

**City of Philadelphia
Municipal Retirement System**

**July 1, 2008
Actuarial Valuation**

Produced by [Cheiron](#)

March 2009

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LETTER OF TRANSMITTAL

March 26, 2009

City of Philadelphia Municipal Retirement System
Two Penn Center Plaza – 16th Floor
Philadelphia, PA 19102-1721

Dear Board Members:

At your request, we have performed the July 1, 2008 actuarial valuation of the City of Philadelphia Municipal Retirement System. This is Cheiron's second valuation report for the City.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. The results of this report are only applicable to the System's contribution for Fiscal Year Ending 2010, and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results will vary accordingly.

We hereby certify that, to the best of our knowledge, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board, and that as Members of the American Academy of Actuaries, we meet the Qualification Standards to render the opinion contained in this report.

Finally, in preparation of this report we have accepted the assumptions and methodologies as adopted by the Board of Pensions and Retirement as related to the experience and expectations for the City of Philadelphia Municipal Retirement System. We do not provide an opinion of the long-term return rate assumption of 8.75% being sustainable from the diversified asset portfolio.

Sincerely,
Cheiron



Kenneth A. Kent, FSA, FCA, EA, MAAA
Consulting Actuary



Karen Zangara, FSA, EA
Actuary



CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION

**SECTION I
BOARD SUMMARY**

The primary purpose of the actuarial valuation and this report is to disclose the following as of the valuation date:

- The financial condition of the City of Philadelphia Municipal Retirement System,
- Past trends and expected future trends in the Retirement System's financial condition,
- The City's required contribution for Fiscal Year 2010, and
- Information required by the Governmental Accounting Standards Board (GASB).

In this Section, we present a summary of the principal valuation results. This includes the basis upon which the July 1, 2008 valuation was completed and an examination of the current financial condition of the System. In addition, we present a review of the key historical trends followed by the System's projected financial outlook.

A. Valuation Basis

The June 30, 2008 valuation results are based on the same actuarial assumptions used in the June 30, 2007 valuation.

Below we identify four key results of this valuation:

- ***Unfunded Actuarial Liability (UAL):*** The UAL is the excess of the System's actuarial liability (AL) over the actuarial value of assets (AVA). The UAL increased slightly from \$3.775 billion as of July 1, 2007 to **\$3.779 billion as of July 1, 2008.**
- ***Funding Ratio:*** This is the ratio of the System's AVA to AL. The funding ratio increased from 53.9% as of July 1, 2007 to **55.0% as of July 1, 2008.**
- ***Contribution under the City's Funding Policy:*** The recommended beginning-of-year contribution under the City's funding policy increased from \$516.3* million for FY 2009 to an estimated **\$548.8 million for FY 2010.**
- ***Minimum Municipal Obligation (MMO):*** The MMO is the required minimum amount the City must contribute under Pennsylvania state law. The MMO increased from \$438.5 million for FY 2009 to **\$447.4 million for FY 2010.**

* Note the City's funding contribution for FY 2009 was finalized to be \$516.3 million based upon final payroll and contribution information. In last year's report this was estimated to be \$514.5 million.

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B. Current Financial Condition

On the following pages, we summarize the key results of the July 1, 2008 valuation and how they compare to the results from the July 1, 2007 valuation.

1. City Membership:

As shown in Table I-2 below, total membership in the Retirement System increased by 1.1% from 2007 to 2008

Table I-2 Membership Total			
	July 1, 2008	July 1, 2007	% Change
Actives	29,215	28,354	3.0%
Terminated Vesteds	1,263	1,301	-2.9%
Disabled	4,349	4,384	-0.8%
Retirees	20,898	20,448	2.2%
Beneficiaries	8,510	8,593	-1.0%
DROP	1,648	2,102	-21.6%
Total City Members	65,883	65,182	1.1%
Annual Salaries	\$ 1,456,520,491	\$ 1,351,826,215	7.7%
Average Salary per Active Member	49,855	47,677	4.6%
Annual Retirement Allowances	\$ 585,670,639	\$ 559,777,176	4.6%
Average Retirement Allowance	17,350	16,747	3.6%

A significant result is that the average salary per active member increased by 4.6% during the 2007-2008 plan year, which is below the assumed 5.0% salary scale. Two other significant changes in plan membership should be noted. First is the continued decrease in DROP membership, which is an expected reflection of demographics; similar declines are expected going forward. Second, total payroll growth was higher than expected, due to the increase in the active participant population.

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2. City Assets and Liabilities

Table I-3 presents a comparison between the July 1, 2008 and July 1, 2007 System assets, liabilities, UAL, and funding ratios. Of note is the increase in the Funding Ratio from 53.9% as of July 1, 2007 to **55.0%** as of July 1, 2008.

Table I-3 Assets and Liabilities (\$ thousands)			
	July 1, 2008	July 1, 2007	% Change
Actuarial Liabilities by Membership:			
Actives	\$ 2,946,645	\$ 2,761,320	6.7%
Terminated Vesteds	100,163	104,467	-4.1%
Disabled	610,402	605,573	0.8%
Retirees	3,627,513	3,443,250	5.4%
Beneficiaries	460,275	451,236	2.0%
DROP	652,392	825,910	-21.0%
Non-Vested Refunds	4,829	5,453	-11.5%
Total Actuarial Liability	\$ 8,402,219	\$ 8,197,209	2.5%
Market Value of Assets (net of PAF)	\$ 4,383,545	\$ 4,850,884	-9.6%
Actuarial Value of Assets (net of PAF)	4,623,562	4,421,734	4.6%
Unfunded Actuarial Liability	\$ 3,778,657	\$ 3,775,476	0.1%
Funding Ratio	55.0%	53.9%	1.1%

*The PAF is available for distribution under title §22-311 of the Philadelphia Code. In general, the PAF provides for enhanced benefit distribution to retirees and beneficiaries through the use of excess earnings. For more details on the PAF, see Section II – E.

While the market value of assets (net of the Pension Adjustment Fund* (PAF)) decreased by 9.6%, the actuarial value of assets increased by 4.6% because the experience gains and losses from investments are spread over a five-year period, delaying the recognition of the market loss in the smoothed assets.

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3. Components of UAL Change between July 1, 2007 and July 1, 2008:

The Retirement System's unfunded actuarial liability increased by only \$3.2 million, from \$3,775.5 million as of July 1, 2007 to \$3,778.7 million as of July 1, 2008. Table I-4 below presents the specific components of this change in the UAL for the City's funding policy.

The System experienced a \$45.1 million investment gain and a \$98.3 million liability loss. There was a \$99.4 million loss due to FY 2008 contributions being less than expected under the City's funding policy.

Table I-4	
Change in Unfunded Actuarial Liability - Funding Policy	
(\$ millions)	
Experience	
1. UAL change due to investment (gain)/loss	\$ (45.1)
2. UAL change due to overall liability (gain)/loss	98.3
Contributions	
3. UAL change to difference in benefit accruals, contributions, and timing	\$ 99.4
Total	
4. Total net overall (gain)/loss: sum 1 through 3	\$ 152.6
5. Expected change in UAL	(149.4)
6. Total change in UAL: 4 + 5	3.2

Table I-5 shows the components of the change in the UAL based upon the expected MMO contributions during the year.

Table I-5	
Change in Unfunded Actuarial Liability - MMO	
(\$ millions)	
Experience	
1. UAL change due to investment (gain)/loss	\$ (45.1)
2. UAL change due to overall liability (gain)/loss	98.3
Contributions	
3. UAL change to difference in benefit accruals, contributions, and timing	\$ (16.5)
4. UAL change due to one-year delay in contributions	27.1
Total	
5. Total net overall (gain)/loss: sum 1 through 4	\$ 63.8
6. Expected change in UAL	(60.6)
7. Total change in UAL: 5 + 6	3.2

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In terms of both the MMO and funding policy, the \$98.3 million liability loss is attributable to the following:

- While the overall payroll growth was below expected, there was approximately \$23 million loss attributable to some of the active participant payroll growth above expected and changes in participation status relative to the assumptions.
- \$29 million loss is attributable to new entrants, either entering the System or re-entering the system with prior service credits.
- \$29 million is attributable to nonactive participants including retirees, beneficiaries and terminated vested where most of this loss is directly attributable to participants living longer than expected.
- The balance or approximately \$17 million is due to other demographic changes that were different from expected according to the current set of actuarial assumptions.

4. City Contributions:

The contribution under the City's Funding Policy for Fiscal Year 2010, measured as of the beginning of the year, increased by 0.78% of payroll, from 35.45% (based upon the final FY 2009 payroll) to 36.23% based upon the estimated FY 2010 payroll. In dollar terms, the required beginning of the year contribution increased from \$516.3 million (the final FY 2009 contribution) to \$548.8 million (the estimated FY 2010 contribution).

The Minimum Municipal Obligation for Fiscal Year 2010 measured as of the beginning of the year, decreased by 1.65% of payroll, from 31.19% to 29.54%. In dollar terms, the required beginning of year contribution increased from \$438.5 million to \$447.4 million.

In Section IV of this report, we provide more detail on the development of these contributions.

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Table I-6 Contributions				
Fiscal Year	2010	% of Pay	2009	% of Pay
City's Funding Policy*				
Estimated FY Payroll	\$ 1,514,781		\$ 1,456,520	**
Normal Cost (with Expenses)	\$ 135,724	8.96%	\$ 131,473	9.03%
Employee Contributions	(51,558)	3.40%	(50,654)	3.48%
City Normal Cost	84,166	5.56%	80,819	5.55%
Amortization Payment	464,619	30.67%	435,530	29.90%
City's Funding Policy	\$ 548,785	36.23%	\$ 516,349	35.45%
Minimum Municipal Obligation				
Estimated FY Payroll	\$ 1,514,781		\$ 1,405,899	
Normal Cost (with Expenses)	\$ 135,724	8.96%	\$ 127,858	9.09%
Employee Contributions	(51,558)	3.40%	(48,894)	3.48%
City Normal Cost	84,166	5.56%	78,964	5.62%
Amortization Payment	363,280	23.98%	359,558	25.57%
Minimum Municipal Obligation	\$ 447,446	29.54%	\$ 438,522	31.19%

* Assuming beginning-of-year payment.

** FY 2009 Payroll for the City's Final Policy is the final payroll for the year. All other payroll is estimated based upon the prior year's data used for the actuarial valuation.

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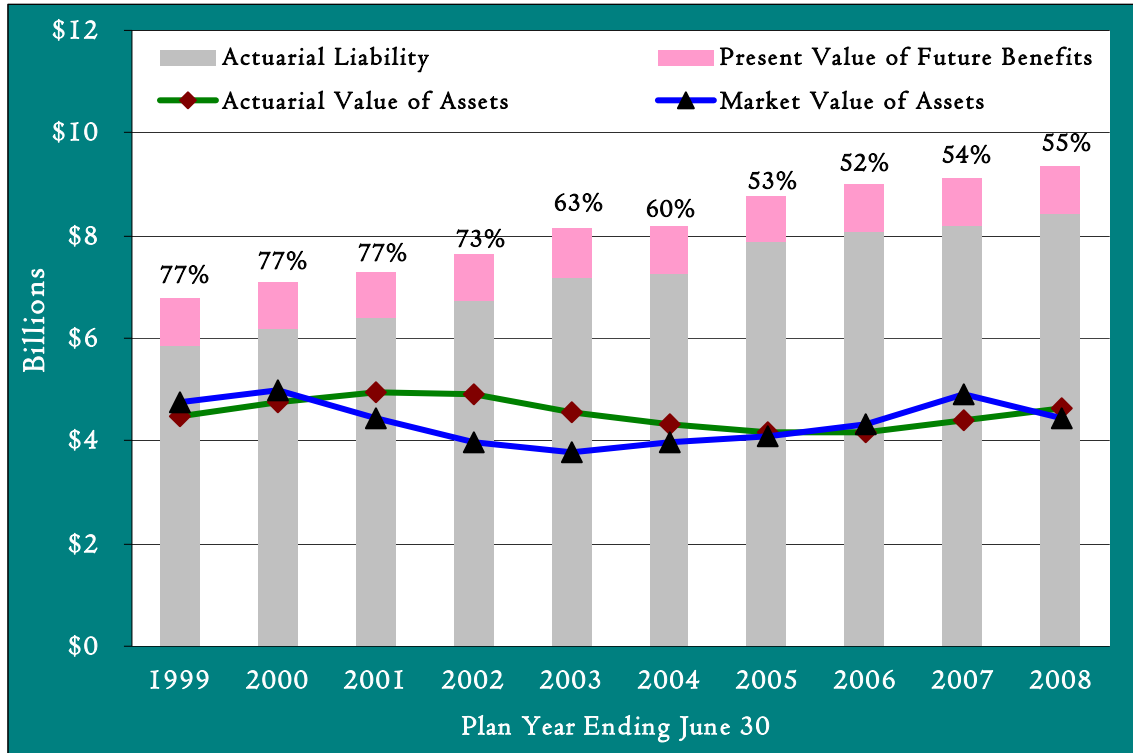
**SECTION I
BOARD SUMMARY**

C. Historical Trends

Although most of the attention given to the valuation reflects the most recently computed unfunded actuarial liability, funding ratio, and contribution amount, it is important to remember that each valuation is merely a snapshot of the long-term progress of a pension fund. It is equally important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

In the chart below, we present the historical trends for the market and actuarial value of assets compared to the actuarial liabilities and present value of future benefits, and we also show the progress of the Retirement System's funding ratios since 1999.

City of Philadelphia Assets* and Liabilities – 1999 to 2008



* Market value of assets includes the PAF, which is not available for funding purposes.

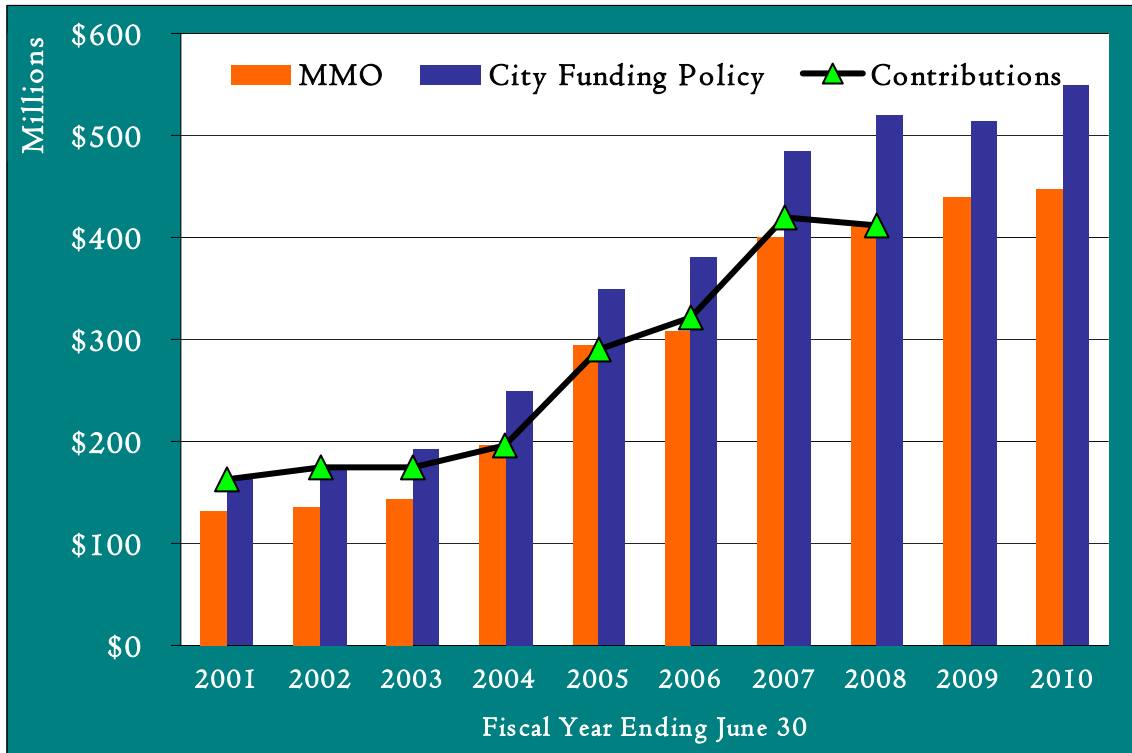
The System's funding ratio has declined significantly since 1999. In 2007, the funding ratio increased for the first time since 1999, primarily due to strong asset performance. The funding ratio increased again in 2008 due to the delayed asset loss recognition methodology used for the actuarial value of assets.

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In this next chart we present historical trends for the Minimum Municipal Obligation (MMO), the contribution under the City’s funding policy, and the actual contribution made for fiscal years since 2001. Because there is a two-year lag in the determination of the City funding policy and MMO requirements, we show the contributions to date and the estimated amounts for fiscal years 2009 and 2010.

City of Philadelphia Contributions for Fiscal Years 2001-2010



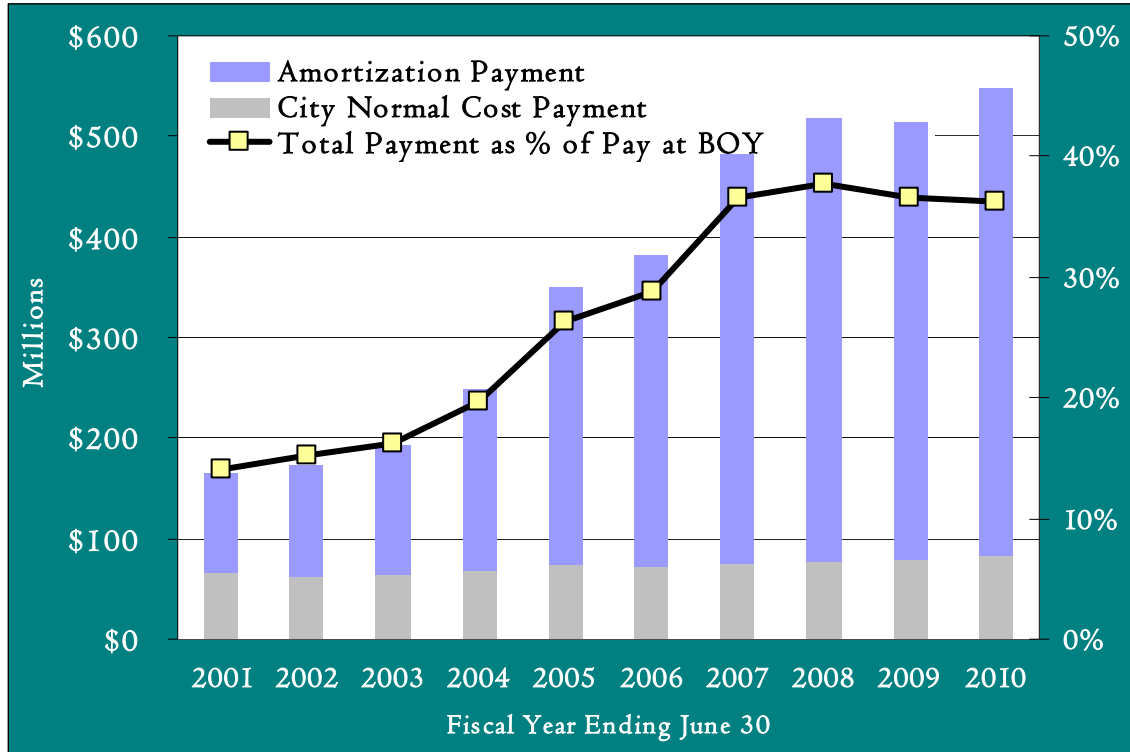
The key trend illustrated in this chart is the rapid escalation in all three measures starting in FY 2004 due in part to investment results and in part to the City’s decision. Since 2004 the City began to make contributions based more on the MMO rather than on its traditional funding policy which has resulted in the funding policy amounts diverging more from the MMO.

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The chart below shows historical amortization payments and City normal cost payments under the City’s funding policy, as well as the total beginning-of-year payment as a percentage of payroll based on the values in the legend on the right versus the line graph.

Funding Policy Contributions by Source for Fiscal Years 2001-2010



The chart illustrates that the City normal cost payment has remained relatively level over the period shown, but the amortization payment to pay off the unfunded actuarial liability has increased from just over \$100 million for FY 2001 to over \$450 million for FY 2010. Furthermore, the total payment as a percentage of payroll is now nearly 40%, up from less than 15% in FY 2001. Both the amortization payment and the total payment as a percentage of payroll increased from the amount due in FY 2009 to the amount due in FY 2010.

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**SECTION I
BOARD SUMMARY**

D. Projected Financial Trends

Our analysis of the City of Philadelphia Municipal Retirement System’s projected financial trends is an important part of this valuation. In this section, we present our assessment of the implications of the July 1, 2008 valuation results on the future outlook in terms of benefit security (assets over liabilities) and the City’s expected cost progression.

In the charts that follow, we project the Retirement System’s assets and liabilities, and the City’s contributions as a percent of payroll. Unless otherwise noted we assume the Funding Policy contributions are made each year and the System does not switch to rolling amortization when it reaches 70% funded. The projections are provided on two different asset return assumption bases:

- 1) Assuming 8.75% returns each and every year, and
- 2) Assuming returns shown in the table below. These are rates of return which vary each year but over the projection period equal on average the assumed 8.75% return. We do this because the City’s return will never be level from year to year.

Fiscal Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Return	3.0%	8.0%	12.0%	16.0%	14.0%	11.0%	8.0%	6.0%	1.0%	-4.0%
Fiscal Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Return	0.0%	4.0%	7.0%	8.0%	12.0%	16.0%	20.0%	16.0%	11.5%	

In reviewing each of these projections, it is the future trends versus the actual values that are important to consider in your deliberation of the risks of the System and the potential volatility of future funding ratios and City contribution levels.

SECTION I
 BOARD SUMMARY

Projection Set 1: Assets* and Liabilities

The two charts below show asset measures (green and blue lines) compared to liabilities (grey and pink bars). At the top of each chart is the progression of the System’s funding ratio which compares the actuarial value of assets (green lines) to the actuarial liability (grey bars). The most revealing insight from these two charts is how varying investment returns impact the System’s funding ratio.

