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CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

Actuarial Valuation Report
as of April 30, 2011

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The experience and dedication you deserve

October 10, 2011

The Board of Trustees
Civilians Employees' Retirement System
of the Police Department of Kansas City, Missouri
1328 Agnes Street
Kansas City, MO 64127

Dear Members of the Board:

At your request, we have performed an annual actuarial valuation of the Civilian Employees' Retirement System of the Police Department of Kansas City, Missouri as of April 30, 2011 for determining the actuarial contribution rate for fiscal year 2013. The major findings of the valuation are contained in this report, which reflects the benefit provisions in effect as of April 30, 2011. The Board of Trustees, upon the recommendation of the actuary, adopted a new asset smoothing method and implemented it by resetting the current actuarial value of assets equal to the market value of assets. The change in the asset smoothing method is first reflected in this report.

This is the first valuation prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the April 30, 2010 actuarial valuation. Results were well within acceptable limits, but there were differences in the key valuation results. The normal cost rate at April 30, 2010, as determined by CMC, was 13.44% versus 13.72% shown in the April 30, 2010 valuation report. The actuarial accrued liability, calculated by CMC, was $132 million as compared to $131 million shown in the April 30, 2010 actuarial valuation report. These differences are neither unusual nor significant. It is very common for differences in valuation results to occur due to the use of different pension valuation software.

In preparing this 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, member data and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the System. Actuarial computations presented in this report under GASB Statements No. 25 and 27 are for purposes of fulfilling financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in Appendix B of this report, and of GASB Statements No. 25 and 27. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We would like to express our appreciation to the System's staff, who gave substantial assistance in supplying the data on which this report is based.

We herewith submit the following report and look forward to discussing it with you.

Respectfully submitted,

Patrice Beckham

Brent A. Banister

Patrice A. Beckham, FSA, EA, FCA, MAAA
Consulting Actuary

Brent A. Banister, PhD, FSA, EA, FCA, MAAA
Senior Actuary

OVERVIEW

This report presents the results of the April 30, 2011 actuarial valuation of the Civilian Employees' Retirement System of the Police Department of Kansas City, Missouri. The primary purposes of performing a valuation are to:

- Determine the employer contribution rates required to fund the System on an actuarial basis,
- Disclose asset and liability measures as of the valuation date,
- Determine the experience of the System since the last valuation date, and
- Analyze and report on trends in System contributions, assets, and liabilities over the past several years.

There was no change in the benefit provisions or actuarial assumptions used in the valuation. The Board of Trustees, upon the recommendation of the actuary, adopted a change in the asset smoothing method and implemented it by resetting the actuarial value of assets equal to the market value of assets as of April 30, 2011.

This is the first valuation prepared by Cavanaugh Macdonald Consulting, LLC (CMC). As part of our transition work, we replicated the April 30, 2010 actuarial valuation. Results were well within acceptable limits, but there were differences in the key valuation results. The normal cost rate at April 30, 2010, as determined by CMC, was 13.44% versus 13.72% shown in the April 30, 2010 valuation report. The actuarial accrued liability, calculated by CMC, was $132 million compared to $131 million in the April 30, 2010 actuarial valuation report. These differences are neither unusual nor significant. It is very common for differences in valuation results to occur due to the use of different pension valuation software.

The valuation results provide a "snapshot" view of the System's financial condition on April 30, 2011. The unfunded actuarial accrued liability increased from the last valuation by approximately $4 million, indicating overall experience for FY 2011 that was less favorable than expected based on the actuarial assumptions. A detailed analysis of the change in the unfunded actuarial accrued liability from April 30, 2010 to April 30, 2011 is shown on page 3.

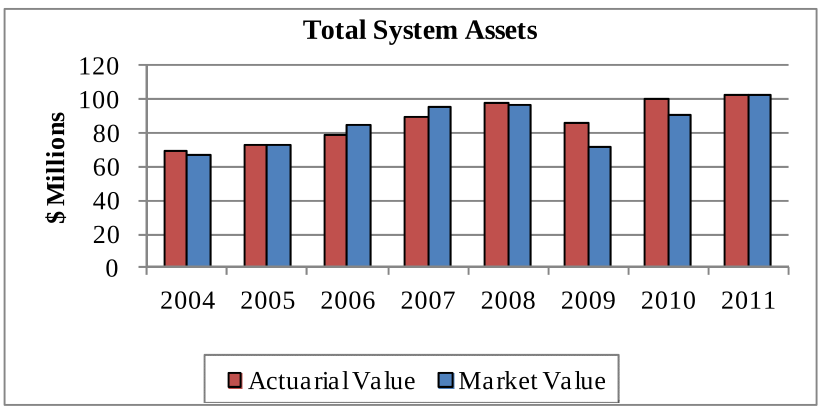
ASSETS

As of April 30, 2011, the System had total funds, when measured on a market value basis, of $103 million. This was an increase of $12 million from the April 30, 2010 figure of $91 million. The market value of assets is not used directly in the calculation of the actuarial contribution rate. An asset valuation method which smoothes the effect of market fluctuations is used to determine the value of assets used in the valuation, call the "actuarial value of assets". The new smoothing method, first adopted by the Board for the April 30, 2011 valuation, recognizes the difference between the actual and expected return on the market value of assets evenly over a five year period. The new asset smoothing method was implemented by setting the actuarial value of assets equal to the market value of assets at April 30, 2011. The smoothing of actual versus expected investment experience will begin in the next valuation. The prior asset smoothing method would have produced an actuarial value of assets of $102 million. The actuarial value of assets as of April 30, 2011 was set equal to the market value of $103 million so the unfunded actuarial accrued liability was $1 million less due to the change in the asset smoothing method.

A summary of the asset experience follows:

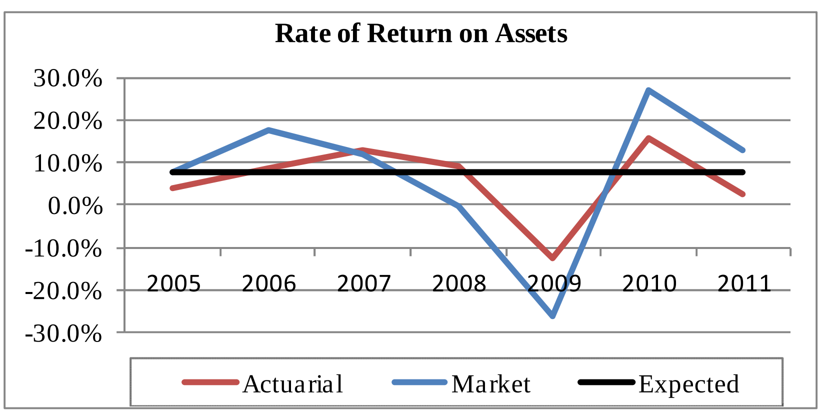
	Market Value ($M)	Actuarial Value ($M)
Assets, April 30, 2010	$91.2	$100.5
· City and Member Contributions	4.6	4.6
· Benefit Payments and Refunds	(5.0)	(5.0)
· Administrative Expenses	(0.1)	(0.1)
· Investment Income (net of expenses)	11.8	1.7
Preliminary Value, April 30, 2011	102.5	101.7
Implementation of new asset smoothing method	0.0	0.8
Final Assets, April 30, 2011	$102.5	$102.5

The annualized dollar-weighted rate of return, measured on the actuarial value of assets before the change in smoothing method, was +2% and, measured on the market value of assets, was approximately +13%. The return on an actuarial basis of less than 7.75% resulted in a loss to the system of about $5 million. Historical asset information is shown in the following two charts:



The actuarial value of assets has been both above and below the market value during this period. This is to be expected when using an asset smoothing method.

Note: Results for years before 2011 were prepared by the prior actuary



Rates of return on the market value of assets have been very volatile. The return on the actuarial value of assets has lagged the 7.75% assumption in the last decade.

Note: Results for years before 2011 were prepared by the prior actuary

LIABILITIES

The actuarial accrued liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the asset value at the same date is referred to as the unfunded actuarial accrued liability (UAAL) or (surplus) if the asset value exceeds the actuarial accrued liability. The unfunded actuarial accrued liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest on the previous balance of the unfunded actuarial accrued liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods will also impact the total actuarial accrued liability and the unfunded portion thereof.

