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**Kansas Public Employees  
Retirement System**

**Valuation Report as of December 31, 2012**







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# Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

July 1, 2013

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, 2012 for purposes of determining contribution rates for fiscal year 2016 for the State and 2015 for Local employers. The major findings of the valuation are contained in this report, which reflects the benefit provisions in place on December 31, 2012, including House Bill 2213 (passed by the 2013 Legislature). There were no changes to the actuarial assumptions and methods from those used in the prior valuation. Please note that the assumptions and methods will be reviewed in conjunction with the regular triennial experience study which is expected to be completed in the next six months. The specific impact of the legislation is discussed 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.

3906 Raynor Pkwy, Suite 106, Bellevue, NE 68123

Phone (402) 905-4461 • Fax (402) 905-4464

[www.CavMacConsulting.com](http://www.CavMacConsulting.com)

Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE • Hilton Head Island, SC



Board of Trustees  
July 1, 2013  
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Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements.

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

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 Alan Conroy, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

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

Sincerely,

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

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

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

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



## SECTION 1 – BOARD SUMMARY

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### 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, 2012 actuarial valuations for each of the Systems.

The primary purposes of performing actuarial valuations are to:

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

The 2012 Legislature passed Sub House Bill 2333 (Sub HB 2333) which was signed into law by the Governor on June 1, 2012. Sub House Bill 2333 created a Tier 3 retirement plan for new members effective January 1, 2015 and included benefit changes for current Tier 1 and Tier 2 members. The bill also provided for increases in the statutory cap on the employer contribution rate. Sub HB 2333 was intended to improve KPERS’ long term funding and increase KPERS’ sustainability. The legislative changes, other than Tier 3, were reflected in the prior valuation and are also reflected in the current valuation. The second increase in the employee contribution rate for Tier 1 from 5% to 6% (effective January 1, 2015) is reflected in the current valuation and resulted in a decrease in the employer normal cost rate.

In particular, Sub HB2333 increased the cap on employer contribution rate increases from 0.60 percent per year to:

FY 2014	0.9%
FY 2015	1.0%
FY 2016	1.1%
FY 2017 and after	1.2%

Sub HB 2333 also provided for the State to make additional contributions beginning in FY 2014 to fund the unfunded actuarial liability (UAL) of the State/School group until their funded ratio reaches at least 80%. The additional contribution stream, which comes from the Expanded Lottery Act Revenue Fund (ELARF), is determined as 50% of the money credited to the ELARF, after an annual reduction of \$10.5 million. Since the money credited to the ELARF will vary from year to year, the specific contribution amounts to KPERS are unknown at this time. For FY 2014 and 2015 the ELARF funds are being 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 until FY 2016, at which time the contributions are expected to be around \$40 million per year.



**SECTION 1 – BOARD SUMMARY**

- **Tier 1 Members**

Sub HB 2333 created a 90 day election period for Tier 1 members of the system on July 1, 2013 to permit them to choose to (1) contribute 5% of compensation as employee contributions effective January 1, 2014 and 6% effective January 1, 2015 and receive a 1.85% multiplier for all years of future service or (2) continue to contribute 4% of compensation as employee contributions and receive a 1.40% multiplier for all years of future service. Changes in the benefit multiplier are effective January 1, 2014 and impact only future years of service. The election is subject to approval by the Internal Revenue Service, and if such approval is not granted, there will be no election and the default option (option 1 above) will apply. The provisions are summarized in the following table:

<u>Member Contribution Rate</u>	<u>Benefit Provisions</u>
5% effective January 1, 2014 and 6% effective January 1, 2015	Increase multiplier to 1.85% for future service only, effective January 1, 2014
or	
4% contribution rate	Multiplier is reduced to 1.40% for future service only, effective January 1, 2014

As of the date of this report, IRS approval has not yet been received, and therefore, the default option has been valued for all Tier 1 members.

- **Tier 2 Members**

Sub HB 2333 eliminated the cost of living adjustment (COLA) for Tier 2 members, effective July 1, 2012. However, Tier 2 member who retire after July 1, 2012 receive a higher multiplier of 1.85% for all years of service, not just future years of service (House Bill 2213 in the 2013 session changed the date from January 1, 2014 to July 1, 2012).

<u>Current Tier 2</u>	<u>Revised Tier 2</u>
6% contribution	6% contributions
1.75% multiplier	1.85% multiplier for all service for members retiring on/after July 1, 2012*
Includes cost of living increase	Eliminate COLA if retiring after June 30, 2012 (no impact for members retiring before July 1, 2012)

\*Changed to July 1, 2012 in House Bill 2213 passed in the 2013 session.

Sub HB 2333 had no impact on current KPERS retirees or inactive members who do not return to covered employment.





## SECTION 1 – BOARD SUMMARY

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### **Tier 3 Members (effective January 1, 2015)**

Sub House Bill 2333 creates a cash balance retirement plan (Tier 3) for new hires on or after January 1, 2015. Correctional officers are not included in this new tier, but will remain in KPERS Tier 2. A cash balance plan is a defined benefit plan, so the KPERS defined benefit plan remains an open plan. The projected benefits for members of all three tiers will be included in the actuarial valuations in 2015 and beyond. A single employer contribution rate, which includes the UAL payment and applies to the covered payroll of all three tiers, will be developed in the valuation.

Given the effective date of Tier 3, there are no Tier 3 members included in the December 31, 2012 valuation, and therefore, there was no cost impact on the valuation results in this report. However, the final increase in the employee contribution rate for Tier 1 members and the increase in the statutory cap on the employer contribution rate in Sub House Bill 2333, did have an impact on the December 31, 2012 valuation results. In addition, the impact of the plan design for Tier 3 members is reflected in the projection of employer contribution rates shown later in this section of the report.

House Bill 2213 (HB 2213), the KPERS Omnibus bill, was passed by the 2013 legislature and signed by the Governor on June 14, 2013. This bill made several technical corrections to KPERS, KP&F and Judges that did not impact the valuation results. However, HB 2213 also increased the cap on the maximum retirement benefit in KP&F from 80% to 90% of final average salary and increased the employee contribution rate from 7% of pay until the member has 32 years of service to 7.15% of pay for all years of service. This change increased the unfunded actuarial liability and normal cost rate for the KP&F group, but the cost was offset by the increase in the employee contribution rate of 0.15%.

The valuation results provide a “snapshot” view of the System’s financial condition on December 31, 2012. The unfunded actuarial liability (UAL), for the System as a whole, increased by \$1,025 million due to multiple factors. A detailed analysis of the change in the unfunded actuarial liability from December 31, 2011 to December 31, 2012 is shown on page 8.

In KPERS, the State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The current statutory cap is 0.90% for fiscal year 2014, 1.0% for fiscal year 2015, 1.1% for fiscal year 2016 and 1.2% for fiscal year 2017 and later.



## SECTION 1 – BOARD SUMMARY

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

System	December 31, 2012 Valuation		
	Actuarial	Statutory	Difference
State <sup>1</sup>	11.44%	12.37%	(0.93%)
School <sup>1</sup>	16.00%	12.37%	3.63%
Local <sup>1</sup>	9.48%	9.48%	0.00%
Police & Fire - Uniform Rates <sup>2</sup>	21.36%	21.36%	0.00%
Judges	23.98%	23.98%	0.00%

System	December 31, 2011 Valuation		
	Actuarial	Statutory	Difference
State	10.80%	11.27%	(0.47%)
School	15.41%	11.27%	4.14%
Local	9.77%	8.84%	0.93%
Police & Fire - Uniform Rates	19.92%	19.92%	0.00%
Judges	22.59%	22.59%	0.00%

<sup>1</sup> By statute, rates are allowed to increase by a maximum of 0.9% for FY 2014, 1.0% in FY 2015, 1.1% in FY 2016 and 1.2% in FY 2017 plus the cost of any benefit enhancements.

<sup>2</sup> 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 21.32% this year. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer. (See Table 13)

The significant changes made to the benefits and contributions for members of Tiers 1 and 2 along with increases in the employer contribution rate in Sub House Bill 2333 and the creation of a new Tier 3, improved the long term funding outlook for KPERS. In addition, the rate of return on the market value of assets in 2012 was over 14%, in excess of the assumed return of 8%. As a result, as of this valuation date, the State group continues to be at the ARC rate and Local group reached the ARC Date in the current valuation (for FY 2015). In addition, the School group is in actuarial balance (the statutory contribution rate is projected to converge with the actuarial required contribution (ARC) rate before the end of the amortization period (2033), if all actuarial assumptions are met in future years.

## EXPERIENCE - ALL SYSTEMS COMBINED

### December 31, 2011 – December 31, 2012

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, 2012. 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.



## SECTION 1 – BOARD SUMMARY

Changes in the Systems' assets and liabilities impacted the change in the actuarial contribution rates between the December 31, 2011 and December 31, 2012 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, 2011 and December 31, 2012 actuarial valuations.

