

CITY OF JOLIET FIREFIGHTERS' PENSION FUND
ANNUAL ACTUARIAL VALUATION
FOR THE YEAR BEGINNING
JANUARY 1, 2011

CONTENTS

<u>Section</u>	<u>Page</u>	
		<i>Introduction</i>
A		<i>Valuation Results</i>
	1-2	Summary of Actuarial Valuation Results
	3	Derivation of Experience Gain (Loss)
	4-6	Comments and Analysis
B		<i>Projections</i>
	1	Projection under P.A. 96-1495
	2	Projection with 35 Years Closed Amortization
C		<i>Benefit Provisions and Valuation Data</i>
	1-10	Brief Summary of Plan Provisions
	11	Active Member Data
	12-13	Development of Actuarial (Market-Related) Value of Assets
D		<i>Valuation Procedures</i>
	1	Actuarial Cost Method
	2	Actuarial Assumptions in the Valuation Process
	3-5	Valuation Assumptions
E		<i>GASB Statement Nos. 25 and 27</i>
	1	Required Supplementary Information Schedule of Funding Progress
	2	Schedule of Employer Contributions
	3	Annual Pension Cost and Contributions
	4	Pension Cost Summary for GASB #27
	5	Summary of Actuarial Methods and Assumptions



October 28, 2011

The Pension Board
City of Joliet Firefighters' Pension Fund
Joliet, Illinois

Dear Board Members:

We are pleased to provide our formal annual Actuarial Valuation Report as of January 1, 2011, covering the City of Joliet Firefighters' Pension Fund. This report provides, among other things, the minimum annual contribution requirements of the Plan for the Plan Year commencing January 1, 2011, and ending on December 31, 2011 (which directly affects the City's tax levy in the 2012 fiscal year that is collected and deposited into the Pension Trust in fiscal year 2012). This 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. The assumptions used in this valuation have been updated based upon an Experience Study for the period January 1, 2005, through January 1, 2010.

This valuation also incorporates a modified funding policy equal to the sum of: (a) annual normal cost plus (b) amortization of unfunded liability as a level percent of pay between January 1, 2011, and January 1, 2046, 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, 2046. The contribution under this modified funding policy satisfies the statutory minimum funding requirements found in Public Act 96-1495.

Chapter 40, Act 5, Article 4 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 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 20 years of responsible experience in the actuarial and pension consulting field.

Lance 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.

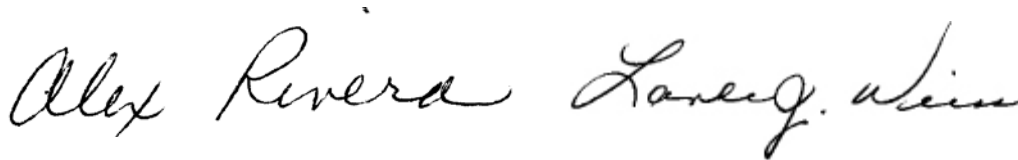
It is our understanding, in accordance with the Illinois Compiled Statutes, that the undersigned more than satisfy the minimum requirements as set forth in the referenced Pension Code as recently amended.

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.

Both of the undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries (MAAA) to render the actuarial opinion contained herein.

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

Sincerely,

The image shows two handwritten signatures in cursive. The first signature is 'Alex Rivera' and the second is 'Lance Weiss'. Both are written in black ink.

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

Lance Weiss, E.A., , M.A.A.A.
Senior Consultant

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

VALUATION RESULTS

SUMMARY OF ACTUARIAL VALUATION RESULTS

	Valuation Date as of	<u>January 1, 2010</u>	<u>January 1, 2011</u>
Employee Data	Number of Active Firefighters	207	205
	Number of Service Retirees	75	75
	Number of Disabled Lives	27	27
	Number of Widow Beneficiaries	29	29
	Number of Children Beneficiaries	0	0
	Number of Separated Deferred Firefighters	1	1
	Number of Handicapped Beneficiaries	0	0
	TOTAL	339	337
	Total Annual Salaries of Firefighters	\$ 19,834,928	\$ 20,431,852
Plan Liabilities	Gross Actuarial Accrued Liability:		
	Active Firefighters	\$ 76,399,818	\$ 89,278,234
	Retirees, Beneficiaries & Disabled	99,812,325	102,993,084
	TOTAL	\$ 176,212,143	\$ 192,271,318
	Actuarial Value of Assets at Valuation Date	\$ 77,020,328	\$ 83,852,794
	Unfunded (Overfunded) Actuarial Accrued Liability	\$ 99,191,815	\$ 108,418,524
	Funded Position of Plan's Gross Actuarial Accrued Liability ²	43.7 %	43.6 %
		<u>For the 2010</u>	<u>For the 2011</u>
		<u>Fiscal Year</u>	<u>Fiscal Year</u>
Normal Cost	Gross Annual Normal Cost	\$ 5,884,807	\$ 6,614,801
	Less Expected Member Contributions (for Applicable Plan Year)	1,875,392	1,931,832
	Net Annual Normal Cost (Municipality Paid)	\$ 4,009,415	\$ 4,682,969
	Net Annual Normal Cost (As a percentage of pay) ¹	20.2 %	22.9 %

¹ Percents above represent annual plan contributions expressed as percentages of covered Firefighters' salaries.

² Equals the ratio of the actuarial value of assets to the total gross actuarial accrued liability.

**SUMMARY OF ACTUARIAL VALUATION RESULTS
(CONTINUED)**

Annual Contribution Requirements Plan Year End	December 31, 2010	Before Funding Policy Change December 31, 2011	After Funding Policy Change December 31, 2011
Net Annual Normal Cost (Municipality Paid)	\$4,009,415	\$4,682,969	\$4,682,969
Annual Amortization Payments for Funding Unfunded Actuarial Accrued Liability Over 40 Years from July 1, 1993 as a level percentage of payroll	5,705,747	6,431,596	4,821,980
Interest Adjustment to Expected Date of Payment into the Fund (Optional)	1,037,741	1,187,220	1,015,286
Total Minimum Annual Contribution Requirement for the Current Plan Year	\$10,752,903	\$12,301,785	\$10,520,236
Minimum Annual Contribution (As a percentage of pay)	54.2%	60.2%	51.5%

^a Unfunded Actuarial Accrued Liability is amortized over a 22.5 years closed period.

