October 2009

The Fire and Police Employees' Retirement System of the City of Baltimore

Actuarial Valuation Report for June 30, 2009

MERCER

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Executive Summary

Mercer is pleased to provide the annual actuarial valuation report of the **Fire and Police Employees' Retirement System of the City of Baltimore** as of June 30, 2009. We have identified some of the more significant results and changes from the 2008 valuation as follows:

Key Results and Changes
▪ The recommended contribution and valuation summary have been provided under two post-retirement investment return assumptions: - 6.8% as determined under the City Code (see Section 2A of this report) - 5.0% as recommended by Mercer (see Section 2B of this report) ▪ The results reflect Council Bill 09-0295 (DROP2) which takes effect January 1, 2010. The assumption changes and plan provisions associated with this bill are described in Sections 5 and 6. ▪ The expense assumption has been updated to reflect a load to the normal cost of 35 basis points of the current market value of assets (excluding the PuBF and CRF). ▪ There has been a $19.1 million increase in the City's recommended contribution based on a 6.8% post-retirement investment return assumption and a further $63.9 million increase (total of $83.0 million) based on a 5.0% post-retirement investment return assumption. ▪ Investments other than the Paid Up Benefit Fund and Contingency Reserve Fund lost 24.0649%. ▪ The 10 year phase in of negative balances in the Benefit Improvement, Employer Reserve, and Minimum Stabilization Funds and the routine smoothing of the Actuarial Value of Assets result in an Actuarial Value of Assets that exceeds the Market Value (including accrued contribution) by $811.0 million based on a 6.8% post retirement investment return assumption and $811.9 million based on a 5.0% post retirement investment return assumption. This difference increased from $456.5 million at June 30, 2008 due to unfavorable investment experience. The GASB 25 funded ratio would be 58.2% on a market value basis instead of 84.8% on an Actuarial Value of Assets basis based on a 6.8% post-retirement investment return assumption and 50.2% on a market value basis instead of 73.2% on an Actuarial Value of Assets basis based on a 5.0% post-retirement investment return assumption. ▪ No variable benefit increase as of January 2010.

Executive Summary *(continued)*

The 2009 valuation determines the City's recommended contribution for FY 2011. A key result of the valuation is a $19.1 million increase in the City's contribution from $81,879,056 for FY 2010 to $100,998,213 for FY 2011 based on a post-retirement investment return assumption of 6.8% and a further $63.9 million increase (total of $83.0 million) to $164,916,258 based on a post-retirement investment return assumption of 5.0%.

The net investment return during FY 2009 was negative 24.0649% compared to our long range assumption of 8.25%. There will be no variable benefit increase effective January 2010.

In 2005 the Benefit Improvement, Employer Reserve and Minimum Stabilization Funds expired. These funds are being incorporated into the Actuarial Value of Assets by phasing in the negative balances over 10 valuations, beginning June 30, 2005. As of June 30, 2009, the unrecognized amount of the negative balances is $198,867,850. During FY 2008 the City made an excess contribution of $5,731,841 which was used to pay off a portion of the negative balances immediately. Similarly, during FY 2007 the City made an excess contribution of $5,505,220 which was also used to pay off a portion of the negative balances immediately. No excess contributions were made during FY 2009. After taking the FY 2007 and FY 2008 excess contributions into account as a reduction to the negative balances, an additional credit of $2,560 under the post-retirement investment return assumption of 6.8% and $2,536 under the post-retirement investment return assumption of 5.0%, plus one year's interest at 8.25% was applied to the City's FY 2011 recommended contributions and an offsetting charge of the same amount was applied to the State's FY 2011 recommended contribution.

For the 6.8% assumption, the City's credit of $834,749 plus one year's interest at 8.25% would be applied to the FY 2011 recommended contribution due to a transfer of "excess" funds from the Contingency Reserve Fund. For the 5.0% assumption, there is no transfer of "excess" funds from the Contingency Reserve Fund.

Executive Summary *(continued)*

Assets

The market value of assets decreased $457,382,142 (from $2,151,702,668 to $1,694,320,526) during the 2008-2009 fiscal year. The receipts and disbursements of the fund were as follows:

Adjusted fund balance at 7/1/2008		$2,151,702,668
Contributions		87,174,488
Member	$ 17,661,252	
Employer	69,513,236	
Investment income		($359,264,183)
Interest, dividends and realized capital gains	$ (119,884,778)	
Unrealized gains (losses)	(229,829,430)	
Expenses	(9,549,975)	
Benefit payments and refunds		($185,292,447)
Adjusted fund balance at 6/30/2009		$1,694,320,526

Earnings above or below the valuation interest assumption are identified separately. The excess earnings are calculated by the “asset averaging method” referred to in Article 22(36)(j) of the Baltimore City Code. This method uses one-fifth of any excess earnings for the year to adjust the unfunded actuarial liability in the current year. The other four-fifths of any excess earnings have been used for purposes such as benefit improvements, contribution reductions and changes in actuarial assumptions. Recently, this four-fifths is held in reserve.

For more details on assets, see Section 1.

Executive Summary *(continued)*

Valuation Summary

The major components of the **City's** costs, both as a dollar amount and a percentage of payroll for both 6.8% and 5.0% post-retirement investment return assumptions are shown below, together with the corresponding figures from the June 30, 2008 report for comparison:

	2008 Valuation Applies to FY2010		**2009 Valuation Applies to FY2011 at 6.8%**		**2009 Valuation Applies to FY2011 at 5.0%**	
	Amount	**Percent**[1]	**Amount**	**Percent**[1]	**Amount**	**Percent**[1]
Normal cost	$46,205,005	17.22%	$50,173,829[2]	17.91%	$62,487,697[3]	22.30%
Amortization of unfunded actuarial liability over 20 years	30,193,393	11.25%	43,964,370	15.69%	89,862,421	32.07%
Reduction due to transfer from Contingency Reserve Fund	(758,646)	(0.28%)	(834,749)	(0.30%)	0	0.00%
Adjustment due to City-only excess contribution	(901)	(0.00%)	(2,560)	(0.00%)	(2,536)	(0.00%)
Interest to 7/1/2009 (2010)	6,240,205	2.33%	7,697,323	2.75%	12,568,676	4.49%
Total lump sum contribution	$81,879,056	30.52%	$100,998,213	36.04%	$164,916,258	58.85%

The above amounts are based on amortizing the unfunded actuarial liability over a rolling 20-year period, as approved by the Trustees in 1992.

The **State** has employees at BWI airport who participate in the plan. Contributions for the 17 airport employees are billed to the State. The State's cost increased from $596,412 for FY 2010 to $834,588 for FY 2011 based on a post-retirement investment return assumption of 6.8% or to $1,430,625 based on a post-retirement investment return assumption of 5.0%. The combined City and State contribution for FY 2011 is $101,832,801 assuming a post-retirement investment return of 6.8% and $166,346,883 assuming a post-retirement investment return of 5.0%. This amount is increased for interest if the payment is made after the first day of the 2011 fiscal year.

For more details on the valuation, see Sections 2A and 2B.

[1] Payroll for City Members is $268,310,013 at 6/30/2008 and $280,207,946 at 6/30/2009.

[2] $4,213,427 of the increase was due to the expense assumption

[3] $4,210,931 of the increase was due to the expense assumption

Executive Summary *(continued)*

Plan Membership

We have reconciled the plan membership from the previous year to this year.

