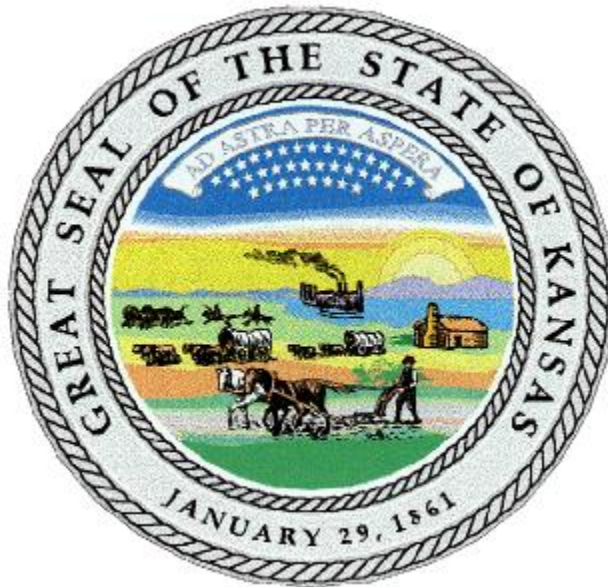


***Kansas Public Employees
Retirement System***



Valuation Report as of December 31, 2008



Kansas Public Employees Retirement System Actuarial Valuation Report

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1120 South 101st Street
Suite 400
Omaha, NE 68124
USA

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

milliman.com

July 9, 2009

Board of Trustees
Kansas Public Employees Retirement System
611 S. Kansas Ave., Suite 100
Topeka, KS 66603

Dear Members of the Board:

At your request, we performed an actuarial valuation of the Kansas Public Employees Retirement System as of December 31, 2008 for purposes of determining contribution rates for fiscal year 2012 for the State and 2011 for Local employers. The major findings of the valuation are contained in this report. This report reflects the benefit provisions in place on December 31, 2008, including any changes passed by the 2009 Legislature. The only change in the benefit provisions since the last valuation is related to working after retirement. Due to the fact that the provision sunsets in three years, it had no impact on the December 31, 2008 valuation. Any effect on retirement experience from the change will be reflected in future valuations. There was no change in the actuarial assumptions or methods from the prior valuation.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, statutory provisions, member data and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

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); 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 indicated 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 plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

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

Milliman's work is prepared solely for the internal business use of the System and its Trustees and employees (for their use in administering the Fund). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- (a) The System may provide a copy of Milliman's work, in its entirety to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

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

We would like to express our appreciation to Glenn Deck, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

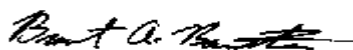
We respectfully submit the following report and look forward to discussing it with you.

MILLIMAN, Inc.

Sincerely,



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



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

SECTION I BOARD SUMMARY

OVERVIEW

The Kansas Public Employees Retirement System is an umbrella organization which administers the following three statewide pension groups: the Kansas Public Employees Retirement System (KPERs), the Kansas Police and Firemen's Retirement System (KP&F) and the Kansas Retirement System for Judges (Judges). This report presents the results of the December 31, 2008 actuarial valuations for each of the Systems.

The primary purposes of performing actuarial valuations are to:

- determine the employer contribution rates required to fund each System on an actuarial basis,
- determine the statutory employer contribution rates for each System,
- 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.

The valuation results provide a "snapshot" view of the System's financial condition on December 31, 2008. The unfunded actuarial liability for the System as a whole increased by \$2.7 billion due to various factors of which the asset loss, even with asset smoothing reflected, was over 85% of the increase. A detailed analysis of the change in the unfunded actuarial liability from December 31, 2007 to December 31, 2008 is shown on page 5.

There was no change in the actuarial assumptions or methods used in the valuation since last year and there was only one change in the benefit provisions. This change, related to working after retirement, is scheduled to sunset in three years, so it had no material impact on this valuation. Any effect from the change on retirement experience that is identified will be reflected in future valuations.

In KPERs, State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap, which has been changed periodically, is currently 0.60% for the State, School and Local groups.

A summary of actuarial and statutory employer contribution rates for the Retirement System (excluding the statutory contribution for the Death and Disability Program) for the last two valuation dates follows:

System	December 31, 2008 Valuation		Difference
	Actuarial	Statutory	
State	11.13%	8.77%	2.36%
School ¹	14.96%	8.77%	6.19%
Local ¹	10.42%	6.74%	3.68%
Police & Fire - Uniform Rates ²	17.88%	17.88%	0.00%
Judges	26.38%	26.38%	0.00%

System	December 31, 2007 Valuation		Difference
	Actuarial	Statutory	
State	7.39%	8.17% ³	(0.78%)
School	12.48%	8.17%	4.31%
Local	8.52%	6.14%	2.38%
Police & Fire - Uniform Rates ²	12.86%	12.86%	0.00%
Judges	19.49%	19.49%	0.00%

¹ By statute, rates are allowed to increase by a maximum of 0.60% plus the cost of any benefit enhancements.

² For KP&F, the statutory contribution rate is equal to the "Uniform" rate. The rate shown is for local employers. The rate for State employers is 14.39% this year, which includes a payment of 0.50% for the debt service payment on the bonds issued for the 13th check. The uniform rate does not include the payment required to amortize the unfunded past service liability or any 15% excess benefit liability determined separately for each employer. (See Table 13.)

³ Any difference between the statutory rate and the actuarial contribution rate times actual State payroll is deposited to the School assets.

Over the last ten years, much time and effort has been devoted to improving the long-term funding outlook for KPERS. As a result of legislative changes, Board action and investment performance from 2003 to 2007, the System's long-term funding outlook improved, although the positive results for the System were highly dependent on attaining the 8% assumption. Modeling indicated that investment returns below the 8% assumption could change the long-term funding outlook, particularly for the School group. The unprecedented negative investment experience in 2008 was a significant setback in the System's long-term funding. Despite the 2008 investment loss, the State and Local groups remain in actuarial balance (the statutory contribution rate is projected to converge with the actuarial required contribution (ARC) rate before the end of the amortization period (2033) if all actuarial assumptions are met in future years). For the School group, the statutory and actuarial contribution rates are not projected to converge before 2033 if all assumptions are met in future years. This situation should be closely monitored and further analysis performed in order to determine the appropriate actions to be taken. Plans are in place to perform this analysis later this year. As the deferred investment losses are recognized in the next four years, the actuarial contribution rate is expected to increase significantly. As this occurs, the shortfall between the actuarial and statutory contribution rates will grow and will produce increases in the UAL. As a result, the actuarial contribution rate is expected to increase until the ARC Date (defined as the date at which the actuarial and statutory contribution rates are equal) is reached.

The actuarial value of assets is 20% higher than the pure market value. This is due to the use of an asset smoothing method and the delayed reflection of market experience in the actuarial value of assets. These deferred losses, which are significant, will be reflected in the actuarial value of assets over the next four years. However, the net impact of the deferred experience on the actuarial value of assets in future years will depend on actual investment experience during that period.

EXPERIENCE - ALL SYSTEMS COMBINED

December 31, 2007 – December 31, 2008

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, which are generally in excess of assets. The actuarial process leads to a method of determining the contributions needed by members and employers in the future to balance the System assets and liabilities.

Changes in the Systems' assets and liabilities impacted the change in the actuarial contribution rates between the December 31, 2007 and December 31, 2008 actuarial valuations. On the following pages each component is examined and quantified.

MEMBERSHIP

Below is a summary of the changes in active members between the December 31, 2007 and December 31, 2008 actuarial valuations.

	State	School	Local	KP&F	Judges	Total
12/31/2007 (Starting count)	24,024	86,468	35,914	7,137	261	153,804
New actives	2,282	10,601	4,078	453	7	17,421
Nonvested Terminations	629	4,793	1,577	158	0	7,157
Elected Refund	343	1,187	804	90	0	2,424
Vested Terminations	<u>299</u>	<u>938</u>	<u>569</u>	<u>60</u>	<u>0</u>	<u>1,866</u>
Total Withdrawals	1,271	6,918	2,950	308	0	11,447
Deaths	36	54	45	8	0	143
Disabilities	78	85	57	20	0	240
Early Retirements	53	253	64	6	0	376
Unreduced Retirements	<u>482</u>	<u>1,622</u>	<u>497</u>	<u>92</u>	<u>8</u>	<u>2,701</u>
Total Retirements	535	1,875	561	98	8	3,077
Other/Transfer	(12)	(189)	(132)	86	2	(245)
12/31/2008 (Ending count)	24,374	87,948	36,247	7,242	262	156,073

ASSETS

As of December 31, 2008, the System had total funds when measured on a market value basis, of \$9.9 billion, excluding assets held for the Group Insurance and Optional Life reserves. This was a decrease of \$4.3 billion from the December 31, 2007 figure of \$14.2 billion.

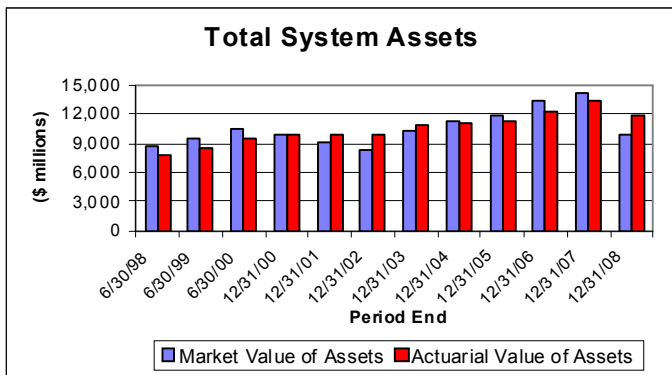
The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method is used to smooth the effect of market fluctuations. The smoothing method calculates the difference between the actual return and the expected return (assumed rate of return) on the market value of assets each year. The difference is recognized equally over a five-year period. The resulting value must be no less than 80% of market and no more than 120% of market. For this valuation, the actuarial value of assets was limited to 120% of market value. See Tables 3A through 3F and 4 for the detailed development of the actuarial value of assets as of December 31, 2008 for each group.

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

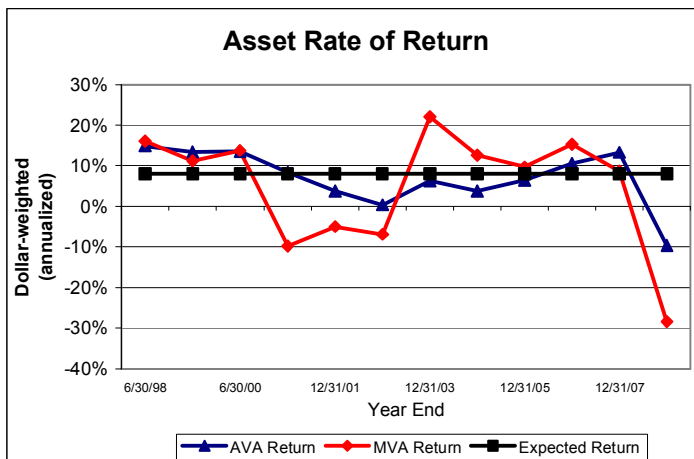
	Market Value \$(millions)	Actuarial Value \$(millions)
Assets, December 31, 2007	\$14,168	\$13,433
• Employer and Member Contributions	683	683
• Benefit Payments and Expenses	(1,017)	(1,017)
• Investment Income	(3,978)	407
Preliminary Asset Value, December 31, 2008	\$9,856	\$13,506
Application of Corridor	N/A	(1,678)
Final Asset Value, December 31, 2008	\$9,856	\$11,828

The actuarial value of assets as of December 31, 2008, was \$11.828 billion. The annualized dollar-weighted rate of return for 2008, measured on the actuarial value of assets, was approximately -9.6% and measured on the market value of assets, as reported by KPERS, was -28.5%, net of investment and administrative expenses.

Due to the use of an asset smoothing method, there is about \$2 billion of net deferred investment loss experience that has not yet been recognized. This deferred investment loss will gradually be reflected in the actuarial value of assets over the next four years, but may be offset by actual investment experience if more favorable than assumed.



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



The rate of return on the actuarial (smoothed) value of assets has been less volatile than the market value return. Due to the significant market loss in 2008, rates of return are expected to be below 8% over the next few years as the deferred investment losses are reflected in the actuarial value of assets.

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). 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 methods will also impact the total actuarial liability (AL) and the unfunded portion thereof.

The unfunded actuarial liability (\$ million) by group is summarized below:

	<u>State</u>	<u>School</u>	<u>Local</u>	<u>KP&F</u>	<u>Judges</u>
Actuarial Liability	\$3,555	\$10,938	\$3,376	\$2,098	\$ 140
Actuarial Value of Assets	<u>2,553</u>	<u>5,699</u>	<u>1,991</u>	<u>1,480</u>	<u>104</u>
Unfunded Actuarial Liability	\$1,002	\$ 5,239	\$1,385	\$ 619	\$ 36

See Table 6 for the detailed development of the Actuarial Liability by System. The calculation of the Unfunded Actuarial Liability by System is shown in Table 8.

When the actuarial cost method was changed by the Legislature in 1993, the payment methodology for the unfunded actuarial liability (UAL) for all groups except the Judges System was set in statute as a level percentage of payroll over a 40 year closed period. Payments on the UAL increase four percent each year, the same as the payroll growth assumption. For over half of the amortization period, the payment is less than the interest accruing on the UAL. As a result, the dollar amount of UAL is expected to increase for many years before it begins to decline. In addition, with the planned difference in KPERS' statutory and actuarial contribution rates prior to the ARC Date, the unfunded actuarial liability is expected to increase by an additional amount each year.

Other factors influencing the UAL from year to year include actual experience versus that expected based on the actuarial assumptions (on both assets and liabilities), changes in actuarial assumptions, procedures or methods and changes in benefit provisions. The actual experience measured in this valuation is that which occurred during the prior plan year (calendar year 2008). The School, Local and KP&F all had a net liability loss for the year. The State and Judges had liability gains for the 2008 year. There was a large experience loss from investment return on the actuarial value of assets for all groups.

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

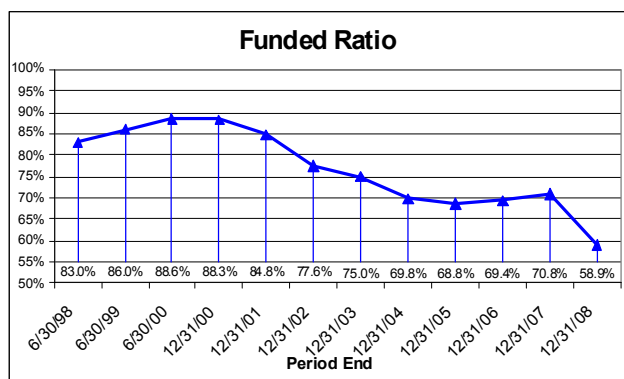
	\$ millions
Unfunded Actuarial Liability, December 31, 2007	\$ 5,552
• effect of contribution cap/time lag	246
• expected increase due to amortization method	71
• loss from investment return	2,332
• demographic experience ¹	110
• all other experience	(32)
• change in actuarial assumptions	0
• change in benefit provisions	0
Unfunded Actuarial Liability, December 31, 2008	\$ 8,279

¹Liability loss is about 0.54% of total actuarial liability.

A detailed summary of the change in the unfunded actuarial liability by System is shown on page 12.

An evaluation of the unfunded actuarial liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. 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. There was a change in actuarial assumptions in the 2004 and 2007 valuations, which impacted the UAL and the funded status. The funded status information is shown below (in millions).

	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Using Actuarial Value of Assets:						
Funded Ratio (AVA/AL)	75%	70%	69%	69%	71%	59%
Unfunded Actuarial Liability (AL-AVA)	\$3,586	\$4,743	\$5,152	\$5,364	\$5,552	\$8,279
Using Market Value of Assets:						
Funded Ratio (AVA/AL)	71%	71%	72%	76%	75%	49%
Unfunded Actuarial Liability (AL-AVA)	\$4,202	\$4,536	\$4,583	\$4,184	\$4,817	\$10,250



Due to strong investment returns, the funded status of the System generally improved in the last half of the 1990's. Changes in actuarial assumptions and methods, coupled with investment returns below the assumed rate (particularly in 2008) significantly reduced the funded ratio in the latter part of the period.

Given the current funded status of the System, the amount of the deferred investment loss, the amortization method, the amortization period, and the scheduled increases in employer contribution rates, the unfunded actuarial liability is expected to continue to grow and the funded ratio is expected to decline for many years.

CONTRIBUTION RATES

The funding objective of the System is to establish contribution rates that over time will remain relatively level, as a percentage of payroll, and to pay off the unfunded actuarial liability by the 2033 valuation.

Generally, the actuarial contribution rates to the various Systems consist of:

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

There is also a statutory contribution rate that is used to finance the Death and Disability Program. Contributions for the Death and Disability Program are deposited in a separate trust fund, from which benefits are paid. A separate actuarial analysis and report is prepared for the Death and Disability Program on June 30 of each year. Therefore, the death and disability contribution rate is not reflected in this report.

The contribution rates in the December 31, 2008 valuation will set rates for fiscal year end 2012 for the State and 2011 for Local employers.

In KPERS, State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap, which has been changed periodically, is currently 0.60% for all groups.

A summary of the actuarial and statutory employer contribution rates for the System is shown below:

System	December 31, 2008 Valuation		Difference
	Actuarial	Statutory	
State	11.13%	8.77%	2.36%
School ¹	14.96%	8.77%	6.19%
Local ¹	10.42%	6.74%	3.68%
Police & Fire - Uniform Rates ²	17.88%	17.88%	0.00%
Judges	26.38%	26.38%	0.00%

¹ By statute, rates are allowed to increase by a maximum of 0.60% plus the cost of any benefit enhancements.

² For KP&F, the statutory contribution rate is equal to the "Uniform" rate. The rate shown is for local employers. The rate for State employers is 14.39% which includes a payment of 0.50% for the debt service payment on the bonds issued for the 13th check. The uniform rate does not include the payment required to amortize the unfunded past service liability or any 15% excess benefit liability determined separately for each employer. (See Table 13.)

Separate employer contribution rates are calculated for two subgroups of the State. Two Correctional Employee Groups, one with normal retirement age 55 and the other with normal retirement age 60 have higher contribution rates to finance the earlier normal retirement age. The actuarial contribution rates for the Correctional Employee Groups are shown below:

	<u>Actuarial Rate</u>	<u>Statutory Rate</u>
Retirement Age 55:	12.92%	9.24%
Retirement Age 60:	11.86%	9.10%

The change in the actuarial contribution rate from December 31, 2007 to December 31, 2008 and the primary components thereof are shown in the table on page 13.

Due to statutory caps, the full actuarial contribution rate is not contributed for the School and Local groups. Based on the current valuation, there is a difference (shortfall) between the actuarial and statutory contribution rates of 2.36%, 6.19% and 3.68% respectively for the State, School and Local groups. Assuming an 8% return on the market value of assets for 2009 and beyond, all other actuarial assumptions are met in the future, and the current level of statutory caps, the ARC Date (statutory and actuarial contribution rates are equal) for the State group is 2022 and the Local group is 2020. The actuarial and statutory rates for School are not projected to converge before the end of the amortization period.

The rate of return on the actuarial value of assets was less than the actuarial assumption, so the experience generated an actuarial loss that increased the UAL. As the remainder of the deferred investment experience is recognized in the actuarial value of assets in the next four years, the contribution rate for the UAL payment can be expected to increase significantly, absent favorable experience to offset the previously unrecognized losses.

COMMENTS

The stock market performance in 2008 was the worst year since 1931 and most retirement plans, both public and private, experienced significant asset losses. The investment return on the market value of assets of KPERS for 2008 was about -28.5%. When compared to the expected return of +8%, the assets were around 37% lower than expected. Such a dramatic drop in the asset value results in a significant increase in the actuarial contribution rate. When the fixed nature of the employee contribution rate is factored into the calculation, the impact on the employer contribution rate 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 by recognizing gains and losses over a period of years (KPERS uses 5 years). As a result, the rate of return on the actuarial value of assets for the 2008 plan year was about -10% as compared to -28.5% on the pure market value. A significant amount of the investment loss has been deferred (about \$2 billion) and will be recognized in future years.

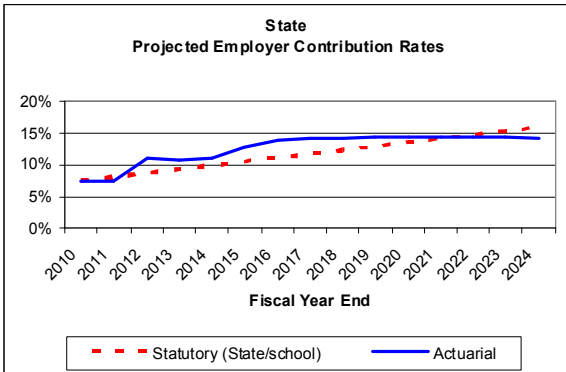
Given the magnitude of the investment loss in 2008, significant increases in the actuarial contribution rate could not be avoided, even with the use of these “stability mechanisms”. The normal cost remained relatively stable as a percentage of payroll, but the unfunded actuarial liability increased significantly in the 2008 valuation. The market experience thus far in 2009 has been volatile and year to date returns are below the 8% expected return. Investment losses in 2009, in addition to those from 2008 that are not yet recognized, could significantly reduce the System’s funded status and increase the actuarial contribution rate in future valuations. The System should be prepared for significantly higher actuarial contribution rates in the next few years, and perhaps longer 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. To illustrate the impact of the deferred losses, the key valuation results are shown below for the State/School and KP&F groups using both the actuarial value of assets and the pure market value. The impact would be similar for the other groups.

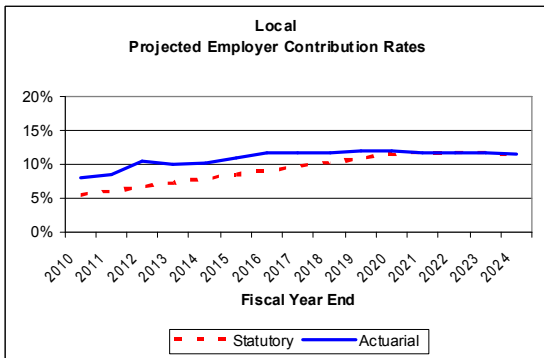
	<u>State/School</u>		<u>KP&F</u>	
	<u>Actuarial</u>	<u>Market</u>	<u>Actuarial</u>	<u>Market</u>
Actuarial Liability	\$14,492	\$14,492	\$2,098	\$2,098
Asset Value	8,252	6,877	1,480	1,233
Unfunded Actuarial Liability	6,240	7,615	618	865
Funded Ratio	57%	47%	71%	59%
Contribution Rate:				
Normal Cost Rate	8.53%	8.53%	14.71%	14.71%
UAL Payment	<u>9.56%</u>	<u>11.62%</u>	<u>9.70%</u>	<u>12.68%</u>
Total	18.09%	20.15%	24.41%	27.39%
Employee Rate	<u>4.00%</u>	<u>4.00%</u>	<u>6.53%</u>	<u>6.53%</u>
Employer Rate	14.09%	16.15%	17.88%	20.86%

The asset smoothing method impacts only the timing of when the actual market experience on the assets will be recognized. Due to the negative return in 2008, the actuarial value of assets after applying the corridor exceeds the pure market value by 20%. If there are not significantly higher returns consistently over the next few years, the \$2 billion 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 based on the market value of assets. Also, see the graphs on the following page that show projected contribution rates assuming an 8% rate of return in all future years.

