Gabriel Roeder Smith & Company
Consultants & Actuaries

OKLAHOMA CITY EMPLOYEE RETIREMENT SYSTEM

ANNUAL ACTUARIAL VALUATION

DECEMBER 31, 2012

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June 27, 2013

The Board of Trustees
Oklahoma City Employee Retirement System
Oklahoma City, Oklahoma

Dear Board Members:

The results of the December 31, 2012 annual actuarial valuation of the Oklahoma City Employee Retirement System are presented in this report. The purpose of the valuation was to measure the System's funding progress, provide actuarial information in connection with applicable Governmental Accounting Standards Board Statements and to determine the employer contribution for the fiscal year beginning July 1, 2014. This report should not be relied upon for any other purpose. This report may be distributed to parties other than the Retirement Board only in its entirety and only with the permission of the Board.

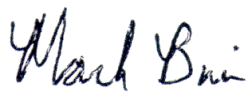
The valuation was based upon information, furnished by the Retirement System Manager, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited by us. As a result, we are unable to assume responsibility for the accuracy or completeness of the data provided.

Future actuarial measurements may differ significantly from those presented in this report due to such factors as experience differing from that anticipated by actuarial assumptions, changes in plan provisions, actuarial assumptions/methods or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements.

To the best of our knowledge, this report is complete and accurate and the valuation was conducted in accordance with standards of practice prescribed by the Actuarial Standards Board and in compliance with the applicable state statutes. The undersigned are independent of the plan sponsor and are Members of the American Academy of Actuaries (MAAA) who meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. It is our opinion that the actuarial assumptions used for the valuation produce results which are reasonable.

Respectfully submitted,

Louise M. Gates ASA, MAAA



Mark Buis, FSA, EA, MAAA

LMG/MB:mrb

SECTION A

VALUATION RESULTS

Funding Objective

The funding objective of the Retirement System is to establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year-to-year and will not have to be increased for future generations of citizens.

Contribution Rates

The Retirement System is supported by member contributions, City contributions and investment income from Retirement System assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are sufficient to:

(1) Cover the actuarial present value of benefits allocated to the current year by the actuarial cost method described in Section C (the normal cost); and

(2) Finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs (unfunded actuarial accrued liability).

Computed contribution rates for the fiscal year beginning July 1, 2014 are shown on page A-2.

COMPUTED CONTRIBUTIONS
EXPRESSED AS PERCENTAGES OF ACTIVE MEMBER PAYROLL

The total computed contributions determined in the current and prior year's valuation are shown below. The 2012 valuation results will be used by the City for the fiscal year beginning July 1, 2014. Please refer to page A-5 for additional information.

Contributions for	Percents of Member Payroll 2012	2011
Normal Cost		
Service pensions	9.49%	10.43%
Disability pensions	0.48%	0.57%
Survivor pensions		
- Death before retirement	0.46%	0.51%
Termination benefits		
- Deferred service pensions	0.41%	0.42%
- Refunds of current member contributions	1.34%	1.34%
Total normal Cost	12.18%	13.27%
Unfunded Actuarial Accrued Liability (UAAL)		
Total UAAL contribution*	0.26%	3.57%
Total Computed Contribution Rate	**12.44%**	**16.84%**
Member portion	6.00%	6.00%
City's computed rate	6.44%	10.84%

* *The 2012 unfunded actuarial accrued liability (the UAAL) was amortized as a level percent of active member payroll over a period of 29 years. The 2011 UAAL was amortized as a level percent of active member payroll over a period of 30 years, the maximum time period permitted by the GASB Standards*

Funding Progress

There is no single all-encompassing indicator to measure a retirement system's funding progress. A traditional measure has been the relationship of valuation assets to actuarial accrued liability - a measure that is influenced by the choice of actuarial cost method. Numeric information using this traditional measure is shown on the following page.

Additional understanding of funding progress can be achieved using the following test, which compares the System's present assets with:

(1) members' contributions on deposit in the System;

(2) present value of future benefits to present retired lives; and

(3) present value of benefits based on service already rendered by active and inactive members.

In a system that has been following the discipline of level percent-of-payroll financing, member contributions on deposit (item 1) and the present value of future benefits to present retired lives (item 2) will be fully covered by present assets (except in rare circumstances). In addition, the present value of benefits based on service already rendered by members (item 3) will be partially covered by the remainder of present assets. The larger the funded portion of item 3, the stronger the condition of the system. Generally, if the system has been using level-percent financing, the funded portion of item 3 will increase over time.

From 1983 through 1996, item 3 was computed in accordance with the Pension Benefit Obligation required by Governmental Accounting Standards Board Statement No. 5.

Beginning with the December 31, 1997 actuarial valuation, item 3 is computed in accordance with Governmental Accounting Standards Board Statement No. 25, which has replaced Statement No. 5. Under Statement No. 25, item (3) is the same amount that is used in computing the level contribution rates and the funding value of assets is shown rather than cost value. Further detail concerning Statement No. 25 is shown in Section D.

A historical comparison of funding progress tests is shown on the following page.