Chart 1: Projection of Assets and Liabilities, 8.75% return each year

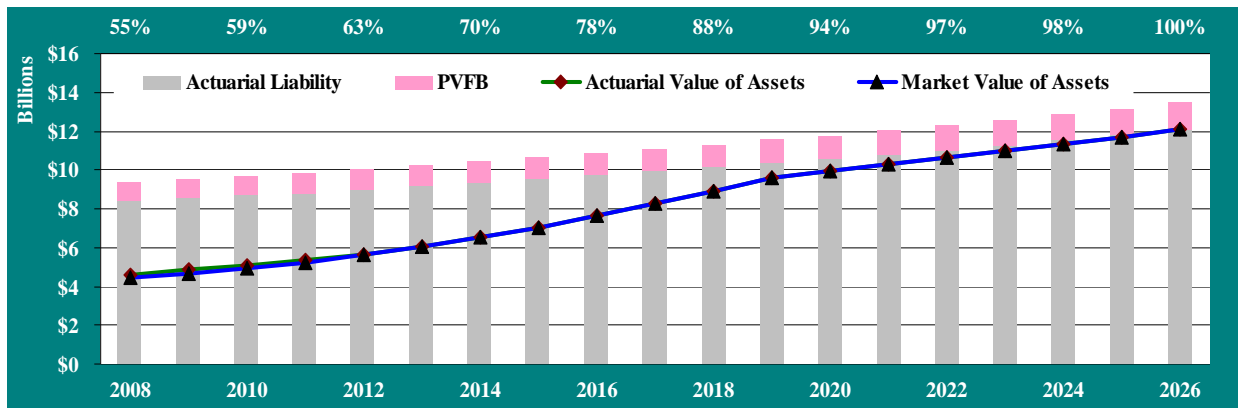


Chart 2: Projection of Assets and Liabilities, varying returns averaging 8.75%

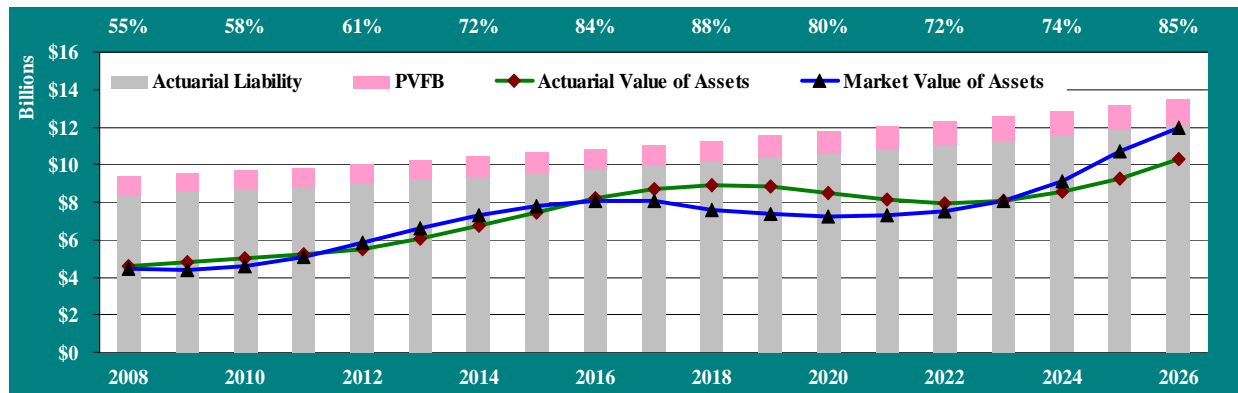


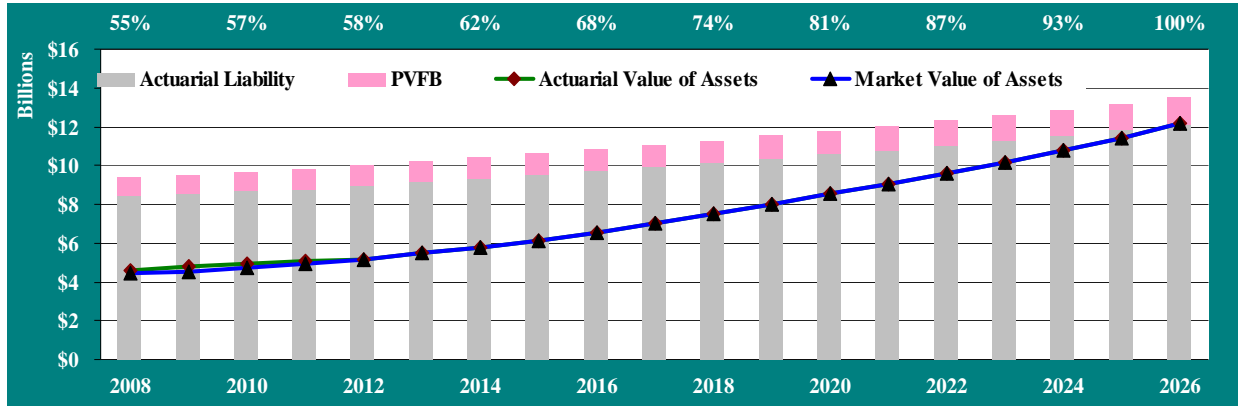
Chart 2 demonstrates that if the fund can achieve a long-term return rate of 8.75%, the funding ratio can be adversely impacted by volatile returns year by year. This component of funding risk is driven by negative cash flows (where benefit payments and expenses are greater than contributions). When a mature fund pays out more than it receives in a year when returns are below the assumption, the assets that get paid out are no longer in the fund during subsequent years of market recovery.

*Market value of assets includes the PAF, which is not available for funding purposes.

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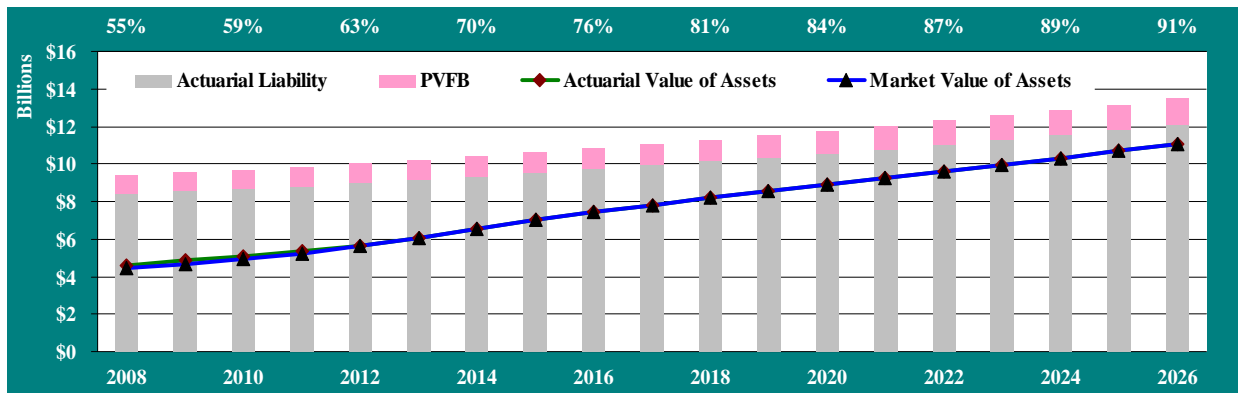
**SECTION I
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Chart 3: Projection of Assets and Liabilities, 8.75% return each year, and the City makes contributions based on the MMO



In the above scenario where the MMO is contributed every year, the System reaches full funding at the end of the projection period (similar to the projections on the prior page in Chart 1). However, prior to 2026 the funding ratio is lower than the ratio achieved each year if the Funding Policy contributions are made.

Chart 4: Projection of Assets and Liabilities, under the Funding Policy, 8.75% return each year, and application of rolling 10 year amortization once the Fund is 70% funded



Under Act 205, which states that if the plan is 70% funded or higher, the City can adopt the policy of annually re-amortizing the unfunded liability over 10 years. Chart 4 is similar to Chart 1, except that once the fund is 70% funded, contributions are made on the basis of 10-year rolling amortization. The resulting funding ratio at the end of the projection period is lower than if the City’s funding policy was contributed for the entire period (91% versus 100%).

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Projection Set 2: Projected City Contribution Rate

The chart below shows that the City’s composite contribution rate is projected to decline slowly as a percent of payroll until the initial unfunded actuarial liability base gets paid off, after which the cost quickly reverts to the normal cost rate. This assumes all actuarial assumptions are met, including the 8.75% anticipated investment return assumption, and the Funding Policy contributions are made each year.

Chart 5: Projection of City Contributions, 8.75% return each year

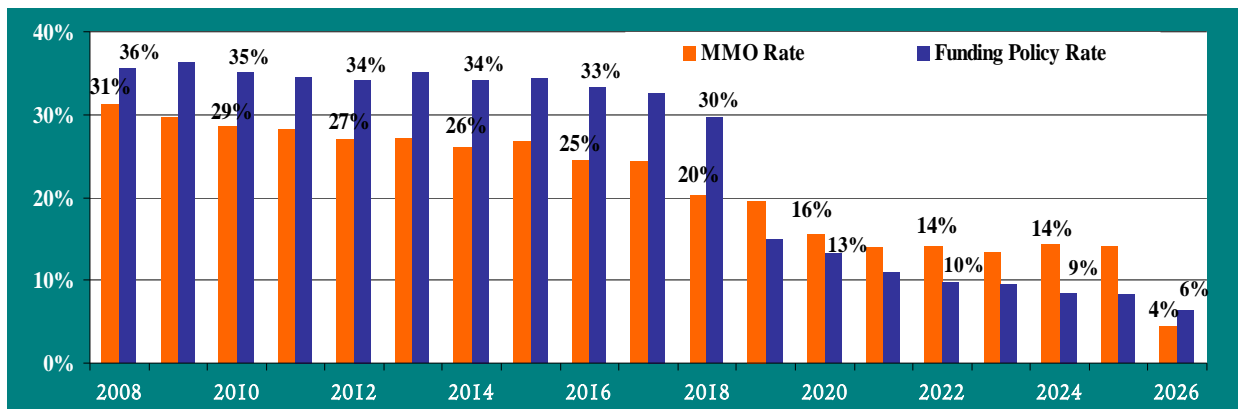
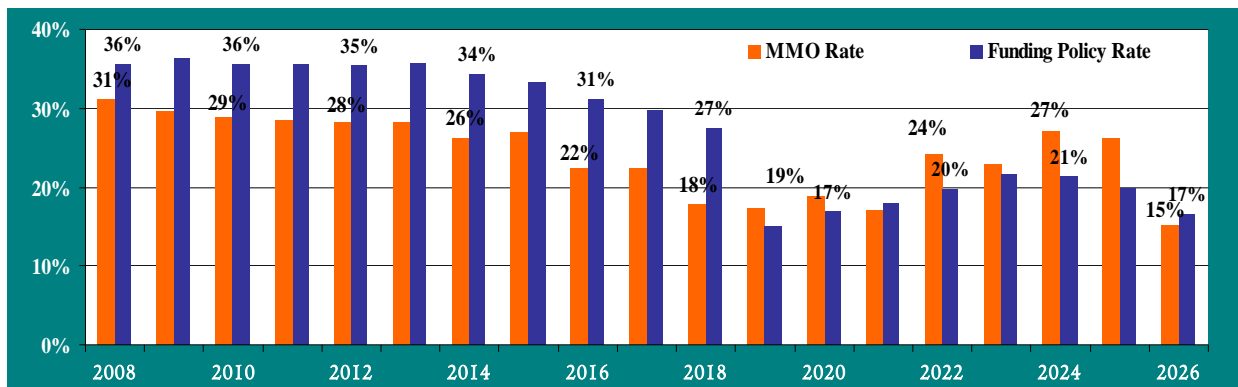


Chart 6: Projection of City Contributions, varying returns averaging 8.75%



As shown above, varying returns have a significant impact on the computed City contribution rate. This illustrates that the UAL may not disappear even if the anticipated return is achieved over the period of amortization of the current UAL. Thus, the market volatility can prolong the period of paying down the unfunded when coupled with the impact of negative cash flows in down markets.

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Chart 7: Projection of City Contributions, 8.75% return each year, and the City makes contributions based on the MMO

This chart shows the expected future contribution if only the MMO is contributed each year.

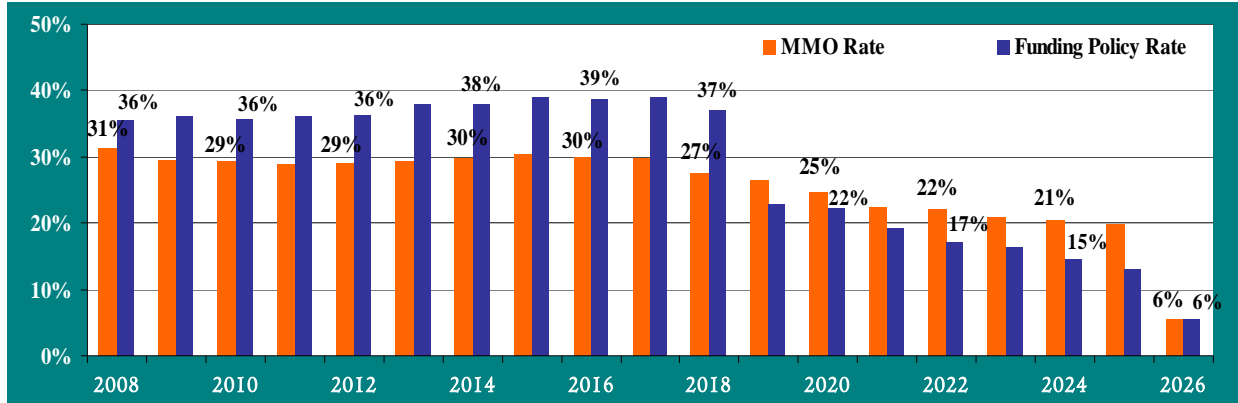
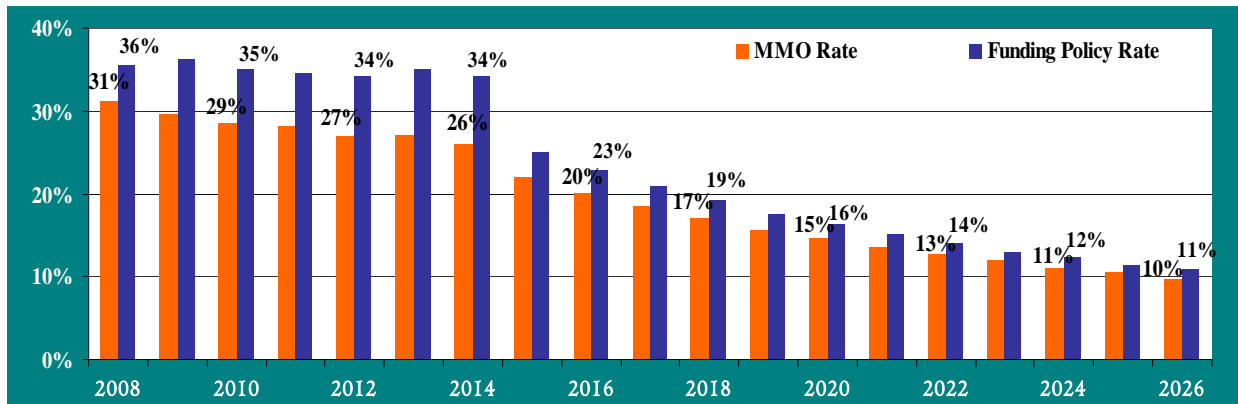


Chart 8: Projection of City Contributions, 8.75% return each year, and application of rolling 10-year amortization once the Fund is 70% funded

Chart 8 is similar to Chart 7, except that once the fund is 70% funded; contributions are made on the basis of 10-year rolling amortization (as permitted under Act 205). This creates a smoother funding requirement than continued funding using the various amortization bases. The following chart illustrates how this provision could affect the future funding requirements.



**SECTION II
ASSETS**

The Retirement System uses and discloses two different asset measurements which are presented in this Section of the report: market value and actuarial value of assets. The market value represents the value of the assets if they were liquidated on the valuation date and, unless explicitly stated otherwise, this value includes the PAF which is not available for funding purposes. The actuarial value of assets is a value that smoothes annual investment returns over multiple years to reduce annual investment volatility, and is used in determining contribution levels. By definition, the actuarial value of assets does not include the PAF.

On the following pages we present detailed information on System assets:

- Disclosure of assets at July 1, 2007 and July 1, 2008,
- Statement of cash flows during the year,
- Development of the actuarial value of assets,
- Apportionment of assets between plans for valuation purposes,
- Development of the Pension Adjustment Fund as of July 1, 2008, and
- Disclosure of investment performance for the year.

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**SECTION II
ASSETS**

A. Disclosure

The market value of assets represents a “snap-shot” value as of the last day of the fiscal year that provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. Because these fluctuations would cause volatility in employer contributions, an actuarial value of assets is developed. Table II-1 below discloses the market value by asset class as of July 1, 2007 and July 1, 2008. Table II-2 discloses the System’s net cash flows for the plan year beginning July 1, 2007 and ending June 30, 2008. Table II-3 discloses Fiscal 2008 City contributions.

Table II-1 Statement of Assets at Market Value*		
	7/1/2008	7/1/2007
<u>Assets</u>		
Cash	\$ 24,069,063	\$ 46,108,182
Investments	4,458,339,485	4,909,719,150
Securities Lending	776,255,428	443,072,876
Accounts Receivable	4,456,969	3,652,018
Due from Brokers	93,212,478	72,682,026
Interest and Dividends Receivable	8,573,166	9,277,796
Due from Other Governmental Units	4,797,893	5,157,886
Total Assets	\$ 5,369,704,482	\$ 5,489,669,934
<u>Liabilities</u>		
Vouchers Payable	\$ 288,683	\$ 103,554
Accounts Payable	3,492,879	3,704,007
Salaries and Wages Payable	118,394	126,509
Due on Securities Lending	776,255,428	443,072,876
Due to Brokers	161,302,676	139,569,581
Accrued Expenses	974,220	1,074,659
Deferred Revenue	2,475,207	1,971,243
Monies Held in Escrow	377,392	376,989
Other Liabilities	<u>344,256</u>	<u>315,395</u>
Total Liabilities	\$ 945,629,135	\$ 590,314,813
Net Assets	\$ 4,424,075,347	\$ 4,899,355,121

* Includes the PAF which is not available for funding purposes.

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**SECTION II
ASSETS**

B. System Cash Flows for the Year July 1, 2007 through July 1, 2008

Table II-2 Changes in Market Values*		
Value of Assets – July 1, 2007		\$ 4,899,355,121
<u>Additions</u>		
Contributions:		
Employer Contributions	\$ 426,934,483	
Employee Contributions	51,690,163	
Total Contributions		\$ 478,624,646
Investment Income:		
Gain/(Loss) from Sale of Investments	\$ (304,924,395)	
Interest and Dividends	97,123,132	
Total Investment Income		\$ (207,801,263)
Investment Activity Expenses:		
Investment Expenses	\$ (17,105,122)	
Total Investment Activity Expenses		\$ (17,105,122)
Securities Lending Activities:		
Securities Lending Income	\$ 34,380,021	
Securities Lending Expenses	(26,980,432)	
Net Income from Securities Lending Activities		\$ 7,399,589
Miscellaneous Operating Revenues	\$ 1,068,455	
Net Investment Income		\$ (216,438,341)
Total Additions		\$ 262,186,305
<u>Deductions</u>		
Administrative Expenses	\$ (7,605,307)	
Withdrawal Refunds	(4,200,153)	
Benefit Payments	(700,926,051)	
PAF Distributions	(24,734,568)	
Total Deductions		\$ (737,466,079)
<u>Total</u>		
Net Increase (Decrease)		\$ (475,279,774)
Value of Assets – July 1, 2008		\$ 4,424,075,347

* Includes the PAF which is not available for funding purposes

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Cash Received, August 9, 2007	\$	412,448,000
Quasi-Agencies		
Cash Received		14,573,204
Accrued as of June 30, 2008		(86,721)
Total	\$	426,934,483

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**SECTION II
ASSETS**

C. Actuarial Value of Assets

To determine on-going funding requirements, most pension funds utilize an actuarial value of assets that differs from the market value of assets. The actuarial value of assets represents an asset value based on averaging or smoothing year-to-year market value returns for purposes of reducing contribution volatility.

Table II-4 Development of Actuarial Value of Assets as of July 1, 2008						
1. Market Value of Assets as of July 1, 2008						\$ 4,424,075,347
2. Pension Adjustment Fund (PAF) as of July 1, 2008 Before Additional Transfers						\$ 21,537,598
3. Market Value of Assets Net of Original PAF*						\$ 4,402,537,749
4. Deferred Asset Gains/(Losses)						
<u>Plan</u> <u>Year</u>	<u>Investment</u> <u>Gains / (Losses)</u>	<u>Percent</u> <u>Recognized</u>	<u>Percent</u> <u>Deferred</u>	<u>Amount</u> <u>Deferred</u>		
2003	\$ 265,309,761	100%	0%	\$	-	
2004	30,013,180	80%	20%		6,002,636	
2005	99,429,256	60%	40%		39,771,702	
2006	380,531,307	40%	60%		228,318,784	
2007	(642,637,544)	20%	80%		(514,110,035)	
Total				\$	(240,016,913)	
5. Preliminary Actuarial Value as of July 1, 2008 (5 = 3 - 4)						\$ 4,642,554,662
6. Corridor for Actuarial Value						
a. 80% of Market Value Net of PAF						\$ 3,522,030,199
b. 120% of Market Value Net of PAF						5,283,045,298
7. Additional PAF Transfer as of July 1, 2008						\$ 18,993,015
8. Actuarial Value of Assets Net of Final PAF as of July 1, 2008 (8 = min{ 6b, max(6a, 5) } - 7) As a percent of Market Value Net of Final PAF						\$ 4,623,561,647 105.0%
9. Market Value of Assets Net of Final PAF						\$ 4,383,544,734

* Market value of assets net of original PAF before the determination of the final PAF amount. See Section II – E for more details on the development of the total PAF and the additional PAF transfer.

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**SECTION II
ASSETS**

D. Apportionment of Actuarial Value of Assets

The asset apportionment reflects the actual cash flows for each plan and proportional allocation of investment earnings.

