

CITY OF JOLIET
RETIREE HEALTHCARE AND LIFE INSURANCE BENEFIT
PROGRAMS - ACTUARIAL VALUATION
FOR THE YEAR BEGINNING
JANUARY 1, 2008

April 30, 2009

Mr. Ken Mihelich
Director of Management and Budget,
City Treasurer
City of Joliet
150 W. Jefferson Street
Joliet, IL 60432-4158

#### Dear Ken:

We have performed an actuarial valuation as of January 1, 2008, of the Retiree Healthcare and Life Insurance Benefit Programs sponsored by the City of Joliet. The actuarial valuation was performed in order to:

- Measure the actuarial liability as of January 1, 2008, and
- Develop retiree healthcare accounting expense and disclosure information for fiscal years 2008 and 2009 as defined under the GASB Statement Nos. 43 and 45.

In addition, we have performed ten-year actuarial projections of the GASB expense and pro forma funding levels.

The valuation was based on the following:

- Census data as of January 1, 2008, as provided by the City of Joliet, and claims and enrollment data for calendar years 2006, 2007 and 2008, as provided by BlueCross BlueShield;
- Plan provisions and funding policy in effect as of January 1, 2008, as provided by the City of Joliet and BlueCross BlueShield as summarized in Section D;
- Our understanding of the substantive plan in effect as currently being administered. That is, retiree and dependent premiums have not increased since 1988, and will continue to remain level in the future; and
- Actuarial assumptions and methods shown in Section E as used for Police and Fire in the actuarial valuations performed for the City of Joliet and as used for the non-public-safety non-state employees in the actuarial valuation for the Illinois Municipal Retirement Fund.

Mr. Ken Mihelich City of Joliet Page 2

The calculations reported herein have been made on a basis consistent with GASB Statements Nos. 43 (Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans) and 45 (Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pension). The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the Academy of Actuaries to render the actuarial opinion herein.

If you have any questions or comments, please call us at 312-456-9800.

Sincerely,

Alex Rivera, F.S.A., E.A., M.A.A.A.

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Senior Consultant

Dana Woolfrey, A.S.A., M.A.A.A.

Dava Wooffrey

Senior Analyst

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## **Section A**

### **Executive Summary**

#### **EXECUTIVE SUMMARY**

This report presents the results of our actuarial valuation as of January 1, 2008, for the Retiree Healthcare and Life Insurance Benefit Programs sponsored by the City of Joliet. The valuation was based on GASB statement Nos. 43 and 45. Our valuation was based on a discount rate assumption of 4.5 percent and an ultimate healthcare trend assumption of 5.0 percent, as approved by the City of Joliet. The discount rate reflects the employer's pay-as-you-go funding policy. The key valuation results are summarized below:

Retiree Healthcare and Life Insurance Benefit Programs 4.5% Discount Rate and 5.0% Ultimate Trend										
(\$ in thousands)										
General Fund Water/Sewer Parking Total										
Actuarial Liability as of January 1, 2008	\$145,247,262	\$21,543,695	\$694,180	\$167,485,137						
Normal Cost for FY 2008	\$9,002,468	\$614,394	\$26,627	\$9,643,489						
GASB FY 2008 Expense (% of Payroll)	\$14,390,113 23.1%	\$1,399,903 23.2%	\$52,510 18.5%	\$15,842,526 23.1%						
FY 2008 Benefit Payments (% of Payroll)	\$3,650,228 5.9%	\$597,732 9.9%	\$4,885 1.7%	\$4,252,845 6.2%						
Actives Retirees	823 315	85 53	4 1	912 369						

The details of the preceding valuation results by Fund are included in Section B of the report.

Based on our projected estimates, if the City of Joliet continues to fund retiree healthcare benefits on a pay-as-you-go basis, the Net OPEB Obligation is expected to grow to approximately \$145.9 million after nine years. The details of the projections are shown in Section B.

#### Changes Since the Actuarial Valuation as of January 1, 2006

During 2006 and 2007, the City of Joliet had favorable claims experience. Per capita claims costs for fiscal year 2008 are similar to those for fiscal year 2006, even though trend rates projected for 2006 and 2007 were around 10 percent per year.

An experience study of pension-related assumptions was performed for the Police and Fire Pension Funds and these assumptions were updated accordingly.

The investment rate of return was reduced from 5.0 percent to 4.5 percent. This change was made to reflect a more conservative assumption on the rate of return on general assets.

The programming methodology was altered slightly to reflect slightly higher cost sharing for IMRF employees with less than 20 years of service.

#### **EXECUTIVE SUMMARY (CONT'D)**

#### Changes in the Plan Costs and Liabilities Since the Actuarial Valuation as of January 1, 2006

The actuarial accrued liability at January 1, 2006, was \$186.5 million, and the projected annual actuarial accrued liability at January 1, 2008, based on the valuation as of January 1, 2006, was \$217.5 million. The actual accrued liability at January 1, 2008, is \$167.5 million.

The annual required contribution for fiscal year 2006 was \$15.4 million, and the projected annual required contribution for fiscal year 2008 based on the valuation as of January 1, 2006, was \$17.9 million. The actual annual required contribution for fiscal year 2008 is \$15.6 million.

The main source of the reduction in annual required contribution and accrued liability is favorable claims experience during 2006 and 2007. Demographic experience during 2006 and 2007 and changes in the pension-related assumptions could also have played a roll in the reduction of costs; however, these impacts are more difficult to isolate. The reduction in investment return resulted in an increase in the annual required contribution and actuarial accrued liability. The programming change to account for tiered retiree cost sharing for IMRF employees with less than 20 years of service had minimal effect on costs.

