



**City of Philadelphia  
Municipal Retirement System**

**Actuarial Valuation  
as of July 1, 2010**

**Produced by **Cheiron****

**March 2011**

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**LETTER OF TRANSMITTAL**

March 22, 2011

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

Dear Board Members:

At your request, we have performed the July 1, 2010 actuarial valuation of the City of Philadelphia Municipal Retirement System.

In preparing our report, we relied without audit, on information (some oral and some written) supplied by the System's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. The results of this report are only applicable to the System's contribution for Fiscal Year Ending 2012, and rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results will vary accordingly.

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

Finally, in preparation of this report we have accepted the assumptions and methodologies as adopted by the Board of Pensions and Retirement for the City of Philadelphia Municipal Retirement System.

Sincerely,  
Cheiron



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



Karen Zangara, FSA, EA, MAAA  
Consulting Actuary



**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**SECTION I  
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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 End (FYE) 2012,
- The Retirement Board's Funding Policy recommended City contribution, 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, 2010 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.

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**A. Valuation Basis**

The June 30, 2010 valuation results are based on the same methods used in the June 30, 2009 valuation as outlined in the report reflecting the amendments made under Act 44 to the Act 205 funding requirements through the addition of Chapter 10. The actuarial assumptions have been updated to reflect the new assumptions approved by the Retirement Board, as presented in the Experience Study Results and Recommendations Report from April 2010. The following outlines the basic assumption changes. For a detailed description of these assumption changes, refer to Appendix C of this report.

- **Interest Rate:** The interest rate decreased **from 8.25% to 8.15%**.
- **Salary Increase Rate:** The salary increase rate changed from **5.00% to an age-based salary table**.
- **Payroll and Expenses Growth:** The payroll and expenses growth assumption decreased from **4.00% to 3.50%**.
- **Demographic Actuarial Assumptions:** Demographic assumption changes such as the retirement rates, termination rates, disability rates and mortality rates were updated. A detailed list of these assumption changes is located in Appendix C of this report.

A plan change is reflected in this year's report for the first year which provides for Police participants hired after January 1, 2010 to elect to participate in Plan '10 or Plan 87 with a higher member contribution rate. All participants opted to participate in Plan 87 with the increased employee contributions of 6%.

Below we highlight significant outcomes of this valuation. Table I-1 summarizes these results:

- ***Unfunded Actuarial Liability (UAL):*** The UAL is the excess of the System's actuarial liability (AL) over the actuarial value of assets (AVA). The UAL increased from \$4.933 billion as of July 1, 2009 to **\$4.936 billion as of July 1, 2010 reflecting** the net of asset gains from July 1, 2009 through June 30, 2010 offset by the increase in the AL due to the 10 basis point decrease in the interest rate and the change in the other actuarial assumptions.
- ***Funding Ratio:*** This is the ratio of the System's AVA to AL. The funding ratio increased from 45.0% as of July 1, 2009 to **47.0% as of July 1, 2010** due to the asset gains.
- ***Minimum Municipal Obligation (MMO) excluding deferred contribution interest:*** The MMO is the required minimum amount the City must contribute under Pennsylvania State law **before application of amendments** specific to the System. The FYE 2011 MMO provided in this report does not reflect possible deferrals of a portion of the MMO up to \$80 million, as permitted per Act 44. However, the interest on the FYE 2010 deferred contribution of \$150 million has been reflected as a separate line item for the MMO exhibit provided in Table I – 5. The MMO decreased from \$511.0 million for FYE 2011 to **\$507.0 million for FYE 2012** before accounting for the interest due on the deferred contribution.

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- **Minimum Municipal Obligation (MMO) including deferred contribution interest:** After reflecting the interest of the FYE 2010 deferred contribution, the **MMO for FYE 2011 is \$536.8 million and for FYE 2012 is \$519.3 million.** Two years worth of interest, \$25.7 million, is included in the FYE 2011 MMO amount because the interest was not paid in FYE 2010. This interest *only* reflects the \$150 million FYE 2010 deferred contribution. If additional deferrals are made during FYE 2011, then this interest would increase the FYE 2011 MMO amount. Under Section 1002 (D) and (G) of the Act 205 Code, interest for deferred contributions are to be added to the MMO, and if the interest payment is deferred, then these amounts should be added to the next year’s MMO amount.
- **Annual Act 205 Reporting:** under Section 1002 of Act 205, the City is required to provide annual reports to the Pennsylvania Employee Retirement Commission (PERC). Thus, the City will need to recognize gains and losses annually to determine the amortized unfunded, as opposed to biennially.
- **Contribution under the City’s Funding Policy:** The beginning-of-year contribution under the City’s Funding Policy increased from \$675.1 million for FYE 2011<sup>1</sup> based upon actual FYE 2011 payroll to an estimated **\$690.0 million for FYE 2012.**

<b>Table I-1 Key Results (\$ thousands)</b>		
<b>Valuation Date</b>	<b>7/1/2010</b>	<b>7/1/2009</b>
Unfunded Actuarial Liability	\$ 4,936,172	\$ 4,932,932
Funding Ratio	47.0%	45.0%
<b>Fiscal Year Ending in Year</b>	<b>2012</b>	<b>2011</b>
Minimum Municipal Obligation*	\$ 519,331	\$ 536,775
City's Funding Policy Contribution**	\$ 690,017	\$ 675,065

\* Includes interest on the FYE 2010 deferred contribution of \$150 million. Interest for two years for the FYE 2011 (\$25.7 million) and interest for one year for FYE 2012 (\$12.4 million).

<sup>1\*\*</sup>The City’s funding contribution for FYE 2011 was updated based upon the actual payroll of \$1,421.2 million (provided as pay rates in the data) as of July 1, 2010, which is used to estimate the beginning of year FYE 2011 payroll. In the July 1, 2009 actuarial valuation report, the estimated FYE 2011 payroll was \$1,521.8 million based upon July 1, 2009 pay rates and increased based upon the payroll assumption, which was used to estimate the FYE 2011 funding contribution of \$682.3 million.

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**B. Current Financial Condition**

On the following pages, we summarize the key results of the July 1, 2010 valuation and how they compare to the results from the July 1, 2009 valuation.

1. City Membership:

As shown in Table I-2 below, total membership in the Retirement System decreased by 0.3% from 2009 to 2010.

<b>Table I-2</b>				
<b>Membership Total</b>				
		<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>
	Actives	27,928	28,632	-2.5%
	Terminated Vesteds	1,599	1,336	19.7%
	Disabled	4,280	4,288	-0.2%
	Retirees	21,064	21,214	-0.7%
	Beneficiaries	8,558	8,554	0.0%
	DROP	2,018	1,638	23.2%
	<b>Total City Members</b>	<b>65,447</b>	<b>65,662</b>	<b>-0.3%</b>
	Annual Salaries	\$ 1,421,150,868	\$ 1,463,259,769	-2.9%
	Average Salary per Active Member	\$ 50,886	\$ 51,106	-0.4%
	Annual Retirement Allowances	\$ 615,241,359	\$ 605,992,742	1.5%
	Average Retirement Allowance	\$ 18,148	\$ 17,794	2.0%

The active participant population decreased 2.5% during the 2009 – 2010 plan year. About half of them became members of the DROP resulting in a total increase in DROP participants of about 23%. Furthermore, the average salary per active member decreased by 0.4% during the plan year, which is significantly below the assumed salary scale. The combined result of lower active membership and salary growth produced a decrease in the total payroll growth which was lower than expected at -2.9% versus the 3.5% payroll growth assumption.

Annual retirement allowances continued to increase by 1.5% this year.

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2. City Assets and Liabilities:

Table I-3 presents a comparison between the July 1, 2010 and July 1, 2009 System assets, liabilities, UAL, and funding ratios. The Funding Ratio increased from 45.0% as of July 1, 2009 to **47.0%** as of July 1, 2010 due to the higher than expected assets returns, although this was partly offset by the increase in liabilities from the change in assumptions.

The July 1, 2010 market value of assets includes the \$150 million deferred contribution from FYE 2010.

	<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>
<b>Actuarial Liabilities by Membership:</b>			
Actives	\$ 3,019,883	\$ 3,164,583	-4.6%
Terminated Vesteds	147,730	111,107	33.0%
Disabled	680,163	642,177	5.9%
Retirees	4,034,768	3,868,581	4.3%
Beneficiaries	514,053	493,044	4.3%
DROP	911,939	689,988	32.2%
Non-Vested Refunds	8,511	5,565	52.9%
Total Actuarial Liability	\$ 9,317,047	\$ 8,975,045	3.8%
Market Value of Assets (net of PAF)*	\$ 3,650,729	\$ 3,368,427	8.4%
Actuarial Value of Assets (net of PAF)*	4,380,875	4,042,113	8.4%
Unfunded Actuarial Liability	\$ 4,936,172	\$ 4,932,932	0.1%
Funding Ratio	47.0%	45.0%	2.0%

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

The market asset value (net of the Pension Adjustment Fund (PAF)) average return was 13.8% compared to the 8.25% assumption. For the actuarial value of assets, the experience gains and losses are smoothed over future years, which yielded an initial return rate for the preliminary actuarial value of assets of 14.8%. However, the final actuarial of assets is limited by the 20% corridor around the market value of assets, prohibiting the use of an actuarial asset value that is 20% more or less than the market value, which caused the final actuarial value of assets to return to be 12.9% over the prior year.



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3. Components of UAL Change between July 1, 2009 and July 1, 2010:

The Retirement System’s unfunded actuarial liability increased by \$3.3 million, from \$4,932.9 million as of July 1, 2009 to \$4,936.2 million as of July 1, 2010. Table I-4 below presents the specific components of this change in the UAL.

The System experienced a \$201.9 million investment gain based upon the actuarial value of assets and a \$8.6 million liability loss. There was also a \$151.2 million liability increase due to the assumption change of decreasing the interest rate from 8.25% to 8.15% along with various demographic assumption changes as shown in Appendix C. Actual FYE 2010 contributions created a \$31.6 million loss when compared to the MMO expected because of lower contributions as a function of lower payroll. This is combined with a \$55.3 million loss due to the one year deferral of gains and losses under the MMO contribution method for a total increase in the UAL for contributions.

<b>Table I-4</b>	
<b>Change in Unfunded Actuarial Liability</b>	
<b>(\$ millions)</b>	
<b>Experience</b>	
1. UAL change due to investment (gain)/loss	\$ (201.9)
2. UAL change due to overall liability (gain)/loss	8.6
<b>Contributions</b>	
3. UAL change to difference in benefit accruals, MMO contributions, and timing	31.6
4. UAL change due to one-year delay in MMO contributions	55.3
<b>Assumption Change</b>	
5. UAL change due to assumption change	151.2
<b>Total</b>	
6. Total net overall change: sum 1 through 5	\$ 44.8
7. Expected change in UAL	(41.5)
8. Net increase/(decrease) in UAL: 6 + 7	\$ 3.3

The \$8.6 million liability loss is attributable to the following:

- \$14.7 million demographic gain from decreased active population and less than expected average pay increases.
- \$23.3 million loss due to existing retirees.

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4. Contributions:

The contribution under the City's Funding Policy for FYE 2011 was originally estimated to be \$682.3 million based upon estimated FYE 2011 payroll. Using updated payroll, the FYE 2011 contribution is \$675.1 million. For Fiscal Year 2012, the funding policy contributions decreased by 0.59% of payroll, from 47.50% to 46.91%. In dollar terms, the contributions under the City's Funding Policy increased from \$675.1 million to \$690.0 million, a \$14.9 million increase. The FYE 2012 contributions under the City's Funding Policy will be updated next year when the actual payroll is available. All contributions for the City's Funding Policy are provided as of the beginning of the year.

The Minimum Municipal Obligation for FYE 2012 measured as of the beginning of the year increased by 0.04% of payroll, from 35.27% to 35.31% which includes interest on the deferred contributions. In dollar terms, the required beginning of year contribution decreased from \$536.8 million to \$519.3 million, a \$17.5 million decrease in part because of the lower interest payment due to the doubling up for 2011. These values do not reflect any additional interest due for anticipated additional contribution deferrals by the City in FYE 2011.

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

<b>Table I-5 Contributions (\$ thousands)</b>				
<b>Fiscal Year Ending in Year:</b>	<b>2012</b>	<b>% of Pay</b>	<b>2011</b>	<b>% of Pay</b>
<b>City's Funding Policy<sup>1</sup></b>				
Estimated FY Payroll	\$ 1,470,891		\$ 1,421,151 <sup>2</sup>	
Normal Cost (with Expenses)	\$ 139,947	9.51%	\$ 138,709	9.76%
Employee Contributions	(50,251)	3.42%	(49,346)	3.47%
City Normal Cost	89,696	6.10%	89,363	6.29%
Amortization Payment	600,321	40.81%	585,702	41.21%
City's Funding Policy	\$ 690,017	46.91%	\$ 675,065	47.50%
<b>Minimum Municipal Obligation<sup>3</sup></b>				
Estimated FY Payroll	\$ 1,470,891		\$ 1,521,790	
Normal Cost (with Expenses)	\$ 139,947	9.51%	\$ 149,473	9.82%
Employee Contributions	(50,251)	3.42%	(52,840)	3.47%
City Normal Cost	89,696	6.10%	96,633	6.35%
Amortization Payment	417,260	28.37%	414,370	27.23%
Minimum Municipal Obligation before Adjustment	\$ 506,956	34.47%	\$ 511,004	33.58%
Interest due by year end on Contribution Deferred <sup>4</sup>	12,375		25,771	
Interest due on any 2011 Contribution Deferral	<b>TBD</b>		<b>TBD</b>	
Minimum Municipal Obligation plus Interest & Repayment for Deferrals	\$ 519,331	35.31%	\$ 536,775	35.27%

<sup>1</sup> Assuming beginning-of-year payment.

<sup>2</sup> FYE 2011 payroll for the City's Funding Policy is based upon the July 1, 2010 pay rates and will be finalized when the FYE 2011 payroll is available. All other payroll is estimated based upon the prior year's data used for the actuarial valuation.

<sup>3</sup> The MMO does not include Quasi-Agency contributions.

<sup>4</sup> Interest on the deferred contributions is due on all amounts outstanding by fiscal year end calculated from the beginning of the fiscal year such deferred contributions are still outstanding by year end. This amount will need to be determined and added as part of the MMO.

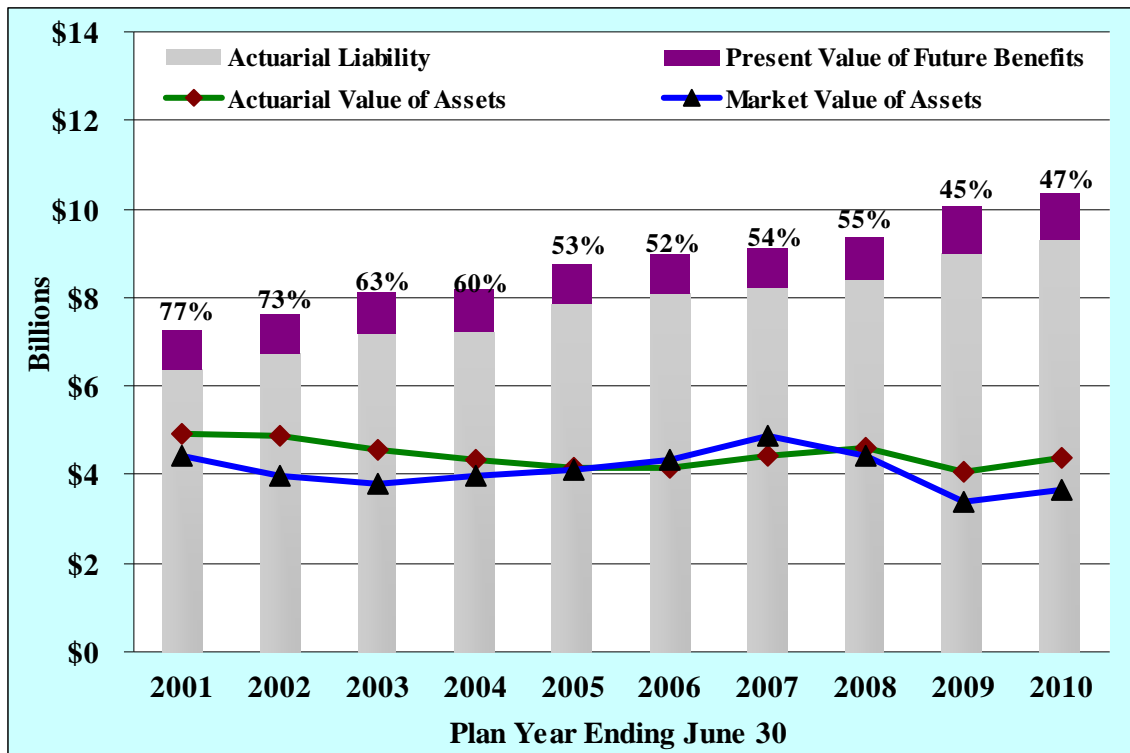
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C. Historical Trends

Although most of the attention given to the valuation reflects the most recently computed unfunded actuarial liability, funding ratio, and contribution amounts, 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; we also show the progress of the Retirement System's funding ratios (provided above each bar) since 2001.

**City of Philadelphia Assets\* and Liabilities – 2001 to 2010**



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

The System's funding ratio has declined significantly since 2001. In 2009, the funding ratio declined by 10% due to the investment losses during the year and the change in the actuarial liability interest rate assumption. In 2010, the funding ratio increased by 2% due to strong investment returns, which was partially offset by the increased actuarial liability due to the assumption changes.

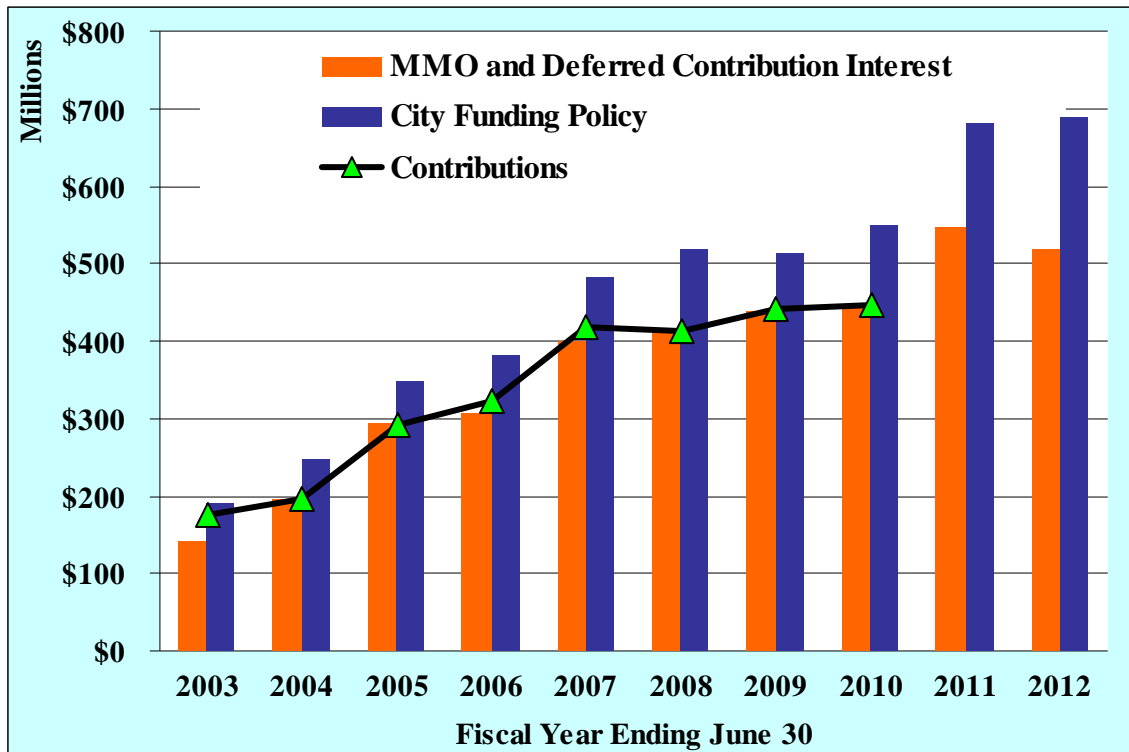
This historic trend emphasizing the funded status has continued to decline, increasing the risk of insolvency if contributions coupled with more stable and favorable returns relative to the long-term assumption are not realized in the near future.

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In this next chart we present historical trends for the Minimum Municipal Obligation (MMO), the contribution under the City’s Funding Policy, and the actual contribution made for fiscal years since 2003. 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 2011 and 2012. The FYE 2010 contribution includes the \$150 million deferred contribution.