	State	School	Local	KP&F	Judges	Total
12/31/2011 (Starting count)	23,917	84,183	39,547	7,143	264	155,054
New actives	2,472	10,298	5,090	574	15	18,449
Nonvested Terminations	777	3,152	1,952	202	0	6,083
Elected Refund	572	1,254	1,250	90	1	3,167
Vested Terminations	<u>695</u>	<u>2,255</u>	<u>1,196</u>	<u>84</u>	<u>1</u>	4,231
Total Withdrawals	2,044	6,661	4,398	376	2	13,481
Deaths	45	95	79	9	4	232
Disabilities	46	107	67	19	0	239
Retirements	448	2,161	751	126	12	3,498
Other/Transfer	20	-29	9	0	0	0
12/31/2012 (Ending count)	23,826	85,428	39,351	7,187	261	156,053

The size of active membership was up very slightly overall, although some groups saw a slight decline in employment. In the current economic environment, this pattern of low (or negative) employee growth is not surprising. Coupled with low salary increases, the total payroll did not grow as much as expected.

### ASSETS

As of December 31, 2012, the System had total funds of \$13.8 billion on a market value basis, excluding assets held for the Group Insurance and Optional Life reserves. This was an increase of \$1.3 billion from the December 31, 2011 figure of \$12.5 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, 2012 for each group.



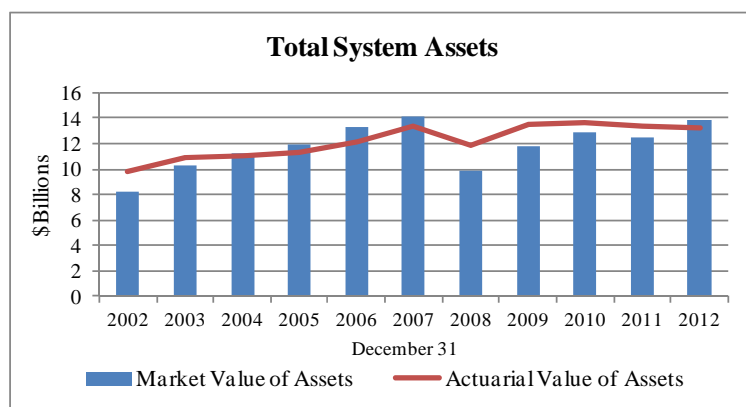
## SECTION 1 – BOARD SUMMARY

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, 2011	\$12,477	\$13,379
• Employer and Member Contributions	885	885
• Benefit Payments and Expenses	(1,307)	(1,307)
• Investment Income	1,762	321
Assets, December 31, 2012	\$13,817	\$13,278

The actuarial value of assets as of December 31, 2012, was \$13.278 billion. The annualized dollar-weighted rate of return for 2012, measured on the actuarial value of assets, was approximately 2.4% and measured on the market value of assets, as reported by KPERS, was 14.5%, net of investment expenses.

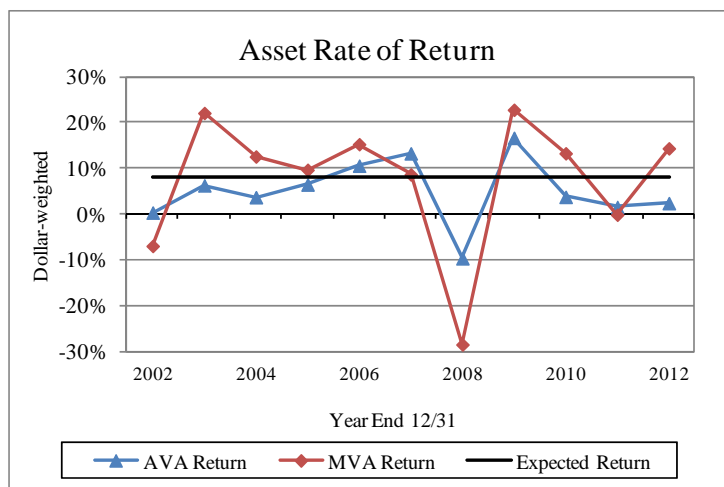
Due to the use of an asset smoothing method, there is \$539 million of net deferred investment gain experience that has not yet been recognized, i.e. the market value of asset is higher than the actuarial value. This deferred investment gain will be reflected in the actuarial value of assets over the 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.*



## SECTION 1 – BOARD SUMMARY



*The rate of return on the actuarial (smoothed) value of assets has been less volatile than the market value return. The deferred investment gains will be reflected in the actuarial value of assets in the next few years, absent unfavorable investment experience.*

### LIABILITIES

The actuarial liability is that portion of the present value of future benefits that will not be paid by future employer normal costs or member contributions. The difference between this liability and asset values at the same date is referred to as the unfunded actuarial liability (UAL). The unfunded actuarial liability will be reduced if the employer's contributions exceed the employer's normal cost for the year, after allowing for interest earned on the previous balance of the unfunded actuarial liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods will also impact the total actuarial liability (AL) and the unfunded portion thereof.

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

	State	School	Local	KP&F	Judges	Total*
Actuarial Liability	\$4,016	\$12,587	\$4,190	\$2,583	\$ 156	\$ 23,531
Actuarial Value of Assets	<u>2,724</u>	<u>6,220</u>	<u>2,491</u>	<u>1,716</u>	<u>127</u>	<u>13,278</u>
Unfunded Actuarial Liability*	\$ 1,292	\$ 6,366	\$ 1,699	\$ 866	\$ 29	\$ 10,253

\*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 9.

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

Other factors influencing the UAL from year to year include actual experience versus that expected based on the actuarial assumptions (on both assets and liabilities), changes in actuarial assumptions, procedures or



## SECTION 1 – BOARD SUMMARY

methods and changes in benefit provisions. The actual experience measured in this valuation is that which occurred during the prior plan year (calendar year 2012). All of the KPERS groups except KP&F had a liability gain for the year, largely from lower salary increases than expected. As discussed earlier, recognition of the remaining deferred investment loss from 2008 resulted in an experience loss on the actuarial value of assets for all groups. The large 2008 investment loss experience has now been fully recognized. The loss on actuarial assets was greater than the liability gain so there was a net actuarial loss for all groups combined.

Between December 31, 2011 and December 31, 2012 the change in the unfunded actuarial liabilities for the System as a whole was as follows (in millions):

	\$ millions
Unfunded Actuarial Liability, December 31, 2011	\$ 9,228
• effect of contribution cap/time lag	303
• expected increase due to amortization method	49
• loss from investment return on actuarial assets	732
• demographic experience <sup>1</sup>	(120)
• all other experience	41
• change in actuarial methods	0
• change in actuarial assumptions	0
• change in benefit provisions (KP&F) <sup>2</sup>	19
Unfunded Actuarial Liability, December 31, 2012 <sup>3</sup>	\$ 10,253

<sup>1</sup>Liability gain is about 0.6% of total actuarial liability.

<sup>2</sup>HB 2213 increased the KP&F maximum benefit from 80% to 90% of final average salary and the member contribution rate increased to 7.15% for all years of service.

<sup>3</sup>May not add due to rounding.

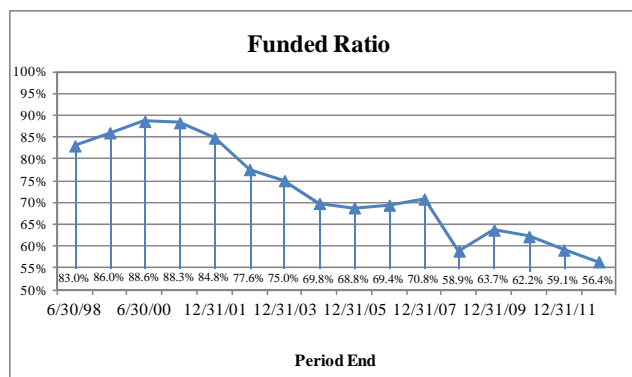
A detailed summary of the change in the unfunded actuarial liability by System is shown on page 16.

An evaluation of the unfunded actuarial liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial liability and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial liability. The funded status information is shown below (in millions).

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



## SECTION 1 – BOARD SUMMARY



*Due to strong investment returns, the funded status of the System generally improved in the latter part of the 1990's. Changes in actuarial assumptions and methods, coupled with investment returns below the assumed rate and contributions below the actuarial rate have significantly reduced the funded ratio.*

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 grow for a few more years and then start to decline. The funded ratio is expected to remain relatively stable while the unfunded actuarial liability grows, and then gradually improve. The actual funded ratio in future years is 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, 2012 valuation will set employer contribution rates for fiscal year 2016 for the State (July 1, 2015 to June 30, 2016) and 2015 for Local employers (calendar year 2015).

In KPERS, State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap, which has been changed periodically (most recently in 2012), is 0.9% for fiscal year 2014, 1.0% in 2015, 1.1% in 2016, and 1.2% in 2017 and beyond for all three groups.



## SECTION 1 – BOARD SUMMARY

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

System	December 31, 2012 Valuation		
	Actuarial	Statutory	Difference
State <sup>1</sup>	11.44%	12.37%	(0.93%)
School <sup>1</sup>	16.00%	12.37%	3.63%
Local <sup>1</sup>	9.48%	9.48%	0.00%
Police & Fire - Uniform Rates <sup>2</sup>	21.36%	21.36%	0.00%
Judges	23.98%	23.98%	0.00%

<sup>1</sup> By statute, rates are allowed to increase by a maximum of 0.9% for FY 2014, 1.0% in FY 2015, 1.1% in FY 2016 and 1.2% in FY 2017 plus the cost of any benefit enhancements.