### **Section B**

# Valuation Results at 4.5% Discount and 5.0% Trend

#### VALUATION RESULTS AT 4.5% DISCOUNT AND 5.0% TREND

The following tables show the results of our valuation assuming a discount rate of 4.5 percent, salary increases comprised of a wage inflation component of 4.0 percent and a seniority and merit component that varies by service and an ultimate healthcare trend rate of 5.0 percent. We believe these assumptions are consistent with the requirements of GASB Statement Nos. 43 and 45. According to paragraph 34(c) of GASB Statement No. 43 and paragraph 13(c) of GASB Statement No. 45, plans should use a discount rate consistent with the return on assets backing retiree healthcare benefits, which for pay-as-you-go plans will usually be the return earned by the employer's general assets.

The following tables are included in this section:

- GASB Valuation as of January 1, 2008, by Fund
- Ten-year GASB Projection for All Funds

The ten-year GASB projections show an annual OPEB expense increasing from \$15.8 million in FY 2008 to \$26.0 million in FY 2017. When expressed as a percentage of payroll, OPEB expense is expected to increase from 23.1 percent to 26.6 percent of payroll. Expected retiree healthcare benefits are projected to increase from \$4.3 million in FY 2008 to about \$9.3 million in FY 2017. This represents a significant increase when expressed as a percentage of payroll, from 6.2 percent in FY 2008 to 9.5 percent in FY 2017. The primary reason for the increase is due to the relationship between salary increases and healthcare trend increase. That is, salaries are expected to grow at 4.0 percent whereas healthcare benefits are expected to grow at 10.0% in 2009, 9.0% in 2010, etc., until the ultimate trend rate of 5.0 percent is reached in the year 2014.

The balance sheet liability or Net OPEB Obligation is expected to grow from \$23.6 at FYE 2007 to \$145.9 million at FYE 2016. Our calculations assume a pay-as-you-go funding policy; that is, employer contributions equal benefit payments for the current retiree group.

#### City of Joliet, Illinois Retiree Healthcare and Life Insurance Benefit Programs GASB 45 Actuarial Valuation as of January 1, 2008

Discount Rate4.50%Salary Scale  $^1$ 4.00%Ultimate Trend5.00%Wage Inflation4.00%

Amortization: 30-year open, level percentage of payroll

Retiree Healthcare Program	General		Water/Sewer	Parking	
	Fund		Fund	System	Total
I) Actuarial Liability					
A) Health Insurance					
i) Active Employees <sup>2</sup>	\$ 80,122,736	\$	10,813,581	\$ 627,775	\$ 91,564,092
ii) Retired and Disabled Participants	 62,073,307		10,380,962	 57,661	 72,511,930
iii) Total	\$ 142,196,043	\$	21,194,543	\$ 685,436	\$ 164,076,022
B) Life Insurance					
i) Active Employees <sup>2</sup>	\$ 864,697	\$	125,126	\$ 8,744	\$ 998,567
ii) Retired and Disabled Participants	2,186,522		224,026	_	2,410,548
iii) Total	\$ 3,051,219	\$	349,152	\$ 8,744	\$ 3,409,115
C) Total Liabilites	\$ 145,247,262	\$	21,543,695	\$ 694,180	\$ 167,485,137
II) Assets	-		-	-	-
III) Unfunded Actuarial Liability (UAL)	\$ 145,247,262	\$	21,543,695	\$ 694,180	\$ 167,485,137
IV) Net OPEB Obligation (boy)	\$ 21,711,871	\$	1,756,536	\$ 118,226	\$ 23,586,633
V) Normal Cost					
A) Health Insurance	\$ 8,950,885	\$	609,449	\$ 26,360	\$ 9,586,694
B) Life Insurance	 51,583		4,945	267	 56,795
C) Total	\$ 9,002,468	\$	614,394	\$ 26,627	\$ 9,643,489
VI) Annual Required Contribution (ARC)					
A) Normal Cost	\$ 9,002,468	\$	614,394	\$ 26,627	\$ 9,643,489
B) Amortization of UAL	 5,185,795		769,179	 24,784	 5,979,758
C) Total	\$ 14,188,263	\$	1,383,573	\$ 51,411	\$ 15,623,247
VI) Annual OPEB Cost					
i) ARC	\$ 14,188,263	\$	1,383,573	\$ 51,411	\$ 15,623,247
ii) Interest on Net OPEB Obligation	977,034		79,044	5,320	1,061,398
iii) Adjustment to ARC	 (775,184)		(62,714)	 (4,221)	 (842,119)
iv) Total	\$ 14,390,113	\$	1,399,903	\$ 52,510	\$ 15,842,526
v) Percentage of Payroll	23.1%		23.2%	18.5%	23.1%
VII) Expected Employer Contributions <sup>3</sup>					
i) Implicit Subsidy	\$ 1,295,146	\$	217,468	\$ *	\$ 1,514,729
ii) Explicit Subsidy	 2,355,082	_	380,264	 2,770	 2,738,116
iii) Total	\$ 3,650,228	\$	597,732	\$ 4,885	\$ 4,252,845
iv) Percentage of Payroll	5.9%		9.9%	1.7%	6.2%
VIII) Payroll	\$ 62,227,415	\$	6,045,321	\$ 283,297	\$ 68,556,033

<sup>&</sup>lt;sup>1</sup> Base increase plus age or service based component.