**City of Philadelphia Contributions for Fiscal Years 2003-2012**



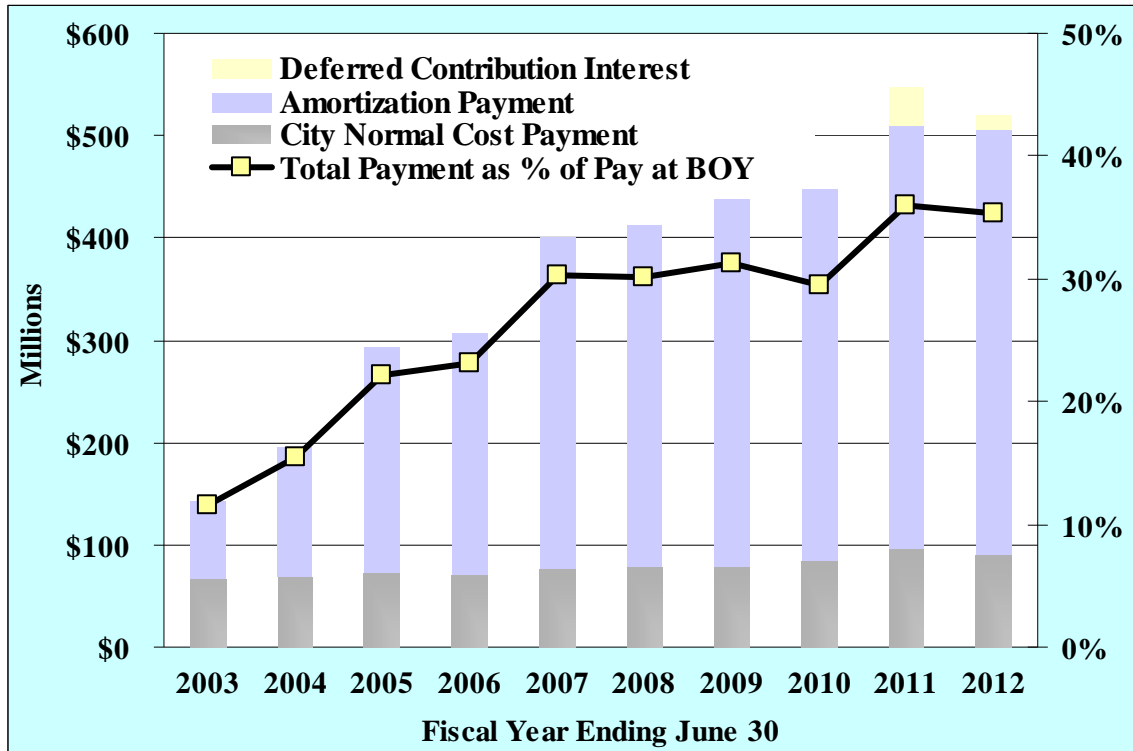
The key trend illustrated in this chart is the rapid escalation in all three measures starting in FYE 2004 due in part to investment losses and the City’s funding decision. Since 2004 the City began to make contributions based on the MMO rather than the Funding Policy which has resulted in the Funding Policy amounts increasing more rapidly than the MMO. This is especially evident for FYE 2011 contributions, where the City’s Funding Policy contributions increased about \$130 million. In addition, the MMO and City’s Funding Policy amounts for FYE 2011 increased significantly due to the investment losses, as well as an increase of \$25.8 million for the interest on the deferred contribution. For FYE 2012, the MMO decreased due to the improved funding ratio for the plan, and interest on contribution deferrals are \$12.3 million for one year.

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The chart below shows historical amortization, City normal cost payments, and the deferred contribution interest under the MMO. Also shown is the total beginning-of-year payment as a percentage of payroll based on the values in the legend on the right versus the line graph. For example in 2012 the City cost is expected to be just over 35% of payroll.

**MMO Contributions by Source for Fiscal Years 2003-2011**



The chart illustrates that the City normal cost payment has remained relatively level over the period shown. The amortization payment to pay off the unfunded actuarial liability has increased from just under \$80 million for FYE 2003 to just over \$417 million for FYE 2012. The total payment as a percentage of payroll is now above 35%, up from about 12% in FYE 2003. The amortization payment increased slightly from the amount due in FYE 2011 to the amount due in FYE 2012, but the total payment decreased because 2011 reflects two years of interest due on the deferred contributions.

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**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, 2010 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 MMO contributions are made each year. Our illustrations assume the provisions of Act 205 as amended by Act 44 remain in force during the projection period without consideration of the sunset provisions.

The projections are provided on two different asset return assumption bases:

- 1) Assuming 8.15% 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 8.15% return. We do this because the City’s return will never be level from year to year and the System must anticipate the implications of asset return volatility to the funded status and contribution requirements.

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Beginning										
Return	2.5%	7.5%	11.5%	15.5%	13.5%	10.5%	7.5%	5.5%	0.5%	-4.5%
Fiscal Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Beginning										
Return	-0.5%	3.5%	6.5%	7.5%	11.5%	15.5%	19.5%	15.5%	11.0%	6.7%

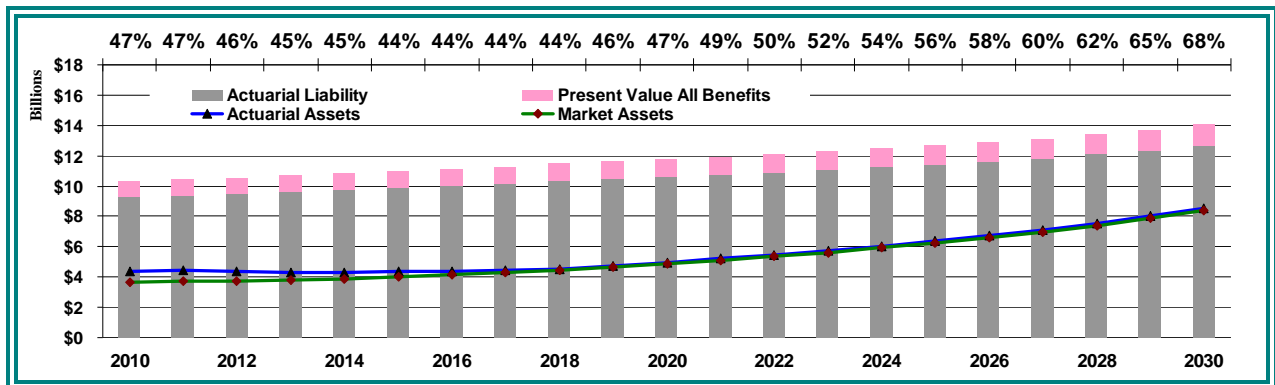
In reviewing each of these projections, it is the future trends, not necessarily the actual values that are important to consider in your deliberation of the risks of the System and the potential volatility of future funding ratios and City contribution levels.

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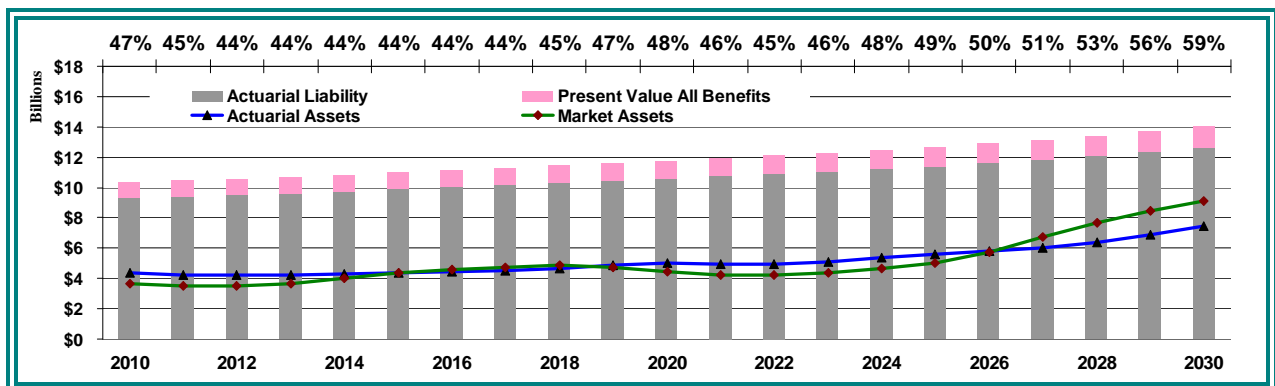
Projection Set 1: Assets and Liabilities

The two charts below show asset measures (green and blue lines) compared to liabilities (grey and pink bars). At the top of each chart is the progression of the System’s funding ratio which compares the actuarial value of assets (green lines) to the actuarial liability (grey bars). The projections demonstrate a number of issues. Funding at the MMO level will result in a very slow improvement of funding after the full impact of the 2008/2009 investment losses are fully realized. This is a reflection of the negative cash flow of the System where benefit payments and expenses exceed expected contributions. The alternative return expectations reveal insight from these two charts is how varying investment returns impact the System’s funding ratio. In both projections you can see that we applied the 10 year asset smoothing method adopted by the Board. This has significant influence on the smoothing of assets against market value volatility.

**Chart 1: Projection of Assets and Liabilities, 8.15% return each year and City makes contributions based on MMO**



**Chart 2: Projection of Assets and Liabilities, varying returns averaging 8.15% and City makes contributions based on MMO**



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

Chart 2 demonstrates that if the fund can achieve a long-term return rate of 8.15%, 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



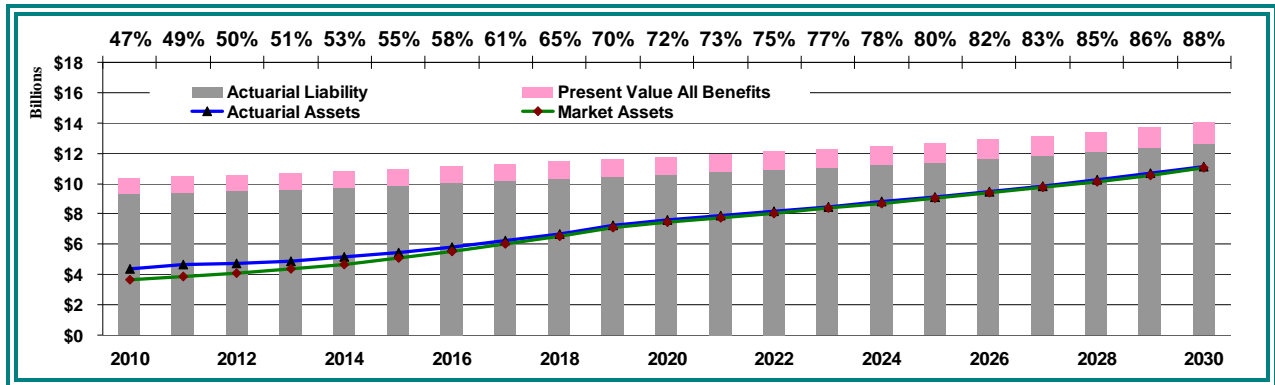
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contributions). When a mature fund pays out more than it receives in a year when returns are below the assumption, the assets that get paid out are no longer in the fund during subsequent years of market recovery.

It is also important to consider the fact that as long as the System is significantly underfunded, the financial burden on the City will remain relatively high and the only reason both of these projections show gradual improvement is because the contributions will be adjusted to cover any cost volatility.

**Chart 3: Projection of Assets and Liabilities, 8.15% return each year, and the City makes contributions based on the City’s Funding Policy**



In the above scenario where the City’s Funding Policy is contributed every year, the System reaches a funded ratio of 93% at the end of the projection period (similar to the projections on the prior page in Chart 1). Also, for the entire period the funding ratio is higher than the ratio achieved each year if the MMO contributions are made, because of the higher assumed contributions.

**Chart 4: Projection of Assets and Liabilities, if the City makes contributions based on the Funding Policy, varying returns averaging 8.15%**

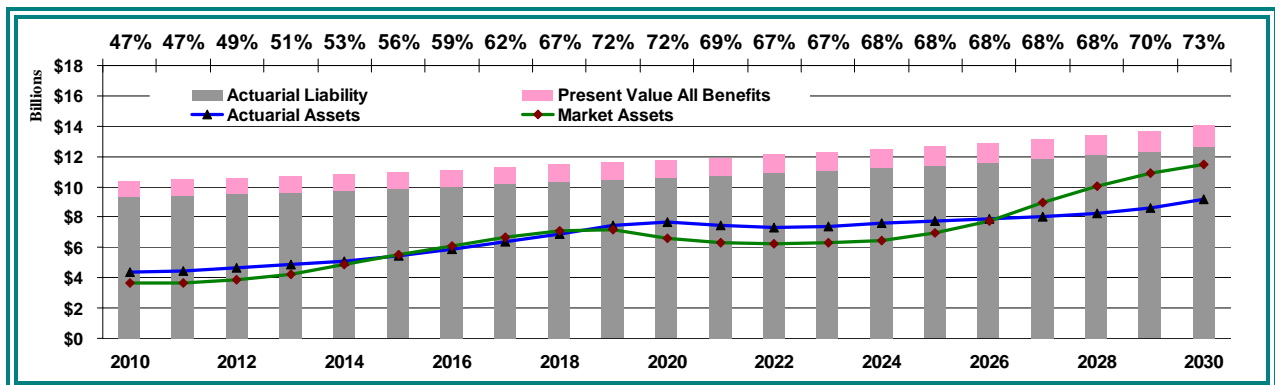


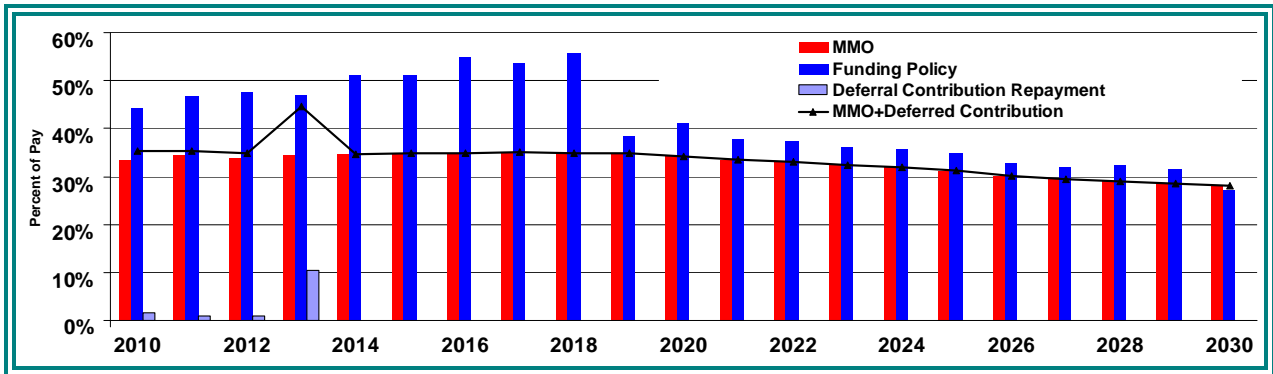
Chart 4 demonstrates that even if the return is achieved on average, because of negative cash flows the funded ratio could be materially less than long-term expectations might imply.

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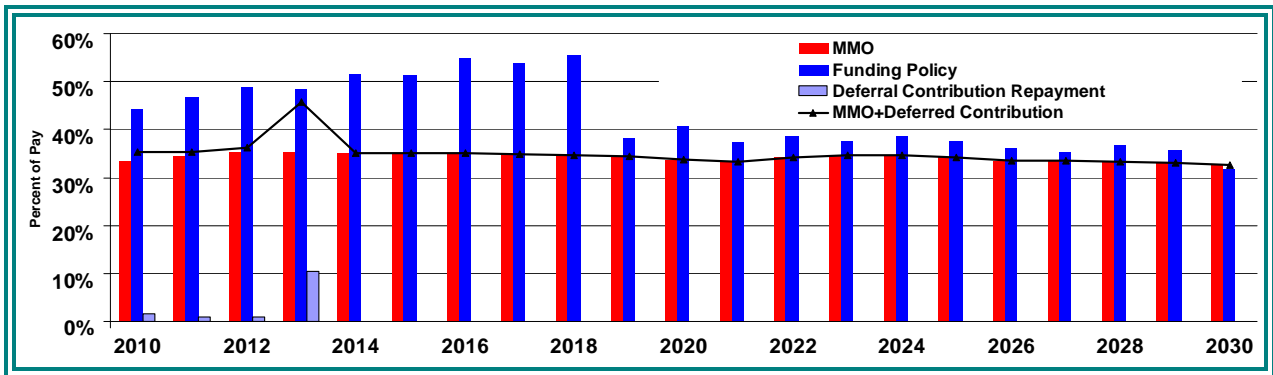
**Projection Set 2: Projected City Contribution Rate**

The chart below shows that the City’s composite contribution rate under the MMO which increases slowly until 2017 after which the MMO decreases slightly until 2026 when the initial unfunded is paid off and the contribution rate drops to less than 30% of payroll. The unfunded actuarial liability is not paid off during this projection period; thus the projected contributions never revert to the normal cost rate. The decrease in 2019 for the City’s Funding Policy rate is due to the payment in full of the initial unfunded liability. This projection assumes all actuarial assumptions are met, including the 8.15% anticipated investment return assumption, and the MMO contributions are made each year.

**Chart 5: Projection of City Contributions, 8.15% return each year**



**Chart 6: Projection of City Contributions, varying returns averaging 8.15%**



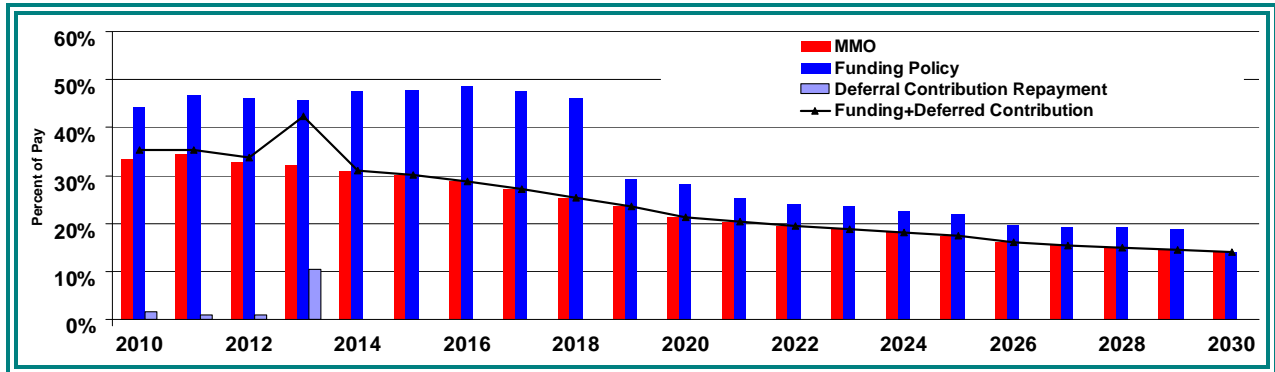
As shown above, varying returns have an impact on the computed City contribution rate, especially in the later projection years. However the volatility is mitigated for two reasons, the 10 year smoothing of assets and 20 year amortization of experience gains and losses. This illustrates that the future contributions should be anticipated to be higher to adjust for the market volatility. Thus, the market volatility can prolong the period of paying down the unfunded when coupled with the impact of negative cash flows in down markets.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
 JULY 1, 2010 ACTUARIAL VALUATION

SECTION I  
 BOARD SUMMARY

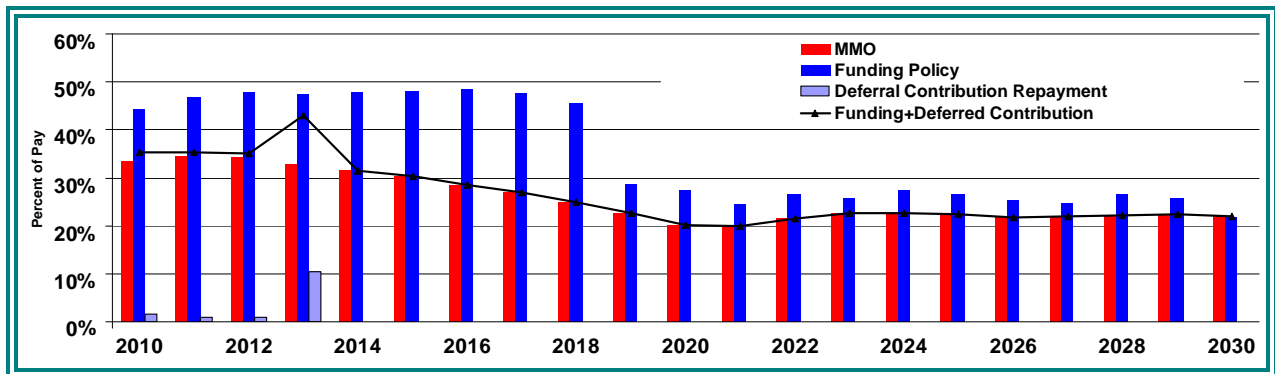
**Chart 7: Projection of City Contributions, 8.15% return each year, and the City makes contributions based on the City’s Funding Policy**

This chart shows the expected future contribution if the City’s Funding Policy contributions are made each year. Since larger contributions are assumed to be made each year up front, projected contributions are expected to steadily decline when compared to Chart 5.



