

**CITY OF KALAMAZOO EMPLOYEES RETIREMENT SYSTEM
SIXTY-FIRST ANNUAL ACTUARIAL VALUATION**

DECEMBER 31, 2012

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May 13, 2013

The Retirement Investment Committee
The Board of Trustees
City of Kalamazoo Employees Retirement System
Kalamazoo, Michigan

Ladies and Gentlemen:

Submitted in this report are the results of the December 31, 2012 Actuarial Valuation of the City of Kalamazoo Employees Retirement System. This report was prepared at the request of the Retirement System. This report may be provided to parties other than the Retirement System only in its entirety and only with the permission of the System. This report should not be relied on for any purpose other than the purpose described in the primary communication.

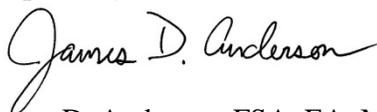
The actuarial calculations were prepared for purposes of complying with the requirements of Statements No. 25 and No. 27 of the Governmental Accounting Standards Board (GASB) and the Michigan State Constitution. The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards and appropriate law. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying the City's financial reporting and contribution requirements may produce significantly different results.

The valuation was based upon information furnished by the City of Kalamazoo concerning Retirement System benefits, financial transactions, and individual active members, terminated members, retirees and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited by us. We are not responsible for the accuracy or completeness of the information provided by the City.

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

Respectfully submitted,



James D. Anderson, FSA, EA, MAAA



Curtis Powell, EA, MAAA

JDA/CP:mrb

SECTION A
EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Computed Employer Contributions - Fiscal Year Beginning January 1, 2013

As expected, based on last year's results, City contributions will not be required for year 2013.

The pensions provided by the City to its employees through the Retirement System are valuable financial benefits. Every year that City employees earn another year of credit toward their pensions, there is a cost associated with that credit. The City's cost of benefits accruing during the year, the City normal cost, totals \$5.5 million for fiscal year beginning January 1, 2013. Refer to page B-2 for additional information. The reason that City contributions are not currently needed to support the Retirement System is that favorable experience over the last 25 years ending in 2012 has resulted in assets in excess of the accrued liability as of the valuation date. This overfunded liability is currently supporting the pension costs that would otherwise require City contributions. As employees accrue larger pensions by earning additional service each year, the cost of those larger pensions may use up the overfunded liability.

2012 Funding Position

This year valuation assets represent 120.1% of accrued liabilities; last year the ratio was 133.9%. The decrease in overfunding is the result of the accrual of benefits during the year, the Early Retirement Incentive program increasing liabilities, and the recognition of scheduled investment losses from prior years reducing assets used for funding purposes.

Contribution Requirements Longer Term

Even though the City continues to have an overfunding credit and application of the credit brings the required contribution amount to \$0, the System calculates contributions based on a smoothed value of assets. This smoothed asset value, or actuarial value of assets, recognizes a given year's asset gain or loss over the current and subsequent four years. Scheduled recognition of prior gains will help strengthen the overfunding credit. Future investment gains could offer additional support to the overfunding. Conversely, future investment losses would reduce the credit. Any significant losses will hasten the emergence of a City contribution requirement.

EXECUTIVE SUMMARY (CONTINUED)

We understand that certain groups have an employee contribution rate tied to the funded status of the Plan. For example, if the Plan is less than 120% funded, additional employee contributions are required. The funded percent as of December 31, 2012 is 120.1%. Please note that it is possible that the funded percent will fall below 120% at the next valuation as of December 31, 2013.

Reasons for Changes

There are three general reasons why contribution requirements change from one valuation to the next. The first is a change in the benefits or eligibility conditions of the System. The second is a change in the valuation assumptions used to predict future occurrences and the methods used to finance the benefits. The third is the difference during the year between the System's actual experience and what the assumptions predicted, or the plan experience.

Changes in Plan Provisions

There was an Early Retirement Initiative (ERI) offered during the year. The ERI provides enhanced benefits and accelerated retirement eligibility to electing members who either would be eligible to retire under the terms of the existing plan or would have 25 years of service by December 31, 2015. The ERI is discussed in detail in a report provided by GRS to the Plan sponsor on April 24, 2013.

For purposes of the valuation, final benefit amounts and retirement dates were provided by the City. Liabilities in this report include the value of the ERI for members not yet retired by the valuation date, but participant exhibits as of the valuation date continue to reflect them as active employees.

Changes in Cost Methods and Actuarial Assumptions

There have been no changes in actuarial methods or assumptions since the 2011 valuation.

2012 Plan Experience

There was an experience loss of \$21,950,135 during 2012. This represents (7.56)% of the 2011 accrued liabilities. The effect of this loss is a decrease in the overfunding credit and an increase in the need for future contributions.

EXECUTIVE SUMMARY (CONCLUDED)

Causes of the Loss

The market value of assets returned 15.20% in 2012 but the return on the (smoothed) valuation assets was only 3.90%. Net investment income on the smoothed basis was less than the long-term assumption of 7.5%, resulting in a loss of \$(17,920,983). In addition, there was a loss due to disability retirements and a small loss primarily due to higher than anticipated retiree survival.

Investment gain (loss)	\$(17,920,983)
Remaining gain (loss)	<u>(4,029,152)</u>
Gain (loss) from all causes	\$(21,950,135)

Conclusion

For years, the overfunded position enjoyed by the System has generated a funding credit which allowed the City to temporarily reduce (and then temporarily eliminate) annual contributions to the System trust. The investment losses which occurred in 2008 and a loss experienced in 2011 have had a significant negative effect on the System's funding credit. The smoothed asset valuation method phases-in the recognition of the asset gains and losses over 5 years. 2012 was the final year required to recognize the 2008 investment losses. As of December 31, 2012, the market value of assets exceeds the smoothed value by \$25,098,940. This means there are net unrecognized gains which will be recognized over the next 4 years that will help improve the funded status of the System.

SECTION B

VALUATION RESULTS

COMPUTED CONTRIBUTIONS TO PROVIDE BENEFITS

The Retirement System is supported by contributions from the City (when required) and active members and by the investment income earned on System assets. Member contribution rates are determined by the benefit provisions of the System and are summarized in Section B of this report. The City provides an actuarially determined contribution, the remainder, if any, needed to meet the financial objective.

Member and City contributions cover both (i) normal cost, and (ii) financing of the unfunded accrued liability over a period of future years. The normal cost is the portion of System costs allocated to the current year by the valuation method described in Section D. The unfunded accrued liability is the portion of System costs not covered by present System assets and future normal costs.

For a plan that is overfunded, contribution income needs to cover the normal cost less an amortization credit on the overfunding. When a plan is extremely overfunded, the amortization credit can completely offset the normal cost, eliminating the need for employer contribution income. This can persist for years as long as investment income is sufficient to maintain the overfunding.

When contributions are once again required, we recommend one of the following procedures for determining City contributions to the Retirement System.

- (1) Contribute dollar amounts for a period which are equal to the City's percent-of-payroll contribution requirements on page B-2 multiplied by the covered active member payroll for the period. Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Retirement System benefits and to include non-payroll payments that are covered compensation.
- (2) Contribute the dollar amounts on page B-2.

**CONTRIBUTIONS TO PROVIDE BENEFITS
EXPRESSED AS PERCENTS AND DOLLARS OF ACTIVE MEMBER PAYROLL**

Contributions for the Year Beginning January 1,	2013	2012
Normal cost of benefits		
Age & service	15.65 %	15.01 %
Disability	1.15	1.12
Pre-retirement survivor	0.47	0.48
Refunds of member contributions	0.18	0.17
Total normal cost	17.45	16.78
Administrative expense allowance	0.60	0.60
Less: Member contributions*	3.00	2.90
Employer normal cost	15.05	14.48
Unfunded actuarial accrued liabilities ^	(26.64)	(35.15)
Employer Contribution Requirement@	(11.59)	(20.67)
Payroll	\$ 36,538,969	\$ 42,305,663
Recommended Employer Contribution	\$ 0	\$ 0

Contributions for the Year Beginning January 1,	2013	2012
Normal cost of benefits		
Age & service	\$ 5,947,083	\$ 6,604,083
Disability	437,006	492,776
Pre-retirement survivor	178,602	211,190
Refunds of member contributions	68,401	74,796
Total normal cost	6,631,092	7,382,846
Administrative expense allowance	228,003	263,987
Less: Member contributions*	1,140,016	1,275,939
Employer normal cost	5,719,079	6,370,894
Unfunded actuarial accrued liabilities ^	(10,123,340)	(15,465,258)
Employer Contribution Requirement@	\$ (4,404,261)	\$ (9,094,364)
Payroll	\$ 36,538,969	\$ 42,305,663
Recommended Employer Contribution	\$ 0	\$ 0

* Weighted average of various contribution rates.

@ As the System cannot contribute back to the employer, no employer contribution is required.

^ Page B-4 displays the unfunded accrued liabilities (or overfunding) that are amortized by the contribution rates shown above.