<sup>&</sup>lt;sup>2</sup> Active employees eligible for future retiree healthcare benefits

<sup>&</sup>lt;sup>3</sup> Expected employer contributions to finance current retiree healthcare claims assuming pay-as-you-go funding.

#### City of Joliet, Illinois Retiree Healthcare and Life Insurance Benefit Programs GASB 45 Actuarial Valuation as of January 1, 2008

Ten-year GASB Projection for All Funds (\$ in Thousands)

Discount Rate	4.50%
Salary Scale <sup>1</sup>	4.00%
Ultimate Trend	5.00%
Wage Inflation	4.00%

Amortization: 30-year open, level percentage of payroll

	1/1/200	<u>8</u>	<u>1/1/2009</u>	<u>1</u>	/1/2010	1	1/1/2011	1	1/1/2012	1	1/1/2013	1	/1/2014	1	1/1/2015	1	/1/2016	-	1/1/2017
Retiree Healthcare and Life Insurance Prog	rams																		
A) Actuarial Liability	\$ 167,4	185 \$	180,752	\$	194,458	\$	208,565	\$	223,130	\$	238,307	\$	254,145	\$	270,611	\$	287,785	\$	305,686
B) Assets		-	-		-		-		-		-		-		-		-		-
C) Unfunded Actuarial Liability (UAL)	167,4	185	180,752		194,458		208,565		223,130		238,307		254,145		270,611		287,785		305,686
D) Net OPEB Obligation (boy)	23,5	587	35,177		47,185		59,573		72,399		85,812		99,859		114,510		129,842		145,873
<ul><li>E) Annual Required Contribution (ARC)</li><li>i) Normal Cost</li><li>ii) Amortization of UAL</li></ul>		543 \$ 980	10,029 6,453	\$	10,430 6,943	\$	10,848 7,446	\$	11,282 7,966	\$	11,733 8,508	\$	12,202 9,074	\$	12,690 9,662	\$	13,198 10,275	\$	13,726 10,914
iii) Total	\$ 15,0			\$		\$	18,294	\$		\$	20,241	\$	21,276	\$	22,352	\$	23,473	\$	24,640
<ul><li>F) Annual OPEB Cost</li><li>i) ARC</li><li>ii) Interest on Net OPEB Obligation</li><li>iii) Adjustment to ARC</li></ul>	· · · · · · · · · · · · · · · · · · ·	523 \$ 061 342)	16,482 1,583 (1,256)		17,373 2,123 (1,685)	\$	18,294 2,681 (2,127)	\$	19,248 3,258 (2,585)	\$	20,241 3,862 (3,064)	\$	21,276 4,494 (3,565)	\$	22,352 5,153 (4,088)	\$	23,473 5,843 (4,636)	\$	24,640 6,564 (5,208)
iv) Total v) Percentage of Payroll	\$ 15,8	343 \$ .1%			17,812 24.0%	\$	18,847 24.4%	\$	19,921 24.8%	\$	21,039 25.2%	\$	22,204 25.6%	\$	23,417 26.0%	\$	24,680 26.3%	\$	25,996 26.6%
G) Expected Employer Contributions i) Implicit Subsidy ii) Explicit Subsidy	2,	515 \$ 7 <u>38</u> _	3,022	_	2,046 3,377	_	2,304 3,717	_	2,495 4,013		2,692 4,300	_	2,927 4,627		3,122 4,963		3,326 5,323		3,570 5,717
iii) Total iv) Percentage of Payroll		253 \$ .2%	4,801 6.7%		5,423 7.3%	\$	6,021 7.8%	\$	6,508 8.1%	\$	6,992 8.4%	\$	7,554 8.7%	\$	8,085 9.0%	\$	8,649 9.2%	\$	9,287 9.5%
H) Payroll	\$ 68,5	556 \$	71,298	\$	74,150	\$	77,116	\$	80,201	\$	83,409	\$	86,745	\$	90,215	\$	93,824	\$	97,577

<sup>&</sup>lt;sup>1</sup> Base increase plus age or service based component.

## **Section C**

**Sensitivity Analysis** 

#### **SENSITIVITY PROJECTIONS**

One of the key objectives of GASB 45 is to accrue an expense, for the value of future retiree healthcare benefits, during the working lifetime of an active employee. This objective requires a systematic means of spreading the present value of benefits over the person's working career. Actuarial cost methods are specifically designed to meet this objective.

It is important to note that GASB 45 does not require that a plan sponsor pre-fund retiree healthcare benefits during an employees working career. GASB 45 only requires accruing an expense for retiree healthcare benefits and reporting a balance sheet liability representing the cumulative difference between annual expense and employer contributions. However, sponsors that pre-fund retiree healthcare benefits will experience a significant reduction in the annual expense and balance sheet liability.

The annual expense is projected to increase from \$15.8 million to \$26.0 million under the pay-as-you-go funding policy and from \$10.9 million to \$14.2 million under the full funding policy. The annual employer's contribution is projected to increase from \$4.3 million to \$9.3 million under the pay-as-you-go policy and from \$10.3 million to \$13.6 million under the full funding policy.

Pre-funding benefits has several key advantages including the use of a higher discount which produces lower expense, and more stable costs. However, pre-funding would require additional near-term financing sources.