**Chart 8: Projection of City Contributions, varying returns averaging 8.15% and the City makes contributions based on the City’s Funding Policy**

Chart 8 is similar to Chart 7 illustrating again the smoothing expectation on a City Funding Policy level when the annual return rates vary from year to year.



We note that when the System becomes 70% funded or greater, the unfunded liability may be amortized on a rolling 10 year basis. We have not shown the implications of this alternative funding method provided for in Act 205 because of the length of the projected period it will take before the System reaches this level of funding.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**SECTION II  
ASSETS**

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

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

- Disclosure of assets at July 1, 2009 and July 1, 2010,
- 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, 2010, and
- Disclosure of investment performance for the year.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 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 value of the investments. Because these fluctuations would cause volatility in employer contributions, an actuarial value of assets is developed. Table II-1 below discloses the market value by asset class as of July 1, 2009 and July 1, 2010. Table II-2 discloses the System’s net cash flows for the plan year beginning July 1, 2009 and ending June 30, 2010. Table II-3 discloses Fiscal 2010 City contributions.

<b>Table II-1</b>		
<b>Statement of Assets at Market Value<sup>1</sup></b>		
	<b>7/1/2010</b>	<b>7/1/2009</b>
<b><u>Assets</u></b>		
Cash	\$ 23,275,349	\$ 33,500,864
Investments	3,448,631,883	3,375,757,790
Securities Lending	440,491,098	420,344,216
Accounts Receivable	4,333,706	5,126,834
Due from Brokers	866,954,693	732,359,181
Interest and Dividends Receivable	10,432,515	8,133,823
Due from Other Governmental Units	<u>4,777,219</u>	<u>4,756,950</u>
<b>Total Assets</b>	<b>\$ 4,798,896,464</b>	<b>\$ 4,579,979,658</b>
<b><u>Liabilities</u></b>		
Vouchers Payable	\$ 36,496	\$ 20,182
Accounts Payable	3,300,856	3,084,833
Salaries and Wages Payable	158,279	152,111
Due on Securities Lending	440,491,098	420,344,216
Due to Brokers	844,725,570	754,826,242
Accrued Expenses	1,733,961	1,621,250
Deferred Revenue	2,070,409	2,644,542
Monies Held in Escrow	365,483	372,708
Allowance for Unrealized Loss	3,899,319	20,581,763
Other Liabilities	<u>512,871</u>	<u>564,735</u>
<b>Total Liabilities</b>	<b>\$ 1,297,294,343</b>	<b>\$ 1,204,212,582</b>
<b>Net Assets</b>	<b>\$ 3,501,602,121</b>	<b>\$ 3,375,767,076</b>
Deferred Contributions for FYE 2010	<u>150,000,001</u>	<u>-</u>
<b>Net Assets with Deferred Contributions</b>	<b>\$ 3,651,602,122</b>	<b>\$ 3,375,767,076</b>

<sup>1</sup> Includes the PAF which is not available for funding purposes.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

SECTION II  
ASSETS

**B. System Cash Flows for the Year July 1, 2009 through July 1, 2010**

<b>Table II-2</b>		
<b>Changes in Market Values<sup>1</sup></b>		
<b>Value of Assets – July 1, 2009</b>		<b>\$ 3,375,767,076</b>
<b><u>Additions</u></b>		
Contributions:		
Employer Contributions <sup>2</sup>	\$ 462,556,329	
Employee Contributions	51,569,852	
Total Contributions	\$ 514,126,181	\$ 514,126,181
Investment Income:		
Gain/(Loss) from Sale of Investments	\$ 401,243,539	
Interest and Dividends	70,537,730	
Total Investment Income	\$ 471,781,269	
Investment Activity Expenses:		
Investment Expenses	\$ (15,988,648)	
Total Investment Activity Expenses	\$ (15,988,648)	
Securities Lending Activities:		
Securities Lending Income	\$ 2,852,256	
Securities Lending Expenses	(4,931,939)	
Net Income from Securities Lending Activities	\$ (2,079,683)	
Miscellaneous Operating Revenues	\$ 712,091	
Net Investment Income		\$ 454,425,029
Total Additions		\$ 968,551,210
<b><u>Deductions</u></b>		
Administrative Expenses	\$ (8,074,131)	
Withdrawal Refunds	(4,520,092)	
Benefit Payments	(672,639,860)	
PAF Distributions	(7,482,081)	
Total Deductions	\$ (692,716,163)	
<b><u>Total</u></b>		
Net Increase (Decrease)		\$ 275,835,046
<b>Value of Assets – July 1, 2010</b>		<b>\$ 3,651,602,122</b>

<sup>1</sup> Includes the PAF which is not available for funding purposes.

<sup>2</sup> Reflects \$150 million deferred contribution for FYE 2010.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

SECTION II  
ASSETS

Cash Received, October 13, 2010	\$	297,445,999
Quasi-Agencies		
Cash Received		15,151,272
Accrued as of June 30, 2010		(40,943)
<b>Total</b>	<b>\$</b>	<b>312,556,328</b>
Deferred Contributions for FYE 2010		150,000,001
Total Contributions Reflected for the Actuarial Valuation	<b>\$</b>	<b>462,556,329</b>

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 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 contribution volatility. Beginning with investment losses as of Fiscal Year End 2009, gains and losses are prospectively amortized over a ten-year period.

<b>Table II-4</b>					
<b>Development of Actuarial Value of Assets</b>					
<b>as of July 1, 2010</b>					
1. Market Value of Assets as of July 1, 2010					
	\$				3,651,602,122
2. Pension Adjustment Fund (PAF) as of July 1, 2010					
Before Additional Transfers					
	\$				872,624
3. Market Value of Assets Net of Original PAF*					
	\$				3,650,729,498
4. Deferred Asset Gains/(Losses)					
<u>Plan</u>		<u>Investment</u>	<u>Percent</u>	<u>Percent</u>	<u>Amount</u>
<u>Year</u>		<u>Gains / (Losses)</u>	<u>Recognized</u>	<u>Deferred</u>	<u>Deferred</u>
2005	\$	99,429,256	100%	0%	\$ -
2006		380,531,307	80%	20%	76,106,261
2007		(642,637,544)	60%	40%	(257,055,018)
2008		(1,235,073,412)	20%	80%	(988,058,730)
2009		200,524,637	10%	90%	180,472,173
Total					\$ (988,535,314)
5. Preliminary Actuarial Value as of July 1, 2010 (5 = 3 - 4)					
	\$				4,639,264,812
6. Corridor for Actuarial Value					
a. 80% of Market Value Net of PAF					
	\$				2,920,583,599
b. 120% of Market Value Net of PAF					
					4,380,875,398
7. Additional PAF Transfer as of July 1, 2010					
	\$				-
8. Actuarial Value of Assets Net of Final PAF as of July 1, 2010					
(8 = min of 1) 6b or 2) the max of 6a and 5, minus 7					
As a percent of Market Value Net of Final PAF					
					120.0%
9. Market Value of Assets Net of Final PAF					
	\$				3,650,729,498

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



CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 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.

<b>Table II-5</b>								
<b>Allocation of Assets for Valuation Purposes Between Plans as of July 1, 2010</b>								
(\$ thousands)								
	<u>1967 Plan</u>			<u>1987 Plan</u>				<b>Total</b>
	<u>Municipal</u>	<u>Police</u>	<u>Fire</u>	<u>Municipal</u>	<u>Elected</u>	<u>Police</u>	<u>Fire</u>	
1. Actuarial Value of Assets as of July 1, 2009	\$ 1,752,401	\$ 747,491	\$ 326,912	\$ 560,351	\$ 11,532	\$ 511,764	\$ 131,662	\$ 4,042,113
2. Transactions During Plan Year July 1, 2009 to June 30, 2010								
a. Contributions								
City and Commonwealth <sup>1</sup>	\$ 206,415	\$ 124,193	\$ 44,578	\$ 37,071	\$ 458	\$ 25,883	\$ 8,848	\$ 447,446
Employees	9,821	4,119	1,717	13,973	153	16,728	5,059	51,569
Quasi-Public Agencies	15,110	-	-	-	-	-	-	15,110
b. Benefit Payments	(372,930)	(196,582)	(80,502)	(11,708)	(1,138)	(7,577)	(2,203)	(672,640)
c. Withdrawals	(922)	(200)	(83)	(1,572)	-	(1,574)	(170)	(4,520)
d. Administrative Expenses	(3,242)	(1,323)	(467)	(2,082)	(5)	(736)	(218)	(8,074)
e. Net Transactions	\$ (145,748)	\$ (69,793)	\$ (34,757)	\$ 35,682	\$ (532)	\$ 32,724	\$ 11,316	\$ (171,109)
3. Total Fund Balance Prior to Allocation of Investment Income [1. + 2e.]	\$ 1,606,653	\$ 677,698	\$ 292,155	\$ 596,033	\$ 11,000	\$ 544,488	\$ 142,978	\$ 3,871,004
4. Investment Income During Plan Year July 1, 2009 to June 30, 2010	\$ 318,865	\$ 134,500	\$ 57,983	\$ 118,292	\$ 2,183	\$ 108,062	\$ 28,376	\$ 768,261
5. Preliminary Actuarial Value of Assets as of July 1, 2010 [3. + 4.]	\$ 1,925,518	\$ 812,198	\$ 350,138	\$ 714,325	\$ 13,183	\$ 652,550	\$ 171,354	\$ 4,639,265
6. Final Actuarial Value of Assets With Corridor as of July 1, 2010	\$ 1,818,274	\$ 766,961	\$ 330,636	\$ 674,540	\$ 12,449	\$ 616,204	\$ 161,810	\$ 4,380,875

<sup>1</sup> Reflects \$150 million worth of deferred contributions for FYE 2010

Note: Numbers may not add due to rounding.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**SECTION II  
ASSETS**

**E. Development of the Pension Adjustment Fund as of July 1, 2010**

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 distributions 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. The adjusted market value of assets reflects a five-year smoothing of asset gains and losses, as described in the Philadelphia Code.

<b>Table II-6 Development of the Pension Adjustment Fund as of July 1, 2010</b>		
1. PAF on July 1, 2009	\$	7,339,818
2. PAF Distribution		(7,482,081)
3. Market Value Asset Return Through June 30, 2010 *		13.83%
4. PAF on July 1, 2010 Before Additional Transfers** =(1) x [1 + (3)] + (2)	\$	872,624
5. Adjusted Market Value of Assets Through June 30, 2010	\$	4,412,302,592
6. Adjusted Market Value of Assets Return Through June 30, 2010 ***		0.30%
7. Return in Excess of Investment Assumption Plus 1.0%, Limited to 5.0% =(6) - [8.25% + 1.00%]		0.00%
8. Additional Transfer as of July 1, 2010 =50% of (7) x (5)	\$	-
9. Total PAF as of July 1, 2010 = (4) + (8)	\$	872,624

\* Market Value Asset Return including the PAF

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

\*\*\* Asset return based upon the Adjusted Market Value of Assets using a 5-year smoothing of the gains/losses as outlined in Title 22-311

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**SECTION II  
ASSETS**

**F. Investment Performance**

The market value of assets internal rate of return was 13.8% for the year ending June 30, 2010. This is compared to an assumed return of 8.25%. The return for the year ending June 30, 2009 was -19.9%.

On an actuarial value of assets basis (net of PAF), the return for FYE 2010 was 12.9%. This return produced an overall investment gain of \$200.5 million for the year ending June 30, 2010, even after reflecting the corridor. Last year the actuarial value basis returned -9.3%.

<b>Year Ending June 30,</b>	<b>Market Value</b>	<b>Actuarial Value *</b>	<b>Total Return Standard &amp; Poor's 500 Index</b>	<b>Barclays Aggregate Bond Index**</b>
1994	1.6%	7.8%	1.3%	-1.5%
1995	11.7%	7.8%	26.1%	12.8%
1996	15.1%	10.1%	26.0%	4.7%
1997	18.3%	12.2%	34.6%	8.2%
1998	14.3%	13.1%	30.2%	10.5%
1999	10.0%	13.1%	22.7%	3.1%
2000	9.6%	11.1%	7.3%	4.6%
2001	-6.0%	8.3%	-14.8%	11.2%
2002	-5.8%	3.4%	-18.0%	8.6%
2003	1.8%	-2.2%	0.3%	10.4%
2004	16.6%	4.6%	19.1%	0.3%
2005	9.9%	1.8%	6.3%	6.8%
2006	11.3%	6.1%	8.6%	-0.8%
2007	17.0%	10.7%	20.6%	6.1%
2008	-4.5%	10.1%	-13.1%	7.1%
2009	-19.9%	-9.3%	-26.2%	6.0%
2010	13.8%	12.9%	14.4%	9.2%

\* Net of PAF

\*\* Formerly Lehman Brothers Aggregate Bond Index

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**SECTION II  
ASSETS**

**G. Asset Gain/(Loss)**

There was a \$200.5 million investment gain on market value of assets when compared to the expected as of July 1, 2010. Table II-8 reconciles the 2010 asset loss (expected versus actual) for the market value of assets both net of the PAF and in total. This investment loss is smoothed over a ten-year period to determine the actuarial value of assets (see Table II – 4). Also provided below is a reconciliation of the PAF. There was no PAF transfer amount as of July 1, 2010.

<b>Table II-8</b>			
<b>Calculation of Asset Gain/(Loss)</b>			
	<b>Market Value (Net of PAF)</b>	<b>PAF</b>	<b>Total Market Value</b>
1. Market Value of Assets as of July 1, 2009	\$ 3,368,427,258	\$ 7,339,818	\$ 3,375,767,076
2. Transactions During Plan Year July 1, 2009 to June 30, 2010			
a. Contributions			
City and Commonwealth	\$ 297,445,999	\$ -	\$ 297,445,999
Deferred Contributions	150,000,001		150,000,001
Employees	51,569,852	-	51,569,852
Quasi-Public Agencies	15,110,329	-	15,110,329
b. Benefit Payments	(672,639,860)	(7,482,081) <sup>1</sup>	(680,121,941)
c. Withdrawals	(4,520,092)	-	(4,520,092)
d. Administrative Expenses	(8,074,131)	-	(8,074,131)
e. Net Transactions	\$ (171,107,902)	\$ (7,482,081)	\$ (178,589,983)
3. Expected Investment Income From July 1, 2009 to June 30, 2010	\$ 252,885,505	\$ 1,014,887 <sup>2</sup>	\$ 253,900,392
4. PAF transfer at July 1, 2010	\$ -	\$ -	\$ -
5. Expected Market Value of Assets as of July 1, 2010 [1. + 2.e. + 3. + 4]	\$ 3,450,204,861	\$ 872,624	\$ 3,451,077,485
6. Market Value of Assets as of July 1, 2010	\$ 3,650,729,498	\$ 872,624	\$ 3,651,602,122
7. Investment Gain/(Loss) [6. - 5.]	\$ 200,524,637	\$ -	\$ 200,524,637

<sup>1</sup> This is the amount of distributions made out of the Pensions Adjustment Fund during the Plan Year

<sup>2</sup> The PAF is credited with investment income at the market rate of return earned by plan assets

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**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, 2009 and July 1, 2010,
- Statement of changes in these liabilities and the unfunded liabilities during the year,
- Development of the normal cost rates by plan, and
- The reconciliation of the changes in the unfunded liability by plan as well as the expected unfunded liability as of July 1, 2011.

**Disclosure**

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

- **Present Value of all Future Benefits:** Used for measuring all future obligations, this represents the amount of money needed today to fully pay off all benefits both earned as of the valuation date and those to be earned in the future by current Plan participants, under the current Plan provisions and assumptions.
- **Actuarial Liability:** Used for determining employer contributions and GASB accounting disclosures. This liability is calculated by subtracting the present value of future member contributions and future employer normal cost contributions 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, 2010 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, 2010, and July 1, 2009, for the Retirement System.

<b>Table III-1 Disclosure of Liabilities (\$ thousands)</b>		
	<b>July 1, 2010</b>	<b>July 1, 2009</b>
<b>Present Value of Future Benefits</b>		
Actives	\$ 4,047,763	\$ 4,254,849
Terminated Vesteds	147,730	111,107
Disabled	680,163	642,177
Retirees	4,034,768	3,868,581
Beneficiaries	514,053	493,044
DROP	911,939	689,988
Non-Vested Refunds	8,511	5,565
<b>Total City PVFB</b>	<b>\$ 10,344,927</b>	<b>\$ 10,065,311</b>
Market Value of Assets	(3,651,602)	(3,375,767)
Present Value Future Member Contrib.	(363,820)	(362,000)
<b>City's Unfunded Future Obligation</b>	<b>\$ 6,329,504</b>	<b>\$ 6,327,544</b>
<b>Actuarial Liability</b>		
Actives	\$ 3,019,883	\$ 3,164,583
Terminated Vesteds	147,730	111,107
Disabled	680,163	642,177
Retirees	4,034,768	3,868,581
Beneficiaries	514,053	493,044
DROP	911,939	689,988
Non-Vested Refunds	8,511	5,565
<b>Total City AL</b>	<b>\$ 9,317,047</b>	<b>\$ 8,975,045</b>
Actuarial Value of Assets	(4,380,875)	(4,042,113)
<b>Unfunded Actuarial Liability</b>	<b>\$ 4,936,172</b>	<b>\$ 4,932,932</b>

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 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.

<b>Table III-2</b>								
<b>Liabilities Detail as of July 1, 2010</b>								
(\$ thousands)								
	<b>1967 Plan</b>			<b>1987 Plan</b>			<b>Total</b>	
	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>	<b>Municipal</b>	<b>Elected</b>	<b>Police</b>		
<b>Present Value of Future Benefits</b>								
Actives	\$ 1,183,582	\$ 401,033	\$ 129,711	\$ 976,702	\$ 10,536	\$ 1,047,361	\$ 298,839	\$ 4,047,763
Terminated Vesteds	86,690	1,448	1,286	42,276	-	12,993	3,037	147,730
Disabled	242,144	246,290	63,091	29,093	-	83,808	15,737	680,163
Retirees	2,161,307	1,250,421	524,208	71,737	5,496	14,931	6,669	4,034,768
Beneficiaries	291,322	144,726	56,559	9,727	467	8,043	3,208	514,053
DROP	521,676	175,701	153,012	33,686	7,478	12,546	7,840	911,939
Non-Vested Refunds	2,004	162	51	4,783	9	1,211	291	8,511
<b>Total PVFB</b>	<b>\$ 4,488,725</b>	<b>\$ 2,219,781</b>	<b>\$ 927,918</b>	<b>\$ 1,168,002</b>	<b>\$ 23,986</b>	<b>\$ 1,180,894</b>	<b>\$ 335,622</b>	<b>\$10,344,927</b>
<b>Actuarial Liability</b>								
Actives	\$ 1,068,375	\$ 351,778	\$ 114,709	\$ 689,376	\$ 9,331	\$ 616,388	\$ 169,926	\$ 3,019,883
Terminated Vesteds	86,690	1,448	1,286	42,276	-	12,993	3,037	147,730
Disabled	242,144	246,290	63,091	29,093	-	83,808	15,737	680,163
Retirees	2,161,307	1,250,421	524,208	71,737	5,496	14,931	6,669	4,034,768
Beneficiaries	291,322	144,726	56,559	9,727	467	8,043	3,208	514,053
DROP	521,676	175,701	153,012	33,686	7,478	12,546	7,840	911,939
Non-Vested Refunds	2,004	162	51	4,783	9	1,211	291	8,511
<b>Total AL</b>	<b>\$ 4,373,518</b>	<b>\$ 2,170,526</b>	<b>\$ 912,916</b>	<b>\$ 880,675</b>	<b>\$ 22,781</b>	<b>\$ 749,921</b>	<b>\$ 206,709</b>	<b>\$ 9,317,047</b>
Actuarial Value of Assets	(1,818,274)	(766,961)	(330,636)	(674,540)	(12,449)	(616,204)	(161,810)	(4,380,875)
<b>Unfunded Actuarial Liability</b>	<b>\$ 2,555,244</b>	<b>\$ 1,403,565</b>	<b>\$ 582,280</b>	<b>\$ 206,135</b>	<b>\$ 10,332</b>	<b>\$ 133,716</b>	<b>\$ 44,899</b>	<b>\$ 4,936,172</b>
<b>Funding %</b>	41.6%	35.3%	36.2%	76.6%	54.6%	82.2%	78.3%	47.0%

Note: Numbers may not add due to rounding.