^b Unfunded Actuarial Accrued Liability is amortized over a 35 years closed period.

The contribution after the funding policy change satisfies the statutory minimum funding requirements found in Public Act 96-1495 that employer contribution produces 90 percent funding by the end of fiscal year 2040. The statutory minimum funding requirement produces a contribution of \$9,574,000 or 42.97 percent of projected pay.

**DERIVATION OF EXPERIENCE GAIN (LOSS)
YEAR ENDED JANUARY 1, 2011**

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is expected that gains and losses will cancel each other 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 01/01/2010	\$ 99,191,815
2. Normal Cost Due at 01/01/2010	5,884,807
3. Interest on (1) and (2) to 12/31/2010 (at 7.00% per annum)	7,355,364
4. Contributions (Employer and Employee) applicable to the 2010 Plan Year, with interest to 12/31/2010	11,741,167
5. Expected Unfunded Actuarial Accrued Liability at 01/01/2011 [(1) + (2) + (3) - (4)]	\$ 100,690,819
6. Effect of Assumption Changes on Unfunded Actuarial Accrued Liability at 01/01/2010	\$ 4,945,261
7. Expected Unfunded Actuarial Accrued Liability at 01/01/2011 [(5) + (6)]	\$ 105,636,080
8. Actual Unfunded Actuarial Accrued Liability at 01/01/2011	\$ 108,418,524
9. Gain (Loss) for the 2010 Plan Year [(7) - (8)]	\$ (2,782,444)

Valuation Date	Experience Gain (Loss) As % of Accrued Liability at the Prior Valuation Date ¹
2000	(6.08)%
2001	1.15 %
2002	(0.13)%
2003	(6.65)%
2004	(2.42)%
2005	(0.88)%
2006	(0.89)%
2007	(9.08)%
2008	(2.66)%
2009	(4.45)%
2010	(9.18)%
2011	(1.58)%

¹ Excluding Plan and assumption changes.

COMMENTS AND ANALYSIS

The valuation results pertaining to the current Plan Year are analyzed and discussed in the following paragraphs.

Plan History

The following table provides a summary of the Plan's rate of return on assets and salary increase experience over the last 21 actuarial valuations performed by Gabriel, Roeder, Smith & Company:

Plan Year Ending	Rate of Return On Plan Assets	Salary Scale Increase
12/31/1990	8.0 %	2.6 %
12/31/1991	8.1	7.6
12/31/1992	7.3	6.3
12/31/1993	6.4	5.7
12/31/1994	4.5	7.7
12/31/1995	12.0	9.1
12/31/1996	5.9	8.2
12/31/1997	11.3	5.5
12/31/1998	9.7	11.1
12/31/1999	7.9	15.5
12/31/2000	(1.2)	4.5
12/31/2001	(1.0)	7.3
12/31/2002	(1.4)	6.4
12/31/2003	9.4	7.2
12/31/2004	6.8	10.9
12/31/2005	4.4	7.8
12/31/2006	7.8	6.9
12/31/2007	5.7	10.0
12/31/2008	(13.3)	5.8
12/31/2009	8.2	14.2
12/31/2010	10.3	4.0

The Salary Scale increase has averaged 7.8% over the last 21 years. We believe the 5.25% salary scale continues to be a reasonable long-term assumption. The salary scale recognizes that members with less than three years of service receive higher pay increases.

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 21-year period, the Plan's assets have averaged an annual rate of investment return of 5.4%. We believe the 7.00% annual rate of return on Plan assets is within the range of reasonable assumptions. However, we recommend that the City monitor this assumption for continuing reasonableness at each future valuation.

**COMMENTS AND ANALYSIS
(CONTINUED)**

<i>Analysis of the Experience Gain (Loss)</i>	The experience gain(loss) reported on page A-3, is the net result of the following:	
	(a) From plan asset performance	\$ (2,380,657)
	(b) Other sources ("net effect" of salary increases, terminations, new entrants, retirements, etc.)	<u>(401,787)</u>
	Total Gain/(Loss): [(a) + (b)]	\$ (2,782,444)

Changes in the Annual Contribution The dollar amount of the plan's annual minimum required contribution (\$10,520,236) is approximately 2.2% lower than the level for the prior plan year (\$10,752,903). As a percentage of payroll, the contribution requirement is lower than last year (i.e., decreasing from 54.2% to 51.5%). The important factors producing this change are summarized as follows:

1.	Minimum Annual Contribution Requirement for prior plan year without amendatory Act of the 93rd General Assembly	\$ 9,987,564
2.	Actual Asset Performance (based on actuarial value of assets)	156,310
3.	Increase in Normal Cost and Amortization Amount due to anticipated pay increases	430,116
4.	Changes in Assumptions	957,573
5.	Changes in Plan Provisions due to the ¹ amendatory Act of the 93rd General Assembly	757,214
6.	Change in amortization period from 22.5 years closed period as of 1/1/2011 to 35 years closed as of 1/1/2011	(1,781,549)
7.	Other Sources (demographic (gains)/losses)	13,008
8.	Minimum Annual Contribution Requirement for current plan year (sum of items 1 through 6)	<u><u>\$ 10,520,236</u></u>

¹(P.A. 93-0689, effective 7-1-04.)

COMMENTS AND ANALYSIS (CONTINUED)

***Comments on
Actuarial Value of
Assets***

Government accounting standards mandate the use of market value of assets or market-related value of assets for accounting purposes. The Pension Fund used market-related value of assets for both government accounting and 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, 2010, are not included in assets for Government accounting standards purposes but are included in assets for funding purposes.

***GASB Statements
No. 25 and 27***

GASB Statement No. 25 is applicable to fiscal years beginning after June 15, 1996. It was adopted by the City of Joliet Firefighters Pension Fund in the January 1997 report. GASB Statement 27 is applicable to fiscal years beginning after June 15, 1997. It was adopted by the City of Joliet Firefighters Pension Fund in the January 1998 report. A transition pension liability (asset) has been developed under Statement No. 27 equal to the cumulative difference between the actuarially determined funding requirement and the actual amount contributed for fiscal years 1987 to the date GASB 27 is adopted. As of the adoption date, all outstanding pension liabilities (assets) are adjusted to equal the transition NPO. Section D of this report provides further details and explanations on these regulations.