<sup>2</sup> 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 21.32% this year. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer. (See Table 13)

Separate employer contribution rates are calculated for two subgroups of the State: Correctional Employee Groups with normal retirement age 55 (C55) and the other with normal retirement age 60 (C60). The contribution rates are calculated by increasing the state actuarial rate by the difference in the normal cost rate for the C55 and C60 groups over the normal cost rate for regular state members. The higher contribution rates finance the earlier normal retirement age. The actuarial contribution rates for the Correctional Employee Groups are shown below:

	Actuarial Rate	Statutory Rate
Retirement Age 55:	12.21%	12.76%
Retirement Age 60:	12.27%	12.50%

The change in the employer actuarial contribution rate from December 31, 2011 to December 31, 2012 and the primary components thereof are shown in the table on page 17.

Due to statutory caps, the full actuarial contribution rate is not contributed for all KPERS groups. The State reached the ARC date (statutory contribution rate is equal to or greater than the actuarial contribution rate) in the December 31, 2010 valuation and continues to be so in this valuation. The Local group reached the ARC date in this valuation with an ARC rate of 9.31% (effective FY 2015). Based on the current valuation, there is a difference (shortfall) between the actuarial and statutory contribution rates of 3.63% for the School group. Assuming an 8% return on the market value of assets for 2013 and beyond, all other actuarial assumptions are met in the future, and the current provision for statutory caps on the employer contribution rate, the estimated ARC Date for the combined State/School group is FY2019 at a rate of 15.85%. This is an improvement over last year's projections which showed a projected ARC Date of FY 2021 at a rate of 17.26%.

### COMMENTS

Like most public retirement systems, KPERS uses an asset smoothing method to smooth out investment experience above and below the assumed rate of 8% per annum. Under the asset smoothing method, the difference between the actual and assumed investment experience is recognized equally over a five year period. As a result, the final recognition of the investment loss for the 2008 plan year is reflected in the current valuation. While the return on the market value of assets for 2012 was 14.5%, the return on the actuarial value of assets was about 2.5%. As of the valuation date, the actuarial value of assets was lower than the market value of assets, something which has not occurred since the 2007 valuation.





## SECTION 1 – BOARD SUMMARY

The deferred investment experience moved from a net deferred loss of \$902 million last year to a net deferred gain of \$539 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, absent investment experience below the 8% assumed rate of return. As the deferred investment experience is recognized, the funded ratio can be expected to hold steady in the short term and eventually increase over the long term.

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. While this is particularly important when there are deferred investment losses, 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	
	<u>Actuarial</u>	<u>Market</u>	<u>Actuarial</u>	<u>Market</u>
Actuarial Liability	\$16,603	\$16,603	\$2,583	\$2,583
Asset Value	8,944	9,313	1,716	1,785
Unfunded Actuarial Liability	7,659	7,290	866	798
Funded Ratio	54%	56%	66%	69%
Contribution Rate:				
Normal Cost Rate	8.26%	8.26%	14.58%	14.58%
UAL Payment	<u>12.69%</u>	<u>12.08%</u>	<u>13.93%</u>	<u>12.82%</u>
Total	20.95%	20.34%	28.51%	27.40%
Employee Rate	<u>6.00%</u>	<u>6.00%</u>	<u>7.15%</u>	<u>7.15%</u>
Employer Rate	14.95%	14.34%	21.36%	20.25%

The asset smoothing method impacts only the timing of when the actual experience on the market value of assets is recognized. A return of more than 14% in 2012 mitigated the impact of recognizing the last portion of the deferred investment loss from 2008, but the return on the actuarial value of assets was still below 8%. As a result, the unfunded actuarial liability increased by \$1.025 billion. 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.



## SECTION 1 – BOARD SUMMARY

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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.
- ✓ Provides for an election by Tier 1 members depending on IRS approval. Tier 1 members may elect to increase 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% for future years of service only, or remain at a 4% employee contribution rate and receive a benefit multiplier of 1.4% for future years of service. The multiplier changes are effective January 1, 2014. Without IRS approval of the election, contributions and the multiplier will automatically increase.
- ✓ For Tier 2 members retiring after July 1, 2012, the cost of living adjustment (COLA) is eliminated, but members will receive a 1.85% multiplier for all years of service.
- ✓ Creates a Cash Balance Plan for new hires beginning January 1, 2015. A cash balance plan is a type of defined benefit plan that includes some elements of a defined contribution plan and shares risk between the employer and employee. Each member has a hypothetical account that is credited with employee contributions, employer pay credits and interest credits. At retirement, the account balance is annuitized to create a guaranteed monthly benefit payable for the member's lifetime. Up to 30% of the account value at retirement may be paid as a lump sum.
- ✓ Beginning in FY 2014, provides for the state to make additional contributions to help pay down KPERS' unfunded actuarial liability until the State/School group reaches a funded ratio of at least 80%. The revenue will come from the Expanded Lottery Act Revenues Fund (ELARF). For FY 2014 and 2015 the ELARF funds are being used as a partial funding source to meet the statutory contribution requirements for the School group rather than being contributed in addition to the statutory contributions. Therefore, no additional funding of the UAL is anticipated until FY 2016 at which time the contributions are expected to be around \$40 million.

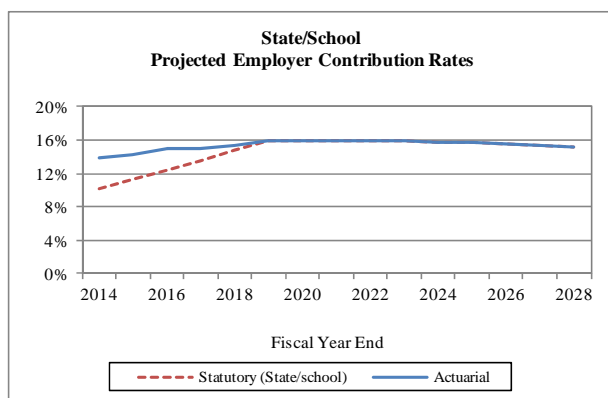


## SECTION 1 – BOARD SUMMARY

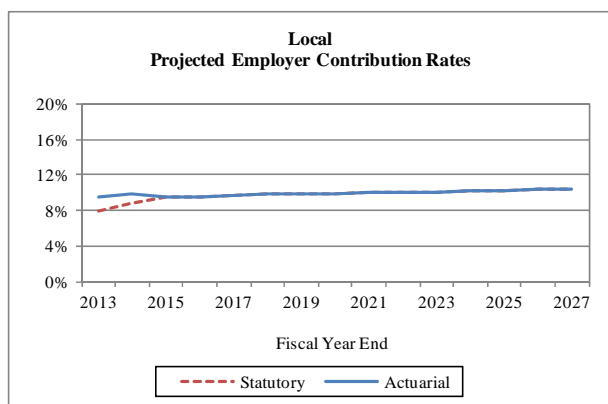
- ✓ If the State of Kansas sells surplus real estate, 80% of the proceeds will be used to pay down KPERS' unfunded actuarial liability until the System reaches an 80% funded ratio.

The changes in Sub House Bill 2333 are expected to improve KPERS long term funding and help all three groups reach a funded ratio of 100% by 2033. The actual funding progress will be heavily dependent on the actual investment experience of the System in future years.

The graphs below show the 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.



*Based on preliminary modeling results, the ARC date for the State/School group is projected to occur in 2019 with an ARC rate of 15.85%, assuming all actuarial assumptions are met in future years. Last year's projected ARC Date was 2021 with a rate of 17.26%. Future experience, especially investment returns, will heavily influence the ultimate ARC date and rate.*

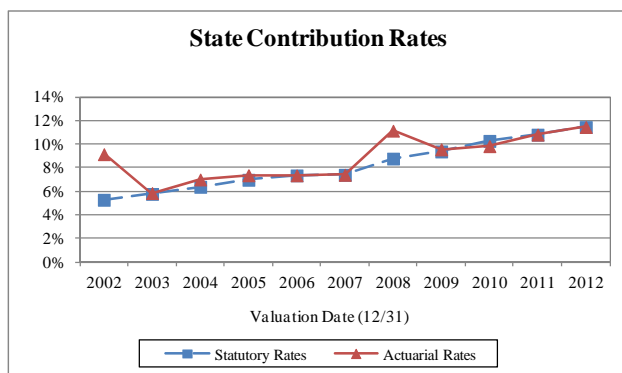


*The Local group reached the ARC date in this valuation (FY 2015) with an ARC rate of 9.48%. The projected contribution rate is expected to remain reasonably level, assuming all actuarial assumptions are met in future years. Actual experience in future years, particularly investment returns, will impact the future actuarial and statutory rates.*

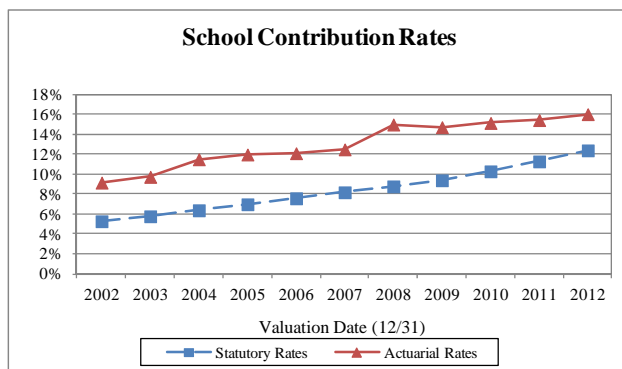


## SECTION 1 – BOARD SUMMARY

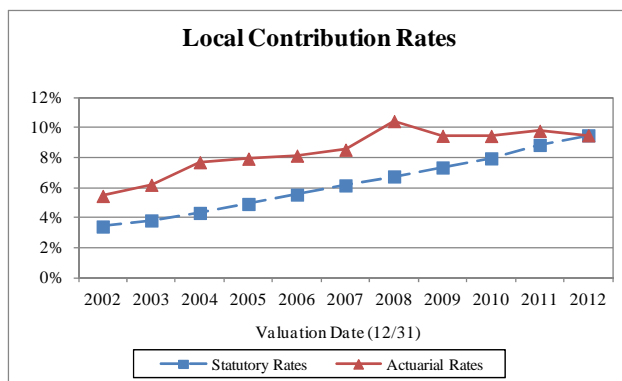
Historical contribution rates for each group are shown on the following pages. Please note that prior to the December 31, 2003 valuation, one contribution rate was developed for the State and School together as one group. Legislation passed in 2004 split the contribution rate calculations into two separate groups, although the statutory contributions are still determined on a combined basis. Significant changes in funding methods as well as a Pension Obligation Bond issue occurred in 2003 and actuarial assumptions were changed in the 2004, 2007 and 2011 valuations. These changes impact the comparability of contribution rates between various valuation dates.



