

City of Kansas City, Missouri Employees' Retirement System

Actuarial Valuation as of May 1, 2009

**Produced by Cheiron** 

October 2009



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### LETTER OF TRANSMITTAL

October 16, 2009

Board of Pension Trustees City of Kansas City, Missouri Employees' Retirement System 12<sup>th</sup> Floor, City Hall 414 East 12<sup>th</sup> Street Kansas City, MO 64106

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the City of Kansas City, Missouri Employees' Retirement System (KCERS) as of May 1, 2009. The valuation is organized as follows:

- In Section I **Board Summary** we describe the purpose of an actuarial valuation and summarize the key results found in this valuation;
- The **Main Body** of the report presents details on the System's:
  - o Section II Assets
  - Section III Liabilities
  - Section IV Contributions
  - Section V Required Accounting Disclosures (GASB)
- In the **Appendices** we conclude our report with detailed information describing the System's membership (Appendix A), actuarial assumptions and methods employed (Appendix B), and a summary of pertinent plan provisions (Appendix C).

The results of this report rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

As of May 1, 2009, the Board approved to change the amortization method of the unfunded actuarial liability (UAL). This change is mentioned throughout the valuation and is stated in detail in Appendix B.

In preparing our report, we relied without audit, on information supplied by KCERS' staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. In addition, I certify that, to the best of my 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 as set out by the Actuarial Standards Board.

Board of Trustees October 16, 2009 Page ii

Finally, as a Member of the American Academy of Actuaries, I certify that I meet the Qualification Standards to render the opinions contained in this report.

Sincerely, Cheiron

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Gene Kalwarski, FSA, EA Consulting Actuary



The primary purpose of the actuarial valuation and this report is to measure, describe and identify as of the valuation date:

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

In the balance of this Board Summary we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key financial results, (C) an examination of the historical trends, and (D) the projected financial outlook for the System.

## A. Valuation Basis

This valuation represents Cheiron's third valuation performed for KCERS. As stated in the letter of transmittal, the May 1, 2009 valuation reflects a methodology change that was approved by the KCERS Board. The change is as follows:

• <u>Amortization of UAL</u>: The Board moved to change the amortization period for the unfunded liability loss of the past plan year 20 years (level percent of pay) to 30 years (level percent of pay). All future changes to the unfunded actuarial liability will continue to establish new 20-year amortization periods.

## **B.** Key Findings of this Valuation

The key results of the May 1, 2009 actuarial valuation are as follows:

- The actuarially determined City contribution rate increased from 11.40% as of May 1, 2008 to 18.47% as of May 1, 2009.
- The Employees' Retirement System's (ERS) unfunded actuarial liability increased from \$61 million on May 1, 2008 to \$263 million on May 1, 2009.
- The ERS's funding ratio, the ratio of assets over liabilities decreased from 93.5% to 72.8% as of May 1, 2009.
- The primary reason for the decrease in the System's funded status was an overall loss on the unfunded actuarial liability of \$204.1 million.
  - During the year ended April 30, 2009, the System's assets earned -25.78% on a market value basis. The return on the actuarial asset value was -17.92% (as



compared to 7.50% assumed). This resulted in an actuarial loss on investments of \$217 million.

• On the liability side, the System experienced an actuarial gain of \$12.8 million.

Following is Table I-1 which summarizes all the key results of the valuation with respect to the System's membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.



TABLE I-1           City of Kongog City, Missouri Employage? Detinement System						
City of Kansas City, Missouri Employees' Retirement System Summary of Principal Plan Results						
Valuation as of:	Ν	Iay 1, 2008	Ν	fay 1, 2009	% Change	
Participant Counts						
Active Participants		3,688		3,400	(7.81%)	
Disabled Participants Retirees and Beneficiaries		16 1,928		16 2,001	0.00% 3.79%	
Terminated Vested Participants		1,928 69		2,001	14.49%	
Inactive Participants		137		292	113.14%	
Total		5,838		5,788	(0.86%)	
Annual Salaries of Active Members	\$	169,867,066	\$	160,200,649	(5.69%)	
Annual Retirement Allowances for Retired Members and Beneficiaries	\$	36,440,017	\$	39,369,539	8.04%	
Assets and Liabilities						
Actuarial Liability (AL)	\$	934,333,865	\$	966,779,322	3.47%	
Actuarial Value of Assets		873,680,276		704,069,429	<u>(19.41%)</u>	
Unfunded Actuarial Liability (UAL)		60,653,589		262,709,893	333.13%	
Funded Ratio		93.5%		72.8%		
Present Value of Accrued Benefits (PVAB)	\$	799,991,686	\$	834,564,907	4.32%	
Market Value of Assets		883,100,233		640,063,117	<u>(27.52%)</u>	
Unfunded PVAB		(83,108,547)		194,501,790	(334.03%)	
Accrued Benefit Funding Ratio		110.4%		76.7%		
Contributions as a Percentage of Payroll	Fise	cal Year 2009	Fisc	cal Year 2010		
Normal Cost Rate		8.96%		9.14%		
Unfunded Actuarial Liability Rate		2.44%		9.33%		
Total City Contribution Rate		11.40%		18.47%		
Annual Required Contribution (GASB)	\$	19,364,846	\$	29,589,060	52.8%	



## **C. Historical Trends**

Despite the fact that for most retirement systems the greatest attention is given to the current valuation results and in particular the size of the current unfunded actuarial liability and the City's contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

### Market Value of Assets \$1,000 <u>\$914</u> \$883 \$829 \$900 <del>\$674 <sup>\$717</sup></del> \$800 \$644 \$632 \$663 \$700 \$640 \$586 \$604 \$600 **\$Millions** \$500 \$400 \$300 \$200 \$100 \$0 2,001 2007

## System Assets

The market value of assets (MVA) had a loss on investments in 2009, returning -25.78%, decreasing from \$883 million to \$640 million. With the asset smoothing method in place, the actuarial value of assets has tracked a slightly smoother path through the volatility of the market value of assets. As can be seen in the graph, the actuarial value of assets (AVA) also decreased from 2008 to 2009 returning -17.92% due to recent market losses, but the decrease was not as great as the decrease in market value.

2,004

2006

2008

2009

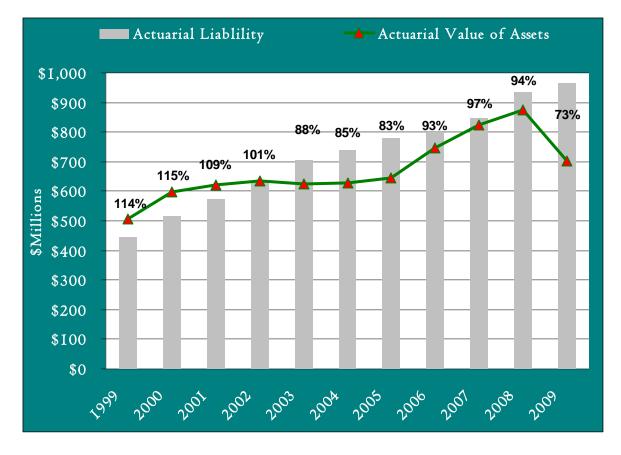
2002

2003



## SECTION I BOARD SUMMARY

## Assets and Liabilities



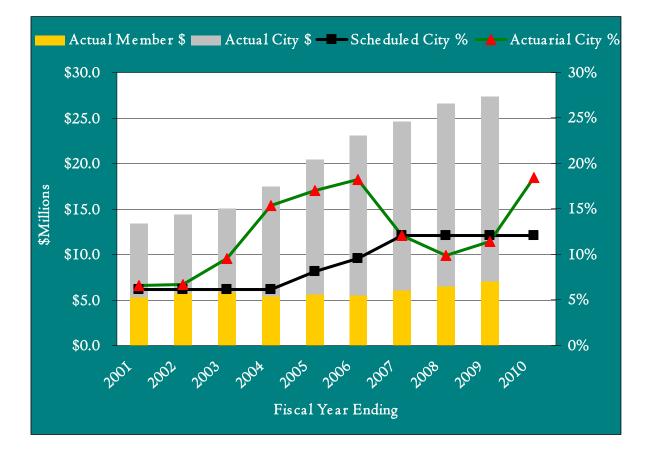
The above chart compares the actuarial value of assets to the actuarial liabilities as well as the funded ratio, sometimes referred to as the benefit security ratio. This chart shows that the System now has its lowest funded ratio in the past 10 years.



## SECTION I BOARD SUMMARY

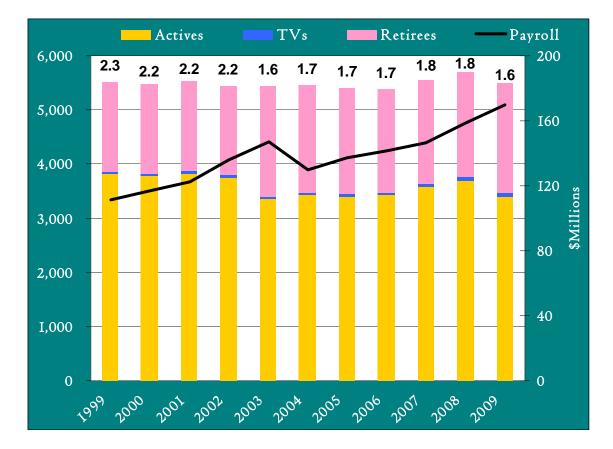
## **Contribution Rates**

The stacked bars in this graph show the dollar amount of contributions made by the City and the members (depicted on the left hand scale) since Fiscal Year Ending 2001. The green line shows the City's actuarial contribution rate as a percent of payroll (depicted on the right hand scale). The black line shows the scheduled City contribution rate as a percent of payroll (depicted on the right hand scale). The member contribution rate is set by City law at 4% of payroll. The City contribution rate is currently scheduled for General Employees to be 9.50% of payroll plus 2.53% of payroll for the retirement window offered in 2003, projected to be paid annually through April 30, 2013. The City contribution rate is currently scheduled for Judges and Elected Officials to be 19.50% of payroll. The actuarial contribution rate increased from 11.40% of payroll in 2008 to 18.47% of payroll in 2009 due to the actuarial loss on plan assets.





