Wichita Employees' Retirement System

Actuarial Valuation Report as of December 31, 2007



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1120 S. 101st Street, Suite 400 Omaha, NE, 68124 USA

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

milliman.com

April 10, 2008

The Board of Trustees Wichita Employees' Retirement System City Hall, 12th 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, 2007 for determining contributions for calendar year 2009. The major findings of the valuation are contained in this report. This report reflects the benefit provisions in effect as of December 31, 2007. There was no change in plan provisions or actuarial methods from the prior valuation.

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 under the Plan. 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.



Actuarial computations presented in this report are for purposes of determining the actuarial contribution rates for funding the System. Actuarial computations 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 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 Wichita Employees' Retirement System data, which Milliman has not audited. It is not for the use or benefit of any third party 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.

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

Respectfully Submitted,

MILLIMAN, Inc.

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 an Associate of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Patrice Beckham

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

Bant a. Parte

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

SECTION 1

BOARD SUMMARY

OVERVIEW

This report presents the results of the December 31, 2007 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. 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, 2007. The surplus of the actuarial value of assets over actuarial liability increased by \$3.8 million, due to experience during the year. A detailed analysis of the change in the unfunded actuarial liability from December 31, 2006 to December 31, 2007 is shown on page 3.

ASSETS

As of December 31, 2007, the System had total funds, when measured on a market value basis, of \$559.8 million, excluding Plan 3 assets for those members who have elected to stay in Plan 3. There was an increase in assets of \$36.2 million from the December 31, 2006 figure of \$523.6 million. The components of the change in the market value of assets for the Retirement System (in millions) are set forth below:

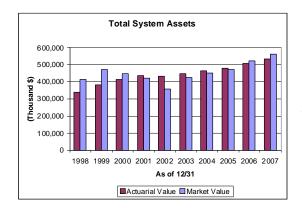
	Market Value (\$M)
Assets, December 31, 2006	\$523.6
City and Member Contributions	7.6
• Benefit Payments, Refunds and Transfers	(26.5)
• Investment Income (net of expenses)	55.1
Assets, December 31, 2007	\$559.8



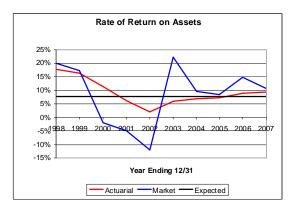
The market value of assets is not used directly in the calculation of the City's contribution rate. An asset valuation method is used to smooth the effect of market fluctuations. The actuarial value of assets is equal to the Expected Value (calculated using the actuarial assumed rate of 7.75%) plus 25% of the difference between the market and expected value. See Table 3 on page 11 for a detailed development of the actuarial value of assets. The change in the actuarial value of assets from December 31, 2006 to December 31, 2007 is shown below:

	Actuarial Value (\$M)
Assets, December 31, 2006	\$505.8
• City and Member Contributions	7.6
• Benefit Payments, Refunds and Transfers	(26.5)
• Investment Income (net of expenses)	47.0
Assets, December 31, 2007	\$533.9

The annualized dollar-weighted rate of return, measured on the actuarial value of assets, was 9.5% and, measured on the market value of assets, was approximately 10.7%. The actuarial value of assets as of December 31, 2007 was \$533.9 million, which represents an actuarial gain of about \$8.6 million.



The actuarial value of assets exceeded the market value from 2001 through 2005. However, due to strong investment returns during the past few years, the market value again exceeds the actuarial value.



In general, the rate of return on the actuarial value of assets has exceeded the assumed rate of 7.75%, resulting in experience gains for the Retirement System.



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Due to the asset smoothing method, there is about \$26 million of deferred investment gain that has not been recognized. Absent investment returns below the 7.75% assumed rate of return in the next few years to offset this unrecognized investment gain, it will gradually be reflected in the actuarial value of assets. As the deferred gain flows through the asset smoothing method, the valuation will reflect an actuarial gain on assets. This will increase the "surplus" assets, absent unfavorable liability experience to offset it.

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	\$483,387,028
Actuarial Value of Assets	533,911,465
Unfunded Actuarial Liability/(Surplus)	(50,524,437)

Between December 31, 2006 and December 31, 2007 the change in the unfunded actuarial liability for the System was as follows (in millions):

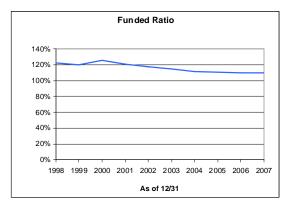
	\$(M)
UAL, December 31, 2006	(46.7)
+ Normal cost for year	9.4
+ Assumed investment return for year	(2.9)
- Actual contributions (member + City)	7.6
- Assumed investment return on contributions	0.3
= Expected Unfunded Actuarial Liability, December 31, 2007	(48.1)
+ Change from amendments	0.0
+ Change from assumption changes	0.0
= Expected UAL after changes	(48.1)
Actual UAL, December 31, 2007	(50.5)
Experience gain/(loss) (Expected UAL – Actual UAL)	2.4



The experience gain for the 2007 plan year of \$2.4 million reflects the combined impact of an actuarial gain of about \$8.6 million on System assets (actuarial value), and an actuarial loss of about \$6.2 million on System liabilities. The loss is primarily attributable to more retirements than expected for Plan 1 members 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.

	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07
Actuarial Liability (\$M)	\$387.0	\$413.2	\$433.3	\$459.1	\$483.4
Actuarial Value of Assets (\$M)	446.8	463.0	479.3	505.8	533.9
Funded Ratio (Assets/Liability)	115.4%	112.1%	110.6%	110.2%	110.5%



As a result of investment experience and actual contributions to the System that are less than the normal cost rate, the funded ratio has declined over this period. However, the System continues to maintain a funded ratio above 100%.

As mentioned earlier in this report, due to the asset smoothing method there is currently about \$26 million difference between the market value and the actuarial value of assets. This deferred investment gain will help improve the System's funding or help offset unfavorable investment experience in future years. Surplus is also impacted by actuarial experience (actual versus expected) and contributions that are less than the normal cost. The System's funded status and the size of the surplus will be heavily dependent on investment returns in future years.

CONTRIBUTION RATES

Generally, contributions to the System consist of:

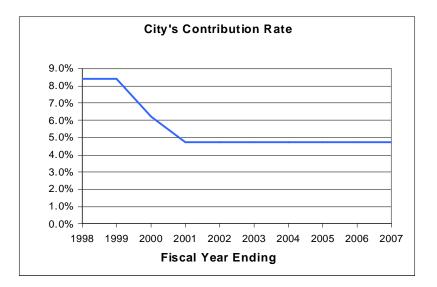
- a "normal cost" for the portion of projected liabilities allocated to service of members during the year following the valuation date, by the actuarial cost method, and
- an "unfunded actuarial liability or (surplus) contribution" for the excess of the portion of projected liabilities allocated to 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 2009 is based on the December 31, 2007 actuarial valuation results.



As of December 31, 2007, the actuarial value of assets exceeds the actuarial liability and a portion of the surplus is used to reduce the required employer contribution. Amortization of the surplus of actuarial assets over the actuarial liability over a 20 year rolling period results in a temporary amortization credit. A range of contributions is developed based on (1) contributing the full normal cost rate or (2) applying the amortization credit (which reduces the amount of surplus). This valuation indicates the range of City contributions to be 4.2% to 8.4%.

