

**WICHITA EMPLOYEES'  
RETIREMENT SYSTEM**

***ACTUARIAL VALUATION REPORT  
AS OF DECEMBER 31, 2008***

Prepared by:

Milliman, Inc.  
1120 South 101<sup>st</sup> Street, Suite 400  
Omaha, NE 68124-1088

**Wichita Employees' Retirement System  
Actuarial Valuation Report  
as of December 31, 2008**

**Table of Contents**

<b><u>Section</u></b>	<b><u>Page</u></b>
Actuarial Certification Letter	
Section 1 – Board Summary	1
Section 2 – Scope of the Report	9
Section 3 – Assets	10
Table 1 – Analysis of Net Assets at Market Value	11
Table 2 – Summary of Changes in Net Assets	12
Table 3 – Development of Actuarial Value of Assets	13
Section 4 – System Liabilities	14
Table 4 – Present Value of Future Benefits (PVFB)	15
Table 5 – Actuarial Liability	16
Table 6 – Present Value of Accrued Benefits	17
Section 5 – Employer Contributions	18
Table 7 – Derivation of Unfunded Actuarial Liability Contribution Rate	19
Table 8 – Derivation of Normal Cost Rate	20
Table 9 – Employer Contribution Rates	21
Table 10 – Historical Summary of City Contribution Rates	22
Table 11 – Derivation of System Experience Gain/(Loss)	23
Section 6 – Accounting Information	24
Table 12 – Required Supplementary Information Schedule of Funding Progress	25
Table 13 – Required Supplementary Information Schedule of Employer Contributions	26
Table 14 – Solvency Test	27
<b>Appendices</b>	
A. Summary of Membership Data	28
B. Summary of Benefit Provisions	48
C. Actuarial Cost Method and Assumptions	53
D. Glossary of Terms	60



1120 S. 101<sup>st</sup> Street, Suite 400  
Omaha, NE, 68124  
USA

Tel +1 402 393 9400  
Fax +1 402 393 1037

milliman.com

April 6, 2009

The Board of Trustees  
Wichita Employees' Retirement System  
City Hall, 12<sup>th</sup> Floor  
Wichita, KS 67202

Dear Members of the Board:

At your request, we have performed an annual actuarial valuation of the Wichita Employees' Retirement System as of December 31, 2008 for determining the contribution rate for fiscal year 2010. The major findings of the valuation are contained in this report. This report reflects the benefit provisions in effect as of December 31, 2008. There was no change in the actuarial methods from the prior valuation. There were minor changes to the provisions related to the Deferred Retirement Option Plan (DROP). They did not have a material impact on the valuation results.

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. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since the valuation results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, our calculations may need to be revised.

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 principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board (ASB) and the applicable Guides to Professional Conduct, amplifying Opinions and supporting Recommendations of the American Academy of Actuaries.

We further certify that 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 of future experience); and which, in combination, offer our best estimate of anticipated experience affecting the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as outlined in Appendix C.

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 System'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.

Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. Actuarial computations presented in this report under GASB Statement 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, and of GASB Statements No. 25 and 27. Determinations for purposes other than these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work product was prepared exclusively for the Wichita Employees' Retirement System for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning Wichita Employees' Retirement System operations, and uses data from the Wichita Employees' Retirement System, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

We would like to express our appreciation to Barbara Davis, Pension Manager, and to members of her staff, who gave substantial assistance in supplying the data on which this report is based.

I, Patrice A. Beckham, F.S.A. am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

I, Brent A. Banister, F.S.A. am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

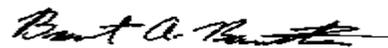
We herewith submit the following report and look forward to discussing it with you.

Respectfully Submitted,

MILLIMAN, Inc.



Patrice A. Beckham, F.S.A.  
Consulting Actuary



Brent A. Banister, F.S.A.  
Actuary

## SECTION 1

### BOARD SUMMARY

#### OVERVIEW

This report presents the results of the December 31, 2008 actuarial valuation of the Wichita Employees' Retirement System (WER). 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.

All new employees hired by the City participate in Plan 3 (a defined contribution plan) for the first seven years. After seven years, the member makes an election to either remain in the defined contribution plan or move to Plan 2. The members that elect to remain in the defined contribution plan are referred to as Plan 3b members in this report. This report is intended to value assets and liabilities only for employees who are members of the defined benefit plans (Plan 1 and 2) or Plan 3 members who will have the right to elect such coverage in the future. Therefore, the member data, liability and asset values shown in this report exclude Plan 3b members.

The valuation results provide a "snapshot" view of the System's financial condition on December 31, 2008. Due to experience during the year, the System's funded status changed from a surplus of \$51 million as of December 31, 2007 to a surplus of \$1 million at December 31, 2008. A detailed analysis of the change in the unfunded actuarial liability/(surplus) from December 31, 2007 to December 31, 2008 is shown on page 3.

#### ASSETS

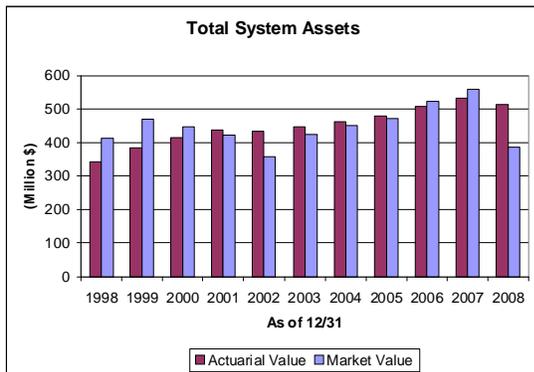
As of December 31, 2008, the System had total assets, when measured on a market value basis, of \$386 million, excluding Plan 3b assets for those members who have elected to stay in Plan 3. This was a decrease in net assets of \$174 million from the December 31, 2007 figure of \$560 million.

The market value of assets is not used directly in the calculation of the City's contribution rate. An asset valuation method is used to smooth the effect of market fluctuations. The actuarial value of assets is equal to the expected value (calculated using the actuarial assumed rate of 7.75%) plus 25% of the difference between the market and expected value. See Table 3 on page 13 for a detailed development of the actuarial value of assets. As a result of the severe market decline in 2008, the actuarial value is 33% higher than the actual market value.

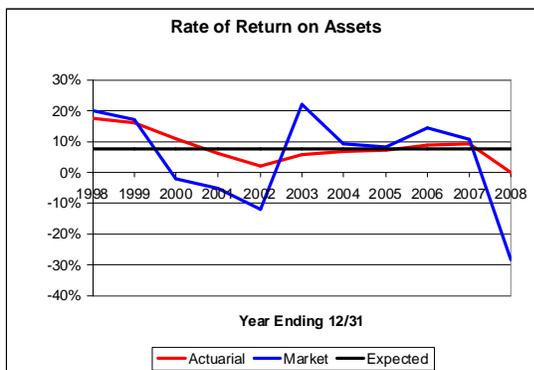
The components of the change in the market and actuarial value of assets for the Retirement System (in millions) are set forth below:

	Market Value (\$M)	Actuarial Value (\$M)
Assets, December 31, 2007	\$559.8	\$533.9
• City and Member Contributions	7.8	7.8
• Benefit Payments, Refunds and Transfers	(26.0)	(26.0)
• Investment Loss (net of expenses)	(156.0)	(2.8)
Assets, December 31, 2008	\$385.6	\$512.9

The annualized dollar-weighted rate of return, measured on the actuarial value of assets, was 0% and, measured on the market value of assets, was approximately -28%. The actuarial value of assets as of December 31, 2008 was \$513 million, which represents an actuarial loss of about \$42 million. Due to the asset smoothing method, there remains \$127 million difference between the actuarial and market value of assets. As this unrecognized investment loss flows through the asset smoothing method in future valuations, the deferred losses will be recognized and the Plan's funded status will decline, absent any offsetting favorable investment experience.



*The actuarial value of assets has both been greater than and less than the market value of assets during this period, which is expected when using a smoothing method. Due to investment experience in 2008, the actuarial value exceeds the market value by over \$127 million.*



*The rate of return on the actuarial value of assets has been less volatile than the market value return, which is the goal of using an asset smoothing method.*

## LIABILITIES

The actuarial 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 asset values at the same date is referred to as the unfunded actuarial liability (UAL), or (surplus) if the asset value exceeds the actuarial liability. The unfunded actuarial liability will be reduced if the employer's contributions exceed the

employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and procedures will also impact the total actuarial liability and the unfunded portion thereof.

The Actuarial Liability and Unfunded Actuarial Liability for the System are:

Actuarial Liability	\$512,373,522
Actuarial Value of Assets	512,853,345
Unfunded Actuarial Liability/(Surplus)	(479,823)

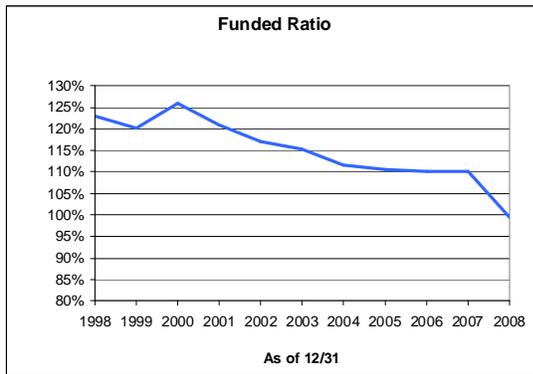
Between December 31, 2007 and December 31, 2008 the change in the unfunded actuarial liability for the System was as follows (in millions):

	\$ (M)
UAL, December 31, 2007	(50.5)
+ Normal cost for year	9.8
+ Assumed investment return for year	(3.2)
- Actual contributions (member + City)	7.8
- Assumed investment return on contributions	0.3
= Expected Unfunded Actuarial Liability, December 31, 2008	(52.0)
+ Change from amendments	0.0
+ Change from assumption changes	0.0
= Expected UAL after changes	(52.0)
Actual UAL, December 31, 2008	(0.5)
Experience gain/(loss) (Expected UAL - Actual UAL)	(51.5)

The experience loss for the 2008 plan year of \$52 million reflects the combined impact of an actuarial loss of about \$42 million on System assets (actuarial value), and an actuarial loss of about \$9 million on System liabilities. The loss is primarily attributable to more retirements than expected and mortality experience for retirees.

Analysis of the unfunded actuarial liability strictly as a dollar amount can be misleading. Another way to evaluate the unfunded actuarial 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 liability. This information for recent years is shown below (in millions). Historical information is shown in the graph following the chart.

	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Actuarial Liability (\$M)	\$413.2	\$433.3	\$459.1	\$483.4	\$512.4
Actuarial Value of Assets (\$M)	463.0	479.3	505.8	533.9	512.9
Funded Ratio (Actuarial Value)	112.1%	110.6%	110.2%	110.5%	100.1%
Funded Ratio (Market Value)	109.1%	108.8%	114.1%	115.8%	75.3%



*In general, over the past decade, the funded status of the Retirement System has declined. Benefit improvements effective in 2000 decreased the funded ratio. Assumption changes in 2004 and investment experience in the early part of the decade also caused the funded ratio to decline. The strong asset performance in 2006 and 2007 stabilized the System's funded status. The significant decline in the stock market in 2008 again dropped the funded ratio significantly. If the stock market does not experience a significant bounceback in 2009 and 2010, the recognition of the deferred investment losses will be recognized in the actuarial value of assets and the System's funded status will decline further.*

As mentioned earlier in this report, due to the asset smoothing method there is currently about \$127 million difference between the actuarial value and the market value of assets. The funded ratio of the System on a market value basis is 75%. To the extent there is not favorable investment experience to offset the deferred losses, the \$127 million loss will be recognized in future years and the System's funded status will decline. The System's funded status and the size of the UAL in future years will be heavily dependent on actual investment returns.

## CONTRIBUTION RATES

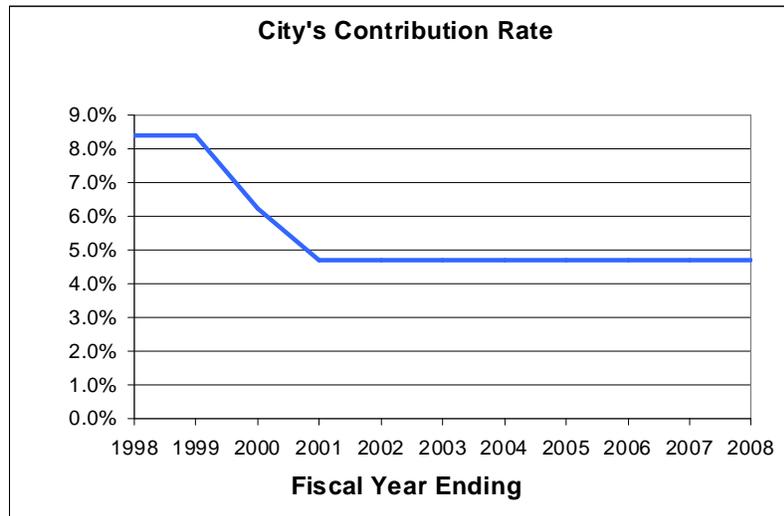
Generally, contributions to the System consist of:

- 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, and
- an "unfunded actuarial 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 2010 is based on the December 31, 2008 actuarial valuation results.

As of December 31, 2008, the actuarial value of assets is just slightly larger than the actuarial liability. The resulting small surplus, when amortized over a 20-year rolling period, results in an amortization credit of 0.0% of pay. The contribution rate is the sum of the employer portion of the normal cost rate and the amortization credit. This valuation indicates the City contribution rate to be 8.4%.

A summary of the City's historical contribution rate for the system is shown below:



## COMMENTS

The stock market performance in 2008 was the worst since 1931. Most public retirement plans are feeling the pain of significant asset losses. The investment return on the market value of assets for 2008 was about -28%. When compared to the expected return of +7.75%, the assets were around 36% lower than expected. Such a dramatic drop in the asset value results in a significant increase in the contribution to the System. When the fixed nature of the employee contribution rate is factored into the calculation, the impact on the employer contribution amount is even more significant.

Retirement plans use several mechanisms to provide more stability in the contribution levels. These include an asset smoothing method, which smoothes out the peaks and valleys of investment returns and amortization of any actuarial gains or losses (WER amortizes these over a 20-year period). The System utilizes an asset smoothing method that determines the actuarial value of assets as 75% of the expected value (using the 7.75% actuarial assumed rate of return) and 25% of actual market value. Due to the smoothing method, the rate of return on the actuarial value of assets for the 2008 plan year was about 0% as compared to -28% on the pure market value.