HISTORY OF CITY'S CONTRIBUTION RATES

Fiscal Year	Valuation Date Dec. 31	Contribution as Percent of Valuation Payroll	Recommended	Actual
1994 @	1993	4.87	\$1,623,803	\$1,623,803
1995 *	1994	5.41	1,889,474	1,889,474
1996 *	1995	4.30	1,500,400	1,500,398
1997 *@	1996	2.35	840,966	841,000
1998 *	1997	0.00	0	0
1999 *	1998	0.00	0	0
2000 *@	1999	0.00	0	0
2001 *	2000	0.00	0	0
2002 *	2001	0.00	0	0
2003 *@	2002	0.00	0	0
2004 *	2003	0.00	0	0
2005 @	2004	0.00	0	0
2006 *@	2005	0.00	0	0
2007 *	2006	0.00	0	0
2008 *	2007	0.00	0	0
2009 *	2008	0.00	0	0
2010 *@	2009	0.00	0	0
2011 *@	2010	0.00	0	0
2012 *	2011	0.00	0	0
2013 *	2012	0.00	0	0

* *Retirement System amended.*

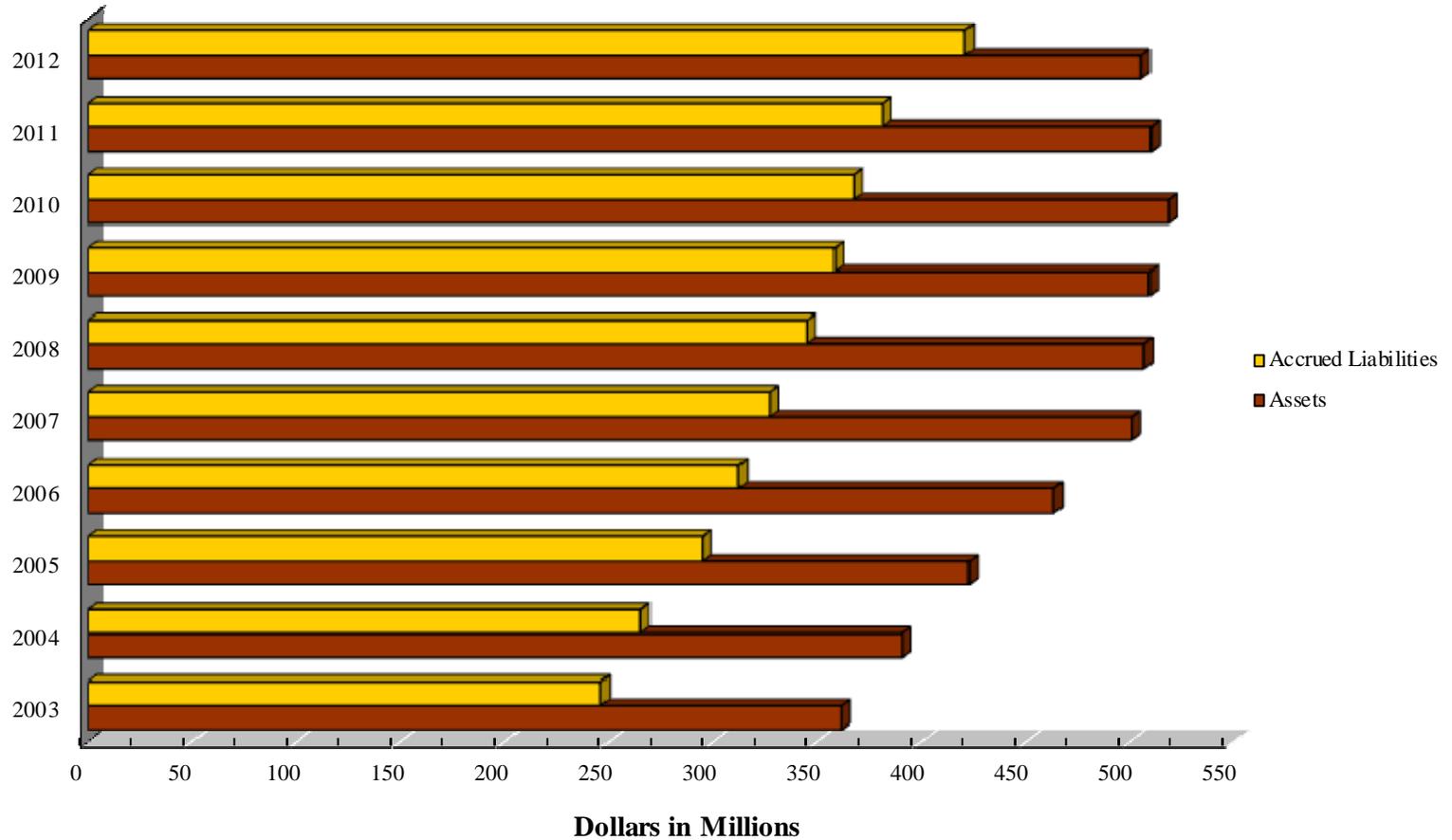
@ *Revised actuarial assumptions and/or methods.*

UNFUNDED ACCRUED LIABILITY

	<u>Totals</u>
A. Accrued Liability	
1. For Retirees and Beneficiaries	\$300,896,407
2. For Vested Terminated Members	3,815,591
3. For Present Active Members	
a. Value of expected future benefit payments	170,389,987
b. Value of future normal costs	<u>54,390,620</u>
c. Active member liability: (a) - (b)	115,999,367
4. Total	<u>420,711,365</u>
B. Present Assets	
1. Valuation Basis	505,234,953
2. Market Basis	530,333,893
C. Unfunded Accrued Liability (Excess Assets)	
1. Valuation Basis: (A.4) - (B.1)	(84,523,588)
2. Market Basis: (A.4) - (B.2)	(109,622,528)
D. Funded percent	
1. Valuation Basis: (B.1) / (A.4)	120.1%
2. Market Basis: (B.2) / (A.4)	126.1%

ASSETS AND ACCRUED LIABILITIES

Valuation Year



2001 assets equaled 159% of accrued liabilities.

2012 assets equaled 120% of accrued liabilities.

**DEVELOPMENT OF EXPERIENCE GAIN (LOSS)
YEAR ENDED DECEMBER 31, 2012**

Actual experience will never (except by coincidence) exactly match 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 development of the experience gain (loss) is shown below.

	Year Ending December 31	
	2012	2011
(1) UAAL* at start of year	\$(129,129,295)	\$(150,915,470)
(2) Normal cost from prior year	6,350,473	7,335,802
(3) Actual contributions	1,199,113	1,519,670
(4) Interest accruals on (1), (2) and (3)	(9,493,849)	(11,103,184)
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	(133,471,784)	(156,202,522)
(6) Change from benefit increases	0	107,792
(7) Early Retirement Initiative	(26,998,061)	0
(8) Change from revised actuarial assumptions and/or methods	0	0
(9) Expected UAAL after changes: (5) + (6) + (7)	(106,473,723)	(156,094,730)
(10) Actual UAAL at end of year	(84,523,588)	(129,129,295)
(11) Gain (loss): (8) - (9)	(21,950,135)	(26,965,435)
(12) Gain (loss) as percent of actuarial accrued liabilities at start of year	(7.56%)	(7.34%)

* *Unfunded Actuarial Accrued Liabilities.*

	2012 Gain (Loss)		
	Totals	Investment	Non-Investment
	\$(21,950,135)	\$(17,920,983)	\$(4,029,152)

DEVELOPMENT OF VALUATION ASSETS

Year Ended December 31:	2010	2011	2012	2013	2014	2015	2016
A. Valuation Assets Beginning of Year	\$509,060,409	\$518,339,022	\$509,931,421				
B. Market Value End of Year	511,217,114	482,881,173	530,333,893				
C. Market Value Beginning of Year	450,923,935	511,217,114	482,881,173				
D. Non-Investment Net Cash Flow	(15,708,022)	(17,122,196)	(24,115,992)				
E. Investment Income *							
E1. Market Total: B - C - D	76,001,201	(11,213,745)	71,568,712				
E2. Amount for Immediate Recognition (7.5%)	37,590,480	38,233,344	37,340,507				
E3. Amount for Phased-In Recognition: E1-E2	38,410,721	(49,447,089)	34,228,205				
F. Phased-In Recognition of Investment Income							
F1. Current Year: 0.2 x E3	7,682,144	(9,889,418)	6,845,641				
F2. First Prior Year	12,020,338	7,682,144	(9,889,418)	\$ 6,845,641			
F3. Second Prior Year	(34,579,690)	12,020,338	7,682,144	(9,889,418)	\$ 6,845,641		
F4. Third Prior Year	(4,752,125)	(34,579,690)	12,020,338	7,682,144	(9,889,418)	\$ 6,845,641	
F5. Fourth Prior Year	7,025,488	(4,752,123)	(34,579,688)	12,020,340	7,682,145	(9,889,417)	\$ 6,845,641
F6. Start-up Phase-In	0	0	0	0	0	0	0
F7. Total Phased-In Recognition	(12,603,845)	(29,518,749)	(17,920,983)	16,658,707	4,638,368	(3,043,776)	6,845,641
G. Valuation Assets End of Year: A + D + E2 + F7	518,339,022	509,931,421	505,234,953				
H. Difference between Market & Valuation Assets: B - G	(7,121,908)	(27,050,248)	25,098,940	8,440,233	3,801,865	6,845,641	0
I. Valuation Asset Recognized Rate of Return	4.99%	1.71%	3.90%				
J. Market Value Recognized Rate of Return	17.15%	(2.23)%	15.20%				

* Includes adjustments of \$(3,675) for FYE 2008 and \$2,165 for FYE 2009.

The Valuation Assets recognizes assumed investment income (line E2) fully each year. Differences between actual and assumed investment income (line E3) are phased-in over a closed 5-year period. During periods when investment performance exceeds the assumed rate, Valuation Assets will tend to be greater than market value. During periods when investment performance is less than the assumed rate, Valuation Assets will tend to be greater than Market Value. The Valuation Assets are 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 5 consecutive years, it will become equal to Market Value.