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



COMMENTS

The System experienced a return on the market value of assets of nearly 11% for calendar year 2007, well above the assumed rate of 7.75%. As a result, the market value of assets is now about 5% higher than the actuarial value. Due to the asset smoothing method, there is currently a difference of about \$26 million between the market and actuarial value of assets. This deferred investment gain will help maintain the System's funded status or help offset unfavorable experience in future years.

The City has been contributing 4.7% of payroll to the Retirement System for the past seven years. This level of contribution, which is below the employer normal cost rate of 8.4%, reduces the surplus by 3.7% of pay, about \$3 million for 2008. In addition, surplus is impacted by the System's actual experience versus that assumed. As we have seen in the past, unfavorable experience can have a significant impact on surplus. Given the expected variability in investment return associated with the stock market, we believe it would be prudent for the City to increase their contribution or reserve additional monies outside the System to assist in meeting the actuarial contribution rate if negative experience occurs.

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		12/31/2007 Valuation		12/31/2006 Valuation	% Change
Number of:					
Active Members Plan 1 Plan 2 Plan 3 (excluding Plan 3b) Total		56 931 838 1,825		79 905 837 1,821	(29.1)% 2.9% 0.1% 0.2%
DROP Members Plan 1 Plan 2 Total		57 16 73		55 17 72	3.6% (5.9)% 1.4%
Retired Members and Beneficiaries		1,132		1,102	2.7%
Inactive Vested Members		138		131	5.3%
Total Members		3,168		3,126	1.3%
Annual Valuation Salaries of Active Members of Plan 1 Plan 2 Plan 3 Total Annual Retirement Payments for Retired Members and Beneficiaries 2. ASSETS AND LIABILITIES Total Actuarial Liability Market Value of Assets Assets for Valuation Purposes Unfunded Actuarial Liability/(Surplus)	(Incluc \$ \$ \$ \$	ling DROP) 6,034,708 44,198,149 29,365,696 79,598,553 25,757,557 483,387,028 559,775,195 533,911,465 (50,524,437)	\$ \$ \$	6,977,493 41,310,171 28,439,010 76,726,674 24,146,982 459,062,142 523,626,051 505,755,995 (46,693,853)	(13.5)% 7.0% 3.3% 3.7% 6.7% 5.3% 6.9% 5.6% 8.2%
3. EMPLOYER CONTRIBUTION RATES AS	A PE	RCENT OF PA	AY	ROLL	
Normal Cost Member Financed Employer Normal Cost Amortization of Unfunded Actuarial		13.2% 4.8% 8.4% (4.2)%		13.2% 4.9% 8.3% (4.1)%	0.0% (2.0)% 1.2% 2.4%
Liability/(Surplus) Range of Employer Contribution Rates Full Normal Cost Rate With Amortization Credit		8.4% 4.2%		8.3% 4.2%	1.2% 0.0%



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SECTION 2

SCOPE OF THE REPORT

This report presents the actuarial valuation of the Wichita Employees' System (WER) as of December 31, 2007. 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, 2007. 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, 2007 the market value of assets for the System, excluding Plan 3 assets for members who have elected to remain in Plan 3 (Plan 3b), was \$560 million. Table 1 is a comparison, at market values, of System assets as of December 31, 2006, and December 31, 2007, in total and by investment category. Table 2 summarizes the change in the market value of assets from December 31, 2007.

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, 2007.

In the later part of the 1990's, the actuarial value was lower than the market value of assets. However, due to the negative rate of returns on the market value of assets from 2000 to 2002, the actuarial value of assets was greater than the market value for several years. The market value now exceeds the actuarial value by about \$26 million. Absent rates of return below the assumed rate of 7.75% in the short term, the unrecognized gains (difference between the market and actuarial value) will flow into the actuarial value of assets and create actuarial gains in future valuations.



WICHITA EMPLOYEES' RETIREMENT SYSTEM

ANALYSIS OF NET ASSETS AT MARKET VALUE

		As December	2007		As of December 31, 200					
	<u>(</u> \$	Amount <u>5 Millions)</u>	% of <u>Total</u>		<u>(</u> \$	Amount <u>Millions)</u>	% of <u>Total</u>			
Cash & Equivalents	\$	0.2	0.0	%	\$	0.2	0.0	%		
Government Securities		54.2	9.9			14.2	2.8			
Corporate Debt		47.4	8.7			32.3	6.3			
Mortgage Backed Securities		61.8	11.3			28.8	5.6			
Pooled Funds		72.9	13.4			109.6	21.4			
Domestic Equity		193.5	35.4			182.2	35.7			
International Equity		109.8	20.1			116.2	22.8			
Real Estate		30.8	5.7			26.8	5.3			
Securities Lending Collateral Pool		86.8	15.9			52.9	10.4			
Other		0.5	0.1			0.3	0.1			
Receivables		9.2	1.7			6.0	1.2			
Liabilities		(121.2)	(22.2)			(59.1)	(11.6)	-		
Total Plans 1 and 2	\$	545.9	100.0	%	\$	510.4	100.0	%		
Plan 3 Assets										
Members Electing to Stay in Plan 3	\$	2.2			\$	1.5				
Other Plan 3 Members	_	13.9				13.2				
Total Plan 3 and 3b		16.1				14.7				
Net Assets (Plans 1, 2, and 3)	\$	562.0			\$	525.1				



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WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF CHANGES IN NET ASSETS DURING YEAR ENDED DECEMBER 31, 2007

(Market Value)

	-	Plans 1 & 2	 Plan 3*	Total
1. Market Value of Assets as of December 31, 2006	\$	510,438,289	\$ 13,187,762	\$ 523,626,051
2. Contributions:				
a. Members	\$	2,543,563	\$ 1,343,538	\$ 3,887,101
b. City		2,357,052	1,343,538	3,700,590
c. Other		0	0	0
d. Transfers	_	2,102,726	 (2,624,178)	(521,452)
e. Total $[2(a) + 2(b) + 2(c) + 2(d)]$	\$	7,003,341	\$ 62,898	\$ 7,066,239
3. Investment Income				
a. Interest and Dividends	\$	14,544,993	\$ 373,640	\$ 14,918,633
b. Net Appreciation in Fair Value		41,924,866	1,092,410	43,017,276
c. Commission Recapture		42,297	1,094	43,391
d. Securities Lending Income		317,181	8,140	325,321
e. Total $[3(a) + 3(b) + 3(c) + 3(d)]$	\$	56,829,337	\$ 1,475,284	\$ 58,304,621
4. Expenditures				
a. Refunds of Member Contributions b. Benefits Paid:	\$	232,417	\$ 722,738	\$ 955,155
(1) Pension and death benefits		22,243,373	0	22,243,373
(2) DROP payments		2,809,284	0	2,809,284
c. Administrative Expenses		384,528	30,669	415,197
d. Investment Expenses	_	2,720,484	 78,223	2,798,707
e. Total $[4(a) + 4(b) + 4(c) + 4(d)]$	\$	28,390,086	\$ 831,630	\$ 29,221,716
5. Net Change $[2(e) + 3(e) - 4(e)]$	\$	35,442,592	\$ 706,552	\$ 36,149,144
 6. Market Value of Assets as of December 31, 2007 (1) + (5) 	\$	545,880,881	\$ 13,894,314	\$ 559,775,195

* Excludes assets for Plan 3b members. The December 31, 2007 value of the assets for this group was \$2,226,881.