## SECTION I BOARD SUMMARY



## **Participant Trends**

The above chart provides a measure for the maturity in the plan, by comparing the ratio of active members to inactive members (retirees and terminated-vesteds). The active-to-inactive ratio has declined since 1999 from 2.3 actives supporting each inactive member to 1.6 actives supporting each inactive member today.



## **D.** Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most important component of this valuation. In this Section, we present the implications of the May 1, 2009 valuation results in terms of (1) the projected City's contributions and (2) projected System's funded status (ratio of assets over liabilities). For each projection set we assume three future different investment return scenarios: baseline returns of 7.50%, optimistic returns of 9.00%, and pessimistic returns of 6.00%. Finally, since the City has historically contributed on the basis of a "scheduled cost<sup>1</sup>," we also show the impact on these projections if the City were to contribute the actuarially computed rate that comes out of each valuation. As can be seen in the charts that follow, the difference in the System's projected financial status, between paying the scheduled cost and the actuarially computed costs, are very dramatic.

## **<u>1. Contribution Rate Projections</u>**

The first set of charts show the City's scheduled cost (black line), the GASB Minimum cost (pink line) which is Normal cost plus 30 year amortization of the UAL, and the actual City contribution rate (gold bars).

<sup>&</sup>lt;sup>1</sup> The scheduled City contribution is 9.5%, plus an additional 2.53% for the retirement window offered in 2003, of anticipated payroll for General Employees and 19.5% of anticipated payroll for Judges and Elected Officials.



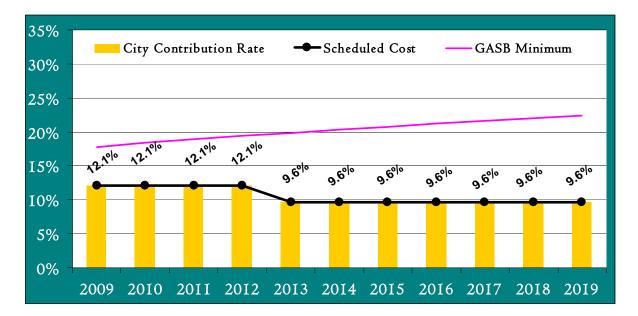
## SECTION I BOARD SUMMARY

## a. assuming the City always pays the scheduled cost

These graphs show a comparison of the scheduled contribution rate and the GASB minimum assuming that the City always pays the current City contribution rate.

### **Baseline returns of 7.50%**

Assuming that the fund earns the assumed investment rate of 7.5% on market value, the chart below shows that the City contribution rate decreases to 9.6% in 2013 and that the GASB minimum rate will increase gradually to over 20% of pay by 2014.

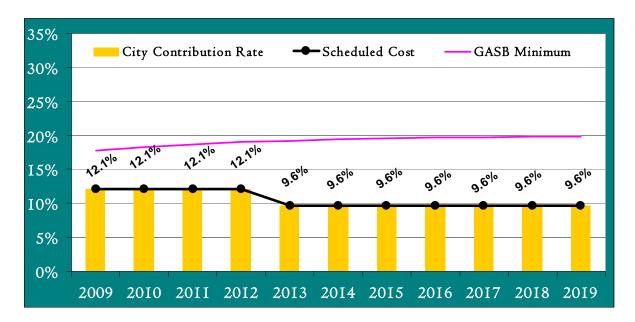




## SECTION I BOARD SUMMARY

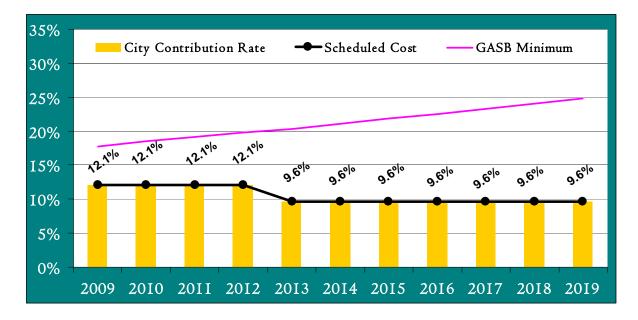
## **Optimistic returns of 9.00%**

If the fund earns 1.50% greater than the assumed rate, the GASB minimum rate remains below 20% for most of the next 10 years.



### Pessimistic returns 6.00%

If the fund earns 1.50% less than the assumed rate, the GASB Minimum rate reaches 25% of pay by the end of the ten year period.



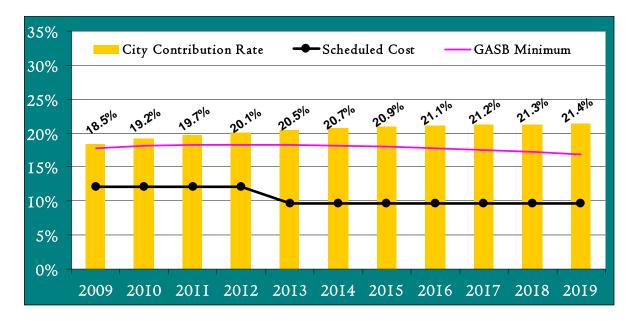
## SECTION I BOARD SUMMARY

## b. assuming the City always pays the actuarial computed contribution

These graphs show a comparison of the scheduled contribution rate and the GASB minimum assuming that the City always pays the scheduled cost under the Board's funding policy.

### **Baseline returns of 7.50%**

The chart below shows that the scheduled cost will gradually increase to 21.4% of pay and will remain slightly above the GASB minimum rate assuming that the fund earns the assumed investment rate of 7.5% on market value.

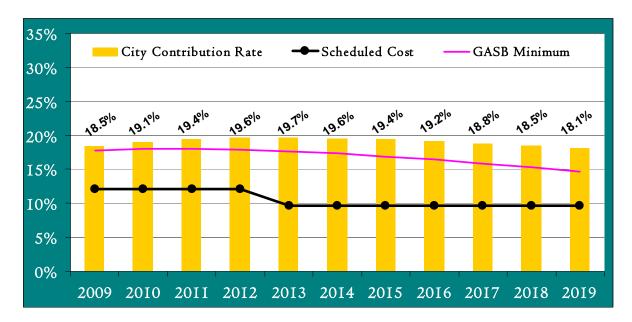




## SECTION I BOARD SUMMARY

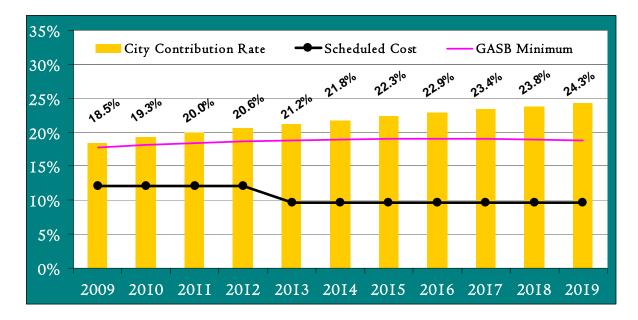
## **Optimistic returns of 9.00%**

If the fund earns 1.50% greater than the assumed rate, the scheduled cost decreases gradually to about 18% of pay by the end of the ten year period.



## Pessimistic returns 6.00%

If the fund earns 1.50% less than the assumed rate, the scheduled cost increases to over 24% of pay by the end of the ten year period.





## SECTION I BOARD SUMMARY

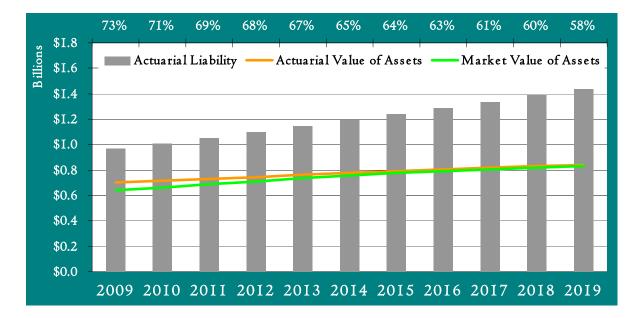
## 2. Asset and Liability Projections:

This next set of projection charts compare the market value of assets (green line) and the actuarial or smoothed value of assets (gold line) to the System's actuarial liabilities (gray bars). In addition at the top of each chart, we show the System's funded ratio (ratio of actuarial value of assets to actuarial liabilities)

a. assuming the City always pays the scheduled cost

## Baseline 7.50% return

Assuming that the fund earns the assumed investment rate of 7.5% and that the City continues to contribute the current rate of 9.6% of pay, the funded ratio will gradually decrease to under 60% over the next 10 years.