#### City of Joliet, Illinois Retiree Healthcare and Life Insurance Benefit Programs GASB 45 Actuarial Valuation as of January 1, 2008

Discount Rate 7.50%
Salary Scale 1 4.00%
Ultimate Trend 5.00%
Wage Inflation 4.00%

Amortization: 30-year open, level percentage of payroll

Retiree Healthcare Program		General Fund		Water/Sewer Fund	Parking System		Total
I) Actuarial Liability A) Health Insurance							
<ul> <li>i) Active Employees <sup>2</sup></li> <li>ii) Retired and Disabled Participants</li> </ul>	\$	51,523,314 45,362,519	\$	6,932,081 7,589,396	\$ 416,722 47,178	\$	58,872,117 52,999,093
iii) Total	\$	96,885,833	\$	14,521,477	\$ 463,900	\$	111,871,210
B) Life Insurance							
<ul> <li>i) Active Employees <sup>2</sup></li> <li>ii) Retired and Disabled Participants</li> </ul>	\$	466,823 1,522,682	\$	70,519 162,904	\$ 4,975	\$	542,317 1,685,586
iii) Total	\$	1,989,505	\$	233,423	\$ 4,975	\$	2,227,903
C) Total Liabilites	\$	98,875,338	\$	14,754,900	\$ 468,875	\$	114,099,113
II) Assets		-		-	-		-
III) Unfunded Actuarial Liability (UAL)	\$	98,875,338	\$	14,754,900	\$ 468,875	\$	114,099,113
IV) Net OPEB Obligation (boy)	\$	21,711,871	\$	1,756,536	\$ 118,226	\$	23,586,633
V) Normal Cost							
A) Health Insurance	\$	4,139,914	\$	271,670	\$ 11,090	\$	4,422,674
B) Life Insurance		20,750	_	2,034	 105	_	22,889
C) Total	\$	4,160,664	\$	273,704	\$ 11,195	\$	4,445,563
VI) Annual Required Contribution (ARC)							
A) Normal Cost	\$	4,160,664	\$	273,704	\$ 11,195	\$	4,445,563
B) Amortization of UAL		5,113,604		763,089	24,249		5,900,942
C) Total	\$	9,274,268	\$	1,036,793	\$ 35,444	\$	10,346,505
VI) Annual OPEB Cost							
i) ARC	\$	9,274,268	\$	1,036,793	\$ 35,444	\$	10,346,505
ii) Interest on Net OPEB Obligation		1,628,390		131,740	8,867		1,768,997
iii) Adjustment to ARC	-	(1,122,888)		(90,844)	 (6,114)		(1,219,846)
iv) Total	\$	9,779,770	\$	1,077,689	\$ 38,197	\$	10,895,656
v) Percentage of Payroll		15.7%		17.8%	13.5%		15.9%
VII) Expected Employer Contributions <sup>3</sup>							
i) Implicit Subsidy	\$	1,295,146	\$	217,468	\$ 2,115	\$	1,514,729
ii) Explicit Subsidy		2,355,082		380,264	2,770		2,738,116
iii) Additional Funding		5,624,040		439,061	 30,559		6,093,660
iv) Total	\$	9,274,268	\$		\$ 35,444	\$	10,346,505
i) Percentage of Payroll		14.9%		17.2%	12.5%		15.1%
VIII) Payroll	\$	62,227,415	\$	6,045,321	\$ 283,297	\$	68,556,033

<sup>&</sup>lt;sup>1</sup>Base increase plus age or service based component.

 $<sup>^2\,\</sup>mathrm{Active}$  employees eligible for future retiree healthcare benefits

<sup>&</sup>lt;sup>3</sup> Expected employer contributions to finance current retiree healthcare claims assuming pay-as-you-go funding.

#### City of Joliet, Illinois Retiree Healthcare and Life Insurance Benefit Programs GASB 45 Actuarial Valuation as of January 1, 2008

Ten-year GASB Projection for All Funds (\$ in Thousands)

Discount Rate	7.50%
Salary Scale <sup>1</sup>	4.00%
Ultimate Trend	5.00%
Wage Inflation	4.00%

