

***City of Livonia  
Employees Retirement System***

*Actuarial Valuation as of November 30, 2009*

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***Section One:***  
***Valuation Summary***



### **Purpose of Valuation**

The purpose of the annual actuarial valuation of the City of Livonia Retirement System as of November 30, 2009 is to:

- ❖ Compute the present value of future benefits likely to be paid on behalf of current retired and active members of the Retirement System,
- ❖ Compute the City's recommended contribution rate for the Fiscal Year beginning December 1, 2010.

### **Funding Value of Assets**

A smoothed market value of assets was used for the November 30, 2009, valuation. This method, which is unchanged from prior years, spreads the difference between actual and expected investment return over five years.

### **City's Computed Contribution Rate**

The City's contribution rate for the fiscal year beginning December 1, 2010 has been computed to be 0.00% of active member payroll for the General and Police divisions. The City's contribution rate for the fiscal year beginning December 1, 2010 has been computed to be 24.12% of active member payroll for the Fire division. These contribution rates were computed using the aggregate actuarial cost method, the same method as used in last year's valuation. This method is appropriate for retirement systems which are closed to new hires.

The aggregate method produces a contribution rate for the City which, together with current assets, investment earnings and future member contributions, can be expected to accumulate to the value of the benefits payable at retirement.

The actuarial accrued liability under this method is defined to be the current actuarial value of assets.

### **Retirement System Experience**

The overall experience of the Retirement System during the year ended November 30, 2009 was less favorable than expected experience based upon the long-term assumptions. The investment return on the market value of assets was greater than assumed, however, the smoothed funding value of assets includes carry-forwards of experience from the prior 4 years, which includes the effect of the unfavorable market conditions in 2008.

There were 13 new retirees during the year compared with 8 last year. Eighteen retirees were removed (compared with 11 last year).

### **Benefit Provision Changes**

There were no changes in benefit provisions for this valuation.

### **Assumption and Method Changes**

The valuation interest rate was changed from 8.25% to 8.0% and the base portion of the salary increase assumption was changed from 4.75% to 4.0% to be effective December 1, 2009 as adopted by the Retirement Board of Trustees.

**Participant Data**

	<u>11/30/2009</u>	<u>11/30/2008</u>
Active Members		
- General	84	92
- Police	96	97
- Fire	<u>46</u>	<u>47</u>
Total	226	236
Active Member Payroll		
- General	\$4,718,973	\$4,944,477
- Police	7,382,822	7,118,214
- Fire	<u>3,753,098</u>	<u>3,991,872</u>
Total	\$15,854,893	\$16,054,563
Retirees and Beneficiaries		
- General	317	318
- Police	126	126
- Fire	<u>103</u>	<u>102</u>
Total	546*	546*
Annual Pensions		
- General	\$5,356,846	\$5,259,783
- Police	3,734,933	3,734,167
- Fire	<u>3,078,774</u>	<u>2,987,982</u>
Total	\$12,170,553	\$11,981,932

*\*Includes 4 General, 5 Police and 2 Fire alternate payees who are receiving benefits under eligible domestic relations orders.*

**Financial Data**

	<u>11/30/2009</u>	<u>11/30/2008</u>
Market Value of Assets	\$182,543,122	\$154,380,064
Smoothed Valuation Assets	\$207,958,812	\$210,518,968

**Conclusion**

The accrued funding condition of the Retirement System continues to be very good. Continuation of this condition is dependent upon future experience and receipt of contributions as may be required.



***Section Two:***

***Actuarial Calculations –  
Funding***



**Recommended City Contribution Rate for Fiscal Year beginning December 1, 2010**

The City's computed contribution rate for the year beginning December 1, 2010 has been computed to be 0.00% of payroll for the General division, 0.00% for the Police division and 0.00% for the Fire division.

	<u>General</u>	<u>Police</u>	<u>Fire</u>	<u>Totals</u>
1. Actuarial Present Value of all Future Benefits				
Active Members:				
Regular Retirement	\$24,974,226	\$42,343,742	\$21,155,972	\$88,473,940
Pre-Retirement death	716,465	817,571	454,487	1,988,523
Disability	401,460	2,261,828	1,128,611	3,791,899
Withdrawal	922,188	1,572,342	149,473	2,644,003
Inactive Members	1,605,300	112,009	275,064	1,992,373
Retirees and Beneficiaries	<u>46,232,081</u>	<u>35,816,437</u>	<u>28,757,365</u>	<u>110,805,883</u>
Total	74,851,720	82,923,929	51,920,972	209,696,621
2. Smoothed Valuation Assets	74,209,065	82,641,499	51,108,248	207,958,812
3. Present Value of Future Member Contributions	805,871	1,508,351	812,724	3,126,946
4. Unfunded Present Value of Benefits: 1. – 2. – 3.	(163,216)	(1,225,921)	0	(1,389,137)
5. Present Value of Future Pay	\$28,438,686	\$51,536,116	\$25,364,513	\$105,339,315
<b>6. City Contribution as a percent of Payroll: 4. / 5.</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>
<b>7. City Contribution – Dollars Based on Valuation Payroll</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

**Computed Normal Cost Contribution Rates as of November 30, 2009**

**Based on Entry Age Actuarial Cost Method**

**For Illustration Purposes Only**

The normal cost contribution rate based on the entry age actuarial cost method is shown for illustration purposes only and for comparison to prior years' normal costs. Last year the computed entry age normal cost for the City was 13.36% for General members, 16.82% for Police members and 16.94% for Fire members.

