

**CITY OF LAWRENCE
POSTRETIREMENT HEALTH INSURANCE**

GASB 45 INFORMATION

FOR

**FISCAL YEAR ENDING
DECEMBER 31, 2013**

**BASED ON A
VALUATION DATE OF JANUARY 1, 2013**

FEBRUARY 2014



Dallas

Glenn A. Tobleman, F.S.A., F.C.A.S.
 S. Scott Gibson, F.S.A.
 Cabe W. Chadick, F.S.A.
 Michael A. Mayberry, F.S.A.
 David M. Dillon, F.S.A.
 Gregory S. Wilson, F.C.A.S.
 Steven D. Bryson, F.S.A.
 Bonnie S. Albritton, F.S.A.
 Brian D. Rankin, F.S.A.
 Wesley R. Campbell, F.S.A., F.C.A.S.
 Jacqueline B. Lee, F.S.A.
 Robert B. Thomas, Jr., F.S.A., C.F.A. (Of Counsel)

**Kansas City**

Gary L. Rose, F.S.A.
 Terry M. Long, F.S.A.
 Leon L. Langlitz, F.S.A.
 Anthony G. Proulx, F.S.A.
 Thomas L. Handley, F.S.A.
 D. Patrick Glenn, A.S.A., A.C.A.S.
 Christopher H. Davis, F.S.A.
 Karen E. Elsom, F.S.A.
 Jill J. Humes, F.S.A.
 Christopher J. Merkel, F.S.A.
 Kimberly S. Shores, F.S.A.
 Jan E. DeClue, A.S.A.
 Patricia A. Peebles, A.S.A.

Baltimore

David A. Palmer, C.F.E.

London/Kansas City

Roger K. Annin, F.S.A., F.I.A.
 Timothy A. DeMars, F.S.A., F.I.A.
 Scott E. Morrow, F.S.A., F.I.A.

February 7, 2014

City of Lawrence
 Mr. Ed Mullins
 Finance Director
 6 East 6th Street
 Lawrence, KS 66044

Dear Mr. Mullins:

This report presents actuarial information determined in accordance with Governmental Accounting Standards Board Statement No. 45 regarding the insurance benefits available to retirees of the City of Lawrence, Kansas. The purpose of this report is to:

- Present information that provides a basis for disclosure on the financial statements for the fiscal year ending December 31, 2013; and
- Determine the Annual OPEB Cost for the fiscal year beginning January 1, 2013.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices. Employee data, historical claim data, and plan descriptions were furnished by the City of Lawrence and its vendors. The data provided has been reviewed for reasonableness, but no attempt has been made to audit such information. The valuation is based on the provisions of the plan as of the time of completion of this study. Each actuarial assumption used in this valuation is sufficiently related to past experience of the covered group and represents reasonable expectations of future experience.

The undersigned is a member of the American Academy of Actuaries and meets the qualification standards of the Academy to render the actuarial information contained herein.

Respectfully submitted,

LEWIS & ELLIS, INC.

A handwritten signature in cursive script that reads 'Patrick Glenn'.

Patrick Glenn, ASA, ACAS, MAAA, CPA (inactive)

TABLE OF CONTENTS

	PAGE
SUMMARY	1
ANNUAL OPEB COST FOR 2013.....	5
DISCLOSURE INFORMATION.....	6
SUMMARY OF PARTICIPANT DATA	7
SUMMARY OF PLAN PROVISIONS	10
EXPECTED COST BY AGE	13
ACTUARIAL ASSUMPTIONS.....	15
ACTUARIAL METHODS	20
GLOSSARY.....	22

SUMMARY

The valuation procedures noted below and information presented in this report are based on provisions underlying Government Accounting Standards Board Statement No. 45 (“GASB”). GASB stipulates retiree insurance costs be measured taking age into account. The excess of expected costs by age over retiree contributions forms the basis for the valuation. The amount of annual expense accrued under GASB is equal to the Annual OPEB Cost. The offsetting liability, called the Net OPEB Obligation, is reduced by the amount of retiree benefits (i.e. employer cost) provided during the year.

VALUATION PROCEDURES

The financial information for fiscal year 2013 is based upon a measurement date of January 1, 2013 using the participant census data as of January 1, 2013. The prior valuation, performed by the prior actuary, was based on a valuation date of January 1, 2011, using the participant census as of January 1, 2011. Updated valuations are required every two years for the City. Financial results for interim years are based on the prior “full” or updated valuation unless a material change occurs.

SUBSTANTIVE PLAN

The City of Lawrence, Kansas (City) allows qualifying retirees to continue insurance coverage under the City’s group insurance program until Medicare eligibility (i.e., age 65). Employees must terminate service and commence immediate retirement or disability benefits under KPERS / KP&F to be eligible. The retiree benefit program operates as a single-employer defined benefit plan. Medical, Rx and Dental coverage are provided. All coverage is arranged through self-insurance with stop-loss coverage for Medical / Rx. Retirees must contribute group premiums to maintain coverage unless Single or Family coverage is elected. Retirees contribute 80% of group premiums when these coverage tiers apply.