Changes in active membership statistics from last year are as follows for City & State employees:

Plan Statistics	2008	2009	% change
# of active members	4,615	4,690	1.63%
Total payroll	$269,690,209	$281,423,808	4.35%
Average salary	$58,438	$60,005	2.68%
Average age	38.91	38.99	0.21%
Average service	12.34	12.45	0.89%

There were 5,929 persons receiving benefits from the plan at June 30, 2009, which compares to 5,881 at June 30, 2008. Average annual benefits have increased to $29,420. The types of retirement and average benefits appear on the following chart:

	Number of Retirees			Average Benefit Amount		
Type of Retirement	**2008**	**2009**	**% increase**	**2008**	**2009**	**% increase**
Normal Service Retirement	3,446	3,490	1%	$35,002	$35,474	1%
Discontinued Service	14	14	0%	30,621	30,621	0%
Non-Line-of-Duty Disability	303	292	(4%)	18,213	18,149	0%
Line-of-Duty Disability	715	714	0%	31,504	31,858	1%
Beneficiaries of Above	1,164	1,183	2%	13,346	13,514	1%
Non-Line-of-Duty Death	165	160	(3%)	19,699	19,854	1%
Line-of-Duty Death	74	76	3%	39,137	39,312	0%
Total	**5,881**	**5,929**	**1%**	**$29,038**	**$29,420**	**1%**

For more details on plan membership, see Section 3.

Executive Summary *(continued)*

Variable Benefit Calculation

The retirement ordinance provides for an increase in benefits to certain retirees and beneficiaries whenever the investment performance[4] exceeds 7.5%. During FY 2009, the fund lost 24.0649%. As a result, there will be no increase in benefits for this group of participants.

Future increases will depend on future investment performance.

For more details on the variable benefit calculation, see Section 4.

[4] Performance excludes earnings in Paid up Benefit Fund and Contingency Reserve Fund

Actuarial Certification

Mercer has prepared this report exclusively for the Trustees of the Fire and Police Employees' Retirement System of the City of Baltimore for the following purposes:

- Present the results of a valuation of the Fire and Police Employees' Retirement System of the City of Baltimore as of July 1, 2009 under two post-retirement investment return assumptions (6.8% per the City Code and 5.0% as recommended by Mercer).
- Review plan experience for the year ended June 30, 2009
- Provide the City contribution for the 2011 fiscal year and the State contribution for the 2010 fiscal year.

This valuation report may not be relied upon for any other purpose or by any party other than the Trustees, the City, the State or their auditors solely for the purpose of completing an audit related to the matters herein. Mercer is not responsible for the consequences of any unauthorized use.

A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a plan's future financial condition or its ability to pay benefits in the future.

Over time, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, plan expenses and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, *Actuarial Assumptions*, as described in Section 5, are used to select two scenarios from a range of possibilities. The results of these scenarios are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different. Actuarial assumptions may also be changed from one valuation to the next because of changes in mandated requirements, plan experience, changes in expectations about the future and other factors. Due to the limited scope of our assignment, we did not perform, nor do we present, an analysis of the potential range of future possibilities and scenarios.

Because actual plan experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit-related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely on the basis of a valuation report or reports.

Data

To prepare this report, Mercer has used and relied on financial and participant data submitted by the Retirement System's Office. We have reviewed the financial and participant data for

Actuarial Certification *(continued)*

internal consistency and general reasonableness, but we have not verified or audited any of the data or information provided. We have also used and relied on the plan documents, including amendments, supplied by Fire and Police Employees' Retirement System including Council Bill 09-0295 effective January 1, 2010. A summary of the plan provisions valued is presented in our report. The Trustees are solely responsible for the accuracy, validity and comprehensiveness of this information. If the data or plan provisions supplied are not accurate and complete the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a later revision of this report.

Actuarial Calculations, Methods and Assumptions

To the best of our knowledge and belief, this report is complete and accurate and all costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures in accordance with applicable statutes, using an actuarial cost method approved by the Board. Assumptions used are based on the last experience study, as adopted by the Board. Certain actuarial assumptions, including the 8.25% pre-retirement investment return assumption and the 6.8% post-retirement investment return assumption, are prescribed by statute. This valuation is based on assumptions, plan provisions, methods and other parameters as summarized in this report. If this information is inaccurate or incomplete or does not reflect current statutes, regulations or Trustee directives, the reader of this report should not rely on the valuation results and should notify Mercer promptly. In our opinion, this report fully and fairly discloses the actuarial position of the plan on an ongoing basis.

Actuarial Certification *(continued)*

We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report. We are not aware of any direct or material indirect financial interest or relationship, including investments or other services that could create a conflict of interest, that would impair the objectivity of our work.

Douglas L. Rowe, FSA, MAAA, EA	October 8, 2009 Date
James Baughman, ASA, EA	October 8, 2009 Date

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Section 1: Assets

Highlights
▪ Total fund decreased by $457 million during FY 2009 ▪ Total fund's investments lost $359 million net of expenses during FY 2009; investment income net of expenses in the Paid Up Benefit Fund and Contingency Reserve Fund combined was $35 million. ▪ The combination of the loss on investments and transfers to the Pension Reserve Fund led to a negative balance in the Pension Accumulation Fund that exceeds the balance in the Annuity Savings Fund. In other words, for purposes of the 2010 variable benefits calculation, all assets are allocated to retired members and beneficiaries and any investment gains will have a limited impact on the City's contribution. ▪ Negative balances in the Benefit Improvement, Employer Reserve, and Minimum Stabilization Funds at June 30, 2005 are being recognized in the Actuarial Value of Assets under a 10-year phase in, beginning June 30, 2005. ▪ For the 6.8% post-retirement investment return assumption, assets in the Contingency Reserve Fund exceeded 2.5% of combined assets in the Annuity Reserve and Pension Reserve funds as of June 30, 2009. As required, the excess funds of $843,774 would be transferred from the Contingency Reserve Fund (CRF) to the Pension Accumulation Fund. For the 5.0% assumption, $0 would be transferred.

Section 1: Assets *(continued)*

The funds shown on the next page serve the following purpose:

- Annuity Savings Fund (ASF) – contains member contributions for active members
- Annuity Reserve Fund (ARF) – contains retired member contributions
- Pension Accumulation Fund (PAF) – contains City contributions for actives.
- Pension Reserve Fund (PRF) – contains City contributions for retired members; adjusted annually by transfers to/from PAF so that ARF plus PRF equals the actuarial present value of retiree benefits
- [5]Paid Up Benefit Fund (PuBF) – contains assets to pay for variable benefit increases already granted
- [5]Contingency Reserve Fund (CRF) – safety net for PuBF

[5] These funds are primarily invested in fixed income investments. They generally receive a transfer annually based on ARF plus PRF returns in excess of 7.5%. The CRF never exceeds 2.5% of the ARF plus PRF.