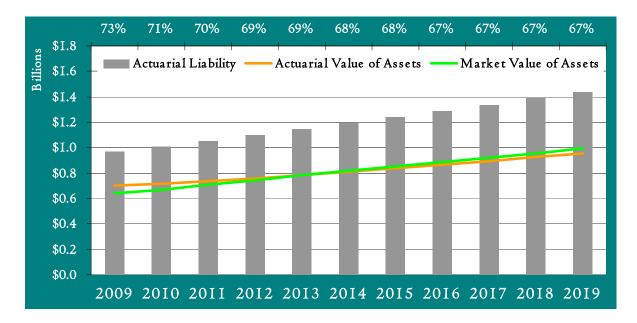




## SECTION I BOARD SUMMARY

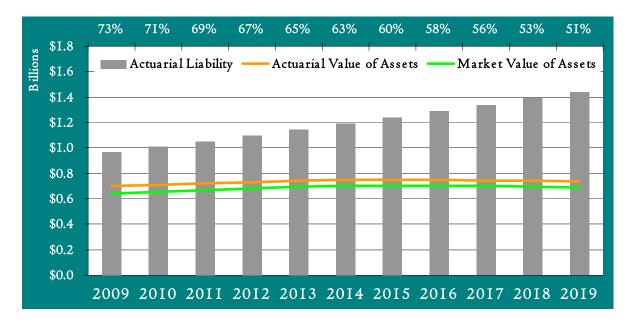
## **Optimistic Returns of 9.00%**

If the fund earns 1.50% greater than the assumed rate of return the funded ratio still decreases, but not to the same extent as the previous case.



### Pessimistic Returns of 6.00%

If the fund earns 1.50% less than the assumed rate of return, the funded ratio will decrease further and approach 50% by the end of the ten year period.



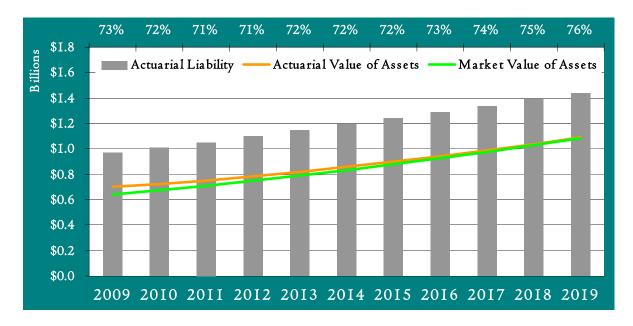


## SECTION I BOARD SUMMARY

### b. assuming the City always pays the actuarial computed contribution

### **Baseline 7.50% return**

If the City pays the actuarial computed contribution amount and if fund earns the assumed investment return of 7.50%, then the funded ratio will begin to gradually increase after a slight decrease over the next few years.

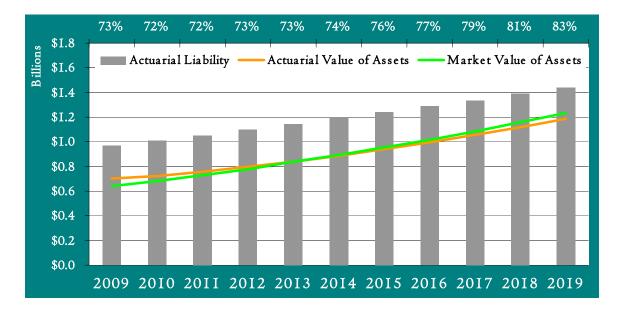




## SECTION I BOARD SUMMARY

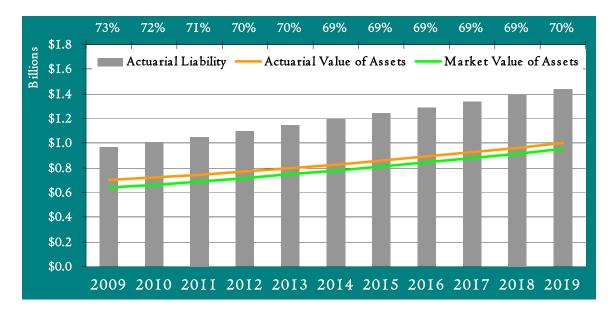
## **Optimistic Returns of 9.00%**

If the fund earns 1.50% in excess of the assumed rate of return, the funded ratio will begin increasing to a greater extent than above, exceeding 80% by the end of the ten year period.



## Pessimistic Returns of 6.00%

If the fund earns 1.50% less than the assumed rate of return, then the funded ratio would remain relatively constant at about 70%.





## SECTION II ASSETS

Pension Plan assets play a key role in the financial operation of the System and in the decisions the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, City contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on the System assets including:

- **Disclosure** of the System assets as of May 1, 2008 and May 1, 2009;
- Statement of the **changes** in market values during the year;
- Development of the Actuarial Value of Assets;
- An assessment of investment performance; and
- A projection of the System's expected **cash flows** for the next ten years.

## Disclosure

There are two types of asset values disclosed in this valuation, the market value of assets and the actuarial value of assets. The market value represents a "snap-shot" or "cash-out" value which provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for longrange planning as are the actuarial value of assets which reflect smoothing of annual investment returns.

TABLE II-1         Statement of Assets at Market Value as of April 30,					
Assets		2008		2009	% Change
Cash	\$	49,835,605	\$	23,789,683	(52.26%)
Stock and Collective Trusts		885,547,657		631,672,324	(28.67%)
Accounts Receivable		8,057,196		8,278,711	2.75%
Interest and Dividends		1,297,288		1,386,429	6.87%
<b>Contributions Received</b>		1,017,505		1,399,399	37.53%
Expenses		(461,536)		(1,542,048)	234.11%
Purchase of Investments		(62,193,482)		(24,921,381)	<u>(59.93%)</u>
Market Value of Assets	\$	883,100,233	\$	640,063,117	(27.52%)

Table II-1 below discloses and compares each asset value as of April 30, 2008 and 2009.



## SECTION II ASSETS

## **Changes in Market Value**

Table II-2 below shows the components of change between the market value of assets as of April 30, 2008 and April 30, 2009.

TABLE II-2 Changes in Market Values					
Value of Assets – April 30, 2008		\$	883,100,233		
Additions					
Member Contributions	6,994,133				
Employer Contributions	20,330,486				
Interest and Dividends	23,513,037				
Investment Return	(245,635,662)				
Total Additions	(194,798,006)				
<b>Deductions</b>					
Benefit Payments	(44,937,443)				
Administrative Expenses	(3,301,667)				
Total Deductions	(48,239,110)				
Value of Assets – April 30, 2009		\$	640,063,117		



### SECTION II ASSETS

## **Actuarial Value of Assets**

The next table, Table II-3 shows how the actuarial value of assets is developed. The actuarial value of assets method was changed as of May 1, 2008.

Asset values are gradually adjusted toward market value by adding 25% of the difference between the market value and expected actuarial asset value to the expected actuarial asset value. The expected actuarial asset value is the actuarial asset value at the beginning of the year plus contributions, less benefit payments, all with interest at the assumed net rate of investment return on an actuarial basis. If the actuarial value of assets is less than 85% or more than 110% of the market value, an adjustment is made to the actuarial value to bring the value within this corridor.

	TABLE II-3           Development of Actuarial Value of Assets				
1.	Actuarial Value of Assets at May 1, 2008	\$	873,680,276		
2.	Contributions		27,324,619		
3.	Benefit Payments		(44,937,443)		
4.	Expected Return		64,877,480		
5.	Expected Actuarial Value at End of Year = $(1) + (2) + (3) + (4)$		920,944,932		
6.	Actual Market Value of Assets at April 30, 2009		640,063,117		
7.	Excess of (6) over (5)		(280,881,815)		
8.	Adjustment toward market value: 25% of (7)				
			(70,220,454)		
9.	Adjustment to be within 85%/110% corridor		(146,655,049)		
10.	Actuarial Value of Assets at May 1, 2009 = (5) + (8) + (9)	\$	704,069,429		



## SECTION II ASSETS

## **Investment Performance**

The market value of assets (MVA) returned -25.78% during plan year ending 5/1/2009, which is less than the assumed 7.50% return. A return of -17.92% was experienced on the actuarial value of assets (AVA). Below we show additional historical returns.

	TABLE II-4a Historical Returns MVA	AVA
2006	17.94%	18.22%
2007	12.36%	12.58%
2008	(1.73%)	8.14%
2009	(25.78%)	(17.92%)

## **Projection of System's Future Cash Flows**

TABLE II-4b           Projection of System's Expected Cash Flows					
Benefit Payments	Total Contributions*	Net Cash Flow			
\$ (51,158,812) (51,016,908) (53,836,642) (56,921,172) (60,221,372)	\$ 25,816,347 26,849,001 27,922,961 29,039,879 30,201,474	\$ (25,342,465) (24,167,907) (25,913,681) (27,881,293) (30,019,898)			
(63,933,358) (67,521,587)	26,534,462 27,595,840	(37,398,896) (39,925,747)			
(71,651,354) (75,373,668)	28,699,674 29,847,661	(42,951,680) (45,526,007) (48,369,158)			
	Projection of System's I Benefit Payments \$ (51,158,812) (51,016,908) (53,836,642) (56,921,172) (60,221,372) (63,933,358) (67,521,587) (71,651,354)	Senefit Payments         Total Contributions*           \$ (51,158,812) (51,016,908)         \$ 25,816,347 (51,016,908)           (53,836,642)         27,922,961 (56,921,172)           (60,221,372)         30,201,474           (63,933,358)         26,534,462           (67,521,587)         27,595,840           (71,651,354)         28,699,674           (75,373,668)         29,847,661			

\* Expected contributions include City Contributions and Member Contributions. For illustration purposes, we have assumed the City Contribution rate will be based on the scheduled contribution rates and that payroll will increase at the actuarially assumed rate of 4.00% per year.



## SECTION III LIABILITIES

In this section, we present detailed information on the System liabilities including:

- **Disclosure** of the System liabilities as of May 1, 2008 and May 1, 2009, and
- Statement of **changes** in these liabilities during the year.

## Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them.