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

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

	<b>1967 Plan</b>			<b>1987 Plan</b>				<b>Total</b>
	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>	<b>Municipal</b>	<b>Elected</b>	<b>Police</b>	<b>Fire</b>	
	Retirement	\$ 13,289	\$ 7,081	\$ 2,306	\$ 21,850	\$ 112	\$ 30,739	
Death	642	303	100	1,630	12	1,487	464	4,637
Disability	1,929	927	279	4,865	19	4,938	1,363	14,320
Termination	5,017	941	286	12,908	107	2,847	743	22,849
Administrative Expenses	3,273	1,347	472	2,215	5	784	225	8,320
<b>Total Normal Cost</b>	<b>\$ 24,149</b>	<b>\$ 10,598</b>	<b>\$ 3,442</b>	<b>\$ 43,468</b>	<b>\$ 255</b>	<b>\$ 40,795</b>	<b>\$ 12,507</b>	<b>\$ 135,214</b>
Expected Employee Contributions	\$ 8,645	\$ 3,720	\$ 1,197	\$ 13,037	\$ 157	\$ 16,897	\$ 4,898	\$ 48,551
City Normal Cost	\$ 15,504	\$ 6,878	\$ 2,245	\$ 30,431	\$ 98	\$ 23,898	\$ 7,609	\$ 86,663
Current Annual Payroll	\$ 230,540	\$ 61,994	\$ 19,953	\$ 672,000	\$ 2,150	\$ 336,551	\$ 97,962	\$ 1,421,151
City Normal Cost as % of Pay, Beginning of Year Payment	6.725%	11.096%	11.249%	4.528%	4.558%	7.101%	7.767%	6.098%
City Normal Cost as % of Pay, End of Year Payment	7.273%	12.000%	12.166%	4.897%	4.930%	7.679%	8.400%	6.595%

Note: Numbers may not add due to rounding.



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

Table III-4 shows changes in the unfunded actuarial liability from July 1, 2009 to July 1, 2010 due to actuarial experience and the interest rate assumption change; there were no plan changes. It also shows the development of the expected unfunded actuarial liability from July 1, 2010 to July 1, 2011 based upon the City's Funding Policy, which is used to develop the end of year amortization amounts for the City's Funding Policy in Table IV – 10 and in Appendix D. The actuarial experience of each of the plans is calculated based on the plans' actual asset and liability values compared to the expected values.

<b>Table III-4</b>								
<b>Expected Unfunded Actuarial Liability for the Plan Year Ending June 30, 2011</b>								
(\$ thousands)								
	1967 Plan			1987 Plan			Total	Total
	Municipal	Police	Fire	Municipal	Elected	Police		
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation*	\$ 2,460,218	\$ 1,305,285	\$ 527,869	\$ 252,633	\$ 9,648	\$ 222,808	\$ 68,371	\$ 4,846,832
2. Changes in UAL due to								
a. Actuarial Experience	\$ (6,893)	\$ 11,006	\$ 10,439	\$ (29,592)	\$ 143	\$ (36,147)	\$ (10,830)	\$ (61,873)
b. Assumption Changes	101,919	87,273	43,972	(16,906)	542	(52,944)	(12,643)	151,212
c. Active Plan Changes	-	-	-	-	-	-	-	-
d. Inactive Plan Changes	-	-	-	-	-	-	-	-
e. Subtotal	\$ 95,026	\$ 98,280	\$ 54,411	\$ (46,498)	\$ 685	\$ (89,092)	\$ (23,472)	\$ 89,339
3. Actual UAL as of July 1, 2010 [1. + 2e.]	\$ 2,555,245	\$ 1,403,564	\$ 582,280	\$ 206,135	\$ 10,332	\$ 133,717	\$ 44,899	\$ 4,936,172
4. Expected Changes in UAL from July 1, 2010 to July 1, 2011 due to								
a. Interest on Changes in UAL	\$ 7,745	\$ 8,010	\$ 4,434	\$ (3,790)	\$ 56	\$ (7,261)	\$ (1,913)	\$ 7,281
b. FY 2011 Amortization Contribution	(124,084)	(78,413)	(26,377)	(5,238)	(162)	(3,455)	(1,078)	(238,808)
c. Subtotal	\$ (116,339)	\$ (70,404)	\$ (21,942)	\$ (9,028)	\$ (106)	\$ (10,716)	\$ (2,991)	\$ (231,527)
5. Expected UAL as of July 1, 2011 [3. + 4c.]	\$ 2,438,906	\$ 1,333,160	\$ 560,338	\$ 197,107	\$ 10,226	\$ 123,001	\$ 41,908	\$ 4,704,645

\* Expected UAL is based upon the City's funding policy  
Note: Numbers may not add due to rounding.

**SECTION IV  
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contribution is needed based upon the funding methods either required by law or adopted by the plan sponsor. For an actuarial funding method to be effective it should result in a pattern of contributions that is both stable, predictable and systematically fund the plan obligations.

The actuarial funding method used to determine the normal cost and the unfunded actuarial liability is the Entry Age Normal (EAN) cost method. The normal cost is based upon the normal cost rate 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 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 unfunded actuarial liability is the difference between the EAN actuarial liability and the actuarial value of assets.

Within this section of the report, two contribution amounts are determined based upon two different sets of rules for determining the way the unfunded actuarial liability is funded.

The first method is defined in accordance with Act 205 and defines the Minimum Municipal Obligation (MMO), which is the City's minimum required contribution under Pennsylvania state law. The second method is in accordance with the City's Funding Policy which predates the Act 205 rules and calls for contributions that are greater than the MMO until the initial unfunded liability determined in 1984 is fully funded. Under both funding methods there are two components: the normal cost and the amortized unfunded actuarial liability. The amortized unfunded actuarial liability is the amount of the unfunded actuarial liability that is paid each year based upon the amortization periods. The amortization periods are different under the MMO and the City's Funding Policy, which is outlined in more detail in Appendix B, Section B.

Due to the contributions deferral in FYE 2010, there is an additional part to the MMO to include interest on the deferred contribution. This interest payment can be deferred as well and become part of the following year's MMO as we understand the provisions of Section 10 of Act 205. For FYE 2011, this report reflects two years of interest for the \$150 million deferral for FYE 2010. If additional contributions are deferred in FYE 2011, then additional interest will need to be reflected for this year.

As of July 1, 2010, gains and losses are recognized annually to determine the amortization base used to calculate the MMO, as opposed to biennially. This change is implemented due to section 1002 of Act 205.

In addition, the MMO excluding the Pension Obligation Bond (POB) is also provided in this section, as required for reporting purposes under ACT 205.

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

In Table IV-1 we provide the employee contribution rates as a percent of pay effective for the plan year starting July 1, 2011. Table IV-2 shows the quasi-agency funding rates as a percent of payroll.

<b>Table IV-1 Employee Contribution Rates for the Plan Year Beginning July 1, 2011</b>				
	<b>Municipal<sup>1</sup></b>	<b>Elected</b>	<b>Police</b>	<b>Fire</b>
Plan 67	3.75%	N/A	6.00%	6.00%
Plan 87 <sup>2</sup>	1.94%	7.32%	5.02%	5.00%

<sup>1</sup> For Municipal 1967 plan, employee contributions are 6% for pay in excess of the social security wage base

<sup>2</sup> Police '87 contribution rate reflects the new rate of 6% for new hires after January 1, 2010 who opted to stay in Plan '87

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

<b>Table IV-2 Quasi Agency Funding Rate as a Percent of Payroll</b>		
<b>Valuation Date Fiscal Year Ending in Year</b>	<b>July 1, 2010 2012</b>	<b>July 1, 2009 2011</b>
1. Normal Cost Rate	7.273%	7.297%
2. Amortization Rate under the City's Funding Policy	146.440%	125.124%
3. Total Year-End Rate [1. + 2.]	153.714%	132.421%
4. Adjusted for Quarterly Payments [3. x 0.96877]	148.913%	128.285%

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CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

Table IV-3 shows the development of the FYE 2012 Minimum Municipal Obligation (MMO) for each division. Table IV-4 on the following page shows a schedule of amortization payments toward the MMO.

<b>Table IV-3</b>				
<b>Development of the Minimum Municipal Obligation for Fiscal Year 2012</b>				
(\$ thousands)				
	Non-Uniformed	Police	Fire	Total
Estimated FY 2011-2012 Payroll	\$ 936,354	\$ 412,494	\$ 122,043	\$ 1,470,891
Normal Cost %	6.895%	12.361%	12.935%	8.929%
Normal Cost	\$ 64,563	\$ 50,987	\$ 15,786	\$ 131,336
Amortization Payment	234,306	129,513	53,441	417,260
Administrative Expenses	<u>5,685</u>	<u>2,205</u>	<u>721</u>	<u>8,611</u>
Subtotal	\$ 304,554	\$ 182,705	\$ 69,948	\$ 557,207
Expected Employee Contributions	<u>(22,604)</u>	<u>(21,339)</u>	<u>(6,310)</u>	<u>(50,252)</u>
Minimum Municipal Obligation	\$ 281,950	\$ 161,366	\$ 63,638	\$ 506,955
Additional MMO for Deferred Contribution Interest	<u>6,083</u>	<u>4,804</u>	<u>1,487</u>	<u>12,375</u>
<b>Total Minimum Municipal Obligation</b>	<b>\$ 288,034</b>	<b>\$ 166,171</b>	<b>\$ 65,126</b>	<b>\$ 519,330</b>

Note: Numbers may not add due to rounding.

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

**Table IV-4  
Unfunded Liability Payments toward the MMO for Fiscal Year 2012  
(\$ thousands)**

Type of Base	Municipal			Police			Fire			Total		
	7/1/2010 Balance	Years Left	FY 2012 Payment	7/1/2010 Balance	Years Left	FY 2012 Payment	7/1/2010 Balance	Years Left	FY 2012 Payment	7/1/2010 Balance	Years Left	FY 2012 Payment
<b>Unfunded Actuarial Liability as of July 1, 2009</b>	\$ 2,746,382	29	\$ 230,752	\$ 1,545,896	29	\$ 129,887	\$ 599,064	29	\$ 50,333	\$ 4,891,342	29	\$ 410,972
<b>Gain/Loss as of July 1, 2010</b>	\$ (60,225)	20	\$ (5,772)	\$ (42,944)	20	\$ (4,116)	\$ (3,214)	20	\$ (308)	\$ (106,383)	20	\$ (10,196)
<b>Assumption Change as of July 1, 2010</b>	\$ 85,555	15	\$ 9,327	\$ 34,329	15	\$ 3,742	\$ 31,329	15	\$ 3,415	\$ 151,213	15	\$ 16,484
<b>Total</b>	<b>\$ 2,771,712</b>		<b>\$ 234,306</b>	<b>\$ 1,537,280</b>		<b>\$ 129,513</b>	<b>\$ 627,179</b>		<b>\$ 53,440</b>	<b>\$ 4,936,171</b>		<b>\$ 417,260</b>

Note: Numbers may not add due to rounding.

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Table IV-5 (a) – (d) provides more detail by plan on the expected and actual unfunded actuarial liability and the new amortization bases established as of July 1, 2010 for the MMO.

<b>Table IV-5a</b>			
<b>Development of the Fiscal Year 2012 Amortization Payment under MMO</b>			
<b>Municipal and Elect</b>			
<b>(\$ thousands)</b>			
	<b>7/1/2010 Outstanding Balance</b>	<b>Remaining Years</b>	<b>FY 2012 Payment</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation	\$ 2,746,382	29	\$ 230,752
2. Changes in UAL due to			
a. Actuarial Experience	\$ (60,225)	20	\$ (5,772)
b. Assumption Changes	85,555	15	9,327
c. Active Plan Changes	-	0	-
d. Inactive Plan Changes	-	0	-
e. Subtotal	\$ 25,330		\$ 3,555
3. Total [1c. + 2e.]	\$ 2,771,712		\$ 234,307

Note: Numbers may not add due to rounding.

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<b>Table IV-5b</b>			
<b>Development of the Fiscal Year 2012 Amortization Payment under MMO</b>			
<b>Police</b>			
<b>(\$ thousands)</b>			
	<b>7/1/2010 Outstanding Balance</b>	<b>Remaining Years</b>	<b>FY 2012 Payment</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation	\$ 1,545,896	29	\$ 129,887
2. Changes in UAL due to			
a. Actuarial Experience	\$ (42,944)	20	\$ (4,116)
b. Assumption Changes	34,329	15	3,742
c. Active Plan Changes	-	0	-
d. Inactive Plan Changes	-	0	-
e. Subtotal	\$ (8,616)		\$ (374)
3. Total [1c. + 2e.]	\$ 1,537,280		\$ 129,513

<b>Table IV-5c</b>			
<b>Development of the Fiscal Year 2012 Amortization Payment under MMO</b>			
<b>Fire</b>			
<b>(\$ thousands)</b>			
	<b>7/1/2010 Outstanding Balance</b>	<b>Remaining Years</b>	<b>FY 2012 Payment</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation	\$ 599,064	29	\$ 50,333
2. Changes in UAL due to			
a. Actuarial Experience	\$ (3,214)	20	\$ (308)
b. Assumption Changes	31,329	15	3,415
c. Active Plan Changes	-	0	-
d. Inactive Plan Changes	-	0	-
e. Subtotal	\$ 28,115		\$ 3,107
3. Total [1c. + 2e.]	\$ 627,179		\$ 53,440

Note: Numbers may not add due to rounding.

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

<b>Table IV-5d</b>			
<b>Development of the Fiscal Year 2012 Amortization Payment under MMO</b>			
<b>Total</b>			
<b>(\$ thousands)</b>			
	<b>7/1/2010</b>	<b>Remaining</b>	<b>FY 2012</b>
	<b>Outstanding Balance</b>	<b>Years</b>	<b>Payment</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation	\$ 4,891,342	29	\$ 410,972
2. Changes in UAL due to			
a. Actuarial Experience	\$ (106,383)	20	\$ (10,196)
b. Assumption Changes	151,213	15	16,484
c. Active Plan Changes	-	0	-
d. Inactive Plan Changes	-	0	-
e. Subtotal	\$ 44,829		\$ 6,288
3. Total [1c. + 2e.]	\$ 4,936,171		\$ 417,260

Note: Numbers may not add due to rounding.



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**SECTION IV  
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

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

- Table IV-6 is a summary of assets, liabilities, and amortization contributions under the assumption that the Pension Obligation Bond (POB) was never contributed.
- Table IV-7 is a schedule of modified amortization payments under the assumption that the proceeds from the POB were never contributed.
- Table IV-8a, IV-8b, and IV-8c are debt service schedules for the POB, allocated for the Municipal, Police, and Fire divisions.
- Tables IV-9a and IV-9b are statements of receipts and disbursements for each division excluding and including bond issue assets, respectively, excluding the PAF.

<b>Table IV-6</b>				
<b>Summary of Modified Actuarial Data</b>				
<b>(\$ thousands)</b>				
	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>	<b>Total</b>
Actuarial Liability	\$ 5,276,975	\$ 2,920,446	\$ 1,119,625	\$ 9,317,047
Market Value of Assets (less POB)	\$ 1,787,845	\$ 1,049,910	\$ 301,685	\$ 3,139,440
Actuarial Value of Assets (less POB)	\$ 2,024,205	\$ 1,179,015	\$ 347,454	\$ 3,550,674
Unfunded Actuarial Liability (AL - AVA)	\$ 3,252,770	\$ 1,741,431	\$ 772,171	\$ 5,766,372
Amortization Contributions				
Total Amortization Amount	\$ 274,839	\$ 146,755	\$ 65,682	\$ 487,276
Remaining Years	28	29	28	28

Note: Numbers may not add due to rounding.

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

<b>Table IV-7 Modified Unfunded Liability Payments toward the MMO for Fiscal Year 2012 (\$ thousands)</b>											
Type of Base	Municipal			Police			Fire			Total	
	7/1/2010 Balance	Remaining Years	FY 2012 Payment	7/1/2010 Balance	Remaining Years	FY 2012 Payment	7/1/2010 Balance	Remaining Years	FY 2012 Payment	7/1/2010 Balance	Remaining Years
<b>Unfunded Actuarial Liability as of July 1, 2009</b>	\$ 3,220,555	29	\$ 270,592	\$ 1,744,415	29	\$ 146,566	\$ 739,011	29	\$ 62,092	\$ 5,703,982	29
<b>July 1, 2010 Charges</b>											
Experience (Gain)/Loss	\$ (53,340)	20	\$ (5,080)	\$ (37,313)	20	\$ (3,553)	\$ 1,831	20	\$ 174	\$ (88,821)	20
Assumption Change	<u>85,555</u>	15	<u>9,327</u>	<u>34,329</u>	15	<u>3,742</u>	<u>31,329</u>	15	<u>3,415</u>	<u>151,212</u>	15
Subtotal	\$ 32,215		\$ 4,247	\$ (2,984)		\$ 189	\$ 33,160		\$ 3,590	\$ 62,391	
<b>Total</b>	\$ 3,252,770		\$ 274,839	\$ 1,741,431		\$ 146,755	\$ 772,171		\$ 65,682	\$ 5,766,372	

Note: Numbers may not add due to rounding.

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**SECTION IV  
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-8a**

**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	-	-

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**SECTION IV  
CONTRIBUTIONS AND MINIMUM MUNICIPAL OBLIGATION**

**Table IV-8b**

**TOTAL DEBT SERVICE REQUIREMENTS: POLICE**

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

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**Table IV-8c**

**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	-	-

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Table IV- 9a provides the receipts and disbursements of assets *excluding* the Bond issue assets and excluding the PAF.

<b>Table IV-9a</b>				
<b>Receipts and Disbursements Excluding Bond Issue Assets</b>				
	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>	<b>Total</b>
Assets as of July 1, 2009	\$ 1,621,968,345	\$ 936,225,370	\$ 274,377,033	\$ 2,832,570,748
<b>Receipts</b>				
Employer Contributions	\$ 265,173,107	\$ 143,118,132	\$ 56,167,648	\$ 464,458,887
Employee Contributions	23,947,405	20,846,485	6,775,962	51,569,852
State Aid	32,272,258	19,854,099	7,067,872	59,194,229
Supplemental State Assistance	-	-	-	-
Investment Income (includes investment expenses)	238,082,707	137,858,123	40,939,716	416,880,547
Other Receipts	-	-	-	-
<b>Total Receipts</b>	<b>\$ 559,475,478</b>	<b>\$ 321,676,839</b>	<b>\$ 110,951,198</b>	<b>\$ 992,103,515</b>
<b>Disbursements</b>				
Benefit Payments	\$ 385,776,014	\$ 204,158,833	\$ 82,705,014	\$ 672,639,861
Refund of Contributions	2,493,716	1,773,901	252,475	4,520,092
Administrative Expenses	5,329,182	2,059,296	685,653	8,074,131
PAF Transfer at Year End	-	-	-	-
Other Disbursements	-	-	-	-
<b>Total Disbursements</b>	<b>\$ 393,598,912</b>	<b>\$ 207,992,030</b>	<b>\$ 83,643,142</b>	<b>\$ 685,234,084</b>
Assets as of July 1, 2010	\$ 1,787,844,911	\$ 1,049,910,179	\$ 301,685,089	\$ 3,139,440,179

Note: Numbers may not add due to rounding

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Table IV- 9b provides the market value of assets *including* the Bond issue assets and excluding the PAF.

<b>Table IV-9b</b>				
<b>Receipts and Disbursements Including Bond Issue Assets</b>				
	<b>Municipal</b>	<b>Police</b>	<b>Fire</b>	<b>Total</b>
Assets as of July 1, 2009	\$ 1,944,057,927	\$ 1,044,499,636	\$ 379,869,695	\$ 3,368,427,258
<b>Receipts</b>				
Employer Contributions	\$ 226,782,337	\$ 130,221,973	\$ 46,357,790	\$ 403,362,100
Employee Contributions	23,947,405	20,846,485	6,775,962	51,569,852
State Aid	32,272,258	19,854,099	7,067,872	59,194,229
Supplemental State Assistance	-	-	-	-
Investment Income (includes investment expenses)	260,022,554	142,846,933	50,540,655	453,410,142
Other Receipts	-	-	-	-
<b>Total Receipts</b>	<b>\$ 543,024,554</b>	<b>\$ 313,769,490</b>	<b>\$ 110,742,279</b>	<b>\$ 967,536,323</b>
<b>Disbursements</b>				
Benefit Payments	\$ 385,776,014	\$ 204,158,833	\$ 82,705,014	\$ 672,639,861
Refund of Contributions	2,493,716	1,773,901	252,475	4,520,092
Administrative Expenses	5,329,182	2,059,296	685,653	8,074,131
PAF Transfer at Year End	-	-	-	-
Other Disbursements	-	-	-	-
<b>Total Disbursements</b>	<b>\$ 393,598,912</b>	<b>\$ 207,992,030</b>	<b>\$ 83,643,142</b>	<b>\$ 685,234,084</b>
Assets as of July 1, 2010	\$ 2,093,483,569	\$ 1,150,277,097	\$ 406,968,832	\$ 3,650,729,497

Note: Numbers may not add due to rounding

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The Table IV – 10 and Table IV – 11 provide information on the City’s Funding Policy for FYE 2011 and FYE 2012. 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 for the MMO, rather than the usual 15 years which is used for the City’s Funding Policy.
- 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, 2010 valuation report will determine FYE 2011 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 FYE 2007-2008, the MMO recognized actuarial gains and losses every other year, in order to coincide with the filing of the Act 205 forms. Beginning for FYE 2012, gains and losses are recognized annually. The City’s Funding Policy recognizes actuarial gains and losses on an annual basis.