Table II-5								
Allocation of Assets for Valuation Purposes Between Plans as of July 1, 2008								
(\$ thousands)								
	1967 Plan			1987 Plan				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Actuarial Value of Assets as of July 1, 2007	\$ 2,056,616	\$ 895,301	\$ 409,809	\$ 488,464	\$ 13,156	\$ 446,796	\$ 111,592	\$ 4,421,734
2. Transactions During Plan Year July 1, 2007 to June 30, 2008								
a. Contributions								
City and Commonwealth	\$ 179,412	\$ 122,942	\$ 41,309	\$ 34,226	\$ 227	\$ 26,620	\$ 7,712	\$ 412,448
Employees	12,010	4,846	2,271	12,833	242	14,894	4,594	51,690
Quasi-Public Agencies	14,486	-	-	-	-	-	-	14,486
b. Benefit Payments	(377,059)	(213,478)	(91,492)	(8,935)	(1,473)	(6,663)	(1,826)	(700,926)
c. Withdrawals	(744)	(243)	(151)	(1,814)	(1)	(1,082)	(165)	(4,200)
d. Administrative Expenses	(3,222)	(1,300)	(465)	(1,775)	(4)	(642)	(197)	(7,605)
e. Net Transactions	\$ (175,117)	\$ (87,233)	\$ (48,528)	\$ 34,535	\$ (1,009)	\$ 33,127	\$ 10,118	\$ (234,107)
3. Total Fund Balance Prior to Allocation of Investment Income [1. + 2e.]	\$ 1,881,499	\$ 808,068	\$ 361,281	\$ 522,999	\$ 12,147	\$ 479,923	\$ 121,710	\$ 4,187,627
4. Investment Income During Plan Year July 1, 2007 to June 30, 2008	\$ 195,865	\$ 84,120	\$ 37,610	\$ 54,445	\$ 1,265	\$ 49,960	\$ 12,670	\$ 435,935
5. Actuarial Value of Assets as of July 1, 2008 [3. + 4.]	\$ 2,077,364	\$ 892,188	\$ 398,891	\$ 577,444	\$ 13,412	\$ 529,883	\$ 134,380	\$ 4,623,562

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**SECTION II
ASSETS**

E. Development of the Pension Adjustment Fund as of July 1, 2008

The table below provides the funds available for distribution consideration under title §22-311 of the Philadelphia Code. In general, the Pension Adjustment Fund (PAF) provides for enhanced benefit distribution to retirees and beneficiaries through the use of excess earnings. This may include a lump-sum bonus payment, monthly pension increases, ad-hoc cost of living adjustments, or some other increase determined by the Board.

Table II-6 Development of the Pension Adjustment Fund as of July 1, 2008		
1. PAF on July 1, 2007	\$	48,471,590
2. PAF Distribution		(24,734,568)
3. Market Value Asset Return* Through June 30, 2008		-4.54%
4. PAF on July 1, 2008 Before Additional Transfers** =(1) x [1 + (3)] + (2)	\$	21,537,598
5. Preliminary Actuarial Asset Value Through June 30, 2008	\$	4,642,554,662
6. Actuarial Asset Value Return Through June 30, 2008		10.57%
7. Return in Excess of Investment Assumption Plus 1.0%, Limited to 5.0% =(6) - [8.75% + 1.00%]		0.82%
8. Additional Transfer as of July 1, 2008 * =50% of (7) x (5)	\$	18,993,015
9. Total PAF as of July 1, 2008 = (4) + (8)	\$	40,530,613

* Market Value Asset Return including the PAF

**Calculations are based upon the unrounded percents for items (3) and (7)

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**SECTION II
ASSETS**

F. Investment Performance

The market value of assets internal rate of return (net of PAF) was -4.5% for the year ending July 1, 2008. This is compared to an assumed return of 8.75%. The return for the year ending July 1, 2007 was 17.0%.

On an actuarial value of assets basis (net of PAF), the return for FY 2008 was 10.1%. This return produced an overall investment gain of \$45.1 million for the year ending July 1, 2008. Last year the actuarial value basis returned 10.7%.

Year Ending June 30,	Market Value *	Actuarial Value *	Total Return Standard & Poor's 500 Index	Barclays Aggregate Bond Index**
1994	1.6%	7.8%	1.3%	-1.5%
1995	11.7%	7.8%	26.1%	12.8%
1996	15.1%	10.1%	26.0%	4.7%
1997	18.3%	12.2%	34.6%	8.2%
1998	14.3%	13.1%	30.2%	10.5%
1999	10.0%	13.1%	22.7%	3.1%
2000	9.6%	11.1%	7.3%	4.6%
2001	-6.0%	8.3%	-14.8%	11.2%
2002	-5.8%	3.4%	-18.0%	8.6%
2003	1.8%	-2.2%	0.3%	10.4%
2004	16.6%	4.6%	19.1%	0.3%
2005	9.9%	1.8%	6.3%	6.8%
2006	11.3%	6.1%	8.6%	-0.8%
2007	17.0%	10.7%	20.6%	6.1%
2008	-4.5%	10.1%	-13.1%	7.1%

* Net of PAF

** Formerly Lehman Brothers Aggregate Bond Index

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**SECTION II
ASSETS**

G. Asset Gain/(Loss)

There was a \$642.6 million investment loss on market value of assets when compared to the expected as of July 1, 2008. Table II-8 reconciles the 2008 asset loss (expected versus actual) for the market value of assets both net of the PAF and in total. This investment loss is smoothed over a 5-year period to determine the actuarial value of assets (see Table II – 4). Also provided below is a reconciliation of the PAF which includes the current year transfer amount.

Table II-8 Calculation of Asset Gain/(Loss)			
	Market Value (Net of PAF)	PAF	Total Market Value
1. Market Value of Assets as of July 1, 2007	\$ 4,850,883,531	\$ 48,471,590	\$ 4,899,355,121
2. Transactions During Plan Year July 1, 2007 to June 30, 2008			
a. Contributions			
City and Commonwealth	\$ 412,448,000	\$ -	\$ 412,448,000
Employees	51,690,163	-	51,690,163
Quasi-Public Agencies	14,486,483	-	14,486,483
b. Benefit Payments	(700,926,051)	(24,734,567) ¹	(725,660,618)
c. Withdrawals	(4,200,154)	-	(4,200,154)
d. Administrative Expenses	(7,605,307)	-	(7,605,307)
e. Net Transactions	\$ (234,106,866)	\$ (24,734,567)	\$ (258,841,433)
3. Expected Investment Income From July 1, 2007 to June 30, 2008	\$ 428,398,628	\$ (2,199,425) ²	\$ 426,199,203
4. PAF transfer at July 1, 2008	\$ (18,993,015)	\$ 18,993,015	\$ 0
5. Expected Market Value of Assets as of July 1, 2008 [1. + 2.e. + 3. + 4]	\$ 5,026,182,278	\$ 40,530,613	\$ 5,066,712,891
6. Market Value of Assets as of July 1, 2008	\$ 4,383,544,734	\$ 40,530,613	\$ 4,424,075,347
7. Investment Gain/(Loss) [6. - 5.]	\$ (642,637,544)	\$ 0	\$ (642,637,544)

¹ This is the amount of distributions made out of the Pension Adjustment Fund during the Plan Year

² The PAF is credited with investment income at the market rate of return earned by plan assets.

SECTION III LIABILITIES

In this section, we present detailed information on liabilities for the City of Philadelphia Municipal Retirement System, including:

- Disclosure of liabilities at July 1, 2007 and July 1, 2008
- Statement of changes in these liabilities and the unfunded liabilities during the year
- Development of the normal cost rates by plan, and
- Various amortization schedules of past changes in the unfunded liability that make up the balance of the System cost by plan.

Disclosure

Two types of liabilities are calculated and presented in this report. Each type is distinguished by the purpose for which the figures are ultimately used.

- **Present Value of all Future Benefits:** Used for measuring all future obligations, this represents the amount of money needed today to fully pay off all benefits both earned as of the valuation date and those to be earned in the future by current Plan participants, under the current Plan provisions and assumptions.
- **Actuarial Liability:** Used for determining employer contributions and GASB accounting disclosures. This liability is calculated by subtracting the present value of future member contributions and future employer normal costs as determined under the Entry Age Normal Cost (EAN) actuarial funding method from the present value of all future benefits.

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**SECTION III
LIABILITIES**

Table III-1 shows the present value of future benefits, actuarial liability, and unfunded actuarial liability as of July 1, 2008, and July 1, 2007, for the Retirement System.

Table III-1 Disclosure of Liabilities (\$ thousands)		
	July 1, 2008	July 1, 2007
Present Value of Future Benefits		
Actives	\$ 3,910,611	\$ 3,676,057
Terminated Vesteds	100,163	104,467
Disabled	610,402	605,573
Retirees	3,627,513	3,443,250
Beneficiaries	460,275	451,236
DROP	652,392	825,910
Non-Vested Refunds	4,829	5,453
Total City PVFB	\$ 9,366,185	\$ 9,111,945
Actuarial Liability		
Actives	\$ 2,946,645	\$ 2,761,320
Terminated Vesteds	100,163	104,467
Disabled	610,402	605,573
Retirees	3,627,513	3,443,250
Beneficiaries	460,275	451,236
DROP	652,392	825,910
Non-Vested Refunds	4,829	5,453
Total City AL	\$ 8,402,219	\$ 8,197,209
Actuarial Value of Assets	(4,623,562)	(4,421,734)
Unfunded Actuarial Liability	\$ 3,778,657	\$ 3,775,476

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION III
LIABILITIES**

Table III-2 shows the present value of future benefits, actuarial liability, and unfunded actuarial liability for each Plan in the Retirement System.

Table III-2								
Liabilities Detail as of July 1, 2008								
(\$ thousands)								
	1967 Plan			1987 Plan			Total	
	Municipal	Police	Fire	Municipal	Elected	Police		
Present Value of Future Benefits								
Actives	\$ 1,337,139	\$ 448,535	\$ 188,838	\$ 830,492	\$ 7,726	\$ 852,077	\$ 245,804	\$ 3,910,611
Terminated Vesteds	71,350	1,073	-	19,794	-	6,043	1,903	100,163
Disabled	227,135	245,543	62,736	18,547	-	48,067	8,374	610,402
Retirees	1,929,588	1,166,849	471,632	43,977	4,008	8,637	2,822	3,627,513
Beneficiaries	262,406	132,462	50,740	6,270	466	5,427	2,504	460,275
DROP	449,142	87,437	86,056	19,540	6,648	2,280	1,289	652,392
Non-Vested Refunds	1,491	127	30	2,675	9	375	122	4,829
Total PVFB	<u>\$ 4,278,251</u>	<u>\$ 2,082,026</u>	<u>\$ 860,032</u>	<u>\$ 941,295</u>	<u>\$ 18,857</u>	<u>\$ 922,906</u>	<u>\$ 262,818</u>	<u>\$ 9,366,185</u>
Actuarial Liability								
Actives	\$ 1,183,035	\$ 391,649	\$ 167,230	\$ 552,807	\$ 6,638	\$ 508,653	\$ 136,633	\$ 2,946,645
Terminated Vesteds	71,350	1,073	-	19,794	-	6,043	1,903	100,163
Disabled	227,135	245,543	62,736	18,547	-	48,067	8,374	610,402
Retirees	1,929,588	1,166,849	471,632	43,977	4,008	8,637	2,822	3,627,513
Beneficiaries	262,406	132,462	50,740	6,270	466	5,427	2,504	460,275
DROP	449,142	87,437	86,056	19,540	6,648	2,280	1,289	652,392
Non-Vested Refunds	1,491	127	30	2,675	9	375	122	4,829
Total AL	<u>\$ 4,124,147</u>	<u>\$ 2,025,140</u>	<u>\$ 838,424</u>	<u>\$ 663,610</u>	<u>\$ 17,769</u>	<u>\$ 579,482</u>	<u>\$ 153,647</u>	<u>\$ 8,402,219</u>
Actuarial Value of Assets	<u>(2,077,364)</u>	<u>(892,188)</u>	<u>(398,891)</u>	<u>(577,444)</u>	<u>(13,412)</u>	<u>(529,883)</u>	<u>(134,380)</u>	<u>(4,623,562)</u>
Unfunded Actuarial Liability	<u>\$ 2,046,783</u>	<u>\$ 1,132,952</u>	<u>\$ 439,533</u>	<u>\$ 86,166</u>	<u>\$ 4,357</u>	<u>\$ 49,599</u>	<u>\$ 19,267</u>	<u>\$ 3,778,657</u>

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION III
LIABILITIES**

Table III-3 shows the derivation of the City normal cost as a percent of pay for each Plan in the System.

Table III-3								
Derivation of the Normal Cost as of July 1, 2008								
(\$ thousands)								
	1967 Plan			1987 Plan			Total	
	Municipal	Police	Fire	Municipal	Elected	Police		
Retirement	\$ 15,617	\$ 8,739	\$ 3,643	\$ 21,194	\$ 99	\$ 27,176	\$ 8,928	\$ 85,396
Death	958	372	172	1,989	11	1,184	413	5,099
Disability	2,260	777	298	4,436	14	3,011	850	11,646
Termination	5,558	741	292	11,138	74	2,413	646	20,862
Administrative Expenses	3,063	1,244	442	1,890	4	657	200	7,500
Total Normal Cost	<u>\$ 27,456</u>	<u>\$ 11,873</u>	<u>\$ 4,847</u>	<u>\$ 40,647</u>	<u>\$ 202</u>	<u>\$ 34,441</u>	<u>\$ 11,037</u>	<u>\$ 130,503</u>
Expected Employee Contributions	\$ 10,963	\$ 4,561	\$ 1,882	\$ 12,165	\$ 130	\$ 15,306	\$ 4,568	\$ 49,575
City Normal Cost	\$ 16,493	\$ 7,312	\$ 2,965	\$ 28,482	\$ 72	\$ 19,135	\$ 6,469	\$ 80,928
Current Annual Payroll	\$ 292,349	\$ 76,022	\$ 31,375	\$ 657,550	\$ 1,756	\$ 306,114	\$ 91,354	\$ 1,456,520
City Normal Cost as % of Pay, Beginning of Year Payment	5.642%	9.618%	9.449%	4.332%	4.095%	6.251%	7.082%	5.556%
City Normal Cost as % of Pay, End of Year Payment	6.135%	10.459%	10.275%	4.711%	4.454%	6.798%	7.701%	6.042%

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION III
LIABILITIES**

Table III-4 shows changes in the unfunded actuarial liability from July 1, 2007 to July 1, 2008 due to actuarial experience; there were no assumption or plan changes. It also shows the development of the expected unfunded actuarial liability from July 1, 2008 to July 1, 2009. The actuarial experience of each of the plans is calculated based on the plans, actual asset and liability values compared to the expected values.

Table III-4								
Expected Unfunded Actuarial Liability for the Plan Year Ending June 30, 2009								
(\$ thousands)								
	1967 Plan			1987 Plan				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation	\$ 1,960,118	\$ 1,111,437	\$ 427,542	\$ 63,287	\$ 3,462	\$ 48,129	\$ 12,056	\$ 3,626,031
2. Changes in UAL due to								
a. Actuarial Experience	\$ 86,665	\$ 21,515	\$ 11,991	\$ 22,879	\$ 895	\$ 1,470	\$ 7,211	\$ 152,626
b. Assumption Changes	-	-	-	-	-	-	-	-
c. Active Plan Changes	-	-	-	-	-	-	-	-
d. Inactive Plan Changes	-	-	-	-	-	-	-	-
e. Subtotal	\$ 86,665	\$ 21,515	\$ 11,991	\$ 22,879	\$ 895	\$ 1,470	\$ 7,211	\$ 152,626
3. Actual UAL as of July 1, 2008 [1. + 2e.]	\$ 2,046,783	\$ 1,132,952	\$ 439,533	\$ 86,166	\$ 4,357	\$ 49,599	\$ 19,267	\$ 3,778,657
4. Expected Changes in UAL from July 1, 2008 to July 1, 2009 due to								
a. Interest on Changes in UAL	\$ 7,583	\$ 1,883	\$ 1,049	\$ 2,002	\$ 78	\$ 129	\$ 631	\$ 13,355
b. FY 2009 Amortization Contribution	(84,492)	(55,206)	(16,966)	(222)	(64)	299	291	(156,360)
c. Subtotal	\$ (76,909)	\$ (53,323)	\$ (15,917)	\$ 1,780	\$ 14	\$ 428	\$ 922	\$ (143,005)
5. Expected UAL as of July 1, 2009 [3. + 4c.]	\$ 1,969,874	\$ 1,079,629	\$ 423,616	\$ 87,946	\$ 4,371	\$ 50,027	\$ 20,189	\$ 3,635,652

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**SECTION III
LIABILITIES**

Tables III-5a to III-5h provide the development of the Fiscal Year 2010 payments toward the unfunded actuarial liability for each Plan in the System.

Table III-5a					
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy					
1967 Plan - Municipal					
(\$ thousands)					
	7/1/2008	7/1/2009	Remaining	FY 2010 Payment	FY 2010 Payment
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation					
a. Dombrowski	\$ 978	\$ -	0	\$ -	\$ -
b. Remaining	1,959,140	1,875,626		240,738	261,803
c. Subtotal	\$ 1,960,118	\$ 1,875,626		\$ 240,738	\$ 261,803
2. Changes in UAL due to					
a. Actuarial Experience	\$ 86,665	\$ 94,248	15	\$ 10,593	\$ 11,520
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 86,665	\$ 94,248		\$ 10,593	\$ 11,520
3. Total [1c. + 2e.]	\$ 2,046,783	\$ 1,969,874		\$ 251,331	\$ 273,323

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LIABILITIES**

**Table III-5b
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
1967 Plan - Police**

(\$ thousands)

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation					
a. Dombrowski	\$ 626	\$ -	0	\$ -	\$ -
b. Remaining	1,110,811	1,056,232		143,709	156,283
c. Subtotal	\$ 1,111,437	\$ 1,056,232		\$ 143,709	\$ 156,283
2. Changes in UAL due to					
a. Actuarial Experience	\$ 21,515	\$ 23,397	15	\$ 2,630	\$ 2,860
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 21,515	\$ 23,397		\$ 2,630	\$ 2,860
3. Total [1c. + 2e.]	\$ 1,132,952	\$ 1,079,629		\$ 146,339	\$ 159,143

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION III
LIABILITIES**

**Table III-5c
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
1967 Plan - Fire**

(\$ thousands)

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation					
a. Dombrowski	\$ 249	\$ -	0	\$ -	\$ -
b. Remaining	427,293	410,576		51,420	55,920
c. Subtotal	\$ 427,542	\$ 410,576		\$ 51,420	\$ 55,920
2. Changes in UAL due to					
a. Actuarial Experience	\$ 11,991	\$ 13,040	15	\$ 1,466	\$ 1,594
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 11,991	\$ 13,040		\$ 1,466	\$ 1,594
3. Total [1c. + 2e.]	\$ 439,533	\$ 423,616		\$ 52,886	\$ 57,514

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION III
LIABILITIES**

**Table III-5d
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
Plan 87 - Municipal**

(\$ thousands)

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation	\$ 63,287	\$ 63,064		\$ 5,367	\$ 5,836
2. Changes in UAL due to					
a. Actuarial Experience	\$ 22,879	\$ 24,881	15	\$ 2,797	\$ 3,041
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 22,879	\$ 24,881		\$ 2,797	\$ 3,041
3. Total [1. + 2e.]	\$ 86,166	\$ 87,945		\$ 8,164	\$ 8,877

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION III
LIABILITIES**

**Table III-5e
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
Plan 87 - Elected**

(\$ thousands)

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation	\$ 3,462	\$ 3,397		\$ 348	\$ 378
2. Changes in UAL due to					
a. Actuarial Experience	\$ 895	\$ 974	15	\$ 109	\$ 119
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 895	\$ 974		\$ 109	\$ 119
3. Total [1. + 2e.]	\$ 4,357	\$ 4,371		\$ 457	\$ 497

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**SECTION III
LIABILITIES**

**Table III-5f
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
Plan 87 - Police
(\$ thousands)**

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation	\$ 48,129	\$ 48,428		\$ 3,671	\$ 3,992
2. Changes in UAL due to					
a. Actuarial Experience	\$ 1,470	\$ 1,599	15	\$ 180	\$ 195
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 1,470	\$ 1,599		\$ 180	\$ 195
3. Total [1. + 2e.]	\$ 49,599	\$ 50,027		\$ 3,851	\$ 4,187

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**SECTION III
LIABILITIES**

**Table III-5g
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
Plan 87 - Fire
(\$ thousands)**

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation	\$ 12,056	\$ 12,347		\$ 710	\$ 772
2. Changes in UAL due to					
a. Actuarial Experience	\$ 7,211	\$ 7,842	15	\$ 881	\$ 959
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 7,211	\$ 7,842		\$ 881	\$ 959
3. Total [1. + 2e.]	\$ 19,267	\$ 20,189		\$ 1,591	\$ 1,731

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**SECTION III
LIABILITIES**

**Table III-5h
Development of the Fiscal Year 2010 Amortization Payment under the City's Funding Policy
Total - All Divisions**

(\$ thousands)

	7/1/2008 Outstanding Balance	7/1/2009 Expected Balance	Remaining Years	FY 2010 Payment Beginning-of-Year	FY 2010 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2008 Based on July 1, 2007 Valuation					
a. Dombrowski	\$ 1,853	\$ -	0	\$ -	\$ -
b. Remaining	3,624,178	3,469,670		445,962	484,984
c. Subtotal	\$ 3,626,031	\$ 3,469,670		\$ 445,962	\$ 484,984
2. Changes in UAL due to					
a. Actuarial Experience	\$ 152,626	\$ 165,982	15	\$ 18,656	\$ 20,289
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 152,626	\$ 165,982		\$ 18,656	\$ 20,289
3. Total [1c. + 2e.]	\$ 3,778,657	\$ 3,635,652		\$ 464,618	\$ 505,273

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contribution is needed to achieve and maintain an appropriate funded status of a plan. Typically, the actuarial process will use an actuarial funding method that will result in a pattern of contributions that is both stable and predictable.

The actuarial funding methodology for the July 1, 2008 actuarial valuation is the Entry Age Normal (EAN) actuarial funding method. Under this method, there are two components to the total contribution: the normal cost, and the unfunded actuarial liability contribution. The normal cost rate is determined by taking the value, as of entry age into the plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the each member's expected future salary producing a normal cost rate that should remain relatively constant over a participant's career. The normal cost rate is multiplied by current salary to determine each member's normal cost. Finally, the normal cost is reduced by the member contribution to produce the employer normal cost. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability.