WICHITA EMPLOYEES' RETIREMENT SYSTEM

DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

AS OF DECEMBER 31, 2007

		<u>Plans 1 & 2</u>		<u>Plan 3*</u>		<u>Total</u>
1. Actuarial Value of Assets as of December 31, 2006	\$	493,075,308	\$	12,680,687	\$	505,755,995
2. Actual Contributions/Disbursements						
 a. Contributions b. Transfers c. Benefit Payments and Refunds d. Net (a + b + c) 	\$ \$	4,900,615 2,102,726 (25,285,074) (18,281,733)	\$ \$	2,687,076 (2,624,178) (722,738) (659,840)	\$ \$	7,587,691 (521,452) (26,007,812) (18,941,573)
3. Expected Value of Assets as of December 31, 2007 [(1) x 1.0775] + [(2d) x (1.0775) ^{.5}]	\$	512,311,712	\$	12,978,509	\$	525,290,221
4. Market Value of Assets as of December 31, 2007	\$	545,880,881	\$	13,894,314	\$	559,775,195
5. Difference Between Market and Expected Values (4) - (3)	\$	33,569,169	\$	915,805	\$	34,484,974
 6. Actuarial Value of Assets as of December 31, 2007 (3) + [(5) x 25%] 	\$	520,704,005	\$	13,207,460	\$	533,911,465
* Excludes Plan 3b.						
Actuarial Value of Assets/Market Value of Assets (6) / (4)		95.39%		95.06%		95.38%
Market Value less Actuarial Value of Assets	\$	25,176,876	\$	686,854	\$	25,863,730



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, 2007. 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, 2007.

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.



WICHITA EMPLOYEES' RETIREMENT SYSTEM

PRESENT VALUE OF FUTURE BENEFITS (PVFB) AS OF DECEMBER 31, 2007

			<u>Plan 1</u>	<u>Plan 2</u>	<u> Plan 3</u>	<u>Total</u>
1. Activ	e employees					
a.	Retirement Benefit	\$	24,756,142	\$ 165,159,360	\$ 45,775,928	\$ 235,691,430
b.	Pre-Retirement Death Benefit		45,868	2,041,298	635,901	2,723,067
с.	Withdrawal Benefit		626,910	13,089,919	7,732,452	21,449,281
d.	Disability Benefit		132,494	6,069,103	2,307,487	8,509,084
e.	Total	\$	25,561,414	\$ 186,359,680	\$ 56,451,768	\$ 268,372,862
2. DRO	P Members					
a.	DROP Account Balance	\$	5,788,938	\$ 563,323	\$ 0	\$ 6,352,261
b.	Monthly Retirement Benefit		35,261,712	 3,305,903	 0	 38,567,615
c.	Total	\$	41,050,650	\$ 3,869,226	\$ 0	\$ 44,919,876
3. Inacti	ve Vested Members	\$	1,791,275	\$ 18,322,160	\$ 0	\$ 20,113,435
4. Inacti	ve Nonvested Members	\$	0	\$ 0	\$ 0	\$ 0
5. In Pa	y Members					
a.	Disabled Members	\$	2,168,908	\$ 916,395	\$ 0	\$ 3,085,303
b.	Retirees		182,872,844	30,570,885	0	213,443,729
с.	Beneficiaries	_	16,613,882	 3,117,653	 0	 19,731,535
d.	Total	\$	201,655,634	\$ 34,604,933	\$ 0	\$ 236,260,567
6. Total	PVFB					
(16	(2c) + (2c) + (3) + (4) + (5d)	\$	270,058,973	\$ 243,155,999	\$ 56,451,768	\$ 569,666,740



WICHITA EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL LIABILITY AS OF DECEMBER 31, 2007

	<u>Plan 1</u>		<u> Plan 2</u>	<u> Plan 3</u>		<u>Total</u>
1. Active employees						
a. Present Value of Future Benefits	\$ 25,561,414	\$	186,359,680	\$ 56,451,768	\$	268,372,862
b. Present Value of Future Normal Costs	 2,391,536	_	45,066,626	 38,821,550	_	86,279,712
c. Actuarial Liability (1a) - (1b)	\$ 23,169,878	\$	141,293,054	\$ 17,630,218	\$	182,093,150
2. DROP Members	\$ 41,050,650	\$	3,869,226	\$ 0	\$	44,919,876
3. Inactive Vested Members	\$ 1,791,275	\$	18,322,160	\$ 0	\$	20,113,435
4. Inactive Nonvested Members	\$ 0	\$	0	\$ 0	\$	0
5. In Pay Members						
a. Disabled Members	\$ 2,168,908	\$	916,395	\$ 0	\$	3,085,303
b. Retirees	182,872,844		30,570,885	0		213,443,729
c. Beneficiaries	16,613,882		3,117,653	0		19,731,535
d. Total	\$ 201,655,634	\$	34,604,933	\$ 0	\$	236,260,567
6. Reserve for Plan 3 Members	\$ 0	\$	0	\$ 0	\$	0
7. Total Actuarial Liability						
(1c) + (2) + (3) + (4) + (5d) + (6)	\$ 267,667,437	\$	198,089,373	\$ 17,630,218	\$	483,387,028

WICHITA EMPLOYEES' RETIREMENT SYSTEM

PRESENT VALUE OF ACCRUED BENEFITS AS OF DECEMBER 31, 2007

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	\$ 21,387,239	\$ 87,907,386	\$	13,894,314	\$	123,188,939
2. DROP Members	\$ 41,050,650	\$ 3,869,226	\$	0	\$	44,919,876
3. Inactive Vested Members	\$ 1,791,275	\$ 18,322,160	\$	0	\$	20,113,435
 4. In Pay Members a. Disabled Members b. Retirees c. Beneficiaries d. Total 	\$ 2,168,908 182,872,844 16,613,882 201,655,634	 916,395 30,570,885 3,117,653 34,604,933	\$ \$	0 0 0 0	\$ _	3,085,303 213,443,729 19,731,535 236,260,567
5. Total	\$ 265,884,798	\$ 144,703,705	\$	13,894,314	\$	424,482,817
6. Market Value of Assets*	\$ 353,496,084	\$ 192,384,797	\$	13,894,314	\$	559,775,195
7. Funded Ratio $(6)/(5)$	133%	133%		100%		132%

* 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, 2007 actuarial valuation will be used to determine employer contribution rates to the Wichita Employees' Retirement System for fiscal year 2009. 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, 2007, the actuarial liability was fully covered by the valuation assets (in fact, a surplus exists). The City's funding policy is to amortize the surplus over a rolling 20 year period. The amortization of the existing surplus results in a temporary amortization credit, thereby reducing the employer contribution.



Contribution Rate Summary

In Table 7, the amortization credit related to the surplus assets, as of December 31, 2007, is developed. Table 8 develops the normal cost rate for the System. The derivation of the range of contribution rates 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, 2007.