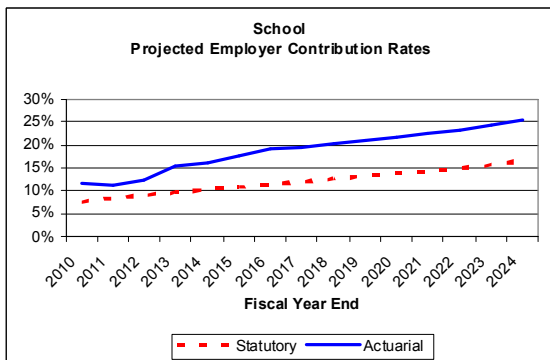
The length and final depth of the market decline is unknown. Historically, markets have recovered and, if this happens, it should help offset some of the current deferred loss. The use of an asset smoothing method defers some of the investment experience from 2008 to later years. Consequently, absent a significant and sustained recovery in the market, part of the unrecognized loss from 2008 will be reflected in the December 31, 2009 and subsequent years’ valuations. Actual investment returns over the next few years will determine exactly how the System’s funding will be affected and the magnitude of the increase in the unfunded actuarial liability and the actuarial contribution rate. The negative return in 2008 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. As a result of the current funded status, the System will face significant funding challenges if investment returns are below the 8% expected return. Further study on the long-term financial health of the System is planned for later this year.



Although the State will be contributing the ARC rate in 2010 through 2012, the actuarial rate is expected to exceed the statutory rate from 2013 until 2022.

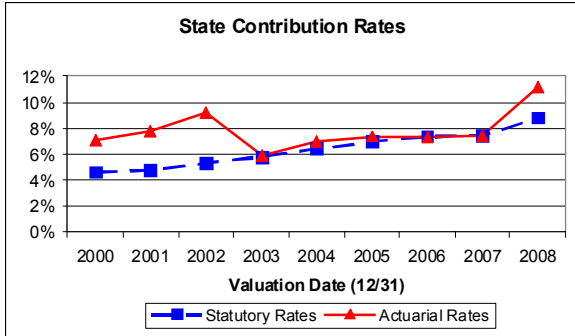


The ARC date is projected to occur in approximately 2020, assuming all actuarial assumptions are met in future years. Actual experience in future years will impact the ARC date.

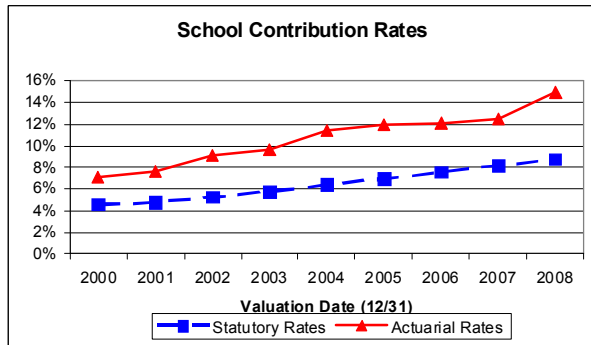


The statutory rate and actuarial contribution rates are not projected to converge before the end of the amortization period. Future experience, especially investment returns, will influence the movement in the ARC Date.

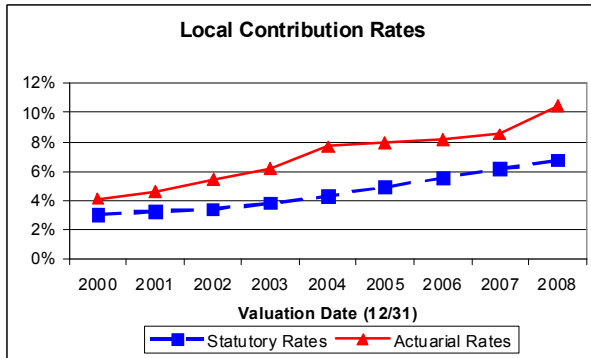
Historical contribution rates for each group are shown on the following pages. Please note that prior to the December 31, 2003 valuation, one contribution rate was developed for the State and School together as one group. Legislation passed in 2004 split the contribution rate calculations into two separate groups, although the statutory contributions are still determined on a combined basis. Significant changes in funding methods as well as a Pension Obligation Bond issue occurred in 2003 and actuarial assumptions were changed in both the 2004 and 2007 valuations. These changes impact the comparability of contribution rates between various valuation dates.



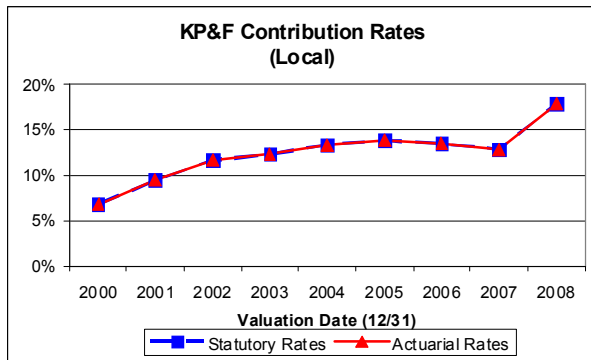
The split of the State group into a separate group with the 2003 valuation, coupled with the bond issue, lowered the actuarial contribution rate. The State's statutory contribution rate in this valuation is less than the actuarial contribution rate due to the impact of the 2008 investment experience.



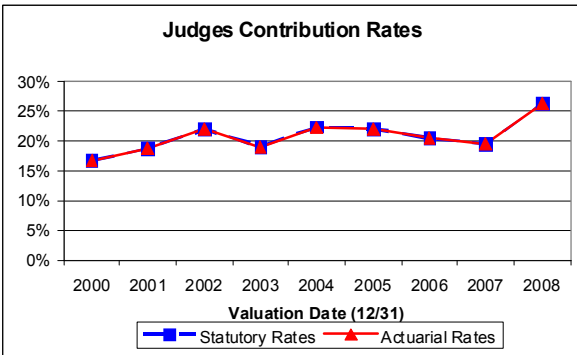
Due to investment experience, changes in actuarial methods and assumptions, and the magnitude of the difference between the actuarial and statutory contribution rates, the funded status of the School group has declined and the actuarial contribution rate has increased.



The Local contribution rate has also been impacted by changes in actuarial assumptions and methods as well as investment performance. As a result, a significant difference still exists between the statutory and actuarial contribution rate. Legislation passed in 2004 provided for increased statutory caps, under which the statutory and actuarial rates are expected to converge if all actuarial assumptions are met in future years.



Investment experience, coupled with a change in actuarial methodology, dramatically increased the contribution rates in the first half of the period. Investment experience in 2008 resulted in a significant increase in the contribution rate in this valuation.



Significant changes in the actuarial assumptions in the 2004 valuation and investment experience in 2008, resulted in higher contribution rates.

Over the past few years, the development of a comprehensive plan to address the long-term funding of KPERS has been a high priority. HB2014, which was passed by the 2003 Legislature, increased the statutory cap on the State/School employer contribution rate from 0.20% to 0.40% in FY2006, 0.50% in FY2007 and 0.60% in FY 2008 and beyond. It also authorized the issuance of up to \$500 million in pension obligation bonds (POBs). The POBs were sold and proceeds of \$440.2 million were received on March 10, 2004. The debt service payments on the bonds are paid by the State in addition to the regular KPERS employer contribution rate.

The 2004 Legislature passed SB520, which continued to address issues related to the long term funding of the System. It gave the KPERS Board of Trustees the authority to establish the actuarial cost method and amortization method/period. With this authority, the Board changed both the actuarial cost method and the asset valuation method with the December 31, 2003 actuarial valuation. SB520 also increased the statutory cap for Local employers from 0.15% to 0.40% in FY2006, 0.50% in FY2007 and 0.60% in FY2008 and beyond.

The 2007 Legislature passed SB362 which created a new benefit structure for members first employed on or after July 1, 2009. The change was made partially due to long term funding considerations, but also in response to demographic changes in the membership.

Based on the December 31, 2008 actuarial valuation results and the current statutory caps, the statutory contribution rates for the State and Local groups are projected to converge with the actuarial required contribution (ARC) rate before the end of the amortization period. As a result, those groups are in long-term actuarial balance. However, these projections assume that all actuarial assumptions are met exactly in each future year. To the extent that actual experience deviates from that expected, the ARC Date (date at which the statutory and actuarial rates are expected to converge), as well as the ARC rate, will vary. For the School group, the unfavorable experience in 2008 has created the situation where the statutory contribution rate is not projected to reach the actuarial required contribution (ARC) rate before the end of the amortization period. Future investment experience will be critical to the financial health of all groups, but particularly the School group. Additional analysis with respect to long-term funding is expected to be performed later this year.

SUMMARY OF CHANGE IN UNFUNDED ACTUARIAL LIABILITY

DECEMBER 31, 2008 VALUATION (\$millions)

	State	School	Local	KP&F	Judges	Total
UAL in 12/31/2007 Valuation Report	\$450.6	\$3,861.6	\$940.5	\$284.3	\$14.8	\$5,551.8 ¹
• Effect of contribution cap/timing	7.5	190.7	50.8	(3.3)	0.1	245.8
• Expected increase due to method	4.7	51.6	12.1	3.2	(0.2)	71.4
• Actual vs. expected experience						
• Investment return	549.8	1,072.4	372.7	315.1	22.3	2,332.3
• Demographic experience	(7.2)	76.9	13.9	26.1	0.5	110.2
• All other experience	(3.7)	(14.6)	(5.4)	(6.7)	(2.0)	(32.4)
• Change in assumptions	0.0	0.0	0.0	0.0	0.0	0.0
• Change in benefit provisions	0.0	0.0	0.0	0.0	0.0	0.0
UAL in 12/31/2008 Valuation Report	\$1,001.7	\$5,238.5	\$1,384.7	\$618.7	\$35.5	\$8,279.2

¹May not add due to rounding.

**SUMMARY OF
CHANGES IN ACTUARIAL CONTRIBUTION RATE
BY SYSTEM
AS OF DECEMBER 31, 2008**

Percentage of Payroll	State	School	Local	KP&F ¹	Judges
Actuarial Contribution Rate in 12/31/2007 Valuation	7.39%	12.48%	8.52%	12.86%	19.49%
Change Due to Amortization of UAL					
• effect of contribution cap/time lag	0.05	0.37	0.23	(0.05)	0.03
• amortization method	0.00	0.00	0.00	0.00	(0.20)
• investment experience	3.65	2.07	1.66	4.77	7.32
• liability experience	(0.05)	0.15	0.06	0.40	0.16
• all other experience	0.05	(0.14)	(0.06)	(0.11)	(0.56)
• change in assumptions	0.00	0.00	0.00	0.00	0.00
• change in benefit provisions	0.00	0.00	0.00	0.00	0.00
Change in Normal Cost Rate					
• change in benefit provisions	0.00	0.00	0.00	0.00	0.00
• change in assumptions	0.00	0.00	0.00	0.00	0.00
• all other experience	0.04	0.03	0.01	0.01	0.14 ²
Actuarial Contribution Rate in 12/31/2008 Valuation	11.13%	14.96%	10.42%	17.88%	26.38%

¹Contribution rate for Local employers only.

²A new benefit structure was established for the Judges' System in July, 1987. The normal cost rate is impacted by the change in membership as members hired before July 1, 1987 leave active employment and are replaced with new entrants, with benefits under the current benefit structure.

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2008 VALUATION

%(millions)	As Reported on Valuation Date									
	6/30/94	6/30/95	6/30/96	6/30/97	6/30/98	6/30/99	6/30/00	12/31/00	12/31/01	12/31/02
Actual Experience vs. Assumed										
• Investment	\$(102)	\$(143)	\$(280)	\$(323)	\$(413)	\$(360)	\$(441)	\$(23)	\$350	\$644
• Other	320	72	136	157	104	46	99	84	(9)	68
Assumption Changes	0	(96)	0	0	350	0	0	(206)	0	0
Changes in Data/Procedures	244	0	0	0	0	21	71	145**	5	177**
Change in Cost Method	0	0	0	0	0	0	0	0	0	0
Effect of Contribution Cap/Lag	*	95	70	63	54	78	66	60	115	143
Amortization Method	*	47	38	35	32	30	22	12	14	21
Change in Benefit Provisions	75	0	0	0	88	0	19	0	0	37
Bond Issue	0	0	0	0	0	0	0	0	0	(41)
Total	\$537	\$(25)	\$(36)	\$(68)	\$215	\$(194)	\$(164)	\$72	\$475	\$1,048

*Not calculated for this year.

Unfunded actuarial liability 6/30/93: \$ 968 million
 Unfunded actuarial liability 12/31/08: \$ 8,279 million

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2008 VALUATION (continued)

\$(millions)	As Reported on Valuation Date						Total
	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08	
Actual Experience vs. Assumed							
• Investment	\$140	\$456	\$167	\$(293)	\$(626)	\$2,332	\$1,085
• Other	(32)	16	(84)	139	99	78	1,293
Assumption Changes	0	437	(5)	0	384	0	864
Changes in Data/Procedures	(286) ^{***}	0	0	0	0	0	377
Change in Cost Method	1,147	0	0	0	0	0	1,147
Effect of Contribution Cap/Lag	178	179	247	258	251	246	2,103
Amortization Method	47	68	84	83	78	71	682
Change in Benefit Provisions	3	1	0	24	2	0	249
Bond Issue	(440)	0	0	0	0	0	(481)
Total	\$757	\$1,157	\$409	\$211	\$188	\$2,727	\$8,279

** Reflects the impact of re-establishing the KP&F Supplemental Actuarial Liability at December 31, 2002. The additional unfunded actuarial liability as of December 31, 2000 for the State/School and Local groups not recognized in the prior valuation due to the phase-in of the change in actuarial procedures is included.

*** Change in asset valuation method.

Unfunded actuarial liability 6/30/93: \$ 968 million
Unfunded actuarial liability 12/31/08: \$ 8,279 million

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM (STATE)

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	24,374	24,024	1.5 %
Retired Members and Beneficiaries	15,621	14,994	4.2
Inactive Members	5,712	6,025	(5.2)
Total Members	45,707	45,043	1.5
Projected Annual Salaries of Active Members	\$ 972,080,168	\$ 954,472,949	1.8
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 178,648,359	\$ 167,939,366	6.4
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 3,554,600,691	\$ 3,422,120,738	3.9
b. Assets for Valuation Purposes	2,552,895,270	2,971,538,701	(14.1)
c. Market Value of Assets	2,127,412,725	3,094,367,129	(31.2)
d. Unfunded Actuarial Liability (a) - (b)	1,001,705,421	450,582,037	122.3
e. Funded Ratio (a) / (b)	71.8%	86.8%	(17.3)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	4.17%	4.13%	
Amortization of Unfunded Actuarial and Debt Service	<u>6.96%</u>	<u>3.26%</u>	
Actuarial Contribution Rate	11.13%	7.39%	
Statutory Employer Contribution Rate*	<u>8.77%</u>	<u>8.17%</u>	

* Statutory Employer Contribution Rate may not exceed last year's rate by more than rate increase limit of 0.60%. This rate does not include the contribution rate for the Death and Disability Program. Any excess of the statutory over actuarial contribution rates times actual State payroll is deposited to the School assets.

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM (SCHOOL)

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	87,948	86,468	1.7 %
Retired Members and Beneficiaries	37,346	35,412	5.5
Inactive Members	24,212	23,653	2.4
Total Members	149,506	145,533	2.7
Projected Annual Salaries of Active Members	\$ 3,345,545,288	\$ 3,172,108,563	5.5
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 477,612,789	\$ 444,027,093	7.6
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 10,937,800,107	\$ 10,316,004,061	6.0
b. Assets for Valuation Purposes	5,699,278,482	6,454,380,538	(11.7)
c. Market Value of Assets	4,749,398,735	6,863,242,512	(30.8)
d. Unfunded Actuarial Liability (a) - (b)	5,238,521,625	3,861,623,523	35.7
e. Funded Ratio (a) / (b)	52.1%	62.6%	(16.7)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	4.64%	4.61%	
Amortization of Unfunded Actuarial and Debt Service	<u>10.32%</u>	<u>7.87%</u>	
Actuarial Contribution Rate	14.96%	12.48%	
Statutory Employer Contribution Rate*	<u>8.77%</u>	<u>8.17%</u>	

* Statutory Employer Contribution Rate may not exceed last year's rate by more than rate increase limit of 0.60%. This rate does not include the contribution rate for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM (STATE/SCHOOL)

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	112,322	110,492	1.7 %
Retired Members and Beneficiaries	52,967	50,406	5.1
Inactive Members	29,924	29,678	0.8
Total Members	195,213	190,576	2.4
Projected Annual Salaries of Active Members	\$ 4,317,625,457	\$ 4,126,581,512	4.6
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 656,261,148	\$ 611,966,459	7.2
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 14,492,400,798	\$ 13,738,124,799	5.5
b. Assets for Valuation Purposes	8,252,173,752	9,425,919,239	(12.5)
c. Market Value of Assets	6,876,811,460	\$ 9,957,609,641	(30.9)
d. Unfunded Actuarial Liability (a) - (b)	6,240,227,046	4,312,205,560	44.7
e. Funded Ratio (a) / (b)	56.9%	68.6%	(17.0)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	4.53%	4.50%	
Amortization of Unfunded Actuarial and Debt Service	<u>9.56%</u>	<u>6.80%</u>	
Actuarial Contribution Rate	14.09%	11.30%	
Statutory Employer Contribution Rate*	<u>8.77%</u>	<u>8.17%</u>	

* Statutory Employer Contribution Rate may not exceed last year's rate by more than rate increase limit of 0.60%. This rate does not include the contribution rate for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM (LOCAL)

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	36,247	35,914	0.9 %
Retired Members and Beneficiaries	13,501	12,761	5.8
Inactive Members	10,466	10,373	0.9
Total Members	60,214	59,048	2.0
Projected Annual Salaries of Active Members	\$ 1,454,109,452	\$ 1,387,401,497	4.8
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 118,235,853	\$ 108,829,381	8.6
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 3,376,131,873	\$ 3,147,020,449	7.3
b. Assets for Valuation Purposes	1,991,428,225	2,206,473,161	(9.7)
c. Market Value of Assets	1,659,523,521	2,339,695,800	(29.1)
d. Unfunded Actuarial Liability (a) - (b)	1,384,703,648	940,547,288	47.2
e. Funded Ratio (a) / (b)	59.0%	70.1%	(15.9)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	4.15%	4.14%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>6.27%</u>	<u>4.38%</u>	
Actuarial Contribution Rate	10.42%	8.52%	
Statutory Employer Contribution Rate*	<u>6.74%</u>	<u>6.14%</u>	

* Statutory Employer Contribution Rate exceeds last year's rate by the statutory rate increase limit of 0.60%. This rate does not include the contribution rate for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

KANSAS POLICE AND FIREMEN'S RETIREMENT SYSTEM

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	7,242	7,137	1.5 %
Retired Members and Beneficiaries	3,909	3,755	4.1
Inactive Members	1,348	1,318	2.3
Total Members	12,499	12,210	2.4
Projected Annual Salaries of Active Members	\$ 426,955,831	\$ 408,162,049	4.6
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 98,058,811	\$ 92,223,463	6.3
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 2,098,292,549	\$ 1,968,168,480	6.6
b. Assets for Valuation Purposes	1,479,595,175	1,683,915,313	(12.1)
c. Market Value of Assets	1,232,995,979	1,749,740,089	(29.5)
d. Unfunded Actuarial Liability (a) - (b)	618,697,374	284,253,167	117.7
e. Funded Ratio (a) / (b)	70.5%	85.6%	(17.6)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	8.18%	8.17%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>9.70%</u>	<u>4.69%</u>	
Actuarial Contribution Rate (Local Employers)	17.88%	12.86%	
Statutory Employer Contribution Rate*	<u>17.88%</u>	<u>12.86%</u>	

* The Statutory Employer Contribution Rate is equal to the Actuarial Rate. This is referred to as the "Uniform" rate, and varies for State and Local employers. The total contribution is equal to the appropriate uniform rate plus the payment required to amortize any unfunded past service liability or 15% excess benefit liability, determined separately for each employer.

SUMMARY OF PRINCIPAL RESULTS

KANSAS RETIREMENT SYSTEM FOR JUDGES

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	262	261	0.4 %
Retired Members and Beneficiaries	190	180	5.6
Inactive Members	11	14	(21.4)
Total Members	463	455	1.8
Projected Annual Salaries of Active Members	\$ 27,835,460	\$ 27,083,186	2.8
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 6,682,870	\$ 6,092,952	9.7
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 139,961,680	\$ 131,601,196	6.4
b. Assets for Valuation Purposes	104,421,422	116,807,301	(10.6)
c. Market Value of Assets	87,017,852	120,840,352	(28.0)
d. Unfunded Actuarial Liability (a) - (b)	35,540,258	14,793,895	140.2
e. Funded Ratio (a) / (b)	74.6%	88.8%	(15.9)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost	14.63%	14.49%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>11.75%</u>	<u>5.00%</u>	
Actuarial Contribution Rate	26.38%	19.49%	
Statutory Employer Contribution Rate*	<u>26.38%</u>	<u>19.49%</u>	

* Statutory Employer Contribution Rate is equal to the Actuarial Rate.
This rate excludes the contribution for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

ALL SYSTEMS COMBINED

	12/31/2008 Valuation	12/31/2007 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	156,073	153,804	1.5 %
Retired Members and Beneficiaries	70,567	67,102	5.2
Inactive Members	41,749	41,383	0.9
Total Members	268,389	262,289	2.3
Projected Annual Salaries of Active Members	\$ 6,226,526,200	\$ 5,949,228,244	4.7
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 879,238,682	\$ 819,112,255	7.3
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 20,106,786,900	\$ 18,984,914,924	5.9
b. Assets for Valuation Purposes	11,827,618,574	13,433,115,014	(12.0)
c. Market Value of Assets	9,856,348,812	14,167,885,882	(30.4)
d. Unfunded Actuarial Liability (a) - (b)	8,279,168,326	5,551,799,910	49.1
e. Funded Ratio (a) / (b)	58.8%	70.8%	(16.9)

SECTION 2

SCOPE OF THE REPORT

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

The reader is encouraged to review the actuarial certification letter, where the guidelines employed in the preparation of this report are outlined. Also included in this letter are comments 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.

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 December 31, 2008, as amended by any changes enacted by the 2009 Legislature.
- 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.

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SECTION 3

ASSETS

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 (excluding receivables) for the Retirement System was \$9.856 billion. Table 1 is a comparison, at market values, of System assets as of December 31, 2008, 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 to December 31, 2008 by System.

Actuarial Value of Assets

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

To arrive at a suitable value for the actuarial valuation, a technique for determining the actuarial value of assets is used which dampens swings in the market value while still indirectly recognizing market values. The asset smoothing method was implemented with the December 31, 2003 actuarial valuation.

Under the asset smoothing method, the difference between the actual return and the expected return (based on the actuarial assumed rate of return) on the market value of assets is calculated each year and recognized equally over a five year period. The resulting value must not be less than 80% of market value and no more than 120% of market value (referred to as the 80%-120% corridor).

Tables 3A through 3F and Table 4 show the development of the actuarial value of assets (AVA) as of December 31, 2008.