Table IV – 10 develops the amortized amounts for the current year under the City’s Funding Policy. For additional details on the amortized amounts by plan, refer to Appendix B. Table IV – 11 provides the estimated FYE 2012 and updated FYE 2011 contribution amount under the City’s Funding Policy. The estimated FYE 2012 contribution will be updated in next year’s actuarial valuation report based upon the July 1, 2011 payroll.



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<b>Table IV-10</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>Total</b>					
<b>(\$ thousands)</b>					
	<b>7/1/2010</b>	<b>7/1/2011</b>	<b>Remaining</b>	<b>FY 2012 Payment</b>	<b>FY 2012 Payment</b>
	<b>Outstanding Balance</b>	<b>Expected Balance</b>	<b>Years</b>	<b>Beginning-of-Year</b>	<b>End-of-Year</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation Remaining	\$ 4,846,832	\$ 4,608,025		\$ 588,865	\$ 636,858
2. Changes in UAL due to					
a. Actuarial Experience	\$ (61,873)	\$ (66,916)	20	\$ (6,372)	\$ (6,892)
b. Assumption Changes	151,212	163,536	15	17,828	19,281
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ 89,339	\$ 96,620		\$ 11,456	\$ 12,389
3. Total [1c. + 2e.]	\$ 4,936,172	\$ 4,704,645		\$ 600,321	\$ 649,247

<b>Table IV-11</b>				
<b>City's Funding Policy Contributions*</b>				
<b>Fiscal Year</b>	<b>2012</b>	<b>% of Pay</b>	<b>2011</b>	<b>% of Pay</b>
Estimated FY Payroll	\$ 1,470,891		\$ 1,421,151	**
Normal Cost (with Expenses)	\$ 139,947	9.51%	\$ 138,709	9.76%
Employee Contributions	(50,251)	3.42%	(49,346)	3.47%
City Normal Cost	\$ 89,696	6.10%	\$ 89,363	6.29%
Amortization Payment	600,321	40.81%	585,703	41.21%
City's Funding Policy	\$ 690,017	46.91%	\$ 675,066	47.50%

\* Assuming beginning-of-year payment.

\*\* FYE 2011 payroll for the City's Funding Policy is the final payroll for the year. All other payroll is estimated based upon the prior year's data used for the actuarial valuation.

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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 for Fiscal Year 2010. For Fiscal Year 2011, the assumed interest rate will change to 8.25% based upon July 1, 2009 liabilities valued at this interest rate. For Fiscal Year 2012 the assumed interest rate will change to 8.15% based upon July 1, 2010 liabilities valued at this interest rate. 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, 2009 and July 1, 2010 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. The City's deferred contributions are included in these amounts based on the requirement set out in Section 10 of Act 205.
- 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. The City's deferred contributions are included in these amounts based on the requirement set out in Section 10 of Act 205.
- 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. These contributions do not include the deferred contribution of \$150 million.

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

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over an initial period not to exceed 40 years and thereafter 30 years, either as a level-dollar amount or as a level percentage of pay, and with amortization of contributions less than or in excess of the required amount. Historically, the ARC has been shown as the contribution required under the City's Funding Policy.

- **Equivalent Single Amortization Period** – this is the number of years incorporated in a weighted average amortization factor for all amortization components combined. The weighted average amortization factor is equal to the total unfunded actuarial liability divided by the sum of the amortization provisions for each of the separately amortized components. This weighted average produces 12.3 years where the amortized components are based upon the Funding policy.
- **Net Pension Obligation (NPO)** – the accumulated value of contribution deficiencies (or excesses) over required contributions from July 1, 1987 to July 1, 2010 between the annual pension cost and the employer's contribution.
- **Annual Pension Cost** – is equal to the ARC plus one year's interest on NPO and ARC adjustment.

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

		<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>
1.	Actuarial Liabilities			
	a. Members Currently Receiving Payments	\$ 6,140,923	\$ 5,693,789	7.9%
	b. Vested Terminated and Inactive Members	156,241	116,672	33.9%
	c. Active Members	<u>3,019,883</u>	<u>3,164,583</u>	-4.6%
	d. Total Actuarial Liability	\$ 9,317,047	\$ 8,975,044	3.8%
2.	Actuarial Value of Assets	\$ 4,380,875	\$ 4,042,113	8.4%
3.	Unfunded Actuarial Liability	\$ 4,936,172	\$ 4,932,931	0.1%
4.	Ratio of Actuarial Value of Assets to Actuarial Liability (2)/(1)(d)	47.0%	45.0%	2.0%

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

<b>Actuarial Liability as of July 1, 2009</b>	<b>\$</b>	<b>8,975,044</b>
Increase (Decrease) During Year Attributable to:		
Passage of Time		712,508
Benefits Paid		(677,160)
Assumption Change		151,212
Plan Amendment		-
Benefits Accrued, Other Gains/Losses		<u>155,443</u>
Net Increase (Decrease)	<b>\$</b>	<b>342,003</b>
<b>Actuarial Liability as of July 1, 2010</b>	<b>\$</b>	<b>9,317,047</b>

**Table V-3**  
**Schedule of Funding Progress**  
(\$ millions)

Actuarial Valuation Date *	Actuarial Value of Assets (a)	Actuarial Liability (b)	Unfunded Actuarial Liability (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a % of Covered Payroll [(b-a)/c]
7/1/1992	\$ 1,981.8	\$ 4,425.5	\$ 2,443.7	44.8%	\$ 993.3	246.0%
7/1/1993	2,113.9	4,502.1	2,388.2	47.0%	975.0	244.9%
7/1/1994	2,225.2	4,662.6	2,437.4	47.7%	974.3	250.2%
7/1/1995	2,312.1	4,850.8	2,538.7	47.7%	1,006.4	252.3%
7/1/1996	2,457.2	5,098.1	2,640.9	48.2%	1,068.3	247.2%
7/1/1997	2,660.9	5,318.1	2,657.2	50.0%	1,067.7	248.9%
7/1/1998	2,921.3	5,586.1	2,664.8	52.3%	1,128.2	236.2%
7/1/1999	4,496.8	5,862.1	1,365.3	76.7%	1,178.6	115.8%
7/1/2000	4,765.0	6,193.4	1,428.4	76.9%	1,142.8	125.0%
7/1/2001	4,943.4	6,379.8	1,436.4	77.5%	1,180.4	121.7%
7/1/2002	4,891.3	6,727.2	1,835.9	72.7%	1,207.3	152.1%
7/1/2003	4,548.1	7,188.3	2,640.2	63.3%	1,269.3	208.0%
7/1/2004	4,333.1	7,247.7	2,914.6	59.8%	1,266.0	230.2%
7/1/2005	4,159.5	7,851.5	3,692.0	53.0%	1,270.7	290.5%
7/1/2006	4,168.5	8,083.7	3,915.2	51.6%	1,319.4	296.7%
7/1/2007	4,421.7	8,197.2	3,775.5	53.9%	1,351.8	279.3%
7/1/2008	4,623.6	8,402.2	3,778.7	55.0%	1,456.5	259.4%
7/1/2009	4,042.1	8,975.0	4,932.9	45.0%	1,463.3	337.1%
7/1/2010	4,380.9	9,317.0	4,936.2	47.0%	1,421.2	347.3%

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

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

Fiscal Year Ended June 30	Annual Required Contribution (ARC)	Percentage of ARC Contributed
1993	\$ 209.4	100.0%
1994	223.8	104.5%
1995	212.8	100.0%
1996	222.5	100.0%
1997	237.0	100.0%
1998	252.1	100.0%
1999	256.7	586.9%*
2000	168.9	108.9%
2001	167.6	100.0%
2002	178.2	100.0%
2003	195.5	91.9%
2004	253.8	79.9%
2005	358.1	83.6%
2006	395.0	84.0%
2007	527.9	81.9%
2008	536.9	79.5%
2009	539.5	84.4%
2010	581.1	53.8%**

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

\*\* Reflects the actual contribution contributed for FYE 2010 which does not include the deferred contribution

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<b>Table V-5 Calculation of Annual Pension Cost (\$ thousands)</b>								
	1994	1995	1996	1997	1998	1999	2000	2001
ARC	\$ 223,750	\$ 212,838	\$ 222,482	\$ 237,016	\$ 252,080	\$ 256,704	\$ 168,928	\$ 167,616
Interest on NPO	-	(900)	(869)	(840)	(811)	(783)	(113,257)	(110,748)
Adjustment to ARC	-	1,241	1,198	1,158	1,118	1,080	156,130	152,672
Annual Pension Cost	\$ 223,750	\$ 213,179	\$ 222,811	\$ 237,334	\$ 252,387	\$ 257,001	\$ 211,801	\$ 209,540
Contributions	<u>233,750</u>	<u>212,838</u>	<u>222,482</u>	<u>237,016</u>	<u>252,080</u>	<u>1,506,704</u>	<u>183,928</u>	<u>167,616</u>
Increase in NPO	\$ (10,000)	\$ 341	\$ 329	\$ 318	\$ 307	\$(1,249,703)	\$ 27,873	\$ 41,924
NPO at BOY	-	(10,000)	(9,659)	(9,330)	(9,012)	(8,705)	(1,258,408)	(1,230,535)
NPO at EOY	\$ (10,000)	\$ (9,659)	\$ (9,330)	\$ (9,012)	\$ (8,705)	\$(1,258,408)	\$(1,230,535)	\$(1,188,611)
Interest Rate	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%
15-Year Amortization Factor (EOY)	8.06	8.06	8.06	8.06	8.06	8.06	8.06	8.06

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

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**Table V-5  
Calculation of Annual Pension Cost (continued)  
(\$ thousands)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010
ARC	\$ 178,239	\$ 195,514	\$ 253,844	\$ 358,141	\$ 394,950	\$527,925	\$ 536,874	\$ 539,464	\$ 581,123
Interest on NPO	(106,975)	(103,330)	(98,392)	(90,448)	(82,068)	(71,541)	(60,685)	(48,957)	(39,899)
Adjustment to ARC	<u>147,470</u>	<u>142,446</u>	<u>135,638</u>	<u>124,687</u>	<u>113,135</u>	<u>99,953</u>	<u>84,785</u>	<u>68,399</u>	<u>55,744</u>
Annual Pension Cost	\$ 218,734	\$ 234,630	\$ 291,090	\$ 392,380	\$ 426,017	\$ 556,337	\$ 560,974	\$ 558,906	\$ 596,968
Contributions	<u>178,239</u>	<u>179,757</u>	<u>202,827</u>	<u>299,266</u>	<u>331,765</u>	<u>432,267</u>	<u>426,934</u>	<u>455,389</u>	<u>312,556</u>
Increase in NPO	\$ 40,495	\$ 54,873	\$ 88,263	\$ 93,114	\$ 94,252	\$ 124,069	\$ 134,040	\$ 103,517	\$ 284,412
NPO at BOY	(1,188,611)	(1,148,116)	(1,093,243)	(1,004,980)	(911,866)	(817,614)	(693,545)	(559,505)	(455,987)
NPO at EOY	\$(1,148,116)	\$(1,093,243)	\$(1,004,980)	\$(911,866)	\$(817,614)	\$(693,545)	\$(559,505)	\$(455,987)	\$(171,575)
Interest Rate	9.00%	9.00%	9.00%	9.00%	9.00%	8.75%	8.75%	8.75%	8.75%
15-Year Amortization Factor (EOY)	8.06	8.06	8.06	8.06	8.06	8.18	8.18	8.18	8.18

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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The data for this valuation was provided by the Board of Pensions as of July 1, 2010. 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



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<b>Table A-1 Active Member Data</b>									
<b>July 1, 2010</b>				<b>July 1, 2009</b>					
<b>% Change</b>				<b>% Change</b>					
<b><u>Total City</u></b>				<b><u>1987 Municipal</u></b>					
Count	27,928	Count	28,632	-2.5%	Count	15,326	Count	15,244	0.5%
Average Age	43.9	Average Age	43.6	0.6%	Average Age	43.5	Average Age	43.0	1.2%
Average Service	12.5	Average Service	12.3	2.0%	Average Service	8.6	Average Service	8.0	7.1%
Average Salary	\$ 50,886	Average Salary	\$ 51,106	-0.4%	Average Salary	\$ 43,847	Average Salary	\$ 44,229	-0.9%
Total Annual Salary	\$ 1,421,150,868	Total Annual Salary	\$ 1,463,259,769	-2.9%	Total Annual Salary	\$ 671,999,670	Total Annual Salary	\$ 674,227,879	-0.3%
<b><u>1967 Municipal</u></b>				<b><u>1987 Elected</u></b>					
Count	4,214	Count	4,761	-11.5%	Count	17	Count	16	6.3%
Average Age	52.2	Average Age	51.7	0.8%	Average Age	56.8	Average Age	56.6	0.2%
Average Service	24.7	Average Service	24.0	2.8%	Average Service	21.1	Average Service	20.3	3.7%
Average Salary	\$ 54,708	Average Salary	\$ 54,493	0.4%	Average Salary	\$ 126,490	Average Salary	\$ 118,275	6.9%
Total Annual Salary	\$ 230,539,884	Total Annual Salary	\$ 259,440,967	-11.1%	Total Annual Salary	\$ 2,150,337	Total Annual Salary	\$ 1,892,402	13.6%
<b><u>1967 Police</u></b>				<b><u>1987 Police</u></b>					
Count	891	Count	1,033	-13.7%	Count	5,586	Count	5,536	0.9%
Average Age	52.3	Average Age	51.6	1.3%	Average Age	38.3	Average Age	37.8	1.5%
Average Service	26.9	Average Service	26.2	2.5%	Average Service	11.7	Average Service	11.0	5.6%
Average Salary	\$ 69,578	Average Salary	\$ 69,407	0.2%	Average Salary	\$ 60,249	Average Salary	\$ 59,735	0.9%
Total Annual Salary	\$ 61,994,308	Total Annual Salary	\$ 71,697,813	-13.5%	Total Annual Salary	\$ 336,550,819	Total Annual Salary	\$ 330,694,468	1.8%
<b><u>1967 Fire</u></b>				<b><u>1987 Fire</u></b>					
Count	290	Count	406	-28.6%	Count	1,604	Count	1,636	-2.0%
Average Age	53.3	Average Age	53.4	-0.1%	Average Age	39.2	Average Age	38.3	2.2%
Average Service	27.2	Average Service	27.1	0.3%	Average Service	10.6	Average Service	9.6	9.7%
Average Salary	\$ 68,805	Average Salary	\$ 68,850	-0.1%	Average Salary	\$ 61,074	Average Salary	\$ 59,507	2.6%
Total Annual Salary	\$ 19,953,494	Total Annual Salary	\$ 27,953,044	-28.6%	Total Annual Salary	\$ 97,962,356	Total Annual Salary	\$ 97,353,196	0.6%

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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<b>Table A-2 Non-Active Member Data Count</b>							
	<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>		<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>
<b><u>Total City</u></b>				<b><u>1987 Municipal Plan</u></b>			
Retired	21,064	21,214	-0.7%	Retired	760	673	12.9%
Disabled	4,280	4,288	-0.2%	Disabled	183	150	22.0%
Beneficiary	8,558	8,554	0.0%	Beneficiary	140	123	13.8%
In Pay Status Total	33,902	34,056	-0.5%	In Pay Status Total	1,083	946	14.5%
DROP	2,018	1,638	23.2%	DROP	227	158	43.7%
Deferred Vested	1,599	1,336	19.7%	Deferred Vested	788	584	34.9%
<b><u>1967 Municipal Plan</u></b>				<b><u>1987 Elected Plan</u></b>			
Retired	12,613	12,757	-1.1%	Retired	12	11	9.1%
Disabled	1,784	1,818	-1.9%	Disabled	-	-	0.0%
Beneficiary	5,323	5,340	-0.3%	Beneficiary	3	3	0.0%
In Pay Status Total	19,720	19,915	-1.0%	In Pay Status Total	15	14	7.1%
DROP	1,180	1,064	10.9%	DROP	8	10	-20.0%
Deferred Vested	631	627	0.6%	Deferred Vested	-	-	
<b><u>1967 Police Plan</u></b>				<b><u>1987 Police Plan</u></b>			
Retired	5,561	5,653	-1.6%	Retired	85	71	19.7%
Disabled	1,660	1,703	-2.5%	Disabled	223	182	22.5%
Beneficiary	<u>2,184</u>	<u>2,160</u>	1.1%	Beneficiary	<u>82</u>	<u>78</u>	5.1%
In Pay Status Total	9,405	9,516	-1.2%	In Pay Status Total	390	331	17.8%
DROP	293	208	40.9%	DROP	46	24	91.7%
Deferred Vested	4	1	300.0%	Deferred Vested	143	98	45.9%
<b><u>1967 Fire Plan</u></b>				<b><u>1987 Fire Plan</u></b>			
Retired	1,995	2,018	-1.1%	Retired	38	31	22.6%
Disabled	389	399	-2.5%	Disabled	41	36	13.9%
Beneficiary	<u>796</u>	<u>821</u>	-3.0%	Beneficiary	<u>30</u>	<u>29</u>	3.4%
In Pay Status Total	3,180	3,238	-1.8%	In Pay Status Total	109	96	13.5%
DROP	236	157	50.3%	DROP	28	17	64.7%
Deferred Vested	4	-	N/A	Deferred Vested	29	26	11.5%

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<b>Table A-3 Non-Active Member Data Total Annual Benefit</b>							
	<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>		<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>
<b><u>Total City</u></b>				<b><u>1987 Municipal Plan</u></b>			
Retired	\$ 471,915,618	\$ 466,141,068	1.2%	Retired	\$ 8,348,525	\$ 7,211,907	15.8%
Disabled	77,910,564	76,102,842	2.4%	Disabled	3,023,013	2,474,655	22.2%
Beneficiary	<u>65,415,177</u>	<u>63,748,832</u>	2.6%	Beneficiary	<u>942,683</u>	<u>818,459</u>	15.2%
In Pay Status Total	\$ 615,241,359	\$ 605,992,742	1.5%	In Pay Status Total	\$ 12,314,221	\$ 10,505,021	17.2%
DROP (pension)	\$ 75,645,974	\$ 59,070,942	28.1%	DROP (pension)	\$ 3,220,970	\$ 2,082,793	54.6%
DROP (account balance)	137,855,170	102,410,327	34.6%	DROP (account balance)	4,815,374	3,140,471	53.3%
Deferred Vested	23,934,436	19,090,252	25.4%	Deferred Vested	9,528,661	7,006,259	36.0%
<b><u>1967 Municipal Plan</u></b>				<b><u>1987 Elected Plan</u></b>			
Retired	\$ 262,617,624	\$ 258,418,045	1.6%	Retired	\$ 630,007	\$ 472,429	33.4%
Disabled	29,727,304	29,660,762	0.2%	Disabled	-	-	0.0%
Beneficiary	<u>37,684,170</u>	<u>36,889,539</u>	2.2%	Beneficiary	<u>68,613</u>	<u>68,613</u>	0.0%
In Pay Status Total	\$ 330,029,098	\$ 324,968,346	1.6%	In Pay Status Total	\$ 698,620	\$ 541,042	29.1%
DROP (pension)	\$ 42,997,293	\$ 37,332,478	15.2%	DROP (pension)	\$ 715,386	\$ 855,097	-16.3%
DROP (account balance)	82,162,349	67,721,377	21.3%	DROP (account balance)	1,894,435	1,487,723	27.3%
Deferred Vested	11,312,196	10,199,738	10.9%	Deferred Vested	-	-	0.0%
<b><u>1967 Police Plan</u></b>				<b><u>1987 Police Plan</u></b>			
Retired	\$ 139,181,415	\$ 139,713,961	-0.4%	Retired	\$ 1,371,929	\$ 1,095,917	25.2%
Disabled	28,916,457	29,375,032	-1.6%	Disabled	7,268,526	5,714,074	27.2%
Beneficiary	<u>18,381,339</u>	<u>17,829,239</u>	3.1%	Beneficiary	<u>715,504</u>	<u>673,644</u>	6.2%
In Pay Status Total	\$ 186,479,211	\$ 186,918,232	-0.2%	In Pay Status Total	\$ 9,355,959	\$ 7,483,635	25.0%
DROP (pension)	\$ 14,344,780	\$ 9,613,268	49.2%	DROP (pension)	\$ 1,073,274	\$ 529,819	102.6%
DROP (account balance)	24,295,689	14,559,324	66.9%	DROP (account balance)	1,234,685	496,201	148.8%
Deferred Vested	152,819	13,436	1037.4%	Deferred Vested	2,313,345	1,491,992	55.1%
<b><u>1967 Fire Plan</u></b>				<b><u>1987 Fire Plan</u></b>			
Retired	\$ 59,166,155	\$ 58,785,333	0.6%	Retired	\$ 599,963	\$ 443,476	35.3%
Disabled	7,604,743	7,689,636	-1.1%	Disabled	1,370,521	1,188,683	15.3%
Beneficiary	<u>7,332,201</u>	<u>7,201,392</u>	1.8%	Beneficiary	<u>290,667</u>	<u>267,946</u>	8.5%
In Pay Status Total	\$ 74,103,099	\$ 73,676,361	0.6%	In Pay Status Total	\$ 2,261,151	\$ 1,900,105	19.0%
DROP (pension)	\$ 12,630,219	\$ 8,283,104	52.5%	DROP (pension)	\$ 664,052	\$ 374,383	77.4%
DROP (account balance)	22,548,459	14,695,239	53.4%	DROP (account balance)	904,178	309,992	191.7%
Deferred Vested	181,532	-	N/A	Deferred Vested	445,883	378,827	17.7%