Section 1: Assets *(continued)*

Assets of the Plan as of June 30, 2009

Based upon unaudited financial data furnished by the Retirement Systems Office, the change in market value of assets of the six funds during the valuation year ending June 30, 2009 based on a post-retirement investment return assumption of 6.8% is summarized as follows:

	Annuity Savings Fund	Annuity Reserve Fund	Pension Accumulation Fund	Pension Reserve Fund	Paid Up * Benefit Fund	Contingency * Reserve Fund	Total (MV)
Fund Balance on 6/30/08	$223,169,334	$240,073,530	$72,503,397	$1,132,172,471	$446,761,222	$37,022,714	$2,151,702,668
Transfers	$0	$964,724	($77,259,628)	$77,060,829	$0	($765,925)	$0
Adjustment from prior year							
Fund Balance on 6/30/08	$223,169,334	$241,038,254	($4,756,231)	$1,209,233,300	$446,761,222	$36,256,789	$2,151,702,668
Contributions							
Member	$17,661,252	$0	$0	$0	$0	$0	$17,661,252
City & State**	$0	$0	$69,513,236	$0	$0	$0	$69,513,236
Net Investment Income							
Interest, Dividends, Real Gains	$12,541,035	$16,031,533	($254,764,991)	$80,503,218	$25,186,954	$617,473	($119,884,778)
Unrealized Gains(Losses)	$0	$0	($239,660,148)	$0	$8,487,028	$1,343,690	($229,829,430)
Expenses	$0	$0	($9,227,798)	$0	($300,753)	($21,424)	($9,549,975)
Total Investment Income	$12,541,035	$16,031,533	($503,652,937)	$80,503,218	$33,373,229	$1,939,739	($359,264,183)
Transfer for member contributions	$0	$0	$0	$0	$0	$0	$0
Transfers for annuities awarded & military leave credits awarded	($13,801,490)	$13,818,574	($17,084)	$0	$0	$0	$0
Payments of Benefits & Refunds	($2,410,555)	($22,432,138)	($9,192,198)	($111,234,331)	($40,023,225)	$0	($185,292,447)
Fund Balance on 6/30/09 (Market Value)	$237,159,576	$248,456,223	($448,105,214)	$1,178,502,187	$440,111,226	$38,196,528	$1,694,320,526
Transfers[6]	$0	$2,053,953	($66,307,963)	$65,097,784	$0	($843,774)	$0
Fund Balance on 6/30/09 (Market Value)][7]	$237,159,576	$250,510,176	($514,413,177)	$1,243,599,971	$440,111,226	$37,352,754	$1,694,320,526

* Excluded from valuation

[6] Based on a post-retirement investment return assumption of 5.0%, the transfers would be as follows: ARF - $48,791,569; PAF - $(351,028,452); PRF - $302,236,883; CRF - $0

[7] Based on a post-retirement investment return assumption of 5.0%, the fund balance as of 6/30/09 would be as follows: ARF - $297,247,792; PAF - $(799,133,666); PRF - $1,480,739,070; CRF - $38,196,528

Section 1: Assets *(continued)*

Development of Investment Gain (Loss)

1. Mean assets (see Section 4)	$1,639,637,290
2. Investment return (see Section 4)	(24.0649)%
3. Investment gain (loss) a. Relative to 6.80%: [(2) – 6.80%] x (1) b. Relative to 8.25%: [(2) – 8.25%] x (1)	 ($506,072,410) ($529,847,151)
4. Funds as a portion of market value of assets (excluding PuBF and CRF) at the beginning of the year a. (ARF + PRF)/MVA b. (ASF + PAF)/MVA c. Total: (a) + (b)	 0.869111 0.130889 1.000000
5. Gain (Loss) allocation (beginning of the year) a. ARF and PRF: (3a) x (4a) b. ASF and PAF: (3b) x (4b) c. Total: (a) + (b)	 ($439,833,098) ($69,351,164) ($509,184,262)

Section 1: Assets *(continued)*

Development of Unallocated Earnings

Ordinance 97-164 set up two funds – the Employer Reserve Fund (ERF) and the Benefit Improvement Fund (BIF) – which are credited with unallocated earnings, beginning with the $50 million excess earnings from the June 30, 1996 valuation. As of June 30, 1997, a minimum stabilization fund (MSF) was established within each Fund. Ordinance 00-49 provided for increases in the minimum stabilization funds annually from 2000 through 2003. All of these funds expired as of June 30, 2005. The actuarial value of assets recognizes the negative balances as of June 30, 2005 in 10 equal amounts beginning with the June 30, 2005 valuation.

Date of Valuation	**6/30/2008**	**6/30/2009**
Investment gain (loss)	$(267,711,514)	$(509,184,262)
Unallocated earnings for prior year	30,174,169	(221,848,732)
Variable benefit funds	0	0
Allocation for Experience Study	0	0
Allocation for 10% of the BIF, ERF & MSF	(39,773,570)	(39,773,570)
Balance for unallocated earnings calculation	$(277,310,915)	$(770,806,564)
One-fifth (credit) charge	55,462,183	154,161,313
Unallocated earnings for date of valuation	$(221,848,732)	$(616,645,251)

The actuarial value of assets used to calculate the unfunded actuarial liability is developed as follows:

Actuarial Value of Assets at 6/30/2009	**6.8% Post-retirement Investment Return Assumption**	**5.0% Post-retirement Investment Return Assumption**
Assets in the Fund: 6/30/2009	$1,694,320,526	$1,694,320,526
Paid-up benefit fund	(440,111,226)	(440,111,226)
Contingency reserve fund	(37,352,754)	(38,196,528)
Remaining BIF, ERF & MSF Balance 6/30/2009	198,867,850	198,867,850
Unallocated excess losses (earnings) for 2009	616,645,251	616,645,251
Reserve for future costs under Ordinance 98-319	(3,633,897)	(3,633,897)
Transfer from CRF for contribution reduction	(843,774)	0
Present value of prior year's contribution not yet paid	81,879,056	81,879,056
Actuarial value of assets on 6/30/2009	$2,109,771,032	$2,109,771,032

Section 2A: Valuation Summary (City Code – 6.8% Assumption)

Highlights
▪ City contribution increased 23.4% from $81.9 million in FY 2010 to $101.0 million in FY 2011. $4.6 million of the increase was due to the updated expense assumption. Investment and demographic experience during FY2009 caused a $21.6 million increase. The updated plan provisions and assumptions due to Council Bill 09-0295 caused a decrease of $7.1 million. ▪ Total (City plus State) unfunded liability increased from $318.0 million at 6/30/2008 to $463.7 million at 6/30/2009. The unfunded liability amount as of 6/30/2009 would have been $312.1 million if there were no actuarial gains or losses during FY2009. Investment and demographic experience during FY2009 caused an increase of $187.7 million. The updated plan provisions and assumptions due to Council Bill 09-0295 caused a decrease of $36.1 million. ▪ Total (City plus State) Net Normal Cost increased from $46.5 million in FY 2010 to $50.5 million in FY 2011. $4.3 million of the increase was due to including the expense assumption for the 6/30/2009 valuation. Demographic experience during FY2009 caused an increase of $2.8 million. The updated plan provisions and assumptions due to Council Bill 09-0295 caused a decrease of $3.1 million. ▪ The unfunded actuarial liability has been allocated between the City and State based on total actuarial liability, not just active actuarial liability as it was in prior years. This change increases the State's portion of the unfunded liability by $941,323 and the State's portion of the amortization payment by $90,223 resulting in a total cost increase to the State portion of the FY 2011 contribution by $105,550.