Amortization: 30-year open, level percentage of payroll

	1/1/2008		1/1/2009	1	/1/2010	1	1/1/2011	<u>1</u>	/1/2012	1	1/1/2013	<u>1</u>	/1/2014	1	1/1/2015	<u>1</u>	/1/2016	-	1/1/2017
Retiree Healthcare and Life Insurance Prog	rams																		
A) Actuarial Liability	\$ 114,09	9 \$	123,026	\$	132,245	\$	141,710	\$	151,470	\$	161,673	\$	172,364	\$	183,507	\$	195,176	\$	207,388
B) Assets	-		6,318		12,866		19,594		26,554		33,888		41,641		49,774		58,361		67,416
C) Unfunded Actuarial Liability (UAL)	114,09	9	116,708		119,379		122,115		124,916		127,785		130,723		133,732		136,815		139,972
D) Net OPEB Obligation (boy)	23,58	37	24,136		24,698		25,273		25,861		26,463		27,079		27,710		28,355		29,015
E) Annual Required Contribution (ARC) i) Normal Cost ii) Amortization of UAL iii) Total	\$ 4,44 5,90 \$ 10,34		4,623 6,036 10,659	\$	4,808 6,174 10,982	\$ 	5,001 6,316 11,317	_	5,201 6,460 11,661	\$ 	5,409 6,609 12,018	\$ 	5,625 6,761 12,386	\$ 	5,850 6,916 12,766	_	6,084 7,076 13,160	_	6,327 7,239 13,566
F) Annual OPEB Cost i) ARC ii) Interest on Net OPEB Obligation iii) Adjustment to ARC iv) Total v) Percentage of Payroll	1,76	2 <u>0</u> )	10,659 1,810 (1,248) 11,221 15.7%	_	10,982 1,852 (1,277) 11,557 15.6%		11,317 1,895 (1,307) 11,905 15.4%	_	11,661 1,940 (1,337) 12,263 15.3%	_	12,018 1,985 (1,369) 12,634 15.1%		12,386 2,031 (1,400) 13,017 15.0%		12,766 2,078 (1,433) 13,411 14.9%		13,160 2,127 (1,466) 13,820 14.7%		13,566 2,176 (1,501) 14,242 14.6%
G) Expected Employer Contributions i) Implicit Subsidy ii) Explicit Subsidy iii) Additional Funding iv) Total v) Percentage of Payroll		5 \$ 88 94	1,779 3,022 5,858 10,659 15.0%	\$	2,046 3,377 5,559 10,982 14.8%		2,304 3,717 5,296 11,317 14.7%	_	2,495 4,013 5,153 11,661 14.5%	_	2,692 4,300 5,026 12,018 14,4%	_	2,927 4,627 4,832 12,386 14.3%	_	3,122 4,963 4,681 12,766 14.2%		3,326 5,323 4,511 13,160 14.0%		3,570 5,717 4,279 13,566 13.9%
H) Payroll	\$ 68,55		71,298	\$		\$	77,116	\$	80,201	\$	83,409	\$	86,745	\$	90,215	\$	93,824	\$	97,577

<sup>&</sup>lt;sup>1</sup> Base increase plus age or service based component.

## **Section D**

**Plan Provisions** 

#### **PLAN PROVISIONS**

Following are the plan provisions reflected in our valuation of the City of Joliet retiree healthcare and life insurance benefits as of January 1, 2008.

#### **Medical Insurance Benefits:**

#### Benefits Provided for Plan Year beginning January 1, 2008

City of Joliet provides pre and post-Medicare health care benefits to retired employees and their dependents provided they satisfy one of the following requirements:

- 1) General, Water/Sewer and Parking Employees: Age 55 with 8 or more years of service and retired under the IMRF Pension Plan.
- 2) Police Officers: 20 years (or more) of Creditable Service and is no longer in service as a Police Officer.
- 3) Firefighters: Age 50 (or more) with 20 years (or more) of Creditable Service, is no longer in service as a Firefighter and retired under the City of Joliet Fire Pension Plan.
- 4) Medically disabled and totally and permanently unable to work.

The City of Joliet also provides healthcare benefits to the survivors of deceased employees and retired members. Coverage for spouses of deceased plan members will terminate if they remarry.

#### Coordination with Medicare

Benefits for members eligible for Medicare modified as follows:

The amount payable under the City's health plan will be reduced by the amount payable under Medicare for those expenses that are covered by both. Prescription drug benefits for post-Medicare retirees and dependents do not reflect a plan change or federal subsidy as available under the Medicare Prescription Drug, Improvement and Modernization Act, beginning in 2006. We understand the City of Joliet has applied for a Medicare Part D Subsidy.

*Funding Policy*. Retiree health care benefits are funded on a pay as you go basis. Benefits are self-insured up to certain stop loss limits.

#### Eligible Benefit Programs:

We have assumed retirees opting out of the retiree health program cannot reenter into the program. A brief description of the medical healthcare plan offered by the City of Joliet and the required retiree contributions are shown on the following pages:

<sup>&</sup>lt;sup>1</sup> Currently the City is only charging survivors and dependents of deceased employees and retired members the 1988 blended premium

### PLAN PROVISIONS (CONTINUED)

#### **BlueCross BlueShield**

Plan Feature	BCBS Provide	ers	Non-BCBS Providers					
Annual Deductible	None		\$ 150 per person \$ 450 per family					
Out of Pocket Maximum	\$ 1,000 per per \$ 3,000 per fan		\$ 3,000 per person \$ 9,000 per family					
Covered Services	Coinsuranc	<u>e</u>	<u>Coinsurance</u>					
-Physicians Visits	80%		70%					
-Emergency Care	80%		80%					
-Inpatient Services	100%		80%					
-Outpatient Services	100%		80%					
Prescription Drug Copays	Generic \$5  Brand if no generic available \$10  Brand if generic available \$35	<u>Mail</u> <u>Order</u> \$3 \$8	75% of eligible charge less the applicable co-pay					
Maximum Lifetime Benefit	\$3 Million		\$3 Million					

Medical benefits are coordinated with Medicare.

#### PLAN PROVISIONS (CONTINUED)

#### **Retiree Cost Sharing Provisions**

Police and Fire retirees as well as IMRF retirees with 20 or more years of service receive single healthcare coverage at no charge to the member. IMRF retirees with less than 20 years of service pay a portion of the 1988 single premium rate according to the following schedule. Members electing dependent coverage must pay the 1988 rate for the additional coverage. Surviving spouses pay the 1988 single premium rate.

