Gabriel Roeder Smith & Company
Consultants & Actuaries

CITY OF ST. CLAIR SHORES
POLICE AND FIRE RETIREMENT SYSTEM

65TH ANNUAL ACTUARIAL VALUATION REPORT
JUNE 30, 2014

CONTENTS

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January 8, 2015

The Retirement Board
City of St. Clair Shores Police and
Fire Retirement System
27600 Jefferson Circle Drive
St. Clair Shores, Michigan 48081-9971

Dear Board Members:

The results of the June 30, 2014 annual actuarial valuation of the City of St. Clair Shores Police and Fire Retirement System, which is based upon Act 345 of the Public Acts of 1937, as amended 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 2015-2016 fiscal year. This report should not be relied upon for any other purpose. This report may be distributed to parties other than the System only in its entirety and only with the permission of the Board.

The valuation was based upon information, furnished by the City, 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. 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.

Mark Buis and Randall J. Dziubek 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,

Mark Buis

Mark Buis, FSA, EA, MAAA

Randall J. Dziubek, ASA, EA, MAAA

MB/RJD:sc

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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's 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 costs allocated to the current year by the actuarial cost methods described in Section C (the normal cost); and

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

Contribution requirements for the fiscal year beginning July 1, 2015 are shown on page A-2.

The Board of Trustees of the City of St. Clair Shores Police and Fire Retirement System confirms that the System provides for payment of the required employer contribution as described in Section 20m of Michigan Public Act No. 728.

CITY'S COMPUTED CONTRIBUTIONS

	Contributions Expressed as Percents of Annual Pay	
Valuation Date June 30	**2014**	**2013**
Contributions for Fiscal Year Beginning July 1	**2015**	**2014**
NORMAL COST		
Age and service pensions	16.72%	16.77%
Death before retirement pensions	0.38%	0.38%
Disability pensions	0.89%	0.90%
Total	17.99%	18.05%
MEMBERS' CONTRIBUTIONS		
Gross contributions*	4.40%	4.31%
Less prospective refunds	0.25%	0.25%
Available for pensions	4.15%	4.06%
CITY'S NORMAL COST	13.84%	13.99%
UNFUNDED ACTUARIAL ACCRUED LIABILITIES#	33.92%	33.26%
ASSETS IN EXCESS OF ACCRUED LIABILITIES#	NONE	NONE
TOTAL CITY CONTRIBUTIONS@- %	47.76%	47.25%
- $	$5,136,032	$5,024,799

* *Weighted average.*

\# *Unfunded accrued liabilities were amortized as a level percent of payroll over a period of 25 years. Assets in excess of accrued liabilities were amortized as a level percent of payroll over a period of 10 years and applied as a credit to the computed normal cost contribution.*

@ *All fiscal year calculations are based on the valuation payroll of $10,066,742 for the period July 1, 2013– June 30, 2014, assumed to increase at a rate of 4.5% each year. No adjustments have been made to reflect agreements which may limit pay increases over the next year. To the extent that actual pays are less (greater) than projected, application of the rate shown will produce dollar contributions less than (greater than) the amount illustrated above. Any shortfall (excess) will manifest as an increase (decrease) in future contribution rates.*

DERIVATION OF EXPERIENCE GAIN (LOSS)

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 comparative schedule.

(1)	UAAL* at start of year	$ 59,629,409
(2)	Total normal cost	1,821,770
(3)	Actual contributions for pensions	4,971,547
(4)	Interest accrual	4,354,089
(5)	Expected UAAL* before changes	60,833,721
(6)	Change from amendments	0
(7)	Change in asset smoothing methodology	0
(8)	Change from assumption and actuarial cost method revisions	0
(9)	Expected UAAL* after changes	60,833,721
(10)	Actual UAAL*	59,874,308
(11)	Gain (loss) (9) - (10)	959,413
(12)	Gain (loss) as percent of actuarial accrued liabilities at start of year ($148,187,126)	0.7%

* *Unfunded actuarial accrued liabilities.*

Valuation Date	Experience Gain (Loss) as % of Beginning Accrued Liability
6-30-05	(8.5) %
6-30-06	0.2
6-30-07	2.6
6-30-08	(3.0)
6-30-09	(7.5)
6-30-10	(1.0)
6-30-11	(6.4)
6-30-12	(8.0)
6-30-13	(4.4)
6-30-14	0.7

SUMMARY STATEMENT OF SYSTEM RESOURCES AND OBLIGATIONS

	June 30, 2014	June 30, 2013
A. Present valuation assets		
1. Net assets from System financial statements*	$ 101,022,075	$ 89,417,393
2. Market value adjustment	(8,108,373)	(859,676)
3. Valuation assets	92,913,702	88,557,717
B. Actuarial present value of expected future employer contributions		
1. For normal costs	13,355,491	12,869,634
2. For unfunded actuarial accrued liability	59,874,308	59,629,409
3. Total	73,229,799	72,499,043
C. Actuarial present value of expected future member contributions	4,560,575	4,405,781
D. Total present and expected future resources	$170,704,076	$165,462,541

ACTUARIAL PRESENT VALUE OF EXPECTED FUTURE BENEFIT PAYMENTS

A. To retired members and beneficiaries	$ 103,931,310	$ 98,403,589
B. To vested terminated members	548,371	509,242
C. To present active members		
1. Allocated to service rendered prior to valuation date	48,308,329	49,274,295
2. Allocated to service likely to be rendered after valuation date	17,916,066	17,275,415
3. Total	66,224,395	66,549,710
D. Funding Reserve	0	0
E. Total actuarial present value of expected future benefit payments	$170,704,076	$165,462,541

* *Market value.*

In financing the actuarial accrued liabilities, the valuation assets of $92,913,702 were distributed as shown below.