FUNDING PROGRESS TEST
(DOLLAR AMOUNTS IN THOUSANDS)

Valuation Date	Accrued Liabilities (AL) (1) Member Contribs.	(2) Retirants and Beneficiaries	(3) Active & Inactive Members[1] (Employer Financed Portion)	Total AL	Assets[2]	Portion of Liabilities Covered by Assets (1)	(2)	(3)	Overall
12/31/93	$26,732	$ 59,703	$ 60,919	$ 147,354	$ 141,078	100 %	100 %	90 %	96 %
12/31/94	29,028	63,894	67,915	160,837	151,580	100	100	86	94
12/31/95	31,423	67,408	71,283	170,114	168,203	100	100	97	99
12/31/96	33,507	72,225	75,504	181,236	185,368	100	100	105	102
12/31/97	35,654	76,275	107,169	219,098	219,602	100	100	100	100
12/31/98	37,900	82,258	118,498	238,656	260,877	100	100	119	109
12/31/99	39,866	85,724	120,316	245,906	307,872	100	100	152	125
12/31/00	41,550	100,936	180,814	323,300	350,398	100	100	115	108
12/31/01	42,226	116,552	185,819	344,597	372,737	100	100	115	108
12/31/02	44,368	128,120	200,072	372,560	375,382	100	100	101	101
12/31/03	46,654	136,873	207,496	391,023	374,192	100	100	92	96
12/31/04	48,487	150,664	216,013	415,164	381,495	100	100	84	92
12/31/05	54,239	169,752	212,913	436,904	424,182	100	100	94	97
12/31/06	55,557	187,693	214,297	457,547	476,913	100	100	109	104
12/31/07	60,118	204,470	224,239	488,827	529,876	100	100	118	108
12/31/08	62,128	221,456	235,650	519,234	528,664	100	100	104	102
12/31/09	65,106	237,302	254,019	556,427	529,137	100	100	89	95
12/31/10	64,922	267,120	234,792	566,834	524,731	100	100	82	93
12/31/11	67,324	284,069	242,529	593,922	514,499	100	100	67	87
12/31/12	69,987	257,057	226,544	553,588	547,686	100	100	97	99

(1) Beginning with the 12/31/97 valuation, Employer Financed Portion is calculated in accordance with Governmental Accounting Standards Board Statement No. 25, which replaces Statement No. 5 used in prior years. This is the same calculation that is used in computing contribution rates.

(2) Beginning with the 12/31/97 valuation, funding value, pursuant to Governmental Accounting Standards Board Statement No. 25 (prior to 12/31/97, Cost Value was used).

COMMENTS

Comment A: The recommended City pension contribution for the City's 2014-2015 fiscal year is 6.44% of plan member payroll. The established maximum City contribution rate is 10% of payroll.

Comment B: This valuation reflects the following changes:

- The assumed rate of investment return was changed from 8.0% to 7.5% per year, net of expenses.
- The assumed rate of wage inflation was changed from 4.5% to 4.0% per year.
- The maximum post retirement Cost of Living Adjustment (COLA) was changed for all current and future retirees. Specifically, the COLA will be based on the change in the Consumer Price Index subject to a maximum of 2.0% per year (instead of 4.0% per year).

The combined effect of these changes was a reduction in System liabilities and contribution requirements.

Comment C: Experience for the year ended December 31, 2012 was overall favorable. The market value smoothing techniques used in this valuation of the System recognize both past and present investment experience. As a result, the recognized rate of return was 8.03%, consistent with the valuation assumption for the 2012 plan year. In addition, there were fewer retirements from City employment than anticipated by actuarial assumptions, and no post retirement COLA was paid during 2012. Additional information on the investment experience is provided on page B-4 of this report.

Comment D: As of the valuation date, the System's funded ratio (the ratio of the funding value of assets to the accrued liabilities of the System) was 99%. Last year the ratio was 87%. The increase in funded ratio over the prior year is due primarily to the changes described in Comment B and the System's experience during calendar year 2012.

COMMENTS

Comment E: The Actuarial Standards of Practice with regard to the mortality assumption have recently been revised. ASOP No. 35 Disclosure Section 4.1.1 now states *"The disclosure of the mortality assumption should contain sufficient detail to permit another qualified actuary to understand the provision made for future mortality improvement. If the actuary assumes zero mortality improvement after the measurement date, the actuary should state that no provision was made for future mortality improvement."* Currently, there appears to be no margin for future mortality improvement in the mortality assumption used for the annual valuation of the System. We recommend that the mortality assumption be reviewed in connection with an experience study to determine the appropriate margin (if any) to be used in future valuations.

Comment F: We recommend a review of the factors used for optional forms of payment in light of the recent changes in the investment return assumption and change in post-retirement COLA provisions.

UNFUNDED ACTUARIAL ACCRUED LIABILITY
(AMOUNTS IN THOUSANDS OF DOLLARS)

	December 31	
	2012	2011
A. Actuarial present value of future benefits	$665,425	$711,210
B. Actuarial present value of future normal costs	111,837	117,288
C. Actuarial accrued liability	553,588	593,922
D. Assets allocated to funding	547,686	514,499
E. Unfunded actuarial accrued liability	5,902	79,423
F. Ratio of assets to actuarial accrued liability	99%	87%

HISTORICAL SCHEDULE OF CITY CONTRIBUTION RATES AND THE ASSOCIATED AMORTIZATION PERIOD

Valuation Date December 31	Established City Contribution Rate as a % of Active Member Payroll	Years to Amortize UAL	Years to Liquidate Surplus
1998	8.35 %	0.0	
1999	8.35	0.0	
2000 *	7.00	0.0	
2001	7.00	0.0	
2002	7.00		3.8
2003	7.00	40.0	
2004 #	8.25	40.0	
2005	7.94	30.0	
2006	6.16		29.0
2007	5.04		28.0
2008	6.77		27.0
2009	8.56	26.0	
2010	9.49	25.0	
2011	10.84	30.0	
2012 *	6.44	29.0	

* *Retirement System amended*

\# *The average established City contribution for the indicated fiscal year*

SECTION B

SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA

SUMMARY OF BENEFIT PROVISIONS EVALUATED OR CONSIDERED

(DECEMBER 31, 2012)

Regular Retirement (no reduction factor for age)

Eligibility - Pre 3-1-67 hires: Age 60 with 20 years of service; or, any age with 30 years of service.
Post 3-1-67 hires: Age 65 with 5 years of service; or, any age with 25 years of service.

Annual Amount - Normal retirement benefit: 2% of average final compensation for all years and complete months of service, to a maximum of 100% of AFC.

Average Final Compensation (AFC) - Average earned compensation (excluding compensation for unused vacation and sick leave) during highest 36 months of service out of the last 60 consecutive months of service.