Section 2A: Valuation Summary (City Code – 6.8% Assumption) *(continued)*

	As of June 30, 2009		
	Airport	City	Total
Number of Participants			
Active	17	4,673	4,690
Service retired	52	3,452	3,504
Disabled	9	997	1,006
Beneficiaries	7	1,412	1,419
Total participants	85	10,534	10,619
Annual compensation of active participants	$ 1,215,862	$ 280,207,946	$ 281,423,808
Development of Normal Cost and Actuarial Liability			
Actuarial liability			
Active	$ 9,352,623	$ 1,069,960,535	$ 1,079,313,158
Service retired	15,769,214	1,118,902,895	1,134,672,109
Disabled	1,878,858	231,358,322	233,237,180
Beneficiaries	523,563	125,677,295	126,200,858
Total	$ 27,524,258	$ 2,545,899,047	$ 2,573,423,305
Less: actuarial value of assets	N/A	N/A	2,109,771,032
Unfunded actuarial liability	$ 4,959,031	$ 458,693,242	$ 463,652,273
Total normal cost	$ 332,438	$ 63,445,378	$ 63,777,816
Expense Load	45,571	4,213,427	4,258,998
Expected member contributions	(75,870)	(17,484,976)	(17,560,846)
Net (of expected member contributions) normal cost, including expenses	$ 302,139	$ 50,173,829	$ 50,475,968
Development of contribution payable for the fiscal year beginning July 1, 2010			
Net normal cost	$ 302,139	$ 50,173,829	$ 50,475,968
Twenty-year amortization of Unfunded Actuarial Liability	475,308	43,964,370	44,439,678
Reduction due to transfer from Contingency Reserve Fund	(9,025)	(834,749)	(843,774)
Adjustment due to city-only excess contribution	2,560	(2,560)	-
Net plan cost at 7/1/2009	$ 770,982	$ 93,300,890	$ 94,071,872
Interest to 7/1/2010	63,606	7,697,323	7,760,929
Total Plan Cost at 7/1/2010	$ 834,588	$ 100,998,213	$ 101,832,801

Section 2B: Valuation Summary (Mercer Recommendation – 5.0% Assumption)

Highlights
▪ City contribution increased 101.4% from $81.9 million in FY 2010 to $164.9 million in FY 2011. $63.9 million of the increase was due to updating the post-retirement investment return assumption from 6.8% to 5.0%. Another $4.6 million of the increase was due to the updated expense assumption. Investment and demographic experience during FY2009 caused a $21.6 million increase. The updated plan provisions and assumptions due to Council Bill 09-0295 caused a decrease of $7.1 million. ▪ Total (City plus State) unfunded liability increased from $318.0 million at 6/30/2008 to $947.6 million at 6/30/2009. $483.9 million of the increase was due to updating the post-retirement investment return assumption from 6.8% to 5.0%. The unfunded liability amount as of 6/30/2009 would have been $312.1 million if there were no actuarial gains or losses during FY2009. Investment and demographic experience during FY2009 caused an increase of $187.7 million. The updated plan provisions and assumptions due to Council Bill 09-0295 caused a decrease of $36.1 million. ▪ Total (City plus State) Net Normal Cost, increased from $46.5 million in FY 2010 to $62.8 million in FY 2011. $12.3 million of the increase was due to updating the post-retirement investment return assumption from 6.8% to 5.0%. Another $4.3 million of the increase was due to including the expense assumption for the 6/30/2009 valuation. Demographic experience during FY2009 caused an increase of $2.8 million. The updated plan provisions and assumptions due to Council Bill 09-0295 caused a decrease of $3.1 million. ▪ The unfunded actuarial liability has been allocated between the City and State based on total actuarial liability, not just active actuarial liability as it was in prior years. This change increases the State's portion of the unfunded liability by $1,961,122 and the State's portion of the amortization payment by $187,968 resulting in a total cost increase to the State portion of the FY 2011 contribution by $213,694.

Section 2B: Valuation Summary (Mercer Recommendation – 5.0% Assumption) *(continued)*

	As of June 30, 2009		
	Airport	City	Total
Number of Participants			
Active	17	4,673	4,690
Service retired	52	3,452	3,504
Disabled	9	997	1,006
Beneficiaries	7	1,412	1,419
Total participants	85	10,534	10,619
Annual compensation of active participants	$ 1,215,862	$ 280,207,946	$ 281,423,808
Development of Normal Cost and Actuarial Liability			
Actuarial liability			
Active	$ 10,915,971	$ 1,268,475,621	$ 1,279,391,592
Service retired	18,626,560	1,329,938,735	1,348,565,295
Disabled	2,256,571	280,750,400	283,006,971
Beneficiaries	614,333	145,800,263	$ 146,414,596
Total	$ 32,413,435	$ 3,024,965,019	3,057,378,454
Less: actuarial value of assets	N/A	N/A	2,109,771,032
Unfunded actuarial liability	$ 10,046,258	$ 937,561,164	$ 947,607,422
Total normal cost	$ 386,910	$ 75,761,742	$ 76,148,652
Expense Load	45,114	4,210,931	4,256,045
Expected member contributions	(75,870)	(17,484,976)	(17,560,846)
Net (of expected member contributions) normal cost, including expenses	$ 356,154	$ 62,487,697	$ 62,843,851
Development of contribution payable for the fiscal year beginning July 1, 2010			
Net normal cost	$ 356,154	$ 62,487,697	$ 62,843,851
Twenty-year amortization of Unfunded Actuarial Liability	962,904	89,862,421	90,825,325
Reduction due to transfer from Contingency Reserve Fund	-	-	-
Adjustment due to city-only excess contribution	2,536	(2,536)	-
Net plan cost at 7/1/2009	$ 1,321,594	$ 152,347,582	$ 153,669,176
Interest to 7/1/2010	109,031	12,568,676	12,677,707
Total Plan Cost at 7/1/2010	$ 1,430,625	$ 164,916,258	$ 166,346,883

Section 3: Plan Membership

Highlights
▪ Active membership increased 1.6% from 4,615 to 4,690 ▪ Active payroll increased 4.4% from $270 million to $281 million ▪ Average salary increased 2.7% from $58,438 to $60,005 ▪ Inactive participants decreased from 127% to 126% of active membership

Section 3: Plan Membership *(continued)*

Plan Membership

This section contains tables which summarize the data used in the valuation. The data as of June 30, 2009, which was supplied by the Retirement System Office, has been reviewed by Mercer to ensure as high a degree of accuracy as possible. This data would customarily not be verified by a plan's actuary. We have reviewed the member data for internal consistency and reasonableness and have no reason to doubt its substantive accuracy.

A reconciliation chart is included on page 21, which traces the active membership through the year, showing the exits and entrances by category. The members are grouped by age and service in a chart on page 22.

The retired member data are displayed in charts on pages 23, 24 and 25.

Section 3: Plan Membership *(continued)*

Reconciliation of Active F&P Members

A.	**Active members as of June 30, 2008**		**4,615**
B.	Exits:		
	1. Terminations:	Non-vested	83
	2. Transfers Out		0
	3. Leaves:	Other	0
	4. Prior Incorrect Inclusions		2
	5. Deaths:	Ordinary with no Survivor	1
		Accidental with Survivor	0
		Ordinary with Survivor	1
	6. Retirements:	Service	120
	7. Disablements:	Ordinary	4
		Special	21
		Special - 100%	0
	8. Other Exits	Hired and Terminated During Year	56
		Retired and Rehired During Year	1
	9. Subtotal (all exits):		289
	10. Military Leaves:		18
	11. Pending Disablement:		18
C.	**Remaining Active (A-B.9)**		**4,326**
D.	Entrances:		
	1. New Entrants		356
	2. Prior Omissions		1
	3. Transfers In		0
	4. Restorations:	Pending	0
		Leave	0
		Retirement	1
		Disability-Ordinary	0
		Disability-Special	0
		Other Termination	5
		Retired and Rehired During Year	1
	5. Subtotal (all entrances):		364
E.	**Active Members as of June 30, 2009 (C + D.5)[8]**		**4,690**

[8] Includes 18 participants on military leave and 18 participants pending disablement.

