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**Kansas Public Employees
Retirement System**

Valuation Report as of December 31, 2013





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July 8, 2014

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 have performed an actuarial valuation of the Kansas Public Employees Retirement System (KPERS) as of December 31, 2013 for purposes of determining contribution rates for fiscal year 2017 for the State and 2016 for Local employers. The major findings of the valuation are contained in this report, which reflects the benefit provisions in place on December 31, 2013. The Kansas Legislature passed House Bill 2533, which made changes to the benefit provisions for KPERS 3 members. Since there were no KPERS 3 members in the December 31, 2013 valuation, HB 2533 had no impact on the key measurements determined on December 31, 2013. However, the changes in HB 2533 did impact the projected contribution rates for State, School and Local groups in future years. There were no changes to the actuarial assumptions and methods from those used in 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.

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Board of Trustees
July 8, 2014
Page 2

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 and statutory funding amounts for the System. Actuarial computations for purposes of fulfilling financial accounting requirements for the System under Governmental Accounting Standard Number 67 will be presented in a separate report. Computations under Governmental Accounting Standards Number 68 for financial reporting by employers will be available in a separate communication. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

The consultants who worked on this assignment are pension actuaries. Cavanaugh Macdonald Consulting, LLC'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 KPERS Executive Director, Alan Conroy, 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.

Sincerely,

A handwritten signature in blue ink that reads 'Patrice Beckham'.

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

A handwritten signature in blue ink that reads 'Brent A. Banister'.

Brent A. Banister Ph.D., FSA, EA, MAAA, FCA
Chief Pension Actuary



SECTION 1 – 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, 2013 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 2014 Legislature passed House Bill 2533 (HB 2533) which was signed into law by the Governor on April 18, 2014. HB 2533 modified the Cash Balance plan design for future tier 3 members of the Kansas Public Employees Retirement System (KPERS) to be implemented on January 1, 2015. The provisions of the bill are:

- Reduce the minimum guaranteed interest crediting rate from 5.25 percent to 4.00 percent. The bill also revised the criteria for determining the additional interest credits, moving to a more formula driven basis; and
- Revise the annuity interest rate of 6.0 percent at the time of retirement to an interest rate equal to 2.0 percent less than the actuarial assumed investment rate of return, as established by the KPERS Board of Trustees upon the member’s annuity start date. The current earnings assumption is 8.0 percent, as adopted by the KPERS Board of Trustees in 1987.

The valuation results provide a “snapshot” view of the System’s financial condition on December 31, 2013. The unfunded actuarial liability (UAL), for the System as a whole, decreased by \$487 million due to multiple factors. A detailed analysis of the change in the unfunded actuarial liability from December 31, 2012 to December 31, 2013 is shown on page 6.

In KPERS, the 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 current statutory cap is 0.90% for fiscal year 2014, 1.0% for fiscal year 2015, 1.1% for fiscal year 2016 and 1.2% for fiscal year 2017 and later.

Although separate valuations are performed for the State and School groups, the statutory contribution rate for the groups is determined using the combined valuation results for the two groups. The actuarial required contribution (ARC) for the State is currently less than the statutory contribution rate when the two groups are combined. Contributions which result from the excess of the statutory contribution rate over the actuarial required contribution rate for the State alone are allocated to the School to improve the funding of that group.



SECTION 1 – BOARD SUMMARY

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, 2013 Valuation		
	Actuarial	Statutory	Difference
State ¹	10.77%	13.57%	(2.80%)
School ¹	16.03%	13.57%	2.46%
State/School ¹	14.85%	13.57%	1.28%
Local ¹	9.18%	9.18%	0.00%
Police & Fire - Uniform Rates ²	20.42%	20.42%	0.00%
Judges	21.36%	21.36%	0.00%

System	December 31, 2012 Valuation		
	Actuarial	Statutory	Difference
State	11.44%	12.37%	(0.93%)
School	16.00%	12.37%	3.63%
State/School	14.95%	12.37%	2.58%
Local	9.48%	9.48%	0.00%
Police & Fire - Uniform Rates	21.36%	21.36%	0.00%
Judges	23.98%	23.98%	0.00%

¹ By statute, rates are allowed to increase by a maximum of 0.9% for FY 2014, 1.0% in FY 2015, 1.1% in FY 2016 and 1.2% in FY 2017 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 20.38% this year. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer. (See Table 13)

The rate of return on the market value of assets in 2013 was over 17%, in excess of the assumed return of 8%. As a result, as of this valuation date, the State and Local groups continue to be at the ARC rate. In addition, the School group is 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.

EXPERIENCE - ALL SYSTEMS COMBINED

December 31, 2012 – December 31, 2013

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, 2013. 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 both the Systems' assets and liabilities impacted the change in the actuarial contribution rates between the December 31, 2012 and December 31, 2013 actuarial valuations. On the following pages, each component is examined.



SECTION 1 – BOARD SUMMARY

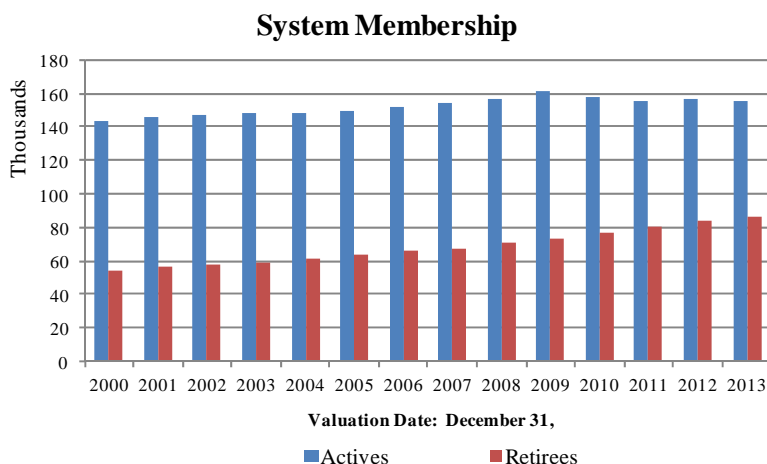
MEMBERSHIP

The following table contains a summary of the changes in active members between the December 31, 2012 and December 31, 2013 actuarial valuations.

	State	School	Local	KP&F	Judges	Total
12/31/2012 (Starting count)	23,826	85,428	39,351	7,187	261	156,053
New actives	2,273	9,895	5,224	564	24	17,980
Nonvested Terminations	767	3,476	1,904	185	0	6,332
Elected Refund	694	1,305	1,407	111	0	3,517
Vested Terminations	<u>646</u>	<u>2,194</u>	<u>1,140</u>	<u>21</u>	<u>1</u>	<u>4,002</u>
Total Withdrawals	2,107	6,975	4,451	317	1	13,851
Deaths	47	79	78	1	2	207
Disabilities	40	88	47	25	0	200
Retirements	770	2,403	968	168	17	4,326
Other/Transfer	-18	-26	57	-13	0	0
12/31/2013 (Ending count)	23,117	85,752	39,088	7,224	265	155,446

In aggregate, the number of active members decreased although the School and KPF saw a slight increase in the number of active members. In the current economic environment, this pattern of low (or negative) employee growth is not surprising. Coupled with low salary increases, the total payroll did not grow as much as expected, so there were fewer contributions to help pay down the System's UAL.

The graph below shows the number of active members and retirees in prior valuations, along with the ratio of active members to retirees on the right-hand axis. The number of active members has declined each of the last four years while the number of retirees has continued to grow.





SECTION 1 – BOARD SUMMARY

ASSETS

As of December 31, 2013, the System had total funds of \$15.7 billion on a market value basis, excluding assets held for the Group Insurance and Optional Life reserves. This was an increase of \$1.9 billion from the December 31, 2012 figure of \$13.8 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. See Tables 3A through 3F and 4 for the detailed development of the actuarial value of assets as of December 31, 2013 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, 2012	\$13,817	\$13,278
• Employer and Member Contributions	959	959
• Benefit Payments	(1,397)	(1,397)
• Elimination of Administrative Reserve*	24	24
• Investment Income	2,341	1,699
Assets, December 31, 2013	\$15,745	\$14,563

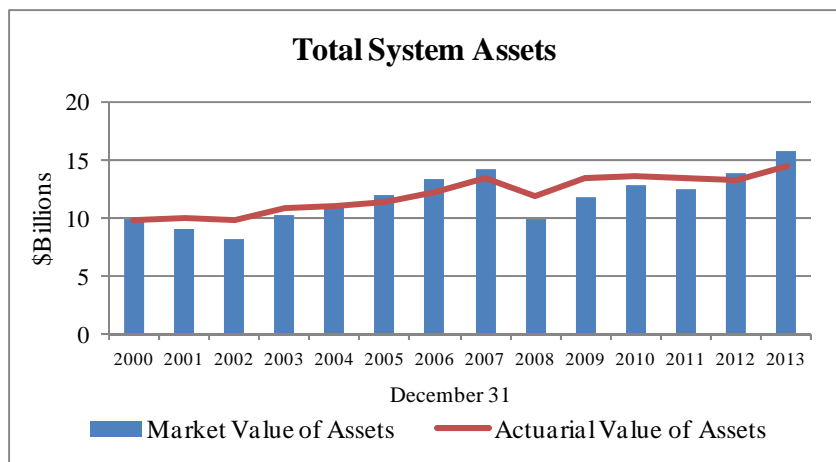
* During 2013, the System's accounting practices were modified to eliminate the administrative reserve and the amount was added back into the System assets.

The actuarial value of assets as of December 31, 2013, was \$14.563 billion. The annualized dollar-weighted net rate of return for 2013 was approximately 13.0% when measured on the actuarial value of assets, and was 17.5% when measured on the market value of assets, as reported by KPERS.

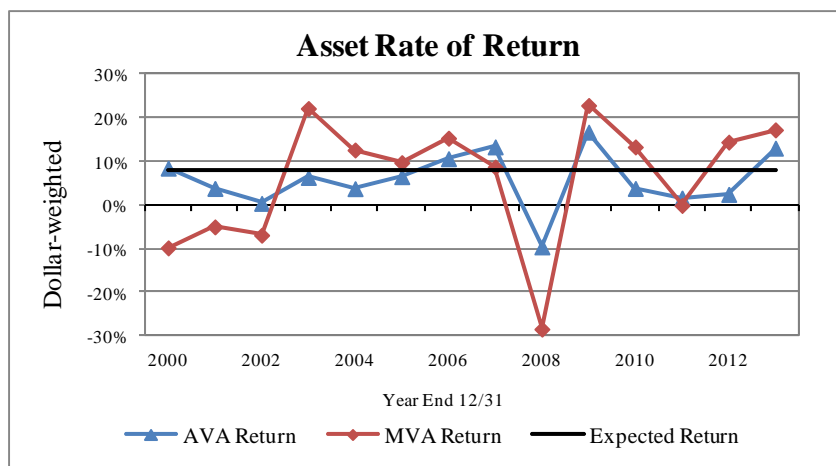
Due to the use of an asset smoothing method, there is \$1,182 million of net deferred investment gain experience that has not yet been recognized, i.e. the market value of asset is higher than the actuarial value. This deferred investment gain will be reflected in the actuarial value of assets over the next four years, but may be offset by actual investment experience if it is less favorable than assumed.



SECTION 1 – BOARD SUMMARY



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. The deferred investment gains will be reflected in the actuarial value of assets in the next few years, absent unfavorable investment experience.

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:

	State	School	Local	KP&F	Judges	Total*
Actuarial Liability	\$4,076	\$13,002	\$4,382	\$2,707	\$162	\$24,329
Actuarial Value of Assets	<u>2,947</u>	<u>6,780</u>	<u>2,792</u>	<u>1,903</u>	<u>141</u>	<u>14,563</u>
Unfunded Actuarial Liability*	\$1,129	\$ 6,222	\$1,590	\$ 803	\$ 21	\$ 9,766

*May not add due to rounding.



SECTION 1 – BOARD SUMMARY

See Table 6 for the detailed development of the Actuarial Liability by group. The calculation of the Unfunded Actuarial Liability by group is shown in Table 9.

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, of which 20 years remain as of this valuation. Under this approach, payments on the UAL increase four percent each year, the same as the payroll growth assumption, resulting in a payment pattern that is a level percentage of pay. However, for over half of the amortization period the dollar amount of the amortization payment is less than the interest on the UAL. As a result, the dollar amount of the UAL is expected to increase for many years before it eventually 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 has increased 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 2013). All of the groups, except KP&F, had a liability gain for the year, largely from smaller salary increases than expected. Strong returns on the System assets in the last two years have resulted in an experience gain on the actuarial value of assets for all groups. The experience gain on liabilities and assets resulted in a total experience gain for the System in 2013 of \$838 million.

Between December 31, 2012 and December 31, 2013 the change in the unfunded actuarial liabilities for the System as a whole was as follows (in millions):

	\$ millions
Unfunded Actuarial Liability, December 31, 2012	\$ 10,253
• effect of contribution cap/time lag	246
• expected increase due to amortization method	46
• gain/loss from investment return on actuarial assets	(653)
• demographic experience ¹	(184)
• all other experience	59
• change in actuarial methods	0
• change in actuarial assumptions	0
• change in benefit provisions	0
Unfunded Actuarial Liability, December 31, 2013 ²	\$ 9,766

¹Liability gain is about 0.86% of total actuarial liability.

²May not add due to rounding.

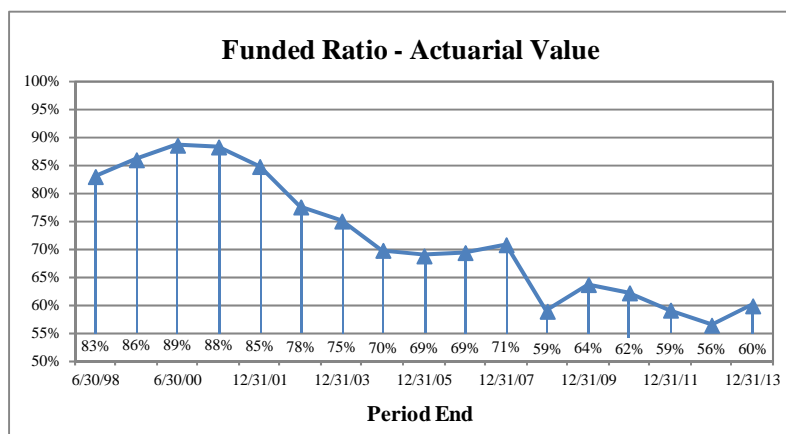
A detailed summary of the change in the unfunded actuarial liability by System is shown on page 15.



SECTION 1 – BOARD SUMMARY

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. The funded status information is shown below (in millions).

	12/31/07	12/31/08	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13
Using Actuarial Value of Assets:							
Funded Ratio (AVA/AL)	71%	59%	64%	62%	59%	56%	60%
Unfunded Actuarial Liability (AL-AVA)	\$5,552	\$8,279	\$7,677	\$8,264	\$9,228	\$10,253	\$9,766
Using Market Value of Assets:							
Funded Ratio (MVA/AL)	75%	49%	56%	59%	55%	59%	65%
Unfunded Actuarial Liability (AL-MVA)	\$4,817	\$10,250	\$9,384	\$8,936	\$10,130	\$9,714	\$8,584



Changes in actuarial assumptions and methods, coupled with investment returns below the assumed rate and contributions below the actuarial rate significantly reduced the funded ratio over this period. However, the funded ratio improved in the current valuation due to strong investment experience in 2013. The funded ratio is expected to increase modestly in the future assuming all actuarial assumptions are met.

Given the current funded status of the System, the amount of the deferred investment gain, the amortization method, the amortization period, and the scheduled increases in employer contribution rates, the dollar amount of the unfunded actuarial liability for the entire System is expected to remain at the current level for a few more years and then start to decline. The funded ratio is expected improve absent gains or losses in the future, but will continue to be heavily dependent on the actual investment returns.

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.



SECTION 1 – BOARD SUMMARY

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 results of the December 31, 2013 valuation will set employer contribution rates for fiscal year 2017 for the State (July 1, 2016 to June 30, 2017) and 2016 for Local employers (calendar year 2016).

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 (most recently in 2012), is 0.9% for fiscal year 2014, 1.0% in 2015, 1.1% in 2016, and 1.2% in 2017 and beyond for all three groups.

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

System	December 31, 2013 Valuation		
	Actuarial	Statutory	Difference
State ¹	10.77%	13.57%	(2.80%)
School ¹	16.03%	13.57%	2.46%
State/School ¹	14.85%	13.57%	1.28%
Local ¹	9.18%	9.18%	0.00%
Police & Fire - Uniform Rates ²	20.42%	20.42%	0.00%
Judges	21.36%	21.36%	0.00%

¹ By statute, rates are allowed to increase by a maximum of 0.9% for FY 2014, 1.0% in FY 2015, 1.1% in FY 2016 and 1.2% in FY 2017 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 20.38% this year. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer. (See Table 13)

Separate employer contribution rates are calculated for two subgroups of the State: Correctional Employee Groups with normal retirement age 55 (C55) and normal retirement age 60 (C60). The contribution rates are calculated by increasing the state statutory contribution rate by the difference in the normal cost rate for the C55 and C60 groups over the normal cost rate for regular state members, but not to exceed the statutory cap on contribution increases. The higher contribution rates finance the earlier normal retirement age. The contribution rates for the Correctional Employee Groups are shown below:

	Statutory Rate
Retirement Age 55:	13.96%
Retirement Age 60:	13.70%

The change in the employer actuarial contribution rate from December 31, 2012 to December 31, 2013 and the primary components thereof are shown in the table on page 16. In general, the employer contribution rates declined from the rates in the 2012 valuation due to favorable experience, particularly the return on the actuarial value of assets. The employer contribution rate increased slightly for the School group, despite a lower UAL, because the covered payroll did not grow by 4% as expected.



SECTION 1 – BOARD SUMMARY

Due to statutory caps, the full actuarial contribution rate is not contributed for all KPERS groups. The State and Local groups reached the ARC date (statutory contribution rate is equal to or greater than the actuarial required contribution rate) in 2010 and 2012, respectively, and remain so in this valuation. Based on the current valuation, there is a difference (shortfall) between the actuarial and statutory contribution rates of 2.46% for the School group. Assuming an 8% return on the market value of assets for 2014 and beyond, all other actuarial assumptions are met in the future, and the current provision for statutory caps on the employer contribution rate, the estimated ARC Date for the combined State/School group is FY2019 at a rate of 15.01%. This is an improvement over last year's projections which showed a projected ARC Date of FY 2019 at a rate of 15.85%.

COMMENTS

Like most public retirement systems, KPERS uses an asset smoothing method to smooth out investment experience above and below the assumed rate of 8% per annum. Under the asset smoothing method, the difference between the actual and assumed investment experience is recognized equally over a five year period. With a 17.5% return on the market value of assets in 2013 and net favorable experience in the prior four years, the return on the actuarial value of assets was about 13.0%. As of the valuation date, the market value of assets exceeded the actuarial value of assets by more than 8%.

The deferred investment experience increased from a net deferred gain of \$539 million last year to a net deferred gain of \$1,182 million this year. This deferred experience will flow through the asset valuation method in the next four years and be recognized in the valuation process, unless offset by investment experience below the 8% assumed rate of return. As the deferred investment experience is recognized, the funded ratio can be expected to increase.

While the use of an asset smoothing method is a common procedure for public retirement systems, it is important to identify the potential impact of the deferred (unrecognized) investment experience. This is particularly important when there are deferred investment losses, but it is also useful to consider the impact on the key actuarial measurements if the deferred investment gains are recognized. To illustrate the impact of the deferred investment experience, 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.

	State/School		KP&F	
	<u>Actuarial</u>	<u>Market</u>	<u>Actuarial</u>	<u>Market</u>
Actuarial Liability	\$17,078	\$17,078	\$2,707	\$2,707
Asset Value	9,726	10,519	1,903	2,057
Unfunded Actuarial Liability	7,352	6,559	804	650
Funded Ratio	57%	62%	70%	76%
Contribution Rate:				
Normal Cost Rate	8.22%	8.22%	14.55%	14.55%
UAL Payment	<u>12.63%</u>	<u>11.22%</u>	<u>13.02%</u>	<u>10.52%</u>
Total	20.85%	19.49%	27.57%	25.07%
Employee Rate	<u>6.00%</u>	<u>6.00%</u>	<u>7.15%</u>	<u>7.15%</u>
Employer Rate	14.85%	13.49%	20.42%	17.92%



SECTION 1 – BOARD SUMMARY

The asset smoothing method impacts only the timing of when the actual experience on the market value of assets is recognized. A return of more than 17% in 2013, combined with favorable investment performance in recent years, resulted in a return of 13% on the actuarial value of assets. As a result, the unfunded actuarial liability decreased by \$487 million. Future investment experience will impact the extent to which the deferred investment experience (which is currently a net gain) will be recognized. The ultimate impact of the deferred experience on the employer contribution rate would be similar to the column shown above based on the market value of assets, if all actuarial assumptions are met including the 8% return in future years. Also, please refer to the graphs later in this section that show the projected contribution rates assuming an 8% rate of return in all future years.