SECTION B
PROJECTIONS

City of Joliet Firefighters Pension Fund
Actuarial Valuation Projection Results Based on P.A. 96-1495 as of January 1, 2011 (Based on Projected Unit Credit Cost Method)
(\$ in Thousands)

Year	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	Statutory Contribution % of Projected Pay	Employee Contributions	Benefit Payments
2011	\$187,695	\$72,174	\$83,853	\$ 103,842	44.68%	\$20,432	\$20,432	\$4,545	\$ 9,574	42.97%	\$ 1,932	\$ 7,876
2012	199,637	82,114	82,114	117,523	41.13%	21,380	21,380	4,776	9,955	42.97%	2,021	8,196
2013	212,433	91,288	91,288	121,145	42.97%	22,281	22,281	4,992	10,357	42.97%	2,107	8,584
2014	226,048	101,182	101,182	124,866	44.76%	23,169	23,169	5,192	10,769	42.97%	2,191	9,078
2015	240,413	111,758	111,758	128,655	46.49%	24,104	24,104	5,367	11,210	42.97%	2,279	9,668
2016	255,459	122,979	122,979	132,480	48.14%	25,064	25,059	5,533	11,649	42.97%	2,369	10,267
2017	271,214	134,912	134,912	136,302	49.74%	26,091	26,074	5,676	12,094	42.97%	2,465	10,944
2018	287,632	147,530	147,530	140,103	51.29%	27,110	27,071	5,793	12,545	42.97%	2,560	11,713
2019	304,634	160,790	160,790	143,844	52.78%	28,147	28,068	5,884	13,021	42.97%	2,654	12,584
2020	322,127	174,639	174,639	147,488	54.21%	29,197	29,053	5,961	13,527	42.97%	2,747	13,534
2021	340,043	189,059	189,059	150,984	55.60%	30,305	30,064	6,028	14,046	42.97%	2,843	14,528
2022	358,360	204,078	204,078	154,282	56.95%	31,482	31,101	6,074	14,593	42.97%	2,941	15,566
2023	377,043	219,711	219,711	157,332	58.27%	32,691	32,123	6,107	15,165	42.97%	3,037	16,661
2024	396,038	235,966	235,966	160,072	59.58%	33,963	33,151	6,129	15,753	42.97%	3,134	17,853
2025	415,257	252,814	252,814	162,443	60.88%	35,294	34,174	6,133	16,284	42.97%	3,231	19,059
2026	434,683	270,297	270,297	164,386	62.18%	36,662	35,164	6,053	16,856	42.97%	3,325	20,437
2027	454,072	288,222	288,222	165,850	63.47%	37,899	35,926	5,933	17,454	42.97%	3,397	21,936
2028	473,213	306,511	306,511	166,702	64.77%	39,230	36,685	5,782	18,111	42.97%	3,469	23,509
2029	491,981	325,143	325,143	166,838	66.09%	40,622	37,400	5,617	18,804	42.97%	3,536	25,160
2030	510,244	344,114	344,114	166,130	67.44%	42,151	38,139	5,432	19,516	42.97%	3,606	26,859
2031	527,902	363,440	363,440	164,462	68.85%	43,763	38,837	5,218	20,272	42.97%	3,672	28,600
2032	544,833	383,118	383,118	161,715	70.32%	45,420	39,448	4,996	21,051	42.97%	3,730	30,405
2033	560,897	403,143	403,143	157,754	71.87%	47,181	40,028	4,760	21,870	42.97%	3,785	32,256
2034	575,970	423,511	423,511	152,459	73.53%	48,994	40,515	4,514	22,752	42.97%	3,831	34,143
2035	589,921	444,242	444,242	145,680	75.31%	50,899	40,945	4,280	23,704	42.97%	3,871	36,031
2036	602,675	465,419	465,419	137,255	77.23%	52,952	41,384	4,076	24,721	42.97%	3,913	37,864
2037	614,234	487,206	487,206	127,028	79.32%	55,169	41,853	3,912	25,799	42.97%	3,957	39,604
2038	624,655	509,809	509,809	114,846	81.61%	57,534	42,346	3,796	26,943	42.97%	4,004	41,238
2039	634,020	533,461	533,461	100,559	84.14%	60,044	42,872	3,737	28,157	42.97%	4,054	42,737
2040	642,459	558,447	558,447	84,012	86.92%	62,706	43,455	3,742	7,931	11.58%	4,109	44,083
2041	650,136	585,097	585,097	65,039	90.00%	65,532	44,124	3,800	8,087	11.31%	4,172	45,278
2042	657,222	591,500	591,500	65,722	90.00%	68,480	44,847	3,903	8,291	11.10%	4,240	46,333
2043	663,873	597,486	597,486	66,387	90.00%	71,536	45,622	4,037	8,504	10.92%	4,314	47,283
2044	670,207	603,186	603,186	67,021	90.00%	74,682	46,433	4,186	8,721	10.75%	4,390	48,173
2045	676,287	608,658	608,658	67,629	90.00%	77,881	47,243	4,343	8,937	10.58%	4,467	49,018
2046	682,149	613,934	613,934	68,215	90.00%	81,148	48,062	4,503	9,148	10.40%	4,544	49,824

City of Joliet Firefighters Pension Fund
Actuarial Valuation Projection Results Based on 35 Years Closed Amortization as of January 1, 2011 (Based on Entry Age Normal Cost Method)
(\$ in Thousands)