VALUATION ASSET GROWTH HISTORY

Year	Net Contribution Income	Net Investment Return	Benefit Payments and Refunds	Year End Assets
1988	\$ 4,010,863	\$ 7,669,877	\$ 3,468,134	\$ 78,036,293
1989	4,043,221	13,019,999	3,889,355	91,210,162
1990	4,111,620	7,931,746	4,273,712	98,979,816
1991	4,091,054	17,554,303	4,580,471	116,044,702
1992	3,750,367	15,352,600	4,855,017	130,292,652 *
Five Year Period	20,007,125	61,528,525	21,066,689	
1993	3,913,331	17,204,848	5,137,776	146,273,055 *
1994	3,265,544	16,061,927	6,052,552	159,547,974 *
1995	3,474,935	23,926,130	6,592,176	180,356,863 *
1996	3,230,350	24,892,891	7,838,253	200,641,851 *
1997	2,453,815	47,847,856	8,327,995	242,615,527 *
Five Year Period	16,337,975	129,933,652	33,948,752	
1998	1,748,664 @	33,752,473	9,115,891	269,000,773 *@
1998	--	--	--	267,200,773 #*
1999	1,474,740	45,017,668	9,993,770	303,699,411 *
2000	1,302,970	36,510,420	10,069,664	331,443,137 *
2001	1,261,691	27,898,652	11,446,161	349,157,319 *
2002	1,313,297	9,341,851	11,157,971	348,654,496 *
Five Year Period	7,101,362	152,521,064	51,783,457	
2003	1,314,089	23,609,527	12,390,484	361,187,628 *
2004	1,360,815	41,621,866	13,555,032	390,615,277 *
2005	1,232,973	44,444,158	13,726,647	422,565,761 *
2006	1,238,628	53,842,184	14,365,610	463,280,963 *
2007	1,344,408	52,089,141	15,926,268	500,788,244 *
Five Year Period	6,490,913	215,606,876	69,964,041	
2008	1,445,963	20,324,800	15,966,434	506,592,573 *
2009	1,368,975	17,762,035	16,663,174	509,060,409 *
2010	1,432,395	24,986,635	17,140,417	518,339,022 *
2011	1,268,330	8,714,595	18,390,526	509,931,421 *
2012	951,916	19,419,524	25,067,907 &	505,234,954 *
Five Year Period	6,467,579	91,207,589	93,228,458	

* Does not reflect future contributions to purchase service.

@ Before transfer to County.

After transfer of \$1,800,000 to County.

& Includes special distributions under the ERI.

VALUATION ASSET INVESTMENT EXPERIENCE HISTORY
(\$000 OMITTED)

Year	Assumed Net Investment Income		Net Dividends and Interest		Recognized Gains (Losses) *		Net Investment Income		Experience Gain (Loss)
	Amount	%	Amount	%	Amount	%	Amount	%	
1993	\$ 9,726	7.50 %	\$ 4,608	3.55 %	\$ 12,597	9.71 %	\$ 17,205	13.27 %	\$ 7,479
1994	10,866	7.50	4,776	3.30	11,286	7.79	16,062	11.09	5,196
1995	11,849	7.50	6,177	3.91	17,749	11.23	23,926	15.14	12,077
1996	13,354	7.50	6,211	3.49	18,682	10.49	24,893	13.98	11,539
1997	14,828	7.50	6,244	3.16	41,604	21.04	47,848	24.20	33,020
1998	17,920	7.50	6,259	2.62	27,494	11.51	33,752	14.13	15,833
1999	19,721	7.50	7,844	2.98	37,173	14.14	45,018	17.12	25,297
2000	22,449	7.50	8,675	2.90	27,836	9.30	36,510	12.20	14,062
2001	24,477	7.50	5,705	1.75	22,171	6.79	27,876	8.54	3,398
2002	25,818	7.50	5,113	1.49	4,229	1.21	9,342	2.70	(16,476)
2003	25,734	7.50	5,790	1.69	17,819	5.21	23,610	6.90	(2,124)
2004	26,632	7.50	7,356	2.07	34,266	9.65	41,622	11.72	14,989
2005	28,828	7.50	15,466	4.02	28,978	7.54	44,444	11.56	15,617
2006	31,200	7.50	21,321	5.13	32,521	7.82	53,842	12.94	22,642
2007	34,199	7.50	24,659	5.41	27,430	6.02	52,089	11.42	17,890
2008	37,015	7.50	14,940	3.03	5,385	1.09	20,325	4.12	(16,690)
2009	37,421	7.50	7,655	1.53	10,107	2.03	17,762	3.56	(19,659)
2010	37,590	7.50	9,773	1.95	15,214	3.04	24,987	4.99	(12,604)
2011	38,233	7.50	9,511	1.87	(796)	(0.16)	8,715	1.71	(29,519)
2012	37,341	7.50	14,063	2.82	5,357	1.08	19,420	3.90	(17,921)

* In addition to net interest and dividends.

DEVELOPMENT OF VALUATION INVESTMENT GAIN (LOSS) YEAR ENDED DECEMBER 31, 2012

The December 31, 2012 valuation assumed an average 7.5% net return on valuation assets for future years. Net investment return in excess of 7.5% represents a gain. If net investment return falls short of 7.5%, the difference between an income of 7.5% and the net return represents a loss. For the year ended December 31, 2012, the valuation anticipated investment return of \$37,340,507 (see item E2 on page B-7). Total phased-in recognition amounted to a loss of (\$17,920,983) for the year (see item F7 on page B-7), resulting in a return of 3.90% on a valuation basis (see item I on page B-7).

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation (dollar weighted). It is not, therefore, appropriate as a measure of manager performance.

RATES OF RETURN AND CHANGE IN PAYS AND LIABILITIES

	Year Ended December 31					5 Year Average*
	2012	2011	2010	2009	2008	
Increase in average salary#	4.6%	3.0%	1.0%	2.5%	4.9%	3.2%
Return on assets^	3.9	1.7	5.0	3.6	4.1	3.6
Liability growth	10.5	3.7	2.6	3.9	5.4	5.2

* *Compound rate of increase.*

For members employed throughout the most recent two years.

^ *The nominal rate of return was computed using the approximate formula $i = I$ divided by $1/2 (A + B - I)$, where I is actual investment income net of expenses, A is the beginning of year asset value, and B is the end of year asset value.*

SECTION C

SUMMARY OF THE INFORMATION SUBMITTED FOR THE VALUATION

BRIEF SUMMARY OF BENEFIT PROVISIONS AS REPORTED FOR DECEMBER 31, 2012 VALUATION

Eligibility

Amount

REGULAR RETIREMENT (no reduction factor for age)

General: Age 57 with 25 years of service, or age 62 with 10 years of service. AFSCME members only may also retire at age 60 with 20 years of service.

Total service multiplied by:

2.1% of FAC – KMEA – effective 1/1/08
2.1% of FAC – AFSCME – effective 10/2/07
2.1% of FAC – Metro Transit
2.3% of FAC – Exempt members
2.1% of FAC – Other General members–CSO – effective 1/1/08
2.7% of FAC – Public Safety members

FAC (final average compensation) – Highest 3 consecutive years out of the last 10.

Public Safety: 25 years of service or age 50 with 10 years of service.

Maximum benefit for Public Safety members is equal to 70.2% of FAC.

EARLY RETIREMENT (age reduction factor used)

General: Age 55 with 15 years of service.

Computed as a regular retirement but reduced by 4/10 of 1% for each month and fraction of a month by which retirement precedes age 62 if less than 25 years of service or age 57 if 25 or more years of service.

Public Safety: 20 years of service.

2% of final average compensation multiplied by years of credited service.

DEFERRED RETIREMENT

10 years of service for most members, 5 years for Exempt hired before 9/1/2010, 9 years for AFSCME and 8 years for KMEA hired before 1/1/2009. Benefit begins at age 62 for General employees, and at age 50 for Public Safety employees.

General: Computed as a regular or early retirement but based upon service and final average compensation at termination date.

Public Safety: Computed as early retirement.

NON-DUTY DEATH-IN-SERVICE

10 years of service for most members, 5 years for Exempt hired before 9/1/2010, 9 years for AFSCME and 8 years for KMEA hired before 1/1/2009.

General: Computed as a regular retirement but actuarially reduced in accordance with a 100% joint and survivor election.

Public Safety: A benefit of 33-1/3% of final compensation is paid to the surviving spouse. Unmarried children under 18 years of age receive equal shares of 25% of final compensation.

DUTY DEATH-IN-SERVICE

Payable to the survivors of a member who died in the line of duty.

A benefit of 33-1/3% of final compensation is paid to the surviving spouse. Unmarried children under 18 years of age receive equal shares of 25% of final compensation. Worker's compensation payments are offset.

NON-DUTY DISABILITY

10 years of service for most members, 5 years for General Exempt hired before 9/1/2010, 9 years for AFSCME and 8 years for KMEA hired before 1/1/2009.

Computed as regular retirement. Reduced on a dollar-for-dollar basis by amount of worker's compensation, if any.

BRIEF SUMMARY OF BENEFIT PROVISIONS AS REPORTED FOR DECEMBER, 31, 2012 VALUATION

Eligibility

Amount

DUTY DISABILITY

No age or service requirements.

General: Computed as regular retirement with additional service credit granted from day of actual retirement to date of voluntary retirement eligibility.

Public Safety: Computed as regular retirement. During worker's compensation period benefit cannot exceed the difference between final compensation and worker's compensation.

DEATH AFTER RETIREMENT

Spouse of Public Safety member retired on or after July 1, 1972.

50% of the regular retirement benefit the deceased retiree was receiving.