Over the last decade the development of a comprehensive plan to address the long-term funding of KPERS has been a high priority and significant changes have been made. HB 2014, 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 SB 520, 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. SB 520 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 SB 362 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.

The 2011 Legislature passed Senate Substitute for House Bill 2194 (Sub HB 2194). The intent of this law was to strengthen KPERS' long term funding and improve the sustainability of the system. The bill contained significant changes for both KPERS employers and current and future members. In addition, Sub HB 2194 established a 13 member KPERS Study Commission to study alternative plan designs during the last half of 2011 and make a recommendation for KPERS plan design that would provide for the long term sustainability of the System. The Commission report was due to the Legislature by January 6, 2012. Sub HB 2194 required that the report recommendations be voted on by the 2012 Legislature for the other provisions of Senate Substitute for HB 2194 to become effective. The 2012 Legislature did not move the Study Commission recommendation forward, but some of the other provisions were included in the bill that was ultimately passed in 2012, Senate Sub for House Bill 2333.

The 2012 Legislature passed Sub House Bill 2333, affecting new hires, current members and employers. The changes were made to improve KPERS' long term sustainability. The basic provisions of Sub House Bill 2333, as amended by House Bill 2213 in 2013, include:

- ✓ Increased the statutory cap on employer contribution rates to 0.9% in FY 2014, 1.0% in FY 2015, 1.1% in FY 2016 and 1.2% in FY 2017 and beyond.
- ✓ Contingent upon IRS approval, established an election by Tier 1 members, between different contribution rate and benefit levels. The legislation provided that, if the IRS rejected or did not take action to approve the election, Tier 1 members would default to an increase in their employee contributions to 5% of compensation effective January 1, 2014, and 6% effective January 1, 2015, with an increase in the benefit multiplier to 1.85% beginning January 1, 2014,



SECTION 1 – BOARD SUMMARY

- for future years of service only. The IRS did not take action on KPERS' request to approve the election, and therefore, the default was implemented on January 1, 2014.
- ✓ For Tier 2 members retiring after July 1, 2012, the cost of living adjustment (COLA) is eliminated, but members will receive a 1.85% multiplier for all years of service.
 - ✓ Creates a Cash Balance Plan for new hires beginning January 1, 2015. A cash balance plan is a type of defined benefit plan that includes some elements of a defined contribution plan and shares risk between the employer and employee. Each member has a hypothetical account that is credited with employee contributions, employer pay credits and interest credits. At retirement, the account balance is annuitized to create a guaranteed monthly benefit payable for the member's lifetime. Up to 30% of the account value at retirement may be paid as a lump sum.
 - ✓ Beginning in FY 2014, provides for the state to make additional contributions to help pay down KPERS' unfunded actuarial liability until the State/School group reaches a funded ratio of at least 80%. The revenue will come from the Expanded Lottery Act Revenues Fund (ELARF). For FY 2014 and 2015, the ELARF funds are being used as a partial funding source to meet the statutory contribution requirements for the School group rather than being contributed in addition to the statutory contributions. Therefore, no additional funding of the UAL is anticipated until FY 2016, at which time the contributions are expected to be around \$40 million.
 - ✓ If the State of Kansas sells surplus real estate, 80% of the proceeds will be used to pay down KPERS' unfunded actuarial liability until the System reaches an 80% funded ratio.

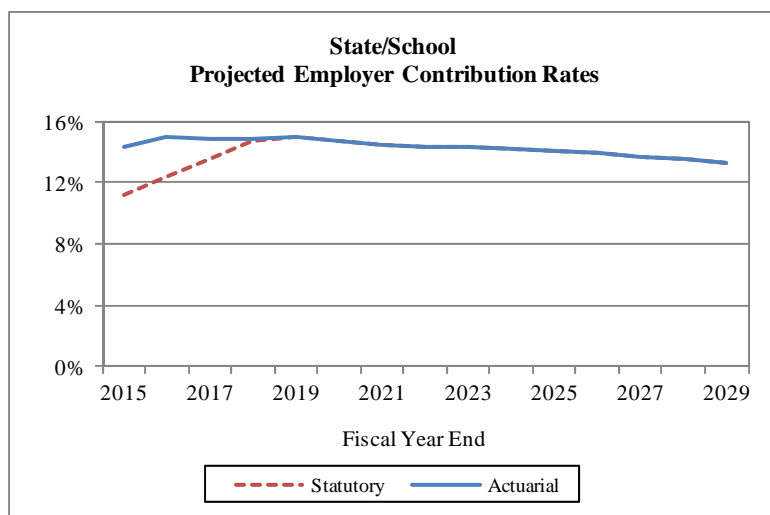
The 2014 Legislature passed HB 2533 which made changes to the Tier 3 benefit structure, generally decreasing the portion of the benefit that is guaranteed, thereby increasing the risk-sharing portion of the benefit. The changes in House Bill 2533 are expected to further improve KPERS long term funding and better manage the investment risk. While all three groups are projected to reach a funded ratio of 100% by 2033, the actual funding progress will be heavily dependent on the actual investment experience of the System in future years.

The following graphs show preliminary projected employer contributions assuming all actuarial assumptions are met in the future, including an 8% rate of return on the market value of assets in all years. Note that although separate valuations are performed for the State and School groups, the statutory contribution rate for the groups is determined using the combined valuation results for the two groups. Contributions which result from the excess of the statutory contribution rate over the actuarial required contribution rate for the State are allocated to the School to improve the funding of that group.

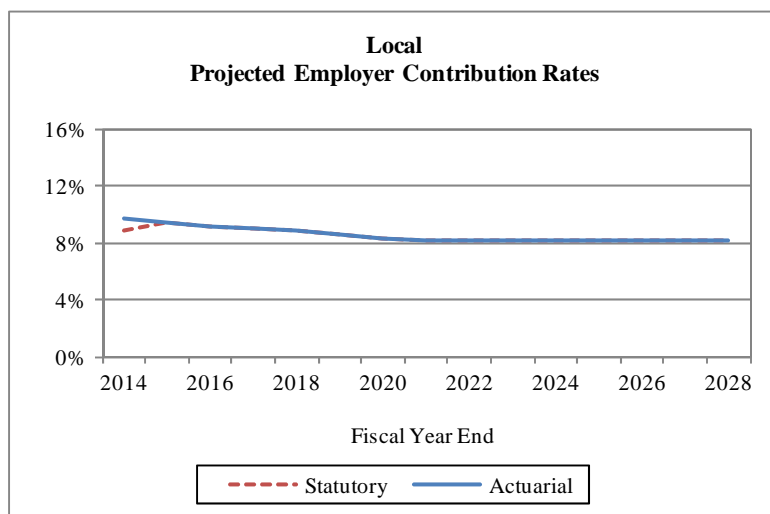
As of December 31, 2013, there are deferred investment gains. Absent actuarial investment experience below the assumed rate of return in future years, the funded ratios are expected to increase and the employer contribution rates are expected to decline.



SECTION 1 – BOARD SUMMARY



Based on preliminary modeling results, the ARC date for the State/School group is projected to occur in 2019 with an ARC rate of 15.01%, assuming all actuarial assumptions are met in future years. Last year's projected ARC Date was 2019 with an ARC rate of 15.85%. Future experience, especially investment returns, will heavily influence the ultimate ARC date and rate.



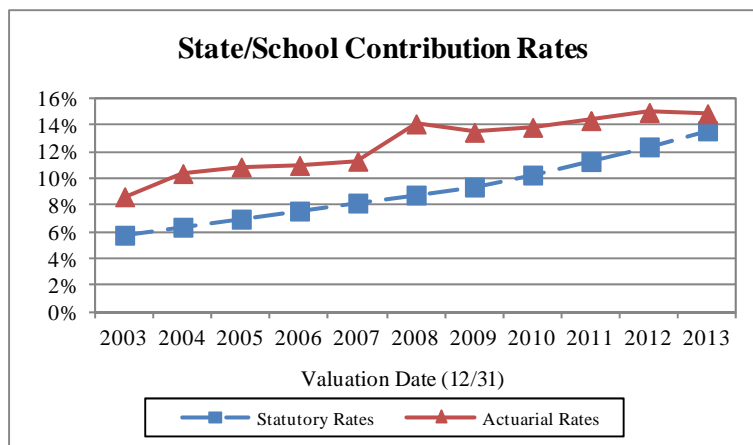
The Local group reached the ARC Date in the 2012 valuation with an ARC rate of 9.48%, which decreased further in the 2013 valuation to 9.18%. The projected contribution rate is expected to remain reasonably level, assuming all actuarial assumptions are met in future years. Actual experience in future years, particularly investment returns, will impact the future actuarial and statutory rates.

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 actuarial valuations into two separate groups, although the statutory contribution rate is still determined on a combined basis. Any excess of the statutory contribution over the actuarial required contribution for the State is allocated to the School group.

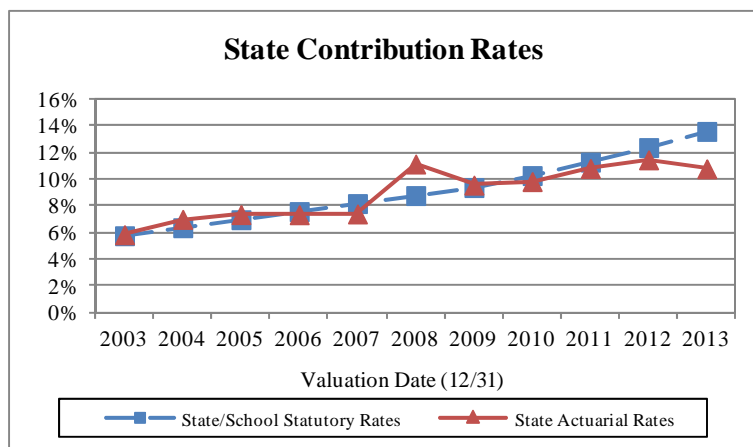
Significant changes in funding methods as well as a Pension Obligation Bond issue occurred in 2003 and actuarial assumptions were changed in the 2004, 2007 and 2011 valuations. These changes impact the comparability of contribution rates between various valuation dates.



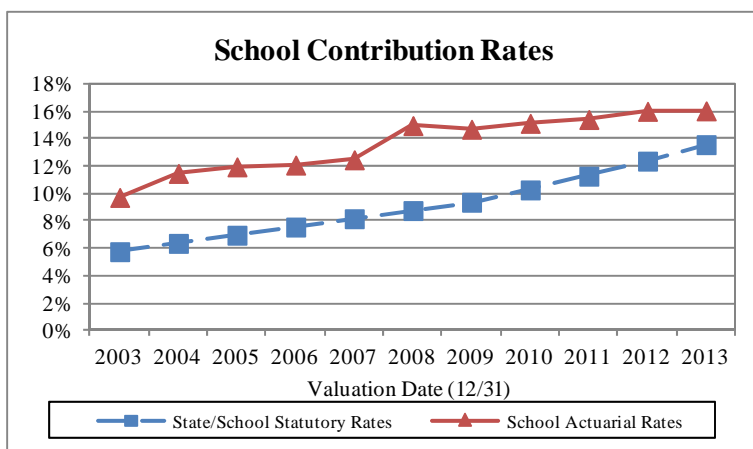
SECTION 1 – BOARD SUMMARY



Numerous factors have contributed to the increase in the actuarial required contribution rate over this period including investment experience, changes in actuarial assumptions, and contributions significantly below the actuarial rate. The actuarial required contribution rate stabilized in the current valuation and the shortfall between statutory and actuarial contribution rates narrowed.



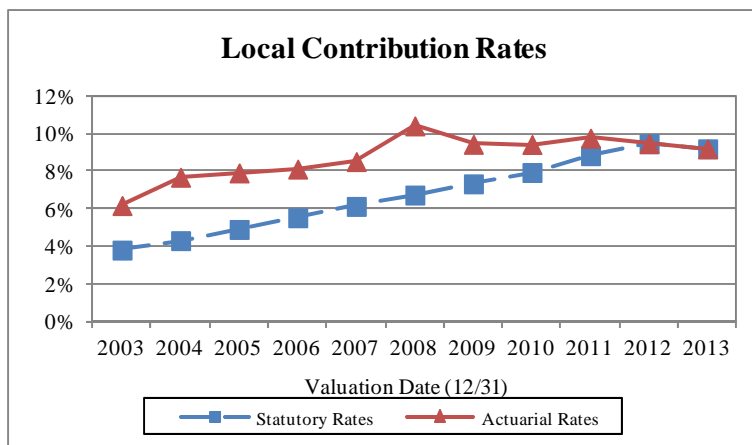
The split of the State group into a separate group with the 2003 valuation, coupled with the bond issue, lowered the State actuarial required contribution rate. The State reached the full actuarial rate in the 2010 valuation. In this valuation, the State's actuarial required contribution rate decreased by 0.67% and continues to be less than the statutory contribution rate.



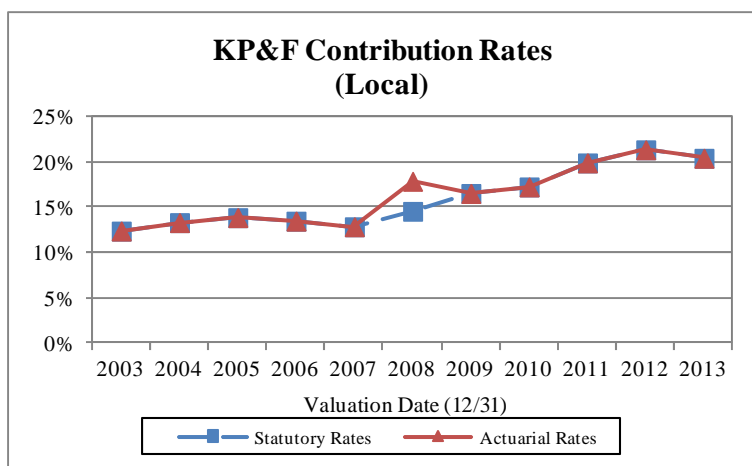
Due to investment experience, changes in actuarial assumptions, and the magnitude of the difference between the actuarial and statutory contribution rates, the funded status of the School group has declined and the actuarial contribution rate has increased over this period. However, the actuarial required contribution rate leveled out and the funded ratio improved in the 2013 valuation.



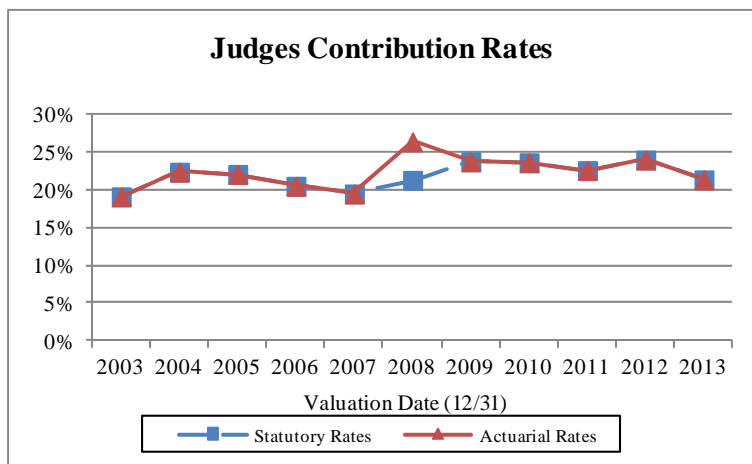
SECTION 1 – BOARD SUMMARY



The Local contribution rate has also been impacted by changes in actuarial assumptions and methods as well as investment performance. With the significant changes in Sub House Bill 2333 and favorable investment returns, the statutory contribution rate was equal to the actuarial required contribution rate (ARC) in the 2012 valuation. The ARC decreased modestly by 0.30% in the 2013 valuation so the statutory rate remains equal to the ARC.



Investment experience in 2008 and 2011 resulted in higher contribution rates in the latter part of the period. However, an improvement in the funded status in the 2013 valuation resulted in a decrease in the actuarial contribution rate.



Investment experience in 2008 and 2011 resulted in higher contribution rates in the latter part of the period. However, the funded ratio improved in the current valuation, resulting in a decrease in the actuarial required contribution.



SECTION 1 – BOARD SUMMARY

**SUMMARY OF CHANGE IN UNFUNDED ACTUARIAL LIABILITY
BY SYSTEM
DECEMBER 31, 2013 VALUATION**
(\$ millions)

	State	School	Local	KP&F	Judges	Total
UAL in 12/31/2012 Valuation Report	\$1,292.3	\$6,366.3	\$1,698.9	\$866.4	\$29.0	\$10,252.9
· Effect of contribution cap/timing	16.1	200.1	23.5	7.3	(1.1)	245.9
· Expected increase due to method	5.8	28.8	7.6	4.3	(0.6)	45.9
· Actual vs. expected experience						
· Investment return	(136.6)	(309.4)	(117.5)	(83.5)	(6.1)	(653.1)
· Demographic experience	(53.7)	(104.8)	(36.0)	10.5	(0.4)	(184.5)
· All other experience	5.4	41.5	13.3	(1.9)	0.5	58.7
· Change in actuarial 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 12/31/2013 Valuation Report	\$1,129.3	\$6,222.5	\$1,589.8	\$803.1	\$21.3	\$9,765.9

Totals may not add due to rounding.



SECTION 1 – BOARD SUMMARY

**SUMMARY OF
CHANGES IN EMPLOYER ACTUARIAL CONTRIBUTION RATE
BY SYSTEM
AS OF DECEMBER 31, 2013**

Percentage of Payroll	State	School	Local	KP&F ¹	Judges
Actuarial Contribution Rate in 12/31/2012 Valuation	11.44%	16.00%	9.48%	21.36%	23.98%
Change Due to Amortization of UAL					
· effect of contribution cap/time lag	0.12	0.44	0.11	0.12	(0.39)
· amortization method	0.00	0.00	0.00	0.00	(0.41)
· investment experience	(1.06)	(0.68)	(0.54)	(1.36)	(2.15)
· liability experience	(0.42)	(0.23)	(0.16)	0.17	(0.14)
· all other experience	0.70	0.55	0.34	0.16	0.47
· 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 Employer 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	(0.01)	(0.05)	(0.05)	(0.03)	0.00 ²
Actuarial Contribution Rate in 12/31/2013 Valuation	10.77%	16.03%	9.18%	20.42%	21.36%

¹ Contribution rate for Local employers only.

² A 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.



SECTION 1 – BOARD SUMMARY

**SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2013 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
Actual Experience vs. Assumed								
• Investment	\$(102)	\$(143)	\$(280)	\$(323)	\$(413)	\$(369)	\$(441)	\$(23)
• Other	320	72	136	157	104	46	99	84
Assumption Changes	0	(96)	0	0	350	0	0	(206)
Changes in Data/Procedures	244	0	0	0	0	21	71	145**
Change in Cost Method	0	0	0	0	0	0	0	0
Effect of Contribution Cap/Lag	*	95	70	63	54	78	66	60
Amortization Method	*	47	38	35	32	30	22	12
Change in Benefit Provisions	75	0	0	0	88	0	19	0
Change in Actuarial Firm/Software	0	0	0	0	0	0	0	0
Bond Issue	0	0	0	0	0	0	0	0
Total	\$537	\$(25)	\$(36)	\$(68)	\$215	\$(194)	\$(164)	\$72

*Not calculated for this year.