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



WICHITA EMPLOYEES' RETIREMENT SYSTEM

DECEMBER 31, 2007 VALUATION

DERIVATION OF UNFUNDED ACTUARIAL LIABILITY CONTRIBUTION RATE

1. Actuarial Accrued Liability	\$ 483,387,028	
2. Actuarial Value of Assets	\$ 533,911,465	
3. Unfunded Actuarial Liability/(Surplus)	\$ (50,524,437)	
4. Payment (Adjusted to Mid-Year) to Amortize Unfunded Actuarial Liability/(Surplus)		
Over 20 Years *	\$ (3,453,728)	
5. Total Projected Payroll for the Year	\$ 81,369,814	
6. Amortization Payment as a Percent of Payroll	(4.2)	%

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

WICHITA EMPLOYEES' RETIREMENT SYSTEM

DECEMBER 31, 2007 VALUATION

DERIVATION OF NORMAL COST RATE

Normal Cost at December 31, 2007	
Service pensions	\$ 7,517,171
Disability pensions	382,583
Survivor pensions	121,070
Termination benefits	
- Deferred service pensions	991,018
- Return of member contributions	757,322
Total Normal Cost	\$ 9,769,164
Normal Cost Adjusted to Mid-Year	\$ 10,140,656
Projected Payroll for Members Under Certain Retirement Age	\$ 76,898,002
Total Normal Cost Rate for Year	13.2%



WICHITA EMPLOYEES' RETIREMENT SYSTEM EMPLOYER CONTRIBUTION RATES FOR FISCAL YEAR COMMENCING IN 2009

Range of Contribution Requirements as % of Payr				
Normal Cost				
Service pensions	10.2	%	10.2	%
Disability pensions	0.5	%	0.5	%
Survivor pensions	0.2	%	0.2	%
Termination benefits				
- Deferred service pensions	1.3	%	1.3	%
- Return of member contributions	1.0	%	1.0	%
Total Normal Cost	13.2	%	13.2	%
Unfunded Actuarial Liability				
Retired members and beneficiaries ⁽¹⁾	0.0	%	0.0	%
Active and former members ⁽²⁾	0.0	%	(4.2)	%
Total UAL Contribution	0.0	%	(4.2)	%
Total Contribution Requirement				
Member Financed Portion ⁽³⁾	4.8	%	4.8	%
City Financed Portion	8.4	%	4.2	%
Total	13.2	%	9.0	%

(1) Actuarial value of assets exceeds the actuarial liability as of December 31, 2007.

(2) The excess of the actuarial value of assets over actuarial liability, financed as a level percent of active member payroll over a rolling 20 year period, produces a temporary amortization credit.

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

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, 2007, 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.

		City Contributions as Percents of Active Member Pensionable Payroll				
Valuation	Fiscal	Funding	Amortization			
Date	<u>Year</u>	Objective	Credit			
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)			

WICHITA EMPLOYEES' RETIREMENT SYSTEM

DERIVATION OF SYSTEM EXPERIENCE GAIN/(LOSS)

	(\$M) Year Ended <u>12/31/07</u>
(1) UAL* at start of year	(46.7)
(2) + Normal cost for year	9.4
(3) + Assumed investment return on (1) & (2)	(2.9)
(4) - Actual contributions (member + City)	7.6
(5) - Assumed investment return on (4)	0.3
(6) = Expected UAL at end of year	(48.1)
(7) + Increase (decr.) from amendments	0.0
(8) + Increase (decr.) from assumption change	0.0
(9) = Expected UAL after changes	(48.1)
(10) = Actual UAL at year end	(50.5)
(11) = Experience gain (loss) (9) - (10)	2.4**
(12) = Percent of beginning of year AL	0.5%

^{*} Unfunded Actuarial Liability/(Surplus)



^{**} Of this amount, \$8.6 million of the experience gain is due to experience on the actuarial value of assets and 6.2 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 a going concern basis, and (ii) progress being made toward accumulating the assets needed to pay benefits as due. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the Entry Age Normal actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the System's level percent of payroll annual required contribution between entry age and assumed exit age. Entry age was established by subtracting credited service from current age on the valuation date.

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

The Entry Age Normal actuarial liability was determined as part of an actuarial valuation of the plan as of December 31, 2007. 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	\$182,093,150
DROP members	44,919,876
Retired members and beneficiaries currently receiving benefits	236,260,567
Vested terminated members not yet receiving benefits	20,113,435
Total Actuarial Liability	\$483,387,028
Actuarial Value of Assets (market value was \$559,775,195)	\$533,911,465
Assets in Excess of Actuarial Liability	\$(50,524,437)

During the year ended December 31, 2007, the Plan experienced a net increase of \$24.3 million in the actuarial liability.



WICHITA EMPLOYEES' RETIREMENT SYSTEM

					Active	UAL as a
	Actuarial	Actuarial			Member	Percentage of
Actuarial	Value of	Liability	Unfunded	Funded	Covered	Active Member
Valuation	Assets	(AL)	AL	Ratio	Payroll	Covered Payroll
Date	(a)	(b)	(b)–(a)	(a)/(b)	(c)	((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)

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF FUNDING PROGRESS

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 a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan's funding. The unfunded actuarial 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.



WICHITA EMPLOYEES' RETIREMENT SYSTEM

Fiscal Year	Actuarial Valuation Date	Annual Required Contribution	Percent Contribution
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
		-,,	

REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF EMPLOYER CONTRIBUTIONS

*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, 2007
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)

This work product was prepared solely for the Wichita Employees' Retirement System for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

WICHITA EMPLOYEES' RETIREMENT SYSTEM

SOLVENCY TEST

Aggregate Actuarial Liability For							
Valuation	(1) Active Member	(2) Retirants and	(3) Active Members (Employer	Reported Valuation		ion of Actuar Liabilities d by Reported	
Date	Contributions	<u>Beneficiaries*</u>	Financed Portion)	Assets	(1)	(2)	(3)
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

During the twelve months ended December 31, 2007, the Wichita Employees' Retirement System generated a net experience gain of \$2.4 million dollars. The amount is 0.5% of the actuarial liability at the beginning of the year.

*Includes vested terminated members



This work product was prepared solely for the Wichita Employees' Retirement System for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

APPENDIX A

SUMMARY OF MEMBERSHIP DATA

MEMBER DATA RECONCILIATION

December 31, 2006 to December 31, 2007

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 12/31/06	79	905	837	55	17	867	235	11	120	3,126
New Members	0	0	+194	0	0	+11	+7	0	0	+212
Transfers	0	+73	-84	0	0	0	0	0	0	-11
Terminations Refunded Deferred Vested	0	-6 -9	-102 -3	0 0 0	0 0 0	0	0 0	0 0	-3 +12	-111 0
Retirements Service Disability DROP	-8 -0 -15	-24 -1 -5	0 0 -1	-15 0 +15	-7 0 +6	+25 0 0	+34 +1 0	-2 0 0	-3 0 0	0 0 0
Deaths Cashed Out With Beneficiary Without Beneficiary	0 0 0	-1 -1 0	-3 0 0	0 0 0 0	0 0 0 0	0 -11 -22	0 -6 -7	0 0 0	0 0 0	-4 -18 -29
Data Adjustments Members as of 12/31/07	0 56	0 931	0 838	+2 57	0 16	-2 868	0 264	0 9	+3 129	+3 3,168

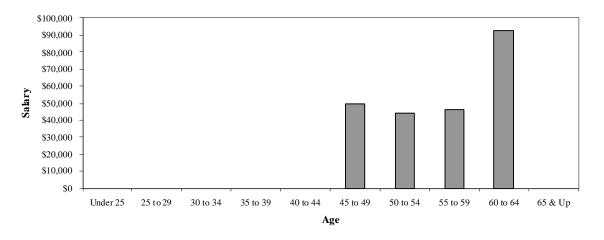


WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF ACTIVE MEMBERS (Excluding DROP Members) as of December 31, 2007