POST-RETIREMENT BENEFIT INCREASES

AFSCME members who retire on and after 10/25/1999.

1% increases compounded annually, beginning 1 year after retirement; 2% compounded annually beginning at age 75.

KMEA members.

1.5% increases compounded annually, beginning the latter of the Retirees 64th birthday and 1 year after retirement; 2% compounded annually beginning at age 75 (effective in 2002).

Transit Union members.

1% increases compounded annually, beginning 1 year after retirement; 2% compounded annually beginning at age 75.

Public Safety members who retired on and after 1/1/95 with 25 or more years of service.

2% increases compounded annually.

Exempt members.

1.5% increases compounded annually one year after retirement for members who elected to contribute by May 2006.

13TH CHECKS

Retired by 12/31/1999; retired at least 5 years; have attained age 70 prior to June 1 of the year preceding the periodic payment to be made; had at least 25 years of service with the City; ineligible for post-retirement benefit increases; pension less than \$20,000. Continuation of this program is conditional as described in the ordinance.

Special payment during 2001 and every third year thereafter. Amount equals \$47.02 per point as of December 31, 2004, points accumulated for each year of service and each year retired; not to exceed difference between \$28,000 and annual pension; \$43.38 value increases annually after 2001; aggregate payments in any year may not exceed \$750,000. However, no payment shall be made in any year in which the Fund's actuary projects the need for City contributions to the fund within 10 years of the projection nor if the actuary recommends a contribution by the City for that year.

MEMBER CONTRIBUTIONS

AFSCME members:

1% - effective 10/2/06. If funding % goes below 120% contribution rate reverts to 2%.

Transit Union and KMEA members:

1% of AC.

Exempt members:

1.5% of AC, 3% of AC for Exempt Members hired after 6/1/2006, 3.5% for Exempt Members who signed up for the PRA by May of 2006.

Non-Sworn Public Safety members:

1% of AC.

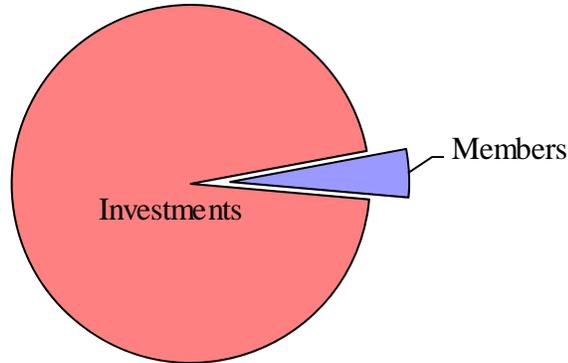
Sworn Public Safety members:

4.5% of AC. If funding % goes below 120% contribution rate reverts to 6.5%.

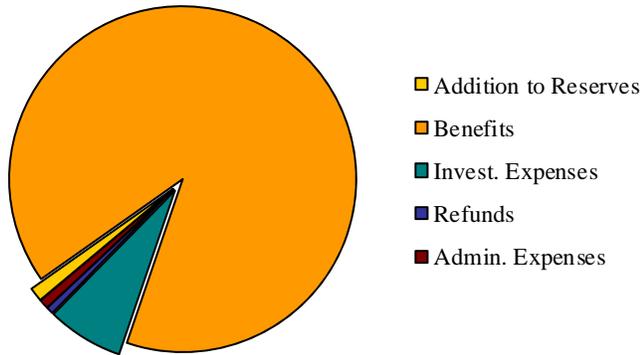
CITY CONTRIBUTIONS

Actuarially determined amounts, which, together with member contributions, are sufficient to cover both (i) normal costs of the plan, and (ii) financing of unfunded accrued benefit values over a selected period of future years.

**INCOME AND DISBURSEMENTS
DURING YEAR ENDED DECEMBER 31, 2012
(COST VALUE)**



Source of \$27,645,482 in Income



Application of \$27,645,482 Income

See page C-4 for more information.

REPORTED FINANCIAL INFORMATION
YEAR ENDED DECEMBER 31, 2012
COST VALUE

Income and Expenses

Revenues:

a. Member contributions	\$ 1,199,113	
b. Employer contributions	0	
c. Interest and dividends	15,993,605	
d. Gain on sale of investments	10,415,928	
e. Miscellaneous	<u>36,836</u>	
Total		\$27,645,482

Expenditures:

a. Refunds of member contributions	181,871	
b. Benefits paid	24,886,037	
c. Administrative expenses	247,197	
d. Investment expenses	<u>1,967,934</u>	
Total		<u>27,283,039</u>

Reserve Increase:

Total revenues minus total expenditures		<u><u>\$362,443</u></u>
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**REPORTED FINANCIAL INFORMATION
YEAR ENDED DECEMBER 31, 2012**

Assets and Reserves on Cost Value Basis

Assets:		Reserve Accounts:	
a. Cash or equivalents	\$ 5,423,418	a. Member contributions	\$ 39,115,988
b. Receivables net of payables	1,013,328	b. Employer contributions	113,250,323
c. Stocks	254,080,444	c. Retired benefit payments	252,869,791
d. Fixed income	116,851,201		
e. Real Estate Investment Fund	<u>27,867,711</u>		
Total	<u>\$405,236,102</u>	Total	<u>\$405,236,102</u>

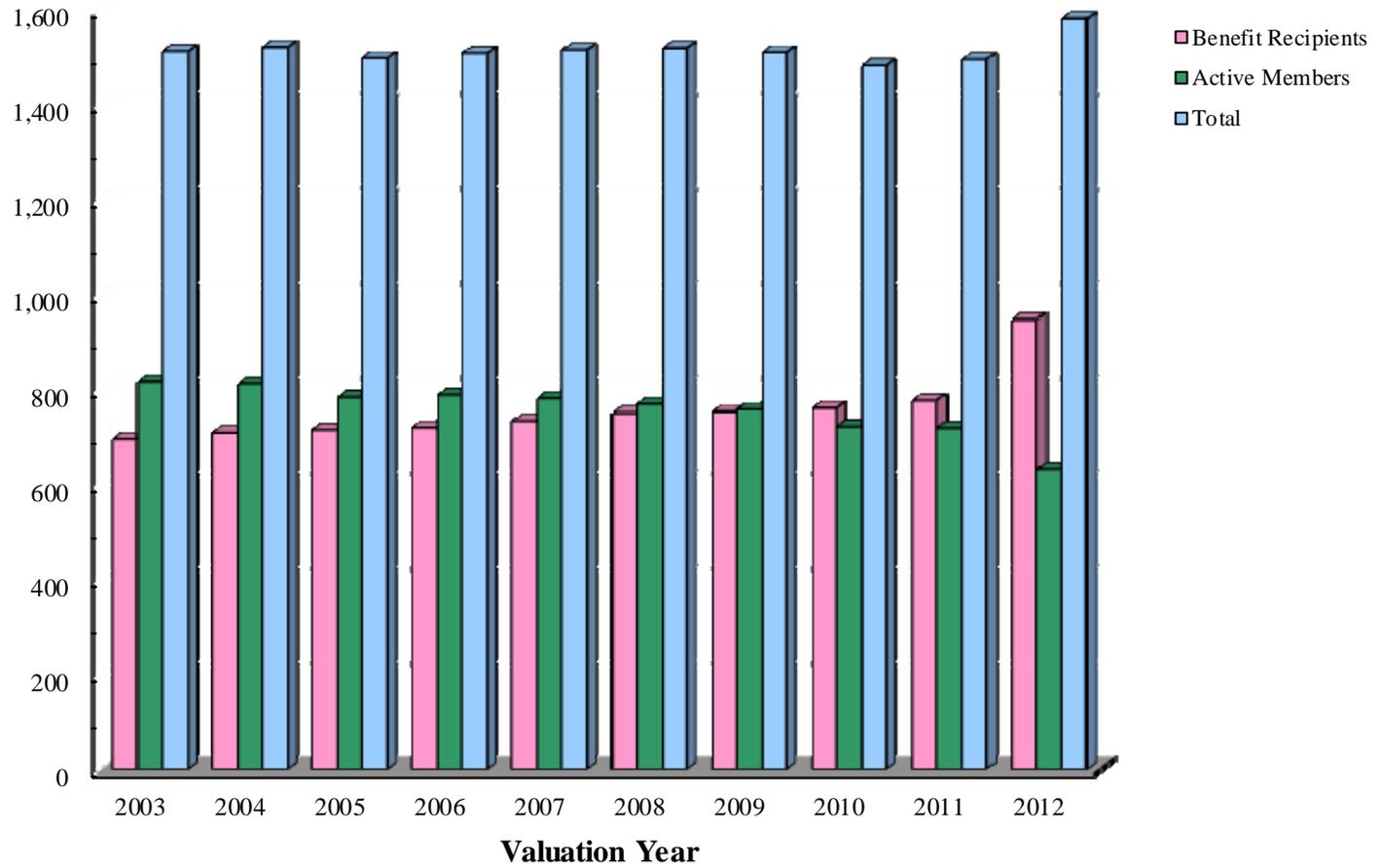
The value of future benefit payments to retirees and beneficiaries as of December 31, 2012 is \$300,896,407. The value of the Reserve for Retired Benefit Payments was \$252,869,791. The figures below compare the retired liabilities to the reported retiree reserve balance.

<u>Accrued Liability</u>	<u>Reported Retiree Reserve</u>	<u>Unfunded Liability (Excess Assets)</u>
\$ 300,896,407	\$ 252,869,791	\$ 48,026,616

Our valuation assumes that amounts equal to the unfunded retiree liabilities for all divisions have been transferred effective January 1, 2013 from the employer reserves to the retiree reserves, to fully fund the retiree accrued liabilities.