Years of Service	Retiree Share of 1988 Rate for Single Coverage
20 or more	0%
15-19	25%
13-14	35%
8-11	50%

#### **Sample Blended Premium Rates**

	1988	2008/2009
Pre-Medicare Single	\$118.20	\$545.24
Pre-Medicare Additional Premium for Dependents	\$217.68	\$1,032.17
Medicare Single	\$59.10	\$272.65
Child Only	\$99.60	\$459.72

#### 100% Healthcare Blended Premium rates as of July 1, 2008

	Coverage Type								
	Single	2 Person	Family						
Medicare Eligible	272.65	572.52	1,304.86						
1 Person Medicare Eligible	272.65	858.80	1,304.86						
No Members Medicare Eligible	545.24	1,145.05	1,577.41						

#### **Life Insurance Benefits:**

- 1. Police Officers: Group term life insurance of \$12,500 at City's expense
- 2. Firefighters, Water/Sewer, Parking and General Employees: Group term life insurance of \$10,000 at City's expense
- 3. Exempt I and Mayor, Council, and Liquor Commissioners: Group term life insurance of \$25,000 at City's expense
- 4. Exempt II: Group term life insurance of \$20,000 at City's expense
- 5. Exempt III: Group term life insurance of \$15,000 at City's expense

## **Section E**

**Actuarial Methods and Assumptions** 

#### ACTUARIAL METHODS AND ASSUMPTIONS

#### **Development of Per Capita Claim Costs**

Per capita claims costs were developed using paid claim experience adjusted to incurred claims, estimated administrative expense, and enrollment information for calendar years 2006 through 2008 for all members enrolled in the BlueCross BlueShield program. Retiree costs were developed using standard morbidity assumptions. Finally, average retiree costs were adjusted by trend to plan year 2008. Separate costs were developed for pre-Medicare and post-Medicare medical coverage and prescription drug coverage.

Prescription drug per capita claims costs and liabilities for post-Medicare retirees and dependents do not reflect future federal subsidies or plan changes due to the introduction of Medicare Part D.

#### **Cost Method and Expense Calculations for Retiree Healthcare Benefits**

The retiree healthcare valuation was based on the entry age normal cost method. Under this method, each participant's projected benefits are assumed to be funded by annual installments, equal to a level percentage of compensation, payable from date of participation to assumed date of retirement. The total normal cost is the sum of the current year's annual installment determined for all active participants. The actuarial accrued liability is the excess value of the present value of future benefits for all participants (both active and retired) over the present value of future normal costs.

Under GASB Statement Nos. 43 and 45, the entry age normal method is an acceptable cost method. The Annual Required Contribution (ARC) equals the normal cost plus the amortization of the unfunded actuarial accrued liability. The amortization cannot exceed 30 years. Our calculations assume a level-percentage-of-pay 30-year open amortization period. The Annual Expense or Annual OPEB Cost equals the ARC plus interest on the Net OPEB Obligation less an adjustment to ARC.

The Net OPEB Obligation or balance sheet liability is equal to the cumulative difference between the Annual OPEB Costs and employer contributions. The OPEB liability at transition date, January 1, 2006, was set to zero.

#### **Actuarial Assumptions**

The actuarial assumptions used in our valuation are outlined on the following pages.

January 1, 2008
4.50%
3.00%
4.00%

#### **OPEB Assumptions**

Applied January 1	<b>Healthcare Trend</b>
2009	10.00%
2010	9.00%
2011	8.00%
2012	7.00%
2013	6.00%
2014	5.00%
2015+	5.00%

#### Per Capita Claim Costs for Plan Year 2008

Medical Costs		Rx C	osts
Male	Female	Male	Female
\$3,000	\$4,424	\$700	\$1,033
4,077	5,023	951	1,172
5,515	5,881	1,287	1,373
7,208	6,973	1,682	1,628
9,056	8,192	2,114	1,912
10,540	9,195	2,460	2,146
1,962	1,700	2,544	2,205
2,263	1,915	2,934	2,483
2,512	2,098	3,257	2,721
2,694	2,235	3,493	2,897
	\$3,000 4,077 5,515 7,208 9,056 10,540 1,962 2,263 2,512	Male     Female       \$3,000     \$4,424       4,077     5,023       5,515     5,881       7,208     6,973       9,056     8,192       10,540     9,195       1,962     1,700       2,263     1,915       2,512     2,098	Male         Female         Male           \$3,000         \$4,424         \$700           4,077         5,023         951           5,515         5,881         1,287           7,208         6,973         1,682           9,056         8,192         2,114           10,540         9,195         2,460           1,962         1,700         2,544           2,263         1,915         2,934           2,512         2,098         3,257

We have not assumed an additional cost for covered children of retirees. The additional liability would be minimal.

Participation and Ele	ction Assumptions
-----------------------	-------------------

Percent of future retirees electing post-retirement healthcare coverage	100%
Percent married	80%
Of those married, percent married electing spouse healthcare coverage	80%
Percent of surviving spouses continuing coverage after death of retiree	60%

Females are assumed to be three years younger than their spouse

#### **Pension-related assumptions**

The pension-related assumptions disclosed in the Illinois Municipal Retirement Fund actuarial valuation report as of December 31, 2007, are assumed for general employees. GRS assumptions used for valuations as of January 1, 2008, of the Police and Fire Pension Funds were assumed for Police and Fire employees.

