Cavanaugh Macdonald
CONSULTING, LLC

The experience and dedication you deserve

KPERS

Kansas Public Employees Retirement System

Valuation Report as of December 31, 2014

www.CavMacConsulting.com

TABLE OF CONTENTS

July 17, 2015

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, 2014 for purpose of determining contribution rates for fiscal year 2018 for the State and 2017 for Local employers. The major findings of the valuation are contained in this report, which reflects the plan provisions in place on December 31, 2014, as amended by legislation passed by the 2015 Legislature. Also, as a result of an experience study prepared in 2014, there are some changes to the actuarial assumptions and methods that are first reflected in this valuation. The specific impact of the legislative changes as well as the assumption and method changes are discussed in detail in the Board Summary section of this report.

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

We further certify that all costs, liabilities, rates of interest and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the System. Nevertheless, the emerging costs will vary from those presented in this report to the extent actual experience differs from that projected by the actuarial assumptions. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix C.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

Actuarial computations presented in this report are for purposes of determining the recommended 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,

Patrice Beckham

Brent A. Banister

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

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

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, 2014 actuarial valuations for each of the groups.

The primary purposes of performing actuarial valuations are to:

- determine the employer contribution rates required to fund each group on an actuarial basis,
- determine the statutory employer contribution rates for each group,
- disclose asset and liability measures as of the valuation date,
- compare the actual experience since the last valuation date to that expected, and
- analyze and report on trends in contributions, assets, and liabilities over the past several years.

The 2015 Legislature passed four bills that impacted the provisions of KPERS and KP&F:

- House Bill 2095 (HB 2095) contained both working after retirement provisions and a new DROP pilot program for the Kansas Highway Patrol. The working after retirement provisions change the existing policy governing retirees returning to work starting July 1, 2016. Most new retirees will be subject to an annual $25,000 earnings limitation if they return to work for any KPERS affiliated employer. Employers contribute the statutory employer contribution rate on all wages paid to the retirees. There are exceptions to the general rule for special education teachers, hard-to-fill positions, and instances of a hardship. State hospital nurses, Kansas Law Enforcement Training Center instructors, legislative staff, and elected city and county officials are exempted from the earnings limitation.

  HB 2095 also created a Deferred Retirement Option Plan (DROP) for the Kansas Highway Patrol members of KP&F. Members are eligible for the DROP at normal retirement age, must select a period of three to five years to continue working, during which time their benefit is deposited into a DROP account. At ultimate retirement, the member receives the balance of the DROP account as a lump sum and continues to receive the monthly benefit. The DROP sunsets in 2020.

- Late in CY 2014, the State/School employer contribution rate was reset for the last half of FY 2015 as a part of a state budget allotment implemented by the Governor. Senate Bill 4, as amended by Senate Substitute for HB 2094 (SB 4) reduced the previously certified FY 2015 employer contribution rate of 11.27% to 8.65% to correspond with the Governor's allotment.

- Senate Bill 228 (SB 228) authorized the issuance of $1.0 billion in bonds, net of fees, to be used to reduce the unfunded actuarial accrued liability of the State/School group. The interest rate on the bonds can be no greater than 5% and the State Finance Council must approve any bond issue before the bonds are sold (approval received July 2, 2015). The debt service on the bonds is subject to State General Fund appropriation and is not an obligation of the System. SB 228 also reset the employer contribution rate for the State/School group for FY 2016 and 2017, subject to certain conditions. Provided that the Legislature does not make interest-only payments or capitalize the interest in the first years of debt service, the FY 2016 rate will decrease from 12.37% to 10.91% and the FY 2017 rate will decrease from 13.57% to 10.81%. If there are interest-only payments or capitalized interest on the bonds, the employer contribution rates will remain at the rates previously certified in the December 31, 2012 and 2013 valuations (12.37% for FY 2016 and 13.57% in FY 2017).

- Senate Substitute for HB 2101 changes the definition of “police”, “policeman” or “policemen” and expands the KP&F eligible group to those whose primary duties include engagement in enforcement of law, are certified by the Kansas Law Enforcement Training Center and designated by their employer as a police officer, and who have been contributing to the KP&F retirement system even if they have been assigned full or part time to a local correctional facility.

The valuation process does not include an assumption regarding the re-employment of retirees so the working after retirement provisions of HB 2095 did not have an impact on the valuation results. While the cost impact of working after retirement cannot be reliably determined, the new working after retirement rules appear to have fewer incentives for members to retire when first eligible and return to work. If the new rules change retirement patterns in the future, resulting in later retirement ages, it will have a favorable impact on plan liabilities. The addition of the DROP to the KP&F benefit structure only for members of the Kansas Highway Patrol had a small impact on the overall valuation results because there are only about 450 active members impacted out of a total of 7,200. The actuarial liability increased $1.4 million, the normal cost rate increased 0.01%, and the total KP&F employer actuarial contribution rate increased 0.03%.

SB 228 contained several provisions that impact KPERS’ funding. Although the legislation authorized $1.0 billion in net bond proceeds, there is uncertainty surrounding the timing and issuance of the bonds within the statutory limit of 5.0% on the bond interest rate. Therefore, the December 31, 2014 valuation does not assume that any bond proceeds will be received in the future. If the bonds are indeed issued, the net proceeds will be reflected in the December 31, 2015 actuarial valuation. SB 4 reduced the previously certified employer contribution rates for the State/School group for the last half of fiscal year 2015 from 11.27% to 8.65% to correspond with the Governor’s allotment. In addition, SB 228 changed the previously certified employer contribution rate for fiscal year 2016 from 12.37% to 10.91% and for fiscal year 2017 from 13.57% to 10.81%. As a result of the lower State/School statutory employer contribution rate in fiscal year 2017, the statutory employer contribution rate for 2018 (set by the results of this year’s valuation) is lower than it would have been absent SB 228 (12.01% instead of 14.77%). Provided they are issued as expected, the $1 billion of bond proceeds will offset the impact of the lower contributions. Absent the issuance of bonds (or a significantly lower bond issue amount), the lower employer contribution rates in the short term will result in higher employer contribution rates later in the remaining amortization period.

Senate Substitute for HB 2101 had no cost impact on the valuation results because it applies to employees who have been contributing members of KP&F beginning on or after July 1, 1999 and, therefore, they have already been included as KP&F members for valuation purposes in the past.

There were changes to both the actuarial assumptions and methods used in the December 31, 2014 actuarial valuation. The Board of Trustees adopted a new set of actuarial assumptions and methods in November, 2014 following the completion of the Triennial Experience Study. The changes, recommended by Cavanaugh Macdonald and adopted by the Board, include the following:

KPERS

- Increase active member mortality for females in the State and School groups.
- Reduce disability rates by 20% for all three KPERS groups.
- Increase the termination of employment rates for State-Males and Local Males and Females.
- Modify the election of a deferred benefit by Local vested members who terminate employment in future years.
- Modify the retirement rates for the C60 group.
- Increase the load for the impact of final average salary provisions for Local, C55 and C60 members hired before July 1, 1993.
- Establish an interest crediting rate of 6.50% for KPERS 3 members.

KP&F: No changes

Judges

- Modify the retirement rates

There was also one change to the actuarial methods implemented in this valuation as a result of the experience study. There is currently a lag between the valuation date in which the contribution rates are determined and the effective date of those contribution rates, i.e., two year lag for Local employers and a two and one-half year lag for the State. A change was made in determining the amortization payment on the unfunded actuarial liability (UAL) by projecting the UAL to the first day of the fiscal year in which the contribution rate will apply. In addition to the changes resulting from the experience study, there were also some refinements made to the actuarial programming as a result of an internal review performed by Cavanaugh Macdonald. The net impact of all changes was a decrease in the actuarial liability, an increase in the normal cost rate, and a decrease in the UAL contribution rate for each group. The impact for each group is shown in the tables on pages 19 and 20.

The valuation results provide a "snapshot" view of the System's financial condition on December 31, 2014. The unfunded actuarial liability (UAL), for the System as a whole, decreased by $298 million due to multiple factors. A detailed analysis of the change in the unfunded actuarial liability from December 31, 2013 to December 31, 2014 is shown on page 9.

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 statutory cap was 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 prior to passage of SB 4 and SB 228 in the 2015 legislative session. The statutory cap of 1.20% applies again for fiscal year 2018 (which is based on the December 31, 2014 actuarial valuation). Since the employer contribution rates for the State/School group for FY 2016 and 2017 were previously certified by the Board of Trustees, they must be recertified to reflect the provisions of SB 228, as summarized in the following table:

Recertified Employer Contribution Rates	Actuarial Contribution Rate	Original Statutory Rate	Statutory Rate (Recertified due to SB 228)	Difference
Fiscal Year 2016				
State	11.44%	12.37%	10.91%	1.46%
School	16.00%	12.37%	10.91%	1.46%
Correctional Group				
Retirement Age 55	12.21%	12.76%	10.91%	1.85%
Retirement Age 60	12.27%	12.50%	10.91%	1.59%
Fiscal year 2017				
State	10.77%	13.57%	10.81%	2.76%
School	16.03%	13.57%	10.81%	2.76%
Correctional Group				
Retirement Age 55	11.45%	13.96%	10.81%	3.15%
Retirement Age 60	11.70%	13.70%	10.81%	2.89%

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

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

	December 31, 2014 Valuation		
System	Actuarial	Statutory	Difference
State[1]	9.62%	12.01%	(2.39%)
School[1]	16.38%	12.01%	4.37%
State/School[1]	14.89%	12.01%	2.88%
Local[1]	8.46%	8.46%	0.00%
Police & Fire - Uniform Rates[2]	19.03%	19.03%	0.00%
Judges	15.89%	15.89%	0.00%

System	December 31, 2013 Valuation Actuarial	Statutory	Difference
State[3]	10.77%	10.81%	(0.04%)
School[3]	16.03%	10.81%	5.22%
State/School[3]	14.85%	10.81%	4.04%
Local	9.18%	9.18%	0.00%
Police & Fire - Uniform Rates	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 and beyond plus the cost of any benefit enhancements. The December 31, 2014 valuation sets the employer contribution rate for FY 2018 for the State and School group and FY 2017 for the Local group.

[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 18.99% 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 14)

[3] Rates recertified to comply with SB 228, passed by the 2015 Legislature.

The rate of return on the market value of assets in 2014 was 6.5%, as reported by KPERS, lower than the assumed return of 8%. However, due to the unrecognized asset experience from previous years, the rate of return on the actuarial value of assets was 10.6%. As a result, as of this valuation date, the State and Local groups continue to be at the ARC rate. In addition, the statutory contribution rate for the School group is projected to converge with the ARC rate before the end of the amortization period (2033), based on the current statutory funding policy and assuming all actuarial assumptions are met in future years.

EXPERIENCE - ALL SYSTEMS COMBINED

December 31, 2013 – December 31, 2014

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, 2014. 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, 2013 and December 31, 2014 actuarial valuations. On the following pages, each component is examined.

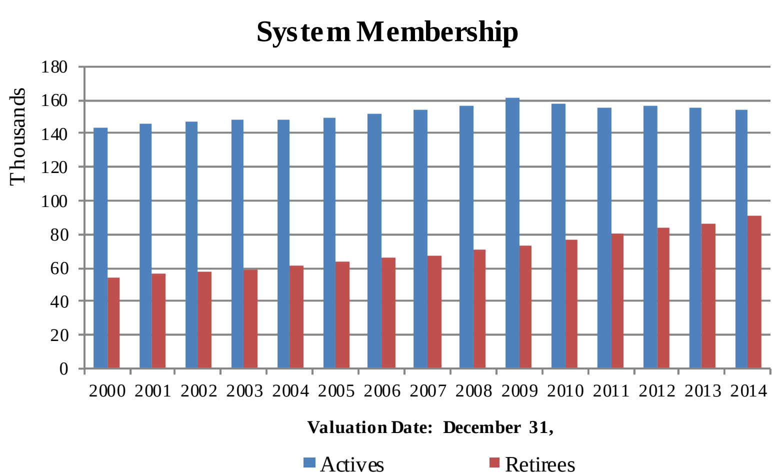
MEMBERSHIP

The following table contains a summary of the changes in active members between the December 31, 2013 and December 31, 2014 actuarial valuations.

	State	School	Local	KP&F	Judges	Total
12/31/2013 (Starting count)	23,117	85,752	39,088	7,224	265	155,446
New actives	2,559	10,182	5,280	555	4	18,580
Non-vested Terminations	827	4,070	2,027	237	0	7,161
Elected Refund	614	1,372	1,370	95	2	3,453
Vested Terminations	812	2,562	1,465	78	3	4,920
Total Withdrawals	2,253	8,004	4,862	410	5	15,534
Deaths	59	90	73	7	1	230
Disabilities	66	79	66	18	0	229
Retirements	602	2,311	784	125	8	3,830
Other/Transfer	44	-103	76	-15	-2	0
12/31/2014 (Ending count)	22,740	85,347	38,659	7,204	253	154,203

As can be seen from the table, each of the five groups experienced a decrease in the number of active members. In the current economic environment, this pattern of low (or negative) employee growth is not unusual. As a result of fewer active members, coupled with low salary increases, the total active member payroll did not grow as much as expected, so there were fewer contribution dollars to help pay down the System's UAL.

The following graph shows the number of active members and retirees in prior valuations. The number of active members has declined over the last five years while the number of retirees has continued to grow.



ASSETS

As of December 31, 2014, the System had total funds of $16.3 billion on a market value basis, excluding assets held for the Group Insurance and Optional Life reserves. This was an increase of $0.6 billion from the December 31, 2013 figure of $15.7 billion.

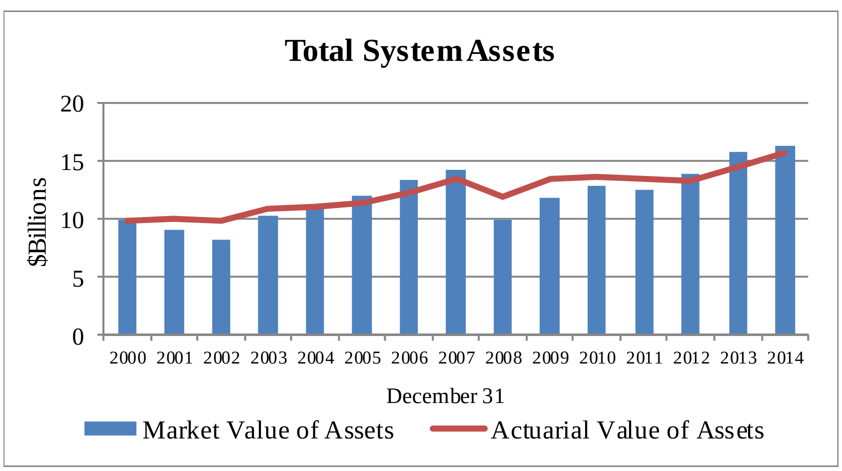
The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method is used to smooth the effect of market fluctuations. The smoothing method calculates the difference between the actual return and the expected return (assumed rate of return) on the market 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, 2014 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.

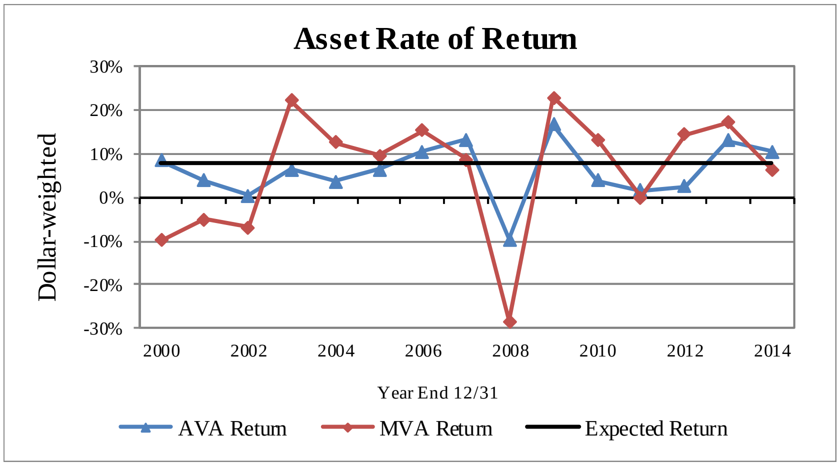
	Market Value $(millions)	Actuarial Value $(millions)
Assets, December 31, 2013	$15,745	$14,563
• Employer and Member Contributions	1,069	1,069
• Benefit Payments and Expenses	(1,487)	(1,487)
• Investment Income	995	1,517
Assets, December 31, 2014	$16,322	$15,662
Rate of Return	6.5%	10.6%

The actuarial value of assets as of December 31, 2014, was $15.662 billion. The annualized dollar-weighted net rate of return for 2014 was 10.6% when measured on the actuarial value of assets, and 6.5% when measured on the market value of assets, as reported by KPERS.

Due to the use of an asset smoothing method, there is $660 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.



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.

There were changes to the actuarial assumptions and methods used in the December 31, 2014 actuarial valuation as a result of the Triennial Experience Study. Some additional programming changes were implemented in this valuation as the result of an internal review by Cavanaugh Macdonald. The net impact on the actuarial liability was a decrease of $50 million.

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

	State	School	Local	KP&F	Judges	Total*
Actuarial Liability	$4,161	$13,437	$4,569	$2,801	$163	$25,130
Actuarial Value of Assets	3,122	7,232	3,081	2,075	153	15,662
Unfunded Actuarial Liability*	$1,039	$ 6,205	$1,488	$ 726	$ 11	$ 9,468

*May not add due to rounding.

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 10.

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, as a level percentage of payroll, over a 40 year closed period, of which 18 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. With this payment methodology, the dollar amount of the amortization payment is less than the interest on the UAL for over half of the amortization period. As a result, the dollar amount of the UAL is expected to increase for much of the amortization period 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 2014). All of the groups had a liability gain for the year, largely from smaller salary increases than expected. Due to the asset smoothing method and deferred investment gains from 2012 and 2013, there was 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 2014 of $501 million.

The addition of the DROP provisions to KP&F for the Kansas Highway Patrol increased the UAL by $1.4 million.

Between December 31, 2013 and December 31, 2014 the change in the unfunded actuarial liability for the System, as a whole, was as follows (in millions):

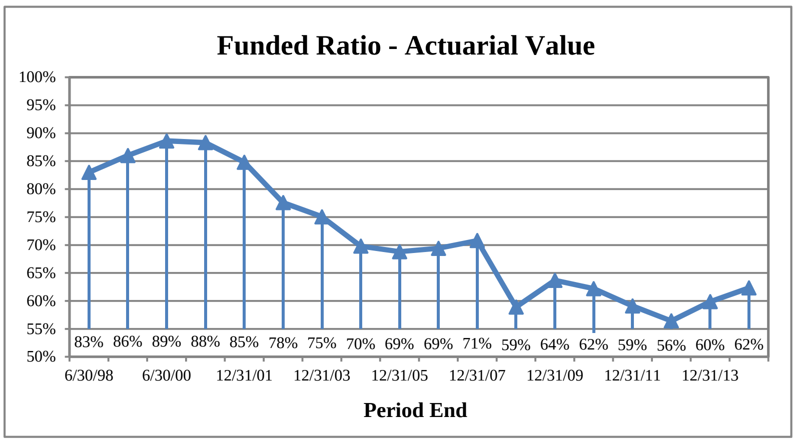
	$ millions
Unfunded Actuarial Liability, December 31, 2013	$ 9,766
• effect of contribution cap/time lag	178
• expected increase due to amortization method	18
• gain/loss from investment return on actuarial assets	(368)
• demographic experience[1]	(133)
• all other experience	55
• change in actuarial methods/procedures	0
• change in actuarial assumptions	(50)
• change in plan provisions	1
Unfunded Actuarial Liability, December 31, 2014[2]	$ 9,468

[1]Liability gain is about 0.53% of total actuarial liability.
[2]May not add due to rounding.

A detailed summary of the change in the unfunded actuarial liability by group is shown on page 19.

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 for the KPERS System is shown below (in millions).

	12/31/08	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14
Using Actuarial Value of Assets:							
Funded Ratio (AVA/AL)	59%	64%	62%	59%	56%	60%	62%
Unfunded Actuarial Liability (AL-AVA)	$8,279	$7,677	$8,264	$9,228	$10,253	$9,766	$9,468
Using Market Value of Assets:							
Funded Ratio (MVA/AL)	49%	56%	59%	55%	59%	65%	65%
Unfunded Actuarial Liability (AL-MVA)	$10,250	$9,384	$8,936	$10,130	$9,714	$8,584	$8,808



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 favorable experience on liabilities and valuation assets in 2014. The funded ratio is expected to increase steadily 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 near the current level for several years and then start to decline. The funded ratio is expected to improve absent experience 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.

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, 2014 valuation are used to set employer contribution rates for fiscal year 2018 for the State and Schools (July 1, 2017 to June 30, 2018) and 2017 for Local employers (calendar year 2017).

In KPERS, State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap, which has been changed periodically, is 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. In 2015, SB 4 reset the previously certified employer contribution rate for the State/School group for the last half of FY 2015 from 11.27% to 8.65%. In addition, SB 228 lowered the statutory rates for the State/School group from 12.37% to 10.91% for FY 2016 and 13.57% to 10.81% for FY 2017 (assuming there are no interest only payments or capitalized interest in the first years of debt service on the bonds to be issued).

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

	December 31, 2014 Valuation		
System	Actuarial	Statutory	Difference
State[1]	9.62%	12.01%	(2.39%)
School[1]	16.38%	12.01%	4.37%
State/School[1]	14.89%	12.01%	2.88%
Local[1]	8.46%	8.46%	0.00%
Police & Fire - Uniform Rates[2]	19.03%	19.03%	0.00%
Judges	15.89%	15.89%	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 and after plus the cost of any benefit enhancements. The December 31, 2014 valuation sets the employer contribution rates for FY 2018 for the State and School groups and FY 2017 for Local employers.

[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 18.99% 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 14)

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. SB 228 reset the statutory employer contribution rates for FY 2016 and 2017 for the Correctional Employee groups to be the same as the employer contribution rate for the State/School group (10.91% and 10.81% respectively). The contribution rates for the Correctional Employee Groups for FY 2018 are shown below:

Corrections Group	Statutory Rate
Retirement Age 55:	12.01%
Retirement Age 60:	12.01%

The change in the employer actuarial contribution rate from December 31, 2013 to December 31, 2014 and the primary components thereof are shown in the table on page 20. In general, the employer contribution rates declined from the rates in the December 31, 2013 valuation due to favorable experience and the revised actuarial methodology for determining the UAL contribution rate. The employer contribution rate increased slightly for the School group and the State/School group, despite a lower UAL at December 31, 2014, because SB 4 and SB 228 lowered the statutory contribution rates for the last half of FY 2015, FY 2016 and 2017 resulting in a higher projected UAL at July 1, 2017 for those groups.

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 (the year in which the statutory contribution rate is equal to or greater than the actuarial required contribution rate) in 2010 and 2012, respectively, and remain at ARC in this valuation. Note, however, that the recertification of the employer contribution rate for FY 2016 to 10.91% resulted in the state/school statutory contribution rate being less than the state actuarial contribution rate for that one year. Based on the current valuation, there is a difference (shortfall) between the actuarial and statutory contribution rates of 4.37% for the School group. Assuming an 8% return on the market value of assets for 2015 and beyond, all other actuarial assumptions are met in the future, and the current statutory funding policy continues, the estimated ARC Date for the combined State/School group is FY 2021 at a rate of 14.56%. If the $1 billion of net bond proceeds are added to the State/School assets, the estimated ARC date is FY 2020 at a rate of 13.55%. For comparison purposes, last year's projections showed a projected ARC Date of FY 2019 at a rate of 15.01%.