ACTIVE MEMBERS & BENEFIT RECIPIENTS

Covered Persons



RETIREMENTS DURING 2012
TABULATED BY ANNUAL AMOUNT OF BENEFIT

Annual Amount	Age and Service	Disability	Survivors	Totals
2,000 - 3,999			1	1
4,000 - 5,999	1		2	3
6,000 - 7,999	3			3
8,000 - 9,999	1	1	1	3
10,000 - 11,999	4			4
12,000 - 13,999	1			1
14,000 - 15,999	3			3
16,000 - 17,999	2			2
18,000 - 19,999	5			5
20,000 - 21,999	4			4
22,000 - 23,999	12			12
24,000 - 25,999	7			7
26,000 - 27,999	13			13
28,000 - 29,999	9			9
30,000 - 31,999	12			12
32,000 - 33,999	14			14
34,000 - 35,999	8			8
36,000 - 37,999	8			8
38,000 - 39,999	6			6
40,000 - 41,999	5			5
42,000 - 43,999	2			2
44,000 - 45,999	5			5
46,000 - 47,999	2			2
48,000 - 49,999	6	1		7
50,000 - 51,999	5	1		6
52,000 - 53,999	3			3
54,000 - 55,999	14			14
56,000 - 57,999	5			5
58,000 - 59,999	3			3
60,000 - 61,999	1			1
62,000 - 63,999	4			4
64,000 - 65,999	3			3
66,000 - 67,999	2			2
68,000 - 69,999				0
70,000 - 71,999	1			1
72,000 - 73,999	5			5
74,000 - 75,999	3			3
Totals	182	3	4	189

This exhibit does not include new alternate payees due to EDRO or new beneficiaries from retirees.

RETIREMENTS DURING 2012
TABULATED BY AGE NEAREST BIRTHDAY
AND TYPE OF RETIREMENT

Ages	Age and Service		Disability		Survivors		Totals	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
38			1	\$ 50,819			1	\$ 50,819
44	3	\$ 143,040					3	143,040
45	3	124,231					3	124,231
46	8	446,852					8	446,852
47	7	434,612					7	434,612
48	5	248,630					5	248,630
49	4	145,969					4	145,969
50	9	392,572					9	392,572
51	12	508,171					12	508,171
52	8	325,415	1	49,885			9	375,300
52	8	291,941					8	291,941
54	10	400,899					10	400,899
55	15	616,537	1	9,607			16	626,144
56	11	498,346					11	498,346
57	10	362,327					10	362,327
58	15	591,098					15	591,098
59	9	344,599					9	344,599
60	7	166,628					7	166,628
61	14	335,715					14	335,715
62	7	218,549					7	218,549
63	4	74,312					4	74,312
64	4	86,580					4	86,580
65	2	54,462					2	54,462
66	1	6,285					1	6,285
67	5	92,425					5	92,425
71	1	7,284					1	7,284
77					2	\$ 11,802	2	11,802
83					1	5,019	1	5,019
92					1	5,241	1	5,241
Totals	182	\$6,917,480	3	\$ 110,311	4	\$ 22,062	189	\$ 7,049,854

This exhibit does not include new alternate payees due to EDRO or new beneficiaries from retirees.

KMEA RETIREES AND BENEFICIARIES AS OF DECEMBER 31, 2012
TABULATED BY ATTAINED AGE AND TYPE OF RETIREMENT*

Attained Age	Age and Service		Disability		Survivors		Totals	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
45 - 49	5	\$ 162,619	1	\$ 7,131			6	\$ 169,750
50 - 54	8	233,985	1	9,967			9	243,952
55 - 59	17	536,256	1	8,791			18	545,047
60 - 64	31	706,283			2	\$ 26,848	33	733,131
65 - 69	15	294,334	1	16,800			16	311,133
70 - 74	12	173,748	1	1,922			13	175,670
75 - 79	5	40,653	2	19,088	1	10,530	8	70,271
80	1	5,378					1	5,378
84	3	27,404					3	27,404
85	1	3,147					1	3,147
86	1	6,012					1	6,012
87	2	13,941					2	13,941
88	1	6,661					1	6,661
90 & Over	3	16,028	1	4,236			4	20,264
Totals	105	\$2,226,448	8	\$ 67,935	3	\$ 37,378	116	\$ 2,331,761

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

Average Age at Retirement: 57.5 Years.

Average Age Now: 65.7 Years.

**AFSCME/CSO RETIREES AND BENEFICIARIES AS OF
DECEMBER 31, 2012
TABULATED BY ATTAINED AGE AND TYPE OF RETIREMENT***

Attained Age	Age and Service		Disability		Survivors		Totals	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
40 - 44	1	\$ 33,256					1	\$ 33,256
45 - 49	6	157,791					6	157,791
50 - 54	18	552,852	3	\$ 33,333			21	586,186
55 - 59	26	791,836	6	84,991			32	876,827
60 - 64	35	771,615	8	119,330			43	890,945
65 - 69	17	328,603	1	12,777			18	341,380
70 - 74	17	199,601	3	24,241	2	\$ 18,878	22	242,721
75 - 79	22	244,741	3	16,955			25	261,696
80	5	52,180	1	5,523			6	57,703
81	6	72,951					6	72,951
82	2	11,197					2	11,197
83	3	28,824					3	28,824
84	2	22,015					2	22,015
85	3	19,052	1	6,394			4	25,446
86	2	15,131	1	13,012			3	28,143
88	2	20,385					2	20,385
89					1	1,363	1	1,363
90 & Over	5	20,142					5	20,142
Totals	172	\$3,342,173	27	\$316,556	3	\$20,241	202	\$ 3,678,971

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

Average Age at Retirement: 56.6 Years.

Average Age Now: 66.7 Years.

**EXEMPT RETIREES AND BENEFICIARIES AS OF DECEMBER 31, 2012
TABULATED BY ATTAINED AGE AND TYPE OF RETIREMENT***

Attained Age	Age and Service		Disability		Survivors		Totals	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
45 - 49	1	\$ 39,004	1	\$ 20,230			2	\$ 59,234
50 - 54	14	558,600					14	558,600
55 - 59	23	1,040,834	1	43,856	1	\$ 21,817	25	1,106,507
60 - 64	35	1,001,092			1	5,849	36	1,006,941
65 - 69	27	709,894			1	3,654	28	713,547
70 - 74	24	496,504	1	8,141			25	504,646
75 - 79	16	253,271	1	10,705			17	263,976
80	1	5,836					1	5,836
81	1	6,851					1	6,851
82	4	52,892					4	52,892
83	3	27,552					3	27,552
84	5	69,740					5	69,740
85	4	52,185					4	52,185
86	1	1,465					1	1,465
87	7	99,738					7	99,738
88	3	24,306					3	24,306
89	3	13,834					3	13,834
90 & Over	5	47,877					5	47,877
Totals	177	\$4,501,475	4	\$82,932	3	\$31,320	184	\$ 4,615,727

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

Average Age at Retirement: 57.3 Years.

Average Age Now: 68.8 Years.

TRANSIT RETIREES AND BENEFICIARIES AS OF DECEMBER 31, 2012
TABULATED BY ATTAINED AGE AND TYPE OF RETIREMENT*

Attained Age	Age and Service		Disability		Survivors		Totals	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
40 - 44			1	\$ 13,594			1	\$ 13,594
45 - 49			2	\$ 24,946			2	24,946
50 - 54			1	\$ 34,216			1	34,216
55 - 59	6	\$ 140,171	5	\$ 62,413			11	202,584
60 - 64	7	\$ 141,136	3	\$ 32,953			10	174,088
65 - 69	11	\$ 147,913	2	\$ 20,161			13	168,075
70 - 74	1	\$ 20,827	2	\$ 8,019			3	28,846
75 - 79	3	\$ 14,773	1	\$ 8,938			4	23,711
80	1	\$ 6,883					1	6,883
82			1	\$ 4,580			1	4,580
83	1	\$ 5,248					1	5,248
89	2	\$ 8,432					2	8,432
90 & Over					1	\$ 3,537	1	3,537
Totals	32	\$485,382	18	\$209,820	1	\$3,537	51	\$ 698,740

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

Average Age at Retirement: 57.2 Years.

Average Age Now: 65.5 Years.

**PUBLIC SAFETY RETIREES AND BENEFICIARIES
AS OF DECEMBER 31, 2012
TABULATED BY ATTAINED AGE AND TYPE OF RETIREMENT***

Attained Age	Age and Service		Disability		Survivors		Totals	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
0 - 39			1	\$ 50,819	2	\$ 36,305	3	\$ 87,124
40 - 44	2	\$ 109,784	1	50,333			3	160,117
45 - 49	21	1,230,194	2	85,610	1	22,429	24	1,338,233
50 - 54	32	1,634,537	6	294,555			38	1,929,091
55 - 59	46	2,202,942	2	78,033	1	1,132	49	2,282,107
60 - 64	69	3,304,315	2	39,886			71	3,344,201
65 - 69	58	2,198,161	2	26,406			60	2,224,567
70 - 74	57	1,589,216					57	1,589,216
75 - 79	47	898,344	1	21,526			48	919,870
80	4	47,537	1	5,491			5	53,028
81	4	84,579	1	7,943			5	92,522
82	5	81,063					5	81,063
83	7	72,291					7	72,291
84	1	4,937					1	4,937
85			1	3,338			1	3,338
86	4	40,650					4	40,650
87	2	21,194	1	8,767			3	29,960
88	3	27,537					3	27,537
89	2	15,509					2	15,509
90 & Over	5	23,731					5	23,731
Totals	369	\$13,586,522	21	\$672,705	4	\$59,866	394	\$ 14,319,092

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

Average Age at Retirement: 49.2 Years.

