

**CITY OF JOLIET  
RETIREE HEALTHCARE AND LIFE INSURANCE BENEFIT  
PROGRAMS - ACTUARIAL VALUATION  
FOR THE YEAR BEGINNING  
JANUARY 1, 2010**



February 25, 2011

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, 2010, 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, 2010, and
- Develop retiree healthcare accounting expense and disclosure information for fiscal years 2010 and 2011 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, 2010, as provided by the City of Joliet, and claims and enrollment data for calendar years 2008, 2009 and 2010, as provided by BlueCross BlueShield;
- Plan provisions and funding policy in effect as of January 1, 2010, 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.

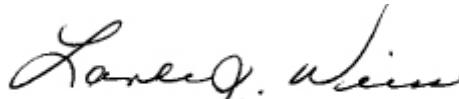
The calculations reported herein have been made on a basis consistent with GASB Statements Nos. 43 (*Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*) and 45 (*Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pension*). The undersigned are members of the American Academy of Actuaries and meet 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., M.A.A.A.  
Senior Consultant



Lance Weiss, F.S.A., M.A.A.A.  
Senior Consultant

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Enclosures

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## **SECTION A**

### **EXECUTIVE SUMMARY**

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## EXECUTIVE SUMMARY

This report presents the results of our actuarial valuation as of January 1, 2010, 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:

<b>Retiree Healthcare and Life Insurance Benefit Programs</b>				
<b>4.5% Discount Rate and 5.0% Ultimate Trend</b>				
(\$ in thousands)				
	<b>General Fund</b>	<b>Water/Sewer</b>	<b>Parking</b>	<b>Total</b>
Actuarial Liability as of January 1, 2010	\$178,402,625	\$25,495,516	\$1,188,291	\$205,086,432
Normal Cost for FY 2010	\$9,980,759	\$804,915	\$67,226	\$10,852,900
GASB FY 2010 Expense (Annual OPEB Cost)	\$16,737,987	\$1,743,247	\$111,621	\$18,592,855
(% of Payroll)	26.1%	23.6%	31.6%	25.9%
FY 2010 Benefit Payments	\$4,970,361	\$825,960	\$7,677	\$5,803,998
(% of Payroll)	7.7%	11.2%	2.2%	8.1%
Actives	768	92	6	866
Retirees	362	55	1	418

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 \$181.2 million after nine years. The details of the projections are shown in Section B.

## EXECUTIVE SUMMARY (CONT'D)

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### Changes in the Plan Costs and Liabilities Since the Actuarial Valuation as of January 1, 2008

The actuarial accrued liability at January 1, 2008, was \$167.5 million, and the projected annual actuarial accrued liability at January 1, 2010, based on the valuation as of January 1, 2008, was \$194.5 million. The actual accrued liability at January 1, 2010, is \$205.1 million.

The Annual Required Contribution (ARC) for fiscal year 2008 was \$15.6 million, and the projected annual required contribution for fiscal year 2010 based on the valuation as of January 1, 2008, was \$17.4 million. The actual annual required contribution for fiscal year 2010 is \$18.2 million.

The key factors contributing to the change in actuarial liabilities of \$10.6 million include:

- During the year, the plan experienced favorable healthcare trend experience which decreased the actuarial liability by \$8.8 million.
- Demographic experience caused actuarial liabilities to increase by \$3.3 million.
- Changes in OPEB related assumptions and methods increased actuarial liabilities by \$17.0 million. The key assumption change was updating the healthcare trend rates used to project the member's average healthcare claim costs after retirement. The medical trend assumption used for the valuation as of January 1, 2008, was 10.0 percent in 2009, decreasing each year to an ultimate trend rate of 5.0 percent in 2014. This assumption was changed for the valuation at January 1, 2010, to 10.0 percent for 2011, decreasing each year to an ultimate trend rate of 5.0 percent in 2016.
- Subsequent to the January 1, 2008, valuation, there was a change to the demographic assumptions for members covered under the Illinois Municipal Retirement Fund. This change decreased liabilities by \$886,000.