*The split of the State group into a separate group with the 2003 valuation, coupled with the bond issue, lowered the actuarial contribution rate. The State's actuarial contribution rate continues to be less than the statutory contribution rate in this valuation.*



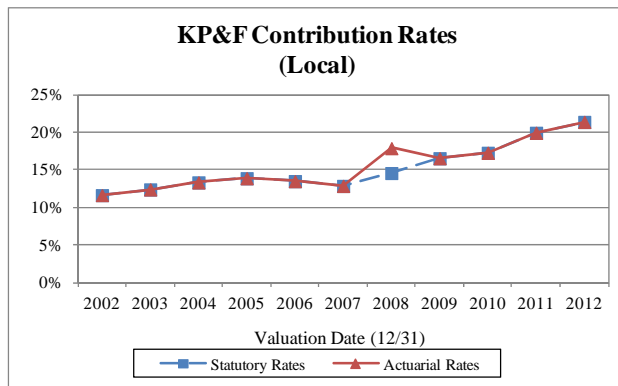
*Due to investment experience, changes in actuarial methods and assumptions, and the magnitude of the difference between the actuarial and statutory contribution rates, the funded status of the School group has declined and the actuarial contribution rate has generally increased over this period.*



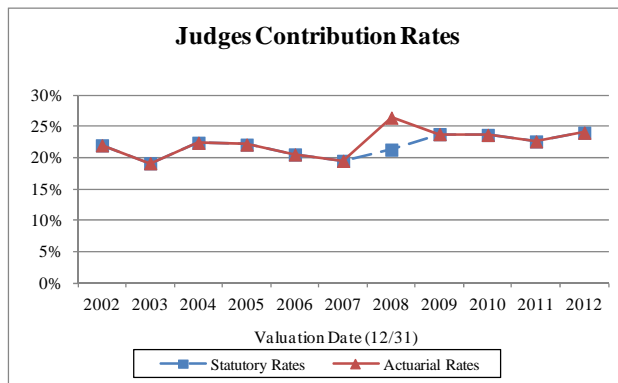
*The Local contribution rate has also been impacted by changes in actuarial assumptions and methods as well as investment performance. With the significant changes in Sub House Bill 2333 and an investment return of over 14% in 2012, the statutory contribution rate is equal to the actuarial contribution rate in the current valuation (ARC date occurs in FY 2015).*



## SECTION 1 – BOARD SUMMARY



*Investment experience, coupled with a change in actuarial methodology, dramatically increased the contribution rates in the first half of the period. Investment experience in 2008 and 2011 resulted in higher contribution rates in the latter part of the period.*



*Significant changes in the actuarial assumptions in the 2004 valuation and investment experience over the last decade have resulted in higher contribution rates.*



**SUMMARY OF CHANGE IN UNFUNDED ACTUARIAL LIABILITY  
BY SYSTEM  
DECEMBER 31, 2012 VALUATION**  
(\$ millions)

	State	School	Local	KP&F	Judges	Total
<b>UAL in 12/31/2011 Valuation Report</b>	\$1,122.8	\$5,797.6	\$1,542.4	\$738.6	\$26.8	\$9,228.1 <sup>1</sup>
· Effect of contribution cap/timing	22.2	223.4	46.0	12.5	(0.7)	303.4
· Expected increase due to method	5.0	33.4	7.9	3.1	(0.6)	48.8
· Actual vs. expected experience						
· Investment return	160.5	355.4	119.8	90.2	6.2	732.1
· Demographic experience	(25.7)	(74.2)	(21.6)	5.1	(3.4)	(119.8)
· All other experience	7.5	30.7	4.4	(2.0)	0.7	41.3
· Change in actuarial assumptions	0.0	0.0	0.0	0.0	0.0	0.0
· Change in benefit provisions	0.0	0.0	0.0	18.9	0.0	18.9
<b>UAL in 12/31/2012 Valuation Report</b>	\$1,292.3	\$6,366.3	\$1,698.9	\$866.4	\$29.0	\$10,252.9 <sup>1</sup>

<sup>1</sup> May not add due to rounding.



**SUMMARY OF  
CHANGES IN EMPLOYER ACTUARIAL CONTRIBUTION RATE  
BY SYSTEM  
AS OF DECEMBER 31, 2012**

Percentage of Payroll	State	School	Local	KP&F <sup>1</sup>	Judges
<b>Actuarial Contribution Rate in 12/31/2011 Valuation</b>	10.80%	15.41%	9.77%	19.92%	22.59%
<b>Change Due to Amortization of UAL</b>					
· effect of contribution cap/time lag	0.16	0.48	0.20	0.20	(0.24)
· amortization method	0.00	0.00	0.00	0.00	(0.36)
· investment experience	1.17	0.76	0.53	1.46	2.16
· liability experience	(0.19)	(0.16)	(0.10)	0.08	(1.19)
· all other experience	0.05	0.09	0.04	(0.32)	0.88
· change in assumptions	0.00	0.00	0.00	0.00	0.00
· change in benefit provisions	0.00	0.00	0.00	0.21	0.00
<b>Change in Employer Normal Cost Rate</b>					
· change in benefit provisions	(0.43)	(0.43)	(0.84)	(0.20)	0.00
· change in assumptions	0.00	0.00	0.00	0.00	0.00
· all other experience	(0.12)	(0.15)	(0.12)	0.01	0.14 <sup>2</sup>
<b>Actuarial Contribution Rate in 12/31/2012 Valuation</b>	11.44%	16.00%	9.48%	21.36%	23.98%

<sup>1</sup> Contribution rate for Local employers only.

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



**SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL**  
as of  
**DECEMBER 31, 2012 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
<b>Actual Experience vs. Assumed</b>								
• Investment	\$(102)	\$(143)	\$(280)	\$(323)	\$(413)	\$(369)	\$(441)	\$(23)
• Other	320	72	136	157	104	46	99	84
<b>Assumption Changes</b>	0	(96)	0	0	350	0	0	(206)
<b>Changes in Data/Procedures</b>	244	0	0	0	0	21	71	145**
<b>Change in Cost Method</b>	0	0	0	0	0	0	0	0
<b>Effect of Contribution Cap/Lag</b>	*	95	70	63	54	78	66	60
<b>Amortization Method</b>	*	47	38	35	32	30	22	12
<b>Change in Benefit Provisions</b>	75	0	0	0	88	0	19	0
<b>Change in Actuarial Firm/Software</b>	0	0	0	0	0	0	0	0
<b>Bond Issue</b>	0	0	0	0	0	0	0	0
<b>Total</b>	\$537	\$(25)	\$(36)	\$(68)	\$215	\$(185)	\$(194)	\$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 12/31/12: \$ 10,253 million





**SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL**  
as of  
**DECEMBER 31, 2012 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
<b>Actual Experience vs. Assumed</b>								
• Investment	\$350	\$644	\$140	\$456	\$167	\$(293)	\$(626)	\$2,332
• Other	(9)	68	(32)	16	(84)	140	99	78
<b>Assumption Changes</b>	0	0	0	437	(5)	0	384	0
<b>Changes in Data/Procedures</b>	5	177**	(286)***	0	0	0	0	0
<b>Change in Cost Method</b>	0	0	1,147	0	0	0	0	0
<b>Effect of Contribution Cap/Lag</b>	115	143	178	179	247	258	251	246
<b>Amortization Method</b>	14	21	47	68	84	83	78	71
<b>Change in Benefit Provisions</b>	0	37	3	1	0	24	2	0
<b>Change in Actuarial Firm/Software</b>	0	0	0	0	0	0	0	0
<b>Bond Issue</b>	0	(41)	(440)	0	0	0	0	0
<b>Total</b>	\$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 12/31/12: \$ 10,253 million



**SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL**  
**as of**  
**DECEMBER 31, 2012 VALUATION (continued)**

\$(millions)	As Reported on Valuation Date				
	12/31/09	12/31/10	12/31/11	12/31/12	Total
<b>Actual Experience vs. Assumed</b>					
• Investment	\$(1,011)	\$560	\$852	732	\$2,209
• Other	(70)	(334)	(190)	(78)	622
<b>Assumption Changes</b>	0	0	(64)	0	800
<b>Changes in Data/Procedures</b>	0	0	0	0	377
<b>Change in Cost Method</b>	0	0	0	0	1,147
<b>Effect of Contribution Cap/Lag</b>	383	320	289	303	3,398
<b>Amortization Method</b>	96	68	62	49	957
<b>Change in Benefit Provisions</b>	0	0	15	19	283
<b>Change in Actuarial Firm/Software</b>	0	(27)	0	0	(27)
<b>Bond Issue</b>	0	0	0	0	(481)
<b>Total</b>	\$(602)	\$587	\$964	1,025	\$9,285