FUNDING OF BENEFITS

Benefits are paid from a Health Insurance fund. This arrangement does not qualify as an “OPEB Plan” under GASB requirements and thus the assets of the fund may not be reported as an offset to GASB liabilities. Whether or not assets may be reported, GASB requires that the valuation interest rate be based on expected returns pertaining to the source of funds projected to provide for the payment of benefits. Based on long-term historical return experience of comparable asset classes anticipated to be held by the City, an annual valuation interest rate of 3.50% is assumed. This is a decrease from 4.0% assumed for the prior valuation.

SUMMARY (CONTINUED)

RESULTS

The Annual OPEB Cost is a charge of \$1,077,689 for fiscal year 2013. The Actuarial Accrued Liability (AAL) as of January 1, 2013 is \$9,414,166. The financial results are detailed in the “Annual OPEB Cost for 2013” and “Disclosure Information” sections.

The actuarial cost method is a procedure to allocate present value costs to different time periods. The entry age normal (level-percent-of-pay) actuarial cost method has been utilized for allocation. The Normal Cost is the amount of Actuarial Present Value of Benefits allocated to the current year as determined under the actuarial cost method. The amount of the AAL is the portion of the Actuarial Present Value of benefits allocated to all prior years. Annual OPEB Cost consists of the Annual Required Contribution (ARC) and the Interest Cost and ARC Adjustments. The ARC equals the Normal Cost plus amortization of the AAL.

A 30 year, closed-period, level percent-of-pay amortization methodology has been used to amortize the AAL. As of January 1, 2013 the remaining amortization period equals 24 years. While only a portion of the AAL is currently recognized, the full amount of AAL must be disclosed. The Actuarial Present Value of Benefits is shown for informational / instructional purposes only; it is not required to be disclosed or recognized.

The actual present value costs may differ from expected due to various actuarial gain/loss sources. These may include plan changes, assumption changes, experience gains and losses, and/or valuation method changes. Since the prior valuation as of 1/1/2011 was performed by another actuary an evaluation of the sources of the actuarial gains/losses on the current results is difficult.

For testing purposes, we took the claim and contribution data from the 1/1/2011 valuation report and projected them to 1/1/2013 using the assumed trends. We also applied the 10% admin load and 15% spouse cost differential as noted in the report. Using these projected claims/contributions, a 65% participation rate and a 4% valuation interest rate we performed a test valuation as of 1-1-2013 and compared the results to projected 1-1-2013. The present value of benefits from each calculation are within 10% of each other. This is within a reasonable range.

Our testing indicates the primary reason that actual 1/1/2013 present value costs are lower than expected relative to the prior valuation is due to lower per capita costs. For example, the prior valuation assumed the Medical / Rx cost during 2013 for an age 63 retiree would be \$1,191 per month. The current valuation assumes a 2013 cost of \$835.

SUMMARY (CONTINUED)

RESULTS (continued)

Changes relative to the prior valuation are described below:

- The valuation interest rate was lowered from 4.0% to 3.5%. This is based on our analysis of long-term return experience of short-term fixed assets and considering recent emerging experience.
- The assumed salary scale was changed from KPERS / KP&F assumptions to 6.5% - Police & Fire and 3.5% - All Other.
- The assumed retiree coverage tier distribution is 65% Single, 25% Single + Spouse and 10% Family. This is based on retiree elections as of 1/1/2011, 1/1/2013 and 11/1/2013. The prior actuary may have assumed 50% Family coverage.
- Based on an analysis of the retiree and active census, the assumed age difference between male retirees and their wives was lowered from 3 to 2 years.
- Considering retiree enrollment experience from 2007 to 2013, the assumed future retiree enrollment was decreased from 65% to 60%.
- The assumed Medical / Rx trend rates were changed from 8.5%, 9.0%, 8.0%, 7.0%, 6.0%, 5.0% (to Ultimate) **to** 7.00%, 6.75%, 6.50%, 6.25%, 6.00%, 5.75%, 5.50%, 5.25%, 5.00% (to Ultimate). We considered plan experience, industry surveys and historical industry experience in our evaluation of trends.
- The assumed Dental trend was lowered from 5.0% to 3.5%.
- The aggregate payroll growth assumption was lowered from 4.0% to 1.5% in order to reflect only inflationary effects as stipulated in the GASB 45 Implementation Guide.

SUMMARY (CONTINUED)

FUTURE REPORTING

Under GASB 45 provisions, an updated “full” valuation is mandated for the City at least every 2 years. The next updated valuation is required for fiscal years 2015 and 2016, and should be based on a valuation date of January 1, 2015.