The Actuarial Accrued Liability and Unfunded Actuarial Accrued Liability for the System as of April 30, 2011 are:

Actuarial Accrued Liability	$137,040,461
Actuarial Value of Assts	102,522,611
Unfunded Actuarial Accrued Liability/ (Surplus)	$34,517,850

Between April 30, 2010 and April 30, 2011, the change in the unfunded actuarial accrued liability (UAAL) for the System was as follows (in millions):

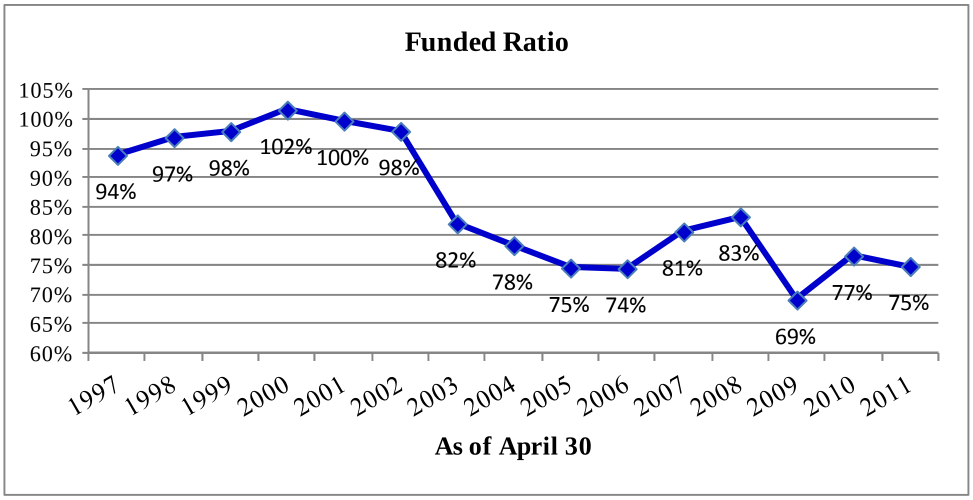
	$(M)*
UAAL, April 30, 2010	30.7
+ Normal cost for year	3.6
+ Assumed investment return for year	2.7
- Actual contributions (member + city)	4.6
- Assumed investment return on contributions	0.2
= Expected UAAL, April 30, 2011	32.2
+ Change from new asset smoothing method	(0.8)
+ Change from change in actuary	1.1
= Expected UAAL after changes	32.5
Actual UAAL, April 30, 2011	34.5
Experience gain/(loss) (Expected UAAL - Actual UAAL)	(2.0)

*may not add due to rounding

The experience loss for the last plan year of $2 million was the result of an actuarial loss of $5 million on System assets (actuarial value) and a liability gain of $3 million. The liability gain was primarily the result of salaries in the 2011 valuation that were lower than expected, based on the actuarial assumptions.

Analysis of the unfunded actuarial accrued liability strictly as a dollar amount can be misleading. Another way to evaluate the unfunded actuarial accrued liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial accrued liability. This information for recent years is shown below (in millions). Historical information is shown in the graph following the chart.

	4/30/2007	4/30/2008	4/30/2009	4/30/2010	4/30/2011
Actuarial Value of Assets ($M)	$89.1	$98.0	$86.3	$100.5	$102.5
Actuarial Accrued Liability ($M)	$110.4	$117.6	$125.0	$131.2	$137.0
Funded Ratio (Assets/Liability)	81%	83%	69%	77%	75%



Much of the decline in the funded ratio over the last three years is attributable to the sharp decline in the market for FY2009. The broader decline over the last decade is a reflection of actual contribution rates significantly below the actuarial contribution rate coupled with investment returns less than the actuarial assumed rate. The System's funded status will continue to be heavily dependent on investment returns as well as the City's contribution policy.

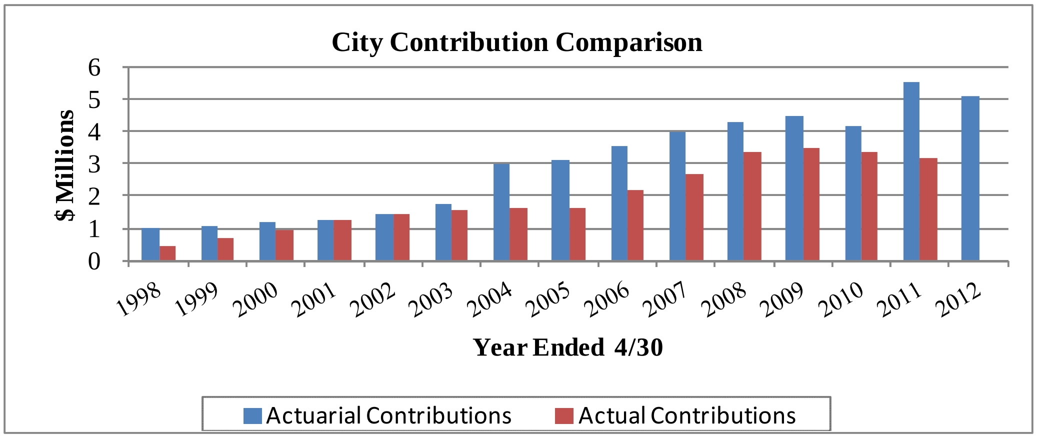
CONTRIBUTION RATES

Generally, contributions to the System consist of:

- a "normal cost" for the portion of projected liabilities allocated to service of members during the year following the valuation date, by the actuarial cost method,
- an "unfunded actuarial accrued liability or (surplus) contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

Contribution rates are computed with the objective of developing costs that are level as a percentage of covered payroll. The contribution rate for fiscal year 2013 is computed based on the April 30, 2011 actuarial valuation.

The following graph shows the actuarial contribution rate for the City compared to the amount actually received in the year. The actuarial contribution rate equals the System's normal cost, budgeted expenses and an amortization of the unfunded actuarial accrued liability.



COMMENTS

As of April 30, 2011, the actuarial accrued liability was $137 million and the actuarial value of assets was $103 million, resulting in a funded ratio of 75%, down slightly from the funded ratio of 77% last year. The low return on the actuarial value of assets was one factor, but actual contributions below the actuarial contribution rate was also a significant factor. Currently the UAAL is $35 million. As a result of this unfavorable experience, the City's actuarial contribution rate increased from 18.19% in last year's valuation to 19.82% in the current valuation.

Retirement plans use several mechanisms to provide more stability in the contribution levels, including an asset smoothing method, which smoothes out the peaks and valleys of investment returns. The System utilizes an asset smoothing method that recognizes the difference between the actual and expected return evenly over a five-year period. This year, as a result of adopting a new asset smoothing method, the actuarial value was reset to market value. This change had a minimal impact, however, because the actuarial value of assets computed under the prior smoothing method was only $1 million less than the pure market value.

The normal cost rate remained fairly stable as a percentage of payroll, but the System's unfunded actuarial accrued liability increased from $31 million last year to $35 million this year. As a result, the City's actuarial contribution rate increased from 18.19% last year to 19.82% of pay in this year's valuation.

The actuarial contribution rate for the City for fiscal year end April 30, 2011 was 18.87%. The City actually contributed at a rate of 13.14% of covered payroll. This difference between the actual and actuarial contribution rate increased the unfunded actuarial accrued liability by nearly $2 million. This contribution shortfall is expected to be higher in future years. To the extent the System does not have investment returns above the assumed rate of 7.75% or other favorable experience sufficient to offset the contribution shortfall, the unfunded actuarial accrued liability will increase in future years. The long-term financial health of the System is dependent on the systematic funding of the Plan, based on the results of the actuarial valuation. Assuming all actuarial assumptions are met in the future and the City continues to contribute at the scheduled rate of 13.14%, the funded status of the System is expected to decline and the actuarial contribution rate is expected to increase. The longer it takes for the City's contributions to increase to the actuarial contribution rate, the higher the ultimate contribution rate will be.

The actual contributions made by the City in the last ten years have been lower than the actuarial contribution rate. The long-term financial health of this retirement system is heavily dependent on two key items: (1) investment returns and (2) contributions to the System. Given the System's funded status and the City's scheduled contribution rate, the System's long-term funding is a concern.

To the extent the City continues to contribute below the actuarial contribution rate, the funding of the System is expected to deteriorate even further. If, as expected, the funded status continues to decline it will impact the payment of ad hoc COLAs and whether the current benefit structure can be sustained over the long term. We strongly recommend the City develop a plan to address the long-term funding of the System as soon as possible. If the move to the full actuarial contribution rate cannot be accomplished at once, a plan to systematically increase the actual contribution rate in future years until it reaches the actuarial rate may be another alternative to consider.

Based on the Board's policy, an ad hoc cost of living adjustment may be granted if the definition of "actuarial soundness", which requires at least one of the three following conditions, is met:

(1) The plan's funded ratio (actuarial value of assets/actuarial accrued liability) measured in accordance with GASB 25, rounded to the nearest whole percentage, is 75% or greater.

(2) For each of the three most recently completed plan years, the plan has received a combination of employer and employee contributions that in total are, rounded to the nearest whole percentage, 90% or greater of the plan's required contributions (defined to be the sum of the Annual Required Contribution as defined by GASB Statement 25 and any required employee contributions).

(3) For at least three out of the last five completed plan years, the plan has received employer contributions that equal or exceed the plan's Annual Required Contribution as defined by GASB Statement 25.

Based upon the results of the April 30, 2011 valuation, and the Board's policy, an ad hoc COLA can be granted. However, the Board may want to consider the following facts in making their decision:

(1) The funded ratio of the system, using the market value of assets, is exactly 75%. This does not leave any margin above the 75% funding target should markets decline.
(2) The City has been contributing less than the actuarial contribution rate and this practice is expected to continue.
(3) Based on advice from the investment consultant for the system, asset returns in the short term (the next 5 to 10 years) are expected to be less than the assumed rate of return of 7.75%. If this occurs, the funded ratio will decline, perhaps significantly.

We have not reviewed any legal aspects related to granting the ad hoc COLA. We are not attorneys and cannot give legal advice on such issues. We suggest that you review this policy with your legal counsel.

We conclude this Board Summary with the following exhibit which compares the principal results of the current and prior actuarial valuation.