- **Present Value of All Future Benefits:** Used for measuring all future System obligations, represents the amount of money needed today to fully pay off all benefits of the System both earned as of the valuation date and those to be earned in the future by current plan participants, under the current plan provisions.
- Actuarial Liability: Used for funding calculations and GASB disclosures, this liability is calculated taking the present value of benefits and subtracting the present value of future member contributions and future employer normal costs under an acceptable actuarial funding method. This method is referred to as the Entry Age Normal funding method.
- **Present Value of Accrued Benefits:** Used for communicating the current level of liabilities, this liability represents the total amount of money needed today to fully pay off the current accrued obligations of the System, assuming no future accruals of benefits. These liabilities are also required for accounting purposes (FAS 35).

Table III-1, which follows, discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of plan assets yields, for each respective type, a **net surplus** or an **unfunded liability**.



## SECTION III LIABILITIES

TABLE III-1					
Liabilities/Net (Surplus)/Unfunded					
		May 1, 2008		May 1, 2009	
Present Value of Future Benefits					
Active Participant Benefits	\$	614,203,746	\$	602,581,689	
Retiree and Inactive Benefits		468,489,234		502,979,670	
Present Value of Future Benefits (PVB)	\$	1,082,692,980	\$	1,105,561,359	
Actuarial Liability					
Present Value of Future Benefits (PVB)	\$	1,082,692,980	\$	1,105,561,359	
Present Value of Future Normal Costs (PVFNC)		148,359,115		138,782,037	
Actuarial Liability (AL = PVB – PVFNC)		934,333,865		966,779,322	
Actuarial Value of Assets (AVA)		873,680,276		704,069,429	
Net (Surplus)/Unfunded (AL – AVA)	\$	60,653,589	\$	262,709,893	
Present Value of Accrued Benefits					
Present Value of Future Benefits (PVB)	\$	1,082,692,980	\$	1,105,561,359	
Present Value of Future Benefit Accruals (PVFBA)		282,701,294		270,996,452	
Present Value of Accrued Benefits (PVAB=PVB-PVFBA)		799,991,686		834,564,907	
Market Value of Assets (MVA)		883,100,233		640,063,117	
Net Unfunded/(Surplus)	\$	(83,108,547)	\$	194,501,790	



## SECTION III LIABILITIES

## **Changes in Liabilities**

Each of the Liabilities disclosed in the prior table are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- System amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

In each valuation, we report on those elements of change which are of particular significance, potentially affecting the long-term financial outlook of the System. Below, we present key changes in liabilities since the last valuation.

In the table that follows, we show the components of change in the actuarial liability between May 1, 2008 and May 1, 2009.

TABLE III-2	
	ctuarial ⊿iability
Liabilities May 1, 2008	\$ 934,333,865
Liabilities May 1, 2009	966,779,322
Liability Increase (Decrease)	32,445,457
Change Due to:	
Plan Amendments	0
Assumption Changes	0
Actuarial (Gain)/Loss	(12,781,376)
Benefits Accumulated and Other Sources	45,226,833



## SECTION III LIABILITIES

In addition, we breakdown the change in accrued liability further by showing the total actuarial (gain)/loss by source, as shown in Table III-3 below.

TABLE III-3 (Gain)/Loss by Source as of May 1, 2009					
Turnover	\$	(278,972)			
Retirement		(291,242)			
Disability		-			
Pre-retirement mortality		601,380			
Post-retirement mortality		(889,675)			
Salary increase less than expected for continuing actives		(6,668,741)			
New entrants		698,980			
Data Composition & Miscellaneous changes		(5,953,106)			
Total (Gain)/Loss	\$	(12,781,376)			



## SECTION IV CONTRIBUTIONS

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

For this System, the funding method employed is the **Entry Age Actuarial Cost Method**. Under this method, there are two primary components to the total contribution: the **normal cost rate** (employee and employer) and the **unfunded actuarial liability rate** (UAL rate). The normal cost rate is determined by taking the value, as of entry age into the system, 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. The normal cost rate is multiplied by current salary to determine each member's normal cost rate. Finally, the total normal cost rate is reduced by the member contribution to produce the employer normal cost rate. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability.

The unfunded actuarial liability is amortized under a layered approach over a 20-year period as a level percent of pay for all years except with respect to the experience loss for the plan year ending 4/30/2009. That loss will be amortized over 30 years. All future gains or losses to the unfunded actuarial liability will establish new 20-year amortization periods. Payroll is expected to increase 4.0% per year.

Table IV-1 below presents and compares the employer contribution rates for the System for this valuation and the prior one.

TABLE IV-1 Employer Contribution Rate					
May 1, 2008 May 1, 2009					
Entry Age Normal Cost Rate	8.96%	9.14%			
Amortization Payment	2.44%	9.33%			
Actuarially Determined Contribution	11.40%	18.47%			



## SECTION IV CONTRIBUTIONS

Table IV-2 below presents the May 1, 2009 employer contribution rates for the System split between the General Employees and the Judges and Elected Officials. The employer contribution rate is based on the amortization schedule shown in Table IV-3. The employer contribution rates are then compared to what the City is expected to contribute for the current plan year. The scheduled City contribution is 9.5%, plus an additional 2.53% for the retirement window offered in 2003, of anticipated payroll for General Employees and 19.5% of anticipated payroll for Judges and Elected Officials.

TABLE IV-2Development of Plan Contribution Rateas of May 1, 2009									
	General Judges and Employees Elected Officials								
1. Normal Cost (monthly):									
a. Total Normal Cost		13.00%		24.58%	13.14%				
b. Expected Members Contribution		4.00%		4.00%	4.00%				
c. Employer Paid Normal Cost (a) – (b)		9.00%		20.58%	9.14%				
2. Amortization of Unfunded Liability									
a. Actuarial Liability	\$	956,590,751	\$	10,188,571	\$ 966,779,322				
b. Actuarial Value of Assets		696,649,472		7,419,957	704,069,429				
c. Unfunded Liability (a) – (b)	\$	259,941,279	\$	2,768,614	\$ 262,709,893				
d. Amortization of Unfunded Liability		9.34%		8.69%	9.33%				
3. Actuarially Computed Employer Contribution Rate (1) + (2d)		18.34%		29.27%	18.47%				
4. Scheduled City Contributions <sup>1</sup>		12.03%		19.50%	12.12%				

<sup>&</sup>lt;sup>1</sup> General Employees are scheduled to contribute 9.50% of payroll, plus an additional 2.53% of payroll through April 30, 2013 for the early retirement window. Judges and Elected Officials contribute 19.50% of payroll.



## SECTION IV CONTRIBUTIONS

The Unfunded Actuarial Liability is amortized in accordance with the schedule below:

Initial unfunded actuarial liability (as of May 1, 2008)	20 years
Changes to the UAL on May 1, 2009	30 years
Changes to the UAL on and after May 1, 2010	20 years

Amortization payments as of May 1, 2009 are shown in the table below.

TABLE IV-3									
Unfunded Actuarial Liabilitiy Amortization Schedule									
Date Initial Initial Remaining Outstanding Amortization									
<u>Item</u>	Created	Years	<b>Balance</b>	Years		Balance		Payment	
Initial UAL	5/1/2008	20	\$ 60,653,589	19	\$	60,739,023	\$	4,318,259	
2009 (Gain)/Loss*	5/1/2009	30	\$ 201,970,870	30	\$	201,970,870	\$	10,633,953	
Total					\$	262,709,893	\$	14,952,212	

\* Also includes differences between the Annual Required Contribution and the actual contributions made.



## SECTION V ACCOUNTING STATEMENT INFORMATION

Statement No. 35 of the Financial Accounting Standards Board requires the System to disclose certain information regarding its funded status. Statement No. 25 of the Governmental Accounting Standards Board (GASB) establishes standards for disclosure of pension information by public employee retirement systems (PERS) and governmental employers in notes to financial statements and supplementary information.

The FASB-35 disclosures provide a quasi "snap shot" view of how the System's assets compare to its liabilities if contributions stopped and accrued benefit claims had to be satisfied. However, due to potential legal requirements and the possibility that alternative interest rates would have to be used to determine the liabilities, these values may not be a good indication of the amount of money it would take to buy the benefits for all members if the System were to terminate.

The GASB-25 actuarial liability is the same as the actuarial liability amount calculated for funding purposes.

Both the present value of accrued benefits (FASB-35) and the actuarial liability (GASB-25) are determined assuming that the System is on-going and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions. Liabilities are discounted at the assumed valuation interest rate of 7.50% per annum.

FASB Statement No. 35 specifies that a comparison of the present value of accrued (accumulated) benefits with the market value of the assets as of the valuation date must be provided. GASB Statement No. 25 requires the actuarial liability be compared with the actuarial value of assets for funding purposes. The relevant amounts as of May 1, 2009 are exhibited in Table V-1. Finally, Table V-2 reconciles the FASB-35 liabilities determined as of the prior valuation, May 1, 2008, to the liabilities as of May 1, 2009.

Tables V-3 through V-5 are exhibits to be used with the City's CAFR report. Table V-3 is the Note to Required Supplementary Information, Table V-4 is a history of gains and losses in actuarial liability, and Table V-5 is the Solvency Test which shows the portion of actuarial liability covered by assets.

Finally, Tables V-6 and V-7 are additional GASB supplemental exhibits. Table V-6 shows historical GASB ARC information, compared to what the City actually contributed. Table V-7 shows historical UAL information, funding ratios, and the UAL as a percent of payroll.