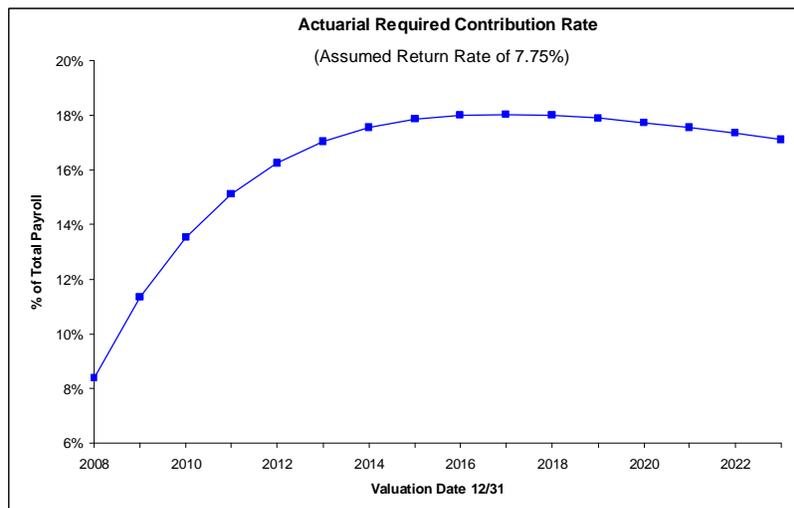
Given the size of the investment loss in 2008, an increase in the minimum contribution level could not be avoided, even with the use of these “stability mechanisms”. The normal cost remained stable as a percentage of payroll, but the System’s surplus assets were nearly eliminated. There is no surplus credit in this valuation (it is 0.0% of pay). Along with the employer normal cost rate of 8.4%, the resulting actuarial contribution rate is 8.4% of pay. The market experience thus far in 2009 has also been negative. These losses, in addition to those from 2008 that are not yet recognized, may significantly reduce the System’s funded status and increase the actuarial contribution rate in future valuations. The City should be prepared for significantly higher contribution rates in the next few years and possibly beyond, depending on future rates of return.

As mentioned above, the System utilizes an asset smoothing method in the valuation process. While this is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred (unrecognized) investment experience. The key valuation results from the December 31, 2008 actuarial valuation are shown below using both the actuarial value of assets and the pure market value.

	<u>Using Actuarial Value of Assets</u>	<u>Using Market Value of Assets</u>
Actuarial Liability	\$512,373,522	\$512,373,522
Asset Value	512,853,345	385,599,194
Unfunded Actuarial Liability	\$ (479,823)	\$126,774,328
Funded Ratio	100.1%	75.3%
Normal Cost Rate	13.2%	13.2%
UAL Contribution Rate	<u>0.0%</u>	<u>10.3%</u>
Total Contribution Rate	13.2%	23.5%
Employee Contribution Rate	<u>(4.8%)</u>	<u>(4.8%)</u>
Employer Contribution Rate	8.4%	18.7%

The asset smoothing method impacts only the timing of recognizing the actual market experience on the assets. Due to the dramatically negative return in 2008 (about -28%), the actuarial value of assets exceeded the pure market value by 33%. If asset returns are not significantly higher than 7.75% over the next few years, the \$127 million of deferred investment experience will be recognized and the ultimate impact on the employer contribution rate can be expected to be similar to the column shown above using market value of assets.

The following graph shows the expected increase in the employer contribution rate in future years if 7.75% is earned in 2009 and all future years and the City contributes the full actuarial contribution rate each year.



The challenge at this point in time is that the length and final depth of the market decline is unknown and the market continues to exhibit extreme volatility. Historically, markets have recovered and, if this happens, it should help offset some of the current deferred losses. The use of an asset smoothing method defers some of the investment experience from 2008 to later years. Consequently, absent a significant and sustained recovery in the market, part of the unrecognized loss from 2008 (\$127 million) will be reflected in the December 31, 2009 and subsequent years' valuations. Actual investment returns over the next few years will determine exactly how much the System's funding will be affected and the magnitude of the increase in the unfunded actuarial liability and contribution rate.

It would be prudent for the City to plan on higher contribution rates in future years. The negative return in 2008 has had a substantial impact on the System's long-term funding outlook. While the System has sufficient assets to pay benefits for many years into the future, the long-term actuarial soundness of the System will be impacted if returns do not bounce back, contributions increase, or a combination of both.

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

## SUMMARY OF PRINCIPAL RESULTS

1. PARTICIPANT DATA	12/31/2008 Valuation	12/31/2007 Valuation	% Change
Number of:			
Active Members			
Plan 1	34	56	(39.3)%
Plan 2	941	931	1.1%
Plan 3 (excluding Plan 3b)	852	838	1.7%
Total	1,827	1,825	0.1%
DROP Members			
Plan 1	58	57	1.8%
Plan 2	17	16	6.3%
Total	75	73	2.7%
Retired Members and Beneficiaries	1,167	1,132	3.1%
Inactive Vested Members	131	138	(5.1)%
Total Members	3,200	3,168	1.0%
Annual Valuation Payroll of Active Members (Including DROP)			
Plan 1	\$ 5,233,211	\$ 6,034,708	(13.3)%
Plan 2	46,988,203	44,198,149	6.3%
Plan 3	29,824,401	29,365,696	1.6%
Total	\$ 82,045,815	\$ 79,598,553	3.1%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 27,520,308	\$ 25,757,557	6.8%
 <b>2. ASSETS AND LIABILITIES</b>			
Total Actuarial Liability	\$ 512,373,522	\$ 483,387,028	6.0%
Market Value of Assets	385,599,194	559,775,195	(31.1)%
Assets for Valuation Purposes	512,853,345	533,911,465	(3.9)%
Unfunded Actuarial Liability/(Surplus)	\$ (479,823)	\$ (50,524,437)	(99.1)%
Funded Ratio	100.1%	110.5%	(9.4)%
 <b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost	13.2%	13.2%	0.0%
Member Financed	4.8%	4.8%	0.0%
Employer Normal Cost	8.4%	8.4%	0.0%
Amortization of Unfunded Actuarial Liability/(Surplus)	0.0%	(4.2)%	(100.0)%
Range of Employer Contribution Rates			
Full Normal Cost Rate	8.4%	8.4%	0.0%
With Amortization Charge/(Credit)	8.4%	4.2%	100.0%

## SECTION 2

### SCOPE OF THE REPORT

This report presents the actuarial valuation of the Wichita Employees' Retirement System (WER) as of December 31, 2008. This valuation was prepared at the request of the System's Board of Trustees.

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 resulting 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 the valuation date.
- 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.

## SECTION 3

### ASSETS

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 December 31, 2008. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System. 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, market values of assets provide a basis for measuring investment performance from time to time. At December 31, 2008 the market value of assets for the System, excluding Plan 3b assets for members who have elected to remain in Plan 3, was \$386 million. Table 1 is a comparison, at market values, of System assets as of December 31, 2007, and December 31, 2008, in total and by investment category. Table 2 summarizes the change in the market value of assets from December 31, 2007 to December 31, 2008.

#### **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. This methodology, first adopted for the December 31, 2002 valuation, smoothes market experience by recognizing 25% of the difference between expected value (based on the actuarial assumption) and market value. Table 3 shows the development of the actuarial value of assets (AVA) as of December 31, 2008.

**TABLE 1**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**ANALYSIS OF NET ASSETS AT MARKET VALUE**

	As of December 31, 2008			As of December 31, 2007		
	<u>Amount</u> <u>(\$ Millions)</u>	<u>% of</u> <u>Total</u>		<u>Amount</u> <u>(\$ Millions)</u>	<u>% of</u> <u>Total</u>	
Cash & Equivalents	\$ 0.1	0.0 %		\$ 0.2	0.0 %	
Government Securities	30.7	8.2		54.2	9.9	
Corporate Debt	50.5	13.4		47.4	8.7	
Mortgage Backed Securities	65.1	17.3		61.8	11.3	
Pooled Funds	43.9	11.7		72.9	13.4	
Domestic Equity	113.4	30.2		193.5	35.4	
International Equity	63.9	17.0		109.8	20.1	
Real Estate	26.2	7.0		30.8	5.7	
Securities Lending Collateral Pool	55.2	14.7		86.8	15.9	
Other	0.4	0.1		0.5	0.1	
Receivables	8.6	2.3		9.2	1.7	
Liabilities	<u>(82.1)</u>	<u>(21.9)</u>		<u>(121.2)</u>	<u>(22.2)</u>	
<b>Total Plans 1 and 2</b>	<b>\$ 375.9</b>	<b>100.0 %</b>		<b>\$ 545.9</b>	<b>100.0 %</b>	
<b>Plan 3 Assets</b>						
Members Electing to Stay in Plan 3	\$ 2.2			\$ 2.2		
Other Plan 3 Members	<u>9.7</u>			<u>13.9</u>		
<b>Total Plan 3 and 3b</b>	<b>11.9</b>			<b>16.1</b>		
<b>Net Assets (Plans 1, 2, and 3)</b>	<b>\$ 387.8</b>			<b>\$ 562.0</b>		

**TABLE 2**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**SUMMARY OF CHANGES IN NET ASSETS**  
**DURING YEAR ENDED DECEMBER 31, 2008**

(Market Value)

	Plans 1 & 2	Plan 3*	Total
1. Market Value of Assets as of December 31, 2007	\$ 545,880,881	\$ 13,894,314	\$ 559,775,195
2. Contributions:			
a. Members	\$ 2,621,076	\$ 1,384,108	\$ 4,005,184
b. City	2,450,162	1,384,108	3,834,270
c. Other	0	0	0
d. Transfers	2,019,289	(2,598,155)	(578,866)
e. Total [2(a) + 2(b) + 2(c) + 2(d)]	\$ 7,090,527	\$ 170,061	\$ 7,260,588
3. Investment Income			
a. Interest and Dividends	\$ 15,813,329	\$ 398,907	\$ 16,212,236
b. Net Depreciation in Fair Value	(165,321,684)	(4,165,909)	(169,487,593)
c. Commission Recapture	16,915	426	17,341
d. Securities Lending Income	841,779	21,253	863,032
e. Total [3(a) + 3(b) + 3(c) + 3(d)]	\$ (148,649,661)	\$ (3,745,323)	\$ (152,394,984)
4. Expenditures			
a. Refunds of Member Contributions	\$ 313,595	\$ 436,515	\$ 750,110
b. Benefits Paid:			
(1) Pension and death benefits	23,974,743	0	23,974,743
(2) DROP payments	1,820,599	0	1,820,599
c. Administrative Expenses	472,677	96,813	569,490
d. Investment Expenses	1,875,979	50,684	1,926,663
e. Total [4(a) + 4(b) + 4(c) + 4(d)]	\$ 28,457,593	\$ 584,012	\$ 29,041,605
5. Net Change [2(e) + 3(e) - 4(e)]	\$ (170,016,727)	\$ (4,159,274)	\$ (174,176,001)
6. Market Value of Assets as of December 31, 2008 (1) + (5)	\$ 375,864,154	\$ 9,735,040	\$ 385,599,194

\* Excludes assets for Plan 3b members. The December 31, 2008 value of the assets for this group was \$2,169,396.

**TABLE 3**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**DEVELOPMENT OF ACTUARIAL**  
**VALUE OF ASSETS**  
**AS OF DECEMBER 31, 2008**

	<u>Plans 1 &amp; 2</u>	<u>Plan 3*</u>	<u>Total</u>
1. Actuarial Value of Assets as of December 31, 2007	\$ 520,704,005	\$ 13,207,460	\$ 533,911,465
2. Actual Contributions/Disbursements			
a. Contributions	\$ 5,071,238	\$ 2,768,216	\$ 7,839,454
b. Transfers	2,019,289	(2,598,155)	(578,866)
c. Benefit Payments and Refunds	(26,108,937)	(436,515)	(26,545,452)
d. Net (a + b + c)	\$ <u>(19,018,410)</u>	\$ <u>(266,454)</u>	\$ <u>(19,284,864)</u>
3. Expected Value of Assets as of December 31, 2008 [(1) x 1.0775] + [(2d) x (1.0775) <sup>-5</sup> ]	\$ 541,316,943	\$ 13,954,452	\$ 555,271,395
4. Market Value of Assets as of December 31, 2008	\$ 375,864,154	\$ 9,735,040	\$ 385,599,194
5. Difference Between Market and Expected Values (4) - (3)	\$ (165,452,789)	\$ (4,219,412)	\$ (169,672,201)
6. Actuarial Value of Assets as of December 31, 2008 (3) + [(5) x 25%]	\$ 499,953,746	\$ 12,899,599	\$ 512,853,345
7. Actuarial Value of Assets/Market Value of Assets (6) / (4)	133.01%	132.51%	133.00%
8. Market Value less Actuarial Value of Assets (4) - (6)	\$ (124,089,592)	\$ (3,164,559)	\$ (127,254,151)

\* Excludes Plan 3b.

## SECTION 4

### SYSTEM LIABILITIES

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, December 31, 2008. In this section, the discussion will focus on the commitments 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 December 31, 2008.

#### **Actuarial 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 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 actuarial liability for the System. The Entry Age Normal actuarial cost method is used to develop the actuarial liability.