The current valuation provides information for fiscal years 2013 and 2014. The Annual Required Contribution for interim year 2014 will remain at \$1,152,197 but the Annual OPEB Cost will change. After the implementation year, the Annual Required Contribution (ARC) and Annual OPEB Cost do not equal due to two adjustments. These are the interest cost and the ARC adjustments. The Net OPEB Obligation at any point in time equals the accumulated Annual OPEB Cost minus accumulated Net Employer Contributions since implementation of GASB 45. For self-funded programs, the Net Employer Contributions should equal claims and fixed costs paid on behalf of retirees and their dependents, less retiree contribution premiums. The expected employer contributions for 2014, based on the January 1, 2013 valuation, are shown below.

A. Expected Retiree Costs	\$909,000
B. Expected Retiree Premium Contributions	<u>567,000</u>
C. Expected Net Employer Contributions for 2014	<u>\$342,000</u> (i)
(i) Includes \$87,000 for assumed new retirees	

PROJECTED EMPLOYER CONTRIBUTIONS

The projection is performed as a closed-group valuation under GASB 45 standards. The amounts presented here are based on the active and retiree census as of January 1, 2013. Future new actives are not considered.

Year	(A) Gross Retiree Costs	(B) Retiree Contributions	(A) – (B) Net Employer Contributions
2013	817,000	498,000	319,000
2014	909,000	567,000	342,000
2015	1,091,000	663,000	428,000
2016	1,252,000	757,000	495,000
2017	1,383,000	837,000	546,000
2018	1,568,000	947,000	621,000
2019	1,682,000	1,026,000	656,000
2020	1,743,000	1,073,000	670,000
2021	1,787,000	1,107,000	680,000
2022	1,891,000	1,180,000	711,000

ANNUAL OPEB COST FOR 2013

A. <u>Actuarial Present Value of Benefits</u>	
Current Retirees	2,208,108
Future Retirees	<u>14,988,759</u>
	<u>17,196,867</u>
B. <u>Actuarial Accrued Liability</u>	
Current Retirees	2,208,108
Future Retirees	<u>7,206,058</u>
	9,414,166
C. OPEB Plan Assets	<u>-0-</u>
D. Unfunded Actuarial Accrued Liability (B – C)	9,414,166
E. Amortization Factor (Closed -24 years remaining, Level %-of-Pay)	19.35135
F. Amortization of Unfunded [(D / E) x 1.035]	503,513
G. Normal Cost (with interest)	<u>648,684</u>
H. Annual Required Contribution (ARC) (F + G)	1,152,197
I. Net OPEB Obligation at Beginning of Year	4,468,000
J. Interest on Net OPEB Obligation to end of year (I x .035)	156,380
K. Adjustment to the ARC (I / E)	230,888
L. Annual OPEB Cost (H + J – K)	<u>1,077,689</u>
M. Valuation Interest Rate	3.50%
N. Aggregate Payroll Growth	1.50%
O. Valuation Date	January 1, 2013

DISCLOSURE INFORMATION

1. Annual OPEB Cost for 2013

A. Normal Cost	\$648,684
B. Amortization of Unfunded Actuarial Accrued Liability	<u>503,513</u>
C. Annual Required Contribution (with interest)	1,152,197
D. Interest on Net OPEB Obligation	156,380
E. Adjustment to the ARC	<u>230,888</u>
F. Annual OPEB Cost (C + D - E)	<u><u>\$1,077,689</u></u>

2. Employer Contributions for 2013

A. Retiree Claims	\$962,080
B. Retiree Admin Fees and Stop-Loss Premiums	100,459
C. City Contributions for HRA and Wellness	21,750
D. Retiree Contribution Premiums	<u>430,506</u>
E. Employer Contributions (A + B + C - D)	<u><u>\$653,783</u></u>

3. Schedule of Employer Contributions

Fiscal Year Ending December 31

<u>Year Ending</u>	<u>Annual OPEB Cost</u>	<u>Employer Contributions</u>	<u>Percentage Contributed</u>	<u>Net OPEB Obligation</u>
2011				\$2,487,000
2012	\$2,066,000	\$85,000	4.0%	\$4,468,000
2013	\$1,077,689	\$653,783	60.7%	\$4,891,906

4. Net OPEB Obligation at 12/31/2013

A. Balance at 12/31/2012	\$4,468,000
B. Annual OPEB Cost for 2013	1,077,689
C. Employer Contributions for 2013	<u>653,783</u>
D. Balance at 12/31/2013 (A + B - C)	<u><u>\$4,891,906</u></u>

5. Schedule of Funding Progress

Valuation Date	(a)	(b)	(b-a)	(a / b)	(c)	((b-a) / c)
	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	UAAL as a Percent Of Covered Payroll
1/1/2007	0	5,521,200	5,521,200	0%	40,195,095	13.7%
1/1/2009	0	16,186,403	16,186,403	0%	43,646,468	37.1%
1/1/2011	0	21,303,407	21,303,407	0%	42,671,173	49.9%
1/1/2013	0	9,414,166	9,414,166	0%	43,500,165 (A)	21.6%

(A) Annualized Pay (as of 1/1/2013) of Active Employees included in the valuation.