SUMMARY OF PRINCIPAL RESULTS

1. PARTICIPANT DATA	4/30/2011 Valuation	4/30/2010 Valuation	% Change
Number of:			
Active members	557	575	(3.1) %
Retired Members and Beneficiaries	193	186	3.8 %
Inactive Vested Members	13	13	0.0 %
Total Members	763	774	(1.4) %
Annual Projected Salaries of Active Members	$ 25,238,690	$ 26,136,353	(3.4) %
Annual Retirement Payments for Retired Members and Beneficiaries*	$ 4,358,186	$ 4,110,838	6.0 %
*Does not include supplemental benefits			
2. ASSETS AND LIABILITIES			
Total Actuarial Accrued Liability	$ 137,040,461	$ 131,222,564	4.4 %
Market Value of Assets	102,522,611	91,224,200	12.4 %
Actuarial Value of Assets	102,522,611	100,515,970	2.0 %
Unfunded Actuarial Accrued Liability	$ 34,517,850	$ 30,706,594	12.4 %
Funded Ratio	75%	77%	(2.3) %
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	13.55%	13.72%	(1.3) %
Member Financed	5.00%	5.00%	0.0 %
Employer Normal Cost	8.55%	8.72%	(2.0) %
Amortization of Unfunded Actuarial Accrued Liability	11.27%	9.47%	19.0 %
Employer Contribution Rate	19.82%	18.19%	9.0 %

This report presents the actuarial valuation of the Civilian Employees' Retirement System of the Police Department of Kansas City, Missouri as of April 30, 2011. This valuation was prepared at the request of the System's Board of Trustees. There was no change in the benefit structure or actuarial assumptions from the prior valuation, but there was a change in the actuarial methods. Upon the recommendation of the actuary, the Board of Trustees adopted a new asset smoothing method. The new method was implemented by setting the actuarial value of assets as of April 20, 2011 equal to the market value in this valuation.

Please pay particular attention to our cover letter, where the guidelines employed in the preparation of this report are outlined. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings are based. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings which result from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of the System. Sections 4 and 5 describe how the obligations of the System are to be met under the actuarial cost method in use. Section 6 includes the information required for the financial reporting standards established by the Governmental Accounting Standards Board (GASB).

This report includes several appendices:

- Appendix A — Schedules of valuation data classified by various categories of members.
- Appendix B — A summary of the current benefit structure, as determined by the provisions of governing law on April 30, 2011.
- Appendix C — A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D — A glossary of actuarial terms.

In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is April 30, 2011. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System, which are generally in excess of assets. The actuarial process then leads to a method of determining the contributions needed by members and the employer in the future to balance the System assets and liabilities.

Market Value of Assets

The current market value represents the "snapshot" or "cash-out" value of System assets as of the valuation date. In addition, the market value of assets provides a basis for measuring investment performance from time to time. Table 1 is a comparison, at market values, of System assets as of April 30, 2011, and April 30, 2010, in total and by investment category. Table 2 summarizes the change in the market value of assets from April 30, 2010 to April 30, 2011.

Actuarial Value of Assets

Neither the market value of assets, representing a "cash-out" value of System assets, nor the book values of assets, representing the cost of investments, may be the best measure of the System's ongoing ability to meet its obligations.

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. The Board adopted a new asset smoothing method effective with the April 30, 2011 valuation. Under this methodology, the difference between the actual and assumed investment returns on the market value of assets is recognized evenly over a five year period. The new method was implemented by resetting the actuarial value of assets at April 30, 2011 to the market value of assets. The prior method smoothed the difference between the actual return on the market value of assets and the expected return on the actuarial value of assets.

TABLE 1

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

STATEMENT OF NET PLAN ASSETS AT MARKET VALUE

	Market Value	
	April 30, 2011	**April 30, 2010**
Cash & Equivalents	$4,324,000	$7,653,663
Receivables	339,188	270,531
Stocks:		
Common & Preferred Corporate	47,355,829	38,970,464
Foreign	6,996,805	8,163,387
Bonds:		
U.S. Government	17,344,443	14,486,178
Corporate	8,869,335	9,910,953
Exchange traded fixed income funds	3,804,274	0
Asset Backed Securities	2,571,223	3,508,194
Real Estate	2,375,335	1,749,635
Commodities	4,635,232	3,318,799
Partnerships	4,063,357	3,315,302
Total Assets	$102,679,021	$91,347,106
Accounts Payable	(156,410)	(122,906)
Net Assets Available for Benefits	$102,522,611	$91,224,200

TABLE 2

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

STATEMENT OF CHANGES IN NET ASSETS
DURING YEAR ENDED APRIL 30, 2011

(Market Value)

1. Market Value of Assets as of April 30, 2010	$	91,224,200
2. Contributions:		
a. Members	$	1,383,479
b. City		3,185,041
c. Miscellaneous		0
d. Total	$	4,568,520
[2a] + [2b] + [2c]		
3. Investment Income		
a. Interest and Dividends	$	2,353,175
b. Net Securities Lending Income		36,919
c. Investment Expenses		(481,376)
d. Net Appreciation in Fair Value		9,944,166
e. Net Investment Income	$	11,852,884
[3a] + [3b] + [3c] + [3d]		
4. Deductions		
a. Refunds of Member Contributions	$	131,072
b. Benefits Paid:		
(1) Retirement Benefits		4,514,639
(2) Death Benefits		6,000
(3) Partial Lump Sums		354,515
c. Administrative Expenses		116,767
d. Total	$	5,122,993
[4a] + [4b] + [4c]		
5. Net Change	$	11,298,411
[2d] + [3e] - [4d]		
6. Market Value of Assets as of April 30, 2011	$	102,522,611
[1] + [5]		

TABLE 3

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

The Board adopted a new asset smoothing method effective with the April 30, 2011 valuation. Under the new methodology, the difference between the actual and assumed investment return on the market value of assets is recognized evenly over a five year period. The new method was implemented by resetting the actuarial value of assets at April 30, 2011 equal to the market value of assets.

1.	Market Value of Assets as of April 30, 2011	$ 102,522,611
2.	Actuarial Value of Assets as of April 30, 2011	$ 102,522,611

In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of assets of the System as of the valuation date, April 30, 2011. In this section, the discussion will focus on the commitments (future benefit payments) of the System, which are referred to as its liabilities.

Table 4 contains an analysis of the actuarial present value of all future benefits (PVFB) for contributing members, inactive members, retirees and their beneficiaries.

The liabilities summarized in Table 4 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes the measurement of both benefits already earned and future benefits to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and for the lives of the surviving beneficiaries.

All liabilities reflect the benefit provisions in place as of April 30, 2011, with one exception. When certain funding ratio and contribution criteria are met, the Board has discretion to grant a COLA (it is not part of the statutory benefit structure). Even though the COLA is not guaranteed to be paid, the liabilities reflect a 3% annual cost of living adjustment for all future years as it better reflects the long-term liabilities.

Actuarial Accrued Liability

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to do this allocation, it is necessary for the funding method to “breakdown” the present value of future benefits into two components:

(1) That which is attributable to the past and

(2) That which is attributable to the future.

Actuarial terminology calls the part attributable to the past the “past service liability” or the “actuarial accrued liability”. The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the “normal cost”. Table 5 contains the calculation of the actuarial accrued liability for the System. The Entry Age Normal actuarial cost method is used to develop the actuarial accrued liability.

TABLE 4

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

PRESENT VALUE OF FUTURE BENEFITS (PVFB) AS OF APRIL 30, 2011

1. Active employees		
a. Retirement Benefit	$	96,808,690
b. Pre-Retirement Death Benefit		987,125
c. Withdrawal Benefit		3,054,408
d. Disability Benefit		2,962,655
e. Supplemental Benefit		3,710,071
f. Total	$	107,522,949
2. Inactive Vested Members		
a. Retirement Benefit	$	734,112
b. Supplemental Benefit		100,098
c. Total	$	834,210
3. Inactive Nonvested Members	$	0
4. In Pay Members		
a. Retirees	$	47,489,248
b. Disabled Members		2,640,365
c. Beneficiaries		1,723,646
d. Supplemental Benefit		3,548,468
e. Total	$	55,401,727
5. Total Present Value of Future Benefits		
[1f] + [2c] + [3] + [4e]	$	163,758,886

TABLE 5

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

ACTUARIAL ACCRUED LIABILITY
AS OF APRIL 30, 2011

1. Active employees		
a. Present Value of Future Benefits	$	107,522,949
b. Present Value of Future Normal Costs		26,718,425
c. Actuarial Accrued Liability [1a] - [1b]	$	80,804,524
2. Inactive Vested Members	$	834,210
3. Inactive Nonvested Members	$	0
4. In Pay Members		
a. Retirees	$	47,489,248
b. Disabled Members		2,640,365
c. Beneficiaries		1,723,646
d. Supplemental Benefit		3,548,468
e. Total	$	55,401,727
5. Total Actuarial Accrued Liability [1c] + [2] + [3] + [4e]	$	137,040,461
6. Actuarial Value of Assets	$	102,522,611
7. Unfunded Actuarial Accrued Liability [5] - [6]	$	34,517,850

TABLE 6

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

AMORTIZATION SCHEDULE FOR THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