#### City of Joliet, Illinois

#### Retiree Healthcare and Life Insurance Benefit Programs

#### GASB 45 Actuarial Valuation as of January 1, 2010

#### Reconciliation of Change in Accrued Liability

(\$ In Thousands)

1. Accrued liability as of 1/1/2008	\$ 167,485	
2. Projected accrued liability as of 1/1/2010	\$ 194,458	
3. Changes in accrued liability due to:		<u>Percent Increase</u>
a. Claims Experience	\$ (8,785)	-4.52%
b. Updated Trend Assumption	17,039	8.76%
c. Updated Demographic Assumptions	(886)	-0.46%
d. Demographic and Other	3,260	1.68%
e. Total (a.+ b.+ c.+ d.)	<u>\$ 10,628</u>	<u>5.46%</u>
4. Accrued liability as of 1/1/2010 (2.+3.e.)	\$ 205,086	

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## **SECTION B**

VALUATION RESULTS AT 4.5% DISCOUNT AND 5.0%  
TREND

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

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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 age and/or 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, 2010, by Fund
- Ten-year GASB Projection for All Funds

The ten-year GASB projections show an annual OPEB cost increasing from \$18.6 million in FY 2010 to \$29.9 million in FY 2019. When expressed as a percentage of payroll, OPEB expense is expected to increase from 25.9 percent to 29.3 percent of payroll. Expected retiree healthcare benefits are projected to increase from \$5.8 million in FY 2010 to about \$11.1 million in FY 2019. Expressed as a percentage of payroll, this is an increase from 8.1 percent in FY 2010 to 10.9 percent in FY 2019. The primary reason for the increase is due to the relationship between salary increases and healthcare trend increases. That is, salaries are expected to grow at 4.0 percent whereas healthcare benefits are expected to grow at 10.0% in 2011, 9.0% in 2012, etc., until the ultimate trend rate of 5.0 percent is reached in the year 2016.

The balance sheet liability or Net OPEB Obligation is expected to grow from \$44.9 million at FYE 2009 to \$181.2 million at FYE 2018. This increase is due to the fact that 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, 2010**  
**Pay-as-you-go Funding Policy**

*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*

<b>Retiree Healthcare Program</b>	General Fund	Water/Sewer Fund	Parking System	Total
I) Actuarial Liability				
A) Health Insurance				
i) Active Employees <sup>2</sup>	\$ 88,169,131	\$ 12,719,412	\$ 1,117,083	\$ 102,005,626
ii) Retired and Disabled Participants	<u>86,847,659</u>	<u>12,401,402</u>	<u>55,926</u>	<u>99,304,987</u>
iii) Total	\$ 175,016,790	\$ 25,120,814	\$ 1,173,009	\$ 201,310,613
B) Life Insurance				
i) Active Employees <sup>2</sup>	\$ 805,841	\$ 125,154	\$ 15,282	\$ 946,277
ii) Retired and Disabled Participants	<u>2,579,994</u>	<u>249,548</u>	<u>-</u>	<u>2,829,542</u>
iii) Total	\$ 3,385,835	\$ 374,702	\$ 15,282	\$ 3,775,819
C) Total Liabilities	\$ 178,402,625	\$ 25,495,516	\$ 1,188,291	\$ 205,086,432
II) Assets	-	-	-	-
III) Unfunded Actuarial Liability (UAL)	\$ 178,402,625	\$ 25,495,516	\$ 1,188,291	\$ 205,086,432
IV) Net OPEB Obligation (boy)	\$ 41,700,390	\$ 3,018,221	\$ 211,846	\$ 44,930,457
V) Normal Cost				
A) Health Insurance	\$ 9,928,019	\$ 799,485	\$ 66,466	\$ 10,793,970
B) Life Insurance	<u>52,740</u>	<u>5,430</u>	<u>760</u>	<u>58,930</u>
C) Total	\$ 9,980,759	\$ 804,915	\$ 67,226	\$ 10,852,900
VI) Annual Required Contribution (ARC)				
A) Normal Cost	\$ 9,980,759	\$ 804,915	\$ 67,226	\$ 10,852,900
B) Amortization of UAL	<u>6,369,548</u>	<u>910,272</u>	<u>42,426</u>	<u>7,322,246</u>
C) Total	\$ 16,350,307	\$ 1,715,187	\$ 109,652	\$ 18,175,146
VII) Annual OPEB Cost				
i) ARC	\$ 16,350,307	\$ 1,715,187	\$ 109,652	\$ 18,175,146
ii) Interest on Net OPEB Obligation	1,876,518	135,820	9,533	2,021,871
iii) Adjustment to ARC	<u>(1,488,838)</u>	<u>(107,760)</u>	<u>(7,564)</u>	<u>(1,604,162)</u>
iv) Total	\$ 16,737,987	\$ 1,743,247	\$ 111,621	\$ 18,592,855
v) Percentage of Payroll	26.1%	23.6%	31.6%	25.9%
VIII) Expected Employer Contributions <sup>3</sup>				
i) Implicit Subsidy	\$ 1,712,740	\$ 316,467	\$ 2,908	\$ 2,032,115
ii) Explicit Subsidy	<u>3,257,621</u>	<u>509,493</u>	<u>4,769</u>	<u>3,771,883</u>
iii) Total	\$ 4,970,361	\$ 825,960	\$ 7,677	\$ 5,803,998
iv) Percentage of Payroll	7.7%	11.2%	2.2%	8.1%
IX) Payroll	\$ 64,137,036	\$ 7,398,662	\$ 353,395	\$ 71,889,093