			Plan 1						
		Number	Valuation Salaries						
Age	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	12	2	14		605,006		93,740	698,746	
50 to 54	19	9	28		858,441		380,065	1,238,506	
55 to 59	8	4	12		335,630		219,642	555,272	
60 to 64	2	0	2		184,906		-	184,906	
65 & Up	0	0	0		-		-	-	
Total	41	15	56	\$	1,983,983	\$	693,447 \$	2,677,430	

Average Salary by Age

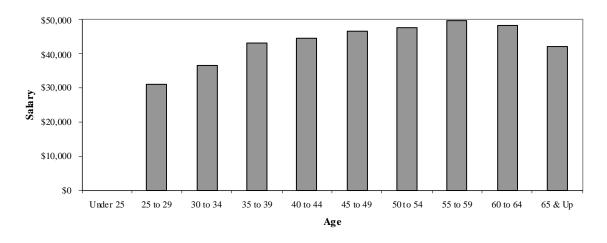


WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF ACTIVE MEMBERS (Excluding DROP Members) as of December 31, 2007

			Flan A	2						
		Number								
Age	Male	Female	Total		Male		Female		Total	
Under 25	0	0	0	\$	-	\$	-	\$	-	
25 to 29	3	1	4		91,594		32,699		124,293	
30 to 34	22	9	31		819,525		312,381		1,131,906	
35 to 39	36	23	59		1,551,124		993,847		2,544,971	
40 to 44	83	59	142		3,739,984		2,605,845		6,345,829	
45 to 49	109	71	180		5,158,019		3,276,000		8,434,019	
50 to 54	131	92	223		6,115,828		4,492,812		10,608,640	
55 to 59	125	69	194		6,384,520		3,248,890		9,633,410	
60 to 64	47	38	85		2,459,750		1,650,661		4,110,411	
65 & Up	8	5	13		335,934		211,467		547,401	
Total	564	367	931	\$	26,656,278	\$	16,824,602	\$	43,480,880	

Average Salary by Age



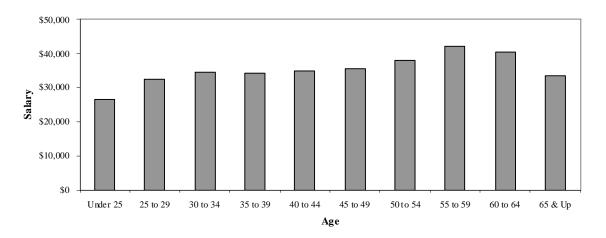
Plan 2

WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF ACTIVE MEMBERS as of December 31, 2007

Plan 3												
		Number	Valuation Salaries									
Age	Male	Female	Total		Male		Female		Total			
Under 25	49	12	61	\$	1,283,086	\$	331,574	\$	1,614,660			
25 to 29	80	44	124		2,641,385		1,392,451		4,033,836			
30 to 34	68	55	123		2,152,482		2,109,811		4,262,293			
35 to 39	65	38	103		2,283,128		1,252,209		3,535,337			
40 to 44	68	38	106		2,382,165		1,332,795		3,714,960			
45 to 49	81	39	120		2,819,383		1,441,356		4,260,739			
50 to 54	56	37	93		2,112,060		1,409,282		3,521,342			
55 to 59	45	28	73		1,924,508		1,145,675		3,070,183			
60 to 64	17	9	26		765,998		284,858		1,050,856			
65 & Up	7	2	9		234,105		67,385		301,490			
Total	536	302	838	\$	18,598,300	\$	10,767,396	\$	29,365,696			

Average Salary by Age

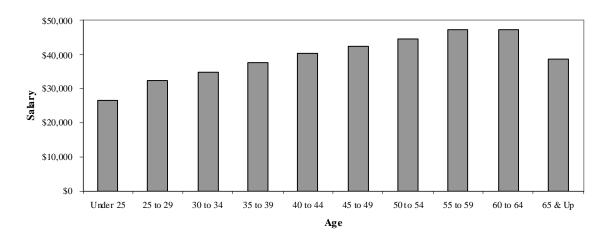


WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF ACTIVE MEMBERS (Excluding DROP Members) as of December 31, 2007

All Plans												
Number Valuation Salaries												
Age	Male	Female	Total		Male		Female		Total			
Under 25	49	12	61	\$	1,283,086	\$	331,574	\$	1,614,660			
25 to 29	83	45	128		2,732,979		1,425,150		4,158,129			
30 to 34	90	64	154		2,972,007		2,422,192		5,394,199			
35 to 39	101	61	162		3,834,252		2,246,056		6,080,308			
40 to 44	151	97	248		6,122,149		3,938,640		10,060,789			
45 to 49	202	112	314		8,582,408		4,811,096		13,393,504			
50 to 54	206	138	344		9,086,329		6,282,159		15,368,488			
55 to 59	178	101	279		8,644,658		4,614,207		13,258,865			
60 to 64	66	47	113		3,410,654		1,935,519		5,346,173			
65 & Up	15	7	22		570,039		278,852		848,891			
Total	1,141	684	1,825	\$	47,238,561	\$	28,285,445	\$	75,524,006			

Average Salary by Age

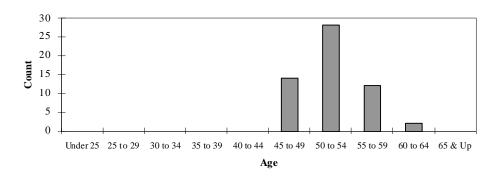


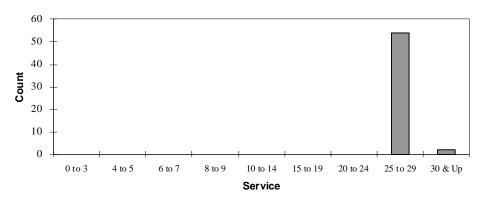
WICHITA EMPLOYEES' RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS (Excluding DROP Members) as of December 31, 2007

Plan 1

	Years of Service									
Age	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	Total
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	14	0	14
50 to 54	0	0	0	0	0	0	0	27	1	28
55 to 59	0	0	0	0	0	0	0	11	1	12
60 to 64	0	0	0	0	0	0	0	2	0	2
65 & Up	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	54	2	56

Age Distribution



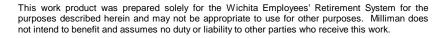




Average age: 52.3

C Milliman

Average service: 28.0

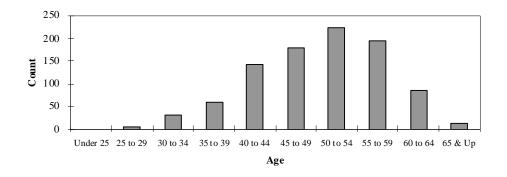


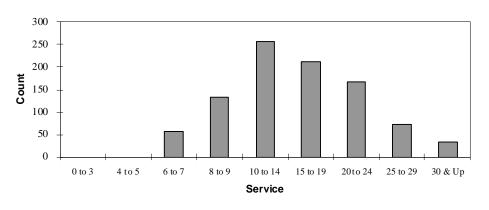
WICHITA EMPLOYEES' RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS (Excluding DROP Members) as of December 31, 2007