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

Unfunded actuarial liability 12/31/12: \$ 10,253 million



## SUMMARY OF PRINCIPAL RESULTS

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**(STATE)**

	12/31/2012	12/31/2011	
	Valuation	Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	23,826	23,917	(0.4%)
Retired Members and Beneficiaries	18,098	17,801	1.7%
Inactive Members	<u>6,935</u>	<u>6,668</u>	4.0%
Total Members	<u><u>48,859</u></u>	<u><u>48,386</u></u>	1.0%
Projected Annual Salaries of Active Members			
	\$ 999,272,591	\$ 995,715,217	0.4%
Annual Retirement Payments for Retired Members and Beneficiaries			
	\$ 234,215,221	\$ 226,681,537	3.3%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 4,015,967,592	\$ 3,912,831,792	2.6%
b. Assets for Valuation Purposes	2,723,694,106	2,790,034,778	(2.4%)
c. Unfunded Actuarial Liability (a) - (b)	1,292,273,486	1,122,797,014	15.1%
d. Funded Ratio (b) / (a)	67.8%	71.3%	(4.9%)
e. Market Value of Assets	2,836,628,752	2,596,503,599	9.2%
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost			
Total	8.05%	8.17%	
Member	<u>6.00%</u>	<u>5.57%</u>	
Employer	2.05%	2.60%	
Amortization of Unfunded Actuarial Liability			
	<u>9.39%</u>	<u>8.20%</u>	
Actuarial Contribution Rate	11.44%	10.80%	
Statutory Employer Contribution Rate*	<u><u>12.37%</u></u>	<u><u>11.27%</u></u>	

\* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.10% for FY 2016. This rate does not include the contribution rate for the Death and Disability Program. Any excess of the statutory over actuarial contribution rates applied to actual State payroll is deposited to the School assets.



## SUMMARY OF PRINCIPAL RESULTS

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**(SCHOOL)**

	12/31/2012	12/31/2011	
	Valuation	Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	85,428	84,183	1.5%
Retired Members and Beneficiaries	44,687	42,590	4.9%
Inactive Members	<u>23,478</u>	<u>23,969</u>	(2.0%)
Total Members	<u>153,593</u>	<u>150,742</u>	1.9%
Projected Annual Salaries of Active Members	\$ 3,383,104,891	\$ 3,314,667,112	2.1%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 624,206,476	\$ 585,039,317	6.7%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 12,586,621,940	\$ 12,114,415,410	3.9%
b. Assets for Valuation Purposes	6,220,280,310	6,316,797,407	(1.5%)
c. Unfunded Actuarial Liability (a) - (b)	6,366,341,630	5,797,618,003	9.8%
d. Funded Ratio (b) / (a)	49.4%	52.1%	(5.2%)
e. Market Value of Assets	6,475,974,488	5,884,431,008	10.1%
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost			
Total	8.33%	8.48%	
Member	<u>6.00%</u>	<u>5.57%</u>	
Employer	2.33%	2.91%	
Amortization of Unfunded Actuarial Liability	<u>13.67%</u>	<u>12.50%</u>	
Actuarial Contribution Rate	16.00%	15.41%	
Statutory Employer Contribution Rate*	<u>12.37%</u>	<u>11.27%</u>	

\* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.10% for FY 2016. This rate does not include the contribution rate for the Death and Disability Program.



## SUMMARY OF PRINCIPAL RESULTS

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**(STATE/SCHOOL)**

	12/31/2012	12/31/2011	
	Valuation	Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	109,254	108,100	1.1%
Retired Members and Beneficiaries	62,785	60,391	4.0%
Inactive Members	<u>30,413</u>	<u>30,637</u>	(0.7%)
Total Members	<u><u>202,452</u></u>	<u><u>199,128</u></u>	1.7%
Projected Annual Salaries of Active Members	\$ 4,382,377,482	\$ 4,310,382,329	1.7%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 858,421,697	\$ 811,720,854	5.8%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 16,602,589,532	\$ 16,027,247,202	3.6%
b. Assets for Valuation Purposes	8,943,974,416	9,106,832,185	(1.8%)
c. Unfunded Actuarial Liability (a) - (b)	7,658,615,116	6,920,415,017	10.7%
d. Funded Ratio (b) / (a)	53.9%	56.8%	(5.2%)
e. Market Value of Assets	9,312,603,240	\$ 8,480,934,607	9.8%
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost			
Total	8.26%	8.41%	
Member	<u>6.00%</u>	<u>5.57%</u>	
Employer	2.26%	2.84%	
Amortization of Unfunded Actuarial Liability	<u>12.69%</u>	<u>11.50%</u>	
Actuarial Contribution Rate	14.95%	14.34%	
Statutory Employer Contribution Rate*	<u><u>12.37%</u></u>	<u><u>11.27%</u></u>	

\* The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.10% for FY 2016. This rate does not include the contribution rate for the Death and Disability Program.



## SUMMARY OF PRINCIPAL RESULTS

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**(LOCAL)**

	12/31/2012	12/31/2011	
	Valuation	Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	39,351	39,547	(0.5%)
Retired Members and Beneficiaries	16,605	15,606	6.4%
Inactive Members	<u>14,153</u>	<u>13,629</u>	3.8%
Total Members	<u><u>70,109</u></u>	<u><u>68,782</u></u>	1.9%
Projected Annual Salaries of Active Members	\$ 1,639,398,292	\$ 1,619,998,225	1.2%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 168,001,328	\$ 152,644,779	10.1%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 4,190,327,111	\$ 3,978,621,325	5.3%
b. Assets for Valuation Purposes	2,491,443,027	2,436,265,719	2.3%
c. Unfunded Actuarial Liability (a) - (b)	1,698,884,084	1,542,355,606	10.1%
d. Funded Ratio (b) / (a)	59.5%	61.2%	(2.9%)
e. Market Value of Assets	2,587,877,272	2,280,627,100	13.5%
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost			
Total	7.95%	8.07%	
Member	<u>6.00%</u>	<u>5.16%</u>	
Employer	1.95%	2.91%	
Amortization of Unfunded Actuarial Liability	<u>7.53%</u>	<u>6.86%</u>	
Actuarial Contribution Rate	9.48%	9.77%	
Statutory Employer Contribution Rate*	<u><u>9.48%</u></u>	<u><u>8.84%</u></u>	

\* Statutory Employer Contribution Rate may not exceed last year's rate by the statutory rate increase limit of 1.00%. This rate does not include the contribution rate for the Death and Disability Program.



## SUMMARY OF PRINCIPAL RESULTS

**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**(TOTAL KPERS)**

	12/31/2012	12/31/2011	
	Valuation	Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	148,605	147,647	0.6%
Retired Members and Beneficiaries	79,390	75,997	4.5%
Inactive Members	44,566	44,266	0.7%
	<hr/>	<hr/>	
Total Members	<u>272,561</u>	<u>267,910</u>	1.7%
Projected Annual Salaries of Active Members	\$ 6,021,775,774	\$ 5,930,380,554	1.5%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 1,026,423,025	\$ 964,365,633	6.4%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 20,792,916,643	\$ 20,005,868,527	3.9%
b. Assets for Valuation Purposes	11,435,417,443	11,543,097,904	(0.9%)
c. Unfunded Actuarial Liability (a) - (b)	9,357,499,200	8,462,770,623	10.6%
d. Funded Ratio (b) / (a)	55.0%	57.7%	(4.7%)
e. Market Value of Assets	11,900,480,512	10,761,561,707	10.6%



## SUMMARY OF PRINCIPAL RESULTS

**KANSAS POLICE AND FIREMEN'S RETIREMENT SYSTEM**

	12/31/2012 Valuation	12/31/2011 Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	7,187	7,143	0.6%
Retired Members and Beneficiaries	4,525	4,315	4.9%
Inactive Members	1,397	1,405	(0.6%)
Total Members	<u>13,109</u>	<u>12,863</u>	1.9%
Projected Annual Salaries of Active Members	\$ 449,106,522	\$ 442,203,582	1.6%
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 129,413,024	\$ 119,510,150	8.3%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 2,582,586,035	\$ 2,448,619,763	5.5%
b. Assets for Valuation Purposes	1,716,163,204	1,710,009,435	0.4%
c. Unfunded Actuarial Liability (a) - (b)	866,422,831	738,610,328	17.3%
d. Funded Ratio (b) / (a)	66.5%	69.8%	(4.8%)
e. Market Value of Assets	1,784,896,480	1,597,092,196	11.8%
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost			
Total	14.58%	14.49%	
Member	<u>7.15%</u>	<u>6.87%</u>	
Employer	7.43%	7.62%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>13.93%</u>	<u>12.30%</u>	
Actuarial Contribution Rate (Local Employers)	21.36%	19.92%	
Statutory Employer Contribution Rate*	<u>21.36%</u>	<u>19.92%</u>	