** 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.

Unfunded actuarial liability 6/30/93: \$ 968 million

Unfunded actuarial liability 12/31/13: \$ 9,769 million



SECTION 1 – BOARD SUMMARY

**SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2013 VALUATION (continued)**

% (millions)	As Reported on Valuation Date							
	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Actual Experience vs. Assumed								
• Investment	\$350	\$644	\$140	\$456	\$167	\$(293)	\$(626)	\$2,332
• Other	(9)	68	(32)	16	(84)	140	99	78
Assumption Changes	0	0	0	437	(5)	0	384	0
Changes in Data/Procedures	5	177**	(286)***	0	0	0	0	0
Change in Cost Method	0	0	1,147	0	0	0	0	0
Effect of Contribution Cap/Lag	115	143	178	179	247	258	251	246
Amortization Method	14	21	47	68	84	83	78	71
Change in Benefit Provisions	0	37	3	1	0	24	2	0
Change in Actuarial Firm/Software	0	0	0	0	0	0	0	0
Bond Issue	0	(41)	(440)	0	0	0	0	0
Total	\$475	\$1,049	\$757	\$1,157	\$409	\$212	\$188	\$2,727

** 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 12/31/13: \$ 9,769 million



SECTION 1 – BOARD SUMMARY

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2013 VALUATION (continued)

\$(millions)	As Reported on Valuation Date					
	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13	Total
Actual Experience vs. Assumed						
• Investment	\$(1,011)	\$560	\$852	\$732	\$(653)	\$1,556
• Other	(70)	(334)	(190)	(78)	(125)	497
Assumption Changes	0	0	(64)	0	0	800
Changes in Data/Procedures	0	0	0	0	0	377
Change in Cost Method	0	0	0	0	0	1,147
Effect of Contribution Cap/Lag	383	320	289	303	246	3,644
Amortization Method	96	68	62	49	46	1,003
Change in Benefit Provisions	0	0	15	19	0	283
Change in Actuarial Firm/Software	0	(27)	0	0	0	(27)
Bond Issue	0	0	0	0	0	(481)
Total	\$(602)	\$587	\$964	\$1,025	\$(487)	\$8,799

Unfunded actuarial liability 6/30/93: \$ 968 million

Unfunded actuarial liability 12/31/13: \$ 9,766 million



SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
(STATE)

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	23,117	23,826	(3.0%)
Retired Members and Beneficiaries	18,413	18,098	1.7%
Inactive Members	<u>7,180</u>	<u>6,935</u>	3.5%
Total Members	<u>48,710</u>	<u>48,859</u>	(0.3%)
Projected Annual Salaries of Active Members	\$ 973,074,168	\$ 999,272,591	(2.6%)
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 244,916,527	\$ 234,215,221	4.6%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 4,075,977,044	\$ 4,015,967,592	1.5%
b. Assets for Valuation Purposes	2,946,723,045	2,723,694,106	8.2%
c. Unfunded Actuarial Liability (a) - (b)	1,129,253,999	1,292,273,486	(12.6%)
d. Funded Ratio (b) / (a)	72.3%	67.8%	6.6%
e. Market Value of Assets	3,187,375,166	2,836,628,752	12.4%
f. Funded Ratio on Market Value (e) / (a)	78.2%	70.6%	10.7%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.04%	8.05%	
Member	<u>6.00%</u>	<u>6.00%</u>	
Employer	2.04%	2.05%	
Amortization of Unfunded Actuarial Liability	<u>8.73%</u>	<u>9.39%</u>	
Actuarial Contribution Rate	10.77%	11.44%	
Statutory Employer Contribution Rate*	<u>13.57%</u>	<u>12.37%</u>	

* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2017 and later. This rate does not include the contribution rate for the Death and Disability Program. Any excess of the statutory over actuarial contribution rates applied to actual State payroll is deposited to the School assets.



SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
(SCHOOL)

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	85,752	85,428	0.4%
Retired Members and Beneficiaries	46,191	44,687	3.4%
Inactive Members	24,038	23,478	2.4%
Total Members	<u>155,981</u>	<u>153,593</u>	1.6%
Projected Annual Salaries of Active Members	\$ 3,402,845,557	\$ 3,383,104,891	0.6%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 662,838,025	\$ 624,206,476	6.2%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 13,002,145,953	\$ 12,586,621,940	3.3%
b. Assets for Valuation Purposes	6,779,677,943	6,220,280,310	9.0%
c. Unfunded Actuarial Liability (a) - (b)	6,222,468,010	6,366,341,630	(2.3%)
d. Funded Ratio (b) / (a)	52.1%	49.4%	5.5%
e. Market Value of Assets	7,331,598,583	6,475,974,488	13.2%
f. Funded Ratio on Market Value (e) / (a)	56.4%	51.5%	9.6%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.28%	8.33%	
Member	<u>6.00%</u>	<u>6.00%</u>	
Employer	2.28%	2.33%	
Amortization of Unfunded Actuarial Liability	<u>13.75%</u>	<u>13.67%</u>	
Actuarial Contribution Rate	16.03%	16.00%	
Statutory Employer Contribution Rate*	<u>13.57%</u>	<u>12.37%</u>	

* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2017 and later. 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)

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	108,869	109,254	(0.4%)
Retired Members and Beneficiaries	64,604	62,785	2.9%
Inactive Members	31,218	30,413	2.6%
Total Members	<u>204,691</u>	<u>202,452</u>	1.1%
Projected Annual Salaries of Active Members	\$ 4,375,919,725	\$ 4,382,377,482	(0.1%)
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 907,754,552	\$ 858,421,697	5.7%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 17,078,122,997	\$ 16,602,589,532	2.9%
b. Assets for Valuation Purposes	9,726,400,988	8,943,974,416	8.7%
c. Unfunded Actuarial Liability (a) - (b)	7,351,722,009	7,658,615,116	(4.0%)
d. Funded Ratio (b) / (a)	57.0%	53.9%	5.7%
e. Market Value of Assets	10,518,973,749	\$ 9,312,603,240	13.0%
f. Funded Ratio on Market Value (e) / (a)	61.6%	56.1%	9.8%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.22%	8.26%	
Member	<u>6.00%</u>	<u>6.00%</u>	
Employer	2.22%	2.26%	
Amortization of Unfunded Actuarial Liability	<u>12.63%</u>	<u>12.69%</u>	
Actuarial Contribution Rate	14.85%	14.95%	
Statutory Employer Contribution Rate*	<u>13.57%</u>	<u>12.37%</u>	

* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2017 and later. This rate does not include the contribution rate for the Death and Disability Program.



SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
(LOCAL)

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	39,088	39,351	(0.7%)
Retired Members and Beneficiaries	17,326	16,605	4.3%
Inactive Members	14,878	14,153	5.1%
Total Members	<u>71,292</u>	<u>70,109</u>	1.7%
Projected Annual Salaries of Active Members	\$ 1,643,623,267	\$ 1,639,398,292	0.3%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 183,922,144	\$ 168,001,328	9.5%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 4,381,654,475	\$ 4,190,327,111	4.6%
b. Assets for Valuation Purposes	2,791,897,450	2,491,443,027	12.1%
c. Unfunded Actuarial Liability (a) - (b)	1,589,757,025	1,698,884,084	(6.4%)
d. Funded Ratio (b) / (a)	63.7%	59.5%	7.2%
e. Market Value of Assets	3,016,067,035	2,587,877,272	16.5%
f. Funded Ratio on Market Value (e) / (a)	68.8%	61.8%	11.5%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	7.90%	7.95%	
Member	<u>6.00%</u>	<u>6.00%</u>	
Employer	1.90%	1.95%	
Amortization of Unfunded Actuarial Liability	<u>7.28%</u>	<u>7.53%</u>	
Actuarial Contribution Rate	9.18%	9.48%	
Statutory Employer Contribution Rate*	<u>9.18%</u>	<u>9.48%</u>	

* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2017 and later. This rate does not include the contribution rate for the Death and Disability Program.



SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
(TOTAL KPERS)

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	147,957	148,605	(0.4%)
Retired Members and Beneficiaries	81,930	79,390	3.2%
Inactive Members	46,096	44,566	3.4%
Total Members	<u>275,983</u>	<u>272,561</u>	1.3%
Projected Annual Salaries of Active Members	\$ 6,019,542,992	\$ 6,021,775,774	(0.0%)
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 1,091,676,696	\$ 1,026,423,025	6.4%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 21,459,777,472	\$ 20,792,916,643	3.2%
b. Assets for Valuation Purposes	12,518,298,438	11,435,417,443	9.5%
c. Unfunded Actuarial Liability (a) - (b)	8,941,479,034	9,357,499,200	(4.4%)
d. Funded Ratio (b) / (a)	58.3%	55.0%	6.1%
e. Market Value of Assets	13,535,040,784	11,900,480,512	13.7%
f. Funded Ratio on Market Value (e) / (a)	63.1%	57.2%	10.2%



SUMMARY OF PRINCIPAL RESULTS

KANSAS POLICE AND FIREMEN'S RETIREMENT SYSTEM

	12/31/2013	12/31/2012	% Change
	Valuation	Valuation	
1. PARTICIPANT DATA			
Number of:			
Active Members	7,224	7,187	0.5%
Retired Members and Beneficiaries	4,670	4,525	3.2%
Inactive Members	1,382	1,397	(1.1%)
Total Members	<u>13,276</u>	<u>13,109</u>	1.3%
Projected Annual Salaries of Active Members	\$ 461,814,718	\$ 449,106,522	2.8%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 138,798,969	\$ 129,413,024	7.3%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 2,706,558,019	\$ 2,582,586,035	4.8%
b. Assets for Valuation Purposes	1,903,444,252	1,716,163,204	10.9%
c. Unfunded Actuarial Liability (a) - (b)	803,113,767	866,422,831	(7.3%)
d. Funded Ratio (b) / (a)	70.3%	66.5%	5.8%
e. Market Value of Assets	2,057,050,931	1,784,896,480	15.2%
f. Funded Ratio on Market Value (e) / (a)	76.0%	69.1%	10.0%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	14.55%	14.58%	
Member	<u>7.15%</u>	<u>7.15%</u>	
Employer	7.40%	7.43%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>13.02%</u>	<u>13.93%</u>	
Actuarial Contribution Rate (Local Employers)	20.42%	21.36%	
Statutory Employer Contribution Rate*	<u>20.42%</u>	<u>21.36%</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, determined separately for each employer.



SUMMARY OF PRINCIPAL RESULTS

KANSAS RETIREMENT SYSTEM FOR JUDGES

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	265	261	1.5%
Retired Members and Beneficiaries	243	227	7.0%
Inactive Members	6	6	0.0%
Total Members	<u>514</u>	<u>494</u>	4.0%
Projected Annual Salaries of Active Members	\$ 28,451,524	\$ 28,079,426	1.3%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 9,673,544	\$ 8,685,283	11.4%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 162,334,647	\$ 155,920,773	4.1%
b. Assets for Valuation Purposes	141,021,935	126,909,647	11.1%
c. Unfunded Actuarial Liability (a) - (b)	21,312,712	29,011,126	(26.5%)
d. Funded Ratio (b) / (a)	86.9%	81.4%	6.7%
e. Market Value of Assets	152,430,594	131,943,611	15.5%
f. Funded Ratio on Market Value (e) / (a)	93.9%	84.6%	11.0%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	19.62%	19.61%	
Member	<u>5.77%</u>	<u>5.76%</u>	
Employer	13.85%	13.85%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>7.51%</u>	<u>10.13%</u>	
Actuarial Contribution Rate	21.36%	23.98%	
Statutory Employer Contribution Rate*	<u>21.36%</u>	<u>23.98%</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

	12/31/2013 Valuation	12/31/2012 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	155,446	156,053	(0.4) %
Retired Members and Beneficiaries	86,843	84,142	3.2
Inactive Members	47,484	45,969	3.3
Total Members	<u>289,773</u>	<u>286,164</u>	1.3
Projected Annual Salaries of Active Members	\$ 6,509,809,234	\$ 6,498,961,722	0.2
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 1,240,149,209	\$ 1,164,521,332	6.5
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	\$ 24,328,670,138	\$ 23,531,423,450	3.4
b. Assets for Valuation Purposes	14,562,764,625	13,278,490,294	9.7
c. Unfunded Actuarial Liability (a) - (b)	9,765,905,513	10,252,933,156	(4.8)
d. Funded Ratio (b) / (a)	59.9%	56.4%	6.1
e. Market Value of Assets	15,744,522,309	13,817,320,603	13.9
f. Funded Ratio on Market Value (e) / (a)	64.7%	58.7%	10.2



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SECTION 2 – SCOPE OF THE REPORT

This report presents the actuarial valuation of the Kansas Public Employees Retirement System (KPERS) as of December 31, 2013. 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, 2013, as amended by House Bill 2533 which was passed by the 2014 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, 2013 the market value of assets (excluding receivables) for the Retirement System was \$15.745 billion. Table 1 is a comparison, at market values, of System assets as of December 31, 2013, and December 31, 2012, in total and by investment category. Table 2 summarizes the change in the market value of assets from December 31, 2012 to December 31, 2013 by System.

During the year ending December 31, 2013, the System's accounting practices were modified to eliminate the Administrative Reserve and the amount was added back to the System assets.

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.

Tables 3A through 3F and Table 4 show the development of the actuarial value of assets (AVA) as of December 31, 2013.



SECTION 3 – ASSETS

TABLE 1
ANALYSIS OF NET ASSETS AT MARKET VALUE

	December 31, 2013	
	<u>Amount</u>	<u>% of</u>
	(\$ Millions)	Total
Cash & Equivalents	\$ 725	4.6 %
Alternative Investments	412	2.6
Real Estate	1,265	8.0
Fixed Income	3,596	22.9
Domestic Equity	5,556	35.3
International Equity	4,191	26.6
Net Assets	\$ 15,745	100.0 %
Allocation of Net Assets on December 31, 2013:		
State	\$ 3,187	
School	7,332	
Local	3,016	
KP&F	2,057	
Judges	152	
Total Net Assets	\$ 15,745 ¹	

¹ May not add due to rounding



SECTION 3 – ASSETS

TABLE 2
SUMMARY OF CHANGES IN TOTAL SYSTEM ASSETS
DURING PERIOD ENDED DECEMBER 31, 2013

(Market Value)

	State	School	Local	Total KPERS
Market Value of Assets as of January 1, 2013*	\$ 2,836,628,752	\$ 6,475,974,488	\$ 2,587,877,272	\$ 11,900,480,512
Contributions:				
Employee	44,205,376	146,129,524	72,916,686	263,251,586
Employee service purchases	1,864,076	5,389,781	2,417,972	9,671,829
Employer	97,745,023	333,341,019	130,204,436	561,290,478
Miscellaneous	31,702	32,237	0	63,939
Total Contributions	<u>143,846,177</u>	<u>484,892,561</u>	<u>205,539,094</u>	<u>834,277,832</u>
Total Investment Income	<u>477,074,282</u>	<u>1,093,498,293</u>	<u>443,807,431</u>	<u>2,014,380,006</u>
Total Income	<u>620,920,459</u>	<u>1,578,390,854</u>	<u>649,346,525</u>	<u>2,848,657,838</u>
Less Benefits:				
Annuity Retirement Benefits	(240,891,987)	(646,233,987)	(177,247,744)	(1,064,373,718)
Partial Lump Sum Benefits	(19,935,753)	(60,551,503)	(26,492,971)	(106,980,227)
Retirant Dividends	(448,116)	(935,762)	(227,783)	(1,611,661)
Withdrawals	(11,112,930)	(21,687,415)	(19,240,712)	(52,041,057)
Death Benefits	(2,596,434)	(4,385,750)	(2,423,240)	(9,405,424)
Total Benefits	<u>(274,985,220)</u>	<u>(733,794,417)</u>	<u>(225,632,450)</u>	<u>(1,234,412,087)</u>
Net Increase in Assets	345,935,239	844,596,437	423,714,075	1,614,245,751
Allocation of Administrative Reserve	4,811,175	11,027,658	4,475,688	20,314,521
Market Value of Assets as of December 31, 2013*	\$ 3,187,375,166	\$ 7,331,598,583	\$ 3,016,067,035	\$ 13,535,040,784

* Note: Assets at December 31, 2013 exclude insurance reserve. January 1, 2013 assets also exclude administrative reserve.



SECTION 3 – ASSETS

TABLE 2 (cont.)
SUMMARY OF CHANGES IN TOTAL SYSTEM ASSETS
DURING PERIOD ENDED DECEMBER 31, 2013

(Market Value)

Table with 5 columns: Description, KPERS, KP&F, Judges, Total. Rows include Market Value of Assets as of January 1, 2013*, Contributions (Employee, Employer, Miscellaneous, Total Contributions), Total Investment Income, Total Income, Less Benefits (Annuity Retirement Benefits, Partial Lump Sum Benefits, Retirant Dividends, Withdrawals, Death Benefits, Total Benefits), Allocation of Administrative Reserve, Net Increase in Assets, and Market Value of Assets as of December 31, 2013*.

* Note: Assets at December 31, 2013 exclude insurance reserve. January 1, 2013 assets also exclude administrative reserve.



SECTION 3 – ASSETS

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

	Plan Year End			
	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Market Value of Assets, beginning of year	\$ 2,506,018,054	\$ 2,730,474,235	\$ 2,596,503,599	\$ 2,836,628,752
2. Contributions during year	124,819,016	132,268,023	133,020,638	143,846,177
3. Benefits paid during year	(226,652,537)	(263,576,296)	(257,146,546)	(274,985,220)
4. Expected investment income based on 8% assumption	196,486,466	213,286,652	202,850,768	221,785,652
5. Transfers and receivables*	0	0	0	4,811,175
6. Expected Value of Assets, end of year	2,600,670,999	2,812,452,613	2,675,228,459	2,932,086,536
7. Market Value of Assets, end of year	2,730,474,235	2,596,503,599	2,836,628,752	3,187,375,166
8. Excess (shortfall) of net investment income	\$ 129,803,236	\$ (215,949,014)	\$ 161,400,293	\$ 255,288,630

*Allocation of administrative reserve



SECTION 3 – ASSETS

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

	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Market Value of Assets, beginning of year	\$ 5,624,405,754	\$ 6,132,794,595	\$ 5,884,431,008	\$ 6,475,974,488
2. Contributions during year	400,933,168	418,768,791	446,715,888	484,892,561
3. Benefits paid during year	(625,144,165)	(661,126,303)	(683,845,543)	(733,794,417)
4. Expected investment income based on 8% assumption	441,156,554	481,115,765	461,451,769	508,313,419
5. Transfers and receivables*	0	0	0	11,027,658
6. Expected Value of Assets, end of year	5,841,351,311	6,371,552,848	6,108,753,122	6,746,413,709
7. Market Value of Assets, end of year	6,132,794,595	5,884,431,008	6,475,974,488	7,331,598,583
8. Excess (shortfall) of net investment income	\$ 291,443,284	\$ (487,121,840)	\$ 367,221,366	\$ 585,184,874

*Allocation of administrative reserve



SECTION 3 – ASSETS

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

	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Market Value of Assets, beginning of year	\$ 8,130,423,808	\$ 8,863,268,830	\$ 8,480,934,607	\$ 9,312,603,240
2. Contributions during year	525,752,184	551,036,814	579,736,526	628,738,738
3. Benefits paid during year	(851,796,702)	(924,702,599)	(940,992,089)	(1,008,779,637)
4. Expected investment income based on 8% assumption	637,643,020	694,402,417	664,302,538	730,099,071
5. Transfers and receivables*	0	0	0	15,838,833
6. Expected Value of Assets, end of year	8,442,022,310	9,184,005,461	8,783,981,581	9,678,500,245
7. Market Value of Assets, end of year	8,863,268,830	8,480,934,607	9,312,603,240	10,518,973,749
8. Excess (shortfall) of net investment income	\$ 421,246,520	\$ (703,070,854)	\$ 528,621,659	\$ 840,473,504

*Allocation of administrative reserve



SECTION 3 – ASSETS

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

	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Market Value of Assets, beginning of year	\$ 2,033,031,884	\$ 2,295,447,057	\$ 2,280,627,100	\$ 2,587,877,272
2. Contributions during year	168,473,093	180,232,972	190,437,383	205,539,094
3. Benefits paid during year	(175,768,640)	(192,765,859)	(209,584,171)	(225,632,450)
4. Expected investment income based on 8% assumption	162,356,343	183,144,093	181,699,030	206,241,910
5. Transfers and receivables*	0	0	0	4,475,688
6. Expected Value of Assets, end of year	2,188,092,680	2,466,058,263	2,443,179,342	2,778,501,514
7. Market Value of Assets, end of year	2,295,447,057	2,280,627,100	2,587,877,272	3,016,067,035
8. Excess (shortfall) of net investment income	\$ 107,354,377	\$ (185,431,163)	\$ 144,697,930	\$ 237,565,521