The aggregate cost method used to compute the City's recommended contribution rate shown on page 4 is the appropriate method for a plan closed to new hires.

	<u>General</u>	<u>Percent of Payroll</u>	
		<u>Police</u>	<u>Fire</u>
Normal Cost			
Regular Retirement	12.33%	14.77%	16.84%
Pre-Retirement Death	0.57	0.48	0.62
Disability	0.59	1.82	2.07
Withdrawal	<u>2.22</u>	<u>2.14</u>	<u>0.65</u>
Total Normal Cost	15.71	19.21	20.18
Member portion*	2.83	2.93	3.20
<b>City's Entry Age Normal Cost</b>	<b>12.88%</b>	<b>16.28%</b>	<b>16.98%</b>

\*Weighted average.

### Recommended and Actual City Contributions

Valuation Date Nov. 30	Fiscal Year Ending Nov. 30	Recommended % of Payroll Contributions (Excluding Health after 1997)			Actual Dollar Contributions
		General	Police	Fire	
1989#	1991	17.07%	14.76%	24.57%	\$6,016,634
1990@	1992	13.32	10.00	23.38	5,619,344
1991	1993	12.36	9.64	21.53	5,700,236
1992#	1994	11.29	8.98	19.93	5,832,111
1993	1995	10.20	9.67	18.81	6,309,592
1994	1996	10.71	8.68	18.40	6,698,329
1995#	1997	9.59	9.29	19.15	0
1995@	1997	10.78	10.56	20.73	6,698,329
1996#	1998	10.53	11.62	20.14	5,054,261
1997#	1999	1.48	10.90	22.32	0
1997@&	1999	0.00	1.71	19.06	1,456,023
1998#	2000	0.00	4.42	18.79	0
1999#@	2001	0.00	1.15	15.20	0
2000	2002	0.00	0.00	9.73	0
2001#	2003	0.00	0.00	9.50	392,639
2002	2004	0.00	0.00	12.70	0
2003	2005	0.00	0.00	0.00	0
2004	2006	0.00	0.00	0.00	0
2005	2007	0.00	0.00	0.00	0
2006	2008	0.00	0.00	0.00	0
2007#	2009	0.00	0.00	0.00	0
2008#	2010	0.00	0.00	0.00	0
<b>2009@</b>	<b>2011</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0</b>

# After changes in benefit provisions.

@ After changes in actuarial assumptions or methods.

& After removal of contribution for post-retirement health insurance benefits.

*Note: Results prior to 2003 are based on reports provided by previous actuarial firm.*

**History of Assets and Accrued Liabilities**

<b>Valuation Date</b>	<b>Valuation Assets</b>	<b>Actuarial Accrued Liabilities#</b>	<b>Funded Ratio</b>	<b>Unfunded Actuarial Accrued Liabilities</b>
1993	\$132,136	\$122,975	107.4%	\$ (9,161)
1994	140,037	130,496	107.3	(9,541)
1995	152,456	142,053	107.3	(10,403)
1996	167,361	151,870	110.2	(15,491)
1997	168,884	148,806	113.5	(20,078)
1998	177,035	151,085	117.2	(25,950)
1999	184,782	149,052	124.0	(35,730)
2000	192,477	148,670	129.5	(43,807)
2001	200,937	151,438	132.7	(49,499)
2002	199,627	159,272	125.3	(40,355)
2003	203,505	159,900	127.3	(43,605)
2004	199,578	164,378	121.4	(35,200)
2005	200,005	167,226	119.6	(32,779)
2006	205,101	169,506	121.0	(35,595)
2007	215,675	173,486	124.3	(42,189)
2008	210,519	179,096	117.5	(31,423)
<b>2009</b>	<b>207,959</b>	<b>190,134</b>	<b>109.4</b>	<b>(17,925)</b>

Results shown throughout this report, for years prior to 2003, were prepared by the previous actuarial firm.

# Based on entry age actuarial accrued liability for comparison to prior years. The entry age accrued liability has not been used to compute contribution requirements after the 1998 valuation. Under the aggregate cost method used to compute contributions beginning in 1999, the accrued liability is defined to be equal to the accrued assets.

The ratio of valuation assets plus future employee contributions to the total present value of future benefits was 100.7% as of November 30, 2009. This is a decrease from 105.7% in the prior year.

## **Comment and Conclusion**

**Comment 1:** The overall experience of the Retirement System during the year ended November 30, 2009 was less than what was expected based on the long-term assumptions. The recognized nominal rate of return based on the funding value of assets, 4.7%, was less than the 8.25% assumed. The funding value of assets includes carry-forwards of experience gains (losses) from the prior 4 years. The funding value of assets exceeded the market value of assets as of November 30, 2009 by \$25.4 million.

**Comment 2:** The following valuation assumptions were changed effective December 1, 2009 as adopted by the Retirement Board of Trustees:

- The valuation interest rate assumption was changed from 8.25% to 8.0%
- The base portion of the salary increase assumption was changed from 4.75% to 4.0%.