	Present Valuation Assets Applied to			
Reserves for	**Member Actuarial Accrued Liability**	**Retired Life Actuarial Liabilities**	**Contingency Reserve**	**Totals**
Employees' Contributions	$ 4,892,650			$ 4,892,650
Employer Contributions	(16,513,389)	$14,905,541		-1,607,848
Retired Benefit Payments		89,025,769		89,025,769
Excess Earnings Reserve	603,131			603,131
Totals	**$ (11,017,608)**	**$103,931,310**	**none**	**$92,913,702**

Assets were applied against actuarial accrued liabilities in determining unfunded actuarial accrued liabilities as follows:

	Retired Lives	**Active Members**	**Total**
Computed Actuarial Accrued Liabilities	$103,931,310	$48,856,700	$152,788,010
Applied Assets	103,931,310	(11,017,608)	92,913,702
Unfunded Actuarial Accrued Liabilities	$ none	$59,874,308	$ 59,874,308

COMPARATIVE SCHEDULE

Valuation Date	Actuarial Accrued Liabilities & Reserves	Accrued Assets	% Funded	Unfunded Actuarial Accrued Liabilities & Reserves: Dollars	Amortiz. Period	% of Payroll	City's Contrib. Rate@
12/31/89	$ 43,625,707	$ 46,915,197	107.5 %	$ (3,289,490)	26	- %	15.08 %#
12/31/90	48,040,951	50,278,560	104.7	(2,237,609)	25	-	16.48 #
12/31/91	48,748,361	52,659,040	108.0	(3,910,679)	24	-	17.01 #
06/30/93	55,877,762	59,442,762	106.4	(3,565,000)	23	-	16.19 *#
06/30/94	57,929,114	63,101,209	108.9	(5,172,095)	22	-	15.05 #
06/30/95	61,692,487	66,621,054	108.0	(4,928,567)	21	-	15.71 *
06/30/96	66,563,082	71,692,536	107.7	(5,129,454)	20	-	16.51 #
06/30/97	69,290,760	79,687,515	115.0	(10,396,755)	19	-	12.61
06/30/98	74,132,345	91,138,639	122.9	(17,006,294)	10	-	0.00 *#
06/30/99	77,538,939	101,745,561	131.2	(24,206,622)	10	-	0.00 #
06/30/00	81,816,157	110,243,719	134.7	(28,427,562)	10	-	0.00 #
06/30/01	86,607,994	113,344,804	130.9	(26,736,810)	10	-	0.00 #
06/30/02	90,182,317	108,832,118	120.7	(18,649,801)	10	-	0.00 #
06/30/03	93,967,332	101,683,192	108.2	(7,715,860)	10	-	8.73 #
06/30/04	98,335,479	94,640,250	96.2	3,695,229	25	38	20.45 *
06/30/05	104,248,328	90,853,624	87.2	13,394,704	25	130	25.88 *
06/30/06	107,602,157	93,730,948	87.1	13,871,209	25	130	25.84
06/30/07	111,001,598	99,906,347	90.0	11,095,251	25	104	24.30 #
06/30/08	117,284,024	105,559,450	90.0	11,724,574	25	109	24.90 #
06/30/09	125,940,115	103,972,349	82.6	21,967,766	30	191	29.52 *
06/30/10	129,441,265	102,981,697	79.6	26,459,568	29	248	30.57 #
06/30/11	139,365,119	101,229,663	72.6	38,135,456	28	337	31.73 #
06/30/12	145,517,428	94,147,081	64.7	51,370,347	27	532	42.81
06/30/13	148,187,126	88,557,717	59.8	59,629,409	26	599	47.25
06/30/14	152,788,010	92,913,702	60.8	59,874,308	25	595	47.76

* *Revised actuarial assumptions and/or methods.*
\# *Retirement System amended.*
@ *Excluding contributions for Health Insurance and Medicare premiums after valuation date 12-31-86.*

The ratio of Valuation Assets to Actuarial Accrued Liabilities is a traditional measure of a system's funding progress. Except in years when the system is amended or actuarial assumptions are revised, this ratio can be expected to increase gradually toward 100%.

The Ratio of Unfunded Actuarial Accrued Liabilities to Valuation Payroll is another relative index of condition. Actuarial unfunded liabilities represent debt, while active member payroll represents the system's capacity to collect contributions to pay toward debt. The lower the ratio, the greater the financial strength and vice-versa.