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





## SUMMARY OF PRINCIPAL RESULTS

KANSAS RETIREMENT SYSTEM FOR JUDGES

	12/31/2012 Valuation	12/31/2011 Valuation	% Change
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	261	264	(1.1%)
Retired Members and Beneficiaries	227	215	5.6%
Inactive Members	<u>6</u>	<u>7</u>	(14.3%)
Total Members	<u>494</u>	<u>486</u>	1.6%
Projected Annual Salaries of Active Members	\$ 28,079,426	\$ 28,878,075	(2.8%)
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 8,685,283	\$ 8,033,939	8.1%
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 155,920,773	\$ 152,681,742	2.1%
b. Assets for Valuation Purposes	126,909,647	125,912,822	0.8%
c. Unfunded Actuarial Liability (a) - (b)	29,011,126	26,768,920	8.4%
d. Funded Ratio (b) / (a)	81.4%	82.5%	(1.3%)
e. Market Value of Assets	131,943,611	117,969,801	11.8%
<b>3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL</b>			
Normal Cost			
Total	19.61%	19.46%	
Member	<u>5.76%</u>	<u>5.77%</u>	
Employer	13.85%	13.69%	
Amortization of Unfunded Actuarial and Supplemental Liability	<u>10.13%</u>	<u>8.90%</u>	
Actuarial Contribution Rate	23.98%	22.59%	
Statutory Employer Contribution Rate*	<u>23.98%</u>	<u>22.59%</u>	

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



## SUMMARY OF PRINCIPAL RESULTS

### ALL SYSTEMS COMBINED

	12/31/2012	12/31/2011	% Change
	Valuation	Valuation	
<b>1. PARTICIPANT DATA</b>			
Number of:			
Active Members	156,053	155,054	0.6 %
Retired Members and Beneficiaries	84,142	80,527	4.5
Inactive Members	45,969	45,678	0.6
Total Members	286,164	281,259	1.7
Projected Annual Salaries of Active Members	\$ 6,498,961,722	\$ 6,401,462,211	1.5
Annual Retirement Payments for Retired Members and Beneficiaries	\$ 1,164,521,332	\$ 1,091,909,722	6.6
<b>2. ASSETS AND LIABILITIES</b>			
a. Total Actuarial Liability	\$ 23,531,423,450	\$ 22,607,170,032	4.1
b. Assets for Valuation Purposes	13,278,490,294	13,379,020,161	(0.8)
c. Unfunded Actuarial Liability (a) - (b)	10,252,933,156	9,228,149,871	11.1
d. Funded Ratio (b) / (a)	56.4%	59.2%	(4.6)
e. Market Value of Assets	13,817,320,603	12,476,623,704	10.7



## SECTION 2 – SCOPE OF THE REPORT

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This report presents the actuarial valuation of the Kansas Public Employees Retirement System (KPERS) as of December 31, 2012. 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, 2012, as amended by House Bill 2213 which was passed by the 2013 Legislature.
- Appendix C A summary of the actuarial methods and assumptions used to estimate liabilities and determine contribution rates.
- Appendix D A glossary of actuarial terms.



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## SECTION 3 – ASSETS

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### **Market Value of Assets**

The current market value represents the "snapshot" or "cash-out" value of System assets as of the valuation date. In addition, market values of assets provide a basis for measuring investment performance from time to time. At December 31, 2012 the market value of assets (excluding receivables) for the Retirement System was \$13.817 billion. Table 1 is a comparison, at market values, of System assets as of December 31, 2012, and December 31, 2011, in total and by investment category. Table 2 summarizes the change in the market value of assets from December 31, 2011 to December 31, 2012 by System.

### **Actuarial Value of Assets**

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

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

Under the asset smoothing method, the difference between the actual return and the expected return (based on the actuarial assumed rate of return) on the market value of assets is calculated each year and recognized equally over a five year period.

Tables 3A through 3F and Table 4 show the development of the actuarial value of assets (AVA) as of December 31, 2012.



## SECTION 3 – ASSETS

**TABLE 1**  
**ANALYSIS OF NET ASSETS AT MARKET VALUE**

	<u>December 31, 2012</u>			<u>December 31, 2011</u>		
	<u>Amount</u>	<u>% of</u>		<u>Amount</u>	<u>% of</u>	
	(\$ Millions)	<u>Total</u>		(\$ Millions)	<u>Total</u>	
Cash & Equivalents	\$ 529	3.8	%	\$ 380	3.0	%
Alternative Investments	367	2.6		400	3.2	
Real Estate	1,155	8.3		1,036	8.3	
Fixed Income	3,414	24.7		2,998	24.0	
Domestic Equity	4,718	34.0		4,574	36.5	
International Equity	3,684	26.6		3,133	25.0	
<b>Subtotal</b>	<b>\$ 13,867</b>	<b>100.0</b>	<b>%</b>	<b>\$ 12,521</b>	<b>100.0</b>	<b>%</b>
Administrative Reserves	(21)			(17)		
Group Insurance and Optional Life Reserves	(29)			(27)		
<b>Net Assets</b>	<b>\$ 13,817</b>			<b>\$ 12,477</b>		
Receivables	0			0		
<b>Adjusted Net Assets</b>	<b>\$ 13,817</b>			<b>\$ 12,477</b>		

Allocation of Net Assets on December 31, 2012:

State	\$ 2,837
School	6,476
Local	2,588
KP&F	1,785
Judges	132
Total Net Assets	\$ 13,817 <sup>1</sup>

<sup>1</sup> May not add due to rounding



SECTION 3 – ASSETS

TABLE 2
SUMMARY OF CHANGES IN TOTAL SYSTEM ASSETS
DURING PERIOD ENDED DECEMBER 31, 2012

(Market Value)

Table with 5 columns: Description, State, School, Local, Total KPERS. Rows include Market Value of Assets as of January 1, 2012\*, Contributions (Employee, Employee service purchases, Employer, Miscellaneous, Total Contributions), Total Investment Income, Total Income, Less Benefits (Annuity Retirement Benefits, Partial Lump Sum Benefits, Retirant Dividends, Withdrawals, Death Benefits, Total Benefits), Net Increase in Assets, Receivables, and Market Value of Assets as of December 31, 2012\*.

\* Note: Assets exclude insurance and administrative reserves.



SECTION 3 – ASSETS

TABLE 2 (cont.)  
SUMMARY OF CHANGES IN TOTAL SYSTEM ASSETS  
DURING PERIOD ENDED DECEMBER 31, 2012

(Market Value)

	KPERS	KP&F	Judges	Total
Market Value of Assets as of January 1, 2012*	\$ 10,761,561,707	\$ 1,597,092,196	\$ 117,969,801	\$ 12,476,623,704
Contributions:				
Employee	251,719,292	30,448,113	1,467,086	283,634,491
Employee service purchases	10,530,124	445,317	0	10,975,441
Employer	507,800,824	76,212,115	6,403,648	590,416,587
Miscellaneous	123,669	39,544	0	163,213
Total Contributions	<u>770,173,909</u>	<u>107,145,089</u>	<u>7,870,734</u>	<u>885,189,732</u>
Total Investment Income	<u>1,519,321,156</u>	<u>226,737,153</u>	<u>16,754,833</u>	<u>1,762,813,142</u>
Total Income	2,289,495,065	333,882,242	24,625,567	2,648,002,874
Less Benefits:				
Annuity Retirement Benefits	(1,000,610,611)	(126,805,328)	(8,441,329)	(1,135,857,268)
Partial Lump Sum Benefits	(90,371,961)	(13,137,087)	(2,175,493)	(105,684,541)
Retirant Dividends	(1,882,673)	(948,261)	(22,205)	(2,853,139)
Withdrawals	(48,867,539)	(4,479,636)	0	(53,347,175)
Death Benefits	(8,843,476)	(707,646)	(12,730)	(9,563,852)
Total Benefits	<u>(1,150,576,260)</u>	<u>(146,077,958)</u>	<u>(10,651,757)</u>	<u>(1,307,305,975)</u>
Receivables	0	0	0	0
Net Increase in Assets	1,138,918,805	187,804,284	13,973,810	1,340,696,899
Market Value of Assets as of December 31, 2012*	\$ 11,900,480,512	\$ 1,784,896,480	\$ 131,943,611	\$ 13,817,320,603

\* Note: Assets exclude insurance and administrative reserves.