SUMMARY OF PARTICIPANT DATA

Data on employees and retirees electing insurance coverage was provided by the City of Lawrence. A summary of participants utilized for the current and prior valuation is presented here.

Participant Summary	(Prior Actuary) <u>January 1, 2011</u>	<u>January 1, 2013</u>
A. Active Employees – KPERS	489	485 (1)
B. Active Employees – KP&F	<u>270</u>	<u>280</u>
C. Total Active Employees (A + B)	759	765
D. Retirees / Disableds	60	59
E. Spouses of Retirees / Disableds	<u>21</u>	<u>19</u>
F. Total Inactive Covered Members (D + E)	81	78
G. Total (C + F)	<u>840</u>	<u>843</u>
(1) Includes sixty-four (64) KPERS – Tier II participants.		
Average Service of Actives	11.9 years	12.4 years
Average Age of Actives	42.9 years	43.3 years
Average Age of Retirees	58.8 years	58.8 years

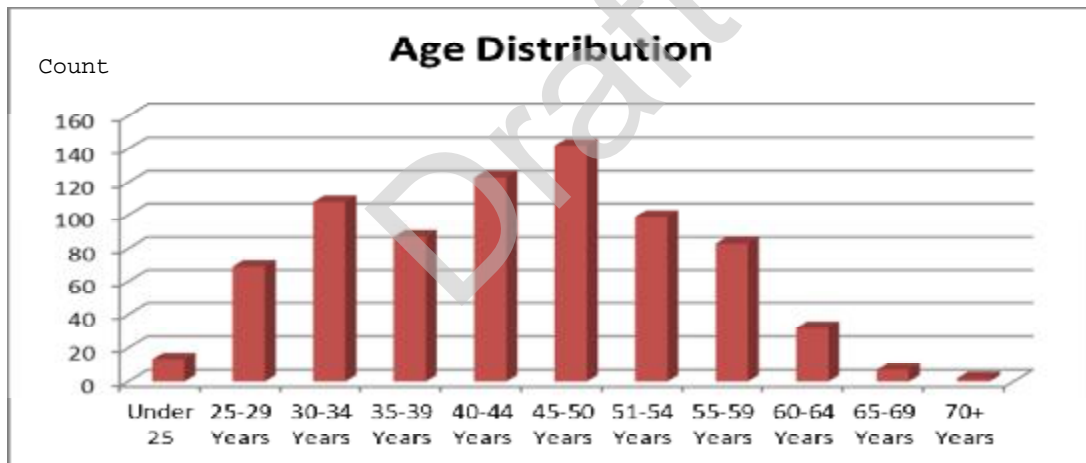
Medical, Rx and Dental Coverage at January 1, 2013

Coverage Tier	Actives	Retirees	Total
Single	263	39	302
Single + Spouse	82	13	95
Single + Child(ren)	97	1	98
Family	309	6	315
Waived	14	0	14
Total	765	59	824

SUMMARY OF PARTICIPANT DATA (CONTINUED)

Distribution of Active Participants

Age	Years of Service as of January 1, 2013								Total
	Under 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	
Under 25	13								13
25-29	53	16							69
30-34	41	46	21						108
35-39	17	29	33	8					87
40-44	15	28	39	33	8				123
45-49	13	24	23	35	41	6			142
50-54	7	13	16	17	12	24	10		99
55-59	4	5	13	9	19	19	10	4	83
60-64	2	2	10	2	9	2	2	3	32
65-69			3	3		1			7
70+			1					1	2
Total	165	163	159	107	89	52	22	8	765



SUMMARY OF PARTICIPANT DATA (CONTINUED)

Distribution of Inactive Participants

Age	Retirees / Disableds	Spouses
≤50	1	1
51	1	1
52	0	1
53	3	1
54	1	1
55	4	4
56	2	0
57	6	3
58	8	2
59	7	0
60	5	1
61	7	0
62	3	1
63	2	1
64	6	2
> 64 to < 65	3	0
Totals	<u>59</u>	<u>19</u>
Average Age	58.8	56.6

SUMMARY OF PLAN PROVISIONS

The City of Lawrence, Kansas offers Medical, Rx and Dental insurance to its employees during retirement to Medicare eligibility (i.e. age 65). Below is a summary of the provisions of the healthcare program utilized in completing this valuation study.