Average Age Now: 65.5 Years.

RETIREEES AND BENEFICIARIES - DECEMBER 31, 2012
TABULATED BY YEARS RETIRED - NEAREST YEAR

Years Retired	Service Retirement	Disability Retirement	Death-in-Service	Beneficiary of Retiree	Totals	Cumulative Percent
40		1		1	2	0.2%
39		2			2	0.4%
38		1	1	2	4	0.8%
37					0	0.8%
36	1			5	6	1.5%
35		2	1	2	5	2.0%
34	1			3	4	2.4%
33	7	1		2	10	3.5%
32	2			2	4	3.9%
31	5	1	1	3	10	5.0%
30	14			7	21	7.2%
29	9		1	7	17	9.0%
28	12			6	18	10.9%
27	12	1		3	16	12.6%
26	13	1		3	17	14.4%
25	10	1		2	13	15.7%
24	17	1	1	4	23	18.2%
23	12	1		3	16	19.9%
22	15	2			17	21.6%
21	14			2	16	23.3%
20	7	2		2	11	24.5%
19	20	3	1	1	25	27.1%
18	23	2	1	5	31	30.4%
17	52	3		4	59	36.6%
16	20	4		3	27	39.5%
15	23	2	1	1	27	42.3%
14	12	1		3	16	44.0%
13	20			1	21	46.3%
12	20	6	1		27	49.1%
11	12	5			17	50.9%
10	53	3	2	3	61	57.3%
9	16	1			17	59.1%
8	20	1			21	61.4%
7	15	4	1	1	21	63.6%
6	17	6			23	66.0%
5	22	2		1	25	68.6%
4	17	6		1	24	71.2%
3	18	2			20	73.3%
2	34	7	2	2	45	78.0%
1	104	3			107	89.3%
Less than 1	101				101	100.0%
Totals	770	78	14	85	947	

RETIREE AND BENEFICIARY COMPARATIVE SCHEDULE[@]

Year Ended Dec. 31	Added to Rolls#		Removed from Rolls		Rolls End of Year		% Incr. in Annual Allowances	Average Allowances	Discounted Value of Allowances	
	No.	Annual Allowances*	No.	Annual Allowances	No.	Annual Allowances			Totals	Average
1993	33	\$ 626,519	18	\$ 149,633	494	\$ 5,428,947	9.6	\$ 10,990	\$ 57,525,004	\$ 116,447
1994	33	586,775	19	94,056	508	5,921,666	9.1	11,657	63,983,893	125,953
1995	39	789,878	14	103,166	533	6,608,378	11.6	12,398	72,796,360	136,579
1996	64	1,108,952	10	53,238	587	7,664,092	16.0	13,056	84,898,479	144,631
1997	41	825,236	23	131,913	605	8,357,415	9.0	13,814	93,826,629	155,085
1998	42	782,825	25	253,483	622	8,886,757	6.3	14,287	100,635,001	161,793
1999	31	800,436	21	110,375	632	9,576,818	7.8	15,153	109,572,407	173,374
2000	33	791,069	19	149,304	646	10,218,583	6.7	15,818	120,319,918	186,254
2001	24	530,225	18	147,375	652	10,601,433	3.7	16,260	124,502,845	190,955
2002	47	1,227,293	20	191,684	679	11,637,042	9.8	17,139	136,218,282	200,616
2003	40	929,269	24	208,928	695	12,357,383	6.2	17,780	145,275,896	209,030
2004	32	841,492	18	191,402	709	13,007,473	5.3	18,346	153,594,898	216,636
2005	31	1,367,707	25	268,275	715	14,106,905	8.5	19,730	168,715,852	235,966
2006	24	697,001	19	54,017	720	14,749,889	4.6	20,486	175,276,935	243,440
2007	31	863,128	17	134,800	734	15,478,217	4.9	21,087	181,074,645	246,696
2008	35	1,051,335	19	185,258	750	16,344,294	5.6	21,792	188,654,437	251,539
2009	25	1,554,246	22	247,330	753	17,651,210	8.0	23,441	191,338,855	254,102
2010	47	458,377	40	364,571	760	17,745,016	0.5	23,349	202,420,395	266,343
2011	46	1,104,498	30	132,052	776	18,717,462	5.5	24,120	212,102,413	273,328
2012	191	7,069,939	20	139,920	947	25,647,481	37.0	27,083	300,896,407	317,736

@ The retired members with service in more than one group are displayed as if each person were receiving two pensions.

* Includes post-retirement adjustments.

Includes survivors of newly deceased retirees and alternate payees under EDRO.

**RETIREES AND BENEFICIARIES DECEMBER 31, 2012
TABULATED BY TYPE OF ALLOWANCES BEING PAID***

GENERAL KMEA

Option Elected	Age & Service	Disability		Death		Totals
		Non-Duty	Duty	Non-Duty	Duty	
Regular	61	5	1	3		70
B-100% J & S	25	1				26
C-50% J & S	11					11
D-10 Year Certain	1					1
Survivor	7	1				8
Total	105	7	1	3	0	116

AFSCME/CSO

Option Elected	Age & Service	Disability		Death		Totals
		Non-Duty	Duty	Non-Duty	Duty	
Regular	81	1	3	3		88
B-100% J & S	44	5	11			60
C-50% J & S	29		2			31
D-10 Year Certain	1					1
E-15 Year Certain	2		1			3
Survivor	15	2	2			19
Total	172	8	19	3	0	202

GENERAL EXEMPT

Option Elected	Age & Service	Disability		Death		Totals
		Non-Duty	Duty	Non-Duty	Duty	
Regular	73		1	3		77
A-Cash Refund	1					1
B-100% J & S	49		1			50
C-50% J & S	37	1				38
D-10 Year Certain						0
Survivor	17	1				18
Total	177	2	2	3	0	184

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

**RETIREES AND BENEFICIARIES DECEMBER 31, 2012
TABULATED BY TYPE OF ALLOWANCES BEING PAID*
(CONCLUDED)**

METRO TRANSIT

Option Elected	Age & Service	Disability		Death		Totals
		Non-Duty	Duty	Non-Duty	Duty	
Regular	18	2	2	1		23
A-Cash Refund	1					1
B-100% J & S	7	1	7			15
C-50% J & S	4	1	1			6
E-15 Year Certain			1			1
Survivor	2	2	1			5
Total	32	6	12	1	0	51

PUBLIC SAFETY

Option Elected	Age & Service	Disability		Death		Totals
		Non-Duty	Duty	Non-Duty	Duty	
Regular	61		5		2	68
A-Cash Refund	1					1
B-100% J & S	10	1				11
C-50% J & S	251	1	10			262
D-10 Year Certain	1					1
E-15 Year Certain	1		1			2
Survivor	44	2	1		2	49
Total	369	4	17	0	4	394

* The retired members with service in more than one group are displayed as if each person were receiving two pensions.

**TERMINATED MEMBERS WITH A DEFERRED VESTED BENEFIT
DECEMBER 31, 2012
TABULATED BY ATTAINED AGE AND TYPE OF RETIREMENT**

Attained Age	No.	Deferred Allowances
37	1	\$ 13,417
40	1	6,840
41	4	55,896
43	1	8,953
44	2	39,183
45	3	25,721
46	2	39,866
47	1	10,483
48	1	7,907
49	3	29,829
50	3	31,701
51	1	16,873
52	4	68,065
53	2	21,050
54	3	34,497
55	2	48,659
56	2	23,589
58	2	14,193
60	1	27,437
61	2	21,367
62	1	20,528
63	1	7,448
64	1	7,223
65	1	8,420
Totals	45	\$589,145