In Table IV-1 we provide the employee contribution rates as a percent of pay effective for the plan year starting July 1, 2009. Table IV-2 shows the quasi-agency funding rates as a percent of payroll.

Table IV-1 Employee Contribution Rates for the Plan Year Beginning July 1, 2009				
	Municipal	Elected	Police	Fire
1967 Plan	3.75%	N/A	6.00%	6.00%
Plan 87	1.85%	7.41%	5.00%	5.00%

This table isolates the MMO funding requirements for the Quasi Agencies that participate in the System based upon rates used to determine the 1967 Municipal cost.

Table IV-2 Quasi Agency Funding Rate as a Percent of Payroll		
Valuation Date	July 1, 2007	July 1, 2008
Fiscal Year	2009	2010
1. Normal Cost Rate	6.186%	6.135%
2. Amortization Rate under the City's Funding Policy	<u>85.398%</u>	<u>93.492%</u>
3. Total Year-End Rate [1. + 2.]	91.584%	99.627%
4. Adjusted for Quarterly Payments [3. x 0.96877]	88.724%	96.516%

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-3 below shows the development of the FY 2010 Minimum Municipal Obligation (MMO) for each division. Table IV-4 on the following page shows a schedule of amortization payments toward the MMO. The differences between the MMO and the City's funding policy are:

- The City's funding policy amortizes the initial July 1, 1985 unfunded actuarial liability over 34 years, whereas the MMO is determined based on a 40-year amortization schedule.
- A July 2004 amendment to Act 205 allowed for 2001 and 2002 calendar year investment losses to be amortized over 30 years, rather than the usual 15.
- The normal cost portion of the City's funding policy payment is based on actual fiscal year payroll, whereas the MMO is based on the prior year's estimated payroll for that year.
- Interest does not accumulate on the MMO, as long as the payment is made by the end of the fiscal year.
- Both the City's funding policy and the MMO utilize valuation results developed in the previous year (e.g., the July 1, 2008 valuation report will determine FY 2010 contribution amounts). However, no interest is added to the MMO for this delay.
- The MMO reflects amortization of prior years' City contributions above past MMOs as actuarial gains.
- Starting with FY 2007-2008, the MMO will recognize actuarial gains and losses every other year, in order to coincide with the filing of the Act 205 forms.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION

Table IV-3				
Development of the Minimum Municipal Obligation for Fiscal Year 2010				
(\$ thousands)				
	Non-Uniformed	Police	Fire	Total
Estimated FY 2009-2010 Payroll	\$ 989,722	\$ 397,422	\$ 127,637	\$ 1,514,781
Normal Cost %	6.657%	11.622%	12.420%	8.445%
Normal Cost	\$ 65,882	\$ 46,190	\$ 15,852	\$ 127,924
Amortization Payment	201,606	120,827	40,847	363,280
Administrative Expenses	5,155	1,977	668	7,800
Subtotal	\$ 272,643	\$ 168,994	\$ 57,367	\$ 499,004
Expected Employee Contributions	(24,188)	(20,662)	(6,708)	(51,558)
Minimum Municipal Obligation	\$ 248,455	\$ 148,332	\$ 50,659	\$ 447,446

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION

Table IV-4
Unfunded Liability Payments toward the MMO for Fiscal Year 2010
(\$ thousands)

Type of Base	7/1/2008 Balance	Municipal Remaining Years	FY 2010 Payment	7/1/2008 Balance	Police Remaining Years	FY 2010 Payment	7/1/2008 Balance	Fire Remaining Years	FY 2010 Payment
Original July 1, 1985 Unfunded Liability	\$ 941,457	17	\$ 77,300	\$ 604,368	17	\$ 49,624	\$ 241,011	17	\$ 19,786
Dombrowski	-	-	-	-	-	-	-	-	-
July 1, 1992									
Active Plan Change	-	-	-	-	-	-	-	-	-
July 1, 1993									
Active Plan Change	\$ (274)	2	\$ (143)	\$ (182)	2	\$ (95)	\$ -	-	\$ -
Assumption Change	(2,694)	2	(1,404)	22	2	11	(502)	2	(261)
Subtotal	\$ (2,968)		\$ (1,547)	\$ (160)		\$ (84)	\$ (502)		\$ (261)
July 1, 1995									
Experience (Gain)/Loss	\$ 1,784	2	\$ 930	\$ 120	2	\$ 62	\$ (774)	2	\$ (403)
Active Plan Change	261	7	47	-	-	-	-	-	-
Subtotal	\$ 2,045		\$ 977	\$ 120		\$ 62	\$ (774)		\$ (403)
July 1, 1996									
Experience (Gain)/Loss	\$ 1,780	3	\$ 644	\$ 874	3	\$ 316	\$ (759)	3	\$ (275)
July 1, 1997									
Experience (Gain)/Loss	\$ (23,696)	4	\$ (6,689)	\$ (9,095)	4	\$ (2,567)	\$ (6,080)	4	\$ (1,716)
Assumption Change	32,177	9	4,885	3,938	9	598	1,658	9	252
Subtotal	\$ 8,481		\$ (1,804)	\$ (5,157)		\$ (1,969)	\$ (4,422)		\$ (1,464)

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION

Table IV-4
Unfunded Liability Payments toward the MMO for Fiscal Year 2010 (continued)
(\$ thousands)

Type of Base	7/1/2008 Balance	Municipal Remaining Years	FY 2010 Payment	7/1/2008 Balance	Police Remaining Years	FY 2010 Payment	7/1/2008 Balance	Fire Remaining Years	FY 2010 Payment
July 1, 1998									
Experience (Gain)/Loss	\$ (8,058)	5	\$ (1,893)	\$ (6,577)	5	\$ (1,545)	\$ (5,912)	5	\$ (1,389)
July 1, 1999									
Experience (Gain)/Loss	\$ (76,012)	6	\$ (15,465)	\$ 559	6	\$ 114	\$ (27,593)	6	\$ (5,614)
Active Plan Change	11,183	11	1,493	-	-	-	-	-	-
Inactive Plan Change	6,233	1	6,233	2,774	1	2,774	1,030	1	1,030
Subtotal	\$ (58,596)		\$ (7,739)	\$ 3,333		\$ 2,888	\$ (26,563)		\$ (4,584)
July 1, 2000									
Experience (Gain)/Loss	\$ (16,697)	7	\$ (3,025)	\$ 23,223	7	\$ 4,207	\$ 476	7	\$ 86
July 1, 2001									
Experience (Gain)/Loss	\$ (13,403)	`	\$ (2,206)	\$ (16,049)	8	\$ (2,642)	\$ 8,019	8	\$ 1,320
Assumption Change	(3,374)	13	(409)	(1,924)	13	(233)	(4,377)	13	(530)
Subtotal	\$ (16,777)		\$ (2,615)	\$ (17,973)		\$ (2,875)	\$ 3,642		\$ 790
July 1, 2002									
Asset (Gain)/Loss	\$ 19,079	25	\$ 1,750	\$ 10,171	25	\$ 933	\$ 4,335	25	\$ 398
Liability (Gain)/Loss	113,037	9	17,162	75,139	9	11,408	21,017	9	3,191
Assumption Change	13,451	14	1,566	8,919	14	1,039	7,021	14	818
Subtotal	\$ 145,567		\$ 20,478	\$ 94,229		\$ 13,380	\$ 32,373		\$ 4,407

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-4
Unfunded Liability Payments toward the MMO for Fiscal Year 2010 (continued)
(\$ thousands)**

Type of Base	7/1/2008 Balance	Municipal Remaining Years	FY 2010 Payment	7/1/2008 Balance	Police Remaining Years	FY 2010 Payment	7/1/2008 Balance	Fire Remaining Years	FY 2010 Payment
July 1, 2003									
Asset (Gain)/Loss	\$ 326,033	25	\$ 29,906	\$ 172,045	25	\$ 15,781	\$ 73,959	25	\$ 6,784
Liability (Gain)/Loss	64,097	10	9,083	9,167	10	1,299	6,820	10	966
Active Plan Change	-	-	-	20,805	15	2,338	8,320	15	935
Inactive Plan Change	-	-	-	21,185	5	4,976	6,334	5	1,488
Subtotal	\$ 390,130		\$ 38,989	\$ 223,202		\$ 24,394	\$ 95,433		\$ 10,173
July 1, 2004									
Experience (Gain)/Loss	\$ 123,630	11	\$ 16,508	\$ 74,682	11	\$ 9,972	\$ 21,963	11	\$ 2,933
July 1, 2005									
Experience (Gain)/Loss	\$ 200,187	12	\$ 25,384	\$ 85,369	12	\$ 10,825	\$ 36,532	12	\$ 4,632
Assumption Change	226,067	17	23,942	109,389	17	11,585	43,917	17	4,651
Plan Change	1,982	17	210	250	17	26	-	-	-
Subtotal	\$ 428,236		\$ 49,536	\$ 195,008		\$ 22,436	\$ 80,449		\$ 9,283
July 1, 2007									
Experience (Gain)/Loss	\$ 135,660	14	\$ 15,797	\$ 181	14	\$ 21	\$ 15,155	14	\$ 1,765
Total	\$ 2,073,890		\$ 201,606	\$ 1,189,353		\$ 120,827	\$ 451,570		\$ 40,847

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**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

The tables on the following pages support Exhibit I of the Act 205 filings.

- Table IV-5 is a summary of assets, liabilities, and amortization contributions under the assumption that the Pension Obligation Bond (POB) was never contributed.
- Table IV-6 is a schedule of modified amortization payments under the assumption that the proceeds from the POB were never contributed.
- Table IV-7a, IV-7b, and IV-7c are debt service schedules for the POB, allocated for the Municipal, Police, and Fire divisions.
- Tables IV-8a and IV-8b are statements of receipts and disbursements for each division excluding and including bond issue assets, respectively.

Table IV-5 Summary of Modified Actuarial Data (\$ thousands)				
	Municipal	Police	Fire	Total
Actuarial Liability	\$ 4,805,526	\$ 2,604,623	\$ 992,070	\$ 8,402,219
Market Value of Assets (less POB)	\$ 2,134,545	\$ 1,231,484	\$ 368,478	\$ 3,734,507
Actuarial Value of Assets (less POB)	\$ 2,120,925	\$ 1,218,071	\$ 370,525	\$ 3,709,521
Unfunded Actuarial Liability (AL - AVA)	\$ 2,684,601	\$ 1,386,552	\$ 621,545	\$ 4,692,698
Amortization Contributions				
1/1/1985 Initial Liability				
Remaining Years	17	17	17	17
Level-Dollar Contribution	\$ 77,110	\$ 51,748	\$ 19,740	\$ 148,598
Payroll-Based Contribution	146,224	93,868	37,433	277,525
Post-1/1/1985 Liability				
Remaining Years	17	21	35	18
Amortization Contribution	\$ 92,464	\$ 25,119	\$ 13,731	\$ 131,314
Total Amortization Contribution	\$ 238,688	\$ 118,987	\$ 51,164	\$ 408,839

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION IV
 CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-6
 Modified Unfunded Liability Payments toward the MMO for Fiscal Year 2010
 (\$ thousands)**

Type of Base	Municipal			Police			Fire			Total	
	7/1/2008 Balance	Remaining Years	FY 2010 Payment	7/1/2008 Balance	Remaining Years	FY 2010 Payment	7/1/2008 Balance	Remaining Years	FY 2010 Payment	7/1/2008 Balance	Remaining Years
Original July 1, 1985 Unfunded Liability	\$ 1,780,926	17	\$ 146,224	\$ 1,143,261	17	\$ 93,868	\$ 455,911	17	\$ 37,433	\$ 3,380,098	17
All Changes Prior to July 1, 2008	<u>866,465</u>		<u>92,464</u>	<u>257,699</u>		<u>25,119</u>	<u>161,589</u>		<u>13,731</u>	<u>1,285,753</u>	
Total	\$ 2,647,391		\$ 238,688	\$ 1,400,960		\$ 118,987	\$ 617,500		\$ 51,164	\$ 4,665,851	

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-7a

TOTAL DEBT SERVICE REQUIREMENTS: MUNICIPAL

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ -	\$ 7,041,525.30	\$ -	\$ 727,185,593.15
2000	9,917,857.50	29,825,175.27	-	717,267,735.65
2001	4,567,730.63	29,324,323.46	-	712,700,005.02
2002	-	29,087,715.02	-	712,700,005.02
2003	6,422,403.75	29,087,715.02	-	706,277,601.27
2004	8,884,981.88	28,728,336.25	-	697,392,619.39
2005	15,161,038.13	28,250,550.75	-	682,231,581.26
2006	18,743,737.50	27,403,048.72	-	663,487,843.76
2007	22,526,257.50	26,345,901.92	-	640,961,586.26
2008	26,486,083.13	25,064,157.87	-	614,475,503.13
2009	30,870,879.38	23,543,856.70	-	583,604,623.75
2010	40,000,711.88	21,756,432.78	-	543,603,911.87
2011	45,151,018.13	19,420,391.21	-	498,452,893.74
2012	22,154,721.72	45,234,066.39	-	476,298,172.02
2013	21,786,233.75	48,416,929.37	-	454,511,938.27
2014	20,545,516.84	50,378,126.28	-	433,966,421.43
2015	20,088,811.07	53,652,021.42	-	413,877,610.36
2016	19,364,886.72	56,464,212.02	-	394,512,723.64
2017	18,085,471.62	57,743,627.12	-	376,427,252.02
2018	16,915,332.51	58,913,766.23	-	359,511,919.51
2019	15,787,131.76	60,041,966.99	-	343,724,787.75
2020	14,758,165.41	61,070,933.33	-	328,966,622.34
2021	13,823,708.03	62,005,390.71	-	315,142,914.31
2022	12,919,375.38	62,909,723.36	-	302,223,538.93
2023	12,071,748.11	63,757,350.63	-	290,151,790.82
2024	11,250,110.80	64,578,987.94	-	278,901,680.02
2025	10,560,195.36	65,268,903.38	-	268,341,484.66
2026	17,271,090.90	58,558,007.84	-	251,070,393.76
2027	60,297,984.38	16,196,263.75	-	190,772,409.38
2028	64,125,534.38	12,367,341.75	-	126,646,875.00
2029	126,646,875.00	4,147,685.16	-	-

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-7b

TOTAL DEBT SERVICE REQUIREMENTS: POLICE

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ -	\$ 3,848,228.76	\$ -	\$ 397,410,560.15
2000	5,420,158.68	16,299,607.13	-	391,990,401.47
2001	2,496,287.61	16,025,889.30	-	389,494,113.86
2002	-	15,896,581.60	-	389,494,113.86
2003	3,509,875.74	15,896,581.60	-	385,984,238.12
2004	4,855,686.99	15,705,644.36	-	381,128,551.13
2005	8,285,583.09	15,439,067.14	-	372,842,968.04
2006	10,243,546.20	14,975,903.05	-	362,599,421.84
2007	12,310,712.28	14,398,167.04	-	350,288,709.56
2008	14,474,776.77	13,697,687.51	-	335,813,932.79
2009	16,871,089.83	12,866,835.33	-	318,942,842.96
2010	21,860,588.91	11,889,999.22	-	297,082,254.05
2011	24,675,257.01	10,613,340.83	-	272,406,997.04
2012	12,107,666.12	24,720,643.30	-	260,299,330.92
2013	11,906,285.60	26,460,093.82	-	248,393,045.32
2014	11,228,227.61	27,531,897.73	-	237,164,817.71
2015	10,978,635.63	29,321,097.79	-	226,186,182.08
2016	10,583,007.35	30,857,974.00	-	215,603,174.73
2017	9,883,800.61	31,557,180.75	-	205,719,374.12
2018	9,244,313.74	32,196,667.62	-	196,475,060.38
2019	8,627,746.39	32,813,234.97	-	187,847,313.99
2020	8,065,411.14	33,375,570.22	-	179,781,902.85
2021	7,554,725.51	33,886,255.84	-	172,227,177.34
2022	7,060,503.20	34,380,478.16	-	165,166,674.14
2023	6,597,270.66	34,843,710.70	-	158,569,403.48
2024	6,148,241.77	35,292,739.59	-	152,421,161.71
2025	5,771,199.53	35,669,781.82	-	146,649,962.18
2026	9,438,737.48	32,002,243.88	-	137,211,224.70
2027	32,953,149.75	8,851,339.07	-	104,258,074.95
2028	35,044,924.95	6,758,814.06	-	69,213,150.00
2029	69,213,150.00	2,266,730.66	-	-

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**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-7c

TOTAL DEBT SERVICE REQUIREMENTS: FIRE

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1999	\$ -	\$ 1,620,185.70	\$ -	\$ 167,318,251.01
2000	2,282,001.44	6,862,479.41	-	165,036,249.57
2001	1,050,989.88	6,747,238.34	-	163,985,259.69
2002	-	6,692,797.06	-	163,985,259.69
2003	1,477,731.92	6,692,797.06	-	162,507,527.77
2004	2,044,346.92	6,612,408.45	-	160,463,180.85
2005	3,488,405.72	6,500,173.80	-	156,974,775.13
2006	4,312,749.60	6,305,171.92	-	152,662,025.53
2007	5,183,070.24	6,061,932.84	-	147,478,955.29
2008	6,094,187.16	5,767,016.15	-	141,384,768.13
2009	7,103,085.64	5,417,209.80	-	134,281,682.49
2010	9,203,770.28	5,005,941.15	-	125,077,912.21
2011	10,388,805.08	4,468,440.96	-	114,689,107.13
2012	5,097,583.51	10,407,913.67	-	109,591,523.62
2013	5,012,798.05	11,140,259.13	-	104,578,725.57
2014	4,727,321.30	11,591,511.24	-	99,851,404.27
2015	4,622,237.80	12,344,802.31	-	95,229,166.47
2016	4,455,669.93	12,991,859.70	-	90,773,496.54
2017	4,161,289.10	13,286,240.52	-	86,612,207.44
2018	3,892,051.60	13,555,478.02	-	82,720,155.84
2019	3,632,463.70	13,815,065.92	-	79,087,692.14
2020	3,395,708.67	14,051,820.95	-	75,691,983.47
2021	3,180,699.22	14,266,830.40	-	72,511,284.25
2022	2,972,621.18	14,474,908.45	-	69,538,663.07
2023	2,777,590.48	14,669,939.14	-	66,761,072.59
2024	2,588,539.82	14,858,989.80	-	64,172,532.77
2025	2,429,797.06	15,017,732.56	-	61,742,735.71
2026	3,973,908.11	13,473,621.52	-	57,768,827.60
2027	13,873,973.00	3,726,600.95	-	43,894,854.60
2028	14,754,654.60	2,845,603.67	-	29,140,200.00
2029	29,140,200.00	954,341.55	-	-

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-8a				
Receipts and Disbursements Excluding Bond Issue Assets*				
	Municipal	Police	Fire	Total
Assets as of July 1, 2007	\$ 2,350,722,891	\$ 1,357,128,272	\$ 417,399,665	\$ 4,125,250,827
Receipts				
Employer Contributions	\$ 244,716,054	\$ 124,068,419	\$ 52,483,530	\$ 421,268,003
Employee Contributions	25,084,761	19,740,445	6,864,957	51,690,163
State Aid	30,908,886	21,615,615	7,084,821	59,609,322
Supplemental State Assistance	-	-	-	-
Investment Income				
(includes investment expenses)	(109,375,097)	(62,806,735)	(19,405,302)	(191,587,133)
Other Receipts	-	-	-	-
Total Receipts	\$ 191,334,604	\$ 102,617,745	\$ 47,028,006	\$ 340,980,354
Disbursements				
Benefit Payments	\$ 387,466,292	\$ 220,142,196	\$ 93,317,563	\$ 700,926,051
Refund of Contributions	2,559,462	1,324,364	316,327	4,200,153
Administrative Expenses	5,000,120	1,943,039	662,148	7,605,307
PAF Transfer at Year End	12,486,985	4,852,424	1,653,606	18,993,015
Other Disbursements	-	-	-	-
Total Disbursements	\$ 407,512,859	\$ 228,262,023	\$ 95,949,644	\$ 731,724,526
Assets as of July 1, 2008	\$ 2,134,544,636	\$ 1,231,483,993	\$ 368,478,027	\$ 3,734,506,656

* For the July 1, 2008 report, table displays the market value of assets net of the PAF. The table in the prior year's report provided market value of assets including the PAF.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-8b				
Receipts and Disbursements Including Bond Issue Assets*				
	Municipal	Police	Fire	Total
Assets as of July 1, 2007	\$ 2,816,079,146	\$ 1,466,540,592	\$ 568,263,793	\$ 4,850,883,531
Receipts				
Employer Contributions	\$ 197,441,933	\$ 127,946,850	\$ 41,936,377	\$ 367,325,160
Employee Contributions	25,084,761	19,740,445	6,864,957	51,690,163
State Aid	30,908,886	21,615,615	7,084,821	59,609,322
Supplemental State Assistance	-	-	-	-
Investment Income (includes investment expenses)	(123,782,529)	(65,753,394)	(24,702,994)	(214,238,917)
Other Receipts	-	-	-	-
Total Receipts	\$ 129,653,051	\$ 103,549,516	\$ 31,183,161	\$ 264,385,728
Disbursements				
Benefit Payments	\$ 387,466,292	\$ 220,142,196	\$ 93,317,563	\$ 700,926,051
Refund of Contributions	2,559,462	1,324,364	316,327	4,200,153
Administrative Expenses	5,000,120	1,943,039	662,148	7,605,307
PAF Transfer at Year End	12,486,985	4,852,424	1,653,606	18,993,015
Other Disbursements	-	-	-	-
Total Disbursements	\$ 407,512,859	\$ 228,262,023	\$ 95,949,644	\$ 731,724,526
Assets as of July 1, 2008	\$ 2,538,219,338	\$ 1,341,828,085	\$ 503,497,310	\$ 4,383,544,734

* For the July 1, 2008 report, table displays the market value of assets net of the PAF. The table in the prior year's report provided market value of assets including the PAF.

SECTION V
ACCOUNTING STATEMENT INFORMATION

The Governmental Accounting Standards Board's Statement No. 25 (GASB 25) is effective for plan years beginning after June 15, 1996, and supersedes Statement No. 5. GASB No. 25 establishes standards for disclosure of pension information by public employee retirement systems and governmental employers in notes to financial statements and supplementary information. The disclosure presents the actuarial liability computed for funding purposes to the actuarial value of assets to determine a funding ratio (i.e., the EAN liability). The actuarial liability is determined assuming that participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 8.75% per annum. GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of July 1, 2007 and July 1, 2008 are presented in Table V-1 and Table V-2.