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

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

<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, 2010**  
**Pay-as-you-go Funding Policy**  
**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*

	<u>01/01/2010</u>	<u>01/01/2011</u>	<u>01/01/2012</u>	<u>01/01/2013</u>	<u>01/01/2014</u>	<u>01/01/2015</u>	<u>01/01/2016</u>	<u>01/01/2017</u>	<u>01/01/2018</u>	<u>01/01/2019</u>
<b>Retiree Healthcare and Life Insurance Programs</b>										
A) Actuarial Liability	\$ 205,086	\$ 219,723	\$ 234,793	\$ 250,481	\$ 266,802	\$ 283,675	\$ 301,291	\$ 319,725	\$ 338,933	\$ 358,949
B) Assets	-	-	-	-	-	-	-	-	-	-
C) Unfunded Actuarial Liability (UAL)	205,086	219,723	234,793	250,481	266,802	283,675	301,291	319,725	338,933	358,949
D) Net OPEB Obligation (boy)	44,930	57,719	70,919	84,711	99,109	114,035	129,674	146,101	163,272	181,220
E) Annual Required Contribution (ARC)										
i) Normal Cost	\$ 10,853	\$ 11,287	\$ 11,738	\$ 12,208	\$ 12,696	\$ 13,204	\$ 13,732	\$ 14,282	\$ 14,853	\$ 15,447
ii) Amortization of UAL	<u>7,322</u>	<u>7,845</u>	<u>8,383</u>	<u>8,943</u>	<u>9,526</u>	<u>10,128</u>	<u>10,757</u>	<u>11,415</u>	<u>12,101</u>	<u>12,816</u>
iii) Total	\$ 18,175	\$ 19,132	\$ 20,121	\$ 21,151	\$ 22,222	\$ 23,332	\$ 24,489	\$ 25,697	\$ 26,954	\$ 28,263
F) Annual OPEB Cost										
i) ARC	\$ 18,175	\$ 19,132	\$ 20,121	\$ 21,151	\$ 22,222	\$ 23,332	\$ 24,489	\$ 25,697	\$ 26,954	\$ 28,263
ii) Interest on Net OPEB Obligation	2,022	2,597	3,191	3,812	4,460	5,132	5,835	6,575	7,347	8,155
iii) Adjustment to ARC	<u>(1,604)</u>	<u>(2,061)</u>	<u>(2,532)</u>	<u>(3,024)</u>	<u>(3,538)</u>	<u>(4,071)</u>	<u>(4,630)</u>	<u>(5,216)</u>	<u>(5,829)</u>	<u>(6,470)</u>
iv) Total	\$ 18,593	\$ 19,669	\$ 20,781	\$ 21,939	\$ 23,144	\$ 24,392	\$ 25,695	\$ 27,055	\$ 28,472	\$ 29,948
v) Percentage of Payroll	25.9%	26.3%	26.7%	27.1%	27.5%	27.9%	28.2%	28.6%	28.9%	29.3%
G) Expected Employer Contributions										
i) Implicit Subsidy	\$ 2,032	\$ 2,069	\$ 2,248	\$ 2,450	\$ 2,726	\$ 2,917	\$ 3,071	\$ 3,271	\$ 3,473	\$ 3,657
ii) Explicit Subsidy	<u>3,772</u>	<u>4,400</u>	<u>4,741</u>	<u>5,091</u>	<u>5,492</u>	<u>5,836</u>	<u>6,197</u>	<u>6,613</u>	<u>7,050</u>	<u>7,486</u>
iii) Total	\$ 5,804	\$ 6,469	\$ 6,989	\$ 7,541	\$ 8,218	\$ 8,753	\$ 9,268	\$ 9,884	\$ 10,523	\$ 11,143
iv) Percentage of Payroll	8.1%	8.7%	9.0%	9.3%	9.8%	10.0%	10.2%	10.4%	10.7%	10.9%
H) Payroll	\$ 71,889	\$ 74,765	\$ 77,755	\$ 80,865	\$ 84,100	\$ 87,464	\$ 90,963	\$ 94,601	\$ 98,385	\$ 102,321