Fiscal Year	Actuarial	Market	Actuarial	Unfunded	Actuarial Value	Uncapped	Capped	Employer	Annual		ARC as	City	City		Employee	Benefit
	Accrued	Value of	Value of						Liability	Funded Ratio			Payroll	Payroll		
2011	\$ 192,271	\$ 72,174	\$ 83,853	\$ 108,419	43.61%	\$ 20,432	\$ 20,432	\$ 4,683	\$ 10,487	51.33%	\$ 10,520	51.49%	\$ 1,932	\$ 7,876		
2012	204,662	82,114	91,054	113,609	44.49%	21,380	21,380	4,843	10,889	50.93%	11,049	51.68%	2,021	8,196		
2013	217,857	92,268	102,417	115,439	47.01%	22,281	22,281	4,982	11,143	50.01%	11,399	51.16%	2,107	8,584		
2014	231,813	103,362	114,382	117,431	49.34%	23,169	23,169	5,119	11,394	49.18%	11,765	50.78%	2,191	9,078		
2015	246,471	115,170	126,543	119,929	51.34%	24,104	24,104	5,242	11,656	48.36%	12,154	50.42%	2,279	9,668		
2016	261,772	127,659	139,409	122,363	53.26%	25,064	25,059	5,360	11,911	47.52%	12,548	50.06%	2,369	10,267		
2017	277,746	140,896	153,027	124,719	55.10%	26,091	26,074	5,459	12,291	47.11%	12,933	49.57%	2,465	10,944		
2018	294,349	154,864	167,368	126,981	56.86%	27,110	27,071	5,541	12,665	46.72%	13,311	49.10%	2,560	11,713		
2019	311,505	169,507	182,375	129,130	58.55%	28,147	28,068	5,608	13,036	46.31%	13,683	48.61%	2,654	12,584		
2020	329,135	184,758	197,986	131,149	60.15%	29,197	29,053	5,665	13,410	45.93%	14,057	48.15%	2,747	13,534		
2021	347,175	200,572	214,161	133,014	61.69%	30,305	30,064	5,714	13,793	45.51%	14,437	47.64%	2,843	14,528		
2022	365,605	216,946	230,903	134,702	63.16%	31,482	31,101	5,745	14,172	45.02%	14,810	47.04%	2,941	15,566		
2023	384,390	233,884	248,201	136,189	64.57%	32,691	32,123	5,764	14,554	44.52%	15,183	46.45%	3,037	16,661		
2024	403,481	251,356	266,035	137,446	65.93%	33,963	33,151	5,773	14,944	44.00%	15,561	45.82%	3,134	17,853		
2025	422,786	269,301	284,344	138,443	67.25%	35,294	34,174	5,764	15,334	43.45%	15,934	45.15%	3,231	19,059		
2026	442,289	287,740	303,143	139,146	68.54%	36,662	35,164	5,684	15,673	42.75%	16,246	44.31%	3,325	20,437		
2027	461,746	306,522	322,228	139,519	69.78%	37,899	35,926	5,579	16,004	42.23%	16,546	43.66%	3,397	21,936		
2028	480,978	325,461	341,457	139,521	70.99%	39,230	36,685	5,452	16,336	41.64%	16,841	42.93%	3,469	23,509		
2029	499,870	344,480	360,761	139,109	72.17%	40,622	37,400	5,318	16,683	41.07%	17,147	42.21%	3,536	25,160		
2030	518,304	363,491	380,068	138,236	73.33%	42,151	38,139	5,169	17,043	40.43%	17,456	41.41%	3,606	26,859		
2031	536,185	382,458	399,334	136,851	74.48%	43,763	38,837	4,997	17,409	39.78%	17,761	40.58%	3,672	28,600		
2032	553,402	401,336	418,505	134,897	75.62%	45,420	39,448	4,817	17,799	39.19%	18,078	39.80%	3,730	30,405		
2033	569,826	420,036	437,513	132,313	76.78%	47,181	40,028	4,621	18,209	38.59%	18,400	39.00%	3,785	32,256		
2034	585,330	438,510	456,297	129,033	77.96%	48,994	40,515	4,414	18,652	38.07%	18,735	38.24%	3,831	34,143		
2035	599,795	456,699	474,811	124,984	79.16%	50,899	40,945	4,215	19,151	37.63%	19,105	37.53%	3,871	36,031		
2036	613,148	474,591	493,060	120,088	80.41%	52,952	41,384	4,034	19,728	37.26%	19,520	36.86%	3,913	37,864		
2037	625,388	492,259	511,130	114,258	81.73%	55,169	41,853	3,869	20,399	36.98%	19,985	36.22%	3,957	39,604		
2038	636,555	509,833	529,153	107,402	83.13%	57,534	42,346	3,727	21,188	36.83%	20,505	35.64%	4,004	41,238		
2039	646,710	527,469	547,292	99,417	84.63%	60,044	42,872	3,613	22,135	36.86%	21,091	35.13%	4,054	42,737		
2040	655,954	545,373	565,763	90,191	86.25%	62,706	43,455	3,535	23,300	37.16%	21,755	34.69%	4,109	44,083		
2041	664,427	563,794	584,826	79,601	88.02%	65,532	44,124	3,487	24,774	37.80%	22,496	34.33%	4,172	45,278		
2042	672,269	583,014	604,762	67,507	89.96%	68,480	44,847	3,465	26,739	39.05%	23,319	34.05%	4,240	46,333		
2043	679,618	603,319	625,863	53,756	92.09%	71,536	45,622	3,467	29,626	41.41%	24,236	33.88%	4,314	47,283		
2044	686,577	624,982	648,412	38,164	94.44%	74,682	46,433	3,482	34,717	46.49%	25,275	33.84%	4,390	48,173		
2045	693,198	648,263	672,697	20,501	97.04%	77,881	47,243	3,509	48,444	62.20%	26,575	34.12%	4,467	49,018		
2046	699,517	673,445	699,136	381	99.95%	81,148	48,062	3,546	29,618	36.50%	4,347	5.36%	4,544	49,824		

¹ Based on an amortization period equal to the lesser 30 years and the amortization period used to determine the City's Contribution

SECTION C

BENEFIT PROVISIONS AND VALUATION DATA

BRIEF SUMMARY OF PLAN PROVISIONS
(JANUARY 1, 2011)

Plan Firefighters Pension Fund as Incorporated in Chapter 40, Act 5,
Article 4 of the Illinois Compiled Statutes.

Effective Date Enacted: March 18, 1963

Last Amended Effective: January 1, 2011

Eligibility to Participate Generally, any person who is in the Firefighters 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 4 of the Illinois Compiled Statutes concerning Firefighters' pensions, is eligible to participate, subject to the following:

- (a) The person has attained age 18 but not age 35 at the time of the first appointment; 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.