TABLE 1
ANALYSIS OF NET ASSETS AT MARKET VALUE

	December 31, 2008			December 31, 2007		
	<u>Amount</u> (\$ Millions)	<u>% of</u> <u>Total</u>		<u>Amount</u> (\$ Millions)	<u>% of</u> <u>Total</u>	
Cash & Equivalents	\$ 682	6.9	%	\$ 887	6.2	%
Alternative Investments	398	4.0		421	3.0	
Real Estate	800	8.1		1,004	7.1	
Fixed Income	3,512	35.3		4,054	28.5	
Domestic Equity	2,562	25.8		4,355	30.6	
International Equity	1,971	19.9		3,490	24.6	
Subtotal	\$ 9,925	100.0	%	\$ 14,211	100.0	%
Administrative Reserves	(18)			(16)		
Group Insurance and Optional Life Reserves	(51)			(34)		
Net Assets	\$ 9,856			\$ 14,161		
Receivables	0			7		
Adjusted Net Assets	\$ 9,856			\$ 14,168		

Allocation of Net Assets on December 31, 2008:

State	\$ 2,127
School	4,749
Local	1,660
KP&F	1,233
Judges	87
Total Net Assets	\$ 9,856 ¹

¹ May not add due to rounding

TABLE 2
SUMMARY OF CHANGES IN KPERS ASSETS
DURING PERIOD ENDED DECEMBER 31, 2008

(Market Value)

	State	School	Local	Total KPERS
Market Value of Assets as of January 1, 2008*	\$ 3,094,367,129	\$ 6,863,242,512	\$ 2,339,695,800	\$ 12,297,305,441
Contributions:				
Employee	37,947,783	127,955,865	55,952,890	221,856,538
Employee service purchases	3,112,056	7,906,553	3,755,501	14,774,110
Employer	62,906,394	215,371,719	70,258,974	348,537,087
Miscellaneous	65,927	54,515	0	120,442
Total Contributions	<u>104,032,160</u>	<u>351,288,652</u>	<u>129,967,365</u>	<u>585,288,177</u>
Total Investment Income	<u>(864,369,880)</u>	<u>(1,922,259,767)</u>	<u>(661,997,407)</u>	<u>(3,448,627,054)</u>
Total Income	(760,337,720)	(1,570,971,115)	(532,030,042)	(2,863,338,877)
Less Benefits:				
Annuity Retirement Benefits	(176,508,111)	(460,376,862)	(113,601,005)	(750,485,978)
Partial Lump Sum Benefits	(16,620,918)	(54,267,985)	(16,909,102)	(87,798,005)
Retirant Dividends	(3,095,305)	(6,459,174)	(2,034,007)	(11,588,486)
Withdrawals	(6,372,653)	(16,890,230)	(12,681,722)	(35,944,605)
Death Benefits	(4,019,697)	(4,878,411)	(2,916,401)	(11,814,509)
Total Benefits	<u>(206,616,684)</u>	<u>(542,872,662)</u>	<u>(148,142,237)</u>	<u>(897,631,583)</u>
Net Increase in Assets	(966,954,404)	(2,113,843,777)	(680,172,279)	(3,760,970,460)
Receivables	0	0	0	0
Market Value of Assets as of December 31, 2008*	\$ 2,127,412,725	\$ 4,749,398,735	\$ 1,659,523,521	\$ 8,536,334,981

* Note: Assets exclude insurance and administrative reserves.

**TABLE 2 (cont.)
SUMMARY OF CHANGES IN KPERS ASSETS
DURING PERIOD ENDED DECEMBER 31, 2008**

(Market Value)

	KPERS	KP&F	Judges	Total
Market Value of Assets as of January 1, 2008*	\$ 12,297,305,441	\$ 1,749,740,089	\$ 120,840,352	\$ 14,167,885,882
Contributions:				
Employee	221,856,538	28,899,304	1,430,008	252,185,850
Employee service purchases	14,774,110	909,045	18,212	15,701,367
Employer	348,537,087	60,121,850	5,923,517	414,582,454
Miscellaneous	120,442	20,986	0	141,428
Total Contributions	<u>585,288,177</u>	<u>89,951,185</u>	<u>7,371,737</u>	<u>682,611,099</u>
Total Investment Income	<u>(3,448,627,054)</u>	<u>(493,737,249)</u>	<u>(34,407,113)</u>	<u>(3,976,771,416)</u>
Total Income	<u>(2,863,338,877)</u>	<u>(403,786,064)</u>	<u>(27,035,376)</u>	<u>(3,294,160,317)</u>
Less Benefits:				
Annuity Retirement Benefits	(750,485,978)	(96,145,684)	(6,407,954)	(853,039,616)
Partial Lump Sum Benefits	(87,798,005)	(11,155,623)	(307,824)	(99,261,452)
Retirant Dividends	(11,588,486)	(1,719,497)	(57,877)	(13,365,860)
Withdrawals	(35,944,605)	(3,239,613)	-	(39,184,218)
Death Benefits	(11,814,509)	(697,629)	(13,469)	(12,525,607)
Total Benefits	<u>(897,631,583)</u>	<u>(112,958,046)</u>	<u>(6,787,124)</u>	<u>(1,017,376,753)</u>
Receivables	0	0	0	0
Net Increase in Assets	(3,760,970,460)	(516,744,110)	(33,822,500)	(4,311,537,070)
Market Value of Assets as of December 31, 2008*	\$ 8,536,334,981	\$ 1,232,995,979	\$ 87,017,852	\$ 9,856,348,812

* Note: Assets exclude insurance and administrative reserves.

TABLE 3A
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF NET ASSETS
State*

	Plan Year End			
	12/31/2005	12/31/2006	12/31/2007	12/31/2008
1. Market Value of Assets, beginning of year	\$ 2,553,610,968	\$ 2,680,153,605	\$ 2,947,274,021	\$ 3,094,367,129
2. Contributions during year	80,477,494	90,064,863	97,593,959	104,032,160
3. Benefits during year	(172,670,110)	(184,716,537)	(196,796,956)	(206,616,684)
4. Expected net investment income	200,672,116	210,699,057	231,890,140	243,524,930
5. Transfers and receivables	0	2,300,000	2,220,000	0
6. Expected Value of Assets, end of year	2,662,090,468	2,798,500,988	3,082,181,164	3,235,307,535
7. Market Value of Assets, end of year	2,680,153,605	2,947,274,021	3,094,367,129	2,127,412,725
8. Excess (shortfall) of net investment income	\$ 18,063,137	\$ 148,773,033	\$ 12,185,965	\$ (1,107,894,810)

* Includes asset values for the TIAA group

TABLE 3B
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF NET ASSETS
School

	Plan Year End			
	12/31/2005	12/31/2006	12/31/2007	12/31/2008
1. Market Value of Assets, beginning of year	\$ 5,427,574,148	\$ 5,773,541,598	\$ 6,501,191,800	\$ 6,863,242,512
2. Contributions during year	247,762,716	277,813,825	312,360,158	351,288,652
3. Benefits during year	(442,053,181)	(473,994,469)	(519,171,843)	(542,872,662)
4. Expected net investment income	426,583,823	454,187,066	511,982,021	541,543,467
5. Transfers and receivables	0	4,600,000	4,730,000	0
6. Expected Value of Assets, end of year	5,659,867,506	6,036,148,020	6,811,092,136	7,213,201,969
7. Market Value of Assets, end of year	5,773,541,598	6,501,191,800	6,863,242,512	4,749,398,735
8. Excess (shortfall) of net investment income	\$ 113,674,092	\$ 465,043,780	\$ 52,150,376	\$ (2,463,803,234)

TABLE 3C
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF NET ASSETS
State/School*

	Plan Year End			
	12/31/2005	12/31/2006	12/31/2007	12/31/2008
1. Market Value of Assets, beginning of year	\$ 7,981,185,116	\$ 8,453,695,203	\$ 9,448,465,821	\$ 9,957,609,641
2. Contributions during year	328,240,210	367,878,688	409,954,117	455,320,812
3. Benefits during year	(614,723,291)	(658,711,006)	(715,968,799)	(749,489,346)
4. Expected net investment income	627,255,939	664,886,123	743,872,161	785,068,397
5. Transfers and receivables	0	6,900,000	6,950,000	0
6. Expected Value of Assets, end of year	8,321,957,974	8,834,649,008	9,893,273,300	10,448,509,504
7. Market Value of Assets, end of year	8,453,695,203	9,448,465,821	9,957,609,641	6,876,811,460
8. Excess (shortfall) of net investment income	\$ 131,737,229	\$ 613,816,813	\$ 64,336,341	\$ (3,571,698,044)

* Includes asset values for the TIAA group

TABLE 3D
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF NET ASSETS
Local

	Plan Year End			
	12/31/2005	12/31/2006	12/31/2007	12/31/2008
1. Market Value of Assets, beginning of year	\$ 1,743,287,610	\$ 1,897,431,737	\$ 2,176,385,696	\$ 2,339,695,800
2. Contributions during year	96,419,499	104,980,627	116,832,356	129,967,365
3. Benefits during year	(117,896,660)	(127,971,578)	(143,255,820)	(148,142,237)
4. Expected net investment income	138,620,449	150,892,593	173,074,250	186,462,655
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	1,860,430,898	2,025,333,379	2,323,036,482	2,507,983,583
7. Market Value of Assets, end of year	1,897,431,737	2,176,385,696	2,339,695,800	1,659,523,521
8. Excess (shortfall) of net investment income	\$ 37,000,839	\$ 151,052,317	\$ 16,659,318	\$ (848,460,062)

TABLE 3E
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF NET ASSETS
KP&F

	12/31/2005	12/31/2006	12/31/2007	12/31/2008
1. Market Value of Assets, beginning of year	\$ 1,363,065,004	\$ 1,459,554,937	\$ 1,632,582,900	\$ 1,749,740,089
2. Contributions during year	71,931,377	79,129,699	90,227,912	89,951,185
3. Benefits during year	(93,936,263)	(102,440,958)	(108,568,763)	(112,958,046)
4. Expected net investment income	108,181,938	115,849,883	129,887,112	139,076,637
5. Transfers and receivables	0	100,000	90,000	0
6. Expected Value of Assets, end of year	1,449,242,056	1,552,093,561	1,744,219,161	1,865,809,865
7. Market Value of Assets, end of year	1,459,554,937	1,632,582,900	1,749,740,089	1,232,995,979
8. Excess (shortfall) of net investment income	\$ 10,312,881	\$ 80,489,339	\$ 5,520,928	\$ (632,813,886)

TABLE 3F
CALCULATION OF EXCESS (SHORTFALL) INVESTMENT INCOME FOR
ACTUARIAL VALUE OF NET ASSETS
Judges

	12/31/2005	12/31/2006	12/31/2007	12/31/2008
1. Market Value of Assets, beginning of year	\$ 90,483,059	\$ 98,126,948	\$ 111,406,613	\$ 120,840,352
2. Contributions during year	5,729,305	6,514,385	6,909,103	7,371,737
3. Benefits during year	(5,920,730)	(6,046,384)	(6,672,286)	(6,787,124)
4. Expected net investment income	7,231,135	7,868,516	8,921,819	9,690,163
5. Transfers and receivables	0	0	20,000	0
6. Expected Value of Assets, end of year	97,522,769	106,463,465	120,585,249	131,115,128
7. Market Value of Assets, end of year	98,126,948	111,406,613	120,840,352	87,017,852
8. Excess (shortfall) of net investment income	\$ 604,179	\$ 4,943,148	\$ 255,103	\$ (44,097,276)

TABLE 4
DEVELOPMENT OF ACTUARIAL VALUE OF NET ASSETS

	State/School	State	School	Local	Total KPERS
1. Excess (shortfall) of investment income					
a. Year ending 12/31/08	\$ (3,571,698,044)	\$ (1,107,894,810)	\$ (2,463,803,234)	\$ (848,460,062)	\$ (4,420,158,106)
b. Year ending 12/31/07	64,336,341	12,185,965	52,150,376	16,659,318	80,995,659
c. Year ending 12/31/06	613,816,813	148,773,033	465,043,780	151,052,317	764,869,130
d. Year ending 12/31/05	131,737,229	18,063,137	113,674,092	37,000,839	168,738,068
e. Total	<u>\$ (2,761,807,661)</u>	<u>\$ (928,872,675)</u>	<u>\$ (1,832,934,986)</u>	<u>\$ (643,747,588)</u>	<u>\$ (3,405,555,249)</u>
2. Deferral of excess (shortfall) of investment income					
a. Year ending 12/31/08 (80%)	(2,857,358,435)	(886,315,848)	(1,971,042,587)	(678,768,050)	(3,536,126,485)
b. Year ending 12/31/07 (60%)	38,601,805	7,311,579	31,290,226	9,995,591	48,597,396
c. Year ending 12/31/06 (40%)	245,526,725	59,509,213	186,017,512	60,420,927	305,947,652
d. Year ending 12/31/05 (20%)	26,347,445	3,612,627	22,734,818	7,400,168	33,747,613
e. Total	<u>\$ (2,546,882,460)</u>	<u>\$ (815,882,429)</u>	<u>\$ (1,731,000,031)</u>	<u>\$ (600,951,364)</u>	<u>\$ (3,147,833,824)</u>
3. Market Value of Assets, end of year	\$ 6,876,811,460	\$ 2,127,412,725	\$ 4,749,398,735	\$ 1,659,523,521	\$ 8,536,334,981
4. Preliminary Actuarial Value of Assets, end of year (3) - (2e)	\$ 9,423,693,920	\$ 2,943,295,154	\$ 6,480,398,766	\$ 2,260,474,885	\$ 11,684,168,805
5. Smoothing corridor					
a. 80% of market value	5,501,449,168	1,701,930,180	3,799,518,988	1,327,618,817	6,829,067,985
b. 120% of market value	8,252,173,752	2,552,895,270	5,699,278,482	1,991,428,225	10,243,601,977
6. Actuarial Value of Assets, end of year (4), but not <(5a) and not >(5b)	\$ 8,252,173,752	\$ 2,552,895,270	\$ 5,699,278,482	\$ 1,991,428,225	\$ 10,243,601,977
7. Actuarial Value divided by market value (6)/(3)	120.0%	120.0%	120.0%	120.0%	120.0%

**TABLE 4 (cont.)
DEVELOPMENT OF ACTUARIAL VALUE OF NET ASSETS**

	Total KPERS	KP&F	Judges	Total
1. Excess (shortfall) of investment income				
a. Year ending 12/31/08	\$ (4,420,158,106)	\$ (632,813,886)	\$ (44,097,276)	\$ (5,097,069,268)
b. Year ending 12/31/07	80,995,659	5,520,928	255,103	86,771,690
c. Year ending 12/31/06	764,869,130	80,489,339	4,943,148	850,301,617
d. Year ending 12/31/05	168,738,068	10,312,881	604,179	179,655,128
e. Total	<u>\$ (3,405,555,249)</u>	<u>\$ (536,490,738)</u>	<u>\$ (38,294,846)</u>	<u>\$ (3,980,340,833)</u>
2. Deferral of excess (shortfall) of investment income				
a. Year ending 12/31/08 (80%)	(3,536,126,485)	(506,251,109)	(35,277,821)	(4,077,655,415)
b. Year ending 12/31/07 (60%)	48,597,396	3,312,557	153,062	52,063,015
c. Year ending 12/31/06 (40%)	305,947,652	32,195,736	1,977,259	340,120,647
d. Year ending 12/31/05 (20%)	33,747,613	2,062,576	120,836	35,931,025
e. Total	<u>\$ (3,147,833,824)</u>	<u>\$ (468,680,240)</u>	<u>\$ (33,026,664)</u>	<u>\$ (3,649,540,728)</u>
3. Market Value of Assets, end of year	\$ 8,536,334,981	\$ 1,232,995,979	\$ 87,017,852	\$ 9,856,348,812
4. Preliminary Actuarial Value of Assets, end of year	\$ 11,684,168,805	\$ 1,701,676,219	\$ 120,044,516	\$ 13,505,889,540
(3) - (2e)				
5. Smoothing corridor				
a. 80% of market value	6,829,067,985	986,396,783	69,614,282	7,885,079,050
b. 120% of market value	10,243,601,977	1,479,595,175	104,421,422	11,827,618,574
6. Actuarial Value of Assets, end of year (4), but not <(5a) and not >(5b)	\$ 10,243,601,977	\$ 1,479,595,175	\$ 104,421,422	\$ 11,827,618,574
7. Actuarial Value divided by market value (6)/(3)	120.0%	120.0%	120.0%	120.0%

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 analysis is provided for each group.

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 measures of both benefits already earned and future benefits expected to be earned. For all members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and, if an optional benefit is chosen, for the lives of the surviving beneficiaries.

The actuarial assumptions used to determine liabilities are based on the results of the 2007 Triennial Experience Study. This set of assumptions, as shown in Appendix C, was adopted by the Board in November 2007 and was first used for the December 31, 2007 valuation.

The liabilities reflect the benefit structure in place as of December 31, 2008 plus the provisions of any legislation passed by the 2009 Legislature.

Actuarial Liabilities

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 6 contains the calculation of actuarial liabilities for all groups.

TABLE 5
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF DECEMBER 31, 2008

	State	School	Local	Total KERS
1. Active employees				
a. Retirement Benefit	\$ 2,160,810,632	\$ 7,792,490,171	\$ 2,707,894,707	\$ 12,661,195,510
b. Pre-Retirement Death Benefit	27,304,936	57,160,817	46,809,531	131,275,284
c. Withdrawal Benefit	97,651,573	312,467,974	160,006,664	570,126,211
d. Disability Benefit	102,420,694	201,827,841	122,410,188	426,658,723
e. Total	<u>2,388,187,835</u>	<u>8,363,946,803</u>	<u>3,037,121,090</u>	<u>13,789,255,728</u>
2. Inactive Vested Members	114,934,962	231,887,766	135,434,698	482,257,426
3. Inactive Nonvested Members	9,960,075	35,846,644	23,426,833	69,233,552
4. Disabled Members	74,708,289	88,015,863	54,503,770	217,227,922
5. Retirees	1,432,976,553	4,349,501,129	960,325,231	6,742,802,913
6. Beneficiaries	91,588,336	117,115,027	70,422,903	279,126,266
7. Unclaimed Account Reserve	<u>668,200</u>	<u>1,331,800</u>	<u>500,000</u>	<u>2,500,000</u>
8. Total PVFB	<u>\$ 4,113,024,250</u>	<u>\$ 13,187,645,032</u>	<u>\$ 4,281,734,525</u>	<u>\$ 21,582,403,807</u>

**TABLE 5 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF DECEMBER 31, 2008**

	KP&F	Judges
1. Active employees		
a. Retirement Benefit	\$ 1,381,187,185	\$ 115,617,275
b. Pre-Retirement Death Benefit	20,472,021	1,049,592
c. Withdrawal Benefit	47,605,282	34,308
d. Disability Benefit	203,488,252	0
e. Total	<u>1,652,752,740</u>	<u>116,701,175</u>
2. Inactive Vested Members	40,890,068	712,842
3. Inactive Nonvested Members	11,464,524	0
4. Disabled Members	95,770,407	0
5. Retirees	771,367,996	52,426,215
6. Beneficiaries	<u>91,339,795</u>	<u>8,389,397</u>
7. Total PVFB	<u>\$ 2,663,585,530</u>	<u>\$ 178,229,629</u>

TABLE 6
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL LIABILITIES
AS OF DECEMBER 31, 2008

	State	School	Local	Total KPERS
1. Present Value of Future Benefits	\$ 4,113,024,250	\$ 13,187,645,032	\$ 4,281,734,525	\$ 21,582,403,807
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	\$ 405,442,078	\$ 1,814,483,871	\$ 666,950,565	\$ 2,886,876,514
b. Pre-Retirement Death Benefit	6,915,237	17,348,866	14,246,501	38,510,604
c. Withdrawal Benefit	107,336,749	350,283,714	178,987,292	636,607,755
d. Disability Benefit	38,729,495	67,728,474	45,418,294	151,876,263
e. Total	<u>558,423,559</u>	<u>2,249,844,925</u>	<u>905,602,652</u>	<u>3,713,871,136</u>
3. Total Actuarial Liability (1) - (2e)	<u>\$ 3,554,600,691</u>	<u>\$ 10,937,800,107</u>	<u>\$ 3,376,131,873</u>	<u>\$ 17,868,532,671</u>

**TABLE 6 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL LIABILITIES
AS OF DECEMBER 31, 2008**

	KP&F	Judges
1. Present Value of Future Benefits	\$ 2,663,585,530	\$ 178,229,629
2. Present Value of Future Normal Costs for Active Members		
a. Retirement Benefit	\$ 387,581,475	\$ 37,780,702
b. Pre-Retirement Death Benefit	12,734,349	441,367
c. Withdrawal Benefit	60,508,502	45,880
d. Disability Benefit	104,468,655	0
e. Total	<u>565,292,981</u>	<u>38,267,949</u>
3. Total Actuarial Liability (1) - (2e)	<u>\$ 2,098,292,549</u>	<u>\$ 139,961,680</u>

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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 4 and 6 indicates that current assets fall short of meeting the present value of future benefits (total liability). This is expected in all but a fully closed down 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 and (2) the payment on the unfunded actuarial liability.

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 and/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.

Description of Rate Components

Commencing with the December 31, 2003 actuarial valuation, the actuarial cost method for all three systems was changed to the traditional Entry Age Normal (EAN) – level percent of pay cost method. Under the EAN cost method, the actuarial present value of each member’s projected benefits allocates on a level basis over the member’s compensation 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 actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability 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.

The contribution rates based on this December 31, 2008 actuarial valuation will be used to determine employer contribution rates to the Kansas Public Employees Retirement System for fiscal years beginning in 2011 (July 1, 2011 to June 30, 2012 for the State and calendar year 2011 for Local employers).

KPERS

The law provides for the calculation of separate employer contribution rates for three groups: State, School and Local (for all other covered employers).

Legislation provides that the employer rates of contribution for the State and School recommended by the Board of Trustees for all groups may not increase more than 0.40% in FY2006, 0.50% in FY2007 and 0.60% in FY2008 and later. Contribution rates for the Local group cannot increase more than 0.40% in 2006, 0.50% in 2007 and 0.60% in 2008 and later. Such limits on the increase in the statutory contribution rate do not apply to the increase in the employer contribution rate for benefit enhancements. Although not shown in these rates, the total contribution rates for KPERS employers include the statutory employer contribution to the KPERS Group Life Insurance.

There are several components of the unfunded actuarial liability which are amortized over different periods. The increase in the unfunded actuarial liability resulting from the 1998 COLA is amortized over 15 years. The increase in the unfunded actuarial liability for Local employers resulting from 2003 legislation which made the 13th check for pre-July 2, 1987 retirees a permanent benefit is funded over a 10 year period, with the first contribution in 2005 (4 years remaining in FY2011, the fiscal year for which this valuation sets the contribution rate). The increase in the unfunded actuarial liability due to the \$300 one-time payment to retirees in 2007 and 2008 is amortized over 10 years (Local only). The State funded the increased liability for the \$300 one-time payment for its members in both 2007 and 2008. The remainder of the unfunded actuarial liability is amortized over a period originally set at 40 years beginning July 1, 1993. At the December 31, 2008 valuation date, twenty-four (24) years remain in that period.

The UAL is amortized as a level percentage of payroll. The payroll growth assumption is 4% so the annual amortization payments will increase 4% each year. As a result, if total payroll grows 4% per year, as assumed, the amortization payment will remain level as a percentage of total current payroll. If payroll increases less/more than 4% each year, the amortization payment will increase/decrease as a percentage of total payroll.

The actuarial contribution rate for KPERS is comprised of the normal cost rate and a contribution toward the unfunded actuarial liability. The State and School contribution rate includes an additional contribution necessary to pay the debt service payment on the bonds issued by the State in 2003 to finance the increase in liability from making the 13th check permanent.

Local employers who affiliate with KPERS for prior service on or after January 1, 1999 pay an additional employer contribution to finance their unfunded actuarial liability on their affiliation date.

KP&F

The actuarially determined contribution requirements for employers in KP&F are comprised of:

- (a) a "uniform" rate, determined separately for State and Local employers, which includes the normal cost and a UAL payment for the entire group, plus
- (b) any payment required to amortize the unfunded past service liability or any 15% excess benefit liability, which is determined separately for each participating employer.

For employers who enter KP&F for future service only, the total cost is the uniform contribution rate.

There are several components of the unfunded actuarial liability, which are amortized over different periods. The increase in the unfunded actuarial liability resulting from the 1998 COLA is amortized over 15 years. The increase in the unfunded actuarial liability for Local employers resulting from 2003 legislation which made the 13th check for pre-July 2, 1987 retirees a permanent benefit is funded over a 10 year period with the first contribution in 2005 (4 years remain as of FY2011, the fiscal year for which this valuation sets the contribution rate). The increase in the unfunded actuarial liability due to the \$300 one-time payment to retirees in 2007 and 2008 is amortized over 10 years (Local only). The State funded the increased liability for the \$300 one-time payment for its members in both 2007 and 2008. The remainder of the unfunded actuarial liability is amortized over a period originally set at 40 years beginning July 1, 1993. At the December 31, 2008 valuation date, twenty-four (24) years remain in that period.