COMMENTS

ACTUARIAL EXPERIENCE: The System encountered more favorable actuarial experience than expected for the valuation year resulting in an experience gain of $959,413. The gain was primarily attributable to recognized investment income that was more than assumed, offset by more retirements than assumed and higher than expected pay increases for active members. The overall experience gain reduced the required contribution for the year beginning July 1, 2015 from what it otherwise would have been. However, the required contribution expressed as a percentage of active payroll increased slightly from last year (47.25 percent of pay to 47.76) primarily due to active payroll as of June 30, 2014 being lower than expected.

As of June 30, 2014 there are $8.1 million of unrecognized investment gains that will be gradually recognized over the next four years. Recognition of these gains will put downward pressure on required contributions over the next several years.

The Actuarial Standards of Practice with regard to the mortality assumption has 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."***

The membership size in this group is not sufficiently large to determine if there is a margin for mortality improvements. However, based upon our experience with a broad cross section of public sector plans similar in nature to this plan, it is our opinion that there is no provision for future mortality improvement in the current mortality assumption.

We recommend that prior to next actuarial valuation consideration be given to performing an Experience Study to review the mortality assumption as well as all other key actuarial assumptions.

CERTIFICATION: To the best of our knowledge and belief, the valuation is complete and accurate and was made in accordance with generally recognized actuarial methods. The actuarial assumptions summarized in Section C are in the aggregate a reasonable representation of the past and anticipated future experience of the System.

SECTION B

VALUATION DATA

BRIEF SUMMARY OF ACT 345 BENEFIT PROVISIONS
(JUNE 30, 2014)

SERVICE RETIREMENT

Eligibility - Fire AR4, Police AR4, Police, and Police Command and Fire hired before 1/1/2010: 25 or more years of service regardless of age or age 60 with 10 years of service. Fire hired after 1/1/2010: age 50 with 25 years of service or age 60 with 10 years of service.

Annual Amount - Fire AR4, Police AR4, Police hired before 1/1/2011, Police Command hired before 4/22/2011, and Fire hired before 1/1/2010: 2.8% of FAC times first 25 years of service plus 1% of FAC times years of service over 25. Police hired after 1/1/2011, Police Command hired after 4/22/2011, and Fire hired after 1/1/2010: 2.25% of FAC times first 25 years of service plus 1% of FAC times years of service over 25. Maximum benefit equals 75% for Police hired before 1/1/2011 and Police Command hired before 4/22/2011 and 70% for Fire AR4, Police AR4, Police hired after 1/1/2011, Police Command hired after 4/22/2011, and Fire. Maximum benefit for Fire AR4 and Police AR4 cannot exceed base pay as of termination date.

Final Average Compensation: Highest 3 years out of last 10.

DEFERRED RETIREMENT

Eligibility - 10 or more years of service, payable to member or eligible surviving spouse.

Annual Amount - Computed as service retirement but based upon service, FAC and benefit in effect at termination. Benefit begins at date retirement would have occurred had member remained in employment. Benefit to eligible surviving spouse actuarially reduced in accordance with an Option I election.

DEATH AFTER RETIREMENT SURVIVOR'S PENSION

Eligibility - Payable to a surviving spouse, if any, upon the death of a retired member who is receiving a regular straight life pension.

Annual Amount - Spouse's pension equals 60% of the regular straight life pension the deceased retirant was receiving.

NON-DUTY DEATH-IN-SERVICE SURVIVOR'S PENSIONS

Eligibility - Payable to a surviving spouse, if any, upon the death of a member with 10 or more years of service.

Annual Amount - Accrued straight life pension actuarially reduced in accordance with an Option I election.

DUTY DEATH-IN-SERVICE SURVIVOR'S PENSIONS

Eligibility - Payable upon the expiration of worker's compensation to the survivors of a member who died in the line of duty.

Annual Amount - Same amount that was paid by worker's compensation.

NON-DUTY DISABILITY

Eligibility - Payable upon the total and permanent disability of a member with 5 or more years of service.

Annual Amount - To age 55: 1.5% of FAC times years of service. At age 55: Computed like Service Retirement Pension.

BRIEF SUMMARY OF ACT 345 BENEFIT PROVISIONS - (CONCLUDED)
(JUNE 30, 2014)

DUTY DISABILITY

Eligibility - Payable upon the total and permanent disability of a member in the line of duty.

Annual Amount - To Age 55: 50% of FAC. At Age 55: Computed like Service Retirement Pension with service credit from date of disability to age 55.

MEMBER CONTRIBUTIONS

Annual Amount - Fire AR4, Police AR4, and Fire hired after 1/1/2010: 5% of compensation. Police: 4% of compensation. Police Command: 6% of compensation. Fire hired before 1/1/2010: Contribution depends upon years of service:

Years of Service	Fire Hired Before 1/1/2010
Under 5	2%
5-9	3
10-14	4
15+	5

ANNUITY WITHDRAWAL

Police hired after 1/1/2011, Police Command hired after 4/22/2011, and Fire hired after 1/1/2010: Available with reduction in monthly pension.

All Others: Available without reduction in monthly pension.