**Conclusion:** The accrued actuarial condition of the Retirement System continues to be very good. Continuation of this condition is dependent upon future experience and receipt of contributions as may be required.



***Section Three:***

***Retirement System  
Benefit Provisions***



## **Benefit Provision Summary**

### ***Membership Requirements***

Membership includes all persons in the classified and unclassified service of the City who perform services on a permanent part-time or full-time basis. New employees do not become members in this Retirement System.

### ***Voluntary Retirement Eligibility***

General Members: 30 years of service regardless of age, or age 55 with 10 years of service. Permanent part-time General members need only 10 calendar years of membership instead of 10 years of credited service.

Police Members: 25 years of service regardless of age, or age 52 with 10 years of service. (Age 50 with 10 years but less than 25 years of service early retirement with reduced benefit benefit reduced ½% per month below age 52).  
(except Lieutenants & Sergeants and Administrators):

Police Lieutenants & Sergeants and Administrators: 27 years of service regardless of age, or age 50 with 10 years of service. (Age 48 with 10 years but less than 27 years of service early retirement with reduced benefit benefit reduced 1/2 % per month below age 50).

Fire Members: 27 years of service regardless of age, or age 52 with 10 years of service (age 50 with 10 years of service early retirement with reduced benefit – benefit reduced ½% per month below age 52).

### ***Normal Pension Amount***

General Members: 2.5% of the member's average final compensation (AFC) times years of credited service (maximum is 75% of AFC).

Police Members (except Lieutenants & Sergeants and Administrator): 2.8% of the member's average final compensation (AFC) times the first 24 years of credited service, plus 7.8% of AFC for the 25<sup>th</sup> year of credited service (maximum is 75% of AFC).

Police Lieutenants & Sergeants and Administrators Members: 2.8% of the member's average final compensation (AFC) times years of credited service (maximum is 75% of AFC).

Fire Members: 2.8% of the member's average final compensation (AFC) times years of credited service (maximum is 75% of AFC).

**Average Final Compensation**

The average of the highest annual compensations received during any 3 years of service contained within the 10 years of service immediately preceding retirement, including base salary, longevity, shift differential, paid time off, holiday pay, and payment of accumulated vacation time up to the limits established by the respective bargaining agreements. In addition, merit pay is included for Police members and Paramedic/EMT or ALS bonuses are included for firefighters.

**Deferred Pension (Vesting)**

**Eligibility:** Termination of City employment, other than by death or disability, prior to attaining voluntary retirement age but after completing at least 10 full years of credited service.

**Amount:** A monthly pension, payable beginning at voluntary retirement age (or early retirement age with a reduced benefit), computed in the same manner as a Normal Pension but based on credited service and AFC at time of termination of City employment.

**Disability Retirement**

**Eligibility:** Termination of City employment by reason of total and permanent disability after completing at least 10 full years of credited service, except that in the event of a duty disability the 10 year service requirement is waived.

**Amount:** (1) Disability incurred after age 55: A monthly pension computed in the same manner as a Normal Pension but based on credited service and AFC at the time of termination. (2) Disability incurred before age 55: A monthly pension computed in the same manner as a Normal Pension but based on AFC at time of termination and the credited service the member would have completed had employment continued until age 55, provided that in the event of a duty disability the pension payable to age 55 shall not be less than 75% of AFC. Worker’s compensation benefits are deducted. For non-duty disability cases, the following limitations apply:

<b>Actual Years of Service</b>	<b>Maximum Total Years Used to Compute Benefit</b>	<b>Maximum Benefit As a Percent of AFC</b>
10-15	20	50.0%
16-20	25	62.5
over 20	30- or actual service if greater	75.0

***Non-Duty Death***

***Eligibility:*** Death after completing 10 years of credited service, but before termination of City employment. If member had not attained age 55 at the time of death, the death benefit shall commence at the time they would have attained voluntary retirement age. Member must either: (1) have elected Option A and named a beneficiary, or (2) leave a surviving spouse in the event Option A was not elected.

***Amount:*** Monthly pension the beneficiary would have received had the member retired the day before death (notwithstanding that he might not have attained his voluntary retirement age) and elected the 100% joint and survivor Option A.

***Duty Death***

***Eligibility:*** Death from causes arising solely and exclusively out of and in the course of a member's City employment.

***Amount:*** Surviving spouse, or unmarried children under age 18 (if no surviving spouse), or dependent parents (if no surviving spouse or children) shall receive a monthly pension equal to the pension payable if the member had become duty disabled, elected the 100% survivor option and subsequently died. The option factor for children or parents is assumed to equal 80%. The benefit shall continue until: (a) death in the case of the widow, (b) death, marriage, adoption or attainment of age 18 in the case of the children. Worker's compensation benefits are deducted.

***Employee Contributions***

General - Local 1917	3.66% of compensation.
- Others	3.10% of compensation.
Police - LPOA, Cadets	2.55% of compensation.
- Lts. & Sgts., Administrators	5.21% of compensation.
Fire	3.56% of compensation.

