment of age 55, or (c) July 1, 1987. Each subsequent January thereafter, the monthly pension is increased by 3% of the original pension amount.
 - Notwithstanding the provisions of the previous paragraphs, beginning with increases granted on or after July 1, 1993, the second and all subsequent automatic annual increases under these provisions shall be calculated as 3% of the amount of pension payable at the time of the increase, including any increases previously granted under the prior provisions, rather than 3% of the originally granted pension amount.
-

Brief Summary of Plan Provisions (Continued)

Eligibility For and Amount of Disability Benefits

- I. Disability Incurred in the Line of Duty** If a Police Officer is injured or suffers an accident or sickness as the result of carrying out his/her duties as a Police Officer (even if those duties take him/her to a place away from the municipality in which he/she serves as a Police Officer, and assuming such duties are related to the Police protection service of such municipality), then such a disabled Police Officer is entitled to a disability retirement pension equal to the maximum of: (a) 65% of the monthly salary attached to the rank held by the officer in the Police Department at the date of suspension of duty or retirement, or (b) his/her accrued benefit.
- II. Disability on Account of Occupational Hazards** If a Police Officer suffers a heart attack as a result of the performance and discharge of duties as a Police Officer, then he/she is eligible for any benefits provided under this Article for Police Officers who are injured in the performance of an act of duty.
- III. Disability Due to Occurrences Unrelated to Duties** If a Police Officer becomes mentally or physically disabled as the result of any cause other than the performance of an act of duty, he/she is entitled to a disability pension equal to 50% of the monthly salary attached to the rank held by the officer in the Police Department at the date of suspension of duty or retirement.
- Notwithstanding the provisions of I, II and III above, no disability pension in effect or granted after January 1, 1987, is to be less than \$600.00 per month. This increases to \$800.00 per month on January 1, 2000, and \$1,000.00 per month on January 1, 2001.
- IV. Special Disability Pension Option** A Police Officer, age 50 or more, who is receiving a disability pension and who has completed 20 years of service may apply for a retirement pension equal to 1/2 of the monthly salary attached to his/her rank on the Police force at the date of his/her retirement for disability. In computing years of service for this benefit option, the period during which the Police Officer received a disability pension should be added to his/her period of active service.
- V. Disability Pension Allowance Increase** A Police Officer who is receiving a disability pension is entitled to receive an automatic increase upon the attainment of age 60. At this date, the monthly pension is increased by 3% of the original monthly pension for each year the Police Officer was in receipt of monthly pension payments. Each subsequent January thereafter, the monthly pension is again increased by 3% of the original monthly pension amount.

Brief Summary of Plan Provisions (Continued)

Death Benefits to Surviving Spouse or Dependents

- I. Death in Line of Duty** If a Police Officer dies while in the line of duty as a result of any injuries or if a Police Officer sustains injuries from which he/she thereafter dies, then the surviving spouse is entitled to a pension equal to 100% of the monthly salary attached to the rank the Police Officer held for one year immediately prior to his/her death. This benefit is payable to the survivors in the sequence noted in Section VI — Rights on Death of a Pensioner.

- II. Death in Service With 10 or More but Less than 20 Years of Creditable Service** If a Police Officer dies while in service after having at least 10 but less than 20 years of Creditable Service, then his/her surviving spouse is entitled to a pension equal to 50% of the monthly salary attached to the rank held by the Police Officer for one year immediately prior to his/her death. Such benefit is payable to the survivors in the sequence noted in Section VI — Rights on Death of a Pensioner.

- III. Death in Service With 20 or More Years of Creditable Service** If a Police Officer dies while in service after having at least 20 years of Creditable Service (regardless of age), then the surviving spouse is entitled to the pension earned by the Police Officer as of the date of death. Such benefit is payable to the survivors in the sequence noted in Section VI — Rights on Death of a Pensioner.

- IV. Death While on Disability** If a Police Officer who is receiving a disability pension dies while still disabled, his/her disability pension shall continue to be paid to the surviving spouse or dependents in the sequence noted in Section VI — Rights on Death of a Pensioner.

Notwithstanding the provisions of I, II, III or IV above, effective January 1, 1999, the minimum death benefit payable to the surviving spouse or dependents is \$400.00 per month. This increases to \$800.00 per month on January 1, 2000, and \$1,000 per month on January 1, 2001.

Brief Summary of Plan Provisions (Continued)

V. *Less than 10 Years of Creditable Service* If a Police Officer dies before he/she has 10 years of Creditable Service, all contributions made by the Officer shall be refunded to the surviving spouses without interest.