GASB 25 also requires for the disclosure of two financial statements and two schedules of historical information:

- Statement of Plan Net Assets – includes information about System assets and liabilities at the valuation date. This statement can be found at the beginning of the Assets section of this report, in Table II-1.
- Statement of Changes in Plan Net Assets – shows receipts and disbursements from the Fund for the most recent plan year. This statement can also be found in the Assets section of this report, in Table II-2.
- Schedule of Funding Progress – discloses historical information about the funded status of the plan. This schedule can be found in Table V-3.
- Schedule of Employer Contributions – discloses historical information about the Annual Required Contribution (ARC) and the actual contributions made by the employer. This schedule can be found in Table V-4.

GASB Statement No. 27 requires that financial statements must include additional disclosures for pension expenditures/expenses. It is effective for the period beginning after June 15, 1997. Table V-5 summarizes the results of this valuation according to our interpretation of GASB 27. The interpretation of the statements is subject to your auditor's review. The required disclosures are:

- Annual Required Contribution (ARC) – this is the expected contribution required based on statement-specific valuation methods and assumptions, with the unfunded liability amortized over an initial period not to exceed 40 years and thereafter 30 years, either as a level-dollar amount or as a level percentage of pay, and with amortization of contributions less than or in excess of the required amount. Historically, the ARC has been shown as the contribution required under the City's funding policy.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**SECTION V
ACCOUNTING STATEMENT INFORMATION**

- Equivalent Single Amortization Period – this is the number of years incorporated in a weighted average amortization factor for all amortization components combined. The weighted average amortization factor is equal to the total unfunded actuarial liability divided by the sum of the amortization provisions for each of the separately amortized components. This weighted average produces 8.5 years.
- Net Pension Obligation (NPO) – the accumulated value of contribution deficiencies (or excesses) over required contributions from July 1, 1987 to July 1, 2008 between the annual pension cost and the employer’s contribution. During the 1994 fiscal year, the City contributed \$10 million more than the ARC. Therefore, the initial NPO value at the effective date is (\$9,012,000) as shown in Table V-5.
- Annual Pension Cost – is equal to the ARC plus one year’s interest on NPO and ARC adjustment.

Table V-1			
Funding Status Under GASB Statement No. 25			
(\$ thousands)			
	July 1, 2008	July 1, 2007	% Change
Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 5,350,582	\$ 5,325,969	0.5%
b. Vested Terminated and Inactive Members	104,992	109,920	-4.5%
c. Active Members	<u>2,946,645</u>	<u>2,761,320</u>	6.7%
d. Total Actuarial Liability	\$ 8,402,219	\$ 8,197,209	2.5%
Actuarial Value of Assets	\$ 4,623,562	\$ 4,421,734	4.6%
Unfunded Actuarial Liability	\$ 3,778,657	\$ 3,775,476	0.1%
Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	55.03%	53.94%	1.1%

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-2	
Statement of Changes in Liabilities - GASB No. 25 Basis	
(\$ thousands)	
Actuarial Liability as of July 1, 2007	\$ 8,197,209
Increase (Decrease) During Year Attributable to:	
Passage of Time	686,407
Benefits Paid	(705,126)
Assumption Change	-
Plan Amendment	-
Benefits Accrued, Other Gains/Losses	223,729
Net Increase (Decrease)	\$ 205,010
Actuarial Liability as of July 1, 2008	\$ 8,402,219

Table V-3						
Schedule of Funding Progress						
(\$ millions)						
Actuarial Valuation Date *	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
7/1/1992	\$ 1,981.8	\$ 4,425.5	\$ 2,443.7	44.8%	\$ 993.3	246.0%
7/1/1993	2,113.9	4,502.1	2,388.2	47.0%	975.0	244.9%
7/1/1994	2,225.2	4,662.6	2,437.4	47.7%	974.3	250.2%
7/1/1995	2,312.1	4,850.8	2,538.7	47.7%	1,006.4	252.3%
7/1/1996	2,457.2	5,098.1	2,640.9	48.2%	1,068.3	247.2%
7/1/1997	2,660.9	5,318.1	2,657.2	50.0%	1,067.7	248.9%
7/1/1998	2,921.3	5,586.1	2,664.8	52.3%	1,128.2	236.2%
7/1/1999	4,496.8	5,862.1	1,365.3	76.7%	1,178.6	115.8%
7/1/2000	4,765.0	6,193.4	1,428.4	76.9%	1,142.8	125.0%
7/1/2001	4,943.4	6,379.8	1,436.4	77.5%	1,180.4	121.7%
7/1/2002	4,891.3	6,727.2	1,835.9	72.7%	1,207.3	152.1%
7/1/2003	4,548.1	7,188.3	2,640.2	63.3%	1,269.3	208.0%
7/1/2004	4,333.1	7,247.7	2,914.6	59.8%	1,266.0	230.2%
7/1/2005	4,159.5	7,851.5	3,692.0	53.0%	1,270.7	290.5%
7/1/2006	4,168.5	8,083.7	3,915.2	51.6%	1,319.4	296.7%
7/1/2007	4,421.7	8,197.2	3,775.5	53.9%	1,351.8	279.3%
7/1/2008	4,623.6	8,402.2	3,778.7	55.0%	1,456.5	259.4%

* The actuarial valuation reports need to be referenced in comparison of these values to ascertain when and if the values reflect assumption, benefit or method changes.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
 JULY 1, 2008 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-4
Schedule of Employer Contributions
 (\$ millions)

Fiscal Year Ended June 30	Annual Required Contribution (ARC)	Percentage of ARC Contributed
1993	\$ 209.4	100.0%
1994	223.8	104.5%
1995	212.8	100.0%
1996	222.5	100.0%
1997	237.0	100.0%
1998	252.1	100.0%
1999	256.7	586.9%*
2000	168.9	108.9%
2001	167.6	100.0%
2002	178.2	100.0%
2003	195.5	91.9%
2004	253.8	79.9%
2005	358.1	83.6%
2006	395.0	84.0%
2007	527.9	81.9%
2008	536.9	79.5%

* Due to the Pension Obligation Bond worth \$1,250,000,000 deposited on February 2, 1999.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-5 Calculation of Annual Pension Cost (\$ thousands)													
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ARC	\$ 212,838	\$ 222,482	\$ 237,016	\$ 252,080	\$ 256,704	\$ 168,928	\$ 167,616	\$ 178,239	\$ 195,514	\$ 253,844	\$ 358,141	\$ 394,950	\$527,925
Interest on NPO	(900)	(869)	(840)	(811)	(783)	(113,257)	(110,748)	(106,975)	(103,330)	(98,392)	(90,448)	(82,068)	(71,541)
Adjustment to ARC	<u>1,241</u>	<u>1,198</u>	<u>1,158</u>	<u>1,118</u>	<u>1,080</u>	<u>156,130</u>	<u>152,672</u>	<u>147,470</u>	<u>142,446</u>	<u>135,638</u>	<u>124,687</u>	<u>113,135</u>	<u>99,953</u>
Annual Pension Cost	\$ 213,179	\$ 222,811	\$ 237,334	\$ 252,387	\$ 257,001	\$ 211,801	\$ 209,540	\$ 218,734	\$ 234,630	\$ 291,090	\$ 392,380	\$ 426,017	\$ 556,337
Contributions	<u>212,838</u>	<u>222,482</u>	<u>237,016</u>	<u>252,080</u>	<u>1,506,704</u>	<u>183,928</u>	<u>167,616</u>	<u>178,239</u>	<u>179,757</u>	<u>202,827</u>	<u>299,266</u>	<u>331,765</u>	<u>432,267</u>
Increase in NPO	\$ 341	\$ 329	\$ 318	\$ 307	\$ (1,249,703)	\$ 27,873	\$ 41,924	\$ 40,495	\$ 54,873	\$ 88,263	\$ 93,114	\$ 94,252	\$ 124,069
NPO at BOY	<u>(10,000)</u>	<u>(9,659)</u>	<u>(9,330)</u>	<u>(9,012)</u>	<u>(8,705)</u>	<u>(1,258,408)</u>	<u>(1,230,535)</u>	<u>(1,188,611)</u>	<u>(1,148,116)</u>	<u>(1,093,243)</u>	<u>(1,004,980)</u>	<u>(911,866)</u>	<u>(817,614)</u>
NPO at EOY	\$ (9,659)	\$ (9,330)	\$ (9,012)	\$ (8,705)	\$ (1,258,408)	\$ (1,230,535)	\$ (1,188,611)	\$ (1,148,116)	\$ (1,093,243)	\$ (1,004,980)	\$ (911,866)	\$ (817,614)	\$ (693,545)
Interest Rate	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	8.75%
15-Year Amortization Factor (EOY)	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.18

(\$9,012,000) was the NPO at transition date.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

The data for this valuation was provided by the Board of Pensions as of July 1, 2008. Cheiron did not audit any of the data; however, it was reviewed to ensure that it complies with generally accepted actuarial standards. The following is a list of data charts contained in this section:

- A-1: Active Member Data by Plan
- A-2: Non-Active Member Data, Counts, by Plan
- A-3: Non-Active Member Data, Total Annual Benefits, by Plan
- A-4: Non-Active Member Data, Average Annual Benefits, by Plan
- A-5 through A-20: Age/Service Distribution for Active Participants, Counts and Average Salary for all Plans
- A-21: Reconciliation of Plan Membership
- A-22 through A-26: Age and Benefit Distributions for Non-Active Member Data

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-1 Active Member Data								
	July 1, 2008	July 1, 2007	% Change		July 1, 2008	July 1, 2007	% Change	
<u>Total City</u>				<u>1987 Municipal</u>				
Count	29,215	28,354	3.0%	Count	15,200	14,025	8.4%	
Average Age	43.4	43.3	0.1%	Average Age	42.5	42.4	0.3%	
Average Service	12.0	12.0	-0.1%	Average Service	7.4	7.1	3.5%	
Average Salary	\$ 49,855	\$ 47,677	4.6%	Average Salary	\$ 43,260	\$ 40,880	5.8%	
Total Annual Salary	\$ 1,456,520,491	\$ 1,351,826,215	7.7%	Total Annual Salary	\$ 657,550,939	\$ 573,343,947	14.7%	
<u>1967 Municipal</u>				<u>1987 Elected</u>				
Count	5,318	5,764	-7.7%	Count	15	19	-21.1%	
Average Age	51.3	50.7	1.1%	Average Age	54.4	59.9	-9.2%	
Average Service	23.3	22.6	3.1%	Average Service	18.7	21.2	-11.7%	
Average Salary	\$ 54,974	\$ 52,008	5.7%	Average Salary	\$ 117,035	\$ 108,469	7.9%	
Total Annual Salary	\$ 292,349,216	\$ 299,775,887	-2.5%	Total Annual Salary	\$ 1,755,527	\$ 2,060,908	-14.8%	
<u>1967 Police</u>				<u>1987 Police</u>				
Count	1,154	1,248	-7.5%	Count	5,398	5,179	4.2%	
Average Age	50.9	50.0	1.8%	Average Age	37.3	36.9	1.1%	
Average Service	25.4	24.4	4.0%	Average Service	10.5	10.1	4.7%	
Average Salary	\$ 65,877	\$ 63,163	4.3%	Average Salary	\$ 56,709	\$ 54,392	4.3%	
Total Annual Salary	\$ 76,022,027	\$ 78,827,447	-3.6%	Total Annual Salary	\$ 306,114,447	\$ 281,696,983	8.7%	
<u>1967 Fire</u>				<u>1987 Fire</u>				
Count	479	523	-8.4%	Count	1,651	1,596	3.4%	
Average Age	52.9	52.2	1.3%	Average Age	37.6	37.2	1.3%	
Average Service	26.7	26.0	2.8%	Average Service	8.9	8.2	7.5%	
Average Salary	\$ 65,500	\$ 62,550	4.7%	Average Salary	\$ 55,332	\$ 52,260	5.9%	
Total Annual Salary	\$ 31,374,547	\$ 32,713,762	-4.1%	Total Annual Salary	\$ 91,353,788	\$ 83,407,281	9.5%	

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-2 Non-Active Member Data Count							
	July 1, 2008	July 1, 2007	% Change		July 1, 2008	July 1, 2007	% Change
<u>Total City</u>				<u>1987 Municipal Plan</u>			
Retired	20,898	20,448	2.2%	Retired	526	402	30.8%
Disabled	4,349	4,384	-0.8%	Disabled	131	101	29.7%
Beneficiary	<u>8,510</u>	<u>8,593</u>	-1.0%	Beneficiary	<u>105</u>	<u>94</u>	11.7%
In Pay Status Total	33,757	33,425	1.0%	In Pay Status Total	762	597	27.6%
DROP	1,648	2,102	-21.6%	DROP	152	139	9.4%
Deferred Vested	1,263	1,301	-2.9%	Deferred Vested	487	441	10.4%
<u>1967 Municipal Plan</u>				<u>1987 Elected Plan</u>			
Retired	12,609	12,441	1.4%	Retired	11	9	22.2%
Disabled	1,857	1,895	-2.0%	Disabled	-	-	
Beneficiary	<u>5,314</u>	<u>5,378</u>	-1.2%	Beneficiary	<u>3</u>	<u>3</u>	0.0%
In Pay Status Total	19,780	19,714	0.3%	In Pay Status Total	14	12	16.7%
DROP	1,143	1,400	-18.4%	DROP	9	5	80.0%
Deferred Vested	664	738	-10.0%	Deferred Vested	-	-	
<u>1967 Police Plan</u>				<u>1987 Police Plan</u>			
Retired	5,674	5,597	1.4%	Retired	57	42	35.7%
Disabled	1,770	1,826	-3.1%	Disabled	150	121	24.0%
Beneficiary	<u>2,148</u>	<u>2,149</u>	0.0%	Beneficiary	<u>72</u>	<u>68</u>	5.9%
In Pay Status Total	9,592	9,572	0.2%	In Pay Status Total	279	231	20.8%
DROP	176	318	-44.7%	DROP	9	7	28.6%
Deferred Vested	6	12	-50.0%	Deferred Vested	83	86	-3.5%
<u>1967 Fire Plan</u>				<u>1987 Fire Plan</u>			
Retired	1,998	1,939	3.0%	Retired	23	18	27.8%
Disabled	414	421	-1.7%	Disabled	27	20	35.0%
Beneficiary	<u>842</u>	<u>876</u>	-3.9%	Beneficiary	<u>26</u>	<u>25</u>	4.0%
In Pay Status Total	3,254	3,236	0.6%	In Pay Status Total	76	63	20.6%
DROP	153	230	-33.5%	DROP	6	3	100.0%
Deferred Vested	-	-		Deferred Vested	23	24	-4.2%

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-3 Non-Active Member Data Total Annual Benefit							
	July 1, 2008	July 1, 2007	% Change		July 1, 2008	July 1, 2007	% Change
<u>Total City</u>				<u>1987 Municipal Plan</u>			
Retired	\$ 449,178,992	\$ 425,673,788	5.5%	Retired	\$ 5,447,715	\$ 4,030,522	35.2%
Disabled	75,183,367	74,270,854	1.2%	Disabled	2,116,568	1,648,513	28.4%
Beneficiary	<u>61,308,280</u>	<u>59,832,534</u>	2.5%	Beneficiary	<u>634,761</u>	<u>512,429</u>	23.9%
In Pay Status Total	585,670,639	559,777,176	4.6%	In Pay Status Total	8,199,044	6,191,464	32.4%
DROP (pension)	56,140,127	68,864,026	-18.5%	DROP (pension)	1,969,832	1,706,599	15.4%
DROP (account balance)	112,698,385	163,387,189	-31.0%	DROP (account balance)	2,948,391	2,736,482	7.7%
Deferred Vested	17,919,468	18,455,708	-2.9%	Deferred Vested	5,693,606	5,123,227	11.1%
<u>1967 Municipal Plan</u>				<u>1987 Elected Plan</u>			
Retired	\$ 246,264,673	\$ 233,686,809	5.4%	Retired	\$ 472,433	\$ 319,189	48.0%
Disabled	29,745,814	29,971,204	-0.8%	Disabled	-	-	
Beneficiary	<u>35,415,948</u>	<u>34,633,286</u>	2.3%	Beneficiary	<u>68,615</u>	<u>68,615</u>	0.0%
In Pay Status Total	311,426,435	298,291,299	4.4%	In Pay Status Total	541,048	387,804	39.5%
DROP (pension)	38,462,403	44,260,898	-13.1%	DROP (pension)	773,956	471,247	64.2%
DROP (account balance)	76,748,128	98,012,232	-21.7%	DROP (account balance)	556,293	954,875	-41.7%
Deferred Vested	10,563,611	11,560,749	-8.6%	Deferred Vested	-	-	
<u>1967 Police Plan</u>				<u>1987 Police Plan</u>			
Retired	\$ 138,669,531	\$ 133,318,592	4.0%	Retired	\$ 844,056	\$ 543,497	55.3%
Disabled	30,173,598	30,739,860	-1.8%	Disabled	4,464,551	3,478,355	28.4%
Beneficiary	<u>17,364,629</u>	<u>16,892,749</u>	2.8%	Beneficiary	<u>517,528</u>	<u>434,301</u>	19.2%
In Pay Status Total	186,207,758	180,951,201	2.9%	In Pay Status Total	5,826,135	4,456,153	30.7%
DROP (pension)	7,350,668	12,051,761	-39.0%	DROP (pension)	194,321	141,987	36.9%
DROP (account balance)	15,134,902	33,167,194	-54.4%	DROP (account balance)	362,518	240,523	50.7%
Deferred Vested	102,584	194,459	-47.2%	Deferred Vested	1,232,478	1,250,295	-1.4%
<u>1967 Fire Plan</u>				<u>1987 Fire Plan</u>			
Retired	\$ 57,208,255	\$ 53,577,949	6.8%	Retired	\$ 272,329	\$ 197,230	38.1%
Disabled	7,890,682	7,867,395	0.3%	Disabled	792,154	565,527	40.1%
Beneficiary	<u>7,067,013</u>	<u>7,073,373</u>	-0.1%	Beneficiary	<u>239,786</u>	<u>217,781</u>	10.1%
In Pay Status Total	72,165,950	68,518,717	5.3%	In Pay Status Total	1,304,269	980,538	33.0%
DROP (pension)	7,269,953	10,176,334	-28.6%	DROP (pension)	118,994	55,200	115.6%
DROP (account balance)	16,834,199	28,258,091	-40.4%	DROP (account balance)	113,957	17,791	540.5%
Deferred Vested	-	-		Deferred Vested	327,189	326,978	0.1%

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Table A-4 Non-Active Member Data Average Annual Benefit											
	July 1, 2008			July 1, 2007			% Change				
Total City					1987 Municipal Plan						
Retired	\$	21,494	\$	20,817	3.2%	Retired	\$	10,357	\$	10,026	3.3%
Disabled		17,288		16,941	2.0%	Disabled		16,157		16,322	-1.0%
Beneficiary		7,204		6,963	3.5%	Beneficiary		6,045		5,451	10.9%
In Pay Status Total		17,350		16,747	3.6%	In Pay Status Total		10,760		10,371	3.8%
DROP (pension)		34,066		32,761	4.0%	DROP (pension)		12,959		12,278	5.6%
DROP (account balance)		68,385		77,729	-12.0%	DROP (account balance)		19,397		19,687	-1.5%
Deferred Vested		14,188		14,186	0.0%	Deferred Vested		11,691		11,617	0.6%
1967 Municipal Plan					1987 Elected Plan						
Retired	\$	19,531	\$	18,784	4.0%	Retired	\$	42,948	\$	35,465	21.1%
Disabled		16,018		15,816	1.3%	Disabled		-		-	
Beneficiary		6,665		6,440	3.5%	Beneficiary		22,872		22,872	0.0%
In Pay Status Total		15,745		15,131	4.1%	In Pay Status Total		38,646		32,317	19.6%
DROP (pension)		33,650		31,615	6.4%	DROP (pension)		85,995		94,249	-8.8%
DROP (account balance)		67,146		70,009	-4.1%	DROP (account balance)		61,810		190,975	-67.6%
Deferred Vested		15,909		15,665	1.6%	Deferred Vested		-		-	
1967 Police Plan					1987 Police Plan						
Retired	\$	24,439	\$	23,820	2.6%	Retired	\$	14,808	\$	12,940	14.4%
Disabled		17,047		16,835	1.3%	Disabled		29,764		28,747	3.5%
Beneficiary		8,084		7,861	2.8%	Beneficiary		7,188		6,387	12.5%
In Pay Status Total		19,413		18,904	2.7%	In Pay Status Total		20,882		19,291	8.3%
DROP (pension)		41,765		37,899	10.2%	DROP (pension)		21,591		20,284	6.4%
DROP (account balance)		85,994		104,299	-17.6%	DROP (account balance)		40,280		34,360	17.2%
Deferred Vested		17,097		16,205	5.5%	Deferred Vested		14,849		14,538	2.1%
1967 Fire Plan					1987 Fire Plan						
Retired	\$	28,633	\$	27,632	3.6%	Retired	\$	11,840	\$	10,957	8.1%
Disabled		19,060		18,687	2.0%	Disabled		29,339		28,276	3.8%
Beneficiary		8,393		8,075	3.9%	Beneficiary		9,223		8,711	5.9%
In Pay Status Total		22,178		21,174	4.7%	In Pay Status Total		17,161		15,564	10.3%
DROP (pension)		47,516		44,245	7.4%	DROP (pension)		19,832		18,400	7.8%
DROP (account balance)		110,027		122,861		DROP (account balance)		18,993		5,930	
Deferred Vested		-		-		Deferred Vested		14,226		13,624	4.4%

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**Table A-5
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Total City**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	418	639	40	0	0	0	0	0	1,097
25 to 29	460	1,425	648	35	0	0	0	0	2,568
30 to 34	240	1,012	1,230	566	29	0	0	0	3,077
35 to 39	191	713	1,178	1,457	397	24	0	0	3,960
40 to 44	142	621	803	1,278	1,126	297	16	4	4,287
45 to 49	147	521	739	940	1,053	1,045	381	8	4,834
50 to 54	140	410	610	692	822	997	752	507	4,930
55 to 59	70	291	465	475	380	455	261	559	2,956
60 to 64	35	158	278	182	132	100	56	123	1,064
65 & up	14	87	128	85	46	24	14	44	442
Total	1,857	5,877	6,119	5,710	3,985	2,942	1,480	1,245	29,215