The UAL is amortized as a level percentage of payroll. The payroll growth assumption is 4% so the annual amortization payments will increase 4% each year. As a result, if total payroll grows 4% per year, as assumed, the amortization payment will remain level as a percentage of total

current payroll. If payroll increases less/more than 4% each year, the amortization payment will increase/decrease as a percentage of total payroll

Judges

The actuarial contribution rate for the Judges is comprised of the normal cost rate and a contribution toward the unfunded actuarial liability. The UAL is amortized over a 40 year period established in 1993 with payments determined as a level dollar amount. As of this valuation date, twenty-four (24) years remain. The contribution rate includes an additional contribution necessary to pay the debt service payment on the bonds issued by the State in 2003 to finance the increase in liability from making the 13th check permanent.

Contribution Rate Summary

The normal cost rates for each System are developed in Table 7. Table 8 develops the actuarial contribution rate for the unfunded actuarial liability. Bonds were issued in 2003 by the State to finance the increase in the actuarial liability due to legislation making the 13th check for pre-July 2, 1987 retirees a permanent benefit. The debt service payment on the bonds is to be paid by an additional employer contribution to the System, effective July 1, 2004. The development of this debt service contribution rate for FY2012 is shown in Table 9. The total actuarial contribution rates determined as of December 31, 2008, are presented in Table 10. The contribution rates for local employers who affiliated with KPERS for prior service and are amortizing the payment of that liability over a period of years are shown in Tables 11A and 11B. Table 12 shows the KP&F individual employer contribution rates for fiscal years beginning in 2010 and 2011 while Tables 13 and 14 show the calculation of the additional contribution rate due to amortization of prior service UAL or excess benefit liability for fiscal years beginning in 2011.

The rates shown in this report, which are based on the actuarial assumptions and cost methods described in Appendix C, are applicable for determining employer contribution rates for fiscal years commencing in 2011.

TABLE 7
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF DECEMBER 31, 2008

	State	School	State/School	Local
1. Normal Cost at Beginning of Year				
a. Retirement Benefit	\$ 55,644,696	\$ 223,153,192	\$ 278,797,888	\$ 83,942,531
b. Pre-Retirement Death Benefit	979,285	2,288,039	3,267,324	1,849,634
c. Withdrawal Benefit	14,459,725	43,685,996	58,145,721	22,333,614
d. Disability Benefit	5,311,230	8,878,621	14,189,851	5,883,875
e. Total	<u>76,394,936</u>	<u>278,005,848</u>	<u>354,400,784</u>	<u>114,009,654</u>
2. Estimated Covered Payroll for 2009	\$ 972,080,168	\$ 3,345,545,288	\$ 4,317,625,457	\$ 1,454,109,452
3. Normal Cost Rate $[(1e) / (2)] * 1.08^{.5}$	<u>8.17%</u>	<u>8.64%</u>	<u>8.53%</u>	<u>8.15%</u>

**TABLE 7 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF DECEMBER 31, 2008**

	KP&F		Judges
1. Normal Cost at Beginning of Year			
a. Retirement Benefit	\$ 41,236,557	\$	5,102,887
b. Pre-Retirement Death Benefit	1,446,047		57,945
c. Withdrawal Benefit	6,381,962		7,143
d. Disability Benefit	11,361,025		0
e. Total	60,425,591		5,167,975
2. Estimated Covered Payroll for 2009	\$ 426,955,831	\$	27,835,460
3. Normal Cost Rate $[(1e) / (2)] * 1.08^{.5}$	14.71%		19.29%

TABLE 8
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
UNFUNDED ACTUARIAL LIABILITY CONTRIBUTION RATES
AS OF DECEMBER 31, 2008

	State	School	Local	KPF		Judges
1. Actuarial Liability	\$ 3,554,600,691	\$ 10,937,800,107	\$ 3,376,131,873	\$ 2,098,292,549		\$ 139,961,680
2. Actuarial Value of Assets	<u>2,552,895,270</u>	<u>5,699,278,482</u>	<u>1,991,428,225</u>	<u>1,479,595,175</u>		<u>104,421,422</u>
3. Unfunded Actuarial Liability (UAL)	1,001,705,421	5,238,521,625	1,384,703,648	618,697,374		35,540,258
a. UAL for 1998 COLA	9,177,371	22,468,734	6,571,876	5,716,053		0
b. UAL for 13th Check (2003)	0	0	2,304,321	4,315,582		0
c. UAL for 2007 One Time Payment	0	0	1,405,761	411,023		0
d. UAL for 2008 One Time Payment	0	0	1,533,939	466,852		0
e. Prior service and other local employer UAL*	0	0	6,282,142	16,839,531		0
f. Remaining UAL	992,528,050	5,216,052,891	1,366,605,609	590,948,334		35,540,258
4. Payment to Amortize UAL (assumed mid-year)						
a. UAL for 1998 COLA	2,520,979	6,172,052	1,805,263	1,536,562	**	0
b. UAL for 13th Check (2003)	0	0	632,986	1,185,483	**	0
c. UAL for 2007 One Time Payment	0	0	207,624	60,706	**	0
d. UAL for 2008 One Time Payment	0	0	205,012	62,395	**	0
e. Remaining UAL	<u>64,122,916</u>	<u>336,986,470</u>	<u>88,290,439</u>	<u>34,022,290</u>	**	<u>3,248,116</u>
f. Total	66,643,895	343,158,522	91,141,324	36,867,436	**	3,248,116
5. Total Estimated Payroll for 2009	\$ 972,080,168	\$ 3,345,545,288	\$ 1,454,109,452	\$ 380,137,324	**	\$ 27,835,460
6. Amortization Payment as a Percent of Payroll	6.86%	10.26%	6.27%	9.70%	**	11.67%

* These obligations are paid directly by the employer and do not enter into the overall amortization rates.

**Only includes local governments. State agencies have a different uniform rate.

**TABLE 9
DEVELOPMENT OF CONTRIBUTION RATES
FOR DEBT SERVICE PAYMENT ON BONDS**

The 2003 Legislature made the retirant dividend (13th check) for pre-July 2, 1987 retirees a permanent benefit. To offset the estimated cost of the benefit enhancement the State issued bonds in the late summer of 2003. The debt service payment on the bonds will come from increased contribution rates for the KPERS State and School groups, the State KP&F group and the Judges.

	State	School	KPF (state)	Judges	Total
Original Bond Issue Proceeds	\$ 7,793,450	\$ 15,068,078	\$ 1,867,119	\$ 171,353	\$ 24,900,000
Scheduled Payments					
FYE 2012	1,004,727	1,942,566	240,708	22,091	3,210,092
FYE 2013	1,004,383	1,941,902	240,625	22,083	3,208,993
FYE 2014	1,005,138	1,943,362	240,806	22,100	3,211,406
Projected Payroll for FYE 2012*	1,008,944,294	3,472,418,160	48,594,002	28,885,787	
Rate of Pay Required	0.10%	0.06%	0.50%	0.08%	

* Assumes 1.5% annual payroll growth

**TABLE 10
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL EMPLOYER CONTRIBUTION RATES
FISCAL YEAR COMMENCING IN 2011**

	Total Normal Cost	Employee Normal Cost	Employer Normal Cost	Unfunded Actuarial Liability	Debt Service Payment	Total Employer Contribution*
State **	8.17%	4.00%	4.17%	6.86%	0.10%	11.13%
School	8.64%	4.00%	4.64%	10.26%	0.06%	14.96%
State/School **	8.53%	4.00%	4.53%	9.49%	0.07%	14.09%
Local	8.15%	4.00%	4.15%	6.27%	0.00%	10.42%
KP&F Uniform Contribution Rate						
State ***	14.71%	6.53%	8.18%	9.07%	0.50%	17.75%
Local ***	14.71%	6.53%	8.18%	9.70%	0.00%	17.88%
Judges	19.29%	4.66%	14.63%	11.67%	0.08%	26.38%

* Does not include the contribution to the Death and Disability Program.

** For Correctional Employees, employer contribution rates of 12.92% and 11.86% apply for normal retirement ages of 55 and 60, respectively.

*** The total contribution rate for each employer is equal to the appropriate uniform contribution rate (state or local) plus an additional rate, if applicable, required to amortize the unfunded past service liability or the 15% excess benefit liability, determined separately for each employer. (See Table 12)

**TABLE 11A
LOCAL AFFILIATION COST FACTORS
FOR FISCAL YEAR BEGINNING IN 2011**

Employer	Year Affiliated	Projected 2011 Annual Payroll	Projected 1/1/2011 Unfunded Actuarial Liability	Projected 1/1/2011 Excess Benefit Liability	Payment on 1/1/2011 Unfunded Liabilities²	Payment on Unfunded Liability as % of Payroll	Total Rate for Years Commencing¹ in 2011
St. Francis Housing Authority	1999	\$14,489	\$8,061	\$0	\$531	3.67%	10.41%
City of Burden	1999	\$136,365	\$15,902	\$0	\$1,046	0.77%	7.51%
City of Longton	1999	\$70,876	\$19,326	\$0	\$1,273	1.80%	8.54%
Bourbon County RWD#2	1999	\$213,727	\$112,015	\$0	\$7,378	3.45%	10.19%
Towanda Township	1999	\$52,982	\$9,153	\$0	\$602	1.14% ₃	7.88% ₃
City of Herndon	1999	NA	\$16,409	\$0	\$5,895		
Hays Housing Authority	2000	\$59,427	\$1,790	\$0	\$122	0.20%	6.94%
Haysville Community Library	2000	\$127,644	\$203,525	\$0	\$13,399	10.50%	17.24%
Hamilton County Library	2000	\$84,771	\$13,477	\$0	\$888	1.05%	7.79%
Ellis Public Library	2000	\$23,304	\$5,118	\$0	\$337	1.45%	8.19%
Bucklin Public Library	2000	\$17,514	\$12,734	\$0	\$840	4.80%	11.54%
Elkhart Cemetery District	2000	\$40,777	\$1,793	\$0	\$120	0.29% ₃	7.03% ₃
Clay County Conservation District	2000	NA	\$15,382	\$0	\$7,987		
City of Linn Valley	2000	\$58,871	\$1,000	\$0	\$66	0.11%	6.85%
City of Blue Mound	2000	\$92,367	\$2,868	\$0	\$185	0.20%	6.94%
Kansas Workers' Risk Coop for Counties	2000	\$287,467	\$51,717	\$0	\$3,392	1.18% ₃	7.92% ₃
Lindsborg Community Library	2002	NA	\$3,574	\$0	\$222		
City of North Newton	2002	\$364,610	\$164,969	\$0	\$10,657	2.92%	9.66%
City of Arcadia	2002	\$59,662	\$16,135	\$0	\$1,041	1.75%	8.49%
Four County Mental Health	2002	\$6,906,400	\$1,476,695	\$0	\$167,288	2.42%	9.16%
City of Linwood	2003	\$60,263	\$2,419	\$0	\$157	0.26%	7.00%
Cottonwood Inc.	2003	\$5,588,768	\$1,149,819	\$0	\$74,283	1.33%	8.07%
Johnson County Fire District #2 Rural	2003	\$2,439,192	\$449,712	\$0	\$29,053	1.19%	7.93%
Basehor Community Library	2003	\$194,872	\$57,181	\$0	\$3,694	1.90%	8.64%
City of Gypsum	2003	\$53,688	\$4,861	\$0	\$315	0.59%	7.33%
Greenleaf Housing Authority	2003	\$14,960	\$22,822	\$0	\$1,474	9.85%	16.59%
City of Bentley	2004	\$87,252	\$38,524	\$0	\$2,628	3.01%	9.75%
Mulvane Public Library	2004	\$48,268	\$13,814	\$0	\$943	1.95%	8.69%
The Center for Counseling and Consultation	2004	\$1,949,690	\$1,161,252	\$0	\$79,237	4.06%	10.80%

**TABLE 11A (cont.)
LOCAL AFFILIATION COST FACTORS
FOR FISCAL YEAR BEGINNING IN 2011**

Employer	Year Affiliated	Projected 2011 Annual Payroll	Projected 1/1/2011 Unfunded Actuarial Liability	Projected 1/1/2011 Excess Benefit Liability	Payment on 1/1/2011 Unfunded Liabilities²	Payment on Unfunded Liability as % of Payroll	Total Rate for Years Commencing¹ in 2011
Crawford County RWD #2	2005	\$36,780	\$1,035	\$0	\$4,875	13.25%	19.99%
Doniphan County RFD #2	2005	\$67,617	\$9,225	\$0	\$629	0.93%	7.67%
City of Denison	2005	\$45,933	\$20,362	\$0	\$1,389	3.02%	9.76%
Stanton County Recreation Commission	2005	\$65,439	\$25,077	\$0	\$1,711	2.61%	9.35%
City of Salina	NA	\$13,825,291	\$0	\$93,084	\$30,656	0.22%	6.96%
City of Shawnee	NA	\$8,721,067	\$0	\$175,131	\$53,332	0.61%	7.35%
Unified Government - Wyandotte Co./ KCK	NA	\$62,916,756	\$0	\$591,338	\$173,290	0.28%	7.02%
City of Emporia	NA	\$5,374,503	\$0	\$5,583	\$1,622	0.03%	6.77%
City of Leavenworth	NA	\$5,540,690	\$0	\$6,842	\$1,988	0.04%	6.78%
Total		\$115,642,279	\$5,107,744	\$871,979	\$684,544		

¹Basic local employer contribution rates excluding Death and Disability contribution: FY 2010: 6.14% FY 2011: 6.74%

²Payments are assumed to be mid-year for Unfunded Actuarial Liability or Excess Benefit Liability

³This entity will pay off their unfunded actuarial liability according to a fixed schedule. Payments are as of January 1.

**TABLE 11B
LOCAL AFFILIATION COST FACTORS - AFFILIATION AFTER 1/1/06
FOR FISCAL YEAR BEGINNING IN 2011**

Effective for affiliations on or after January 1, 2006, the payment on the unfunded actuarial liability due to affiliation for prior service is amortized as a fixed level dollar payment. No adjustment is made to the employer contribution rate for these payments.

Employer	Year Affiliated	Unfunded Actuarial Liability on Jan 1 Following Affiliation	Annual Payment Due January 1 to Amortize Unfunded Liability	Final Payment Year
Nippawalla Township	2006	\$4,158	\$356	2032
City of Vermillion	2006	\$3,950	\$338	2032

TABLE 12
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS
COMMENCING IN CALENDAR YEARS 2010 AND 2011

Employer	Total Rate for Fiscal Year Commencing in 2010	Recommended Total Rate for Fiscal Year Commencing in 2011
Douglas County Law Enforcement	15.63 %	20.72 %
Ford County	12.86	17.88
Franklin County Sheriff's Dept	12.86	17.88
Gray County Sheriff's Dept.	12.86	17.88
Harvey County Sheriff's Dept.	12.86	17.88
Johnson County Fire Dept.	12.86	17.88
Johnson County Fire No. 1	12.86	17.88
Johnson County Fire No. 2	12.86	17.88
Johnson County Park Commission	12.86	17.88
Johnson County Sheriff's Dept.	13.05	18.06
Labette County Sheriff's Dept.	15.36	20.22
Reno County Sheriff's Dept.	12.86	17.88
Riley County Law Enforcement	12.86	17.88
Sedgwick County Fire No. 1	12.86	17.88
Sedgwick County Sheriff's Dept.	13.20	18.22
Sedgwick County EMT's	13.25	18.24
Shawnee County Sheriff's Dept.	15.47	20.42
Sumner County Sheriff's Dept.	14.31	19.31
Unified Gov't of Wyandotte County	12.86	17.88
Unified Gov't of Wyandotte Co. - KCK	15.13	20.63
City of Abilene	12.86	17.88
City of Arkansas City	12.86	17.88
City of Atchison	13.72	18.86
City of Bonner Springs	12.86	17.88
City of Chanute	12.86	17.88
City of Cimarron	12.86	17.88
City of Coffeyville	17.90	23.12
City of Concordia	16.43	21.87
City of Derby	12.86	17.88
City of Dodge City	18.67	23.32
City of Emporia	12.86	17.88
City of Erie	12.86	17.88
City of Eudora	12.86	17.88
City of Fairway	12.86	17.88
City of Fort Scott	18.47	23.73
City of Herington	13.77	18.70
City of Hutchinson	12.86	17.88

TABLE 12 (cont.)
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS
COMMENCING IN CALENDAR YEARS 2010 AND 2011

Employer	Total Rate for Fiscal Year Commencing in 2010	Recommended Total Rate for Fiscal Year Commencing in 2011
City of Junction City	12.86 %	17.88 %
City of Lawrence	12.86	17.88
City of Leavenworth	14.17	19.28
City of Leawood	13.49	18.47
City of Lenexa	12.98	18.00
City of Manhattan	13.38	17.88
City of Merriam	12.86	17.88
City of McPherson	12.86	17.88
City of Mission	12.86	17.88
City of Newton EMTs	14.88	19.89
City of Newton	12.86	17.88
City of Olathe	12.93	17.95
City of Ottawa	12.86	17.88
City of Parsons	12.86	17.88
City of Pittsburg	15.57	20.49
City of Salina	16.05	20.99
City of Shawnee	13.99	19.03
City of Topeka	12.86	17.88
City of Wellington	16.32	21.08
City of Westwood	12.86	17.88
City of Winfield	16.70	21.41
Board of Regents Campus Police	12.72	17.75
Kansas Bureau of Investigation	12.72	17.75
Kansas Highway Patrol	12.72	17.75
Cowley County Sheriff's Dept	12.86	17.88
City of Gardner Public Safety Officers	12.86	17.88
City of Liberal Police & Firemen	12.86	17.88
City of Oswego	12.86	17.88
Leavenworth County	12.86	17.88
Pottawatomie County	12.86	17.88
City of Roeland Park	12.86	17.88
City of Edwardsville Police	15.22	20.44
City of Garden City	12.86	17.88
City of Lake Quivira	12.86	17.88
City of Paola	12.86	17.88
City of Winfield (EMS)	21.35	25.41
Miami County	12.86	17.88

TABLE 12 (cont.)
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS
COMMENCING IN CALENDAR YEARS 2010 AND 2011

Employer	Total Rate for Fiscal Year Commencing in 2010	Recommended Total Rate for Fiscal Year Commencing in 2011
Atchinson County	12.86 %	17.88 %
City of Park City	12.86	17.88
Dickinson County	12.86	17.88
Leavenworth County (EMS)	12.86	17.88
City of Basehor	12.86	17.88
City of Edwardsville Firemen	17.67	22.48
City of Marion	12.86	17.88
City of Overbrook	12.86	17.88
Leavenworth County Fire District #1	12.86	17.88
Shawnee Heights Fire District	12.86	17.88
City of Lansing	12.86	17.88
State Fire Marshall	12.72	17.75
Seward County	12.86	17.88
City of Hays	12.86	17.88
Ellis County	12.86	17.88
City of Baldwin City	12.86	17.88
McPherson County	12.86	17.88
City of Spring Hill	12.86	17.88
City of Andover	12.86	17.88
Kearny County	12.86	17.88
Neosho County	12.86	17.88
Clark County	12.86	17.88
City of Wakefield	12.86	17.88

TABLE 13A
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2011

Employer	1/1/2009 Unfunded Prior Service Liability	Payment on Unfunded Liability*
Douglas County Law Enforcement	\$1,482,350	\$181,138
Ford County	0	0
Franklin County Sheriff's Dept	0	0
Gray County Sheriff's Dept.	0	0
Harvey County Sheriff's Dept.	0	0
Johnson County Fire Dept.	0	0
Johnson County Fire No. 1	0	0
Johnson County Fire No. 2	0	0
Johnson County Park Commission	0	0
Johnson County Sheriff's Dept.	245,716	67,758
Labette County Sheriff's Dept.	181,431	16,582
Reno County Sheriff's Dept.	0	0
Riley County Law Enforcement	0	0
Sedgwick County Fire No. 1	0	0
Sedgwick County Sheriff's Dept.	306,071	54,352
Sedgwick County EMT's	94,271	31,177
Shawnee County Sheriff's Dept.	1,189,617	154,845
Sumner County Sheriff's Dept.	78,913	11,639
Unified Gov't of Wyandotte County	0	0
Unified Gov't of Wyandotte Co. - KCK	0	0
City of Abilene	0	0
City of Arkansas City	0	0
City of Atchison	0	0
City of Bonner Springs	0	0
City of Chanute	0	0
City of Cimarron	0	0
City of Coffeyville	574,888	122,214
City of Concordia	58,536	12,471
City of Derby	0	0
City of Dodge City	1,915,514	215,432
City of Emporia	0	0
City of Erie	0	0
City of Eudora	0	0
City of Fairway	0	0
City of Fort Scott	344,846	73,266
City of Herington	12,595	3,014
City of Hutchinson	0	0
City of Junction City	0	0
City of Lawrence	0	0
City of Leavenworth	22,367	23,244

TABLE 13A (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2011

Employer	1/1/2009 Unfunded Prior Service Liability	Payment on Unfunded Liability*
City of Leawood	\$306,348	\$47,701
City of Lenexa	43,587	14,445
City of Manhattan	0	0
City of Merriam	0	0
City of McPherson	0	0
City of Mission	0	0
City of Newton EMTs	58,404	7,898
City of Newton	0	0
City of Olathe	32,595	13,718
City of Ottawa	0	0
City of Parsons	0	0
City of Pittsburg	477,215	101,429
City of Salina	1,140,747	242,452
City of Shawnee	97,184	20,681
City of Topeka	0	0
City of Wellington	265,583	56,430
City of Westwood	0	0
City of Winfield	523,617	86,672
Board of Regents Campus Police	0	0
Kansas Bureau of Investigation	0	0
Kansas Highway Patrol	0	0
Cowley County Sheriff's Dept	0	0
City of Gardner Public Safety Officers	0	0
City of Liberal Police & Firemen	0	0
City of Oswego	0	0
Leavenworth County	0	0
Pottawatomie County	0	0
City of Roeland Park	0	0
City of Edwardsville Police	229,449	18,952
City of Garden City	0	0
City of Lake Quivira	0	0
City of Paola	0	0
City of Winfield (EMS)	424,164	39,655
Miami County	0	0
Atchinson County	0	0
City of Park City	0	0
Dickinson County	0	0
Leavenworth County (EMS)	0	0
City of Basehor	0	0
City of Edwardsville Firemen	421,146	37,963

**TABLE 13A (cont.)
 KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
 PRIOR SERVICE LIABILITY
 FOR FISCAL YEARS BEGINNING IN 2011**

Employer	1/1/2009 Unfunded Prior Service Liability	Payment on Unfunded Liability*
City of Marion	\$0	\$0
City of Overbrook	0	0
Leavenworth County Fire District #1	0	0
Shawnee Heights Fire District	0	0
City of Lansing	0	0
State Fire Marshall	0	0
Seward County	0	0
City of Hays	0	0
Ellis County	0	0
City of Spring Hill	0	0
City of Andover	0	0
Kearny County	0	0
Neosho County	0	0
Clark County	0	0
City of Wakefield	0	0
Total	\$ 10,527,154	\$ 1,655,128

* Payments are based on a remaining 40-year amortization periods, except for Harvey County Sheriff's Department (20 years) and Sedgwick County EMTs (30 years). Payments are assumed to made throughout the year.

**TABLE 13B
 KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
 PRIOR SERVICE LIABILITY - AFFILIATION AFTER 1/1/06
 FOR FISCAL YEAR BEGINNING IN 2011**

Effective for affiliations on or after January 1, 2006, the payment on the unfunded actuarial liability due to affiliation for prior service is amortized as a fixed level dollar payment. No adjustment is made to the employer contribution rate for these payments.