**TABLE 4**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**PRESENT VALUE OF FUTURE BENEFITS (PVFB)**  
**AS OF DECEMBER 31, 2008**

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 3</u>		<u>Total</u>
1. Active employees							
a. Retirement Benefit	\$ 16,312,579	\$	181,702,024	\$	46,594,262	\$	244,608,865
b. Pre-Retirement Death Benefit	22,209		2,145,172		636,284		2,803,665
c. Withdrawal Benefit	309,156		13,102,271		7,924,670		21,336,097
d. Disability Benefit	66,597		6,486,540		2,331,430		8,884,567
e. Total	\$ <u>16,710,541</u>	\$	<u>203,436,007</u>	\$	<u>57,486,646</u>	\$	<u>277,633,194</u>
2. DROP Members							
a. DROP Account Balance	\$ 6,136,903	\$	704,961	\$	0	\$	6,841,864
b. Monthly Retirement Benefit	36,454,247		4,393,505		0		40,847,752
c. Total	\$ <u>42,591,150</u>	\$	<u>5,098,466</u>	\$	<u>0</u>	\$	<u>47,689,616</u>
3. Inactive Vested Members	\$ 1,346,346	\$	18,120,336	\$	0	\$	19,466,682
4. Inactive Nonvested Members	\$ 0	\$	0	\$	0	\$	0
5. In Pay Members							
a. Disabled Members	\$ 2,040,891	\$	1,349,460	\$	0	\$	3,390,351
b. Retirees	192,456,012		36,454,745		0		228,910,757
c. Beneficiaries	17,058,763		3,349,867		0		20,408,630
d. Total	\$ <u>211,555,666</u>	\$	<u>41,154,072</u>	\$	<u>0</u>	\$	<u>252,709,738</u>
6. Total PVFB							
(1e) + (2c) + (3) + (4) + (5d)	\$ 272,203,703	\$	267,808,881	\$	57,486,646	\$	597,499,230

**TABLE 5**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**ACTUARIAL LIABILITY**  
**AS OF DECEMBER 31, 2008**

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 3</u>		<u>Total</u>
1. Active employees							
a. Present Value of Future Benefits	\$ 16,710,541	\$	203,436,007	\$	57,486,646	\$	277,633,194
b. Present Value of Future Normal Costs	1,791,683		46,855,617		39,642,967		88,290,267
c. Actuarial Liability (1a) - (1b)	<u>\$ 14,918,858</u>	<u>\$</u>	<u>156,580,390</u>	<u>\$</u>	<u>17,843,679</u>	<u>\$</u>	<u>189,342,927</u>
2. DROP Members	\$ 42,591,150	\$	5,098,466	\$	0	\$	47,689,616
3. Inactive Vested Members	\$ 1,346,346	\$	18,120,336	\$	0	\$	19,466,682
4. Inactive Nonvested Members	\$ 0	\$	0	\$	0	\$	0
5. In Pay Members							
a. Disabled Members	\$ 2,040,891	\$	1,349,460	\$	0	\$	3,390,351
b. Retirees	192,456,012		36,454,745		0		228,910,757
c. Beneficiaries	17,058,763		3,349,867		0		20,408,630
d. Total	<u>\$ 211,555,666</u>	<u>\$</u>	<u>41,154,072</u>	<u>\$</u>	<u>0</u>	<u>\$</u>	<u>252,709,738</u>
6. Reserve for Plan 3 Members	\$ 0	\$	0	\$	3,164,559	\$	3,164,559
7. Total Actuarial Liability							
(1c) + (2) + (3) + (4) + (5d) + (6)	\$ 270,412,020	\$	220,953,264	\$	21,008,238	\$	512,373,522

**TABLE 6**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**PRESENT VALUE OF ACCRUED BENEFITS**  
**AS OF DECEMBER 31, 2008**

The present value of accrued benefits for the System reflects the benefits earned based on service, earnings, and the System provisions as of the valuation date. It also reflects the on-going nature of the System by using the same actuarial assumptions as are used for funding purposes. Further, although the System provides that the accrued benefits of deferred vested members are indexed until benefits begin, the present value of accrued benefit liability does not reflect this provision until the assumed termination of employment.

	<u>Plan 1</u>		<u>Plan 2</u>		<u>Plan 3</u>		<u>Total</u>
1. Active Members	\$ 14,437,855	\$	99,691,843	\$	9,735,040	\$	123,864,738
2. DROP Members	\$ 42,591,150	\$	5,098,466	\$	0	\$	47,689,616
3. Inactive Vested Members	\$ 1,346,346	\$	18,120,336	\$	0	\$	19,466,682
4. In Pay Members							
a. Disabled Members	\$ 2,040,891	\$	1,349,460	\$	0	\$	3,390,351
b. Retirees	192,456,012		36,454,745		0		228,910,757
c. Beneficiaries	17,058,763		3,349,867		0		20,408,630
d. Total	\$ <u>211,555,666</u>	\$	<u>41,154,072</u>	\$	<u>0</u>	\$	<u>252,709,738</u>
5. Total	\$ 269,931,017	\$	164,064,717	\$	9,735,040	\$	443,730,774
6. Market Value of Assets*	\$ 233,775,094	\$	142,089,060	\$	9,735,040	\$	385,599,194
7. Funded Ratio (6)/(5)	87%		87%		100%		87%

\* Split of assets between Plan 1 and Plan 2 is in proportion to the liabilities for illustrative purposes only.

## SECTION 5

### EMPLOYER CONTRIBUTIONS

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 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 liability (UAL) exists. Likewise, when the actuarial value of assets is greater than the actuarial liability, a surplus exists.

#### Description of Contribution Rate Components

The Entry Age Normal (EAN) actuarial cost method is used for the valuation. Under this 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 liability. The unfunded actuarial liability/(surplus) represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial 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 rates based on this December 31, 2008 actuarial valuation will be used to determine employer contribution rates to the Wichita Employees' Retirement System for fiscal year 2010. 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 December 31, 2008, the actuarial value of assets was slightly larger than the actuarial liability. The City's funding policy is to amortize the surplus over a rolling 20-year period. The amortization of the surplus results in a temporary amortization credit, thereby reducing the employer contribution rate.

#### Contribution Rate Summary

In Table 7, the amortization credit related to the surplus, as of December 31, 2008, is developed. Table 8 develops the normal cost rate for the System. The derivation of the contribution rate for the City is shown in Table 9. Table 10 shows the historical summary of the City's contribution rates. Table 11 develops the experience gain/(loss) for the year ended December 31, 2008.

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

**TABLE 7**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

**DECEMBER 31, 2008 VALUATION**

**DERIVATION OF UNFUNDED ACTUARIAL LIABILITY CONTRIBUTION RATE**

1. Actuarial Accrued Liability	\$	512,373,522	
2. Actuarial Value of Assets	\$	512,853,345	
3. Unfunded Actuarial Liability/(Surplus)	\$	(479,823)	
4. Payment (Adjusted to Mid-Year) to Amortize Unfunded Actuarial Liability/(Surplus) Over 20 Years *	\$	(32,800)	
5. Total Projected Payroll for the Year	\$	83,871,532	
6. Amortization Payment as a Percent of Payroll			0.0 %

\* The City has elected to amortize the UAL as a level percent of payroll over a rolling 20-year period.

**TABLE 8**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**DECEMBER 31, 2008 VALUATION**  
**DERIVATION OF NORMAL COST RATE**

Normal Cost at December 31, 2008		
Service pensions	\$	7,766,655
Disability pensions		396,090
Survivor pensions		124,347
Termination benefits		
- Deferred service pensions		1,018,657
- Return of member contributions		769,057
Total Normal Cost	\$	<u>10,074,806</u>
Normal Cost Adjusted to Mid-Year	\$	10,457,920
Projected Payroll for Members Under Certain Retirement Age	\$	78,937,469
Total Normal Cost Rate for Year		13.2%

**TABLE 9**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
EMPLOYER CONTRIBUTION RATES  
FOR FISCAL YEAR  
COMMENCING IN 2010**

	<b>Contribution Requirements as % of Payroll</b>
<b>Normal Cost</b>	
Service pensions	10.2 %
Disability pensions	0.5 %
Survivor pensions	0.2 %
Termination benefits	
- Deferred service pensions	1.3 %
- Return of member contributions	1.0 %
<b>Total Normal Cost</b>	13.2 %
 <b>Unfunded Actuarial Liability</b>	
Retired members and beneficiaries (1)	0.0 %
Active and former members (2)	0.0 %
<b>Total UAL Contribution</b>	0.0 %
 <b>Total Contribution Requirement</b>	
Member Financed Portion (3)	4.8 %
City Financed Portion	8.4 %
<b>Total</b>	13.2 %

(1) Actuarial value of assets exceeds the actuarial liability for retirees and beneficiaries as of December 31, 2008.

(2) The surplus assets are amortized as a level percent of active member payroll over a rolling 20-year period. The amortization of surplus amount rounds to 0.0% in this valuation.

(3) The weighted average of member contribution rates: 6.4% for Plan 1, 4.7% for Plan 2, and 4.7% for Plan 3.

**TABLE 10**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**HISTORICAL SUMMARY OF CITY CONTRIBUTION RATES**

Contribution rates are computed in accordance with a level percent of payroll funding objective. As of December 31, 2008, actuarial liabilities continue to be fully covered by valuation assets. The excess is amortized over a rolling 20 year period, resulting in an amortization credit.

<b>Valuation Date</b>	<b>Fiscal Year</b>	<b>City Contributions as Percents of Active Member Pensionable Payroll</b>	
		<b>Funding Objective</b>	<b>Amortization Credit</b>
11/30/90	1992	11.0%	-%
11/30/91	1993	10.0	-
11/30/92	1994	9.5	-
11/30/93	1995	9.5	-
11/30/94	1996	9.4	-
12/31/95	1997	9.0	-
12/31/96	1998	6.9 – 8.4	(1.5)
12/31/97	1999	4.6 – 8.5	(3.9)
12/31/98	2000	0.8 – 8.3	(7.5)
12/31/99	2001	2.5 – 9.8	(7.3)
12/31/00	2002	0.5 – 9.7	(9.2)
12/31/01	2003	1.9 – 9.4	(7.5)
12/31/02	2004	2.7 – 8.8	(6.1)
12/31/03	2005	3.1 – 8.9	(5.8)
12/31/04	2006	3.5 – 8.2	(4.7)
12/31/05	2007	3.9 – 8.2	(4.3)
12/31/06	2008	4.2 – 8.3	(4.1)
12/31/07	2009	4.2 – 8.4	(4.2)
12/31/08	2010	8.4	0.0

**TABLE 11**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
DERIVATION OF SYSTEM EXPERIENCE GAIN/(LOSS)**

	<b>(\$M) Year Ended <u>12/31/08</u></b>
(1) UAL* at start of year	(50.5)
(2) + Normal cost for year	9.8
(3) + Assumed investment return on (1) & (2)	(3.2)
(4) - Actual contributions (member + City)	7.8
(5) - Assumed investment return on (4)	0.3
(6) = Expected UAL at end of year	(52.0)
(7) + Increase (decr.) from amendments	0.0
(8) + Increase (decr.) from assumption change	0.0
(9) = Expected UAL after changes	(52.0)
(10) = Actual UAL at year end	(0.5)
(11) = Experience gain (loss) (9) – (10)	(51.5)**
(12) = Percent of beginning of year AL	10.6%

\* *Unfunded Actuarial Liability/(Surplus)*

\*\* *Of this amount, \$42.4 million of the experience loss is due to an experience loss on the actuarial value of assets and \$9.1 million represents an experience loss on liabilities.*

## SECTION 6

### ACCOUNTING INFORMATION

The actuarial liability is a measure intended to help the reader assess (i) a retirement system's funded status on an on-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 liability was determined as part of an actuarial valuation of the plan as of December 31, 2008. Significant actuarial assumptions used in determining the actuarial liability include:

- (a) a rate of return on the investment of present and future assets of 7.75% per year compounded annually,
- (b) projected salary increases of 4.50% per year compounded annually, (4.0% attributable to inflation, and 0.50% attributable to productivity),
- (c) additional projected salary increases of 0.0% to 5.5% per year attributable to seniority/merit, and
- (d) the assumption that benefits will increase 3.0% per year of retirement (non-compounded) for Plan 1 and 2.0% per year of retirement (non-compounded) for Plan 2.

**Actuarial Liability:**

Active members	\$192,507,486
DROP members	47,689,616
Retired members and beneficiaries currently receiving benefits	252,709,738
Vested terminated members not yet receiving benefits	<u>19,466,682</u>
Total Actuarial Liability	\$512,373,522
Actuarial Value of Assets (market value was \$385,599,194)	\$512,853,345
Assets in Excess of Actuarial Liability	\$(479,823)

During the year ended December 31, 2008, the Plan experienced a net increase of \$29.0 million in the actuarial liability.

TABLE 12

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (AL) (b)	Unfunded AL (UAL) (b)-(a)	Funded Ratio (a)/(b)	Active Member Covered Payroll (c)	UAL as a Percentage of Active Member Covered Payroll ((b-a)/c)
11/30/90	\$143,758	\$178,659	\$ 34,901	80.5%	\$ 44,509	78.4%
11/30/91	163,047	190,748	27,701	85.5	47,017	58.9
11/30/92	182,186	204,730	22,544	89.0	49,552	45.5
11/30/93	200,853	218,603	17,750	91.9	52,093	34.1
11/30/94	215,385	230,217	14,832	93.6	52,169	28.4
12/31/95	238,441	242,354	3,913	98.4	54,039	7.2
12/31/96	266,404	252,968	(13,436)	105.3	53,534	(25.1)
12/31/97	296,705	263,573	(33,132)	112.6	54,346	(61.0)
12/31/98	340,417	276,980	(63,437)	122.9	56,093	(113.1)
12/31/99*	383,338	319,289	(64,049)	120.1	57,562	(111.3)
12/31/00	414,643	329,390	(85,253)	125.9	61,112	(139.5)
12/31/01	428,204	353,158	(75,046)	121.2	65,347	(114.8)
12/31/02	433,366**	370,399	(62,967)	117.0	68,117	(92.4)
12/31/03	446,794**	387,037	(59,757)	115.4	69,161	(86.4)
12/31/04*	462,994**	413,159	(49,835)	112.1	72,154	(69.1)
12/31/05*	479,275**	433,297	(45,978)	110.6	72,367	(63.5)
12/31/06*	505,756**	459,062	(46,694)	110.2	75,881	(61.5)
12/31/07*	533,911**	483,387	(50,524)	110.5	78,736	(64.2)
12/31/08*	512,853**	512,374	(480)	100.1	81,580	(0.6)

*Rounded dollar amounts are in thousands.*

*\*After changes in benefits and/or actuarial assumptions and/or actuarial cost methods.*

*\*\*Includes all members except Plan 3b.*

Analysis of the dollar amounts of actuarial value of assets, actuarial liability, or unfunded actuarial liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial liability provides one indication of the System's funded status on an on-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 liability and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial 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 13**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
REQUIRED SUPPLEMENTARY INFORMATION  
SCHEDULE OF EMPLOYER CONTRIBUTIONS**

<b>Fiscal Year</b>	<b>Actuarial Valuation Date</b>	<b>Annual Required Contribution</b>	<b>Percent Contribution</b>
1995	11/30/93	\$5,688,326	100.0%
1996	11/30/94	4,751,698	100.0
1997	12/31/95	4,459,654	100.0
1998	12/31/96	4,140,163	100.0
1999	12/31/97	4,134,826	100.0
2000	12/31/98	2,751,084	100.0
2001	12/31/99	1,843,213	100.0
2002	12/31/00	3,137,912*	100.0
2003	12/31/01	3,189,513*	100.0
2004	12/31/02	3,266,706*	100.0
2005	12/31/03	3,589,063*	100.0
2006	12/31/04	3,566,429*	100.0
2007	12/31/05	3,700,590*	100.0
2008	12/31/06	3,834,270*	100.0

\* Reflects contributions to Plans 1, 2 and 3. Excludes contributions for Plan 3b members.