Plan 2

		Years of Service									
Age	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	Total	
Under 25	0	0	0	0	0	0	0	0	0	0	
25 to 29	0	0	3	1	0	0	0	0	0	4	
30 to 34	0	0	9	9	13	0	0	0	0	31	
35 to 39	0	0	8	17	26	8	0	0	0	59	
40 to 44	0	0	9	26	39	47	20	1	0	142	
45 to 49	0	0	12	18	45	47	41	17	0	180	
50 to 54	0	0	8	26	54	47	50	27	11	223	
55 to 59	0	0	6	23	43	42	44	19	17	194	
60 to 64	0	0	3	12	28	18	11	8	5	85	
65 & Up	0	0	0	1	9	2	1	0	0	13	
Total	0	0	58	133	257	211	167	72	33	931	

Age Distribution







Average age: 49.9

C Milliman

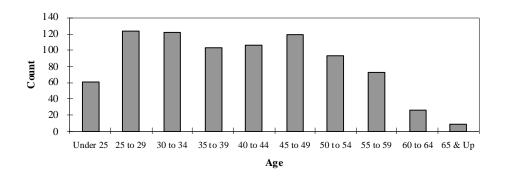
Average service: 16.2

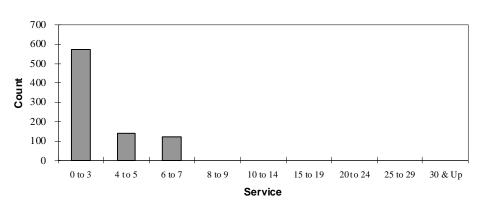
WICHITA EMPLOYEES' RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS as of December 31, 2007

Plan 3

		Years of Service									
Age	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	Total	
Under 25	57	4	0	0	0	0	0	0	0	61	
25 to 29	98	15	11	0	0	0	0	0	0	124	
30 to 34	92	15	16	0	0	0	0	0	0	123	
35 to 39	64	17	22	0	0	0	0	0	0	103	
40 to 44	69	24	13	0	0	0	0	0	0	106	
45 to 49	75	24	21	0	0	0	0	0	0	120	
50 to 54	53	24	16	0	0	0	0	0	0	93	
55 to 59	48	11	14	0	0	0	0	0	0	73	
60 to 64	16	3	7	0	0	0	0	0	0	26	
65 & Up	4	3	2	0	0	0	0	0	0	9	
Total	576	140	122	0	0	0	0	0	0	838	

Age Distribution





Service Distribution

Average age: 40.3 Average service: 3.1

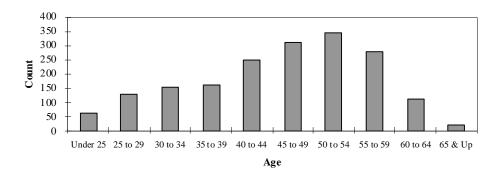
WICHITA EMPLOYEES' RETIREMENT SYSTEM

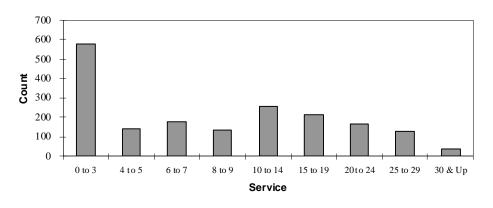
DISTRIBUTION OF ACTIVE MEMBERS (Excluding DROP Members) as of December 31, 2007

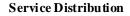
All Plans

		Years of Service								
Age	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	Total
Under 25	57	4	0	0	0	0	0	0	0	61
25 to 29	98	15	14	1	0	0	0	0	0	128
30 to 34	92	15	25	9	13	0	0	0	0	154
35 to 39	64	17	30	17	26	8	0	0	0	162
40 to 44	69	24	22	26	39	47	20	1	0	248
45 to 49	75	24	33	18	45	47	41	31	0	314
50 to 54	53	24	24	26	54	47	50	54	12	344
55 to 59	48	11	20	23	43	42	44	30	18	279
60 to 64	16	3	10	12	28	18	11	10	5	113
65 & Up	4	3	2	1	9	2	1	0	0	22
Total	576	140	180	133	257	211	167	126	35	1,825

Age Distribution



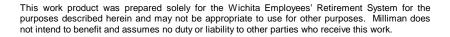




Average age: 45.9

C Milliman

Average service: 11.2



WICHITA EMPLOYEES' RETIREMENT SYSTEM

DISTRIBUTION OF DROP MEMBERS as of December 31, 2007

Plan 1

Service										
Age	Under 20	20 to 24	25 to 29	30 to 34	35 & Up	Total				
Under 50	0	0	3	0	0	3				
50-54	0	0	20	0	0	20				
55-59	0	1	22	0	0	23				
60-64	0	0	8	1	0	9				
65 & Up	0	0	1	1	0	2				
Total	0	1	54	2	0	57				

DROP Duration Elected (months)

Age	1 to 12	13 to 24	25 to 36	37 to 48	48 to 60	Total
Under 50	1	0	0	0	2	3
50-54	0	0	0	0	20	20
55-59	1	0	0	2	20	23
60-64	0	0	1	1	7	9
65 & Up	0	0	1	0	1	2
Total	2	0	2	3	50	57

Age	Monthly Benefits	Estimated Balance
Under 50	\$ 7,977	\$ 59,456
50-54	67,035	1,296,367
55-59	85,326	2,994,454
60-64	27,597	1,169,011
65 & Up	5,520	269,651
Total	\$ 193,455	\$ 5,788,939

WICHITA EMPLOYEES' RETIREMENT SYSTEM

DISTRIBUTION OF DROP MEMBERS as of December 31, 2007

Plan 2

Service											
Age	Under 10	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Up	Total			
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	2	2	2	1	1	0	8			
65 & Up	2	1	4	0	1	0	0	8			
Total	2	3	6	2	2	1	0	16			

DROP Duration Elected (months)

Age	1 to 12	13 to 24	25 to 36	37 to 48	48 to 60	Total
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	0	0	5	0	3	8
65 & Up	1	2	2	1	2	8
Total	1	2	7	1	5	16

Age	Monthly Benefits	Estimated Balance
Under 50	\$ O	\$ 0
50-54	0	0
55-59	0	0
60-64	14,145	357,232
65 & Up	9,069	206,091
Total	\$ 23,214	\$ 563,323

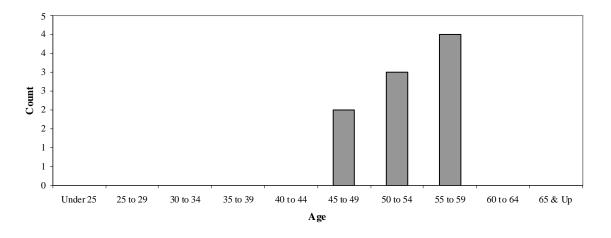


WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF DEFERRED VESTED MEMBERS as of December 31, 2007

			Plan 1			
		Number		Current Mo	nthly Benefit at	Retirement
Age	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	0	2	2	-	3,115	3,115
50 to 54	1	2	3	1,673	3,564	5,237
55 to 59	3	1	4	4,451	2,271	6,722
60 to 64	0	0	0	-	-	-
65 & Up	0	0	0	-	-	-
Total	4	5	9	\$ 6,124	\$ 8,950	\$ 15,074

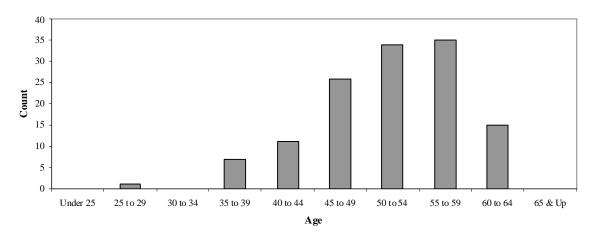
Age Distribution



WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF DEFERRED VESTED MEMBERS as of December 31, 2007