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

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## **SECTION C**

### **SENSITIVITY ANALYSIS**

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## **SENSITIVITY PROJECTIONS**

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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 \$18.6 million to \$29.9 million under the pay-as-you-go funding policy and from \$13.4 million to \$17.4 million under the full funding policy. The annual employer's contribution is projected to increase from \$5.8 million to \$11.1 million under the pay-as-you-go policy and from \$12.3 million to \$16.1 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, 2010**  
**Full Funding Policy**

*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*

<i>Retiree Healthcare Program</i>	General Fund	Water/Sewer Fund	Parking System	Total
I) Actuarial Liability				
A) Health Insurance				
i) Active Employees <sup>2</sup>	\$ 56,430,228	\$ 8,122,234	\$ 768,288	\$ 65,320,750
ii) Retired and Disabled Participants	<u>63,251,146</u>	<u>9,187,255</u>	<u>47,007</u>	<u>72,485,408</u>
iii) Total	\$ 119,681,374	\$ 17,309,489	\$ 815,295	\$ 137,806,158
B) Life Insurance				
i) Active Employees <sup>2</sup>	\$ 435,125	\$ 70,588	\$ 9,089	\$ 514,802
ii) Retired and Disabled Participants	<u>1,763,337</u>	<u>180,253</u>	<u>-</u>	<u>1,943,590</u>
iii) Total	\$ 2,198,462	\$ 250,841	\$ 9,089	\$ 2,458,392
C) Total Liabilities	\$ 121,879,836	\$ 17,560,330	\$ 824,384	\$ 140,264,550
II) Assets	-	-	-	-
III) Unfunded Actuarial Liability (UAL)	\$ 121,879,836	\$ 17,560,330	\$ 824,384	\$ 140,264,550
IV) Net OPEB Obligation (boy)	\$ 41,700,390	\$ 3,018,221	\$ 211,846	\$ 44,930,457
V) Normal Cost				
A) Health Insurance	\$ 4,649,343	\$ 363,106	\$ 34,763	\$ 5,047,212
B) Life Insurance	<u>22,161</u>	<u>2,275</u>	<u>367</u>	<u>24,803</u>
C) Total	\$ 4,671,504	\$ 365,381	\$ 35,130	\$ 5,072,015
VI) Annual Required Contribution (ARC)				
A) Normal Cost	\$ 4,671,504	\$ 365,381	\$ 35,130	\$ 5,072,015
B) Amortization of UAL	<u>6,303,344</u>	<u>908,180</u>	<u>42,635</u>	<u>7,254,159</u>
C) Total	\$ 10,974,848	\$ 1,273,561	\$ 77,765	\$ 12,326,174
VII) Annual OPEB Cost				
i) ARC	\$ 10,974,848	\$ 1,273,561	\$ 77,765	\$ 12,326,174
ii) Interest on Net OPEB Obligation	3,127,529	226,367	15,888	3,369,784
iii) Adjustment to ARC	<u>(2,156,648)</u>	<u>(156,095)</u>	<u>(10,956)</u>	<u>(2,323,699)</u>
iv) Total	\$ 11,945,729	\$ 1,343,833	\$ 82,697	\$ 13,372,259
v) Percentage of Payroll	18.6%	18.2%	23.4%	18.6%
VIII) Expected Employer Contributions <sup>3</sup>				
i) Implicit Subsidy	\$ 1,712,740	\$ 316,467	\$ 2,908	\$ 2,032,115
ii) Explicit Subsidy	3,257,621	509,493	4,769	3,771,883
iii) Additional Funding	<u>6,004,487</u>	<u>447,601</u>	<u>70,088</u>	<u>6,522,176</u>
iv) Total	\$ 10,974,848	\$ 1,273,561	\$ 77,765	\$ 12,326,174
i) Percentage of Payroll	17.1%	17.2%	22.0%	17.1%
IX) Payroll	\$ 64,137,036	\$ 7,398,662	\$ 353,395	\$ 71,889,093