COMMENTS

Legislation, along with assumption and method changes resulting from the most recent Triennial Experience Study, impacted the valuation results in the December 31, 2014 valuation. Senate Substitute for House Bill 2095 contained both working after retirement provisions and a new DROP pilot program for the Kansas Highway Patrol. The addition of the DROP to the benefit structure of KP&F only for members of the Kansas Highway Patrol had a small impact on the overall valuation results because only about 450 of the total active members of 7,200 were potentially impacted. The KP&F actuarial liability increased $1.4 million, the normal cost rate increased 0.01%, and the total KP&F employer actuarial contribution rate increased 0.03%. The valuation process does not include an assumption regarding the re-employment of retirees so this part of HB 2095 did not have an impact on the valuation results. While the cost impact of working after retirement cannot be reliably determined, the new working after retirement rules appear to have fewer incentives for members to retire when first eligible and return to work which is expected to have a favorable impact on the System's funding in the future.

SB 228 contained several provisions that impacted KPERS' funding. Although this bill authorized $1.0 billion in net bond proceeds, there is uncertainty surrounding the timing and issuance of the bonds within the statutory limit of 5.0% on the bond interest rate. Therefore, the December 31, 2014 valuation does not assume any bond proceeds will occur. If the bonds are indeed issued, the net proceeds will be reflected in the December 31, 2015 actuarial valuation. SB 4 and SB 228 changed the statutory employer contribution rates for the State/School group for the last half of fiscal year 2015, and fiscal years 2016 and 2017. As a result of the lower State/School statutory employer contribution rate in fiscal year 2017, the statutory employer contribution rate for 2018 (set by the results of this year's valuation) is lower than it would have been absent SB 228 (12.01% instead of 14.77%). Provided they are issued as expected, the $1 billion of bond proceeds will offset the impact of the lower contributions. Absent the issuance of bonds or a significantly lower bond issue amount, the lower employer contribution rates in the short term will result in higher employer contribution rates later in the remaining amortization period.

Senate Substitute for HB 2101 had no cost impact on the valuation results because it applies to employees who have been contributing members of KP&F beginning on or after July 1, 1999 and therefore, they have already been included as KP&F members for valuation purposes.

There were changes to both the actuarial assumptions and methods used in the December 31, 2014 actuarial valuation. The Board of Trustees adopted the new set of actuarial assumptions and methods in November, 2014 following the completion of the Triennial Experience Study. In addition, some programming refinements were also implemented as a result of an internal review by Cavanaugh Macdonald. The net impact of all changes was a decrease in the actuarial liability of $50 million and an increase in the normal cost rate for all groups.

Like most public retirement systems, KPERS uses an asset smoothing method to average 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 net favorable experience in the prior four years on the market value of assets, the return on the actuarial value of assets in 2014 was 10.6%. As of the valuation date, the market value of assets exceeded the actuarial value of assets by more than 4%.

The deferred investment experience decreased from a net deferred gain of $1,182 million last year to a net deferred gain of $660 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 KPF 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	
	Actuarial	Market	Actuarial	Market
Actuarial Liability	$17,597	$17,597	$2,801	$2,801
Asset Value	10,354	10,797	2,075	2,160
Unfunded Actuarial Liability*	7,244	6,800	726	641
Funded Ratio	59%	61%	74%	77%
Contribution Rate:				
Normal Cost Rate	8.40%	8.40%	15.07%	15.07%
UAL Payment	12.49%	11.62%	11.11%	9.55%
Total	20.89%	20.02%	26.18%	24.62%
Employee Rate	6.00%	6.00%	7.15%	7.15%
Employer Rate	14.89%	14.02%	19.03%	17.47%

* May not add due to rounding

The asset smoothing method impacts only the timing of when the actual experience on the market value of assets is recognized. The favorable investment performance in recent years, resulted in a return of 10.6% on the actuarial value of assets. As a result, the unfunded actuarial liability decreased by $298 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,

for future years of service only. Subsequently, the IRS issued a private letter ruling stating that the election granted to KPERS 1 members under 2012 HB 2333 was impermissible.

- ✓ For Tier 2 members retiring after July 1, 2012, the cost of living adjustment (COLA) was eliminated, but members now receive a 1.85% multiplier for all years of service.
- ✓ Created 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, provided 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 was to come from the Expanded Lottery Act Revenues Fund (ELARF). However, for FY 2014 through 2017, the ELARF funds have been appropriated 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 at this time.
- ✓ 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 and the continuation of the current statutory funding policy for the State/School group.

The 2015 Legislature passed SB 4 which revised the State/School employer contribution rate from 11.27% to 8.65% for the last half of FY 2015 to correspond with the Governor's allotment. In addition, SB 228 provided for bonds to be issued to improve the funded status of the State/School group and also reduced the previously certified employer contribution rates for FY 2016 and 2017. The following provisions were included in SB 228:

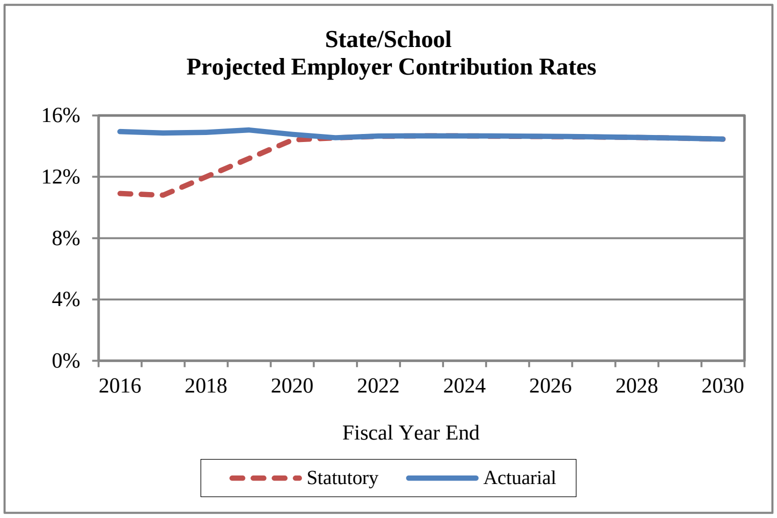
- ✓ Net proceeds of up to $1.0 billion from bonds issued by the state of Kansas are to be deposited into the KPERS trust fund for the State/School group, subject to certain criteria. The bonds must be issued at an interest rate no greater than 5.0% and require the approval of the State Finance Council (approval received July 2, 2015).
- ✓ Revised the previously certified State/School employer contribution rate from 12.37% to 10.91% for fiscal year 2016 and from 13.57% to 10.81% for fiscal year 2017. The statutory cap of 1.2% per year again applies to employer contribution rates in fiscal year 2018 and beyond.

The 2015 Legislature also passed House Bill 2095 that contained changes to the working after retirement provisions and implemented a pilot program in KP&F for a Deferred Option Retirement Plan for the Kansas Highway Patrol. Neither of these provisions had a significant impact on the long term funding of the System.

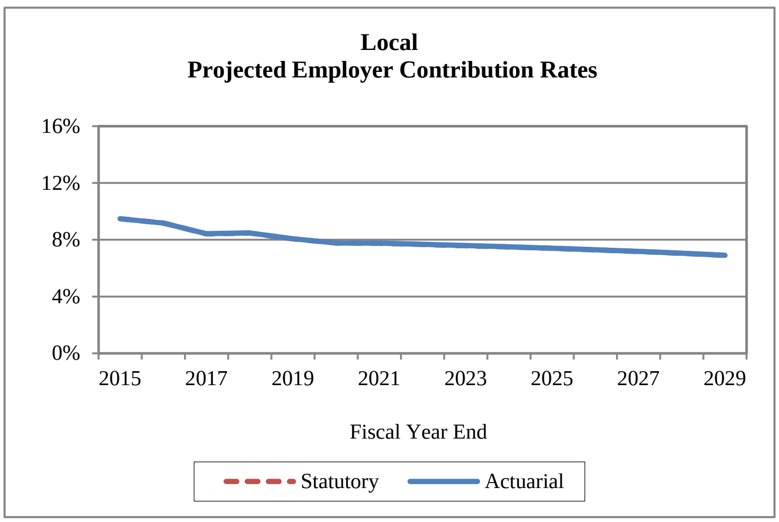
The following graphs show preliminary projected employer contributions assuming all actuarial assumptions are met in the future, including an 8% rate of return on the market value of assets in all years, and that the current statutory funding policy for the State/School group continues. For purposes of the projections, ELARF funds are assumed to be used to meet the statutory contribution requirement for the

School group rather than being contributed in addition to the statutory contributions. In addition, the projections do not assume any bond proceeds will be deposited into the KPERS trust.

Note that although separate valuations are performed for the State and School groups, the statutory contribution rate for the two 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.



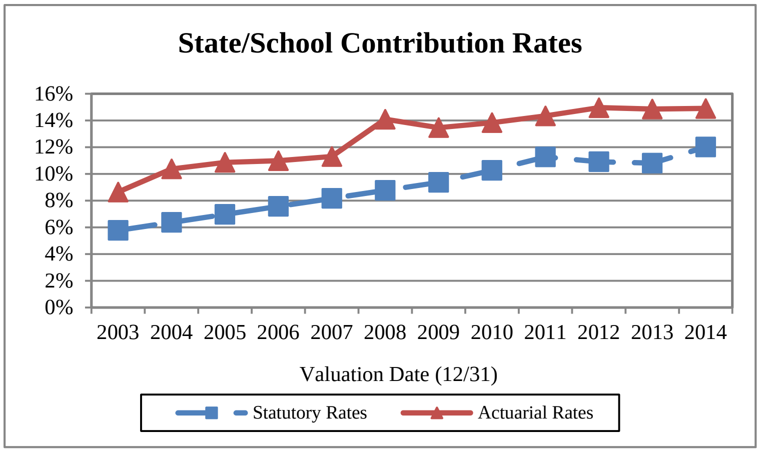
Based on preliminary modeling results, the ARC date for the State/School group is projected to occur in FY 2021 with an ARC rate of 14.56%, assuming all actuarial assumptions are met in future years, but without considering any bond proceeds. If bond proceeds of $1B are reflected, the projected ARC Date is FY 2020 with an ARC rate of 13.55%. Last year's projected ARC Date was FY 2019 with an ARC rate of 15.01%. Future experience, especially investment returns, will heavily influence the ultimate ARC date and rate.



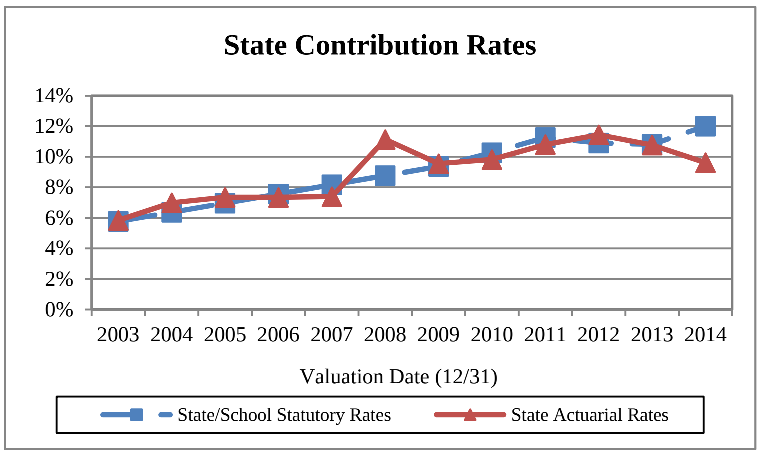
The Local group reached the ARC Date in the 2012 valuation with an ARC rate of 9.48%, which decreased to 8.46% in the 2014 valuation. The projected contribution rate is expected to slowly decline, assuming all actuarial assumptions are met in future years. Actual experience in future years, particularly 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.

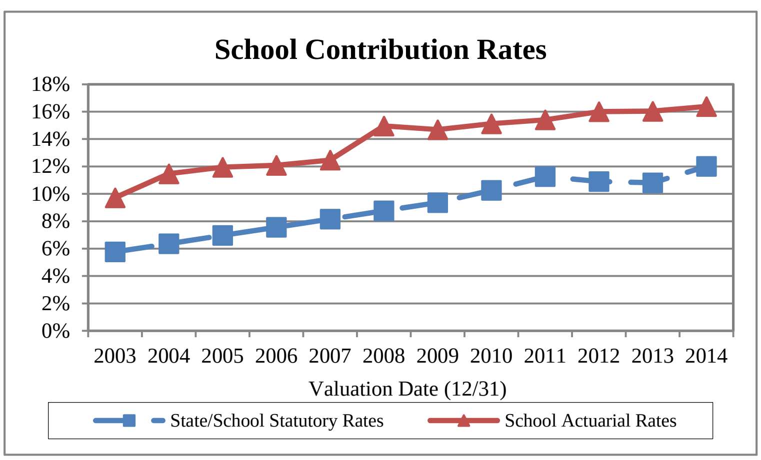
Significant changes in funding methods as well as a Pension Obligation Bond issue occurred in 2003 and actuarial assumptions were changed in the 2004, 2007, 2011 and 2014 valuations. These changes impact the comparability of contribution rates between various valuation dates.



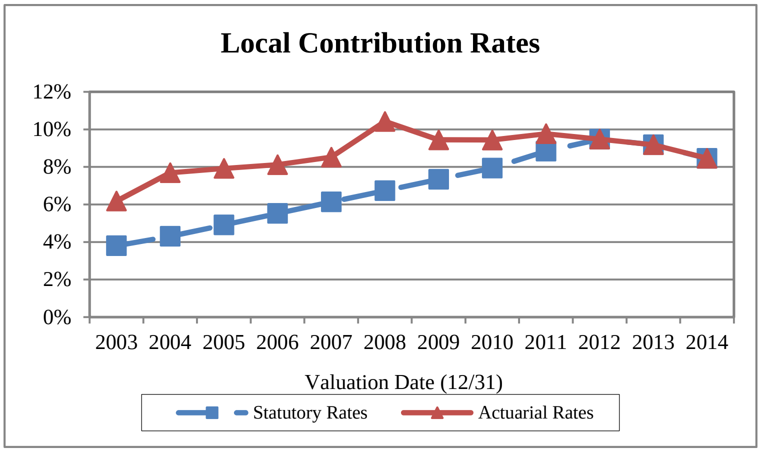
Numerous factors have contributed to the increase in the ARC rate over this period including investment experience, changes in actuarial assumptions, and contributions significantly below the actuarial rate. The ARC rate remained stable in the current valuation and the shortfall between the statutory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



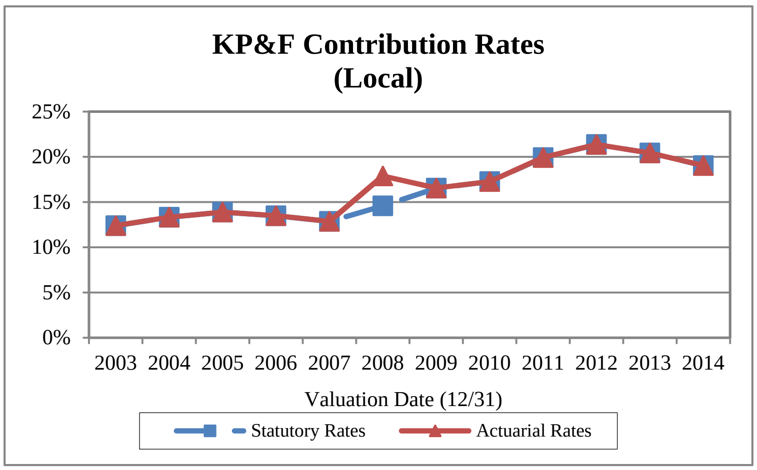
The split of the State group into a separate group with the 2003 valuation, coupled with the bond issue, lowered the State ARC rate. The State reached the full ARC rate in the 2010 valuation and has remained at ARC except for the recertification of the statutory contribution rate for FY 2016 from 12.37% to 10.91%. In this valuation, the State's actuarial required contribution rate decreased to 9.62% and is again less than the statutory contribution rate.



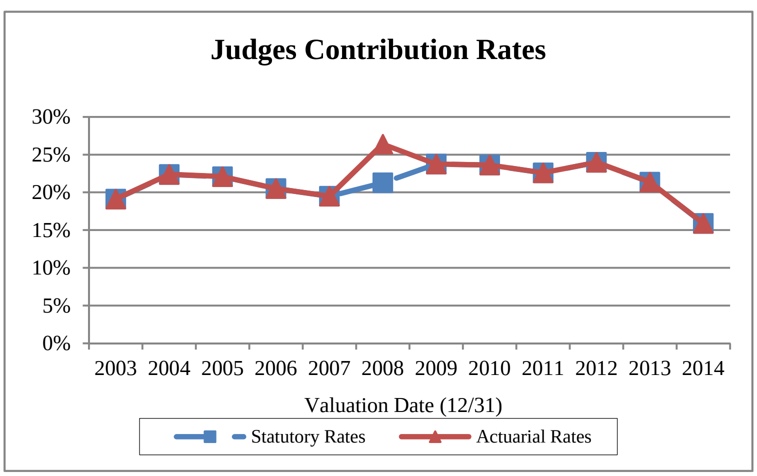
Due to investment experience, changes in actuarial assumptions, and the magnitude of the difference between the actuarial and statutory contribution rates, the funded status of the School group has declined and the ARC rate has increased over this period. However, the ARC rate remained fairly level and the funded ratio improved slightly in the 2014 valuation.



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 2012 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 by 0.72% in the 2014 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, as the result of improvements in the funded status in recent years, the actuarial contribution rate has declined in the last two years.



Investment experience in 2008 and 2011 resulted in higher contribution rates in the middle of the period. However, changes in the actuarial assumptions and methods in the 2014 valuation resulted in a significant decline in the ARC rate for the Judges System.

SUMMARY OF CHANGE IN UNFUNDED ACTUARIAL LIABILITY BY SYSTEM DECEMBER 31, 2014 VALUATION

($ millions)

	State	School	State/School	Local	KP&F	Judges	Total
UAL in 12/31/2013 Valuation Report	$1,129.3	$6,222.5	$7,351.8	$1,589.8	$803.1	$21.3	$9,765.9
· Effect of contribution cap/time lag	(2.1)	192.9	190.8	(0.2)	(12.0)	(0.8)	368.6
· Expected increase due to amortization method	2.1	11.5	13.6	3.3	2.0	(0.5)	32.0
· Actual vs. expected experience							
Investment return	(75.4)	(172.5)	(247.9)	(69.2)	(47.7)	(3.5)	(368.3)
Demographic experience	(11.3)	(80.5)	(91.8)	(24.8)	(12.7)	(3.3)	(132.6)
All other experience	8.4	36.5	44.9	9.2	0.7	0.5	100.1
· Change in actuarial assumptions/methods	(12.2)	(5.3)	(17.5)	(20.3)	(8.6)	(3.1)	(67.0)
· Change in benefit provisions	0.0	0.0	0.0	0.0	1.4	0.0	1.4
UAL in 12/31/2014 Valuation Report	$1,038.8	$6,205.1	$7,243.9	$1,487.8	$726.2	$10.6	$9,468.5

Totals may not add due to rounding.

SUMMARY OF
CHANGES IN EMPLOYER ACTUARIAL CONTRIBUTION RATE
BY SYSTEM
AS OF DECEMBER 31, 2014

Percentage of Payroll	State	School	State/School	Local	KP&F[1]	Judges
Actuarial Contribution Rate in 12/31/2013 Valuation	10.77%	16.03%	14.85%	9.18%	20.42%	21.36%
Change Due to Amortization of UAL						
· effect of contribution cap/time lag	(0.02)	0.41	0.31	0.00	(0.19)	(0.28)
· amortization method	0.02	0.02	0.02	0.01	0.03	(0.30)
· investment experience	(0.56)	(0.36)	(0.41)	(0.30)	(0.75)	(1.21)
· liability experience	(0.08)	(0.17)	(0.15)	(0.11)	(0.20)	(1.14)
· all other experience	0.37	0.45	0.42	0.24	0.51	0.72
· change in assumptions/methods	(0.94)	(0.21)	(0.33)	(0.72)	(1.34)	(2.91)
· change in benefit provisions	0.00	0.00	0.00	0.00	0.02	0.00
Change in Employer Normal Cost Rate						
· change in benefit provisions	0.00	0.00	0.00	0.00	0.01	0.00
· change in assumptions/methods	0.07	0.25	0.21	0.11	0.45	(0.54)
· all other experience	(0.01)	(0.04)	(0.03)	0.05	0.07	0.19
Actuarial Contribution Rate in 12/31/2014 Valuation	9.62%	16.38%	14.89%	8.46%	19.03%	15.89%

[1] Contribution rate for Local employers only.