Base	Date Created	Last Payment	Balances: Initial	Balances: Outstanding	2011/2012 Amortization	2012/2013 Amortization
5/1/1998 Base	5/1/1998	FY 2022	$ 1,365,456	$ 1,317,500	$ 148,051	$ 153,973
5/1/1999 Base	5/1/1999	FY 2023	(352,183)	(349,663)	(36,616)	(38,081)
5/1/2000 Base	5/1/2000	FY 2024	(1,913,466)	(1,941,358)	(190,760)	(198,390)
5/1/2001 Base	5/1/2001	FY 2025	1,087,122	1,120,534	103,919	108,076
5/1/2002 Base	5/1/2002	FY 2026	1,210,843	1,261,550	110,979	115,419
5/1/2003 Base	5/1/2003	FY 2027	13,432,011	14,083,913	1,180,375	1,227,590
5/1/2004 Base	5/1/2004	FY 2029	4,195,266	4,768,712	366,770	381,440
5/1/2005 Base	5/1/2005	FY 2030	4,931,763	5,463,443	404,423	420,600
5/1/2006 Base	5/1/2006	FY 2031	1,819,711	1,920,238	137,013	142,493
5/1/2007 Base	5/1/2007	FY 2032	(6,095,148)	(6,353,008)	(435,371)	(452,786)
5/1/2008 Base	5/1/2008	FY 2033	(1,821,578)	(1,840,175)	(141,295)	(146,947)
5/1/2009 Base	5/1/2009	FY 2034	19,019,286	19,281,195	1,377,813	1,432,925
5/1/2010 Base	5/1/2010	FY 2035	(8,042,770)	(8,688,511)	(563,283)	(585,814)
5/1/2011 Base	5/1/2011	FY 2036	5,508,857	4,473,480	111,724	304,977
Total Unfunded Actuarial Accrued Liability				$ 34,517,850	$ 2,573,741	$ 2,865,474
Expected Contribution Shortfall in FY 2012						
	5/1/2011		1,372,681	1,372,681	0	93,309
Total Amortization Payment Including Shortfall					$ 2,573,741	$ 2,958,783
Equivalent Single Amortization Period						15.45

Note: Years prior to 2011 are from prior actuary's report

TABLE 7

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

DERIVATION OF SYSTEM EXPERIENCE GAIN/ (LOSS)

			($M)	
			Year Ended **4/30/2011**	**Year Ended** **4/30/2010**
[1]		UAAL* at start of year	30.7	38.7
[2]	+	Normal cost for year	3.6	3.6
[3]	+	Assumed investment return on [1] & [2]	2.7	3.3
[4]	-	Actual contributions (member + city)	4.6	4.6
[5]	-	Assumed investment return on [4]	0.2	0.2
[6]	=	Expected UAAL at end of year [1] + [2] + [3] - [4] - [5]	32.2	40.8
[7]	+	Increase (decr.) from new smoothing method	(0.8)	0.0
[8]	+	Increase (decr.) from change in actuary	1.1	0.0
[9]	=	Expected UAAL after changes [6] + [7] + [8]	32.5	40.8
[10]	=	Actual UAAL at year end	34.5	30.7
[11]	=	Experience gain (loss) [9] - [10]	(2.0)	10.1
[12]	=	Percent of beginning of year AAL	(1.5%)	8.1%

* *Unfunded Actuarial Accrued Liability/ (Surplus)*

Year Ended April 30	**Actuarial Gain/(Loss) As % of Actuarial Accrued Liability**
2006	(0.8%)
2007	5.9%
2008	1.1%
2009	(15.8%)
2010	8.1%
2011	(1.5%)

TABLE 8

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

GAIN/ (LOSS) ANALYSIS BY SOURCE

Source of Gain/(Loss)	Gain/(Loss) ($M)
Retiree Mortality	1.2
Withdrawal	(0.1)
Retirement	0.3
Death	0.1
Disability	(0.7)
Salary	2.4
New actives	0.0
Total Liability Gain/(Loss)	3.2
Asset Gain/(Loss)	(5.2)
Total Gain/(Loss)	(2.0)

TABLE 9

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

The chart below shows estimated benefits expected to be paid over the next twenty years, based on the assumptions used in this valuation. The "Actives" column shows benefits expected to be paid to members currently active on April 30, 2011. The "Retirees" column shows benefits expected to be paid to all other members. This includes those who, as of April 30, 2011, are receiving benefit payments and inactive vested members who are entitled to a future benefit. No future members are reflected.

Retirement, Survivor, Withdrawal and Supplemental Benefits

Year Ending April 30	Actives	Retirees	Total
2012	$ 530,000	$ 4,699,000	$ 5,229,000
2013	1,044,000	4,742,000	5,786,000
2014	1,600,000	4,777,000	6,377,000
2015	2,214,000	4,806,000	7,020,000
2016	2,841,000	4,842,000	7,683,000
2017	3,498,000	4,874,000	8,372,000
2018	4,222,000	4,881,000	9,103,000
2019	4,958,000	4,904,000	9,862,000
2020	5,675,000	4,896,000	10,571,000
2021	6,406,000	4,887,000	11,293,000
2022	7,180,000	4,862,000	12,042,000
2023	7,974,000	4,834,000	12,808,000
2024	8,768,000	4,790,000	13,558,000
2025	9,545,000	4,736,000	14,281,000
2026	10,358,000	4,680,000	15,038,000
2027	11,175,000	4,603,000	15,778,000
2028	12,054,000	4,530,000	16,584,000
2029	12,989,000	4,428,000	17,417,000
2030	13,925,000	4,320,000	18,245,000
2031	14,837,000	4,201,000	19,038,000

The previous two sections were devoted to a discussion of the assets and liabilities of the System. A comparison of Tables 3 and 4 indicates that current assets fall short of meeting the present value of future benefits (total liability). This is expected in all but a completely closed fund, where no further contributions are anticipated. In an active system, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost rate and (2) the unfunded actuarial accrued liability contribution rate.

The term "fully funded" is often applied to a system in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely funded or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial accrued liability (UAAL) exists. Likewise, when the actuarial value of assets is greater than the actuarial accrued liability, a surplus exists.

Description of Contribution Rate Components

The Entry Age Normal (EAN) actuarial cost method is used for the valuation. Under that method, the normal cost for each year from entry age to assumed exit age is a constant percentage of the member's year by year projected compensation. The portion of the present value of future benefits not provided by the present value of future normal costs is the actuarial accrued liability. The unfunded actuarial accrued liability/ (surplus) represents the difference between the actuarial accrued liability and the actuarial value of assets as of the valuation date. The unfunded actuarial accrued liability is calculated each year and reflects experience gains/losses.

In general, contributions are computed in accordance with a level percent-of-payroll funding objective. The contribution rate based on the April 30, 2011 actuarial valuation will be used to determine the actuarial required employer contribution rate to the Civilian Employees' Retirement System of the Police Department of Kansas City, Missouri for fiscal year end 2013. In this context, the term "contribution rate" means the percentage, which is applied to a particular active member payroll to determine the actual employer contribution amount (i.e., in dollars) for the group.

As of April 30, 2011, the actuarial accrued liability was greater than the valuation assets so an unfunded actuarial accrued liability (UAAL) exists. The Board elected to amortize the UAAL, as a level percent of payroll, over a closed initial period of 24 years beginning in 1998. A new amortization basis is established each valuation date with a new 24-year amortization period. Effective with the 2008 valuation, active member payroll is assumed to increase 4.0% per year (previously it was 4.5%).

Contribution Rate Summary

In Table 10, the amortization payment related to the unfunded actuarial accrued liability/ (surplus), as of April 30, 2011, is developed. Table 11 develops the actuarial contribution rate for the System. A historical summary of the actual and actuarial contribution rates for the City is shown in Table 12.

The contribution rates shown in this report are based on the actuarial assumptions and cost methods described in Appendix C.

TABLE 10

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

APRIL 30, 2011 VALUATION

DERIVATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY CONTRIBUTION RATE

1. Actuarial Accrued Liability	$	137,040,461
2. Actuarial Value of Assets	$	102,522,611
3. Unfunded Actuarial Accrued Liability/ (Surplus)	$	34,517,850
4. Amortization Payment Including Expected Shortfall	$	2,958,783
5. Total Projected Payroll for FY 2013	$	26,248,238
6. Amortization Payment as a Percent of Payroll		11.27%

TABLE 11

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

EMPLOYER CONTRIBUTION RATES

	Valuation Date	
	4/30/2011	**4/30/2010**
Normal Cost		
Service pensions	10.49%	10.74%
Pre-retirement death pensions	0.17%	0.15%
Disability pensions	0.55%	0.54%
Termination benefits	1.63%	1.63%
Supplemental retirement benefit	0.31%	0.26%
Administrative expenses	0.40%	0.40%
Total Normal Cost	13.55%	13.72%
Total UAAL Amortization payment	11.27%	9.47%
Total Actuarial Contribution Rate	24.82%	23.19%
Member Portion	5.00%	5.00%
City Portion	19.82%	18.19%

TABLE 12

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

COMPUTED AND ACTUAL CITY CONTRIBUTIONS
COMPARATIVE STATEMENT

			Fiscal Year Contributions				
			As a % of Projected Pay		$ Contributions		
Fiscal Year Beginning May 1	Valuation Date April 30	Projected Annual Payroll	Annual Required Contribution	Reported FY City Contribution	Annual Required Contribution	Projected FY City Contribution	Actual Dollar Contribution
1998	1998	$15,295,680	6.80 %	4.38 %	1,040,673	669,951	$674,228
1999	1999	15,430,846	7.47	5.76	1,152,018	888,817	944,475
2000	2000	17,786,369	7.08	7.14	1,259,454	1,269,947	1,286,166
2001	2001	18,831,325	7.49	7.14	1,410,461	1,344,557	1,420,668
2002	2002	21,688,988	8.12	7.14	1,761,146	1,548,594	1,567,833
2003 *	2003	22,931,521	12.84	7.14	2,944,407	1,637,311	1,601,243
2004	2003	23,963,439	12.84	7.14	3,076,906	1,710,990	1,612,080
2005 **	2004	24,088,026	14.45	9.14	3,480,720	2,201,646	2,175,167
2006	2005	24,285,644	15.87	11.14	3,854,132	2,705,421	2,681,732
2007	2006	26,073,120	16.12	13.14	4,202,987	3,426,008	3,372,411
2008	2007	26,618,596	16.24	13.14	4,322,860	3,497,684	3,470,682
2009	2008	28,127,592	14.27	13.14	4,013,807	3,695,966	3,329,727
2010	2009	28,684,028	18.87	13.14	5,412,676	3,769,081	3,185,041
2011	2010	27,181,807	18.19	13.14	4,944,371	3,571,689	
2012 *	2011	26,248,238	19.82		5,202,401		

* *After changes in actuarial assumptions or methods.*

** *After changes in benefits.*

Note: For years prior to 2011, information is shown from the prior actuary's report.