## SECTION V ACCOUNTING STATEMENT INFORMATION

	Table V-1										
	Accounting Statement Information May 1, 2008 May 1, 2009										
Α.	A. FASB No. 35 Basis										
		Present Value of Benefits Accrued and Vested to Date									
		<ul><li>a. Members Currently Receiving Payments</li><li>b. Former Vested Members</li><li>c. Active Members</li></ul>	\$	459,623,791 8,865,443 331,502,452	\$	490,930,308 12,049,362 331,585,237					
	2.	Total Present Value of Accrued Benefits (1a. + 1b. + 1c.)	\$	799,991,686	\$	834,564,907					
	3.	Assets at Market Value		883,100,233		640,063,117					
	4.	Unfunded Present Value of Accrued Benefits $(2-3)$	\$	(83,108,547)	\$	194,501,790					
	5.	Ratio of Assets to Present Value of Benefits (3 / 2)		110.4%		76.7%					
B.	GA	ASB No. 25 Basis									
	1.	Actuarial Liabilities for retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$	468,489,234	\$	502,979,670					
	2.	Actuarial Liabilities for current employees		465,844,631		463,799,652					
	3.	Total Actuarial Liability (1 + 2)	\$	934,333,865	\$	966,779,322					
	4.	Net Actuarial Assets available for benefits		873,680,276		704,069,429					
	5.	Unfunded Actuarial Liability (3-4)	\$	60,653,589	\$	262,709,893					



## SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-2 Statement of Changes in Total Actuaria Present Value of All Accrued Benefits	Accur	mulated Benefit ation (FASB 35)
Actuarial Present Value of Accrued Benefits at April 30, 2008	\$	799,991,686
Increase (Decrease) During Years Attributable to: Passage of Time Gains/(Losses) Benefit Paid – FY 2009 Assumption Change Benefits Accrued Net Increase (Decrease)		58,283,758 (5,389,867) (46,592,133) 0 28,271,463 34,573,221
Actuarial Present Value of Accrued Benefits at April 30, 2009	\$	834,564,907



## SECTION V ACCOUNTING STATEMENT INFORMATION

# Table V-3 NOTE TO REQUIRED SUPPLEMENTARY INFORMATION

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows. Valuation date May 1, 2009 Actuarial cost method Entry Age Amortization method 20-year layered amortization, level percent of pay\* 19-years Remaining amortization period for May 1, 2008 UAL Remaining amortization period for changes to May 1, 2009 UAL 30-years Amortization period for changes to UAL after May 1, 2009 20-years Asset valuation method **Expected Value Method** Actuarial assumptions: Investment rate of return 7.50% Projected salary increases (Only Ages 55 and over) 4.0% Cost-of-living adjustments 3.0% simple The actuarial assumptions used have been recommended by the actuary and adopted by the System's Board of Trustees.

The rate of employer contributions to the System is composed of the normal cost and an amortization of the unfunded actuarial liability. The normal cost is a level percent of payroll cost which, along with member contributions, will pay for projected benefits at retirement for the average plan participant. The actuarial liability is that portion of the present value of projected benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and the actuarial value of assets as of the same date is the unfunded actuarial liability.

\* For all years except changes to the 5/1/2009 unfunded actuarial liability, which are amortized over 30 years.



## SECTION V ACCOUNTING STATEMENT INFORMATION

Table V-4 ANALYSIS OF FINANCIAL EXPERIENCE									
Gain and Loss in Unfunded Actuarial Liability During Years Ended April 30 Resulting from Differences Between Assumed Experience and Actual Experience Gain (or Loss) for Year ending April 30, (expressed in thousands)									
Type of Activity		2007	, I	2008	,	2009			
Investment Income Combined Liability Experience Gain (or Loss) During Year from Financial Experience Non-Recurring Gain (or Loss) Items Composite Gain (or Loss) During Year	\$ 	35,814 (6,602) 29,212 0 29,212	\$ 	3,140 (18,452) (15,312) (27,234) (42,546)	\$ \$	$(216,876) \\ 12,781 \\ (204,095) \\ 0 \\ (204,095) \\ (204,09$			

Table V-5 SOLVENCY TEST Aggregate Actuarial Liabilities for (expressed in thousands)								
Valuation Date May 1								
	(1)	(2)	(3)		(1)	(2)	(3)	
2007	73,078	446,908	327,407	823,104	100%	100%	93%	
2008	78,339	468,489	387,506	873,680	100%	100%	84%	
2009	78,693	502,980	385,106	704,069	100%	100%	32%	



# SECTION V ACCOUNTING STATEMENT INFORMATION

Supplementary Info	Table V-6           Supplementary Information Required by GASB - Schedule of City Contributions							
Plan Year Ended April 30	Annual Required Contributions	Actual Contributions	Percentage Contributed					
2000	\$7,324,278	\$7,324,278	100.0%					
2001	\$8,106,825	\$8,106,825	100.0%					
2002	\$9,094,835	\$8,747,053	96.2%					
2003	\$13,996,455	\$9,284,587	66.3%					
2004	\$20,018,740	\$12,100,061	60.4%					
2005	\$23,406,798	\$14,825,719	63.3%					
2006	\$25,770,978	\$17,557,758	68.1%					
2007	\$17,652,900	\$18,496,476	104.8%					
2008	\$15,623,936	\$20,011,617	128.1%					
2009	\$19,364,846	\$20,330,486	105.0%					
2010	\$29,589,060							



# SECTION V ACCOUNTING STATEMENT INFORMATION

	Supplement	ary Information Red	Table V-7 Juired by GASB - Sch	nedule of Funding P	rogress	
Actuarial Valuation Date		·	Unfunded Actuarial Liability (b) - (a)		Covered Payroll (c)	UAL as a Percentage of Covered Payroll* [(b) - (a)] / (c)
5/1/1999	\$508,281,673	\$445,761,900	(\$62,519,773)	114.03%	\$117,018,100	N/A
5/1/2000	\$597,085,624	\$517,046,400	(\$80,039,224)	115.48%	\$122,645,800	N/A
5/1/2001	\$623,249,552	\$573,339,758	(\$49,909,794)	108.71%	\$136,263,216	N/A
5/1/2002	\$634,025,842	\$630,683,891	(\$3,341,951)	100.53%	\$146,816,820	N/A
5/1/2003	\$624,897,653	\$707,513,176	\$82,615,523	88.32%	\$130,028,040	63.54%
5/1/2004	\$627,078,139	\$740,186,346	\$113,108,207	84.72%	\$137,207,640	82.44%
5/1/2005	\$645,609,869	\$781,899,987	\$136,290,118	82.57%	\$141,605,640	96.25%
5/1/2006	\$745,720,993	\$800,839,808	\$55,118,815	93.12%	\$146,365,332	37.66%
5/1/2007	\$823,014,181	\$847,393,167	\$24,378,986	97.12%	\$158,779,836	15.35%
5/1/2008	\$873,680,276	\$934,333,865	\$60,653,589	93.51%	\$169,867,066	35.71%
5/1/2009	\$704,069,429	\$966,779,322	\$262,709,893	72.83%	\$160,200,649	163.99%

\*Not less than zero

# APPENDIX A MEMBERSHIP INFORMATION

Kans	-	y Employees' Ret Active Member I	ıt System	
		May 1, 2008	May 1, 2009	% Change
<u>Total</u>				
Count		3,688	3,400	-7.8%
Average Current Age		45.1	45.7	1.2%
Average Service		10.0	10.7	6.5%
Average Valuation Pay	\$	46,059	\$ 47,118	2.3%
Annual Compensation	\$	169,867,066	\$ 160,200,649	-5.7%
General				
Count		3,668	3,380	-7.9%
Average Current Age		45.1	45.6	1.2%
Average Service		10.1	10.7	6.5%
Average Valuation Pay	\$	45,828	\$ 46,857	2.2%
Annual Compensation	\$	168,095,371	\$ 158,377,580	-5.8%
Judges				
Count		7	7	0.0%
Average Current Age		51.4	52.4	1.9%
Average Service		8.0	9.1	13.8%
Average Valuation Pay	\$	139,249	\$ 142,034	2.0%
Annual Compensation	\$	974,743	\$ 994,238	2.0%
Elected Officials				
Count		13	13	0.0%
Average Current Age		52.2	53.2	1.9%
Average Service		3.1	4.1	32.7%
Average Valuation Pay	\$	61,304	\$ 63,756	4.0%
Annual Compensation	\$	796,952	\$ 828,831	4.0%



# APPENDIX A MEMBERSHIP INFORMATION

Kansa	s City Employees' Retirement	System	
	Table of Plan Coverage		
	5/1/2008	5/1/2009	% change
Active Members in Valuation			
Number	3,688	3,400	-7.8%
Average Age	45.1	45.7	1.2%
Average Service	10.0	10.7	6.5%
Total Payroll	\$169,867,066	\$160,200,649	-5.7%
Average anticipated payroll	\$46,059	\$47,118	2.3%
Account Balance	\$78,338,694	\$78,693,441	0.5%
Eligible to Retire On:			
Normal Pension	60	57	-5.0%
Optional Pension	252	283	12.3%
Early Pension	218	222	1.8%
Deferred Pension	1,867	1,769	-5.2%
Total Active Vested Members	2,397	2,331	-2.8%
Vested Terminated Members	69	79	N/A
Deaths During the Plan Year	76	74	N/A
Pensioners:			
Number in Pay Status			
Retirees	1,521	1,577	3.7%
Disabled Retirees	16	16	0.0%
Total	1,537	1,593	3.6%
Average Age	69.66	69.66	0.0%
Average Monthly Benefit	\$1,799	\$1,876	4.3%
Beneficiaries in Pay Status	407	424	4.2%
Members Due Refunds	137	292	113.1%



# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Active Members by Age and Service as of May 1, 2009