NOTE:

If the person had been regularly enrolled as a volunteer Firefighter for 5 years immediately preceding the time that the municipality began employing him/her full time, the age limitation in (a) above does not apply.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

***Employee
Contributions
(Mandatory)***

In order to participate in the plan, each Firefighter must contribute 9.455% of his/her regular salary. "Salary" in this instance excludes overtime pay, holiday pay, bonus pay, merit pay or any other cash benefit over and above the salary established by the appropriation ordinance. Prior to July 1, 2004, each Firefighter had to contribute 8.455% of his/her regular salary.

Creditable Service

"Creditable Service" is the time period during which a person serves as a Firefighter of a municipality. Furloughs and Leave of Absences without pay exceeding 30 days in any one year are not counted unless such periods are attributable to illness or accident. Time attributable to disability absence for which the Firefighter does not receive disability pension benefits will be counted as "Creditable Service".

Furloughs and Leave of Absence less than 30 days in any one year may be included in "Creditable Service" if the Firefighter makes the regular employee contributions to the Fund he/she would have made if he/she had not been on the furlough or leave of absence. Such contributions must be made not more than 90 days following the end of the furlough or leave of absence.

In addition, 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 Firefighter and up to eight Years of Service as an officer in a statewide firefighters' association while on leave of absence from a municipality's payroll, shall be counted as "Credited Service", provided that the Firefighter contributes to the Fund the amount he/she would have paid had he/she been a regular contributor during such military service; in general, not more than five years may be counted under this provision. Credited Service shall not include time spent as a volunteer Firefighter whether or not compensation was received.

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

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

Benefit: A Firefighter who is age 50 (or more) and has 20 years or more of Creditable Service and is no longer a Firefighter is entitled to 1/2 of the monthly salary attached to the rank held by him/her at the date of actual retirement.

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

- 1/12 of 2.5% of the Firefighter'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.

BRIEF SUMMARY OF PLAN PROVISIONS
(CONTINUED)

Notwithstanding the above, as of January 1, 1999, no Pension in effect or granted with 20 or more Years of Service after May 1, 1993 is to be less than \$600.00 per month. This minimum is increased to \$800.00 per month on January 1, 2000, \$1,000.00 per month on January 1, 2001, \$1,030.00 per month on July 1, 2004, \$1,060.90 per month on July 1, 2005, \$1,092.73 per month on July 1, 2006, \$1,125.51 per month on July 1, 2007, \$1,159.27 per month on July 1, 2008.

**II. Eligibility—
Age 60 (or
More) and 10
(but Less than
20) Years of
Creditable
Service**

A Firefighter who is age 60 or more and has at least 10 Years (but less than 20) of Creditable Service and who is no longer a Firefighter, is entitled to a monthly pension payable for life based on the monthly salary attached to the rank held by him/her at the date of retirement or separation from service according to the following schedule:

For 10 Years of Service —	15.0% of salary;
For 11 Years of Service —	17.6% of salary;
For 12 Years of Service —	20.4% of salary;
For 13 Years of Service —	23.4% of salary;
For 14 Years of Service —	26.6% of salary;
For 15 Years of Service —	30.0% of salary;
For 16 Years of Service —	33.6% of salary;
For 17 Years of Service —	37.4% of salary;
For 18 Years of Service —	41.4% of salary;
For 19 Years of Service —	45.6% of salary;

Notwithstanding the foregoing, a Firefighter affected by the above shall not be entitled to a pension benefit if the option for a refund of employee contributions was exercised when the Firefighter last separated from service or if he/she is entitled to a disability pension benefit.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

III. Pension Allowance Increases

- A Firefighter who retired from service with 20 or more years of Creditable Service on or before May 1, 1971, is entitled to an increase of 2% of his/her original monthly pension for each year the Firefighter 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, the monthly pension is increased by 2% of the original monthly pension amount. Beginning January, 1976, the rate of such increases was raised to 3% of the original monthly pension.

- A Firefighter who retired from service after May 1, 1971 and prior to January 1, 1986 is entitled to an increase of 2% 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 that date, or (b) the first of the month following the Firefighter's attainment of age 60 (if such occurs after the first anniversary of his/her retirement date). Each subsequent January, the monthly pension is increased by 2% of the original monthly pension amount. Beginning January, 1976, the rate of such increase was raised to 3% of the original monthly pension. . In July 2009, a Firefighter who retired before July 1, 1977 had his/her benefit recalculated and increased to reflect the amount that he/she would have received in July 2009 had he/she been receiving a 3% compounded increase for each year he/she received pension payments after January 1, 1986, plus any increases in pension received for each year prior to January 1, 1986. In each January thereafter, he or she shall receive an additional increase of 3% of the amount of the pension then being paid.

- A Firefighter 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 either upon: (a) the first of the month following the anniversary of his/her date of retirement if he/she was age 55 or older on that date, or (b) the first of the month following the Firefighter's attainment of age 55 (if such occurs after the first anniversary of his/her retirement date). Each subsequent January, the monthly pension is increased by 3% of the immediately preceding year's pension amount.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

- Notwithstanding the provisions of the second paragraph listed above, a Firefighter who retired from service after January 1, 1977 and prior to January 1, 1986 and did not receive a pension increase before May 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 either: (a) the first anniversary of the date of retirement, or (b) the attainment of age 55, or (c) May 1, 1987. Each subsequent January, the monthly pension is increased by 3% of the immediately preceding year's pension amount.

Eligibility For and Amount of Disability Benefits

I. Disability Incurred in the Line of Duty

- a) If a Firefighter is injured or suffers an accident or sickness as the result of carrying out his/her duties as a Firefighter (even if those duties take him/her to a place away from the municipality in which he/she serves as a Firefighter, and assuming such duties are related to the fire protection service of such municipality), then such a disabled Firefighter is entitled to a disability retirement pension equal to the greater of: (i) the Firefighter's accrued pension benefit at the date of disability or (ii) 65% of the monthly salary attached to the rank held by him/her in the Fire Department at the date he/she is removed from the municipality's Fire Department payroll.
- b) A Firefighter who is entitled to disability payments, as discussed in (a) above, also has the right to receive a benefit of \$20 per month for every unmarried child less than 18 years of age.