Section 3: Plan Membership *(continued)*

Average Earnings for Active Service Groups by Age Groups

Age	Service Group									
Group	**< 5**	**5 -9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**TOTAL**
<20										0
20-24	266	5								271
	41,447	53,814								41,675
25-29	360	176	2							538
	44,560	56,681	57,289							48,572
30-34	244	317	136	10						707
	47,027	57,972	62,008	61,555						55,022
35-39	157	232	334	263	5					991
	48,975	57,884	63,388	67,271	75,692					60,909
40-44	69	99	190	387	168	4				917
	47,120	57,683	62,298	66,368	70,579	70,707				63,929
45-49	33	48	61	174	206	104	2			628
	52,823	59,568	61,274	64,254	69,394	74,809	86,762			66,512
50-54	9	20	23	48	93	129	40	6		368
	49,736	57,845	61,212	62,742	66,817	73,078	75,932	82,222		68,466
55-59	3	2	10	19	35	44	53	42	1	209
	41,854	61,247	61,509	63,114	65,266	70,273	74,774	78,495	90,365	70,760
60-64	1	1	2	1	6	10	7	19	4	51
	111,400	60,517	59,673	63,096	67,171	72,446	73,538	77,533	77,645	74,124
65-69			1	2				2	2	7
			63,745	63,955				45,319	68,523	59,905
70-74							1		2	3
							11,145		74,523	53,397
75+										0
TOTAL	1,142	900	759	904	513	291	103	69	9	4,690
	45,455	57,735	62,582	65,901	69,069	73,218	74,754	77,592	76,337	60,005

Total Earnings: $281,423,808

Average Age: 38.99

Average Service: 12.45

Section 3: Plan Membership *(continued)*

Reconciliation of Retired Fire and Police Members and their Beneficiaries

			Retired		Disabled		
			Primary	**Beneficiary**	**Primary**	**Beneficiary**	**Total**
A.	**Members as of June 30, 2008**		**3,460**	**975**	**1,018**	**428**	**5,881**
B.	Exits:						
	1. Payments Ceased		0	3	0	2	5
	2. Returned to Active Membership		1	0	0	0	1
	3. Prior Incorrect Inclusion		0	1	0	0	1
	4. Deaths:	Primary with no Survivor	29	0	17	0	46
		Beneficiary	0	44	0	21	65
		Primary with Survivor	46	0	20	0	66
	5. Subtotal (all exits)		76	48	37	23	184
C.	**Remaining Members (A-B.5)**		**3,384**	**927**	**981**	**405**	**5,697**
	Adjustments		(1)	(11)	0	12	0
	Adjusted Remaining Members		**3,383**	**916**	**981**	**417**	**5,697**
D.	Entrances:						
	1. New Entrants: Primary		120	0	25	0	145
	2. Active Death: Beneficiary		0	1	0	0	1
	3. Beneficiary Assumes Payments		0	46	0	20	66
	4. Prior Omissions		1	8	0	1	10
	5. Ex-Spouse Receiving Payments		0	10	0	0	10
	6. Subtotal (all entrances)		121	65	25	21	232
E.	**Members as of June 30, 2009 (C+D.6)**		**3,504**	**981**	**1,006**	**438**	**5,929**

Section 3: Plan Membership *(continued)*

Schedule of Benefit Recipients by Attained Age and Type of Retirement
F&P
June 30, 2009– PRIMARY MEMBERS

		Type of Retirement[9]				
AGE	**Total**	**NR**	**DS**	**ODis**	**SD**	**S100**
0-24	1	0	0	0	1	0
25-29	4	0	0	0	4	0
30-34	25	0	0	7	18	0
35-39	67	1	1	14	51	0
40-44	172	68	5	21	77	1
45-49	279	177	5	19	77	1
50-54	420	351	1	19	49	0
55-59	615	542	1	20	52	0
60-64	861	752	1	26	82	0
65-69	628	521	0	32	75	0
70-74	512	405	0	41	64	2
75-79	454	334	0	44	75	1
80-84	307	221	0	30	56	0
85+	165	118	0	19	28	0
TOTAL	**4,510**	**3,490**	**14**	**292**	**709**	**5**
Average Annual Benefit	**$ 33,765**	**$ 35,474**	**$ 30,621**	**$ 18,149**	**$ 31,672**	**$ 58,124**

[9] Type of Retirement
NR Normal Retirement for age and service
DS Discontinued Service
ODis Non-Line-of-Duty Disability
SD Line-of-Duty Disability
S100 Line-of-Duty Disability 100% of Compensation

Section 3: Plan Membership *(continued)*

Schedule of Benefit Recipients by Attained Age and Type of Retirement F&P June 30, 2009– BENEFICIARIES

				Type of Retirement[10]						
AGE	**Total**	**NR**	**DS**	**ODis**	**SD**	**S100**	**ODR[11]**	**OD[12]**	**OD[13]**	**SDth[14]**
<20[15]	22	2	0	1	5	0	0	0	6	8
20-24	5	1	0	1	0	0	0	0	3	0
25-29	1	0	0	0	0	0	0	0	1	0
30-34	0	0	0	0	0	0	0	0	0	0
35-39	7	0	0	0	0	0	0	0	2	5
40-44	11	6	0	1	1	0	0	0	0	3
45-49	43	28	0	3	4	0	2	1	2	3
50-54	63	38	0	3	8	0	6	3	1	4
55-59	104	62	1	10	5	0	15	5	2	4
60-64	133	80	0	13	12	0	8	9	2	9
65-69	155	86	0	22	21	0	9	9	0	8
70-74	195	87	0	31	48	0	14	8	0	7
75-79	241	111	0	50	54	0	19	3	0	4
80-84	222	107	0	34	53	0	14	3	1	10
85+	217	136	0	29	29	0	10	2	0	11
TOTAL	**1,419**	**744**	**1**	**198**	**240**	**0**	**97**	**43**	**20**	**76**
Average Annual Benefit	**$15,611**	**$14,550**	**$11,971**	**$10,153**	**$13,086**	**$0**	**$24,186**	**$10,453**	**$19,059**	**$39,312**

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10 Type of Retirement

NR	Normal Retirement for age and service
DS	Discontinued Service
ODis	Non-Line-of-Duty Disability
SD	Line-of-Duty Disability
S100	Line-of-Duty Disability 100% of Compensation

11 Non-Line-of-Duty Death member eligible for Service Retirement

12 Non-Line-of-Duty Death prior to 7/1/91.

13 Non-Line-of-Duty Death with 25% of compensation.

14 Line-of-Duty Death

15 Beneficiaries in this age group are children of deceased members

Section 4: Variable Benefit Calculation

Highlights
▪ No increase in January 2010

Abbreviations used in the following table:

MV	=	Market Value
PuBF	=	Paid-up Benefit Fund
CRF	=	Contingency Reserve Fund
ARF	=	Annuity Reserve Fund
PRF	=	Pension Reserve Fund