			Plan 2	2						
Number Current Monthly Benefit at Retirement										
Age	Male	Female	Total		Male		Female		Total	
Under 25	0	0	0	\$	-	\$	-	\$	-	
25 to 29	1	0	1		347		-		347	
30 to 34	0	0	0		-		-		-	
35 to 39	4	3	7		2,496		2,612		5,108	
40 to 44	5	6	11		5,759		9,224		14,983	
45 to 49	12	14	26		17,397		15,802		33,199	
50 to 54	17	17	34		24,167		20,982		45,148	
55 to 59	18	17	35		24,880		22,995		47,875	
60 to 64	9	6	15		14,189		7,557		21,746	
65 & Up	0	0	0		-		-		-	
Total	66	63	129	\$	89,234	\$	79,173	\$	168,407	



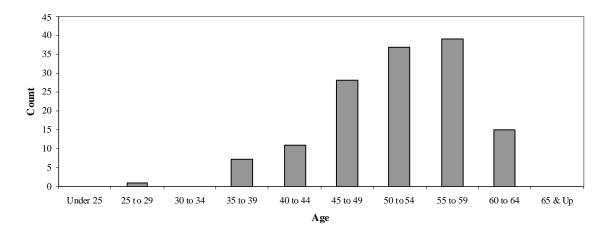
Age Distribution

WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF DEFERRED VESTED MEMBERS as of December 31, 2007

			All Plar	15				
		Number			Current Mo	onthly Benefit at	Retirement	
Age	Male	Female	Total		Male	Female	Total	
Under 25	0	0	0	\$	-	\$ -	\$ -	
25 to 29	1	0	1		347	-	347	
30 to 34	0	0	0		-	-	-	
35 to 39	4	3	7		2,496	2,612	5,108	
40 to 44	5	6	11		5,759	9,224	14,983	
45 to 49	12	16	28		17,397	18,917	36,314	
50 to 54	18	19	37		25,840	24,546	50,386	
55 to 59	21	18	39		29,331	25,266	54,597	
60 to 64	9	6	15		14,189	7,557	21,746	
65 & Up	0	0	0		-	-	-	
Total	70	68	138	\$	95,358	\$ 88,123	\$ 183,481	

Age Distribution



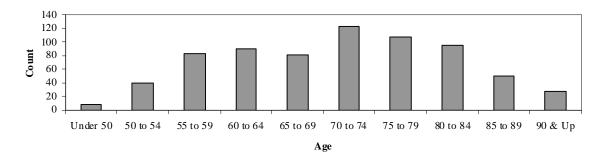
WICHITA EMPLOYEES' RETIREMENT SYSTEM

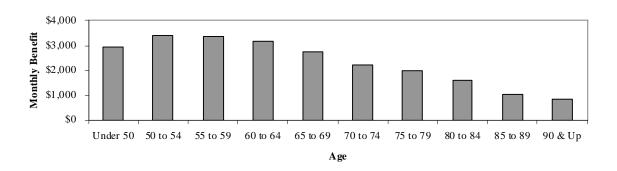
SUMMARY OF RETIRED MEMBERS^{*} as of December 31, 2007

			r lali j	L				
		Number				Mo	onthly Benefit	
Age	Male	Female	Total		Male		Female	Total
Under 50	5	4	9	\$	16,172	\$	10,088	\$ 26,260
50 to 54	24	15	39		85,944		47,263	133,207
55 to 59	63	21	84		229,174		53,073	282,246
60 to 64	60	31	91		209,609		78,955	288,564
65 to 69	59	23	82		177,690		48,458	226,148
70 to 74	74	49	123		181,108		95,091	276,199
75 to 79	69	39	108		158,594		56,302	214,896
80 to 84	49	47	96		105,822		47,328	153,150
85 to 89	21	30	51		26,652		27,326	53,977
90 & Up	10	17	27		10,690		12,674	23,364
Total	434	276	710	\$	1,201,454	\$	476,558	\$ 1,678,013

Plan 1

Age Distribution





Average Benefit

* Includes DROP members.



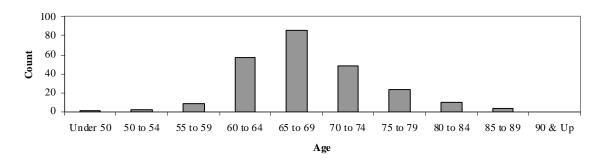
WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF RETIRED MEMBERS^{*} as of December 31, 2007

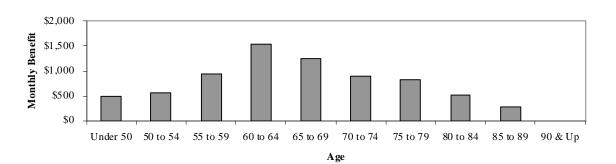
			r lali 4	2				
		Number				Mo	nthly Benefit	
Age	Male	Female	Total		Male		Female	Total
Under 50	1	0	1	\$	494	\$	-	\$ 494
50 to 54	1	1	2		575		568	1,144
55 to 59	6	3	9		5,608		2,814	8,423
60 to 64	29	28	57		50,967		36,230	87,197
65 to 69	45	41	86		59,904		48,728	108,632
70 to 74	25	23	48		23,076		20,177	43,253
75 to 79	13	10	23		10,048		8,748	18,796
80 to 84	3	7	10		1,614		3,664	5,278
85 to 89	0	3	3		-		826	826
90 & Up	0	0	0		-		-	-
Total	123	116	239	\$	152,286	\$	121,756	\$ 274,042

Plan 2

Age Distribution



Average Benefit



* Includes DROP members.



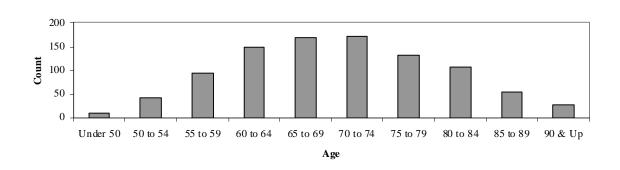
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WICHITA EMPLOYEES' RETIREMENT SYSTEM

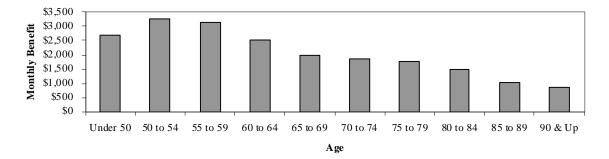
SUMMARY OF RETIRED MEMBERS^{*} as of December 31, 2007

			All Pla	15				
		Number				Mo	onthly Benefit	
Age	Male	Female	Total		Male		Female	Total
Under 50	6	4	10	\$	16,666	\$	10,088	\$ 26,754
50 to 54	25	16	41		86,519		47,832	134,351
55 to 59	69	24	93		234,782		55,887	290,669
60 to 64	89	59	148		260,576		115,185	375,761
65 to 69	104	64	168		237,594		97,186	334,780
70 to 74	99	72	171		204,184		115,267	319,451
75 to 79	82	49	131		168,642		65,051	233,692
80 to 84	52	54	106		107,436		50,992	158,428
85 to 89	21	33	54		26,652		28,152	54,804
90 & Up	10	17	27		10,690		12,674	23,364
Total	557	392	949	\$	1,353,741	\$	598,314	\$ 1,952,055



Age Distribution





* Includes DROP members.