ELIGIBILITY

Employees must terminate service and receive immediate benefits (retirement or disability) through KPERS / KP&F.

Category	Pension Eligibility	
	Unreduced Retirement	Reduced Retirement
KPERS – Tier I	62 & 10 Rule of 85 65 & 1	55 & 10
KPERS – Tier II	60 & 30 65 & 5	55 & 10
KP&F – Tier II	50 & 25 55 & 20 60 & 15	50 & 20

For Disability retirement, members at any level of service who qualify for disability under KPERS / KP&F are also eligible to continue City insurance benefits as a retiree.

BENEFITS

Medical / Rx and Dental benefits are self-funded with stop-loss coverage for Medical / Rx. A specific stop loss level of \$125,000 applies. The stop-loss contract is structured as Incurred 18 / Paid 12 (includes Rx). All benefits renew on a calendar year basis. Retiree benefits are provided through the City's group insurance program. Retiree coverage ends when the retiree reaches age 65. Spouses may elect to continue coverage upon retiree death or retiree attainment of age 65 under Cobra. Any retiree who waives continuing participation during open enrollment is not eligible to participate at a later date.

The City offers an Open Access plus HRA Plan. City HRA contributions are available to retirees at \$250 – Single (\$500 – Other) per year. Retirees may also receive City Wellness contributions upon meeting stipulated criteria at \$150 (\$300 in 2014) per year.

SUMMARY OF PLAN PROVISIONS (CONTINUED)

A summary of the 2014 plan design for Medical / Rx is shown below:

	OAP In-Network	OAP Out of Network
Deductible Individual / Family	\$1,000 / \$2,000	\$1,000 / \$2,000
Coinsurance – Plan Pays	80%	60%
Out of Pocket Individual / Family	\$1,600 / \$3,200	\$1,600 / \$3,200
Office Visit Copays Primary Care Specialist	Deductible + Coinsurance Deductible + Coinsurance	Deductible + Coinsurance Deductible + Coinsurance
Wellness Benefit	100% Covered	60% Coinsurance
Emergency Room	\$100 Copay + Coinsurance	
Prescription Drugs Retail Copays (30 days) Generic Brand Formulary Non-formulary Mail Order Copays (90 days)	20% 20% + \$25 20% + \$25 Brand – 20% + \$50	
Lifetime Limit	Unlimited	

A summary of the 2014 plan design for Dental is shown below:

Diagnostic	100%
Preventative	100%
Basic	80%
Major	50%
Coverage Maximum	Unlimited for all Covered Services

SUMMARY OF PLAN PROVISIONS (CONTINUED)

RETIREE CONTRIBUTION PREMIUMS

The City pays 20% of the group plan premium when Single or Family coverage is elected. Otherwise, the retiree is required to pay 100% of the group premium.

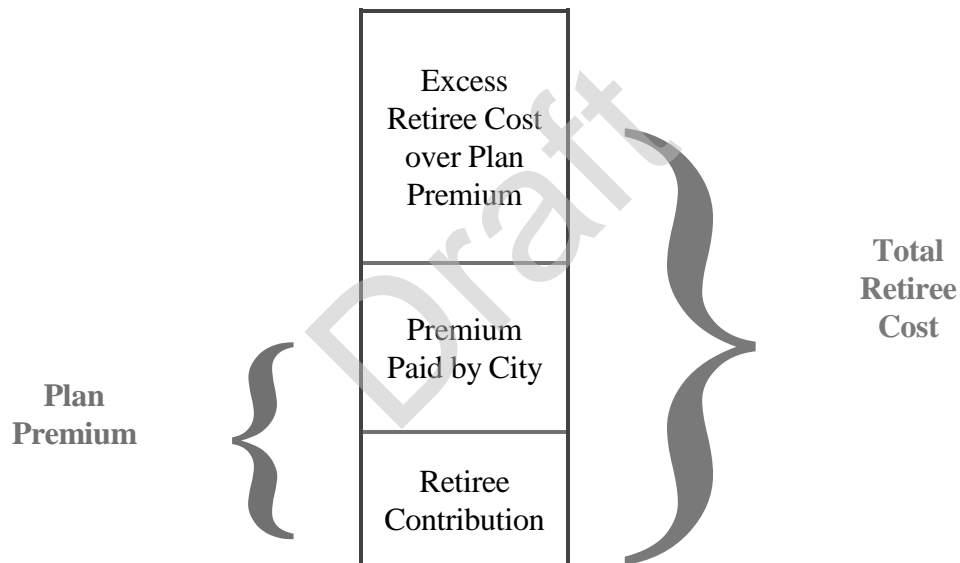
Group Plan Premiums

Coverage Tier	Medical / Rx	Dental	Total
2013			
Single	479	29	508
Single + Spouse	1,029	58	1,087
Single + Child(ren)	926	62	988
Family	1,476	91	1,567
2014			
Single	527	27	554
Single + Spouse	1,133	54	1,187
Single + Child(ren)	1,020	57	1,077
Family	1,476	84	1,560

EXPECTED COST BY AGE

The cost to the City for retiree health insurance benefits is the retiree claims and administrative expenses minus retiree contribution premiums. Therefore, the “benefit” to the retiree that is valued under GASB 45 equals the age-adjusted cost (sample ages shown below) less retiree contribution premiums. Age-adjusted costs are the estimated costs that would result if a credible-size group of like-age participants was measured.