Early Retirement (reduction factor for age)

Eligibility - Age 55 with 5 years of service.

Annual Amount - Same as regular retirement amount but reduced 4% for each full year or portion of a year that payments commence prior to age 65 (age 60 if hired prior to 3-1-67).

Deferred Retirement (vested benefit)

Eligibility - 5 years of service. Benefit begins at age 65 (age 60 if hired prior to 3-1-67) or at age 55 on a reduced basis.

Annual Amount - Same as regular retirement based on service and average final compensation at time of termination.

Duty Disability Retirement

Eligibility - No age or service requirements.

Annual Amount - 40% of average final compensation, reduced if degree of disability is less than total disability.

Non-Duty Disability Retirement

Eligibility - Any age with 15 years of service.

Annual Amount - 2% of average final compensation for each full year of service, plus 1/12 of 2% for each full month of service due to a partial year of service to a maximum of 40% of AFC. Amount is reduced if degree of disability is less than total disability.

SUMMARY OF BENEFIT PROVISIONS EVALUATED OR CONSIDERED

(DECEMBER 31, 2012)

Duty Death Before Retirement

Eligibility - No age or service requirements.

Annual Amount - 20% of average final compensation to an eligible spouse. Payments cease upon death. If there is no eligible spouse, accumulated employee contributions are paid to designated beneficiary. For members eligible under age and service conditions, the benefit is the amount the spouse would have received as a joint annuitant under normal or early retirement conditions.

Non-Duty Death Before Retirement

Eligibility - Any age with 15 years of service.

Annual Amount - Same as duty death.

Post-Retirement Adjustments

Pensions may be adjusted annually (in January) for changes in the Consumer Price Index. The maximum adjustment is 2% per year compounded. The first adjustment is made one year following retirement for those age 65 (60 for pre 3-1-67 hires) or those awarded disability allowances. For all others, the first adjustment is made no earlier than 4 years following retirement.

Post-Retirement Death Benefit

Eligibility – Retiree currently collecting pension benefits from the System.

Amount – A one-time payment of $5,000 payable upon the death of the retiree. This benefit is payable only upon the death of the retiree, and is payable to the designated beneficiary.

Member Contributions

6% of annual pay.

Employer Contributions

7% of annual payroll effective March 2, 2001 – December 31, 2005.

The actuarially determined contribution rate (up to a maximum of 10% of pay) effective January 1, 2006.

Partial Lump Sum Payment Option

Members who are eligible for Regular Retirement may elect this optional form of payment, which allows for cash at retirement of up to $30,000. Any remaining monthly retirement benefit is reduced actuarially to reflect the payment of cash at retirement.

ASSET INFORMATION SUBMITTED FOR VALUATION

The net market value of Retirement System assets was reported to be $546,254,918 as of December 31, 2012. The derivation of the funding value of assets used for the actuarial valuation is shown on the following page.

Revenues and Expenditures – Market Value Basis

	Year Ended December 31,	
	2012	**2011**
Revenues:		
a. Member contributions	$ 6,934,674	$ 6,532,180
b. City contributions	10,357,221	8,421,136
c. Investment income		
1. Interest and dividends	8,031,193	6,713,038
2. Realized & unrealized gain/(loss)	53,257,587	2,420,356
3. Securities lending income	61,819	43,913
d. Other	109,508	63,189
e. Total revenues	$ 78,752,002	$ 24,193,812
Expenditures:		
a. Refunds of member contributions	$ 995,842	$ 1,099,826
b. Benefits paid	24,204,684	23,642,100
c. Administrative expenses	442,540	468,469
d. Investment expenses	1,570,004	1,511,533
e. Other expenses	0	0
f. Total expenditures	$ 27,213,070	$ 26,721,928
Reserve Increase (Decrease):		
Total revenues minus total expenditures	$ 51,538,932	$ (2,528,116)

Reported Market Value of Assets

	December 31, 2012
Cash & Other	$ 45,433,008
Fixed Income	136,031,564
Equities	366,495,772
Real Estate	31,569,399
Total Assets	579,529,743
Less Accounts Payable	33,274,825
Net Assets	$546,254,918

DEVELOPMENT OF VALUATION ASSETS

Year Ended December 31:	2011	2012
A. Funding Value Beginning of Year	$524,731,336	$514,499,285
B. Market Value End of Year	494,715,986	546,254,918
C. Market Value Beginning of Year	497,244,102	494,715,986
D. Non-Investment Net Cash Flow	(9,725,421)	(7,799,123)
E. Investment Income		
E1. Market Total: B - C - D	7,197,305	59,338,055
E2. Amount for Immediate Recognition (8.0%)	41,589,490	40,847,978
E3. Amount for Phased-In Recognition E1-E2	(34,392,185)	18,490,077
F. Phased-In Recognition of Investment Income		
F1. Current Year: 0.25 x E3	$ (8,598,046)	$ 4,622,519
F2. First Prior Year	1,897,947	(8,598,046)
F3. Second Prior Year	2,214,945	1,897,947
F4. Third Prior Year	(37,610,966)	2,214,945
F5. Total	(42,096,120)	137,365
G. Funding Value End of Year: A + D + E2 + F5	514,499,285	547,685,505
H. Difference between Market & Funding Value	(19,783,299)	(1,430,587)
I. Net Recognized Rate of Return - Funding Value Basis	(0.10%)	8.03%
J. Net Recognized Rate of Return - Market Value Basis	1.46%	12.09%
K. Ratio of Funding Value to Market Value	1.04	1.002