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2014 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 12/31/14: $ 9,468 million

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL as of DECEMBER 31, 2014 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 12/31/14: $ 9,468 million

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL
as of
DECEMBER 31, 2014 VALUATION (continued)

$(millions)	As Reported on Valuation Date						
	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	Total
Actual Experience vs. Assumed							
• Investment	$(1,011)	$560	$852	$732	$(653)	$(368)	$1,188
• Other	(70)	(334)	(190)	(78)	(125)	(78)	419
Assumption Changes	0	0	(64)	0	0	(50)	750
Changes in Data/Procedures	0	0	0	0	0	0	377
Change in Cost Method	0	0	0	0	0	0	1,147
Effect of Contribution Cap/Lag	383	320	289	303	246	178	3,822
Amortization Method	96	68	62	49	46	18	1,021
Change in Benefit Provisions	0	0	15	19	0	1	284
Change in Actuarial Firm/Software	0	(27)	0	0	0	0	(27)
Bond Issue	0	0	0	0	0	0	(481)
Total	$(602)	$587	$964	$1,025	$(487)	$(298)	$8,500

Unfunded actuarial liability 6/30/93: $ 968 million
Unfunded actuarial liability 12/31/14: $ 9,468 million

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM (STATE)

		12/31/2014 Valuation		12/31/2013 Valuation	% Change
1. PARTICIPANT DATA					
Number of:					
Active Members		22,740		23,117	(1.6%)
Retired Members and Beneficiaries		18,929		18,413	2.8%
Inactive Members		7,680		7,180	7.0%
Total Members		49,349		48,710	1.3%
Projected Annual Salaries of Active Members	$	969,759,396	$	973,074,168	(0.3%)
Annual Retirement Payments for Retired Members and Beneficiaries	$	255,795,911	$	244,916,527	4.4%
2. ASSETS AND LIABILITIES					
a. Total Actuarial Liability	$	4,160,796,145	$	4,075,977,044	2.1%
b. Assets for Valuation Purposes		3,122,041,106		2,946,723,045	5.9%
c. Unfunded Actuarial Liability (a) - (b)		1,038,755,039		1,129,253,999	(8.0%)
d. Funded Ratio (b) / (a)		75.0%		72.3%	3.7%
e. Market Value of Assets		3,256,683,036		3,187,375,166	2.2%
f. Funded Ratio on Market Value (e) / (a)		78.3%		78.2%	0.1%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL					
Normal Cost					
Total		8.10%		8.04%	
Member		6.00%		6.00%	
Employer		2.10%		2.04%	
Amortization of Unfunded Actuarial Liability		7.52%		8.73%	
Actuarial Contribution Rate		9.62%		10.77%	
Statutory Employer Contribution Rate*		12.01%		10.81%	

* The Statutory Employer Contribution Rate reflects SB 228, which reduced the rates for State/School from 12.37% to 10.91% in FY 2016 and from 13.57% to 10.81% in FY 2017. The rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2018 and later. This rate excludes 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)

	12/31/2014 Valuation	12/31/2013 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	85,347	85,752	(0.5%)
Retired Members and Beneficiaries	48,396	46,191	4.8%
Inactive Members	25,506	24,038	6.1%
Total Members	159,249	155,981	2.1%
Projected Annual Salaries of Active Members	$ 3,438,564,123	$ 3,402,845,557	1.0%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 707,046,829	$ 662,838,025	6.7%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 13,436,665,540	$ 13,002,145,953	3.3%
b. Assets for Valuation Purposes	7,231,564,556	6,779,677,943	6.7%
c. Unfunded Actuarial Liability (a) - (b)	6,205,100,984	6,222,468,010	(0.3%)
d. Funded Ratio (b) / (a)	53.8%	52.1%	3.3%
e. Market Value of Assets	7,540,084,183	7,331,598,583	2.8%
f. Funded Ratio on Market Value (e) / (a)	56.1%	56.4%	(0.5%)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.49%	8.28%	
Member	6.00%	6.00%	
Employer	2.49%	2.28%	
Amortization of Unfunded Actuarial Liability	13.89%	13.75%	
Actuarial Contribution Rate	16.38%	16.03%	
Statutory Employer Contribution Rate*	12.01%	10.81%	

* The Statutory Employer Contribution Rate reflects SB 228, which reduced the rates for State/School from 12.37% to 10.91% in FY 2016 and from 13.57% to 10.81% in FY 2017. The rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2018 and later. This rate excludes the contribution rate for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM (STATE/SCHOOL)

		12/31/2014 Valuation	12/31/2013 Valuation	% Change
1.	**PARTICIPANT DATA**			
	Number of:			
	Active Members	108,087	108,869	(0.7%)
	Retired Members and Beneficiaries	67,325	64,604	4.2%
	Inactive Members	33,186	31,218	6.3%
	Total Members	208,598	204,691	1.9%
	Projected Annual Salaries of Active Members	$ 4,408,323,519	$ 4,375,919,725	0.7%
	Annual Retirement Payments for Retired Members and Beneficiaries	$ 962,842,740	$ 907,754,552	6.1%
2.	**ASSETS AND LIABILITIES**			
	a. Total Actuarial Liability	$ 17,597,461,685	$ 17,078,122,997	3.0%
	b. Assets for Valuation Purposes	10,353,605,662	9,726,400,988	6.4%
	c. Unfunded Actuarial Liability (a) - (b)	7,243,856,023	7,351,722,009	(1.5%)
	d. Funded Ratio (b) / (a)	58.8%	57.0%	3.2%
	e. Market Value of Assets	10,796,767,219	$ 10,518,973,749	2.6%
	f. Funded Ratio on Market Value (e) / (a)	61.4%	61.6%	(0.3%)
3.	**EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL**			
	Normal Cost			
	Total	8.40%	8.22%	
	Member	6.00%	6.00%	
	Employer	2.40%	2.22%	
	Amortization of Unfunded Actuarial Liability	12.49%	12.63%	
	Actuarial Contribution Rate	14.89%	14.85%	
	Statutory Employer Contribution Rate*	12.01%	10.81%	

* The Statutory Employer Contribution Rate reflects SB 228, which reduced the rates for State/School from 12.37% to 10.91% in FY 2016 and from 13.57% to 10.81% in FY 2017. The rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20% for FY 2018 and later. This rate excludes the contribution rate for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
(LOCAL)

	12/31/2014 Valuation	12/31/2013 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	38,659	39,088	(1.1%)
Retired Members and Beneficiaries	18,258	17,326	5.4%
Inactive Members	15,657	14,878	5.2%
Total Members	72,574	71,292	1.8%
Projected Annual Salaries of Active Members	$ 1,662,175,758	$ 1,643,623,267	1.1%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 200,185,378	$ 183,922,144	8.8%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 4,568,653,804	$ 4,381,654,475	4.3%
b. Assets for Valuation Purposes	3,080,863,872	2,791,897,450	10.4%
c. Unfunded Actuarial Liability (a) - (b)	1,487,789,932	1,589,757,025	(6.4%)
d. Funded Ratio (b) / (a)	67.4%	63.7%	5.8%
e. Market Value of Assets	3,205,746,273	3,016,067,035	6.3%
f. Funded Ratio on Market Value (e) / (a)	70.2%	68.8%	2.0%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.06%	7.90%	
Member	6.00%	6.00%	
Employer	2.06%	1.90%	
Amortization of Unfunded Actuarial Liability	6.40%	7.28%	
Actuarial Contribution Rate	8.46%	9.18%	
Statutory Employer Contribution Rate*	8.46%	9.18%	

* 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 excludes the contribution rate for the Death and Disability Program.

SUMMARY OF PRINCIPAL RESULTS

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
(TOTAL KPERS)

		12/31/2014 Valuation		12/31/2013 Valuation	% Change
1. PARTICIPANT DATA					
Number of:					
Active Members		146,746		147,957	(0.8%)
Retired Members and Beneficiaries		85,583		81,930	4.5%
Inactive Members		48,843		46,096	6.0%
Total Members		281,172		275,983	1.9%
Projected Annual Salaries of Active Members	$	6,070,499,277	$	6,019,542,992	0.8%
Annual Retirement Payments for Retired Members and Beneficiaries	$	1,163,028,118	$	1,091,676,696	6.5%
2. ASSETS AND LIABILITIES					
a. Total Actuarial Liability	$	22,166,115,489	$	21,459,777,472	3.3%
b. Assets for Valuation Purposes		13,434,469,534		12,518,298,438	7.3%
c. Unfunded Actuarial Liability (a) - (b)		8,731,645,955		8,941,479,034	(2.3%)
d. Funded Ratio (b) / (a)		60.6%		58.3%	3.9%
e. Market Value of Assets		14,002,513,492		13,535,040,784	3.5%
f. Funded Ratio on Market Value (e) / (a)		63.2%		63.1%	0.2%

SUMMARY OF PRINCIPAL RESULTS

KANSAS POLICE AND FIREMEN'S RETIREMENT SYSTEM

		12/31/2014 Valuation		12/31/2013 Valuation	% Change
1. PARTICIPANT DATA					
Number of:					
Active Members		7,204		7,224	(0.3%)
Retired Members and Beneficiaries		4,853		4,670	3.9%
Inactive Members		1,406		1,382	1.7%
Total Members		13,463		13,276	1.4%
Projected Annual Salaries of Active Members	$	462,177,399	$	461,814,718	0.1%
Annual Retirement Payments for Retired Members and Beneficiaries	$	147,468,612	$	138,798,969	6.2%
2. ASSETS AND LIABILITIES					
a. Total Actuarial Liability	$	2,800,878,131	$	2,706,558,019	3.5%
b. Assets for Valuation Purposes		2,074,703,598		1,903,444,252	9.0%
c. Unfunded Actuarial Liability (a) - (b)		726,174,533		803,113,766	(9.6%)
d. Funded Ratio (b) / (a)		74.1%		70.3%	5.4%
e. Market Value of Assets		2,160,304,791		2,057,050,931	5.0%
f. Funded Ratio on Market Value (e) / (a)		77.1%		76.0%	1.4%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL					
Normal Cost					
Total		15.07%		14.55%	
Member		7.15%		7.15%	
Employer		7.92%		7.40%	
Amortization of Unfunded Actuarial and Supplemental Liability		11.11%		13.02%	
Actuarial Contribution Rate (Local Employers)		19.03%		20.42%	
Statutory Employer Contribution Rate*		19.03%		20.42%	

* 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

	12/31/2014 Valuation	12/31/2013 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	253	265	(4.5%)
Retired Members and Beneficiaries	257	243	5.8%
Inactive Members	6	6	0.0%
Total Members	516	514	0.4%
Projected Annual Salaries of Active Members	$ 27,427,962	$ 28,451,524	(3.6%)
Annual Retirement Payments for Retired Members and Beneficiaries	$ 10,375,018	$ 9,673,544	7.3%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 163,473,067	$ 162,334,647	0.7%
b. Assets for Valuation Purposes	152,836,651	141,021,935	8.4%
c. Unfunded Actuarial Liability (a) - (b)	10,636,416	21,312,712	(50.1%)
d. Funded Ratio (b) / (a)	93.5%	86.9%	7.6%
e. Market Value of Assets	159,205,632	152,430,594	4.4%
f. Funded Ratio on Market Value (e) / (a)	97.4%	93.9%	3.7%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	19.27%	19.62%	
Member	5.61%	5.77%	
Employer	13.66%	13.85%	
Amortization of Unfunded Actuarial and Supplemental Liability	2.23%	7.51%	
Actuarial Contribution Rate	15.89%	21.36%	
Statutory Employer Contribution Rate*	15.89%	21.36%	

* 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

		12/31/2014 Valuation		12/31/2013 Valuation	% Change
1. PARTICIPANT DATA					
Number of:					
Active Members		154,203		155,446	(0.8%)
Retired Members and Beneficiaries		90,693		86,843	4.4%
Inactive Members		50,255		47,484	5.8%
Total Members		295,151		289,773	1.9%
Projected Annual Salaries of Active Members	$	6,560,104,638	$	6,509,809,234	0.8%
Annual Retirement Payments for Retired Members and Beneficiaries	$	1,320,871,748	$	1,240,149,209	6.5%
2. ASSETS AND LIABILITIES					
a. Total Actuarial Liability	$	25,130,466,687	$	24,328,670,138	3.3%
b. Assets for Valuation Purposes		15,662,009,783		14,562,764,625	7.5%
c. Unfunded Actuarial Liability (a) - (b)		9,468,456,904		9,765,905,513	(3.0%)
d. Funded Ratio (b) / (a)		62.3%		59.9%	4.0%
e. Market Value of Assets		16,322,023,915		15,744,522,309	3.7%
f. Funded Ratio on Market Value (e) / (a)		64.9%		64.7%	0.3%

This page intentionally left blank

This report presents the actuarial valuation of the Kansas Public Employees Retirement System (KPERS) as of December 31, 2014. 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, 2014, as amended by legislation in the 2015 Session.
- 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.

This page intentionally left blank

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, the market value of assets provides a basis for measuring investment performance from time to time. At December 31, 2014, the market value of assets (excluding receivables) for the Retirement System was $16.322 billion. Table 1 shows the market value of assets as of December 31, 2014 in total and by investment category. Table 2 summarizes the change in the market value of assets, from December 31, 2013 to December 31, 2014, by group.

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 current 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, 2014.

TABLE 1
ANALYSIS OF NET ASSETS AT MARKET VALUE

		December 31, 2014		
		Amount ($ Millions)	% of Total	
Cash & Equivalents	$	435	2.7	%
Alternative Investments		543	3.3	
Real Estate		1,435	8.8	
Fixed Income		4,474	27.4	
Domestic Equity		5,513	33.8	
International Equity		3,922	24.0	
Net Assets	$	16,322	100.0	%

Allocation of Net Assets on December 31, 2014:

State	$	3,257
School		7,540
Local		3,206
KP&F		2,160
Judges		159
Total Net Assets*	$	16,322

* May not add due to rounding

TABLE 2
SUMMARY OF CHANGES IN TOTAL SYSTEM ASSETS
DURING PERIOD ENDED DECEMBER 31, 2014

(Market Value)

	State	School	State/School	Local
Market Value of Assets as of January 1, 2014	$ 3,187,375,166	$ 7,331,598,583	$ 10,518,973,749	$ 3,016,067,035
Contributions:				
Employee	50,217,379	175,321,154	225,538,533	86,560,563
Employee service purchases	2,006,115	4,195,864	6,201,979	2,249,674
Employer	104,426,447	347,845,504	452,271,951	149,784,871
Miscellaneous	73,103	173,688	246,791	57,023
Total Contributions	156,723,044	527,536,210	684,259,254	238,652,131
Total Investment Income	199,986,475	461,531,432	661,517,907	193,089,272
Total Income	356,709,519	989,067,642	1,345,777,161	431,741,403
Less Benefits:				
Annuity Retirement Benefits	(250,693,166)	(687,438,778)	(938,131,944)	(192,272,530)
Partial Lump Sum Benefits	(19,309,839)	(59,471,766)	(78,781,605)	(25,646,904)
Retirant Dividends	(374,302)	(796,234)	(1,170,536)	(192,038)
Withdrawals	(12,480,016)	(23,567,555)	(36,047,571)	(19,554,306)
Death Benefits	(2,594,960)	(4,808,937)	(7,403,897)	(2,514,252)
Total Benefits	(285,452,283)	(776,083,270)	(1,061,535,553)	(240,180,030)
Administrative Expenses	(1,949,366)	(4,498,772)	(6,448,138)	(1,882,135)
Net Increase in Assets	69,307,870	208,485,600	277,793,470	189,679,238
Market Value of Assets as of December 31, 2014	$ 3,256,683,036	$ 7,540,084,183	$ 10,796,767,219	$ 3,205,746,273

TABLE 2 (cont.)
SUMMARY OF CHANGES IN TOTAL SYSTEM ASSETS
DURING PERIOD ENDED DECEMBER 31, 2014

(Market Value)

	KPERS	KP&F	Judges	Total
Market Value of Assets as of January 1, 2014	$ 13,535,040,784	$ 2,057,050,931	$ 152,430,594	$ 15,744,522,309
Contributions:				
Employee	312,099,096	32,523,739	1,466,747	346,089,582
Employee service purchases	8,451,653	1,574,205	-	10,025,858
Employer	602,056,822	104,437,438	6,170,028	712,664,288
Miscellaneous	303,814	38,282	2,414	344,510
Total Contributions	922,911,385	138,573,664	7,639,189	1,069,124,238
Total Investment Income	854,607,179	130,882,447	9,671,395	995,161,021
Total Income	1,777,518,564	269,456,111	17,310,584	2,064,285,259
Less Benefits:				
Annuity Retirement Benefits	(1,130,404,474)	(142,743,098)	(9,699,654)	(1,282,847,226)
Partial Lump Sum Benefits	(104,428,509)	(16,341,847)	(651,203)	(121,421,559)
Retirant Dividends	(1,362,574)	(856,535)	(18,920)	(2,238,029)
Withdrawals	(55,601,877)	(4,364,110)	(58,734)	(60,024,721)
Death Benefits	(9,918,149)	(620,886)	(12,763)	(10,551,798)
Total Benefits	(1,301,715,583)	(164,926,476)	(10,441,274)	(1,477,083,333)
Administrative Expenses	(8,330,273)	(1,275,775)	(94,272)	(9,700,320)
Net Increase in Assets	467,472,708	103,253,860	6,775,038	577,501,606
Market Value of Assets as of December 31, 2014	$ 14,002,513,492	$ 2,160,304,791	$ 159,205,632	$ 16,322,023,915

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

		Plan Year End			
		12/31/2011	12/31/2012	12/31/2013	12/31/2014	
1.	Market Value of Assets, beginning of year	$ 2,730,474,235	$ 2,596,503,599	$ 2,836,628,752	$ 3,187,375,166	
2.	Contributions during year	132,268,023	133,020,638	143,846,177	156,723,044	
3.	Benefits paid during year	(263,576,296)	(257,146,546)	(274,985,220)	(285,452,283)	
4.	Administrative expenses paid during year	0	0	0	(1,949,366)	**
5.	Expected investment income based on 8% assumption	213,286,652	202,850,768	221,785,652	249,863,428	
6.	Transfers and receivables*	0	0	4,811,175	0	
7.	Expected Value of Assets, end of year	2,812,452,613	2,675,228,459	2,932,086,536	3,306,559,989	
8.	Market Value of Assets, end of year	2,596,503,599	2,836,628,752	3,187,375,166	3,256,683,036	
9.	Excess (shortfall) of net investment income	$ (215,949,014)	$ 161,400,293	$ 255,288,630	$ (49,876,953)	

* Allocation of administrative reserve in 2013.
** Administrative expenses directly assessed beginning in 2014.

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

		12/31/2011	12/31/2012	12/31/2013	12/31/2014	
1.	Market Value of Assets, beginning of year	$ 6,132,794,595	$ 5,884,431,008	$ 6,475,974,488	$ 7,331,598,583	
2.	Contributions during year	418,768,791	446,715,888	484,892,561	527,536,210	
3.	Benefits paid during year	(661,126,303)	(683,845,543)	(733,794,417)	(776,083,270)	
4.	Administrative expenses paid during year	0	0	0	(4,498,772)	**
5.	Expected investment income based on 8% assumption	481,115,765	461,451,769	508,313,419	576,600,776	
6.	Transfers and receivables*	0	0	11,027,658	0	
7.	Expected Value of Assets, end of year	6,371,552,848	6,108,753,122	6,746,413,709	7,655,153,527	
8.	Market Value of Assets, end of year	5,884,431,008	6,475,974,488	7,331,598,583	7,540,084,183	
9.	Excess (shortfall) of net investment income	$ (487,121,840)	$ 367,221,366	$ 585,184,874	$ (115,069,344)	

* Allocation of administrative reserve in 2013.
** Administrative expenses directly assessed beginning in 2014.

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

			12/31/2011		12/31/2012		12/31/2013		12/31/2014	
1.	Market Value of Assets, beginning of year	$	8,863,268,830	$	8,480,934,607	$	9,312,603,240	$	10,518,973,749	
2.	Contributions during year		551,036,814		579,736,526		628,738,738		684,259,254	
3.	Benefits paid during year		(924,702,599)		(940,992,089)		(1,008,779,637)		(1,061,535,553)	
4.	Administrative expenses paid during year		0		0		0		(6,448,138)	**
5.	Expected investment income based on 8% assumption		694,402,417		664,302,538		730,099,071		826,464,204	
6.	Transfers and receivables*		0		0		15,838,833		0	
7.	Expected Value of Assets, end of year		9,184,005,461		8,783,981,581		9,678,500,245		10,961,713,516	
8.	Market Value of Assets, end of year		8,480,934,607		9,312,603,240		10,518,973,749		10,796,767,219	
9.	Excess (shortfall) of net investment income	$	(703,070,854)	$	528,621,659	$	840,473,504	$	(164,946,297)	

* Allocation of administrative reserve in 2013.
** Administrative expenses directly assessed beginning in 2014.

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

			12/31/2011		12/31/2012		12/31/2013		12/31/2014	
1.	Market Value of Assets, beginning of year	$	2,295,447,057	$	2,280,627,100	$	2,587,877,272	$	3,016,067,035	
2.	Contributions during year		180,232,972		190,437,383		205,539,094		238,652,131	
3.	Benefits paid during year		(192,765,859)		(209,584,171)		(225,632,450)		(240,180,030)	
4.	Administrative expenses paid during year		0		0		0		(1,882,135)	**
5.	Expected investment income based on 8% assumption		183,144,093		181,699,030		206,241,910		241,151,586	
6.	Transfers and receivables*		0		0		4,475,688		0	
7.	Expected Value of Assets, end of year		2,466,058,263		2,443,179,342		2,778,501,514		3,253,808,587	
8.	Market Value of Assets, end of year		2,280,627,100		2,587,877,272		3,016,067,035		3,205,746,273	
9.	Excess (shortfall) of net investment income	$	(185,431,163)	$	144,697,930	$	237,565,521	$	(48,062,314)	

* Allocation of administrative reserve in 2013.
** Administrative expenses directly assessed beginning in 2014.

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

		12/31/2011	12/31/2012	12/31/2013	12/31/2014	
1.	Market Value of Assets, beginning of year	$ 1,639,025,889	$ 1,597,092,196	$ 1,784,896,480	$ 2,057,050,931	
2.	Contributions during year	97,352,727	107,145,089	116,843,908	138,573,664	
3.	Benefits paid during year	(137,669,046)	(146,077,958)	(152,023,019)	(164,926,476)	
4.	Administrative expenses paid during year	0	0	0	(1,275,775)	**
5.	Expected investment income based on 8% assumption	129,540,442	126,240,020	141,411,625	163,480,192	
6.	Transfers and receivables*	0	0	3,068,438	0	
7.	Expected Value of Assets, end of year	1,728,250,013	1,684,399,348	1,894,197,432	2,192,902,536	
8.	Market Value of Assets, end of year	1,597,092,196	1,784,896,480	2,057,050,931	2,160,304,791	
9.	Excess (shortfall) of net investment income	$ (131,157,817)	$ 100,497,132	$ 162,853,499	$ (32,597,745)	

* Allocation of administrative reserve in 2013.
** Administrative expenses directly assessed beginning in 2014.

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

		12/31/2011	12/31/2012	12/31/2013	12/31/2014	
1.	Market Value of Assets, beginning of year	$ 119,835,012	$ 117,969,801	$ 131,943,611	$ 152,430,594	
2.	Contributions during year	7,074,780	7,870,734	8,130,800	7,639,189	
3.	Benefits paid during year	(8,921,096)	(10,651,757)	(10,392,108)	(10,441,274)	
4.	Administrative expenses paid during year	0	0	0	(94,272)	**
5.	Expected investment income based on 8% assumption	9,514,369	9,328,483	10,466,777	12,080,822	
6.	Transfers and receivables*	0	0	227,120	0	
7.	Expected Value of Assets, end of year	127,503,065	124,517,261	140,376,200	161,615,059	
8.	Market Value of Assets, end of year	117,969,801	131,943,611	152,430,594	159,205,632	
9.	Excess (shortfall) of net investment income	$ (9,533,264)	$ 7,426,350	$ 12,054,394	$ (2,409,427)	

* Allocation of administrative reserve in 2013.
** Administrative expenses directly assessed beginning in 2014.

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 12/31/14	$ (49,876,953)	$ (115,069,344)	$ (164,946,297)	$ (48,062,314)	$ (213,008,611)
	b. Year ending 12/31/13	255,288,630	585,184,874	840,473,504	237,565,521	1,078,039,025
	c. Year ending 12/31/12	161,400,293	367,221,366	528,621,659	144,697,930	673,319,589
	d. Year ending 12/31/11	(215,949,014)	(487,121,840)	(703,070,854)	(185,431,163)	(888,502,017)
	e. Total	$ 150,862,956	$ 350,215,056	$ 501,078,012	$ 148,769,974	$ 649,847,986
2.	Deferral of excess (shortfall) of investment income					
	a. Year ending 12/31/14 (80%)	(39,901,562)	(92,055,475)	(131,957,037)	(38,449,851)	(170,406,888)
	b. Year ending 12/31/13 (60%)	153,173,178	351,110,924	504,284,102	142,539,313	646,823,415
	c. Year ending 12/31/12 (40%)	64,560,117	146,888,546	211,448,663	57,879,172	269,327,835
	d. Year ending 12/31/11 (20%)	(43,189,803)	(97,424,368)	(140,614,171)	(37,086,233)	(177,700,404)
	e. Total	$ 134,641,930	$ 308,519,627	$ 443,161,557	$ 124,882,401	$ 568,043,958
3.	Market Value of Assets, end of year	$ 3,256,683,036	$ 7,540,084,183	$ 10,796,767,219	$ 3,205,746,273	$ 14,002,513,492
4.	Actuarial Value of Assets, end of year (3) - (2e)	$ 3,122,041,106	$ 7,231,564,556	$ 10,353,605,662	$ 3,080,863,872	$ 13,434,469,534
5.	Actuarial Value divided by market value (4)/(3)	95.9%	95.9%	95.9%	96.1%	95.9%

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 12/31/14	$ (213,008,611)	$ (32,597,745)	$ (2,409,427)	$ (248,015,783)
	b. Year ending 12/31/13	1,078,039,025	162,853,499	12,054,394	1,252,946,918
	c. Year ending 12/31/12	673,319,589	100,497,132	7,426,350	781,243,071
	d. Year ending 12/31/11	(888,502,017)	(131,157,817)	(9,533,264)	(1,029,193,098)
	e. Total	$ 649,847,986	$ 99,595,069	$ 7,538,053	$ 756,981,108
2.	Deferral of excess (shortfall) of investment income				
	a. Year ending 12/31/14 (80%)	(170,406,888)	(26,078,196)	(1,927,542)	(198,412,626)
	b. Year ending 12/31/13 (60%)	646,823,415	97,712,099	7,232,636	751,768,150
	c. Year ending 12/31/12 (40%)	269,327,835	40,198,853	2,970,540	312,497,228
	d. Year ending 12/31/11 (20%)	(177,700,404)	(26,231,563)	(1,906,653)	(205,838,620)
	e. Total	$ 568,043,958	$ 85,601,193	$ 6,368,981	$ 660,014,132
3.	Market Value of Assets, end of year	$ 14,002,513,492	$ 2,160,304,791	$ 159,205,632	$ 16,322,023,915
4.	Actuarial Value of Assets, end of year (3) - (2e)	$ 13,434,469,534	$ 2,074,703,598	$ 152,836,651	$ 15,662,009,783
5.	Actuarial Value divided by Market Value (4)/(3)	95.9%	96.0%	96.0%	96.0%

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, 2014. 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 November 20, 2014 and was first used for the December 31, 2014 valuation.

