

**City of Philadelphia
Municipal Retirement System**

**July 1, 2007
Actuarial Valuation**

Produced by [Cheiron](#)

March 2008

Table of Contents

Letter of Transmittal	i
Section I – Board Summary	1
Section II – Assets	14
Section III – Liabilities	22
Section IV – Contributions and Minimum Municipal Obligation	35
Section V – Accounting Statement Information	48
Appendix A – Membership Information	54
Appendix B – Actuarial Assumptions and Methods	75
Appendix C – Summary of Plan Provisions	80
Appendix D – Glossary of Terms	102

LETTER OF TRANSMITTAL

April 4, 2008

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, 2007 actuarial valuation of the City of Philadelphia Municipal Retirement System. This is Cheiron’s first valuation report for the City. 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 decreased from \$3.915 billion as of July 1, 2006 to \$3.775 billion as of July 1, 2007.
- *Funding Ratio:* This is the ratio of the System’s AVA to AL. The funding ratio increased from 51.6% as of July 1, 2006 to 53.9% as of July 1, 2007.
- *Contribution under the City’s Funding Policy:* The recommended beginning-of-year contribution under the City’s funding policy decreased from \$517.9 million for FY 2008 to an estimated \$514.5 million for FY 2009.
- *Minimum Municipal Obligation (MMO):* The MMO is the required minimum amount the City must contribute under Pennsylvania state law. The MMO increased from \$412.4 million for FY 2008 to \$438.5 million for FY 2009.

Table I-1 Key Results (\$ thousands)		
Valuation Date	7/1/2007	7/1/2006
Unfunded Actuarial Liability	\$ 3,775,476	\$ 3,915,200
Funding Ratio	53.9%	51.6%
Fiscal Year	2009	2008
City's Funding Policy*	\$ 514,493	\$ 517,884
Minimum Municipal Obligation	438,522	412,448

* The FY 2009 amount is based on estimated July 1, 2008 annual payroll. The final contribution will be based on actual payroll.



These results are based on the same actuarial assumptions and methods used in the July 1, 2006 valuation, which was performed by Mercer Human Resource Consulting. The detailed assumptions and methods are found in Appendix B. All results presented as of July 1, 2006 are based on the valuation report prepared by the prior actuary. In our valuation process we replicated their results within generally accepted margins, but we do not certify the results presented for July 1, 2006 for our comparisons.

We do certify that, to the best of our knowledge, the results of this report as of July 1, 2007 are 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 set out by the Actuarial Standards Board and Actuarial Standards of Practice (ASOPs) Nos. 4, 27 and 35. As such, it reflects the actuary's responsibility under Section 5.8 of ASOP No. 4 "for assessing the implications of the overall results, in terms of short- and long-range benefit security and expected cost progression."

In preparing our report, we relied without audit, on information supplied by the Retirement System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information.

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. However, the use of these assumptions and methodologies for the July 1, 2007 actuarial valuation do not appear to expose the Retirement System to unsound financial risk at this time.

Sincerely,
Cheiron



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



Christian Benjaminson, ASA, EA, MAAA
Actuary

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 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 2009, 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, 2007 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

This valuation is the first Cheiron has performed for the City of Philadelphia Municipal Retirement System. As stated in the letter of transmittal, the June 30, 2007 valuation results are based on the same actuarial assumptions used in the June 30, 2006 valuation, prepared by your prior actuary. All results presented as of July 1, 2006 are based on the valuation report prepared by the prior actuary. In our valuation process we replicated their results within generally accepted margins, but we do not certify the results presented for July 1, 2006 for our comparisons.

As Cheiron's first valuation report for the City, 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 decreased from \$3.915 billion as of July 1, 2006 to \$3.775 billion as of July 1, 2007.
- *Funding Ratio:* This is the ratio of the System's AVA to AL. The funding ratio increased from 51.6% as of July 1, 2006 to 53.9% as of July 1, 2007.
- *Contribution under the City's Funding Policy:* The recommended beginning-of-year contribution under the City's funding policy decreased from \$517.9 million for FY 2008 to an estimated \$514.5 million for FY 2009.
- *Minimum Municipal Obligation (MMO):* The MMO is the required minimum amount the City must contribute under Pennsylvania state law. The MMO increased from \$412.4 million for FY 2008 to \$438.5 million for FY 2009.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

B. Current Financial Condition

On the following pages, we summarize the key results of the July 1, 2007 valuation and how they compare to the results from the July 1, 2006 valuation.

1. City membership:

As shown in Table I-2 below, total membership in the Retirement System increased by 1.2% from 2006 to 2007. The average salary per active member increased by 1.2%, which is below the assumed 5.0% salary scale.

Table I-2 Membership Total				
	July 1, 2007	July 1, 2006	% Change	
Actives	28,354	28,017	1.2%	
Terminated Vesteds	1,301	809	60.8%	
Disabled	4,384	4,439	-1.2%	
Retirees	20,448	19,853	3.0%	
Beneficiaries	8,593	8,637	-0.5%	
DROP	2,102	2,625	-19.9%	
Total City Members	65,182	64,380	1.2%	
Annual Salaries	\$ 1,351,826,215	\$ 1,319,431,076	2.5%	
Average Salary per Active Member	47,677	47,094	1.2%	
Annual Retirement Allowances	\$ 559,777,176	\$ 532,052,278	5.2%	
Average Retirement Allowance	16,747	16,158	3.6%	

Two significant changes in plan membership should be noted. First, the large increase in terminated vested participants reflects the conversion of records to electronic files for valuation measurement. The second item to note is the decrease in DROP membership which is an expected reflection of demographics; similar declines are expected going forward.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

2. City assets and liabilities

Table I-3 presents a comparison between the July 1, 2007 and July 1, 2006 System assets, liabilities, UAL, and funding ratios. Of note is the increase in the Funding Ratio from 51.6% as of July 1, 2006 to **53.9%** as of July 1, 2007

Table I-3 Assets and Liabilities (\$ thousands)			
	July 1, 2007	July 1, 2006	% Change
Actives	\$ 2,761,320	\$ 2,731,484	1.1%
Terminated Vesteds	104,467	65,196	60.2%
Disabled	605,573	602,784	0.5%
Retirees	3,443,250	3,243,723	6.2%
Beneficiaries	451,236	442,936	1.9%
DROP	825,910	991,848	-16.7%
Non-Vested Refunds	5,453	5,696	-4.3%
Total Actuarial Liability	\$ 8,197,209	\$ 8,083,667	1.4%
Market Value of Assets (net of PAF)	\$ 4,850,884	\$ 4,315,593	12.4%
Actuarial Value of Assets (net of PAF)	4,421,734	4,168,467	6.1%
Unfunded Actuarial Liability	\$ 3,775,476	\$ 3,915,200	-3.6%
Funding Ratio	53.9%	51.6%	2.3%

It is also notable that while the market value of assets increased by 12.4%, because the experience gains from investments is spread over a four-year period and prior investment returns were less than the 8.75% expected return, the growth in the actuarial value of assets was only 6.1%.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

3. Components of UAL change between July 1, 2006 and July 1, 2007:

The Retirement System's unfunded actuarial liability decreased by \$139.7 million, from \$3,915.2 million as of July 1, 2006 to \$3,775.5 million as of July 1, 2007. Table I-5 below presents the specific components of this change in the UAL.

The System experienced a \$65.0 million investment gain and a \$25.7 million liability gain. There was a \$51.2 million loss due to FY 2007 contributions being less than expected under the City's funding policy.

Table I-4		
Change in Unfunded Actuarial Liability		
(\$ millions)		
Experience		
1. UAL change due to investment (gain)/loss	\$	(65.0)
2. UAL change due to overall liability (gain)/loss		(25.7)
Contributions		
3. UAL change due to contributions less than expected	\$	51.2
Total		
4. Total net overall (gain)/loss: sum 1 through 3	\$	(39.5)
5. Expected change in UAL		(100.2)
6. Total change in UAL: 4 + 5		(139.7)

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

4. City contributions:

The contribution under the City's Funding Policy for Fiscal Year 2009, measured as of the beginning of the year, decreased by 1.72% of payroll, from 38.31% to 36.59%. In dollar terms, the required beginning of the year contribution decreased from \$517.9 million to \$514.4 million.

The Minimum Municipal Obligation for Fiscal Year 2009 measured as of the beginning of the year, increased by 1.13% of payroll, from 30.06% to 31.19%. In dollar terms, the required beginning of year contribution increased from \$412.4 million to \$438.5 million.

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

Table I-5 Contributions				
Fiscal Year	2009	% of Pay	2008	% of Pay
City's Funding Policy*				
Estimated FY Payroll	\$ 1,405,899		\$ 1,351,826	
Normal Cost (with Expenses)	\$ 127,858	9.09%	\$ 124,134	9.18%
Employee Contributions	(48,894)	3.48%	(47,445)	3.51%
City Normal Cost	78,964	5.62%	76,689	5.67%
Amortization Payment	435,529	30.98%	441,194	32.64%
City's Funding Policy	\$ 514,493	36.60%	\$ 517,884	38.31%
Minimum Municipal Obligation				
Estimated FY Payroll	\$ 1,405,899		\$ 1,372,208	
Normal Cost (with Expenses)	\$ 127,858	9.09%	\$ 126,013	9.18%
Employee Contributions	(48,894)	3.48%	(48,161)	3.51%
City Normal Cost	78,964	5.62%	77,852	5.67%
Amortization Payment	359,558	25.57%	334,596	24.38%
Minimum Municipal Obligation	438,522	31.19%	412,448	30.06%

* Assuming beginning-of-year payment.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

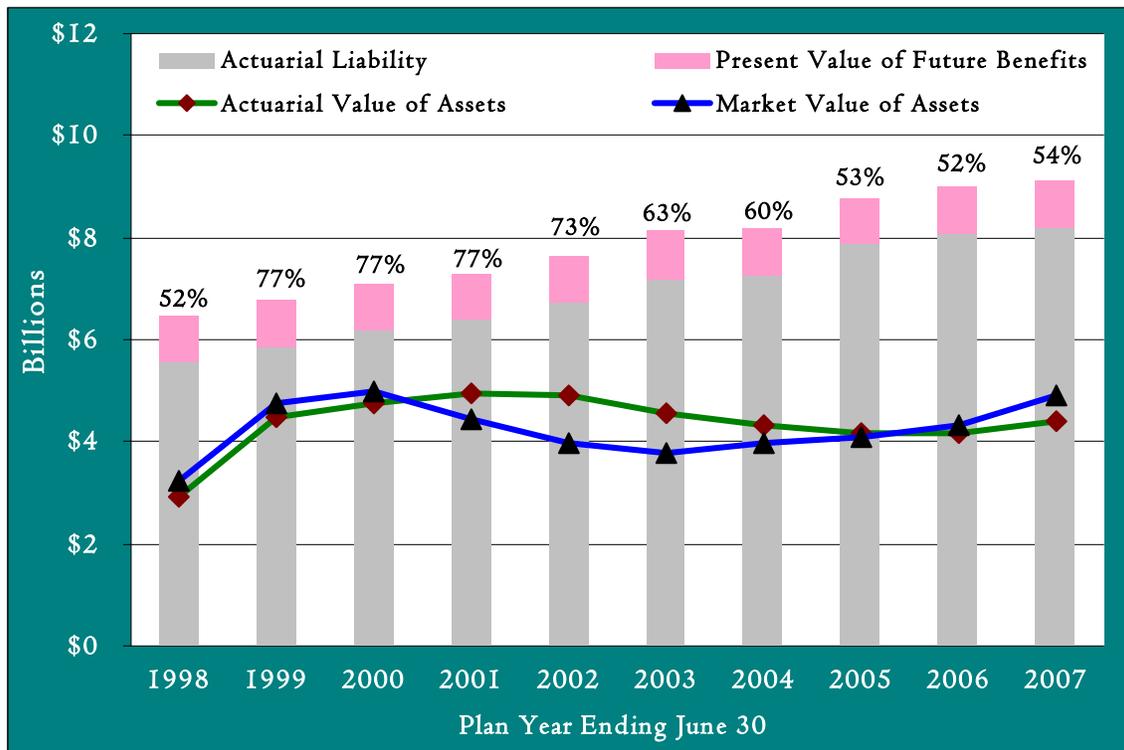
**SECTION I
BOARD SUMMARY**

C. Historical Trends

Even though 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 1998.

City of Philadelphia Assets and Liabilities – 1998 to 2007



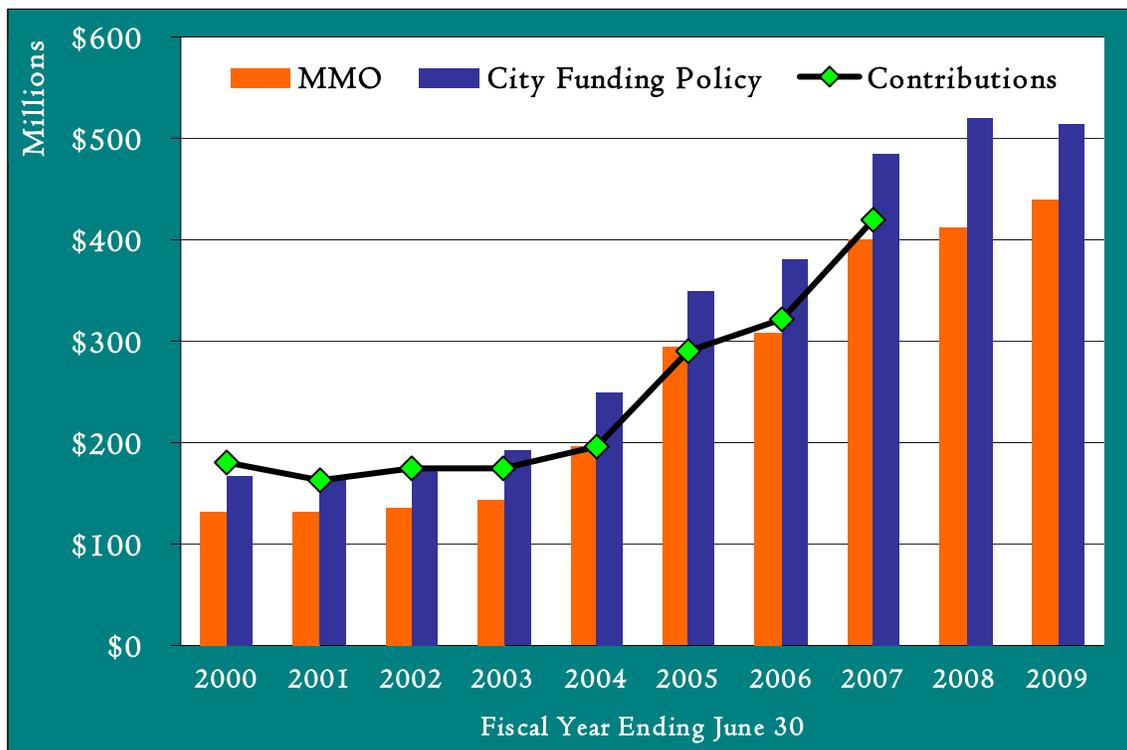
The System's funding ratio has declined significantly in recent years. In 2007, the funding ratio increased for the first time since 1999, primarily due to strong asset performance.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

SECTION I
BOARD SUMMARY

In the chart below, 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 2000. 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 2008 and 2009.