POST RETIREMENT INCREASE (Compounded)

All Fire (effective 7/1/94), Police (effective 7/1/95), Police Command (effective 7/1/96), Police AR4 (effective 7/1/96)	5% cost-of-living increases at age 60 or 5 years after retirement, whichever occurs first, second increase of 5% five years after the first increase.
Fire (effective 7/1/00), Police (effective 7/1/01)	5% cost-of-living increases at age 60 or 5 years after retirement, whichever occurs first, second increase of 5% five years after the first increase. A third increase of 5% five years after the second increase.
Police Command (effective 7/1/00), Police AR4 (effective 7/1/00), Fire AR4 (effective 7/1/00)	2.5% cost-of-living increases at age 60 or 3 years after retirement, whichever occurs first, second increase of 5% two years after the first increase. A third increase of 2.5% two years after the second increase. A fourth increase of 5% three years after the third increase.
Fire AR4, Police AR4, and Police Command (effective 3/19/07), Police (effective 4/7/08) Fire (effective 7/1/08)	2.5% cost-of-living increases at age 60 or 3 years after retirement, whichever occurs first, second increase of 2.5% two years after the first increase. A third increase of 2.5% two years after the second increase. A fourth increase of 2.5% three years after the third increase. A fifth increase of 2.5% two years after the fourth increase. A sixth increase of 2.5% three years after the fifth increase.

Summary of Current Asset Information Furnished for Valuation

Balance Sheet

Current Assets		Reserves for	
Cash & Equivalents	$ 2,703,861	Employees' Contributions	$ 4,892,650
Receivables & Accruals	1,224,606	Employer Contributions	6,500,525
Bonds	12,595,889	Retired Benefit Payments	89,025,769
Common Stocks	55,657,255	Excess Earnings Reserve	603,131
Other Equities (ADR & Closed End Funds)	11,260,216		
Foreign Stocks	18,408,386		
Stock Mutual	0		
Real Estate	0		
Mortgages	0		
Other Assets (Securities lending)	0		
Amount due to Broker	(828,138)		
Total Current Assets	101,022,075	Total Reserves	101,022,075
Market Adjustment*	(8,108,373)	Market Adjustment*	(8,108,373)
Total Valuation Assets	$ 92,913,702	Total Valuation Assets	$ 92,913,702

* *See page B-4 for derivation of the market adjustment.*

Revenues and Expenditures

	2014
Balance July 1, 2013	$88,557,717
Revenues	
Employees' Contributions	492,602
Employer Contributions	4,478,945
Medicare Reimbursement#	229,272
Recognized Net Investment Income for Valuation Purposes	9,278,528
Expenditures	
Benefit Payments	9,436,926
Medicare Payments#	229,272
Refund of Member Contributions	457,164
Balance June 30	$ 92,913,702

\# *Medicare payments to retirees are paid monthly by the custodian from Retirement System assets. At the end of each quarter, these amounts are reimbursed to the System by the City.*

DEVELOPMENT OF FUNDING VALUE OF ASSETS

Year Ended June 30:	2013	2014	2015	2016	2017	2018
A. Funding Value Beginning of Year	$ 94,147,081	$ 88,557,717				
B. Market Value End of Year	89,417,393	101,022,075				
C. Market Value Beginning of Year	85,307,426	89,417,393				
D. Non-Investment Net Cash Flow	(5,885,589)	(4,922,543)				
E. Investment Income						
E1. Market Total: B - C - D	9,995,556	16,527,225				
E2. Amount for Immediate Recognition (7.5%)	6,840,321	6,457,233				
E3. Amount for Phased-In Recognition: E1-E2	3,155,235	10,069,992				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20 x E3	631,047	2,013,998				
F2. First Prior Year	(1,716,488)	631,047	$ 2,013,998			
F3. Second Prior Year	1,592,212	(1,716,488)	631,047	$ 2,013,998		
F4. Third Prior Year	300,526	1,592,212	(1,716,488)	631,047	$ 2,013,998	
F5. Fourth Prior Year	(7,351,393)	300,526	1,592,214	(1,716,488)	631,047	$ 2,014,000
F6. Total Recognized Investment Gain(Loss)	(6,544,096)	2,821,295	2,520,771	928,557	2,645,045	2,014,000
G. Funding Value End of Year: A + D + E2 + F5	88,557,717	92,913,702				
H. Difference between Market & Funding Value	859,676	8,108,373				
I. Recognized Rate of Return - Funding Value	0.32%	10.78%				
J. Recognized Rate of Return - Market Value	12.14%	19.01%				

The Funding Value of 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, Funding Value of Assets will tend to be less 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 actual and assumed rates of investment income are exactly equal for 5 consecutive years, the Funding Value will become equal to Market Value.

RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS
COMPARATIVE STATEMENT

Year	Added		Removed		End of Year			Present	No. Active	Pensions
		Annual		Annual		Annual Pensions		Value	Per	as a %
Ended	No.	Pensions*	No.	Pensions	No.	Dollars	Average	of Pensions	Retired	of Pay
12/31/85	3	$ 55,979	2	$ 26,901	61	$ 1,004,023	$16,459	$ 11,091,803	2.4	17.7 %
12/31/86	10	249,692	2	33,540	69	1,220,175	17,684	13,596,631	2.0	22.9
12/31/87	9	266,349	1	3,000	77	1,483,524	19,267	16,630,723	1.8	25.3
12/31/88	10	289,473	1	11,510	86	1,761,487	20,482	19,739,811	1.6	30.0
12/31/89	10	280,390	2	28,664	94	2,013,213	21,417	22,414,969	1.4	37.1
12/31/90	13	317,193	2	39,083	105	2,291,323	21,822	25,575,508	1.3	35.5
12/31/91	9	227,823	3	41,903	111	2,477,243	22,318	27,476,856	1.2	41.8
06/30/93	19	645,713	4	63,001	126	3,059,955	24,285	34,013,466	1.0	50.7
06/30/94	5	240,063			131	3,300,018	25,191	36,004,097	1.0	52.1
06/30/95	12	310,528	6	72,195	137	3,538,351	25,827	38,275,321	0.9	50.8
06/30/96	5	218,810	2	60,982	140	3,696,179	26,401	41,070,046	0.9	51.9
06/30/97	8	263,580	3	39,650	145	3,908,161	26,953	42,664,623	0.9	50.7
06/30/98	3	113,305	4	57,891	144	3,963,575	27,525	43,132,825	0.9	49.0
06/30/99	5	184,089	3	73,575	146	4,074,089	27,905	43,562,686	0.9	48.3
06/30/00	8	210,945	6	63,777	148	4,221,257	28,522	45,621,123	1.0	46.0
06/30/01	11	561,909	1	31,905	158	4,751,261	30,071	51,576,330	0.9	50.8
06/30/02	7	382,191	1	25,921	164	5,107,531	31,143	55,538,402	0.9	53.4
06/30/03	11	542,341	6	125,964	169	5,523,908	32,686	60,372,325	0.8	58.8
06/30/04	5	270,095	4	62,801	170	5,731,202	33,713	62,257,626	0.8	59.2
06/30/05	3	208,628	4	74,027	169	5,865,803	34,709	63,269,802	0.8	56.9
06/30/06	1	159,216	1	23,281	169	6,001,738	35,513	63,705,139	0.8	56.2
06/30/07	9	457,887	4	173,043	174	6,286,582	36,130	66,195,952	0.8	58.8
06/30/08	11	541,013	10	205,207	175	6,622,388	37,842	70,074,164	0.7	61.3
06/30/09	2	70,988	2	62,270	175	6,631,106	37,892	69,744,638	0.8	57.6
06/30/10	14	903,334	8	194,140	181	7,340,300	40,554	74,174,079	0.7	68.9
06/30/11	3	189,988	2	54,426	182	7,475,862	41,076	76,305,408	0.7	66.1
06/30/12	23	1,587,008	5	59,572	200	9,003,298	45,016	97,569,177	0.6	93.2
06/30/13	8	370,387	6	171,451	202	9,202,234	45,556	98,403,589	0.6	92.4
06/30/14	9	613,570	6	145,681	205	9,670,123	47,171	103,931,310	0.6	96.1

* *Includes cost-of-living increases for ongoing retirees.*

RETIRANTS AND BENEFICIARIES JUNE 30, 2014
TABULATED BY TYPE OF PENSIONS BEING PAID

Type of Pensions Being Paid	No.	Annual Pensions
Age and Service Pensions		
Regular pensions - benefit terminating at death of retirant	31	$ 1,282,156
Regular pension - automatic benefit to spouse of deceased retirant	121	7,415,795
Option I pension - joint and survivor benefit	2	60,515
Survivor beneficiary of deceased retirant	33	609,309
Other - benefit being paid to an ex-spouse	10	126,489
Total Age and Service Pensions	197	9,494,264
Casualty Pensions		
Duty disability	4	71,350
Non-duty death pension to widow	4	104,509
Total Casualty Pensions	8	175,859
Total Pensions Being Paid	**205**	**$9,670,123**

Retirants and Beneficiaries June 30, 2014
Tabulated by Attained Age

	Retirants		Beneficiaries		Other *		Totals	
Attained Age	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions
40 - 44			1	$ 43,829	1	$17,851	2	$ 61,680
45 - 49	5	$ 363,507	1	36,775			6	400,282
50 - 54	23	1,795,667			1	8,463	24	1,804,130
55 - 59	19	1,640,675					19	1,640,675
60 - 64	24	1,563,580	1	12,927	2	48,469	27	1,624,976
65 - 69	25	1,256,475	2	83,081	4	31,297	31	1,370,853
70 - 74	27	1,221,044	8	150,052	2	20,409	37	1,391,505
75 - 79	19	570,141	11	182,628			30	752,769
80 - 84	9	268,248	8	131,454			17	399,702
85 - 89	4	69,456	4	53,929			8	123,385
90 - 94	3	81,023	1	19,143			4	100,166
Totals	**158**	**$8,829,816**	**37**	**$713,818**	**10**	**$126,489**	**205**	**$9,670,123**