The liabilities reflect the benefit structure in place as of December 31, 2014, as amended by any legislation in the 2015 Session.

Actuarial Liabilities

A fundamental principle in financing the liabilities of a retirement program is that the cost of its benefits should be related to the period in which benefits are earned, rather than to the period of benefit distribution. An actuarial cost method is a mathematical technique that allocates the present value of future benefits into annual costs. In order to do this allocation, it is necessary for the funding method to "breakdown" the present value of future benefits into two components:

(1) that which is attributable to the past and

(2) that which is attributable to the future.

Actuarial terminology calls the part attributable to the past the "past service liability" or the "actuarial liability". The portion allocated to the future is known as the present value of future normal costs, with the specific piece of it allocated to the current year being called the "normal cost". Table 6 contains the calculation of actuarial liabilities for all groups.

TABLE 5
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF DECEMBER 31, 2014

	State	School	State/School	Local
1. Active employees				
a. Retirement Benefits	$ 2,045,854,890	$ 8,150,277,120	$ 10,196,132,010	$ 3,083,619,608
b. Pre-Retirement Death Benefits	26,245,187	68,495,471	94,740,658	55,531,326
c. Termination Benefits	112,183,889	345,701,736	457,885,625	218,474,282
d. Disability Benefits	81,019,258	181,537,323	262,556,581	113,928,942
e. Total	2,265,303,224	8,746,011,650	11,011,314,874	3,471,554,158
2. Inactive Vested Members	140,280,440	333,846,103	474,126,543	192,453,764
3. Inactive Nonvested Members	10,623,167	26,607,209	37,230,376	23,781,416
4. Disabled Members	76,967,797	97,419,826	174,387,623	65,477,334
5. Retirees	2,092,306,818	6,387,616,097	8,479,922,915	1,687,171,101
6. Beneficiaries	116,757,434	167,949,432	284,706,866	99,162,088
7. Unclaimed Account Reserve	668,200	1,331,800	2,000,000	500,000
8. Total PVFB	$ 4,702,907,080	$ 15,760,782,117	$ 20,463,689,197	$ 5,540,099,861

TABLE 5 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PRESENT VALUE OF FUTURE BENEFITS (PVFB)
AS OF DECEMBER 31, 2014

	Total KPERS	KP&F	Judges	Total
1. Active employees				
a. Retirement Benefits	$ 13,279,751,618	$ 1,647,464,883	$ 105,976,074	$ 15,033,192,575
b. Pre-Retirement Death Benefits	150,271,984	19,764,191	1,222,061	171,258,236
c. Termination Benefits	676,359,907	44,104,832	0	720,464,739
d. Disability Benefits	376,485,523	160,616,257	0	537,101,780
e. Total	14,482,869,032	1,871,950,163	107,198,135	16,462,017,330
2. Inactive Vested Members	666,580,307	24,213,581	435,338	691,229,226
3. Inactive Nonvested Members	61,011,792	18,115,925	0	79,127,717
4. Disabled Members	239,864,957	111,940,232	0	351,805,189
5. Retirees	10,167,094,016	1,248,111,116	77,528,723	11,492,733,855
6. Beneficiaries	383,868,954	119,108,689	13,811,118	516,788,761
7. Unclaimed Account Reserve	2,500,000	0	0	2,500,000
8. Total PVFB	$ 26,003,789,058	$ 3,393,439,706	$ 198,973,314	$ 29,596,202,078

TABLE 6
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL LIABILITIES
AS OF DECEMBER 31, 2014

	State	School	State/School	Local
1. Present Value of Future Benefits	$ 4,702,907,080	$ 15,760,782,117	$ 20,463,689,197	$ 5,540,099,861
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefits	$ 382,787,194	$ 1,864,965,592	$ 2,247,752,786	$ 682,920,069
b. Pre-Retirement Death Benefits	7,682,674	23,014,099	30,696,773	18,099,402
c. Termination Benefits	119,231,382	374,217,987	493,449,369	229,428,042
d. Disability Benefits	32,409,685	61,918,899	94,328,584	40,998,544
e. Total	542,110,935	2,324,116,577	2,866,227,512	971,446,057
3. Total Actuarial Liability (1) - (2e)	$ 4,160,796,145	$ 13,436,665,540	$ 17,597,461,685	$ 4,568,653,804

TABLE 6 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL LIABILITIES
AS OF DECEMBER 31, 2014

	Total KPERS	KP&F	Judges	Total
1. Present Value of Future Benefits	$ 26,003,789,058	$ 3,393,439,706	$ 198,973,314	$ 29,596,202,078
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefits	$ 2,930,672,855	$ 437,297,252	$ 34,967,517	$ 3,402,937,624
b. Pre-Retirement Death Benefits	48,796,175	12,506,576	532,730	61,835,481
c. Termination Benefits	722,877,411	56,755,958	0	779,633,369
d. Disability Benefits	135,327,128	86,001,789	0	221,328,917
e. Total	3,837,673,569	592,561,575	35,500,247	4,465,735,391
3. Total Actuarial Liability (1) - (2e)	$ 22,166,115,489	$ 2,800,878,131	$ 163,473,067	$ 25,130,466,687

TABLE 7
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET
AS OF DECEMBER 31, 2014

	State	School	State/School	Local
ASSETS				
Actuarial Value of Assets	$ 3,122,041,106	$ 7,231,564,556	$ 10,353,605,662	$ 3,080,863,872
Present Value of Future Normal Costs	542,110,935	2,324,116,577	2,866,227,512	971,446,057
Unfunded Actuarial Liability	1,038,755,039	6,205,100,984	7,243,856,023	1,487,789,932
Total Net Assets	$ 4,702,907,080	$ 15,760,782,117	$ 20,463,689,197	$ 5,540,099,861
LIABILITIES				
Present Value of Future Benefits				
Active employees	$ 2,265,303,224	$ 8,746,011,650	$ 11,011,314,874	$ 3,471,554,158
Inactive Members *	151,571,807	361,785,112	513,356,919	216,735,180
In-pay Members	2,286,032,049	6,652,985,355	8,939,017,404	1,851,810,523
Total Liabilities	$ 4,702,907,080	$ 15,760,782,117	$ 20,463,689,197	$ 5,540,099,861

*Includes Unclaimed Account Reserves

TABLE 7 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET
AS OF DECEMBER 31, 2014

	Total KPERS	KP&F	Judges	Total
ASSETS				
Actuarial Value of Assets	$ 13,434,469,534	$ 2,074,703,598	$ 152,836,651	$ 15,662,009,783
Present Value of Future Normal Costs	3,837,673,569	592,561,575	35,500,247	4,465,735,391
Unfunded Actuarial Liability	8,731,645,955	726,174,533	10,636,416	9,468,456,904
Total Net Assets	$ 26,003,789,058	$ 3,393,439,706	$ 198,973,314	$ 29,596,202,078
LIABILITIES				
Present Value of Future Benefits				
Active employees	$ 14,482,869,032	$ 1,871,950,163	$ 107,198,135	$ 16,462,017,330
Inactive Members *	730,092,099	42,329,506	435,338	772,856,943
In-pay Members	10,790,827,927	1,479,160,037	91,339,841	12,361,327,805
Total Liabilities	$ 26,003,789,058	$ 3,393,439,706	$ 198,973,314	$ 29,596,202,078

*Includes Unclaimed Account Reserves

TABLE 8
ANALYSIS OF ACTUARIAL GAIN OR LOSS

	State	School	State/School	Local
1. Expected Actuarial Liability				
a. Actuarial liability at 12/31/13	$ 4,075,977,044	$ 13,002,145,953	$ 17,078,122,997	$ 4,381,654,475
b. Normal cost during 2014	73,065,488	265,450,187	338,515,675	121,448,863
c. Benefit payments for plan year ending 12/31/14	(285,452,283)	(776,083,270)	(1,061,535,553)	(240,180,030)
d. Interest on (a), (b), and (c)	320,724,971	1,030,961,568	1,351,686,539	350,825,888
e. Change in assumptions	(12,238,532)	(5,288,261)	(17,526,793)	(20,312,463)
f. Amendments	0	0	0	0
g. Expected actuarial liability as of 12/31/14 (a) + (b) + (c) + (d) + (e) + (f)	$ 4,172,076,688	$ 13,517,186,177	$ 17,689,262,865	$ 4,593,436,733
2. Actuarial Liability at 12/31/2014	$ 4,160,796,145	$ 13,436,665,540	$ 17,597,461,685	$ 4,568,653,804
3. Actuarial Liability Gain/(Loss) (1g) - (2)	$ 11,280,543	$ 80,520,637	$ 91,801,180	$ 24,782,929
4. Expected Actuarial Value of Assets				
a. Actuarial value of assets at 12/31/13	$ 2,946,723,045	$ 6,779,677,943	$ 9,726,400,988	$ 2,791,897,450
b. Contributions for plan year ending 12/31/14	156,723,044	527,536,210	684,259,254	238,652,131
c. Benefit payments for plan year ending 12/31/14	(285,452,283)	(776,083,270)	(1,061,535,553)	(240,180,030)
d. Administrative Expenses	(1,949,366)	(4,498,772)	(6,448,138)	(1,882,135)
e. Interest on (a), (b), (c), and (d)	230,611,259	532,447,125	763,058,384	223,218,019
f. Expected actuarial value of assets as of 12/31/14 (a) + (b) + (c) + (d) + (e)	$ 3,046,655,699	$ 7,059,079,236	$ 10,105,734,935	$ 3,011,705,435
5. Actuarial Value of Assets as of 12/31/14	$ 3,122,041,106	$ 7,231,564,556	$ 10,353,605,662	$ 3,080,863,872
6. Actuarial Value of Assets Gain/(Loss) (5) - (4f)	$ 75,385,407	$ 172,485,320	$ 247,870,727	$ 69,158,437
7. Net Actuarial Gain/(Loss) (3) + (6)	$ 86,665,950	$ 253,005,957	$ 339,671,907	$ 93,941,366

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

	Total KPERS	KP&F	Judges	Total
1. Expected Actuarial Liability				
a. Actuarial liability at 12/31/13	$ 21,459,777,472	$ 2,706,558,019	$ 162,334,647	$ 24,328,670,138
b. Normal cost during 2014	459,964,538	63,963,313	4,995,119	528,922,970
c. Benefit payments for plan year ending 12/31/14	(1,301,715,583)	(164,926,476)	(10,441,274)	(1,477,083,333)
d. Interest on (a), (b), and (c)	1,702,512,427	215,171,561	12,976,765	1,930,660,753
e. Change in assumptions	(37,839,256)	(8,577,675)	(3,103,255)	(49,520,186)
f. Amendments	0	1,411,705	0	1,411,705
g. Expected actuarial liability as of 12/31/14 (a) + (b) + (c) + (d) + (e) + (f)	$ 22,282,699,598	$ 2,813,600,447	$ 166,762,002	$ 25,263,062,047
2. Actuarial Liability at 12/31/2014	$ 22,166,115,489	$ 2,800,878,131	$ 163,473,067	$ 25,130,466,687
3. Actuarial Liability Gain/(Loss) (1g) - (2)	$ 116,584,109	$ 12,722,316	$ 3,288,935	$ 132,595,360
4. Expected Actuarial Value of Assets				
a. Actuarial value of assets at 12/31/13	$ 12,518,298,438	$ 1,903,444,252	$ 141,021,935	$ 14,562,764,625
b. Contributions for plan year ending 12/31/14	922,911,385	138,573,664	7,639,189	1,069,124,238
c. Benefit payments for plan year ending 12/31/14	(1,301,715,583)	(164,926,476)	(10,441,274)	(1,477,083,333)
d. Aministrative Expenses	(8,330,273)	(1,275,775)	(94,272)	(9,700,320)
e. Interest on (a), (b), (c), and (d)	986,276,403	151,191,657	11,168,129	1,148,636,189
f. Expected actuarial value of assets as of 12/31/14 (a) + (b) + (c) + (d) + (e)	$ 13,117,440,370	$ 2,027,007,322	$ 149,293,707	$ 15,293,741,399
5. Actuarial Value of Assets as of 12/31/14	$ 13,434,469,534	$ 2,074,703,598	$ 152,836,651	$ 15,662,009,783
6. Actuarial Value of Assets Gain/(Loss) (5) - (4f)	$ 317,029,164	$ 47,696,276	$ 3,542,944	$ 368,268,384
7. Net Actuarial Gain/(Loss) (3) + (6)	$ 433,613,273	$ 60,418,592	$ 6,831,879	$ 500,863,744

This page intentionally left blank.

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

The actuarial cost method for all three systems is 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, 2014 actuarial valuation will be used to determine employer contribution rates to the Kansas Public Employees Retirement System for fiscal years beginning in 2017 (July 1, 2017 to June 30, 2018 for the State and calendar year 2017 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).

SB 4 and SB 228, as passed by the 2015 Legislature, reset the statutory employer contribution rate from 11.27% to 8.65% for the last half of fiscal year 2015, from 12.37% to 10.91% for fiscal year 2016, and from 13.57% to 10.81% for fiscal year 2017 for the State/School group. For fiscal year 2018 and beyond, the statutory cap described below will apply.

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 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 increases in the UAL due to the $300 one-time payments to retirees in 2007 and 2008 are 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, 2014 valuation date, eighteen (18) years remain in that period.

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

The actuarial contribution rate for KPERS is comprised of the normal cost rate and a contribution toward the unfunded actuarial liability. The methodology to calculate the UAL contribution rate was changed in the December 31, 2014 actuarial valuation as a result of the Board adopting the recommendations of the Triennial Experience Study (see Tables 11A and B). 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 increases in the unfunded actuarial liability due to the $300 one-time payments to retirees in 2007 and 2008 are 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, 2014 valuation date, eighteen (18) years remain in that period.

The UAL is amortized as a level percentage of payroll. The payroll growth assumption is 4% so the dollar amount of the annual amortization payment 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 methodology to calculate the UAL contribution rate was changed in the December 31, 2014 actuarial valuation as a result of the Board adopting the recommendations of the Triennial Experience Study (see Tables 11A and B).

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. The methodology to calculate the UAL contribution rate was changed in the December 31, 2014 actuarial valuation as a result of the Board adopting the recommendations of the Triennial Experience Study (see Tables 11A and B). As of this valuation date, eighteen (18) years remain.

Contribution Rate Summary

The normal cost rates for each group are shown in Table 9. Tables 10, 11A, and 11B develop the actuarial contribution rates for the unfunded actuarial liability. The total actuarial contribution rates determined as of December 31, 2014, are presented in Table 12. 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 13A and 13B. Table 14 shows the KP&F individual employer contribution rates for fiscal years beginning in 2016 and 2017 while Tables 15 and 16 show the calculation of the additional contribution rate due to amortization of prior service UAL for fiscal years beginning in 2017.

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 2017.

TABLE 9
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF DECEMBER 31, 2014

	State	School	State/School	Local
1. Normal Cost Rate				
a. Retirement Benefits	5.79%	6.82%	6.59%	5.70%
b. Pre-Retirement Death Benefits	0.12%	0.09%	0.10%	0.16%
c. Termination Benefits	1.71%	1.34%	1.42%	1.85%
d. Disability Benefits	0.48%	0.24%	0.29%	0.35%
e. Total	8.10%	8.49%	8.40%	8.06%

TABLE 9 (cont.)
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
NORMAL COST RATE
AS OF DECEMBER 31, 2014

	KP&F	Judges
1. Normal Cost Rate		
a. Retirement Benefits	11.07%	18.98%
b. Pre-Retirement Death Benefits	0.34%	0.29%
c. Termination Benefits	1.46%	0.00%
d. Disability Benefits	2.20%	0.00%
e. Total	15.07%	19.27%

TABLE 10
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
UNFUNDED ACTUARIAL LIABILITY (UAL)
AS OF DECEMBER 31, 2014

	State	School	State/School	Local	KPF	Judges
1. Actuarial Liability	$ 4,160,796,145	$ 13,436,665,540	$ 17,597,461,685	$ 4,568,653,804	$ 2,800,878,131	$ 163,473,067
2. Actuarial Value of Assets	3,122,041,106	7,231,564,556	10,353,605,662	3,080,863,872	2,074,703,598	152,836,651
3. Unfunded Actuarial Liability (UAL)	1,038,755,039	6,205,100,984	7,243,856,023	1,487,789,932	726,174,533	10,636,416
a. UAL for 2007 One Time Payment	0	0	0	496,224	169,123	0
b. UAL for 2008 One Time Payment	0	0	0	721,447	251,976	0
c. Other local employer UAL*	0	0	0	2,665,607	4,639,784	0
d. Remaining UAL	1,038,755,039	6,205,100,984	7,243,856,023	1,483,906,654	721,113,650	10,636,416

*These amounts are paid directly by the employer and do not enter into the overall UAL and amortization calculations.

TABLE 11A
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
UAL CONTRIBUTION RATES
EMPLOYERS CONTRIBUTING ON JUNE 30 FISCAL YEARS

	State	School	State/School	Judges
1. Unfunded Actuarial Liability at December 31, 2014	$1,038,755,039	$6,205,100,984	$7,243,856,023	$10,636,416
2. FY 2015 Expected Contribution Rate	14.65%	14.65%	14.65%	28.36%
3. Normal Cost Rate	8.10%	8.49%	8.40%	19.27%
4. Contribution Rate Applied to UAL for 2015 [(2) – (3)]	6.55%	6.16%	6.25%	9.09%
5. Expected Payroll for January to June, 2015	$484,879,698	$1,719,282,062	$2,204,161,760	$13,713,981
6. Expected UAL Contribution (4) * (5)	$31,759,620	$105,907,775	$137,760,110	$1,246,601
7. Projected UAL at June 30, 2015	$1,047,129,303	$6,340,564,905	$7,387,599,692	$9,782,870
8. FY 2016 Expected Contribution Rate	16.91%	16.91%	16.91%	29.74%
9. Normal Cost Rate	8.10%	8.49%	8.40%	19.27%
10. Contribution Rate Applied to UAL for 2016 [(8) – (9)]	8.81%	8.42%	8.51%	10.47%
11. Expected Payroll for FY 2016	$989,154,584	$3,507,335,405	$4,496,489,989	$27,427,962
12. Expected UAL Contribution (10) * (11)	$87,144,519	$295,317,641	$382,651,298	$2,871,708
13. Projected UAL at June 30, 2016	$1,040,336,406	$6,540,907,002	$7,580,944,773	$7,581,133
14. FY 2017 Expected Contribution Rate	16.81%	16.81%	16.81%	27.13%
15. Normal Cost Rate	8.10%	8.49%	8.40%	19.27%
16. Contribution Rate Applied to UAL for 2017 [(14) – (15)]	8.71%	8.32%	8.41%	7.86%
17. Expected Payroll for FY 2017	$1,028,720,767	$3,647,628,822	$4,676,349,589	$27,427,962
18. Expected UAL Contribution (16) * (17)	$89,601,579	$303,482,718	$393,281,000	$2,155,838
19. Projected UAL at June 30, 2017	$1,030,446,627	$6,748,791,070	$7,778,710,750	$5,947,211
20. Amortization Factor (18 years)	13.31212	13.31212	13.31212	10.12164
21. UAL Amortization Payment [(19)/(20) * $1.08^{.5}$]	$80,443,351	$526,854,431	$607,256,646	$610,625
22. Expected Payroll for FY 2018	$1,069,869,598	$3,793,533,975	$4,863,403,573	$27,427,962
23. UAL Contribution Rate	7.52%	13.89%	12.49%	2.23%

Note: Projected UAL contributions and amounts for State/School may not equal the sum of State and School due to rounding.

TABLE 11B
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
UAL CONTRIBUTION RATES
EMPLOYERS CONTRIBUTING ON DECEMBER 31 FISCAL YEARS

	KPERS - Local	KP&F	
1. Unfunded Actuarial Liability at December 31, 2014	$1,483,906,654	$721,113,650	
2. FY 2015 Expected Contribution Rate	15.48%	28.51%	
3. Normal Cost Rate	8.06%	15.07%	
4. Contribution Rate Applied to UAL for 2015 [(2) – (3)]	7.42%	13.44%	
5. Expected Payroll for 2015	$1,662,175,758	$462,177,399	
6. Expected UAL Contribution (4) * (5)	$123,333,441	$62,116,642	
7. Projected UAL at December 31, 2015	$1,474,447,315	$714,249,234	
8. FY 2016 Expected Contribution Rate	15.18%	27.57%	
9. Normal Cost Rate	8.06%	15.07%	
10. Contribution Rate Applied to UAL for 2016 [(8) – (9)]	7.12%	12.50%	
11. Expected Payroll for FY 2016	$1,728,662,788	$480,664,495	
12. Expected UAL Contribution (10) * (11)	$123,080,791	$60,083,062	
13. Projected UAL at December 31, 2016	$1,464,493,791	$708,949,023	
14. Amortization Factor (18 years)	13.31212	13.31212	
15. UAL Amortization Payment [(13)/(14) * $1.08^{.5}$]	$114,327,890	$55,345,162	
16. Expected Payroll for FY 2017	$1,797,809,300	$499,891,075	
17. UAL Contribution Rate	6.36%	11.07%	
18. UAL Contribution Rate for 2007 One Time Payment	0.02%	0.02%	*
19. UAL Contribution Rate for 2008 One Time Payment	0.02%	0.02%	*
20. Total	6.40%	11.11%	*

* Applies to local KP&F employers only.