**COMPARATIVE EMPLOYEE STATISTICS
BY DIVISION**

Val'n Date Dec 31	General KMEA Employees			AFSCME/CSO Employees			General Exempt Employees			Metro Transit Employees			Public Safety Employees		
	Avg. Age	Avg. Service	Avg. Pay	Avg. Age	Avg. Service	Avg. Pay	Avg. Age	Avg. Service	Avg. Pay	Avg. Age	Avg. Service	Avg. Pay	Avg. Age	Avg. Service	Avg. Pay
1993	38.3	8.9	\$25,925	42.0	11.3	\$30,766	#	#	#	40.7	8.7	\$25,814	38.2	13.3	\$45,424
1994	39.1	9.8	27,921	42.0	11.1	33,604	#	#	#	41.5	9.4	27,511	38.5	13.7	45,674
1995	39.7	10.3	28,934	42.4	11.5	35,940	#	#	#	41.4	9.5	28,586	37.8	12.9	47,365
1996	40.1	10.9	30,466	41.1	10.1	37,781	#	#	#	42.2	9.4	30,421	37.8	12.9	48,680
1997	41.3	11.5	31,422	41.6	10.6	39,365	#	#	#	42.6	9.8	31,589	37.9	12.7	50,409
1998	42.4	12.3	33,189	42.1	11.0	40,935	#	#	#	42.3	8.8	34,632	37.2	11.7	49,501
1999	42.9	12.8	34,757	42.2	11.3	35,913	44.1	11.9	\$52,857	41.5	7.9	33,863	37.2	11.4	53,070
2000	42.5	12.0	34,743	42.6	11.7	38,313	44.4	12.2	54,175	41.5	7.4	34,277	37.5	11.8	55,782
2001	43.3	12.4	35,391	43.6	11.9	39,409	45.6	12.6	56,628	41.8	7.3	35,627	37.9	11.9	57,709
2002	44.4	13.5	36,759	44.5	12.9	40,126	44.5	11.6	56,058	42.9	7.6	37,654	38.4	12.6	59,344
2003	44.0	13.3	37,656	44.8	13.4	41,731	45.6	12.0	57,688	44.4	8.3	39,459	38.8	12.9	62,656
2004	45.1	14.2	39,803	45.6	14.2	43,431	47.0	13.2	59,335	44.7	8.8	39,088	38.4	12.5	64,638
2005	46.2	15.0	40,839	46.3	15.1	44,161	48.0	14.0	60,031	45.6	9.6	40,158	37.8	11.9	65,392
2006	46.7	15.1	41,617	46.7	15.5	45,231	48.6	14.1	61,289	46.3	9.9	38,818	37.5	11.4	68,764
2007	47.4	15.9	42,856	47.0	15.7	46,643	48.6	14.4	62,354	47.2	10.6	38,696	37.4	11.6	68,509
2008	47.9	15.5	43,709	47.0	15.8	48,921	48.7	14.7	64,488	48.2	11.3	40,495	38.0	12.2	73,306
2009	49.1	17.0	45,167	47.6	16.5	49,088	49.1	15.3	65,044	49.1	12.0	41,491	38.8	12.7	74,829
2010	49.8	17.3	46,733	48.3	17.3	48,007	49.6	15.4	65,761	48.1	12.1	43,619	39.4	13.2	76,677
2011	50.4	18.3	47,186	48.3	17.1	46,993	49.8	16.3	65,320	48.1	12.8	41,252	39.5	13.6	75,789
2012	45.2	10.6	43,055	43.9	11.1	44,874	48.1	12.9	63,224	45.5	8.4	41,791	37.4	11.7	74,471

Included with AFSCME/CSO members.

**GENERAL KMEA MEMBERS AS OF DECEMBER 31, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	1							1	\$ 24,502
25-29	6							6	215,653
30-34	5	2						7	245,677
35-39	5	2	3	2	1			13	549,109
40-44	3	2	3	3				11	501,923
45-49	5	2	3	1	2	2		15	662,405
50-54	3	3	1		4	1	1	13	643,539
55-59	4		2	4	3	3		16	693,720
62			1	1				2	101,973
63		1						1	33,964
66	1							1	30,243
Totals	33	12	13	11	10	6	1	86	\$3,702,708

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

Age: 45.2 years.

Service: 10.6 years.

Annual Pay: \$43,055.

**AFSCME/CSO MEMBERS AS OF DECEMBER 31, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	5	1						6	\$ 243,423
25-29	10							10	372,742
30-34	8		2					10	371,881
35-39	6	1	6					13	639,085
40-44	4	3	4	5	2			18	814,235
45-49	4	2	5	6	4	1		22	997,762
50-54	1	1	9	13	1			25	1,186,765
55-59	2	1	5	5	6	1		20	907,169
61					1			1	76,163
Totals	40	9	31	29	14	2		125	\$5,609,225

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

Age: 43.9 years.

Service: 11.1 years.

Annual Pay: \$44,874.

**GENERAL EXEMPT MEMBERS AS OF DECEMBER 31, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	1							1	\$ 47,070
25-29	4							4	188,692
30-34	4	2						6	310,206
35-39	3	2	4	3				12	676,559
40-44	5	5	1	1	4			16	910,810
45-49	1	3	3	2	5			14	858,800
50-54	1	4	4	7	4	1	1	22	1,533,165
55-59	7		3	6	1	1	3	21	1,356,080
60			2	1				3	193,844
61					1	1		2	166,273
62			1	1		1		3	250,316
64	1			1			1	3	291,160
66	1						1	2	108,430
Totals	28	16	18	22	15	4	6	109	\$6,891,405

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

Age: 48.1 years.

Service: 12.9 years.

Annual Pay: \$63,224.

**METRO TRANSIT MEMBERS AS OF DECEMBER 31, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24	3							3	\$ 102,321
25-29	2	1						3	113,634
30-34	5	1						6	213,046
35-39	5	3	5	1				14	537,538
40-44	3	2	10	2		1		18	749,160
45-49	7	2	3	2				14	562,738
50-54	7	2	2	2	1			14	611,774
55-59	2	2	4	3	1			12	576,396
60	1			1				2	90,682
61				1				1	40,238
62		1						1	37,340
65							1	1	104,347
66	1							1	39,000
68	1							1	24,758
Totals	37	14	24	12	2	1	1	91	\$3,802,972

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

Age: 45.5 years.

Service: 8.4 years.

Annual Pay: \$41,791.

**PUBLIC SAFETY MEMBERS AS OF DECEMBER 31, 2012
BY ATTAINED AGE AND YEARS OF SERVICE**

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
20-24		1						1	\$ 76,896
25-29	7	3	1					11	617,215
30-34	21	22	6					49	3,091,315
35-39	11	20	5	9	6			51	3,922,492
40-44	3	8	17	3	11			42	3,471,750
45-49	1	1	12	19	4			37	2,935,539
50-54		1	4	6	12			23	1,773,895
55-59					7	1		8	643,557
Totals	43	56	45	37	40	1		222	\$16,532,659

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

Age: 37.4 years.

Service: 11.7 years.

Annual Pay: \$74,471.

SECTION D

ACTUARIAL COST METHODS AND ASSUMPTIONS

VALUATION METHODS AND ASSUMPTIONS

The normal cost was computed as follows:

The series of contributions necessary to accumulate the present value at time of retirement of the portion of a member's pension attributable to service likely to be rendered after the valuation date was computed so that each contribution in the series was a constant percentage of the member's year-by-year projected covered compensation. This is the individual entry age normal actuarial cost method.

The accrued liability was computed and financed as follows:

Retirees and Beneficiaries: The discounted value of pensions likely to be paid retirees and beneficiaries was computed using the investment return and mortality assumptions. This amount was financed by applicable accrued assets.

Active and Inactive members: The discounted value of benefits likely to be paid active and inactive members on account of service rendered prior to the valuation date was computed using the assumptions outlined on the following pages. The computed amount was reduced by applicable valuation assets and the remainder (or overfunding) was financed as a level percent-of-payroll over a rolling period of 10 years.

Asset valuation method: Last year's valuation assets are increased by contributions and expected investment income on last year's valuation assets and non-investment net cash flow and reduced by refunds, benefit payments and expenses. To this amount is added the phased-in recognition of investment income. The phased-in recognition is the sum over the five years ending on the valuation date of 20% of the difference between each year's expected return and actual market return.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

TOTAL INVESTMENT RETURN. 8.0% per year compounded annually. This rate consists of a long-term rate of pay inflation of 4.0% a year (which includes price inflation of 3.0%) plus investment expenses of 0.5% plus a real rate of return of 3.5% a year. The net investment return is 7.5% per year compounded annually.

These assumptions are used to equate the value of payments due at different points in time. They were first used for the December 31, 1997 valuation. Approximate net rates of investment return, for the purpose of comparisons with assumed rates, are shown below. Actual increases in active member pays are also shown for comparative purposes.

	Year Ended December 31					5-Year Average*
	2012	2011	2010	2009	2008	
Rate of Investment Return [^]	3.9%	1.7%	5.0%	3.6%	4.1%	3.6%
Increase in Average Pay [#]	4.6	3.0	1.0	2.5	4.9	3.2
Real Rate of Return	-0.7	-1.2	4.0	1.0	-0.8	0.5

* *Compound rate of increase.*

For members employed throughout the most recent two years.

[^] *The nominal rate of return was computed using the approximate formula $i = I$ divided by $1/2 (A + B - I)$, where I is actual investment income net of expenses, A is the beginning of year asset value, and B is the end of year asset value.*

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems.

INVESTMENT EXPENSES. 0.50% of average valuation assets.

ADMINISTRATIVE EXPENSES. 0.60% of covered member payroll was added to the Normal Cost in anticipation of administrative expenses expected to be paid during the fiscal year.

PAY PROJECTIONS. These assumptions are used to project current pays to those upon which benefits will be based. The assumptions were first used for the December 31, 2009 valuation.

The annual rate of pay increases consists of two parts:

- (i) a long-term rate of pay inflation equal to 4.0%.
- (ii) merit and longevity increases which vary according to age or length of service. These rates are illustrated below.

Years of Service	KMEA	AFSCME	All Exempt	Non-Sworn Public Safety	Transit Union	Public Safety
1	6.0%	8.0%	6.0%	8.0%	7.0%	12.0%
2	5.0	3.0	6.0	7.0	7.0	12.0
3	4.0	3.0	0.5	6.0	0.0	8.0
4	2.0	2.0	0.5	1.5	0.0	5.0
5	1.0	2.0	0.5	1.5	0.0	5.0
6	1.0	1.0	0.3	1.5	0.0	5.0
7	1.0	0.0	0.3	1.5	0.0	5.0
8	1.0	0.0	0.3	1.5	0.0	5.0
9	0.0	0.0	0.3	1.5	0.0	1.0
10	0.0	0.0	0.3	1.5	0.0	1.0
11	0.0	0.0	0.3	0.5	0.0	1.0
12	0.0	0.0	0.3	0.5	0.0	1.0
13	0.0	0.0	0.3	0.5	0.0	0.5
14	0.0	0.0	0.3	0.5	0.0	0.5
thereafter	0.0	0.0	0.3	0.5	0.0	0.5

Actual average pays for members working both years have increased at the following rates.