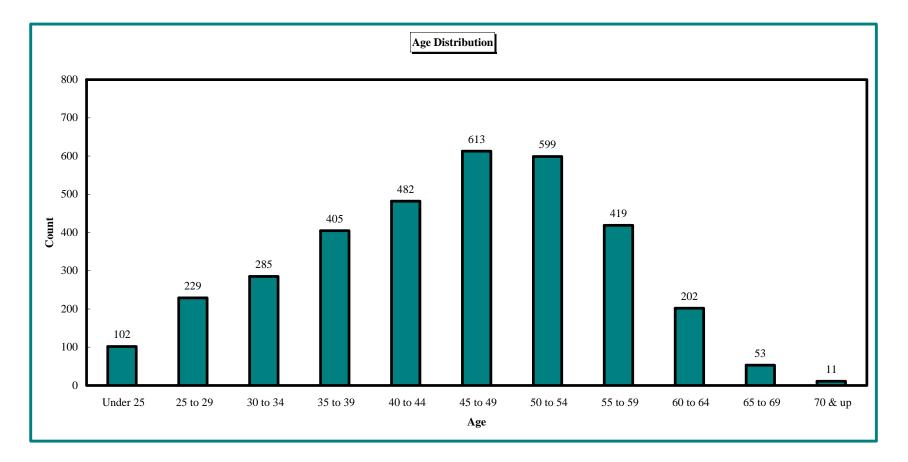
L					UNISDIAG						
	n				Service	2					
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	24	75	3	0	0	0	0	0	0	0	102
25 to 29	33	151	44	1	0	0	0	0	0	0	229
30 to 34	16	126	110	32	1	0	0	0	0	0	285
35 to 39	16	135	124	103	26	1	0	0	0	0	405
40 to 44	7	109	145	131	70	19	1	0	0	0	482
45 to 49	18	131	118	143	87	74	41	1	0	0	613
50 to 54	10	100	93	137	74	75	74	34	2	0	599
55 to 59	4	66	82	86	62	61	33	18	7	0	419
60 to 64	6	36	42	39	33	20	10	12	4	0	202
65 to 69	0	5	14	10	9	9	1	1	2	2	53
70 & up	0	3	4	3	1	0	0	0	0	0	11
Total	134	937	779	685	363	259	160	66	15	2	3,400

#### COUNTS BY AGE/SERVICE



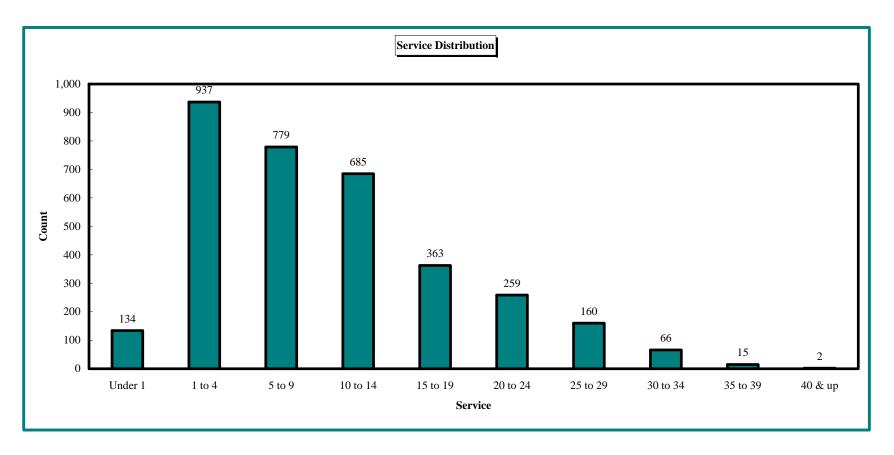
# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Active Members by Age as of May 1, 2009



# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Active Members by Service as of May 1, 2009





# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Active Members by Age and Service as of May 1, 2009

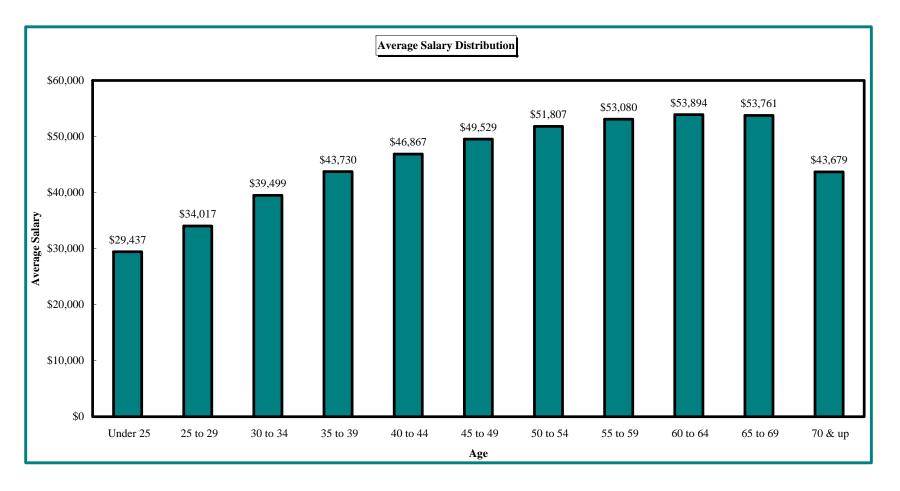
					Servic	e					
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	\$28,410	\$29,804	\$28,488	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$29,437
25 to 29	\$31,473	\$34,576	\$34,021	\$33,456	\$0	\$0	\$0	\$0	\$0	\$0	\$34,017
30 to 34	\$38,222	\$39,446	\$39,622	\$39,762	\$44,748	\$0	\$0	\$0	\$0	\$0	\$39,499
35 to 39	\$35,584	\$37,992	\$42,596	\$50,631	\$55,756	\$65,808	\$0	\$0	\$0	\$0	\$43,730
40 to 44	\$41,748	\$39,587	\$42,612	\$52,056	\$55,793	\$53,412	\$64,236	\$0	\$0	\$0	\$46,867
45 to 49	\$33,848	\$40,311	\$43,213	\$51,861	\$58,395	\$59,457	\$59,105	\$52,260	\$0	\$0	\$49,529
50 to 54	\$42,283	\$39,794	\$47,701	\$51,751	\$54,588	\$61,268	\$57,138	\$62,447	\$58,998	\$0	\$51,807
55 to 59	\$32,988	\$47,551	\$44,790	\$52,361	\$58,256	\$58,178	\$62,453	\$64,050	\$59,966	\$0	\$53,080
60 to 64	\$56,380	\$49,175	\$43,956	\$54,808	\$55,631	\$64,031	\$70,341	\$64,335	\$50,598	\$0	\$53,894
65 to 69	\$0	\$52,430	\$39,587	\$43,207	\$65,992	\$68,621	\$95,964	\$43,188	\$64,746	\$60,360	\$53,761
70 & up	\$0	\$32,588	\$40,839	\$54,256	\$56,580	\$0	\$0	\$0	\$0	\$0	\$43,679
Total	\$35,044	\$38,846	\$42,585	\$51,214	\$56,799	\$59,933	\$59,850	\$62,781	\$57,976	\$60,360	\$47,118

#### AVERAGE SALARY BY AGE/SERVICE



# APPENDIX A MEMBERSHIP INFORMATION

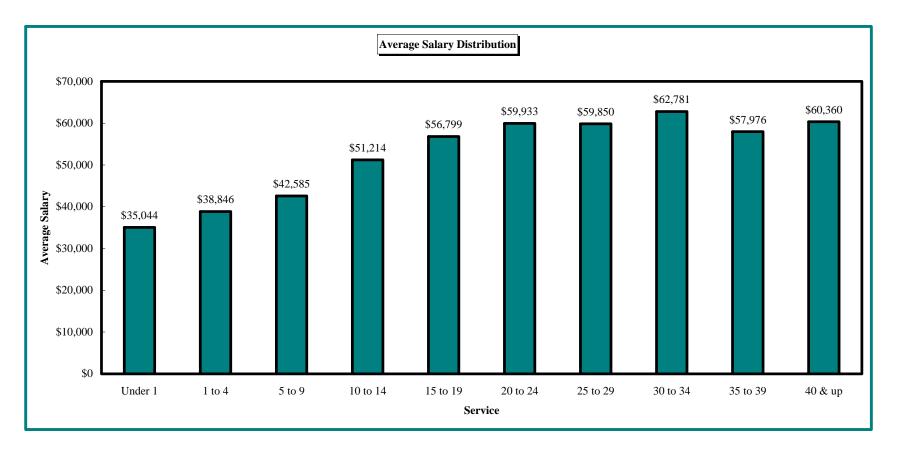
# Kansas City Employees' Retirement System Distribution of Active Members by Age as of May 1, 2009





# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Active Members by Service as of May 1, 2009





# APPENDIX A MEMBERSHIP INFORMATION

			City Employees' Ret ment Status by Type	•	unt		
Monthly Amount	Total	Normal	Early	Optional	Vested	Disability	Widows & QDRO
Total	2,017	167	189	1,114	107	16	424
Under \$500	390	27	75	26	32	2	228
\$500-1,000	423	44	67	145	48	8	111
1,000-1,500	303	30	30	176	19	6	42
1,500-2,000	280	24	10	217	6	0	23
2,000-2,500	217	14	3	189	2	0	9
2,500-3,000	139	8	2	126	0	0	3
3,000-3,500	88	8	1	75	0	0	4
3,500-4,000	63	4	0	58	0	0	1
4,000-4,500	37	2	0	35	0	0	0
4,500-5,000	25	0	0	24	0	0	1
5,000 & over	52	6	1	43	0	0	2

During the year ended April 30, 2009 there were 131 new pensions awarded (23 Normal, 12 Early, 70 Optional, 7 Vested, and 19 Widows and QDROs)