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<b>Table A-4 Non-Active Member Data Average Annual Benefit</b>								
	<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>		<b>July 1, 2010</b>	<b>July 1, 2009</b>	<b>% Change</b>	
<b><u>Total City</u></b>				<b><u>1987 Municipal Plan</u></b>				
Retired	\$ 22,404	\$ 21,973	2.0%	Retired	\$ 10,985	\$ 10,716	2.5%	
Disabled	18,203	17,748	2.6%	Disabled	16,519	16,498	0.1%	
Beneficiary	7,644	7,453	2.6%	Beneficiary	6,733	6,654	1.2%	
In Pay Status Total	18,148	17,794	2.0%	In Pay Status Total	11,370	11,105	2.4%	
DROP (pension)	37,486	36,063	3.9%	DROP (pension)	14,189	13,182	7.6%	
DROP (account balance)	68,313	62,522	9.3%	DROP (account balance)	21,213	19,876	6.7%	
Deferred Vested	14,968	14,289	4.8%	Deferred Vested	12,092	11,997	0.8%	
<b><u>1967 Municipal Plan</u></b>				<b><u>1987 Elected Plan</u></b>				
Retired	\$ 20,821	\$ 20,257	2.8%	Retired	\$ 52,501	\$ 42,948	22.2%	
Disabled	16,663	16,315	2.1%	Disabled	-	-	0.0%	
Beneficiary	7,079	6,908	2.5%	Beneficiary	22,871	22,871	0.0%	
In Pay Status Total	16,736	16,318	2.6%	In Pay Status Total	46,575	38,646	20.5%	
DROP (pension)	36,438	35,087	3.9%	DROP (pension)	89,423	85,510	4.6%	
DROP (account balance)	69,629	63,648	9.4%	DROP (account balance)	236,804	148,772	59.2%	
Deferred Vested	17,927	16,268	10.2%	Deferred Vested	-	-	0.0%	
<b><u>1967 Police Plan</u></b>				<b><u>1987 Police Plan</u></b>				
Retired	\$ 25,028	\$ 24,715	1.3%	Retired	\$ 16,140	\$ 15,435	4.6%	
Disabled	17,420	17,249	1.0%	Disabled	32,594	31,396	3.8%	
Beneficiary	8,416	8,254	2.0%	Beneficiary	8,726	8,636	1.0%	
In Pay Status Total	19,828	19,643	0.9%	In Pay Status Total	23,990	22,609	6.1%	
DROP (pension)	48,958	46,218	5.9%	DROP (pension)	23,332	22,076	5.7%	
DROP (account balance)	82,920	69,997	18.5%	DROP (account balance)	26,841	20,675	29.8%	
Deferred Vested	38,205	13,436	184.3%	Deferred Vested	16,177	15,224	6.3%	
<b><u>1967 Fire Plan</u></b>				<b><u>1987 Fire Plan</u></b>				
Retired	\$ 29,657	\$ 29,130	1.8%	Retired	\$ 15,789	\$ 14,306	10.4%	
Disabled	19,549	19,272	1.4%	Disabled	33,427	33,019	1.2%	
Beneficiary	9,211	8,771	5.0%	Beneficiary	9,689	9,240	4.9%	
In Pay Status Total	23,303	22,754	2.4%	In Pay Status Total	20,745	19,793	4.8%	
DROP (pension)	53,518	52,759	1.4%	DROP (pension)	23,716	22,023	7.7%	
DROP (account balance)	95,544	93,600	2.1%	DROP (account balance)	32,292	18,235	77.1%	
Deferred Vested	45,383	-	N/A	Deferred Vested	15,375	14,570	5.5%	

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**Table A-5  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	169	552	46	0	0	0	0	0	767
25 to 29	208	1,584	568	48	0	0	0	0	2,408
30 to 34	118	1,123	1,233	554	33	0	0	0	3,061
35 to 39	85	700	951	1,343	340	40	0	1	3,460
40 to 44	65	579	770	1,237	961	642	9	0	4,263
45 to 49	36	490	681	911	839	1,236	280	13	4,486
50 to 54	53	417	549	700	603	1,220	922	283	4,747
55 to 59	23	324	422	536	360	543	371	465	3,044
60 to 64	9	183	268	261	138	128	81	128	1,196
65 & up	5	97	143	98	49	42	14	48	496
<b>Total</b>	<b>771</b>	<b>6,049</b>	<b>5,631</b>	<b>5,688</b>	<b>3,323</b>	<b>3,851</b>	<b>1,677</b>	<b>938</b>	<b>27,928</b>

**Table A-6  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	\$ 35,361	\$ 38,272	\$ 29,345	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,096
25 to 29	38,598	45,357	47,881	47,508	-	-	-	-	45,412
30 to 34	40,804	46,247	53,084	54,779	51,002	-	-	-	50,387
35 to 39	41,232	44,768	52,916	56,652	56,755	57,499	-	60,451	52,863
40 to 44	38,848	41,749	49,726	56,358	59,059	59,949	57,914	-	54,062
45 to 49	36,191	39,291	44,536	51,062	57,156	59,077	61,724	54,603	52,690
50 to 54	45,273	37,348	42,301	47,614	53,489	55,216	64,222	62,104	52,861
55 to 59	40,165	37,496	44,085	46,488	49,091	52,859	61,600	64,428	51,177
60 to 64	45,819	32,776	40,670	43,874	45,527	53,191	58,376	62,650	45,652
65 & up	33,952	20,125	34,619	39,414	48,499	39,053	41,879	52,554	36,412
<b>Total</b>	<b>\$ 38,985</b>	<b>\$ 42,212</b>	<b>\$ 48,058</b>	<b>\$ 52,480</b>	<b>\$ 55,455</b>	<b>\$ 56,692</b>	<b>\$ 62,722</b>	<b>\$ 62,736</b>	<b>\$ 50,886</b>

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**Table A-7  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	4	0	0	0	0	0	0	0	0	4
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	1	0	0	0	0	0	0	0	1
35 to 39	0	1	0	4	12	3	0	0	0	20
40 to 44	0	0	1	4	87	207	4	0	0	303
45 to 49	0	0	2	5	146	559	194	9	0	915
50 to 54	2	0	3	9	156	720	616	218	0	1,724
55 to 59	0	1	4	3	86	303	246	270	0	913
60 to 64	0	0	3	2	35	88	55	64	0	247
65 & up	0	0	0	0	13	33	11	30	0	87
<b>Total</b>	<b>6</b>	<b>3</b>	<b>13</b>	<b>27</b>	<b>535</b>	<b>1,913</b>	<b>1,126</b>	<b>591</b>	<b>0</b>	<b>4,214</b>

**Table A-8  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	\$ 5,683	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,683
25 to 29	-	-	-	-	-	-	-	-	-	-
30 to 34	-	50,698	-	-	-	-	-	-	-	50,698
35 to 39	-	38,444	-	46,351	51,377	46,672	-	-	-	49,020
40 to 44	-	-	33,203	44,496	52,855	53,016	59,500	-	-	52,878
45 to 49	-	-	51,891	41,911	51,015	53,237	58,634	56,592	-	53,995
50 to 54	32,360	-	59,609	49,354	49,826	51,050	61,897	60,628	-	56,011
55 to 59	-	41,348	62,544	41,775	48,943	48,049	58,838	59,568	-	54,482
60 to 64	-	-	73,611	41,790	50,681	52,688	58,468	61,898	-	56,243
65 & up	-	-	-	-	53,750	38,332	44,624	46,919	-	44,392
<b>Total</b>	<b>\$ 14,575</b>	<b>\$ 43,497</b>	<b>\$ 60,525</b>	<b>\$ 45,409</b>	<b>\$ 50,687</b>	<b>\$ 51,276</b>	<b>\$ 60,322</b>	<b>\$ 59,524</b>	<b>\$ -</b>	<b>\$ 54,708</b>

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**Table A-9  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	1	7	25	0	0	0	33
45 to 49	0	0	1	0	4	142	55	1	0	203
50 to 54	0	0	0	0	0	139	193	48	0	380
55 to 59	0	0	0	0	0	58	67	106	0	231
60 to 64	0	0	0	0	1	8	11	24	0	44
65 & up	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>12</b>	<b>372</b>	<b>326</b>	<b>179</b>	<b>0</b>	<b>891</b>

**Table A-10  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	-	-	-	-	-	-	-	-	-	-
40 to 44	-	-	-	60,451	61,610	65,700	-	-	-	64,673
45 to 49	-	-	60,047	-	60,856	68,456	73,423	60,856	-	69,573
50 to 54	-	-	-	-	-	65,064	71,154	72,757	-	69,129
55 to 59	-	-	-	-	-	64,322	70,798	75,824	-	71,478
60 to 64	-	-	-	-	66,942	61,909	66,632	69,216	-	67,190
65 & up	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 60,047</b>	<b>\$ 60,451</b>	<b>\$ 61,803</b>	<b>\$ 66,218</b>	<b>\$ 71,311</b>	<b>\$ 74,032</b>	<b>\$ -</b>	<b>\$ 69,578</b>

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**Table A-11  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	1	6	0	0	0	7
45 to 49	0	0	0	0	1	31	12	0	0	44
50 to 54	0	0	0	0	1	43	81	1	1	126
55 to 59	0	0	0	0	1	9	31	47	47	88
60 to 64	0	0	0	0	0	3	4	17	17	24
65 & up	0	0	0	0	0	0	0	1	1	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>92</b>	<b>128</b>	<b>66</b>	<b>66</b>	<b>290</b>

**Table A-12  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	-	-	-	-	-	-	-	-	-	-
40 to 44	-	-	-	-	60,834	63,860	-	-	-	63,427
45 to 49	-	-	-	-	60,834	68,634	68,467	-	-	68,411
50 to 54	-	-	-	-	60,834	64,574	67,614	78,590	-	66,609
55 to 59	-	-	-	-	60,834	63,704	66,400	76,492	-	71,451
60 to 64	-	-	-	-	-	63,975	64,985	74,940	-	71,910
65 & up	-	-	-	-	-	-	-	93,104	-	93,104
<b>Total</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 60,834</b>	<b>\$ 65,791</b>	<b>\$ 67,317</b>	<b>\$ 76,376</b>	<b>\$ -</b>	<b>\$ 68,805</b>



**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**Table A-13  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	104	351	43	0	0	0	0	0	498
25 to 29	150	985	355	30	0	0	0	0	1,520
30 to 34	97	792	749	241	29	0	0	0	1,908
35 to 39	67	519	605	586	150	18	0	0	1,945
40 to 44	61	493	577	677	319	90	3	0	2,220
45 to 49	35	487	611	656	328	137	16	2	2,272
50 to 54	51	416	519	599	302	117	25	16	2,045
55 to 59	23	322	406	490	245	102	26	38	1,652
60 to 64	9	183	263	246	100	29	11	22	863
65 & up	5	97	143	96	36	9	3	14	403
<b>Total</b>	<b>602</b>	<b>4,645</b>	<b>4,271</b>	<b>3,621</b>	<b>1,509</b>	<b>502</b>	<b>84</b>	<b>92</b>	<b>15,326</b>

**Table A-14  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	\$ 32,427	\$ 30,220	\$ 27,963	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,486
25 to 29	36,726	39,977	40,867	42,377	-	-	-	-	39,911
30 to 34	40,243	42,839	48,258	46,121	49,528	-	-	-	45,351
35 to 39	40,829	41,208	48,460	49,894	48,967	52,587	-	-	46,771
40 to 44	38,400	39,555	46,140	51,805	51,551	52,404	41,379	-	47,218
45 to 49	35,573	39,063	42,648	47,130	52,530	54,208	53,002	39,398	45,258
50 to 54	45,780	37,154	41,244	45,439	50,193	50,769	51,473	49,232	43,808
55 to 59	40,165	37,223	43,404	45,196	47,498	52,258	55,904	49,622	44,179
60 to 64	45,819	32,776	40,147	42,984	43,207	51,196	47,255	45,387	40,402
65 & up	33,952	20,125	34,619	38,376	46,602	41,698	31,813	47,109	33,658
<b>Total</b>	<b>\$ 38,120</b>	<b>\$ 38,583</b>	<b>\$ 44,109</b>	<b>\$ 47,290</b>	<b>\$ 49,867</b>	<b>\$ 52,231</b>	<b>\$ 51,521</b>	<b>\$ 47,937</b>	<b>\$ 43,847</b>

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**APPENDIX A  
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**Table A-15  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- Elected (Plan 87)**

*COUNTS BY AGE/SERVICE*

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	1	1	0	0	2
45 to 49	0	1	0	1	0	0	0	0	2
50 to 54	0	1	0	0	2	0	1	0	4
55 to 59	0	1	0	0	0	0	1	2	4
60 to 64	0	0	0	0	0	0	0	1	1
65 & up	0	0	0	1	0	0	0	3	4
<b>Total</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>17</b>

**Table A-16  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- Elected (Plan 87)**

*AVERAGE SALARY BY AGE/SERVICE*

Age	Service								Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
25 to 29	-	-	-	-	-	-	-	-	-
30 to 34	-	-	-	-	-	-	-	-	-
35 to 39	-	-	-	-	-	-	-	-	-
40 to 44	-	-	-	-	160,850	117,991	-	-	139,421
45 to 49	-	117,991	-	117,991	-	-	-	-	117,991
50 to 54	-	117,991	-	-	117,991	-	195,588	-	137,390
55 to 59	-	121,559	-	-	-	-	124,010	117,991	120,388
60 to 64	-	-	-	-	-	-	-	124,010	124,010
65 & up	-	-	-	117,991	-	-	-	120,800	120,098
<b>Total</b>	<b>\$ -</b>	<b>\$ 119,180</b>	<b>\$ -</b>	<b>\$ 117,991</b>	<b>\$ 132,277</b>	<b>\$ 117,991</b>	<b>\$ 159,799</b>	<b>\$ 120,399</b>	<b>\$ 126,490</b>

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**APPENDIX A  
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**Table A-17  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	61	174	2	0	0	0	0	0	237
25 to 29	58	440	179	14	0	0	0	0	691
30 to 34	21	224	360	292	3	0	0	0	900
35 to 39	18	131	219	638	155	16	0	1	1,178
40 to 44	4	54	110	422	422	302	1	0	1,315
45 to 49	1	0	37	186	240	325	2	1	792
50 to 54	0	0	17	67	92	156	4	0	336
55 to 59	0	0	6	37	21	57	0	1	122
60 to 64	0	0	2	10	2	0	0	0	14
65 & up	0	0	0	1	0	0	0	0	1
<b>Total</b>	<b>163</b>	<b>1,023</b>	<b>932</b>	<b>1,667</b>	<b>935</b>	<b>856</b>	<b>7</b>	<b>3</b>	<b>5,586</b>

**Table A-18  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	\$ 42,310	\$ 52,293	\$ 47,710	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 49,685
25 to 29	43,441	54,323	59,689	56,831	-	-	-	-	54,851
30 to 34	43,399	54,352	60,388	61,495	63,138	-	-	-	58,858
35 to 39	42,729	55,024	60,170	61,677	63,607	64,768	-	60,451	60,662
40 to 44	45,685	54,851	60,267	61,497	63,969	66,062	66,942	-	62,919
45 to 49	57,827	-	60,616	61,177	62,880	65,075	61,174	60,856	63,262
50 to 54	-	-	60,400	61,023	63,114	63,528	67,650	-	62,806
55 to 59	-	-	60,047	61,263	62,126	63,137	-	60,451	62,221
60 to 64	-	-	60,047	60,451	60,654	-	-	-	60,422
65 & up	-	-	-	60,451	-	-	-	-	60,451
<b>Total</b>	<b>\$ 43,077</b>	<b>\$ 54,102</b>	<b>\$ 60,168</b>	<b>\$ 61,459</b>	<b>\$ 63,494</b>	<b>\$ 65,006</b>	<b>\$ 65,698</b>	<b>\$ 60,586</b>	<b>\$ 60,249</b>

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

**Table A-19  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	0	27	1	0	0	0	0	0	28
25 to 29	0	159	34	4	0	0	0	0	197
30 to 34	0	106	124	21	1	0	0	0	252
35 to 39	0	49	127	115	23	3	0	0	317
40 to 44	0	32	82	133	124	11	1	0	383
45 to 49	0	2	30	63	120	42	1	0	258
50 to 54	0	0	10	25	50	45	2	0	132
55 to 59	0	0	6	6	7	14	0	1	34
60 to 64	0	0	0	3	0	0	0	0	3
65 & up	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>375</b>	<b>414</b>	<b>370</b>	<b>325</b>	<b>115</b>	<b>4</b>	<b>1</b>	<b>1,604</b>

**Table A-20  
Distribution of Active Participants (Excludes DROP Participants) as of July 1, 2010 -- 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	\$ -	\$ 52,594	\$ 52,045	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,575
25 to 29	-	53,878	58,945	53,362	-	-	-	-	54,742
30 to 34	-	54,540	61,023	60,761	57,348	-	-	-	58,260
35 to 39	-	55,180	61,638	63,576	64,178	59,036	-	-	61,502
40 to 44	-	53,437	61,016	63,553	65,042	63,836	92,145	-	62,729
45 to 49	-	55,391	62,128	61,810	65,670	67,517	77,412	-	64,582
50 to 54	-	-	61,196	63,176	64,390	65,244	60,979	-	64,158
55 to 59	-	-	61,904	63,249	65,871	65,014	-	60,834	64,207
60 to 64	-	-	-	63,029	-	-	-	-	63,029
65 & up	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 54,113</b>	<b>\$ 61,115</b>	<b>\$ 62,960</b>	<b>\$ 65,106</b>	<b>\$ 65,750</b>	<b>\$ 72,879</b>	<b>\$ 60,834</b>	<b>\$ 61,074</b>

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

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

	1967 Plan			Plan 87				Total City
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>Active</b>								
Active July 1, 2009	<b>4,761</b>	<b>1,033</b>	<b>406</b>	<b>15,244</b>	<b>16</b>	<b>5,536</b>	<b>1,636</b>	<b>28,632</b>
New Entrants and Rehires	30	3	0	1,203	1	223	13	1,473
Refunded Contributions	-5	0	0	-260	0	-15	-6	-286
Terminated Vested	-87	-3	-4	-224	0	-46	-6	-370
Became Disabled	-26	-6	0	-19	0	-26	-4	-81
Retired	-65	-19	-5	-60	0	-14	-6	-169
Entered DROP	-395	-117	-107	-110	0	-25	-13	-767
Net Other Terminations	1	0	0	-448	0	-47	-10	-504
Active July 1, 2010	<b>4,214</b>	<b>891</b>	<b>290</b>	<b>15,326</b>	<b>17</b>	<b>5,586</b>	<b>1,604</b>	<b>27,928</b>
<b>Retired</b>								
Retired July 1, 2009	<b>12,757</b>	<b>5,653</b>	<b>2,018</b>	<b>673</b>	<b>11</b>	<b>71</b>	<b>31</b>	<b>21,214</b>
New Retirees	394	63	34	105	2	19	8	625
Net Other Terminations	-538	-155	-57	-18	-1	-5	-1	-775
Retired July 1, 2010	<b>12,613</b>	<b>5,561</b>	<b>1,995</b>	<b>760</b>	<b>12</b>	<b>85</b>	<b>38</b>	<b>21,064</b>
<b>Beneficiary</b>								
Beneficiary July 1, 2009	<b>5,340</b>	<b>2,160</b>	<b>821</b>	<b>123</b>	<b>3</b>	<b>78</b>	<b>29</b>	<b>8,554</b>
New Beneficiaries	223	116	37	20	0	4	1	401
Net Other Terminations	-240	-92	-62	-3	0	0	0	-397
Beneficiary July 1, 2010	<b>5,323</b>	<b>2,184</b>	<b>796</b>	<b>140</b>	<b>3</b>	<b>82</b>	<b>30</b>	<b>8,558</b>