VI. *Rights on Death of a Pensioner* If a Police Officer who was receiving or was entitled to receive a monthly pension dies, the surviving spouse is entitled to the pension to which the Police Officer was then entitled. Upon the surviving spouse's death or remarriage, the Police Officer's unmarried children (under age 18) or unmarried children who are dependent because of a physical or mental disability are entitled to equal shares of the pension. If there is no eligible surviving spouse and no eligible children, the dependent parent or parents of the Police Officer are entitled to receive or share such pension until their death, or marriage, or remarriage.

Special Note: If a Police Officer marries subsequent to retirement on any pension, the surviving spouse and the children of such surviving spouse shall receive no pension upon the death of the Officer.

Termination of Employment Benefits

Refund of Employee Contributions

A Police Officer who has less than 20 Years of Creditable Service and who resigns or is discharged (and has not received any disability payments) is entitled to a refund of his/her total amount contributed to the Police Pension Fund during his/her period of service. If the Police Officer should be subsequently re-employed, he/she must repay to the fund the amount of refund which was received, plus interest at 2% per annum from the date of refund to the date of repayment, before commencing service. When repayment is made, the Police Officer will receive credit for the previous years of service for which the refund was received.

Brief Summary of Plan Provisions (Continued)

Financing of Pension Benefits

Pension benefits are to be funded by "employee" deductions from wages and salaries of Police Officers and by a property tax levied by the Municipality. The amount derived from these two sources should equal the sum sufficient to meet the annual actuarial requirements of the pension fund as stated below:

- (1) Provide a reserve for the pensions and benefits earned by the Police Officers and all beneficiaries — provided that the reserve to be accumulated shall not exceed the estimated total actuarial requirements of the fund,

and

- (2) In a municipality that has a reserve less than the actuarial requirements of the fund, the Board of the Pension Fund shall designate the proportionate amount needed annually to insure the accumulation of such actuarial reserve over a period of 35 years subsequent to January 1, 2011, in the case of pension funds in operation on that date.

The minimum funding requirements under P.A. 96-1495 are disclosed on the following page.

Administration

The Police Pension Fund is administered by a Board of Trustees located in each municipality maintaining a Pension Fund for its Police Officers. Its duties are: to control and manage the pension fund, to enforce the collection of the contributions, to hear and determine applications for pensions, to authorize payment of pensions to establish rules, to pay expenses, to invest funds and to keep records.

Benefits Under P.A. 96-1495

Under P.A. 96-1495, members of the City of Joliet Police Officers' Pension Fund hired after December 31, 2010, are eligible for the following tier-two benefits:

- Minimum retirement eligibility at age 55 with 10 years of Creditable Service with annuity based on accrual rate of 2.5 percent for each year of such service, subject to a maximum of 75 percent.
- Minimum retirement eligibility at age 50 with 10 years of Creditable Service with annuity based on accrual rate of 2.5 percent, reduced by ½ of a percent per month for retirement prior to age 55, subject to a maximum of 75 percent.
- Final average salary based on 96 consecutive months within last 120 months.
- Annual salary capped at \$106,800, indexed annually at lesser of 3.0 percent and 50 percent of CPI-U. For the January 1, 2017, valuation, annual salary is capped at \$111,571.63.
- COLA equal to lesser of 3.0 percent and 50 percent of CPI-U, commencing at age 60, with no cap, applied to originally granted retirement annuity.

Brief Summary of Plan Provisions (Continued)

- Widow benefits at 66-2/3 percent of retiree's benefit.
- Widow COLAs equal to the lesser of 3.0 percent and 50 percent of CPI-U, commencing when the survivor reaches age 60 and applied to originally granted retirement annuity.

Minimum Funding Requirements under P.A. 96-1495

P.A. 96-1495 includes the following changes to the statutory funding requirements:

- Employer contribution (combined with members contributions and other fund revenue) produces 90 percent funding by the end of fiscal year 2040.
- Contributions based on open group projection and level percent of pay financing.
- Actuarial liabilities based on projected unit credit cost method.
- Assets marked to market at March 30, 2011. For fiscal years after March 30, 2011, actuarial value of assets based on 5-year smoothing.

If the City does not make the statutorily required contributions, then the State, starting in FY 2016, could withhold State grants to the City, and directly deposit the withheld funds into the City of Joliet Police Officers' Pension Fund. The withheld funds are limited to 33 percent of total State grants to the City in FY 2016, 67 percent in FY 2017, and 100 percent on and after FY 2018.

The contribution determined in accordance with P.A. 96-1495 serves as a minimum contribution requirement. The funding policy adopted for this valuation exceeds the minimum contribution established under this Public Act.