City of Philadelphia Contributions for Fiscal Years 2000-2009



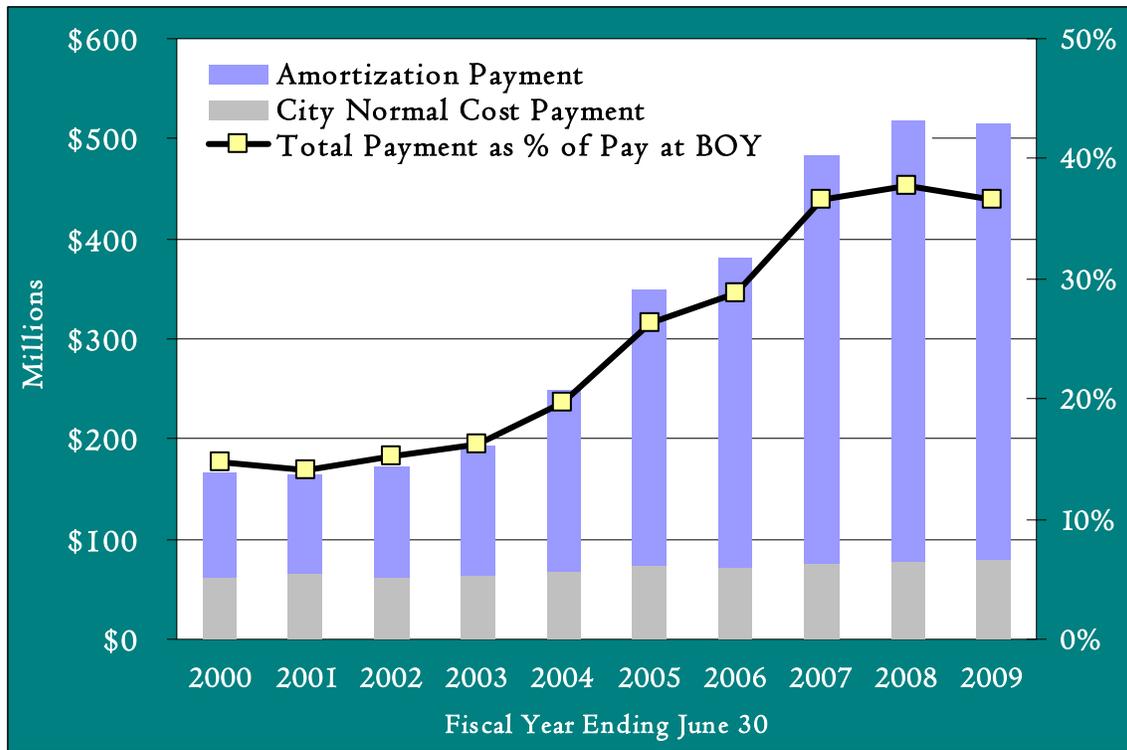
The key trend illustrated in this chart is the rapid escalation in all three measures starting in FY 2004, when the City began to contribute based on the MMO rather than on its traditional funding policy. The chart also shows that the computed funding policy contribution dropped from FY 2008 to FY 2009, whereas the MMO increased. This trend is expected to continue into the future, but may be stalled or reversed if the City decides to contribute the MMO in the future.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

SECTION I
BOARD SUMMARY

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.

Funding Policy Contributions by Source for Fiscal Years 2000-2009



The chart shows 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 2000 to over \$400 million for FY 2009. Furthermore, the total payment as a percentage of payroll is now nearly 40%, up from less than 15% in FY 2000. However, both the amortization payment and the total payment as a percentage of payroll decreased from the amount due in FY 2008 to the amount due in FY 2009.

**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, 2007 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 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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Return	3.0%	8.0%	12.0%	16.0%	14.0%	11.0%	8.0%	6.0%	1.0%	-4.0%
Fiscal Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Return	0.0%	4.0%	7.0%	8.0%	12.0%	16.0%	20.0%	16.0%	11.5%	

Unless otherwise stated, we assume the future City contributions will be in accordance with the funding policy.

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 gold lines) compared to liabilities (grey and pink bars). At the top of each chart is the progression of the System's funding ratios which compares the actuarial value of assets (gold 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 ratios.

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

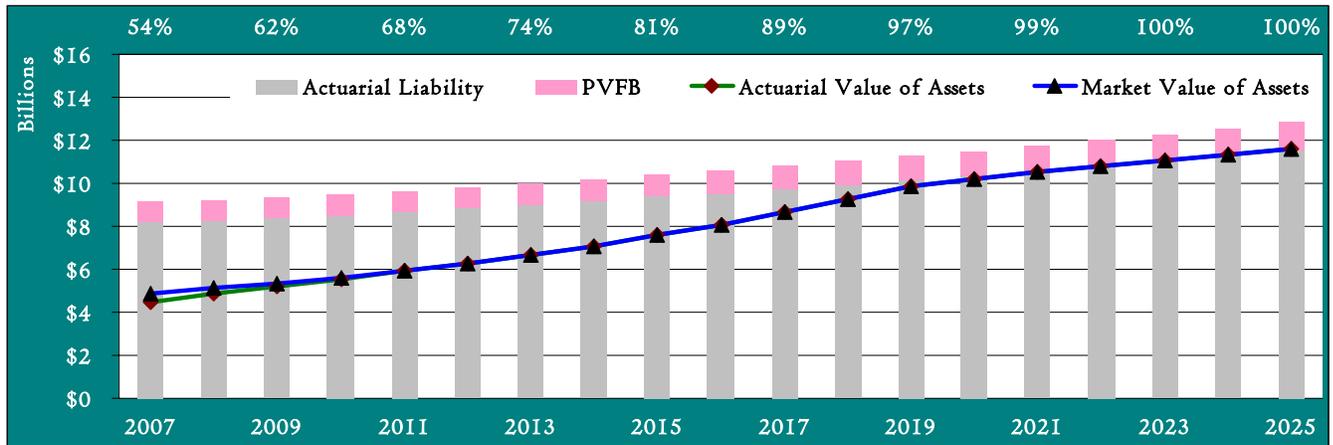


Chart 2: Projection of Assets and Liabilities, varying returns averaging 8.75%

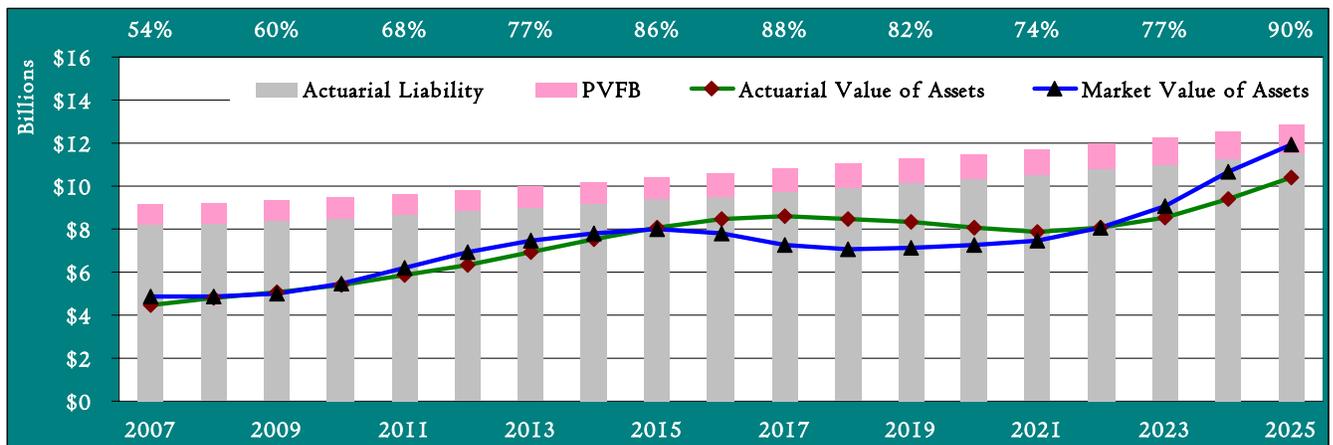
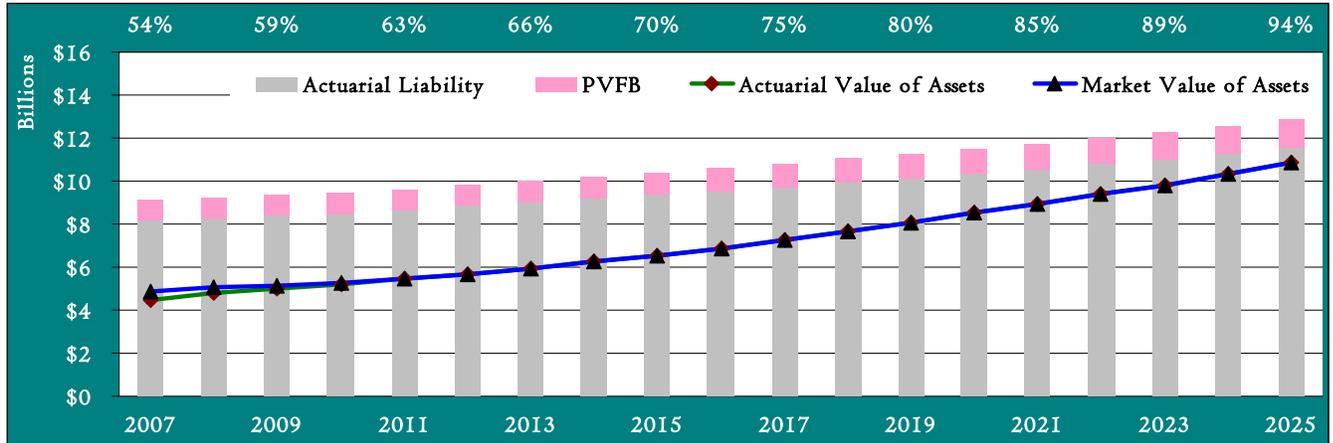


Chart 2 demonstrates how while achieving a long-term return rate of 8.75%, the funding ratio can be adversely impacted by volatile returns year by year. This component of funding risk is driven by negative cash flows (where benefit payments and expenses are greater than contributions). When a mature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

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

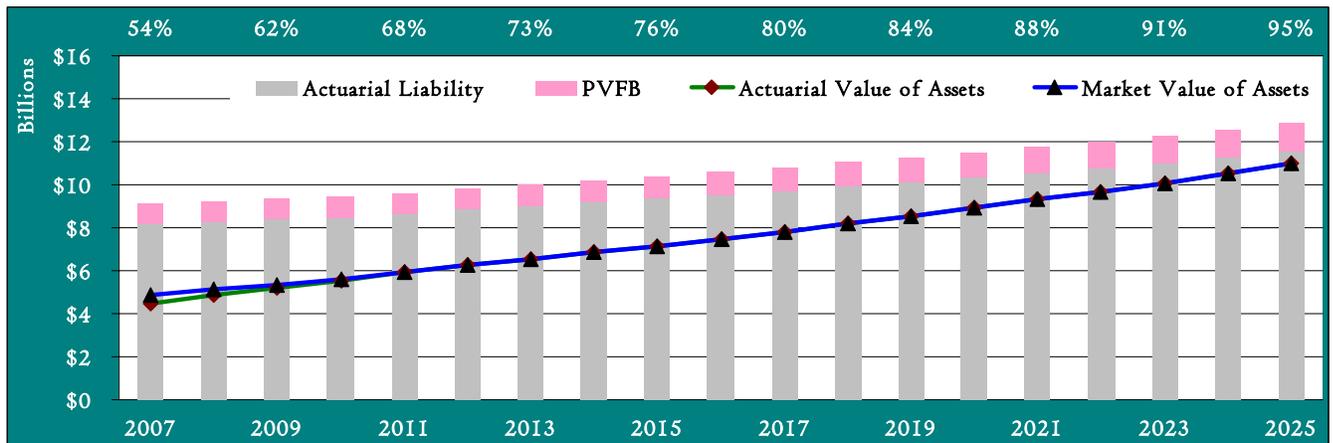
**SECTION I
BOARD SUMMARY**

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



Under this scenario the System does not reach full funding during the projection period. This is compared to full funding being achieved by year 2022 if the City makes contributions based on the Funding Policy (Chart 1).

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



SECTION I
 BOARD SUMMARY

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

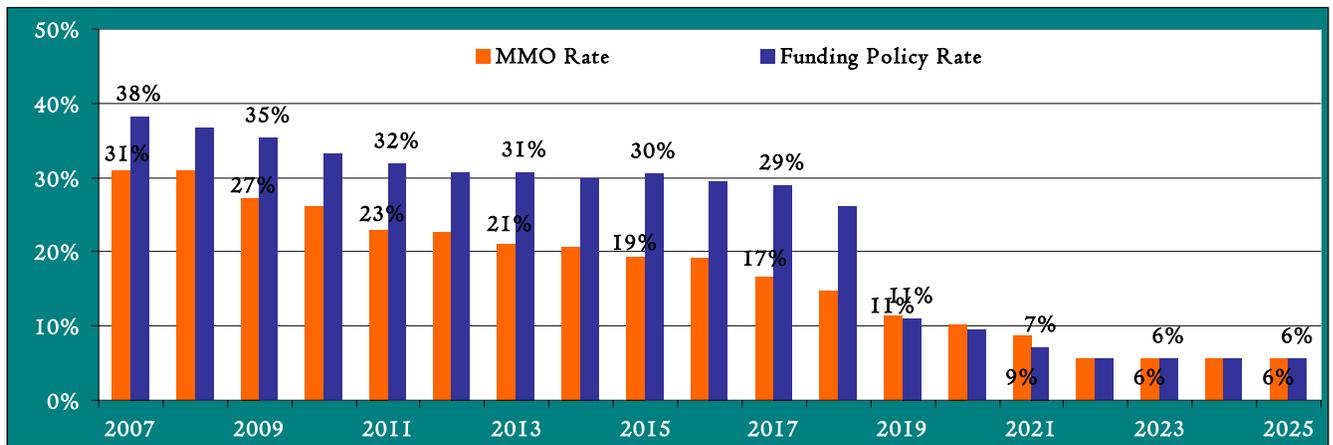
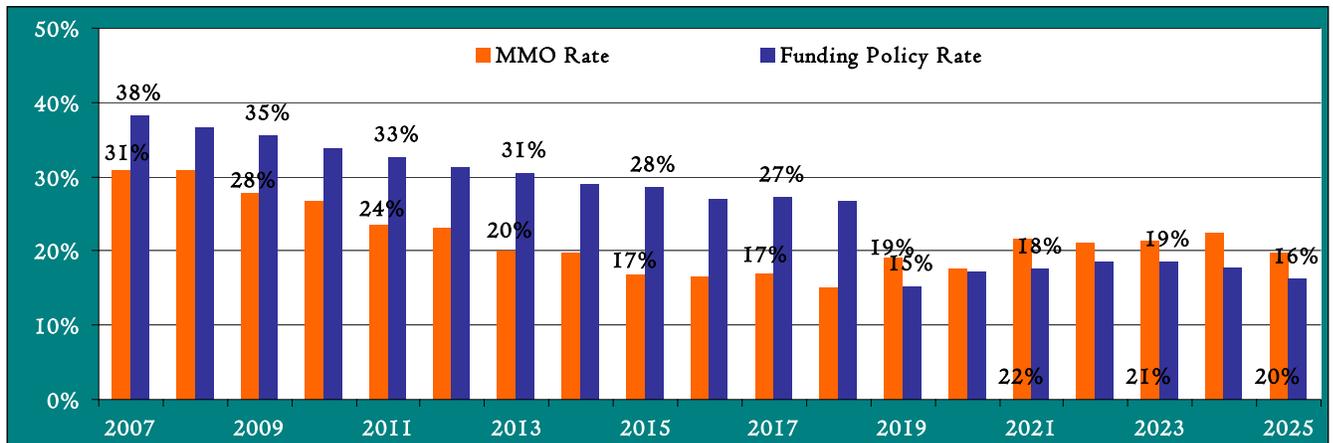


Chart 6: Projection of City Contributions, varying returns averaging 8.75%



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

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION I
BOARD SUMMARY**

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.