RETIRANT AND BENEFICIARY DATA

Valuation Date	No. of Pension Recipients				Total Annual	% of	Average Annual	% Incr. in Total
Dec. 31	Service	Disability	Survivor	Total	Pensions[2]	Payroll	Pension	Pensions
1993	622	53	203	878	$ 5,393,539	8.1 %	$ 6,143	2.2 %
1994	621	51	204	876	5,759,562	8.2	6,575	6.8
1995	630	54	198	882	6,131,477	8.8	6,952	5.7
1996	634	55	195	884	6,507,720	9.2	7,362	6.1
1997	634	54	200	888	6,818,103	9.1	7,678	4.8
1998	633	56	202	891	7,134,692	9.0	8,008	4.6
1999	643	56	202	901	7,470,215	9.2	8,291	4.7
2000 [1]	646	61	203	910	9,188,323	11.4	10,097	23.0
2001	694	63	205	962	10,386,513	12.4	10,797	13.0
2002	725	65	210	1000	11,261,772	13.0	11,262	8.4
2003	731	68	207	1006	11,972,938	14.0	11,902	6.3
2004	773	66	207	1046	13,038,432	14.7	12,465	8.9
2005	796	67	213	1076	14,355,655	15.7	13,342	10.1
2006	823	69	221	1113	15,766,306	16.5	14,166	9.8
2007	854	66	233	1,153	17,117,037	17.2	14,846	8.6
2008	894	59	225	1,178	18,459,873	17.5	15,671	7.8
2009	936	56	226	1,218	19,673,159	17.8	16,152	6.6
2010	995	59	229	1,283	21,945,667	21.3	17,105	11.6
2011	1,018	56	225	1,299	22,946,844	21.0	17,665	4.6
2012	1,030	55	239	1,324	23,757,916	20.7	17,944	3.5

(1) Reflects a one-time increase resulting from purchasing power study.

(2) Annual pension amounts shown above are reported to the actuary by the City and reflect annual pension payments as of the indicated valuation date.

PENSIONS BEING PAID DECEMBER 31, 2012
TABULATED BY ATTAINED AGE OF RECIPIENT

Attained Age	Service Pensions No.	Service Pensions Annual Pensions	Disability Pensions No.	Disability Pensions Annual Pensions	Survivor Pensions No.	Survivor Pensions Annual Pensions	Totals No.	Totals Annual Pensions
Under 45					1	$ 18,048	1	$ 18,048
45 - 49	11	$ 303,312	1	$ 18,708	4	54,720	16	376,740
50 - 54	61	1,590,360	6	63,096	8	101,316	75	1,754,772
55 - 59	136	3,180,156	16	199,093	16	229,500	168	3,608,749
60 - 64	170	3,712,296	14	121,332	20	257,916	204	4,091,544
65 - 69	210	4,211,217	5	55,896	26	328,752	241	4,595,865
70 - 74	168	3,147,684	7	71,580	36	515,364	211	3,734,628
75 - 79	124	2,102,388	3	20,148	42	409,494	169	2,532,030
80 - 84	82	1,318,956	2	24,228	36	372,744	120	1,715,928
85 - 89	52	711,228			32	252,816	84	964,044
90+	16	207,228	1	10,404	18	147,936	35	365,568
Totals	**1,030**	**$20,484,825**	**55**	**$584,485**	**239**	**$2,688,606**	**1,324**	**$23,757,916**

PENSIONS BEING PAID DECEMBER 31, 2012
TABULATED BY YEAR OF RETIREMENT

Year of Retirement	No. #	Annual Pensions Total	Annual Pensions Average
1970 - 1974	4	$ 34,302	$ 8,576
1975 - 1979	11	120,033	10,912
1980 - 1984	26	225,549	8,675
1985	10	127,886	12,789
1986	14	212,276	15,163
1987*	60	1,047,433	17,457
1988	8	71,380	8,923
1989	7	120,641	17,234
1990	10	144,794	14,479
1991	17	222,622	13,095
1992	15	143,019	9,535
1993	14	130,111	9,294
1994	26	398,751	15,337
1995	30	392,149	13,072
1996	34	511,676	15,049
1997	34	468,981	13,794
1998	33	423,406	12,830
1999	37	496,865	13,429
2000	41	550,894	13,436
2001	72	1,383,092	19,210
2002	59	986,694	16,724
2003	52	996,479	19,163
2004	74	1,390,235	18,787
2005	64	1,226,791	19,169
2006	76	1,589,277	20,912
2007	78	1,465,332	18,786
2008	77	1,490,298	19,355
2009	81	1,806,077	22,297
2010	119	2,621,768	22,032
2011	68	1,499,577	22,053
2012	73	1,459,528	19,994
Totals	**1,324**	**$23,757,916**	**$17,944**

** Reflects early retirement incentive program.*
 # Includes surviving spouses of deceased retirees.

SYSTEM MEMBERS INCLUDED IN VALUATION
COMPARATIVE SCHEDULE

Valuation Date Dec. 31	Number of Active Members	Number of Inactive Members	Annual Payroll[1]	Active Member Averages Age	Active Member Averages Service	Active Member Averages Pay	Ratio of Active to Retired Members	% Increase/ (Decrease) in Avg Pay
1992	2,496	26	$61,028	40.4 yrs.	9.3 yrs.	$24,450	2.8	3.6 %
1993	2,520	15	66,278	40.9	9.5	26,301	2.9	7.6
1994	2,492	14	70,151	41.6	10.0	28,150	2.8	7.0
1995	2,428	16	69,754	42.2	10.5	28,729	2.8	2.1
1996	2,401	17	70,972	42.8	10.9	29,559	2.7	2.9
1997	2,418	19	74,752	43.3	11.1	30,908	2.7	4.6
1998	2,404	25	79,195	43.7	11.6	32,929	2.7	6.5
1999	2,453	36	80,897	43.8	11.6	32,979	2.7	0.2
2000	2,454	41	80,503	44.0	11.6	32,805	2.7	(0.5)
2001	2,454	49	83,862	44.0	11.4	34,174	2.6	4.2
2002	2,374	55	86,428	44.5	11.7	36,406	2.4	6.5
2003	2,290	61	85,666	45.2	12.3	37,409	2.3	2.8
2004	2,302	54	88,866	45.2	12.3	38,604	2.2	3.2
2005	2,312	58	91,641	45.5	12.3	39,637	2.1	2.7
2006	2,353	62	95,504	45.5	12.1	40,588	2.1	2.4
2007	2,380	66	99,574	45.5	12.0	41,838	2.1	3.1
2008	2,422	71	105,566	45.8	11.9	43,586	2.1	4.2
2009	2,380	73	110,408	46.3	12.3	46,390	2.0	6.4
2010	2,304	81	102,915	46.4	12.3	44,668	1.8	(3.7)
2011	2,398	75	109,293	46.3	12.1	45,577	1.8	2.0
2012	2,459	83	114,933	46.4	12.0	46,740	1.9	2.6