**Salary Increase** 

5.7%

5.2%

4.9%

4.7%

4.6%

4.5%

4.4%

<b>A</b> = -	G	Regular
Age	<b>Service</b>	<u>IMRF</u>
	0	7.0%
	1	5.0%
	2	3.5%
	3	3.0%
	4	2.0%
	5	1.5%
25	6 & Over	6.0%

30

35

40

45

50

55

60

For IMRF Employees, a person with 6 or more years of service, the assumed pay increase during the coming year is found in the 6 or more years of service total column. For a person with less than 6 years of service, the % increase from the less than 6 years column that corresponds to the person's service is added to the increase from the 6 or more years of service total column that corresponds to the person's age to get the total assumed increase. For example, a 40-year-old with 8 years of service is assumed to get a 4.9% pay increase during the coming year. But a 40-year-old with 4 years of service is assumed to get a 6.9% increase (4.9% + 2.0%).

	Salary Increase		
Years of			
Service	Police	Fire	
1	30.00%	25.00%	
2	25.00%	15.00%	
3	10.00%	10.00%	
>=4	5.25%	5.25%	

#### Demographic Assumptions

#### **Mortality Regular IMRF**

	Healthy	- Retiree	Disabled	- Retiree	Healthy	<b>Active</b>
Age	Male	Female	Male	Female	Male	Female
20	0.0558%	0.0247%	0.0881%	0.0305%	0.0254%	0.0142%
25	0.0727%	0.0253%	0.0936%	0.0416%	0.0331%	0.0146%
30	0.0881%	0.0305%	0.1179%	0.0617%	0.0400%	0.0175%
35	0.0936%	0.0416%	0.1736%	0.0847%	0.0426%	0.0239%
40	0.1179%	0.0617%	0.2837%	0.1242%	0.0536%	0.0354%
45	0.1736%	0.0847%	0.4867%	0.1996%	0.0789%	0.0487%
50	0.2837%	0.1242%	0.8774%	0.3862%	0.1290%	0.0714%
55	0.4867%	0.1996%	1.5988%	0.7513%	0.2212%	0.1147%
60	0.8774%	0.3862%	2.6103%	1.1945%	0.3988%	0.2220%
65	1.5988%	0.7513%	4.0932%	1.9737%	0.7267%	0.4318%
70	2.6103%	1.1945%	6.8230%	3.4275%	1.1865%	0.6865%
75	4.0932%	1.9737%	10.6964%	5.8932%	1.8606%	1.1343%
80	6.8230%	3.4275%	16.8224%	10.1151%	3.1013%	1.9698%

The 1994 Group Annuity Mortality Table, sex-distinct, multiplied by 1.10 for males and 0.87 for females is used for healthy retiree mortality. For disabled lives, the mortality rates are the rates applicable to healthy retiree lives set forward 10 years. The 1994 Group Annuity Mortality Table, sex-distinct, multiplied by 0.50 is used for healthy active mortality.

#### **Mortality Police and Fire**

	Healthy		Disa	bled
Age	Male	Female	Male	Female
20	0.0377%	0.0189%	0.0415%	0.0208%
25	0.0464%	0.0253%	0.0510%	0.0278%
30	0.0607%	0.0342%	0.0668%	0.0376%
35	0.0860%	0.0476%	0.0946%	0.0524%
40	0.1238%	0.0665%	0.1362%	0.0731%
45	0.2183%	0.1010%	0.2401%	0.1111%
50	0.3909%	0.1647%	0.4300%	0.1812%
55	0.6131%	0.2541%	0.6744%	0.2795%
60	0.9158%	0.4241%	1.0074%	0.4665%
65	1.5592%	0.7064%	1.7151%	0.7770%
70	2.7530%	1.2385%	3.0283%	1.3623%
75	4.4597%	2.3992%	4.9057%	2.6391%
80	7.4070%	4.2945%	8.1477%	4.7240%

The 1983 Group Annuity Mortality Table, sex-distinct, is used for healthy mortality. Disabled mortality is 110% of healthy mortality. 10% and 75% of deaths are assumed to occur in the line of duty for Fire and Police respectively.

**Sample Disability Rates** 

% Separating Within Next Year				
	Regula	r IMRF	Police	Fire
Age	Male	Female	Male & Female	Male & Female
20	0.01%	0.01%	0.03%	0.09%
25	0.01%	0.01%	0.04%	0.10%
30	0.02%	0.01%	0.05%	0.10%
35	0.03%	0.02%	0.07%	0.12%
40	0.05%	0.03%	0.10%	0.15%
45	0.09%	0.04%	0.16%	0.21%
50	0.13%	0.06%	0.26%	0.78%
55	0.20%	0.10%	0.49%	1.36%
60	0.26%	0.17%	0.87%	2.30%
65	0.28%	0.20%	1.43%	3.35%

75% of disabilities for Police and Fire are assumed to occur in the line of duty.