Upon voluntary, mandatory or disability retirement (or early or deferred retirement, in the case of General members), a member may withdraw his accumulated contributions with interest and receive an actuarially reduced lifetime benefit.

***Cost-of-Living Allowance***

An additional cost-of-living allowance will be paid to all retirees. The monthly amount is determined as follows:

(1) Members retired before December 1, 1979:

- (a) \$20 per month for one year period commencing one year after retirement.
- (b) \$40 per month for one year period commencing two years after retirement.
- (c) \$40 per month for one year period commencing three years after retirement.
- (d) \$60 per month for one year period commencing four years after retirement.
- (e) \$80 per month commencing five years after retirement.

(2) Members retiring on or after December 1, 1979 and before December 1, 1986:

- (a) \$20 per month for one year period commencing one year after retirement.
- (b) \$40 per month for one year period commencing two years after retirement.
- (c) \$60 per month for one year period commencing three years after retirement.
- (d) \$80 per month commencing four years after retirement.

(3) Members retiring on or after December 1, 1986:

- (a) \$20 per month for one year period commencing one year after retirement.
- (b) \$40 per month for one year period commencing two years after retirement.
- (c) \$60 per month for one year period commencing three years after retirement.
- (d) \$80 per month for one year period commencing four years after retirement.
- (e) \$100 per month for one year period commencing five years after retirement.
- (f) \$120 per month commencing six years after retirement.

(4) General members retiring on or after December 1, 2007:

- (a) \$25 per month for one year period commencing one year after retirement.
- (b) \$50 per month for one year period commencing two years after retirement.
- (c) \$75 per month for one year period commencing three years after retirement.
- (d) \$100 per month for one year period commencing four years after retirement.
- (e) \$125 per month for one year period commencing five years after retirement.
- (f) \$150 per month for one year period commencing six years after retirement.
- (g) \$175 per month for one year period commencing seven years after retirement.
- (h) \$200 per month for one year period commencing eight years after retirement.
- (i) \$275 per month for one year period commencing nine years after retirement.
- (j) \$250 per month commencing ten years after retirement.

(5) Fire and Police members (excluding dispatchers) retiring on or after December 1, 2006 and before December 1, 2008:

- (a) \$20 per month for one year period commencing one year after retirement.
- (b) \$40 per month for one year period commencing two years after retirement.
- (c) \$60 per month for one year period commencing three years after retirement.
- (d) \$80 per month for one year period commencing four years after retirement.
- (e) \$100 per month for one year period commencing five years after retirement.
- (f) \$120 per month for one year period commencing six years after retirement.
- (g) \$140 per month for one year period commencing seven years after retirement.
- (h) \$160 per month for one year period commencing eight years after retirement.
- (i) \$180 per month for one year period commencing nine years after retirement.
- (j) \$200 per month commencing ten years after retirement

(6) Fire members retiring on or after December 1, 2008:

- (a) \$25 per month for one year period commencing one year after retirement.
- (b) \$50 per month for one year period commencing two years after retirement.
- (c) \$75 per month for one year period commencing three years after retirement.
- (d) \$100 per month for one year period commencing four years after retirement.
- (e) \$125 per month for one year period commencing five years after retirement.
- (f) \$150 per month for one year period commencing six years after retirement.
- (g) \$175 per month for one year period commencing seven years after retirement.
- (h) \$200 per month for one year period commencing eight years after retirement.
- (i) \$225 per month for one year period commencing nine years after retirement.
- (j) \$250 per month commencing ten years after retirement

(7) Fire and Police members (excluding dispatchers) retiring on or after December 1, 2008:

- a) \$25 per month for one year period commencing one year after retirement.
- b) \$50 per month for one year period commencing two years after retirement.
- c) \$75 per month for one year period commencing three years after retirement.
- d) \$100 per month for one year period commencing four years after retirement.
- e) \$125 per month for one year period commencing five years after retirement.
- f) \$150 per month for one year period commencing six years after retirement.
- g) \$175 per month for one year period commencing seven years after retirement.
- h) \$200 per month for one year period commencing eight years after retirement.
- i) \$225 per month for one year period commencing nine years after retirement.
- j) \$250 per month commencing ten years after retirement

For Police retirees retiring before December 1, 1991 and for Fire retirees retiring before December 1, 1993 the maximum increase is \$80 per month.

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***Section Four:***

***Actuarial Assumptions  
And Methods***



**Actuarial Assumptions**

**Economic Assumptions**

- (i) Interest Rate 8.0% (net of expenses)
  
- (ii) Salary Increases
  - Across-the-Board 4.0%
  - Merit and Longevity Age-related rates

**Sample Annual Rates of Salary Increase**

<b>Age</b>	<b>Across-the-Board</b>	<b>Merit and Longevity</b>	<b>Total</b>
20	4.0%	7.92%	11.92%
25	4.0	5.75	9.75
30	4.0	3.98	7.98
35	4.0	2.89	6.89
40	4.0	2.10	6.10
45	4.0	1.48	5.48
50	4.0	0.96	4.96
55	4.0	0.53	4.53
60	4.0	0.15	4.15
65	4.0	0.00	4.00