The total amount of the benefits described in both (a) and (b) above shall not exceed 75% of the amount of salary the Firefighter was receiving at the time of the grant of the disability benefit.

II. Disability on Account of Occupational Hazards

- a) If a Firefighter who has completed 5 or more Years of Service is unable to perform his/her duties in the Fire Department by reason of heart disease, tuberculosis, disabling cancer, or any disease of the lungs or respiratory tract, resulting solely from his/her service as a Firefighter, then he/she is entitled to an occupational disease disability pension equal to the greater of: (i) the Firefighter's accrued pension benefit at the date of disability or (ii) 65% of his/her salary at the time of his/her removal from the Fire Department payroll.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

- a) A Firefighter who is entitled to a disability payments as described in (a) above also has the right to receive a benefit of \$20.00 per month for every unmarried child less than 18 years of age and who is dependent upon the Firefighter for financial support.

The total amount of the benefits described in both (a) and (b) above are not to exceed 75% of the amount of salary the Firefighter was receiving at the time of the grant of the disability benefit.

III. Disability Due to Occurrences Unrelated to Duties

If a Firefighter, who has 7 years of Creditable Service, becomes mentally or physically disabled as the result of any cause other than the performance of an act or acts of duty, he/she is entitled to a disability pension equal to 50% of the monthly salary attached to the rank held by him/her in the Fire Department at the date he/she is removed from the municipality's Fire Department payroll.

IV. Special Disability Pension Option

A Firefighter who is receiving any form of disability pension and whose Creditable Service plus years of disability equals 20 or more and who is age 50 or older may elect to retire from the Fire Department by submitting a written application to the Board. His/her lifetime retirement pension will be equal to the same amount he/she was entitled to as a disabled Firefighter as of the date he/she was removed from Municipality's payroll for disability. A Firefighter who exercises this option is entitled to the automatic 3% per annum increase in benefits.

If a Firefighter who is on any form of disability pension accumulates enough Creditable Service to be eligible for a pension (at least 10 years at age 60 or at least 20 years at age 50 or more), he/she may elect to permanently retire from the Fire Department by submitting a written application to the Board. The Firefighter would be entitled to a lifetime pension based on the salary attached to the rank he/she held in the Fire Department as of the date of his/her election to retire. A Firefighter who exercises this option is entitled to the automatic 3% per annum increase in benefits.

V. Disability Pension Allowance Increase

A Firefighter who is receiving a disability pension is entitled to receive an automatic increase effective January 1, 1974 and upon the attainment of age 60. At this date, the monthly pension is increased by 2% of the original monthly pension for each year the Firefighter was in receipt of monthly pension payments. Each subsequent January, the monthly pension is again increased by 2% of the original monthly pension amount. Effective January, 1976, the rate of such increase was raised to 3% of the original monthly pension.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

Death Benefits to Surviving Spouse or Dependents

I. Surviving Spouse's Benefit

If an active Firefighter dies while in the line of duty as a result of any injuries or if a Firefighter sustains injuries from which he/she thereafter dies, then the surviving spouse is entitled to a monthly pension equal to 100% of the monthly salary attached to the rank the Firefighter held on his/her last day of service with the Fire Department. The benefit is payable to the surviving spouse for life.

If an active Firefighter dies as a result of any illness or accident unrelated to duty or if a Firefighter dies from any cause while receiving disability pension benefits, or if a Firefighter dies during his/her retirement (after 20 years of service), then his/her surviving spouse is entitled to a monthly pension equal to 100% of the monthly retirement pension earned by the deceased firefighter at the time of death. This benefit is payable to the surviving spouse for life. Previously, the surviving spouse was entitled to a monthly pension equal to 54% of the monthly salary attached to the rank the Firefighter held on his/her last day of service with the Fire Department.

Beginning January 1, 1999, the minimum amount payable under this provision is \$600.00 per month for both current and future surviving spouses. This minimum is increased to \$800.00 per month on January 1, 2000, \$1,000.00 per month on January 1, 2001, \$1,030.00 per month on July 1, 2004, \$1,060.90 per month on July 1, 2005, \$1,092.73 per month on July 1, 2006, \$1,125.51 per month on July 1, 2007, \$1,159.27 per month on July 1, 2008.

II. Dependent's Benefit

The dependent's benefit is applicable in the event of the death of the Firefighter under the conditions enumerated above for the surviving spouse's benefit. The guardian (spouse or otherwise) of any minor child (or children), including a child who had been conceived but not yet born, is entitled to a monthly benefit equal to 12% of the monthly salary attached to the rank the Firefighter held on his/her last day of service with the Fire Department prior to his/her death. Such benefit is payable for each such child until the child attains age 18 or marries, if earlier.

If the deceased Firefighter leaves no surviving spouse or unmarried minor children under age 18, but leaves a dependent father or mother, each one is entitled to a monthly benefit equal to 18% of the monthly salary attached to the rank the Firefighter held on his/her last day of service with the Fire Department.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

Notes: (a) The aggregate above monthly death benefits are not to exceed 75% of the monthly salary of the deceased Firefighter.

(b) Adopted children are entitled to the same benefits as provided for natural children, if adopted before the Firefighter attained age 50.

(c) If the Firefighter leaves no surviving spouse, unmarried children under the age of 18 or dependent father or mother, the Board will refund to his/her estate the amount of his/her accumulated contributions, less any amount of pension payments made to the deceased Firefighter while he/she was living.

Termination of Employment Benefits.

I. Refund of Employee Contributions

A Firefighter who has less than 20 Years of 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 fund during his/her period of service. If the Firefighter should be subsequently re-employed, he/she must repay to the fund the amount of refund which he/she received before commencing service. When repayment is made, the Firefighter will receive credit for the previous Years of Service for which he/she received his/her refund.