**Table A-6
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Total City**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ 27,417	\$ 35,019	\$ 32,850	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,044
25 to 29	35,863	43,306	48,359	46,959	-	-	-	-	43,296
30 to 34	36,935	45,572	53,010	54,084	46,795	-	-	-	49,453
35 to 39	36,157	44,837	52,229	56,121	57,535	49,797	-	-	52,072
40 to 44	36,852	41,729	48,752	54,522	57,933	55,938	56,111	68,360	52,016
45 to 49	36,615	38,712	45,395	52,380	55,431	58,203	61,501	60,880	52,016
50 to 54	33,377	37,909	44,869	48,327	52,575	57,608	63,761	59,963	52,744
55 to 59	40,743	37,058	44,494	46,593	50,817	54,057	61,143	63,750	51,407
60 to 64	26,736	35,430	41,048	44,208	48,532	50,399	55,290	62,505	45,321
65 & up	28,699	31,405	33,163	41,691	42,618	46,678	49,919	56,038	38,841
Total	\$ 34,037	\$ 41,333	\$ 48,340	\$ 52,558	\$ 54,881	\$ 56,704	\$ 62,171	\$ 61,805	\$ 49,855

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**Table A-7
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Municipal (Plan 67)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	1	1	0	1	1	0	0	0	4
35 to 39	0	0	0	10	66	7	0	0	83
40 to 44	1	1	3	15	320	185	13	0	538
45 to 49	0	0	5	14	440	619	237	7	1,322
50 to 54	2	2	7	16	438	644	522	358	1,989
55 to 59	0	2	1	2	221	309	188	309	1,032
60 to 64	0	0	2	7	89	64	41	61	264
65 & up	0	0	0	0	29	18	14	25	86
Total	4	6	18	65	1,604	1,846	1,015	760	5,318

**Table A-8
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Municipal (Plan 67)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25 to 29	-	-	-	-	-	-	-	-	-
30 to 34	35,879	48,132	-	33,584	57,574	-	-	-	43,792
35 to 39	-	-	-	44,041	52,767	48,771	-	-	51,378
40 to 44	47,614	33,774	38,602	49,774	52,481	53,959	58,483	-	52,938
45 to 49	-	-	53,394	43,053	51,129	55,717	59,180	58,927	54,685
50 to 54	38,074	57,103	64,626	47,777	48,840	55,539	63,162	56,865	56,257
55 to 59	-	50,572	166,218	60,344	48,388	52,506	59,400	60,145	55,289
60 to 64	-	-	74,694	38,678	49,924	49,663	54,467	63,060	53,491
65 & up	-	-	-	-	43,418	44,394	49,919	52,176	47,226
Total	\$ 39,910	\$ 49,542	\$ 63,931	\$ 45,834	\$ 50,261	\$ 54,595	\$ 60,941	\$ 58,561	\$ 54,974

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**Table A-9
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Police (Plan 67)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	2	4	1	0	0	7
40 to 44	0	0	1	1	25	45	0	1	73
45 to 49	0	0	0	1	13	242	117	0	373
50 to 54	0	0	0	0	4	180	183	89	456
55 to 59	0	0	0	0	1	60	41	103	205
60 to 64	0	0	0	0	0	10	3	25	38
65 & up	0	0	0	0	0	0	0	2	2
Total	0	0	1	4	47	538	344	220	1,154

**Table A-10
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Police (Plan 67)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25 to 29	-	-	-	-	-	-	-	-	-
30 to 34	-	-	-	-	-	-	-	-	-
35 to 39	-	-	-	57,527	60,812	57,916	-	-	59,460
40 to 44	-	-	57,138	57,527	59,770	65,485	-	75,268	63,438
45 to 49	-	-	-	57,527	61,512	64,018	68,961	-	65,464
50 to 54	-	-	-	-	59,364	62,594	66,887	70,524	65,836
55 to 59	-	-	-	-	63,708	62,072	66,229	72,012	67,905
60 to 64	-	-	-	-	-	59,563	60,479	68,111	65,259
65 & up	-	-	-	-	-	-	-	67,615	67,615
Total	\$ -	\$ -	\$ 57,138	\$ 57,527	\$ 60,390	\$ 63,353	\$ 67,458	\$ 70,941	\$ 65,877

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**Table A-11
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Fire (Plan 67)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	1	1	0	0	2
40 to 44	0	0	0	0	7	11	0	0	18
45 to 49	0	0	0	0	4	95	6	0	105
50 to 54	0	0	0	1	1	109	20	37	168
55 to 59	0	0	0	0	0	41	14	108	163
60 to 64	0	0	0	0	0	1	4	16	21
65 & up	0	0	0	0	0	0	0	2	2
Total	0	0	0	1	13	258	44	163	479

**Table A-12
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Fire (Plan 67)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25 to 29	-	-	-	-	-	-	-	-	-
30 to 34	-	-	-	-	-	-	-	-	-
35 to 39	-	-	-	-	57,917	66,342	-	-	62,130
40 to 44	-	-	-	-	62,515	62,612	-	-	62,575
45 to 49	-	-	-	-	57,917	63,938	63,172	-	63,665
50 to 54	-	-	-	57,528	57,917	61,321	65,702	71,556	64,054
55 to 59	-	-	-	-	-	61,461	67,034	70,118	67,676
60 to 64	-	-	-	-	-	66,342	64,612	72,907	71,014
65 & up	-	-	-	-	-	-	-	77,845	77,845
Total	\$ -	\$ -	\$ -	\$ 57,528	\$ 60,393	\$ 62,401	\$ 65,681	\$ 70,813	\$ 65,500

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**Table A-13
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Municipal (Plan 87)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	301	405	31	0	0	0	0	0	737
25 to 29	340	935	358	25	0	0	0	0	1,658
30 to 34	184	722	671	203	25	0	0	0	1,805
35 to 39	156	524	772	595	85	12	0	0	2,144
40 to 44	133	555	622	665	152	50	2	1	2,180
45 to 49	147	511	673	627	158	83	15	1	2,215
50 to 54	137	405	568	579	136	63	24	22	1,934
55 to 59	70	287	452	436	113	44	14	36	1,452
60 to 64	35	157	274	167	43	25	7	20	728
65 & up	14	87	127	83	17	6	0	13	347
Total	1,517	4,588	4,548	3,380	729	283	62	93	15,200

**Table A-14
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Municipal (Plan 87)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ 22,210	\$ 28,335	\$ 27,947	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,817
25 to 29	34,159	40,359	41,932	44,799	-	-	-	-	39,493
30 to 34	35,687	43,863	49,418	46,390	45,521	-	-	-	45,402
35 to 39	35,006	42,952	49,290	51,941	51,280	45,897	-	-	47,497
40 to 44	35,988	40,660	46,135	50,665	54,240	51,195	36,899	68,868	46,187
45 to 49	36,615	38,428	44,213	49,422	51,552	52,994	40,201	74,551	44,688
50 to 54	32,746	37,685	43,784	46,580	50,502	56,053	51,322	48,277	43,579
55 to 59	40,743	36,651	43,878	45,516	52,157	47,029	53,024	50,817	43,790
60 to 64	26,736	35,294	40,686	43,768	45,652	47,979	44,679	45,666	40,278
65 & up	28,699	31,405	32,929	40,671	41,253	53,529	-	52,798	35,737
Total	\$ 32,414	\$ 39,155	\$ 45,201	\$ 48,410	\$ 51,184	\$ 51,697	\$ 47,732	\$ 49,834	\$ 43,260

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**Table A-15
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Elected (Plan 87)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0
40 to 44	1	0	1	0	0	1	0	0	3
45 to 49	0	0	0	1	0	0	0	0	1
50 to 54	1	0	0	0	1	1	0	0	3
55 to 59	0	1	0	0	0	0	3	1	5
60 to 64	0	0	0	0	0	0	1	0	1
65 & up	0	0	0	1	0	0	0	1	2
Total	2	1	1	2	1	2	4	2	15

**Table A-16
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Elected (Plan 87)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25 to 29	-	-	-	-	-	-	-	-	-
30 to 34	-	-	-	-	-	-	-	-	-
35 to 39	-	-	-	-	-	-	-	-	-
40 to 44	110,498	-	110,498	-	-	110,498	-	-	110,498
45 to 49	-	-	-	110,498	-	-	-	-	110,498
50 to 54	110,498	-	-	-	110,498	186,044	-	-	135,680
55 to 59	-	113,840	-	-	-	-	112,377	116,136	113,422
60 to 64	-	-	-	-	-	-	110,498	-	110,498
65 & up	-	-	-	110,498	-	-	-	118,391	114,445
Total	\$ 110,498	\$ 113,840	\$ 110,498	\$ 110,498	\$ 110,498	\$ 148,271	\$ 111,908	\$ 117,264	\$ 117,035

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**Table A-17
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Police (Plan 87)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	99	171	6	0	0	0	0	0	276
25 to 29	95	321	244	7	0	0	0	0	667
30 to 34	41	187	441	332	3	0	0	0	1,004
35 to 39	27	115	270	704	225	3	0	0	1,344
40 to 44	5	33	118	445	540	3	1	2	1,147
45 to 49	0	3	40	206	340	4	4	0	597
50 to 54	0	1	23	68	189	0	3	1	285
55 to 59	0	0	9	27	29	1	1	0	67
60 to 64	0	1	2	6	0	0	0	1	10
65 & up	0	0	0	0	0	0	0	1	1
Total	267	832	1,153	1,795	1,326	11	9	5	5,398

**Table A-18
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Police (Plan 87)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ 40,957	\$ 47,610	\$ 51,332	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,304
25 to 29	40,868	50,228	56,731	54,479	-	-	-	-	51,318
30 to 34	41,510	50,607	57,240	58,582	57,333	-	-	-	55,806
35 to 39	41,666	50,979	57,232	59,112	61,286	59,574	-	-	58,053
40 to 44	41,686	51,258	57,313	58,599	61,419	57,916	63,708	64,652	59,523
45 to 49	-	56,860	57,584	58,392	60,610	63,097	59,915	-	59,635
50 to 54	-	56,860	57,486	58,507	59,850	-	63,965	57,138	59,362
55 to 59	-	-	57,107	57,811	58,769	57,916	57,916	-	58,134
60 to 64	-	56,860	56,999	57,527	-	-	-	58,806	57,483
65 & up	-	-	-	-	-	-	-	65,581	65,581
Total	\$ 41,095	\$ 49,960	\$ 57,123	\$ 58,738	\$ 60,901	\$ 60,252	\$ 61,464	\$ 61,393	\$ 56,709

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-19
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Fire (Plan 87)**

COUNTS BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	18	63	3	0	0	0	0	0	84
25 to 29	25	169	46	3	0	0	0	0	243
30 to 34	14	102	118	30	0	0	0	0	264
35 to 39	8	74	136	146	16	0	0	0	380
40 to 44	2	32	58	152	82	2	0	0	328
45 to 49	0	7	21	91	98	2	2	0	221
50 to 54	0	2	12	28	53	0	0	0	95
55 to 59	0	1	3	10	16	0	0	2	32
60 to 64	0	0	0	2	0	0	0	0	2
65 & up	0	0	1	1	0	0	0	0	2
Total	67	450	398	463	265	4	2	2	1,651

**Table A-20
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2008 -- Fire (Plan 87)**

AVERAGE SALARY BY AGE/SERVICE

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ 40,020	\$ 43,813	\$ 46,559	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 43,099
25 to 29	40,020	46,464	53,968	46,690	-	-	-	-	47,225
30 to 34	40,020	48,411	57,633	57,064	-	-	-	-	53,071
35 to 39	40,020	48,638	58,978	59,538	56,854	-	-	-	56,691
40 to 44	40,020	50,684	58,712	59,910	62,143	75,757	-	-	59,332
45 to 49	-	51,656	58,161	59,893	62,118	58,056	58,056	-	60,421
50 to 54	-	54,586	60,548	59,700	61,116	-	-	-	60,489
55 to 59	-	50,024	58,950	60,504	59,689	-	-	58,056	59,470
60 to 64	-	-	-	60,404	-	-	-	-	60,404
65 & up	-	-	62,851	57,528	-	-	-	-	60,190
Total	\$ 40,020	\$ 47,317	\$ 57,882	\$ 59,516	\$ 61,461	\$ 66,906	\$ 58,056	\$ 58,056	\$ 55,332

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-21
Reconciliation of Plan Membership**

	1967 Plan			Plan 87				Total City
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Active								
Active July 1, 2007	5,764	1,248	523	14,025	19	5,179	1,596	28,354
New Entrants and Rehires	72	4	0	2,461	7	361	95	3,000
Refunded Contributions	-10	-2	0	-477	0	-44	-5	-538
Terminated Vested	-24	0	0	-98	0	-13	-2	-137
Became Disabled	-19	-4	-2	-17	0	-16	-5	-63
Retired	-94	-38	-3	-74	-1	-14	-4	-228
Entered DROP	-320	-45	-39	-59	-8	-3	-3	-477
Net Other Terminations	-51	-9	0	-561	-2	-52	-21	-696
Active July 1, 2008	5,318	1,154	479	15,200	15	5,398	1,651	29,215
Retired								
Retired July 1, 2007	12,441	5,597	1,939	402	9	42	18	20,448
New Retirees	765	231	117	140	2	18	5	1,278
Net Other Terminations	-597	-154	-58	-16	0	-3	0	-828
Retired July 1, 2008	12,609	5,674	1,998	526	11	57	23	20,898
Beneficiary								
Beneficiary July 1, 2007	5,378	2,149	876	94	3	68	25	8,593
New Beneficiaries	228	108	32	12	0	4	2	386
Net Other Terminations	-292	-109	-66	-1	0	0	-1	-469
Beneficiary July 1, 2008	5,314	2,148	842	105	3	72	26	8,510

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-21
Reconciliation of Plan Membership (continued)**

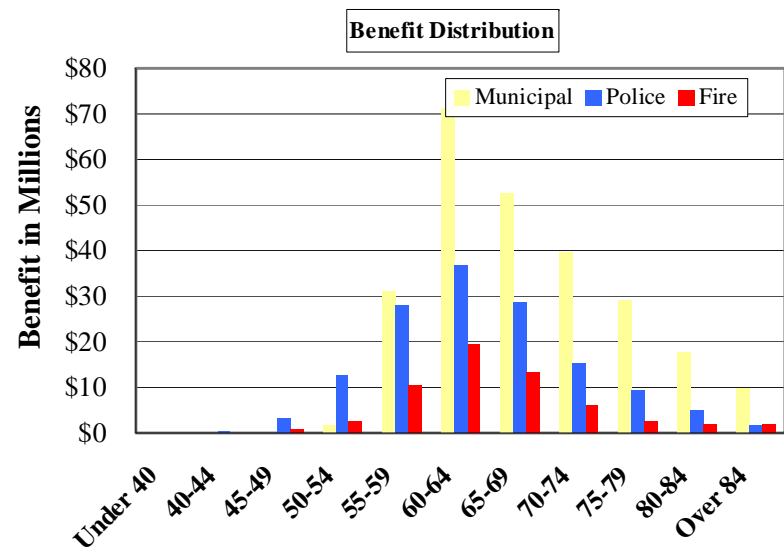
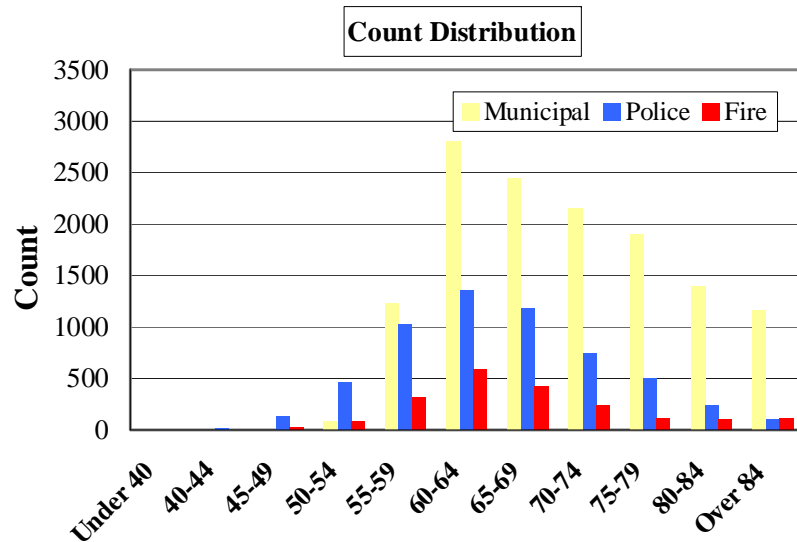
	1967 Plan			Plan 87				Total City
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Disabled								
Disabled July 1, 2007	1,895	1,826	421	101	0	121	20	4,384
New Disabilities	35	5	5	33	0	30	7	115
Net Other Terminations	-73	-61	-12	-3	0	-1	0	-150
Disabled July 1, 2008	1,857	1,770	414	131	0	150	27	4,349
Terminated Vested								
Terminated Vested July 1, 2007	738	12	0	441	0	86	24	1,301
New Vested Terminations	45	0	0	114	0	16	2	177
Net Other Terminations	-119	-6	0	-68	0	-19	-3	-215
Terminated Vested July 1, 2008	664	6	0	487	0	83	23	1,263
DROP								
DROP July 1, 2007	1,400	318	230	139	5	7	3	2,102
New DROP Participants	325	45	39	62	7	3	3	484
Net Other Terminations	-582	-187	-116	-49	-3	-1	0	-938
DROP July 1, 2008	1,143	176	153	152	9	9	6	1,648

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-22
Age Distribution of Retired Members as of July 1, 2008**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	0	\$ -	0	\$ -	0	\$ -
40-44	0	0	11	140,142	2	19,360
45-49	0	0	124	3,057,297	23	429,599
50-54	79	1,597,578	459	12,510,253	91	2,517,882
55-59	1,225	30,869,926	1,023	28,024,180	317	10,320,529
60-64	2,793	71,305,113	1,358	36,769,162	590	19,253,954
65-69	2,445	52,431,512	1,178	28,482,398	430	12,988,458
70-74	2,154	39,743,758	741	14,967,888	238	5,938,206
75-79	1,902	29,037,285	497	9,365,372	117	2,464,981
80-84	1,393	17,534,436	243	4,696,579	98	1,857,402
Over 84	1,155	9,665,216	97	1,500,317	115	1,690,214
Total	13,146	252,184,822	5,731	139,513,587	2,021	57,480,584

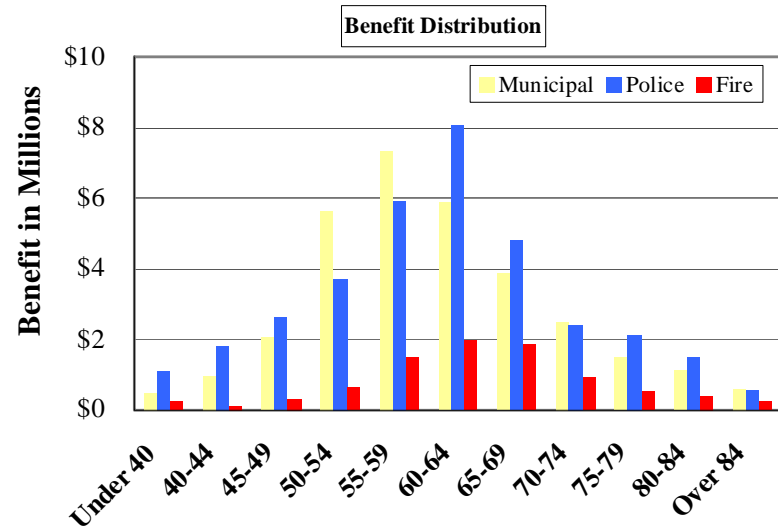
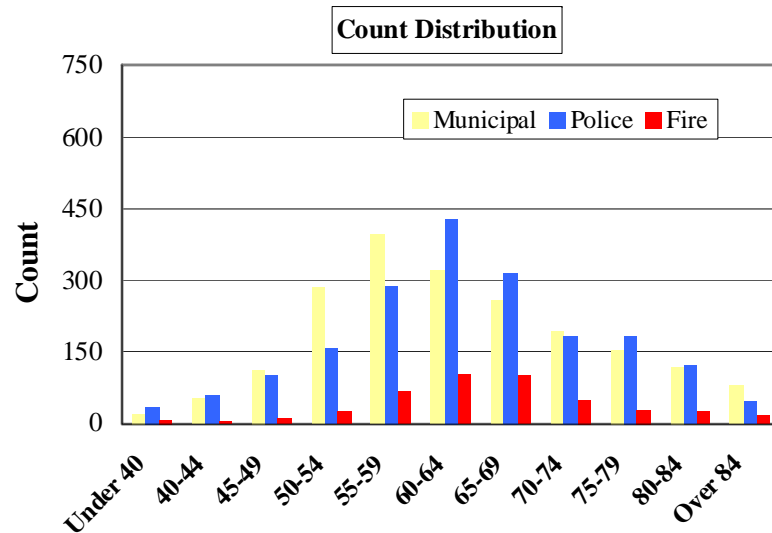


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-23
Age Distribution of Disabled Members as of July 1, 2008**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	21	\$ 463,260	36	\$ 1,094,010	7	\$ 243,437
40-44	51	938,219	59	1,808,329	4	102,591
45-49	112	2,032,737	99	2,626,739	12	310,176
50-54	285	5,624,026	157	3,711,995	26	649,383
55-59	397	7,346,300	289	5,934,111	67	1,490,993
60-64	322	5,872,131	430	8,048,323	103	1,966,532
65-69	257	3,871,572	316	4,784,115	101	1,842,396
70-74	192	2,488,229	183	2,420,283	49	905,702
75-79	154	1,488,277	185	2,140,763	28	523,941
80-84	118	1,137,121	120	1,499,816	27	400,415
Over 84	79	600,510	46	569,665	17	247,270
Total	1,988	31,862,382	1,920	34,638,149	441	8,682,837