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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APPENDIX A  
MEMBERSHIP INFORMATION

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

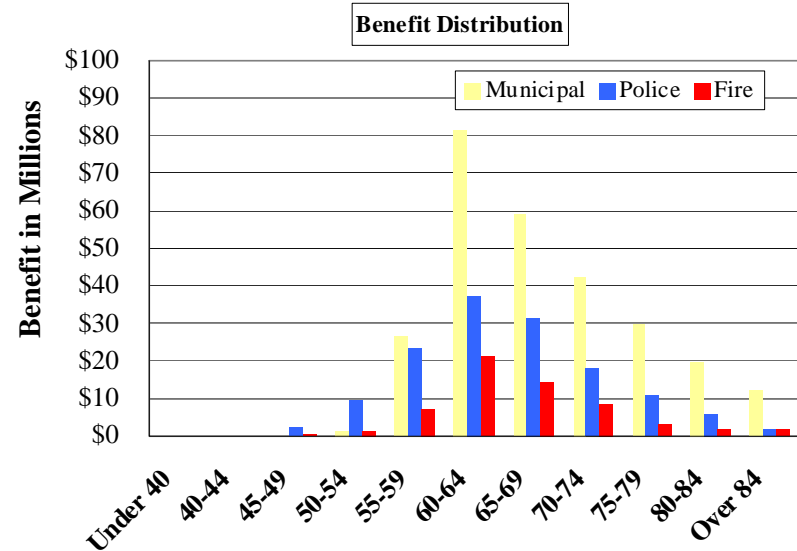
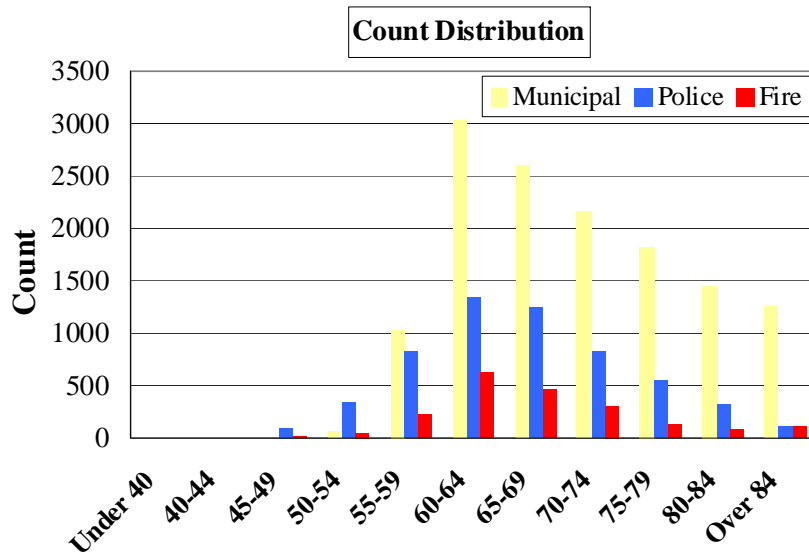
	1967 Plan			Plan 87				Total City
	Municipal	Police	Fire	Municipal	Elected	Police	Fire	
<b>Disabled</b>								
Disabled July 1, 2009	1,818	1,703	399	150	0	182	36	4,288
New Disabilities	36	8	2	33	0	42	5	126
Net Other Terminations	-70	-51	-12	0	0	-1	0	-134
Disabled July 1, 2010	1,784	1,660	389	183	0	223	41	4,280
<b>Terminated Vested</b>								
Terminated Vested July 1, 2009	627	1	0	584	0	98	26	1,336
New Vested Terminations	92	3	4	232	0	51	6	388
Net Other Terminations	-88	0	0	-28	0	-6	-3	-125
Terminated Vested July 1, 2010	631	4	4	788	0	143	29	1,599
<b>DROP</b>								
DROP July 1, 2009	1,064	208	157	158	10	24	17	1,638
New DROP Participants	395	117	109	110	0	25	13	769
Net Other Terminations	-279	-32	-30	-41	-2	-3	-2	-389
DROP July 1, 2010	1,180	293	236	227	8	46	28	2,018

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

**Table A-22  
Age Distribution of Retired Members as of July 1, 2010**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	-	\$ -	-	\$ -	-	\$ -
40-44	-	-	7	87,704	1	7,300
45-49	-	-	99	2,449,318	24	491,724
50-54	65	1,276,898	345	9,444,164	56	1,456,947
55-59	1,031	26,322,228	824	23,323,782	225	7,246,590
60-64	3,019	81,280,226	1,335	37,126,385	626	21,305,934
65-69	2,591	58,987,103	1,240	31,577,419	465	14,313,478
70-74	2,153	42,319,545	825	18,043,014	299	8,386,399
75-79	1,819	29,522,904	542	10,544,972	137	3,082,084
80-84	1,445	19,935,850	321	6,032,622	86	1,628,099
Over 84	<u>1,262</u>	<u>11,951,402</u>	<u>108</u>	<u>1,923,964</u>	<u>114</u>	<u>1,847,563</u>
Total	13,385	\$ 271,596,156	5,646	\$ 140,553,344	2,033	\$ 59,766,118

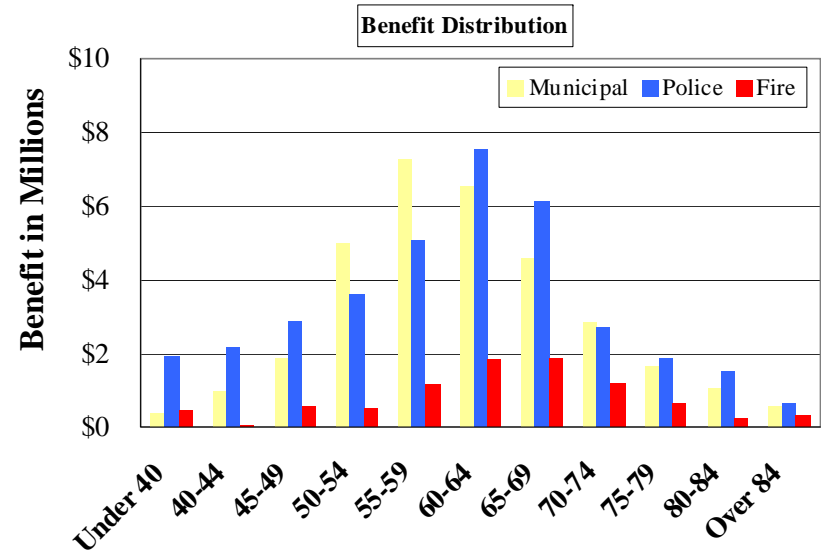
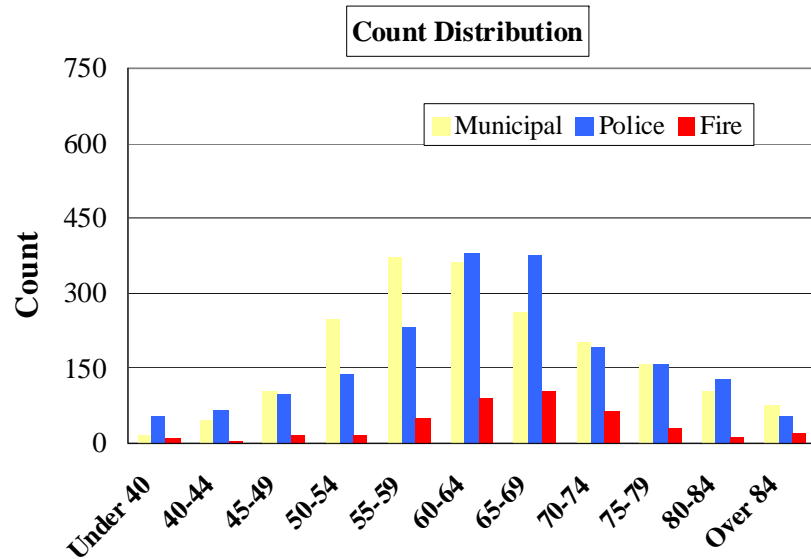


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Table A-23  
Age Distribution of Disabled Members as of July 1, 2010**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	19	\$ 395,965	56	\$ 1,953,690	12	\$ 494,757
40-44	47	953,650	67	2,184,537	3	56,455
45-49	105	1,897,907	97	2,908,354	19	583,270
50-54	250	4,985,899	138	3,615,936	17	502,935
55-59	375	7,251,286	233	5,067,802	51	1,171,983
60-64	363	6,538,549	381	7,556,237	90	1,839,337
65-69	263	4,592,789	378	6,138,299	105	1,897,635
70-74	202	2,832,699	192	2,705,455	64	1,214,787
75-79	160	1,677,420	157	1,886,080	32	643,128
80-84	106	1,059,672	129	1,509,444	15	247,196
Over 84	77	564,481	55	659,149	22	323,781
<b>Total</b>	<b>1,967</b>	<b>\$ 32,750,317</b>	<b>1,883</b>	<b>\$ 36,184,983</b>	<b>430</b>	<b>\$ 8,975,264</b>



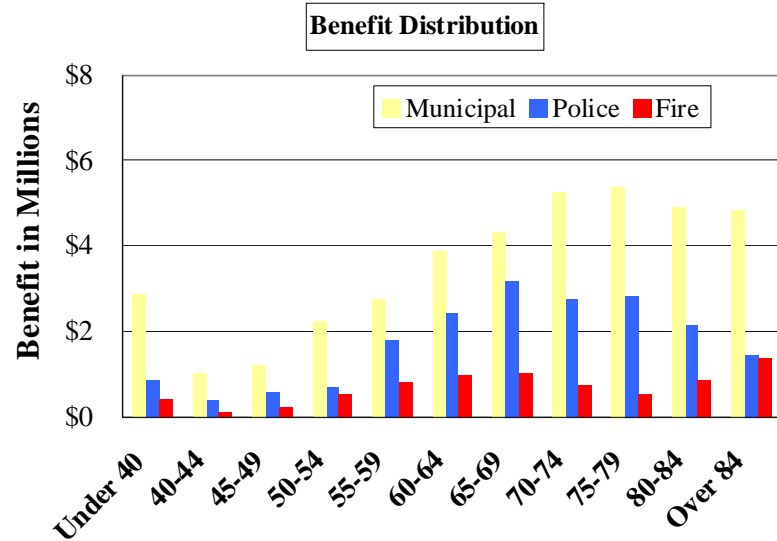
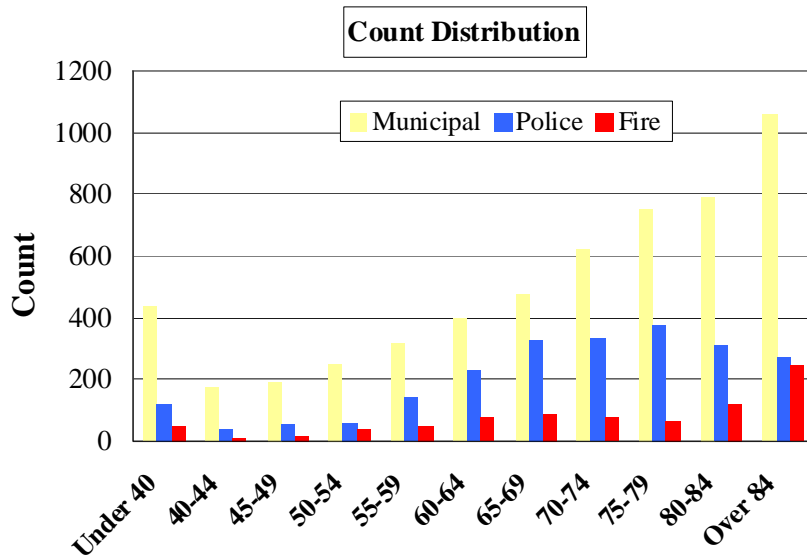


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Table A-24  
Age Distribution of Beneficiaries as of July 1, 2010**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	438	\$ 2,881,654	121	\$ 863,124	48	\$ 421,094
40-44	174	1,023,653	38	394,954	12	114,494
45-49	191	1,217,918	52	588,017	17	230,462
50-54	251	2,238,420	61	692,976	36	552,901
55-59	315	2,744,685	140	1,787,495	48	805,231
60-64	397	3,888,489	229	2,439,462	76	980,900
65-69	475	4,321,505	327	3,166,925	87	1,015,463
70-74	624	5,243,893	335	2,740,462	75	751,515
75-79	752	5,383,539	375	2,825,122	66	531,673
80-84	791	4,912,105	313	2,163,093	118	838,937
Over 84	1,058	4,839,605	275	1,435,213	243	1,380,198
<b>Total</b>	<b>5,466</b>	<b>\$ 38,695,466</b>	<b>2,266</b>	<b>\$ 19,096,843</b>	<b>826</b>	<b>\$ 7,622,868</b>



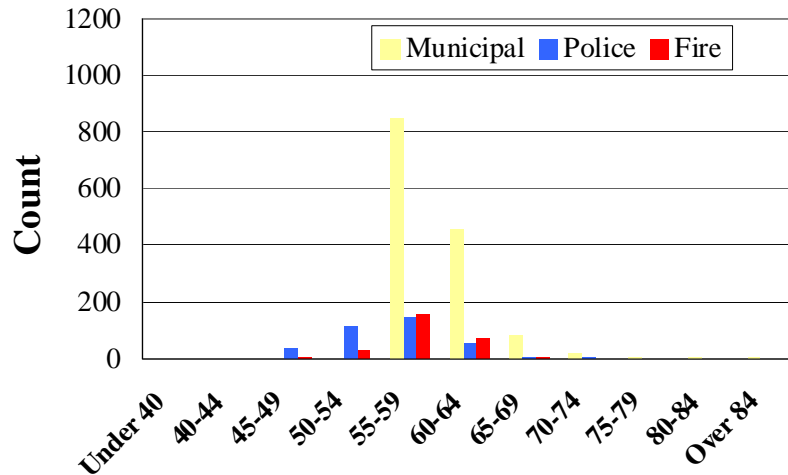
**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX A  
MEMBERSHIP INFORMATION**

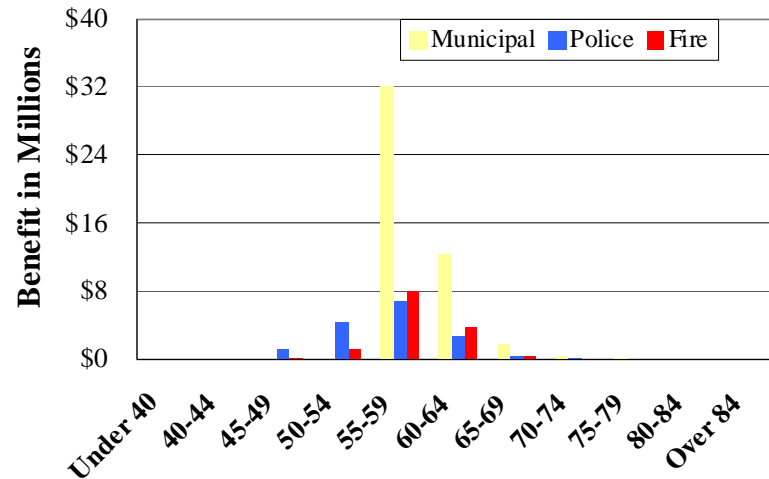
**Table A-25  
Age Distribution of DROP Participants as of July 1, 2010**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	-	\$ -	-	\$ -	-	\$ -
40-44	-	-	-	-	-	-
45-49	-	-	31	1,182,430	3	145,136
50-54	-	-	111	4,374,968	30	1,204,095
55-59	853	32,127,756	141	6,698,163	156	7,914,388
60-64	457	12,466,777	49	2,731,457	69	3,787,800
65-69	84	1,741,666	6	371,936	6	242,852
70-74	15	395,872	1	59,100	-	-
75-79	3	166,862	-	-	-	-
80-84	1	1,908	-	-	-	-
Over 84	2	32,808	-	-	-	-
<b>Total</b>	<b>1,415</b>	<b>\$ 46,933,649</b>	<b>339</b>	<b>\$ 15,418,054</b>	<b>264</b>	<b>\$ 13,294,271</b>

**Count Distribution**



**Benefit Distribution**

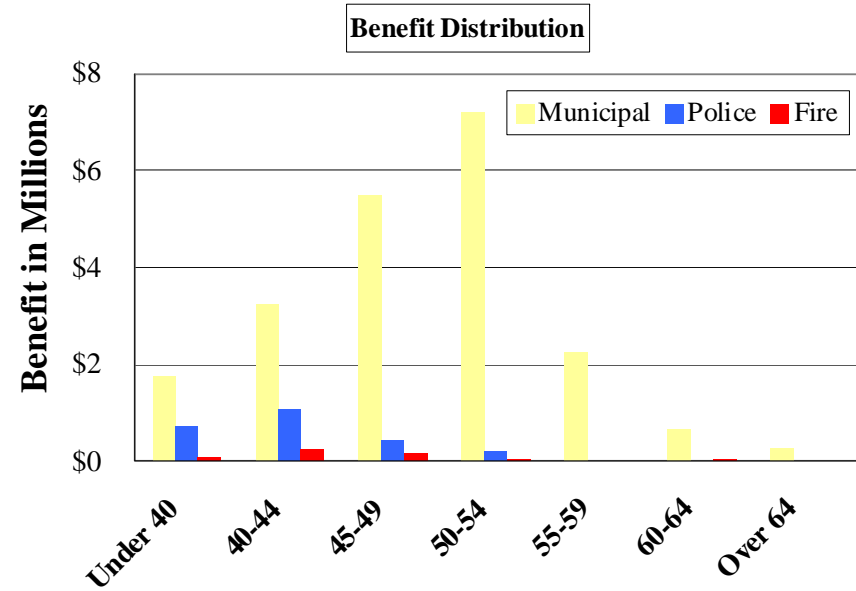
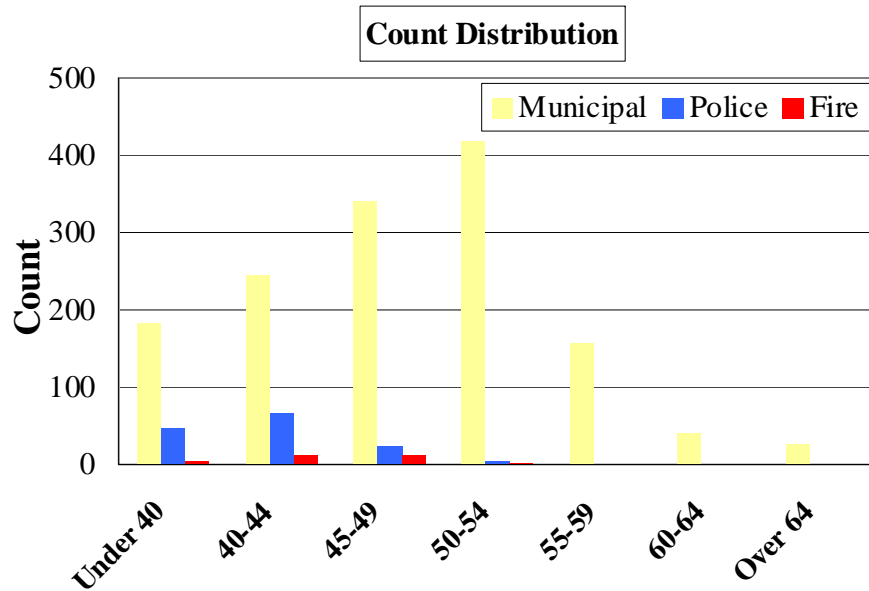


**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX A  
MEMBERSHIP INFORMATION**

**Table A-26  
Age Distribution of Terminated Vested Members as of July 1, 2010**

Age	Municipal		Police		Fire	
	Count	Annual Pensions	Count	Annual Pensions	Count	Annual Pensions
Under 40	185	\$ 1,762,354	49	\$ 749,529	6	\$ 88,143
40-44	247	3,244,664	66	1,075,160	12	241,302
45-49	341	5,476,676	25	428,035	12	171,701
50-54	419	7,175,958	6	199,280	2	67,180
55-59	158	2,259,339	1	14,160	-	-
60-64	41	646,581	-	-	1	59,090
Over 64	28	275,285	-	-	-	-
<b>Total</b>	<b>1,419</b>	<b>\$ 20,840,857</b>	<b>147</b>	<b>\$ 2,466,164</b>	<b>33</b>	<b>\$ 627,415</b>



**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX B  
SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

Appendix B provides supporting information on the amortization payments under the City's Funding Policy by each plan.