**Notes to Required Supplementary Information  
Summary of Actuarial Methods and Assumptions**

Valuation Date	December 31, 2008
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level percent of payroll, open
Remaining Amortization Period	20 years
Asset Valuation Method	Expected + 25% of (Market – Expected Values)
Actuarial Assumptions:	
Investment Rate of Return*	7.75%
Projected Salary Increases*	4.50% - 10.00%
* Includes Inflation at	4.00%
Cost-of-Living Adjustments	3.00% Non-compounded (Plan 1) 2.00% Non-compounded (Plan 2)

**TABLE 14**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**SOLVENCY TEST**

<u>Aggregate Actuarial Liability For</u>							
<b>Valuation Date</b>	<b>(1) Active Member Contributions</b>	<b>(2) Retirants and Beneficiaries*</b>	<b>(3) Active Members (Employer Financed Portion)</b>	<b>Reported Valuation Assets</b>	<b>Portion of Actuarial Liabilities Covered by Reported Assets</b>		
					<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
11/30/94	\$25,426,998	\$111,681,938	\$93,108,469	\$215,385,559	100.0%	100.0%	84.1%
12/31/95	28,549,082	123,759,638	90,046,029	238,441,351	100.0	100.0	95.7
12/31/96	28,996,944	133,093,326	90,877,809	266,403,759	100.0	100.0	114.8
12/31/97	29,881,922	141,922,445	91,768,436	296,704,769	100.0	100.0	136.1
12/31/98	29,694,389	156,764,183	90,521,375	340,417,265	100.0	100.0	170.1
12/31/99	32,017,094	169,602,958	117,669,351	383,337,991	100.0	100.0	154.4
12/31/00	34,189,528	177,095,907	118,104,491	414,642,694	100.0	100.0	172.2
12/31/01	33,516,616	179,374,487	140,266,410	428,204,828	100.0	100.0	153.5
12/31/02	38,291,472	192,615,216	139,492,410	433,365,890	100.0	100.0	145.1
12/31/03	39,847,119	205,799,341	141,390,445	446,794,052	100.0	100.0	142.3
12/31/04	41,852,724	218,518,676	152,632,267	462,994,047	100.0	100.0	132.8
12/31/05	43,397,403	228,408,201	161,491,272	479,274,508	100.0	100.0	128.5
12/31/06	45,475,389	237,860,848	175,725,905	505,755,995	100.0	100.0	126.6
12/31/07	46,189,489	256,374,002	180,823,537	533,911,465	100.0	100.0	127.9
12/31/08	46,541,280	272,176,420	193,655,822	512,853,345	100.0	100.0	100.2

During the twelve months ended December 31, 2008, the Wichita Employees' Retirement System generated a net experience loss of \$51.5 million dollars. The amount is 10.6% of the actuarial liability at the beginning of the year.

*\*Includes vested terminated members*

**APPENDIX A**  
**SUMMARY OF MEMBERSHIP DATA**  
**MEMBER DATA RECONCILIATION**  
December 31, 2007 to December 31, 2008

*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			DROP Participants		Retirees & Beneficiaries		Terminated Vested		Total
	Plan 1	Plan 2	Plan 3	Plan 1	Plan 2	Plan 1	Plan 2	Plan 1	Plan 2	
Members as of 12/31/07	56	931	838	57	16	868	264	9	129	3,168
New Members	0	+2	+176	0	0	+12	+6	0	0	+196
Transfers	0	+53	-71	0	0	0	0	0	0	-18
Terminations				0	0					
Refunded	0	-6	-91	0	0	0	0	0	-2	-99
Deferred Vested	0	-8	0	0	0	0	-1	0	+8	-1
Retirements										
Service	-8	-23	0	-14	-5	+24	+34	-2	-6	0
Disability	-0	-1	0	0	0	0	+3	0	-2	0
DROP	-14	-6	0	+15	+6	0	0	-1	0	0
Deaths				0	0					
Cashed Out	0	-1	0	0	0	0	0	0	-1	-2
With Beneficiary	0	-1	0	0	0	-12	0	0	-1	-14
Without Beneficiary	0	0	0	0	0	-25	-6	0	0	-31
Data Adjustments	0	+1	0	0	0	0	0	0	0	+1
<b>Members as of 12/31/08</b>	<b>34</b>	<b>941</b>	<b>852</b>	<b>58</b>	<b>17</b>	<b>867</b>	<b>300</b>	<b>6</b>	<b>125</b>	<b>3,200</b>

**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

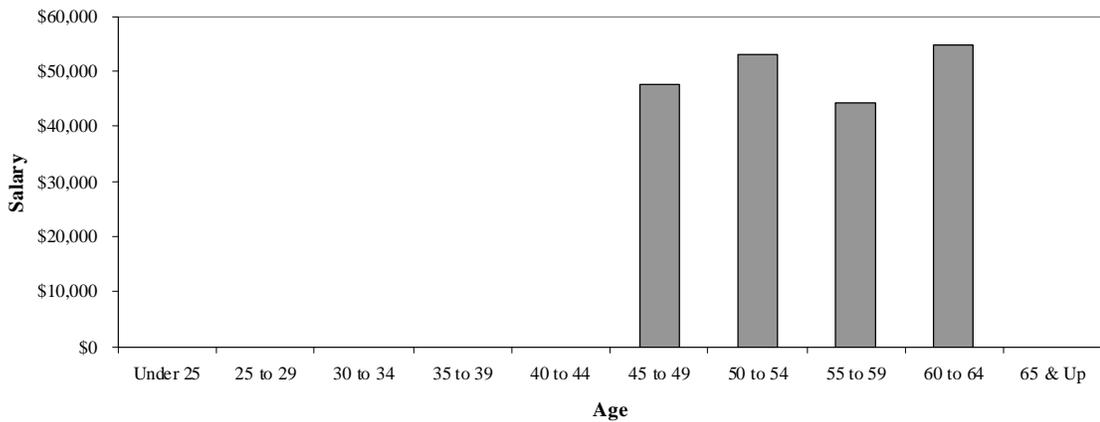
**SUMMARY OF ACTIVE MEMBERS**

**(Excluding DROP Members)**

**as of December 31, 2008**

Age	Plan 1					
	Number			Valuation Salaries		
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	\$ -	\$ -	\$ -
25 to 29	0	0	0	-	-	-
30 to 34	0	0	0	-	-	-
35 to 39	0	0	0	-	-	-
40 to 44	0	0	0	-	-	-
45 to 49	5	0	5	238,616	-	238,616
50 to 54	12	4	16	636,139	214,522	850,661
55 to 59	8	4	12	360,567	168,424	528,991
60 to 64	0	1	1	-	54,943	54,943
65 & Up	0	0	0	-	-	-
<b>Total</b>	<b>25</b>	<b>9</b>	<b>34</b>	<b>\$ 1,235,322</b>	<b>\$ 437,889</b>	<b>\$ 1,673,211</b>

**Average Salary by Age**

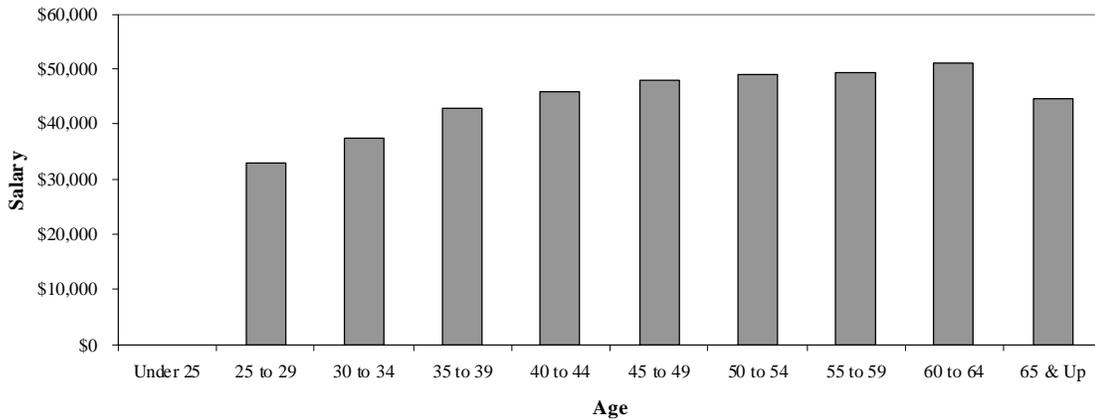


**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF ACTIVE MEMBERS  
(Excluding DROP Members)  
as of December 31, 2008**

Age	Plan 2			Valuation Salaries		
	Number			Male	Female	Total
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	\$ -	\$ -	\$ -
25 to 29	4	1	5	131,322	34,346	165,668
30 to 34	19	12	31	667,721	494,679	1,162,400
35 to 39	35	21	56	1,559,570	831,876	2,391,446
40 to 44	76	50	126	3,476,049	2,311,991	5,788,040
45 to 49	103	77	180	4,972,888	3,670,093	8,642,981
50 to 54	136	81	217	6,598,855	4,060,107	10,658,962
55 to 59	132	85	217	6,586,917	4,113,488	10,700,405
60 to 64	60	38	98	3,314,706	1,680,110	4,994,816
65 & Up	7	4	11	322,589	166,349	488,938
<b>Total</b>	<b>572</b>	<b>369</b>	<b>941</b>	<b>\$ 27,630,617</b>	<b>\$ 17,363,039</b>	<b>\$ 44,993,656</b>

**Average Salary by Age**

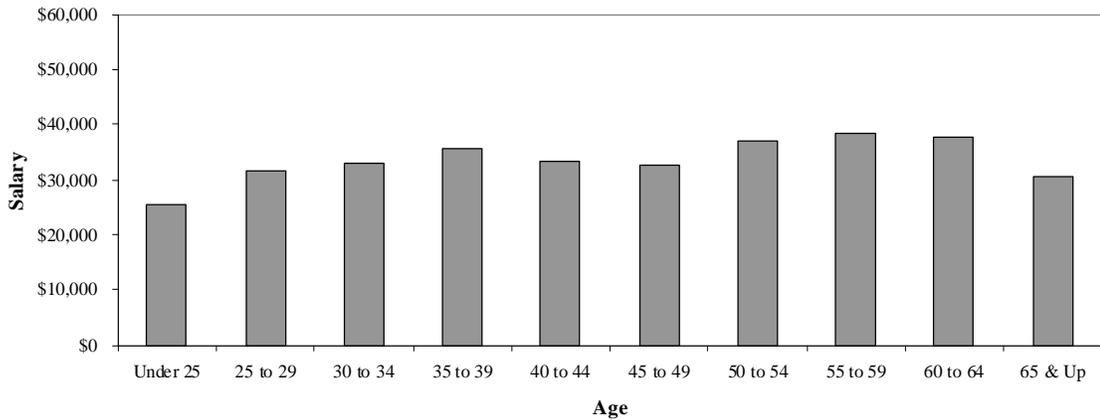


**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF ACTIVE MEMBERS  
as of December 31, 2008**

Age	Plan 3			Valuation Salaries		
	Number		Total	Male	Female	Total
	Male	Female				
Under 25	43	18	61	\$ 1,090,567	\$ 457,888	\$ 1,548,455
25 to 29	85	48	133	2,718,048	1,483,890	4,201,938
30 to 34	70	49	119	2,165,393	1,774,877	3,940,270
35 to 39	57	45	102	2,081,471	1,548,276	3,629,747
40 to 44	67	35	102	2,168,349	1,246,166	3,414,515
45 to 49	79	39	118	2,577,689	1,274,041	3,851,730
50 to 54	64	36	100	2,423,621	1,281,997	3,705,618
55 to 59	44	32	76	1,723,530	1,197,480	2,921,010
60 to 64	25	10	35	964,715	357,145	1,321,860
65 & Up	5	1	6	138,273	44,997	183,270
<b>Total</b>	<b>539</b>	<b>313</b>	<b>852</b>	<b>\$ 18,051,656</b>	<b>\$ 10,666,757</b>	<b>\$ 28,718,413</b>

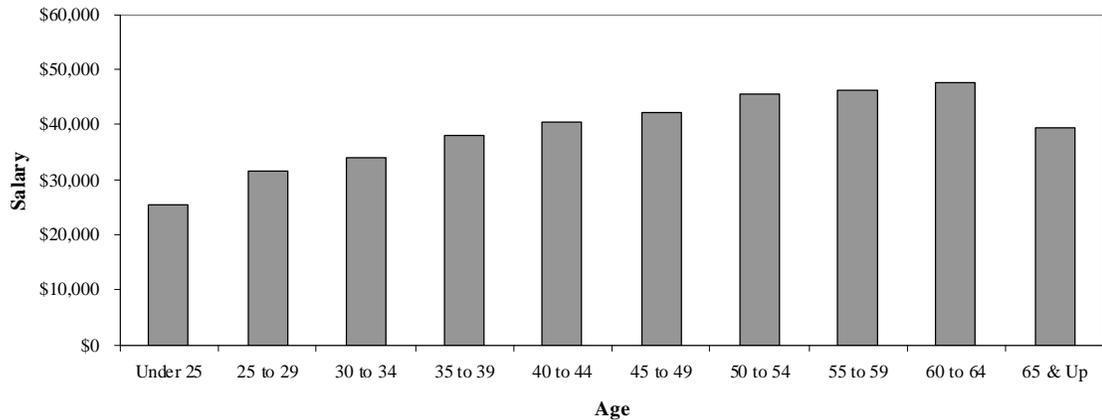
**Average Salary by Age**



**APPENDIX A (continued)**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**SUMMARY OF ACTIVE MEMBERS**  
**(Excluding DROP Members)**  
**as of December 31, 2008**