**Demographic Assumptions**

(i) Mortality

1983 Group Annuity Mortality Table

Sample Ages	Value of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	\$136.10	\$139.31	29.20	34.93
55	128.65	132.91	24.84	30.25
60	119.09	124.55	20.66	25.69
65	107.54	114.36	16.71	21.30
70	94.37	102.55	13.20	17.15
75	79.75	89.28	10.15	13.39
80	64.49	74.88	7.66	10.22

(ii) Rates of Disability

Sample Ages	Percent Becoming Disabled Within Next Year	
	General	Police-Fire
20	0.02%	0.07%
25	0.04	0.12
30	0.07	0.24
35	0.11	0.40
40	0.16	0.55
45	0.20	0.71
50	0.25	0.87
55	0.30	1.03

(iii) Termination of Employment

Service related rates for first 5 years of employment. Age related rates after first 5 years of employment

Sample Ages	Years of Service	% of Active Members Separating Within Next Year		
		General	Police	Fire
All	0	12.00%	13.00%	9.00%
	1	9.50	6.00	6.00
	2	8.50	5.50	5.55
	3	7.50	5.00	4.00
	4	4.00	3.50	3.00
25	5 & Over	4.00	3.50	1.62
30		3.50	3.02	1.40
35		3.25	2.25	0.83
40		2.00	1.44	0.32
45		1.25	0.80	0.18
50		1.25	0.50	0.18
55		0.75	0.50	0.18
60	0.50	0.50	0.18	

(iv) Retirement Rates

**Percent of Active Members Retiring within Year  
Following Attainment of Indicated Retirement Age or Service**

Retirement Ages	Age Based			Service Based		
	General	Police	Fire	Service	LPOA	Fire
46	-%	50%	-%	25	50%	
47	45	25	-	26	50	
48	45	25	-	27	50	50%
49	45	25	-	28	50	50
50	45	40	-	29	50	50
51	45	40	-	30 & up	100	100
52	45	25	50			
53	45	25	50			
54	45	25	50			
55	45	25	50			
56	45	25	50			
57	20	25	50			
58	20	25	50			
59	10	25	50			
60	10	100	100			
61	25	100	100			
62	20	100	100			
63	20	100	100			
64	20	100	100			
65	15	100	100			
66	20	100	100			
67	20	100	100			
68	40	100	100			
69 & Up	100	100	100			

### **Actuarial Method Used for the Valuation**

***Aggregate Cost Method.*** This method spreads the unfunded present value of future benefits as of the valuation date over the expected future working lifetimes of the remaining active members. Characteristics of this method are as follows:

- ❖ The aggregate annual normal costs payable from the valuation date to the group's projected dates of retirement, disability or death are expected to accumulate to the actuarial present value of the group's benefit at date of retirement, disability or death.
  
- ❖ By definition, the accrued liability is equal to the actuarial funding value of assets.



***Section Five:***  
***Valuation Data***



## Summary of Asset Information Submitted for the Valuation

### Statement of Assets

As of November 30, 2009, the market value of Retirement System assets was reported to be \$182,543,122.

### Revenues and Expenses for the Year Ended November 30, 2009

(a) Revenues	
(i) Member Contributions	\$ 540,733
(ii) Employer Contributions	0
(iii) Investment Income (Net of Expenses)	40,402,855
(iv) Other income	<u>0</u>
(v) Total Income	40,943,588
b. Expenses	
(i) Pensions	12,136,697
(ii) Refunds and annuity withdrawal	454,927
(iii) Non-Investment Expenses	<u>188,906</u>
(iv) Total Expenses	\$12,780,530

**Investment Allocation**

The reported asset allocation at market value was as follows:

a. Cash and Short Term	
(i) Cash (incl. Checking/Savings Accounts)	\$ 68,242
(ii) Accruals and Receivables	812,284
(iii) Money Market Funds	4,194,491
(iv) Treasury Bills	236,179
b. Fixed Income	
(i) U.S. Government/Agency Bond	6,196,533
(ii) Corporate Bonds	27,098,631
(iii) Asset Backed Securities	5,454,321
(iv) Inflation Index Bonds	0
(v) Mortgage Backed Securities	11,091,918
(vi) Collateralized Mortgage Obligations	9,396,289
(vii) Fixed Income mutual funds	6,341,149
(viii) Other: Foreign Bonds & Notes	2,598,827
c. Equities	
(i) Common Stock	78,845,661
(ii) Closely held equity	72,914
(iii) Stock mutual funds	16,636,933
(iii) Other: Foreign	2,175,645
American Depository Receipts	2,883,081
General Growth RTS	8,060,000
d. Real Estate:	
(i) Real estate investment funds	929,318
e. Other Assets:	3,804,860
f. Less accounts payable	4,354,154
g. Total Market Value of Assets as of November 30, 2009	\$182,543,122