[1] *In thousands of dollars*

INACTIVE MEMBERS - DECEMBER 31, 2012
ELIGIBLE FOR DEFERRED PENSIONS
TABULATED BY ATTAINED AGE

Attained Age	No.	Estimated Annual Allowances
Under 40	11	$ 65,383
40	4	24,241
41	3	22,609
42	4	29,913
43	2	38,977
44	1	13,518
47	2	21,360
48	4	34,297
49	5	44,053
50	5	69,279
51	3	44,152
52	3	58,657
53	6	68,643
54	1	5,441
55	2	26,020
56	4	31,711
57	3	24,338
58	3	36,845
59	4	52,215
60 & Over	13	159,085
Totals	**83**	**$870,737**

ACTIVE MEMBERS AS OF DECEMBER 31, 2012
BY ATTAINED AGE AND YEARS OF SERVICE

Attained Age	Years of Service on Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	50							50	$ 1,472,320
25-29	119	38	1					158	5,334,922
30-34	154	66	24					244	9,038,338
35-39	112	78	44	9	1			244	10,185,533
40-44	93	68	75	41	23			300	13,631,638
45-49	83	75	73	53	66	26	3	379	18,432,149
50-54	71	57	70	57	87	55	33	430	21,791,689
55-59	53	66	42	39	63	37	59	359	18,916,620
60	4	7	11	15	13	12	12	74	3,942,742
61	3	4	14	4	2	6	11	44	2,323,098
62	4	5	8	4	8	4	9	42	2,388,990
63	5	3	3	5	9	7	10	42	2,278,048
64	2	1	5	4	5	2	5	24	1,473,985
65	2	3	4	2	3	2	1	17	978,621
66		6		2	1	2	1	12	575,595
67	2		1			1	2	6	292,576
68	2	1	3	1		3	1	11	667,185
69	1	1	1	3	2			8	527,711
70					1			1	71,369
71	1		1	1	1			4	197,232
73	1	1	1				1	4	177,648
74			1					1	15,191
75					1			1	47,646
76		1		1	1			3	128,579
78				1				1	43,078
Totals	**762**	**481**	**382**	**242**	**287**	**157**	**148**	**2,459**	**$114,932,503**

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

Group Averages:

Age: 46.4 years
Service: 12.0 years
Annual Pay: $46,740

SCHEDULE OF
RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS
COMPARATIVE STATEMENT

Year Ended Dec. 31	Added to Rolls [2]		Removed from Rolls		Rolls End of Year			
	No.	Annual Benefits [1]	No.	Annual Benefits	No.	Annual Benefits	Avg. Annual Benefits	% Incr. In Benefits
2004	85	$1,582,646	45	$517,152	1,046	$ 13,038,432	$ 12,465	8.9 %
2005	80	1,835,088	50	517,865	1,076	14,355,655	13,342	10.1
2006	85	1,978,502	48	567,851	1,113	15,766,306	14,166	9.8
2007	95	1,989,651	55	638,920	1,153	17,117,037	14,846	8.6
2008	85	2,109,746	60	766,910	1,178	18,459,873	15,671	7.8
2009	86	1,905,592	46	692,306	1,218	19,673,159	16,152	6.6
2010	120	3,059,254	55	786,746	1,283	21,945,667	17,105	11.6
2011	70	1,778,917	54	777,740	1,299	22,946,844	17,665	4.6
2012	74	1,467,021	49	655,949	1,324	23,757,916	17,944	3.5

(1) Includes post retirement cost-of-living adjustments. The year 2000, reflects increases in connection with special purchasing power study.

(2) Includes reported data corrections.

SECTION C

ACTUARIAL METHODS, ACTUARIAL ASSUMPTIONS AND DEFINITION OF TECHNICAL TERMS

THE ACTUARIAL VALUATION PROCESS

The ***actuarial valuation*** is the mathematical process by which actuarial present values and contribution rates are determined. The flow of activity constituting the valuation may be summarized as follows:

A. ***Census data***, furnished by plan administrator, including:
   Retired lives now receiving benefits
   Former employees with vested benefits not yet payable
   Active employees