II. Re-entry Into Service

- If a retired Firefighter (who is receiving pension benefits) re-enters active service, his/her pension benefits will cease while in active service. If he/she again retires, his/her monthly payments will resume in the same amount as he/she had received as a pensioner.
- If a "deferred" pensioner reenters service and remains in service for less than three years, and then again retires or is discharged, his/her pension will be based on the salary attached to the rank he/she held in the Fire Department at the date of his/her earlier retirement. Conversely, if the pensioner re-enters service and remains in service for three or more years, and again retires or is discharged, his/her pension will be based on the salary attached to the rank he/she held in the Fire Department at the date of his/her last retirement.

BRIEF SUMMARY OF PLAN PROVISIONS (CONTINUED)

Notwithstanding the foregoing, if a pensioner or deferred pensioner returns to active service and is subsequently injured (and the injury is not relate to an injury for which the member was previously receiving benefits), the 3 year requirement does not apply in order for the member to receive his/her pension based on his/her rate of pay at the time of his/her new injury.

Financing of Pension Benefits

Pension benefits are to be funded by "employee" deductions from wages and salaries of Firefighters 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 actuarial reserves for the pensions and benefits earned by the Firefighters during the year (the reserve requirement is to be computed at a rate of not less than 17.5% of the salaries and wages earned by the Firefighters during the year),

And

- (1) 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 Firefighters' Pension Fund is administered by a Board of Trustees located in each municipality maintaining a Pension Fund for its Firefighters. 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 pension, 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 Firefighters' 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 service with annuity based on accrual rate of 2.5 percent, subject to a maximum of 75 percent;
- Minimum retirement eligibility at age 50 with 10 years of 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;
- 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;
- Widow benefits at 66-2/3 percent of retiree's benefit; and,
- 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, 2011
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										0	1,836,259
25-29		18	3							21	4,115,549
30-34		26	16	3						45	4,669,223
35-39		15	16	18						49	3,574,681
40-44			7	15	13					35	3,916,990
45-49				6	17	12				35	2,107,624
50-54				1	6	7	4			18	211,526
55-59				1		1				2	0
60-64										0	0
65-69										0	0
Over 70										0	0
Total	0	59	42	44	36	20	4	0	0	205	\$20,431,852

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

Age: 39.4 years
 Service: 11.6 years
 Annual Pay: \$99,668

DEVELOPMENT OF ACTUARIAL (MARKET-RELATED) VALUE OF ASSETS

Expected Return on Market Value of Assets for Prior Year	1. Market value of assets at 01/01/2010	\$ 61,973,174
	2. Actual income and disbursements in prior year weighted for timing:	

Item	Amount	Weight for Timing	Weighted Amount
(a) Member Contributions	\$ 1,873,043	50.00%	\$ 936,522
(b) City Contributions	9,477,572	50.00%	4,738,786
(c) Miscellaneous Revenue	-	50.00%	-
(d) Benefit Payments	(7,656,038)	50.00%	(3,828,019)
(e) Administration	(83,970)	50.00%	(41,985)
(f) Total			\$ 1,805,304

3. Market value of assets adjusted for actual income disbursements [(1) + (2)(f)]	\$ 63,778,478
4. Assumed rate of return on plan assets for the year	7.00%
5. Expected return [(3) * (4)]	\$ 4,464,493

Actual Return on Market Value of Assets for Prior Year	6. Market value of assets at 01/01/2010	\$ 61,973,174
	7. Income (less investment income) for prior plan year	11,350,615
	8. Disbursements paid in prior year	7,740,008
	9. Market value of assets at 01/01/2011	72,174,342
	10. Actual Return [(9) + (8) - (7) - (6)]	6,590,561

Gain/(Loss)	11. Investment Gain/(Loss) for Prior Year [(10) - (5)]	\$ 2,126,068
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**DEVELOPMENT OF ACTUARIAL (MARKET-RELATED) VALUE OF ASSETS
(CONTINUED)**

Actuarial Value of Assets as of 01/01/2011	12. Market value of assets at 01/01/2011	\$ 72,174,342																									
	13. Deferred investment gains and (losses) for last 3 years:																										
	<table border="0" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 15%; text-align: center;">Plan Year Beginning</th> <th style="width: 15%; text-align: center;">Gain/(Loss)</th> <th style="width: 15%; text-align: center;">Percent Deferred</th> <th style="width: 15%; text-align: center;">Deferred Amount</th> </tr> </thead> <tbody> <tr> <td>a)</td> <td style="text-align: center;">2008</td> <td style="text-align: right;">\$(12,854,326)</td> <td style="text-align: center;">25.00%</td> <td style="text-align: right;">\$ (3,213,582)</td> </tr> <tr> <td>b)</td> <td style="text-align: center;">2009</td> <td style="text-align: right;">671,605</td> <td style="text-align: center;">50.00%</td> <td style="text-align: right;">335,803</td> </tr> <tr> <td>c)</td> <td style="text-align: center;">2010</td> <td style="text-align: right;">2,126,068</td> <td style="text-align: center;">75.00%</td> <td style="text-align: right;">1,594,551</td> </tr> <tr> <td>d)</td> <td style="text-align: center;">Total</td> <td style="text-align: right;">\$(10,056,653)</td> <td></td> <td style="text-align: right;">\$ (1,283,228)</td> </tr> </tbody> </table>		Plan Year Beginning	Gain/(Loss)	Percent Deferred	Deferred Amount	a)	2008	\$(12,854,326)	25.00%	\$ (3,213,582)	b)	2009	671,605	50.00%	335,803	c)	2010	2,126,068	75.00%	1,594,551	d)	Total	\$(10,056,653)		\$ (1,283,228)	
	Plan Year Beginning	Gain/(Loss)	Percent Deferred	Deferred Amount																							
a)	2008	\$(12,854,326)	25.00%	\$ (3,213,582)																							
b)	2009	671,605	50.00%	335,803																							
c)	2010	2,126,068	75.00%	1,594,551																							
d)	Total	\$(10,056,653)		\$ (1,283,228)																							
	14. Item (12) less item 13(d)	\$ 73,457,570																									
	15. 2011 Tax Year Levy (i.e., the 2010 Plan Year Contributions)	10,752,903																									
	16. Interest Adjustment on item (15) to 01/01/2011	(357,679)																									
	17. Actuarial Value of Plan Assets at 01/01/2011 [(14) + (15) + (16)]	\$ 83,852,794																									

- Notes:
- (1) The calculated value 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% per year.
 - (2) Assumes the 2011 tax year levy is collected and deposited in the Pension Fund on July 1, 2011.