TABLE 12
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTUARIAL EMPLOYER CONTRIBUTION RATES
FISCAL YEAR COMMENCING IN 2017

	Total Normal Cost	Employee Normal Cost	Employer Normal Cost	Unfunded Actuarial Liability	Total Employer Contribution*
State	8.10%	6.00%	2.10%	7.52%	9.62%
Correctional Employees - Normal Retirement Age 55					9.93%
Correctional Employees - Normal Retirement Age 60					10.66%
School	8.49%	6.00%	2.49%	13.89%	16.38%
State/School	8.40%	6.00%	2.40%	12.49%	14.89%
Local	8.06%	6.00%	2.06%	6.40%	8.46%
KP&F Uniform Contribution Rate					
State **	15.07%	7.15%	7.92%	11.07%	18.99%
Local **	15.07%	7.15%	7.92%	11.11%	19.03%
Judges	19.27%	5.61%	13.66%	2.23%	15.89%

* 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 14)

TABLE 13A
LOCAL KPERS AFFILIATION COST FACTORS
FOR FISCAL YEAR BEGINNING IN 2017

Employer	Year Affiliated	Projected 2017 Annual Payroll	Projected 1/1/2017 Unfunded Actuarial Liability	Payment on 1/1/2017 Unfunded Liability	Payment on Unfunded Liability as % of Payroll	Total Rate for Years Commencing[1] in 2017
St. Francis Housing Authority	1999	$7,694	$8,354	$672	8.73%	17.19%
City of Burden	1999	104,284	16,494	1,324	1.27%	9.73%
City of Longton	1999	69,149	20,030	1,611	2.33%	10.79%
Bourbon County RWD#2	1999	289,378	116,113	9,336	3.23%	11.69%
Towanda Township	1999	58,493	9,500	761	1.30%	9.76%
Hays Housing Authority	2000	49,722	1,826	154	0.31%	8.77%
Haysville Community Library	2000	159,411	211,032	16,954	10.64%	19.10%
Hamilton County Library	2000	114,565	13,971	1,123	0.98%	9.44%
Ellis Public Library	2000	31,998	5,306	426	1.33%	9.79%
Bucklin Public Library	2000	26,248	13,190	1,063	4.05%	12.51%
Elkhart Cemetery District	2000	51,908	1,844	152	0.29%	8.75%
City of Linn Valley	2000	130,316	1,034	84	0.06%	8.52%
City of Blue Mound	2000	15,046	3,009	234	1.55%	10.01%
Kansas Workers' Risk Coop for Counties	2000	372,388	53,731	4,292	1.15%	9.61%
Lindsborg Community Library	2002	24,051	3,827	293	1.22%	9.68%
City of North Newton	2002	351,457	172,753	13,485	3.84%	12.30%
City of Arcadia	2002	102,757	16,904	1,318	1.28%	9.74%
City of Linwood	2003	66,527	2,530	198	0.30%	8.76%
Johnson County Fire District #2 Rural	2003	2,904,215	470,919	36,761	1.27%	9.73%
Basehor Community Library	2003	331,328	59,880	4,674	1.41%	9.87%
City of Gypsum	2003	58,997	5,086	398	0.67%	9.13%
Greenleaf Housing Authority	2003	23,622	23,903	1,865	7.89%	16.35%
City of Bentley	2004	98,979	39,177	3,325	3.36%	11.82%
Mulvane Public Library	2004	75,142	14,045	1,193	1.59%	10.05%
The Center for Counseling and Consultation	2004	2,785,337	1,180,796	100,260	3.60%	12.06%
Doniphan County RFD #2	2005	99,676	9,383	796	0.80%	9.26%
City of Denison	2005	$19,652	$20,704	$1,758	8.95%	17.41%
Stanton County Recreation Commission	2005	82,583	25,504	2,164	2.62%	11.08%
Total		$8,504,920	$2,520,842	$206,673		

[1] Basic local employer contribution rates excluding Death and Disability contribution: FY 2016: 9.18% FY 2017: 8.46%

TABLE 13B
LOCAL KPERS AFFILIATION COST FACTORS - AFFILIATION AFTER 1/1/06
FOR FISCAL YEAR BEGINNING IN 2017

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	2,157	2017

TABLE 14
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS COMMENCING IN CALENDAR YEARS 2016 AND 2017

Employer	Total Rate for Fiscal Year Commencing in 2016	Recommended Total Rate for Fiscal Year Commencing in 2017
Douglas County Law Enforcement	23.04 %	21.74 %
Ford County	20.42	19.03
Franklin County Sheriff's Dept	20.42	19.03
Gray County Sheriff's Dept.	20.42	19.03
Harvey County Sheriff's Dept.	20.42	19.03
Johnson County Fire Dept.	20.42	19.03
Johnson County Fire No. 1	20.42	19.03
Johnson County Fire No. 2	20.42	19.03
Johnson County Park Commission	20.42	19.03
Johnson County Sheriff's Dept.	20.42	19.03
Labette County Sheriff's Dept.	22.68	21.31
Reno County Sheriff's Dept.	20.42	19.03
Riley County Law Enforcement	20.42	19.03
Sedgwick County Fire No. 1	20.42	19.03
Sedgwick County Sheriff's Dept.	20.78	19.39
Sedgwick County EMT's	20.42	19.03
Shawnee County Sheriff's Dept.	22.77	21.56
Sumner County Sheriff's Dept.	21.65	20.13
Unified Gov't of Wyandotte County	20.42	19.03
City of Abilene	20.42	19.03
City of Arkansas City	20.42	19.03
City of Atchison	20.42	19.03
City of Bonner Springs	20.42	19.03
City of Chanute	20.42	19.03
City of Cimarron	20.42	19.03
City of Coffeyville	24.31	19.03
City of Concordia Fire	22.78	19.03
City of Concordia Police	20.42	19.03
City of Derby	20.42	19.03
City of Dodge City	26.01	24.55
City of Emporia	20.42	19.03
City of Erie	20.42	19.03
City of Eudora	20.42	19.03
City of Fairway	20.42	19.03
City of Fort Scott	25.20	19.03
City of Herington	20.46	19.03
City of Hutchinson	20.42	19.03

TABLE 14 (cont.)
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS COMMENCING IN CALENDAR YEARS 2016 AND 2017

Employer	Total Rate for Fiscal Year Commencing in 2016	Recommended Total Rate for Fiscal Year Commencing in 2017
City of Junction City	20.42 %	19.03 %
City of Lawrence	20.42	19.03
City of Leavenworth	20.42	19.03
City of Leawood	20.98	19.58
City of Lenexa	20.42	19.03
City of Manhattan	20.42	19.03
City of Merriam	20.42	19.03
City of McPherson	20.42	19.03
City of Mission	20.42	19.03
City of Newton EMTs	23.40	21.92
City of Newton	20.42	19.03
City of Olathe	20.42	19.03
City of Ottawa	20.42	19.03
City of Parsons	20.42	19.03
City of Pittsburg	22.68	19.03
City of Salina	22.29	19.03
City of Shawnee	20.58	19.03
City of Topeka	20.42	19.03
City of Wellington	22.92	19.03
City of Westwood	20.42	19.03
City of Winfield	23.95	21.84
Board of Regents Campus Police	20.38	18.99
Kansas Bureau of Investigation	20.38	18.99
Kansas Highway Patrol	20.38	18.99
Cowley County Sheriff's Dept	20.42	19.03
City of Gardner Public Safety Officers	20.42	19.03
City of Liberal Police & Firemen	20.42	19.03
City of Oswego	20.42	19.03
Leavenworth County	20.42	19.03
Pottawatomie County	20.42	19.03
City of Roeland Park	20.42	19.03
City of Edwardsville Police	22.73	21.07
City of Garden City	20.42	19.03
City of Lake Quivira	20.42	19.03
City of Paola	20.42	19.03
City of Winfield (EMS)*	29.41	19.03
Miami County	20.42	19.03

*The City of Winfield no longer has EMS employees. The City and KPERS are involved in discussions as to how the remaining UAL will be paid.

TABLE 14 (cont.)
KP&F
EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS COMMENCING IN CALENDAR YEARS 2016 AND 2017

Employer	Total Rate for Fiscal Year Commencing in 2016	Recommended Total Rate for Fiscal Year Commencing in 2017
Atchinson County	20.42 %	19.03 %
City of Park City	20.42	19.03
Dickinson County	20.42	19.03
Leavenworth County (EMS)	20.42	19.03
City of Basehor	20.42	19.03
City of Edwardsville Firemen	25.26	24.44
City of Marion	20.42	19.03
City of Overbrook	20.42	19.03
Leavenworth County Fire District #1	20.42	19.03
Shawnee Heights Fire District	20.42	19.03
City of Lansing	20.42	19.03
State Fire Marshall	20.38	18.99
Seward County	20.42	19.03
City of Hays	20.42	19.03
Ellis County	20.42	19.03
City of Baldwin City	20.42	19.03
McPherson County Rural Fire District #9	20.42	19.03
City of Spring Hill	20.42	19.03
City of Andover	20.42	19.03
Kearny County	20.42	19.03
Neosho County	20.42	19.03
Clark County	20.42	19.03
City of Wakefield	20.42	19.03
Russell County	20.42	19.03
City of Rossville	20.42	19.03
City of Goddard	20.42	19.03
City of El Dorado	20.42	19.03
Northwest Consolidated Fire District	20.42	19.03
City of Girard	20.42	19.03
City of Overland Park	20.42	19.03
City of Victoria	20.42	19.03
City of Burden	20.42	19.03

TABLE 15A
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2017

Employer	1/1/2015 Unfunded Prior Service Liability	Payment on Unfunded Liability
Douglas County Law Enforcement	$971,360	$181,138
Ford County	0	0
Franklin County Sheriff's Dept	0	0
Gray County Sheriff's Dept.	0	0
Harvey County Sheriff's Dept.	0	0
Johnson County Fire Dept.	0	0
Johnson County Fire No. 1	0	0
Johnson County Fire No. 2	0	0
Johnson County Park Commission	0	0
Johnson County Sheriff's Dept.	0	0
Labette County Sheriff's Dept.	161,492	16,582
Reno County Sheriff's Dept.	0	0
Riley County Law Enforcement	0	0
Sedgwick County Fire No. 1	0	0
Sedgwick County Sheriff's Dept.	71,334	54,352
Sedgwick County EMT's	0	0
Shawnee County Sheriff's Dept.	707,274	154,845
Sumner County Sheriff's Dept.	36,489	11,639
Unified Gov't of Wyandotte County	0	0
City of Abilene	0	0
City of Arkansas City	0	0
City of Atchison	0	0
City of Bonner Springs	0	0
City of Chanute	0	0
City of Cimarron	0	0
City of Coffeyville	0	0
City of Concordia Fire	0	0
City of Concordia Police	0	0
City of Derby	0	0
City of Dodge City	1,397,282	215,432
City of Emporia	0	0
City of Erie	0	0
City of Eudora	0	0
City of Fairway	0	0
City of Fort Scott	0	0
City of Herington	0	0
City of Hutchinson	0	0

TABLE 15A (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2017

Employer	1/1/2015 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	122,478	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	32,466	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	0	0
City of Salina	0	0
City of Shawnee	0	0
City of Topeka	0	0
City of Wellington	0	0
City of Westwood	0	0
City of Winfield	170,153	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	219,619	18,952
City of Garden City	0	0
City of Lake Quivira	0	0
City of Paola	0	0
City of Winfield (EMS)*	370,775	39,655
Miami County	0	0

*The City of Winfield no longer has EMS employees. The City and KPERS are involved in discussions as to how the remaining UAL will be paid.

TABLE 15A (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY
FOR FISCAL YEARS BEGINNING IN 2017

Employer	1/1/2015 Unfunded Prior Service Liability	Payment on Unfunded Liability
Atchinson County	$0	$0
City of Park City	0	0
Dickinson County	0	0
Leavenworth County (EMS)	0	0
City of Basehor	0	0
City of Edwardsville Firemen	378,886	37,963
City of Marion	0	0
City of Overbrook	0	0
Leavenworth County Fire District #1	0	0
Shawnee Heights Fire District	0	0
City of Lansing	0	0
State Fire Marshall	0	0
Seward County	0	0
City of Hays	0	0
Ellis County	0	0
City of Baldwin City	0	0
City of Spring Hill	0	0
City of Andover	0	0
Kearny County	0	0
Neosho County	0	0
Clark County	0	0
City of Wakefield	0	0
Russell County	0	0
City of Rossville	0	0
City of Goddard	0	0
City of El Dorado	0	0
Northwest Consolidated Fire District	0	0
City of Girard	0	0
City of Overland Park	0	0
City of Victoria	0	0
City of Burden	0	0
Total	$ 4,639,608	$ 872,830

TABLE 15B
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES
PRIOR SERVICE LIABILITY - AFFILIATION AFTER 1/1/06
FOR FISCAL YEAR BEGINNING IN 2017

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.

TABLE 16
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES FOR FISCAL YEARS BEGINNING IN 2017

Employer	Number of Employees	Total Estimated 2017 Payroll	Payment on Unfunded Liability (Table 15)	As Percent of Payroll
Douglas County Law Enforcement	80	$6,694,352	$181,138	2.71 %
Ford County	51	3,009,090	0	0.00
Franklin County Sheriff's Dept	48	2,797,574	0	0.00
Gray County Sheriff's Dept.	10	539,327	0	0.00
Harvey County Sheriff's Dept.	20	1,107,743	0	0.00
Johnson County Fire Dept.	147	11,273,799	0	0.00
Johnson County Fire No. 1	28	1,697,010	0	0.00
Johnson County Fire No. 2	65	5,881,840	0	0.00
Johnson County Park Commission	19	1,143,819	0	0.00
Johnson County Sheriff's Dept.	452	36,368,975	0	0.00
Labette County Sheriff's Dept.	16	728,554	16,582	2.28
Reno County Sheriff's Dept.	38	2,339,988	0	0.00
Riley County Law Enforcement	105	7,425,833	0	0.00
Sedgwick County Fire No. 1	131	9,612,870	0	0.00
Sedgwick County Sheriff's Dept.	225	15,123,779	54,352	0.36
Sedgwick County EMT's	146	8,671,139	0	0.00
Shawnee County Sheriff's Dept.	98	6,124,145	154,845	2.53
Sumner County Sheriff's Dept.	22	1,059,632	11,639	1.10
Unified Gov't of Wyandotte County	872	68,390,879	0	0.00
City of Abilene	22	1,095,043	0	0.00
City of Arkansas City	44	2,566,715	0	0.00
City of Atchison	42	2,074,656	0	0.00
City of Bonner Springs	24	1,619,523	0	0.00
City of Chanute	28	1,692,171	0	0.00
City of Cimarron	0	0	0	0.00
City of Coffeyville	43	2,737,309	0	0.00
City of Concordia Fire	8	446,859	0	0.00
City of Concordia Police	9	372,796	0	0.00
City of Derby	61	3,599,136	0	0.00
City of Dodge City	66	3,903,237	215,432	5.52
City of Emporia	90	5,067,894	0	0.00
City of Erie	3	185,144	0	0.00
City of Eudora	9	565,734	0	0.00
City of Fairway	8	625,692	0	0.00
City of Fort Scott	33	1,455,735	0	0.00
City of Herington	8	387,178	0	0.00
City of Hutchinson	154	10,115,510	0	0.00
City of Junction City	97	6,024,274	0	0.00
City of Lawrence	286	25,165,004	0	0.00
City of Leavenworth	111	6,286,460	0	0.00

TABLE 16 (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES FOR FISCAL YEARS BEGINNING IN 2017

Employer	Number of Employees	Total Estimated 2017 Payroll	Payment on Unfunded Liability (Table 15)	As Percent of Payroll
City of Leawood	106	$8,605,032	$47,701	0.55 %
City of Lenexa	167	11,987,676	0	0.00
City of Manhattan	73	4,626,798	0	0.00
City of Merriam	30	2,239,504	0	0.00
City of McPherson	46	2,692,184	0	0.00
City of Mission	27	1,742,826	0	0.00
City of Newton EMTs	3	272,906	7,898	2.89
City of Newton	77	5,339,419	0	0.00
City of Olathe	282	23,848,038	0	0.00
City of Ottawa	46	2,744,304	0	0.00
City of Parsons	40	1,890,602	0	0.00
City of Pittsburg	77	3,834,957	0	0.00
City of Salina	164	11,368,018	0	0.00
City of Shawnee	139	10,841,041	0	0.00
City of Topeka	513	39,474,568	0	0.00
City of Wellington	31	1,851,744	0	0.00
City of Westwood	6	426,249	0	0.00
City of Winfield	52	3,084,169	86,672	2.81
Board of Regents Campus Police	145	8,164,709	0	0.00
Kansas Bureau of Investigation	70	5,351,041	0	0.00
Kansas Highway Patrol	457	32,416,507	0	0.00
Cowley County Sheriff's Dept	26	1,291,106	0	0.00
City of Gardner Public Safety Officers	25	1,676,309	0	0.00
City of Liberal Police & Firemen	54	2,825,160	0	0.00
City of Oswego	5	211,415	0	0.00
Leavenworth County	59	3,145,675	0	0.00
Pottawatomie County	25	1,268,959	0	0.00
City of Roeland Park	14	888,315	0	0.00
City of Edwardsville Police	13	929,469	18,952	2.04
City of Garden City	89	5,037,590	0	0.00
City of Lake Quivira	0	0	0	0.00
City of Paola	16	952,660	0	0.00
City of Winfield (EMS)*	0	0	39,655	0.00
Miami County	45	2,622,782	0	0.00
Atchinson County	12	525,499	0	0.00
City of Park City	15	732,721	0	0.00
Dickinson County	17	931,490	0	0.00
Leavenworth County (EMS)	35	1,707,968	0	0.00
City of Basehor	12	728,343	0	0.00
City of Edwardsville Firemen	12	702,347	37,963	5.41

*The City of Winfield no longer has EMS employees. The City and KPERS are involved in discussions as to how the remaining UAL will be paid.

TABLE 16 (cont.)
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES FOR FISCAL YEARS BEGINNING IN 2017

Employer	Number of Employees	Total Estimated 2017 Payroll	Payment on Unfunded Liability (Table 15)	As Percent of Payroll
City of Marion	4	$187,307	$0	0.00 %
City of Overbrook	1	50,980	0	0.00
Leavenworth County Fire District #1	7	402,862	0	0.00
Shawnee Heights Fire District	11	689,724	0	0.00
City of Lansing	16	924,566	0	0.00
State Fire Marshall	10	542,425	0	0.00
Seward County	27	1,458,447	0	0.00
City of Hays	54	3,145,083	0	0.00
Ellis County	46	2,633,322	0	0.00
City of Baldwin City	9	555,656	0	0.00
McPherson County Rural Fire District #9	1	25,212	0	0.00
City of Spring Hill	11	559,441	0	0.00
City of Andover	36	1,947,235	0	0.00
Kearny County	18	1,061,544	0	0.00
Neosho County	14	623,704	0	0.00
Clark County	5	253,218	0	0.00
City of Wakefield	0	0	0	0.00
Russell County	10	504,514	0	0.00
City of Rossville	2	94,035	0	0.00
City of Goddard	8	378,956	0	0.00
City of El Dorado	40	1,989,466	0	0.00
Northwest Consolidated Fire District	18	1,001,045	0	0.00
City of Girard	9	426,200	0	0.00
City of Overland Park	101	5,342,043	0	0.00
City of Victoria	2	137,574	0	0.00
City of Burden	0	0	0	0.00
Total	7,204	499,891,074	872,830	

This page intentionally left blank

SECTION 6

HISTORICAL FUNDING AND OTHER INFORMATION

The actuarial liability is a measure intended to help the reader assess (i) a retirement system's funded status on a going concern basis and (ii) progress being made toward accumulating the assets needed to pay benefits as due. Allocation of the actuarial present value of projected benefits between past and future service was based on service using the Entry Age Normal actuarial cost method. Assumptions, including projected pay increases, were the same as used to determine the System's level percent of payroll annual required contribution between entry age and assumed exit age. Entry age was established by subtracting credited service from current age on the valuation date. The Entry Age Normal actuarial liability was determined as part of an actuarial valuation of the System as of December 31, 2014. The actuarial assumptions used in determining the actuarial liability can be found in Appendix C.

In the past, Governmental Accounting Standards Board (GASB) Statements No. 25, *Financial Reporting for Defined Benefit Pension Plans*, and Statement No. 27, *Accounting for Pensions by State and Local Governmental Employers*, applied to the preparation of financial reports of pension plans for state and local governments. GASB 67, which was effective for the fiscal year ending June 30, 2014, replaced GASB 25 and represents a significant departure from the requirements of that older statement. GASB 25 was issued as a "funding friendly" statement that required pension plans to report items consistent with the results of the plan's actuarial valuations, as long as those valuations met certain parameters. GASB 67 basically separates accounting from funding by creating disclosure and reporting requirements that may or may not be consistent with the basis used for funding the System. A separate report will be prepared annually that contains all of the information and exhibits of an actuarial nature that are necessary for the System's financial reporting under GASB 67.

GASB 68 replaces GASB 27 and also represents a significant departure from the requirements of the prior statement. GASB 27 required employers providing benefits through pension plans to report items consistent with the results of the plan's actuarial valuations as long as those valuations met certain parameters. GASB 68 creates disclosure and reporting requirements that may or may not be consistent with the basis used to fund the System. GASB 68 is effective for fiscal year ending after June 15, 2015 for the employers who participate in the Kansas Public Employees Retirement System. A separate report will be prepared annually that contains information and exhibits of an actuarial nature to assist employers with their financial reporting under GASB 68.

TABLE 17
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
HISTORICAL FUNDING INFORMATION
(All Groups 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%
12/31/2014	15,662,010	25,130,467	9,468,457	62%	6,560,105	144%

TABLE 18
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
HISTORICAL FUNDING INFORMATION
(All Groups Combined)

Schedule of Employer Contributions
For the Fiscal Year Ended June 30

Year	Actuarial 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	74.9%
2014	842,285,931	79.4%

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 19
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
HISTORICAL FUNDING INFORMATION

Historical Contribution Rates

Valuation Date	State/School Actuarial	State/School Statutory		Local Actuarial	Local Statutory	KP&F*	Judges*
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[1]	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%	10.27%	(2)	9.43%	7.94%	17.26%	23.62%
12/31/2011	14.34%	11.27%/8.65%	(3)	9.77%	8.84%	19.92%	22.59%
12/31/2012	14.95%	10.91%	(4)	9.48%	9.48%	21.36%	23.98%
12/31/2013	14.85%	10.81%	(4)	9.18%	9.18%	20.42%	21.36%
12/31/2014	14.89%	12.01%		8.46%	8.46%	19.03%	15.89%

* 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.

(2) Recertified from 9.97% after passage of Sub HB 2333 in the 2012 session.

(3) 11.27% for the first half of the fiscal year. Reduced by the governor's allotment and SB 4 to 8.65% for the second half of the fiscal year.

(4) Recertified from 11.27% to 10.91% and 12.37% to 10.81% after passage of SB 228 in the 2015 session.