B. + ***Benefit provisions***, furnished by plan administrator

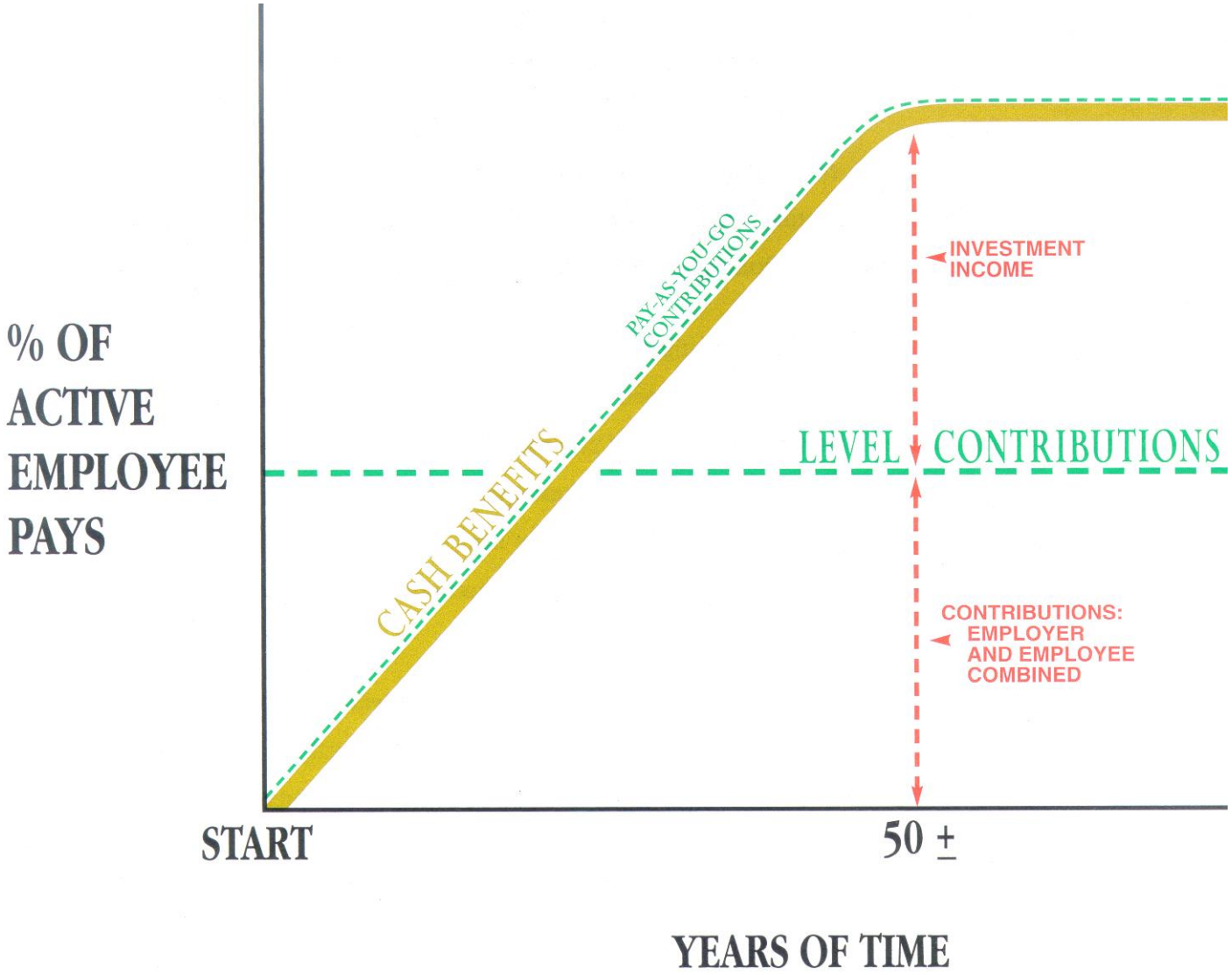
C. + ***Asset data*** (cash & investments), furnished by plan administrator

D. + ***Assumptions concerning future experience*** in various risk areas

E. + The ***funding method*** for employer contributions (the long-term, planned pattern for employer contributions)

F. + ***Mathematically combining the assumptions, the funding method and the data***

G. = Determination of:
   Plan Financial Position and/or
   New Employer Contribution Rate



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas
- Rates of investment return
- Rates of pay increase
- Changes in active member group size

Non-Economic Risk Areas
- Ages at actual retirement
- Rates of mortality
- Rates of withdrawal of active members (turnover)
- Rates of disability

ACTUARIAL METHODS

Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension plan benefits and expenses to time periods. The method used for the valuation is known as the individual entry-age actuarial cost method and has the following characteristics.

(i) The annual normal costs for each individual active member, payable from the date of employment to the date of retirement, are sufficient to accumulate the value of the member's pension at time of retirement.

(ii) Each annual normal cost is a constant percentage of the member's year by year projected compensation.

The entry-age actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's compensation between the entry age of the member and the assumed exit ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called the actuarial accrued liability. Deducting System assets from the actuarial accrued liability determines the unfunded actuarial accrued liability.

Actuarial Value of Assets

The funding value of assets recognizes assumed investment income fully each year. Differences between actual and assumed investment income are phased-in over a closed 4-year period. During periods when investment performance exceeds the assumed rate, funding value of assets will tend to be lower than market value. During periods when investment performance is less than the assumed rate, funding value of assets will tend to be greater than market value. The funding value of assets is unbiased with respect to market value. At any time it may be either greater or less than market value. If assumed rates are exactly realized for 4 consecutive years, it will become equal to market value.

ACTUARIAL ASSUMPTIONS

Funding objective contribution requirements and actuarial present values are calculated by applying actuarial assumptions to the benefit provisions and people information of the System, using the actuarial cost method described on page C-3.

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

(i) long-term rates of investment return to be generated by the assets of the System
(ii) patterns of pay increases to members
(iii) rates of mortality among members and retired lives
(iv) rates of withdrawal of active members
(v) rates of disability among active members
(vi) the age patterns of actual retirements

In a valuation, the monetary effect of each assumption projected is for as long as a present covered person or potential beneficiary survives - - - a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with assumed experience. From time-to-time one or more of the assumptions are modified to reflect experience trends (but not random or temporary year to year fluctuations).

ACTUARIAL ASSUMPTIONS

Investment Return (net of expenses)

The rate of investment return assumed in the valuation was seven and one-half percent (7.5%) per year, compounded annually.

Wage Inflation

The wage inflation rate assumed in this valuation was 4.0% per year. The wage inflation rate is defined to be the portion of total pay increases for an individual that are due to macroeconomic forces including productivity, price inflation, and labor market conditions. The wage inflation rate does not include pay changes rated to individual merit and seniority effects. The assumed real rate of return over wage inflation is 3.5% per year.