Age	All Plans					
	Number			Valuation Salaries		
	Male	Female	Total	Male	Female	Total
Under 25	43	18	61	\$ 1,090,567	\$ 457,888	\$ 1,548,455
25 to 29	89	49	138	2,849,370	1,518,236	4,367,606
30 to 34	89	61	150	2,833,114	2,269,556	5,102,670
35 to 39	92	66	158	3,641,041	2,380,152	6,021,193
40 to 44	143	85	228	5,644,398	3,558,157	9,202,555
45 to 49	187	116	303	7,789,193	4,944,134	12,733,327
50 to 54	212	121	333	9,658,615	5,556,626	15,215,241
55 to 59	184	121	305	8,671,014	5,479,392	14,150,406
60 to 64	85	49	134	4,279,421	2,092,198	6,371,619
65 & Up	12	5	17	460,862	211,346	672,208
<b>Total</b>	<b>1,136</b>	<b>691</b>	<b>1,827</b>	<b>\$ 46,917,595</b>	<b>\$ 28,467,685</b>	<b>\$ 75,385,280</b>

**Average Salary by Age**

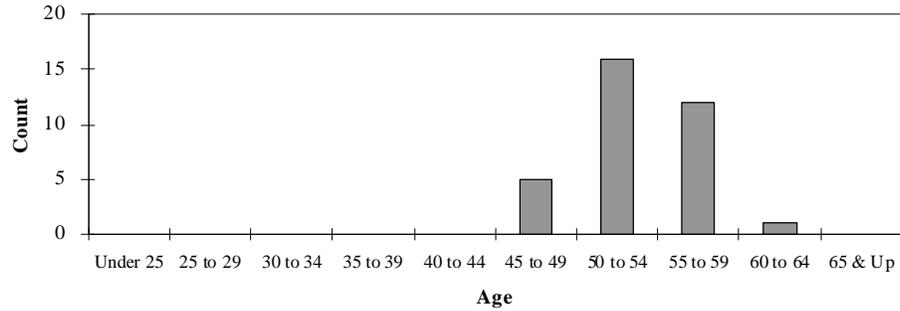


**APPENDIX A (continued)**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**DISTRIBUTION OF ACTIVE MEMBERS**  
**(Excluding DROP Members)**  
**as of December 31, 2008**

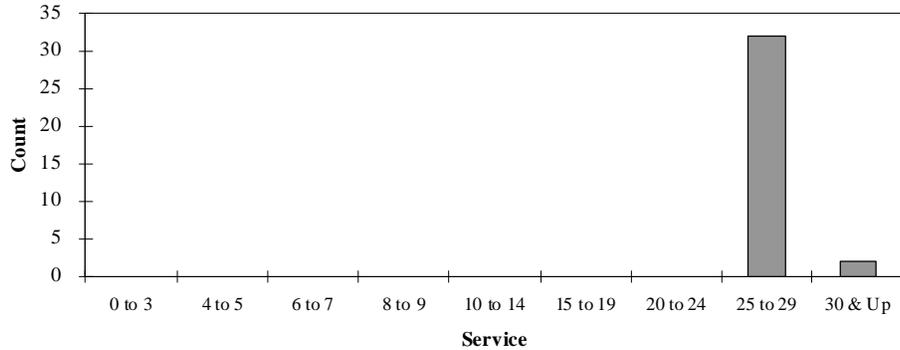
**Plan 1**

Age	Years of Service									Total
	0 to 3	4 to 5	6 to 7	8 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0	0
45 to 49	0	0	0	0	0	0	0	5	0	5
50 to 54	0	0	0	0	0	0	0	16	0	16
55 to 59	0	0	0	0	0	0	0	10	2	12
60 to 64	0	0	0	0	0	0	0	1	0	1
65 & Up	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>2</b>	<b>34</b>

**Age Distribution**



**Service Distribution**



Average age: 53.1

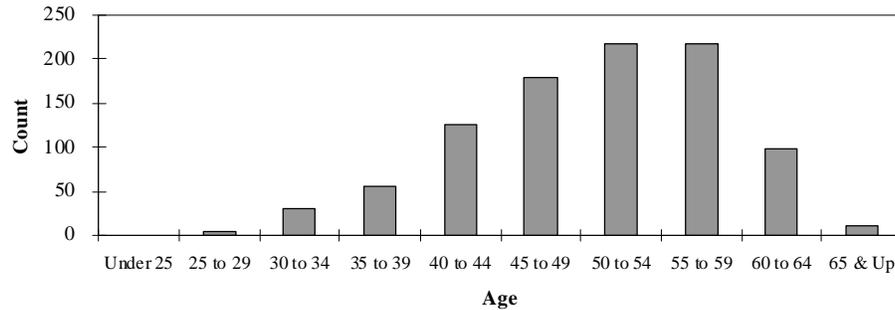
Average service: 28.7

**APPENDIX A (continued)**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**DISTRIBUTION OF ACTIVE MEMBERS**  
**(Excluding DROP Members)**  
**as of December 31, 2008**

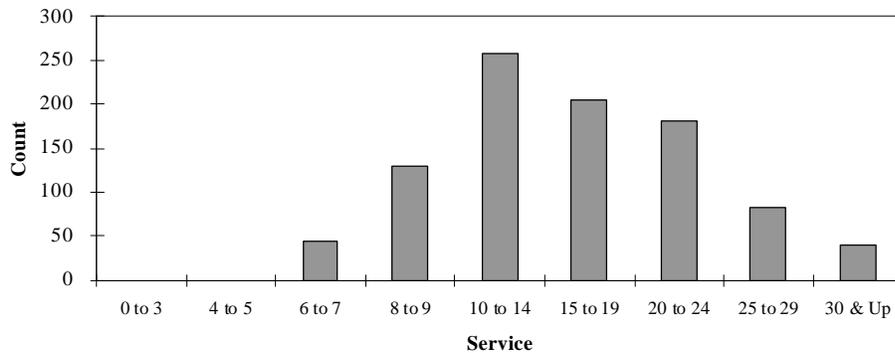
**Plan 2**

Age	Years of Service									Total
	0 to 3	4 to 5	6 to 7	8 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	2	2	1	0	0	0	0	5
30 to 34	0	0	6	16	9	0	0	0	0	31
35 to 39	0	0	4	18	26	7	1	0	0	56
40 to 44	0	0	3	19	41	49	14	0	0	126
45 to 49	0	0	7	21	42	47	46	17	0	180
50 to 54	0	0	10	20	56	43	49	28	11	217
55 to 59	0	0	6	24	50	39	50	29	19	217
60 to 64	0	0	5	9	31	15	20	9	9	98
65 & Up	0	0	2	1	3	4	1	0	0	11
<b>Total</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>130</b>	<b>259</b>	<b>204</b>	<b>181</b>	<b>83</b>	<b>39</b>	<b>941</b>

**Age Distribution**



**Service Distribution**



Average age: 50.5

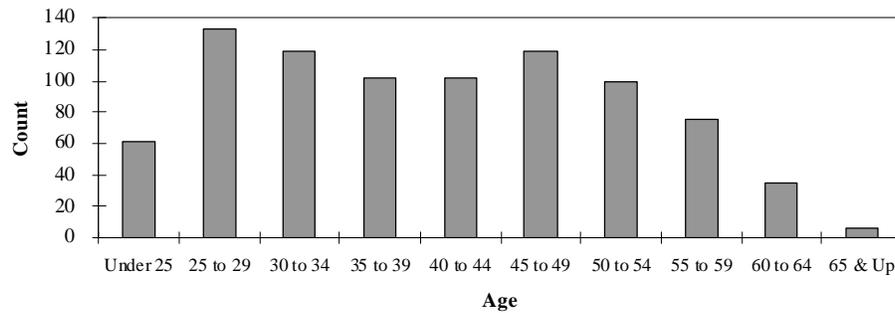
Average service: 16.7

**APPENDIX A (continued)**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**DISTRIBUTION OF ACTIVE MEMBERS**  
**as of December 31, 2008**

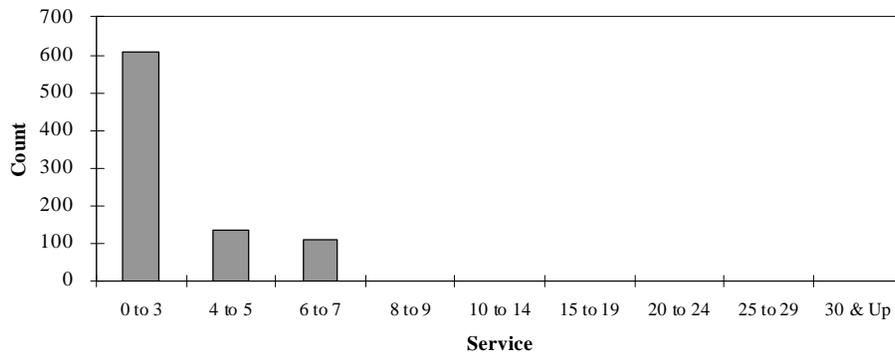
**Plan 3**

Age	Years of Service									Total
	0 to 3	4 to 5	6 to 7	8 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	58	2	1	0	0	0	0	0	0	61
25 to 29	108	15	10	0	0	0	0	0	0	133
30 to 34	96	13	10	0	0	0	0	0	0	119
35 to 39	67	20	15	0	0	0	0	0	0	102
40 to 44	67	17	18	0	0	0	0	0	0	102
45 to 49	71	23	24	0	0	0	0	0	0	118
50 to 54	59	24	17	0	0	0	0	0	0	100
55 to 59	53	12	11	0	0	0	0	0	0	76
60 to 64	26	6	3	0	0	0	0	0	0	35
65 & Up	2	1	3	0	0	0	0	0	0	6
<b>Total</b>	<b>607</b>	<b>133</b>	<b>112</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>852</b>

**Age Distribution**



**Service Distribution**



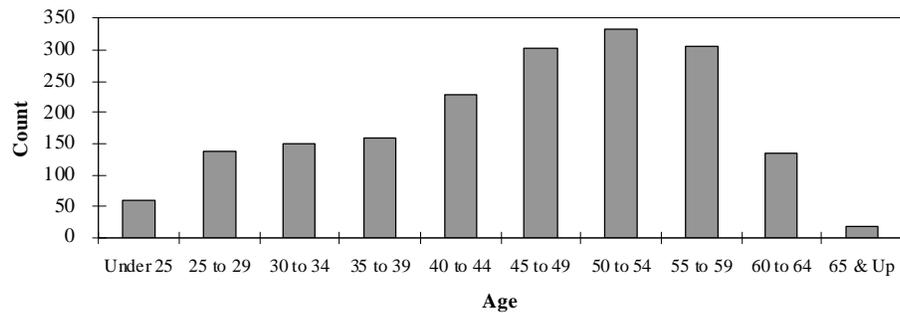
Average age: 40.5

Average service: 3.1

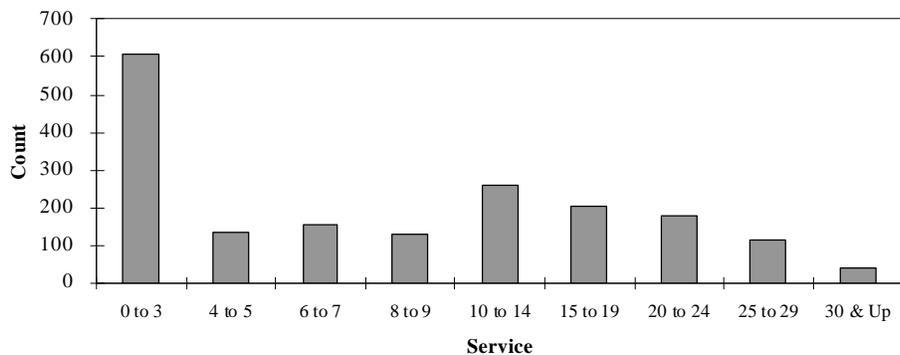
**APPENDIX A (continued)**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**DISTRIBUTION OF ACTIVE MEMBERS**  
**(Excluding DROP Members)**  
**as of December 31, 2008**  
**All Plans**

Age	Years of Service									Total
	0 to 3	4 to 5	6 to 7	8 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 & Up	
Under 25	58	2	1	0	0	0	0	0	0	61
25 to 29	108	15	12	2	1	0	0	0	0	138
30 to 34	96	13	16	16	9	0	0	0	0	150
35 to 39	67	20	19	18	26	7	1	0	0	158
40 to 44	67	17	21	19	41	49	14	0	0	228
45 to 49	71	23	31	21	42	47	46	22	0	303
50 to 54	59	24	27	20	56	43	49	44	11	333
55 to 59	53	12	17	24	50	39	50	39	21	305
60 to 64	26	6	8	9	31	15	20	10	9	134
65 & Up	2	1	5	1	3	4	1	0	0	17
<b>Total</b>	<b>607</b>	<b>133</b>	<b>157</b>	<b>130</b>	<b>259</b>	<b>204</b>	<b>181</b>	<b>115</b>	<b>41</b>	<b>1,827</b>

**Age Distribution**



**Service Distribution**



Average age: 46.2

Average service: 11.2

**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF DROP MEMBERS  
as of December 31, 2008**

**Plan 1**

Age	Service					Total
	Under 20	20 to 24	25 to 29	30 to 34	35 & Up	
Under 50	0	0	2	0	0	2
50-54	0	0	25	1	0	26
55-59	1	1	17	0	0	19
60-64	0	0	9	2	0	11
65 & Up	0	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>1</b>	<b>53</b>	<b>3</b>	<b>0</b>	<b>58</b>

Age	DROP Duration Elected (months)					Total
	1 to 12	13 to 24	25 to 36	37 to 48	48 to 60	
Under 50	1	0	0	0	1	2
50-54	0	0	0	1	25	26
55-59	1	1	0	0	17	19
60-64	0	0	1	2	8	11
65 & Up	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>51</b>	<b>58</b>

Age	Monthly Benefits	Current Balance
Under 50	\$ 5,128	\$ 53,989
50-54	85,280	2,250,167
55-59	66,868	2,259,708
60-64	40,942	1,573,040
65 & Up	0	0
<b>Total</b>	<b>\$ 198,219</b>	<b>\$ 6,136,903</b>

Covered Payroll: \$3,447,324

**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
DISTRIBUTION OF DROP MEMBERS  
as of December 31, 2008**

**Plan 2**

Age	Service							Total
	Under 10	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	
Under 50	0	0	0	0	0	0	0	0
50-55	0	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0	0
60-64	0	1	5	4	1	1	0	12
65 & Up	1	0	3	0	1	0	0	5
<b>Total</b>	<b>1</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>17</b>