<b>Table B-1a</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>1967 Plan - Municipal</b>					
(\$ thousands)					
	<b>7/1/2010</b>	<b>7/1/2011</b>	<b>Remaining</b>	<b>FY 2012 Payment</b>	<b>FY 2012 Payment</b>
	<b>Outstanding Balance</b>	<b>Expected Balance</b>	<b>Years</b>	<b>Beginning-of-Year</b>	<b>End-of-Year</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation					
a. Remaining	\$ 2,460,218	\$ 2,336,135		\$ 300,856	\$ 325,376
2. Changes in UAL due to					
a. Actuarial Experience	\$ (6,893)	\$ (7,455)	20	\$ (710)	\$ (768)
b. Assumption Changes	101,919	110,226	15	12,016	12,996
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ 95,026	\$ 102,771		\$ 11,307	\$ 12,228
3. Total [1c. + 2e.]	\$ 2,555,245	\$ 2,438,906		\$ 312,162	\$ 337,604

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**APPENDIX B  
SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1b</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>1967 Plan - Police</b>					
(\$ thousands)					
	7/1/2010	7/1/2011	Remaining	FY 2012 Payment	FY 2012 Payment
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation					
a. Remaining	\$ 1,305,285	\$ 1,226,871		\$ 172,117	\$ 186,145
2. Changes in UAL due to					
a. Actuarial Experience	\$ 11,006	\$ 11,904	20	\$ 1,134	\$ 1,226
b. Assumption Changes	87,273	94,386	15	10,290	11,128
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ 98,280	\$ 106,289		\$ 11,423	\$ 12,354
3. Total [1c. + 2e.]	\$ 1,403,564	\$ 1,333,160		\$ 183,540	\$ 198,499

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**APPENDIX B  
SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1c</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>1967 Plan - Fire</b>					
(\$ thousands)					
	7/1/2010	7/1/2011	Remaining	FY 2012 Payment	FY 2012 Payment
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation					
a. Remaining	\$ 527,869	\$ 501,492		\$ 64,990	\$ 70,287
2. Changes in UAL due to					
a. Actuarial Experience	\$ 10,439	\$ 11,290	20	\$ 1,075	\$ 1,163
b. Assumption Changes	43,972	47,555	15	5,184	5,607
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ 54,411	\$ 58,845		\$ 6,259	\$ 6,770
3. Total [1c. + 2e.]	\$ 582,280	\$ 560,337		\$ 71,250	\$ 77,056

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**APPENDIX B**  
**SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1d</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>Plan 87 - Municipal</b>					
(\$ thousands)					
	7/1/2010	7/1/2011	Remaining	FY 2012 Payment	FY 2012 Payment
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation					
a. Remaining	\$ 252,633	\$ 247,395		\$ 23,816	\$ 25,757
2. Changes in UAL due to					
a. Actuarial Experience	\$ (29,592)	\$ (32,004)	20	\$ (3,048)	\$ (3,296)
b. Assumption Changes	(16,906)	(18,284)	15	(1,993)	(2,156)
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ (46,498)	\$ (50,287)		\$ (5,041)	\$ (5,452)
3. Total [1c. + 2e.]	\$ 206,135	\$ 197,108		\$ 18,775	\$ 20,306

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**APPENDIX B**  
**SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1e</b>						
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>						
<b>Plan 87 - Elected</b>						
<b>(\$ thousands)</b>						
	<b>7/1/2010</b>	<b>7/1/2011</b>	<b>Remaining</b>	<b>FY 2012 Payment</b>	<b>FY 2012 Payment</b>	
	<b>Outstanding Balance</b>	<b>Expected Balance</b>	<b>Years</b>	<b>Beginning-of-Year</b>	<b>End-of-Year</b>	
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation						
a. Remaining	\$ 9,648	\$ 9,485		\$ 893	\$ 966	
2. Changes in UAL due to						
a. Actuarial Experience	\$ 143	\$ 155	20	\$ 15	\$ 16	
b. Assumption Changes	542	586	15	64	69	
c. Active Plan Changes	-	-	10	-	-	
d. Inactive Plan Changes	-	-	1	-	-	
e. Subtotal	\$ 685	\$ 740		\$ 79	\$ 85	
3. Total [1c. + 2e.]	\$ 10,332	\$ 10,226		\$ 972	\$ 1,051	



CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

**APPENDIX B**  
**SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1f</b>						
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>						
<b>Plan 87 - Police</b>						
(\$ thousands)						
	7/1/2010	7/1/2011	Remaining	FY 2012 Payment	FY 2012 Payment	
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year	
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation						
a. Remaining	\$ 222,808	\$ 219,353		\$ 20,014	\$ 21,645	
2. Changes in UAL due to						
a. Actuarial Experience	\$ (36,147)	\$ (39,093)	20	\$ (3,723)	\$ (4,026)	
b. Assumption Changes	(52,944)	(57,259)	15	(6,242)	(6,751)	
c. Active Plan Changes	-	-	10	-	-	
d. Inactive Plan Changes	-	-	1	-	-	
e. Subtotal	\$ (89,092)	\$ (96,353)		\$ (9,965)	\$ (10,777)	
3. Total [1c. + 2e.]	\$ 133,717	\$ 123,000		\$ 10,049	\$ 10,868	

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**APPENDIX B  
SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1g</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>Plan 87 - Fire</b>					
(\$ thousands)					
	7/1/2010	7/1/2011	Remaining	FY 2012 Payment	FY 2012 Payment
	Outstanding Balance	Expected Balance	Years	Beginning-of-Year	End-of-Year
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation					
a. Remaining	\$ 68,371	\$ 67,293		\$ 6,179	\$ 6,682
2. Changes in UAL due to					
a. Actuarial Experience	\$ (10,830)	\$ (11,712)	20	\$ (1,115)	\$ (1,206)
b. Assumption Changes	(12,643)	(13,673)	15	(1,491)	(1,612)
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ (23,472)	\$ (25,385)		\$ (2,606)	\$ (2,818)
3. Total [1c. + 2e.]	\$ 44,899	\$ 41,907		\$ 3,573	\$ 3,864

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
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**APPENDIX B**  
**SUPPORTING TABLES FOR CITY'S FUNDING POLICY**

<b>Table B-1h</b>					
<b>Development of the Fiscal Year 2012 Amortization Payment under the City's Funding Policy</b>					
<b>Total - All Divisions</b>					
(\$ thousands)					
	<b>7/1/2010</b>	<b>7/1/2011</b>	<b>Remaining</b>	<b>FY 2012 Payment</b>	<b>FY 2012 Payment</b>
	<b>Outstanding Balance</b>	<b>Expected Balance</b>	<b>Years</b>	<b>Beginning-of-Year</b>	<b>End-of-Year</b>
1. Expected Unfunded Actuarial Liability (UAL) as of July 1, 2010 Based on July 1, 2009 Valuation					
a. Remaining	\$ 4,846,832	\$ 4,608,025		\$ 588,865	\$ 636,858
2. Changes in UAL due to					
a. Actuarial Experience	\$ (61,873)	\$ (66,916)	20	\$ (6,372)	\$ (6,892)
b. Assumption Changes	151,212	163,536	15	17,828	19,281
c. Active Plan Changes	-	-	10	-	-
d. Inactive Plan Changes	-	-	1	-	-
e. Subtotal	\$ 89,339	\$ 96,620		\$ 11,456	\$ 12,389
3. Total [1c. + 2e.]	\$ 4,936,172	\$ 4,704,645		\$ 600,321	\$ 649,247

APPENDIX C  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

**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.
- For pensioners under the form of payment 50% J&S annuity with return of contributions, 60% are assumed to be married based upon data provided by the City. All other forms of payments are explicitly valued.
- Records with missing dates of birth have their data filled in based on the average for their plan.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

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

- We assumed that all changes in participant data from last year to this year were valid unless indicated otherwise by System staff.
- DROP participants are assumed to begin payments immediately.
- Service-connected disability benefits are increased by 2.9%.
- For Municipal Plan 1967 participants, pay was assumed to be below the Social Security Taxable Wage Base for purposes of determining the aggregate member contribution amount.
- We assumed that any participant who was active last year, missing this year, and fully vested became terminated vested with total credited service equal to credited service from last year plus one and final pay equal to pay from last year increased by the salary scale assumption.
- We assumed that any participant who was active last year, missing this year, and not fully vested became a terminated non-vested participant.
- We assumed that any participant who was inactive last year and missing from this year without a clear reason is now deceased.

CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION

APPENDIX C  
SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

**A. Actuarial Assumptions**

**1. Investment Return Assumption**

8.15% compounded annually, net of expenses.

**2. Salary Increase Rate**

	All Divisions
Age	
<20	21.00%
20-24	12.50%
25-29	7.75%
30-34	5.50%
35-39	4.75%
40-44	4.50%
45-49	3.75%
50-54	3.75%
55-59	3.75%
60-64	3.75%
65+	3.75%

**3. Total Annual Payroll Growth**

3.5% per year.

**4. Administrative Expenses**

Annual expected expenses included in this report are \$8,000,000, increasing by 3.5% per year.

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

**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	0.030000	0.260000	0.030000
25	0.086000	0.096000	0.037800	0.150000	0.037800
30	0.072000	0.071562	0.029900	0.105000	0.029900
35	0.045000	0.056170	0.025200	0.090000	0.025200
40	0.035000	0.039379	0.015400	0.090000	0.015400
45	0.030000	0.035597	0.010000	0.075000	0.010000
50	0.020000	0.022400	0.001600	0.065000	0.001600
55	0.000000	0.000000	0.001600	0.050000	0.001600

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.

**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	0.001668
35	0.001514	0.000620	0.002918
40	0.001800	0.001314	0.003184
45	0.003840	0.002359	0.003334
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.

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

**7. Rates of Pre-Retirement Mortality (RP 2000 with 5 year set back for Municipal females, 3 year set forward for Police and Fire females, no adjustment for males)**

Age	Municipal and Elected Officials		Uniformed	
	Male	Female	Male	Female
20	0.000345	0.000170	0.000345	0.000197
25	0.000376	0.000191	0.000376	0.000235
30	0.000444	0.000207	0.000444	0.000394
35	0.000773	0.000264	0.000773	0.000598
40	0.001079	0.000475	0.001079	0.000937
45	0.001508	0.000706	0.001508	0.001434
50	0.002138	0.001124	0.002138	0.002207
55	0.003624	0.001676	0.003624	0.003923
60	0.006747	0.002717	0.006747	0.007648
65	0.012737	0.005055	0.012737	0.013445

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**

For Police and Fire, we assume that mortality for healthy inactive lives will follow RP 2000 with a 1 year set forward for males and a 2 year set forward for females. For Municipal and Elected officials, we assume that mortality for healthy inactive lives will follow RP 2000 with a 2 year set forward for both males and females.

**9. Rates of Post-Disability Mortality**

For Police and Fire, we assume that mortality for disabled retirees follows RP 2000 Healthy mortality with a 30% upwards adjustment. For Municipal and Elected officials, we assume that mortality for disabled retirees follows RP 2000 Disabled mortality with a 5% downward adjustment.



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

**Rates of Retirement**

Rates of Service Retirement - 1967 Plan		
	Municipal	Uniformed
<b>Age</b>		
45-54	-	0.07
55	0.40	0.20
56	0.21	0.20
57-59	0.16	0.20
60	0.20	0.20
61	0.20	0.25
62	0.35	0.25
63-69	0.20	0.25
70 and up	1.00	1.00

Rates of Service Retirement - Plan 87				
	Municipal and Elected Officials		Uniformed	
Age	First Year Eligible	Subsequent Years	First Year Eligible	Subsequent Years
40-51	-	-	0.200	0.075
52	0.450	0.060	0.200	0.090
53	0.420	0.060	0.200	0.100
54	0.390	0.060	0.200	0.120
55	0.360	0.060	0.200	0.140
56	0.330	0.060	0.200	0.165
57	0.300	0.060	0.200	0.175
58	0.300	0.060	0.200	0.175
59	0.300	0.080	0.200	0.180
60	0.300	0.100	0.200	0.180
61	0.350	0.150	0.200	0.195
62	0.430	0.300	0.200	0.245
63	0.500	0.187	0.200	0.215
64	0.500	0.199	0.200	0.210
65	0.600	0.309	0.200	1.000
66	0.600	0.232	-	-
67	0.600	0.214	-	-
68	0.600	0.214	-	-
69	0.600	0.238	-	-
70	0.600	1.000	-	-

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

**10. Family Composition Assumptions**

70% of active members and 60% of non-active members are assumed to be married for retirees with the 50% J&S with return on contribution form of payment only. Male spouses are assumed to be four years older than female spouses.

**11. Changes Since Last Valuation**

- The interest rate assumption decreased from 8.25% to 8.15%.
- The salary increase rate was changed from 5% per year to a new age based scale.
- The total payroll growth rate changed from 4.0% to 3.5% per year.
- Rates of termination for Uniformed Plan 67 were changed to better reflect experience.
- Rates of disability for Uniformed Plans were changed to better reflect experience.
- All rates of retirement except those for Municipal Plan 87 were changed to better reflect experience.
- Mortality rates for all plans, both pre and post-retirement, were changed from the 1994 GAM table to the RP-2000 based table.
- Post-Disabled mortality for all plans also was changed from 1994 GAM to RP-2000 table.

APPENDIX C  
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.

**2. Funding Methods**

***City's Funding Policy:***

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 – 20 years beginning July 1, 2009. Prior to July 1, 2009, gains and losses were amortized over 15 years
- Assumption changes – 20 years
- Plan changes for active members – 20 years
- Plan changes for inactive members – 10 years

***MMO:***

For the purposes of the MMO under Act 205 reflecting the fresh start amortization schedule, the July 1, 2009 UAL was "fresh started" to be amortized over 30 years ending June 30, 2039. This is a level dollar amortization of the UAL. All future amortization periods will follow the City's Funding Policy as outlined above. The future MMO will include the interest payments of any deferred contribution amounts.

**3. 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 investment gain or loss in each of the preceding four years for gains and losses prior to July 1, 2009. Beginning July 1, 2009, investment gains and losses are recognized over a ten year period prospectively, creating the decreasing fraction to be (9/10, 8/10, 7/10, etc). 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 net of the PAF. The final AVA is determined by subtracting the additional transfer amount (if any) to the PAF. The additional transfer amount to the PAF remains to be calculated based on the five year method.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

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

**4. Changes Since Last Valuation**

**None.**

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1967 PLAN**

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

**1. Participation**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

Same as municipal.

**2. Credited Service**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

Same as municipal.

**3. Total Compensation**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

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

**4. Final Compensation**

*Municipal (Plan J):*

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

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1967 PLAN**

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

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

**5. Average Final Compensation**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

Average final compensation means the highest of:

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

**6. Employee Contributions**

*Municipal (Plan J):*

Each employee who participates in the Social Security System contributes 3 3/4% of total compensation up to the taxable wage base (\$106,800 in 2009 and 2010) 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):*

6% of total compensation to the Retirement System.

**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.

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1967 PLAN**

*Uniformed (Plans D and X):*

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

**Benefit Amount**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

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

**8. Early Retirement**

**Eligibility**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

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

**Benefit Amount**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

Same as municipal.

**9. Deferred Vested Retirement**

**Eligibility**

*Municipal (Plan J):*

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

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1967 PLAN**

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

**Benefit Amount**

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

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

**10. Withdrawal Benefit**

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

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

**11. Service-Connected Death**

**Eligibility**

*Municipal (Plan J):*  
The beneficiary of each active employee who dies solely from the performance of duties of the employee's position with the City is eligible for an immediate death benefit.

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

**Benefit Amount**

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



**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1967 PLAN**

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

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

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

## **12. Ordinary Death**

### **Eligibility**

*Municipal (Plan J):*

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

The beneficiary may be any relative by blood or marriage.

*Uniformed (Plans D and X):*

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

The beneficiary may be any relative by blood or marriage.

### **Annual Pension**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

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

APPENDIX D  
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

**Lump Sum Payment**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

Same as municipal.

**13. Service-Connected Disability**

**Eligibility**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

Same as municipal.

**Benefit Amount**

*Municipal (Plan J):*

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

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

*Uniformed (Plans D and X):*

Same as municipal.

APPENDIX D  
SUMMARY OF PLAN PROVISIONS – 1967 PLAN

**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.

**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.

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1967 PLAN**

*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.

**16. Survivor Benefit**

*Municipal (Plan J):*

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

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

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

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

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

*Uniformed (Plans D and X):*

Same as municipal.

**17. Minimum Pension**

*Municipal (Plan J):*

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

*Uniformed (Plans D and X):*

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

**APPENDIX D**  
**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, 2007). The benefit is calculated as of the date they entered the DROP. At the end of the DROP, the employees' accrued monthly benefit will commence, plus they will receive the accumulated amount of the accrued benefit paid to the DROP, as well as the interest earned on such benefit.

*Uniformed (Plans D and X):*

Same as municipal.

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

**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 except for Police employees hired after January 1, 2010 must make an election to participate in Plan B.

*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 D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

**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. Police Employees hired after January 1, 2010 will contribute 6% of total compensation. 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 D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

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

**7. Service Retirement**

**Eligibility**

*Municipal:*

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

*Uniformed (Plans A and B):*

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

*Elected:*

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

**Benefit Amount**

*Municipal:*

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

*Uniformed (Plans A and B):*

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

*Elected:*

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



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SUMMARY OF PLAN PROVISIONS – 1987 PLAN

**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 D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

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 D  
SUMMARY OF PLAN PROVISIONS – 1987 PLAN

*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.

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

*Uniformed (Plans A and B):*

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

The beneficiary may be any relative by blood or marriage.

*Elected:*

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

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

The beneficiary may be any relative by blood or marriage.

**Annual Pension**

*Municipal:*

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

*Uniformed (Plans A and B):*

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

*Elected:*

Same as municipal.

**Lump Sum Payment**

*Municipal:*

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

*Uniformed (Plans A and B):*

Same as municipal.

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

*Elected:*

Same as municipal.

**13. Service-Connected Disability**

**Eligibility**

*Municipal:*

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

*Uniformed (Plans A and B):*

Same as municipal.

*Elected:*

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

**Benefit Amount**

*Municipal:*

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

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

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

*Uniformed (Plans A and B)*

Same as municipal.

*Elected:*

Same as municipal.

APPENDIX D  
SUMMARY OF PLAN PROVISIONS – 1987 PLAN

**14. Service-Connected Disability Periodic Adjustment**

**Eligibility**

*Municipal:*

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

*Uniformed (Plans A and B):*

Same as municipal, but only applies to police employees.

*Elected:*

Same as municipal.

**Benefit Amount**

*Municipal:*

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

*Uniformed (Plans A and B):*

Same as municipal.

*Elected:*

Same as municipal.

**15. Ordinary Disability**

**Eligibility**

*Municipal:*

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

*Uniformed (Plans A and B):*

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

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

*Elected:*

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

**Benefit Amount**

*Municipal:*

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

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

*Uniformed (Plans A and B):*

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

*Elected:*

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

**16. Survivor Benefits**

**Eligibility**

*Municipal:*

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

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

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.

**APPENDIX D**  
**SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

*Uniformed (Plans A and B):*

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

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

*Elected:*

Same as municipal.

**17. Service-Connected Health Care Benefit**

**Eligibility**

*Municipal:*

Not applicable.

*Uniformed (Plans A and B):*

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

*Elected:*

Not applicable.

**18. Deferred Retirement Option Plan (DROP)**

**Eligibility**

*Municipal:*

Employees that have 10 years of service and reached the minimum retirement age may elect to participate in the DROP. During this time, their accrued benefit will go into a DROP account and will earn interest at a specified rate (4.5% as of July 1, 2009). 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.



**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX D  
SUMMARY OF PLAN PROVISIONS – 1987 PLAN**

*Uniformed (Plans A and B):*

Same as municipal.

*Elected:*

Same as municipal.

**CITY OF PHILADELPHIA MUNICIPAL RETIREMENT SYSTEM  
JULY 1, 2010 ACTUARIAL VALUATION**

**APPENDIX D  
SUMMARY OF PLAN PROVISIONS – PLAN 10**

Police employees hired on or after January 1, 2010 will be placed in a new retirement program adopted by the City (Plan '10). New employees will have the option to participate in a defined benefit plan with a different benefit calculation formula and eligibility and vesting rules, and a defined contribution plan with eligibility for City matching contributions, or enter Plan 87 but with increased employee contributions. The employee contribution rate would be 6.0% instead of 5.0%.

Existing Plan A participants had the option, for a period of ninety (90) days, to make an irrevocable election to enter the new pension plan. Employees who elected do so will have their benefits in the existing pension plan frozen, and their future earnings and service will count only toward benefits under the new pension plan.

**APPENDIX E  
GLOSSARY OF TERMS**

**1. Actuarial Liability**

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

**2. Actuarial Assumptions**

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

**3. Accrued Service**

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

**4. Actuarial Equivalent**

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

**5. Actuarial Funding Method**

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

**6. Actuarial Gain (Loss)**

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

**7. Actuarial Present Value**

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

**APPENDIX E  
GLOSSARY OF TERMS**

**8. Amortization**

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

**9. Annual Required Contribution (ARC) under GASB 25**

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

**10. Normal Cost**

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

**11. Unfunded Actuarial Liability (UAL)**

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

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

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