**Funding Value of Assets**

	<b>Year Ended 11/30/2008</b>	<b>Year Ended 11/30/2009</b>
A. Funding Value Beginning of Year	\$215,675,096	\$210,518,968
B. Market Value End of Year	154,380,064	182,543,122
C. Market Value Beginning of Year	224,862,829	154,380,064
D. Non-Investment Income Net Cash Flow	(12,044,928)	(12,239,797)
E. Investment Income		
E1. Market Total B-C-D	(58,437,837)	40,402,855
E2. Amount for Immediate Recognition	17,296,342	16,862,923
E3. Amount for Phased-In Recognition E1 – E2	(75,734,179)	23,539,932
F. Phased-In Recognition of Investment Income		
F1. From the Current Year 0.20 x E3	(15,146,836)	4,707,986
F2. First Prior Year	240,718	(15,146,836)
F3. Second Prior Year	2,174,747	240,718
F4. Third Prior Year	840,103	2,174,747
F5. Fourth Prior Year	1,483,726	840,103
F6. Total Recognized Investment Gain	(10,407,542)	(7,183,282)
G. Gross Funding Value end of Year A + D + E2 + F6	210,518,968	207,958,812
H. Health Insurance Reserve	0	0
I. Net Funding Value	210,518,968	207,958,812
J. Difference Between Market and Funding Value	(56,138,904)	(25,415,690)
K. Market Rate of Return	(29.9)%	23.1%
L. Recognized Rate of Return	3.3%	4.7%

**Reported Reserve Balances**

	<b><u>11/30/2008</u></b>	<b><u>11/30/2009</u></b>
Reserve for Employees' Contributions	\$10,449,317	\$9,700,621
Reserve for Employer Contributions	84,419,217	119,980,708
Reserve for Retired Benefit Payments	59,511,530	52,861,793
Reserve for Health Insurance	0	0
Total	\$154,380,064	\$182,543,122

## Participant Summary

### Retirees and Beneficiaries Included in the Valuation

There were 546 retirees and beneficiaries included in the valuation, with annual pensions totaling \$12,170,553. There were 13 new retirees and 5 new survivor beneficiaries added during the year and 18 were removed. No alternate payees were added or removed.

### Pensions Being Paid

Valuation Date	No.	Annual Pensions	% of Active Payroll	Average Pension	Discounted Value of Pensions	
					Total	Average
1980	131	\$ 795,472	5.5%	\$ 6,072	\$ 8,740,469	\$ 66,721
1981	154	1,056,344	7.5	6,859	11,948,103	77,474
1982	179	1,372,590	9.4	7,668	15,531,447	86,768
1983	213	1,831,672	13.0	8,599	21,242,051	99,728
1984	232	2,115,483	14.2	9,118	24,304,481	104,761
1985	248	2,438,598	16.0	9,833	26,147,989	105,435
1986	285	3,045,379	18.0	10,686	32,753,337	114,924
1987	298	3,360,383	18.8	11,276	35,993,277	120,783
1988	308	3,586,869	18.3	11,646	37,993,837	123,357
1989	331	4,122,475	19.8	12,455	43,437,508	131,231
1990	344	4,426,535	19.8	12,868	43,526,995	126,532
1991	362	4,941,277	21.6	13,650	48,403,086	133,710
1992	388	5,487,251	23.0	14,142	52,852,822	136,219
1993	396	5,795,349	24.1	14,635	56,746,560	143,299
1994	416	6,466,603	25.3	15,545	63,150,428	151,804
1995	433	6,915,782	27.1	15,972	66,978,476	154,685
1996	450	7,503,958	26.8	16,675	72,267,650	160,595
1997	468	8,030,733	39.0	17,161	76,656,612	163,796
1998	483	8,444,938	40.9	17,484	80,195,707	166,037
1999	493	8,948,784	47.9	18,152	84,683,874	171,773
2000	502	9,357,146	54.6	18,640	88,078,816	175,456
2001	515	9,671,679	57.8	18,780	90,253,559	175,250
2002	519	9,961,049	57.6	19,193	92,404,782	178,044
2003	524	10,308,740	60.3	19,673	95,345,963	181,958
2004	538	10,967,097	68.2	20,385	101,737,860	189,104
2005	536	11,135,810	70.1	20,776	102,438,312	191,116
2006	542	11,462,445	71.0	21,148	104,737,223	193,242
2007	547	11,812,063	75.4	21,594	107,405,977	196,355
2008	546	11,981,932	74.6	21,945	107,771,201	197,383
<b>2009</b>	<b>546</b>	<b>12,170,553</b>	<b>76.8</b>	<b>22,290</b>	<b>110,805,883</b>	<b>202,941</b>

## Retirees and Beneficiaries - November 30, 2009

Attained Age	General		Police		Fire		Totals	
	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions
40-44		\$ -	-	\$ -		\$ -	-	\$ -
45-49			10	457,375			10	457,375
50-54	3	111,706	9	368,692	7	316,945	19	797,343
55-59	32	725,021	9	218,316	13	586,797	54	1,530,134
60-64	49	1,251,939	16	491,504	15	602,058	80	2,345,501
65-69	33	582,630	36	1,136,574	18	539,404	87	2,258,608
70-74	41	734,008	23	599,731	14	336,367	78	1,670,106
75-79	60	868,981	10	277,057	19	394,066	89	1,540,104
80-84	55	726,786	10	154,569	11	208,025	76	1,089,380
85-89	29	267,002	3	31,117	6	95,111	38	393,230
90-94	12	78,027					12	78,027
95-99	2	6,177					2	6,177
Over 100	1	4,568					1	4,568
<b>Totals</b>	<b>317</b>	<b>\$5,356,845</b>	<b>126</b>	<b>\$3,734,935</b>	<b>103</b>	<b>\$ 3,078,773</b>	<b>546</b>	<b>\$12,170,553</b>

There were 23 inactive vested members with estimated annual benefits of \$254,616 included in the valuation.