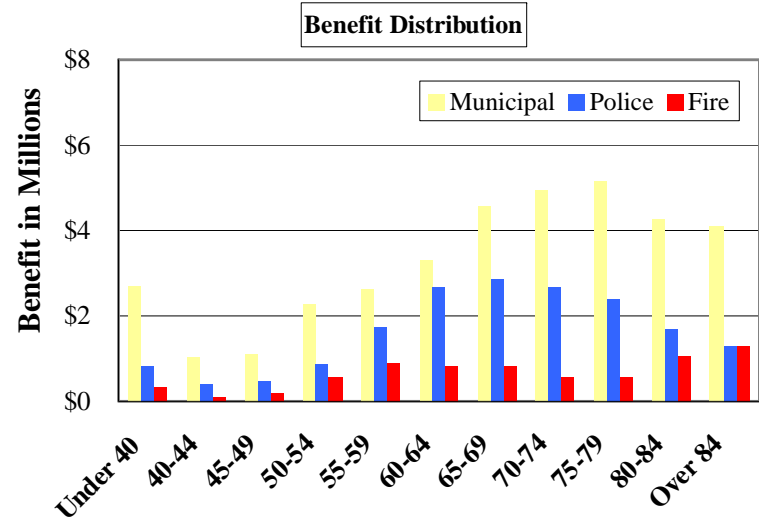
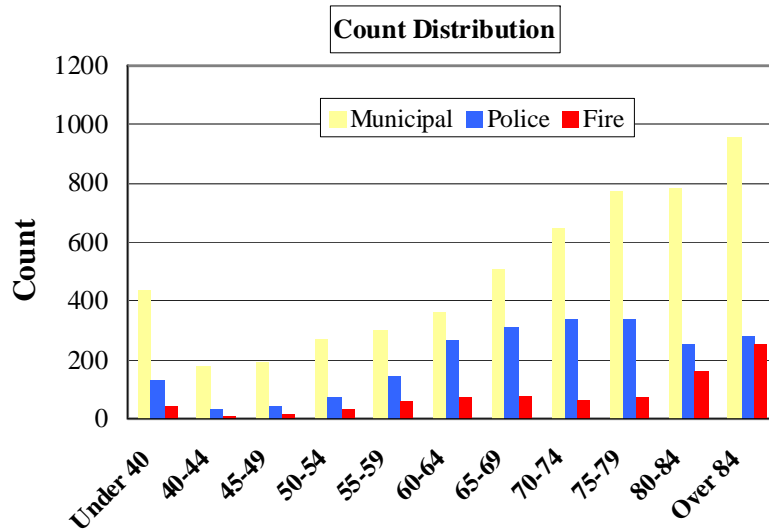


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-24
Age Distribution of Beneficiaries as of July 1, 2008**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	434	\$ 2,694,546	131	\$ 834,108	46	\$ 349,079
40-44	181	1,044,890	36	404,020	11	117,389
45-49	192	1,112,466	43	461,698	16	188,923
50-54	271	2,286,984	75	854,340	33	565,161
55-59	302	2,641,121	144	1,728,090	61	893,807
60-64	363	3,303,155	268	2,652,306	73	833,528
65-69	511	4,559,904	310	2,875,158	80	852,858
70-74	651	4,948,073	339	2,660,128	64	570,393
75-79	775	5,165,277	341	2,420,271	74	576,981
80-84	783	4,255,325	253	1,704,628	160	1,063,362
Over 84	959	4,107,584	280	1,287,410	250	1,295,317
Total	5,422	36,119,324	2,220	17,882,157	868	7,306,800

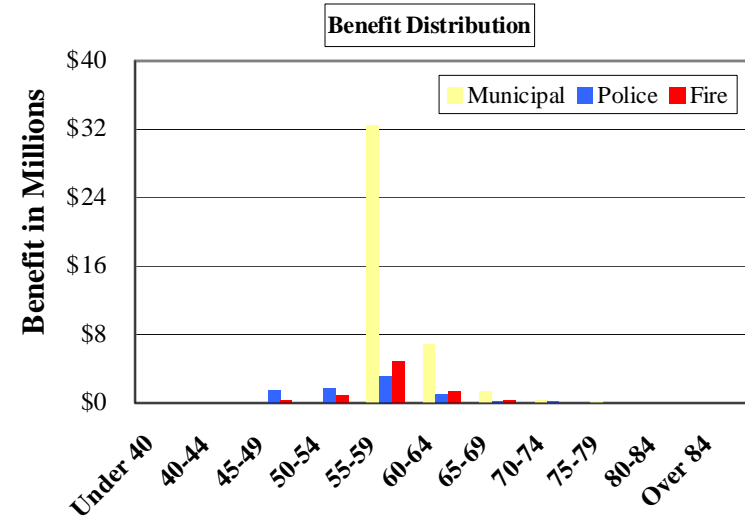
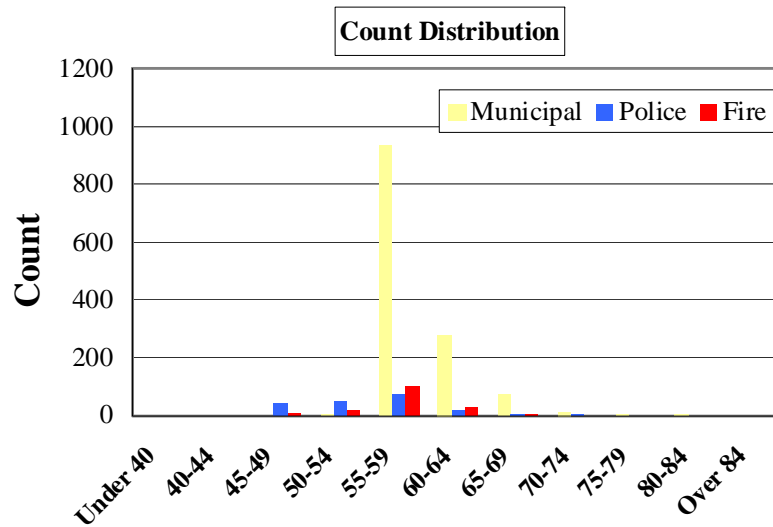


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-25
Age Distribution of DROP Participants as of July 1, 2008**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	0	\$ -	0	\$ -	0	\$ -
40-44	0	0	0	0	0	0
45-49	0	0	43	1,395,547	8	256,592
50-54	1	41,996	47	1,717,678	20	824,045
55-59	933	32,504,644	74	3,221,737	100	4,790,184
60-64	277	6,848,569	18	1,056,642	27	1,295,190
65-69	73	1,266,412	2	63,804	4	222,936
70-74	15	377,488	1	89,580	0	0
75-79	4	149,513	0	0	0	0
80-84	1	17,568	0	0	0	0
Over 84	0	0	0	0	0	0
Total	1,304	41,206,191	185	7,544,989	159	7,388,947

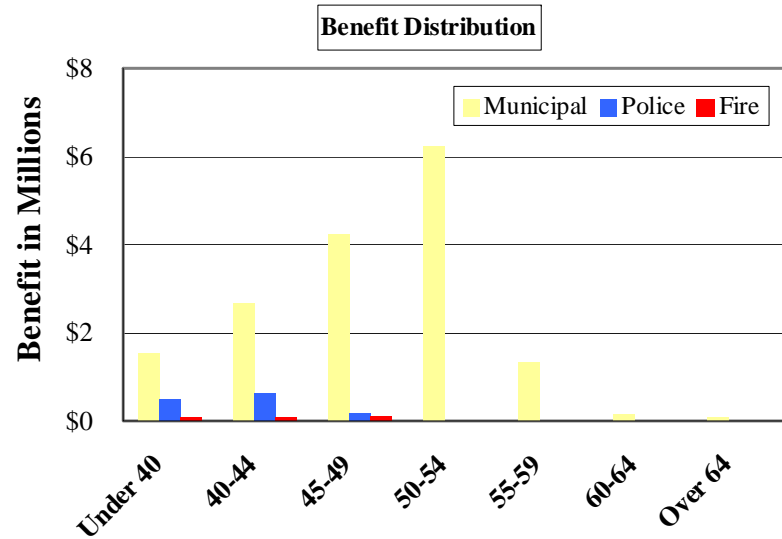
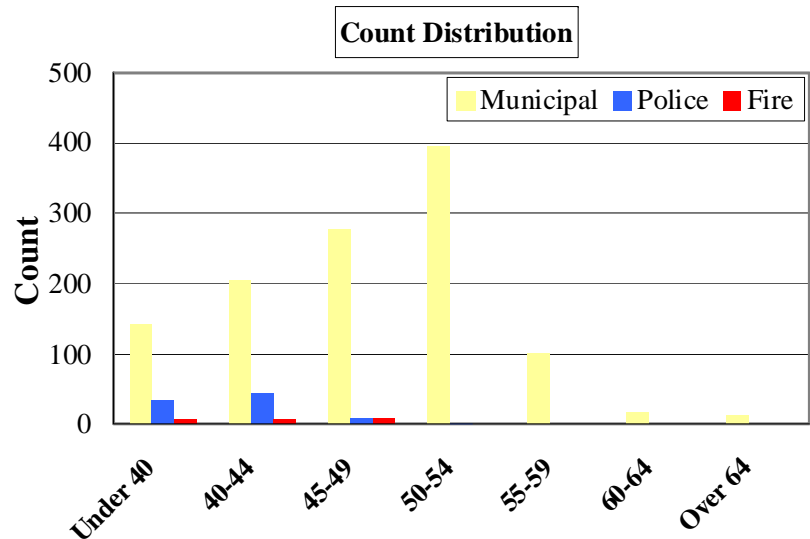


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-26
Age Distribution of Terminated Vested Members as of July 1, 2008**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	143	\$ 1,544,423	35	\$ 494,713	7	\$ 98,252
40-44	204	2,680,112	43	644,196	7	96,749
45-49	277	4,249,657	10	182,716	9	132,187
50-54	395	6,227,910	1	13,437	0	0
55-59	101	1,347,536	0	0	0	0
60-64	17	138,909	0	0	0	0
Over 64	14	68,670	0	0	0	0
Total	1,151	16,257,217	89	1,335,062	23	327,189



APPENDIX A
MEMBERSHIP INFORMATION

Data Assumptions and Practices

In preparing our data, we relied, without audit, on information supplied by the City of Philadelphia Municipal Retirement System staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. Our methodology for obtaining the data used for the valuation is based upon the following assumptions and practices:

- We exclude raw active records with dates of hire after the valuation date.
- We include terminated vested records in the valuation data, regardless of whether they have enough service for vesting.
- We delete terminated vested and retired records with values of zero in the benefit field.
- If a participant is found in multiple data files (e.g., both the active and retired data files), based on a match of both employee number and Social Security Number, we first attempt to identify the record with the most recent status change, and keep only that record. If it is not apparent which record is the most recent, we keep the record that generates the highest liability in our valuation system.
- If a participant is found multiple times in the same data file, based on a match of both employee number and Social Security Number, we keep the record that generates the highest liability in our valuation system.
- Valuation pay reflects a load of 4% of pay for police (stress pay) and firefighters (premium pay).
- The date of retirement for a terminated vested participant was set to the valuation date, if the given date was earlier.
- If the payment form field for pensioners is missing, we assume that 1967 Plan members receive a 50% J&S annuity with a return of contributions in excess of payments received upon death of the member, and we assume that Plan 87 members receive a life annuity, also with a return of contributions. However, if the pensioner is a beneficiary or survivor, we assume that they receive a life annuity only.
- Records with missing dates of birth have their data filled in based on the average for their plan.
- We assumed that all changes in participant data from last year to this year were valid unless indicated otherwise by System staff.

**APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

A. Actuarial Assumptions

1. Investment Return Assumption

8.75% compounded annually, net of expenses.

2. Salary Increase Rate

5.0% per year (2.75% due to inflation, 1.5% due to seniority/merit, and 0.75% due to general productivity).

3. Total Annual Payroll Growth

4.0% per year.

4. Administrative Expenses

Annual expected expenses included in this report are \$7,500,000, increasing by 4.0% per year.

5. Rates of Termination

Age	1967 Plan			Plan 87	
	Municipal		Uniformed	Municipal and Elected Officials	Uniformed
	Male	Female	Unisex	Unisex	Unisex
20	0.100000	0.105319	0.022050	0.260000	0.030000
25	0.086000	0.096000	0.021148	0.150000	0.037800
30	0.072000	0.071562	0.019148	0.105000	0.029900
35	0.045000	0.056170	0.016148	0.090000	0.025200
40	0.035000	0.039379	0.012148	0.090000	0.015400
45	0.030000	0.035597	0.000000	0.075000	0.010000
50	0.020000	0.022400	0.000000	0.065000	0.000000
55	0.000000	0.000000	0.000000	0.050000	0.000000

We assume that a vested employee who terminates will elect a pension deferred to service retirement age as long as their age plus years of service at termination are greater than or equal to 55 (45 for police and fire employees in the 1967 Plan). Otherwise we assume they elect a refund of member contributions.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
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APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

6. Rates of Disability

Age	Municipal and Elected Officials		Uniformed
	Male	Female	Unisex
20	0.000025	0.000043	0.000795
25	0.000070	0.000061	0.000870
30	0.000557	0.000263	0.001418
35	0.001514	0.000620	0.001918
40	0.001800	0.001314	0.001934
45	0.003840	0.002359	0.002334
50	0.007600	0.004285	0.002654
55	0.008680	0.007088	0.000000

For municipal and elected members, we assume that 70% of all disabilities are ordinary and 30% are service-connected. For police and fire members, we assume that 50% are ordinary and 50% are service-connected.

7. Rates of Pre-Retirement Mortality (GAM 94)

Age	All Divisions	
	Male	Female
20	0.000507	0.000284
25	0.000661	0.000291
30	0.000801	0.000351
35	0.000851	0.000478
40	0.001072	0.000709
45	0.001578	0.000973
50	0.002579	0.001428
55	0.004425	0.002294
60	0.007976	0.004439
65	0.014535	0.008636

For municipal and elected members, we assume that 98.5% of all deaths are ordinary, with 1.5% service-connected. For police and fire members, 92% are assumed to be ordinary and 8% service-connected.

**APPENDIX B
 SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

8. Rates of Post-Retirement Mortality

We assume that mortality for healthy inactive lives will follow 150% of the GAM 94 Mortality Table for males and females as appropriate, except that mortality for male municipal members is assumed to follow 140% of the GAM 94 Mortality Table.

9. Rates of Post-Disability Mortality

The rates of mortality for retired disabled lives are assumed to be the same as those for healthy inactive lives, adjusted by application of the following adjustment factors shown below.

Post-Disablement Mortality Adjustment Factors				
<u>Municipal and Elected Officials</u>			<u>Uniformed</u>	
Age	Male	Female	Age	Unisex
47 and younger	7.3	11.7	42 and younger	2.8
50	6.8	10.5	45	2.0
55	5.6	7.4	50	1.3
60	3.6	4.9	55	1.2
65	2.4	3.4	60 and up	1.0
70	2.1	1.9		
75	1.7	1.3		
80	1.2	1.2		
83 and up	1.0	1.0		

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2008 ACTUARIAL VALUATION

**APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS**

Rates of Retirement

Rates of Service Retirement - 1967 Plan		
Age	Municipal	Uniformed
45-49	-	0.08
50-53	-	0.12
54	-	0.17
55	0.35	0.20
56	0.20	0.20
57-61	0.12	0.20
62	0.40	0.20
63-69	0.20	0.20
70 and up	1.00	1.00

Rates of Service Retirement - Plan 87				
Age	Municipal and Elected Officials		Uniformed	
	First Year Eligible	Subsequent Years	First Year Eligible	Subsequent Years
40-51	-	-	0.300	0.125
52	0.450	0.060	0.300	0.140
53	0.420	0.060	0.300	0.150
54	0.390	0.060	0.300	0.170
55	0.360	0.060	0.300	0.190
56	0.330	0.060	0.300	0.215
57	0.300	0.060	0.300	0.225
58	0.300	0.060	0.300	0.225
59	0.300	0.080	0.300	0.230
60	0.300	0.100	0.300	0.230
61	0.350	0.150	0.300	0.245
62	0.430	0.300	0.300	0.295
63	0.500	0.187	0.300	0.265
64	0.500	0.199	0.300	0.260
65	0.600	0.309	0.300	1.000
66	0.600	0.232	-	-
67	0.600	0.214	-	-
68	0.600	0.214	-	-
69	0.600	0.238	-	-
70	0.600	1.000	-	-

APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

10. Family Composition Assumptions

70% of active members and 60% of non-active members are assumed to be married. Male spouses are assumed to be four years older than female spouses.

11. Changes Since Last Valuation

We have maintained the same assumption set as the prior valuation until we can identify areas of consideration for change that we would recommend to the Board.

B. Actuarial Methods

1. Actuarial Funding Method

The Entry Age Normal actuarial funding method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed retirement. The actuarial liability is the difference between the present value of future benefits and the present value of future normal cost. The unfunded actuarial liability is the difference between the actuarial liability and the actuarial value of assets.

The Dombrowski unfunded actuarial liability (UAL) is amortized with level-dollar payments over a period of 40 years, ending June 30, 2010. The initial July 1, 1985 UAL is amortized over 34 years ending June 30, 2019, with payments increasing at 4% per year, the assumed payroll growth. Other changes in the actuarial liability are amortized in level-dollar payments as follows:

- Actuarial gains and losses – 15 years
- Assumption changes – 20 years
- Plan changes for active members – 20 years
- Plan changes for inactive members – 10 years

For the purposes of the MMO under Act 205, the initial July 1, 1985 UAL is amortized over 40 years ending June 30, 2026, with payments increasing at 4% per year, the assumed payroll growth. A July 2004 amendment to Act 205 allowed for the portion of the July 1, 2003 UAL attributable to 2001 and 2002 calendar year investment returns to be amortized over 30 rather than 15 years.

APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

2. Asset Valuation Method

The actuarial value of assets (AVA) is determined using an adjusted market value. Under this method, a preliminary AVA is determined as the market value of assets on the valuation date, minus the existing balance of the Pension Adjustment Fund (PAF) rolled forward at the current year's market rate of return, minus a decreasing fraction ($4/5$, $3/5$, $2/5$, $1/5$) of the gain or loss in each of the preceding four years. The gain or loss for a given year is the difference between the actual investment return (on a market-to-market basis) and the assumed investment return based on the market value of assets at the beginning of the year and actual cash flow. The AVA is adjusted, if necessary, to remain between 80% and 120% of the market value. The final AVA is determined by subtracting the additional transfer amount (if any) to the PAF.

3. Changes Since Last Valuation

None.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

This summary of plan provisions provides an overview of the major provisions of the pension plans used in the actuarial valuation. It is not intended to replace the more precise language of the retirement code, and if there is any difference between the description of the plans herein and the actual text of the retirement code, the retirement code will govern.

1. Participation

Municipal (Plan J):

Full-time employees participate on their date of employment. Temporary employees participate after completing six months employment. Participation is limited to employees hired before January 8, 1987. District Council 47 (Local 2186 or 2187) and 33 members hired between January 8, 1987 and October 1, 1992 were switched from Plan 87 to 1967 Plan effective on their hire dates, provided such employees contributed the difference between what they paid to the Plan and the amount they would have paid under Plan J.

Uniformed (Plans D and X):

Same as municipal.

2. Credited Service

Municipal (Plan J):

Credited service means the period of employment with the City during which the employee makes contributions to the Retirement System. Certain leaves of absence may also be credited.

Uniformed (Plans D and X):

Same as municipal.

3. Total Compensation

Municipal (Plan J):

Total compensation means the base rate of pay, longevity payments, and overtime received during a 12-month period.

Uniformed (Plans D and X):

Total compensation means the base rate of pay, longevity payments, and stress or premium pay (up to 4% of base pay) received during a 12-month period.

4. Final Compensation

Municipal (Plan J):

Final compensation means whichever is greater: annual base rate of pay at the time of termination or the total compensation received during the 12 months immediately preceding

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termination, including supplementary compensation received under Civil Service Regulation No. 32.

Uniformed (Plans D and X):
Same as municipal.

5. Average Final Compensation

Municipal (Plan J):

Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years that produce the highest average.

Uniformed (Plans D and X):

Average final compensation means the highest of:

- The total compensation received during the 12-month period; or
- The annual base rate of pay, excluding longevity payments, calculated from the final pay period; or
- The arithmetic average of the total compensation received during five calendar years of employment.

6. Employee Contributions

Municipal (Plan J):

Each employee who participates in the Social Security System, contributes 3 3/4% of total compensation up to the taxable wage base (\$94,200 in 2006 and \$97,500 in 2007) and 6% of total compensation above the taxable wage base to the Retirement System.

Each employee who does not participate in the Social Security System contributes 6% of his total compensation to the Retirement System.

Uniformed (Plans D and X):
Same as municipal.

7. Service Retirement

Eligibility

Municipal (Plan J):

Each municipal employee is eligible to retire and receive a service pension at age 55 with one year of service.

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Uniformed (Plans D and X):

Each uniformed employee is eligible to retire and receive a service pension at age 45.

Benefit Amount

Municipal (Plan J):

The service pension equals 2 1/2% of the employee's average final compensation multiplied by credited service to a maximum of 20 years plus 2% of the employee's average final compensation multiplied by credited service above 20, to a maximum of 80% of the employee's average final compensation.

Uniformed (Plans D and X):

The service pension equals 2 1/2% of the employee's average final compensation multiplied by credited service, subject to a maximum of 100% of average final compensation.

8. Early Retirement

Eligibility

Municipal (Plan J):

Each municipal employee is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years of credited service.

Uniformed (Plans D and X):

Each uniformed employee is eligible to retire and receive a reduced service pension at age 40 if he or she has 10 or more years of credited service.

Benefit Amount

Municipal (Plan J):

The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age.

Uniformed (Plans D and X):

Same as municipal.

9. Deferred Vested Retirement

Eligibility

Municipal (Plan J):

A terminating employee who has completed 10 or more years of credited service is eligible for a deferred vested retirement benefit.

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Uniformed (Plans D and X):
Same as municipal.

Benefit Amount

Municipal (Plan J):

The annual deferred vested benefit is determined the same as service pensions, using average final compensation and credited service at termination. This benefit begins at service retirement date. If the member dies before the deferred vested benefit begins, an ordinary death benefit is payable (see Ordinary Death below). As an alternative before benefits begin, a plan member who is terminating employment may ask to have employee contributions returned (without interest) instead of receiving the deferred vested benefit.

Uniformed (Plans D and X):
Same as municipal.