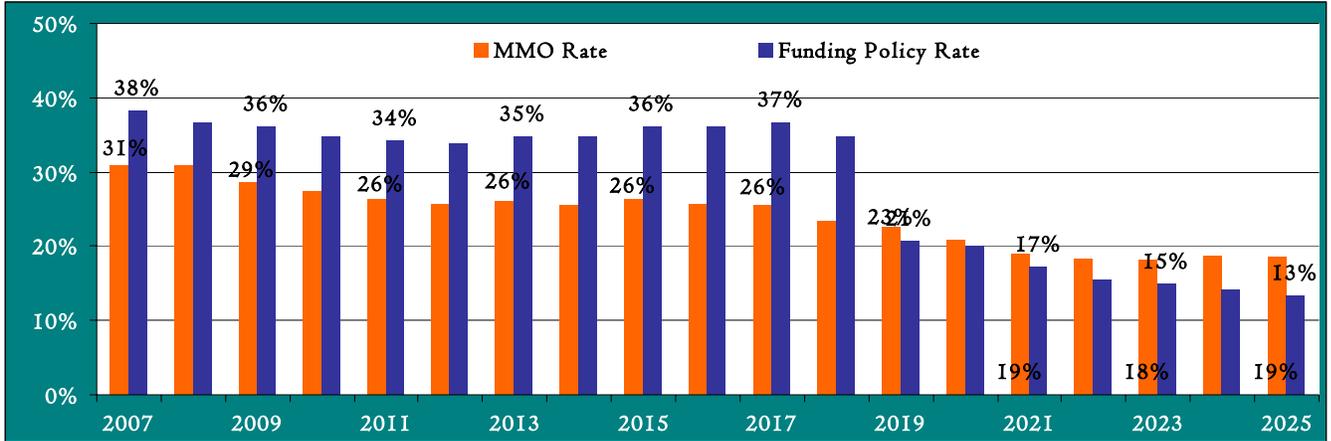
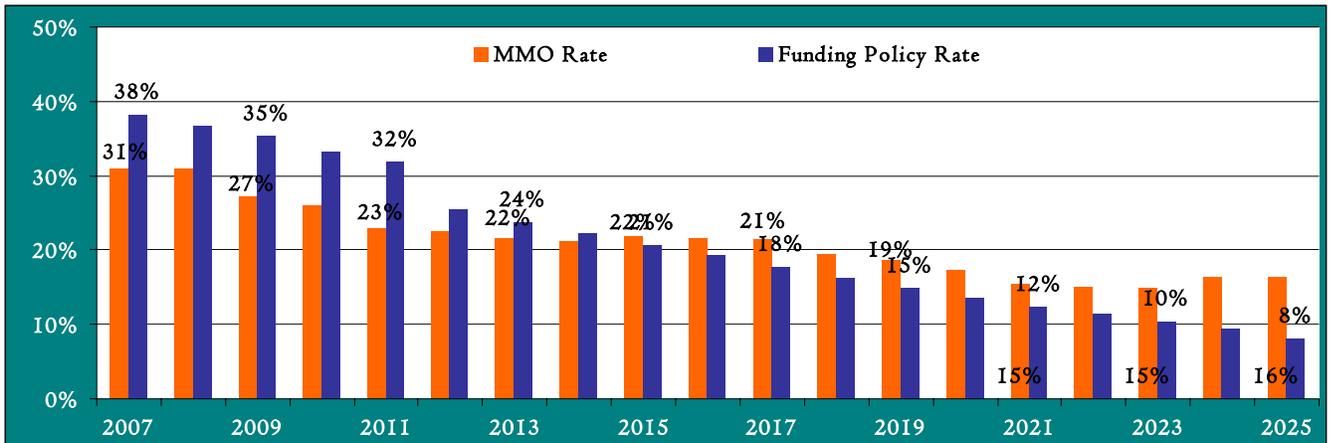


Chart 8: Projection of City Contributions, 8.75% return each year, and application of rolling 10-year amortization once the Fund is 70% funded

Under Act 205, if the plan is 70% funded or higher, the City can adopt the policy of annually reamortizing the unfunded liability over 10 years. 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. The actuarial value of assets is a value that smooths annual investment return performance over multiple years to reduce annual investment volatility, and is used in determining contribution levels.

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

- Disclosure of assets at July 1, 2006 and July 1, 2007,
- 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, 2007, and
- Disclosure of investment performance for the year.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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 of System assets as of July 1, 2006 and July 1, 2007. Table II-2 discloses the System’s net cash flows for the plan year beginning July 1, 2006 and ending June 30, 2007. Tables II-3 and II-4 disclose Fiscal 2007 City contributions and administrative expenses, respectively.

Table II-1		
Statement of Assets at Market Value		
	7/1/2007	7/1/2006
<u>Assets</u>		
Cash	\$ 46,108,182	\$ 21,931,505
Investments	4,909,719,150	4,349,089,071
Securities Lending	443,072,876	404,307,762
Accounts Receivable	3,652,018	4,077,069
Due from Brokers	72,682,026	29,625,495
Interest and Dividends Receivable	9,277,796	7,377,285
Due from Other Governmental Units	5,157,886	3,513,290
Total Assets	\$ 5,489,669,934	\$ 4,819,921,477
<u>Liabilities</u>		
Vouchers Payable	\$ 103,554	\$ 30,238
Accounts Payable	3,704,007	4,290,750
Salaries and Wages Payable	126,509	109,716
Due on Securities Lending	443,072,876	404,307,762
Due to Brokers	139,569,581	90,676,821
Accrued Expenses	1,074,659	1,165,356
Deferred Revenue	1,971,243	2,227,796
Monies Held in Escrow	376,989	-
Other Liabilities	315,395	526,792
Total Liabilities	\$ 590,314,813	\$ 503,335,230
Net Assets	\$ 4,899,355,121	\$ 4,316,586,247

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION II
ASSETS**

B. System Cash Flows for the Year July 1, 2006 through July 1, 2007

Table II-2 Changes in Market Values		
Value of Assets – July 1, 2006		\$ 4,316,586,247
<u>Additions</u>		
Contributions:		
Employer Contributions	\$ 432,267,154	
Employee Contributions	49,179,796	
Total Contributions	\$ 481,446,951	
Investment Income:		
Gain/(Loss) from Sale of Investments	\$ 701,730,084	
Interest and Dividends	80,310,939	
Total Investment Income	782,041,023	
Investment Activity Expenses:		
Investment Expenses	\$ (17,126,785)	
Total Investment Activity Expenses	(17,126,785)	
Securities Lending Activities:		
Securities Lending Income	\$ 21,836,851	
Securities Lending Expenses	(20,758,342)	
Net Income from Securities Lending Activities	1,078,509	
Net Investment Income		\$ 765,992,747
Miscellaneous Operating Revenues		\$ 1,963,034
Total Additions		\$ 1,249,402,733
<u>Deductions</u>		
Administrative Expenses	\$ (6,530,395)	
Withdrawal Refunds	(4,474,385)	
Benefit Payments	(655,629,079)	
Total Deductions	\$ (666,633,859)	
<u>Total</u>		
Net Increase (Decrease)		\$ 582,768,874
Value of Assets – July 1, 2007		4,899,355,121

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

SECTION II
ASSETS

Cash Received, July 20, 2006	\$	400,534,000
Cash Received, September 13, 2007		18,706,948
Quasi-Agencies		
Cash Received		8,141,593
Accrued as of June 30, 2007		<u>4,884,614</u>
Total	\$	432,267,154

Personal Services	\$	3,626,245
Purchase of Services		1,183,273
Materials and Supplies		104,065
Employer's Share of Fringe Benefits		1,562,070
Miscellaneous		<u>54,742</u>
Total	\$	6,530,395

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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 the resulting volatility on contributions.

Table II-5 Development of Actuarial Value of Assets as of July 1, 2007					
Market Value of Assets as of July 1, 2007					
	\$				4,899,355,121
Pension Adjustment Fund (PAF) as of July 1, 2007					
Before Additional Transfers					
	\$				1,173,012
Market Value of Assets Net of PAF					
	\$				4,898,182,109
Plan Year	Investment Gains / (Losses)	Percent Recognized	Percent Deferred	Amount Deferred	
2002	\$ (282,744,547)	100%	0%	\$ -	
2003	265,309,761	80%	20%	53,061,952	
2004	30,013,180	60%	40%	12,005,272	
2005	99,429,256	40%	60%	59,657,554	
2006	380,531,307	20%	80%	304,425,046	
Total				\$ 429,149,824	
Preliminary Actuarial Value as of July 1, 2007					
	\$				4,469,032,285
Corridor for Actuarial Value					
80% of Market Value Net of PAF					
	\$				3,918,545,687
120% of Market Value Net of PAF					
					5,877,818,531
Additional PAF Transfer as of July 1, 2007					
	\$				47,298,578
Actuarial Value of Assets Net of PAF as of July 1, 2007					
	\$				4,421,733,707
- as a percent of Market Value Net of PAF					
					90.3%

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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-6								
Allocation of Assets for Valuation Purposes Between Plans as of July 1, 2007								
(\$ thousands)								
	1967 Plan			1987 Plan				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Actuarial Value of Assets as of July 1, 2006	\$ 1,995,978	\$ 872,120	\$ 408,771	\$ 413,048	\$ 11,851	\$ 374,305	\$ 92,393	\$ 4,168,467
2. Transactions During Plan Year July 1, 2006 to June 30, 2007								
a. Contributions								
City and Commonwealth Employees	\$ 189,035	\$ 132,780	\$ 43,227	\$ 25,587	\$ 243	\$ 22,264	\$ 6,105	\$ 419,241
Quasi-Public Agencies	12,521	4,845	2,428	11,709	157	13,532	3,988	49,180
b. Misc. Income & Expenses	13,026	-	-	-	-	-	-	13,026
c. Benefit Payments	1,256	336	161	101	1	82	27	1,963
d. Withdrawals	(354,205)	(201,721)	(84,649)	(6,922)	(390)	(6,110)	(1,631)	(655,629)
e. Administrative Expenses	(1,157)	(291)	(169)	(1,830)	(1)	(867)	(160)	(4,474)
f. Net Transactions	(2,856)	(1,146)	(415)	(1,448)	(4)	(515)	(145)	(6,530)
f. Net Transactions	\$ (142,381)	\$ (65,198)	\$ (39,417)	\$ 27,197	\$ 6	\$ 28,385	\$ 8,183	\$ (183,224)
3. Total Fund Balance Prior to Allocation of Investment Income [1. + 2f.]	\$ 1,853,597	\$ 806,922	\$ 369,354	\$ 440,245	\$ 11,857	\$ 402,691	\$ 100,576	\$ 3,985,243
4. Investment Income During Plan Year July 1, 2006 to June 30, 2007	\$ 203,018	\$ 88,380	\$ 40,454	\$ 48,219	\$ 1,299	\$ 44,105	\$ 11,016	\$ 436,491
5. Actuarial Value of Assets as of July 1, 2007 [3. + 4.]	\$ 2,056,616	\$ 895,302	\$ 409,809	\$ 488,464	\$ 13,156	\$ 446,796	\$ 111,592	\$ 4,421,734

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION II
ASSETS**

E. Development of the Pension Adjustment Fund as of July 1, 2007

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-7 Development of the Pension Adjustment Fund as of July 1, 2007		
1.	PAF on July 1, 2006	\$ 992,983
2.	Market Value Asset Return Through June 30, 2007	18.13%
3.	PAF on July 1, 2007 Before Additional Transfers =(1) x [1 + (2)]	\$ 1,173,012
4.	Preliminary Actuarial Asset Value Through June 30, 2007	\$ 4,469,032,285
5.	Actuarial Asset Value Return Through June 30, 2007	11.87%
6.	Return in Excess of Investment Assumption Plus 1.0%, Limited to 5.0% =(5) - [8.75% + 1.00%]	2.12%
7.	Additional Transfer as of July 1, 2007 =50% of (6) x (4)	\$ 47,298,578
8.	Total PAF as of July 1, 2007 = (3) + (7)	\$ 48,471,590

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION II
ASSETS**

F. Investment Performance

The market value of assets internal rate of return (net of PAF) was 16.98% for the year ending July 1, 2007. This is compared to an assumed return of 8.75%. The return for the year ending July 1, 2006 was 11.34%.

On an actuarial value of assets basis (net of PAF), the return for FY 2007 was 10.71%. This return produced an overall investment gain of \$65.0 million for the year ending July 1, 2007. Last year the actuarial value basis returned 6.10% due to the five-year smoothing method.

Year Ending June 30,	Market Value *	Actuarial Value *	Total Return Standard & Poor's 500 Index	Lehman Brothers 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%

* Net of PAF

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, 2006 and July 1, 2007, and
- Statement of changes in these liabilities during the year.

A. Disclosure

Several 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.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-1 shows the present value of future benefits, actuarial liability, and unfunded actuarial liability as of July 1, 2007, and July 1, 2006, for the Retirement System.