* *Other – Benefits being paid to an ex-spouse.*

Comparative Schedules

Active Members in Valuation

Year Ended	Active Members	Valuation Payroll	Average Pay	Average % Incr.	Average Age	Average Service
12/31/90	138	$ 6,460,094	$46,812	17.4 %	39.5 yrs	13.5 yrs
12/31/91	132	5,927,498	44,905	(4.1)	40.0	13.9
06/30/93	130	6,029,505	46,381	3.3	38.1	12.1
06/30/94	130	6,335,138	48,732	5.1	38.0	12.0
06/30/95	126	6,970,235	55,319	13.5	38.0	12.1
06/30/96	132	7,115,881	53,908	(2.6)	37.6	11.6
06/30/97	135	7,715,637	57,153	6.0	37.8	11.3
06/30/98	135	8,088,601	59,916	4.8	38.4	11.9
06/30/99	138	8,426,850	61,064	1.9	38.5	12.0
06/30/00	141	9,169,906	65,035	6.5	38.8	12.1
06/30/01	139	9,353,854	67,294	3.5	38.4	11.5
06/30/02	143	9,566,435	66,898	(0.6)	37.8	11.0
06/30/03	133	9,387,845	70,585	5.5	38.2	11.4
06/30/04	130	9,687,275	74,518	5.6	38.9	12.1
06/30/05	129	10,307,055	79,900	7.2	39.4	12.7
06/30/06	134	10,675,665	79,669	(0.3)	39.7	13.0
06/30/07	134	10,684,097	79,732	0.1	40.0	13.5
06/30/08	127	10,802,446	85,059	6.7	40.5	14.1
06/30/09	134	11,507,841	85,879	1.0	40.7	14.4
06/30/10	128	10,654,588	83,239	(3.1)	40.2	14.1
06/30/11	130	11,313,370	87,026	4.5	40.5	14.5
06/30/12	129	9,660,548	74,888	(13.9)	38.1	12.3
06/30/13	130	9,955,027	76,577	2.3	38.4	12.5
06/30/14	128	10,066,742	78,646	2.7	38.2	12.4

Active Members Added to and Removed from Rolls

Year Ended	Number Added During Year A	Number Added During Year E	Normal Retirement A	Normal Retirement E	Disability Retirement A	Disability Retirement E	Died in Service A	Died in Service E	Withdrawal Vested A	Withdrawal Other A	Withdrawal Total A	Withdrawal Total E	Active Members End of Year
06/30/07	4	4	4	2.4	0	0.3	0	0.2	0	0	0	1.9	134
06/30/08	1	8	5	2.1	0	0.3	1	0.2	0	2	2	1.9	127
06/30/09	7	0	0	2.8	0	0.3	0	0.2	0	0	0	1.6	134
06/30/10	5	11	9	5.8	0	0.3	0	0.1	1	1	2	1.8	128
06/30/11	4	2	2	2.0	0	0.3	0	0.1	0	0	0	2.0	130
06/30/12	20	21	20	3.6	0	0.3	0	0.1	0	1	1	1.9	129
06/30/13	6	5	3	1.7	0	0.2	1	0.1	0	1	1	2.8	130
06/30/14	6	8	7	3.3	0	0.2	0	0.1	0	1	1	2.6	128

A represents actual number.
E represents expected number.

ACTIVE MEMBERS JUNE 30, 2014
BY 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	$ 48,455
25-29	21	4						25	1,537,639
30-34	8	13						21	1,391,525
35-39	2	4	15	3				24	1,902,275
40-44		2	2	15	2			21	1,873,129
45-49			2	4	19	2		27	2,503,416
50-54				3	5			8	721,862
55-59					1			1	88,441
Totals	**32**	**23**	**19**	**25**	**27**	**2**		**128**	**$10,066,742**

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

Age: 38.2 years.

Service: 12.4 years.

Annual Pay: $78,646.

INACTIVE VESTED MEMBERS JUNE 30, 2014
TABULATED BY ATTAINED AGE

Attained Age	No.	Estimated Deferred Annual Pensions
49	1	$ 43,468
Totals	**1**	**$ 43,468**

Average Age Now: 49.7 years.

SECTION C

VALUATION METHODS AND ASSUMPTIONS

ACTUARIAL COST METHOD

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry-age normal cost method having the following characteristics:

- 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 portion of the member's benefit at the time of retirement, death or disability.

- Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

- The normal cost is based on the benefit provisions applicable for new hires within each employee group.

Unfunded actuarial accrued liabilities were amortized by level (principal and interest combined) percent-of-payroll contributions over a period of 25 years and added to the computed normal cost contribution. Assets in excess of actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions over a period of 10 years and applied as a credit to the computed normal cost contribution.

The valuation assets used for funding purposes is derived as follows: prior year valuation assets are increased by contribution and expected investment income and reduced by refunds, benefit payments and expenses. To this amount is added 20% of the difference between expected and actual investment income for each of the previous five years. Five-year smoothing was used for the first time in 2009. Previously, four-year smoothing was used. Some prior bases remain on a four-year recognition pattern during the phase-in period.

Excess Earnings Reserve. An amount equal to the market value of the Excess Earnings Reserve is added to the liabilities to assure proper allocation of assets to liabilities.