Salary Increase Rates

These assumptions are used to project current pays to those which will determine average final compensation.

	Annual Rate of Salary Increase			
Sample Ages	Inflation Component	Productivity	Merit and Longevity	Total
20	3.0 %	1.0 %	3.8 %	7.8 %
25	3.0	1.0	3.1	7.1
30	3.0	1.0	2.7	6.7
35	3.0	1.0	2.4	6.4
40	3.0	1.0	2.1	6.1
45	3.0	1.0	1.7	5.7
50	3.0	1.0	1.1	5.1
55	3.0	1.0	0.7	4.7
60	3.0	1.0	0.2	4.2
65	3.0	1.0	0.0	4.0

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at a rate of 4.0% per year.

Price inflation

The assumed rate of price inflation used in this valuation was 3.0% per year.

Mortality Table

The mortality assumption is used to measure the probabilities of a member dying before retirement and the probability of each benefit payment being made. The 1994 Group Annuity mortality table set forward 1 year for women and 3 years for men was used in this valuation of the System. The rates used include no margin for future mortality improvement. Sample values are shown below. This was first used in the 12/31/2005 valuation.

Sample Ages	Value at Retirement of $1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	$136.19	$146.11	27.95	33.94
55	126.72	139.07	23.52	29.24
60	115.43	130.06	19.39	24.70
65	102.92	119.41	15.66	20.46
70	89.27	107.06	12.34	16.54
75	74.51	92.46	9.40	12.90
80	60.26	76.69	7.00	9.71

Rates of Retirement

Rates of retirement are used to measure the probabilities of an eligible member retiring during the next year, and are summarized below. These rates were first used for the December 31, 2005 valuation.

Age of Member	Percent of Eligible Members Retiring During Next Year	Years of Service	Percent Retiring
50	12%	25	20%
51	8	26	12
52	8	27	12
53	8	28	12
54	8	29	12
55	8	30	12
56	8	31	12
57	8	32	12
58	8	33	12
59	8	34	12
60	8	35	12
61	8	36	12
62	20	37	12
63	8	38	12
64	8	39	12
65	55	40	100
66	25		
67	30		
68	40		
69	70		
70	100		

The service based retirement rates were applied to those members first eligible to retire under "25 and out". The age based retirement rates were applied to members retiring under either 65/5 (60/10 for pre 3/67 hires) or the Plan's early retirement conditions.

The probability of retiring at age 70 was assumed to be 100% regardless of service.

Rates of Separation from Active Membership

This assumption measures the probabilities of a member terminating employment. The rates do not apply to members who are eligible to retire.

Sample Ages	Years of Service	% of Active Members Separating within Next Year
ALL	0	30.00%
	1	20.00
	2	15.00
	3	10.00
	4	7.00
25	5 & Over	7.00
30		6.00
35		4.75
40		3.50
45		2.40
50		1.50
55		1.00
60		1.00

Rates of Disability

This assumption measures the probabilities of a member becoming disabled.

Age of Member	% of Active Members During Next Year	
	Males	Females
25	0.09%	0.05%
30	0.10	0.07
35	0.14	0.13
40	0.21	0.19
45	0.32	0.28
50	0.52	0.45
55	0.92	0.76
60	1.53	1.10

Disabled life mortality is measured by the 1994 Group Annuity Mortality Table set forward by 1 year for women and 3 years for men at time of disability.

DEFINITIONS OF TECHNICAL TERMS

Actuarial Accrued Liability. The difference between the actuarial present value of System benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability."

Actuarial Assumptions. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Accrued Service. Service credited under the system which was rendered before the date of the actuarial valuation.

Actuarial Equivalent. A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of Retirement System benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

Actuarial Gain (Loss). The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

Actuarial Present Value. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

Amortization. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying off with lump sum payment.

DEFINITIONS OF TECHNICAL TERMS

Normal Cost. The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial Accrued Liability. The difference between actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded actuarial liability" or "unfunded accrued liability".

The existence of an unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. The unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability and the trend in its amount (after due allowance for devaluation of the dollar).

SUMMARY OF ASSUMPTIONS USED
DECEMBER 31, 2012
MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

Marriage Assumption:	80% of the population is assumed to be married for purposes of death-in-service benefits.
Pay Increase Timing:	Beginning of year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date.
Decrement Timing:	All decrements were assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.
Decrement Operation:	Disability and turnover decrements do not operate during retirement eligibility. Neither disability nor mortality operates during the first 5 years of service.
Normal Form of Benefit:	The assumed normal form of benefit is the straight life form.
Expenses:	Assumed investment return is net of administrative and investment expenses.
Non-forfeiture Assumption:	All vested terminated members who terminate close to retirement were assumed to elect a deferred retirement while those terminating with less service were assumed to elect a refund of their contributions in lieu of deferred retirement benefits.

SECTION D

DISCLOSURES AND SUPPLEMENTARY INFORMATION REQUIRED BY STATEMENTS NO. 25 AND NO. 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF FUNDING PROGRESS
(DOLLAR AMOUNTS IN THOUSANDS)

Actuarial Valuation Date December 31,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Active Member Covered Payroll (c)	UAAL as a Percentage of Active Member Covered Payroll ((b-a)/c)
2002	$375,382	$372,560	$(2,822)	100.8 %	$ 86,428	(3.3) %
2003	374,192	391,023	16,831	95.7	85,666	19.6
2004	381,495	415,164	33,669	91.9	88,866	37.9
2005 #	424,182	436,904	12,722	97.1	91,641	13.9
2006	476,913	457,547	(19,366)	104.2	95,504	(20.3)
2007	529,876	488,827	(41,049)	108.4	99,574	(41.2)
2008	528,664	519,234	(9,430)	101.8	105,566	(8.9)
2009	529,137	556,427	27,290	95.1	110,408	24.7
2010	524,731	566,834	42,103	92.6	102,915	40.9
2011	514,499	593,922	79,423	86.6	109,293	72.7
2012 *#	547,686	553,588	5,902	98.9	114,933	5.1