Section 4: Variable Benefit Calculations *(continued)*

		Post-retirement Investment Return Assumption	
		6.8%	**5.0%**
1.	MV of assets as of 6/30/2008 after transfers and before adjustment (excluding PuBF and CRF)	$1,668,684,657	$1,668,684,657
2.	MV of assets as of 6/30/2009 before transfers (excluding PuBF and CRF)	$1,216,012,772	$1,216,012,772
3.	Earnings during 7/1/2008 to 6/30/2009 (excluding PuBF and CRF)	($394,577,151)	($394,577,151)
4.	Mean Assets Half of [(1) + (2) - (3)]	$1,639,637,290	$1,639,637,290
5.	Investment return 2008-2009	(24.0649%)	(24.0649%)
6.	Earnings between 7.5% and 10% (Excess of (5) over 7.5%, but not more than 2.5%) divided by (5) times (3)	$0	$0
7.	One half of earnings above 10% Half of [((5) less 10%) divided by (5) times (3)]	$0	$0
8.	Retired Life Reserve on 6/30/2008 (ARF) $241,038,254 (PRF) $1,209,233,300	$1,450,271,554	$1,450,271,554
9.	MV of assets as of 6/30/2008 (excluding PuBF and CRF)	$1,668,684,657	$1,668,684,657
10.	Assets available for Variable Benefit Funds ((6) plus (7)) times ((8) divided by (9))	$0	$0
11.	Retired Life Reserve on 6/30/2009 (ARF) $250,510,176 at 6.8%; $297,247,792 at 5.0% (PRF) $1,243,599,971 at 6.8%; $1,480,739,070 at 5.0%	$1,494,110,147	$1,777,986,862
12.	Amount to transfer to (from) the Contingency Reserve Fund on 6/30/2009 (2.5% of (11)) less current assets in CRF $38,196,528)	($843,774)	$0
13.	Amount available for Paid up Benefit Fund (10) less [the greater of (12) and $0]	$0	$0
14a.	Cost to provide each additional 1% (investment return Purchase Assumption)	$15,962,755	$18,778,377
14b.	Cost to provide each additional 1% (Current Market Rate)	N/A	N/A
15a.	Compound Increase (13) ÷ (14a) x 1% (assuming that the new funds can be invested at the investment return assumption or that surplus is available in the Paid Up Benefit Fund and will be used)	0.00%	0.00%
15b.	Compound Increase (13) ÷ (14b) x 1% (assuming that the new funds can be invested at current market rate or that surplus is available in the Paid Up Benefit Fund and will be used)	N/A	N/A

Section 5: Actuarial Basis

Highlights
Changes in actuarial assumptions from the 2008 valuation include: ▪ Results shown with an updated post-retirement investment return assumption (Mercer Recommendation) ▪ New assumptions for DROP2 (retirement rates) ▪ Addition of an explicit assumption for expenses paid from the fund

Section 5: Actuarial Basis *(continued)*

Projected Unit Credit Method

Liabilities and contributions shown in this report are computed using the Projected Unit Credit method of funding.

The objective under this method is to fund each participant's benefits under the Plan as they would accrue, taking into consideration future salary increases. The total pension, to which each participant is expected to become entitled, is broken down into units, each associated with a year of past or future credited service. When this method is introduced, there will be an initial liability for benefits credited for service prior to that date, and to the extent that the liability is not covered by assets of the Plan, there is an unfunded liability to be funded over a chosen period in accordance with an amortization schedule.

A description of the calculation follows:

An individual's **accrued benefit** for valuation purposes related to a particular separation date is the accrued benefit described under the Plan but determined using the projected salary that would be used in the calculation of the benefit on the expected separation date.

The **benefit** deemed to accrue for an individual during a plan year is the prorated portion of the projected benefit attributable to one year of service. The projected benefit is calculated at the various anticipated separation dates.

An individual's **accrued liability** is the present value of the accrued benefit for valuation purposes at the beginning of the plan year, and the normal cost is the present value of the benefit deemed to accrue in the plan year. When multiple decrements are used, the accrued liability and the normal cost for an individual are the sum of the component accrued liabilities and normal costs associated with the various anticipated separation dates. Such accrued liabilities and normal costs reflect the accrued benefits as modified to obtain the benefits payable on those dates and the probability of the individual separating on those dates.

The Plan's **normal cost** is the sum of the individual normal costs, and the Plan's **accrued (actuarial) liability** is the sum of the accrued liabilities for all participants under the Plan.

Section 5: Actuarial Basis *(continued)*

Actuarial Assumptions and Methods

Method of funding: Effective June 30, 1988, the Projected Unit Credit Funding Method is used.

The current Unfunded Actuarial Liability is amortized over 20 years. This 20-year period is restarted each year. (Effective 7/1/1992)

Asset valuation: The actuarial value of assets is equal to the market value, adjusted for investment surpluses and deficits over a five-year period. This calculation is done in the following steps:

1) The investment gain or loss for the current year is calculated; this equals the actual investment earnings during the year minus the expected earnings. Expected earnings are calculated using a weighted average of the pre- and post-retirement interest rate assumptions multiplied by the mean market value of assets during the year. Market value for this purpose excludes the PuBF and CRF.
2) The amount allocated to the variable benefit fund is deducted from this total.
3) Of this difference, 20% is used in the current actuarial value of assets. Beginning again at June 30, 2007 the remaining 80% is held in reserve.

The actuarial value of assets is the market value (excluding the PuBF and CRF) less cumulative unallocated earnings plus the remaining balance of the BIF, ERF, and Minimum Stabilization Fund. Any contribution receivable for the upcoming fiscal year (as determined in the prior year's valuation) is added to the result.

Investment return: 8.25% compounded annually until retirement.

Shown at both 6.80% compounded annually after retirement per the City Code (effective 6/30/1995) and 5.00% compounded annually after retirement per Mercer recommendation (effective 6/30/2009).

Section 5: Actuarial Basis *(continued)*

Salary increases: Salary increases are assumed to vary with age. Sample rates are as follows:

Age	Annual Rate of Salary Increase
20	0.0800
25	0.0700
30	0.0625
35	0.0500
40	0.0500
45	0.0500
50	0.0500
55	0.0400
60	0.0400
64	0.0400
	(effective 6/30/2008)

Post-retirement mortality: Retirees and beneficiaries:
Male and Females - 1994 Uninsured Pensioners Generational Mortality table projected 5 additional years (effective 6/30/2005).

Disabled Members:
Male and Females – GAM 1983 (M&F) set forward 4 years and reduced by 19% (effective 6/30/2008).

Sample rates are shown on the next page.

Section 5: Actuarial Basis *(continued)*

	Retirees and Beneficiaries		Disabled Members	
Age	**Male***	**Female***	**Male**	**Female**
55	0.004944	0.002506	0.006451	0.002940
60	0.008857	0.004821	0.010671	0.004913
65	0.016076	0.009380	0.019097	0.008404
70	0.026299	0.014912	0.031079	0.016230
75	0.041156	0.024788	0.051653	0.029663
80	0.068050	0.042960	0.081603	0.049100

******Rates for individuals who are the age shown as of 6/30/2008.*

Percent married: Males 75%, Females 75%

Spouse age: A husband is assumed to be 4 years older than his wife.

Remarriage rates: None

Children: All benefits with Joint & Survivor Forms of Payments for retirees had their survivor benefits increased by 4% to account for children's benefits.

Benefit loads: Benefits to certain types of beneficiaries receiving Line-of-Duty death benefits were increased by 3.0% to allow for contingent beneficiaries.

Benefits to certain types of members receiving Line-of-Duty disability benefits were increased by 1.5% to allow for possible conversion to Line-of-Duty death benefits.

Expenses: All expenses are paid from the fund. There is an addition to the normal cost of 35 basis points of the current market value of assets (excluding the PUBF and CRF).

The expense assumption was updated for the 6/30/2009 valuation from being implicitly reflected in the investment return to being explicitly reflected as a 35 basis point addition to the normal cost.

Section 5: Actuarial Basis *(continued)*

Mortality and Morbidity Rates for Active Members: Sample rates of all decrements applicable to active participants are as follows:

Age	Non-Line-of-Duty Disability	Line-of-Duty Disability	Non-Line-of-Duty Death[16]		Line-of-Duty Death[17]
			Males	Females	
20	0.000228	0.000864	0.000566	0.000315	0.000076
25	0.000232	0.001138	0.000725	0.000322	0.000119
30	0.000594	0.001792	0.000871	0.000385	0.000164
35	0.001914	0.003520	0.000924	0.000525	0.000253
40	0.001840	0.004988	0.001172	0.000786	0.000385
45	0.002651	0.005644	0.001742	0.001080	0.000433
50	0.002800	0.004600	0.002876	0.001590	0.000372
55	0.001446	0.004664	0.004944	0.002506	0.000300
60	0.001162	0.006208	0.008857	0.004821	0.000159
64	0.000812	0.006353	0.014312	0.008277	0.000062

The above rates for line-of-duty disability and non-line-of-duty death were effective 6/30/2008.