TABLE 20
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
PROJECTED BENEFIT PAYMENTS

Year	State	School	Local	Total KPERS	KP&F	Judges	Total
2015	$302,507,000	$845,688,000	$262,144,000	$1,410,339,000	$170,542,000	$12,958,000	$1,593,839,000
2016	311,399,000	887,882,000	277,372,000	1,476,653,000	179,194,000	12,603,000	1,668,450,000
2017	323,789,000	932,219,000	295,405,000	1,551,413,000	188,275,000	13,320,000	1,753,008,000
2018	335,282,000	974,467,000	314,023,000	1,623,772,000	197,442,000	13,953,000	1,835,167,000
2019	346,082,000	1,014,365,000	332,649,000	1,693,096,000	206,675,000	14,867,000	1,914,638,000
2020	355,813,000	1,054,801,000	351,387,000	1,762,001,000	216,680,000	15,338,000	1,994,019,000
2021	365,646,000	1,095,290,000	370,908,000	1,831,844,000	226,540,000	15,992,000	2,074,376,000
2022	375,713,000	1,134,153,000	391,265,000	1,901,131,000	236,556,000	16,686,000	2,154,373,000
2023	385,092,000	1,173,528,000	411,440,000	1,970,060,000	245,907,000	17,478,000	2,233,445,000
2024	392,817,000	1,213,084,000	431,328,000	2,037,229,000	257,374,000	17,988,000	2,312,591,000
2025	400,601,000	1,251,241,000	450,938,000	2,102,780,000	267,785,000	18,592,000	2,389,157,000
2026	406,583,000	1,288,605,000	469,341,000	2,164,529,000	278,564,000	19,143,000	2,462,236,000
2027	412,102,000	1,323,965,000	486,701,000	2,222,768,000	290,066,000	19,227,000	2,532,061,000
2028	415,592,000	1,359,116,000	502,704,000	2,277,412,000	300,194,000	19,349,000	2,596,955,000
2029	418,408,000	1,394,450,000	517,589,000	2,330,447,000	311,065,000	19,980,000	2,661,492,000
2030	420,218,000	1,428,104,000	531,360,000	2,379,682,000	322,193,000	19,825,000	2,721,700,000
2031	421,566,000	1,461,066,000	545,148,000	2,427,780,000	332,731,000	19,957,000	2,780,468,000
2032	422,286,000	1,493,734,000	558,039,000	2,474,059,000	343,561,000	19,888,000	2,837,508,000
2033	421,493,000	1,525,677,000	569,802,000	2,516,972,000	354,681,000	19,581,000	2,891,234,000
2034	420,234,000	1,555,188,000	580,504,000	2,555,926,000	364,987,000	19,211,000	2,940,124,000
2035	418,209,000	1,585,445,000	590,657,000	2,594,311,000	374,213,000	18,991,000	2,987,515,000
2036	415,759,000	1,615,761,000	599,433,000	2,630,953,000	383,163,000	18,459,000	3,032,575,000
2037	412,980,000	1,641,454,000	607,899,000	2,662,333,000	391,150,000	18,360,000	3,071,843,000
2038	409,980,000	1,665,106,000	614,566,000	2,689,652,000	398,434,000	17,404,000	3,105,490,000
2039	406,461,000	1,687,253,000	621,458,000	2,715,172,000	404,432,000	17,098,000	3,136,702,000

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

This page intentionally left blank.

HISTORICAL SUMMARY OF MEMBERS

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

KPERS

Valuation		Active Members						Number			
		Average									
Date December 31	Total Count	Number	Age	Entry Age	Service	Annual Pay ($)	Pay Increase	Deferred Disabled*	Inactives	Retired	Act/Ret Ratio
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
2014	281,172	146,746	45.4	34.2	11.2	41,367	1.7%	2,340	46,503	85,583	1.71

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

HISTORICAL SUMMARY OF MEMBERS
(continued)

KP&F

Valuation		Active Members						Number			
			Average								
Date December 31	Total Count	Number	Age	Entry Age	Service	Annual Pay ($)	Pay Increase	Deferred Disabled*	Inactives	Retired	Act/Ret Ratio
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
2014	13,463	7,204	39.7	27.8	11.9	64,156	0.4%	210	1,196	4,853	1.48

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

HISTORICAL SUMMARY OF MEMBERS
(continued)

JUDGES

Valuation		Active Members						Number		
			Average							
Date December 31	Total Count	Number	Age	Entry Age	Service	Annual Pay ($)	Pay Increase	Inactives	Retired	Act/Ret Ratio
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
2014	516	253	58.2	46.3	11.9	108,411	1.0%	6	257	0.98

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	108,955
Removed deaths prior to 12/31/14	(18,852)
Removed certain periods ending within six months	(19)
Added new retirees from supplemental file	609
Records used in the valuation	90,693
Records on the not-in-pay data file	229,916
Records removed because the member has received all benefits or is not eligible for KPERS benefits	(24,882)
Records removed because the member began receiving benefits	(576)
Records used in the valuation	204,458

These records are allocated as follows:

	State	**School**	**Local**	**KP&F**	**Judges**
Active members	22,740	85,347	38,659	7,204	253
Inactive vested members	3,252	10,437	5,148	142	6
Inactive nonvested members	3,679	14,153	9,834	1,054	0
Deferred disabled members	749	916	675	210	0
Total	30,420	110,853	54,316	8,610	259
Retirees and beneficiaries	18,929	48,396	18,258	4,853	257
GRAND TOTAL	49,349	159,249	72,574	13,463	516

SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTIVE MEMBER DATA

	12/31/2014	12/31/2013	Change
State/School			
Number	108,087	108,869	(0.7%)
Average Current Age	45.41	45.50	(0.2%)
Average Service	11.56	11.60	(0.3%)
Average Pay	$40,785	$40,194	1.5%
State			
Number	22,740	23,117	(1.6%)
Average Current Age	46.88	46.97	(0.2%)
Average Service	12.37	12.43	(0.5%)
Average Pay	$42,646	$42,093	1.3%
School			
Number	85,347	85,752	(0.5%)
Average Current Age	45.02	45.10	(0.2%)
Average Service	11.34	11.38	(0.4%)
Average Pay	$40,289	$39,682	1.5%
Local			
Number	38,659	39,088	(1.1%)
Average Current Age	45.38	45.36	0.0%
Average Service	10.24	10.30	(0.6%)
Average Pay	$42,996	$42,049	2.3%
KPERS Total			
Number	146,746	147,957	(0.8%)
Average Current Age	45.40	45.46	(0.1%)
Average Service	11.21	11.26	(0.4%)
Average Pay	$41,367	$40,684	1.7%

SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
ACTIVE MEMBER DATA

	12/31/2014	12/31/2013	Change
KP&F			
Number	7,204	7,224	(0.3%)
Tier I	261	294	(11.2%)
Tier II	6,943	6,930	0.2%
Average Current Age	39.67	39.61	0.2%
Average Service	11.88	11.80	0.7%
Average Pay	$64,156	$63,928	0.4%
Judges			
Number	253	265	(4.5%)
Average Current Age	58.18	57.81	0.6%
Average Service	11.90	11.68	1.9%
Average Pay	$108,411	$107,364	1.0%
System Total			
Number	154,203	155,446	(0.8%)
Average Current Age	45.16	45.21	(0.1%)
Average Service	11.24	11.28	(0.4%)
Average Pay	$42,542	$41,878	1.6%

SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
INACTIVE MEMBER DATA

	12/31/2014	12/31/2013	Change
State			
inactive vested	3,252	2,965	9.7%
inactive nonvested	3,679	3,428	7.3%
deferred disabled	749	787	(4.8%)
School			
inactive vested	10,437	9,439	10.6%
inactive nonvested	14,153	13,634	3.8%
deferred disabled	916	965	(5.1%)
Local			
inactive vested	5,148	4,560	12.9%
inactive nonvested	9,834	9,634	2.1%
deferred disabled	675	684	(1.3%)
KPERS Total			
inactive vested	18,837	16,964	11.0%
inactive nonvested	27,666	26,696	3.6%
deferred disabled	2,340	2,436	(3.9%)
KP&F			
inactive vested	142	140	1.4%
inactive nonvested	1,054	1,034	1.9%
deferred disabled	210	208	1.0%
Judges			
inactive vested	6	6	0.0%
inactive nonvested	0	0	0.0%
deferred disabled	0	0	0.0%
System Total			
inactive vested	18,985	17,110	11.0%
inactive nonvested	28,720	27,730	3.6%
deferred disabled	2,550	2,644	(3.6%)

SUMMARY OF MEMBERSHIP DATA

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
RETIREE AND BENEFICIARY MEMBER DATA

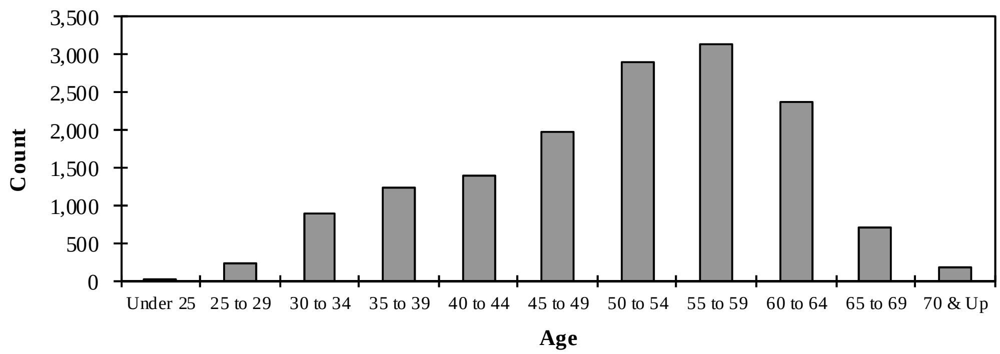
	12/31/2014	12/31/2013	Change
State			
Number	18,929	18,413	2.8%
Average Benefit	$13,513	$13,301	1.6%
Average Age	72.49	72.33	0.2%
School			
Number	48,396	46,191	4.8%
Average Benefit	$14,610	$14,350	1.8%
Average Age	72.05	71.89	0.2%
Local			
Number	18,258	17,326	5.4%
Average Benefit	$10,964	$10,615	3.3%
Average Age	72.15	72.06	0.1%
KPERS Total			
Number	85,583	81,930	4.5%
Average Benefit	$13,590	$13,325	2.0%
Average Age	72.17	72.02	0.2%
KP&F			
Number	4,853	4,670	3.9%
Average Benefit	$30,387	$29,721	2.2%
Average Age	65.06	66.33	(1.9%)
Judges			
Number	257	243	5.8%
Average Benefit	$40,370	$39,809	1.4%
Average Age	74.29	74.20	0.1%
System Total			
Number	90,693	86,843	4.4%
Average Benefit	$14,565	$14,280	2.0%
Average Age	71.80	71.72	0.1%

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

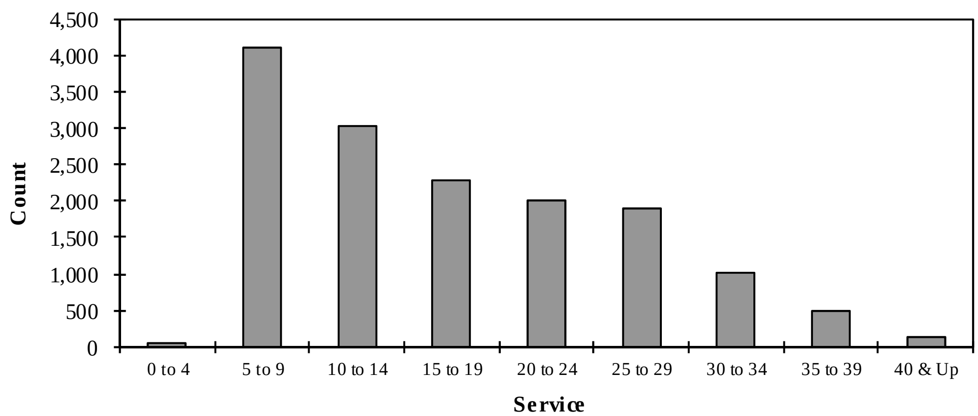
STATE - Tier 1

	Service									
Age	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	Total
Under 25	0	1	0	0	0	0	0	0	0	1
25 to 29	3	229	1	0	0	0	0	0	0	233
30 to 34	8	728	155	0	1	0	0	0	0	892
35 to 39	3	639	501	96	1	0	0	0	0	1,240
40 to 44	1	458	430	392	106	1	0	0	0	1,388
45 to 49	4	447	429	433	437	206	9	0	0	1,965
50 to 54	13	484	477	427	506	678	298	23	0	2,906
55 to 59	12	518	481	448	495	559	409	213	2	3,137
60 to 64	5	403	399	340	352	365	229	208	63	2,364
65 to 69	2	151	120	107	97	77	54	34	54	696
70 & Up	0	40	26	34	24	23	12	9	13	181
Total	51	4,098	3,019	2,277	2,019	1,909	1,011	487	132	15,003

Age Distribution



Service Distribution



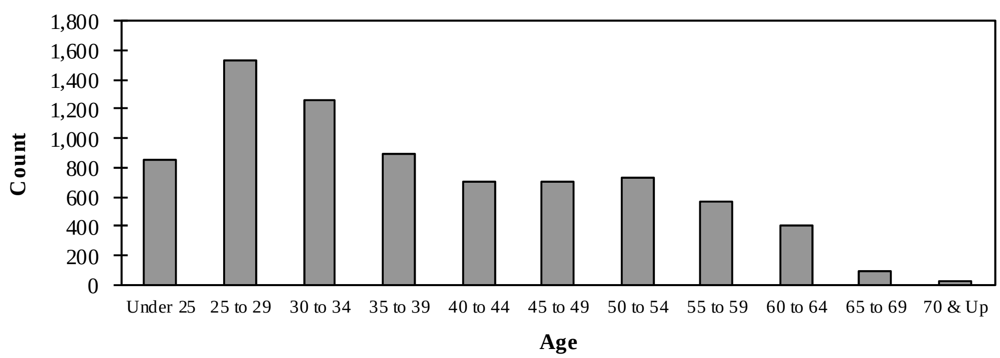
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

STATE - Tier 2*

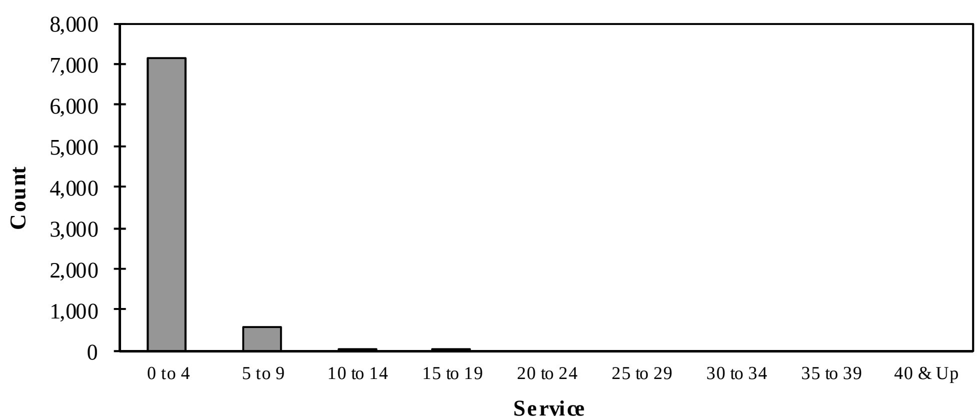
Age	Service: 0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	Total
Under 25	850	3	0	0	0	0	0	0	0	853
25 to 29	1,455	69	0	0	0	0	0	0	0	1,524
30 to 34	1,154	105	0	0	0	0	0	0	0	1,259
35 to 39	798	87	3	0	0	0	0	0	0	888
40 to 44	625	69	4	1	0	0	0	0	0	699
45 to 49	641	55	6	0	0	0	0	0	0	702
50 to 54	664	52	7	3	0	0	0	0	0	726
55 to 59	496	58	8	0	0	0	0	0	0	562
60 to 64	346	54	2	0	0	0	0	0	0	402
65 to 69	75	15	1	0	0	0	0	0	0	91
70 & Up	28	1	2	0	0	0	0	0	0	31
Total	7,132	568	33	4	0	0	0	0	0	7,737

* 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, 2014

SCHOOL - Tier 1

	Service									
Age	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	Total
Under 25	0	7	0	0	0	0	0	0	0	7
25 to 29	6	591	8	0	0	0	0	0	0	605
30 to 34	6	3,472	899	5	0	0	0	0	0	4,382
35 to 39	5	1,846	3,070	692	1	0	0	0	0	5,614
40 to 44	5	1,738	1,652	2,635	508	3	0	0	0	6,541
45 to 49	4	1,832	1,639	1,670	2,149	447	8	0	0	7,749
50 to 54	6	1,743	1,927	1,847	1,492	1,939	585	7	0	9,546
55 to 59	5	1,418	1,559	1,942	1,748	1,290	1,223	376	0	9,561
60 to 64	3	933	1,089	1,189	1,289	767	423	493	105	6,291
65 to 69	1	387	308	326	349	199	124	78	90	1,862
70 & Up	0	197	152	95	60	42	25	18	21	610
Total	41	14,164	12,303	10,401	7,596	4,687	2,388	972	216	52,768

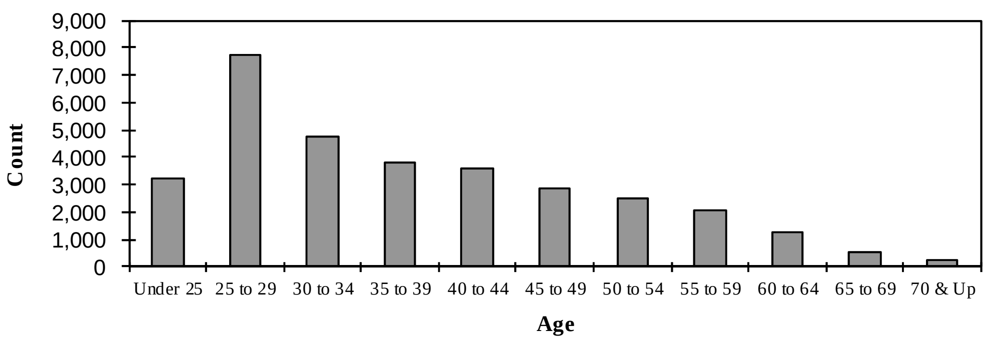
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

SCHOOL - Tier 2*

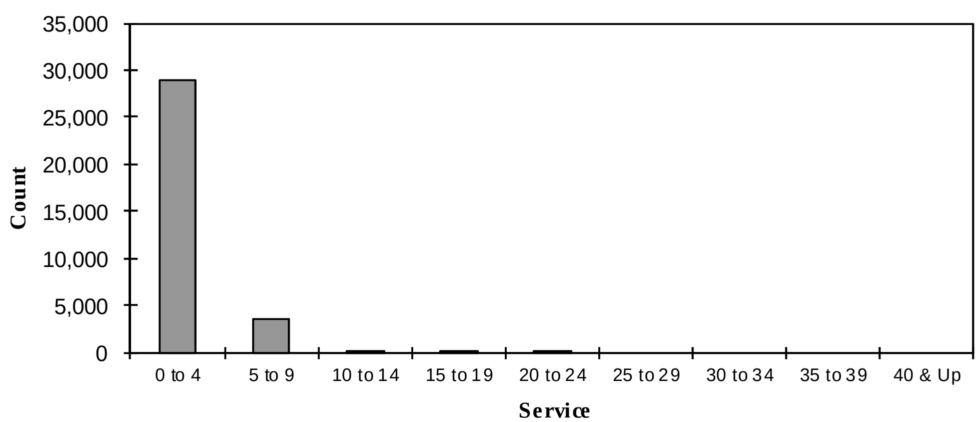
	Service									
Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & Up	Total
Under 25	3,213	8	0	0	0	0	0	0	0	3,221
25 to 29	7,145	606	0	0	0	0	0	0	0	7,751
30 to 34	3,992	759	7	0	0	0	0	0	0	4,758
35 to 39	3,272	460	47	0	0	0	0	0	0	3,779
40 to 44	3,099	424	39	1	0	0	0	0	0	3,563
45 to 49	2,487	372	23	0	0	0	0	0	0	2,882
50 to 54	2,154	317	26	0	0	0	0	0	0	2,497
55 to 59	1,790	253	19	1	0	0	0	0	0	2,063
60 to 64	1,081	197	12	0	1	0	0	0	0	1,291
65 to 69	462	66	4	0	0	0	0	0	0	532
70 & Up	208	34	0	0	0	0	0	0	0	242
Total	28,903	3,496	177	2	1	0	0	0	0	32,579

* Effective date of Tier 2 was July 1, 2009

Age Distribution



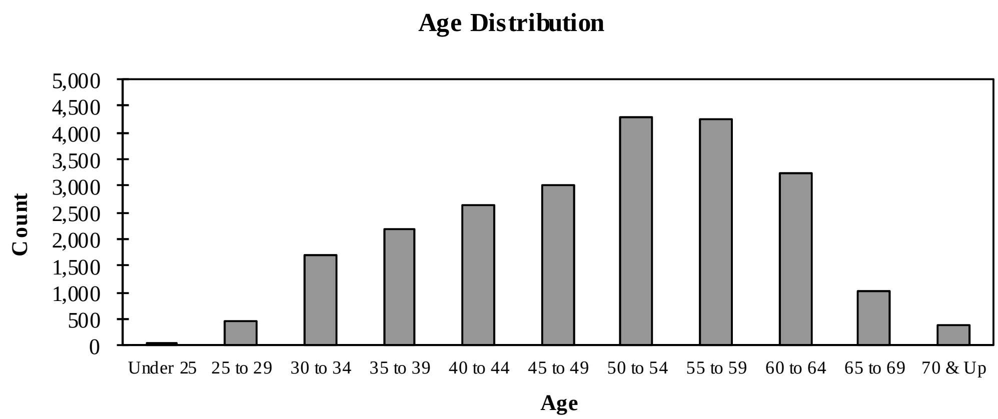
Service Distribution

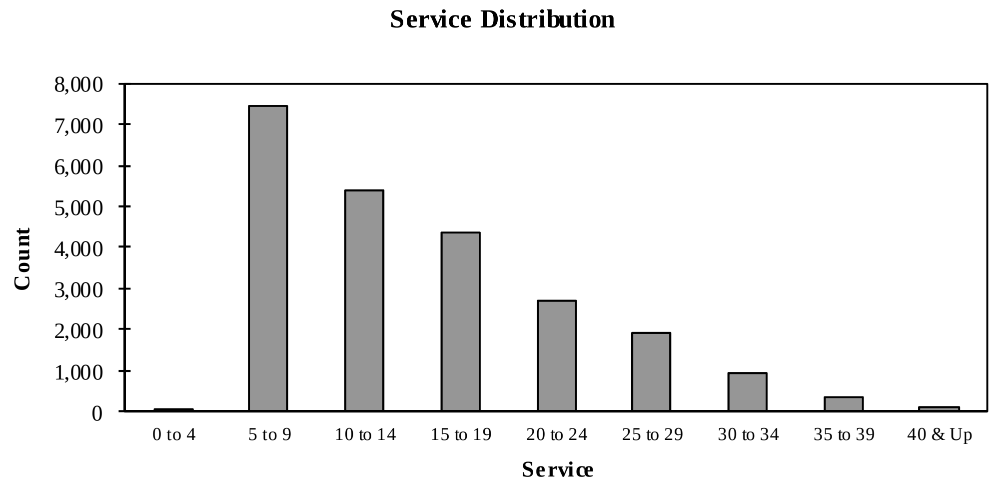


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

LOCAL - Tier 1

	Service									
Age	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	Total
Under 25	3	5	0	1	0	0	0	0	0	9
25 to 29	5	450	1	0	0	0	0	0	0	456
30 to 34	14	1,388	306	6	0	0	0	0	0	1,714
35 to 39	3	1,081	867	243	1	0	0	0	0	2,195
40 to 44	3	933	822	728	156	4	0	0	0	2,646
45 to 49	1	832	741	758	471	190	6	0	0	2,999
50 to 54	5	906	867	892	671	665	270	14	0	4,290
55 to 59	3	831	823	829	715	544	371	140	7	4,263
60 to 64	1	651	658	648	506	383	203	146	51	3,247
65 to 69	1	263	209	193	120	107	60	33	27	1,013
70 & Up	2	109	82	79	43	36	14	12	9	386
Total	41	7,449	5,376	4,377	2,683	1,929	924	345	94	23,218