The GASB 45 benefit may consist of direct and indirect components. The direct component is equal to the portion of the plan premium paid by the City. The indirect component is equal to the retiree cost less the plan premium. This is the age subsidy that exists because the plan premium is based on the combined pool of actives and retirees. The pool is largely composed of younger actives that drive the overall blended average below the cost at retiree ages. The indirect benefit is paid for through higher plan premiums than would exist over time if retirees were not part of the covered group.



EXPECTED COST BY AGE (CONTINUED)

We studied City claim experience split between actives and retirees separately for Medical, Prescription Drug and Dental from January 2011 to July 2013. We evaluated claim patterns and trends including the impact of any large claims. Weight was applied to each of the overall group and retiree buckets.

Historical average per member costs were adjusted to the appropriate plan design basis and trended to the average expected exposure point. Age-based cost relativities were applied to expected per member costs to derive expected costs by age. Cost relativities were calculated by fitting industry cost factors to the age distribution of the current covered group of the City. Expected administrative costs were determined by an analysis of vendor contract rates.

Fixed costs including administration fees, stop-loss premiums, Wellness, PPACA fees and HRA contributions were factored into our analysis. Fixed costs plus expected retiree claims that vary by age equal the total age-adjusted cost.

Age-adjusted expected costs during 2013 on a per member per month (PMPM) basis are shown below at sample ages. The cost levels reflect Medical, Rx and Dental coverage. These cost levels, along with 2013 retiree contribution premiums, serve as a starting point for the valuation.

Expected Retiree Cost Levels During 2013 (PMPM)			
Age	Medical / Rx	Dental	Total
55	\$652	\$30	\$682
58	720	31	751
62	815	32	847
63	835	32	867
64	856	33	889

Based on a review of the prior actuary's report, costs did not increase as much as expected relative to the prior valuation.

ACTUARIAL ASSUMPTIONS

A. Valuation Interest Rate 3.5%

B. Measurement Date January 1, 2013

**C. Medical / Rx
Cost Trend Rate**

Year	Increase Over Prior Year
2014	7.00%
2015	6.75%
2016	6.50%
2017	6.25%
2018	6.00%
2019	5.75%
2020	5.50%
2021	5.25%
2022 (to Ultimate)	5.00%

Plan experience, industry surveys and historical industry experience were considered for setting the trend assumptions.

D. Dental Cost Trend Rate 3.5%

**E. Trend on Retiree
Contribution Premiums
and Fixed Costs**

Same as C and D above, except for HRA and Wellness. For HRA and Wellness we assumed a trend of 2.5%. Actual trend for 2014 was applied when actual amounts are known.

F. Age-Adjusted Costs

The estimated age-adjusted cost for retiree insurance coverage during 2013 at various sample ages is shown in the Expected Cost by Age section.

G. Healthy Life Mortality

Assumed mortality is based on the RP-2000 Combined Mortality Table with projected Generational Mortality improvements (computed using Projection Scale AA).

ACTUARIAL ASSUMPTIONS (CONTINUED)

H. Disabled Life Mortality

Assumed mortality for disabled members is based on the RP-2000 Disabled Life Mortality with projected Generational Mortality improvements (computed using Projection Scale AA).

I. Retirement Due to Disability

Assumed disability rates project the percentage of eligible employees who will become disabled. Rates are based on those utilized for the KPERS/KP&F pension valuations ("Local" category). Illustrations of assumed annual rates of disablement are shown below for selected ages.

Employees Covered by Kansas Public Employees Retirement System (KPERS)

Age	Rate
30	.07%
40	.14%
50	.36%
60	.85%
≥ 65	0%

Employees Covered by Kansas Police & Firemen's (KP&F) Retirement System

Age	Rate
30	.12%
40	.48%
50	.88%
60	1.00%
≥ 65	0%

ACTUARIAL ASSUMPTIONS (CONTINUED)

J. Turnover Incidence (Other than Retirement)

Assumed turnover rates are based on those used for the KPERS-Local and KP&F-Local pension valuations. Turnover rates are not applied when retirement eligibility is achieved. Illustrations of annual rates of turnover are shown below at sample levels of service.