Age	DROP Duration Elected (months)					Total
	1 to 12	13 to 24	25 to 36	37 to 48	48 to 60	
Under 50	0	0	0	0	0	0
50-55	0	0	0	0	0	0
55-59	0	0	0	0	0	0
60-64	1	2	5	1	3	12
65 & Up	0	2	1	0	2	5
<b>Total</b>	<b>1</b>	<b>4</b>	<b>6</b>	<b>1</b>	<b>5</b>	<b>17</b>

Age	Monthly Benefits	Current Balance
Under 50	\$ 0	\$ 0
50-54	0	0
55-59	0	0
60-64	24,107	495,734
65 & Up	6,565	209,227
<b>Total</b>	<b>\$ 30,672</b>	<b>\$ 704,961</b>

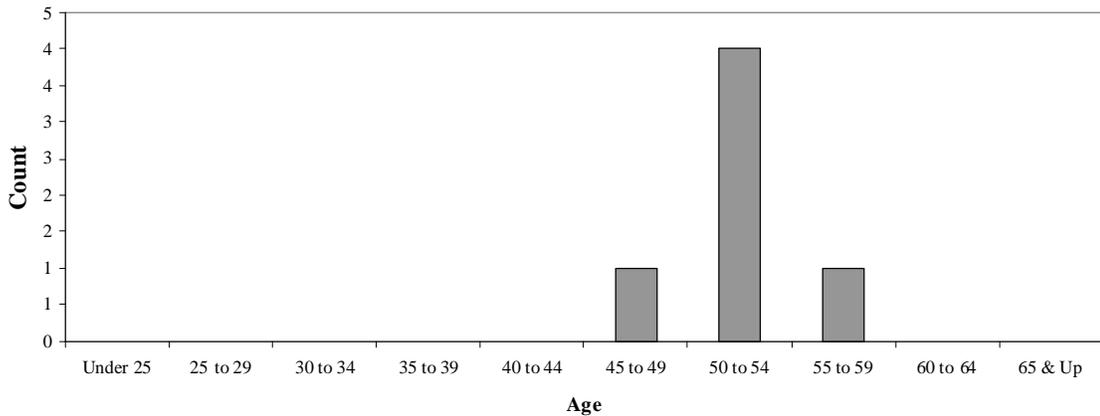
Covered Payroll: \$849,048

**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF DEFERRED VESTED MEMBERS  
as of December 31, 2008**

Age	Plan 1			Current Monthly Benefit at Retirement		
	Number		Total	Male	Female	Total
	Male	Female		Male	Female	Total
Under 25	0	0	0	\$ -	\$ -	\$ -
25 to 29	0	0	0	-	-	-
30 to 34	0	0	0	-	-	-
35 to 39	0	0	0	-	-	-
40 to 44	0	0	0	-	-	-
45 to 49	0	1	1	-	1,310	1,310
50 to 54	1	3	4	1,862	5,677	7,538
55 to 59	1	0	1	2,309	-	2,309
60 to 64	0	0	0	-	-	-
65 & Up	0	0	0	-	-	-
<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>\$ 4,171</b>	<b>\$ 6,986</b>	<b>\$ 11,157</b>

**Age Distribution**

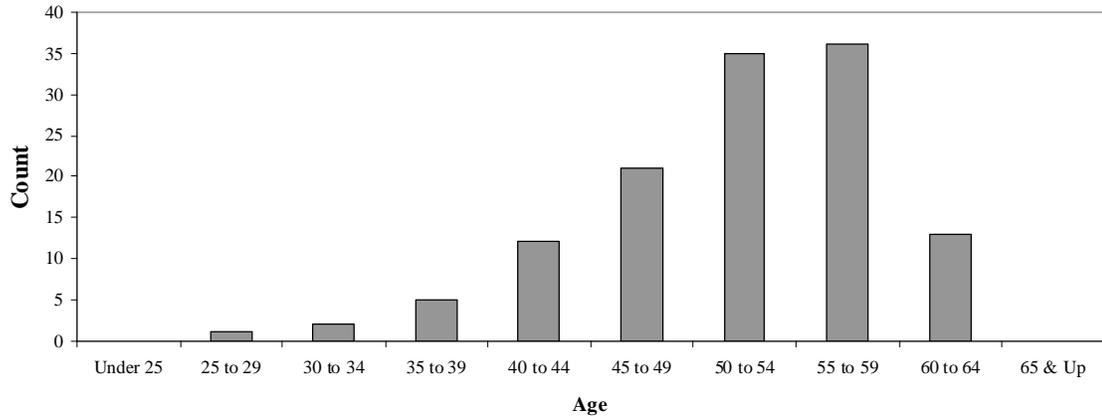


**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF DEFERRED VESTED MEMBERS  
as of December 31, 2008**

Age	Plan 2					
	Number			Current Monthly Benefit at Retirement		
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	\$ -	\$ -	\$ -
25 to 29	1	0	1	363	-	363
30 to 34	2	0	2	1,577	-	1,577
35 to 39	2	3	5	1,394	2,732	4,127
40 to 44	6	6	12	6,122	8,516	14,638
45 to 49	8	13	21	13,049	18,216	31,265
50 to 54	17	18	35	24,373	21,821	46,194
55 to 59	19	17	36	27,172	22,045	49,216
60 to 64	7	6	13	9,716	10,075	19,791
65 & Up	0	0	0	-	-	-
<b>Total</b>	<b>62</b>	<b>63</b>	<b>125</b>	<b>\$ 83,766</b>	<b>\$ 83,405</b>	<b>\$ 167,171</b>

**Age Distribution**

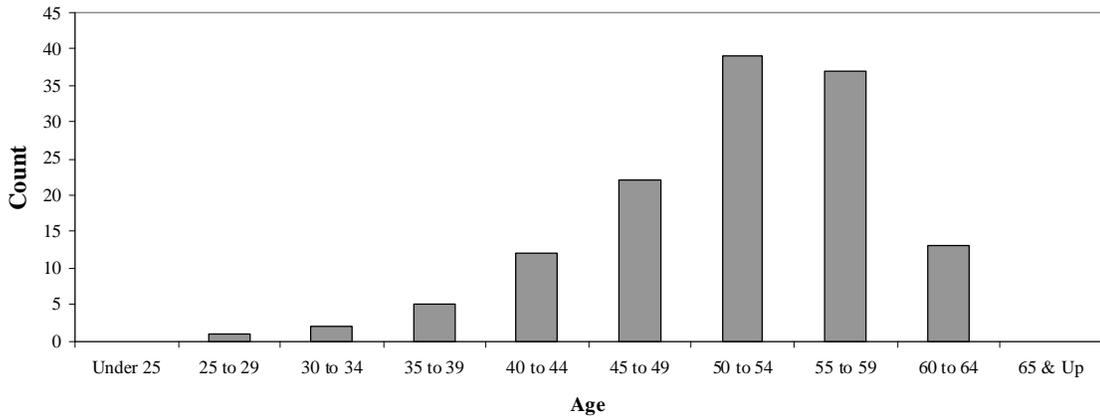


**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM  
SUMMARY OF DEFERRED VESTED MEMBERS  
as of December 31, 2008**

Age	All Plans					
	Number			Current Monthly Benefit at Retirement		
	Male	Female	Total	Male	Female	Total
Under 25	0	0	0	\$ -	\$ -	\$ -
25 to 29	1	0	1	363	-	363
30 to 34	2	0	2	1,577	-	1,577
35 to 39	2	3	5	1,394	2,732	4,127
40 to 44	6	6	12	6,122	8,516	14,638
45 to 49	8	14	22	13,049	19,526	32,575
50 to 54	18	21	39	26,235	27,497	53,732
55 to 59	20	17	37	29,481	22,045	51,525
60 to 64	7	6	13	9,716	10,075	19,791
65 & Up	0	0	0	-	-	-
<b>Total</b>	<b>64</b>	<b>67</b>	<b>131</b>	<b>\$ 87,937</b>	<b>\$ 90,391</b>	<b>\$ 178,328</b>

**Age Distribution**

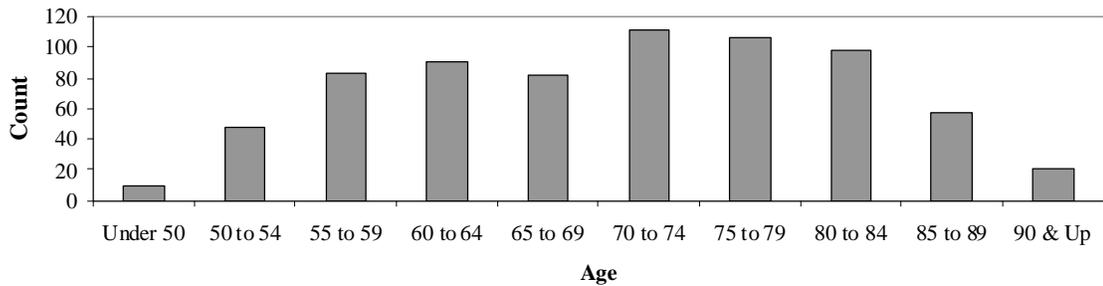


**APPENDIX A (continued)**  
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**  
**SUMMARY OF RETIRED MEMBERS\***  
**as of December 31, 2008**

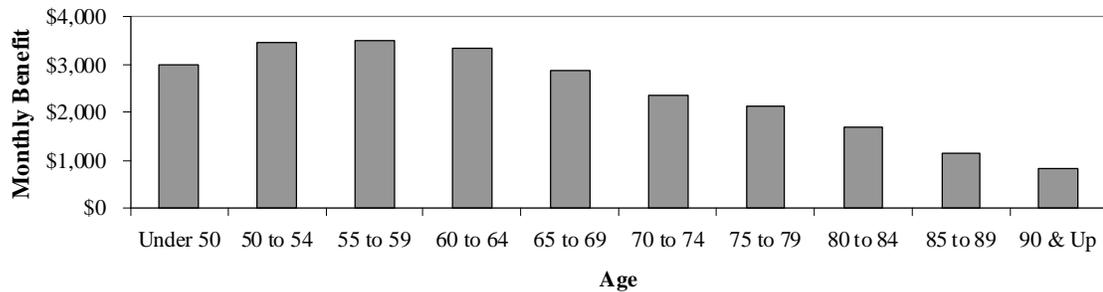
**Plan 1**

Age	Number			Monthly Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	5	4	9	\$ 16,346	\$ 10,380	\$ 26,727
50 to 54	31	17	48	111,737	53,877	165,614
55 to 59	60	23	83	226,193	62,398	288,591
60 to 64	65	26	91	232,071	72,211	304,282
65 to 69	54	28	82	171,166	62,944	234,109
70 to 74	72	39	111	187,992	73,794	261,786
75 to 79	64	43	107	153,835	72,396	226,231
80 to 84	56	42	98	122,988	43,098	166,086
85 to 89	21	36	57	30,096	35,711	65,807
90 & Up	6	15	21	4,940	11,882	16,822
<b>Total</b>	<b>434</b>	<b>273</b>	<b>707</b>	<b>\$ 1,257,363</b>	<b>\$ 498,692</b>	<b>\$ 1,756,055</b>

**Age Distribution**



**Average Benefit**



\* Includes DROP members.

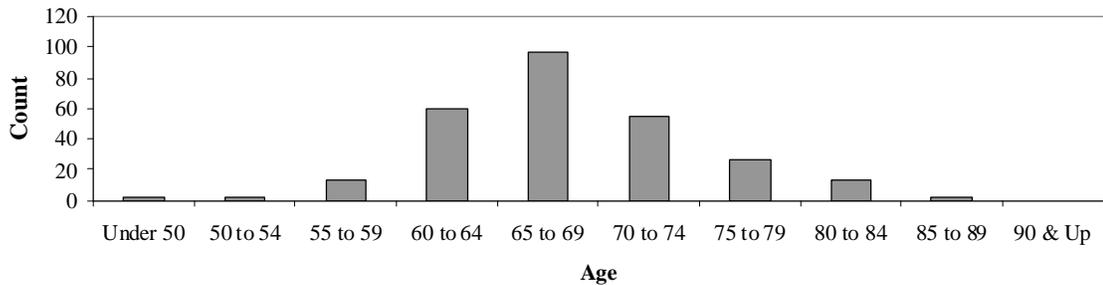
**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

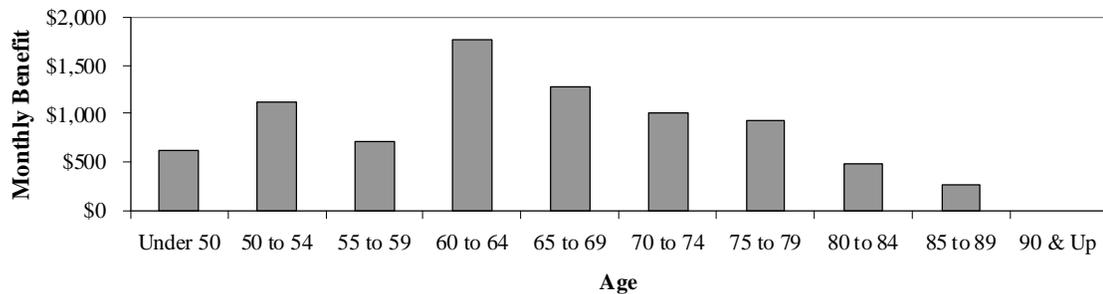
**SUMMARY OF RETIRED MEMBERS\*  
as of December 31, 2008**

Age	Plan 2			Monthly Benefit		
	Number		Total	Male	Female	Total
	Male	Female				
Under 50	1	1	2	\$ 494	\$ 757	\$ 1,251
50 to 54	1	1	2	810	1,435	2,245
55 to 59	9	4	13	7,328	2,118	9,447
60 to 64	31	29	60	58,837	47,227	106,064
65 to 69	51	46	97	68,659	55,792	124,451
70 to 74	26	29	55	26,479	28,477	54,955
75 to 79	18	9	27	16,212	9,119	25,331
80 to 84	3	10	13	1,614	4,747	6,361
85 to 89	0	2	2	-	535	535
90 & Up	0	0	0	-	-	-
<b>Total</b>	<b>140</b>	<b>131</b>	<b>271</b>	<b>\$ 180,434</b>	<b>\$ 150,206</b>	<b>\$ 330,640</b>

**Age Distribution**



**Average Benefit**



\* Includes DROP members.