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

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

<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, 2010**  
**Full Funding Policy**  
**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*

	<u>01/01/2010</u>	<u>01/01/2011</u>	<u>01/01/2012</u>	<u>01/01/2013</u>	<u>01/01/2014</u>	<u>01/01/2015</u>	<u>01/01/2016</u>	<u>01/01/2017</u>	<u>01/01/2018</u>	<u>01/01/2019</u>
<b><i>Retiree Healthcare and Life Insurance Programs</i></b>										
A) Actuarial Liability	\$ 140,265	\$ 150,219	\$ 160,449	\$ 171,134	\$ 182,284	\$ 193,813	\$ 205,908	\$ 218,641	\$ 231,966	\$ 245,914
B) Assets	-	6,762	13,724	21,062	28,785	36,807	45,310	54,365	63,923	74,014
C) Unfunded Actuarial Liability (UAL)	140,265	143,457	146,725	150,072	153,498	157,006	160,598	164,276	168,043	171,900
D) Net OPEB Obligation (boy)	44,930	45,977	47,047	48,142	49,263	50,410	51,584	52,785	54,014	55,271
E) Annual Required Contribution (ARC)										
i) Normal Cost	\$ 5,072	\$ 5,275	\$ 5,486	\$ 5,705	\$ 5,934	\$ 6,171	\$ 6,418	\$ 6,674	\$ 6,941	\$ 7,219
ii) Amortization of UAL	<u>7,254</u>	<u>7,419</u>	<u>7,588</u>	<u>7,761</u>	<u>7,939</u>	<u>8,120</u>	<u>8,306</u>	<u>8,496</u>	<u>8,691</u>	<u>8,890</u>
iii) Total	\$ 12,326	\$ 12,694	\$ 13,074	\$ 13,466	\$ 13,873	\$ 14,291	\$ 14,724	\$ 15,170	\$ 15,632	\$ 16,109
F) Annual OPEB Cost										
i) ARC	\$ 12,326	\$ 12,694	\$ 13,074	\$ 13,466	\$ 13,873	\$ 14,291	\$ 14,724	\$ 15,170	\$ 15,632	\$ 16,109
ii) Interest on Net OPEB Obligation	3,370	3,448	3,529	3,611	3,695	3,781	3,869	3,959	4,051	4,145
iii) Adjustment to ARC	<u>(2,324)</u>	<u>(2,378)</u>	<u>(2,433)</u>	<u>(2,490)</u>	<u>(2,548)</u>	<u>(2,607)</u>	<u>(2,668)</u>	<u>(2,730)</u>	<u>(2,793)</u>	<u>(2,859)</u>
iv) Total	\$ 13,372	\$ 13,764	\$ 14,169	\$ 14,587	\$ 15,020	\$ 15,465	\$ 15,925	\$ 16,399	\$ 16,890	\$ 17,396
v) Percentage of Payroll	18.6%	18.4%	18.2%	18.0%	17.9%	17.7%	17.5%	17.3%	17.2%	17.0%
G) Expected Employer Contributions										
i) Implicit Subsidy	\$ 2,032	\$ 2,069	\$ 2,248	\$ 2,450	\$ 2,726	\$ 2,917	\$ 3,071	\$ 3,271	\$ 3,473	\$ 3,657
ii) Explicit Subsidy	3,772	4,400	4,741	5,091	5,492	5,836	6,197	6,613	7,050	7,486
iii) Additional Funding	<u>6,522</u>	<u>6,225</u>	<u>6,085</u>	<u>5,925</u>	<u>5,655</u>	<u>5,538</u>	<u>5,456</u>	<u>5,286</u>	<u>5,109</u>	<u>4,966</u>
iv) Total	\$ 12,326	\$ 12,694	\$ 13,074	\$ 13,466	\$ 13,873	\$ 14,291	\$ 14,724	\$ 15,170	\$ 15,632	\$ 16,109
v) Percentage of Payroll	17.1%	17.0%	16.8%	16.7%	16.5%	16.3%	16.2%	16.0%	15.9%	15.7%
H) Payroll	\$ 71,889	\$ 74,765	\$ 77,755	\$ 80,865	\$ 84,100	\$ 87,464	\$ 90,963	\$ 94,601	\$ 98,385	\$ 102,321

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

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## **SECTION D**

### PLAN PROVISIONS

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## PLAN PROVISIONS

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Following are the plan provisions reflected in our valuation of the City of Joliet retiree healthcare and life insurance benefits as of January 1, 2010.