Employer	Year Affiliated	Unfunded Actuarial Liability on Jan 1 Following Affiliation	Annual Payment Due January 1 to Amortize Unfunded Liability	Final Payment Year
McPherson County	2007	\$457	\$63	2017

Only employers with remaining obligations are shown.

**TABLE 14
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
FOR FISCAL YEARS BEGINNING IN 2011**

Employer	Number of Employees	Total Estimated 2011 Payroll	Projected 1/1/2009 Excess Benefit Liability	Payment on Excess Benefit Liability*	Payment on Unfunded Liability (Table 13)	Total Payment Amount	As Percent of Payroll
Douglas County Law Enforcement	85	\$6,385,906	\$0	\$0	\$181,138	\$181,138	2.84 %
Ford County	45	2,372,468	0	0	0	0	0.00
Franklin County Sheriff's Dept	51	2,701,268	0	0	0	0	0.00
Gray County Sheriff's Dept.	9	458,959	0	0	0	0	0.00
Harvey County Sheriff's Dept.	20	988,335	0	0	0	0	0.00
Johnson County Fire Dept.	162	11,440,263	0	0	0	0	0.00
Johnson County Fire No. 1	18	1,054,104	0	0	0	0	0.00
Johnson County Fire No. 2	67	5,362,429	0	0	0	0	0.00
Johnson County Park Commission	20	1,089,592	0	0	0	0	0.00
Johnson County Sheriff's Dept.	494	36,915,027	0	0	67,758	67,758	0.18
Labette County Sheriff's Dept.	17	709,548	0	0	16,582	16,582	2.34
Reno County Sheriff's Dept.	64	3,294,536	0	0	0	0	0.00
Riley County Law Enforcement	100	5,907,349	0	0	0	0	0.00
Sedgwick County Fire No. 1	129	8,607,557	0	0	0	0	0.00
Sedgwick County Sheriff's Dept.	264	15,821,145	603	145	54,352	54,497	0.34
Sedgwick County EMT's	149	8,638,358	0	0	31,177	31,177	0.36
Shawnee County Sheriff's Dept.	109	6,088,915	0	0	154,845	154,845	2.54
Sumner County Sheriff's Dept.	19	815,736	0	0	11,639	11,639	1.43
Unified Gov't of Wyandotte County	859	4,338,045	0	0	0	0	0.00
Unified Gov't of Wyandotte Co. - KCK	0	58,441,187	5,432,559	1,607,105	0	1,607,105	2.75
City of Abilene	22	996,359	0	0	0	0	0.00
City of Arkansas City	47	2,596,383	0	0	0	0	0.00
City of Atchison	41	1,961,138	56,901	19,129	0	19,129	0.98
City of Bonner Springs	24	1,360,077	0	0	0	0	0.00
City of Chanute	35	1,886,188	0	0	0	0	0.00
City of Cimarron	0	0	0	0	0	0	0.00
City of Coffeyville	44	2,334,506	0	0	122,214	122,214	5.24
City of Concordia	8	312,576	0	0	12,471	12,471	3.99
City of Derby	50	2,719,768	0	0	0	0	0.00

**TABLE 14 (cont.)
 KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
 FOR FISCAL YEARS BEGINNING IN 2011**

Employer	Number of Employees	Total Estimated 2011 Payroll	Projected 1/1/2009 Excess Benefit Liability	Payment on Excess Benefit Liability*	Payment on Unfunded Liability (Table 13)	Total Payment Amount	As Percent of Payroll
City of Dodge City	76	\$3,960,136	\$0	\$0	\$215,432	\$215,432	5.44 %
City of Emporia	86	4,684,658	0	0	0	0	0.00
City of Erie	2	85,542	0	0	0	0	0.00
City of Eudora	8	515,144	0	0	0	0	0.00
City of Fairway	9	704,779	0	0	0	0	0.00
City of Fort Scott	31	1,251,554	0	0	73,266	73,266	5.85
City of Herington	8	367,627	0	0	3,014	3,014	0.82
City of Hutchinson	155	9,755,581	0	0	0	0	0.00
City of Junction City	103	5,259,643	0	0	0	0	0.00
City of Lawrence	273	21,603,592	0	0	0	0	0.00
City of Leavenworth	114	6,220,564	201,591	63,595	23,244	86,839	1.40
City of Leawood	111	8,110,236	0	0	47,701	47,701	0.59
City of Lenexa	173	12,121,171	0	0	14,445	14,445	0.12
City of Manhattan	68	3,738,550	0	0	0	0	0.00
City of Merriam	47	3,197,489	0	0	0	0	0.00
City of McPherson	48	2,380,588	0	0	0	0	0.00
City of Mission	29	1,887,074	0	0	0	0	0.00
City of Newton EMTs	6	392,725	0	0	7,898	7,898	2.01
City of Newton	67	3,848,693	0	0	0	0	0.00
City of Olathe	280	20,551,315	0	0	13,718	13,718	0.07
City of Ottawa	45	2,809,017	0	0	0	0	0.00
City of Parsons	44	1,968,647	0	0	0	0	0.00
City of Pittsburg	74	3,890,353	0	0	101,429	101,429	2.61
City of Salina	166	11,182,401	306,300	105,653	242,452	348,105	3.11
City of Shawnee	139	10,924,080	313,996	104,777	20,681	125,458	1.15
City of Topeka	521	34,349,540	0	0	0	0	0.00
City of Wellington	32	1,765,189	0	0	56,430	56,430	3.20
City of Westwood	7	542,736	0	0	0	0	0.00
City of Winfield	42	2,453,289	0	0	86,672	86,672	3.53

**TABLE 14 (cont.)
 KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
 FOR FISCAL YEARS BEGINNING IN 2011**

Employer	Number of Employees	Total Estimated 2011 Payroll	Projected 1/1/2009 Excess Benefit Liability	Payment on Excess Benefit Liability*	Payment on Unfunded Liability (Table 13)	Total Payment Amount	As Percent of Payroll	
Board of Regents Campus Police	123	\$6,470,138	\$0	\$0	\$0	\$0	0.00	%
Kansas Bureau of Investigation	84	5,997,309	0	0	0	0	0.00	
Kansas Highway Patrol	545	37,714,653	0	0	0	0	0.00	
Cowley County Sheriff's Dept	27	1,112,895	0	0	0	0	0.00	
City of Gardner Public Safety Officers	37	2,318,030	0	0	0	0	0.00	
City of Liberal Police & Firemen	56	2,538,257	0	0	0	0	0.00	
City of Oswego	5	201,906	0	0	0	0	0.00	
Leavenworth County	54	2,841,011	0	0	0	0	0.00	
Pottawatomie County	27	1,290,912	0	0	0	0	0.00	
City of Roeland Park	16	922,872	0	0	0	0	0.00	
City of Edwardsville Police	14	739,008	0	0	18,952	18,952	2.56	
City of Garden City	96	4,479,031	0	0	0	0	0.00	
City of Lake Quivira	2	118,785	0	0	0	0	0.00	
City of Paola	16	846,357	0	0	0	0	0.00	
City of Winfield (EMS)	10	526,857	0	0	39,655	39,655	7.53	
Miami County	48	2,602,962	0	0	0	0	0.00	
Atchinson County	11	456,817	0	0	0	0	0.00	
City of Park City	18	874,776	0	0	0	0	0.00	
Dickinson County	15	698,654	0	0	0	0	0.00	
Leavenworth County (EMS)	37	1,722,377	0	0	0	0	0.00	
City of Basehor	12	464,306	0	0	0	0	0.00	
City of Edwardsville Firemen	15	824,786	0	0	37,963	37,963	4.60	
City of Marion	4	161,297	0	0	0	0	0.00	
City of Overbrook	1	43,373	0	0	0	0	0.00	
Leavenworth County Fire District #1	5	246,030	0	0	0	0	0.00	
Shawnee Heights Fire District	11	635,386	0	0	0	0	0.00	
City of Lansing	16	790,996	0	0	0	0	0.00	
State Fire Marshall	10	573,704	0	0	0	0	0.00	
Seward County	27	1,425,244	0	0	0	0	0.00	

**TABLE 14 (cont.)
 KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
 FOR FISCAL YEARS BEGINNING IN 2011**

Employer	Number of Employees	Total Estimated 2011 Payroll	Projected 1/1/2009 Excess Benefit Liability	Payment on Excess Benefit Liability*	Payment on Unfunded Liability (Table 13)	Total Payment Amount	As Percent of Payroll	
City of Hays	52	\$2,621,636	\$0	\$0	\$0	\$0	0.00	%
Ellis County	44	2,356,665	0	0	0	0	0.00	
City of Baldwin City	8	429,419	0	0	**	**	0.00	
McPherson County	1	22,945	0	0	**	**	0.00	
City of Spring Hill	13	649,978	0	0	0	0	0.00	
City of Andover	31	1,453,506	0	0	0	0	0.00	
Kearny County	18	970,021	0	0	0	0	0.00	
Neosho County	12	520,190	0	0	0	0	0.00	
Clark County	4	194,624	0	0	0	0	0.00	
City of Wakefield	1	46,993	0	0	0	0	0.00	
Total	7,242	\$ 465,024,339	\$ 6,311,951	\$ 1,900,404	\$ 1,655,128	\$ 3,555,532		

* Payments are based on paying off the liability in 2014.

** See Table 13b for fixed dollar amortization schedule.

SECTION 6

ACCOUNTING AND OTHER INFORMATION

Historically, Government Accounting Standards Board (GASB) Statement No. 5, "Disclosure of Pension Information by Public Employee Retirement Systems and State and Local Government Employers", required the disclosure of the funded status of the Plan on an annual basis using the pension benefit obligation (PBO).

In an effort to enhance the understandability and usefulness of the pension information that is included in the financial reports of pension plans for state and local governments, the Governmental Accounting Standards Board (GASB) issued Statement No. 25 - Financial Reporting for Defined Benefit Pension Plans. This Statement, along with GASB Statement No. 27, supersedes GASB Statement No. 5.

GASB Statement No. 25, effective for fiscal years beginning after June 15, 1996, establishes financial reporting standards for defined benefit pension plans. In addition to two required statements regarding plan assets, the statement requires two schedules and accompanying notes disclosing information relative to the funded status of the plan and historical contribution patterns.

- The Schedule of Funding Progress provides information about whether the financial strength of the Plan is improving or deteriorating over time.
- The Schedule of Employer Contributions provides historical information about the annual required contribution (ARC) and the percentage of the ARC that was actually contributed.

In addition to information required by GASB, an exhibit of the anticipated cash flows from the System is also included.

TABLE 15
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACCOUNTING INFORMATION FOR GASB 25

Schedule of Funding Progress
(\$ in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll ((b-a)/c)
12/31/2003	\$10,853,462	\$14,439,546 ⁽¹⁾	\$3,586,084	75%	\$4,978,132	72%
12/31/2004	10,971,427	15,714,092	4,742,666	70%	5,102,016	93%
12/31/2005	11,339,293	16,491,762	5,152,469	69%	5,270,351	98%
12/31/2006	12,189,197	17,552,791	5,363,593	69%	5,599,193	96%
12/31/2007	13,433,115	18,984,915	5,551,800	71%	5,949,228	93%
12/31/2008	11,827,619	20,106,787	8,279,168	59%	6,226,526	133%

⁽¹⁾ Beginning with the 12/31/03 actuarial valuation, the actuarial cost method was changed to the Entry Age Normal (EAN) method.

**TABLE 15 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACCOUNTING INFORMATION FOR GASB 25**

	KPERS System	KP& F System	Judges System
Valuation Date	12/31/08	12/31/08	12/31/08
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method	Level Percent Closed	Level Percent Closed	Level Dollar Closed
Remaining Amortization Period	24 years	24 years	24 years
Asset Valuation Method	Difference between actual return and expected return on market value recognized evenly over five-year period. Value must be within corridor of 80% - 120% of market value.		
Actuarial Assumptions:			
Investment Rate of Return	8.0%	8.0%	8.0%
Projected Salary Increases	4.0% - 12.0%	4.0% - 12.5%	4.5%
Cost of Living Adjustment	None	None	None

TABLE 16
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACCOUNTING INFORMATION FOR GASB 25

Schedule of Employer Contributions
For the Fiscal Year Ended June 30

Year	Annual Required Contribution	Percentage Contributed
2004	\$338,879,960	69.4%
2005	381,791,085	68.6%
2006	471,424,006	63.4%
2007	531,292,151	63.9%
2008	607,662,300	65.1%
2009	648,157,759	68.4% *

*Due to timing of the actuarial valuation versus the System's fiscal year, the actual number is not yet available. The number shown is an estimate.

The numbers shown in this exhibit are provided by KPERS. Milliman has relied on the accuracy of the numbers as provided and has not verified them.

TABLE 17
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PROJECTED BENEFIT PAYMENTS

Year	State	School	Local	Total KPERS	KP&F	Judges	Total
2009	\$194,028,000	\$522,519,000	\$137,120,000	\$853,667,000	\$109,588,000	\$8,077,000	\$971,332,000
2010	208,989,000	570,368,000	151,085,000	930,442,000	117,552,000	9,048,000	1,057,042,000
2011	222,306,000	619,380,000	164,268,000	1,005,954,000	125,368,000	9,902,000	1,141,224,000
2012	236,217,000	669,146,000	178,708,000	1,084,071,000	133,509,000	10,607,000	1,228,187,000
2013	250,993,000	718,856,000	194,893,000	1,164,742,000	141,740,000	11,378,000	1,317,860,000
2014	266,428,000	770,486,000	213,129,000	1,250,043,000	150,352,000	12,241,000	1,412,636,000
2015	282,161,000	822,591,000	232,463,000	1,337,215,000	159,407,000	13,182,000	1,509,804,000
2016	298,396,000	874,446,000	253,747,000	1,426,589,000	169,117,000	14,112,000	1,609,818,000
2017	314,876,000	926,990,000	276,157,000	1,518,023,000	179,420,000	15,060,000	1,712,503,000
2018	331,288,000	979,383,000	299,302,000	1,609,973,000	189,943,000	16,095,000	1,816,011,000
2019	347,437,000	1,031,022,000	322,998,000	1,701,457,000	200,960,000	17,061,000	1,919,478,000
2020	362,521,000	1,081,738,000	346,706,000	1,790,965,000	212,158,000	17,761,000	2,020,884,000
2021	377,319,000	1,131,025,000	370,470,000	1,878,814,000	223,727,000	18,466,000	2,121,007,000
2022	390,982,000	1,179,255,000	394,560,000	1,964,797,000	235,447,000	19,199,000	2,219,443,000
2023	403,649,000	1,226,057,000	417,698,000	2,047,404,000	246,989,000	19,697,000	2,314,090,000
2024	415,049,000	1,271,934,000	440,180,000	2,127,163,000	259,121,000	20,104,000	2,406,388,000
2025	425,470,000	1,316,645,000	462,305,000	2,204,420,000	271,495,000	20,515,000	2,496,430,000
2026	434,694,000	1,359,996,000	483,881,000	2,278,571,000	283,756,000	20,738,000	2,583,065,000
2027	441,908,000	1,401,665,000	503,815,000	2,347,388,000	296,099,000	20,769,000	2,664,256,000
2028	447,339,000	1,441,613,000	522,499,000	2,411,451,000	307,907,000	20,678,000	2,740,036,000
2029	451,392,000	1,480,424,000	539,624,000	2,471,440,000	319,302,000	20,533,000	2,811,275,000
2030	453,984,000	1,517,654,000	555,490,000	2,527,128,000	330,170,000	20,323,000	2,877,621,000
2031	455,553,000	1,553,626,000	570,368,000	2,579,547,000	340,536,000	19,944,000	2,940,027,000
2032	455,948,000	1,587,988,000	584,524,000	2,628,460,000	350,121,000	19,536,000	2,998,117,000
2033	455,619,000	1,620,978,000	597,346,000	2,673,943,000	358,829,000	19,113,000	3,051,885,000

Note: Cash flows are the expected future non-discounted payments to current members. These numbers exclude refund payouts to current nonvested inactive members and assume future retirees elect the normal form of payment and future withdrawals elect refunds according to valuation assumptions.

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APPENDIX A HISTORICAL SUMMARY OF MEMBERS

The following tables display selected historical data for KPERS, KP&F and Judges as available.

KPERS

Valuation		Active Members						Number			Act/Ret Ratio
		Average									
Date December 31	Total Count	Number	Age	Entry Age	Service	Annual Pay (\$)	Pay Increase	Deferred Disabled*	Inactives	Retired	
2000	222,968	137,086	44.2	34.1	10.1	30,307	N/A		34,667	51,215	2.68
2001	229,185	139,253	44.4	34.2	10.2	31,279	3.2%		37,175	52,757	2.64
2002	234,023	140,498	44.7	34.3	10.4	31,634	1.1%		39,420	54,105	2.60
2003	237,123	141,401	45.0	34.4	10.6	32,111	1.5%	2,933	37,280	55,509	2.55
2004	238,375	140,779	45.3	34.4	10.8	32,937	2.6%	3,004	37,191	57,401	2.45
2005	241,684	142,047	45.3	34.4	10.9	33,724	2.4%	3,099	37,015	59,523	2.39
2006	245,555	144,227	45.4	34.6	10.8	35,284	4.6%	3,007	36,513	61,808	2.33
2007	249,624	146,406	45.5	34.7	10.8	36,924	4.6%	2,911	37,140	63,167	2.32
2008	255,427	148,569	45.6	34.7	10.9	38,087	3.1%	2,823	37,567	66,468	2.24

*Prior to 2003, deferred disabled members were included in the Inactives count.

KP&F

Valuation		Active Members						Number			Act/Ret Ratio
		Average									
Date December 31	Total Count	Number	Age	Entry Age	Service	Annual Pay (\$)	Pay Increase	Deferred Disabled*	Inactives	Retired	
2000	10,083	6,258	38.1	27.7	10.4	44,511	N/A		794	3,031	2.06
2001	10,471	6,405	38.3	27.7	10.6	46,483	4.4%		855	3,211	1.99
2002	10,847	6,548	38.4	27.8	10.6	47,580	2.4%		961	3,338	1.96
2003	11,007	6,464	38.8	27.9	11.0	49,017	3.0%	0	1,087	3,456	1.87
2004	11,528	6,721	38.9	28.0	11.0	51,014	4.1%	187	1,062	3,558	1.89
2005	11,719	6,772	38.9	27.9	11.0	52,222	2.4%	194	1,099	3,654	1.85
2006	12,070	6,965	39.0	28.1	11.0	53,939	3.3%	186	1,134	3,785	1.84
2007	12,210	7,137	39.1	28.1	11.0	56,068	3.9%	175	1,143	3,755	1.90
2008	12,499	7,242	39.1	28.0	11.1	57,800	3.1%	173	1,175	3,909	1.85

*Prior to 2003, deferred disabled members were included in the Inactives count.

**APPENDIX A
HISTORICAL SUMMARY OF MEMBERS
(continued)**

JUDGES

Valuation		Active Members						Number		Act/Ret Ratio
		Average								
Date December 31	Total Count	Number	Age	Entry Age	Service	Annual Pay (\$)	Pay Increase	Inactives	Retired	
2000	411	247	54.2	43.5	10.8	84,794		14	150	1.65
2001	417	252	54.4	43.9	10.5	85,625	1.0%	18	147	1.71
2002	417	248	55.0	43.9	11.1	86,116	0.6%	15	154	1.64
2003	424	250	55.1	43.8	11.3	86,770	0.8%	15	159	1.56
2004	435	251	55.5	43.9	11.6	88,761	2.3%	18	166	1.51
2005	444	254	55.7	44.1	11.6	90,585	2.1%	19	171	1.47
2006	447	257	56.2	44.2	11.9	96,743	6.8%	18	172	1.49
2007	455	261	56.6	44.8	11.8	101,732	5.2%	14	180	1.45
2008	463	262	57.1	45.2	11.9	104,159	2.4%	11	190	1.38

**APPENDIX A
SUMMARY OF DATA FILE RECONCILIATION**

The following table reconciles the data Milliman received from KPERS to the final membership counts used in the valuation.

Records on the in-pay data file	83,137
Removed deaths prior to 12/31/08	(12,570)
Records used in the valuation	70,567
Records on the not-in-pay data file	215,384
Records removed because the member has received all benefits or is in a non-benefiting group	(17,562)
Records used in the valuation	197,822

These records are allocated as follows:

	State	School	Local	KP&F	Judges
Active members	24,374	87,948	36,247	7,242	262
Vested inactive members	2,995	6,244	3,392	322	11
Nonvested inactive members	<u>2,717</u>	<u>17,968</u>	<u>7,074</u>	<u>1,026</u>	<u>0</u>
Total Not-in pay	30,086	112,160	46,713	8,590	273
Retirees and beneficiaries	15,621	37,346	13,501	3,909	190
TOTAL	45,707	149,506	60,214	12,499	463

**APPENDIX A
SUMMARY OF MEMBERSHIP DATA**

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTIVE MEMBER DATA

	12/31/2008	12/31/2007
State/School		
Number	112,322	110,492
Average Current Age	45.44	45.43
Average Service	11.03	11.02
Average Pay	\$37,686	\$36,615
State		
Number	24,374	24,024
Average Current Age	47.42	47.41
Average Service	12.82	12.87
Average Pay	\$39,100	\$38,951
School		
Number	87,948	86,468
Average Current Age	44.89	44.87
Average Service	10.53	10.51
Average Pay	\$37,294	\$35,966
Local		
Number	36,247	35,914
Average Current Age	46.05	45.77
Average Service	10.35	10.23
Average Pay	\$39,330	\$37,874
KPERS Total		
Number	148,569	146,406
Average Current Age	45.59	45.51
Average Service	10.86	10.83
Average Pay	\$38,087	\$36,924

**APPENDIX A
SUMMARY OF MEMBERSHIP DATA**

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTIVE MEMBER DATA

	12/31/2008	12/31/2007
KP&F		
Number	7,242	7,137
Tier I	536	584
Tier II	6,706	6,553
Average Current Age	39.10	39.10
Average Service	11.06	10.96
Average Pay	\$57,800	\$56,068
 Judges		
Number	262	261
Average Current Age	57.09	56.64
Average Service	11.95	11.85
Average Pay	\$104,159	\$101,732
 System Total		
Number	156,073	153,804
Average Current Age	45.31	45.23
Average Service	10.87	10.83
Average Pay	\$39,113	\$37,922

SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM INACTIVE MEMBER DATA

	12/31/2008	12/31/2007
State		
inactive vested	2,000	2,133
inactive nonvested	2,717	2,866
deferred disabled	995	1,026
School		
inactive vested	5,192	5,025
inactive nonvested	17,968	17,537
deferred disabled	1,052	1,091
Local		
inactive vested	2,616	2,465
inactive nonvested	7,074	7,114
deferred disabled	776	794
KPERS Total		
inactive vested	9,808	9,623
inactive nonvested	27,759	27,517
deferred disabled	2,823	2,911
KP&F		
inactive vested	149	132
inactive nonvested	1,026	1,011
deferred disabled	173	175
Judges		
inactive vested	11	14
inactive nonvested	0	0
deferred disabled	0	0
System Total		
inactive vested	9,968	9,769
inactive nonvested	28,785	28,528
deferred disabled	2,996	3,086

**APPENDIX A
SUMMARY OF MEMBERSHIP DATA**

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE AND BENEFICIARY MEMBER DATA