ACTUARIAL ASSUMPTIONS USED FOR THE VALUATION

The contribution requirements and benefit values of the System are calculated by applying actuarial assumptions to the benefit provisions and people information furnished, using the actuarial cost method described on the previous page.

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

- long-term rates of investment return to be generated by the assets of the System
- patterns of pay increases to members
- rates of mortality among members, retirants and beneficiaries
- rates of withdrawal of active members (without entitlement to a retirement benefit)
- rates of disability among members
- the age patterns of actual retirements

The monetary effect of each assumption is calculated for as long as a present covered person 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. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

VALUATION ASSUMPTIONS

The rate of investment return was 7.5% (net of expenses) a year, compounded annually. This assumption is used to make money payable at one point in time equal in value to an amount of money payable at another point in time. The assumed real rate of return (the net return in excess of the wage inflation rate) was 3.0%. Economic experience during the last 5 years has been as follows:

	Year Ending					5-Year
	6/30/14	6/30/13	6/30/12	6/30/11	6/30/10	Average
1) Nominal rate of return#	10.8%	0.3%	0.2%	2.1%	1.9%	3.0%
2) Increase in CPI	2.1	1.8	1.7	3.6	1.1	2.1%
3) Average salary increase*	6.7	4.4	(2.0)	6.1	3.1	3.7%
4) Real return:						
- investment purposes	8.7	(1.5)	(1.6)	(1.5)	0.8	0.9%
- funding purposes	4.1	(4.1)	2.2	(4.0)	(1.2)	(0.7)%
- assumption	3.0	3.0	3.0	3.0	3.0	3.0%

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

* *Based on members who were active both at the beginning and end of the year.*

The rates of salary increase used for individual members are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefit amounts will be based.

SAMPLE SALARY ADJUSTMENT FACTORS USED TO PROJECT CURRENT SALARIES

Sample	Percent Increase in Salary During Next Year	
Ages	Base	Promotion & Seniority
20	4.5 %	3.0 %
25	4.5	3.0
30	4.5	2.6
35	4.5	1.1
40	4.5	0.2
45	4.5	0.2
50	4.5	0.2
55	4.5	0.1
60	4.5	0.0

If the number of active members remains constant, then the total active member payroll will increase 4.5% annually, the base portion of the individual salary increase assumptions. The base salary increase assumption of 4.5% was first used for the June 30, 1999 valuation.

The mortality table used was the RP2000 table projected to 2008. Mortality rates are set forward 10 years for disabled members. This table was first used for the June 30, 2009 valuation. Sample values follow:

	Single Life Retirement Values			
	Present Value of $1 Monthly for Life		Future Life Expectancy (Years)	
Sample Ages	Men	Women	Men	Women
45	$149.29	$151.48	36.35	38.80
50	143.36	146.18	31.61	34.01
55	135.40	139.10	26.94	29.30
60	125.26	130.06	22.45	24.75
65	113.08	119.19	18.25	20.48
70	99.21	106.71	14.43	16.57
75	83.54	92.73	10.98	13.03
80	67.04	77.45	8.02	9.90

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement. For purposes of the valuation, we assume that 75% of deaths in service are duty related and 25% of deaths in service are non-duty related. No margin for future mortality improvement has been applied.

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

	All Others	Fire Hired After 1/1/2010
Retirement Ages	Percent of Active Members Retiring within Next Year	Percent of Active Members Retiring within Next Year
45	30 %	%
46	30	
47	30	
48	30	
49	30	
50	30	50
51	30	30
52	40	40
53	40	40
54	40	40
55	40	40
56	50	50
57	50	50
58	50	50
59	50	50
60	100	100

A member is eligible for retirement after 25 or more years of service, or after attaining age 60 with 10 years of service. Fire members hired after 1/1/2010 are eligible for retirement after attaining age 50 with 25 years of service, or after attaining age 60 with 10 years of service.

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
ALL	0	10.00 %
	1	7.00
	2	5.00
	3	4.00
	4	3.50
25	5 & Over	3.50
30		2.90
35		1.50
40		0.60
45		0.50
50		0.50
55		0.50
60		0.50

Rates of disability were as follows:

Sample	% of Active Members Becoming Disabled within Next Year	
Ages	Men	Women
20	0.08%	0.10%
25	0.08%	0.10%
30	0.08%	0.10%
35	0.08%	0.10%
40	0.20%	0.36%
45	0.27%	0.41%
50	0.49%	0.57%
55	0.89%	0.77%
60	1.41%	1.02%

For purposes of the valuation we assume that 75% of disabilities are duty related and 25% of disabilities are non-duty related.

MISCELLANEOUS AND TECHNICAL ASSUMPTIONS
JUNE 30, 2014

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:	Middle of the valuation year.
Decrement Timing:	Decrements of all types are 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.
Decrement Relativity:	Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
Decrement Operation:	All decrements the first 5 years of service. Only mortality operates during retirement eligibility.
Service Credit Accruals:	It is assumed that members accrue one year of service credit per year.
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.
Normal Form of Benefit:	A 60% automatic joint and survivor payment is the assumed normal form of benefit for married people.
Benefit Service:	Exact fractional service is used to determine the amount of benefit payable.