### **Medical Insurance Benefits:**

#### ***Benefits Provided for Plan Year beginning January 1, 2010***

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.<sup>1</sup>

#### ***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>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**

<b>Plan Feature</b>	<b>BCBS Providers</b>	<b>Non-BCBS Providers</b>												
Annual Deductible	\$ 250 per person \$ 500 per family	\$ 500 per person \$ 1,000 per family												
Out of Pocket Maximum	\$ 1,000 per person \$ 3,000 per family	\$ 3,000 per person \$ 9,000 per family												
<u>Covered Services</u>	<u>Coinsurance</u>	<u>Coinsurance</u>												
-Physicians Visits	80% (After deductible)	70% (After deductible)												
-Emergency Care	80%	80% (After deductible)												
-Inpatient Services	100%	70% (After deductible)												
-Outpatient Services	100%	70%												
Prescription Drug Copays	<table border="0"> <tr> <td></td> <td align="center"><u>Retail</u></td> <td align="center"><u>Mail Order</u></td> </tr> <tr> <td>Generic</td> <td align="center">\$8</td> <td align="center">\$14</td> </tr> <tr> <td>Brand if no generic available</td> <td align="center">\$15</td> <td align="center">\$28</td> </tr> <tr> <td>Brand if generic available</td> <td align="center">\$35</td> <td align="center">\$68</td> </tr> </table>		<u>Retail</u>	<u>Mail Order</u>	Generic	\$8	\$14	Brand if no generic available	\$15	\$28	Brand if generic available	\$35	\$68	75% of eligible charge less the applicable co-pay
	<u>Retail</u>	<u>Mail Order</u>												
Generic	\$8	\$14												
Brand if no generic available	\$15	\$28												
Brand if generic available	\$35	\$68												
Maximum Lifetime Benefit	N/A	N/A												

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.

<u>Years of Service</u>	<u>Retiree Share of 1988 Rate for Single Coverage</u>
20 or more	0%
15-19	25%
12-14	35%
8-11	50%

### Sample Blended Premium Rates

	<u>1988</u>	<u>2010/2011</u>
Pre-Medicare Single	\$118.20	\$693.15
Pre-Medicare Additional Premium for Dependents	\$217.68	\$1,086.74
Medicare Single	\$59.10	\$363.97
Child Only	\$99.60	\$459.72

#### *100% Healthcare Blended Premium rates as of July 1, 2010*

	<b>Coverage Type</b>		
	<b>Single</b>	<b>2 Person</b>	<b>Family</b>
Medicare Eligible	363.97	727.97	1,779.89
1 Person Medicare Eligible	363.97	1,358.44	1,779.89
No Members Medicare Eligible	693.15	1,358.44	1,779.89

#### **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

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## **SECTION E**

### ACTUARIAL METHODS AND ASSUMPTIONS

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## **ACTUARIAL METHODS AND ASSUMPTIONS**

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### **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 2008 through 2010 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 2010. 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.

## ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

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<b>Measurement Date</b>	January 1, 2010
<b>Discount Rate</b>	4.50%
<b>Price Inflation</b>	3.00%
<b>Wage Inflation</b>	4.00%
<b>OPEB Assumptions</b>	

<u>Applied January 1</u>	<u>Healthcare Trend</u>
2011	10.00%
2012	9.00%
2013	8.00%
2014	7.00%
2015	6.00%
2016+	5.00%

### Per Capita Claim Costs for Plan Year 2010

<u>Age</u>	<u>Medical Costs</u>		<u>Rx Costs</u>	
	Male	Female	Male	Female
40	\$3,467	\$5,112	\$801	\$1,181
45	4,710	5,804	1,088	1,341
50	6,372	6,795	1,472	1,570
55	8,329	8,057	1,924	1,861
60	10,463	9,466	2,417	2,187
64	12,179	10,624	2,813	2,454
65	2,267	1,964	2,909	2,521
70	2,615	2,213	3,355	2,840
75	2,903	2,424	3,725	3,111
80	3,112	2,582	3,994	3,314

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

## ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

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### Participation and Election Assumptions

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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, 2009, are assumed for general employees. GRS assumptions used for valuations as of January 1, 2010, of the Police and Fire Pension Funds were assumed for Police and Fire employees.

## ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

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<b>Salary Increase</b>		
<b>Age</b>	<b>Service</b>	<b>Regular IMRF</b>
	0	7.0%
	1	5.0%
	2	3.5%
	3	3.0%
	4	2.0%
	5	1.5%
25	6 & Over	6.0%
30		5.7%
35		5.2%
40		4.9%
45		4.7%
50		4.6%
55		4.5%
60		4.4%

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%).

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

**ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)**

*Demographic Assumptions*

**Mortality Regular IMRF**

Age	Healthy - Retiree		Disabled - Retiree		Healthy Active	
	Male	Female	Male	Female	Male	Female
20	0.0558%	0.0270%	0.0881%	0.0333%	0.0254%	0.0142%
25	0.0727%	0.0276%	0.0936%	0.0454%	0.0331%	0.0146%
30	0.0881%	0.0333%	0.1179%	0.0674%	0.0400%	0.0175%
35	0.0936%	0.0454%	0.1736%	0.0924%	0.0426%	0.0239%
40	0.1179%	0.0674%	0.2837%	0.1357%	0.0536%	0.0354%
45	0.1736%	0.0924%	0.4867%	0.2179%	0.0789%	0.0487%
50	0.2837%	0.1357%	0.8774%	0.4217%	0.1290%	0.0714%
55	0.4867%	0.2179%	1.5988%	0.8204%	0.2212%	0.1147%
60	0.8774%	0.4217%	2.6103%	1.3043%	0.3988%	0.2220%
65	1.5988%	0.8204%	4.0932%	2.1552%	0.7267%	0.4318%
70	2.6103%	1.3043%	6.8230%	3.7426%	1.1865%	0.6865%
75	4.0932%	2.1552%	10.6964%	6.4351%	1.8606%	1.1343%
80	6.8230%	3.7426%	16.8224%	11.0452%	3.1013%	1.9698%

*The 1994 Group Annuity Mortality Table, sex-distinct, multiplied by 1.10 for males and 0.95 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**

Age	Healthy		Disabled	
	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.*

## ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)

<b>Sample Disability Rates</b>				
<b>% Separating Within Next Year</b>				
<b>Age</b>	<b>Regular IMRF</b>		<b>Police</b>	<b>Fire</b>
	<b>Male</b>	<b>Female</b>	<b>Male &amp; Female</b>	<b>Male &amp; Female</b>
20	0.01%	0.00%	0.03%	0.09%
25	0.01%	0.00%	0.04%	0.10%
30	0.01%	0.01%	0.05%	0.10%
35	0.02%	0.01%	0.07%	0.12%
40	0.04%	0.02%	0.10%	0.15%
45	0.06%	0.03%	0.16%	0.21%
50	0.09%	0.04%	0.26%	0.78%
55	0.15%	0.07%	0.49%	1.36%
60	0.19%	0.12%	0.87%	2.30%
65	0.20%	0.14%	1.43%	3.35%

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

<b>Sample Turnover Rates</b>			
<b>% Separating Within Next Year</b>			
<b>Age</b>	<b>Service</b>	<b>Regular IMRF</b>	
		<b>Male</b>	<b>Female</b>
	0	25.0%	29.5%
	1	19.0%	21.5%
	2	13.5%	16.0%
	3	11.0%	12.5%
	4	9.0%	10.5%
	5	7.5%	8.5%
	6	6.2%	7.0%
	7	5.8%	6.5%
25	8 & Over	5.0%	6.5%
30		4.7%	6.5%
35		3.8%	5.3%
40		3.0%	4.2%
45		2.5%	3.7%
50		2.3%	3.2%

**ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)**

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**Sample Turnover Rates**

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**% Separating Within Next Year**

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<b>Service</b>	<b>Police</b>	<b>Fire</b>
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**

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**% Separating Within Next Year**

**(Age-Based)**

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<b>Age</b>	<b>Regular Employees</b>	
	<b>Male</b>	<b>Female</b>
55	7.50%	6.50%
56	7.50%	6.50%
57	7.50%	6.50%
58	7.50%	6.50%
59	7.50%	6.50%