Table III-1		
Disclosure of Liabilities		
(\$ thousands)		
	July 1, 2007	July 1, 2006
Present Value of Future Benefits		
Actives	\$ 3,676,057	\$ 3,633,976
Terminated Vesteds	104,467	65,196
Disabled	605,573	602,784
Retirees	3,443,250	3,243,723
Beneficiaries	451,236	442,936
DROP	825,910	991,848
Non-Vested Refunds	5,453	<u>5,696</u>
Total City PVFB	\$ 9,111,945	\$ 8,986,159
Actuarial Liability		
Actives	\$ 2,761,320	\$ 2,731,484
Terminated Vesteds	104,467	65,196
Disabled	605,573	602,784
Retirees	3,443,250	3,243,723
Beneficiaries	451,236	442,936
DROP	825,910	991,848
Non-Vested Refunds	<u>5,453</u>	<u>5,696</u>
Total City AL	\$ 8,197,209	\$ 8,083,667
Actuarial Value of Assets	<u>(4,421,734)</u>	<u>(4,168,467)</u>
Unfunded Actuarial Liability	\$ 3,775,476	\$ 3,915,200

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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, 2007								
(\$ thousands)								
	1967 Plan			1987 Plan			Total	
	Municipal	Police	Fire	Municipal	Elected	Police		
Present Value of Future Benefits								
Actives	\$ 1,339,111	\$ 454,232	\$ 194,084	\$ 706,060	\$ 9,467	\$ 764,242	\$ 208,861	\$ 3,676,057
Terminated Vesteds	77,055	1,983	-	17,693	-	5,999	1,738	104,467
Disabled	230,739	253,383	63,060	14,735	-	37,705	5,951	605,573
Retirees	1,828,318	1,128,016	443,199	33,094	2,910	5,645	2,067	3,443,250
Beneficiaries	258,314	129,870	50,624	5,085	480	4,576	2,286	451,236
DROP	525,126	151,615	125,449	16,860	4,699	1,639	521	825,910
Non-Vested Refunds	1,976	161	54	2,667	-	452	144	5,453
Total PVFB	\$ 4,260,638	\$ 2,119,260	\$ 876,471	\$ 796,194	\$ 17,556	\$ 820,257	\$ 221,567	\$ 9,111,945
Actuarial Liability								
Actives	\$ 1,174,871	\$ 392,544	\$ 170,818	\$ 461,766	\$ 8,551	\$ 441,710	\$ 111,061	\$ 2,761,320
Terminated Vesteds	77,055	1,983	-	17,693	-	5,999	1,738	104,467
Disabled	230,739	253,383	63,060	14,735	-	37,705	5,951	605,573
Retirees	1,828,318	1,128,016	443,199	33,094	2,910	5,645	2,067	3,443,250
Beneficiaries	258,314	129,870	50,624	5,085	480	4,576	2,286	451,236
DROP	525,126	151,615	125,449	16,860	4,699	1,639	521	825,910
Non-Vested Refunds	1,976	161	54	2,667	-	452	144	5,453
Total AL	\$ 4,096,398	\$ 2,057,572	\$ 853,205	\$ 551,900	\$ 16,641	\$ 497,726	\$ 123,767	\$ 8,197,209
Actuarial Value of Assets	(2,056,616)	(895,302)	(409,809)	(488,464)	(13,156)	(446,796)	(111,592)	(4,421,734)
Unfunded Actuarial Liability	\$ 2,039,783	\$ 1,162,270	\$ 443,396	\$ 63,436	\$ 3,485	\$ 50,930	\$ 12,175	\$ 3,775,476

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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.

	1967 Plan			1987 Plan				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Retirement	\$ 16,251	\$ 9,078	\$ 3,804	\$ 18,569	\$ 148	\$ 25,061	\$ 7,804	\$ 80,715
Death	991	385	180	1,752	14	1,091	380	4,793
Disability	2,341	806	311	3,894	18	2,773	784	10,927
Termination	5,661	766	304	9,714	75	2,212	571	19,305
Administrative Expenses	3,050	1,232	441	1,679	4	608	186	7,200
Total Normal Cost	\$ 28,295	\$ 12,266	\$ 5,040	\$ 35,609	\$ 259	\$ 31,745	\$ 9,727	\$ 122,940
Expected Employee Contributions	\$ 11,242	\$ 4,730	\$ 1,963	\$ 10,664	\$ 160	\$ 14,085	\$ 4,170	\$ 47,013
City Normal Cost	\$ 17,053	\$ 7,537	\$ 3,077	\$ 24,944	\$ 99	\$ 17,660	\$ 5,556	\$ 75,927
Current Annual Payroll	\$ 299,776	\$ 78,827	\$ 32,714	\$ 573,344	\$ 2,061	\$ 281,697	\$ 83,407	\$ 1,351,826
City Normal Cost as % of Pay, Beginning of Year Payment	5.689%	9.561%	9.407%	4.351%	4.803%	6.269%	6.662%	5.617%
City Normal Cost as % of Pay, End of Year Payment	6.186%	10.397%	10.230%	4.731%	5.224%	6.818%	7.244%	6.108%

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Table III-4 shows changes in the unfunded actuarial liability from July 1, 2006 to July 1, 2007 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, 2007 to July 1, 2008.

**Table III-4
Expected Unfunded Actuarial Liability for the Plan Year Ending June 30, 2008
(\$ thousands)**

	1967 Plan			1987 Plan				Total
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation	\$ 2,027,131	\$ 1,179,047	\$ 451,859	\$ 62,180	\$ 2,741	\$ 76,450	\$ 15,582	\$ 3,814,990
2. Changes in UAL due to								
a. Actuarial Experience	\$ 12,651	\$ (16,777)	\$ (8,463)	\$ 1,256	\$ 744	\$ (25,520)	\$ (3,407)	\$ (39,514)
b. Assumption Changes	-	-	-	-	-	-	-	-
c. Active Plan Changes	-	-	-	-	-	-	-	-
d. Inactive Plan Changes	-	-	-	-	-	-	-	-
e. Subtotal	\$ 12,651	\$ (16,777)	\$ (8,463)	\$ 1,256	\$ 744	\$ (25,520)	\$ (3,407)	\$ (39,514)
3. Actual UAL as of July 1, 2007 [1. + 2e.]	\$ 2,039,783	\$ 1,162,270	\$ 443,396	\$ 63,436	\$ 3,485	\$ 50,930	\$ 12,175	\$ 3,775,476
4. Expected Changes in UAL from July 1, 2007 to July 1, 2008 due to								
a. Interest on Changes in UAL	\$ 1,107	\$ (1,468)	\$ (740)	\$ 110	\$ 65	\$ (2,233)	\$ (298)	\$ (3,457)
b. FY 2008 Amortization Contribution	(80,772)	(49,365)	(15,113)	(260)	(88)	(568)	178	(145,987)
c. Subtotal	\$ (79,665)	\$ (50,833)	\$ (15,854)	\$ (150)	\$ (23)	\$ (2,800)	\$ (120)	\$ (149,445)
5. Expected UAL as of July 1, 2008 [3. + 4c.]	\$ 1,960,118	\$ 1,111,437	\$ 427,542	\$ 63,287	\$ 3,462	\$ 48,129	\$ 12,056	\$ 3,626,031

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

Tables III-5a to III-5h show the development of the Fiscal Year 2009 payments toward the unfunded actuarial liability for each Plan in the System.

Table III-5a					
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy					
1967 Plan - Municipal					
(\$ thousands)					
	7/1/2007	7/1/2008	Remaining	FY 2009 Payment	FY 2009 Payment
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation					
a. Dombrowski	\$ 1,878	\$ 978	1	\$ 978	\$ 1,064
b. Remaining	<u>2,025,254</u>	<u>1,945,381</u>		<u>232,880</u>	<u>253,257</u>
c. Subtotal	\$ 2,027,131	\$ 1,946,360		\$ 233,858	\$ 254,320
2. Changes in UAL due to					
a. Actuarial Experience	\$ 12,651	\$ 13,758	15	\$ 1,546	\$ 1,682
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	<u>-</u>	<u>-</u>	15	<u>-</u>	<u>-</u>
e. Subtotal	\$ 12,651	\$ 13,758		\$ 1,546	\$ 1,682
3. Total [1c. + 2e.]	\$ 2,039,783	\$ 1,960,118		\$ 235,404	\$ 256,002

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

**Table III-5b
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
1967 Plan - Police**

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation					
a. Dombrowski	\$ 1,201	\$ 626	1	\$ 626	\$ 680
b. Remaining	<u>1,177,846</u>	<u>1,129,056</u>		<u>141,615</u>	<u>154,006</u>
c. Subtotal	\$ 1,179,047	\$ 1,129,682		\$ 142,240	\$ 154,686
2. Changes in UAL due to					
a. Actuarial Experience	\$ (16,777)	\$ (18,245)	15	\$ (2,051)	\$ (2,230)
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	<u>-</u>	<u>-</u>	15	<u>-</u>	<u>-</u>
e. Subtotal	\$ (16,777)	\$ (18,245)		\$ (2,051)	\$ (2,230)
3. Total [1c. + 2e.]	\$ 1,162,270	\$ 1,111,437		\$ 140,190	\$ 152,456

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

**Table III-5c
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
1967 Plan - Fire**

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation					
a. Dombrowski	\$ 478	\$ 249	1	\$ 249	\$ 271
b. Remaining	451,380	436,496		50,786	55,230
c. Subtotal	\$ 451,859	\$ 436,745		\$ 51,035	\$ 55,501
2. Changes in UAL due to					
a. Actuarial Experience	\$ (8,463)	\$ (9,203)	15	\$ (1,034)	\$ (1,125)
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ (8,463)	\$ (9,203)		\$ (1,034)	\$ (1,125)
3. Total [1c. + 2e.]	\$ 443,396	\$ 427,542		\$ 50,001	\$ 54,376

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

**Table III-5d
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
Plan 87 - Municipal**

(\$ thousands)

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation	\$ 62,180	\$ 61,919		\$ 5,143	\$ 5,593
2. Changes in UAL due to					
a. Actuarial Experience	\$ 1,256	\$ 1,367	15	\$ 154	\$ 167
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 1,256	\$ 1,367		\$ 154	\$ 167
3. Total [1. + 2e.]	\$ 63,436	\$ 63,287		\$ 5,296	\$ 5,760

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

**Table III-5e
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
Plan 87 - Elected**

(\$ thousands)

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation	\$ 2,741	\$ 2,653		\$ 247	\$ 268
2. Changes in UAL due to					
a. Actuarial Experience	\$ 744	\$ 809	15	\$ 91	\$ 99
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ 744	\$ 809		\$ 91	\$ 99
3. Total [1. + 2e.]	\$ 3,485	\$ 3,462		\$ 338	\$ 367

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION III
LIABILITIES**

**Table III-5f
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
Plan 87 - Police**

(\$ thousands)

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation	\$ 76,450	\$ 75,882		\$ 6,717	\$ 7,305
2. Changes in UAL due to					
a. Actuarial Experience	\$ (25,520)	\$ (27,753)	15	\$ (3,119)	\$ (3,392)
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ (25,520)	\$ (27,753)		\$ (3,119)	\$ (3,392)
3. Total [1. + 2e.]	\$ 50,930	\$ 48,129		\$ 3,598	\$ 3,913

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

**Table III-5g
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
Plan 87 - Fire
(\$ thousands)**

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation	\$ 15,582	\$ 15,761		\$ 1,119	\$ 1,217
2. Changes in UAL due to					
a. Actuarial Experience	\$ (3,407)	\$ (3,705)	15	\$ (416)	\$ (453)
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	-	-	15	-	-
e. Subtotal	\$ (3,407)	\$ (3,705)		\$ (416)	\$ (453)
3. Total [1. + 2e.]	\$ 12,175	\$ 12,056		\$ 703	\$ 764

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION III
LIABILITIES**

**Table III-5h
Development of the Fiscal Year 2009 Amortization Payment under the City's Funding Policy
Total - All Divisions**

	7/1/2007 Outstanding Balance	7/1/2008 Expected Balance	Remaining Years	FY 2009 Payment Beginning-of-Year	FY 2009 Payment End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2007 Based on July 1, 2006 Valuation					
a. Dombrowski	\$ 3,557	\$ 1,853	1	\$ 1,853	\$ 2,015
b. Remaining	<u>3,811,432</u>	<u>3,667,148</u>		<u>438,506</u>	<u>476,875</u>
c. Subtotal	\$ 3,814,989	\$ 3,669,001		\$ 440,359	\$ 478,891
2. Changes in UAL due to					
a. Actuarial Experience	\$ (39,513)	\$ (42,971)	15	\$ (4,830)	\$ (5,252)
b. Assumption Changes	-	-	20	-	-
c. Active Plan Changes	-	-	20	-	-
d. Inactive Plan Changes	<u>-</u>	<u>-</u>	15	<u>-</u>	<u>-</u>
e. Subtotal	\$ (39,513)	\$ (42,971)		\$ (4,830)	\$ (5,252)
3. Total [1c. + 2e.]	\$ 3,775,476	\$ 3,626,031		\$ 435,529	\$ 473,638

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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 contributions 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 are both stable and predictable.