Active Members as of January 1, 2017 By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date									Totals	
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 35	Totals	Valuation Payroll
Under 20										0	\$ 0
20-24		2								2	139,810
25-29	1	6	2							9	654,784
30-34	2	14	20	6						42	3,637,142
35-39		3	9	35	5					52	5,221,565
40-44			4	14	37	3				58	6,262,060
45-49				3	22	29	9			63	7,387,912
50-54				1	4	9	13			27	3,126,025
55-59						3	2	2	2	9	1,125,389
60-64					1					1	106,147
65-69										0	0
Over 70										0	0
Total	3	25	35	59	69	44	24	2	2	263	\$27,660,834

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 42.0 years
Service: 15.3 years
Annual Pay: \$105,174

Development of Actuarial (Market-Related) Value of Assets

Year Ending December 31,	2016	2017	2018	2019
Beginning of Year:				
(1) Market Value of Assets, Restated	\$ 175,143,050			
(2) Actuarial Value of Assets Including Contribution Receivable, Restated	198,940,171			
(3) Actuarial Value of Assets Excluding Contribution Receivable, Restated	185,027,539			
End of Year:				
(4) Market Value of Assets	191,982,345			
(5) Contributions and Disbursements				
(5a) City Contributions	14,559,331			
(5b) Member Contributions	2,763,589			
(5c) Miscellaneous Revenue	33,263			
(5d) Benefit Payouts & Refunds	(12,876,051)			
(5e) Administrative Expenses	<u>(61,794)</u>			
(5f) Net of Contributions and Disbursements	4,418,338			
(6) Total Investment Income				
=(4)-(1)-(5e)	12,420,957			
(7) Projected Rate of Return	6.75%			
(8) Projected Investment Income				
=(1)x(7)+([1+(7)] ⁵ -1)x(5f)	11,968,840			
(9) Investment Income in				
Excess of Projected Income	452,117			
(10) Excess Investment Income Recognized				
This Year (4-year recognition)				
(10a) From This Year	\$ 113,029			
(10b) From One Year Ago	(3,263,331)	\$ 113,029		
(10c) From Two Years Ago	(934,646)	(3,263,331)	\$ 113,029	
(10d) From Three Years Ago	1,774,796	(934,646)	(3,263,331)	\$ 113,030
(10e) Total Recognized Investment Gain	<u>(2,310,152)</u>	<u>(4,084,948)</u>	<u>(3,150,302)</u>	<u>113,030</u>
(11) Change in Actuarial Value of Assets				
=(5f)+(8)+(10e)	14,077,026			
End of Year:				
(4) Market Value of Assets	\$ 191,982,345			
(12) Actuarial Value of Assets Excluding Contribution Receivable = (3)+(11)	\$ 199,104,565			
(13) 2017 Tax Year Levy (i.e., the 2016 Plan Year Contributions)	\$ 14,716,739			
(14) Interest Adjustment on item (13) to 01/01/2017	\$ (472,881)			
(15) Actuarial Value of Plan Assets at 01/01/2017 = (12)+(13)+(14)	\$ 213,348,423			

The actuarial value of assets is determined by adjusting the market value of assets to reflect the investment gains and losses (the difference between the actual investment return and the expected investment return) during each of the last four years at the rate of 25 percent per year. The contribution receivable for 2017 tax year levy is assumed to be collected and deposited in the Pension Fund on July 1, 2017.

SECTION D

ACTUARIAL VALUATION PROCEDURES

Actuarial Cost Method

Normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using the **individual entry-age actuarial cost method** having the following characteristics:

- The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement; and
- Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Financing of Unfunded Actuarial Accrued Liabilities. Unfunded actuarial accrued liabilities were amortized by level (principal and interest combined) percent of payroll contributions over 27 future years.

Actuarial Value of Pension Plan Assets. The current market value of assets (including discounted contributions due for prior Plan Years and not received as of the valuation date) is reduced (increased) for the current year and each of two succeeding years, by a portion of the gain/(loss) in market value during the prior year. Such gain/(loss) is determined as the excess/(deficit) of the current market value of assets over the market value of assets as of the prior year, increased to reflect interest at the actuarial rate and adjusted to reflect contributions and benefit payments during the prior year. The portion of such gain/(loss) by which the current market value of assets is reduced (increased) shall be 75% in the current year, 50% in the first succeeding year and 25% in the second succeeding year.

Actuarial Assumptions in the Actuarial Valuation Process

The contribution and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and census information furnished, using the actuarial cost method described on the previous page.

The principal areas of financial risk which require assumptions about future experiences are:

- Long-term rates of investment return to be generated by the assets of the System;
- Patterns of pay increases to members;
- Rates of mortality among members, retirees and beneficiaries;
- Rates of withdrawal of active members;
- Rates of disability among members; and
- The age patterns of actual retirement.

In a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives; a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time it becomes appropriate to modify one or more of the assumptions to reflect experience trends (but not random year-to-year fluctuations).