**APPENDIX A (continued)**

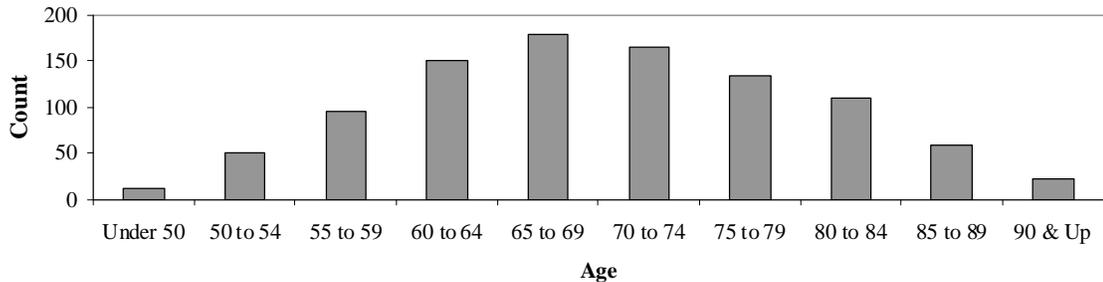
**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

**SUMMARY OF RETIRED MEMBERS\***

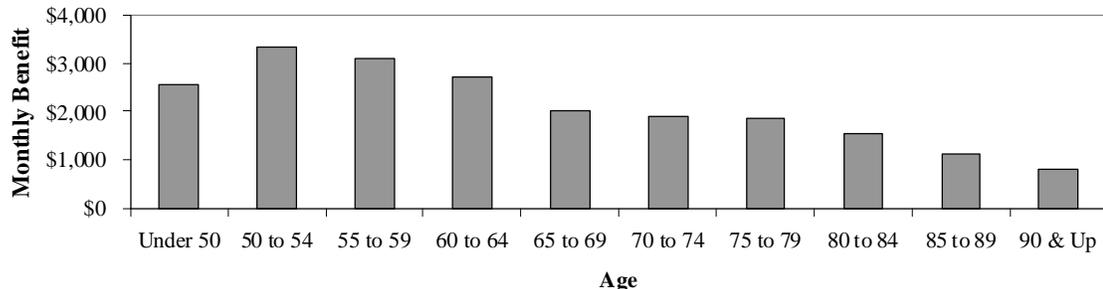
**as of December 31, 2008**

Age	All Plans					
	Number			Monthly Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	6	5	11	\$ 16,840	\$ 11,137	\$ 27,978
50 to 54	32	18	50	112,547	55,312	167,859
55 to 59	69	27	96	233,521	64,517	298,038
60 to 64	96	55	151	290,908	119,438	410,346
65 to 69	105	74	179	239,825	118,736	358,561
70 to 74	98	68	166	214,471	102,270	316,741
75 to 79	82	52	134	170,048	81,515	251,562
80 to 84	59	52	111	124,602	47,845	172,447
85 to 89	21	38	59	30,096	36,246	66,342
90 & Up	6	15	21	4,940	11,882	16,822
<b>Total</b>	<b>574</b>	<b>404</b>	<b>978</b>	<b>\$ 1,437,797</b>	<b>\$ 648,899</b>	<b>\$ 2,086,695</b>

**Age Distribution**



**Average Benefit**



\* Includes DROP members.

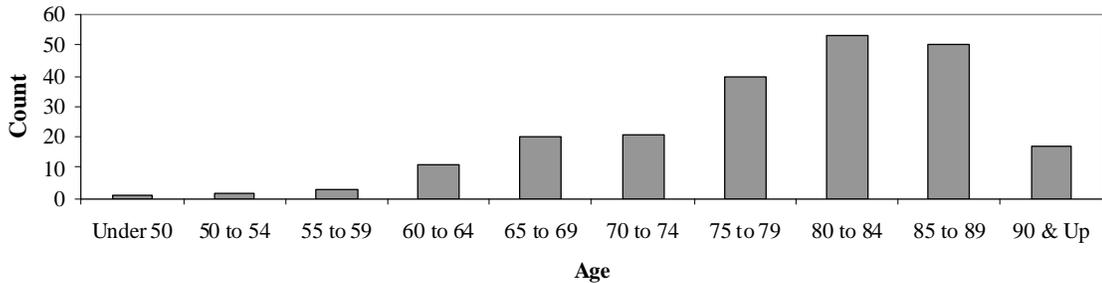
**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

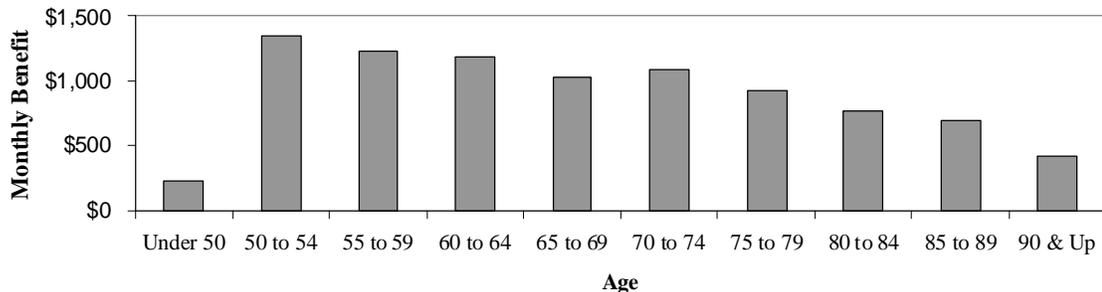
**SUMMARY OF BENEFICIARIES  
as of December 31, 2008**

Age	Plan 1			Monthly Benefit		
	Number		Total	Male	Female	Total
	Male	Female		Male	Female	Total
Under 50	0	1	1	\$ -	\$ 233	\$ 233
50 to 54	0	2	2	-	2,690	2,690
55 to 59	0	3	3	-	3,683	3,683
60 to 64	1	10	11	704	12,324	13,028
65 to 69	2	18	20	1,148	19,400	20,548
70 to 74	4	17	21	2,651	20,236	22,887
75 to 79	7	33	40	4,814	31,982	36,796
80 to 84	8	45	53	3,755	37,258	41,013
85 to 89	4	46	50	1,510	33,606	35,116
90 & Up	0	17	17	-	7,187	7,187
<b>Total</b>	<b>26</b>	<b>192</b>	<b>218</b>	<b>\$ 14,583</b>	<b>\$ 168,598</b>	<b>\$ 183,181</b>

**Age Distribution**



**Average Benefit**



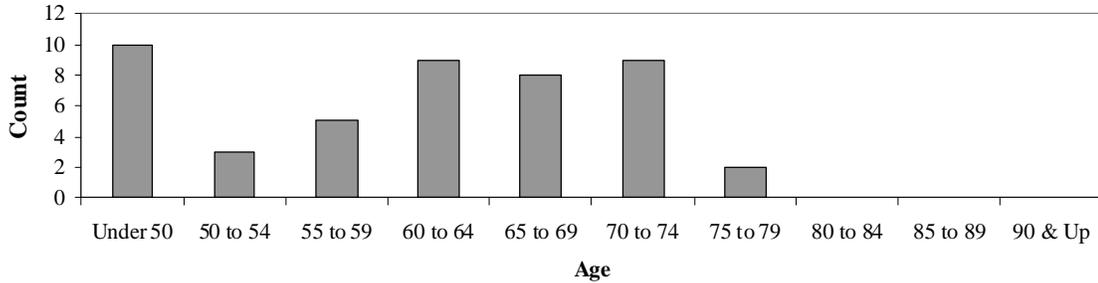
**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

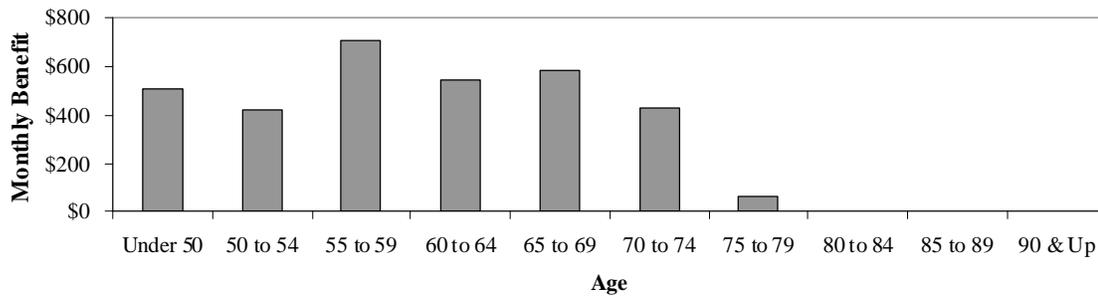
**SUMMARY OF BENEFICIARIES  
as of December 31, 2008**

Age	Plan 2					
	Number			Monthly Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	3	7	10	\$ 1,726	\$ 3,378	\$ 5,104
50 to 54	1	2	3	884	380	1,264
55 to 59	0	5	5	-	3,553	3,553
60 to 64	1	8	9	583	4,342	4,925
65 to 69	1	7	8	151	4,507	4,658
70 to 74	0	9	9	-	3,854	3,854
75 to 79	0	2	2	-	126	126
80 to 84	0	0	0	-	-	-
85 to 89	0	0	0	-	-	-
90 & Up	0	0	0	-	-	-
<b>Total</b>	<b>6</b>	<b>40</b>	<b>46</b>	<b>\$ 3,343</b>	<b>\$ 20,139</b>	<b>\$ 23,483</b>

**Age Distribution**



**Average Benefit**



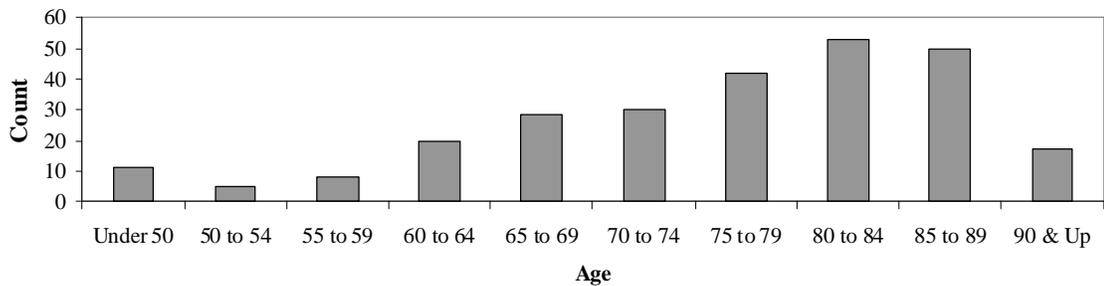
**APPENDIX A (continued)**

**WICHITA EMPLOYEES' RETIREMENT SYSTEM**

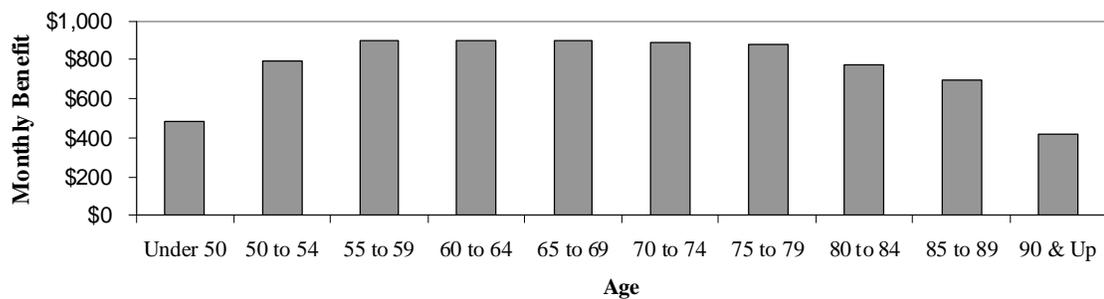
**SUMMARY OF BENEFICIARIES  
as of December 31, 2008**

Age	All Plans					
	Number			Monthly Benefit		
	Male	Female	Total	Male	Female	Total
Under 50	3	8	11	\$ 1,726	\$ 3,611	\$ 5,337
50 to 54	1	4	5	884	3,070	3,954
55 to 59	0	8	8	-	7,235	7,235
60 to 64	2	18	20	1,287	16,666	17,952
65 to 69	3	25	28	1,300	23,907	25,206
70 to 74	4	26	30	2,651	24,090	26,741
75 to 79	7	35	42	4,814	32,108	36,923
80 to 84	8	45	53	3,755	37,258	41,013
85 to 89	4	46	50	1,510	33,606	35,116
90 & Up	0	17	17	-	7,187	7,187
<b>Total</b>	<b>32</b>	<b>232</b>	<b>264</b>	<b>\$ 17,926</b>	<b>\$ 188,738</b>	<b>\$ 206,664</b>

**Age Distribution**



**Average Benefit**



## APPENDIX B

### SUMMARY OF BENEFIT PROVISIONS

#### DEFINED BENEFIT PLANS 1 AND 2

**Plan 1** is applicable to members employed prior to July 18, 1981 who have not elected to be covered by Plan 2.

**Plan 2** is applicable to members employed or re-employed on or after July 18, 1981 and before January 1, 1994 and to other employees who have elected Plan 2 coverage.

#### Normal Retirement (no reduction factor)

**Eligibility** – Plan 1: Age 60 with 7 or more years of service, or any age with 30 or more years of service.  
Plan 2: Age 62 with 7 or more years of service (effective August 1, 1990).

**Annual Amount** – Plan 1: Service times 2.5% of Final Average Salary to a maximum of 75% of Final Average Salary.  
Plan 2: Service times 2.25% of Final Average Salary, to a maximum of 75% of Final Average Salary (effective January 1, 2000).

**Final Average Salary – all plans:** Average for the 3 consecutive years of service which produce the highest average and which are within the last 10 years of service.

#### Early Retirement (with reduction factor)

**Eligibility** – Plan 1: Age 55 with 7 or more years of service.  
Plan 2: Age 55 with 7 or more years of service.

**Annual Amount** – An amount computed as for normal retirement but reduced for each month retirement precedes age 60 under Plan 1 and age 62 under Plan 2. The amount of reduction per month of early retirement is:

---

#### Plan 1

A service graduated percentage for each month retirement precedes age 60. The percentage is .05 of 1% if service is 29 years but less than 30 years, increasing by .05 of 1% for each additional year service is less than 30 years, to a maximum of .50 of 1% if service is less than 20 years.

---

#### Plan 2

An age graduated percentage for each month retirement precedes age 62. The percentage is 0.6% for each month that the member's age precedes age 62, up to maximum of 50.4% at age 55.