The actuarial accrued liability is a measure intended to help the reader assess (i) a retirement system's funded status on a going concern basis, and (ii) progress being made toward accumulating the assets needed to pay benefits as due. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the Entry Age Normal actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the System's level percent of payroll annual required contribution between entry age and assumed exit age. Entry age was established by subtracting credited service from current age on the valuation date.

The preceding methods comply with the financial reporting standards established by the Governmental Accounting Standards Board.

The Entry Age Normal actuarial accrued liability was determined as part of an actuarial valuation of the plan as of April 30, 2011. The actuarial assumptions used in determining the actuarial accrued liability can be found in Appendix C.

TABLE 13

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

NOTES TO FINANCIAL STATEMENTS
SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

Valuation Date	April 30, 2011
Actuarial cost method	Individual entry age
Amortization method for unfunded actuarial accrued liabilities	Level percent closed
Equivalent single amortization period	15 years
Asset valuation method	5 year smoothing of actual vs expected return on market value
Actuarial assumptions:	
Investment rate of return	7.75%
Projected salary increases including wage inflation at 4.0%	4.25% to 9.75%
Cost-of-living adjustments	3.0% simple

Membership of the plan consisted of the following at April 30, 2011, the date of the latest actuarial valuation:

Retirees and beneficiaries receiving benefits	193
Terminated plan members entitled to but not yet receiving benefits	13
Active plan members	557
Total	763

TABLE 14

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date		Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Active Member Covered Payroll** (c)	UAAL as a Percentage of Active Member Covered Payroll [(b) - (a)] / (c)
4/30/1998		$41,835,057	$43,200,513	$1,365,456	97%	$15,295,680	9%
4/30/1999		47,593,329	48,627,168	1,033,839	98%	$15,430,846	7%
4/30/2000		56,905,524	56,038,915	(866,609)	102%	$17,786,369	-5%
4/30/2001		61,895,208	62,097,908	202,700	100%	$18,831,325	1%
4/30/2002		66,401,308	67,814,254	1,412,946	98%	$20,755,012	7%
4/30/2003	*	68,182,691	83,044,509	14,861,818	82%	$21,944,040	68%
4/30/2004	#	69,868,024	89,141,414	19,273,390	78%	$22,058,127	87%
4/30/2005		72,382,548	97,103,806	24,721,258	75%	$22,239,092	111%
4/30/2006		78,846,717	105,928,172	27,081,455	74%	$23,875,937	113%
4/30/2007		89,110,860	110,394,115	21,283,255	81%	$25,472,341	84%
4/30/2008		97,989,985	117,626,995	19,637,010	83%	$27,045,762	73%
4/30/2009		86,332,962	124,990,468	38,657,506	69%	$27,580,796	140%
4/30/2010		100,515,970	131,222,564	30,706,594	77%	$26,136,353	117%
4/30/2011	*	102,522,611	137,040,461	34,517,850	75%	$25,238,690	137%

* *After changes in actuarial assumptions or methods.*

\# *After change in benefit provisions.*

** *For valuation years 2001 and prior, and 2007 and later, valuation payroll includes projected increases for year following valuation. For valuation years 2002 through 2006, valuation payroll is payroll reported in data after annualization of pays for new hires.*

Note: Results for years prior to 2011 were taken from the prior actuary's report.

Analysis of the dollar amounts of actuarial value of assets, actuarial accrued liability, or unfunded actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one indication of the System's funded status on a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan's funding. The unfunded actuarial accrued liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan's funding.

TABLE 15

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF EMPLOYER CONTRIBUTIONS

Fiscal Year Ending April 30	Annual Required Contribution	Percent Contribution
1997	$465,004	90%
1998	1,035,180	44%
1999	1,040,673	65%
2000	1,152,018	82%
2001	1,259,454	102%
2002	1,410,461	101%
2003	1,761,146	89%
2004 *	2,944,407	54%
2005	3,076,906	52%
2006 **	3,480,720	62%
2007	3,854,132	70%
2008	4,202,987	80%
2009	4,322,860	80%
2010	4,013,807	83%
2011	5,412,676	59%

* *After change in actuarial assumptions or methods.*
** *After changes in benefit provisions.*

Note: For years prior to 2011, information shown is from the prior actuary's report

TABLE 16

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

DEVELOPMENT OF ANNUAL PENSION COST AND NET PENSION OBLIGATION

UNDER GASB STATEMENT NUMBER 27

Fiscal Year End	Annual Required Contribution (ARC) (a)	Interest on NPO (b)	ARC Adjustment (c)	Annual Pension Cost (APC) (d) = (a) + (b) - (c)	Annual Actual Contribution (e)	Change in NPO (f) = (d) - (e)	Net Pension Obligation (NPO) at End of Year (g) = sum of (f)
1999	$1,040,673	$27,345	$20,446	$1,047,572	$674,228	$373,344	$726,180
2000	1,152,018	56,279	42,080	1,166,217	944,475	221,742	947,922
2001	1,259,454	73,464	54,930	1,277,988	1,286,166	(8,178)	939,744
2002	1,410,461	72,830	54,456	1,428,835	1,420,668	8,167	947,911
2003	1,761,146	73,463	57,005	1,777,604	1,567,833	209,771	1,157,682
2004	2,944,407	89,720	69,620	2,964,507	1,601,243	1,363,264	2,520,946
2005	3,076,906	195,373	151,602	3,120,677	1,612,080	1,508,597	4,029,543
2006	3,480,720	312,290	242,325	3,550,685	2,175,167	1,375,518	5,405,061
2007	3,854,132	418,892	325,044	3,947,980	2,681,732	1,266,248	6,671,309
2008	4,202,987	517,026	401,286	4,318,727	3,372,411	946,316	7,617,625
2009	4,322,860	590,366	458,208	4,455,018	3,470,682	984,336	8,601,961
2010	4,013,807	666,652	542,665	4,137,794	3,329,727	808,067	9,410,028
2011	5,412,676	729,277	593,643	5,548,310	3,185,041	2,363,269	11,773,297
2012	4,944,371	912,431	742,733	5,114,068			

Note: Results for years prior to FY 2012 were prepared by the prior actuary

TABLE 17

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

SOLVENCY TEST

	Entry Age Actuarial Accrued Liabilities				Portion of Actuarial Accrued Liabilities Covered by Reported Assets		
Valuation Date April 30	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
2003 *	$7,669,823	$23,457,419	$51,917,267	$68,182,691	100 %	100 %	71 %
2004 **	8,218,260	26,402,483	54,520,671	69,868,024	100	100	65
2005	8,641,718	32,330,097	56,131,991	72,382,548	100	100	56
2006	9,373,054	34,786,783	61,768,335	78,846,717	100	100	56
2007	9,972,284	36,754,725	63,667,106	89,110,860	100	100	67
2008	10,652,040	40,458,961	66,515,994	97,989,985	100	100	70
2009	11,220,613	43,984,225	69,785,630	86,332,962	100	100	45
2010	11,328,650	51,740,006	68,153,908	100,515,970	100	100	55
2011	12,057,814	55,401,727	69,580,920	102,522,611	100	100	50

* *After changes in actuarial assumptions or methods.*

** *After changes in benefits*

Note: Results for years before 2011 were prepared by the prior actuary.

MEMBER DATA RECONCILIATION

April 30, 2010 to April 30, 2011

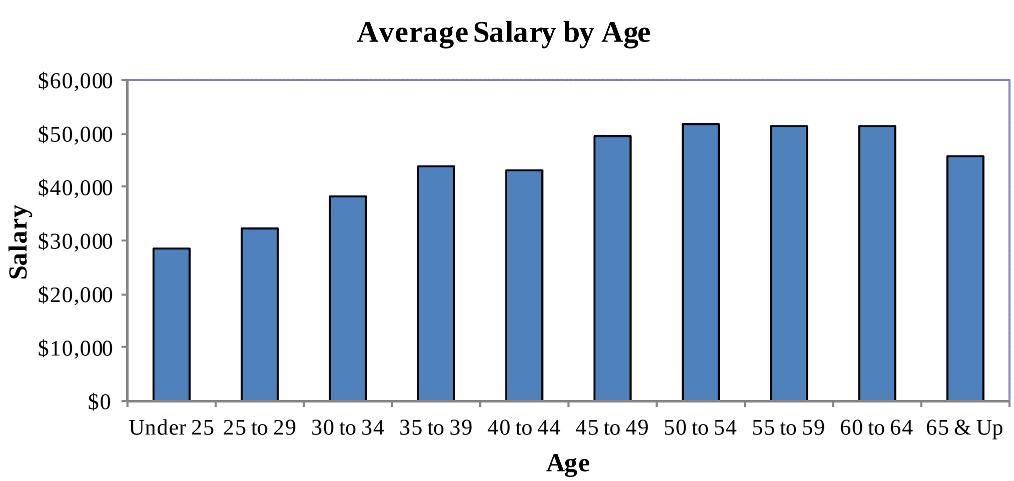
The number of members included in the valuation, as summarized in the table below, is in accordance with the data submitted by the System for members as of the valuation date.