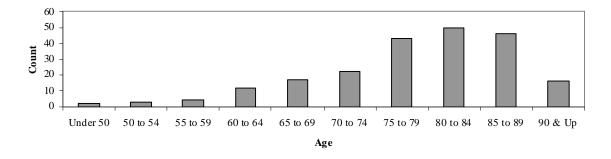
WICHITA EMPLOYEES' RETIREMENT SYSTEM

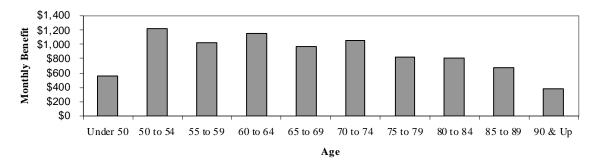
SUMMARY OF BENEFICIARIES as of December 31, 2007

			1 1411	T				
		Number				Mo	onthly Benefit	
Age	Male	Female	Total		Male		Female	Total
Under 50	1	1	2	\$	886	\$	226	\$ 1,112
50 to 54	0	3	3		-		3,642	3,642
55 to 59	0	4	4		-		4,111	4,111
60 to 64	2	10	12		1,313		12,550	13,863
65 to 69	2	15	17		1,047		15,420	16,467
70 to 74	3	19	22		3,117		20,110	23,227
75 to 79	9	34	43		4,269		31,056	35,326
80 to 84	5	45	50		2,627		37,936	40,564
85 to 89	3	43	46		1,193		29,555	30,749
90 & Up	0	16	16		-		6,017	6,017
Total	25	190	215	\$	14,453	\$	160,625	\$ 175,078

Plan 1

Age Distribution





Average Benefit

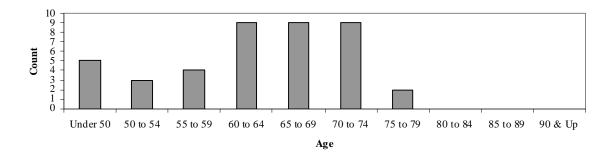


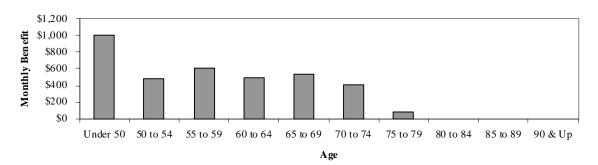
WICHITA EMPLOYEES' RETIREMENT SYSTEM

SUMMARY OF BENEFICIARIES as of December 31, 2007

			Plan 2				
		Number			Mo	nthly Benefit	
Age	Male	Female	Total	Male		Female	Total
Under 50	1	4	5	\$ 1,058	\$	3,950	\$ 5,008
50 to 54	0	3	3	-		1,433	1,433
55 to 59	0	4	4	-		2,411	2,411
60 to 64	1	8	9	572		3,866	4,437
65 to 69	1	8	9	151		4,613	4,764
70 to 74	0	9	9	-		3,643	3,643
75 to 79	1	1	2	89		63	152
80 to 84	0	0	0	-		-	-
85 to 89	0	0	0	-		-	-
90 & Up	0	0	0	-		-	-
Total	4	37	41	\$ 1,869	\$	19,979	\$ 21,848

Age Distribution





Average Benefit

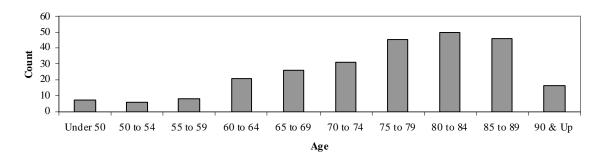


WICHITA EMPLOYEES' RETIREMENT SYSTEM

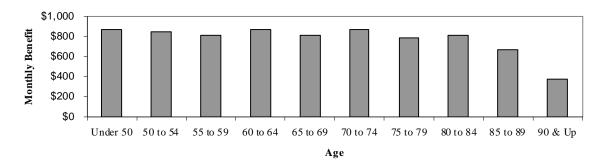
SUMMARY OF BENEFICIARIES as of December 31, 2007

			All Pla	15				
		Number				Mo	onthly Benefit	
Age	Male	Female	Total		Male		Female	Total
Under 50	2	5	7	\$	1,944	\$	4,176	\$ 6,120
50 to 54	0	6	6		-		5,076	5,076
55 to 59	0	8	8		-		6,522	6,522
60 to 64	3	18	21		1,885		16,416	18,300
65 to 69	3	23	26		1,198		20,033	21,231
70 to 74	3	28	31		3,117		23,753	26,870
75 to 79	10	35	45		4,358		31,120	35,478
80 to 84	5	45	50		2,627		37,936	40,564
85 to 89	3	43	46		1,193		29,555	30,749
90 & Up	0	16	16		-		6,017	6,017
Total	29	227	256	\$	16,322	\$	180,604	\$ 196,926

Age Distribution







🗅 Milliman

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.



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.



Post-Retirement Survivor Benefits

Eligibility: Surviving Spouse - must have been married to retired employee for 1 year or more, at time of death.

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.



Post-Retirement Adjustment of Annual 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 month of accumulated unused sick leave is considered to be a month of service for the purpose of computing annual benefit amounts.



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).

<u>City Contributions</u>

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.



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.

The investment return rate (net of administrative expenses) used for actuarial valuation calculations was 7.75% a year, compounded annually. This rate consists of 4.00% in recognition of long term price inflation and a 3.75% a year 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 used to project current pays to those upon which a benefit will be based are represented by the following table and were first used for the December 31, 2004 valuation.

	Annual F	Rate of Salary Inc	crease for Sampl	e Ages
Years	Inflation	Productivity	Merit and	
Of Service	Component	Component	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



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:

		5 Year (Average) Compounded				
	12-31-07	12-31-06	12-31-05	12-31-04	12-31-03	Annual Increase
Average pay	3.0%	5.2%	1.0%	4.1%	2.3%	3.1%
Total payroll	3.7%	6.3%	2.4%	4.3%	0.1%	3.3%

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		t Value of hly for Life	Future Life Expectancy (Years)			
Ages ⁽¹⁾	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	60.2	4.8	7.1		

(1) Ages in 2000

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



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.

Percent Retiring During Year					
Plan 1	Plan 2				
	0%				
	5				
	5				
	5				
15	5				
15	5				
15	5				
15	5				
50	40				
40	40				
20	25				
100	50				
N/A	15				
N/A	15				
N/A	15				
N/A	15				
N/A	100				
	Plan 1 0% 20 15 15 15 15 15 15 15 15 15 15 15 15 15 100 N/A N/A N/A N/A				

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.



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

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.

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	Percent
Service	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.



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

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

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.



- *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

Actuarial Liability	The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability", or "actuarial accrued liability".
Actuarial Assumptions	Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.
Accrued Service	Service credited under the system which was rendered before the date of the actuarial valuation.
Actuarial Equivalent	A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate assumptions.
Actuarial Cost Method	A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefit between future normal cost and actuarial liability. Sometimes referred to as the "actuarial funding method."
Experience Gain (Loss)	The difference between actual experience and actuarial assumptions anticipated experience during the period between two actuarial valuation dates.
Actuarial Present Value	The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest and by probabilities of payment.
Amortization	Paying off an interest-discounted amount with periodic payments of interest and principal, as opposed to paying off with lump sum payment.
Normal Cost	The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

Unfunded Actuarial 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.