# APPENDIX A MEMBERSHIP INFORMATION

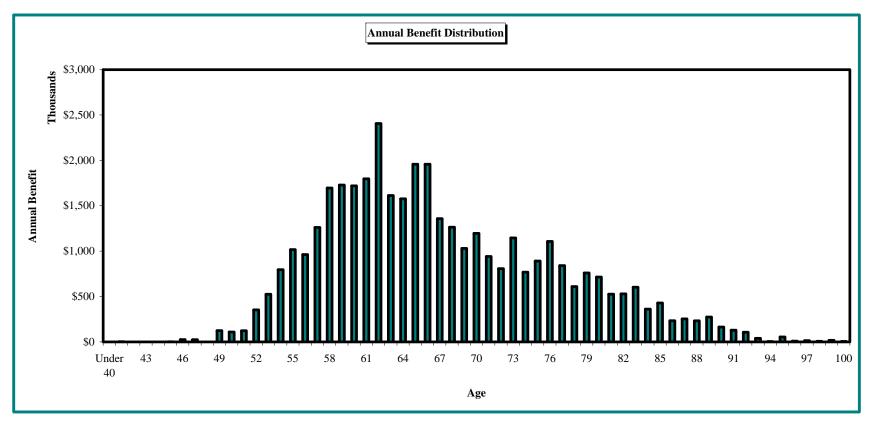
				v	, 2007	
Age	Count	Annual Benefit	Age	Count	Annual Benefit	
<25	0	\$0	73	57	\$1,146,355	
25	0	\$0	74	48	\$767,581	
26	0	\$0	75	62	\$891,035	
27	0	\$0	76	65	\$1,107,074	
28	0	\$0	77	53	\$840,876	
29	0	\$0	78	50	\$609,781	
30	0	\$0	79	58	\$758,949	
31	0	\$0	80	51	\$714,607	
32	0	\$0	81	42	\$526,014	
33	0	\$0	82	46	\$529,573	
34	0	\$0	83	50	\$602,667	
35	0	\$0	84	38	\$361,021	
36	0	\$0	85	40	\$429,049	
37	0	\$0	86	26	\$233,238	
38	0	\$0	87	38	\$253,688	
39	0	\$0	88	26	\$232,551	
40	0	\$0	89	26	\$274,180	
41	1	\$3,021	90	25	\$163,652	
42	0	\$0	91	18	\$129,576	
43	0	\$0	92	11	\$106,309	
44	0	\$0	93	7	\$38,807	
45	1	\$1,540	94	2	\$4,335	
46	2	\$24,742	95	8	\$53,910	
40	1	\$24,279	96	3	\$9,099	
48	0	\$0	97	1	\$13,742	
40	5	\$123,916	98	2	\$6,865	
50	4	\$108,712	99	3	\$18,099	
50	4	\$122,608	100	2	\$5,234	
52	12	\$352,908	100	0	\$0	
53	12	\$524,825	101	0	\$0 \$0	
54 54	19 27		102	0	\$0 \$0	
55	36	\$796,260 \$1,016,371	103	0	\$0 \$0	
56 57	31	\$962,876 \$1,261,806	105	0	\$0 \$0	
57	45	\$1,261,896 \$1,606,252	106 107	0		
58 59	56	\$1,696,353 \$1,728,008	107	0	\$0 \$0	
59 60	61 59	\$1,728,008		0		
		\$1,719,606	109	0	\$0 \$0	
61	63	\$1,797,729 \$2,405,055	110	0	\$0 \$0	
62	89 57	\$2,405,955 \$1,612,075	111	0	\$0 \$0	
63	57	\$1,613,075	112	0	\$0 \$0	
64	65	\$1,576,337	113	0	\$0 \$0	
65	81	\$1,958,632	114	0	\$0 \$0	
66	86	\$1,958,171	115	0	\$0 \$0	
67	62	\$1,357,905	116	0	\$0 \$0	
68	60	\$1,264,339	117	0	\$0	
69	53	\$1,030,001	118	0	\$0	
70	62	\$1,195,905	119	0	\$0	
71	52	\$940,859	120	0	\$0	
72	47	\$807,510				
			Totals	2,001	\$39,202,206	

# Kansas City Employees' Retirement System Distribution of Retired Members and Survivors as of May 1, 2009



# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Retired Members and Survivors as of May 1, 2009



# APPENDIX A MEMBERSHIP INFORMATION

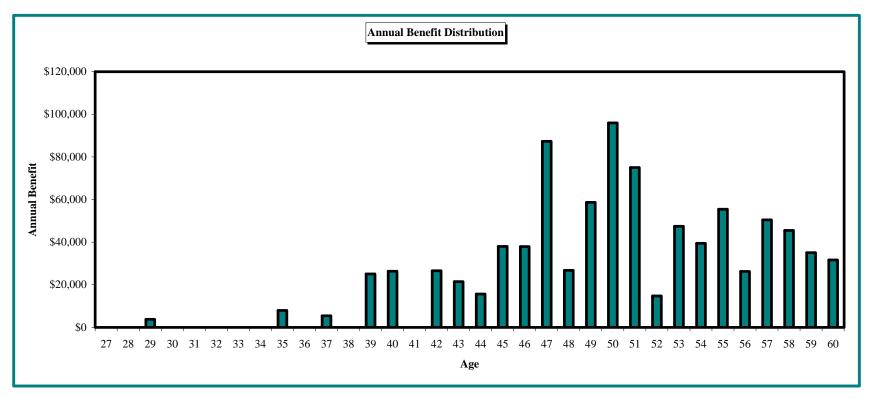
# Kansas City Employees' Retirement System Distribution of Vested Members and Survivors as of May 1, 2009

-25         0         S0         73         0         S0           25         0         S0         74         0         S0           26         0         S0         75         0         S0           27         0         S0         76         0         S0           28         0         S0         77         0         S0           29         1         S3.790         78         0         S0           30         0         S0         S0         79         0         S0           31         0         S0         81         0         S0         S1           32         0         S0         82         0         S0         S1           34         0         S0         83         0         S0         S3           35         2         S7,985         84         0         S0           38         0         S0         S0         S0         S0           39         3         S25,066         88         0         S0           44         1         S26,61         91         0         S0           44<	Age	Count	Annual Benefit	Age	Count	Annual Benefit	t
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690\$01180\$0700\$01190\$0710\$01200\$0							
70         0         \$0         119         0         \$0           71         0         \$0         120         0         \$0							
71 0 \$0 120 0 \$0							
				120		φ0	
Totals 79 \$934,940		0	40	Totals	7	9 \$934.940	



# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Vested Members as of May 1, 2009



# APPENDIX A MEMBERSHIP INFORMATION

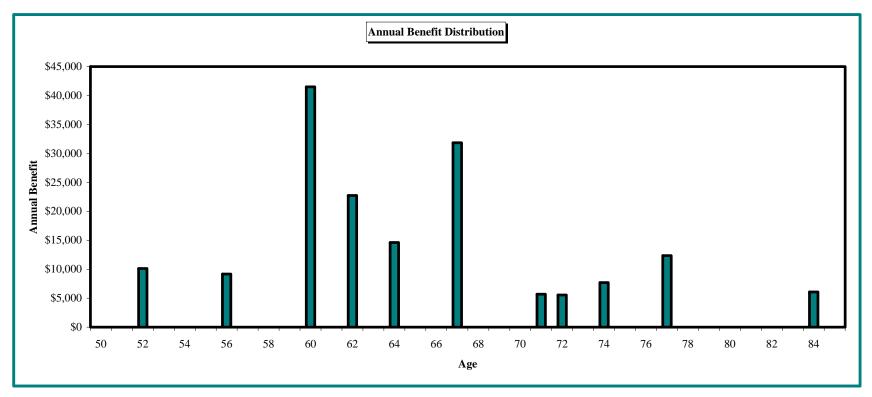
# Kansas City Employees' Retirement System Distribution of Disabled Members as of May 1, 2009

Age	Count	Annual Benefit	Age	Count	Annual Benefit	
<25	0	\$0	73			
25	0	\$0 \$0	73			
26	0	\$0 \$0	75			
20 27	0	\$0 \$0	76			
28	0	\$0 \$0	70	1		
28	0	\$0 \$0	78	0		
30	0	\$0 \$0	78	0		
30	0	\$0	80			
31	0	\$0	81	0		
32	0	\$0 \$0	82			
33	0	\$0	83	0		
35	0	\$0	84			
36	0	\$0 \$0	85			
30	0	\$0	86			
38	0	\$0 \$0	87	0		
39	0	\$0 \$0	88	0		
40	0	\$0 \$0	89	0		
40 41	0	\$0 \$0	90			
41 42	0	\$0 \$0	90	0		
42	0	\$0 \$0	92			
44	0	\$0 \$0	93			
45	0	\$0 \$0	94			
46	0	\$0 \$0	95			
40	0	\$0	96			
48	0	\$0	97	0		
49	0	\$0	98	0		
50	0	\$0	99	0		
51	0	\$0	100			
52	1	\$10,127	101	0		
53	0	\$0	102			
54	0	\$0	103	0		
55	0	\$0	104			
56	1	\$9,169	105	0		
57	0	\$0	106			
58	0	\$0	107	0		
59	0	\$0	108	0		
60	3	\$41,500	109	0		
61	0		110			
62	2	\$22,737	111	0		
63	0	\$0	112			
64	1	\$14,614	113	0	\$0	
65	0	\$0	114		\$0	
66	0		115			
67	3	\$31,834	116			
68	0	\$0	117			
69	0	\$0	118	0	\$0	
70	0	\$0	119	0		
71	1	\$5,680	120			
72	1	\$5,545				
			Totals	16	\$167,332	



# APPENDIX A MEMBERSHIP INFORMATION

# Kansas City Employees' Retirement System Distribution of Disabled Members as of May 1, 2009



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

## A. Actuarial Assumptions and Actuarial Cost Method

# 1. Demographic Assumptions

### a. Mortality Rates

Healthy: 1994 Group Annuity Mortality Table (sample rates shown below)

Disabled: 1983 Railroad Retirement Board Disabled Life Mortality Table

# b. Termination Rates before Retirement

		Ra	te (%)			
	Mor	tality	Withdrawal*			
			General	Judges and		
Age	Male	Female	Employees**	Elected Officials		
20	0.05%	0.03%	10.74%	5.71%		
25	0.07%	0.03%	10.46%	5.14%		
30	0.08%	0.04%	10.09%	3.89%		
35	0.09%	0.05%	9.50%	2.47%		
40	0.11%	0.07%	8.46%	1.18%		
45	0.16%	0.10%	6.79%	0.28%		
50	0.26%	0.14%	4.35%			
55	0.44%	0.23%	1.55%			
60	0.80%	0.44%	0.15%			

\* Withdrawal rates end upon first assumed retirement age.