*Allocation of administrative reserve



SECTION 3 – ASSETS

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

	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Market Value of Assets, beginning of year	\$ 1,484,548,360	\$ 1,639,025,889	\$ 1,597,092,196	\$ 1,784,896,480
2. Contributions during year	89,342,304	97,352,727	107,145,089	116,843,908
3. Benefits paid during year	(129,496,994)	(137,669,046)	(146,077,958)	(152,023,019)
4. Expected investment income based on 8% assumption	117,188,581	129,540,442	126,240,020	141,411,625
5. Transfers and receivables	0	0	0	3,068,438
6. Expected Value of Assets, end of year	1,561,582,251	1,728,250,013	1,684,399,348	1,894,197,432
7. Market Value of Assets, end of year	1,639,025,889	1,597,092,196	1,784,896,480	2,057,050,931
8. Excess (shortfall) of net investment income	\$ 77,443,638	\$ (131,157,817)	\$ 100,497,132	\$ 162,853,499



SECTION 3 – ASSETS

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

	12/31/2010	12/31/2011	12/31/2012	12/31/2013
1. Market Value of Assets, beginning of year	\$ 106,498,558	\$ 119,835,012	\$ 117,969,801	\$ 131,943,611
2. Contributions during year	6,867,326	7,074,780	7,870,734	8,130,800
3. Benefits paid during year	(7,633,884)	(8,921,096)	(10,651,757)	(10,392,108)
4. Expected investment income based on 8% assumption	8,489,812	9,514,369	9,328,483	10,466,777
5. Transfers and receivables	0	0	0	227,120
6. Expected Value of Assets, end of year	114,221,812	127,503,065	124,517,261	140,376,200
7. Market Value of Assets, end of year	119,835,012	117,969,801	131,943,611	152,430,594
8. Excess (shortfall) of net investment income	\$ 5,613,200	\$ (9,533,264)	\$ 7,426,350	\$ 12,054,394



SECTION 3 – ASSETS

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 12/31/13	\$ 840,473,504	\$ 255,288,630	\$ 585,184,874	\$ 237,565,521	\$ 1,078,039,025
b. Year ending 12/31/12	528,621,659	161,400,293	367,221,366	144,697,930	673,319,589
c. Year ending 12/31/11	(703,070,854)	(215,949,014)	(487,121,840)	(185,431,163)	(888,502,017)
d. Year ending 12/31/10	421,246,520	129,803,236	291,443,284	107,354,377	528,600,897
e. Total	\$ 1,087,270,829	\$ 330,543,145	\$ 756,727,684	\$ 304,186,665	\$ 1,391,457,494
2. Deferral of excess (shortfall) of investment income					
a. Year ending 12/31/13 (80%)	672,378,803	204,230,904	468,147,899	190,052,417	862,431,220
b. Year ending 12/31/12 (60%)	317,172,996	96,840,176	220,332,820	86,818,758	403,991,754
c. Year ending 12/31/11 (40%)	(281,228,342)	(86,379,606)	(194,848,736)	(74,172,465)	(355,400,807)
d. Year ending 12/31/10 (20%)	84,249,304	25,960,647	58,288,657	21,470,875	105,720,179
e. Total	\$ 792,572,761	\$ 240,652,121	\$ 551,920,640	\$ 224,169,585	\$ 1,016,742,346
3. Market Value of Assets, end of year	\$ 10,518,973,749	\$ 3,187,375,166	\$ 7,331,598,583	\$ 3,016,067,035	\$ 13,535,040,784
4. Actuarial Value of Assets, end of year (3) - (2e)	\$ 9,726,400,988	\$ 2,946,723,045	\$ 6,779,677,943	\$ 2,791,897,450	\$ 12,518,298,438
5. Actuarial Value divided by market value (4)/(3)	92.5%	92.4%	92.5%	92.6%	92.5%



SECTION 3 – ASSETS

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 12/31/13	\$ 1,078,039,025	\$ 162,853,499	\$ 12,054,394	\$ 1,252,946,918
b. Year ending 12/31/12	673,319,589	100,497,132	7,426,350	781,243,071
c. Year ending 12/31/11	(888,502,017)	(131,157,817)	(9,533,264)	(1,029,193,098)
d. Year ending 12/31/10	528,600,897	77,443,638	5,613,200	611,657,735
e. Total	\$ 1,391,457,494	\$ 209,636,452	\$ 15,560,680	\$ 1,616,654,626
2. Deferral of excess (shortfall) of investment income				
a. Year ending 12/31/13 (80%)	862,431,220	130,282,799	9,643,515	1,002,357,534
b. Year ending 12/31/12 (60%)	403,991,754	60,298,279	4,455,810	468,745,843
c. Year ending 12/31/11 (40%)	(355,400,807)	(52,463,127)	(3,813,306)	(411,677,240)
d. Year ending 12/31/10 (20%)	105,720,179	15,488,728	1,122,640	122,331,547
e. Total	\$ 1,016,742,346	\$ 153,606,679	\$ 11,408,659	\$ 1,181,757,684
3. Market Value of Assets, end of year	\$ 13,535,040,784	\$ 2,057,050,931	\$ 152,430,594	\$ 15,744,522,309
4. Actuarial Value of Assets, end of year (3) - (2e)	\$ 12,518,298,438	\$ 1,903,444,252	\$ 141,021,935	\$ 14,562,764,625
5. Actuarial Value divided by Market Value (4)/(3)	92.5%	92.5%	92.5%	92.5%



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, 2013. In this section, the discussion will focus on the commitments of the System, which are referred to as its liabilities.

Table 5 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 5 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 last Triennial Experience Study. This set of assumptions, as shown in Appendix C, was adopted by the Board in July 2011 and was first used for the December 31, 2011 valuation. A new experience study will be completed in calendar year 2014 and will first be used for the December 31, 2014 valuation.

The liabilities reflect the benefit structure in place as of December 31, 2013 and legislative changes in House Bill 2533, passed by the 2014 legislature. Those changes impacted KPERS 3 members so there was no impact on the liabilities presented in this section.

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.



SECTION 4 – SYSTEM LIABILITIES

TABLE 5
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF DECEMBER 31, 2013

	State	School	Local	Total KPERS
1. Active employees				
a. Retirement Benefit	\$ 2,057,754,049	\$ 8,077,369,484	\$ 3,072,999,988	\$ 13,208,123,521
b. Pre-Retirement Death Benefit	23,900,528	55,533,680	55,826,465	135,260,673
c. Withdrawal Benefit	104,512,946	337,665,383	195,071,748	637,250,077
d. Disability Benefit	103,052,664	222,210,394	143,135,277	468,398,335
e. Total	<u>2,289,220,187</u>	<u>8,692,778,941</u>	<u>3,467,033,478</u>	<u>14,449,032,606</u>
2. Inactive Vested Members	129,792,678	306,039,224	173,386,127	609,218,029
3. Inactive Nonvested Members	9,668,894	24,369,829	21,830,919	55,869,642
4. Disabled Members	78,087,301	99,058,648	63,709,239	240,855,188
5. Retirees	2,016,956,107	5,997,853,507	1,552,188,753	9,566,998,367
6. Beneficiaries	111,998,274	157,778,871	93,464,701	363,241,846
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>\$ 4,636,391,641</u>	<u>\$ 15,279,210,820</u>	<u>\$ 5,372,113,217</u>	<u>\$ 25,287,715,678</u>



SECTION 4 – SYSTEM LIABILITIES

TABLE 5 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF DECEMBER 31, 2013

	KP&F	Judges
1. Active employees		
a. Retirement Benefit	\$ 1,635,589,158	\$ 112,593,020
b. Pre-Retirement Death Benefit	20,107,263	1,123,354
c. Withdrawal Benefit	44,029,519	0
d. Disability Benefit	161,046,214	0
e. Total	<u>1,860,772,154</u>	<u>113,716,374</u>
2. Inactive Vested Members	25,444,325	301,307
3. Inactive Nonvested Members	16,081,605	0
4. Disabled Members	109,285,596	0
5. Retirees	1,172,308,493	72,124,476
6. Beneficiaries	<u>110,742,679</u>	<u>12,764,696</u>
7. Total PVFB	<u>\$ 3,294,634,852</u>	<u>\$ 198,906,853</u>



SECTION 4 – SYSTEM LIABILITIES

TABLE 6
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL LIABILITIES
AS OF DECEMBER 31, 2013

	State	School	Local	Total KPERS
1. Present Value of Future Benefits	\$ 4,636,391,641	\$ 15,279,210,820	\$ 5,372,113,217	\$ 25,287,715,678
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	\$ 399,218,774	\$ 1,820,842,306	\$ 709,433,854	\$ 2,929,494,934
b. Pre-Retirement Death Benefit	7,270,726	18,442,332	18,628,784	44,341,842
c. Withdrawal Benefit	111,977,997	363,333,870	209,843,047	685,154,914
d. Disability Benefit	41,947,100	74,446,359	52,553,057	168,946,516
e. Total	<u>560,414,597</u>	<u>2,277,064,867</u>	<u>990,458,742</u>	<u>3,827,938,206</u>
3. Total Actuarial Liability (1) - (2e)	<u>\$ 4,075,977,044</u>	<u>\$ 13,002,145,953</u>	<u>\$ 4,381,654,475</u>	<u>\$ 21,459,777,472</u>



SECTION 4 – SYSTEM LIABILITIES

**TABLE 6 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL LIABILITIES
AS OF DECEMBER 31, 2013**

	KP&F	Judges
1. Present Value of Future Benefits	\$ 3,294,634,852	\$ 198,906,853
2. Present Value of Future Normal Costs for Active Members		
a. Retirement Benefit	\$ 434,340,334	\$ 36,084,219
b. Pre-Retirement Death Benefit	12,640,263	487,987
c. Withdrawal Benefit	55,600,187	0
d. Disability Benefit	85,496,049	0
e. Total	<u>588,076,833</u>	<u>36,572,206</u>
3. Total Actuarial Liability (1) - (2e)	<u>\$ 2,706,558,019</u>	<u>\$ 162,334,647</u>



SECTION 4 – SYSTEM LIABILITIES

TABLE 7
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET
AS OF DECEMBER 31, 2013

	State	School	Local	Total KPERS
ASSETS				
Actuarial Value of Assets	\$ 2,946,723,045	\$ 6,779,677,943	\$ 2,791,897,450	\$ 12,518,298,438
Present Value of Future Normal Costs	560,414,597	2,277,064,867	990,458,742	3,827,938,206
Unfunded Actuarial Liability	1,129,253,999	6,222,468,010	1,589,757,025	8,941,479,034
Total Net Assets	\$ 4,636,391,641	\$ 15,279,210,820	\$ 5,372,113,217	\$ 25,287,715,678
LIABILITIES				
Present Value of Future Benefits				
Active employees	\$ 2,289,220,187	\$ 8,692,778,941	\$ 3,467,033,478	\$ 14,449,032,606
Inactive Members *	140,129,772	331,740,853	195,717,046	667,587,671
In-pay Members	2,207,041,682	6,254,691,026	1,709,362,693	10,171,095,401
Total Liabilities	\$ 4,636,391,641	\$ 15,279,210,820	\$ 5,372,113,217	\$ 25,287,715,678

*Includes Unclaimed Account Reserves



SECTION 4 – SYSTEM LIABILITIES

TABLE 7 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET
AS OF DECEMBER 31, 2013

	KP&F	Judges
<u>ASSETS</u>		
Actuarial Value of Assets	\$ 1,903,444,252	\$ 141,021,935
Present Value of Future Normal Costs	588,076,833	36,572,206
Unfunded Actuarial Liability	<u>803,113,767</u>	<u>21,312,712</u>
Total Net Assets	\$ <u><u>3,294,634,852</u></u>	\$ <u><u>198,906,853</u></u>
<u>LIABILITIES</u>		
Present Value of Future Benefits		
Active employees	\$ 1,860,772,154	\$ 113,716,374
Inactive Members	41,525,930	301,307
In-pay Members	<u>1,392,336,768</u>	<u>84,889,172</u>
Total Liabilities	\$ <u><u>3,294,634,852</u></u>	\$ <u><u>198,906,853</u></u>



SECTION 4 – SYSTEM LIABILITIES

TABLE 8
ANALYSIS OF ACTUARIAL GAIN OR LOSS

Table with 5 columns: Description, State, School, Local, Total KPERS. Rows include: 1. Expected Actuarial Liability (a-f), 2. Actuarial Liability at 12/31/2013, 3. Actuarial Liability Gain/(Loss) (1g) - (2), 4. Expected Actuarial Value of Assets (a-f), 5. Actuarial Value of Assets at 12/31/13, 6. Actuarial Value of Assets Gain/(Loss) (5) - (4f), 7. Net Actuarial Gain/(Loss) (3) + (6).



SECTION 4 – SYSTEM LIABILITIES

TABLE 8 (cont.)
ANALYSIS OF ACTUARIAL GAIN OR LOSS

Table with 5 columns: Description, Total KPERS, KP&F, Judges, Total. Rows include: 1. Expected Actuarial Liability (a-f), 2. Actuarial Liability at 12/31/2013, 3. Actuarial Liability Gain/(Loss) (1g) - (2), 4. Expected Actuarial Value of Assets (a-f), 5. Actuarial Value of Assets at of 12/31/13, 6. Actuarial Value of Assets Gain/(Loss) (5) - (4f), 7. Net Actuarial Gain/(Loss) (3) + (6).



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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, 2013 actuarial valuation will be used to determine employer contribution rates to the Kansas Public Employees Retirement System for fiscal years beginning in 2016 (July 1, 2016 to June 30, 2017 for the State and calendar year 2016 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 contribution rates recommended by the Board of Trustees for all groups cannot increase more than the statutory cap. This cap was increased in Senate Substitute for House Bill 2333, passed by the 2012 Legislature, to 0.90% for FY 2014, 1.0% for FY 2015, 1.1% for FY 2016 and 1.2% for FY 2017 and later. The prior limit on the statutory cap for the State/School group was 0.40% in FY 2006, 0.50% in FY 2007, and 0.60% in FY 2008 through FY 2013. The prior limit for the Local group was 0.40% in 2006, 0.50% in 2007, and 0.60% in 2008 through 2013. The 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



SECTION 5 – EMPLOYER CONTRIBUTIONS

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 (UAL) which are amortized over different periods. The increase in the UAL due to the \$300 one-time payment to retirees in 2007 and 2008 is amortized over 10 years (applies only to Local employers as the State fully funded the increased liability for the \$300 one-time payment for its members in both 2007 and 2008). The remainder of the UAL is amortized over a period originally set at 40 years beginning July 1, 1993. At the December 31, 2013 valuation date, nineteen (19) 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. 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 due to the \$300 one-time payment to retirees in 2007 and 2008 is amortized over 10 years (applies only to Local employers as the State fully 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, 2013 valuation date, nineteen (19) 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



SECTION 5 – EMPLOYER CONTRIBUTIONS

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, nineteen (19) years remain.

Contribution Rate Summary

The normal cost rates for each System are developed in Table 9. Table 10 develops the actuarial contribution rate for the unfunded actuarial liability. The total actuarial contribution rates determined as of December 31, 2013, are presented in Table 11. 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 12A and 12B. Table 13 shows the KP&F individual employer contribution rates for fiscal years beginning in 2015 and 2016 while Tables 14 and 15 show the calculation of the additional contribution rate due to amortization of prior service UAL for fiscal years beginning in 2016.

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 2016.



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 9
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF DECEMBER 31, 2013

	State	School	State/School	Local
1. Normal Cost Rate				
a. Retirement Benefit	5.78%	6.63%	6.44%	5.67%
b. Pre-Retirement Death Benefit	0.11%	0.07%	0.08%	0.16%
c. Withdrawal Benefit	1.55%	1.30%	1.35%	1.64%
d. Disability Benefit	0.60%	0.28%	0.35%	0.43%
e. Total	<u>8.04%</u>	<u>8.28%</u>	<u>8.22%</u>	<u>7.90%</u>
2. Estimated Covered Payroll for 2014	\$ 973,074,168	\$ 3,402,845,557	\$ 4,375,919,725	\$ 1,643,623,267
3. Normal Cost for 2014	\$ 78,235,163	\$ 281,755,612	\$ 359,990,775	\$ 129,846,238



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 9 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF DECEMBER 31, 2013

	KP&F	Judges
1. Normal Cost Rate		
a. Retirement Benefit	10.72%	19.35%
b. Pre-Retirement Death Benefit	0.33%	0.27%
c. Withdrawal Benefit	1.38%	0.00%
d. Disability Benefit	2.12%	0.00%
e. Total	<u>14.55%</u>	<u>19.62%</u>
2. Estimated Covered Payroll for 2014	\$ 461,814,718	\$ 28,451,524
3. Normal Cost for 2014	\$ 67,194,041	\$ 5,582,189



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 10
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
UNFUNDED ACTUARIAL LIABILITY CONTRIBUTION RATES
AS OF DECEMBER 31, 2013

Table with 6 columns: Description, State, School, Local, KPF, Judges. Rows include Actuarial Liability, Actuarial Value of Assets, Unfunded Actuarial Liability (UAL) with sub-items (a-d), Payment to Amortize UAL with sub-items (a-d), Total Estimated Payroll for 2014, and Amortization Payment as a Percent of Payroll.

* 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.



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 11
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL EMPLOYER CONTRIBUTION RATES
FISCAL YEAR COMMENCING IN 2016

	Total Normal Cost	Employee Normal Cost	Employer Normal Cost	Unfunded Actuarial Liability	Total Employer Contribution*
State	8.04%	6.00%	2.04%	8.73%	10.77%
Correctional Employees - Normal Retirement Age 55					11.45%
Correctional Employees - Normal Retirement Age 60					11.70%
School	8.28%	6.00%	2.28%	13.75%	16.03%
State/School	8.22%	6.00%	2.22%	12.63%	14.85%
Local	7.90%	6.00%	1.90%	7.28%	9.18%
KP&F Uniform Contribution Rate					
State **	14.55%	7.15%	7.40%	12.98%	20.38%
Local **	14.55%	7.15%	7.40%	13.02%	20.42%
Judges	19.62%	5.77%	13.85%	7.51%	21.36%

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

** 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, determined separately for each employer. (See Table 13)



SECTION 5 – EMPLOYER CONTRIBUTIONS

**TABLE 12A
LOCAL KPERS AFFILIATION COST FACTORS
FOR FISCAL YEAR BEGINNING IN 2016**

Employer	Year Affiliated	Projected 2016 Annual Payroll	Projected 1/1/2016 Unfunded Actuarial Liability	Payment on 1/1/2016 Unfunded Liability²	Payment on Unfunded Liability as % of Payroll	Total Rate for Years Commencing¹ in 2016
St. Francis Housing Authority	1999	\$17,065	\$8,357	\$646	3.79%	12.97%
City of Burden	1999	96,534	16,497	1,273	1.32%	10.50%
City of Longton	1999	70,034	20,037	1,549	2.21%	11.39%
Bourbon County RWD#2	1999	230,849	116,150	8,977	3.89%	13.07%
Towanda Township	1999	55,229	9,500	732	1.33%	10.51%
Hays Housing Authority	2000	48,185	1,833	148	0.31%	9.49%
Haysville Community Library	2000	204,792	211,086	16,302	7.96%	17.14%
Hamilton County Library	2000	92,967	13,975	1,080	1.16%	10.34%
Ellis Public Library	2000	31,998	5,308	410	1.28%	10.46%
Bucklin Public Library	2000	25,254	13,196	1,022	4.05%	13.23%
Elkhart Cemetery District	2000	53,090	1,848	146	0.27%	9.45%
City of Linn Valley	2000	95,597	1,035	80	0.08%	9.26%
City of Blue Mound	2000	87,540	3,002	225	0.26%	9.44%
Kansas Workers' Risk Coop for Counties	2000	335,964	53,722	4,127	1.23%	10.41%
Lindsborg Community Library	2002	20,583	3,814	281	1.37%	10.55%
City of North Newton	2002	260,155	172,433	12,966	4.98%	14.16%
City of Arcadia	2002	99,891	16,871	1,267	1.27%	10.45%
City of Linwood	2003	54,994	2,526	191	0.35%	9.53%
Johnson County Fire District #2 Rural	2003	2,817,442	470,049	35,348	1.25%	10.43%
Basehor Community Library	2003	323,116	59,769	4,494	1.39%	10.57%
City of Gypsum	2003	57,256	5,078	383	0.67%	9.85%
Greenleaf Housing Authority	2003	16,684	23,857	1,793	10.75%	19.93%
City of Bentley	2004	86,644	39,351	3,197	3.69%	12.87%
Mulvane Public Library	2004	72,337	14,108	1,147	1.59%	10.77%
The Center for Counseling and Consultation	2004	2,811,300	1,186,094	96,404	3.43%	12.61%
Doniphan County RFD #2	2005	57,081	9,425	765	1.34%	10.52%



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 12A (cont.)
LOCAL KPERS AFFILIATION COST FACTORS
FOR FISCAL YEAR BEGINNING IN 2016

Employer	Year Affiliated	Projected 2016 Annual Payroll	Projected 1/1/2016 Unfunded Actuarial Liability	Payment on 1/1/2016 Unfunded Liability ²	Payment on Unfunded Liability as % of Payroll	Total Rate for Years Commencing ¹ in 2016
City of Denison	2005	\$60,750	\$20,797	\$1,690	2.78%	11.96%
Stanton County Recreation Commission	2005	72,962	25,617	2,081	2.85%	12.03%
Total		\$8,256,292	\$2,525,335	\$198,724		

¹ Basic local employer contribution rates excluding Death and Disability contribution:

FY 2015: 9.48%

FY 2016: 9.18%

² Payments are assumed to be mid-year



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 12B
LOCAL KPERs AFFILIATION COST FACTORS - AFFILIATION AFTER 1/1/06
FOR FISCAL YEAR BEGINNING IN 2016

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
Oaklawn Improvement District	2010	128,006	11,619	2032
Stockton Recreation Commission	2010	1,245	113	2032
Salt Creek Township	2012	22,542	4,500	2017



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 13
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS
COMMENCING IN CALENDAR YEARS 2015 AND 2016

Table with 3 columns: Employer, Total Rate for Fiscal Year Commencing in 2015, and Recommended Total Rate for Fiscal Year Commencing in 2016. Lists various employers like Douglas County Law Enforcement, Ford County, etc., with their respective rates.