The above rates for non-line-of-duty disability and line-of-duty death were effective 6/30/2005.

[16] Males and Females – 1994 Uninsured Pensioners Generational Mortality table projected 5 additional years

[17] Benefit loaded ½% for post-disability line-of-duty death benefit.

Section 5: Actuarial Basis *(continued)*

Mortality and Morbidity Rates for Active Members *(continued):*

Withdrawal rates are shown below.

Years of Service	Withdrawal[18]
0	0.0700
1	0.0650
2	0.0600
3	0.0575
4	0.0525
5	0.0450
6	0.0400
7	0.0325
8	0.0250
9	0.0200
10	0.0130
11-14	0.0085
15-19	0.0035
20+	0.0000

The above rates were effective 6/30/2008.

[18] Withdrawal decrements are reduced to zero when participant is eligible to retire.

Section 5: Actuarial Basis *(continued)*

Fire and Police Retirement Rates

The retirement rates are assumed to be affected by whether a member participates in the DROP or DROP2. Members that do not join DROP or DROP2 are assumed to have retirement rates that vary by service until age 50. After age 50 they are assumed to vary solely by age.

Members that join DROP or DROP2 are assumed to have retirement rates that vary solely by service from the time they join and leave the DROP/DROP2. We have assumed that 90% of members will elect the DROP/DROP2. Retirement rates for members are as follows and reflect possibilities of retirement with and without DROP/DROP2 rates:

Non-DROP/DROP2 Rates Until Age 50 (with 90% reduction)	
Years of Service	Non-DROP Retirement Rate
20	6.00%
21	2.25%
22	2.25%
23	2.93%
24	3.38%
25 or later	3.38%

Non-DROP/DROP2 Rates After Age 50 (with 90% reduction)	
Age	Non-DROP Retirement Rate
50	0.64%
51	0.46%
52	0.46%
53	0.47%
54	0.59%
55	0.73%
56	0.69%
57	0.69%
58	0.69%
59	1.39%
60	2.12%
61	1.72%
62	2.55%
63	2.55%
64	3.23%
65	100.00%

Full DROP Rates	
Years after electing DROP	DROP Retirement Rate
1	4.00%
2	5.00%
3	8.00%
4	10.00%
5	25.00%
6	17.00%
7+	25.00%

Full DROP2 Rates		
Years after electing DROP2	DROP2 Retirement Rate	
	Fire	Police
1	3.25%	4.75%
2	4.25%	5.75%
3	11.25%	12.75%
4-5	10.25%	11.75%
6	7.25%	9.00%
7	7.25%	26.00%
8-9	24.00%	26.00%
10-13	23.50%	26.50%
14+	23.00%	27.00%

Section 5: Actuarial Basis *(continued)*

After we know a member has elected the DROP/DROP2, only DROP/DROP2 rates will be used. If a member has more than 20 years of service and has not elected the DROP/DROP2, only non-DROP/DROP2 rates without the 90% reduction will be used.

The Non-DROP and DROP rates were effective 6/30/2008.

The DROP2 rates are effective for the 6/30/2009 valuation to reflect the new DROP2 provisions effective January 1, 2010.

Section 6: Summary of Plan Provisions

Highlights
Changes in plan provisions from the 2008 valuation include: DROP2 will be implemented as of January 1, 2010. Any member earning 20 years of service after this date will be eligible to participate in DROP2 and will not be eligible to participate in DROP. See item 8 for more details concerning this provision.

Section 6: Summary of Plan Provisions *(continued)*

1. Effective Date

The System was effective July 1, 1962 and has periodically been amended. The most recent amendment was contained in Council Bill 09-0295.

2. Eligibility

Any officer or employee of the Police Department or the Fire Department and certain Department of Aviation employees shall become a member as a condition of employment. Any officer or employee for whom the City makes contributions to Social Security shall be excluded.

3. Member Contributions

Members contribute at the rate of 6% of regular compensation for their entire period of service. Contributions are treated as made by the employer and are made to the system pre-tax according to Section 414(h)(2) of the Internal Revenue Code. Members of the ERS who transferred to this System after July 1, 1967 and did not make up the contributions which would have been made from July 1, 1962 are to have their retirement allowance reduced by the actuarial equivalent of the deficient contributions with interest. Interest is credited on contributions at a rate of 5.5% per annum. Members' contributions have been reduced in several recent years by a specific ordinance for each year. For purposes of calculating benefits that depend on the amount of member contributions (e.g., DROP accounts), members are deemed to have contributed the full amount.

4. Compensation

Earnable compensation is all usual compensation including lodging, subsistence, etc. When compensation is not paid in money, the Board of Trustees shall fix the value of that part of compensation. This definition excludes overtime.

Average Final Compensation is the average annual compensation during any eighteen consecutive month period of service during which earnable compensation was highest or, if less than eighteen months, the average during total service.

Section 6: Summary of Plan Provisions *(continued)*

5. Military Service Credit

A. Military Service Prior to Employment: A maximum of three years of service credit is granted provided the member has acquired 10 years of service and attained age 50, or has acquired 20 years of service regardless of age.

B. Military Service Within Employment: Upon retirement or death, any member who, because of military duty, had a break in employment shall receive credit for the period of absence as provided by the Veterans Reemployment Rights Act.

6. Retirement Allowance Eligibility

A. Service Retirement: Age 50 or 20 years of service.
Membership commencing on or after July 1, 2003: Age 50 with 10 years of service as a contributing member, or 20 years of service with 10 years of service as a contributing member.

B. Non-Line-of-Duty Disability Retirement: Five years of service and certified by a member of the Panel of Hearing Examiners to be mentally or physically incapacitated for the performance of duty and that incapacity is likely to be permanent.

C. Line-of-Duty Disability Retirement: No service or age constraints apply. The benefit is awarded when a participant becomes totally and permanently incapacitated for duty as the result of an injury while in performance of duty and certified by a Hearing Examiner as incapacitated for the performance of duty where such incapacity is likely to be permanent. Should such disability further result in extensive brain damage causing total incapacity or in the loss of or the loss of use of both hands or both arms or both feet or both legs or both eyes or any two thereof, an additional pension will be payable.

7. Termination of Employment

A. Eligible for a Termination Retirement Allowance payable immediately upon completion of 15 years of service if removed from a position without fault. Presently, this benefit is not reflected in the valuation.

B. Eligible for a refund of accumulated contributions if not eligible for any other benefits.

Section 6: Summary of Plan Provisions *(continued)*

8. Retirement Allowances

A. Service Retirement:

The retirement allowance shall be the sum of:

(1) An annuity equal to the actuarial equivalent of a member's accumulated contributions.

(2) A pension, which together with the annuity in (1), equals 2.5% of Average Final Compensation times the first 20 years of service, plus 2.0% of Average Final Compensation times service in excess of 20 years.

DROP Benefits

Members with more than 20 years of service on or before December 31, 2009 can elect to participate in DROP at any time. A member's DROP participation period can be for one, two or three years. During that time the member will accrue no additional service. A member who continues employment at the end of his/her DROP participation period shall begin to earn additional service credit.

If a member retires during his/her DROP participation period or immediately at the end of this period, he/she shall be entitled to a Basic DROP Retirement Benefit. This shall equal:

(1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP participation, plus

(2) A lump sum equal to the member's DROP account. This equals the accumulation of the annuity payments the member would have received had he/she retired at the time his/her DROP participation began receiving benefits, plus the member contributions paid during his/her DROP participation period, plus interest at 8.25%.