	Active Participants	**Retirees**	**Disableds**	**Beneficiaries**	**Inactive Vested**	**Total**
Members as of 04/30/2010	575	161	8	17	13	774
New Members	19	0	0	0	0	19
Terminations						
Refunded	(22)	0	0	0	(1)	(23)
Inactive Vested	(2)	0	0	0	2	0
Retirements						
Service	(10)	11	0	0	(1)	0
Disability	(2)	0	2	0	0	0
Deaths						
Cashed Out/Payments Ended	0	0	0	0	0	0
With Beneficiary	0	(1)	0	1	0	0
Without Beneficiary	(1)	(5)	0	(1)	0	(7)
Data Adjustments						
Members as of 04/30/2011	**557**	**166**	**10**	**17**	**13**	**763**

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI SUMMARY OF ACTIVE MEMBERS as of April 30, 2011

	Number			Annual Reported Compensation*		
Age	Male	Female	Total	Male	Female	Total
Under 25	10	12	22	$ 248,459	$ 379,982	$ 628,441
25 to 29	24	37	61	763,018	1,214,644	1,977,663
30 to 34	18	57	75	730,184	2,139,337	2,869,521
35 to 39	21	38	59	1,009,458	1,589,665	2,599,123
40 to 44	18	49	67	811,345	2,065,461	2,876,806
45 to 49	32	36	68	1,638,328	1,733,896	3,372,224
50 to 54	29	57	86	1,685,570	2,774,964	4,460,535
55 to 59	20	52	72	1,201,355	2,500,818	3,702,173
60 to 64	13	22	35	736,464	1,065,900	1,802,364
65 & Up	7	5	12	358,071	190,674	548,745
Total	192	365	557	$ 9,182,252	$ 15,655,343	$ 24,837,595

** Compensation reported in the valuation data for the prior plan year with annualization of pay for new hires.*

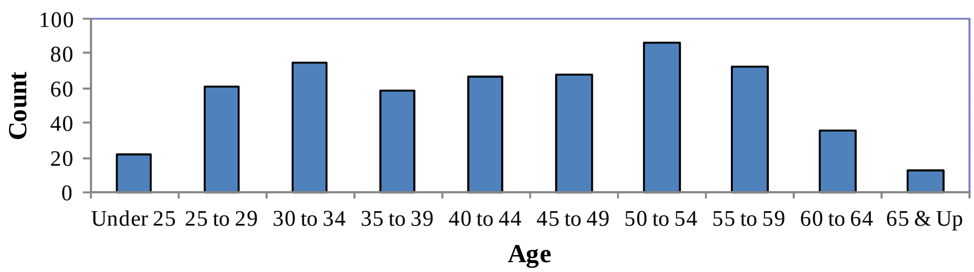


Average age:	43.58
Average service:	12.27
Average salary:	$44,592

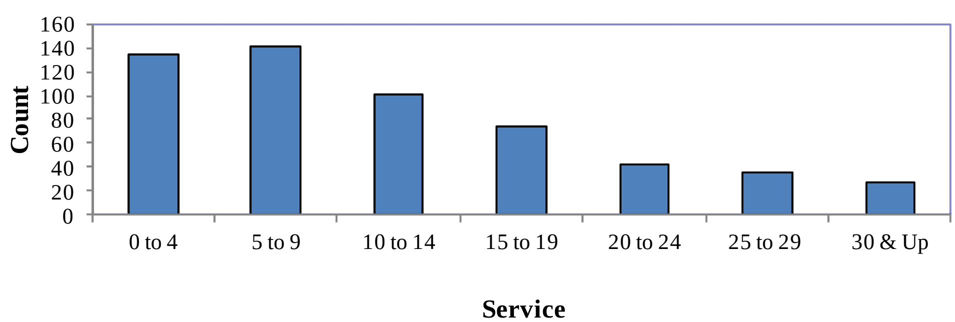
CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI
DISTRIBUTION OF ACTIVE MEMBERS
As of April 30, 2011

	Years of Service							
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	Total
Under 25	22	0	0	0	0	0	0	22
25 to 29	45	16	0	0	0	0	0	61
30 to 34	26	29	19	1	0	0	0	75
35 to 39	4	23	24	8	0	0	0	59
40 to 44	11	13	18	17	8	0	0	67
45 to 49	5	15	14	10	12	11	1	68
50 to 54	9	20	8	10	12	16	11	86
55 to 59	5	13	10	20	6	3	15	72
60 to 64	7	8	7	3	4	5	1	35
65 & Up	1	4	1	5	1	0	0	12
Total	135	141	101	74	43	35	28	557

Age Distribution



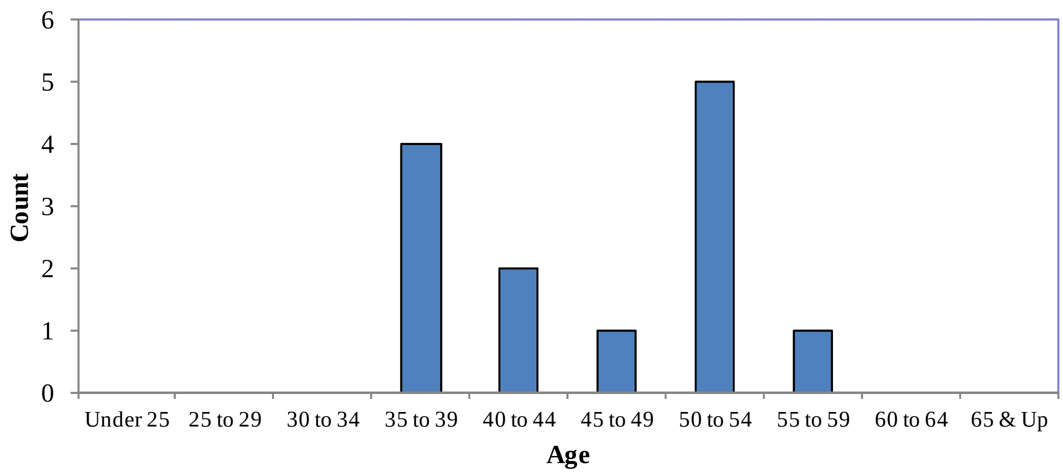
Service Distribution



CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI
SUMMARY OF INACTIVE VESTED MEMBERS
as of April 30, 2011

	Number			Current Monthly Benefit at Retirement		
Age	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	$ 0	$ 0	$ 0
25 to 29	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0
35 to 39	1	3	4	497	2,477	2,974
40 to 44	1	1	2	633	1,142	1,775
45 to 49	1	0	1	379	0	379
50 to 54	2	3	5	902	3,718	4,620
55 to 59	0	1	1	0	1,075	1,075
60 to 64	0	0	0	0	0	0
65 & Up	0	0	0	0	0	0
Total	5	8	13	$ 2,410	$ 8,412	$ 10,823

Age Distribution



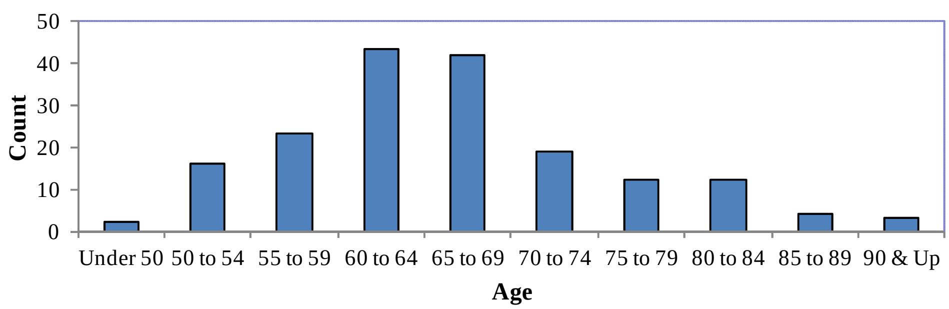
CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI SUMMARY OF RETIRED MEMBERS as of April 30, 2011