The actuarial assumptions and methods used in this actuarial valuation were recommended by GRS, in the report *2016 Experience Review for the Years January 1, 2010, to January 1, 2015*, and adopted for use beginning with the January 1, 2017, actuarial valuation. The change in actuarial assumptions increased actuarial liabilities by \$28,499,194. The changes made to the actuarial assumptions are summarized below, and the actuarial assumptions are fully disclosed thereafter.

- **Price inflation:** The rate of price inflation was reduced from 3.00 percent to 2.75 percent.
- **Investment return:** The investment return assumption, net of investment expenses, compounded annually, was reduced from 6.75 percent to 6.50 percent. We recommend annually monitoring the assumption for continued reasonableness in the future.
- **General wage increase and payroll growth assumption:** The general payroll growth assumption was reduced from 4.00 percent to 3.75 percent, which reflects an underlying general price inflation assumption of 2.75 percent.
- **Salary increase:** The salary increase assumption was lowered from its current level to better reflect recent experience.
- **Retirement rates:** To better reflect observed experience the 100 percent assumed retirement age was decreased from 65 to 62 and overall retirement rates were increased.
- **Turnover rates:** Decreased overall rates to better reflect observed experience.

Actuarial Assumptions in the Actuarial Valuation Process (Continued)

- **Disability rates:** Increased overall rates to better reflect observed experience.
- **Mortality rates:** Mortality rates were changed from the 1994 Group Annuity Mortality table, sex distinct, to the RP-2014 Blue Collar Healthy Annuitant Mortality table, sex distinct, with projected generational mortality improvements using the MP-2015 two-dimensional mortality improvement scale, for the post-retirement mortality assumption. No adjustment is made for post-disablement mortality. The RP-2014 Blue Collar Employee Mortality table, sex distinct, was used for the pre-retirement mortality assumption. This new mortality table is a move from a single dimensional age-based table to a two-dimensional table, where the year a person was born also influence their mortality rate.

Actuarial Valuation Assumptions

The assumed rate of investment return used was 6.50 percent, net of expenses, annually.

The assumed rate of general inflation used was 2.75 percent, annually.

The mortality table used to measure post-retirement mortality is the RP-2014 Blue Collar Healthy Annuitant Mortality table, sex distinct, with generational mortality improvements using the MP-2015 two-dimensional mortality improvement scales recently released by the SOA. This assumption provides a margin for mortality improvements. No adjustment was made for post-disablement mortality.

The mortality table used to measure pre-retirement mortality is the RP-2014 Blue Collar Employee Mortality table, sex distinct, with generational mortality improvements using the MP-2015 two-dimensional mortality improvement scales recently released by the SOA to reflect that experience shows active members having lower mortality rates than retirees of the same age.

Rates of separation from active membership are represented by the following table (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members terminating employment.

Years of Service	Sample Employee Withdrawal Rate Per 1,000 Employees	
	Males	Females
0	30.0	30.0
5	19.0	19.0
10	5.0	5.0
15	5.0	5.0
20	3.0	3.0
25	3.0	3.0
30 and Over	0.0	0.0

Actuarial Valuation Assumptions (Continued)

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries at the time upon which benefit amounts will be based.

Salary Increase Assumptions For an Individual Member	
Years of Service	Increase
1	32.00%
2	30.00%
3	20.00%
4	10.00%
5	6.75%
6	6.75%
7	6.75%
8	6.75%
9	6.75%
10	6.75%
11	6.75%
12	6.75%
>=13	4.25%

The underlying salary increase assumption is based on a wage inflation assumption of 3.75 percent, comprised of 2.75 percent for general inflation plus 1.00 percent for general merit and productivity increases.

Sample rates of disability are as follows:

Employee Disablement Rate Per 1,000 Employees		
Age	Male	Female
25	0.4	0.4
30	0.5	0.5
35	1.7	1.7
40	3.0	3.0
45	4.6	4.6
50	6.6	6.6
55	9.0	9.0
60	13.7	13.7
62	15.6	15.6

Actuarial Valuation Assumptions (Continued)

Probabilities of retirement for members eligible to retire during the next year were as follows:

Rates of Retirement			
Age	Rate	Age	Rate
50	10.0 %	57	30.0 %
51	10.0	58	30.0
52	17.0	59	50.0
53	17.0	60	50.0
54	20.0	61	50.0
55	25.0	62	100.0
56	25.0		

Administrative expenses. For projection purposes, administrative expenses are based on current administrative expenses and are expected to increase in relation to the projected capped payroll.

Decrement timing. All decrements are assumed to occur mid-year.

Decrement relativity. Decrement rates are used directly from the experience review, without adjustment for multiple decrement table effects.

Decrement operation. Turnover decrements do not operate after member reaches retirement eligibility.

Eligibility testing. Eligibility for benefits is determined based upon the age nearest birthday and service on the date the decrement is assumed to occur.