## APPENDIX B (continued)

### **Deferred Retirement (Vested Termination)**

**Eligibility** – 7 or more years of service. A terminated employee may apply for a reduced pension upon meeting the applicable age requirement for early retirement or an unreduced pension upon meeting the applicable age requirement for normal retirement. A terminated employee may elect a refund of employee contributions, plus applicable interest, in lieu of a deferred retirement benefit.

**Annual Amount** – An amount computed as for normal retirement. Vested deferred pensions are adjusted during the deferral period based on changes in National Average Earnings, up to 5.5% annual adjustments.

### **Deferred Retirement Option Plan (DROP)**

**Eligibility** – Member must be eligible to retire under early reduced or normal age and/or service requirements and elect to participate in DROP for up to 5 years.

**Amount** – Benefit computed based on years of service, final average salary as of the DROP election date, and length of DROP period. Benefit is paid into member's notational DROP account during the deferral period. Member continues to make required employee contributions during the deferral period. Interest at an annual rate of 5%, compounded monthly, is credited to the notational DROP account. Voluntary termination of employment during the DROP period results in loss of accrued interest. Balance of DROP account is payable within 90 days of actual termination of employment.

### **Service-Connected Disability**

**Eligibility** – No age or service requirement. Requires total and permanent disability, as defined in State worker's compensation act, for employment by the City in a position commensurate with the employee's training, experience and education.

**Annual Amount** – Plan 1: 60% of final rate of salary.  
Plan 2: 50% of final rate of salary.

### **Non Service-Connected Disability**

**Eligibility** – 7 or more years of service. Requires total and permanent disability for employment by the City in a position commensurate with the employee's training, experience and education.

**Annual Amount** – Plan 1: 30% of Final Average Salary plus 1% of Final Average Salary for each year of service in excess of 7 years. Maximum is 50% of Final Average Salary.  
Plan 2: 25% of final rate of salary.

## APPENDIX B (continued)

### **Post-Retirement Survivor Benefits**

**Eligibility: *Surviving Spouse*** - must have been married to retired employee for one year or more, at time of death if retired after January 1, 2000. If retired prior to January 1, 2000, must have been married to retired employee at retirement.

**Minor Children** – under age 18.

**Annual Amount: *Surviving Spouse*** - 50% of amount that was being paid to retiree.

**Minor Child with *Surviving Spouse*** - 10% of the member's Final Average Salary for each child under age 18. Maximum, including surviving spouse benefit, is 75% of Final Average Salary.

**Minor Child without *Surviving Spouse*** - 20% of the member's Final Average Salary for each child under age 18. Maximum benefit is 60% of Final Average Salary.

### **Post-Retirement Funeral Benefit**

**Eligibility: *Designated Beneficiary*** – must have been designated by the retired employee.

**Amount** - Plan 1: \$1,500 funeral benefit.  
Plan 2: No funeral benefit provided.

### **Pre-Retirement Survivor Benefits**

**Eligibility: *Surviving Spouse*** – Plan 1: Death of employee with 7 or more years of credited service.  
Plan 2: Death of employee with 7 or more years of credited service.

**Annual Amount** - 50% of amount that the deceased employee would have been entitled to had he/she been on an unreduced retirement at time of death.

**Eligibility: *Designated Beneficiary*** – The beneficiary designated by an unmarried member or by a member who fails to meet the 7 year service requirement for the surviving spouse benefit.

**Amount** – The deceased employee's contributions, plus applicable interest, plus one month's salary for each full year of service up to a maximum of 6 years.

### **Other Termination Benefits**

**Eligibility** – Termination of employment without eligibility for any other benefit.

**Amount** – Accumulated employee contributions with interest are refunded.

## APPENDIX B (continued)

### **Post-Retirement Adjustment of Benefits**

**Eligibility** – Plan 1: Completion of 12 months of retirement and annually thereafter.  
Plan 2: If retired on or after January 1, 2000: Completion of 12 months of retirement.  
If retired before January 1, 2000: Benefit not provided (effective 2/18/2000).

**Annual Amount** – Plan 1: 3.0% of the base amount of benefit (increases are not compounded).  
Plan 2: 2.0% of the base amount of benefit (increases are not compounded).

### **Employee Contributions**

Plan 1: 6.4% of total compensation.  
Plan 2: 4.7% of base salary and longevity pay (effective February 19, 2000).

### **City Contributions**

Actuarially determined amount which together with employee contributions and investment earnings will fund the obligations of the Plan in accordance with accepted actuarial principles.

### **Unused Sick Leave**

Each bi-weekly service credit of accumulated unused sick leave is converted to a service credit for the purpose of computing annual benefit amounts.

## **APPENDIX B (continued)**

### **SUMMARY OF BENEFIT PROVISIONS DEFINED CONTRIBUTION PLAN 3**

**Plan 3** is applicable to members employed after January 1, 1994 who have not become covered by Plan 2. Plan 3 members are automatically transferred to Plan 2 at the time they acquire 7 years of service unless they file an irrevocable election to remain in Plan 3.

#### **Employee Contributions**

4.7% of compensation (effective 2/19/2000).

#### **City Contributions**

4.7% of compensation, less forfeitures from non-vested terminations (effective 2/19/2000).

#### **Vesting of Contributions**

Member contributions and investment earnings thereon are 100% vested.

City contributions and investment earnings thereon are 25% vested after 3 years of service, 50% vested after 5 years of service, and 100% vested after 7 years of service.

#### **Distribution of Vested Accounts**

Vested accounts are payable upon termination of City employment or death. Available forms of payment are prescribed by the Board.

#### **Disability Retirement**

Service and non-service connected disability benefits are the same as those of Plan 2.

Plan 3 members may alternatively elect to receive a refund of their Plan 3 account balance.

## APPENDIX C

### 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 liability. Deducting actuarial assets from the actuarial liability determines the unfunded actuarial liability or (surplus). The unfunded actuarial liability/(surplus) is financed as a level percent of member payroll over an open 20 year period.

#### Actuarial Assumptions

Retirement System contribution requirements and actuarial present values are calculated by applying experience assumptions to the benefit provisions and people information of the Retirement System, using the actuarial cost method.

The principal areas of risk which require experience assumptions about future activities of the Retirement System are:

- (i) long-term rates of investment return to be generated by the assets of the System
- (ii) patterns of pay increases to members
- (iii) rates of mortality among members, retirants and beneficiaries
- (iv) rates of withdrawal of active members
- (v) rates of disability among active members
- (vi) the age patterns of actual retirements.

## APPENDIX C (continued)

In making a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives - - a period of time which can be as long as a century.

Actual experience of the Retirement System will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experiences. The result is a continual series of adjustments (usually small) to the computed contribution rate.

From time-to-time one or more of the assumptions are modified to reflect experience trends (but not random or temporary year-to-year fluctuations). A complete review of the actuarial assumptions was completed in 2004. The use of updated assumptions was effective with the December 31, 2004 valuation.

**Investment Return Rate** (net of administrative expenses). This assumption is 7.75% a year, compounded annually and consists of 4.00% long term price inflation and a 3.75% real rate of return over price inflation. This assumption, used to equate the value of payments due at different points in time, was adopted by the Board and was first used for the December 31, 1981 valuation, although the allocation between inflation and real return has changed periodically, most recently in 2004.

**Salary Increase Rates.** These rates are used to project current pay amounts to those upon which a benefit will be based and were first used for the December 31, 2004 valuation.

Years Of Service	Annual Rate of Salary Increase for Sample Ages			
	Inflation Component	Productivity Component	Merit and Longevity	Total
1	4.00%	0.50%	5.50%	10.00%
2	4.00	0.50	4.50	9.00
3	4.00	0.50	3.50	8.00
4	4.00	0.50	3.50	8.00
5	4.00	0.50	3.00	7.50
6	4.00	0.50	2.64	7.14
7	4.00	0.50	2.28	6.78
8	4.00	0.50	1.92	6.42
9	4.00	0.50	1.56	6.06
10	4.00	0.50	1.20	5.70
11	4.00	0.50	1.10	5.60
12	4.00	0.50	1.00	5.50
13	4.00	0.50	0.90	5.40
14	4.00	0.50	0.80	5.30
15	4.00	0.50	0.70	5.20
16	4.00	0.50	0.56	5.06
17	4.00	0.50	0.42	4.92
18	4.00	0.50	0.28	4.78
19	4.00	0.50	0.14	4.64
20+	4.00	0.50	0.00	4.50

## APPENDIX C (continued)

The salary increase assumptions will produce 4.50% annual increases in active member payroll (the inflation and productivity base rate) given a constant active member group size. This is the same payroll growth assumption used to amortize unfunded actuarial liability. The real rate of return over assumed wage growth is 3.25% per year.

Changes actually experienced in average pay and total payroll have been as follows:

	Year Ended					5 Year (Average) Compounded Annual Increase
	12-31-08	12-31-07	12-31-06	12-31-05	12-31-04	
Average pay	2.2%	3.0%	5.2%	1.0%	4.1%	3.1%
Total payroll	3.1%	3.7%	6.3%	2.4%	4.3%	4.0%

**Mortality Table.** This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each pension payment being made after retirement.

Healthy Retirees and Beneficiaries: RP-2000 Healthy Annuitant Tables  
(ages set forward 2 years for males, 0 for females)

Disabled Retirees: RP-2000 Disabled Table

Active Members: RP-2000 Employee Table (ages set forward 2 years for males, 0 for females)

The RP-2000 Tables are used with generational mortality.

Sample Ages <sup>(1)</sup>	Present Value of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	\$136.27	\$141.98	30.4	34.6
55	128.67	135.41	25.7	29.7
60	118.41	127.04	21.2	25.1
65	150.86	116.91	16.9	20.7
70	91.20	104.80	13.0	16.7
75	75.12	90.90	9.7	13.0
80	58.98	75.76	6.9	9.8
85	44.42	60.20	4.8	7.1

(1) Ages in 2000

This table was first used for the December 31, 2004 actuarial valuation.

## APPENDIX C (continued)

**Rates of Retirement and Deferred Retirement Option Plan (DROP) Elections.** These rates are used to measure the probability of eligible members retiring under either the regular retirement provisions or from the Deferred Retirement Option Plan.

<u>Percent Retiring During Year</u>		
<u>Retirement</u>		
<u>Age</u>	<u>Plan 1</u>	<u>Plan 2</u>
< 55	0%	0%
55	20	5
56	15	5
57	15	5
58	15	5
59	15	5
60	15	5
61	15	5
62	50	40
63	40	40
64	20	25
65	100	50
66	N/A	15
67	N/A	15
68	N/A	15
69	N/A	15
70	N/A	100

In addition, the following assumptions would apply to members in this category:

- Plan 1:** 70% of members with 30 or more years of service will elect the DROP with an average DROP period of 48 months. The remaining 30% are assumed to retire immediately.
- Plan 2:** 70% of members with 33.33 or more years of service and are at least age 62 will elect the DROP with an average DROP period of 36 months.

All members of the retirement system were assumed to retire on or before age 70.

This assumption was first used in the December 31, 2006 actuarial valuation.

## APPENDIX C (continued)

**Rates of Separation from Active Membership.** This assumption measures the probabilities of a member terminating employment. The rates do not apply to members who are eligible to retire.

Sample Ages	Years of Service	Probability of Terminating During Year
Any	0	25.00%
	1	19.00
	2	14.00
	3	11.00
	4	9.00
25	Over 4	7.50
30		6.50
35		5.25
40		4.00
45		3.50
50		2.50
55		1.50
60	1.50	

This assumption was first used for the December 31, 2004 valuation.

**Administrative Expenses.** Assumed to be paid from investment earnings.

**Forfeiture of Vested Benefits.** The assumption is that a percentage of the actuarial present value of vested termination benefits will be forfeited by a withdrawal of accumulated contributions.

Years of Service	Percent Forfeiting
Under 15	60%
15 – 19	40%
20 – 24	20%
25 or more	0%

This table was first used for the December 31, 2004 actuarial valuation.

## APPENDIX C (continued)

**Rates of Disability.** This assumption measures the probabilities of a member becoming disabled.

Sample Ages	% of Active Members Becoming Disabled During Next Year
25	0.03%
30	0.04
35	0.05
40	0.09
45	0.14
50	0.24
55	0.43
60	0.71

The current rates were first used for the December 31, 1999 valuation.

Disabilities are assumed to be non-duty related.

**Active Member Group Size.** The number of active members was assumed to remain constant.

**Vested Deferred Pensions.** Amounts are assumed to increase during the deferral period at 4.5% per year. This assumption was changed with the December 31, 2004 valuation.

### Miscellaneous and Technical Assumptions

**Marriage Assumption:** 70% of participants are assumed to be married for purposes of death benefits. In each case, the male was assumed to be 3 years older than the female.

**Pay Increase Timing:** Assumed to occur mid-year.

**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:** Disability and turnover decrements do not operate during retirement eligibility.

## APPENDIX C (continued)

***Miscellaneous Loading Factors:*** The calculated normal retirement benefits were increased by 4% to account for the inclusion of unused sick leave in the calculation of Service Credit. This assumption was changed with the December 31, 2004 valuation.

***Plan 3 Transfer Assumption:*** For purposes of the valuation, Plan 3 members are assumed to transfer to Plan 2 if they acquire 7 years of service. An additional reserve is held for the difference between the market and actuarial value of assets. This assumption was changed with the December 31, 2004 valuation.

## APPENDIX D

### GLOSSARY OF TERMS

<b>Actuarial Liability</b>	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 accrued liability”.
<b>Actuarial Assumptions</b>	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.
<b>Accrued Service</b>	Service credited under the system which was rendered before the date of the actuarial valuation.
<b>Actuarial Equivalent</b>	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.
<b>Actuarial Cost Method</b>	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.”
<b>Experience Gain (Loss)</b>	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
<b>Actuarial Present Value</b>	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.
<b>Amortization</b>	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
<b>Normal Cost</b>	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

## APPENDIX D (continued)

### **Unfunded Actuarial Liability**

The difference between actuarial liability and the valuation assets.

Most retirement systems have unfunded actuarial liability. They arise each time new benefits are added and each time an actuarial loss is realized.

The existence of unfunded actuarial liability is not in itself bad, any more than a mortgage on a house is bad. Unfunded actuarial liability does not represent a debt that is payable today. What is important is the ability to amortize the unfunded actuarial liability and the trend in its amount.