10. Withdrawal Benefit

Municipal (Plan J):

Each employee terminating who has completed less than 10 years of credited service will receive a withdrawal benefit equal to his or her employee contributions (without interest).

Uniformed (Plans D and X):
Same as municipal.

11. Service-Connected Death

Eligibility

Municipal (Plan J):

The beneficiary of each active employee who dies solely from the performance of duties of the employee's position with the City is eligible for an immediate death benefit.

Uniformed (Plans D and X):
Same as municipal.

Benefit Amount

Municipal (Plan J):

The death benefit equals total employee contributions paid to the Retirement System, plus a yearly payment of 60% of the employee's final compensation reduced by any death benefits payable under the Worker's Compensation Act.

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This benefit is payable to the spouse until his or her death. Dependent children are entitled to an additional yearly payment of 10% of final compensation for each dependent child (up to two children) until the child reaches age 18. If there is no spouse, or if the spouse dies or remarries, each dependent child (up to three children) is entitled to receive a yearly payment of 25% of final compensation until the child reaches age 18.

If there is no spouse or dependent children, each dependent parent is entitled to receive a yearly payment of 15% of final compensation for life.

Uniformed (Plans D and X):
Same as municipal.

12. Ordinary Death

Eligibility

Municipal (Plan J):

The beneficiary of an active employee (or a terminated vested employee who did not withdraw employee contributions) who dies after completing 10 years of credited service or reaches age 55 is eligible for an immediate death benefit equal to a yearly pension or a lump sum payment. The beneficiary of an active employee who dies before completing 10 years of credited service and reaches age 55 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

Uniformed (Plans D and X):

The beneficiary of any employee who dies while actively employed (or a terminated vested employee who did not withdraw employee contributions) is eligible for a death benefit equal to a yearly pension or a lump sum payment.

The beneficiary may be any relative by blood or marriage.

Annual Pension

Municipal (Plan J):

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received if eligible to retire on the day before he died and had elected Option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

Uniformed (Plans D and X):

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received (based on a minimum of 10 years of service) had the person been eligible to retire on the day before dying and had elected Option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

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Lump Sum Payment

Municipal (Plan J):

The lump sum payment is equal to 10% of the deceased employee's average final compensation multiplied by years of credited service to a maximum of 10, plus the deceased employee's contributions to the Retirement System, minus the total amount of the deceased employee's City-paid life insurance.

Uniformed (Plans D and X):

Same as municipal.

13. Service-Connected Disability

Eligibility

Municipal (Plan J):

An active employee found by the Board of Pensions and Retirement to be mentally or physically permanently incapacitated (unable to perform duties) solely as the result of accident or injury during the performance of duties is eligible for an immediate service-connected disability pension.

Uniformed (Plans D and X):

Same as municipal.

Benefit Amount

Municipal (Plan J):

The service-connected disability benefit is equal to the employee's Retirement System contributions, plus a yearly benefit of 70% of the employee's final compensation, reduced by any disability benefits payable under the Worker's Compensation Act. If he or she withdraws contributions, the benefit is payable for his or her lifetime only.

If the employee leaves employee contributions with the Retirement System, he or she may choose a survivor benefit option (see Survivor Benefit below) and the beneficiary will continue receiving benefit payments after his or her death.

Uniformed (Plans D and X):

Same as municipal.

14. Service-Connected Disability Periodic Adjustment

Eligibility

Municipal (Plan J):

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An employee who is receiving a service-connected disability benefit who is totally disabled and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.

Uniformed (Plans D and X):

Same as municipal, but only applies to police employees.

Benefit Amount

Municipal (Plan J):

The disabled employee's pension will be increased in the eighth year after separation by the percentage raise given in the previous year to active employees in his or her job class. The adjustment will continue each year thereafter until the employee's 65th birthday.

Uniformed (Plans D and X):

Same as municipal.

15. Ordinary Disability

Eligibility

Municipal (Plan J):

An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit after completing 10 years of credited service.

Uniformed (Plans D and X):

Same as municipal, except that fire employees only need five years of credited service and police employees have no service requirement if the disability is permanent and total. Police employees with permanent and partial disability need 10 years of credited service.

Benefit Amount

Municipal (Plan J):

The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement. If the employee is eligible for or receiving workers' compensation, no benefit is payable. Such employee may apply for benefits at retirement age.

Uniformed (Plans D and X):

Same as municipal, except police employees that have no service requirement are credited with a minimum of 10 years of credited service. Same as municipal.

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16. Survivor Benefit

Municipal (Plan J):

Service pensions, deferred vested benefits, service-connected disability benefits (if employee contributions are left on deposit), and ordinary disability benefits are payable under four optional forms. Options 1, 2, and 3 provide benefits actuarially equivalent to a lifetime only pension while Option 4 has no reduction.

Option 1 - A benefit is payable to the employee with the provision that upon death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the sum of the payments received.

Option 2 –A reduced benefit payable to the employee with the provision that 100% of the reduced benefit will be paid to the designated beneficiary for life after the death of the employee.

Option 3 –Same as Option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.

Option 4 - Upon the employee's death, 50% of the benefit will continue to be paid to the surviving spouse for life, provided the employee and spouse were married for two years before retirement and at death. If there is no eligible spouse at the time the employee dies, or the spouse dies before the full amount of the contributions have been returned, 50% of the benefit is continued to dependent children until age 18, or if no dependent children, payments are given to dependent parents for the remainder of their lives. In addition, Option 4 provides for a guaranteed return of employee contributions as described in Option 1 above.

Uniformed (Plans D and X):

Same as municipal.

17. Minimum Pension

Municipal (Plan J):

The monthly minimum pension to a pensioner is equal to \$25 multiplied by the number of the pensioner's completed years of credited service, to a 10 year maximum.

Uniformed (Plans D and X):

The monthly minimum pension to pensioners is \$500. The monthly minimum pension to all other pensioners is \$440 providing such pension will increase to \$500 at the time the pensioner reaches age 60.

18. Waiver of Benefit

Municipal (Plan J):

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Any employee at service retirement age with less than three but more than one year of credited service, may waive the right to receive a monthly benefit and in lieu thereof, receive a lump sum payment of twice his or her employee contributions without interest.

Uniformed (Plans D and X):
Same as municipal.

19. Service-Connected Health Care Benefit

Municipal (Plan J):
Not applicable.

Uniformed (Plans D and X):
If a uniformed employee dies during the performance of duties, a service-connected health care benefit may be payable to the surviving spouse and dependent children. Regular payments will be made of the appropriate cost of maintaining medical, dental, optical, and prescription drug benefits that were in force at the time of the employee's death. Payments to the spouse cease upon remarriage and to dependent children at age 18 (age 22 if full-time student) or, if dependent due to physical or mental infirmity, the duration of the infirmity. The health care benefits are not paid from the pension trust assets.

20. Deferred Retirement Option Plan (DROP)

Municipal (Plan J):
Employees that have ten years of service and reached the minimum retirement age may elect to participate in the DROP. During this time, their accrued benefit will go into a DROP account and will earn interest at a specified rate (4.5% as of July 1, 2007). The benefit is calculated as of the date they entered the DROP. At the end of the DROP, the employees' accrued monthly benefit will commence, plus they will receive the accumulated amount of the accrued benefit paid to the DROP, as well as the interest earned on such benefit.

Uniformed (Plans D and X):
Same as municipal.

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1. Participation

Municipal:

Full-time employees participate on their date of employment. Temporary employees participate after completing six months of employment. Participation is limited to employees hired on or after January 8, 1987. Any member of the 1967 Plan may irrevocably elect to participate in Plan 87.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Any City employee on or after January 8, 1987, in any general, municipal, or special election, participates in this Plan.

2. Credited Service

Municipal:

Credited service means the period of employment with the City during which the employee makes contributions to the Retirement System. Certain leaves of absence may also be credited.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

3. Total Compensation

Municipal:

Total compensation means the base rate of pay, overtime, and longevity payments received during a 12-month period.

Uniformed (Plans A and B):

Total compensation means the base rate of pay, longevity payments, and stress or premium pay (up to 4% of base pay) received during a 12-month period.

Elected:

Total compensation means the base rate of pay and longevity payments received during a 12-month period.

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4. Final Compensation

Municipal:

Final compensation means whichever is greater: annual base rate of pay at the time of termination or the total compensation received during the 12 months immediately preceding termination, including supplementary compensation received under Civil Service Regulation No. 32.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

5. Average Final Compensation

Municipal:

Average final compensation means the arithmetic average of the total compensation received during the three calendar or anniversary years producing the highest average.

Uniformed (Plans A and B):

Average final compensation means the arithmetic average of the total compensation received during the two calendar or anniversary years producing the highest average.

Elected:

Same as municipal.

6. Employee Contributions

Municipal:

Total employee contributions equal 30% of the gross normal cost for all members in the municipal division. Exempt and non-represented employees hired after January 13, 1999 (and current employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in five years.

Uniformed (Plans A and B):

Total employee contributions equal 5% of total compensation, but not less than 30% or greater than 50% of gross normal cost for members in the uniformed division. Exempt and non-represented employees hired after January 13, 1999 (and current employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in five years.

Elected:

Total employee contributions equal 30% of the gross normal cost for all members in the elected division calculated under the municipal plan plus 100% of the gross normal cost that exceeds the cost for the municipal plan. Employees hired after January 13, 1999 (and current

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employees as of January 13, 1999 that elect to do so) will contribute an additional amount to become vested in the lesser of two full terms or eight years.

7. Service Retirement

Eligibility

Municipal:

Each municipal employee is eligible to retire and receive a service pension at age 60 if he or she has 10 or more years of credited service or, if the employee made additional contributions to become vested in five years, five years of credited service.

Uniformed (Plans A and B):

Each uniformed employee is eligible to retire and receive a service pension upon reaching age 50 and 10 or more years of credited service, or, if the employee made additional contributions to become vested in five years, five years of credited service.

Elected:

Each elected official is eligible to retire and receive a service pension at age 55 if he or she has 10 or more years of credited service, or, if the employee made additional contributions to become vested in the lesser or two full terms or eight years, the lesser of two full terms or eight years of credited service.

Benefit Amount

Municipal:

The service pension equals 2.2% of the employee's average final compensation for the first 10 years of credited service, plus 2% of the employee's average final compensation multiplied by years of service over 10, subject to a maximum of 100% of average final compensation.

Uniformed (Plans A and B):

The service pension equals 2.2% of the employee's average final compensation multiplied by years of credited service to a maximum of 20 years, plus 2% of the employee's average final compensation multiplied by years of credited service over 20, subject to a maximum of 100% of average final compensation.

Elected:

The service pension equals 3.5% of the employee's average final compensation multiplied by years of credited service, subject to a maximum of 100% of average final compensation.

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8. Early Retirement

Eligibility

Municipal:

Each municipal employee is eligible to retire and receive a reduced service pension at age 52 if he has 10 or more years of credited service. As an alternative, a member is eligible if he or she has at least 33 years of credited service, regardless of age.

Uniformed (Plans A and B):

Each uniformed employee is eligible to retire and receive a reduced service pension at age 40 if he or she has 10 or more years of credited service. Alternatively, a member is eligible if he has at least 25 years of credited service, regardless of age.

Benefit Amount

Municipal:

The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age. Benefits are not reduced if the employee has 33 or more years of credited service.

Uniformed (Plans A and B):

The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age. Benefits are not reduced if the employee has 25 or more years of credited service.

Elected:

The annual amount is calculated the same as service retirement, reduced by 1/2 of 1% for each month the employee is younger than minimum retirement age.

9. Deferred Vested Retirement

Eligibility

Municipal:

An employee who terminates employment after completing 10 or more years of credited service or, if the employee made additional contributions to become vested in five years, five years of credited service, is eligible for a deferred vested retirement if his or her contributions have not been withdrawn.

Uniformed (Plans A and B):

Same as municipal.

Elected:

A person terminating employment and who has completed 10 or more years of credited service, or, if the employee made additional contributions to become vested in the lesser of

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two full terms or eight years, two full terms or eight years of credited service is eligible for a deferred vested retirement benefit provided he or she has not withdrawn contributions.

Benefit

Municipal:

The annual deferred vested benefit is determined the same as service pensions, based on average final compensation and credited service at termination. This benefit begins at the service retirement date. If a member dies before the deferred vested benefit begins, an ordinary death benefit is payable (see Ordinary Death below). As an alternative, the person terminating employment may request at any time before benefits begin a return of employee contributions (without interest) instead of the deferred vested benefit.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

10. Withdrawal Benefit

Eligibility

Municipal:

Each terminating employee who has completed fewer than 10 years of credited service (or, if the employee made additional contributions to become vested in five years, fewer than five years of credited service) will receive a withdrawal benefit equal to employee contributions (without interest).

Uniformed (Plans A and B):

Same as municipal.

Elected:

Each terminating employee who completed fewer than 10 years of credited service will receive a withdrawal benefit equal to employee contributions (without interest).

11. Service Connected Death

Eligibility

Municipal:

The beneficiary of each active employee who dies solely from the performance of duties of the employee's position with the City is eligible for an immediate death benefit.

Uniformed (Plans A and B):

Same as municipal.

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Elected:

Same as municipal.

Benefit Amount

Municipal:

The death benefit equals the sum of the total employee contributions paid to the Retirement System (without interest), plus a yearly payment of 60% of the employee's final compensation reduced by any death benefits payable under the Workers' Compensation Act. This benefit is payable to the spouse until his or her death or remarriage, whichever occurs first. Dependent children are entitled to an additional 10% of final compensation yearly payment for each dependent child (up to two children) until the child reaches 18. This total benefit shall not exceed 80% of final compensation.

If there is no spouse, or if the spouse dies or remarries, each dependent child (up to three children) is eligible for a yearly payment of 25% of final compensation until the child reaches age 18. If there is no spouse or dependent children, each dependent parent is entitled to a 15% of final compensation yearly payment for life.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

12. Ordinary Death

Eligibility

Municipal:

The beneficiary of an active employee (or a terminated vested employee who did not withdraw his employee contributions) who dies after completing 10 years of credited service (or five years of credited service if additional contributions were made) or who has reached age 60 is eligible for an immediate death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.

The beneficiary of an active employee who dies before completing 10 years of credited service (or five years of credited service if additional contributions were made) or reaching age 60 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

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Uniformed (Plans A and B):

The beneficiary of any employee who dies while actively employed (or a terminated vested employee who did not withdraw employee contributions) is eligible for a death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.

The beneficiary may be any relative by blood or marriage.

Elected:

The beneficiary of an active employee (or a terminated vested employee who did not withdraw contributions) who dies after completing 10 years of credited service or reaching age 55 is eligible for an immediate death benefit equal to an annual pension or a lump sum payment, whichever the beneficiary chooses.

The beneficiary of an active employee who dies before completing 10 years of credited service or reaching age 55 is eligible for a lump sum payment.

The beneficiary may be any relative by blood or marriage.

Annual Pension

Municipal:

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received had he or she been eligible to retire on the day before death and had elected Option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

Uniformed (Plans A and B):

The annual ordinary death pension, payable for life, is equal to the regular service pension the employee would have received (based on a minimum of 10 years of service) had he been eligible to retire on the day before death and had elected Option 2, joint and 100% contingent annuitant (see Survivor Benefits below).

Elected:

Same as municipal.

Lump Sum Payment

Municipal:

The lump sum payment is equal to the deceased employee's average final compensation multiplied by years of credited service (not to exceed the service in the denominator) and divided by the number of years of credited service needed to become vested, plus the deceased employee's contribution to the Retirement System (without interest) minus the total amount of the deceased employee's life insurance which was paid by the City.

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Uniformed (Plans A and B):
Same as municipal.

Elected:
Same as municipal.

13. Service-Connected Disability

Eligibility

Municipal:

An active employee found by the Board of Pensions and Retirement to be mentally or physically permanently incapacitated from any further performance of duties due solely to the result of the performance of duties is eligible for an immediate service-connected disability pension. The application for benefit must be made within one year after termination of employment.

Uniformed (Plans A and B):
Same as municipal.

Elected:

An active employee found by the Board of Pensions and Retirement to be mentally or physically permanently incapacitated from any further performance of duties due solely to the result of the performance of duties is eligible for an immediate service-connected disability pension.

Benefit Amount

Municipal:

The service-connected disability benefit is equal to the employee's contributions to the Retirement System, plus a yearly benefit of 70% of the employee's final compensation, reduced by any disability benefits payable under the Worker's Compensation Act.

If he or she withdraws contributions, the benefit is payable for his or her lifetime only.

If the employee leaves employee contributions with the Retirement System, he or she may choose a survivor benefit option (see Survivor benefit below) and the beneficiary will continue receiving benefit payments after his or her death.

Uniformed (Plans A and B)
Same as municipal.

Elected:
Same as municipal.

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14. Service-Connected Disability Periodic Adjustment

Eligibility

Municipal:

An employee who is receiving a service-connected disability benefit who is totally disabled and does not collect Social Security disability insurance benefits is eligible for a periodic adjustment.

Uniformed (Plans A and B):

Same as municipal, but only applies to police employees.

Elected:

Same as municipal.

Benefit Amount

Municipal:

The disabled employee's pension will be increased in the eighth year after separation by the percentage raise given in the previous year to active employees in his or her job class. The adjustment will continue each year until the employee's 65th birthday.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

15. Ordinary Disability

Eligibility

Municipal:

An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he or she has at least 10 years of credited service (or five years of credited service, if additional contributions were made). The application for benefits must be made within one year after termination.

Uniformed (Plans A and B):

Same as municipal, except that fire employees only need five years of credited service and police employees have no service requirement if the disability is permanent and total. Police employees with permanent and partial disability need 10 years of credited service (or five years of credited service, if additional contributions were made).

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Elected:

An active employee found by the Board to be mentally or physically permanently incapacitated from the further performance of duties due to an accident or illness not caused by the performance of duties is eligible for an immediate ordinary disability benefit provided he or she has completed at least 10 years of credited service, or eight years if additional contributions were made.

Benefit Amount

Municipal:

The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.

If the employee is eligible for or receiving workers compensation, no benefit is payable. Such employee may apply for benefits at retirement age.

Uniformed (Plans A and B):

Same as municipal, except each eligible employee is automatically credited with a minimum of 10 years of service to calculate the annual benefit.

Elected:

The annual ordinary disability benefit is equal to the benefit determined under the service pension formula using average final compensation and credited service as of the date of disablement.

16. Survivor Benefits

Eligibility

Municipal:

Service pensions, deferred vested benefits, service-connected disability benefits, and ordinary disability benefits are payable under three optional forms. Options 2 and 3 provide benefits actuarially equivalent to a lifetime only pension while Option 1 has no reduction.

Option 1 - A benefit is payable to the employee providing on his death, the beneficiary will receive a lump sum equal to the excess, if any, of the employee's contributions over the sum of the payments received.

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Option 2 - A reduced benefit payable to the employee with the provision that 100% of the reduced benefit will continue to be paid to the designated beneficiary for life after the death of the employee.

Option 3 - The same as Option 2 except only 50% of the reduced benefit is continued to the designated beneficiary.

Uniformed (Plans A and B):

Same as municipal, except that fire employees may also elect Option 4:

Option 4 - Upon the employee's death, 50% of the benefit will continue to be paid to the surviving spouse for life, provided the employee and spouse were married for two years before retirement and at death. If there is no eligible spouse at the time the employee dies, or the spouse dies before the full amount of the contributions have been returned, 50% of the benefit is continued to dependent children until age 18, or if no dependent children, payments are given to dependent parents for the remainder of their lives. In addition, Option 4 provides for a guaranteed return of employee contributions as described in Option 1 above.

Elected:

Same as municipal.

17. Service-Connected Health Care Benefit

Eligibility

Municipal:

Not applicable.

Uniformed (Plans A and B):

In the event of the death of a uniformed employee during the performance of his or her duties, a service-connected health care benefit may be payable to the surviving spouse and dependent children. Regular payments will be made of the appropriate cost of maintaining medical, dental, optical and pharmaceutical prescription benefits in force at the time of the employee's death. Payments to the spouse cease upon remarriage and to dependent children at age 18 (age 22 if a full-time student) or, if dependent due to physical or mental infirmity, the duration of the infirmity. The health care benefits are not paid from the pension trust assets.

Elected:

Not applicable.

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18. Deferred Retirement Option Plan (DROP)

Eligibility

Municipal:

Employees that have 10 years of service and reached the minimum retirement age may elect to participate in the DROP. During this time, their accrued benefit will go into a DROP account and will earn interest at a specified rate (4.5% as of July 1, 2008). The benefit is calculated as of the date they entered the DROP. At the end of the DROP, the employees' accrued monthly benefit will commence, plus they will receive the accumulated amount of the accrued benefit paid to the DROP, as well as the interest earned on such benefit.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

APPENDIX D
GLOSSARY OF TERMS

1. Actuarial Liability

The Actuarial Liability is the difference between the present value of all future system benefits and the present value of total future normal costs. This is also referred to by some actuaries as the “accrued liability” or “actuarial liability.”

2. Actuarial Assumptions

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

3. Accrued Service

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

4. Actuarial Equivalent

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

5. Actuarial Funding Method

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of a retirement system benefit between future normal cost and actuarial accrued liability. Sometimes this is referred to as the “actuarial funding method.”

6. Actuarial Gain (Loss)

The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

7. Actuarial Present Value

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

**APPENDIX D
GLOSSARY OF TERMS**

8. Amortization

This term represents the paying off an interest-discounted amount with periodic payments of interest and principal—as opposed to paying off with a lump sum payment.

9. Annual Required Contribution (ARC) under GASB 25

The Governmental Accounting Standards Board (GASB) Statement No. 25 defines the Plan Sponsor’s “Annual Required Contribution” (ARC) that must be disclosed annually and is defined in accordance with the City’s funding policy.

10. Normal Cost

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

11. Unfunded Actuarial Liability (UAL)

The difference between actuarial liability and valuation assets. This is sometimes referred to as “unfunded actuarial accrued liability.”

Most retirement systems have unfunded actuarial liabilities. They typically arise each time new benefits are added and each time experience gains/losses are realized.

The existence of unfunded actuarial accrued liability is not in itself an indicator of poor funding. Also, unfunded actuarial liabilities do not represent a debt that is payable today. What is important is the ability of the plan sponsor to contribute the annual amortized cost to fund down the unfunded actuarial liability and the trend in unfunded actuarial liability amount.