Healthy & Disabled Retirees

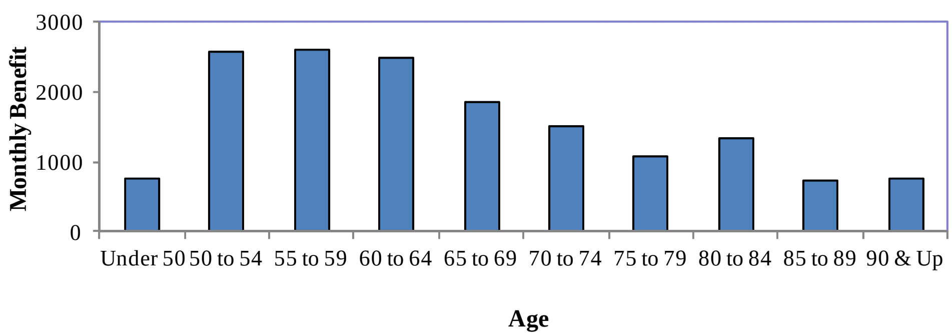
	Number			Monthly Benefit*		
Age	Male	Female	Total	Male	Female	Total
Under 50	1	1	2	$ 959	$ 537	$ 1,497
50 to 54	5	11	16	14,168	26,736	40,905
55 to 59	8	15	23	21,663	38,391	60,054
60 to 64	17	26	43	55,879	50,456	106,335
65 to 69	20	22	42	46,731	30,561	77,291
70 to 74	5	14	19	9,188	19,430	28,618
75 to 79	6	6	12	7,835	5,047	12,883
80 to 84	8	4	12	11,848	4,002	15,850
85 to 89	0	4	4	0	2,917	2,917
90 & Up	1	2	3	1,027	1,271	2,298
Total	71	105	176	$ 169,298	$ 179,348	$ 348,646

*Does not include supplemental benefits

Age Distribution



Average Benefit

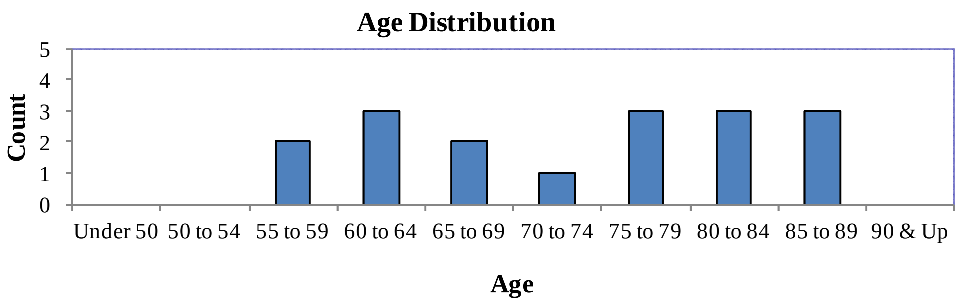


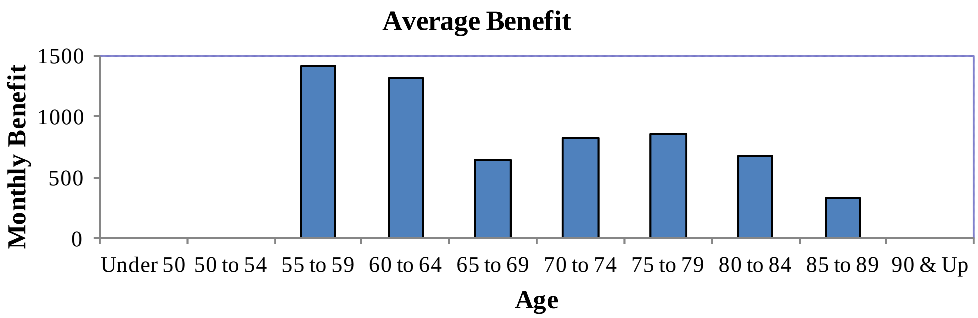
CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI
SUMMARY OF RETIRED MEMBERS
as of April 30, 2011

Beneficiaries

	Number			Monthly Benefit*		
Age	Male	Female	Total	Male	Female	Total
Under 50	0	0	0	$ 0	$ 0	$ 0
50 to 54	0	0	0	0	0	0
55 to 59	0	2	2	0	2,837	2,837
60 to 64	0	3	3	0	3,960	3,960
65 to 69	0	2	2	0	1,298	1,298
70 to 74	0	1	1	0	817	817
75 to 79	1	2	3	1,394	1,182	2,576
80 to 84	0	3	3	0	2,039	2,039
85 to 89	1	2	3	464	546	1,009
90 & Up	0	0	0	0	0	0
Total	2	15	17	$ 1,858	$ 12,679	$ 14,536

*Does not include supplemental benefits



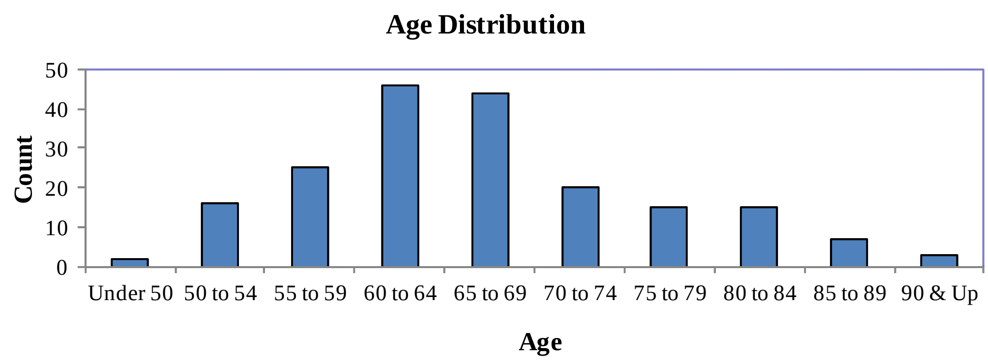


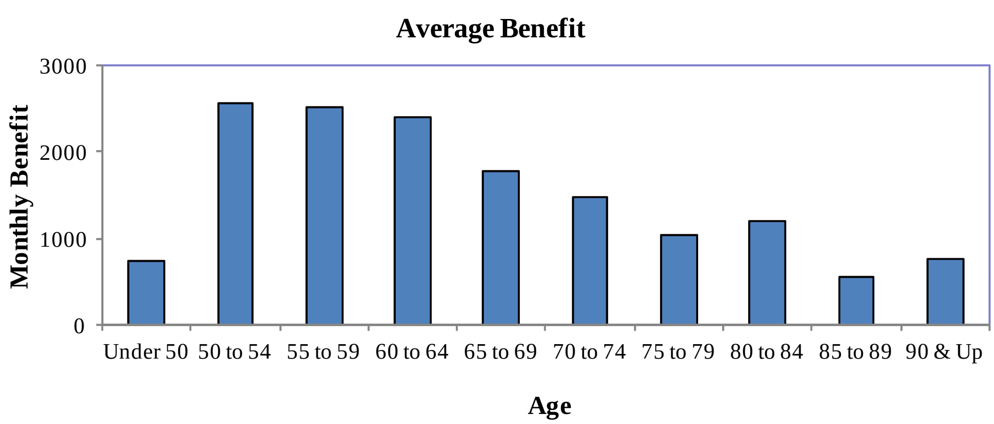
CIVILIAN EMPLOYEES' RETIREMENT SYSTEM
OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI
SUMMARY OF RETIRED MEMBERS
as of April 30, 2011

Combined Retirees & Beneficiaries

Age	Number			Monthly Benefit*		
	Male	Female	Total	Male	Female	Total
Under 50	1	1	2	$ 959	$ 537	$ 1,497
50 to 54	5	11	16	14,168	26,736	40,905
55 to 59	8	17	25	21,663	41,227	62,890
60 to 64	17	29	46	55,879	54,416	110,295
65 to 69	20	24	44	46,731	31,859	78,589
70 to 74	5	15	20	9,188	20,246	29,434
75 to 79	7	8	15	9,229	6,229	15,459
80 to 84	8	7	15	11,848	6,041	17,889
85 to 89	1	6	7	464	3,462	3,926
90 & Up	1	2	3	1,027	1,271	2,298
Total	73	120	193	$ 171,155	$ 192,027	$ 363,182

*Does not include supplemental benefits





CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

SUMMARY OF BENEFIT PROVISIONS

Membership

All regularly appointed full-time civilian employees of the Kansas City, Missouri Police Department, who are not eligible for the Police Retirement System.

Service Retirement

Eligibility – Later of age 65 or member's 10th anniversary of employment.

Amount of Pension – Benefit equal to 2.0% of Final Compensation times years of creditable service.

Final Compensation – Average annual compensation during the two years of service with the highest salary, whether consecutive or otherwise, or during the entire period of service if less than two years.

Early Retirement

Eligibility – Age 55 and 10 years of creditable service.

Amount of Pension – Service retirement benefit reduced 0.50% for each month the benefit commences before age 60.

Eligibility – Age 60 and 5 years of creditable service.

Amount of Pension – Service retirement benefit reduced 0.50% for each month the benefit commences before age 65.

Eligibility – Age plus years of creditable service equals or exceeds 80 or age 60 with 10 years of creditable service.

Amount of Pension – Same as service retirement benefit with no reduction in benefits.

Deferred Retirement (Vested Termination)

Eligibility – 5 or more years of creditable service.

Amount of Pension – Computed as service retirement but based upon service, Final Compensation and benefit formula in effect at termination. Benefit may begin at early retirement age, adjusted by applicable reductions.

Duty Disability

Eligibility – Payable upon the total and permanent disability of a member from active status as a direct result of performance of duties with the Police Department. No age or service requirement.

Amount of Pension – 50% of Final Compensation payable for the remainder of the member's life, or as long as the permanent disability continues. The pension may be subject to offset or reduction by amounts paid or payable under any Workers' Compensation law.