Employees Covered by Kansas Public Employees Retirement System (KPERS)

Service From Hire	Probability Per Year	
	Males	Females
0	20.0%	23.0%
1	16.0%	20.0%
2	13.2%	17.0%
3	11.0%	14.0%
4	9.6%	11.5%
5	8.3%	9.0%
7	6.0%	6.5%
10	3.8%	4.3%
12	3.3%	3.4%
15	2.7%	2.8%
17	2.3%	2.4%
20	1.8%	1.8%
23	1.5%	1.2%
25	1.3%	0.9%

Employees Covered by Kansas Police & Firemen's (KP&F) Retirement System

Service From Hire	Probability Per Year
0	13.00%
1	13.00%
2	11.25%
3	9.50%
4	7.75%
5	6.00%
7	4.60%
10	2.50%
12	1.90%
15	1.00%
20	1.00%

ACTUARIAL ASSUMPTIONS (CONTINUED)

K. Retirement Age

Assumed rates are based on those used for the KPERS-Local and KP&F-Local pension valuations. Retirement rates project the percentage of eligible employees who will retire.

Employees Covered by Kansas Public Employees Retirement System (KPERS)

Tier I		Tier II	
<i>Unreduced Retirement</i>		<i>Unreduced Retirement</i>	
Age(s)	Annual Probability	Age(s)	Annual Probability
≤ 54	7%	60	20%
55-58	10%	61-62	25%
59-60	12%	63	20%
61-62	25%	64	30%
63	20%	65	35%
64	30%	66	25%
65	35%	67-74	20%
66	25%	75	100%
67-74	20%		
75	100%		
<i>Reduced Retirement</i>		<i>Reduced Retirement</i>	
Age(s)	Annual Probability	Age(s)	Annual Probability
55-58	5%	55-58	5%
59-60	7%	59-60	7%
61	20%	61	20%
		62	20%
		63	20%
		64	20%

Employees Covered by Kansas Police & Firemen's (KP&F) Retirement System

<i>Reduced Retirement</i>	
<u>Age(s)</u>	<u>Probability Per Year</u>
50 to 52	10%
53	15%
54	20%

<i>Unreduced Retirement</i>	
<u>Age(s)</u>	<u>Probability Per Year</u>
50-55	25%
56-59	20%
60-62	25%
63	100%

ACTUARIAL ASSUMPTIONS (CONTINUED)

L. Spouse Age Difference	Male employees are assumed to be 2 years older than their wives. Female employees are assumed to be 3 years younger than their husbands. This is based on an analysis of the census data. Actual spousal age was valued for current retirees.								
M. Participation in Coverage for Future Retirees	Sixty percent (60%) of future employees are assumed to elect coverage upon retirement. This is based on experience from 2007 to 2013.								
N. Coverage Tier Elections For Future Retirees	<table><tr><td>Single</td><td>65%</td></tr><tr><td>Single + Spouse</td><td>25%</td></tr><tr><td>Single + Child(ren)</td><td>0%</td></tr><tr><td>Family</td><td>10%</td></tr></table> <p>The same coverage tier is assumed to apply to Medical / Rx and Dental.</p>	Single	65%	Single + Spouse	25%	Single + Child(ren)	0%	Family	10%
Single	65%								
Single + Spouse	25%								
Single + Child(ren)	0%								
Family	10%								
O. Medicare Eligibility Age	Age 65								
P. Aggregate City Payroll Growth	1.5% per year								
Q. Salary Scale	3.5% - General Employees 6.5% - Police & Fire Employees								
R. Retiree Wellness Participation	15%								
S. Inflation Rate	An estimated implied inflation rate that is reasonable in conjunction with the trend assumptions is 2.5%.								

ACTUARIAL METHODS

A. POPULATION VALUED

The valuation is based on a closed group. Current employees and covered retirees as of the valuation date of January 1, 2013 are considered; no provision is made for future new hires. No future benefits are assumed for those waiving coverage.

B. ACTUARIAL COST METHOD -- ENTRY AGE NORMAL (LEVEL PERCENT-OF-PAY)

The actuarial calculations were performed in accordance with the Entry Age Normal (Level percent-of-pay) Actuarial Cost Method as allowed under Governmental Accounting Standard No. 45 (GASB 45).

- § The actuarial present value of each member's projected benefits is allocated on a level basis over the member's assumed compensation between the entry age of the member and the last age with a future benefit. Entry age equals date of hire.
- § The portion of the actuarial present value allocated to the valuation year is called the Normal Cost. The sum over all active employees is the Employer Normal Cost. Normal Cost does not apply to current retirees as all benefits are previously earned due to past service.
- § The actuarial present value of benefits allocated to prior years of service is called the Actuarial Accrued Liability (AAL). The sum over all active employees and retirees is the Employer AAL.
- § The Unfunded AAL represents the difference between the AAL and the actuarial value of plan assets as of the valuation date.

C. AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

Amortization Method	Level Percent-of-Pay
Valuation Interest Rate	3.5%
Aggregate Payroll Growth (inflation only)	1.5% per year
Amortization Basis	Closed
Initial Amortization Period	30 years
Remaining Amortization Period	24 years

D. ANNUAL REQUIRED CONTRIBUTION (ARC)

The sum of the Normal Cost and the amortization of the Unfunded Actuarial Accrued Liability comprise the ARC.

ACTUARIAL METHODS (CONTINUED)

E. ANNUAL OPEB COST

The Annual OPEB Cost equals the Annual Required Contribution when reporting for the GASB 45 implementation year. After the implementation year, the Annual OPEB Cost consists of the following components:

- (i) Annual Required Contribution (ARC)
- (ii) Interest on the Net OPEB Obligation
- (iii) Adjustment to the ARC

F. ACTUARIAL VALUE OF ASSETS

As of the date of this valuation, it is our understanding there are no assets set aside in a separate trust as recognized under GASB rules. Rather, the cost of retiree benefits are paid as they come due from a Health Insurance Fund. The City does maintain a reserve in this fund with the intention of paying for future healthcare costs.

G. CALCULATION OF PRESENT VALUES

Using the actuarial assumptions, the number of retired participants is projected each year in the future. Costs are projected for each future year at each age using the trend and aging assumptions. The projected costs less projected retiree contributions are multiplied by the expected number of retirees in each future year to produce expected benefits payments. These payments are then discounted using the valuation interest rate to determine the present value of the projected liabilities.

The actuarial calculations reflect a long-term perspective that involves estimates of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The actuarial calculations are based on the substantive plan and pertinent law as they exist at the time of the preparation of this valuation study. The substantive plan is the plan that operates in practice.

GLOSSARY

Actuarial Accrued Liability (AAL). That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of plan benefits which is allocated to periods prior to the valuation date.

Actuarial Cost Method. A procedure for allocating the Actuarial Present Value of plan benefits to time periods, usually in the form of a Normal Cost and Actuarial Accrued Liability.

Actuarial Present Value. The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of actuarial assumptions, and plan provisions. Actuarial Present Value takes into account the probability of payment as well as the time value of money.

Adjustment to the ARC. An adjustment made to Annual OPEB Cost to avoid double counting of the Amortization of the AAL when full funding of the ARC does not occur.

Age-Adjusted Cost. The projected cost that would result if a credible-sized group of like-age participants were rated.

Age-Subsidy. The difference between the age-adjusted cost and the plan premium. An age-subsidy occurs because the plan premium, based on the entire group of actives and retirees, is lower than the age-adjusted cost at retiree ages.

Amortization Payment. That portion of the Annual Required Contribution that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Annual OPEB Cost. The amount of expense an employer must recognize in accordance with a Defined Benefit OPEB Plan, calculated in accordance with the parameters.

Annual Required Contribution (ARC). The portion of expense an employer must recognize in accordance with a Defined Benefit OPEB Plan equal to the Amortization Payment plus the Normal Cost, calculated in accordance with the assumptions and plan provisions.

Defined Benefit OPEB Plan. An OPEB plan having terms that specify the amount of benefits to be provided at a future date or after a certain period of time. The amount specified usually is a function of one or more factors such as age and years of service.

Healthcare Cost Trend Rate. The rate of change in per capita health claims cost over time as a result of factors such as medical inflation, utilization of healthcare services, plan design and technological developments.

Net Employer Contribution. The employer's contribution for OPEB on an age-adjusted cost basis, less any participant contribution premiums. An employer has made a contribution for OPEB if the employer has (1) made payments of benefits directly to or on behalf of a retiree or beneficiary, (2) made premium payments to an insurer, or (3) irrevocably transferred assets to a qualifying trust.

GLOSSARY

Net OPEB Obligation. The cumulative difference since the effective date of GASB 45 between the amount of Annual OPEB Cost and Net Employer Contributions.

Normal Cost. That portion of the Actuarial Present Value of OPEB plan benefits that is allocated to a valuation year by the Actuarial Cost Method.

Other Postemployment Benefits (OPEB). Postemployment benefits other than pension benefits. OPEB includes Postemployment Healthcare Benefits, regardless of the type of plan that provides them, and all post employment benefits provided separately from a pension plan, excluding benefits defined as termination offers and benefits.

Postemployment Healthcare Benefits. Medical, dental, vision and other health-related benefits provided to retired employees and their dependents and beneficiaries.

Substantive Plan. The terms of the OPEB plan as understood by the employer and plan members.

Unfunded Actuarial Accrued Liability. The excess, if any, of the Actuarial Accrued Liability over the assets of the plan.

Valuation Interest Rate (or Discount Rate). The expected long-term rate of return on the source of assets used to pay retiree insurance benefits.