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 13 (cont.)
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS
COMMENCING IN CALENDAR YEARS 2015 AND 2016

Table with 3 columns: Employer, Total Rate for Fiscal Year Commencing in 2015, and Recommended Total Rate for Fiscal Year Commencing in 2016. Lists various employers and their respective contribution rates.



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 13 (cont.)
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS
COMMENCING IN CALENDAR YEARS 2015 AND 2016

Table with 3 columns: Employer, Total Rate for Fiscal Year Commencing in 2015, and Recommended Total Rate for Fiscal Year Commencing in 2016. Lists various employers and their respective contribution rates.



TABLE 14A
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2016

Table with 3 columns: Employer, 1/1/2014 Unfunded Prior Service Liability, and Payment on Unfunded Liability*. Rows list various employers such as Douglas County Law Enforcement, Ford County, Franklin County Sheriff's Dept, etc.



TABLE 14A (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2016

Employer	1/1/2014 Unfunded Prior Service Liability	Payment on Unfunded Liability*
City of Junction City	\$0	\$0
City of Lawrence	0	0
City of Leavenworth	0	0
City of Leawood	159,306	47,701
City of Lenexa	0	0
City of Manhattan	0	0
City of Merriam	0	0
City of McPherson	0	0
City of Mission	0	0
City of Newton EMTs	37,661	7,898
City of Newton	0	0
City of Olathe	0	0
City of Ottawa	0	0
City of Parsons	0	0
City of Pittsburg	82,799	86,047
City of Salina	197,960	205,726
City of Shawnee	16,710	17,366
City of Topeka	0	0
City of Wellington	46,188	48,000
City of Westwood	0	0
City of Winfield	240,949	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	221,588	18,952
City of Garden City	0	0
City of Lake Quivira	0	0
City of Paola	0	0
City of Winfield (EMS)	381,468	39,655
Miami County	0	0



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 14A (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2016

Table with 3 columns: Employer, 1/1/2014 Unfunded Prior Service Liability, and Payment on Unfunded Liability*. Rows list various employers like Atchinson County, City of Park City, etc., with values ranging from \$0 to \$387,350.

* Payments are based on a remaining 40-year amortization periods. Payments are assumed to be made throughout the year.



SECTION 5 – EMPLOYER CONTRIBUTIONS

**TABLE 14B
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY - AFFILIATION AFTER 1/1/06
FOR FISCAL YEAR BEGINNING IN 2016**

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 Rural Fire District #9	2007	\$457	\$63	2017

Note: Only employers with remaining obligations are shown.



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 15
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
FOR FISCAL YEARS BEGINNING IN 2016

Table with 5 columns: Employer, Number of Employees, Total Estimated 2016 Payroll, Payment on Unfunded Liability (Table 14), and As Percent of Payroll. Lists various employers like Douglas County Law Enforcement, Ford County, etc., with their respective employee counts, payrolls, and contribution rates.



SECTION 5 – EMPLOYER CONTRIBUTIONS

TABLE 15 (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
FOR FISCAL YEARS BEGINNING IN 2016

Table with 5 columns: Employer, Number of Employees, Total Estimated 2016 Payroll, Payment on Unfunded Liability (Table 14), and As Percent of Payroll. Rows list various employers like City of Leawood, City of Lenexa, etc., with their respective employee counts, payroll amounts, and contribution percentages.



SECTION 5 – EMPLOYER CONTRIBUTIONS

**TABLE 15 (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
FOR FISCAL YEARS BEGINNING IN 2016**

Employer	Number of Employees	Total Estimated 2016 Payroll	Payment on Unfunded Liability (Table 14)	As Percent of Payroll	
City of Marion	5	\$234,553	\$0	0.00	%
City of Overbrook	2	81,488	0	0.00	
Leavenworth County Fire District #1	7	410,116	0	0.00	
Shawnee Heights Fire District	10	646,028	0	0.00	
City of Lansing	17	915,446	0	0.00	
State Fire Marshall	11	564,954	0	0.00	
Seward County	28	1,463,310	0	0.00	
City of Hays	54	3,111,033	0	0.00	
Ellis County	44	2,527,197	0	0.00	
City of Baldwin City	9	486,121	0	0.00	
McPherson County Rural Fire District #9	1	25,489	0	0.00	
City of Spring Hill	10	514,578	0	0.00	
City of Andover	36	1,928,995	0	0.00	
Kearny County	18	1,045,877	0	0.00	
Neosho County	15	642,097	0	0.00	
Clark County	6	279,177	0	0.00	
City of Wakefield	0	0	0	0.00	
Russell County	10	538,965	0	0.00	
City of Rossville	2	91,681	0	0.00	
City of Goddard	11	490,885	0	0.00	
City of El Dorado	42	1,971,481	0	0.00	
Northwest Consolidated Fire District	16	773,867	0	0.00	
City of Girard	10	465,633	0	0.00	
City of Overland Park	60	2,866,567	0	0.00	
City of Victoria	2	126,429	0	0.00	
City of Burden	1	39,470	0	0.00	
Total	7,224	434,281,083	1,406,407		



SECTION 6 – OTHER INFORMATION

SECTION 6

HISTORICAL FUNDING AND OTHER INFORMATION

This section of the report provides a historical perspective on the System's funding and contribution practices, along with other information that may be of interest.



TABLE 16
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
HISTORICAL FUNDING INFORMATION
 (All Systems Combined)

Schedule of Funding Progress
 (\$ in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Liability (AL) (b)	Unfunded AL (UAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAL as a Percent of Covered Payroll ((b-a)/c)
12/31/2003	\$10,853,462	\$14,439,546	\$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%
12/31/2009	13,461,221	21,138,206	7,676,985	64%	6,532,496	118%
12/31/2010	13,589,658	21,853,783	8,264,125	62%	6,494,048	127%
12/31/2011	13,379,020	22,607,170	9,228,150	59%	6,401,462	144%
12/31/2012	13,278,490	23,531,423	10,252,933	56%	6,498,962	158%
12/31/2013	14,562,765	24,328,670	9,765,906	60%	6,509,809	150%



TABLE 17
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
HISTORICAL FUNDING INFORMATION
 (All Systems Combined)

Schedule of Employer Contributions

For the Fiscal Year Ended June 30

Year	Annual Required Contribution	Percentage Contributed
2001	\$277,096,692	77.6%
2002	289,519,647	79.7%
2003	311,365,296	78.9%
2004	317,900,432	74.0%
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	660,833,664	68.0%
2010	682,062,413	72.1%
2011	709,964,322	74.1%
2012	843,361,836	67.4%
2013	825,196,972	75.0%

This information is as reported by KPERS. Cavanaugh Macdonald Consulting has relied on the accuracy of the numbers as provided and has not verified them.



TABLE 18
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
HISTORICAL FUNDING INFORMATION

Historical Contribution rates¹

Valuation Date	State/School		Local		KP&F*	Judges*
	Actuarial	Statutory	Actuarial	Statutory		
12/31/2000	7.05%	4.58%	4.13%	3.07%	6.86%	16.67%
12/31/2001	7.69%	4.78%	4.64%	3.22%	9.47%	18.67%
12/31/2002	9.14%	5.27%	5.44%	3.41%	11.63%	21.97%
12/31/2003	8.64%	5.77%	6.24%	3.81%	12.39%	19.11%
12/31/2004	10.37%	6.37%	7.69%	4.31%	13.32%	22.38%
12/31/2005	10.86%	6.97%	7.92%	4.93%	13.88%	22.08%
12/31/2006	10.98%	7.57%	8.12%	5.53%	13.49%	20.50%
12/31/2007	11.30%	8.17%	8.52%	6.14%	12.86%	19.49%
12/31/2008	14.09%	8.77%	10.42%	6.74%	17.88%	26.38%
12/31/2009	13.46%	9.37%	9.44%	7.34%	16.54%	23.75%
12/31/2010	13.83%	9.97%	9.43%	7.94%	17.26%	23.62%
12/31/2011	14.34%	11.27%	9.77%	8.84%	19.92%	22.59%
12/31/2012	14.95%	12.37%	9.48%	9.48%	21.36%	23.98%
12/31/2013	14.85%	13.57%	9.18%	9.18%	20.42%	21.36%

*KP&F and Judges contribute the full actuarial contribution rate.

¹ Actuarial cost method changed to Entry Age Normal for valuations on or after 12/31/2003.



SECTION 6 – ACCOUNTING AND OTHER INFORMATION

TABLE 19
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PROJECTED BENEFIT PAYMENTS

Table with 8 columns: Year, State, School, Local, Total KPERS, KP&F, Judges, Total. Rows represent years from 2014 to 2038 with corresponding projected benefit payment values.

Note: Cash flows are the expected future non-discounted payments to current members. These numbers exclude refund payouts to current nonvested inactive 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 - SUMMARY OF MEMBERSHIP DATA

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		Entry Age	Service	Annual Pay (\$)	Pay Increase	Deferred Disabled*	Inactives	Retired	
Date December 31	Total Count	Number	Age								
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
2009	264,280	153,386	45.4	34.7	10.7	38,749	1.7%	2,781	39,212	68,901	2.23
2010	265,477	150,482	45.6	34.9	10.7	40,109	3.5%	2,749	40,122	72,124	2.09
2011	267,713	147,647	45.6	34.4	11.2	40,166	0.1%	2,711	41,358	75,997	1.94
2012	272,561	148,605	45.5	34.3	11.2	40,522	0.9%	2,575	41,991	79,390	1.87
2013	275,983	147,957	45.5	34.2	11.3	40,684	0.4%	2,436	43,660	81,930	1.81

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



APPENDIX A - SUMMARY OF MEMBERSHIP DATA

**HISTORICAL SUMMARY OF MEMBERS
(continued)**

KP&F

Valuation		Active Members						Number			Act/Ret Ratio
		Average		Entry Age	Service	Annual Pay (\$)	Pay Increase	Deferred Disabled*	Inactives	Retired	
Date December 31	Total Count	Number	Age								
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
2009	12,556	7,179	39.5	28.1	11.4	60,287	4.3%	181	1,136	4,060	1.77
2010	12,691	7,173	39.6	28.2	11.4	61,805	2.5%	181	1,169	4,168	1.72
2011	12,863	7,143	39.6	27.9	11.7	61,907	0.2%	197	1,208	4,315	1.66
2012	13,109	7,187	39.5	27.8	11.7	62,489	0.9%	203	1,194	4,525	1.59
2013	13,276	7,224	39.6	27.8	11.8	63,928	2.3%	208	1,174	4,670	1.55

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



**HISTORICAL SUMMARY OF MEMBERS
(continued)**

JUDGES

Valuation		Active Members						Number		Act/Ret Ratio
Date December 31	Total Count	Average						Inactives	Retired	
		Number	Age	Entry Age	Service	Annual Pay (\$)	Pay Increase			
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
2009	483	266	57.1	45.6	11.5	105,709	1.5%	14	203	1.31
2010	480	264	57.8	45.7	12.1	107,019	1.2%	10	206	1.28
2011	486	264	58.1	45.5	12.6	109,387	2.2%	7	215	1.23
2012	494	261	58.3	46.0	12.3	107,584	(1.6)%	6	227	1.15
2013	514	265	57.8	46.1	11.7	107,364	(0.2)%	6	243	1.09



APPENDIX A - SUMMARY OF MEMBERSHIP DATA

SUMMARY OF DATA FILE RECONCILIATION

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

Records on the in-pay data file	105,676
Removed deaths prior to 12/31/13	(19,467)
Added new retirees from supplemental file	634
Records used in the valuation	86,843
Records on the not-in-pay data file	227,256
Records removed because the member has received all benefits or is not eligible for KPERS benefits	(23,727)
Records removed because the member began receiving benefits	(599)
Records used in the valuation	202,930

These records are allocated as follows:

	State	School	Local	KP&F	Judges
Active members	23,117	85,752	39,088	7,224	265
Inactive vested members	2,965	9,439	4,560	140	6
Inactive nonvested members	3,428	13,634	9,634	1,034	0
Deferred disabled members	<u>787</u>	<u>965</u>	<u>684</u>	<u>208</u>	<u>0</u>
Total	30,297	109,790	53,966	8,606	271
Retirees and beneficiaries	18,413	46,191	17,326	4,670	243
GRAND TOTAL	48,710	155,981	71,292	13,276	514



SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTIVE MEMBER DATA

	12/31/2013	12/31/2012	Change
State/School			
Number	108,869	109,254	(0.4%)
Average Current Age	45.50	45.57	(0.2%)
Average Service	11.60	11.61	(0.0%)
Average Pay	\$40,194	\$40,112	0.2%
State			
Number	23,117	23,826	(3.0%)
Average Current Age	46.97	46.84	0.3%
Average Service	12.43	12.28	1.2%
Average Pay	\$42,093	\$41,940	0.4%
School			
Number	85,752	85,428	0.4%
Average Current Age	45.10	45.21	(0.2%)
Average Service	11.38	11.42	(0.4%)
Average Pay	\$39,682	\$39,602	0.2%
Local			
Number	39,088	39,351	(0.7%)
Average Current Age	45.36	45.37	(0.0%)
Average Service	10.30	10.24	0.6%
Average Pay	\$42,049	\$41,661	0.9%
KPERS Total			
Number	147,957	148,605	(0.4%)
Average Current Age	45.46	45.51	(0.1%)
Average Service	11.26	11.25	0.1%
Average Pay	\$40,684	\$40,522	0.4%



SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTIVE MEMBER DATA

	12/31/2013	12/31/2012	Change
KP&F			
Number	7,224	7,187	0.5%
Tier I	294	329	(10.6%)
Tier II	6,930	6,858	1.0%
Average Current Age	39.61	39.52	0.2%
Average Service	11.80	11.68	1.0%
Average Pay	\$63,928	\$62,489	2.3%
Judges			
Number	265	261	1.5%
Average Current Age	57.81	58.27	(0.8%)
Average Service	11.68	12.26	(4.7%)
Average Pay	\$107,364	\$107,584	(0.2%)
System Total			
Number	155,446	156,053	(0.4%)
Average Current Age	45.21	45.26	(0.1%)
Average Service	11.28	11.27	0.2%
Average Pay	\$41,878	\$41,646	0.6%



SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
INACTIVE MEMBER DATA

	12/31/2013	12/31/2012	Change
State			
inactive vested	2,965	2,879	3.0%
inactive nonvested	3,428	3,202	7.1%
deferred disabled	787	854	(7.8%)
School			
inactive vested	9,439	8,670	8.9%
inactive nonvested	13,634	13,812	(1.3%)
deferred disabled	965	996	(3.1%)
Local			
inactive vested	4,560	4,296	6.1%
inactive nonvested	9,634	9,132	5.5%
deferred disabled	684	725	(5.7%)
KPERS Total			
inactive vested	16,964	15,845	7.1%
inactive nonvested	26,696	26,146	2.1%
deferred disabled	2,436	2,575	(5.4%)
KP&F			
inactive vested	140	189	(25.9%)
inactive nonvested	1,034	1,005	2.9%
deferred disabled	208	203	2.5%
Judges			
inactive vested	6	6	0.0%
inactive nonvested	0	0	
deferred disabled	0	0	
System Total			
inactive vested	17,110	16,040	6.7%
inactive nonvested	27,730	27,151	2.1%
deferred disabled	2,644	2,778	(4.8%)



SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE AND BENEFICIARY MEMBER DATA

	12/31/2013	12/31/2012	Change
State			
Number	18,413	18,098	1.7%
Average Benefit	\$13,301	\$12,941	2.8%
Average Age	72.33	72.62	(0.4%)
School			
Number	46,191	44,687	3.4%
Average Benefit	\$14,350	\$13,968	2.7%
Average Age	71.89	72.02	(0.2%)
Local			
Number	17,326	16,605	4.3%
Average Benefit	\$10,615	\$10,118	4.9%
Average Age	72.06	72.42	(0.5%)
KPERS Total			
Number	81,930	79,390	3.2%
Average Benefit	\$13,325	\$12,929	3.1%
Average Age	72.02	72.24	(0.3%)
KP&F			
Number	4,670	4,525	3.2%
Average Benefit	\$29,721	\$28,600	3.9%
Average Age	66.33	65.16	1.8%
Judges			
Number	243	227	7.0%
Average Benefit	\$39,809	\$38,261	4.0%
Average Age	74.20	74.07	0.2%
System Total			
Number	86,843	84,142	3.2%
Average Benefit	\$14,280	\$13,840	3.2%
Average Age	71.72	71.86	(0.2%)



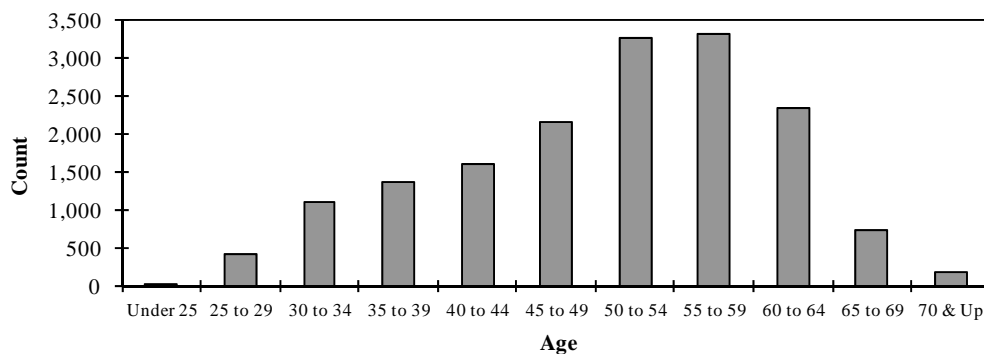
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of December 31, 2013