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".

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, 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.

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

Actuarial Equivalent. A single amount or series of amounts of equal value to another single amount or series of amounts, computed on the basis of the rate(s) of interest and mortality tables used by the plan.

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. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

GLOSSARY

Funding Value of Assets. The value of assets derived by spreading the capital value changes (unrealized and realized gains and losses) in equal dollar installments over four years. This treatment removes the timing of investment activities from the valuation process.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as "current service cost". Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

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 D

CERTAIN DISCLOSURES REQUIRED BY STATEMENT NO. 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

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

The information on the following pages should be used for Employer Reporting under GASB Statement No. 27. Information to be used for plan reporting is now issued in a separate report in accordance with GASB Statement No. 67.

REQUIRED SUPPLEMENTARY INFORMATION
REQUIRED BY GASB STATEMENT NO. 27

Schedule of Funding Progress

Actuarial Valuation Date	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) -- Entry Age	(3) Unfunded AAL (UAAL) (2-1)	(4) Funded Ratio (1/2)	(5) Covered Payroll	(6) UAAL as of % of Covered Payroll ((2-1)/5)
2005 *	$ 90,853,624	$ 104,248,328	$ 13,394,704	87.2	$ 10,307,055	130%
2006	93,730,948	107,602,157	13,871,209	87.1	10,675,665	130
2007 #	99,906,347	111,001,598	11,095,251	90.0	10,684,097	104
2008 #	105,559,450	117,284,024	11,724,574	90.0	10,802,446	109
2009 *	103,972,349	125,940,115	21,967,766	82.6	11,507,841	191
2010 #	102,981,697	129,441,265	26,459,568	79.6	10,654,588	248
2011 #	101,229,663	139,365,119	38,135,456	72.6	11,313,370	337
2012	94,147,081	145,517,428	51,370,347	64.7	9,660,548	532
2013	88,557,717	148,187,126	59,629,409	59.8	9,955,027	599
2014	92,913,702	152,788,010	59,874,308	60.8	10,066,742	595

Schedule of Employer Contributions

Fiscal Year Ended 6/30	Valuation Year Ended 6/30	Contribution Rates as Percents of Valuation Payroll	Computed Dollar Contribution Based on Projected Valuation Payroll	Actual Required Contribution Based on Actual Payroll	
2007	2005 *	25.88 %	$ 2,849,530	$ 2,828,715	
2008	2006	25.84	2,946,876	3,009,786	
2009	2007 #	24.30	2,773,438	2,799,831	
2010	2008 #	24.90	2,873,399	2,894,223	
2011	2009 *	29.52	3,628,981	3,452,136	
2012	2010 #	30.57	3,479,418	3,134,333	**
2013	2011 #	31.73	3,834,745	3,199,458	
2014	2012	42.81	4,417,956	4,478,945	
2015	2013	47.25	5,024,799	-	
2016	2014	47.76	5,136,032	-	

\# *Retirement System amended.*

* *Revised actuarial assumptions and/or methods.*

** *Includes Funding Reserve transfer of $1,081,26 (Formerly included in FY 2010).*

REQUIRED SUPPLEMENTARY INFORMATION
REQUIRED BY GASB STATEMENT NO. 27

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation follows.

Valuation date	June 30, 2014
Actuarial cost method	Entry Age
Amortization method	Level percent open
Remaining amortization period	10 years if overfunded 25 years if underfunded
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return	7.5
Projected salary increases*	4.5% - 7.5%
*Includes inflation at	4.5
Cost-of-living adjustments (Compounded)	
All Fire (effective 7/1/94), Police (effective 7/1/95), Police Command (effective 7/1/96), Police AR4 (effective 7/1/96)	5% cost-of-living increases at age 60 or 5 years after retirement, second increase of 5% five years after the first increase.
Fire (effective 7/1/00), Police (effective 7/1/01)	5% cost-of-living increases at age 60 or 5 years after retirement, second increase of 5% five years after the first increase. A third increase of 5% five years after the second increase.
Police Command (effective 7/1/00), Police AR4 (effective 7/1/00), Fire AR4 (effective 7/1/00)	2.5% cost-of-living increases at age 60 or 3 years after retirement, second increase of 5% two years after the first increase. A third increase of 2.5% two years after the second increase. A fourth increase of 5% three years after the third increase.
Fire AR4, Police AR4, and Police Command (effective 3/19/07), Police (effective 4/7/08), Fire (effective 7/1/08)	2.5% cost-of-living increases at age 60 or 3 years after retirement, second increase of 5% two years after the first increase. A third increase of 2.5% two years after the second increase. A fourth increase of 2.5% three years after the third increase. A fifth increase of 2.5% two years after the fourth increase. A sixth increase of 2.5% three years after the fifth increase.

REQUIRED SUPPLEMENTARY INFORMATION
REQUIRED BY GASB STATEMENT NO. 27

Membership of the plan consisted of the following at June 30, 2014, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	205
Terminated plan members entitled to but not yet receiving benefits	1
Active plan members	128
Total	334