\*\* Select rates for first four years of service for General Employees:

Select Pe	eriod
Years of Service	Rate
0-1	20%
1 - 2	15%
2 - 3	12%
3 – 4	10%

## APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

### c. Retirement Rates

\*

Age	General Employees Age Plus Service Greater than or Equal to 80*	Other General Employees
Under 55	15%	0%
55	30%	0%
56	15%	0%
57	15%	0%
58	15%	0%
59	15%	0%
60	15%	0%
61	15%	0%
62	60%	100%
63	60%	100%
64	60%	100%
65	100%	100%

50% of General Employees are assumed to retire at first age when age plus service equals 80.

Elected Officials		
Age	Percent	
60	100%	
Judges		
65	100%	

# d. Retirement Age for Inactive Vested Members

60

## e. Unknown Data for Members

Same as those exhibited by Members with similar known characteristics. If not specified, Members are assumed to be male.



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# f. Percent Married

80% for males and 70% for females in active status.

## g. Age of Spouse

Females 4 years younger than males.

## h. Net Investment Return

7.50% per annum, net of investment fees and administrative expenses.

### i. Salary Increases

General Employees	
Age	<b>Rate</b> (%)
Less than 25	6.00%
25 - 29	6.00
30 - 34	6.00
35 - 39	5.50
40 - 44	5.00
45 - 49	5.00
50 - 54	4.50
55 – 59	4.00
60 - 64	4.00
65 and up	4.00

Judges and Elected Officials: 6.00% per year for all ages.



# APPENDIX B ACTUARIAL ASSUMPTIONS AND METHODS

# **B.** Actuarial Methods

## **1.** Actuarial Value of Assets

Asset values are gradually adjusted toward market value by adding 25% of the difference between the market value and expected actuarial asset value to the expected actuarial asset value. The expected actuarial asset value is the actuarial asset value at the beginning of the year plus contributions, less benefit payments, all with interest at the assumed net rate of investment return on an actuarial basis. If the actuarial value of assets is less than 85% or more than 110% of the market value, an adjustment is made to the actuarial value to bring the value within this corridor.

# 2. Actuarial Cost Method

Entry Age Normal Actuarial Cost Method. Entry age is the age at the time the participant commenced employment. Normal cost and actuarial liability are calculated on an individual basis and are allocated by salary, with normal cost determined as if the current benefit accrual rate had always been in effect.

# 3. Amortization of Unfunded Actuarial Liability/Surplus

20-year layered amortization method; level percent of pay for all years except the 5/1/2009 Plan Year (30-year layer). Under the layered approach, the May 1, 2009 changes to the unfunded actuarial liability will be written down over a 30-year period and all future changes to the unfunded actuarial liability will establish new 20-year amortization periods.

# 4. Changes Since Last Valuation

a. <u>Amortization of UAL</u>: Changed from a 20-year level percent of pay amortization method to a 30-year layered level percent of pay amortization method for the 5/1/2009 change to the unfunded actuarial liability.



# APPENDIX C SUMMARY OF PLAN PROVISIONS

# 1. Plan Year

May 1 through April 30.

# 2. Membership

All full-time permanent employees in the classified and unclassified services shall become members as a condition of employment. Employees of any administrative board or board of control as organized and existing under general laws of Missouri and as defined in Revised Statutes of Missouri, Section 95.540, whose governing body has elected membership, shall become members. Membership shall begin on the first day of employment.

# 3. Credited Service

4.

Total creditable service is defined as the sum of the number of years of membership service and prior service.

Membership Service:	Years and full calendar months of employment while a contributing member of this System.	
Prior Service:	Years and full calendar months of employment preceding December 21, 1962, if continuous with membership service.	
. Normal Retirement		
Age Requirement:	General Employees: 65 Judges and Elected Officials: Later of age 60 or expiration of term of office.	
Service Requirement:	General Employees: 5 years of creditable service. Judges and Elected Officials: One elective term.	
Amount:	General Employees: If unmarried at time of retirement, 2.22% of final average compensation multiplied by years and months of creditable service.	
	If married at date of retirement, 2.00% of final average compensation multiplied by years and months of creditable service.	
	Minimum benefit: \$400 per month if retirement with at least 10 years of creditable service.	



# APPENDIX C SUMMARY OF PLAN PROVISIONS

Maximum benefit: 70% of final average compensation.

Judges and Elected Officials:

2.22% of average monthly compensation received by then serving Judges and Elected Officials of the same office during the 24 months preceding the beginning of the annuity multiplied by years and months of creditable service.

Maximum benefit: 70% of the existing salary for then serving Judges and Elected Officials of the same office.

A member retiring with a normal, optional, service or early retirement benefit may elect to withdraw all, or a portion of, member accumulated contributions and interest, and receive a reduced annuity.

Final average compensation is defined as the monthly average of the two highest years of compensation in the last ten years (for Judges and Elected Officials, last ten years for then serving elected official of same office). Compensation does not include bonus, overtime, expense allowance or other extraordinary compensation.

## 5. Optional Retirement

	Age/Service Requirement:	60 and 10 years of creditable service, or the sum of age and service equals 80, if earlier.	
	Amount:	Same as normal retirement.	
6.	Early Retirement		
	Age/Service Requirement:	General Employees: 60 and 5 years of creditable service, or 55 and 10 years of creditable service.	
		Judges and Elected Officials: 55 and 10 years of creditable service.	
	Amount:	Accrued benefit reduced by $\frac{1}{2}$ of 1% per month of age less than 60 or, if service is less than ten $\frac{1}{2}$ of 1% per month of age less than 65.	



# APPENDIX C SUMMARY OF PLAN PROVISIONS

# 7. Disability Benefit

Disability benefits are provided through a separate long-term disability program, effective June 1, 1996.

## 8. Vesting

Age Requirement:	None.
Service Requirement:	Five years of service.
Amount:	Accrued benefit payable at age 60, or payable at age 65 if service less than 10.

# 9. Withdrawal (Refund) Benefit

Age Requirement:	None.
Service Requirement:	Less than five years of service.
Amount:	An employee terminating before becoming eligible for a deferred pension or choosing not to elect a deferred benefit, will receive a return of contributions with interest.

## **10. Pre-Retirement Death Benefit**

Service less than five years

Age Requirement:	None.
Service Requirement:	Less than five years.
Amount:	Lump sum equal to the member's accumulated contributions and interest shall be paid to the surviving spouse or, if no surviving spouse, to the designated beneficiary, or, if none, to the member's estate.



# APPENDIX C SUMMARY OF PLAN PROVISIONS

Service of five or more years but less than 20 years:

Age Requirement:	None.
Service Requirement:	Five or more years of service but less than 20 years.
Amount:	The surviving spouse may elect, in lieu of the lump sum settlement above, an annuity equal to 50% of the member's accrued annuity at the time of death. The effective date of this annuity shall be the later of the first day of the month following the member's death or attainment of what would have been the member's early retirement date. The annuity is reduced for early retirement if paid at the member's early retirement date.

## Service of 20 or more years of service:

Age Requirement:	None.
------------------	-------

Service Requirement: 20 or more years of service.

Amount: The surviving spouse may elect, in lieu of the settlements above, an annuity equal to 100% of the member's accrued annuity at the time of death, actuarially reduced for 100% joint and survivor coverage. The effective date of this annuity shall be the first day of the month following the member's death.

## **11. Post-Retirement Death Benefit**

Age Requirement: None.

Service Requirement: None.

Amount: The surviving spouse shall receive an annuity equal to 50% of the member's accrued annuity, or, if the member elected the actuarially equivalent 100% joint and survivor annuity, this annuity shall continue to be paid to the surviving spouse. Either annuity is payable until death or remarriage of the spouse.



# APPENDIX C SUMMARY OF PLAN PROVISIONS

### 12. Minimum Surviving Spouses' Pension

A minimum benefit of \$200 per month is paid to surviving spouses of members with 10 or more years of creditable service.

### 13. Health Insurance Subsidy

A monthly health insurance subsidy of \$200 is paid to all current and future pensioners. Benefits are payable for the lifetime of the member and are not subject to an annual cost-of-living adjustment.

## 14. Cost-of-Living Adjustment (COLA)

An increase of 3.00% of the original pension will be made annually. Members must retire on or before January 1<sup>st</sup> in order to receive a COLA in the following year.

## **15.** Contributions

### **16. Interest on Employee Contributions**

5.25% per year, compounded.

## 17. Changes Since Last Valuation

There have been no changes in plan provisions since the preceding actuarial valuation.