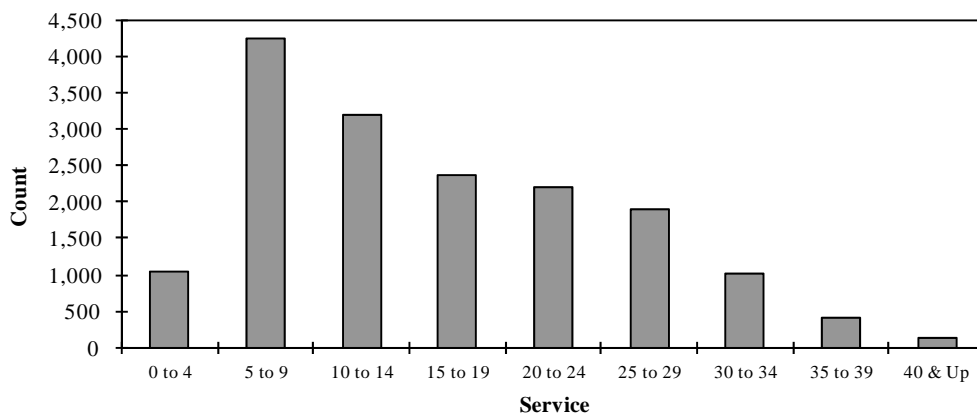
STATE - Tier 1

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	10	2	0	0	0	0	0	0	0	12
25 to 29	164	245	1	0	0	0	0	0	0	410
30 to 34	199	755	153	1	0	0	0	0	0	1,108
35 to 39	132	607	528	85	1	0	1	0	0	1,354
40 to 44	91	517	487	398	120	1	0	0	0	1,614
45 to 49	87	455	458	446	457	243	6	0	0	2,152
50 to 54	115	542	521	472	605	676	323	16	0	3,270
55 to 59	120	514	523	472	526	533	427	189	4	3,308
60 to 64	84	420	374	348	363	333	206	175	51	2,354
65 to 69	26	153	122	108	105	85	44	32	56	731
70 & Up	10	34	22	30	30	23	14	8	19	190
Total	1,038	4,244	3,189	2,360	2,207	1,894	1,021	420	130	16,503

Age Distribution



Service Distribution





**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

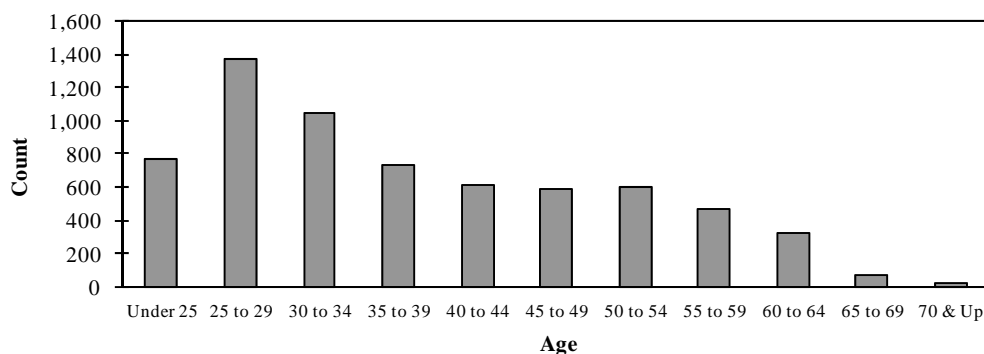
as of December 31, 2013

STATE - Tier 2*

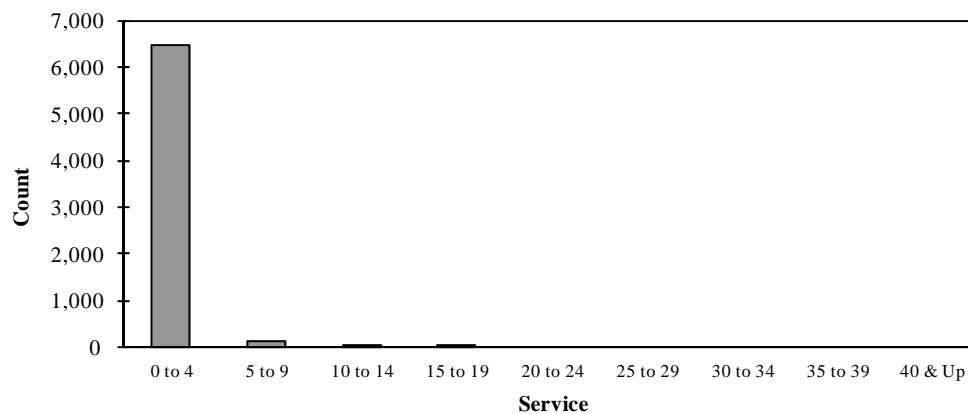
Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	769	1	0	0	0	0	0	0	0	770
25 to 29	1,361	7	0	0	0	0	0	0	0	1,368
30 to 34	1,025	27	0	0	0	0	0	0	0	1,052
35 to 39	707	19	2	0	0	0	0	0	0	728
40 to 44	596	16	6	0	0	0	0	0	0	618
45 to 49	581	8	2	1	0	0	0	0	0	592
50 to 54	583	15	3	2	0	0	0	0	0	603
55 to 59	448	17	6	0	0	0	0	0	0	471
60 to 64	310	7	4	0	0	0	0	0	0	321
65 to 69	72	2	0	0	0	0	0	0	0	74
70 & Up	15	0	2	0	0	0	0	0	0	17
Total	6,467	119	25	3	0	0	0	0	0	6,614

* Effective date of Tier 2 was July 1, 2009

Age Distribution



Service Distribution





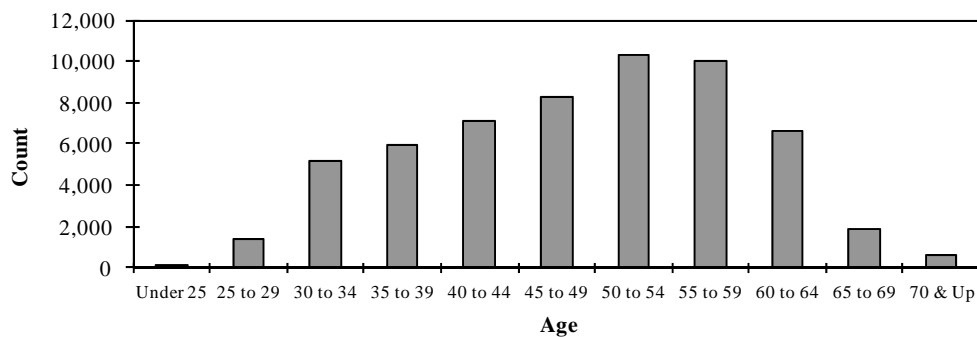
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of December 31, 2013

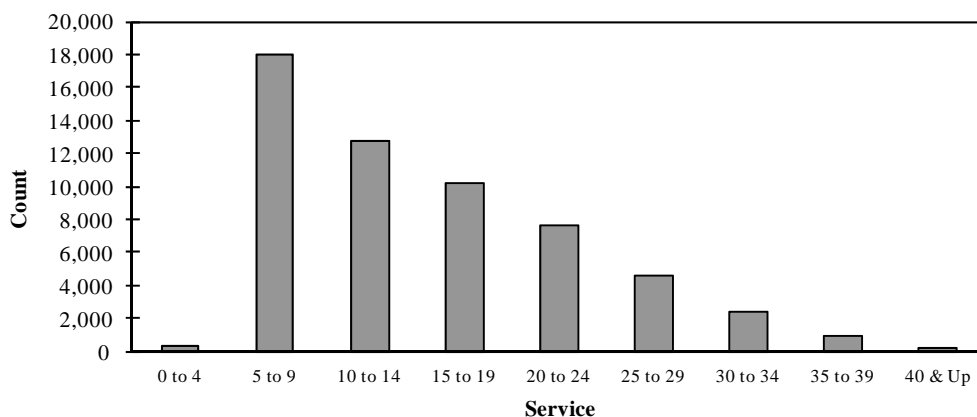
SCHOOL - Tier 1

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	4	21	1	1	0	0	0	0	0	27
25 to 29	54	1,295	6	0	0	0	0	0	0	1,355
30 to 34	25	4,250	869	3	0	0	0	0	0	5,147
35 to 39	38	2,205	3,053	603	3	0	0	0	0	5,902
40 to 44	46	2,228	1,765	2,602	475	3	0	0	0	7,119
45 to 49	35	2,313	1,722	1,592	2,142	456	7	0	0	8,267
50 to 54	35	2,174	2,106	1,874	1,522	2,001	593	8	0	10,313
55 to 59	29	1,684	1,670	1,924	1,822	1,207	1,267	368	4	9,975
60 to 64	19	1,175	1,053	1,216	1,299	747	446	514	110	6,579
65 to 69	11	471	340	288	326	185	100	83	90	1,894
70 & Up	7	219	151	91	55	45	24	12	26	630
Total	303	18,035	12,736	10,194	7,644	4,644	2,437	985	230	57,208

Age Distribution



Service Distribution





**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

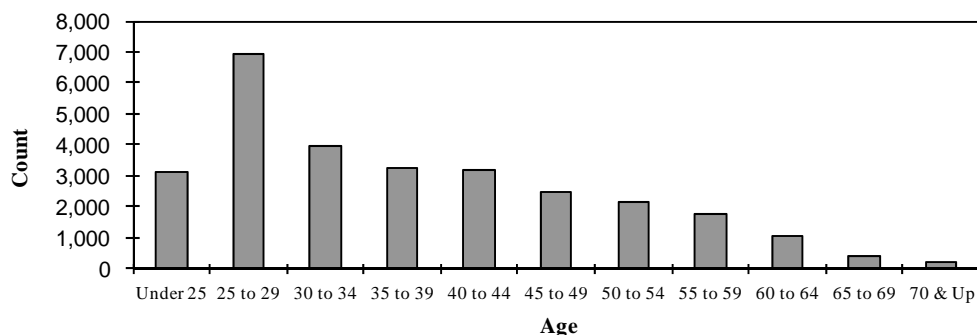
as of December 31, 2013

SCHOOL - Tier 2*

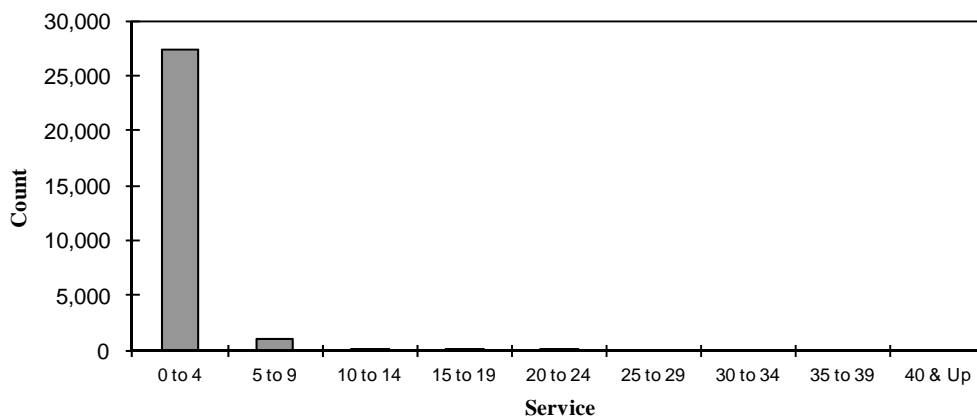
Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	3,127	1	0	0	0	0	0	0	0	3,128
25 to 29	6,814	111	0	0	0	0	0	0	0	6,925
30 to 34	3,728	259	4	0	0	0	0	0	0	3,991
35 to 39	3,068	151	42	0	0	0	0	0	0	3,261
40 to 44	3,039	122	28	0	0	0	0	0	0	3,189
45 to 49	2,356	120	13	0	0	0	0	0	0	2,489
50 to 54	2,044	88	20	1	0	0	0	0	0	2,153
55 to 59	1,669	52	15	0	1	0	0	0	0	1,737
60 to 64	1,003	41	6	0	0	0	0	0	0	1,050
65 to 69	395	21	2	0	0	0	0	0	0	418
70 & Up	202	1	0	0	0	0	0	0	0	203
Total	27,445	967	130	1	1	0	0	0	0	28,544

* Effective date of Tier 2 was July 1, 2009

Age Distribution



Service Distribution





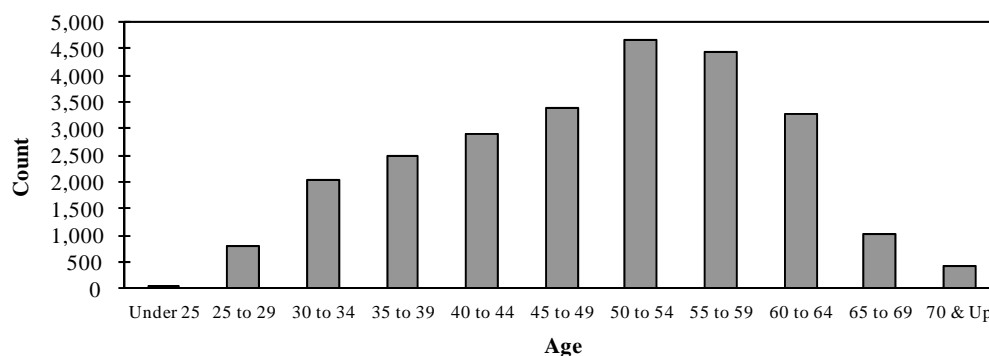
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of December 31, 2013

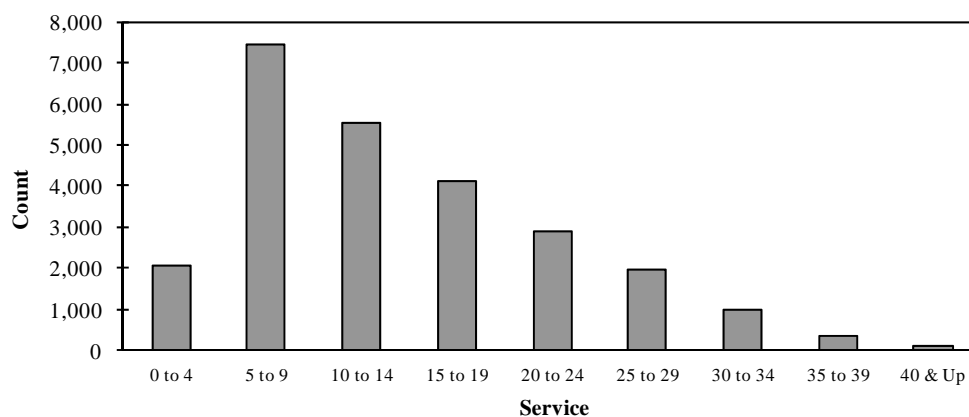
LOCAL - Tier 1

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	36	8	0	0	0	0	0	0	0	44
25 to 29	310	488	5	0	0	0	0	0	0	803
30 to 34	397	1,342	313	2	0	1	0	0	0	2,055
35 to 39	277	1,038	930	252	1	0	0	0	0	2,498
40 to 44	229	915	856	731	170	6	0	0	0	2,907
45 to 49	194	866	795	724	560	228	4	0	0	3,371
50 to 54	216	942	913	850	726	677	333	17	0	4,674
55 to 59	191	851	839	779	716	549	385	143	7	4,460
60 to 64	133	669	612	545	543	377	210	159	43	3,291
65 to 69	45	239	207	181	126	116	59	34	29	1,036
70 & Up	34	102	91	60	40	38	21	8	12	406
Total	2,062	7,460	5,561	4,124	2,882	1,992	1,012	361	91	25,545

Age Distribution



Service Distribution





**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

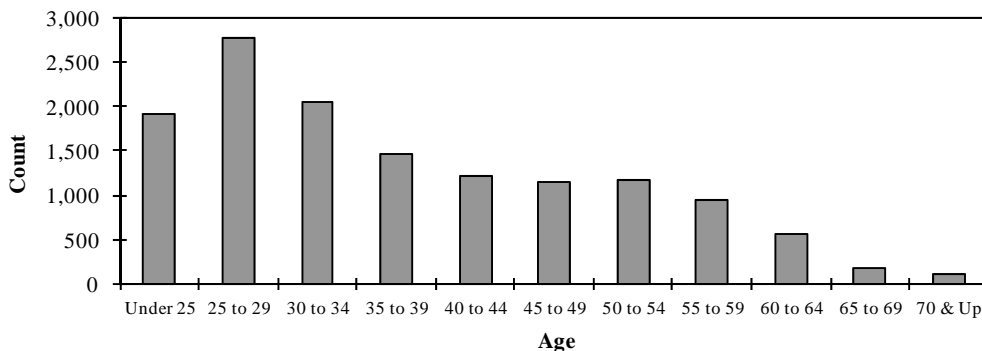
as of December 31, 2013

LOCAL - Tier 2*

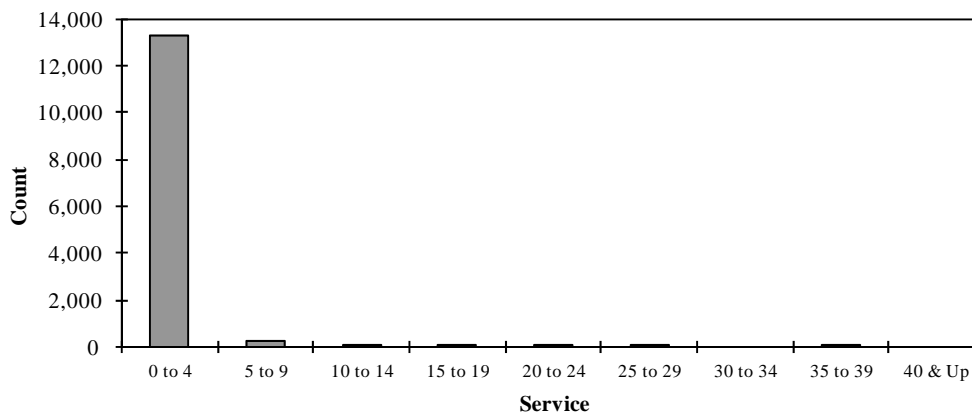
Age	Service									Total
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	
Under 25	1,911	0	0	0	0	0	0	0	0	1,911
25 to 29	2,734	32	0	0	0	0	0	0	0	2,766
30 to 34	2,011	48	3	1	0	0	0	0	0	2,063
35 to 39	1,406	47	4	0	0	0	0	0	0	1,457
40 to 44	1,185	36	3	1	0	0	0	0	0	1,225
45 to 49	1,126	24	5	0	0	0	0	0	0	1,155
50 to 54	1,146	25	7	1	0	0	0	1	0	1,180
55 to 59	935	13	3	1	2	1	0	0	0	955
60 to 64	524	23	4	0	0	0	0	0	0	551
65 to 69	157	12	3	0	0	0	0	0	0	172
70 & Up	107	0	0	1	0	0	0	0	0	108
Total	13,242	260	32	5	2	1	0	1	0	13,543

* Effective date of Tier 2 was July 1, 2009

Age Distribution



Service Distribution





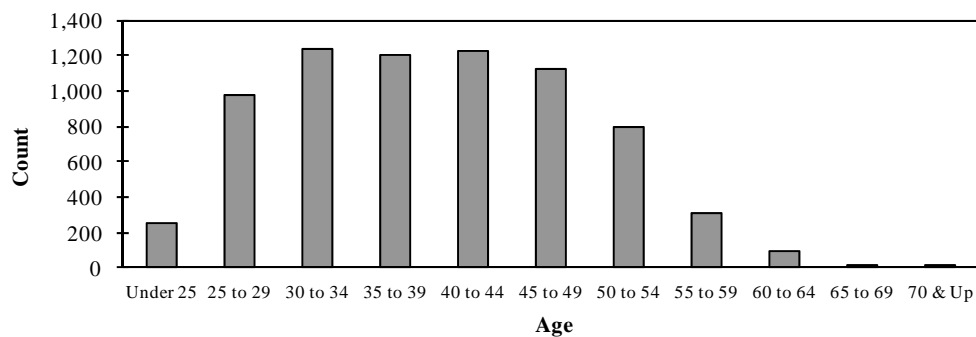
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of December 31, 2013