If a member retires later than the end of the 3 year DROP period but less than 18 months after the conclusion of his/her DROP participation period, he/she is entitled to an Intermediate DROP Retirement Benefit. This shall equal:

(1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP participation, plus

(2) Benefit accrual of 2% plus an extra 1.5% per year (not to exceed 18 months) for service after the DROP participation period.

(3) A lump sum equal to the DROP account. No additions (other than interest) are added after the conclusion of the DROP participation period.

Section 6: Summary of Plan Provisions *(continued)*

If a member retires more than 18 months after the conclusion of his/her DROP participation period, he/she is entitled to a Full DROP Retirement Benefit. This shall equal:

(1) The retirement benefit based on current average final compensation and all service excluding service while a participant in DROP.

(2) Benefit accrual includes an extra 1.5% per year (not to exceed four years) for service after the DROP participation period.

(3) A lump sum equal to the DROP account. No additions (other than interest) are added after the conclusion of the DROP participation period.

<u>DROP2 Benefits</u>

Members with more than 20 years of service on or after January 1, 2010, but not before December 31, 2009, can elect to participate in DROP2. A member's DROP2 participation period can be for one, two or three years. The participant must remain in DROP2 for at least 1 year. Those participants who retire prior to the end of the first year are not entitled to receive any amounts accumulated in the DROP2 account. No additional service is accrued during DROP2 participation. A member who continues employment at the end of the DROP2 participation period shall begin to earn additional service credit.

If a member retires during the DROP2 participation period or immediately at the end of this period, the member is entitled to an Early DROP2 Retirement Benefit. This is equal to:

(1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP2 participation, plus

(2) A lump sum equal to the member's DROP2 account. This equals the accumulation of the annuity payments the member would have received had he/she retired at the time his/her DROP2 participation began receiving benefits, plus the member contributions paid during his/her DROP2 participation period, plus interest at 5.5%.

If a member retires later than the end of the 3 year DROP2 period but less than 3.5 years for police employees or 5 years for fire employees after the conclusion of his/her DROP2 participation period, he/she is entitled to a Mid DROP2 Retirement Benefit. This is equal to:

(1) The retirement benefit that would have been paid had the member retired at the time he/she began his/her DROP2 participation, plus

(2) Benefit accrual of 2% for service after the DROP2 participation period began.

Section 6: Summary of Plan Provisions *(continued)*

(3) An additional benefit accrual of 1.5% per year (not to exceed four years) for service after the DROP2 participation period for fire employee only. Police employees do not receive an additional benefit accrual.

(4) A lump sum equal to the DROP2 account. No additions (other than interest) are added after the conclusion of the DROP2 participation period.

If a member retires more than 3.5 years for police employees or 5 years for fire employees after the conclusion of his/her DROP2 participation period, he/she is entitled to a Complete DROP2 Retirement Benefit. This shall equal:

(1) The retirement benefit based on current average final compensation and all service excluding service while a participant in DROP2.

(2) Benefit accrual includes an extra 1.5% per year (not to exceed four years) for service after the DROP2 participation period for fire employees only. Police employees do not receive an additional benefit accrual.

(3) A lump sum equal to the DROP2 account. No additions (other than interest) are added after the conclusion of the DROP2 participation period.

B. Non-Line-of-Duty Disability Retirement: A member shall receive an annuity equal to the actuarial equivalent of a member's accumulated contributions plus a pension which, together with the annuity, shall equal 2.5% of his/her Average Final Compensation times service up to 20 years, plus 2.0% of his/her Average Final Compensation times service in excess of 20 years, but in no event less than 25% of Average Final Compensation.

NOTE: This allowance is offset by workers' compensation, if the member entered the system after July 1, 1970.

C. Line-of-Duty Disability Retirement: An annuity equal to the actuarial equivalent of a member's accumulated contributions, plus a pension equal to 66-2/3% of Average Final Compensation. An additional pension is paid for certain disabilities so that the retirement allowance is equal to 100% of compensation at the time of retirement.

Note: The same offsets apply as in Non-Line-of-Duty Disability.

D. Termination Retirement Allowance: Determined the same as if the member had retired on a Non-Line-of-Duty Disability Allowance.

Section 6: Summary of Plan Provisions *(continued)*

9. Optional Methods of Receiving Benefit Payments

These options are available for Service, Non-Line-of-Duty Disability and Line-of-Duty Disability Retirement. The option and/or beneficiary may be changed within 30 days after retirement.

A. Joint and 50% to unremarried spouse or dependent children until the last marries, dies or attains age 18 (age 22 if a full-time student) (this is known as the maximum service allowance)

B. Cash refund to designated beneficiary with refund based on present value of allowance at retirement less payments made

C. Joint and 100% to Contingent beneficiary

D. Joint and 50% to Contingent beneficiary

E. Some other periodic benefit subject to the approval of the Board of Trustees

10. Non-Line-of-Duty Death Benefits

Upon the non-duty related death of a member in service, benefits are payable as follows:

A. The member's accumulated contributions shall be payable to the member's designated beneficiary or estate.

B. If a member had one or more years of service, 50% of the greater of his/her current annual compensation or Average Final Compensation will be payable as a lump-sum.

C. In lieu of the A and B above, if the member had at least two years of continuous service, the benefit is an annual sum equal to 25% of the member's regular gross compensation, plus 1.5% of regular gross compensation times years of service in excess of 2 years, up to a maximum benefit of 50% of regular gross compensation. The death benefit shall be payable to:

   (1) the widow(er), if the beneficiary so elects, during widowhood only, or

   (2) if no eligible widow(er), the child or children until the last marries, dies or attains age 18 (age 22 if a full-time student).

Section 6: Summary of Plan Provisions *(continued)*

D. If the member was eligible for a service retirement or, if retired on account of service or non-line-of-duty disability and dies within 30 days of retirement, and the member's designated beneficiary is the member's spouse with whom the member had been living for at least one year or the member's surviving parent(s), such beneficiary may elect, in lieu of (A) and (B) above, an allowance equal to the amount that would have been paid under the Joint and 100% Contingent Option.

These benefits are offset by workers' compensation, if the member entered the system after July 1, 1970. If no beneficiary and if intestate without heirs, then the benefit shall remain part of the System.

11. Line-of-Duty Death Benefits

If a member's death arose out of and in the performance of duty as certified by a Hearing Examiner, or if the member dies within five years as a result of the last injury which resulted in a Line-of-Duty Disability Retirement, a refund of accumulated contributions shall be paid, plus a pension of 100% of current compensation (not less than $15,000) shall be payable to:

A. the surviving spouse, or

B. if no eligible spouse or if the spouse dies, any children, equally, until age 18 (or age 22 if full-time student(s)), or

C. if no eligible spouse or children, any dependent father or dependent mother for their lifetime.

This benefit is offset by workers' compensation, if the member entered the system after July 1, 1970. If no beneficiary and if intestate without heirs, then the benefit shall remain part of the System.

12. Post-Retirement Benefit Increase (Variable Benefits)

Post-retirement benefit increases are automatically provided to certain retirees and beneficiaries when investment performance, as determined each June 30, exceeds 7.5%. Only retirees and beneficiaries, who have been receiving periodic benefit payments for two or more years as of the June 30 determination date, are eligible for the increase. For a member who retires during or at the end of the DROP or DROP2 participation period, the member's DROP or DROP2 participation period shall count toward the eligibility requirement for post-retirement benefit increases. Earnings on the Pension and Annuity Reserve Funds between 7.5% and 10% and one-half of the earnings above 10% are available for the variable benefit funds. For further details see the City code.

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