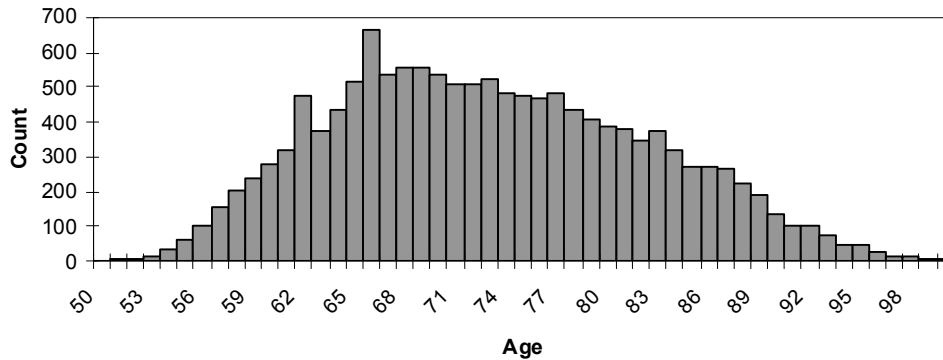
	12/31/2008	12/31/2007
State		
Number	15,621	14,994
Average Benefit	\$11,436	\$11,200
Average Age	72.73	72.67
School		
Number	37,346	35,412
Average Benefit	\$12,789	\$12,539
Average Age	72.07	71.96
Local		
Number	13,501	12,761
Average Benefit	\$8,758	\$8,528
Average Age	73.00	72.87
KPERS Total		
Number	66,468	63,167
Average Benefit	\$11,652	\$11,411
Average Age	72.41	72.31
KP&F		
Number	3,909	3,755
Average Benefit	\$25,085	\$24,560
Average Age	63.50	63.10
Judges		
Number	190	180
Average Benefit	\$35,173	\$33,850
Average Age	73.70	73.60
System Total		
Number	70,567	67,102
Average Benefit	\$12,460	\$12,207
Average Age	71.92	71.80

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2008

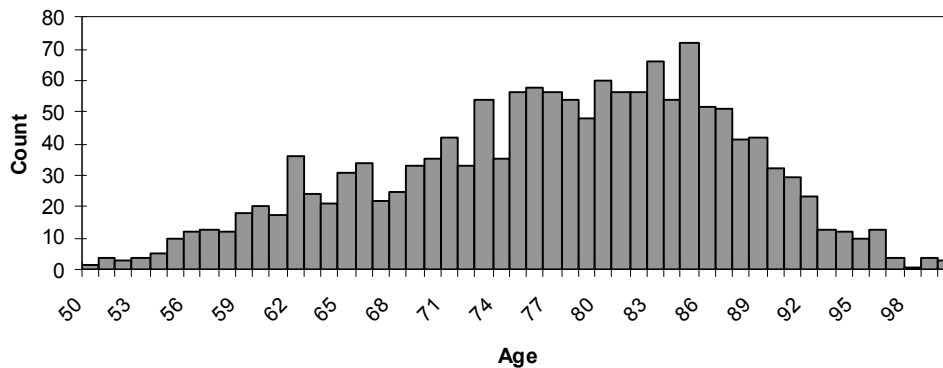
STATE

Retirees



Count: 13,990 Average age: 73.3 Average benefit: \$ 11,856

Beneficiaries



Count: 1,631 Average age: 75.8 Average benefit: \$ 7,836

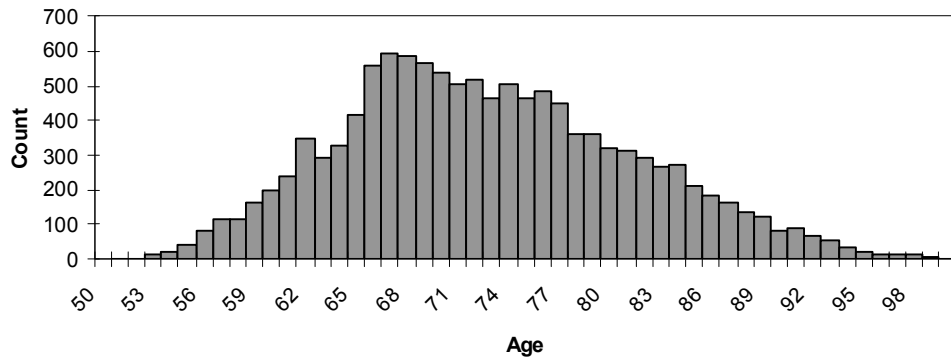
Number of certain only beneficiaries not graphed: 88

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2008

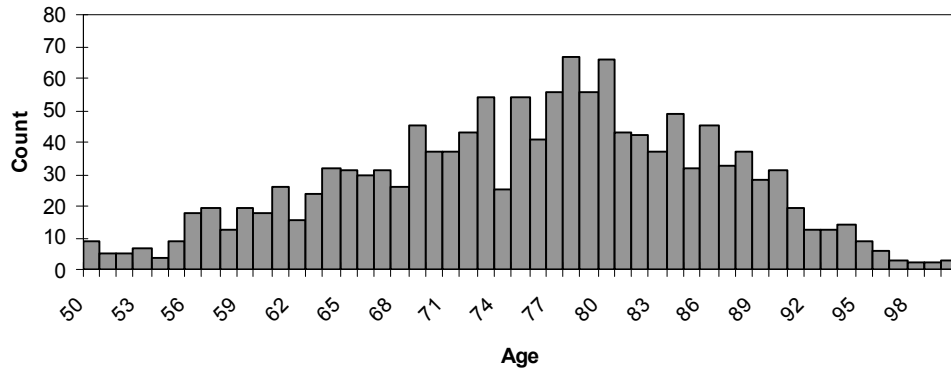
LOCAL

Retirees



Count: 12,003 Average age: 72.8 Average benefit: \$ 9,098

Beneficiaries



Count: 1,498 Average age: 74.6 Average benefit: \$ 6,040

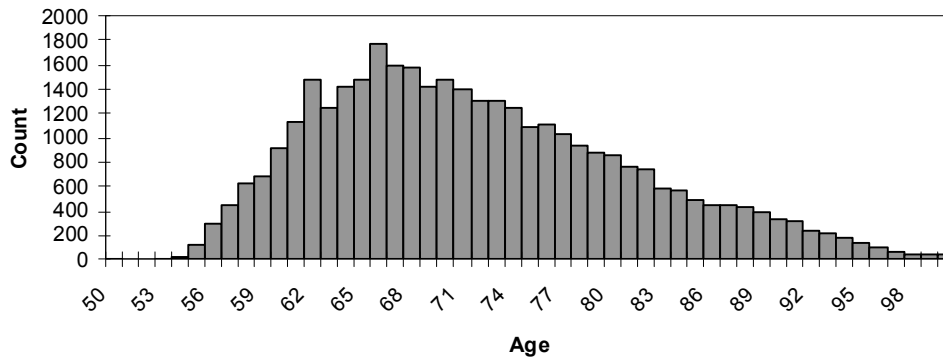
Number of certain only beneficiaries not graphed: 97

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2008

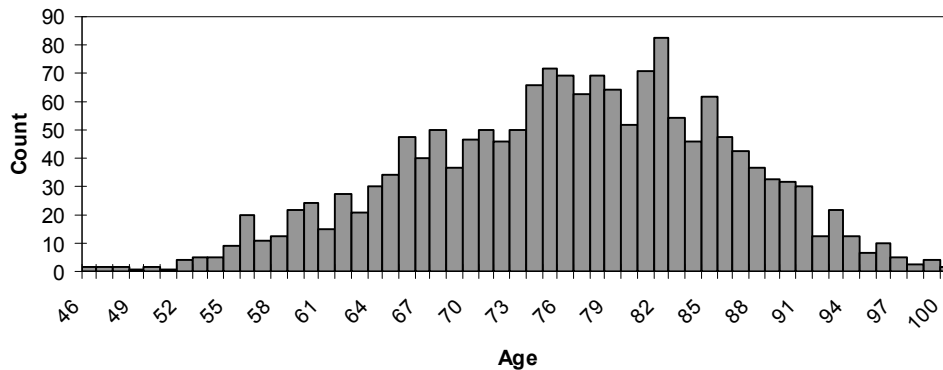
SCHOOL

Retirees



Count: 35,496 Average age: 71.9 Average benefit: \$ 13,029

Beneficiaries



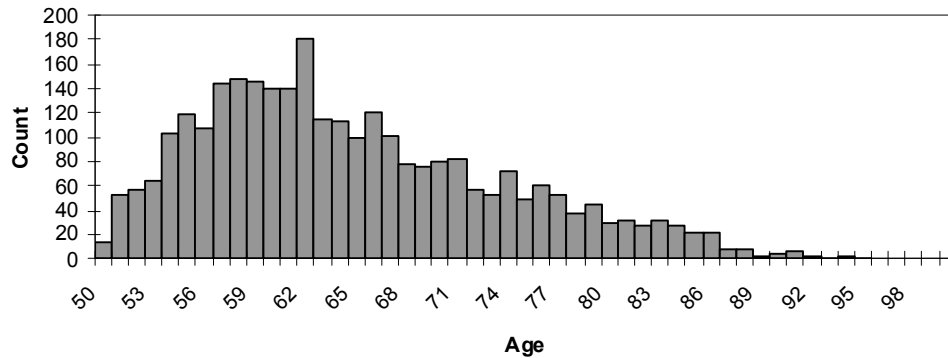
Count: 1,850 Average age: 75.4 Average benefit: \$ 8,186

Number of certain only beneficiaries not graphed: 151

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES as of December 31, 2008

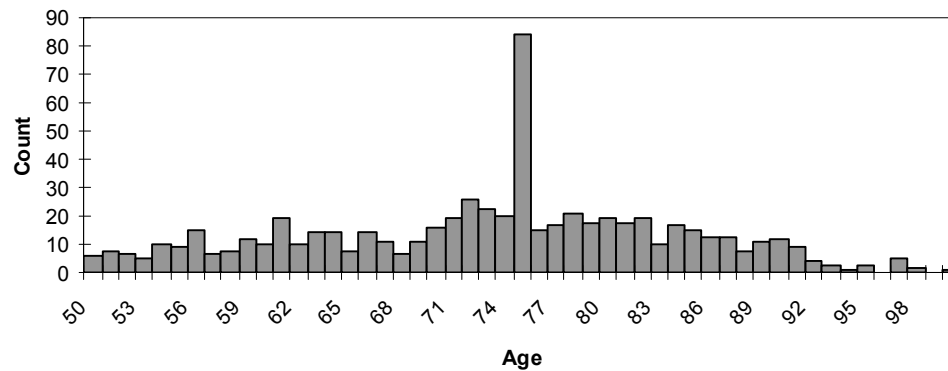
KP&F

Retirees



Count: 3,065 Average age: 63.9 Average benefit: \$ 28,390

Beneficiaries



Count: 844 Average non-child age: 70.8 Average benefit: \$13,084

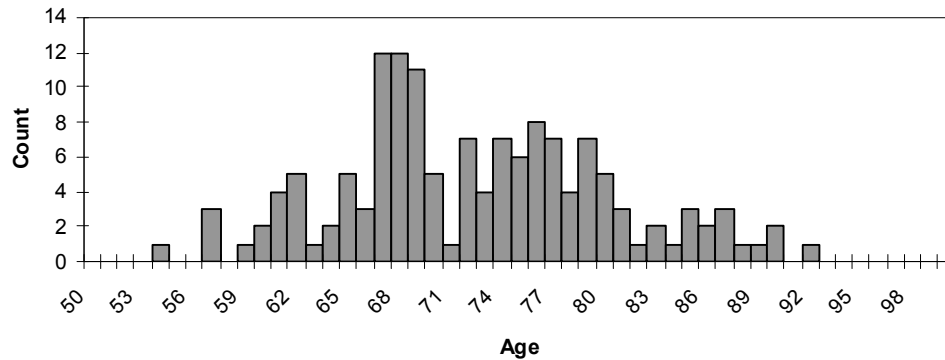
Number of certain only beneficiaries not graphed: 2
Approximately 65 beneficiaries were missing a date of birth
and were assumed to be 75 years old.

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2008

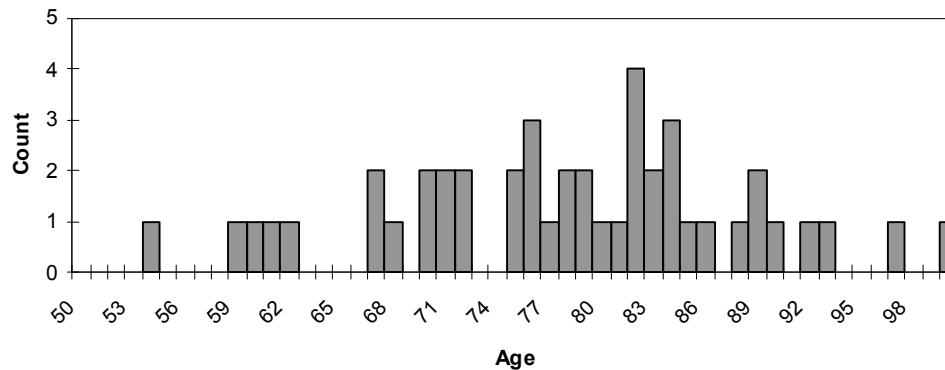
JUDGES

Retirees



Count: 143 Average age: 72.4 Average benefit: \$ 38,809

Beneficiaries



Count: 47 Average age: 77.3 Average benefit: \$ 24,109

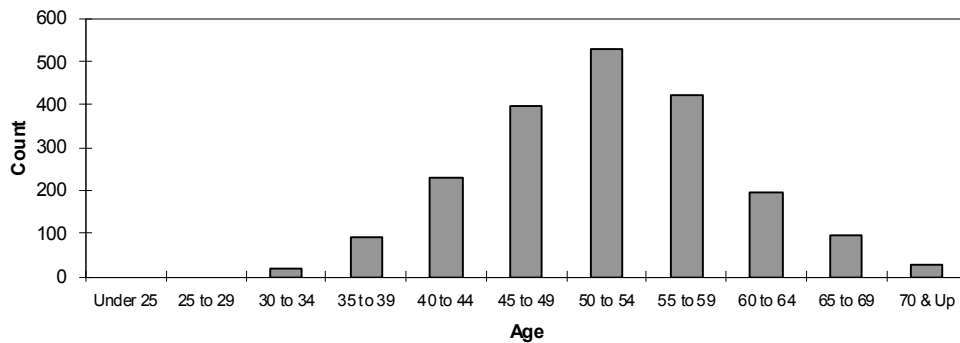
Number of certain only beneficiaries not graphed: 1

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS
as of December 31, 2008**

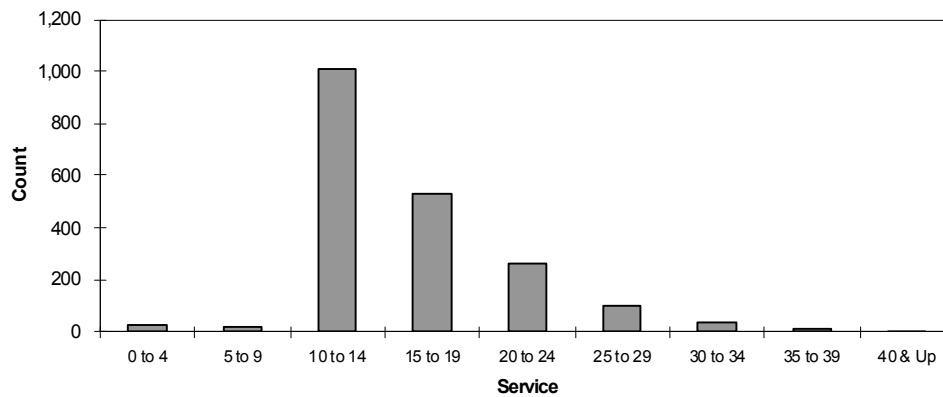
STATE

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
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	16	0	0	0	0	0	0	16
35 to 39	0	0	81	10	0	0	0	0	0	91
40 to 44	0	0	161	61	7	0	0	0	0	229
45 to 49	0	0	209	116	58	11	1	0	0	395
50 to 54	3	3	248	149	78	33	14	1	0	529
55 to 59	0	0	189	118	73	33	6	4	0	423
60 to 64	0	1	73	60	31	15	5	6	3	194
65 to 69	12	13	25	17	13	8	6	2	1	97
70 & Up	12	4	4	2	1	2	0	0	1	26
Total	27	21	1,006	533	261	102	32	13	5	2,000

Age Distribution



Service Distribution



Nonvested: 2,717

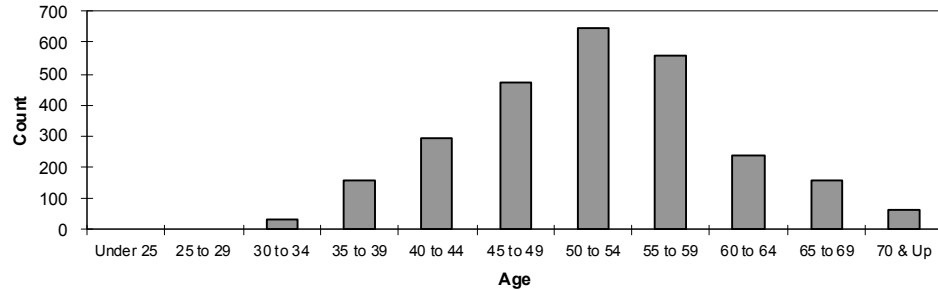
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF INACTIVE VESTED MEMBERS

as of December 31, 2008

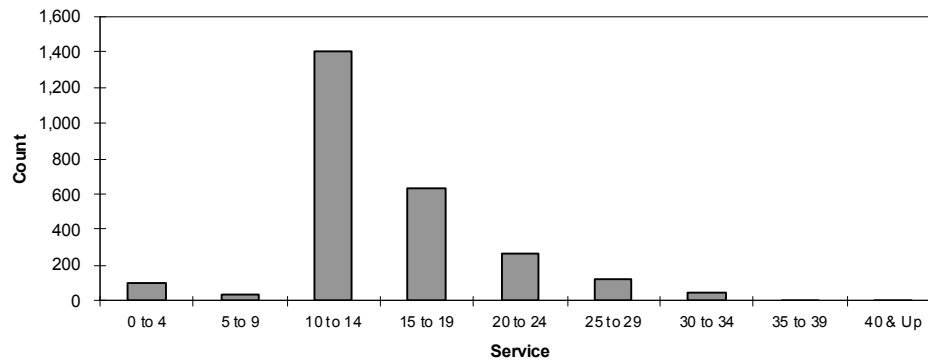
LOCAL

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
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	32	1	0	0	0	0	0	33
35 to 39	0	0	141	13	0	0	0	0	0	154
40 to 44	0	1	221	61	12	0	0	0	0	295
45 to 49	0	1	271	138	51	12	0	0	0	473
50 to 54	2	2	321	180	89	41	10	0	0	645
55 to 59	2	0	277	145	66	45	21	1	1	558
60 to 64	1	0	110	67	34	12	6	4	3	237
65 to 69	59	22	21	18	13	15	8	2	0	158
70 & Up	37	10	5	5	2	3	1	0	0	63
Total	101	36	1,399	628	267	128	46	7	4	2,616

Age Distribution



Service Distribution



Nonvested: 7,074

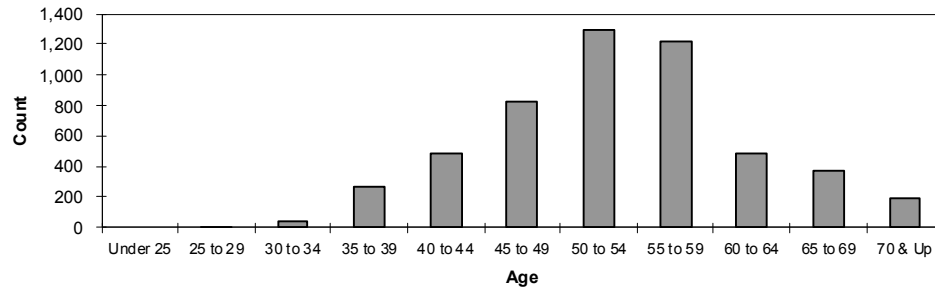
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF INACTIVE VESTED MEMBERS

as of December 31, 2008

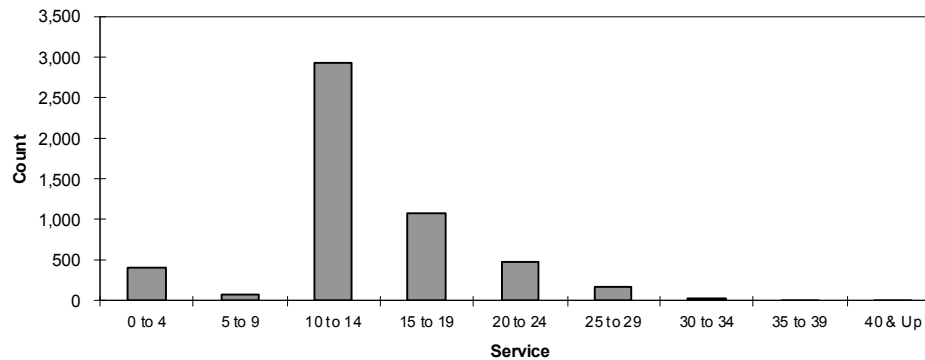
SCHOOL

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	1	0	1	0	0	0	0	0	0	2
30 to 34	0	0	38	1	0	0	0	0	0	39
35 to 39	0	0	257	16	0	0	0	0	0	273
40 to 44	0	0	385	94	7	0	0	0	0	486
45 to 49	0	0	546	191	81	13	0	0	0	831
50 to 54	29	0	710	305	151	84	16	0	0	1,295
55 to 59	0	2	661	327	160	60	11	1	0	1,222
60 to 64	3	0	266	122	60	19	6	5	3	484
65 to 69	235	42	46	25	11	6	6	2	0	373
70 & Up	143	29	8	2	1	3	1	0	0	187
Total	411	73	2,918	1,083	471	185	40	8	3	5,192

Age Distribution



Service Distribution



Nonvested: 17,968

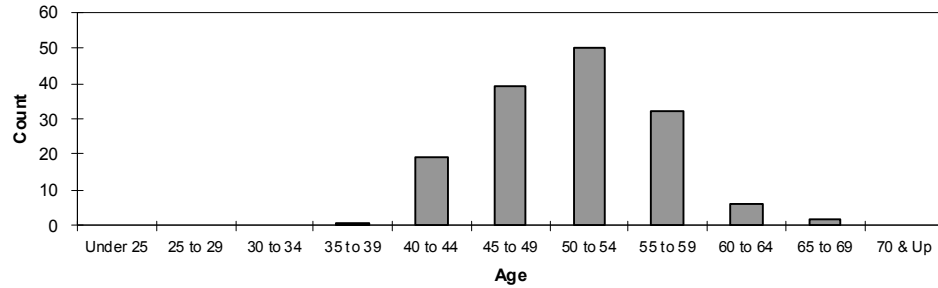
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF INACTIVE VESTED MEMBERS

as of December 31, 2008

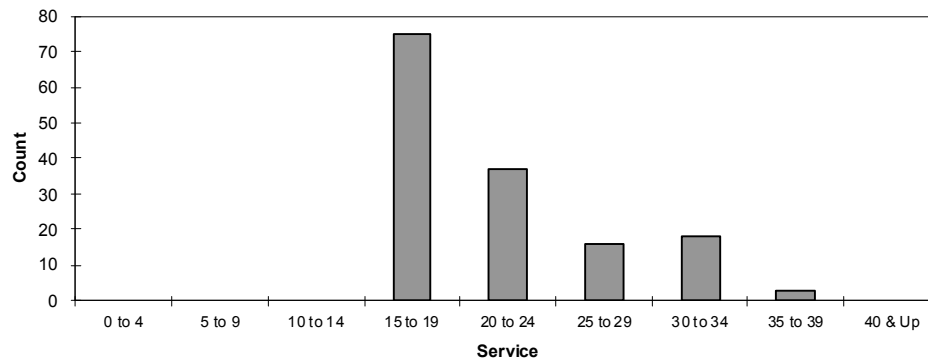
KP&F

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
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	1	0	0	0	0	0	1
40 to 44	0	0	0	16	3	0	0	0	0	19
45 to 49	0	0	0	22	14	3	0	0	0	39
50 to 54	0	0	0	21	13	10	6	0	0	50
55 to 59	0	0	0	9	6	3	11	3	0	32
60 to 64	0	0	0	5	0	0	1	0	0	6
65 to 69	0	0	0	1	1	0	0	0	0	2
70 & Up	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	75	37	16	18	3	0	149