The actuarial funding methodology for the July 1, 2007 actuarial valuation is the Entry Age Normal 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, 2008. 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, 2008				
	Municipal	Elected	Police	Fire
1967 Plan	3.75%	N/A	6.00%	6.00%
Plan 87	1.86%	7.74%	5.00%	5.00%

Table IV-2 Quasi Agency Funding Rate as a Percent of Payroll		
Valuation Date	July 1, 2006	July 1, 2007
Fiscal Year	2008	2009
1. Normal Cost Rate	6.287%	6.186%
2. Amortization Rate	<u>80.107%</u>	<u>85.398%</u>
3. Total Year-End Rate [1. + 2.]	86.394%	91.584%
4. Adjusted for Quarterly Payments [3. x 0.96877]	83.696%	88.724%

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-3 below shows the development of the FY 2009 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, 2007 valuation report will determine FY 2009 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
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-3
Development of the Minimum Municipal Obligation for Fiscal Year 2009
(\$ thousands)**

	Non-Uniformed	Police	Fire	Total
Estimated FY 2008-2009 Payroll	\$ 910,188	\$ 374,945	\$ 120,766	\$ 1,405,899
Normal Cost %	6.790%	11.697%	12.177%	8.562%
Normal Cost	\$ 61,805	\$ 43,859	\$ 14,705	\$ 120,370
Amortization Payment	199,679	119,544	40,335	359,558
Administrative Expenses	4,923	1,913	652	7,488
Subtotal	\$ 266,407	\$ 165,316	\$ 55,693	\$ 487,415
Expected Employee Contributions	\$ (22,948)	\$ (19,567)	\$ (6,379)	\$ (48,894)
Minimum Municipal Obligation	\$ 243,459	\$ 145,749	\$ 49,314	\$ 438,522

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION

Table IV-4
Unfunded Liability Payments toward the MMO for Fiscal Year 2009
(\$ thousands)

Type of Base	Municipal			Police			Fire		
	7/1/2007 Balance	Remaining Years	FY 2009 Payment	7/1/2007 Balance	Remaining Years	FY 2009 Payment	7/1/2007 Balance	Remaining Years	FY 2009 Payment
Original July 1, 1985 Unfunded Liability	\$ 940,033	18	\$ 74,326	\$ 603,454	18	\$ 47,714	\$ 240,647	18	\$ 19,027
Dombrowski	978	1	978	626	1	626	249	1	249
July 1, 1992									
Active Plan Change	68	1	68	-	-	-	-	-	-
July 1, 1993									
Active Plan Change	(394)	3	(143)	(262)	3	(95)	-	-	-
Assumption Change	(3,881)	3	(1,404)	31	3	11	(723)	3	(261)
Subtotal	(4,275)		(1,546)	(231)		(84)	(723)		(261)
July 1, 1995									
Experience Gain/(Loss)	2,571	3	930	173	3	62	(1,116)	3	(403)
Active Plan Change	287	8	47	-	-	-	-	-	-
Subtotal	2,857		977	173		62	(1,116)		(403)
July 1, 1996									
Experience Gain/(Loss)	2,280	4	644	1,119	4	316	(973)	4	(275)
July 1, 1997									
Experience Gain/(Loss)	(28,478)	5	(6,689)	(10,930)	5	(2,567)	(7,307)	5	(1,716)
Assumption Change	34,473	10	4,885	4,219	10	598	1,777	10	252
Subtotal	5,995		(1,804)	(6,711)		(1,969)	(5,530)		(1,464)

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION

Table IV-4
Unfunded Liability Payments toward the MMO for Fiscal Year 2009 (continued)
(\$ thousands)

Type of Base	7/1/2007 Balance	Municipal Remaining Years	FY 2009 Payment	7/1/2007 Balance	Police Remaining Years	FY 2009 Payment	7/1/2007 Balance	Fire Remaining Years	FY 2009 Payment
July 1, 1998									
Experience Gain/(Loss)	\$ (9,302)	6	\$ (1,893)	\$ (7,593)	6	\$ (1,545)	\$ (6,825)	6	\$ (1,389)
July 1, 1999									
Experience Gain/(Loss)	(85,362)	7	(15,465)	628	7	114	(30,987)	7	(5,614)
Active Plan Change	11,776	12	1,493	-	-	-	-	-	-
Inactive Plan Change	11,965	2	6,233	5,325	2	2,774	1,977	2	1,030
Subtotal	(61,620)		(7,739)	5,953		2,888	(29,010)		(4,584)
July 1, 2000									
Experience Gain/(Loss)	(18,378)	8	(3,025)	25,562	8	4,207	523	8	86
July 1, 2001									
Experience Gain/(Loss)	(14,530)	`	(2,206)	(17,400)	9	(2,642)	8,694	9	1,320
Assumption Change	(3,511)	14	(409)	(2,003)	14	(233)	(4,555)	14	(530)
Subtotal	(18,042)		(2,615)	(19,402)		(2,875)	4,139		790
July 1, 2002									
Asset Gain/(Loss)	19,294	26	1,750	10,286	26	933	4,384	26	398
Liability Gain/(Loss)	121,103	10	17,162	80,502	10	11,408	22,517	10	3,191
Assumption Change	13,935	15	1,566	9,240	15	1,039	7,273	15	818
Subtotal	154,332		20,478	100,027		13,379	34,175		4,406

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-4
Unfunded Liability Payments toward the MMO for Fiscal Year 2009 (continued)
(\$ thousands)**

Type of Base	7/1/2007 Balance	Municipal Remaining Years	FY 2009 Payment	7/1/2007 Balance	Police Remaining Years	FY 2009 Payment	7/1/2007 Balance	Fire Remaining Years	FY 2009 Payment
July 1, 2003									
Asset Gain/(Loss)	\$ 329,706	26	\$ 29,906	\$ 173,983	26	\$ 15,781	\$ 74,792	26	\$ 6,784
Liability Gain/(Loss)	68,023	11	9,083	9,728	11	1,299	7,237	11	966
Active Plan Change	-	-	-	21,469	16	2,338	8,586	16	935
Inactive Plan Change	-	-	-	24,456	6	4,976	7,312	6	1,488
Subtotal	397,729		38,989	229,637		24,394	97,927		10,173
July 1, 2004									
Experience Gain/(Loss)	130,191	12	16,508	78,646	12	9,972	23,129	12	2,933
July 1, 2005									
Experience Gain/(Loss)	209,464	13	25,384	89,325	13	10,825	38,225	13	4,632
Assumption Change	231,819	18	23,942	112,172	18	11,585	45,034	18	4,651
Plan Change	2,033	18	210	256	18	26	-	-	-
Subtotal	443,316		49,536	201,754		22,436	83,259		9,283
July 1, 2007									
Experience Gain/(Loss)	140,541	15	15,797	187	15	21	15,700	15	1,765
Total	\$ 2,106,704		\$ 199,679	\$ 1,213,200		\$ 119,544	\$ 455,571		\$ 40,335

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**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.
- Table IV-7a, IV-7b, and IV-7c are debt service schedules for the POB, broken down 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
Actuarial Liability	\$ 4,664,939	\$ 2,555,298	\$ 976,972
Market Value of Assets	\$ 2,382,591	\$ 1,369,512	\$ 421,620
Actuarial Value of Assets	\$ 1,996,318	\$ 1,150,931	\$ 359,133
Unfunded Actuarial Liability	\$ 2,668,621	\$ 1,404,367	\$ 617,839
Amortization Contributions			
1/1/1985 Initial Liability			
Remaining Years	18	18	18
Level-Dollar Contribution	\$ 77,110	\$ 51,748	\$ 19,740
Payroll-Based Contribution	140,600	90,258	35,993
Post-1/1/1985 Liability			
Remaining Years	17	20	32
Amortization Contribution	\$ 93,638	\$ 25,871	\$ 14,030
Total Amortization Contribution	\$ 234,238	\$ 116,128	\$ 50,023

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-6
Modified Unfunded Liability Payments toward the MMO for Fiscal Year 2009
(\$ thousands)**

Type of Base	Municipal			Police			Fire		
	7/1/2007 Balance	Remaining Years	FY 2009 Payment	7/1/2007 Balance	Remaining Years	FY 2009 Payment	7/1/2007 Balance	Remaining Years	FY 2009 Payment
Original July 1, 1985 Unfunded Liability	\$ 1,778,233	18	\$ 140,600	\$ 1,141,532	18	\$ 90,258	\$ 455,222	18	\$ 35,993
All Changes Prior to July 1, 2007	858,059		90,005	363,674		37,205	164,344		14,224
July 1, 2007									
Experience Gain/(Loss)	32,328	15	3,634	(100,840)	15	(11,334)	(1,726)	15	(194)
Total	\$ 2,668,621		\$ 234,238	\$ 1,404,367		\$ 116,128	\$ 617,839		\$ 50,023

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**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
JULY 1, 2007 ACTUARIAL VALUATION

**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	-	-

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**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, 2007 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-8a			
Receipts and Disbursements Excluding Bond Issue Assets			
	Municipal	Police	Fire
Assets as of July 1, 2006	\$ 2,022,860,975	\$ 1,148,127,823	\$ 364,159,997
Receipts			
Employer Contributions	\$ 283,479,887	\$ 168,615,068	\$ 60,861,400
Employee Contributions	24,386,575	18,376,839	6,416,382
State Aid	29,593,535	21,354,289	6,794,547
Supplemental State Assistance	-	-	-
Investment Income (includes investment expenses)	389,725,516	223,270,928	70,369,481
Other Receipts	<u>1,357,600</u>	<u>417,646</u>	<u>187,787</u>
Total Receipts	\$ 728,543,113	\$ 432,034,770	\$ 144,629,597
Disbursements			
Benefit Payments	\$ 361,517,867	\$ 207,830,542	\$ 86,280,669
Refund of Contributions	2,987,764	1,158,119	328,502
Administrative Expenses	4,307,849	1,661,914	560,632
Other Disbursements	<u>-</u>	<u>-</u>	<u>-</u>
Total Disbursements	\$ 368,813,480	\$ 210,650,575	\$ 87,169,803
Assets as of July 1, 2007	\$ 2,382,590,608	\$ 1,369,512,019	\$ 421,619,791

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**SECTION IV
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-8b			
Receipts and Disbursements Including Bond Issue Assets			
	Municipal	Police	Fire
Assets as of July 1, 2006	\$ 2,517,860,799	\$ 1,284,513,350	\$ 514,212,100
Receipts			
Employer Contributions	\$ 198,297,798	\$ 133,689,437	\$ 42,537,549
Employee Contributions	24,386,575	18,376,839	6,416,382
State Aid	29,593,535	21,354,289	6,794,547
Supplemental State Assistance	-	-	-
Investment Income	455,219,669	236,393,262	91,506,602
Other Receipts	<u>1,357,600</u>	<u>417,646</u>	<u>187,787</u>
Total Receipts	\$ 708,855,176	\$ 410,231,473	\$ 147,442,867
Disbursements			
Benefit Payments	\$ 361,517,867	\$ 207,830,542	\$ 86,280,669
Refund of Contributions	2,987,764	1,158,119	328,502
Administrative Expenses	4,307,849	1,661,914	560,632
Other Disbursements (Inv. Expenses)	<u>9,955,631</u>	<u>5,169,909</u>	<u>2,001,245</u>
Total Disbursements	\$ 378,769,112	\$ 215,820,483	\$ 89,171,048
Assets as of July 1, 2007	\$ 2,847,946,863	\$ 1,478,924,339	\$ 572,483,919

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, 2006 and July 1, 2007 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 a period not to exceed forty 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.
- Net Pension Obligation (NPO) – the accumulated value of contribution deficiencies (or excesses) over required contributions from July 1, 1987 to July 1, 1997 between the annual pension cost and the employer's contribution. During the 1994 fiscal year, the City

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

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 below.

- Annual Pension Cost – is equal to the ARC plus one year’s interest on NPO and ARC adjustment.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

SECTION V
ACCOUNTING STATEMENT INFORMATION

Table V-1
Funding Status Under GASB Statement No. 25
(\$ thousands)

	July 1, 2007	July 1, 2006	% Change
1. Actuarial Liabilities			
a. Members Currently Receiving Payments	\$ 5,325,969	\$ 5,281,291	0.8%
b. Vested Terminated and Inactive Members	109,920	70,892	55.1%
c. Active Members	<u>2,761,320</u>	<u>2,731,484</u>	1.1%
d. Total Actuarial Liability	\$ 8,197,209	\$ 8,083,667	1.4%
2. Actuarial Value of Assets	\$ 4,421,734	\$ 4,168,467	6.1%
3. Unfunded Actuarial Liability	\$ 3,775,476	\$ 3,915,200	-3.6%
4. Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	53.94%	51.57%	2.3%

Table V-2
Statement of Changes in Liabilities - GASB No. 25 Basis
(\$ thousands)

Actuarial Liability as of July 1, 2006	\$ 8,083,667
Increase (Decrease) During Year Attributable to:	
Passage of Time	678,441
Benefits Paid	(660,103)
Assumption Change	-
Plan Amendment	-
Benefits Accrued, Other Gains/Losses	95,204
Net Increase (Decrease)	\$ 113,542
Actuarial Liability as of July 1, 2007	\$ 8,197,209

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

**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	44.78%	\$ 993.3	246.02%
7/1/1993	2,113.9	4,502.1	2,388.2	46.95%	975.0	244.94%
7/1/1994	2,225.2	4,662.6	2,437.4	47.72%	974.3	250.17%
7/1/1995	2,312.1	4,850.8	2,538.7	47.66%	1,006.4	252.26%
7/1/1996	2,457.2	5,098.1	2,640.9	48.20%	1,068.3	247.21%
7/1/1997	2,660.9	5,318.1	2,657.2	50.03%	1,067.7	248.87%
7/1/1998	2,921.3	5,586.1	2,664.8	52.30%	1,128.2	236.19%
7/1/1999	4,496.8	5,862.1	1,365.3	76.71%	1,178.6	115.84%
7/1/2000	4,765.0	6,193.4	1,428.4	76.94%	1,142.8	124.99%
7/1/2001	4,943.4	6,379.8	1,436.4	77.49%	1,180.4	121.69%
7/1/2002	4,891.3	6,727.2	1,835.9	72.71%	1,207.3	152.06%
7/1/2003	4,548.1	7,188.3	2,640.2	63.27%	1,269.3	208.00%
7/1/2004	4,333.1	7,247.7	2,914.6	59.79%	1,266.0	230.23%
7/1/2005	4,159.5	7,851.5	3,692.0	52.98%	1,270.7	290.54%
7/1/2006	4,168.5	8,083.7	3,915.2	51.57%	1,319.4	296.74%
7/1/2007	4,421.7	8,197.2	3,775.5	53.94%	1,351.8	279.29%

* The actuarial valuation reports need to be references 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, 2007 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%

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

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**SECTION V
ACCOUNTING STATEMENT INFORMATION**

Table V-5

**Calculation of Annual Pension Cost
(\$ thousands)**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ARC	\$ 223,750	\$ 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	-	1,241	1,198	1,158	1,118	1,080	156,130	152,672	147,470	142,446	135,638	124,687	113,135	99,953
Annual Pension Cost	\$ 223,750	\$ 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	233,750	212,838	222,482	237,016	252,080	1,506,704	183,928	167,616	178,239	179,757	202,827	299,266	331,765	432,267
Increase in NPO	(10,000)	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	-	(10,000)	(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)
NPO at EOY	(10,000)	(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%	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	8.06	8.18

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

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

The data for this valuation was provided by the Board of Pensions as of July 1, 2007. 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, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-1 Active Member Data							
	July 1, 2007	July 1, 2006	% Change		July 1, 2007	July 1, 2006	% Change
<u>Total City</u>				<u>1987 Municipal</u>			
Count	28,354	28,017	1.2%	Count	14,025	13,485	4.0%
Average Age	43.3	43.4	-0.2%	Average Age	42.4	42.2	0.5%
Average Service	12.0	12.5	-4.2%	Average Service	7.1	7.6	-6.0%
Average Salary	\$ 47,677	\$ 47,094	1.2%	Average Salary	\$ 40,880	\$ 39,746	2.9%
Total Annual Salary	\$ 1,351,826,215	\$ 1,319,431,076	2.5%	Total Annual Salary	\$ 573,343,947	\$ 535,975,679	7.0%
<u>1967 Municipal</u>				<u>1987 Elected</u>			
Count	5,764	6,397	-9.9%	Count	19	20	-5.0%
Average Age	50.7	50.2	1.2%	Average Age	59.9	59.4	0.9%
Average Service	22.6	21.9	3.1%	Average Service	21.2	20.9	1.5%
Average Salary	\$ 52,008	\$ 50,376	3.2%	Average Salary	\$ 108,469	\$ 106,524	1.8%
Total Annual Salary	\$ 299,775,887	\$ 322,252,431	-7.0%	Total Annual Salary	\$ 2,060,908	\$ 2,130,477	-3.3%
<u>1967 Police</u>				<u>1987 Police</u>			
Count	1,248	1,336	-6.6%	Count	5,179	4,843	6.9%
Average Age	50.0	49.2	1.7%	Average Age	36.9	36.9	0.1%
Average Service	24.4	23.6	3.6%	Average Service	10.1	10.2	-1.7%
Average Salary	\$ 63,163	\$ 63,144	0.0%	Average Salary	\$ 54,392	\$ 55,005	-1.1%
Total Annual Salary	\$ 78,827,447	\$ 84,359,757	-6.6%	Total Annual Salary	\$ 281,696,983	\$ 266,388,159	5.7%
<u>1967 Fire</u>				<u>1987 Fire</u>			
Count	523	564	-7.3%	Count	1,596	1,372	16.3%
Average Age	52.2	51.5	1.3%	Average Age	37.2	38.1	-2.4%
Average Service	26.0	25.4	2.3%	Average Service	8.2	9.0	-8.7%
Average Salary	\$ 62,550	\$ 62,235	0.5%	Average Salary	\$ 52,260	\$ 53,370	-2.1%
Total Annual Salary	\$ 32,713,762	\$ 35,100,567	-6.8%	Total Annual Salary	\$ 83,407,281	\$ 73,224,006	13.9%