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

	Plan Year End			
	12/31/2009	12/31/2010	12/31/2011	12/31/2012
1. Market Value of Assets, beginning of year	\$ 2,127,412,725	\$ 2,506,018,054	\$ 2,730,474,235	\$ 2,596,503,599
2. Contributions during year	115,003,572	124,819,016	132,268,023	133,020,638
3. Benefits during year	(210,170,449)	(226,652,537)	(263,576,296)	(257,146,546)
4. Expected investment income based on 8% assumption	166,459,575	196,486,466	213,286,652	202,850,768
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	2,198,705,423	2,600,670,999	2,812,452,613	2,675,228,459
7. Market Value of Assets, end of year	2,506,018,054	2,730,474,235	2,596,503,599	2,836,628,752
8. Excess (shortfall) of net investment income	\$ 307,312,631	\$ 129,803,236	\$ (215,949,014)	\$ 161,400,293



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

	<u>12/31/2009</u>	<u>12/31/2010</u>	<u>12/31/2011</u>	<u>12/31/2012</u>
1. Market Value of Assets, beginning of year	\$ 4,749,398,735	\$ 5,624,405,754	\$ 6,132,794,595	\$ 5,884,431,008
2. Contributions during year	379,318,453	400,933,168	418,768,791	446,715,888
3. Benefits during year	(565,041,695)	(625,144,165)	(661,126,303)	(683,845,543)
4. Expected investment income based on 8% assumption	372,665,886	441,156,554	481,115,765	461,451,769
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	4,936,341,379	5,841,351,311	6,371,552,848	6,108,753,122
7. Market Value of Assets, end of year	5,624,405,754	6,132,794,595	5,884,431,008	6,475,974,488
8. Excess (shortfall) of net investment income	\$ 688,064,375	\$ 291,443,284	\$ (487,121,840)	\$ 367,221,366



SECTION 3 – ASSETS

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

	<b>12/31/2009</b>	<b>12/31/2010</b>	<b>12/31/2011</b>	<b>12/31/2012</b>
1. Market Value of Assets, beginning of year	\$ 6,876,811,460	\$ 8,130,423,808	\$ 8,863,268,830	\$ 8,480,934,607
2. Contributions during year	494,322,025	525,752,184	551,036,814	579,736,526
3. Benefits during year	(775,212,144)	(851,796,702)	(924,702,599)	(940,992,089)
4. Expected investment income based on 8% assumption	539,125,461	637,643,020	694,402,417	664,302,538
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	7,135,046,802	8,442,022,310	9,184,005,461	8,783,981,581
7. Market Value of Assets, end of year	8,130,423,808	8,863,268,830	8,480,934,607	9,312,603,240
8. Excess (shortfall) of net investment income	\$ 995,377,006	\$ 421,246,520	\$ (703,070,854)	\$ 528,621,659



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

	<b>12/31/2009</b>	<b>12/31/2010</b>	<b>12/31/2011</b>	<b>12/31/2012</b>
1. Market Value of Assets, beginning of year	\$ 1,659,523,521	\$ 2,033,031,884	\$ 2,295,447,057	\$ 2,280,627,100
2. Contributions during year	153,054,256	168,473,093	180,232,972	190,437,383
3. Benefits during year	(157,112,798)	(175,768,640)	(192,765,859)	(209,584,171)
4. Expected investment income based on 8% assumption	132,602,663	162,356,343	183,144,093	181,699,030
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	1,788,067,642	2,188,092,680	2,466,058,263	2,443,179,342
7. Market Value of Assets, end of year	2,033,031,884	2,295,447,057	2,280,627,100	2,587,877,272
8. Excess (shortfall) of net investment income	\$ 244,964,242	\$ 107,354,377	\$ (185,431,163)	\$ 144,697,930



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

	<b>12/31/2009</b>	<b>12/31/2010</b>	<b>12/31/2011</b>	<b>12/31/2012</b>
1. Market Value of Assets, beginning of year	\$ 1,232,995,979	\$ 1,484,548,360	\$ 1,639,025,889	\$ 1,597,092,196
2. Contributions during year	92,025,361	89,342,304	97,352,727	107,145,089
3. Benefits during year	(118,344,181)	(129,496,994)	(137,669,046)	(146,077,958)
4. Expected investment income based on 8% assumption	97,607,178	117,188,581	129,540,442	126,240,020
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	1,304,284,337	1,561,582,251	1,728,250,013	1,684,399,348
7. Market Value of Assets, end of year	1,484,548,360	1,639,025,889	1,597,092,196	1,784,896,480
8. Excess (shortfall) of net investment income	\$ 180,264,023	\$ 77,443,638	\$ (131,157,817)	\$ 100,497,132



SECTION 3 – ASSETS

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

	12/31/2009	12/31/2010	12/31/2011	12/31/2012
1. Market Value of Assets, beginning of year	\$ 87,017,852	\$ 106,498,558	\$ 119,835,012	\$ 117,969,801
2. Contributions during year	7,328,809	6,867,326	7,074,780	7,870,734
3. Benefits during year	(7,635,319)	(7,633,884)	(8,921,096)	(10,651,757)
4. Expected investment income based on 8% assumption	6,949,404	8,489,812	9,514,369	9,328,483
5. Transfers and receivables	0	0	0	0
6. Expected Value of Assets, end of year	93,660,746	114,221,812	127,503,065	124,517,261
7. Market Value of Assets, end of year	106,498,558	119,835,012	117,969,801	131,943,611
8. Excess (shortfall) of net investment income	\$ 12,837,812	\$ 5,613,200	\$ (9,533,264)	\$ 7,426,350



**SECTION 3 – ASSETS**

**TABLE 4  
DEVELOPMENT OF ACTUARIAL VALUE OF NET ASSETS**

	State/School	State	School	Local	Total KPERS
1. Excess (shortfall) of investment income					
a. Year ending 12/31/12	\$ 528,621,659	\$ 161,400,293	\$ 367,221,366	\$ 144,697,930	\$ 673,319,589
b. Year ending 12/31/11	(703,070,854)	(215,949,014)	(487,121,840)	(185,431,163)	(888,502,017)
c. Year ending 12/31/10	421,246,520	129,803,236	291,443,284	107,354,377	528,600,897
d. Year ending 12/31/09	995,377,006	307,312,631	688,064,375	244,964,242	1,240,341,248
e. Total	\$ 1,242,174,331	\$ 382,567,146	\$ 859,607,185	\$ 311,585,386	\$ 1,553,759,717
2. Deferral of excess (shortfall) of investment income					
a. Year ending 12/31/12 (80%)	422,897,327	129,120,234	293,777,093	115,758,344	538,655,671
b. Year ending 12/31/11 (60%)	(421,842,512)	(129,569,408)	(292,273,104)	(111,258,698)	(533,101,210)
c. Year ending 12/31/10 (40%)	168,498,608	51,921,294	116,577,314	42,941,751	211,440,359
d. Year ending 12/31/09 (20%)	199,075,401	61,462,526	137,612,875	48,992,848	248,068,249
e. Total	\$ 368,628,824	\$ 112,934,646	\$ 255,694,178	\$ 96,434,245	\$ 465,063,069
3. Market Value of Assets, end of year	\$ 9,312,603,240	\$ 2,836,628,752	\$ 6,475,974,488	\$ 2,587,877,272	\$ 11,900,480,512
4. Actuarial Value of Assets, end of year (3) - (2e)	\$ 8,943,974,416	\$ 2,723,694,106	\$ 6,220,280,310	\$ 2,491,443,027	\$ 11,435,417,443
5. Actuarial Value divided by market value (4)/(3)	96.0%	96.0%	96.1%	96.3%	96.1%



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 12/31/12	\$ 673,319,589	\$ 100,497,132	\$ 7,426,350	\$ 781,243,071
b. Year ending 12/31/11	(888,502,017)	(131,157,817)	(9,533,264)	(1,029,193,098)
c. Year ending 12/31/10	528,600,897	77,443,638	5,613,200	611,657,735
d. Year ending 12/31/09	1,240,341,248	180,264,023	12,837,812	1,433,443,083
e. Total	\$ 1,553,759,717	\$ 227,046,976	\$ 16,344,098	\$ 1,797,150,791
2. Deferral of excess (shortfall) of investment income				
a. Year ending 12/31/12 (80%)	538,655,671	80,397,706	5,941,080	624,994,457
b. Year ending 12/31/11 (60%)	(533,101,210)	(78,694,690)	(5,719,958)	(617,515,858)
c. Year ending 12/31/10 (40%)	211,440,359	30,977,455	2,245,280	244,663,094
d. Year ending 12/31/09 (20%)	248,068,249	36,052,805	2,567,562	286,688,616
e. Total	\$ 465,063,069	\$ 68,733,276	\$ 5,033,964	\$ 538,830,309
3. Market Value of Assets, end of year	\$ 11,900,480,512	\$ 1,784,896,480	\$ 131,943,611	\$ 13,817,320,603
4. Actuarial Value of Assets, end of year (3) - (2e)	\$ 11,435,417,443	\$ 1,716,163,204	\$ 126,909,647	\$ 13,278,490,294
5. Actuarial Value divided by Market Value (4)/(3)	96.1%	96.1%	96.2%	96.1%





## SECTION 4 – SYSTEM LIABILITIES

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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, 2012. 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 2010 Triennial Experience Study. This set of assumptions, as shown in Appendix C, was adopted by the Board in July 2011 and was first used for the December 31, 2011 valuation.

The liabilities reflect the benefit structure in place as of December 31, 2012 and legislative changes in House Bill 2213, passed by the 2013 legislature.

### **Actuarial Liabilities**

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

- (1) that which is attributable to the past and
- (2) that which is attributable to the future.