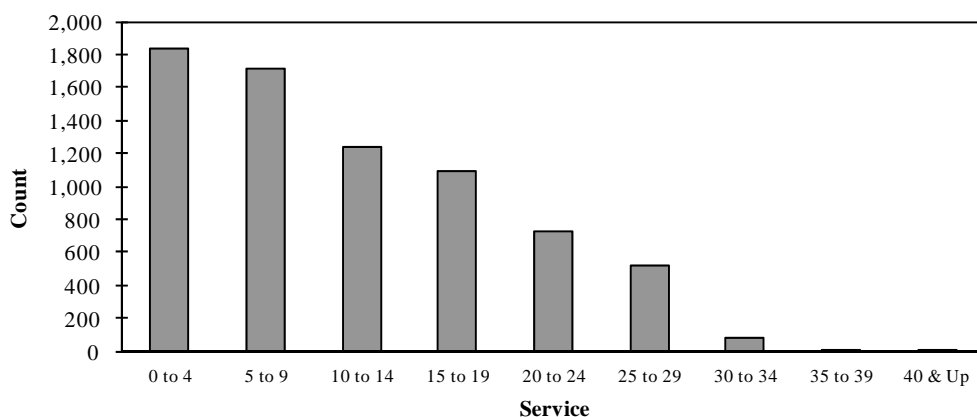
KP&F

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	248	1	0	0	0	0	0	0	0	249
25 to 29	753	223	0	0	0	0	0	0	0	976
30 to 34	412	659	166	0	0	0	0	0	0	1,237
35 to 39	194	392	478	134	0	0	0	0	0	1,198
40 to 44	117	194	338	479	91	2	0	0	0	1,221
45 to 49	58	117	149	289	358	149	2	0	0	1,122
50 to 54	26	78	64	132	195	265	36	0	0	796
55 to 59	19	31	28	45	60	81	40	7	0	311
60 to 64	2	22	16	13	17	19	6	2	0	97
65 to 69	1	2	4	1	4	0	2	0	1	15
70 & Up	0	1	1	0	0	0	0	0	0	2
Total	1,830	1,720	1,244	1,093	725	516	86	9	1	7,224

Age Distribution



Service Distribution





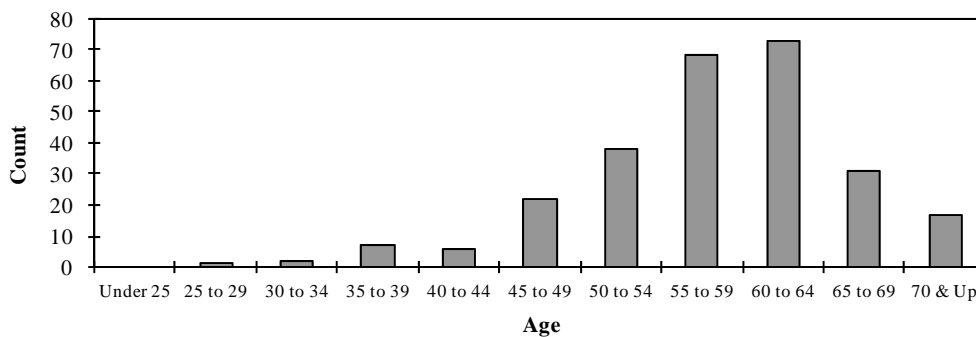
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS**

as of December 31, 2013

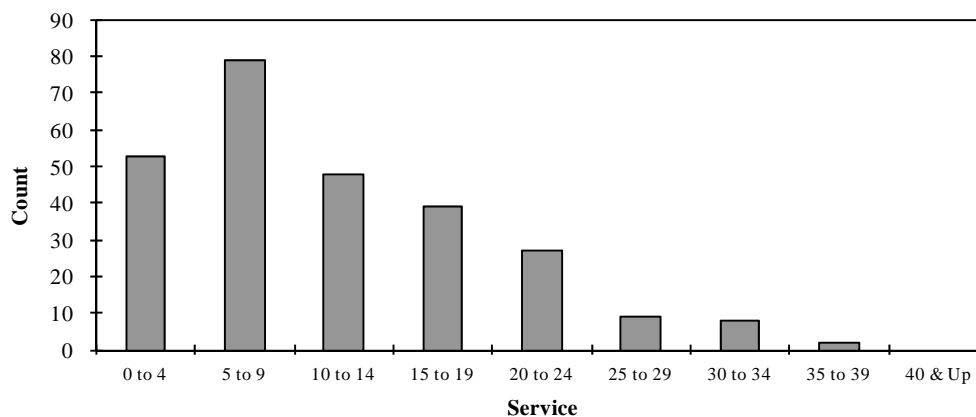
JUDGES

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	1	0	0	0	0	0	0	0	0	1
30 to 34	2	0	0	0	0	0	0	0	0	2
35 to 39	7	0	0	0	0	0	0	0	0	7
40 to 44	2	2	1	1	0	0	0	0	0	6
45 to 49	10	10	1	1	0	0	0	0	0	22
50 to 54	5	21	10	1	1	0	0	0	0	38
55 to 59	15	23	8	11	9	2	0	0	0	68
60 to 64	9	15	15	15	10	5	3	1	0	73
65 to 69	2	4	6	7	5	2	5	0	0	31
70 & Up	0	4	7	3	2	0	0	1	0	17
Total	53	79	48	39	27	9	8	2	0	265

Age Distribution



Service Distribution



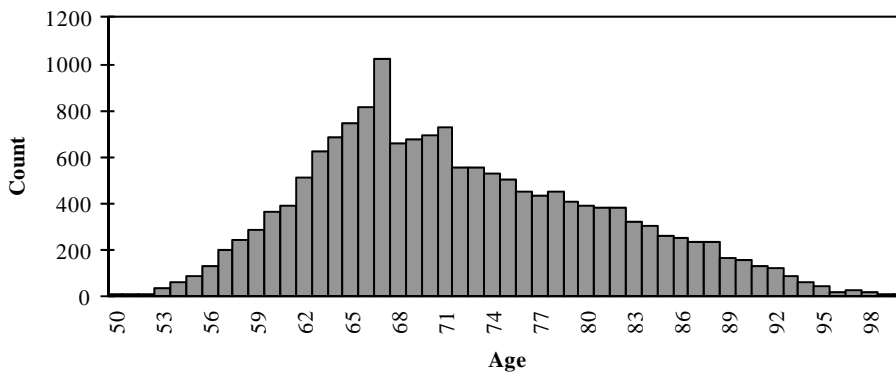


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2013

STATE

Retirees



Count: 16,592 Average age: 71.9 Average benefit: \$13,817

Beneficiaries



Count: 1,821 Average age: 76.0 Average benefit: \$8,604

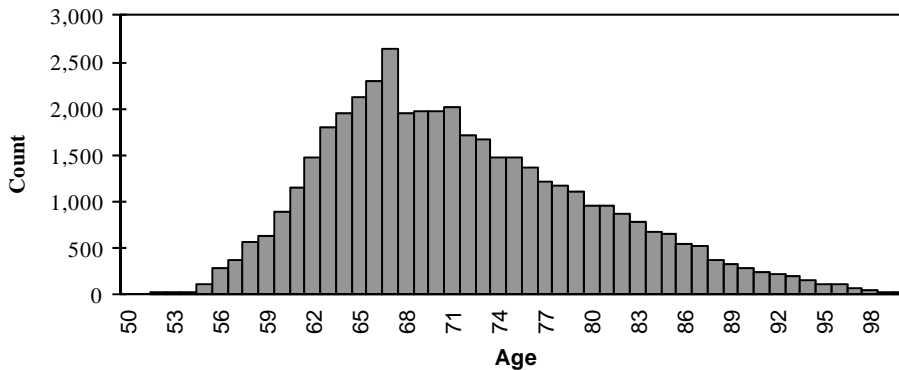


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2013

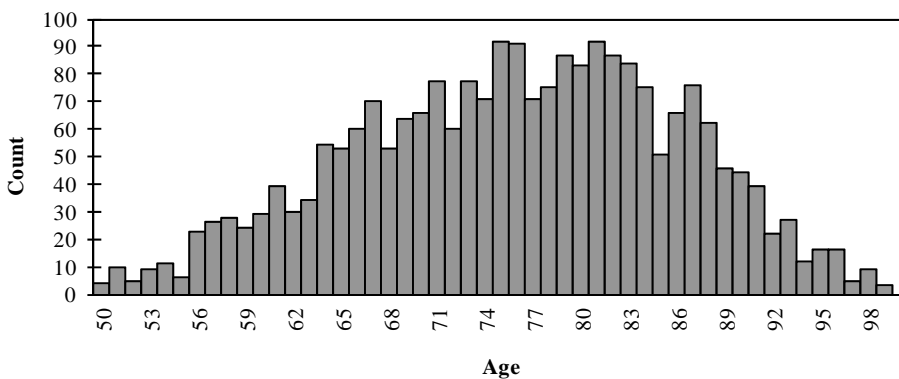
SCHOOL

Retirees



Count: 43,833 Average age: 71.7 Average benefit: \$14,644

Beneficiaries



Count: 2,358 Average age: 75.4 Average benefit: \$8,880

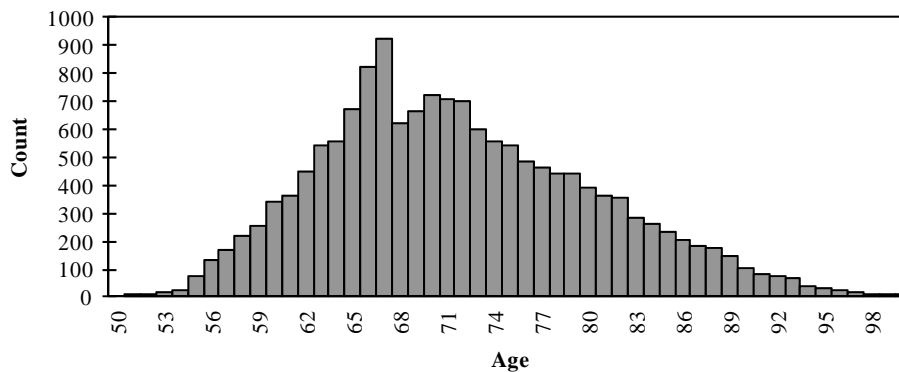


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2013

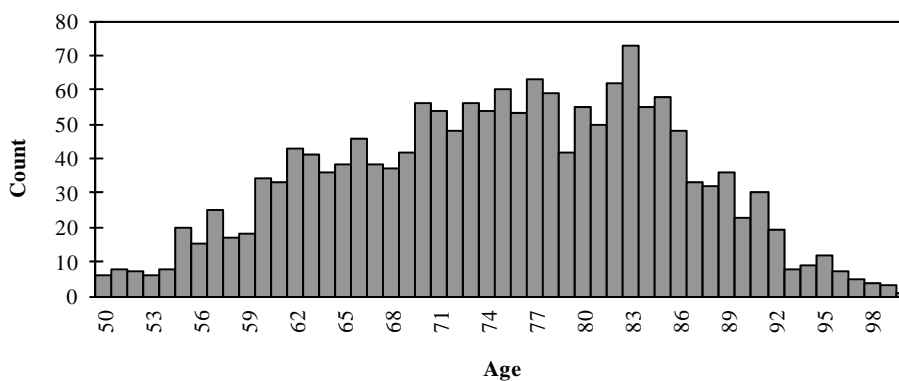
LOCAL

Retirees



Count: 15,604 Average age: 72.7 Average benefit: \$11,011

Beneficiaries



Count: 1,722 Average age: 74.3 Average benefit: \$7,028

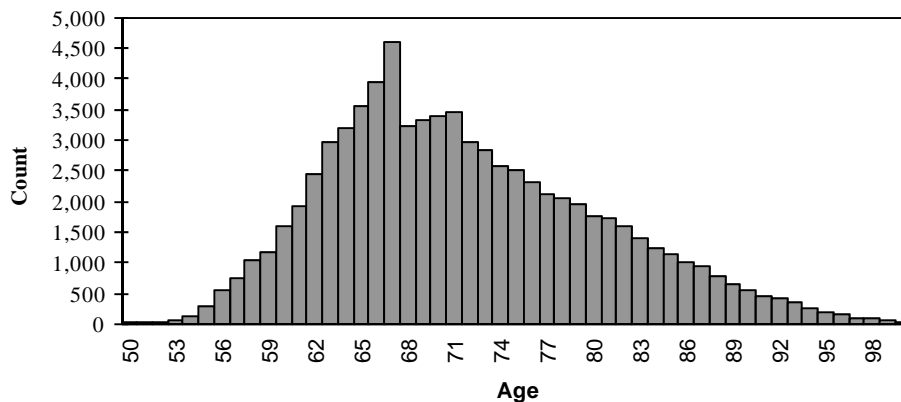


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2013

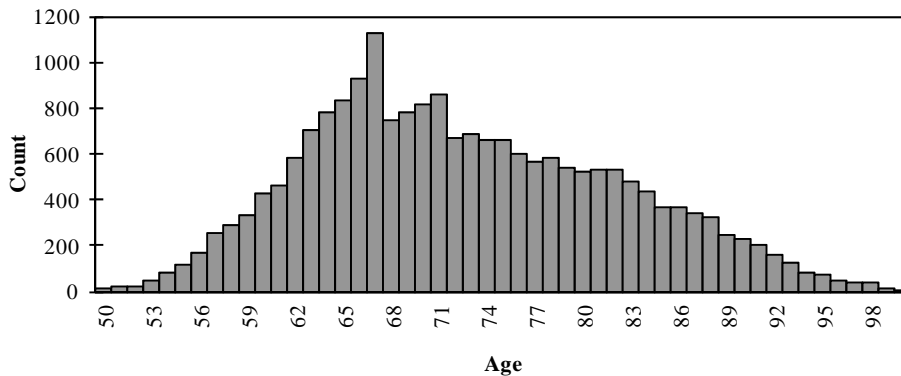
TOTAL KPERS

Retirees



Count: 76,029 Average age: 72.0 Average benefit: \$13,718

Beneficiaries



Count: 5,901 Average age: 75.3 Average benefit: \$8,254

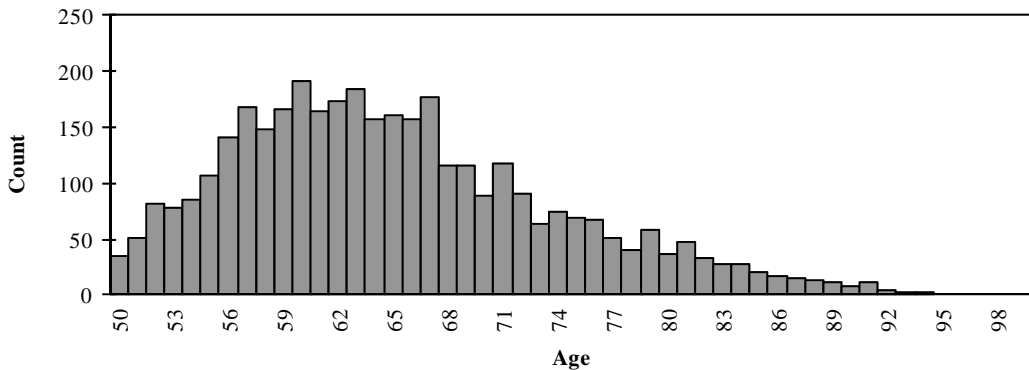


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2013

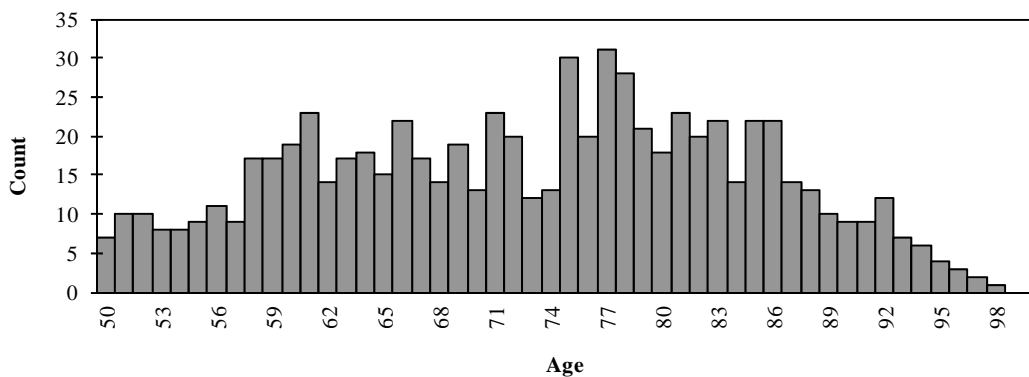
KP&F

Retirees



Count: 3,816 Average age: 64.3 Average benefit: \$32,904

Beneficiaries



Count: 854 Average age: 66.3 Average benefit: \$15,500

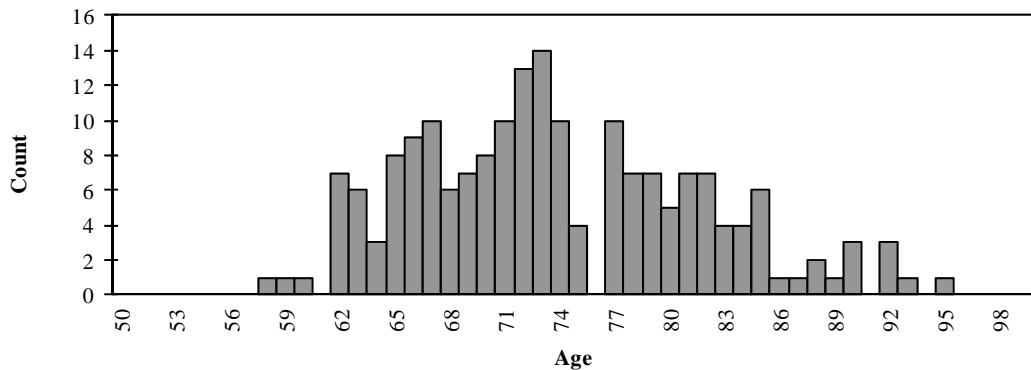


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM DISTRIBUTION OF RETIREES AND BENEFICIARIES

as of December 31, 2013

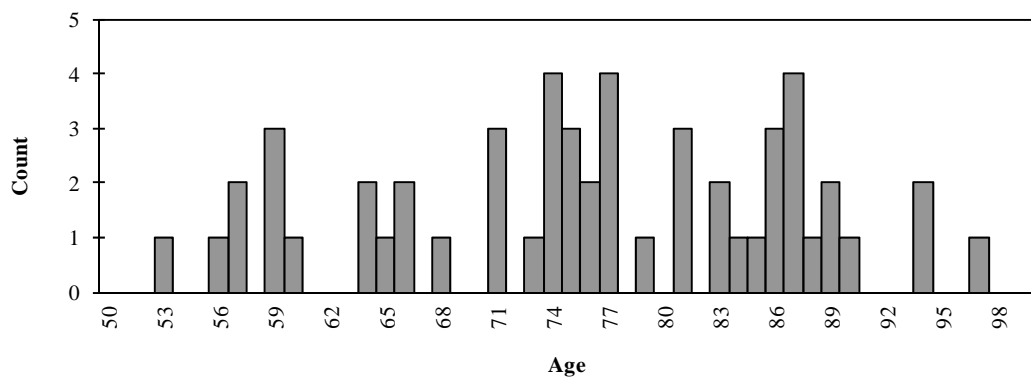
JUDGES

Retirees



Count: 188 Average age: 73.9 Average benefit: \$42,642

Beneficiaries



Count: 55 Average age: 75.4 Average benefit: \$30,125



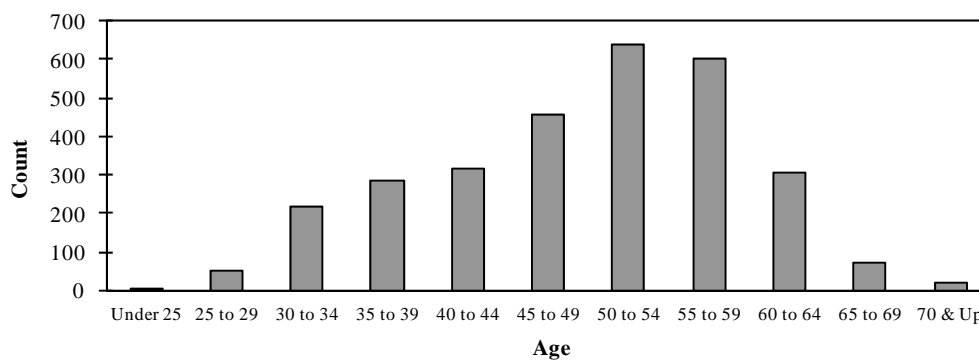
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS**

as of December 31, 2013

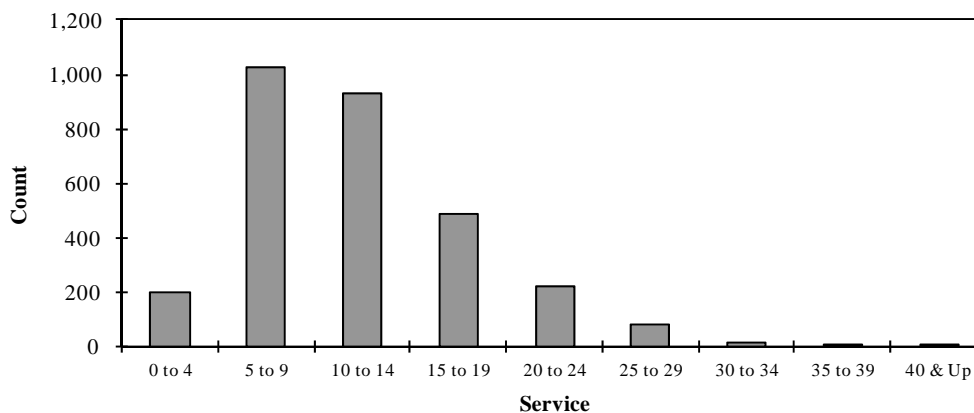
STATE

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	1	0	0	0	0	0	0	0	0	0	1
25 to 29	23	29	0	0	0	0	0	0	0	0	52
30 to 34	30	168	19	0	0	0	0	0	0	0	217
35 to 39	32	167	78	6	0	0	0	0	0	0	283
40 to 44	22	138	121	32	5	0	0	0	0	0	318
45 to 49	16	125	175	100	36	6	0	0	0	0	458
50 to 54	12	144	225	145	74	28	9	0	0	0	637
55 to 59	14	130	214	132	71	37	2	0	0	0	600
60 to 64	16	103	86	63	24	8	3	2	2	2	307
65 to 69	25	17	8	8	10	0	2	1	2	2	73
70 & Up	10	4	4	1	0	0	0	0	0	0	19
Total	201	1,025	930	487	220	79	16	3	4		2,965