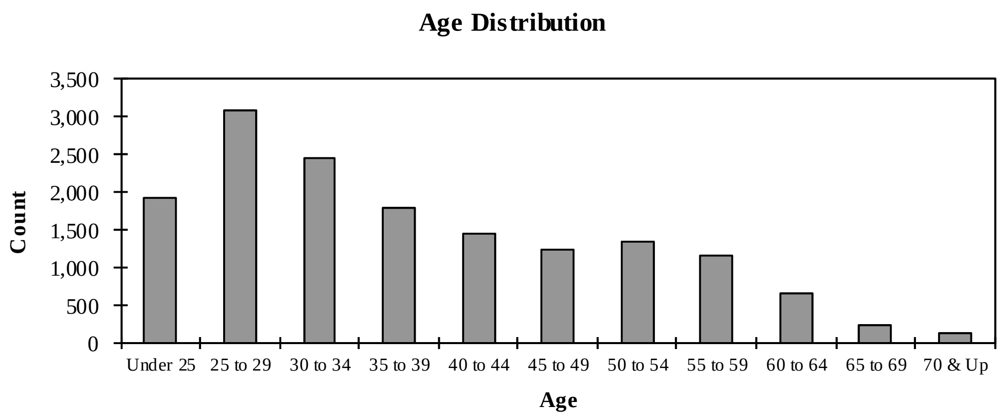


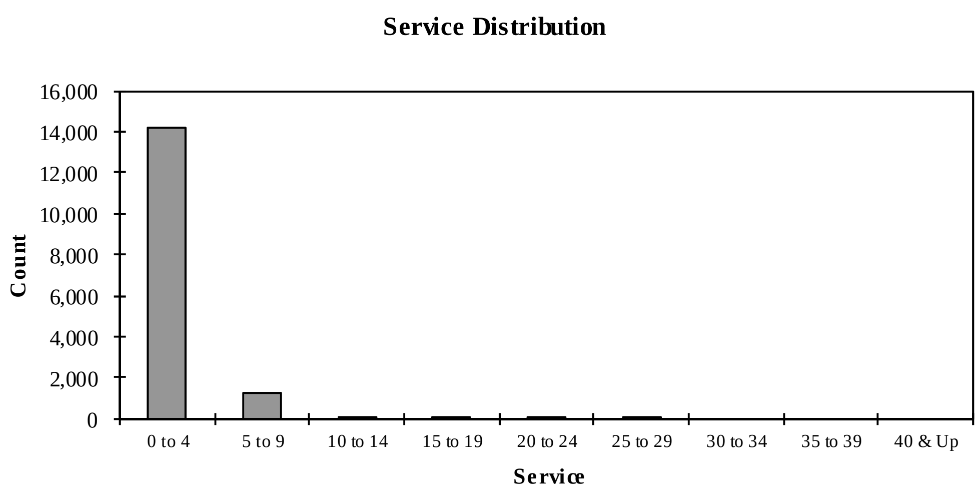
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

LOCAL - Tier 2*

	Service									
Age	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	Total
Under 25	1,897	12	0	0	0	0	0	0	0	1,909
25 to 29	2,914	172	0	0	0	0	0	0	0	3,086
30 to 34	2,228	226	5	1	0	0	0	0	0	2,460
35 to 39	1,613	168	5	0	0	0	0	0	0	1,786
40 to 44	1,305	135	4	1	0	0	0	0	0	1,445
45 to 49	1,115	112	9	0	0	0	0	0	0	1,236
50 to 54	1,212	130	6	2	0	0	0	0	0	1,350
55 to 59	1,034	126	3	1	1	0	0	0	0	1,165
60 to 64	570	88	5	0	0	1	0	0	0	664
65 to 69	169	45	6	0	0	0	0	0	0	220
70 & Up	108	11	1	0	0	0	0	0	0	120
Total	14,165	1,225	44	5	1	1	0	0	0	15,441

* Effective date of Tier 2 was July 1, 2009



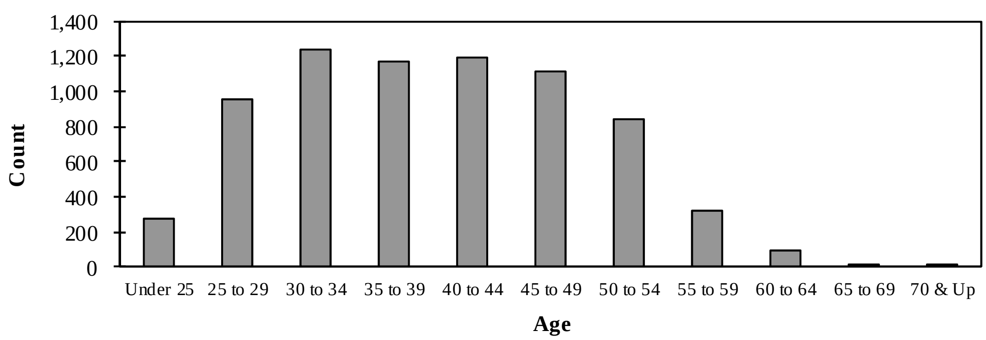


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

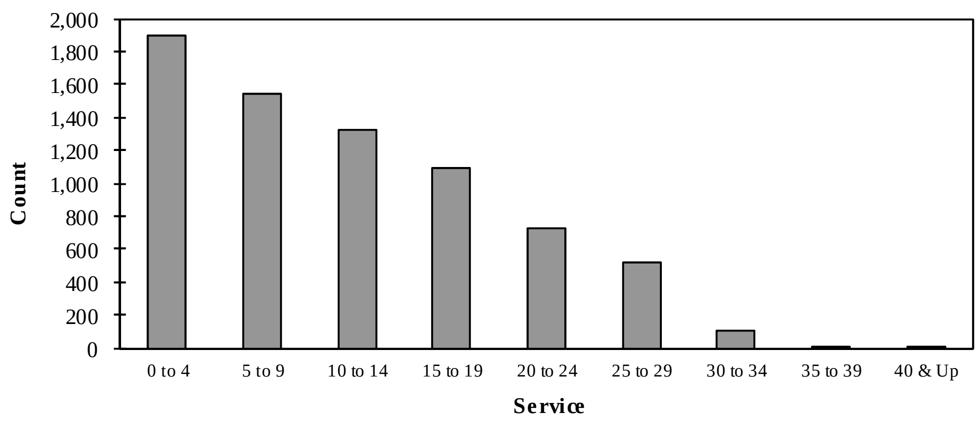
KP&F

	Service									
Age	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	Total
Under 25	271	0	0	0	0	0	0	0	0	271
25 to 29	760	192	0	0	0	0	0	0	0	952
30 to 34	458	612	164	1	0	0	0	0	0	1,235
35 to 39	192	339	512	130	1	0	0	0	0	1,174
40 to 44	104	182	318	477	110	0	0	0	0	1,191
45 to 49	68	98	171	284	340	151	0	0	0	1,112
50 to 54	26	70	99	126	207	259	54	0	0	841
55 to 59	15	28	35	56	57	83	37	4	0	315
60 to 64	2	15	16	11	16	20	11	5	0	96
65 to 69	1	3	3	2	2	2	1	1	1	16
70 & Up	0	0	1	0	0	0	0	0	0	1
Total	1,897	1,539	1,319	1,087	733	515	103	10	1	7,204

Age Distribution



Service Distribution

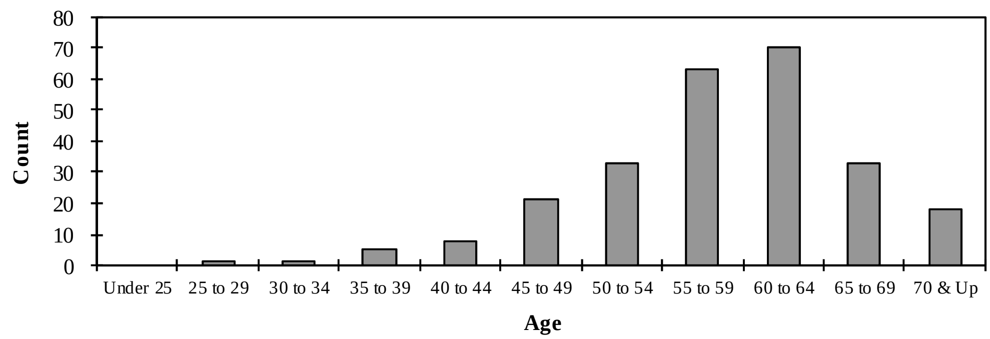


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF ACTIVE MEMBERS
as of December 31, 2014

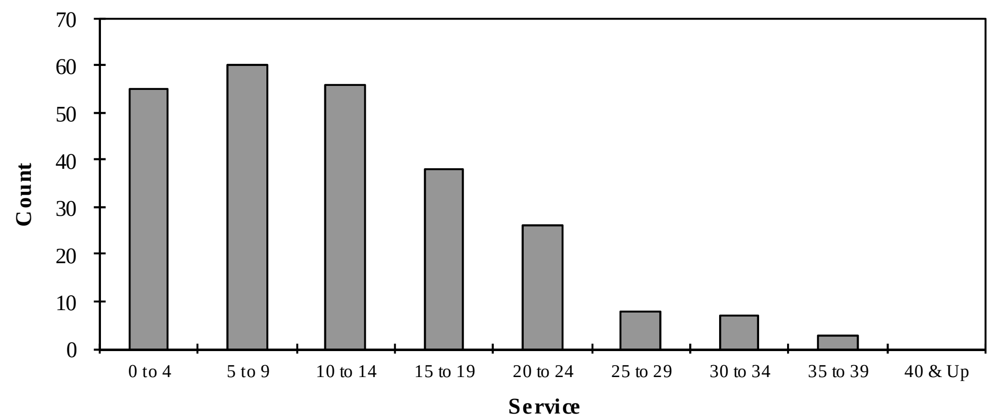
JUDGES

Age	Service 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	Total
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	1	0	0	0	0	0	0	0	0	1
35 to 39	5	0	0	0	0	0	0	0	0	5
40 to 44	6	1	0	1	0	0	0	0	0	8
45 to 49	9	7	4	1	0	0	0	0	0	21
50 to 54	8	16	9	0	0	0	0	0	0	33
55 to 59	13	15	15	11	8	1	0	0	0	63
60 to 64	9	13	18	13	9	4	3	1	0	70
65 to 69	3	5	5	7	7	2	3	1	0	33
70 & Up	0	3	5	5	2	1	1	1	0	18
Total	55	60	56	38	26	8	7	3	0	253

Age Distribution



Service Distribution



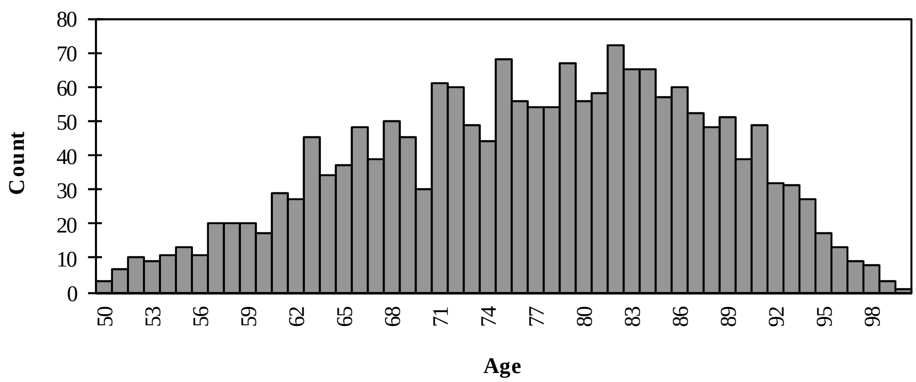
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of December 31, 2014

STATE

Retirees

Count: 17,056 Average age: 72.1 Average benefit: $14,029

Beneficiaries

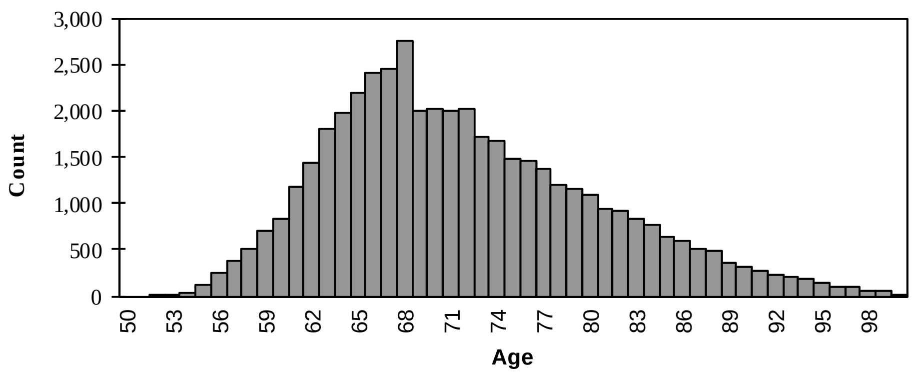


Count: 1,873 Average age: 76.4 Average benefit: $8,820

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of December 31, 2014

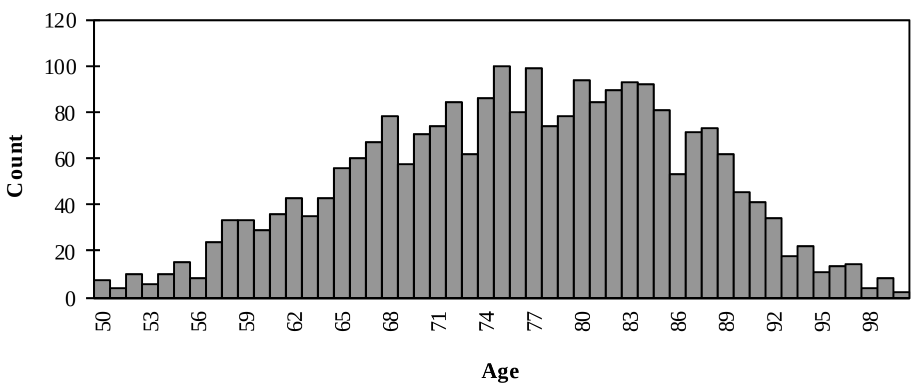
SCHOOL

Retirees



Count: 45,896 Average age: 71.9 Average benefit: $14,915

Beneficiaries



Count: 2,500 Average age: 75.7 Average benefit: $8,995

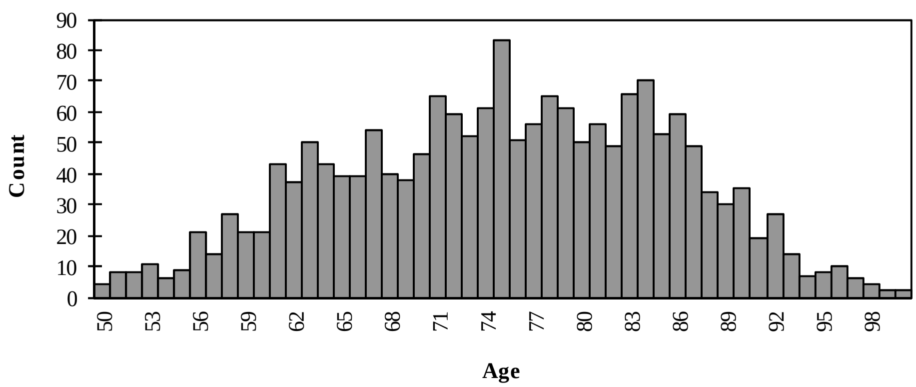
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of December 31, 2014

LOCAL

Retirees

Count: 16,446 Average age: 71.9 Average benefit: $11,384

Beneficiaries



Count: 1,812 Average age: 74.6 Average benefit: $7,151

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of December 31, 2014

TOTAL KPERS

Retirees

Count:	79,398	Average age:	71.9	Average benefit:	$13,994

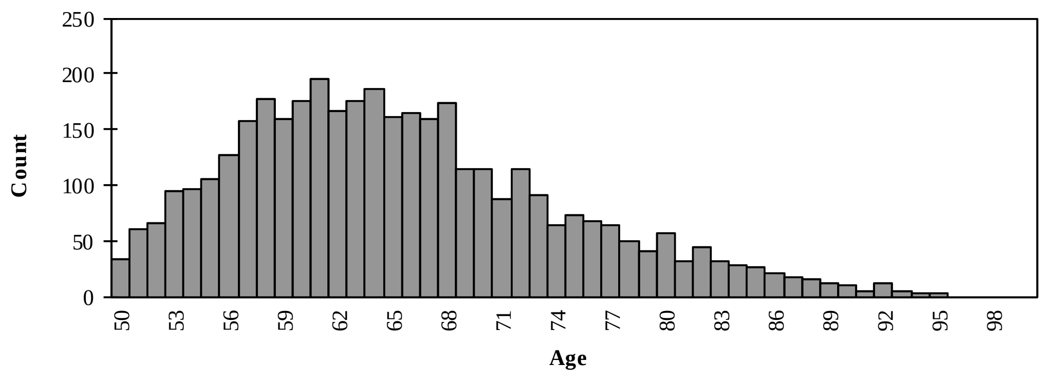
Beneficiaries

Count:	6,185	Average age:	75.6	Average benefit:	$8,402

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of December 31, 2014

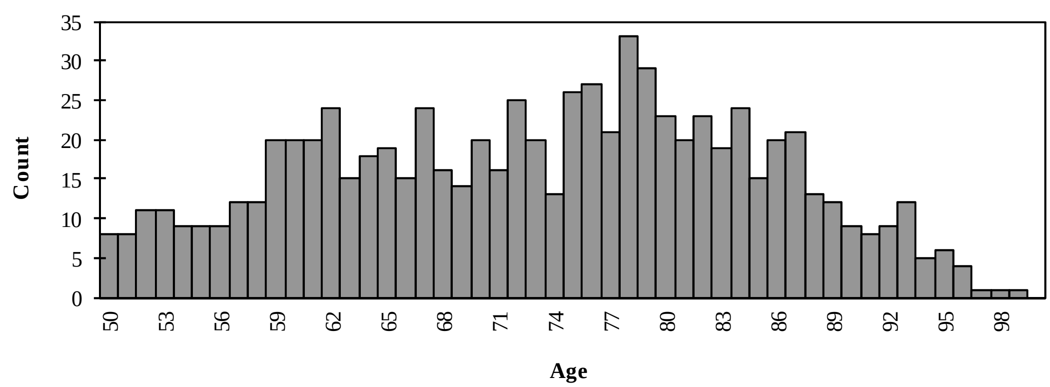
KP&F

Retirees



Count: 3,970 Average age: 64.6 Average benefit: $33,552

Beneficiaries

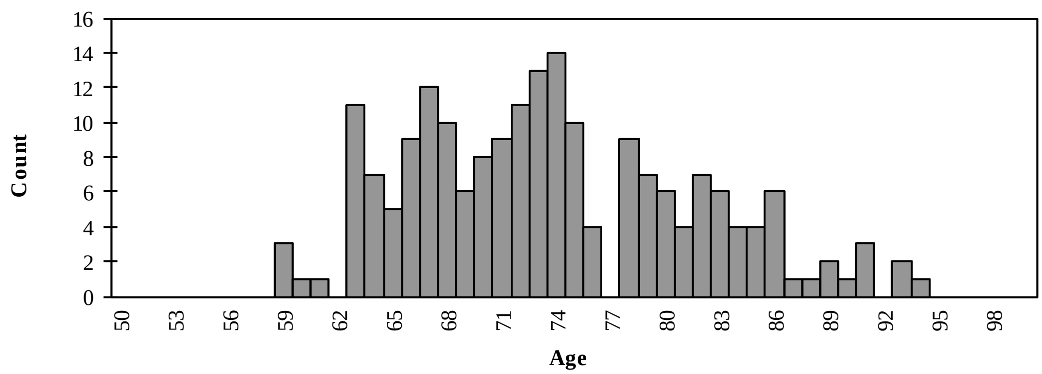


Count: 883 Average age: 67.3 Average benefit: $16,156

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF RETIREES AND BENEFICIARIES
as of December 31, 2014

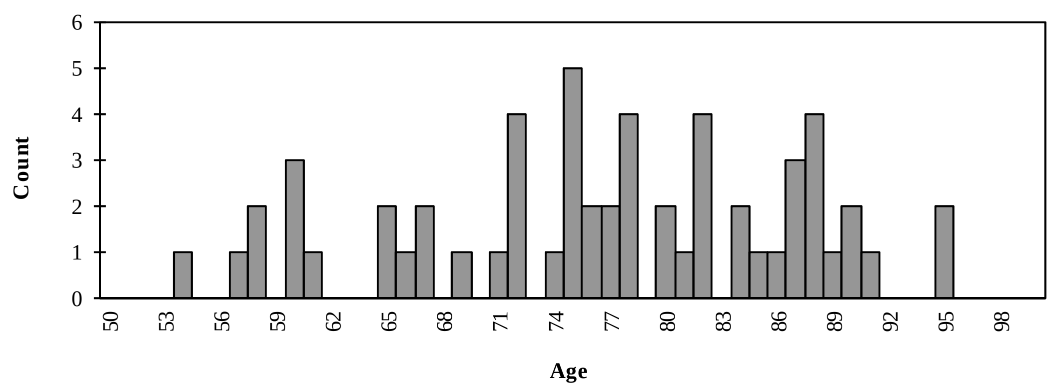
JUDGES

Retirees



Count: 198 Average age: 73.8 Average benefit: $43,222

Beneficiaries



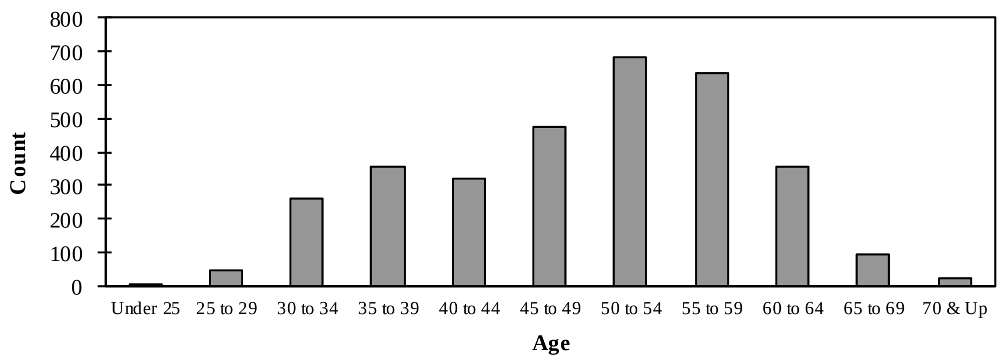
Count: 59 Average age: 76.1 Average benefit: $30,797