SECTION D

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;
- 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 35 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 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
- 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).

Updated actuarial assumptions based on experience for the period January 1, 2005, through January 1, 2010, were adopted for this valuation.

VALUATION ASSUMPTIONS

The assumed rate of investment return used was 7.00%, net of expenses, annually.

The mortality table used to measure retirement mortality has been updated to the 1994 Group Annuity Mortality Table. This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. This is a static table with no provisions for future mortality improvement.

Sample Attained Ages	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$ 147.78	\$ 154.93	30.69	34.89
55	138.58	147.42	26.15	30.17
60	127.35	137.85	21.83	25.59
65	114.51	126.50	17.84	21.28
70	100.68	113.58	14.29	17.31
75	85.70	98.39	11.12	13.60
80	70.13	81.90	8.37	10.31

The disability retirement mortality table was based on 110% of the 1994 Group Annuity Mortality Table.

Sample Attained Ages	Single Life Retirement Values			
	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$ 146.24	\$ 153.76	29.80	34.03
55	136.65	145.92	25.29	29.34
60	125.02	135.95	21.01	24.78
65	111.80	124.22	17.08	20.51
70	97.71	110.98	13.60	16.60
75	82.56	95.50	10.51	12.96
80	66.96	78.84	7.85	9.75

**VALUATION ASSUMPTIONS
(CONTINUED)**

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	0.0	0.0
5	0.0	0.0
10	0.0	0.0
15	0.0	0.0
20	0.0	0.0
25	0.0	0.0
30 and Over	0.0	0.0

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.

Years of Service	Salary Increase Assumptions For an Individual Member
	Increase
1	30.00%
2	27.50%
3	20.00%
4	15.00%
>=5	5.25%

**VALUATION ASSUMPTIONS
(CONTINUED)**

Sample rates of disability were as follows:

Employee Disablement Rate Per 1,000 Employees		
Age	Male	Female
25	1.0	1.0
30	1.0	1.0
35	1.2	1.2
40	1.5	1.5
45	2.1	2.1
50	7.8	7.8
55	13.6	13.6
60	23.0	23.0
65	33.5	33.5

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

Rates of Retirement			
Age	Rate	Age	Rate
50	5.0 %	60	30.0 %
51	5.0	61	50.0
52	5.0	62	50.0
53	10.0	63	50.0
54	20.0	64	50.0
55	25.0	65	100.0
56	30.0	66	100.0
57	30.0	67	100.0
58	30.0	68	100.0
59	30.0	69	100.0

SECTION E

GASB STATEMENT NOS. 25 AND 27

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	GASB Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Payroll [(b – a)/c]
1/1/2006	\$56,913,080	\$112,702,142	\$55,789,062	50.5%	\$13,986,542	398.9%
1/1/2007	60,375,256	128,989,157	68,613,901	46.8	16,024,475	428.2
1/1/2008	64,196,270	151,255,803	87,059,533	42.4	17,078,653	509.8
1/1/2009	65,005,952	163,067,860	98,061,908	39.9	17,828,326	550.0
1/1/2010	68,158,236	176,212,143	108,053,907	38.7	19,834,928	544.8
1/1/2011	73,457,570	192,271,318	118,813,748	38.2	20,431,852	581.5

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ended	Annual Required Contribution (a)	Total Employer Contribution (b)	Percentage Contributed (b / a)
12/31/2006	\$ 4,828,886	\$ 3,842,636	79.6%
12/31/2007	5,978,716	4,761,086	79.6
12/31/2008	8,198,450	5,434,554	66.3
12/31/2009	9,094,439	8,168,225	89.8
12/31/2010	10,224,930	9,477,572	92.7
12/31/2011	10,487,255	TBD	TBD

ANNUAL PENSION COST AND CONTRIBUTIONS

Contribution rates:

City Proceeds from a tax levy equal to the sum of: (a) annual normal cost plus (b) amortization of unfunded liability as a level percent of pay between now and 7/1/2046 plus (c) interest on (a) and (b) to date of payment.

Plan members 9.455% of regular salary

<i>Annual Required Contribution for fiscal year ending December 31, 2011:</i>	Net Annual Normal Cost (Municipality Paid)	\$	4,682,969
	Annual Amortization Payments for Funding Unfunded Actuarial Accrued Liability Over 30 Years as a level percentage of payroll		5,804,286
	Annual Required Contribution (ARC)	\$	10,487,255

<i>Annual Pension Cost for fiscal year ending December 31, 2011:</i>	Annual Required Contribution (ARC)	\$	10,487,255
	Interest on Net Pension Obligation		432,492
	Adjustment to ARC		(301,830)
	Total Annual Pension Cost	\$	10,617,917

<i>Net Pension Obligation (NPO):</i>	Net Pension Obligation (NPO) at Beginning of year, January 01, 2010:	\$	5,364,173
	Total Annual Pension Cost from Previous Year:		10,291,862
	Total Employer Contribution for year ended December 31, 2010:		9,477,572
	Net Pension Obligation (NPO) at End of year, December 31, 2010:	\$	6,178,463

PENSION COST SUMMARY FOR GASB #27

Year Ended December 31	Annual Pension Cost	Total Employer Contribution	% of Annual Pension Cost Contributed	Net Pension Obligation
2008	\$ 8,223,275	\$ 5,434,554	66.1%	\$ 4,376,146
2009	9,156,252	8,168,225	89.2	5,364,173
2010	10,291,862	9,477,572	92.1	6,178,463
2011	10,617,917	TBD	TBD	TBD

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

The information requested in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date January 1, 2011

Actuarial Cost Method Entry-Age-Normal

Actuarial Value of Assets 4-year smoothed market

Amortization Method Level percent closed

Remaining Amortization Period 30 years

Actuarial Assumptions:

Investment Rate of Return 7.00% per year

Projected Salary Increases * 5.25% per year with a three-year service-based select period

**Includes Wage
Inflation Increases* 4.00% per year

Cost-of-Living Increases 3.00% per year