Age Distribution



Service Distribution





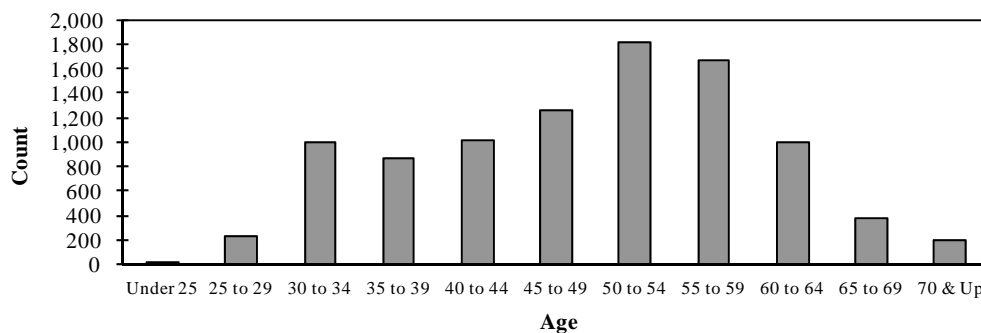
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS**

as of December 31, 2013

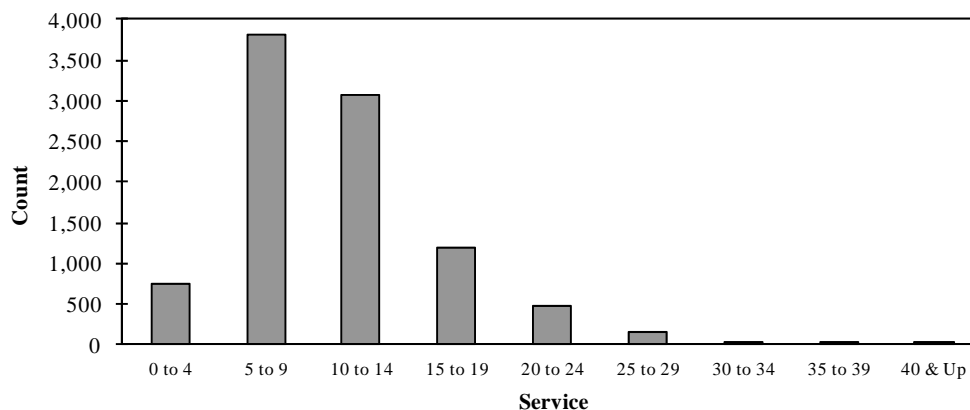
SCHOOL

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	5	4	0	0	0	0	0	0	0	9
25 to 29	59	170	1	0	0	0	0	0	0	230
30 to 34	87	864	55	0	0	0	0	0	0	1,006
35 to 39	51	543	258	17	0	0	0	0	0	869
40 to 44	59	444	385	119	5	0	0	0	0	1,012
45 to 49	65	419	520	179	67	3	0	0	0	1,253
50 to 54	53	510	704	317	155	63	9	1	0	1,812
55 to 59	28	397	667	346	156	68	7	0	0	1,669
60 to 64	19	335	393	175	73	6	1	0	0	1,002
65 to 69	170	87	70	29	8	4	5	1	2	376
70 & Up	140	33	14	9	4	1	0	0	0	201
Total	736	3,806	3,067	1,191	468	145	22	2	2	9,439

Age Distribution



Service Distribution





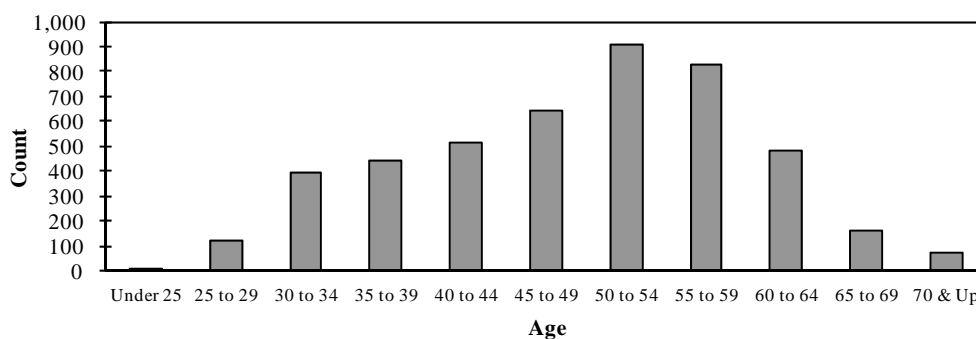
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS**

as of December 31, 2013

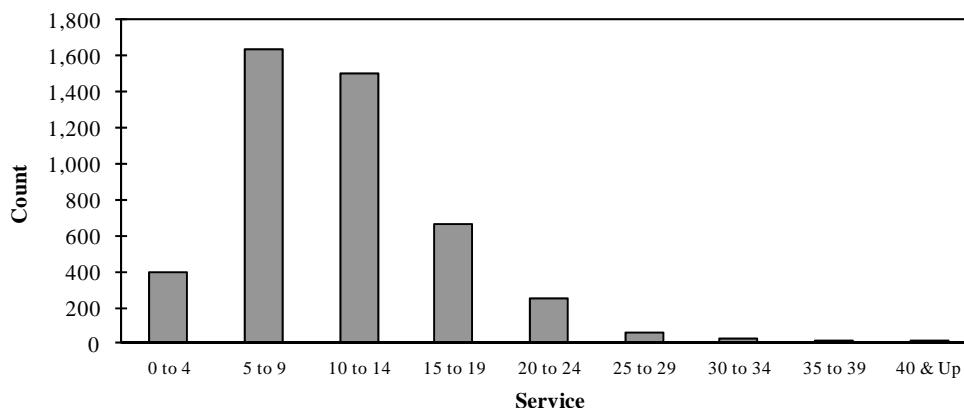
LOCAL

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	6	0	0	0	0	0	0	0	0	6
25 to 29	37	82	0	0	0	0	0	0	0	119
30 to 34	64	297	29	0	0	0	0	0	0	390
35 to 39	42	261	125	12	0	0	0	0	0	440
40 to 44	29	196	203	73	10	0	0	0	0	511
45 to 49	32	193	265	119	30	5	0	0	1	645
50 to 54	31	199	362	193	92	20	10	0	0	907
55 to 59	22	192	332	164	76	34	9	1	0	830
60 to 64	25	162	155	89	36	3	10	4	0	484
65 to 69	61	49	29	9	5	1	3	0	2	159
70 & Up	51	8	5	3	0	2	0	0	0	69
Total	400	1,639	1,505	662	249	65	32	5	3	4,560

Age Distribution



Service Distribution





APPENDIX A - SUMMARY OF MEMBERSHIP DATA

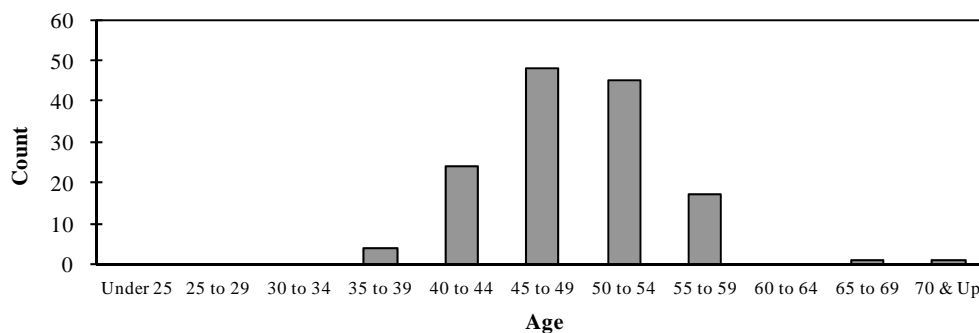
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS**

as of December 31, 2013

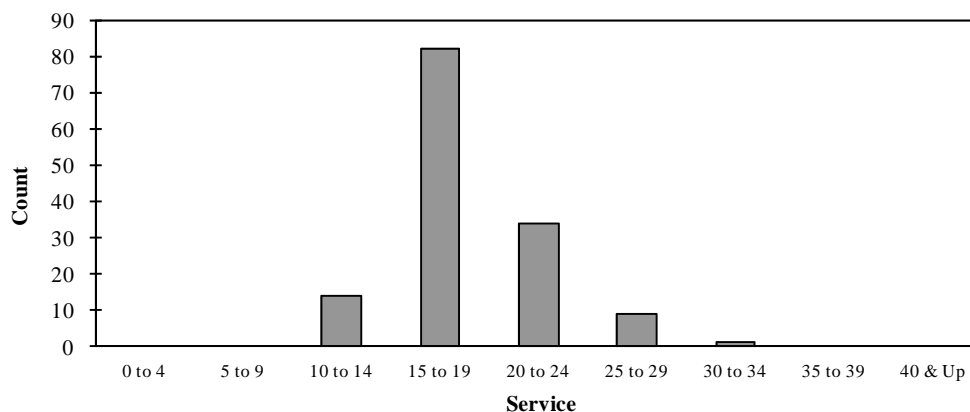
KP&F

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	1	3	0	0	0	0	0	4
40 to 44	0	0	5	19	0	0	0	0	0	24
45 to 49	0	0	5	28	13	2	0	0	0	48
50 to 54	0	0	0	21	16	7	1	0	0	45
55 to 59	0	0	3	10	4	0	0	0	0	17
60 to 64	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	1	0	0	0	0	0	1
70 & Up	0	0	0	0	1	0	0	0	0	1
Total	0	0	14	82	34	9	1	0	0	140

Age Distribution



Service Distribution





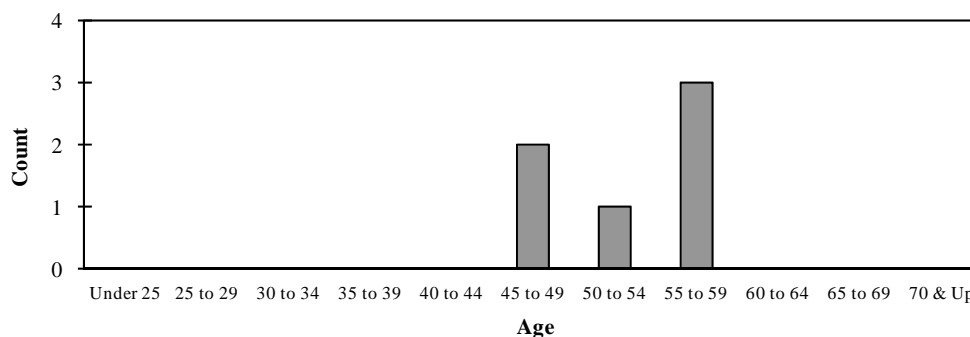
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS**

as of December 31, 2013

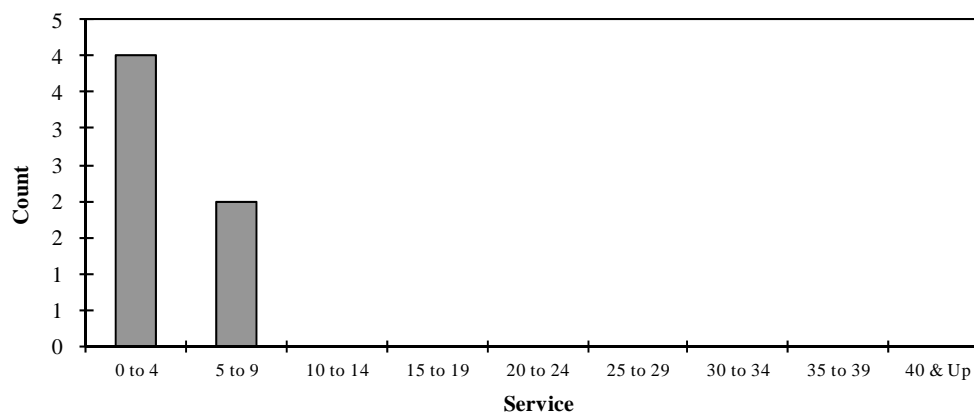
JUDGES

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	0	0	0	0	0	0	0	0	0	0
45 to 49	2	0	0	0	0	0	0	0	0	2
50 to 54	1	0	0	0	0	0	0	0	0	1
55 to 59	1	2	0	0	0	0	0	0	0	3
60 to 64	0	0	0	0	0	0	0	0	0	0
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	4	2	0	0	0	0	0	0	0	6

Age Distribution



Service Distribution





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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 who work at least 630 hours per year or 3.5 hours per day for at least 180 days are eligible for membership. Effective July 1, 2009, all employees become KPERs members on their date of employment. Prior to July 1, 2009 only School employees were covered immediately. There was a one-year service requirement for the State and Local group. Those who retire under the provisions of the Retirement System may not become contributing members again.

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM Summary of Provisions *

* Members who participate on or after July 1, 2009 are referred to as Tier 2 members.

This valuation reflects the benefit structure in place as of December 31, 2013, as amended by House Bill 2533, passed by the 2014 Legislature. Tier 3 benefits are not included as there were no such members in the valuation.

Normal Retirement

Eligibility – Tier 1: (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.

Tier 2: (a) Age 65 with 5 years of credited service or (b) age 60 with 30 years of credited service.

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 and before July 1, 2009, Final Average Salary equals the average of the three highest years of service, excluding add-ons, such as sick and annual leave. Effective July 1, 2009,



APPENDIX B – SUMMARY OF PLAN PROVISIONS

(Tier 2), Final Average Salary equals the average of the five highest years of salary, excluding additional compensation.

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 –

Tier 1: Participating service credit is 1.75% of Final Average Salary for years of service prior to January 1, 2014. Participating service credit is 1.85% of Final Average Salary for years of service after December 31, 2013.

Tier 2: For those retiring on or after January 1, 2012, participating service credit is 1.85% for all years of service.

Early Retirement

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

Benefit – Tier 1: 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.

Tier 2: The normal retirement benefit is reduced actuarially for early commencement. The reduction factor is 35% at age 60 and 57.5% at age 55. If the member has 30 years of credited service, the early retirement reduction is less (50% of regular reduction).

Vesting Requirements

Eligibility – Effective July 1, 2009, a member must have five years of credited service (ten years prior to July 1, 2009). 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. Inactive, nonvested 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 31 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



APPENDIX B – SUMMARY OF PLAN PROVISIONS

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

Prior to January 1, 2014, member contributions were 4% of compensation for Tier 1. 2012 HB 2333 established an election by Tier 1 members, contingent upon IRS approval, between different contribution rate and benefit levels. The legislation provided that, if the IRS rejected or did not take action to approve the election, Tier 1 members would default to an increase in their employee contributions to 5% of compensation effective January 1, 2014, and 6% effective January 1, 2015, with an increase in the benefit multiplier to 1.85% beginning January 1, 2014, for future years of service only. The IRS did not take action on KPERS' request to approve the election, and therefore, the default was implemented on January 1, 2014.

The member contribution rate for Tier 2 is 6% of compensation. Interest is credited to members' contribution accounts on June 30 each year, based on the 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.



APPENDIX B – SUMMARY OF PLAN PROVISIONS

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.

Cost of Living Adjustments (COLAs)

Tier 2 Members Who Retired Prior to July 1, 2012: 2% cost-of-living adjustment (COLA) each year beginning at age 65 or the second July 1 after your retirement date, whichever is later. Other Tier 2 members will not receive a COLA.



APPENDIX B – SUMMARY OF PLAN PROVISIONS

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 90% of Final Average Salary (first effective July 1, 2013).

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. Inactive, nonvested 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



APPENDIX B – SUMMARY OF PLAN PROVISIONS

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.



APPENDIX B – SUMMARY OF PLAN PROVISIONS

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 7.15% of compensation, effective July 1, 2013.

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.



APPENDIX B – SUMMARY OF PLAN PROVISIONS

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%
Price Inflation	3.0%
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 (2000)

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: 50% of RP-2000 F Employees -2 State Males: 70% of RP-2000 M Employees +2 State Females: 50% of RP-2000 F Employees +0 Local Males: 90% of RP-2000 M Employees +2 Local Females: 90% of RP-2000 F Employees -1
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Disabled Life Mortality	RP-2000 Disabled Life Table with same age adjustments as used for Retiree Mortality.
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APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Rates of Salary Increase

<u>Years of Service</u>	<u>Rate of Increase*</u>		
	<u>School</u>	<u>State</u>	<u>Local</u>
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 3.0% inflation and 1.0% productivity)

Rates of Termination

<u>Duration</u>	<u>School</u>		<u>State</u>		<u>Local</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
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%



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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	10%
59	12%
60	15%
61	24%

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%	10%
55	15%	12%
57	15%	12%
59	15%	12%
61	30%	25%

Early Retirement

<u>Age</u>	<u>Rate</u>
55	5%
56	5%
57	5%
58	6%
59	10%
60	10%
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%



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Local

<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	11%	7%
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	7%	66	25%
60	7%	67-74	20%
61	20%	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	15%
62	35%
65	100%

- For correctional employees with an age 60 normal retirement date -

<u>Age</u>	<u>Rate</u>
60	10%
61	25%
62	45%
63	25%
64	35%
65	100%

- 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



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Probability of Vested Members Leaving Contributions With System

Tier 1:

<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%

Tier 2: Members are assumed to elect to take a refund if it is more valuable than the deferred annuity. The comparison is based on 8% interest and a 50% Male/50% Female blend of the RP-2000 Combined Mortality Table, projected to 2045 (static).

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

KP&F

Rate of Investment Return	8.0%														
Price Inflation	3.0%														
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 border="1"> <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>	<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%														
	*Includes general wage increase assumption of 4.0% (composed of 3.0% inflation and 1.0% productivity)														



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

Rates of Termination

Tier 1: 3% for ages less than 41; 0% thereafter

	<u>Years of Service</u>	<u>Rate</u>
Tier 2:	1	13.0%
	5	6.0%
	10	2.5%
	15	1.0%
	20	1.0%
	25	0.0%

Retirement Rates

Tier 1:	<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	40%
	52	5%	57	40%
	53	10%	58	35%
	54	30%	59	45%
			60	50%
			61	20%
			62	100%

Tier 2:	<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	10%	58	20%
	54	20%	60	25%
			61	25%
			62	25%
			63	100%

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



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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 1.

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%	
Price Inflation	3.0%	
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>
	60-61	10%
	62-65	20%
	66-69	30%
	70+	100%

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



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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.

If salary information is not available for an active record, it is assigned according to the following schedule:

<u>System</u>	<u>Salary</u>
KPERS	\$24,662
KP&F	\$36,046
Judges	N/A

Salaries for first year members are annualized.

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 apply to annual amounts.



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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.



APPENDIX C – ACTUARIAL ASSUMPTIONS AND METHODS

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.



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 – GLOSSARY OF TERMS

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).