**ACTUARIAL METHODS AND ASSUMPTIONS (CONTINUED)**

Age	Normal Retirement Rates	
	% Separating Within Next	
	Regular IMRF	
	Male	Female
55	35.0%	30.0%
56	30.0%	25.0%
57	28.0%	25.0%
58	28.0%	25.0%
59	28.0%	20.0%
60	12.0%	10.0%
61	12.0%	10.0%
62	22.0%	20.0%
63	20.0%	20.0%
64	20.0%	20.0%
65	30.0%	25.0%
66	30.0%	25.0%
67	25.0%	20.0%
68	20.0%	18.0%
69	20.0%	18.0%
70	20.0%	18.0%
71 - 79	18.0%	18.0%
80 & Over	100.0%	100.0%

**Rates of Retirement**

Police				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

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**SECTION F**  
PARTICIPANT DATA

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## PARTICIPANT DATA

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**City of Joliet, Illinois**

**Retiree Healthcare and Life Insurance Benefit Programs**

**Actuarial Valuation as of January 1, 2010**

**Population Breakout by Fund**

### Counts by Fund

	Actives	Retirees and Beneficiaries	Total
General Fund	768	362	1,130
Water/Sewer	92	55	147
Parking	<u>6</u>	<u>1</u>	<u>7</u>
	866	418	1,284

### Retiree and Beneficiary Healthcare Coverage Type by Fund

	1 Person	2 Person	Family	Total
General Fund	144	196	22	362
Water/Sewer	22	31	2	55
Parking	<u>1</u>	<u>0</u>	<u>0</u>	<u>1</u>
	167	227	24	418

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, 2010**  
**Age Service Distribution for Total Active Population**

Attained Age	Years of Service to Valuation Date									Total	Total Valuation Payroll
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 35		
<b>Under 20</b>										-	\$ -
<b>20-24</b>		12								12	669,290
<b>25-29</b>		62	34	2						98	7,557,968
<b>30-34</b>		53	49	28	1					131	10,419,314
<b>35-39</b>	1	23	49	61	25					159	13,684,559
<b>40-44</b>	1	8	18	47	52	26				152	13,581,977
<b>45-49</b>	3	6	12	19	38	36	11	5		130	11,251,682
<b>50-54</b>	6	5	11	12	21	26	9	14	2	106	9,050,898
<b>55-59</b>	14	3	8	5	1	7	6	9	1	54	4,440,742
<b>60-64</b>	4		3	3	2	1			1	14	865,349
<b>65-69</b>	1	1	1	1		1				5	208,066
<b>Over 70</b>			1	1	1	1			1	5	159,248
<b>Total</b>	<b>30</b>	<b>173</b>	<b>186</b>	<b>179</b>	<b>141</b>	<b>98</b>	<b>26</b>	<b>28</b>	<b>5</b>	<b>866</b>	<b>\$ 71,889,093</b>

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

Age: 41.7 years  
Service: 12.2 years  
Annual Pay: \$83,013

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**SECTION G**

**GASB ACCOUNTING INFORMATION**

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## GASB ACCOUNTING INFORMATION

**OPEB Cost Summary:**

Year Ended	Annual OPEB Cost (AOC)	Employer Contributions	% of AOC Contributed	Net OPEB Obligation (eoy)	Annual Required Contribution (ARC)	% of ARC Contributed
December 31, 2010	\$18,592,855	TBD	TBD	TBD	\$18,175,146	TBD
December 31, 2009	16,809,001	6,147,332	36.6%	44,930,457	16,482,001	37.3%
December 31, 2008	15,842,526	5,160,371	32.6%	34,268,788	15,623,247	33.0%
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, 2010	\$0	\$205,086,432	\$205,086,432	0.0 %	\$71,889,093	285.3 %
January 1, 2009	0	180,752,000	180,752,000	0.0	71,298,274	253.5
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**

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The GASB 45 financial disclosure information for the fiscal years ending 2010 and 2011 were based on the following assumptions and methods.

<i>Valuation Date</i>	January 1, 2010
<i>Actuarial Cost Method</i>	Entry Age Normal
<i>Actuarial Value of Assets</i>	No Assets (Pay-as-you-go)
<i>Amortization Method</i>	Level Percent Open
<i>Remaining Amortization Period</i>	30 Years
<i>Actuarial Assumptions:</i>	
<i>Investment Rate of Return</i>	4.5% per year
<i>Wage Inflation</i>	4.0% per year
<i>Healthcare Trend</i>	10.0% per year graded down to 5.0% per year ultimate trend in 1.0% increments

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