Non-Duty Disability

Eligibility –Payable upon the total and permanent disability of a member from active status, where disability is not the direct result of performance of duties, with 10 years of service.

Amount of Pension – 30% of Final Compensation but in no event less than the amount the member would have been entitled to as a pension, if the member had retired on the same date with equivalent age and creditable service.

Death in Service (less than 20 years of service)

Eligibility – Death of an active member with at least 5 but less than 20 years of service.

Amount of Pension – 50% of the member's accrued pension payable to surviving spouse for spouse's lifetime. The effective date shall be the later of the first day of the month after the member's death, or the member's earliest retirement date.

Funeral Benefit – $1,000 payable upon the death of an active member.

Death in Service (20 or more years of service)

Eligibility – Death of an active member with 20 or more years of service.

Amount of Pension – Benefit payable to surviving spouse: the greater of 50% of the member's accrued pension commencing on the later of the first day of the month after the member's death or the member's earliest retirement date or the monthly benefit determined on a joint and survivor basis from the actuarial value of the member's accrued benefit at date of death.

Funeral Benefit – $1,000 payable upon the death of an active member.

Death After Retirement

Eligibility – Death of a retired member who was receiving a benefit.

Amount of Pension – Surviving spouse receives a pension equal to 50% of the member's benefit at the time of actual retirement plus cost of living adjustments. Benefit is payable for the life of the surviving spouse.

In lieu of the 50% surviving spouse death benefit, the retiring employee may elect a reduced actuarially equivalent 100% surviving spouse annuity at the time of retirement. In such case, the surviving spouse shall receive the same amount as the benefit paid to the member.

If the total amount paid to a member and surviving spouse is less than the member's accumulated contribution with interest, the beneficiary shall receive an amount equal to the difference.

Funeral Benefit – $1,000 payable upon the death of a retired member.

Non-Vested Termination

Eligibility – termination of employment and no pension is or will become payable.

Amount of Benefit – refund of member's contributions with interest.

Post-Retirement Benefit Increases

Based on the actuarial condition of the System, a member may receive during each year, in addition to the member's base pension, a cost of living adjustment in an amount not to exceed 3% of the member's base pension. Base pension is the pension computed under the provisions of the law at the date of retirement, without regard to the cost of living adjustment. The cost of living adjustment also applies to benefits being paid to a surviving spouse. The adjustment is normally effective with the June 1st benefit payment. The liabilities in this valuation assume the 3% ad hoc COLA will be granted in each future year.

Member Contributions

Members – 5% of base pay.

Supplemental Retirement Benefit

For retirements after August 28, 2007, members and their surviving spouse are eligible to receive the supplemental benefit of $160 per month if the member had 15 years of creditable service. Prior to August 28, 2007, all retired and disabled members and their surviving spouse were eligible for the supplemental benefit.

Optional Form of Benefit Payment

Members retiring with at least one or more years of service beyond their eligible retirement date may elect to take a portion of their benefit as a lump-sum distribution (PLOP). Members electing PLOP will receive an actuarially reduced monthly benefit for their lifetime.

CIVILIAN EMPLOYEES' RETIREMENT SYSTEM OF THE POLICE DEPARTMENT OF KANSAS CITY, MISSOURI

ACTUARIAL COST METHOD AND ASSUMPTIONS

Actuarial Cost Method

The actuarial cost method is a procedure for allocating the actuarial present value of pension benefits and expenses to time periods. The method used for the valuation is known as the Entry Age Normal actuarial cost method, and has the following characteristics.

(i) The annual normal costs for each individual active member are sufficient to accumulate the value of the member's pension at time of retirement.

(ii) Each annual normal cost is a constant percentage of the member's year-by-year projected covered compensation.

The Entry Age Normal actuarial cost method allocates the actuarial present value of each member's projected benefits on a level basis over the member's assumed pensionable compensation rates between the entry age of the member and the assumed exit ages.

The portion of the actuarial present value allocated to the valuation year is called the normal cost. The portion of the actuarial present value not provided for by the actuarial present value of future normal costs is called actuarial accrued liability. Deducting actuarial assets from the actuarial accrued liability determines the unfunded actuarial accrued liability or (surplus). The difference in the actual and expected UAAL is set up as a separate base each year, which is amortized over a closed 24 year period.

Asset Valuation Method

The Board adopted a new asset smoothing method effective with the April 30, 2011 valuation. Under the new methodology, the difference between the actual and assumed investment return on the market value of assets is recognized evenly over a five year period. No corridor is used with the new method. The change to a new asset smoothing method was implemented by setting the actuarial value of assets at April 30, 2011 equal to the market value of assets. The prior method smoothed the difference between the actual return on the market value of assets and the expected return on the actuarial value of assets and applied a corridor of 80% to 120% of market value.

Actuarial Assumptions

The assumptions and the methods comply with the requirements of Statement No. 25 of the Governmental Accounting Standards Board. The assumptions and methods resulting from the experience study covering the 5-year period from May 1, 2002 to April 30, 2007 were first reflected in the April 30, 2008 actuarial valuation.

Economic Assumptions

Investment return rate: 7.75% per year, compounded annually.

Pay increase assumption: Rates for sample years of service are shown below.

	Annual Rate of Pay Increase		
Years of Service	**General Wage Growth**	**Merit and Longevity**	**Total**
0	4.0%	5.75%	9.75%
1	4.0%	4.75%	8.75%
2	4.0%	3.75%	7.75%
3	4.0%	2.75%	6.75%
4	4.0%	2.25%	6.25%
5	4.0%	2.10%	6.10%
10	4.0%	1.60%	5.60%
15	4.0%	1.00%	5.00%
20	4.0%	0.55%	4.55%
25	4.0%	0.25%	4.25%

Price inflation: 3.0% per year, compounded annually.

Payroll Growth Assumption: 4.0% per year, compounded annually.

Mortality Tables:

Healthy Retirees: RP-2000 Healthy Annuitant Table with a 1 year age set forward using Scale AA to model future mortality improvement.

Disabled Retirees: RP-2000 Healthy Annuitant Table set forward 5 years using Scale AA to model future mortality improvement.

Actives: RP-2000 Employee Table with a 1 year age set forward using Scale AA to model future mortality improvement.

Rates of separation from active membership:

	% of Active Members Separating Within Next Year	
Years of Service	**Male**	**Female**
0	25.0%	20.0%
1	20.0%	18.0%
2	15.0%	16.0%
3	12.0%	14.0%
4	11.0%	12.0%

Sample Ages	Years of Service	% of Active Members Separating Within Next Year	
		Male	Female
25	5 & Over	8.0%	9.4%
30		7.0%	8.4%
35		6.0%	7.0%
40		4.0%	4.0%
45		1.5%	1.5%
50		0.5%	0.5%
55		0.0%	0.0%

The rates do not apply to members eligible to retire and do not include separation on account of death or disability.

Rates of Disability:

Sample Ages	% of Active Members Becoming Disabled Within Next Year
25	0.023%
30	0.030%
35	0.038%
40	0.053%
45	0.075%
50	0.135%
55	0.270%
60	0.675%
65	3.200%

It is assumed that 1/3 of disabilities will be duty related.

Rates of Electing Refund
Upon Termination:

Sample Ages	% of Members Terminating From Active Membership Who Elect Refund
35	95%
40	75%
45	30%
50	0%

Rates of Retirement:

Age	Reduced	Unreduced
50		25%
51		20%
52		20%
53		15%
54		15%
55	5%	15%
56	5%	25%
57	5%	25%
58	5%	25%
59	5%	25%
60	5%	15%
61	10%	15%
62	35%	15%
63	5%	20%
64	5%	20%
65		35%
66		20%
67		20%
68		20%
69		20%
70 & Over		100%

Inactive vested members are assumed to retire at the first unreduced retirement age.

Miscellaneous and Technical Assumptions

Marriage Assumption:	85% of males and 55% of females are assumed to be married for purposes of death-in-service benefits and death-after-retirement benefits. Males are assumed to be 3 years older than their spouses. Actual reported data is utilized for retirees and beneficiaries.
Pay Increase Timing:	Assumed to occur at the start of the fiscal year.
Pay Annualization:	Reported pays for members with less than 1 year of service were annualized for valuation purposes.
Decrement Timing:	Decrements of all types are assumed to occur mid-year.
Eligibility Testing:	Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year at the start of the year in which the decrement is assumed to occur.
Benefit Service:	Service calculated to the nearest month, as of the decrement date, is used to determine the amount of benefit payable.
Other:	Turnover decrement does not operate during retirement eligibility.
Interest on Member Contributions:	None assumed.
Form of Payment:	The assumed normal form of payment is a 50% joint and survivor annuity, if married. Otherwise, a single life annuity.
Administrative Expense:	0.40% of payroll each year. Administrative expenses beyond this allocation and all investment expenses are assumed to be funded by investment return in excess of the actuarial assumed rate of return.
Cost of Living Adjustment:	It was assumed the Retirement Board will grant the full 3% cost of living adjustment each year.

Actuarial Accrued Liability	The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability."
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement 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.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
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 assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefit between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method."
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
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.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.
Unfunded Actuarial Accrued Liability	The difference between actuarial accrued liability and the valuation assets. Most retirement systems have an unfunded actuarial accrued liability. They arise each time new benefits are added and each time an actuarial loss is realized. The existence of unfunded actuarial accrued liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial accrued liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial accrued liability and the trend in its amount.