Age Distribution



Service Distribution



Nonvested: 1,026

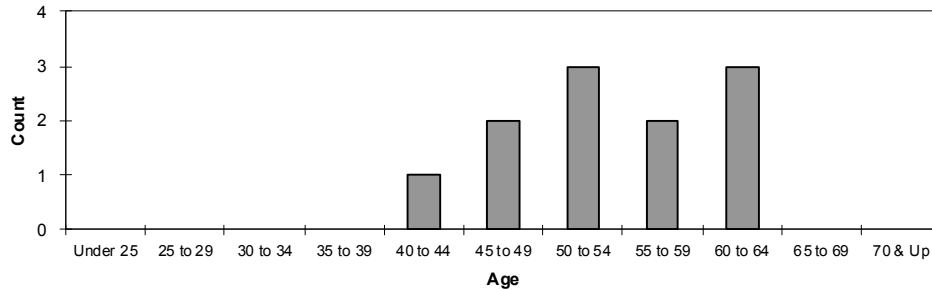
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS**

as of December 31, 2008

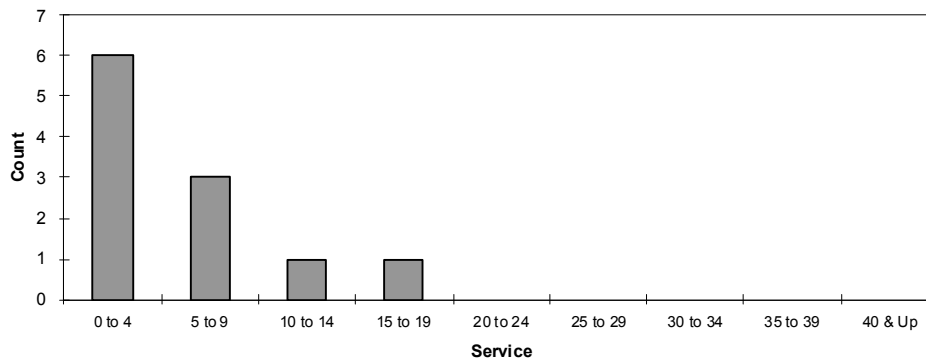
JUDGES

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
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	1	0	0	0	0	0	0	0	0	1
45 to 49	2	0	0	0	0	0	0	0	0	2
50 to 54	1	1	1	0	0	0	0	0	0	3
55 to 59	1	1	0	0	0	0	0	0	0	2
60 to 64	1	1	0	1	0	0	0	0	0	3
65 to 69	0	0	0	0	0	0	0	0	0	0
70 & Up	0	0	0	0	0	0	0	0	0	0
Total	6	3	1	1	0	0	0	0	0	11

Age Distribution



Service Distribution



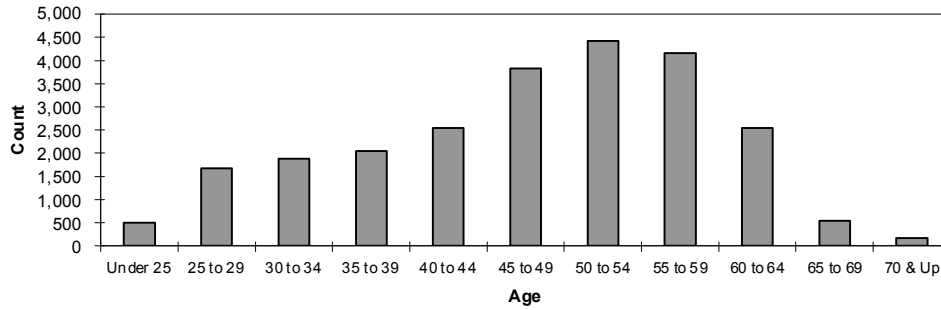
Nonvested: 0

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2008**

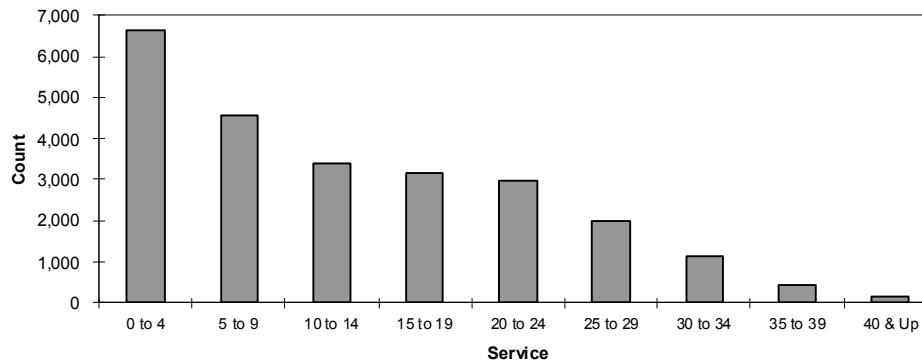
STATE

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	493	5	0	0	0	0	0	0	0	498
25 to 29	1,371	301	2	0	0	0	0	0	0	1,674
30 to 34	993	742	157	2	0	0	0	0	0	1,894
35 to 39	777	616	499	160	2	0	0	0	0	2,054
40 to 44	639	546	521	541	287	15	0	0	0	2,549
45 to 49	716	660	572	641	749	435	50	0	0	3,823
50 to 54	664	648	606	630	722	676	451	22	0	4,419
55 to 59	564	559	557	610	710	533	428	179	14	4,154
60 to 64	314	361	355	440	382	244	184	189	79	2,548
65 to 69	50	93	95	102	80	60	33	19	31	563
70 & Up	38	25	32	28	29	21	7	7	11	198
Total	6,619	4,556	3,396	3,154	2,961	1,984	1,153	416	135	24,374

Age Distribution



Service Distribution

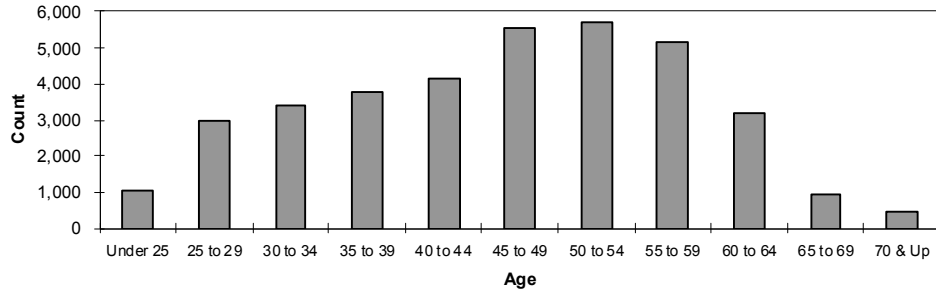


**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2008**

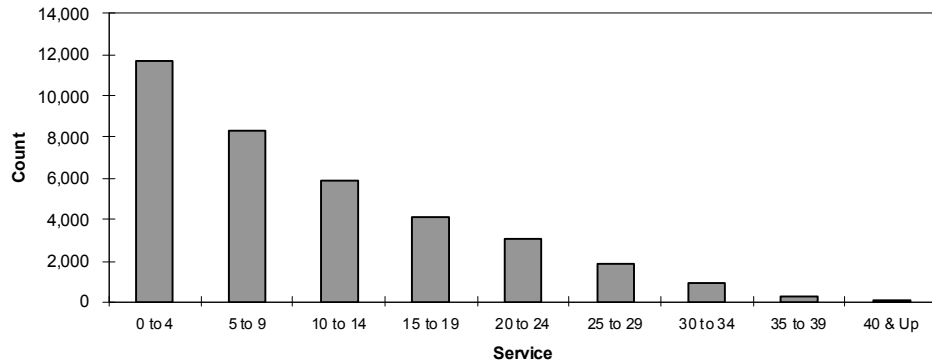
LOCAL

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	1,028	16	0	0	0	0	0	0	0	1,044
25 to 29	2,323	632	9	0	0	0	0	0	0	2,964
30 to 34	1,689	1,309	399	2	0	0	0	0	0	3,399
35 to 39	1,396	1,159	948	240	8	0	0	0	0	3,751
40 to 44	1,228	1,063	870	669	284	11	0	0	0	4,125
45 to 49	1,262	1,158	1,063	842	728	427	42	0	0	5,522
50 to 54	1,101	1,128	983	841	718	609	311	14	0	5,705
55 to 59	919	950	811	826	701	495	329	121	5	5,157
60 to 64	519	645	555	464	446	250	162	106	32	3,179
65 to 69	156	189	183	159	113	70	45	22	14	951
70 & Up	99	109	85	56	47	15	19	7	13	450
Total	11,720	8,358	5,906	4,099	3,045	1,877	908	270	64	36,247

Age Distribution



Service Distribution



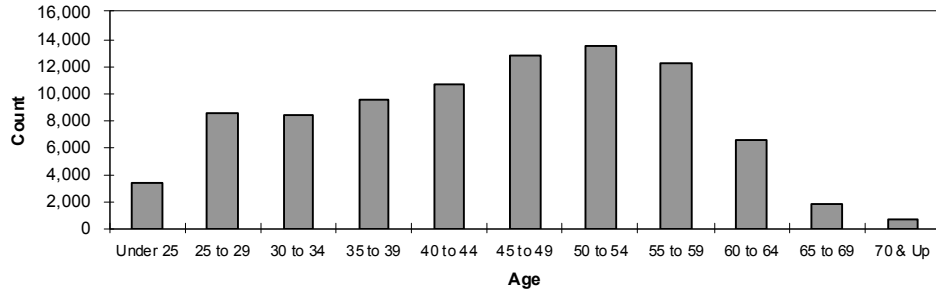
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2008

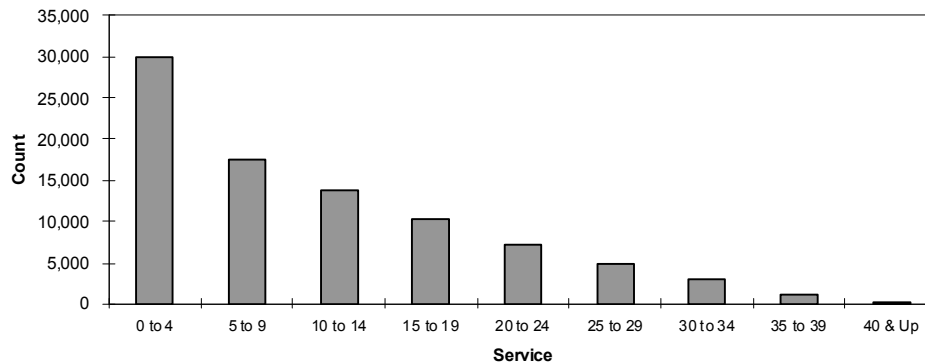
SCHOOL

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	3,304	25	0	0	0	0	0	0	0	3,329
25 to 29	6,605	1,925	20	0	0	0	0	0	0	8,550
30 to 34	3,591	3,488	1,238	6	0	0	0	0	0	8,323
35 to 39	3,662	2,118	2,877	870	10	0	0	0	0	9,537
40 to 44	3,548	2,240	1,839	2,193	793	16	0	0	0	10,629
45 to 49	3,256	2,690	2,236	1,652	2,013	979	24	0	0	12,850
50 to 54	2,455	2,074	2,346	2,134	1,446	1,844	1,157	10	0	13,466
55 to 59	1,780	1,583	1,777	2,078	1,788	1,300	1,346	579	0	12,231
60 to 64	1,083	877	937	1,095	967	629	399	464	72	6,523
65 to 69	438	375	262	232	169	111	85	61	70	1,803
70 & Up	185	173	146	88	44	28	14	9	20	707
Total	29,907	17,568	13,678	10,348	7,230	4,907	3,025	1,123	162	87,948

Age Distribution



Service Distribution

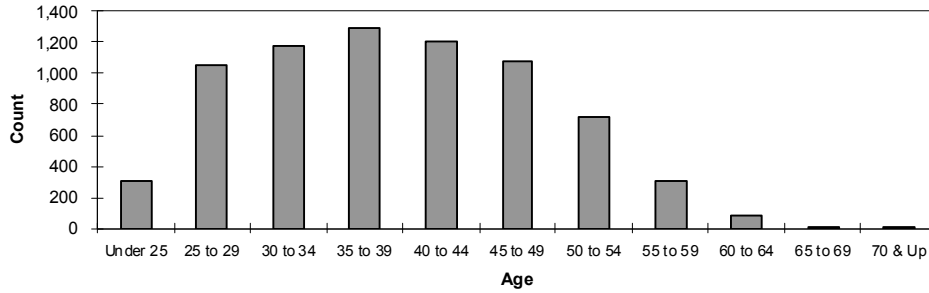


**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2008**

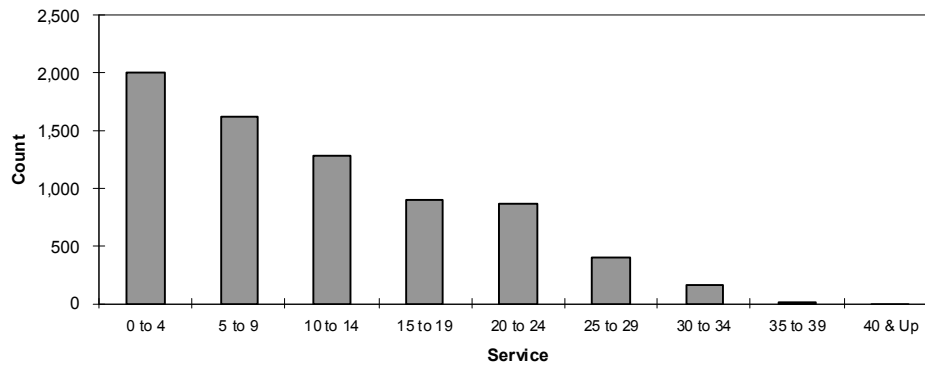
KP&F

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	307	1	0	0	0	0	0	0	0	308
25 to 29	778	271	0	0	0	0	0	0	0	1,049
30 to 34	407	588	183	0	0	0	0	0	0	1,178
35 to 39	229	382	548	135	2	0	0	0	0	1,296
40 to 44	136	182	304	383	193	2	0	0	0	1,200
45 to 49	75	97	140	228	389	148	2	0	0	1,079
50 to 54	41	56	58	88	198	179	100	2	0	722
55 to 59	23	32	34	46	65	54	53	3	0	310
60 to 64	6	10	8	20	18	8	10	3	1	84
65 to 69	1	6	0	2	1	1	0	0	1	12
70 & Up	0	1	2	0	0	0	0	1	0	4
Total	2,003	1,626	1,277	902	866	392	165	9	2	7,242

Age Distribution



Service Distribution



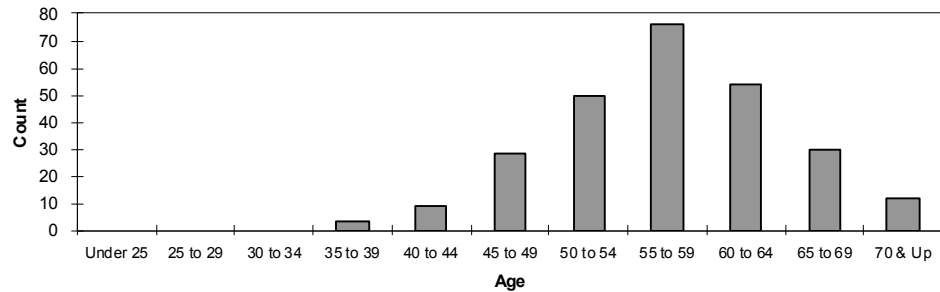
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF ACTIVE MEMBERS

as of December 31, 2008

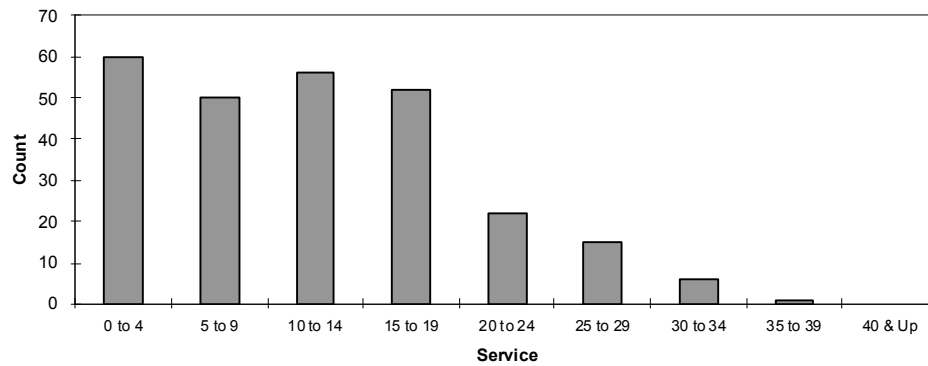
JUDGES

Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
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	1	1	1	0	0	0	0	0	0	3
40 to 44	7	1	1	0	0	0	0	0	0	9
45 to 49	15	11	1	1	0	0	0	0	0	28
50 to 54	20	8	10	10	2	0	0	0	0	50
55 to 59	10	19	17	15	11	3	1	0	0	76
60 to 64	4	3	17	15	4	10	1	0	0	54
65 to 69	3	5	7	7	4	1	3	0	0	30
70 & Up	0	2	2	4	1	1	1	1	0	12
Total	60	50	56	52	22	15	6	1	0	262

Age Distribution



Service Distribution



APPENDIX B

SUMMARY OF PLAN PROVISIONS

Plan Membership

The Kansas Public Employees Retirement System (the Retirement System, or, the System), is an umbrella organization administering three statewide retirement systems: the Kansas Public Employees Retirement System (KPERs), the Kansas Police and Firemen's Retirement System (KP & F), and the Kansas Retirement System for Judges. All three systems are defined benefit, contributory plans that cover substantially all public employees in Kansas. The Kansas Retirement System for Judges is a single employer plan, while the other two are cost-sharing, multiple employer plans. Participation by the State of Kansas is mandatory, whereas participation by local political subdivisions is optional but irrevocable once elected. Benefit payments are also provided for a certain group of legislative employees.

Employee Membership

Membership is mandatory for all employees in covered positions, except elected officials. A covered position for non-school employees is one that is covered by Social Security, is not seasonal or temporary, and requires at least 1,000 hours of work per year. School employees become KPERs members on their date of employment. School employees who work at least 630 hours per year or 3.5 hours per day for at least 180 days are eligible for membership. Non-school employees become KPERs members after one year of continuous employment. Those who retire under the provisions of the Retirement System may not become contributing members again.

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM **Summary of Provisions ***

Normal Retirement

Eligibility – Eligibility is (a) Age 65, or (b) age 62 with ten years of credited service, or (c) any age when combined age and years of credited service equal 85 “points”. Age is determined by the member's last birthday and is not rounded up.

Benefits – Benefits are based on the member's years of credited service, Final Average Salary (FAS), and a statutory multiplier. For those who were hired prior to July 1, 1993, Final Average Salary equals the greater of either: a four-year Final Average Salary, including add-ons, such as sick and annual leave; or a three-year Final Average Salary, excluding add-ons, such as sick and annual leave. For those who are hired on or after July 1, 1993, Final Average Salary equals the average of the three highest years of service, excluding add-ons, such as sick and annual leave.

Prior Service Credit – Prior service credit is 0.75% or 1% of Final Average Salary per year [School employees receive 0.75% Final Average Salary for each year of prior service that is not credited under the former Kansas School Retirement System (KSRS)].

Participating Service Credit – Participating service credit is 1.75% of Final Average Salary.

* Does not reflect the benefit provisions for employees hired on/after July 1, 2009. These provisions were not used in this valuation.

Early Retirement

Eligibility – Eligibility is age 55 and ten years of credited service.

Benefit – The normal retirement benefit is reduced 0.2% per month for each month between the ages of 60 and 62, plus 0.6% for each month between the ages of 55 and 60.

Vesting Requirements

Eligibility – A member must have ten years of credited service. Should the vested member terminate employment, the member must leave accumulated contributions on deposit with the Retirement System to be eligible for future benefits. If a vested member terminates employment and withdraws accumulated contributions, the member forfeits all rights and privileges under the Retirement System.

Benefit – Retirement benefits are payable when the vested member reaches normal retirement age, or reduced benefits are payable when the vested member reaches a specified early retirement age.

Other Benefits

Withdrawal Benefit – Members who terminate employment may withdraw contributions with interest after the last day on the employer's payroll. Withdrawing contributions forfeits all membership rights and benefits, which a member may have accrued prior to withdrawing their contributions from the Retirement System. Former members, who return to covered employment within five years after terminating employment, will not have lost any membership rights or privileges if they *haven't* withdrawn contributions. The Retirement Act provides for withdrawal of contributions 30 days after employment terminates, but it does not allow members to borrow from contributions.

Disability Benefit – Members receiving disability benefits under the KPERS Death and Disability Benefits Program continue to receive service credit under KPERS. If a disabled member retires after receiving disability benefits for at least five years immediately preceding retirement, the member's Final Average Salary is adjusted by the actuarial salary increase assumption rates in existence during the member's period of disability prior to July 1, 1993, 5% per year to July, 1998 and the change in CPI-U less 1%, not to exceed 4% after July, 1998.

Death Benefits - Pre-retirement death (non-service connected) – The member's accumulated contributions plus interest are paid in a lump sum to the designated beneficiary. In lieu of receiving the member's accumulated contributions, the surviving spouse of a member who is eligible to retire at death may elect to receive benefits under any survivor option. The spouse must be the member's sole designated beneficiary to exercise this option. If the member had at least 10 years of credited service, but had not reached retirement age, the spouse may elect to leave the member's contributions on deposit with the System and receive a monthly benefit to begin on the date the member would have been eligible to retire.

Service-connected accidental death – The member's accumulated contributions plus interest, plus lump sum amount of \$50,000, plus annual benefit based on 50% of Final Average Salary; reduced by Workers' Compensation benefits and subject to a minimum benefit of \$100 a month; are payable to a spouse, minor children, or dependent parents, for life, or until the youngest child reaches age 18 (or up to age 23 if they are full-time students), in this order of preference. The monthly accidental death benefit is in lieu of any joint/survivor benefit for which the surviving spouse would have been eligible.

Post-retirement death – A lump sum amount of \$4,000 is payable to the member’s beneficiary. If the member has selected a retirement option, benefits are paid to the joint annuitant or the designated beneficiary. Under joint and survivor retirement options, if the joint annuitant predeceases the retired member, the reduced option benefit is increased to the amount the retired member would have received if no retirement option had been elected. Benefits payable to a joint annuitant cease at the joint annuitant’s death. If a member does not select an option, the designated beneficiary receives the excess, if any, of the member’s accumulated contributions plus interest over total benefits paid to date of death.

Member Contributions

Member contributions are 4% of compensation. Interest is credited to members’ contribution accounts on June 30 each year, based on account balance as of the preceding December 31. Those who became members prior to July 1, 1993, have interest credited to their accounts at the rate of 8% per year. Those who become members on and after July 1, 1993, have interest credited to their accounts at the rate of 4% per year.

Employer Contributions

Rates are certified by the Board of Trustees, based on the results of annual actuarial valuations.

Board of Regents Plan Members (TIAA and equivalents)

Board of Regents plan members (TIAA and equivalents) do not make contributions to KPERS. They receive prior service benefits for service before 1962; the benefit is 1% of Final Average Salary for each year of credited prior service. Service after 1961 is counted for purposes of determining eligibility for vesting.

Correctional Members

Correctional employees, as certified to the Board of Trustees by the Secretary of Corrections, are defined in K.S.A. 74-4914a: (a) correctional officers, (b) certain directors and deputy directors of correctional institutions, (c) correctional power plan operators, (d) correctional industries employees, (e) correctional food service employees, and (f) correctional maintenance employees.