 # Changes in methods and assumptions
** Plan provision changes*

Analysis of the dollar amounts of the actuarial value of assets, actuarial accrued liability, or actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one indication of the System's funded status on a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. The unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Actuarial Valuation Date December 31,	Annual Required Contribution [1]
2003	$5,996,592
2004	6,989,274
2005	8,348,510
2006	8,323,183
2007	7,019,982
2008	5,911,702
2009	5,564,582
2010	6,077,150
2011	8,377,304
2012	10,372,658

[1] *For the plan year ending on the valuation date*

Note: The City develops the annual required contribution for financial reporting purposes (the City's CAFR) based on the recommendation of the actuary and the City's contribution policy. This information is presented in draft form for review by the City's auditor.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Valuation Date	December 31, 2012
Actuarial Cost Method	Individual Entry Age
Amortization Method	Level Percent of payroll
Amortization Period	29 years closed
Asset Valuation Method	4-year smoothed market
Actuarial Assumptions:	
Investment Rate of Return*	7.5%
Projected Salary Increases*	4.0% - 7.8%
*Includes Wage Inflation	4.0%
Cost-of-Living Adjustments	Up to 2.0% per year

SECTION E

RETIREMENT SYSTEM EXPERIENCE
ACTUAL VS. EXPECTED

DERIVATION OF EXPERIENCE GAIN (LOSS)
CALENDAR YEARS 2008 - 2012

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is hoped that gains and losses will cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) is shown below, along with a year by year historic comparison.

	Amounts shown are expressed in thousands of dollars				
	2012	**2011**	**2010**	**2009**	**2008**
(1) UAAL* at start of year	$ 79,423	$ 42,103	$ 27,290	$ (9,430)	$ (41,049)
(2) Normal cost from last valuation	15,252	14,470	13,626	14,640	13,977
(3) Actual member and employer contributions	17,292	14,953	12,707	12,035	12,214
(4) Interest accrual on (1), (2) and (3)	6,272	3,349	2,220	(650)	(3,213)
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	83,655	44,969	30,429	(7,475)	(42,499)
(6) Increase due to benefit/assumption changes	(65,947)	0	0	0	0
(7) Increase due to revised actuarial methods	0	0	0	0	0
(8) Expected UAAL after changes: (5) + (6) + (7)	17,708	44,969	30,429	(7,475)	(42,499)
(9) Actual UAAL at end of year	5,902	79,423	42,103	27,290	(9,430)
(10) Gain (loss): (8) - (9)	11,806	(34,454)	(11,674)	(34,765)	(33,069)

* *Unfunded actuarial accrued liability (UAAL)*

SERVICE RETIREMENTS DURING THE INDICATED PLAN YEARS

Age Group	Number Retiring in the Indicated Year 2012	2011	2010
40-44			
45-49	2	3	8
50-54	5	9	23
55-59	10	12	18
60		1	4
61	1	2	9
62	5	5	3
63	3	4	8
64	4	2	2
65	4	5	3
66	3	3	4
67	3		3
68			2
69	2		1
70 & Over	3	2	3
Total	**45**	**48**	**91**
Expected	116.1	111.6	106.7

The chart above shows actual versus expected retirements from City employment and does not include retirements from deferred status or disability retirements.

NON-VESTED WITHDRAWALS
FROM ACTIVE MEMBERSHIP
DURING THE INDICATED PLAN YEARS

		Number Terminating during the Indicated Year		
Age Groups	**Years of Service**	**2012**	**2011**	**2010**
	0	37	22	18
	1	17	16	16
	2	13	12	22
	3	11	10	10
	4	9	12	8
	Sub-Total	87	72	74
Under 30	5 & Over	0	1	2
30-34		4	6	1
35-39		3	5	4
40-44		5	10	4
45-49		9	3	1
50-54		6	4	2
55-59		1	6	7
60 & Over		3	0	2
Sub-Total		31	35	23
Total *		**118**	**107**	**97**
Expected No.		136.0	114.0	122.2

* *Includes people on leave of absence*

NUMBER ADDED TO AND REMOVED FROM ACTIVE MEMBERSHIP

ACTUAL & EXPECTED

Valuation Date	Number Added During Year		Retirement		Disabled		Died-In Service		Other Withdrawal		Members End of
December 31	A	E	A	E	A	E	A	E	A	E	Year
1998	201	215	32	50.8	1	3.8	5	4.3	177	116.1	2,404
1999	285	240	38	51.6	3	4.1	5	4.6	194	143.4	2,449
2000	309	308	38	54.1	6	4.3	3	4.7	261	159.1	2,454
2001	331	331	82	74.6	4	3.6	5	3.7	240	162.7	2,454
2002	135	215	54	89.1	5	3.1	9	3.7	147	172.2	2,374
2003	120	213	42	87.6	2	3.2	7	3.7	153	146.7	2,290
2004	207	201	62	98.7	1	3	3	3.9	129	119.9	2,302
2005	200	190	57	100.2	3	3.1	6	4.1	124	129.6	2,312
2006	238	197	63	88.8	3	3.1	2	3.8	129	131.4	2,353
2007	206	179	64	93.4	1	3	5	3.9	109	148.9	2,380
2008	220	178	68	94.7	0	2.8	0	4.0	110	149.5	2,422
2009	138	180	67	106.8	1	2.6	2	4.0	110	159.2	2,380
2010	137	213	91	106.7	4	2.5	4	4.1	114	132.6	2,304
2011	257	163	48	111.6	1	2.4	3	4.2	111	124.0	2,398
2012	242	181	45	116.1	1	2.5	3	4.4	132	146.0	2,459
2008-2012	994	915	319	535.9	7	12.8	12	20.7	577	711.3	

A: Actual experience
E: Expected experience based on actuarial assumptions