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-2
Non-Active Member Data
Count**

	July 1, 2007	July 1, 2006	% Change		July 1, 2007	July 1, 2006	% Change
<u>Total City</u>				<u>1987 Municipal Plan</u>			
Retired	20,448	19,853	3.0%	Retired	402	311	29.3%
Disabled	4,384	4,439	-1.2%	Disabled	101	78	29.5%
Beneficiary	8,593	8,637	-0.5%	Beneficiary	94	74	27.0%
In Pay Status Total	33,425	32,929	1.5%	In Pay Status Total	597	463	28.9%
DROP	2,102	2,625	-19.9%	DROP	139	126	10.3%
Deferred Vested	1,301	809	60.8%	Deferred Vested	441	202	118.3%
<u>1967 Municipal Plan</u>				<u>1987 Elected Plan</u>			
Retired	12,441	12,089	2.9%	Retired	9	9	0.0%
Disabled	1,895	1,924	-1.5%	Disabled	-	-	
Beneficiary	5,378	5,439	-1.1%	Beneficiary	3	3	0.0%
In Pay Status Total	19,714	19,452	1.3%	In Pay Status Total	12	12	0.0%
DROP	1,400	1,749	-20.0%	DROP	5	3	66.7%
Deferred Vested	738	560	31.8%	Deferred Vested	-	-	
<u>1967 Police Plan</u>				<u>1987 Police Plan</u>			
Retired	5,597	5,509	1.6%	Retired	42	27	55.6%
Disabled	1,826	1,872	-2.5%	Disabled	121	111	9.0%
Beneficiary	2,149	2,136	0.6%	Beneficiary	68	61	11.5%
In Pay Status Total	9,572	9,517	0.6%	In Pay Status Total	231	199	16.1%
DROP	318	441	-27.9%	DROP	7	10	-30.0%
Deferred Vested	12	8	50.0%	Deferred Vested	86	30	186.7%
<u>1967 Fire Plan</u>				<u>1987 Fire Plan</u>			
Retired	1,939	1,894	2.4%	Retired	18	14	28.6%
Disabled	421	438	-3.9%	Disabled	20	16	25.0%
Beneficiary	876	899	-2.6%	Beneficiary	25	25	0.0%
In Pay Status Total	3,236	3,231	0.2%	In Pay Status Total	63	55	14.5%
DROP	230	296	-22.3%	DROP	3	-	
Deferred Vested	-	2	-100.0%	Deferred Vested	24	7	242.9%

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-3 Non-Active Member Data Total Annual Benefit								
	July 1, 2007	July 1, 2006	% Change		July 1, 2007	July 1, 2006	% Change	
<u>Total City</u>				<u>1987 Municipal Plan</u>				
Retired	\$ 425,673,788	\$ 400,193,902	6.4%	Retired	\$ 4,030,522	\$ 3,070,811	31.3%	
Disabled	74,270,854	73,394,492	1.2%	Disabled	1,648,513	1,260,524	30.8%	
Beneficiary	<u>59,832,534</u>	<u>58,463,884</u>	2.3%	Beneficiary	<u>512,429</u>	<u>439,691</u>	16.5%	
In Pay Status Total	559,777,176	532,052,278	5.2%	In Pay Status Total	6,191,464	4,771,026	29.8%	
DROP (pension)	68,864,026	82,541,682	-16.6%	DROP (pension)	1,706,599	1,570,047	8.7%	
DROP (account)	163,387,189	197,161,770	-17.1%	DROP (account)	2,736,482	2,531,713	8.1%	
Deferred Vested	18,455,708	11,016,975	67.5%	Deferred Vested	5,123,227	2,388,847	114.5%	
<u>1967 Municipal Plan</u>				<u>1987 Elected Plan</u>				
Retired	\$ 233,686,809	\$ 216,895,604	7.7%	Retired	\$ 319,189	\$ 319,188	0.0%	
Disabled	29,971,204	29,303,881	2.3%	Disabled	-	-		
Beneficiary	<u>34,633,286</u>	<u>34,066,742</u>	1.7%	Beneficiary	<u>68,615</u>	<u>68,615</u>	0.0%	
In Pay Status Total	298,291,299	280,266,227	6.4%	In Pay Status Total	387,804	387,803	0.0%	
DROP (pension)	44,260,898	52,645,333	-15.9%	DROP (pension)	471,247	267,224	76.3%	
DROP (account)	98,012,232	118,730,516	-17.4%	DROP (account)	954,875	559,977	70.5%	
Deferred Vested	11,560,749	7,946,335	45.5%	Deferred Vested	-	-		
<u>1967 Police Plan</u>				<u>1987 Police Plan</u>				
Retired	\$ 133,318,592	\$ 128,860,072	3.5%	Retired	\$ 543,497	\$ 312,035	74.2%	
Disabled	30,739,860	31,196,307	-1.5%	Disabled	3,478,355	3,045,044	14.2%	
Beneficiary	<u>16,892,749</u>	<u>16,390,632</u>	3.1%	Beneficiary	<u>434,301</u>	<u>387,173</u>	12.2%	
In Pay Status Total	180,951,201	176,447,011	2.6%	In Pay Status Total	4,456,153	3,744,252	19.0%	
DROP (pension)	12,051,761	15,318,191	-21.3%	DROP (pension)	141,987	193,137	-26.5%	
DROP (account)	33,167,194	42,060,523	-21.1%	DROP (account)	240,523	418,927	-42.6%	
Deferred Vested	194,459	118,538	64.0%	Deferred Vested	1,250,295	451,486	176.9%	
<u>1967 Fire Plan</u>				<u>1987 Fire Plan</u>				
Retired	\$ 53,577,949	\$ 50,592,450	5.9%	Retired	\$ 197,230	\$ 143,742	37.2%	
Disabled	7,867,395	8,183,104	-3.9%	Disabled	565,527	405,633	39.4%	
Beneficiary	<u>7,073,373</u>	<u>6,893,251</u>	2.6%	Beneficiary	<u>217,781</u>	<u>217,780</u>	0.0%	
In Pay Status Total	68,518,717	65,668,804	4.3%	In Pay Status Total	980,538	767,155	27.8%	
DROP (pension)	10,176,334	12,547,751	-18.9%	DROP (pension)	55,200	-		
DROP (account)	28,258,091	32,860,114	-14.0%	DROP (account)	17,791	-		
Deferred Vested	-	15,921	-100.0%	Deferred Vested	326,978	95,848	241.1%	

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

Table A-4 Non-Active Member Data Average Annual Benefit											
	July 1, 2007			July 1, 2006			% Change				
Total City											
Retired	\$	20,817	\$	20,158	3.3%	1987 Municipal Plan	\$	10,026	\$	9,874	1.5%
Disabled		16,941		16,534	2.5%	Retired		16,322		16,161	1.0%
Beneficiary		6,963		6,769	2.9%	Disabled		5,451		5,942	-8.3%
In Pay Status Total		16,747		16,158	3.6%	Beneficiary		10,371		10,305	0.6%
DROP (pension)		32,761		31,444	4.2%	In Pay Status Total		12,278		12,461	-1.5%
DROP (account)		77,729		75,109	3.5%	DROP (pension)		19,687		20,093	-2.0%
Deferred Vested		14,186		13,618	4.2%	DROP (account)		11,617		11,826	-1.8%
						Deferred Vested					
1967 Municipal Plan						1987 Elected Plan					
Retired	\$	18,784	\$	17,942	4.7%	Retired	\$	35,465	\$	35,465	0.0%
Disabled		15,816		15,231	3.8%	Disabled		-		-	
Beneficiary		6,440		6,263	2.8%	Beneficiary		22,872		22,872	0.0%
In Pay Status Total		15,131		14,408	5.0%	In Pay Status Total		32,317		32,317	0.0%
DROP (pension)		31,615		30,100	5.0%	DROP (pension)		94,249		89,075	5.8%
DROP (account)		70,009		67,885	3.1%	DROP (account)		190,975		186,659	2.3%
Deferred Vested		15,665		14,190	10.4%	Deferred Vested		-		-	
1967 Police Plan						1987 Police Plan					
Retired	\$	23,820	\$	23,391	1.8%	Retired	\$	12,940	\$	11,557	12.0%
Disabled		16,835		16,665	1.0%	Disabled		28,747		27,433	4.8%
Beneficiary		7,861		7,674	2.4%	Beneficiary		6,387		6,347	0.6%
In Pay Status Total		18,904		18,540	2.0%	In Pay Status Total		19,291		18,815	2.5%
DROP (pension)		37,899		34,735	9.1%	DROP (pension)		20,284		19,314	5.0%
DROP (account)		104,299		95,375	9.4%	DROP (account)		34,360		41,893	-18.0%
Deferred Vested		16,205		14,817	9.4%	Deferred Vested		14,538		15,050	-3.4%
1967 Fire Plan						1987 Fire Plan					
Retired	\$	27,632	\$	26,712	3.4%	Retired	\$	10,957	\$	10,267	6.7%
Disabled		18,687		18,683	0.0%	Disabled		28,276		25,352	11.5%
Beneficiary		8,075		7,668	5.3%	Beneficiary		8,711		8,711	0.0%
In Pay Status Total		21,174		20,325	4.2%	In Pay Status Total		15,564		13,948	11.6%
DROP (pension)		44,245		42,391	4.4%	DROP (pension)		18,400		-	
DROP (account)		122,861		111,014		DROP (account)		5,930		-	
Deferred Vested		-		7,961	-100.0%	Deferred Vested		13,624		13,693	-0.5%

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-5
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	509	480	37	0	0	0	0	0	1,026
25 to 29	446	1,358	538	41	0	0	1	0	2,384
30 to 34	265	998	1,135	518	22	0	0	1	2,939
35 to 39	187	748	1,243	1,338	486	15	0	0	4,017
40 to 44	149	640	825	1,086	1,242	298	32	4	4,276
45 to 49	128	487	716	831	1,207	970	454	20	4,813
50 to 54	112	407	620	554	916	832	766	521	4,728
55 to 59	64	285	455	406	423	362	284	538	2,817
60 to 64	36	148	249	154	134	73	51	94	939
65 & up	30	84	121	66	45	21	12	36	415
Total	1,926	5,635	5,939	4,994	4,475	2,571	1,600	1,214	28,354

**Table A-6
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	\$ 29,402	\$ 30,724	\$ 30,978	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,077
25 to 29	35,193	42,148	46,918	42,407	-	-	35,456	-	41,925
30 to 34	35,173	44,367	50,022	51,706	48,362	-	-	55,315	47,049
35 to 39	33,260	43,395	49,510	53,754	54,906	49,486	-	-	49,681
40 to 44	27,887	40,312	46,118	51,234	54,762	54,160	54,905	63,942	49,067
45 to 49	28,489	38,626	43,528	49,198	52,250	56,316	58,776	54,060	49,858
50 to 54	29,751	37,127	42,902	47,174	49,326	56,507	60,082	57,196	50,591
55 to 59	26,524	37,180	42,623	44,269	48,500	52,647	56,844	60,894	49,038
60 to 64	23,615	36,591	40,378	45,200	43,817	46,996	53,553	62,114	43,826
65 & up	22,221	26,690	33,139	37,992	46,382	47,097	43,306	52,522	35,934

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-7
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	1	5	3	0	0	0	11
35 to 39	0	0	0	9	119	3	0	0	131
40 to 44	0	2	4	15	446	186	27	0	680
45 to 49	0	1	3	21	633	577	267	18	1,520
50 to 54	1	3	7	17	569	554	509	377	2,037
55 to 59	2	2	3	11	280	262	178	326	1,064
60 to 64	0	1	1	6	88	51	38	52	237
65 & up	1	1	0	1	34	20	10	17	84
Total	5	11	19	85	2,172	1,653	1,029	790	5,764

**Table A-8
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	35,356	44,492	27,245	40,129	46,416	-	-	-	40,635
35 to 39	-	-	-	46,561	48,480	48,324	-	-	48,345
40 to 44	-	32,589	56,755	45,054	49,443	51,070	56,376	-	50,060
45 to 49	-	30,523	41,060	43,646	48,236	54,134	54,642	54,882	51,590
50 to 54	38,574	55,906	63,746	52,095	46,087	55,489	58,716	54,093	53,403
55 to 59	38,769	107,816	63,784	46,710	46,493	51,607	53,453	57,607	52,474
60 to 64	-	101,407	84,421	50,803	43,455	48,376	52,660	62,953	50,871
65 & up	42,000	84,140	-	147,084	46,151	43,892	43,475	41,933	46,045

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-9
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	3	3	2	0	0	8
40 to 44	0	0	1	1	50	69	2	1	124
45 to 49	0	0	0	0	54	231	165	0	450
50 to 54	0	0	0	0	22	149	206	72	449
55 to 59	0	0	1	0	10	46	53	82	192
60 to 64	0	0	0	0	0	4	2	17	23
65 & up	0	0	0	0	0	0	0	2	2
Total	0	0	2	4	139	501	428	174	1,248

**Table A-10
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	-	-	-	55,315	57,545	55,823	-	-	56,278
40 to 44	-	-	54,940	55,315	58,596	64,548	58,620	71,885	61,959
45 to 49	-	-	-	-	58,775	60,709	66,289	-	62,523
50 to 54	-	-	-	-	56,417	59,909	64,478	69,116	63,310
55 to 59	-	-	55,956	-	57,359	59,764	63,429	69,414	64,752
60 to 64	-	-	-	-	-	55,889	56,277	72,588	68,266
65 & up	-	-	-	-	-	-	-	65,013	65,013

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-11
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	2	0	0	0	2
40 to 44	0	0	0	0	15	10	0	0	25
45 to 49	0	0	0	0	17	106	7	0	130
50 to 54	0	0	0	1	13	89	24	56	183
55 to 59	0	0	0	0	4	32	35	97	168
60 to 64	0	0	0	0	1	0	4	9	14
65 & up	0	0	0	0	0	0	0	1	1
Total	0	0	0	1	52	237	70	163	523