For groups (a) and (b) with at least three consecutive years of credited service, in such positions immediately preceding retirement, normal retirement age is 55 or Rule of 85 and early retirement requirements are age 50 with ten years of credited service. For groups (c), (d), (e), and (f) with at least three consecutive years of service in such positions immediately preceding retirement, normal retirement age is 60 or Rule of 85 and early retirement requirements are 55 with ten years of credited service.

KANSAS POLICE & FIREMEN’S RETIREMENT SYSTEM

Normal Retirement

Tier I* – age 55 and 20 years of service or 32 years of service (regardless of age). **Tier II**** – age 50 and 25 years of service, or age 55 and 20 years of service, or age 60 and 15 years of service.

Benefits – Benefits are based on the member’s Final Average Salary. For those who were hired prior to July 1, 1993, Final Average Salary equals the average of the highest three of the last five years of credited participating service, including add-ons, such as sick and annual leave. For those who are hired on or after July 1, 1993, Final Average Salary equals the average of the highest three of the last five years of participating service, excluding add-ons, such as sick and annual leave. Benefits are based on a member’s years of credited service and a multiplier of 2.5% of Final Average Salary for each year of credited service, to a maximum of 80% of Final Average Salary.

Local Plan – For members covered by local plan provisions on the employer’s entry date, normal retirement is at age 50 with 22 years of credited service.

Early Retirement

Eligibility – Members must be at least age 50 and have 20 years of credited service.

Benefit – Normal retirement benefits are reduced 0.4% per month under age 55.

Vesting Requirements

Eligibility – Tier I *: The member must have 20 years of service credit; if terminating employment, the member must leave contributions on deposit with the Retirement System to be eligible for future benefits. Unreduced benefits are payable at age 55 or reduced benefits are payable as early as age 50.

Eligibility – Tier II**: The member must have 15 years of service credit to be considered vested. If terminating employment, the member must leave contributions on deposit with the Retirement System to be eligible for future benefits. A vested member may draw unreduced benefits as early as age 50 with 25 years of credited service, age 55 with 20 years of credited service, or age 60 with 15 years of credited service. A reduced benefit is available at age 50 with 20 years of credited service.

Other Benefits

Withdrawal Benefits – Members who terminate employment before retirement may withdraw contributions with interest after the last day on the employer's payroll. Withdrawal of contributions forfeits all membership rights and benefits, which a member may have accrued prior to withdrawing accumulated contributions from the Retirement System. Former members, who return to covered employment within five years after terminating employment, will not have lost any membership rights or privileges if they haven't withdrawn contributions.

Disability Benefits

Tier I*: Service-connected disability – There are no age or service requirements to be eligible for this benefit. There is an annual benefit of 50% of Final Average Salary, plus 10% of Final Average Salary for each dependent child under age 18 (or up to age 23 for full-time students), to a maximum of 75% of Final Average Salary. If dependent benefits aren't payable, the benefit is 50% of Final Average Salary or 2.5% for each year of credited service up to a maximum of 80% of Final Average Salary. Upon the death of a member after two years from the proximate cause of death which is the original service-connected disability, the same benefits are payable. Upon the death of a member after 2 years from a cause different than the disability for which the member is receiving service-connected disability benefits, the surviving spouse receives a lump sum payment of 50% of Final Average Salary. Additionally, a pension benefit of one-half the member's benefit is payable to either the spouse or to the dependent children.

Tier I*: Non-Service-connected disability – An annual benefit of 2.5% times years of credited service times Final Average Salary with a minimum of 25% of FAS and a maximum of 80% of FAS.

Tier II**: There is no distinction between service-connected and non-service-connected disability benefits. Annual benefit of 50% of Final Average Salary. Service Credit is granted during the period of disability. Disability benefits convert to age and service retirement at the earliest date the member is eligible for full retirement benefits. If the member is disabled for at least five years immediately preceding retirement, the member's Final Average Salary is adjusted during the period of Disability.

Death Benefits (Tier I* and Tier II)**

Active Member Service Connected Death – There is no age or service requirement. An annual benefit of 50% of Final Average Salary is payable to the spouse, plus 10% of Final Average Salary for each dependent child under age 18 [or up to age 23 if full time student(s)], to a maximum of 75% of Final Average Salary Active Member.

Active Member Non-Service Connected Death – A lump sum of 100% of Final Average Salary is payable to the spouse and a pension of 2.5% of Final Average Salary per year of credited service (to a maximum of 50%) is payable to the spouse. If there is no spouse, the monthly benefit is paid to the dependent children (age 18 or 23 if a full time student). If there is no surviving spouse or eligible children, the beneficiary will receive a lump sum payment of 100% of the member's current annual pay inclusive of the member's accumulated contributions.

Inactive Member Death – If an inactive member is eligible for retirement when death occurs, and the inactive member's spouse is the sole beneficiary, the spouse may elect to receive benefits as a joint annuitant under any option in lieu of a refund of the member's accumulated contributions.

Post-Retirement Death – There is a lump sum amount of \$4,000 payable, less any death benefit payable under local plan provisions. If the member has selected a retirement option, benefits are paid to the joint annuitant or the designated beneficiary. Under joint and survivor options, if the joint annuitant predeceases the retired member, the benefit is increased to the amount the retired member would have received if no option had been selected. Benefits payable to the joint annuitant cease when the joint annuitant dies. If no option is selected, the designated beneficiary receives the excess, if any, of the member's accumulated contributions over total benefits paid to the date of death. The surviving spouse of a transfer member (who was covered by local plan on the employer's entry date, who dies after retirement, and who has not elected a retirement benefit option) receives a lump sum payment of 50% of Final Average Salary. Additionally, a pension benefit of three-fourths of the member's benefit is payable either to the spouse or dependent children.

Classifications

***Tier I** – Members have Tier I coverage if they were employed prior to July 1, 1989, and they did not elect coverage under Tier II.

****Tier II** – Members have Tier II coverage if they were employed July 1, 1989, or later. This also includes members employed before July 1, 1989 who elected Tier II coverage.

Some KP&F members are considered either Tier I or Tier II Transfer or Brazelton members.

Transfer Member – member who is a former member of a local plan who elected to participate in KP&F. Former Kansas Highway Patrol and former Kansas Bureau of Investigation members are included in this group.

Brazelton member – member who participated in a class action lawsuit, whose contribution is lower, and whose benefits are offset by Social Security.

Member Contributions

Member contributions are 7% of compensation. For members with 32 years of credited service, the contribution rate is reduced to 2% of compensation.

Brazelton members contribute .008% with a Social Security offset. Benefits payable to these members are reduced by one-half of original Social Security benefits accruing from employment with the participating employer.

Employer Contributions

Individual rates are certified by the Board of Trustees for each participating employer based on the results of annual actuarial valuations.

KANSAS JUDGES RETIREMENT SYSTEM

Normal Retirement

Eligibility – (a) Age 65, or (b) age 62 with ten years of credited service, or (c) any age when combined age and years of credited service equals 85 “points”. Age is determined by the member’s last birthday and is not rounded up.

Benefit – the benefit is based on the member’s Final Average Salary, which is the average of the three highest years of service under any retirement system administered by KPERS. The basic formula for those who were members prior to July 1, 1987, is 5% of Final Average Salary for each year of service up to ten years, plus 3.5% for each year of service greater than ten, to a maximum of 70% of Final Average Salary. For those who became members on or after July 1, 1987, the formula is 3.5% for each year, to a maximum benefit of 70% of Final Average Salary.

Early Retirement

Eligibility – A member must be age 55 and have ten years of credited service to take early retirement.

Benefit – The retirement benefit is reduced to 0.2% per month for each month between the ages of 60 and 62, plus 0.6% per month for each month between the ages of 55 and 60.

Vesting Requirements

Eligibility – There is no minimum service requirement; however, if terminating employment, the member must leave contributions on deposit with the Retirement System in order to be eligible for future benefits. Eligible judges who have service credited under KPERS have vested benefits under both KPERS and the Retirement System for Judges when the combined total credited service equals ten years.

Benefit – Normal benefit accrued at termination is payable at age 62 or in reduced amount at age 55, provided the member has ten years of service credit. Otherwise, benefits are not payable until age 65.

Other Benefits

Disability Benefits – These benefits are payable if a member is defined as totally and permanently disabled as certified by the Supreme Court. The disability benefit, payable until age 65, is 3.5% of Final Average Salary for each year of service (minimum of 25% and maximum of 70% of Final Average Salary). Benefits are recalculated when the member reaches retirement age based on participating service credit for the period of disability. If a judge is disabled for at least five years immediately preceding retirement, the judge’s Final Average Salary is adjusted.

Withdrawal Benefit – Members who terminate employment may withdraw contributions with interest, but forfeit any right to a future benefit.

Pre-retirement Death – A refund of the member’s accumulated contributions is payable. In lieu of receiving the member’s accumulated contributions, the surviving spouse of a member who is eligible to retire at death, may elect to receive benefits under any survivor benefit option. If the member had at least 10 years of credited service, but hadn’t reached retirement age at the time of death, the spouse may elect a monthly benefit to begin on the date the member first would have been eligible to retire as long as the member’s contributions aren’t withdrawn.

Post-retirement Death – A lump sum death benefit of \$4,000 is payable to the member’s beneficiary. If the member had selected an option with survivor benefits, those benefits are paid to the joint annuitant or to the member’s designated beneficiary. Under retirement options with survivor benefits, if the joint annuitant predeceases the retired member, the retirement benefit is increased to the amount the retired member would have received if no survivor benefits had been elected. Benefits payable to a joint annuitant cease when the joint annuitant dies. If no option was chosen by the retired member, the member’s designated beneficiary receives the excess, if any, of the member’s accumulated contributions over the total benefits paid to the date of the retired member’s death.

Member Contributions

Judges contributions are 6% of compensation. Upon reaching the maximum retirement benefit level of 70% of Final Average Salary, the contribution rate is reduced to 2%.

Employer Contributions

Rates are certified by the Board of Trustees, based on the results of annual actuarial valuations.

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APPENDIX C

ACTUARIAL ASSUMPTIONS AND METHODS

KPERS

Rate of Investment Return 8.0%

Implicit Inflation Rate 3.25%

**Rates of Mortality:
Post-retirement** The RP-2000 Healthy Annuitant table was first adjusted by an age setback or set forward. Rates were further adjusted to fit actual experience.

Starting Table

School Males: RP-2000 M Healthy -2
 School Females: RP-2000 F Healthy -2
 State Males: RP-2000 M Healthy +2
 State Females: RP-2000 F Healthy +0
 Local Males: RP-2000 M Healthy +2
 Local Females: RP-2000 F Healthy -1

Sample Rates

Age	School		State		Local	
	Male	Female	Male	Female	Male	Female
50	0.513%	0.183%	0.547%	0.218%	0.587%	0.204%
55	0.549%	0.226%	0.625%	0.328%	0.670%	0.278%
60	0.662%	0.384%	0.962%	0.577%	1.031%	0.481%
65	1.051%	0.664%	1.597%	0.964%	1.712%	0.817%
70	1.747%	1.074%	2.646%	1.557%	2.837%	1.318%
75	2.917%	1.792%	4.550%	2.614%	4.878%	2.215%
80	5.278%	3.643%	7.037%	4.567%	7.545%	4.171%
85	9.331%	6.751%	11.292%	7.977%	12.108%	7.508%
90	15.661%	11.589%	17.978%	13.563%	19.278%	12.869%
95	24.301%	18.407%	24.888%	20.034%	26.687%	19.742%
100	32.791%	24.186%	30.850%	24.459%	33.080%	24.990%

Pre-retirement School Males: 70 % of RP-2000 M Employees -2
 School Females: 70% of RP-2000 F Employees -2
 State Males: 70% of RP-2000 M Employees +2
 State Females: 70% of RP-2000 F Employees +0
 Local Males: 90% of RP-2000 M Employees +2
 Local Females: 90% of RP-2000 F Employees -1

Disabled Life Mortality RP-2000 Disabled Life Table with same age adjustments as used for Retiree Mortality.

Rates of Salary Increase

Years of Service	Rate of Increase*		
	School	State	Local
1	12.00%	10.50%	10.50%
5	6.55%	5.60%	6.20%
10	5.10%	4.90%	5.20%
15	4.60%	4.40%	4.80%
20	4.10%	4.10%	4.60%
25	4.00%	4.00%	4.10%
30	4.00%	4.00%	4.00%

*Includes general wage increase assumption of 4.0% (composed of 3.25% inflation and 0.75% productivity)

Rates of Termination

Duration	School		State		Local	
	Male	Female	Male	Female	Male	Female
0	21.00%	23.00%	17.00%	19.00%	20.00%	23.00%
1	18.00%	18.00%	14.50%	15.00%	16.00%	20.00%
2	14.00%	13.00%	12.00%	11.00%	13.20%	17.00%
3	10.00%	11.00%	10.00%	10.00%	11.00%	14.00%
4	8.00%	9.00%	8.00%	9.00%	9.60%	11.50%
5	6.50%	7.25%	7.00%	8.00%	8.30%	9.00%
6	5.50%	6.25%	6.00%	7.00%	7.10%	7.50%
7	5.00%	5.50%	5.20%	6.00%	6.00%	6.50%
8	4.50%	4.90%	4.60%	5.00%	5.00%	5.75%
9	4.00%	4.30%	4.10%	4.60%	4.40%	5.00%
10	3.60%	3.90%	3.90%	4.30%	3.80%	4.25%
11	3.20%	3.50%	3.70%	4.00%	3.50%	3.75%
12	2.90%	3.10%	3.50%	3.70%	3.30%	3.40%
13	2.60%	2.80%	3.30%	3.50%	3.10%	3.20%
14	2.40%	2.50%	3.10%	3.30%	2.90%	3.00%
15	2.20%	2.30%	2.90%	3.10%	2.70%	2.80%
16	2.00%	2.10%	2.70%	2.90%	2.50%	2.60%
17	1.80%	1.90%	2.50%	2.70%	2.30%	2.40%
18	1.60%	1.70%	2.30%	2.50%	2.10%	2.20%
19	1.50%	1.50%	2.10%	2.30%	1.90%	2.00%
20	1.40%	1.30%	1.90%	2.10%	1.80%	1.80%
21	1.30%	1.20%	1.70%	1.90%	1.70%	1.60%
22	1.20%	1.10%	1.50%	1.70%	1.60%	1.40%
23	1.10%	1.00%	1.30%	1.50%	1.50%	1.20%
24	1.00%	0.90%	1.10%	1.40%	1.40%	1.00%
25	0.90%	0.80%	0.90%	1.30%	1.30%	0.90%
26	0.80%	0.70%	0.70%	1.20%	1.20%	0.70%
27	0.70%	0.60%	0.60%	1.10%	1.10%	0.60%
28	0.60%	0.50%	0.50%	1.00%	1.00%	0.50%
29	0.50%	0.50%	0.50%	0.50%	0.90%	0.50%
30	0.50%	0.50%	0.50%	0.50%	0.80%	0.50%
30+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Retirement Rates

School

<u>Age</u>	<u>Rule of 85</u>	
	<u>1st Year</u>	<u>After 1st Year</u>
	<u>With 85 Points</u>	<u>With 85 Points</u>
53	20%	18%
55	20%	18%
57	22%	18%
59	25%	23%
61	30%	30%

Early Retirement

<u>Age</u>	<u>Rate</u>
55	5%
56	5%
57	8%
58	8%
59	12%
60	15%
61	22%

Normal Retirement

<u>Age</u>	<u>Rate</u>
62	30%
63	25%
64	35%
65	35%
66-71	25%
72-74	20%
75	100%

State

<u>Age</u>	<u>Rule of 85</u>	
	<u>1st Year</u>	<u>After 1st Year</u>
	<u>With 85 Points</u>	<u>With 85 Points</u>
53	10%	15%
55	15%	15%
57	15%	12%
59	15%	12%
61	30%	25%

Early Retirement

<u>Age</u>	<u>Rate</u>
55	5%
56	5%
57	5%
58	5%
59	8%
60	8%
61	20%

Normal Retirement

<u>Age</u>	<u>Rate</u>
62	30%
63	20%
64	30%
65	35%
66-67	25%
68-74	20%
75	100%

Local

<u>Age</u>	<u>Rule of 85</u>	
	<u>1st Year With 85 Points</u>	<u>After 1st Year With 85 Points</u>
53	11%	10%
55	13%	10%
57	13%	10%
59	15%	12%
61	25%	25%

<u>Early Retirement</u>		<u>Normal Retirement</u>	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
55	5%	62	25%
56	5%	63	20%
57	5%	64	30%
58	5%	65	35%
59	5%	66	25%
60	5%	67-74	20%
61	15%	75	100%

- Inactive vested members – Age 62.
- For correctional employees with an age 55 normal retirement date -

<u>Age</u>	<u>Rate</u>
55	10%
58	10%
60	10%
62	45%
65	100%

- For correctional employees with an age 60 normal retirement date – Age 62.
- For TIAA employees – Age 66.

Rates of Disability

<u>Age</u>	<u>School</u>	<u>State</u>	<u>Local</u>
25	.025%	.036%	.030%
30	.028%	.102%	.065%
35	.034%	.161%	.097%
40	.058%	.244%	.143%
45	.110%	.376%	.209%
50	.213%	.511%	.363%
55	.362%	.720%	.600%
60	.680%	.920%	.850%

Indexation of Final Average Salary for Disabled Members: 2.5% per year

Probability of Vested Members Leaving Contributions With System

<u>Age</u>	<u>School</u>	<u>State</u>	<u>Local</u>
25	80%	65%	60%
30	80%	65%	60%
35	80%	65%	60%
40	80%	65%	60%
45	82%	75%	64%
50	87%	85%	74%
55	100%	100%	100%

Marriage Assumption: 70% of all members are assumed married with male spouse assumed 3 years older than female.

KP&F

Rate of Investment Return	8.0%														
Implicit Inflation Assumption	3.25%														
Rates of Mortality:															
Post-retirement	RP-2000 Healthy Annuitant Table														
Pre-retirement	90% of RP-2000 Employee Table* *70% of preretirement deaths assumed to be service related.														
Disabled Life Mortality	RP-2000 Disabled Life Table														
Rates of Salary Increase	<table> <thead> <tr> <th><u>Years of Service</u></th> <th><u>Rate of Increase*</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>12.5%</td> </tr> <tr> <td>5</td> <td>7.0%</td> </tr> <tr> <td>10</td> <td>4.9%</td> </tr> <tr> <td>15</td> <td>4.3%</td> </tr> <tr> <td>20</td> <td>4.0%</td> </tr> <tr> <td>25</td> <td>4.0%</td> </tr> </tbody> </table> <p>*Includes general wage increase assumption of 4.0% (composed of 3.25% inflation and 0.75% productivity)</p>	<u>Years of Service</u>	<u>Rate of Increase*</u>	1	12.5%	5	7.0%	10	4.9%	15	4.3%	20	4.0%	25	4.0%
<u>Years of Service</u>	<u>Rate of Increase*</u>														
1	12.5%														
5	7.0%														
10	4.9%														
15	4.3%														
20	4.0%														
25	4.0%														

Rates of Termination

Tier I: 3% for ages less than 41; 0% thereafter

	<u>Years of Service</u>	Rate
Tier II:	1	13.0%
	5	6.0%
	10	2.5%
	15	1.0%
	20	1.0%
	25	0.0%

Retirement Rates

Tier I:	<u>Early Retirement</u>		<u>Normal Retirement</u>	
	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
	50	5%	55	40%
	51	5%	56	30%
	52	5%	57	25%
	53	10%	58	40%
	54	30%	59	35%
			60	55%
			61	20%
			62	100%

Tier II:	<u>Early Retirement</u>		<u>Normal Retirement</u>	
	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
	50	10%	50	25%
	51	10%	53	25%
	52	10%	55	25%
	53	15%	58	20%
	54	25%	60	20%
			61	40%
			62	35%
			63	100%

Inactive Vested: Assumed to retire at later of (i) eligibility for unreduced benefits or (ii) age 55.

Rates of Disability

<u>Age</u>	<u>Rate*</u>
22	.06%
27	.07%
32	.15%
37	.35%
42	.56%
47	.76%
52	.96%
57	1.00%

*90% assumed to be service-connected under KP & F Tier I.

Marriage Assumption: 80% of all members assumed married with male spouse assumed to be three years

older than female.

Judges

Rate of Investment Return	8.0%	
Implicit Inflation Assumption	3.25%	
Rates of Mortality:		
Post-retirement	RP-2000 Healthy Annuitant Table, set back two years	
Pre-retirement	70% of RP-2000 Employee Table, set back two years	
Rates of Salary Increase	4.5%	
Rates of Termination	None assumed	
Disabled Life Mortality	RP-2000 Disabled Life Table, set back two years	
Rates of Disability	None assumed	
Retirement Rates		
	<u>Age</u>	<u>Rate</u>
	62	30%
	63	25%
	64	10%
	65-69	50%
	70+	100%

Marriage Assumption: 70% of all members are assumed married with male spouse assumed 3 years older than female.

TECHNICAL VALUATION PROCEDURES

Data Procedures

In-pay members:

If a birth date is not available, the member is assumed to have retired at 62. If a retirement date is also not available, the member is assumed to be 75.

If a beneficiary birth date is needed but not supplied, males are assumed to be 3 years older than females.

Not in-pay members:

If a birth date is not available, it is assigned according to the following schedule:

<u>System</u>	<u>Active member age at hire</u>	<u>Inactive member age at valuation</u>
KPERS	34.7	50
KP&F	27.5	49
Judges	43.4	54

If gender is not provided, it is assigned randomly with a 40% probability of being male and 60% probability of being female.

Salaries for first year members are annualized assuming they were hired in the middle of the month of membership

Other Valuation Procedures

No actuarial accrued liability in excess of the unclaimed member contribution balance is held for nonvested, inactive members. A reserve is also held for accounts that have been forfeited but could be reclaimed in the future.

Benefits above the projected IRC Section 415 limit for active participants are assumed to be immaterial for the valuation.

The compensation limitation under IRC Section 401(a)(17) is considered in this valuation. On a projected basis, the impact of this limitation is insignificant.

Salary increases are assumed to occur mid-year.

Decrements are assumed to occur mid-year, except that immediate retirement is assumed for those who are at or above the age at which retirement rates are 100%. Standard adjustments are made for multiple decrements. Withdrawal does not operate once early or unreduced retirement eligibility is met.

Actuarial Methods

1. Funding Method

Under the EAN cost method, the actuarial present value of each member's projected benefits allocates on a level basis over the member's compensation 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 actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability 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.

There are several components of the unfunded actuarial liability which are amortized over different periods. The increase in the unfunded actuarial liability resulting from the 1998 COLA is amortized over 15 years. The increase in the unfunded actuarial liability for Local employers resulting from 2003 legislation which made the 13th check for pre-July 2, 1987 retirees a permanent benefit is funded over a 10 year period beginning in 2005. The remainder of the unfunded actuarial liability is amortized over a period originally set at 40 years beginning July 1, 1993.

The UAL is amortized as a level percentage of payroll for all groups except Judges, who use a level dollar payment. The payroll growth assumption is 4% so the annual amortization payments will increase 4% each year. As a result, if total payroll grows 4% per year, as assumed, the amortization payment will remain level as a percentage of total current payroll.

2. Asset Valuation Method

For actuarial purposes, assets are valued using an asset smoothing method. The difference between the actual return and the expected return (based on the actuarial assumed rate of return) on the market value of assets is calculated each year and recognized equally over a five year period. The resulting value must fall within a corridor of 80% to 120% of market value. If the preliminary value is outside the corridor, the actuarial value is set equal to the corridor limit.

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APPENDIX D

GLOSSARY OF TERMS

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

APPENDIX D (continued)

Unfunded Actuarial Accrued Liability The difference between actuarial accrued liability and the valuation assets. Sometimes referred to as “unfunded actuarial liability” or “unfunded accrued liability”.

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

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