Sample Turnover Rates

	% Separating W	it <u>hin Next Ye</u>	ar
		Regula	r IMRF
Age	Service	Male	Female
	0	25.0%	28.0%
	1	18.0%	20.0%
	2	13.0%	15.0%
	3	10.5%	11.5%
	4	8.5%	9.5%
	5	7.0%	8.0%
	6	6.0%	7.0%
	7	5.5%	6.5%
25	8 & Over	5.5%	6.5%
30		5.5%	6.5%
35		4.4%	5.8%
40		3.4%	4.8%
45		2.8%	4.3%
50		2.5%	3.7%

#### Sample Turnover Rates

% Separating Within Next Year

Service	Police	Fire
0	3.8%	1.5%
5	2.9%	1.1%
10	2.0%	0.7%
15	1.3%	0.4%
20	0.9%	0.3%
25	0.6%	0.2%
30 and over	0.0%	0.0%

#### **Early Retirement Rates - IMRF**

% Separating Within Next Year (Age-Based)

<b>A</b> 000	Regular Employees				
Age	Male	Female			
55	6.50%	6.50%			
56	6.50%	6.50%			
57	6.50%	6.50%			
58	6.50%	6.50%			
59	6.50%	6.50%			

	% Separating	g Within Next				
A 00	Regular IMRF					
Age	Male	Female				
55	35.0%	35.0%				
56	30.0%	30.0%				
57	30.0%	30.0%				
58	30.0%	30.0%				
59	30.0%	30.0%				
60	10.0%	10.0%				
61	10.0%	10.0%				
62	25.0%	20.0%				
63	20.0%	20.0%				
64	20.0%	20.0%				
65	35.0%	25.0%				
66	30.0%	20.0%				
67	25.0%	20.0%				
68	18.0%	18.0%				
69	18.0%	18.0%				
70 - 79	18.0%	18.0%				
80 & Over	100.0%	100.0%				

#### **Rates of Retirement**

Police					I	Fire	
Age	Rate	Age	Rate	Age	Rate	Age	Rate
50	5.0 %	60	25.0 %	50	5.0 %	60	25.0 %
51	5.0	61	50.0	51	5.0	61	25.0
52	5.0	62	50.0	52	5.0	62	25.0
53	10.0	63	50.0	53	10.0	63	50.0
54	10.0	64	50.0	54	10.0	64	50.0
55	10.0	65	100.0	55	10.0	65	100.0
56	10.0	66	100.0	56	25.0	66	100.0
57	10.0	67	100.0	57	25.0	67	100.0
58	25.0	68	100.0	58	25.0	68	100.0
59	25.0	69	100.0	59	25.0	69	100.0

## **Section F**

**Participant Data** 

#### PARTICIPANT DATA

City of Joliet, Illinois Retiree Healthcare and Life Insurance Benefit Programs Actuarial Valuation as of January 1, 2008 Population Breakout by Fund

**Counts by Fund** 

	Actives	Retirees and Beneficiaries	Total
General Fund	823	315	1,138
Water/Sewer	85	53	138
Parking	<u>4</u>	<u>1</u>	<u>5</u>
	912	369	1,281

Retiree and Beneficiary Healthcare Coverage Type by Fund

Kethee and i	beneficially lifeatureal	c Coverage 1	ype by runu	
	1 Person	2 Person	Family	Total
General Fund	136	162	17	315
Water/Sewer	26	26	1	53
Parking	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>
	163	188	18	369

Note: Coverage Type by Fund for actives not provided because assumption is made on coverage type at the time of retirement.

City of Joliet, Illinois Retiree Healthcare and Life Insurance Benefit Programs Actuarial Valuation as of January 1, 2008 Age Service Distribution for Total Active Population

											Total
Attained			<u>Ye</u>	ars of Ser	vice to Va	aluation D	<u> Pate</u>				Valuation
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 35	Total	Payroll
Under 20										-	\$ -
20-24	17	9								<b>26</b>	1,293,329
25-29	16	77	21							114	6,930,759
30-34	10	50	60	16	1					137	9,566,597
35-39	3	28	55	62	11					159	12,343,189
40-44	7	12	27	40	55	7	1			149	11,771,842
45-49		3	11	20	47	21	15			117	9,706,408
50-54	1	8	10	14	20	17	38	20	3	131	10,678,522
<i>55-59</i>		3	1	4	6	5	8	20	6	53	4,453,041
60-64	1		2	4	2	3	3	2	1	18	1,382,310
65-69				1	2		1		1	5	350,574
Over 70		1			1			1		3	79,461
Total	55	191	187	161	145	53	66	43	11	912	\$ 68,556,033

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

Age: 41.2 years
Service: 12.4 years
Annual Pay: \$75,171

## **Section G**

### **GASB Accounting Information**

### **GASB ACCOUNTING INFORMATION**

#### **OPEB Cost Summary:**

					<b>Annual Required</b>	
Year Ended	Annual OPEB Cost (AOC)	Employer Contributions	% of AOC Contributed	Net OPEB Obligation	Contribution (ARC)	% of ARC Contributed
					<b></b>	
December 31, 2008	\$15,842,526	TBD	TBD	TBD	\$15,623,247	TBD
December 31, 2007	16,741,000	4,597,967	27.5%	23,586,633	16,603,000	27.7%
December 31, 2006	15,373,813	3,930,213	25.6%	11,443,600	15,373,813	25.6%

#### **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]
January 1, 2008	\$0	\$167,485,137	\$167,485,137	0.0 %	\$68,556,033	244.3 %
January 1, 2007	0	201,403,182	201,403,182	0.0	61,364,217	328.2
January 1, 2006	0	186,484,428	186,484,428	0.0	59,004,055	316.1

## GASB No. 45 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The GASB 45 financial disclosure information for the fiscal year end 2008 was based on the following assumptions and methods.

Valuation Date	January 1, 2008
Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	No Assets (Pay-as-you-go)
Amortization Method	Level Percent Open
Remaining Amortization Period	30 Years
Actuarial Assumptions:	
Investment Rate of Return	4.5% per year
Wage Inflation	4.0% per year
Healthcare Trend	10.0% per year graded down to 5.0% per year ultimate trend in 1.0% increments