**Table A-12
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	-	-	-	-	59,494	-	-	-	59,494
40 to 44	-	-	-	-	59,982	61,280	-	-	60,501
45 to 49	-	-	-	-	56,582	60,871	59,999	-	60,263
50 to 54	-	-	-	55,243	56,597	59,329	62,862	66,591	61,798
55 to 59	-	-	-	-	56,993	58,798	62,643	68,054	64,900
60 to 64	-	-	-	-	55,602	-	65,123	70,506	67,904
65 & up	-	-	-	-	-	-	-	85,060	85,060

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-13
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	282	353	29	0	0	0	0	0	664
25 to 29	261	892	303	29	0	0	1	0	1,486
30 to 34	163	667	635	187	15	0	0	0	1,667
35 to 39	136	525	828	534	74	9	0	0	2,106
40 to 44	142	559	651	563	148	29	3	1	2,096
45 to 49	128	461	650	564	135	49	10	2	1,999
50 to 54	111	392	573	451	117	39	25	15	1,723
55 to 59	62	281	437	366	97	22	15	31	1,311
60 to 64	36	145	247	142	45	18	5	16	654
65 & up	29	83	120	63	9	0	2	13	319
Total	1,350	4,358	4,473	2,899	640	166	61	78	14,025

**Table A-14
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	\$ 21,488	\$ 25,291	\$ 27,664	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,779
25 to 29	32,177	38,250	41,280	40,148	-	-	35,456	-	37,836
30 to 34	32,515	41,272	46,044	44,133	47,213	-	-	-	42,608
35 to 39	30,930	40,624	46,586	49,565	48,770	47,776	-	-	44,926
40 to 44	27,308	38,959	43,439	46,661	53,967	45,286	39,188	59,552	42,787
45 to 49	28,489	37,899	42,354	46,143	51,228	51,246	45,135	46,656	42,343
50 to 54	29,671	36,510	41,748	45,274	49,048	51,122	49,350	42,979	41,530
55 to 59	26,129	36,367	41,946	43,249	50,346	41,197	50,500	49,073	41,241
60 to 64	23,615	35,925	40,140	43,415	44,265	41,107	37,490	43,535	39,380
65 & up	21,539	25,998	32,912	34,911	34,052	-	42,465	50,861	31,298

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-15
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	1	0	0	0	0	1
40 to 44	0	0	1	0	0	0	0	0	1
45 to 49	0	0	0	0	1	0	0	0	1
50 to 54	0	0	0	0	0	0	0	0	0
55 to 59	0	1	1	0	0	0	3	1	6
60 to 64	0	0	0	3	0	0	1	0	4
65 & up	0	0	0	1	2	1	0	2	6
Total	0	1	2	5	3	1	4	3	19

**Table A-16
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	-	-	-	105,800	-	-	-	-	105,800
40 to 44	-	-	105,800	-	-	-	-	-	105,800
45 to 49	-	-	-	-	105,800	-	-	-	105,800
50 to 54	-	-	-	-	-	-	-	-	-
55 to 59	-	109,000	105,800	-	-	-	105,800	111,199	107,233
60 to 64	-	-	-	106,520	-	-	113,358	-	108,230
65 & up	-	-	-	105,801	105,800	111,199	-	119,296	111,199

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-17
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	170	92	4	0	0	0	0	0	266
25 to 29	123	329	209	9	0	0	0	0	670
30 to 34	74	221	396	302	2	0	0	1	996
35 to 39	34	135	301	647	268	1	0	0	1,386
40 to 44	4	41	120	370	492	2	0	2	1,031
45 to 49	0	17	46	175	276	4	4	0	522
50 to 54	0	8	28	64	147	1	2	0	250
55 to 59	0	0	11	21	19	0	0	0	51
60 to 64	0	2	1	2	0	0	1	0	6
65 & up	0	0	0	0	0	0	0	1	1
Total	405	845	1,116	1,590	1,204	8	7	4	5,179

**Table A-18
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	\$ 39,486	\$ 47,250	\$ 46,171	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,272
25 to 29	39,935	51,209	54,498	49,582	-	-	-	-	50,143
30 to 34	39,816	51,876	55,055	56,327	55,128	-	-	55,315	53,604
35 to 39	39,973	51,560	54,994	56,583	59,328	55,689	-	-	55,871
40 to 44	40,484	51,376	55,094	56,416	58,483	58,473	-	62,165	57,001
45 to 49	-	54,289	55,260	56,399	58,097	59,184	57,611	-	57,158
50 to 54	-	54,400	55,215	55,977	57,416	72,718	55,689	-	56,752
55 to 59	-	-	54,950	55,525	56,669	-	-	-	55,827
60 to 64	-	52,487	54,940	55,315	-	-	56,277	-	54,470
65 & up	-	-	-	-	-	-	-	63,057	63,057

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-19
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	57	35	4	0	0	0	0	0	96
25 to 29	62	137	26	3	0	0	0	0	228
30 to 34	27	109	103	24	2	0	0	0	265
35 to 39	17	88	114	144	20	0	0	0	383
40 to 44	3	38	48	137	91	2	0	0	319
45 to 49	0	8	17	71	91	3	1	0	191
50 to 54	0	4	12	21	48	0	0	1	86
55 to 59	0	1	2	8	13	0	0	1	25
60 to 64	0	0	0	1	0	0	0	0	1
65 & up	0	0	1	1	0	0	0	0	2
Total	166	420	327	410	265	5	1	2	1,596

**Table A-20
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2007 -- 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	\$ 38,481	\$ 42,081	\$ 39,816	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 39,849
25 to 29	38,481	45,768	51,685	42,729	-	-	-	-	44,421
30 to 34	38,481	48,076	55,412	54,967	53,128	-	-	-	50,612
35 to 39	38,481	47,406	56,266	56,635	55,734	-	-	-	53,552
40 to 44	38,481	48,674	57,699	56,677	59,045	71,862	-	-	56,477
45 to 49	-	48,258	57,129	57,365	58,684	55,688	55,602	-	57,555
50 to 54	-	48,916	57,116	56,781	58,405	-	-	55,602	57,355
55 to 59	-	52,442	52,688	58,056	56,597	-	-	55,243	56,531
60 to 64	-	-	-	60,766	-	-	-	-	60,766
65 & up	-	-	60,371	55,243	-	-	-	-	57,807

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**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, 2006	6,397	1,336	564	13,485	20	4,843	1,372	28,017
New Entrants and Rehires	40	5	2	2,065	2	496	270	2,880
Refunded Contributions	-20	-2	0	-542	0	-36	-9	-609
Terminated Vested	-79	-3	0	-119	0	-34	-11	-246
Became Disabled	-45	-2	0	-17	0	-8	-3	-75
Retired	-120	-25	-8	-53	0	-10	-3	-219
Entered DROP	-313	-58	-33	-46	-2	-2	-3	-457
Net Other Terminations	-96	-3	-2	-748	-1	-70	-17	-937
Active July 1, 2007	5,764	1,248	523	14,025	19	5,179	1,596	28,354
Retired								
Retired July 1, 2006	12,089	5,509	1,894	311	9	27	14	19,853
New Retirees	862	208	102	98	0	18	4	1,292
Net Other Terminations	-510	-120	-57	-7	0	-3	0	-697
Retired July 1, 2007	12,441	5,597	1,939	402	9	42	18	20,448
Beneficiary								
Beneficiary July 1, 2006	5,439	2,136	899	74	3	61	25	8,637
New Beneficiaries	246	91	42	21	0	8	0	408
Net Other Terminations	-307	-78	-65	-1	0	-1	0	-452
Beneficiary July 1, 2007	5,378	2,149	876	94	3	68	25	8,593

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

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

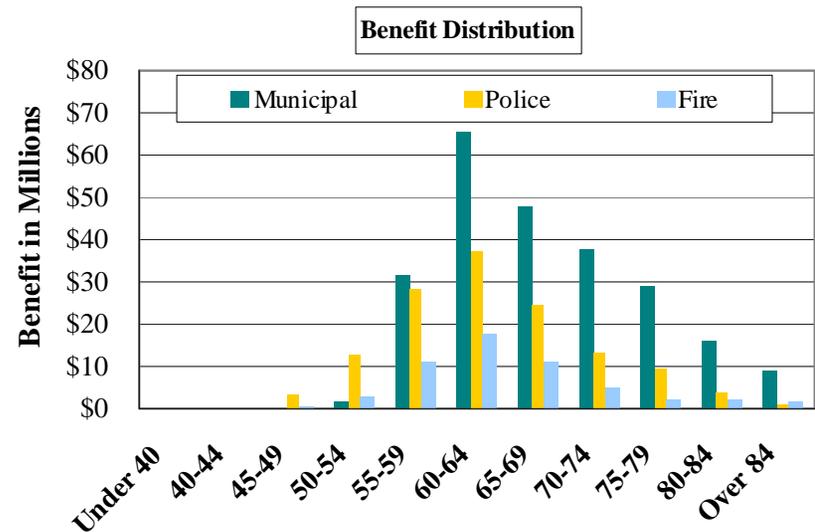
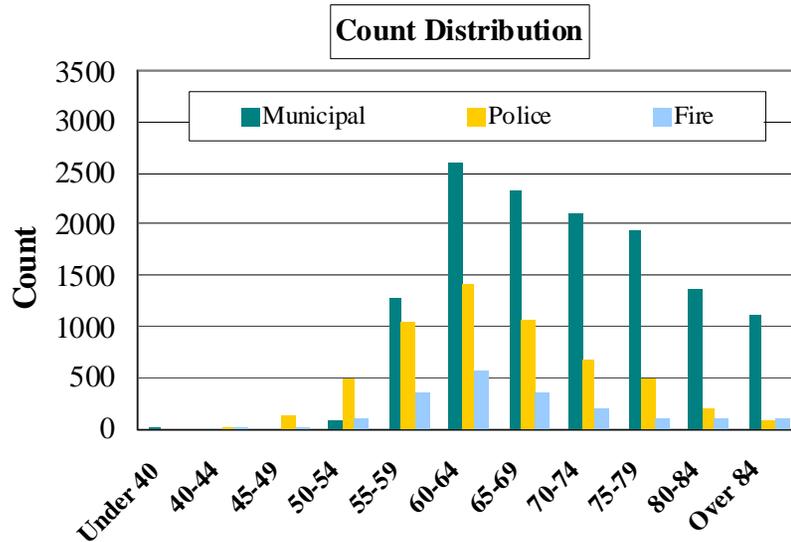
	1967 Plan			Plan 87				Total City
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
Disabled								
Disabled July 1, 2006	1,924	1,872	438	78	0	111	16	4,439
New Disabilities	67	8	0	25	0	13	4	117
Net Other Terminations	-96	-54	-17	-2	0	-3	0	-172
Disabled July 1, 2007	1,895	1,826	421	101	0	121	20	4,384
Terminated Vested								
Terminated Vested July 1, 2006	560	8	2	202	0	30	7	809
New Vested Terminations	319	9	0	247	0	58	17	650
Net Other Terminations	-141	-5	-2	-8	0	-2	0	-158
Terminated Vested July 1, 2007	738	12	0	441	0	86	24	1,301
DROP								
DROP July 1, 2006	1,749	441	296	126	3	10	0	2,625
New DROP Participants	317	59	33	46	2	2	3	462
Net Other Terminations	-666	-182	-99	-33	0	-5	0	-985
DROP July 1, 2007	1,400	318	230	139	5	7	3	2,102

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-22
Age Distribution of Retired Members as of July 1, 2007**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	2	\$ 23,890	0	\$ -	0	\$ -
40-44	0	0	16	256,570	3	42,466
45-49	0	0	130	3,158,956	25	520,687
50-54	80	1,761,924	496	12,956,975	96	2,602,134
55-59	1,282	31,655,383	1,052	28,120,327	352	10,924,341
60-64	2,617	65,252,215	1,408	37,130,520	575	17,978,324
65-69	2,323	47,554,764	1,070	24,434,892	368	10,906,077
70-74	2,106	37,645,140	675	13,196,940	210	5,020,436
75-79	1,939	28,731,578	503	9,495,293	106	2,150,594
80-84	1,379	16,283,063	203	3,889,550	106	1,927,143
Over 84	1,124	9,128,563	86	1,222,066	116	1,702,977
Total	12,852	238,036,520	5,639	133,862,089	1,957	53,775,179

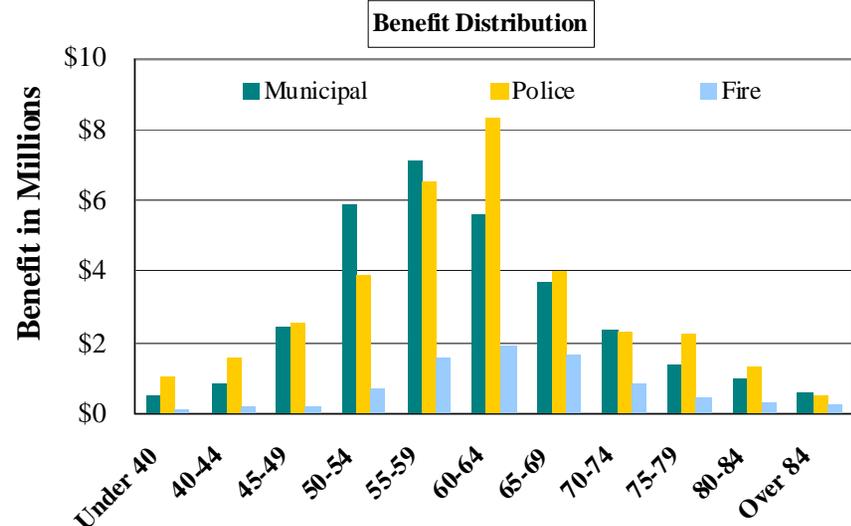
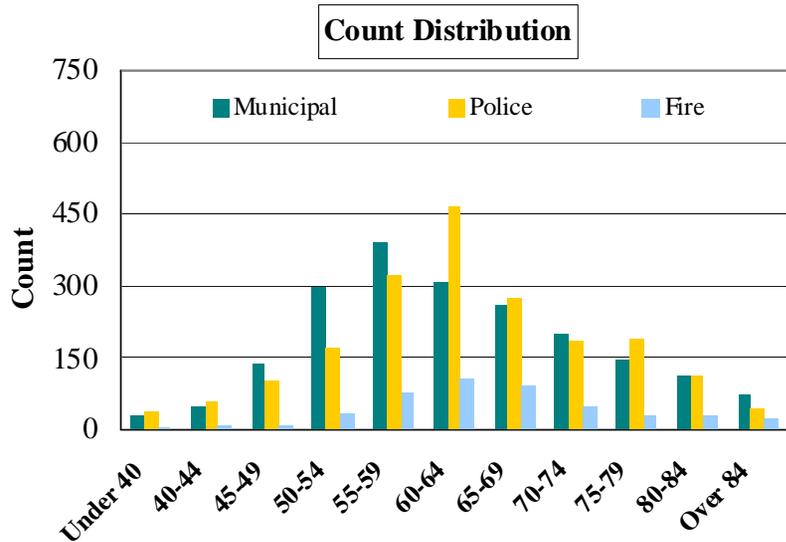