	Year Ended December 31					5-Year Average*
	2012	2011	2010	2009	2008	
Average increase:	4.6%	3.0%	1.0%	2.5%	4.9%	3.2%

* *Compound rate of increase.*

If the number and distribution of active members remain constant, then the total active member payroll will increase 4.0% annually for the base portion of the salary increase assumptions. This increasing payroll was recognized in amortizing unfunded actuarial accrued liabilities.

The mortality table used was the 1994 Group Annuity Mortality Table.

Ages	Value at Retirement of \$1 Monthly for Life*		Future Life Expectancy (years)	
	Men	Women	Men	Women
	50	\$140.93	\$147.30	30.69
55	132.64	140.64	26.15	30.17
60	122.40	132.01	21.83	25.59
65	110.53	121.65	17.84	21.28
70	97.62	109.73	14.29	17.30
75	83.48	95.52	11.12	13.60
80	68.62	79.89	8.37	10.31

* *Values are before post-retirement increases are reflected.*

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. This mortality table was first used for the December 31, 2004 valuation.

The rates of retirement used to measure the probability of eligible members retiring during the next year were as follows:

Retirement Ages	KMEA	AFSCME	All Exempt	Non-Sworn Public Safety	Transit Union
55	2%	6%	10%	10%	10%
56	2	7	10	10	10
57	5	10	25	25	25
58	5	7	25	25	25
59	7	6	20	20	20
60	15	30	25	25	25
61	15	20	30	30	30
62	50	60	30	30	30
63	15	25	15	15	15
64	10	25	15	15	15
65	100	100	100	100	100

Years of Service	Public Safety
-----------------------------	--------------------------

20	2%
21	4
22	4
23	2
24	2
25	70
26	30
27	45
28	25
29	25
30	100

Retirement probabilities were applied for General and Transit members after both attaining age 55 and completing 15 years of service, or age 62 with 10 years of service (5 years for Exempt hired before 9/1/2010, 9 years for AFSCME and 8 years for KMEA hired before 1/1/2009). AFSCME members are also considered eligible for retirement at age 60 with 20 or more years of service. Retirement probabilities were applied for Public Safety members upon completion of 20 years of service with 100% retirement probability assumed at age 60 with 10 years of service. The assumptions above were first used for the December 31, 2009 valuation.

Rates of disability were as follows:

Sample Ages	% of Active Members Becoming Disabled Within Next Year	
	Public Safety Metro Transit AFSCME	KMEA Exempt CSO
	20	0.19%
25	0.23	0.04
30	0.26	0.04
35	0.33	0.04
40	0.46	0.10
45	0.63	0.13
50	1.21	0.25
55	2.36	0.45
60	0.00	0.71

The assumptions above were first used for the December 31, 2009 valuation.

Rates of separation from active membership were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

Sample Ages	Years of Service	% of Active Members Separating within Next Year					
		KMEA	AFSCME	All Exempt	Non-Sworn Public Safety	Transit Union	Public Safety
	0	15.0%	15.0%	15.0%	6.0%	15.0%	6.0%
	1	14.0	14.0	14.0	4.0	14.0	4.0
	2	9.0	9.0	9.0	3.0	9.0	3.0
	3	8.0	8.0	8.0	2.5	8.0	2.5
	4	7.0	7.0	7.0	2.5	7.0	2.5
25	5 or Over	7.4	7.4	7.4	2.2	7.4	2.2
30		5.8	5.8	5.8	2.0	5.8	2.0
35		5.0	5.0	5.0	1.4	5.0	1.4
40		4.0	4.0	4.0	1.1	4.0	1.1
45		3.3	3.3	3.3	0.8	3.3	0.8
50		2.5	2.5	2.5	0.6	2.5	0.6
55		2.0	2.0	2.0	0.4	2.0	0.4
60		2.0	2.0	2.0	0.4	2.0	0.4

The assumptions above were first used for the December 31, 2009 valuation.

Active member group size. The number of active members was assumed to remain constant. This assumption is unchanged from previous valuations.

Timing of contribution payments. The contribution requirements in this report anticipate regular payments throughout the year. Examples would be at each payroll date or in 12 monthly installments.

Miscellaneous and Technical Assumptions

Marriage Assumption	100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.
Pay Increase Timing	Was assumed to occur in the middle of the year. This means that the pays reported for the valuation are assumed to be rates of pay on the valuation date.
Decrement Timing	Decrements are assumed to occur at the middle of the fiscal 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 Relativity	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation	Death-in-service decrement does not operate until member becomes vested. Withdrawal does not operate during retirement eligibility.
Normal Form of Benefit	The assumed normal form of benefit is straight life form.
Loads	Active retirement liability reduced by 1% to account for optional form of benefit election.
Incidence of Contributions	Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.
Actuarial Equivalence Basis for Optional Forms of Payment	6.5% interest with a 95%/5% unisex blend of the 1971 Group Annuity Mortality Table female rates set back 5 years.

GLOSSARY

ACTUARIAL ACCRUED LIABILITY. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability.” Under the actuarial cost method used the “AAL” differs somewhat from the value of future payments based on benefits earned as of the valuation date.

ACCRUED SERVICE. The service credited under the plan which was rendered before the date of the actuarial valuation.

ACTUARIAL ASSUMPTIONS. Estimates of future plan experience with respect to rates of mortality, disability, retirement, investment income and salary increases. Decrement assumptions (rates of mortality, separation, 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 appropriate in an inflation-free environment plus a provision for a long-term average rate of inflation.

ACTUARIAL COST METHOD. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the normal costs to be paid in the future and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method”.

ACTUARIAL EQUIVALENT. Benefits whose actuarial present values are equal.

ACTUARIAL PRESENT VALUE. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

AMORTIZATION. Payment of an interest-bearing liability by means of periodic contributions of interest and principal, as opposed to a lump sum payment.

EXPERIENCE GAIN (LOSS). A measure of the difference between actual experience and experience anticipated by a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

NORMAL COST. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost.” An amortization payment toward the unfunded actuarial accrued liability is in addition to the normal cost.

GLOSSARY (CONCLUDED)

RESERVE ACCOUNT. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

UNFUNDED ACTUARIAL ACCRUED LIABILITY. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability”.

VALUATION ASSETS. The value of current plan assets recognized for valuation purposes.

SECTION E

GASB STATEMENT NO. 25 INFORMATION

This information is presented in draft for review by the City's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the City's financial statements.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Attained-Age* (b)	Unfunded AAL (UAAL) (b)-(a)	Funded Ratio (a)/(b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b)-(a)]/(c)
12/31/03 [@]	\$361,205,383	\$245,919,424	\$ (115,285,959)	146.9%	\$40,914,264	(281.8)%
12/31/04 [@]	390,615,277	265,080,190	(125,535,087)	147.4	41,989,819	(299.0)
12/31/05 ^{@ #}	422,565,761	294,416,007	(128,149,754)	143.5	40,944,435	(313.0)
12/31/06 [@]	463,280,964	312,101,938	(151,179,026)	148.4	42,164,958	(358.5)
12/31/07 [@]	500,788,244	327,242,870	(173,545,374)	153.0	42,889,419	(404.6)
12/31/08 [@]	506,592,573	344,799,153	(161,793,420)	146.9	44,159,590	(366.4)
12/31/09 [@]	509,060,409	358,160,400	(150,900,009)	142.1	44,435,753	(339.6)
12/31/10 [@]	518,339,022	367,423,552	(150,915,470)	141.1	43,007,800	(350.9)
12/31/11 [@]	509,931,421	380,802,126	(129,129,295)	133.9	42,305,663	(305.2)
12/31/12	505,234,953	420,711,365	(84,523,588)	120.1	36,538,969	(231.3)

* Method changed to Entry Age effective 12/31/2005.

@ Plan amended.

Certain assumptions revised.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Year Ended Dec. 31	Annual Required Contribution	Percentage Contributed
2003	\$ 0	100.00%
2004	0	100.00
2005	0	100.00
2006	0	100.00
2007	0	100.00
2008	0	100.00
2009	0	100.00
2010	0	100.00
2011	0	100.00
2012	0	100.00

Actuarial cost method

Individual Entry-Age Normal Cost

Amortization method

Level Percent-of-Payroll, 10-year period
(closed until 2002, then open)

Asset valuation method

Market Value with 5-year smoothing of
appreciation and depreciation

Principal actuarial assumptions (last revised for the
12/31/99 valuation):

- Net Investment Return* 7.5%
- Projected Salary Increases* 4.0% to 12.0%
- Cost-of-Living Adjustments
 - 2% per year – Public Safety members who retired 1995 and after.
 - 1% per year pre-age 75; 2% per year from age 75 – AFSCME and Transit Union members who retire after 10/24/99.
 - 1.5% per year after attaining age 64 – KMEA members who retire after 1999 (1.5% per year from retirement; 2.0% per year after attaining age 75 if member retired after 2001).
 - 1.5% per year – Exempt members who signed up for the RPA.

* Includes pay inflation at 4.0%.

May 13, 2013

Mr. Thomas Skrobola
City of Kalamazoo
241 West South Street
Kalamazoo, Michigan 49007-4796

Dear Tom:

Please find enclosed 30 copies of the Sixty-First Annual Actuarial Valuation of the City of Kalamazoo Employees Retirement System.

Sincerely,

A handwritten signature in black ink, appearing to read "Curtis Powell". The signature is fluid and cursive, with the first name "Curtis" and last name "Powell" clearly distinguishable.

Curtis Powell, EA, MAAA

CP:mrh
Enclosures

cc: Abraham & Gaffney
Attn: Aaron Stevens