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS
as of December 31, 2014

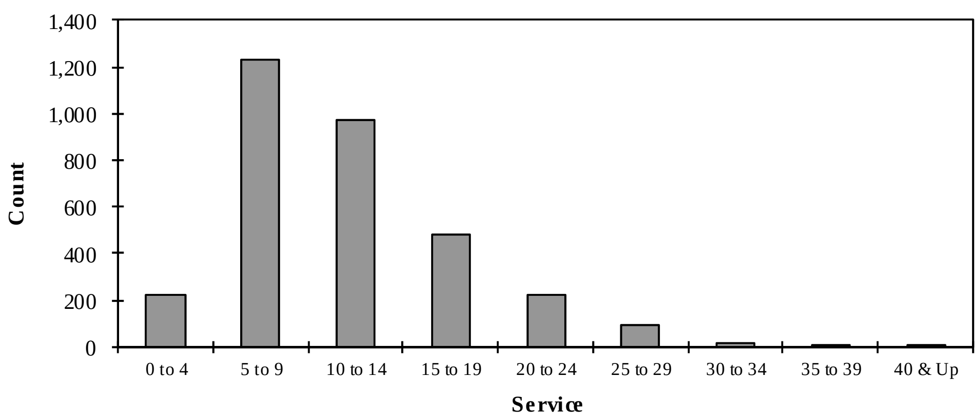
STATE

	Service									
Age	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	Total
Under 25	0	1	0	0	0	0	0	0	0	1
25 to 29	19	30	0	0	0	0	0	0	0	49
30 to 34	44	196	20	0	0	0	0	0	0	260
35 to 39	36	235	78	5	0	0	0	0	0	354
40 to 44	22	159	101	33	6	0	0	0	0	321
45 to 49	13	146	192	85	37	4	0	0	0	477
50 to 54	20	155	235	149	82	36	2	1	0	680
55 to 59	12	151	224	139	63	39	6	0	0	634
60 to 64	22	123	106	64	25	8	5	4	1	358
65 to 69	25	27	12	10	11	5	0	1	2	93
70 & Up	12	6	5	0	1	0	0	1	0	25
Total	225	1,229	973	485	225	92	13	7	3	3,252

Age Distribution



Service Distribution

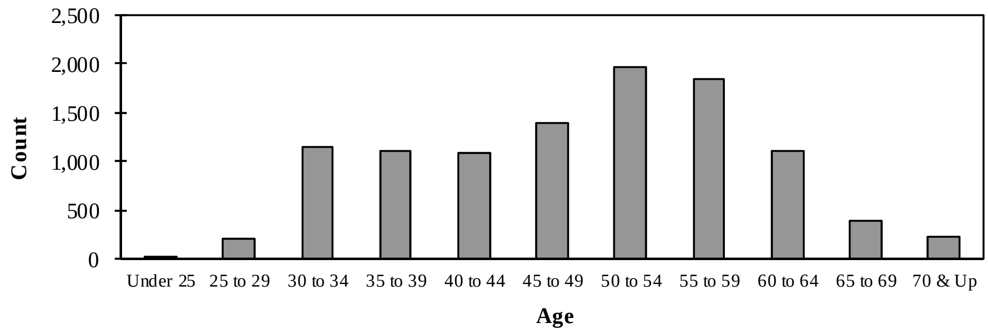


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS
as of December 31, 2014

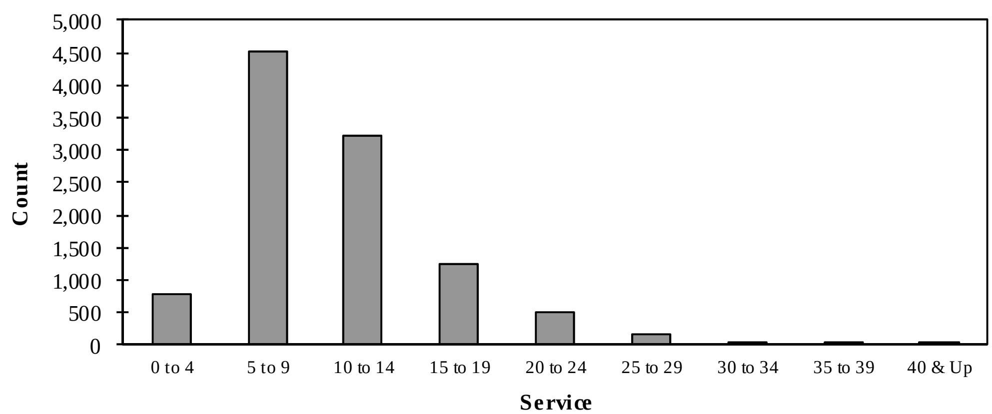
SCHOOL

	Service									
Age	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	Total
Under 25	2	5	0	0	0	0	0	0	0	7
25 to 29	61	152	0	0	0	0	0	0	0	213
30 to 34	99	984	53	0	0	0	0	0	0	1,136
35 to 39	57	718	303	22	0	0	0	0	0	1,100
40 to 44	66	481	397	139	6	0	0	0	0	1,089
45 to 49	63	525	528	190	71	7	0	0	0	1,384
50 to 54	59	603	733	319	167	66	9	0	0	1,956
55 to 59	44	504	688	358	171	68	6	2	0	1,841
60 to 64	23	399	415	183	74	5	2	2	0	1,103
65 to 69	146	107	77	33	15	6	4	2	1	391
70 & Up	158	35	16	5	1	1	1	0	0	217
Total	778	4,513	3,210	1,249	505	153	22	6	1	10,437

Age Distribution



Service Distribution

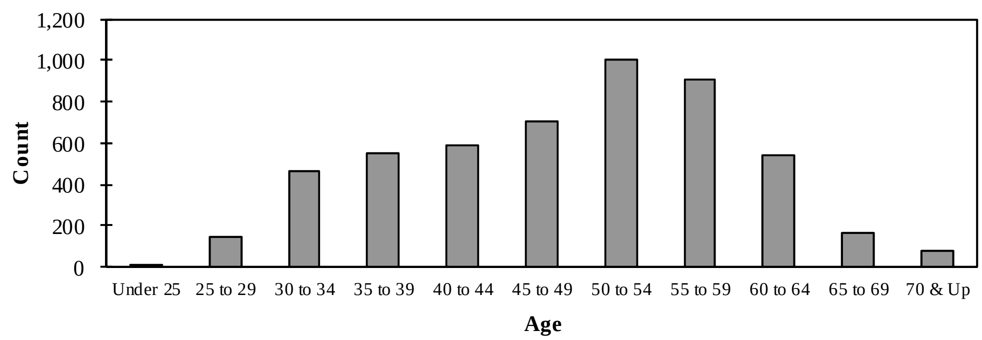


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS
as of December 31, 2014

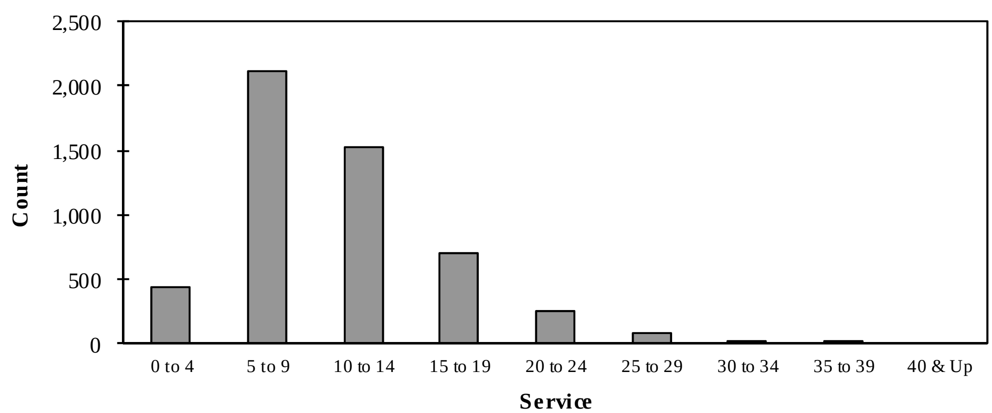
LOCAL

	Service									
Age	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	Total
Under 25	1	0	0	0	0	0	0	0	0	1
25 to 29	44	104	0	0	0	0	0	0	0	148
30 to 34	72	367	23	0	0	0	0	0	0	462
35 to 39	52	347	137	18	0	0	0	0	0	554
40 to 44	28	265	203	89	8	0	0	0	0	593
45 to 49	26	249	270	115	38	7	0	0	0	705
50 to 54	42	254	359	204	106	26	7	0	0	998
55 to 59	31	258	333	173	71	34	8	2	0	910
60 to 64	39	207	163	92	25	10	2	3	0	541
65 to 69	59	50	29	9	8	1	2	2	0	160
70 & Up	53	11	6	4	0	2	0	0	0	76
Total	447	2,112	1,523	704	256	80	19	7	0	5,148

Age Distribution



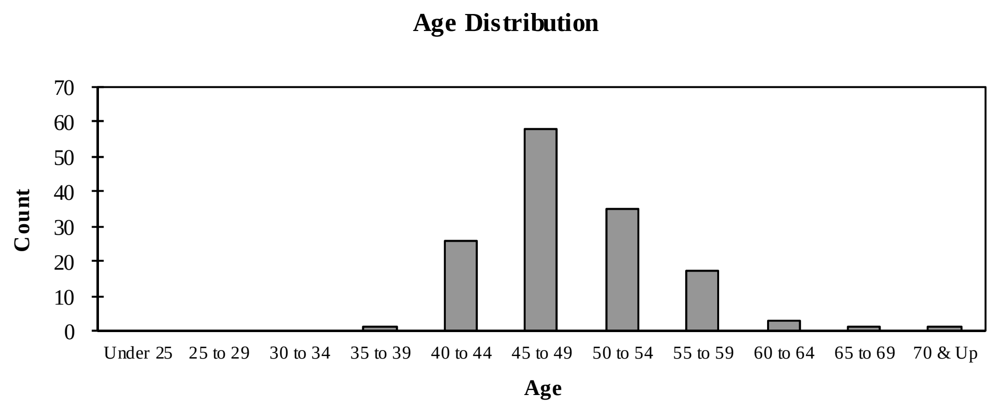
Service Distribution

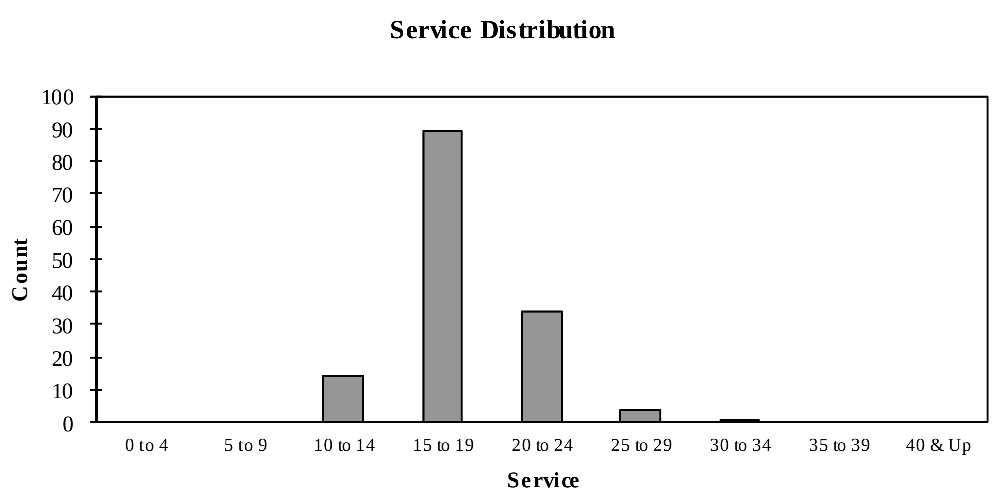


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS
as of December 31, 2014

KP&F

	Service									
Age	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	Total
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	1	0	0	0	0	0	0	1
40 to 44	0	0	4	21	1	0	0	0	0	26
45 to 49	0	0	7	37	13	1	0	0	0	58
50 to 54	0	0	0	21	11	2	1	0	0	35
55 to 59	0	0	2	9	6	0	0	0	0	17
60 to 64	0	0	0	0	2	1	0	0	0	3
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	89	34	4	1	0	0	142



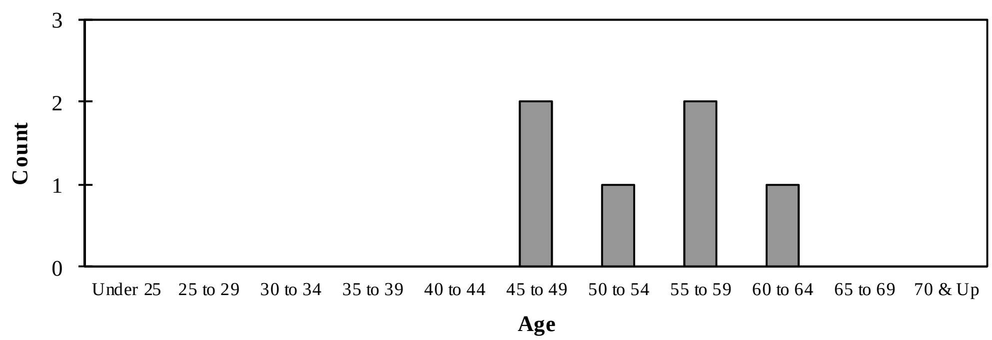


KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
DISTRIBUTION OF INACTIVE VESTED MEMBERS
as of December 31, 2014

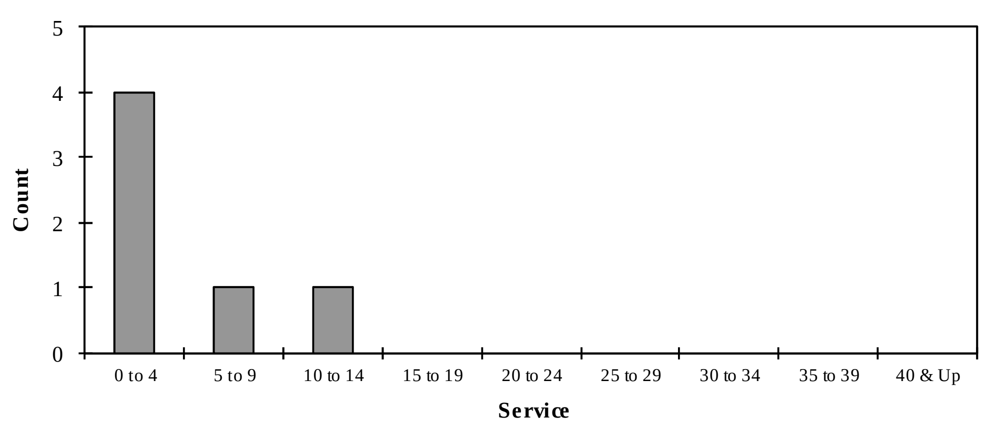
JUDGES

	Service									
Age	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	Total
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0
30 to 34	0	0	0	0	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	0	0	0
45 to 49	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	0	1	0	0	0	0	0	0	2
60 to 64	0	1	0	0	0	0	0	0	0	1
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	1	1	0	0	0	0	0	0	6

Age Distribution



Service Distribution



This page intentionally left blank.

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 nearly 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.

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, 2014. Tier 3 benefits are not included as there were no such members in the valuation.

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.

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 salary, excluding add-ons, such as sick and annual leave. Effective July 1, 2009, (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 1.00% of Final Average Salary per year [School employees receive 0.75% of 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 10 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, and 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 35.0% 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 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. Subsequently, the IRS issued a private letter ruling stating that the election granted to KPERS 1 members under 2012 HB 2333 was impermissible.

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 and statutory 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.

Tier 1: For groups (a) and (b) with at least 3 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 10 years of credited service. For groups (c), (d), (e), and (f) with at least 3 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 10 years of credited service.

Tier 2: For groups (a) and (b) with at least 3 consecutive years of credited service in such positions immediately preceding retirement, normal retirement age is 55 with 10 years of credited service, and early retirement requirements are age 50 with 10 years of credited service. For groups (c), (d), (e), and (f) with at least 3 consecutive years of service in such positions immediately preceding retirement, normal retirement age is 60 with 10 years of credited service, and early retirement requirements are 55 with 10 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.

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 credited service; 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 credited service 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 Average Salary. If dependent child 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 90% 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 two 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 90% of FAS.

Tier II: There is no distinction between service-connected and non-service-connected disability benefits. The annual benefit is 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 for full-time students), 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 and a pension of 2.5% of Final Average Salary per year of credited service (to a maximum of 50%) is payable to the spouse. If there is no spouse, the monthly benefit is paid to the dependent children (age 18, or 23 if a full time student). If there is no surviving spouse or eligible children, the beneficiary will receive a lump sum payment of 100% of the member's current annual pay inclusive of the member's accumulated contributions.

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

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

Classifications

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

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

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

Transfer Member – A 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 – A 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 0.2% per month for each month between the ages of 60 and 62, and 0.6% per month for each month between the ages of 55 and 60.

Vesting Requirements

Eligibility – There is no minimum service requirement; however, after 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 10 years of credited service. 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 50% 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 they will forfeit any right to a future benefit if they do.

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 ten years of credited service, but hadn't reached retirement age at the time of death, the spouse may elect a monthly benefit to begin on the date the member first would have been eligible to retire as long as the member's contributions aren't withdrawn.

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

Member Contributions

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

Employer Contributions

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

This page intentionally left blank.

KPERS

Rate of Investment Return 8.0%

Price Inflation 3.0%

KPERS 3 Interest Crediting Rate 6.5%

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)

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

Pre-retirement

School Males: 70 % of RP-2000 M Employees -2
School Females: 70% of RP-2000 F Employees -2
State Males: 70% of RP-2000 M Employees +2
State Females: 65% of RP-2000 F Employees +0
Local Males: 90% of RP-2000 M Employees +2
Local Females: 90% of RP-2000 F Employees -1

Disabled Life Mortality

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

Rates of Salary Increase

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

*Includes general wage increase assumption of 4.0% (composed of 3.0% inflation and 1.0% productivity)

Note: Because Tier 2 State and Local employees become members immediately, their rates of salary increase are shifted 1 year to be consistent with Tier 1 members.

Load for Pre-1993 Hires

State: 2.0%, School: 0.5%,
Local: 1.8%, C55/C60: 1.5%

Rates of Termination

	School		State		Local	
Duration	Male	Female	Male	Female	Male	Female
0	21.00%	23.00%	18.00%	19.00%	20.00%	23.00%
1	18.00%	18.00%	15.00%	15.00%	16.00%	20.00%
2	14.00%	13.00%	13.00%	11.00%	13.20%	17.00%
3	10.00%	11.00%	11.00%	10.00%	11.00%	14.00%
4	8.00%	9.00%	9.00%	9.00%	9.60%	11.50%
5	6.50%	7.25%	7.50%	8.00%	8.30%	9.00%
6	5.50%	6.25%	6.50%	7.00%	7.10%	7.50%
7	5.00%	5.50%	5.70%	6.00%	6.10%	6.80%
8	4.50%	4.90%	5.20%	5.00%	5.10%	6.20%
9	4.00%	4.30%	4.90%	4.60%	4.50%	5.60%
10	3.60%	3.90%	4.50%	4.30%	4.10%	5.00%
11	3.20%	3.50%	4.30%	4.00%	3.80%	4.50%
12	2.90%	3.10%	4.10%	3.70%	3.60%	4.20%
13	2.60%	2.80%	3.90%	3.50%	3.40%	3.90%
14	2.40%	2.50%	3.70%	3.30%	3.20%	3.60%
15	2.20%	2.30%	3.50%	3.10%	3.10%	3.30%
16	2.00%	2.10%	3.30%	2.90%	3.00%	3.00%
17	1.80%	1.90%	3.00%	2.70%	2.80%	2.80%
18	1.60%	1.70%	2.70%	2.50%	2.60%	2.60%
19	1.50%	1.50%	2.40%	2.30%	2.50%	2.40%
20	1.40%	1.30%	2.20%	2.10%	2.40%	2.20%
21	1.30%	1.20%	2.00%	1.90%	2.20%	2.00%
22	1.20%	1.10%	1.80%	1.70%	2.00%	1.80%
23	1.10%	1.00%	1.60%	1.50%	1.80%	1.60%
24	1.00%	0.90%	1.40%	1.40%	1.60%	1.40%
25	0.90%	0.80%	1.20%	1.30%	1.40%	1.20%
26	0.80%	0.70%	1.10%	1.20%	1.20%	1.00%
27	0.70%	0.60%	1.00%	1.10%	1.10%	1.00%
28	0.60%	0.50%	0.90%	1.00%	1.00%	1.00%
29	0.50%	0.50%	0.80%	0.50%	0.90%	1.00%
30	0.50%	0.50%	0.70%	0.50%	0.80%	1.00%
30+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Note: Because Tier 2 State and Local employees become members immediately, their termination rates are shifted 1 year to be consistent with Tier 1 members.

Retirement Rates

School

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

Early Retirement		Normal Retirement	
Age	Rate	Age	Rate
55	5%	62	30%
56	5%	63	25%
57	8%	64	35%
58	10%	65	35%
59	12%	66-71	25%
60	15%	72-74	20%
61	24%	75	100%

State

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

Early Retirement		Normal Retirement	
Age	Rate	Age	Rate
55	5%	62	30%
56	5%	63	20%
57	5%	64	30%
58	6%	65	35%
59	10%	66-67	25%
60	10%	68-74	20%
61	20%	75	100%

Local

	Rule of 85	
Age	1st Year With 85 Points	After 1st Year With 85 Points
53	11%	7%
55	13%	10%
57	13%	10%
59	15%	12%
61	25%	25%

Early Retirement		Normal Retirement	
Age	Rate	Age	Rate
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 -

Age	Rate
55	10%
58	10%
60	15%
62	35%
65	100%

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

Age	Rate
60	20%
61	20%
62	20%
63	20%
64	20%
65	70%
66	70%
67	70%
68	100%

- For TIAA employees – Age 66.

Rates of Disability

Age	School	State	Local
25	.020%	.029%	.024%
30	.022%	.082%	.052%
35	.027%	.129%	.078%
40	.046%	.195%	.114%
45	.088%	.301%	.167%
50	.170%	.409%	.290%
55	.289%	.576%	.480%
60	.544%	.736%	.680%

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

Probability of Vested Members Leaving Contributions With System

Tier 1:

Age	School	State	Local
25	80%	65%	60%
30	80%	65%	70%
35	80%	65%	70%
40	80%	65%	70%
45	82%	75%	70%
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

Years of Service	Rate of Increase*
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)

Rates of Termination

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

Tier 2:

Years of Service	Rate
1	13.0%
5	6.0%
10	2.5%
15	1.0%
20	1.0%
25	0.0%

Retirement Rates

Tier 1:

Early Retirement		Normal Retirement	
Age	Rate	Age	Rate
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:

Early Retirement		Normal Retirement	
Age	Rate	Age	Rate
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.

Rates of Disability

Age	Rate*
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

Age	Rate
60	20%
61	10%
62-64	15%
65-66	20%
67-69	10%
70+	100%

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

TECHNICAL VALUATION PROCEDURES

Data Procedures

In-pay members:

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

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

Not in-pay members:

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

System	Active member age at hire	Inactive member age at valuation
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:

System	Salary
KPERS	$24,662
KP&F	$36,046
Judges	$65,130

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.

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

Actuarial Methods

1. Funding Method

Under the EAN cost method, the actuarial present value of each member's projected benefits allocates on a level basis over the member's compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/losses.

There are several components of the unfunded actuarial liability which are amortized over different periods. The increase in the unfunded actuarial liability resulting from the 1998 COLA is amortized over 15 years. The increase in the unfunded actuarial liability for Local employers resulting from 2003 legislation which made the 13^{th} 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.

There is currently a lag between the valuation date in which the employer contribution rates are determined and the effective date of those contribution rates, i.e., two year lag for Local employers and a two and one-half year lag for the State/School group. The unfunded actuarial liability (UAL) is projected from the valuation date to the first day of the fiscal year in which the contribution rate will apply based on the statutory contribution rates and expected payroll in the intervening years. 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.

This page intentionally left blank

APPENDIX D – GLOSSARY OF TERMS

The following are key terms used in the discussion of actuarial funding valuations. Actuarial measurements for other purposes, such as accounting, may use different 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.

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).