**Inactive Vested Members -  
November 30, 2009**

Attained Age	General		Police		Fire		Totals	
	No.	Estimated Annual Pensions	No.	Estimated Annual Pensions	No.	Estimated Annual Pensions	No.	Estimated Annual Pensions
40-44	3	\$20,506		\$ -		\$ -	3	\$20,506
45-49	8	90,259			2	35,988	10	126,247
50-54	7	92,241	1	5,822			8	98,063
70-74			1	7,000			1	7,000
90-94	1	2,800					1	2,800
<b>Totals</b>	<b>19</b>	<b>\$205,806</b>	<b>2</b>	<b>\$12,822</b>	<b>2</b>	<b>\$35,988</b>	<b>23</b>	<b>\$254,616</b>

**Total Active Members - November 30, 2009**  
**Age and Service Distribution**

Attained Age	Service						Totals		
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.	Payroll
30-34			3					3	\$209,889
35-39			21	12				33	2,419,034
40-44			9	24	29			62	4,579,395
45-49			5	12	37	9	2	65	4,755,175
50-54			4	3	22	7	3	39	2,534,083
55-59			3	2	8	3		16	916,191
60-64				3	4			7	398,326
70-74					1			1	42,800
<b>Total</b>			<b>45</b>	<b>56</b>	<b>101</b>	<b>19</b>	<b>5</b>	<b>226</b>	<b>\$15,854,893</b>

**Group Averages:**

Age: 46.8 years  
Service: 20.0 years  
Annual Pay: \$70,154

**Active General Members - November 30, 2009**  
**Age and Service Distribution**

Attained Age	Service						Totals		
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.	Payroll
40-44			2	3	7			12	\$649,355
45-49			1	7	13	1		22	1,255,159
50-54			2	3	14	7	3	29	1,714,242
55-59			2	2	8	1		13	659,091
60-64				3	4			7	398,326
70-74					1			1	42,800
<b>Total</b>			<b>7</b>	<b>18</b>	<b>47</b>	<b>9</b>	<b>3</b>	<b>84</b>	<b>\$4,718,973</b>

**Group Averages:**

Age: 51.8 years  
Service: 21.8 years  
Annual Pay: \$56,178

**Total Police Members - November 30, 2009  
Age and Service Distribution**

Attained Age	Service						Totals		
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.	Payroll
30-34			3					3	\$209,889
35-39			14	9				23	1,679,182
40-44			2	14	18			34	2,649,271
45-49			2	4	17	6	2	31	2,482,975
50-54			1		3			4	291,292
55-59			1					1	70,213
<b>Total</b>			<b>23</b>	<b>27</b>	<b>38</b>	<b>6</b>	<b>2</b>	<b>96</b>	<b>\$7,382,822</b>

**Group Averages:**

Age: 43.3 years

Service: 19.0 years

Annual Pay: \$76,904

**Total Fire Members - November 30, 2009  
Age and Service Distribution**

Attained Age	Service						Totals		
	0-4	5-9	10-14	15-19	20-24	25-29	Over 30	No.	Payroll
35-39			7	3				10	\$739,852
40-44			5	7	4			16	1,280,786
45-49			2	1	7	2		12	1,017,020
50-54					5			5	528,553
55-59			1			2		3	186,887
<b>Total</b>			<b>15</b>	<b>11</b>	<b>16</b>	<b>4</b>		<b>46</b>	<b>\$3,753,098</b>

**Group Averages:**

Age: 45.0 years

Service: 18.6 years

Annual Pay: \$81,589

**Active Members – Three Year Comparison**

	<b>November 31,</b>		
	<b>2009</b>	<b>2008</b>	<b>2007</b>
Active Members	226	236	243
Average Age (yrs.)	46.8	46.1	45.4
Average Service (yrs.)	20.0	18.2	17.5
Average Pay	\$70,154	\$68,028	\$64,434

**Active Members by Division – November 30, 2009**

<b>Valuation Division</b>	<b>No.</b>	<b>Annual Payroll</b>	<b>Average Age</b>	<b>Average Service</b>	<b>Average Pay</b>
General - Court	2	\$94,527	45.4	20.5	\$47,264
- Dispatchers	2	114,406	42.4	18.6	57,203
- Local 192 FT	47	2,365,600	52.2	21.7	50,332
- Local 1917	8	516,225	47.9	24.5	64,528
- Other	<u>25</u>	<u>1,628,215</u>	53.7	21.6	65,129
<b>Total</b>	<b>84</b>	<b>\$4,718,973</b>	<b>51.8</b>	<b>21.8</b>	<b>\$56,178</b>
Police – LPOA	72	\$5,158,786	42.8	17.9	\$71,650
- Lts. & Sgts.	23	2,110,763	44.6	22.1	91,772
-Administration	<u>1</u>	<u>113,273</u>	49.9	30.3	113,273
<b>Total</b>	<b>96</b>	<b>\$7,382,822</b>	<b>43.3</b>	<b>19</b>	<b>\$76,904</b>
Fire – 56 Hours	42	\$3,348,792	44.5	18.3	\$79,733
- 40 Hours	<u>4</u>	<u>404,306</u>	49.4	21.9	101,077
<b>Total</b>	<b>46</b>	<b>\$3,753,098</b>	<b>45.0</b>	<b>18.6</b>	<b>\$81,589</b>
<b>Totals</b>	<b>226</b>	<b>\$15,854,893</b>	<b>46.8</b>	<b>20.0</b>	<b>\$70,154</b>