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-23
Age Distribution of Disabled Members as of July 1, 2007**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	27	\$ 559,006	35	\$ 1,043,167	4	\$ 116,547
40-44	48	869,368	55	1,552,578	8	224,365
45-49	135	2,468,944	101	2,560,335	8	203,240
50-54	297	5,893,593	171	3,873,138	30	713,205
55-59	393	7,141,839	323	6,512,607	77	1,593,349
60-64	309	5,580,609	464	8,296,712	107	1,940,996
65-69	258	3,709,750	271	3,996,552	89	1,628,957
70-74	198	2,401,383	183	2,290,934	46	883,504
75-79	146	1,407,483	188	2,217,499	26	474,901
80-84	111	998,167	112	1,332,305	25	362,114
Over 84	74	589,575	44	542,388	21	291,744
Total	1,996	31,619,717	1,947	34,218,215	441	8,432,922

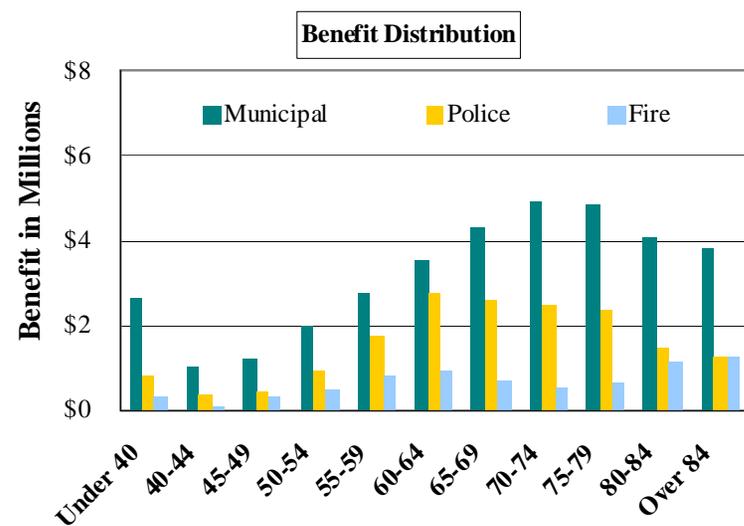
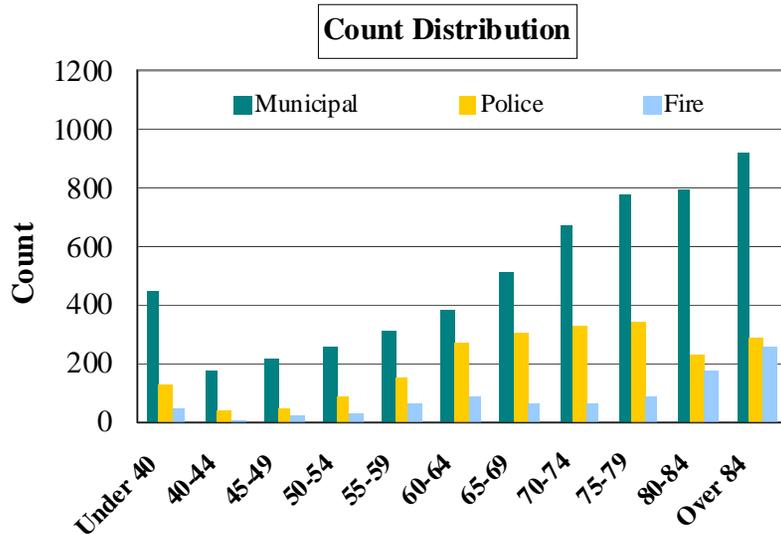


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-24
Age Distribution of Beneficiaries as of July 1, 2007**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	450	\$ 2,632,817	126	\$ 825,957	46	\$ 344,062
40-44	174	1,034,826	41	353,178	10	108,946
45-49	212	1,234,205	46	430,290	23	332,510
50-54	254	1,965,063	85	947,079	29	479,265
55-59	312	2,756,423	151	1,780,352	60	809,050
60-64	388	3,550,660	273	2,756,915	85	916,534
65-69	515	4,311,421	303	2,597,446	66	710,621
70-74	675	4,940,722	326	2,488,802	62	517,445
75-79	779	4,874,377	345	2,372,132	90	660,458
80-84	795	4,106,013	234	1,494,638	173	1,135,089
Over 84	921	3,807,803	287	1,280,261	257	1,277,174
Total	5,475	35,214,330	2,217	17,327,050	901	7,291,154

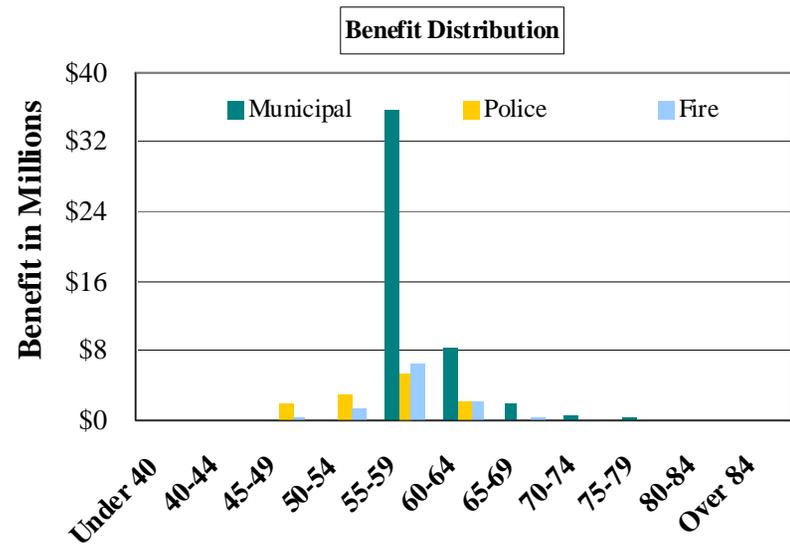
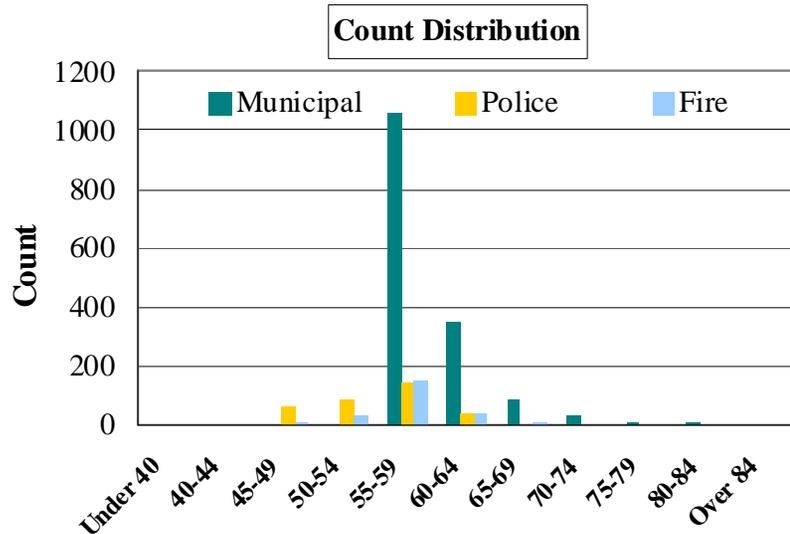


CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-25
Age Distribution of DROP Participants as of July 1, 2007**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	0	\$ -	0	\$ -	0	\$ -
40-44	1	76,537	0	0	0	0
45-49	0	0	59	1,816,259	8	249,241
50-54	0	0	83	2,891,365	32	1,280,600
55-59	1,064	35,595,444	139	5,334,658	149	6,505,406
60-64	350	8,317,708	42	1,992,869	41	2,042,437
65-69	88	1,766,883	1	69,017	3	153,850
70-74	28	465,739	1	89,580	0	0
75-79	9	136,644	0	0	0	0
80-84	3	56,569	0	0	0	0
Over 84	1	23,220	0	0	0	0
Total	1,544	46,438,744	325	12,193,748	233	10,231,534

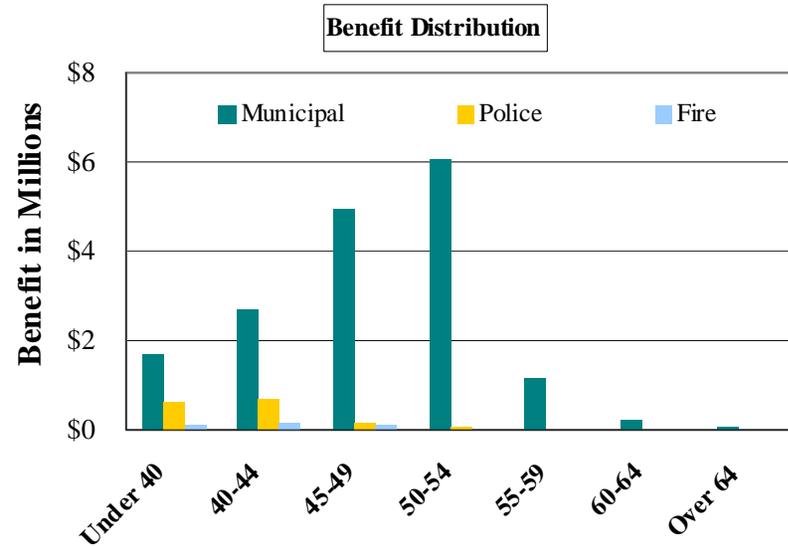
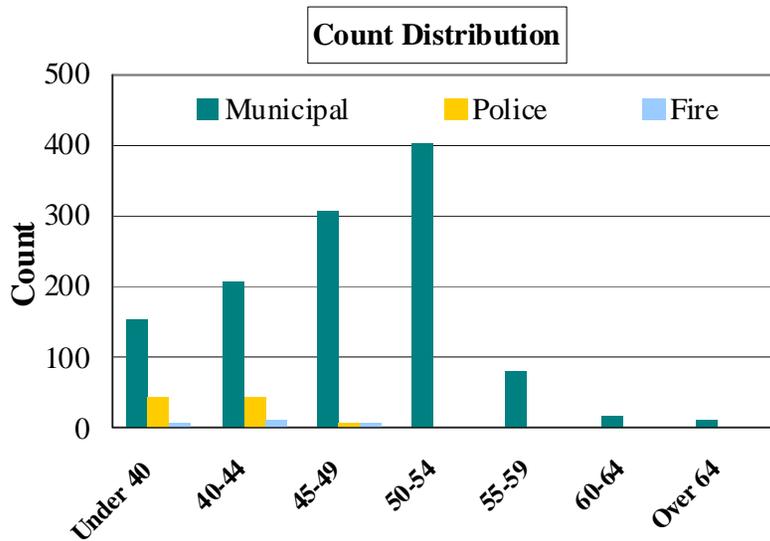


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION**

**APPENDIX A
MEMBERSHIP INFORMATION**

**Table A-26
Age Distribution of Terminated Vested Members as of July 1, 2007**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	153	\$ 1,665,749	44	\$ 612,045	7	\$ 94,500
40-44	207	2,689,881	45	674,563	10	135,613
45-49	306	4,930,927	7	122,509	7	96,865
50-54	405	6,039,994	2	35,637	0	0
55-59	80	1,123,466	0	0	0	0
60-64	16	178,840	0	0	0	0
Over 64	12	55,119	0	0	0	0
Total	1,179	16,683,976	98	1,444,754	24	326,978



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.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

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 \$7,200,000, 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
JULY 1, 2007 ACTUARIAL VALUATION**

**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.

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.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

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		

10. Rates of Retirement

Rates of Service Retirement - 1967 Plan		
	<u>Municipal</u>	<u>Uniformed</u>
Age		
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

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM
JULY 1, 2007 ACTUARIAL VALUATION

APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

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	-	-

11. 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.

12. Changes Since Last Valuation

As Cheiron's first valuation for the City of Philadelphia Municipal Retirement System, we have maintained the same assumption set as the prior actuary until we can identify areas of consideration for change that we would recommend to the Board.

APPENDIX B
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

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, 2009. 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.

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 employee 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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 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 produces 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 (\$90,000 in 2005 and \$92,400 in 2006 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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.

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 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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.

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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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.

This benefit is payable to the spouse until his or her death or remarriage. 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 reaching 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 reaching 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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).

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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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.

Benefit Offset

Municipal (Plan J):
If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$3 earned in outside wages until age 65. This offset no longer applies to non-represented employees and will be removed upon the completion of the current labor agreements for represented employees.

Uniformed (Plans D and X):
Same as municipal, but the earned income offset does not apply to fire employees or police employees granted heroic status.

14. Service-Connected Disability Periodic Adjustment

Eligibility

Municipal (Plan J):
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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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.

Benefit Offset

Municipal (Plan J):

If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 55. This offset no longer applies to non-represented employees and will be removed upon the completion of the current labor agreements for represented employees.

Uniformed (Plans D and X):

If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 45. The earned income offset does not apply to fire employees. This offset no longer applies to non-represented employees and will be removed upon the completion of the current labor agreements for represented employees.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

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 4 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

18. Waiver of Benefit

Municipal (Plan J):

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, 2006). 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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 of 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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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.

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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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.

Uniformed (Plans A and B):

Same as municipal.

Elected:

Same as municipal.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

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.

Benefit Offset

Municipal:

If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$3 earned in outside wages until age 65. This offset no longer applies to non-represented employees and will be removed upon the completion of the current labor agreements for represented employees.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

Uniformed (Plans A and B):

Same as municipal, but the earned income offset does not apply to fire employees, or police employees granted heroic status.

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

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

employees with permanent and partial disability need 10 years of credited service (or five years of credited service, if additional contributions were made).

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 8 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.

Benefit Offset

Municipal:

If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 60. This offset no longer applies to non-represented employees and will be removed upon the completion of the current labor agreements for represented employees.

Uniformed (Plans A and B):

If the employee collects his or her disability benefit and subsequently becomes employed, the disability benefit will be reduced \$1 for every \$2 earned in outside wages until age 50. The earned income offset does not apply to fire employees. This offset no longer applies to non-represented employees and will be removed upon the completion of the current labor agreements for represented employees.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

Elected:

If the employee collects his or her disability benefit and subsequently becomes employed, their disability benefits will be reduced \$1 for every \$2 earned in outside wages. The offset will continue until age 55.

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.

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.

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.

APPENDIX C
SUMMARY OF PLAN PROVISIONS – PLAN 87

Elected:
Not applicable.

18. Deferred Retirement Option Plan (DROP)

Eligibility

Municipal:

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 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 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

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. 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