***Section Six:***  
***Accounting Disclosures***



**GASB Statement No. 25 Supplementary Information**

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

Valuation Date:	November 30, 2009
Actuarial Cost Method:	Aggregate
Amortization method:	Level percent of payroll, closed
Remaining amortization period:	Expected future working lifetime
Asset valuation method:	Closed 5-year smoothed market value
Actuarial assumptions:	
Investment rate of return	8.0%
Projected salary increases*	4.0% - 11.92%
* Includes inflation at	4.0%

Membership data as of November 30, 2009, is indicated in Section Five of this report.

**GASB Statement Nos. 25 and 27  
Required Supplementary Actuarial Information**

**Analysis of Funding Progress**

Valuation Date	(1) Valuation Value of Assets	(2) Actuarial Accrued Liability#	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2)-(1)	(5) Annual Covered Payroll	(6) UAAL As a % Of Covered Payroll
1993	\$132,136	\$122,975	107.4%	\$ (9,161)	\$24,039	-%
1994	140,037	130,496	107.3	(9,541)	35,538	-
1995	152,456	142,053	107.3	(10,403)	35,510	-
1996	167,361	151,870	110.2	(15,491)	28,003	-
1997	168,884	148,806	113.5	(20,078)	20,598	-
1998	177,035	151,085	117.2	(25,950)	20,653	-
1999	184,782	149,052	124.0	(35,730)	18,684	-
2000	192,477	148,670	129.5	(43,807)	17,132	-
2001	200,937	151,438	132.7	(49,499)	16,721	-
2002	199,627	159,272	125.3	(40,355)	17,285	-
2003	203,505	159,900	127.3	(43,605)	17,109	-
2004	199,578	164,378	121.4	(35,200)	16,070	-
2005	200,005	167,226	119.6	(32,779)	15,885	-
2006	205,101	169,506	121.0	(35,595)	16,135	-
2007	215,675	173,486	124.3	(42,189)	15,657	-
2008	210,519	179,096	117.5	(31,423)	16,055	-
<b>2009</b>	<b>207,959</b>	<b>190,134</b>	<b>109.4</b>	<b>(17,925)</b>	<b>15,855</b>	<b>-</b>

# Based on the Entry Age Normal Actuarial cost-method.

*Note: Results prior to 2003 are based on reports provided by previous actuarial firm.*

**Required Supplementary Information**  
**Schedule of Employer Contributions**

Fiscal Year Ended November 30,	Actual Required Contribution*			Percent Contributed
	<u>General</u>	<u>Police</u>	<u>Fire</u>	
1995	10.20%	9.67%	18.81%	100%
1996	10.71	8.68	18.40	100
1997	10.78	10.56	20.73	100
1998	10.53	11.62	20.14	100
1999	0.00	1.71	19.06	100
2000	0.00	2.91	17.06	100
2001	0.00	1.15	15.20	100
2002	0.00	0.00	9.73	100
2003	0.00	0.00	9.50	100
2004	0.00	0.00	12.70	100
2005	0.00	0.00	0.00	100
2006	0.00	0.00	0.00	100
2007	0.00	0.00	0.00	100
2008	0.00	0.00	0.00	100
2009	0.00	0.00	0.00	100
2010	0.00	0.00	0.00	100
<b>2011</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>100</b>

\*Based on actual payroll.

*Note: Results prior to 2003 are based on reports provided by previous actuarial firm.*

**GASB Statement No. 26  
Required Supplementary Information  
Statement of Reported Plan Assets November 30, 2009**

Market Value of Assets:

Cash and equivalents	\$4,498,912
Accruals & Receivables	<u>812,284</u>
Total	5,311,196

Investments at market value:

Stocks & Other Equities	108,674,234
Bonds & Other Fixed Income	68,177,668
Real Estate	<u>929,318</u>
Total Investments	177,781,220
Other Assets	3,804,860
Total Assets	186,897,276
Less accounts payable	<u>4,354,154</u>
Net assets held in trust for pension benefits	\$182,543,122

**GASB Statement No. 26  
Required Supplementary Information  
Statement of Changes in Plan Net Assets  
For The Fiscal Year Ended  
November 30, 2009**

Additions:	
Contributions	
Employer	\$ 0
Members	<u>540,733</u>
Total	540,733
Investment Income (net)	40,402,855
Miscellaneous	<u>0</u>
Total Additions	40,943,588
Deductions:	
Benefits Paid	12,136,697
Refund of Contributions	454,927
Administrative Expenses	<u>188,906</u>
Total Deductions	12,780,530
Net Increase	28,163,058
Net assets held in Trust Fund:	
Beginning of year	\$154,380,064
End of year	\$182,543,122