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



**TABLE 5**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**PRESENT VALUE OF FUTURE BENEFITS (PVFB)**  
**AS OF DECEMBER 31, 2012**

	State	School	Local	Total KPERS
1. Active employees				
a. Retirement Benefit	\$ 2,086,719,373	\$ 8,022,108,935	\$ 3,026,943,360	\$ 13,135,771,668
b. Pre-Retirement Death Benefit	24,551,771	55,335,803	55,660,946	135,548,520
c. Withdrawal Benefit	106,491,587	329,884,169	191,673,119	628,048,875
d. Disability Benefit	104,971,594	218,690,472	141,326,509	464,988,575
e. Total	<u>2,322,734,325</u>	<u>8,626,019,379</u>	<u>3,415,603,934</u>	<u>14,364,357,638</u>
2. Inactive Vested Members	154,274,648	310,484,407	198,940,396	663,699,451
3. Inactive Nonvested Members	8,639,443	24,625,858	20,336,311	53,601,612
4. Disabled Members	80,729,099	98,239,473	62,940,146	241,908,718
5. Retirees	1,922,169,693	5,650,173,270	1,404,910,970	8,977,253,933
6. Beneficiaries	108,214,431	148,565,359	87,281,253	344,061,043
7. Unclaimed Account Reserve	<u>668,200</u>	<u>1,331,800</u>	<u>500,000</u>	<u>2,500,000</u>
8. Total PVFB	<u>\$ 4,597,429,839</u>	<u>\$ 14,859,439,546</u>	<u>\$ 5,190,513,010</u>	<u>\$ 24,647,382,395</u>



**TABLE 5 (cont.)**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**PRESENT VALUE OF FUTURE BENEFITS (PVFB)**  
**AS OF DECEMBER 31, 2012**

	<b>KP&amp;F</b>	<b>Judges</b>
1. Active employees		
a. Retirement Benefit	\$ 1,572,202,608	\$ 113,190,543
b. Pre-Retirement Death Benefit	19,921,575	1,151,785
c. Withdrawal Benefit	43,428,999	0
d. Disability Benefit	157,119,443	0
e. Total	1,792,672,625	114,342,328
2. Inactive Vested Members	58,485,100	872,407
3. Inactive Nonvested Members	14,921,451	0
4. Disabled Members	105,611,066	0
5. Retirees	1,078,396,075	64,163,734
6. Beneficiaries	109,791,814	12,224,784
7. Total PVFB	\$ 3,159,878,131	\$ 191,603,253



**TABLE 6**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**ACTUARIAL LIABILITIES**  
**AS OF DECEMBER 31, 2012**

	State	School	Local	Total KPERS
1. Present Value of Future Benefits	\$ 4,597,429,839	\$ 14,859,439,546	\$ 5,190,513,010	\$ 24,647,382,395
2. Present Value of Future Normal Costs for Active Members				
a. Retirement Benefit	\$ 416,811,766	\$ 1,825,059,739	\$ 722,068,357	\$ 2,963,939,862
b. Pre-Retirement Death Benefit	7,598,819	18,487,173	18,981,171	45,067,163
c. Withdrawal Benefit	113,920,173	355,675,124	206,197,788	675,793,085
d. Disability Benefit	43,131,489	73,595,570	52,938,583	169,665,642
e. Total	<u>581,462,247</u>	<u>2,272,817,606</u>	<u>1,000,185,899</u>	<u>3,854,465,752</u>
3. Total Actuarial Liability (1) - (2e)	<u>\$ 4,015,967,592</u>	<u>\$ 12,586,621,940</u>	<u>\$ 4,190,327,111</u>	<u>\$ 20,792,916,643</u>



**TABLE 6 (cont.)**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**ACTUARIAL LIABILITIES**  
**AS OF DECEMBER 31, 2012**

	KP&F		Judges
1. Present Value of Future Benefits	\$ 3,159,878,131	\$	191,603,253
2. Present Value of Future Normal Costs for Active Members			
a. Retirement Benefit	\$ 425,561,044	\$	35,194,212
b. Pre-Retirement Death Benefit	12,658,537		488,268
c. Withdrawal Benefit	54,908,336		0
d. Disability Benefit	84,164,179		0
e. Total	577,292,096		35,682,480
3. Total Actuarial Liability (1) - (2e)	\$ 2,582,586,035	\$	155,920,773



**TABLE 7**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**ACTUARIAL BALANCE SHEET**  
**AS OF DECEMBER 31, 2012**

	State	School	Local	Total KPERS
<b><u>ASSETS</u></b>				
Actuarial Value of Assets	\$ 2,723,694,106	\$ 6,220,280,310	\$ 2,491,443,027	\$ 11,435,417,443
Present Value of Future Normal Costs	581,462,247	2,272,817,606	1,000,185,899	3,854,465,752
Unfunded Actuarial Liability	<u>1,292,273,486</u>	<u>6,366,341,630</u>	<u>1,698,884,084</u>	<u>866,422,831</u>
Total Net Assets	<u>\$ 4,597,429,839</u>	<u>\$ 14,859,439,546</u>	<u>\$ 5,190,513,010</u>	<u>\$ 16,156,306,026</u>
<b><u>LIABILITIES</u></b>				
Present Value of Future Benefits				
Active employees	\$ 2,322,734,325	\$ 8,626,019,379	\$ 3,415,603,934	\$ 14,364,357,638
Inactive Members *	163,582,291	336,442,065	219,776,707	719,801,063
In-pay Members	<u>2,111,113,223</u>	<u>5,896,978,102</u>	<u>1,555,132,369</u>	<u>9,563,223,694</u>
Total Liabilities	<u>\$ 4,597,429,839</u>	<u>\$ 14,859,439,546</u>	<u>\$ 5,190,513,010</u>	<u>\$ 24,647,382,395</u>

\*Includes Unclaimed Account Reserves



**TABLE 7 (cont.)**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**ACTUARIAL BALANCE SHEET**  
**AS OF DECEMBER 31, 2012**

	<b>KP&amp;F</b>	<b>Judges</b>
<u>ASSETS</u>		
Actuarial Value of Assets	\$ 1,716,163,204	\$ 126,909,647
Present Value of Future Normal Costs	577,292,096	35,682,480
Unfunded Actuarial Liability	<u>866,422,831</u>	<u>29,011,126</u>
Total Net Assets	<u>\$ 3,159,878,131</u>	<u>\$ 191,603,253</u>
<u>LIABILITIES</u>		
Present Value of Future Benefits		
Active employees	\$ 1,792,672,625	\$ 114,342,328
Inactive Members	73,406,551	872,407
In-pay Members	<u>1,293,798,955</u>	<u>76,388,518</u>
Total Liabilities	<u>\$ 3,159,878,131</u>	<u>\$ 191,603,253</u>



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## **SECTION 5 – EMPLOYER CONTRIBUTIONS**

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The previous two sections were devoted to a discussion of the assets and liabilities of the System. A comparison of Tables 4 and 6 indicates that current assets fall short of meeting the present value of future benefits (total liability). This is expected in all but a fully closed down fund, where no further contributions are anticipated.

In an active system, there will almost always be a difference between the actuarial value of assets and total liabilities. This deficiency has to be made up by future contributions and investment returns. An actuarial valuation sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion.

The method used to determine the incidence of the contributions in various years is called the actuarial cost method. Under an actuarial cost method, the contributions required to meet the difference between current assets and current liabilities are allocated each year between two elements: (1) the normal cost and (2) the payment on the unfunded actuarial liability.

The term “fully funded” is often applied to a system in which contributions at the normal cost rate are sufficient to pay for the benefits of existing employees as well as for those of new employees. More often than not, systems are not fully funded, either because of past benefit improvements that have not been completely funded and/or because of actuarial deficiencies that have occurred because experience has not been as favorable as anticipated. Under these circumstances, an unfunded actuarial liability (UAL) exists.

### **Description of Rate Components**

Commencing with the December 31, 2003 actuarial valuation, the actuarial cost method for all three systems was changed to the traditional Entry Age Normal (EAN) – level percent of pay cost method. Under the EAN cost method, the actuarial present value of each member’s projected benefits allocates on a level basis over the member’s compensation between the entry age of the member and the assumed exit ages. The portion of the actuarial present value allocated to the valuation year is called the normal cost. The actuarial present value of benefits allocated to prior years of service is called the actuarial liability. The unfunded actuarial liability represents the difference between the actuarial liability and the actuarial value of assets as of the valuation date. The unfunded actuarial liability is calculated each year and reflects experience gains/losses.

The contribution rates based on this December 31, 2012 actuarial valuation will be used to determine employer contribution rates to the Kansas Public Employees Retirement System for fiscal years beginning in 2015 (July 1, 2015 to June 30, 2016 for the State and calendar year 2015 for Local employers).

### **KPERS**

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

Legislation provides that the employer contribution rates recommended by the Board of Trustees for all groups cannot increase more than the statutory cap. This cap was increased in Senate Substitute for House Bill 2333, passed by the 2012 Legislature, to 0.90% for FY 2014, 1.0% for FY 2015, 1.1% for FY 2016 and 1.2% for FY 2017 and later. The prior limit on the statutory cap for the State/School group was 0.40% in FY 2006, 0.50% in FY 2007, and 0.60% in FY 2008 through FY 2013. The prior limit for the Local group was 0.40% in 2006, 0.50% in 2007, and 0.60% in 2008 through 2013. The limits on the increase in the statutory contribution rate do not apply to the increase in the employer contribution rate for benefit enhancements. Although not



## SECTION 5 – EMPLOYER CONTRIBUTIONS

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shown in these rates, the total contribution rates for KPERS employers include the statutory employer contribution to the KPERS Group Life Insurance.

There are several components of the unfunded actuarial liability (UAL) which are amortized over different periods. The increase in the 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<sup>th</sup> check for pre-July 2, 1987 retirees a permanent benefit is funded over a 10 year period, with the first contribution in 2005 (and final payment in FY 2014, so no payments reflected in this valuation). The increase in the UAL due to the \$300 one-time payment to retirees in 2007 and 2008 is amortized over 10 years (applies only to Local employers as the State fully funded the increased liability for the \$300 one-time payment for its members in both 2007 and 2008). The remainder of the UAL is amortized over a period originally set at 40 years beginning July 1, 1993. At the December 31, 2012 valuation date, twenty (20) years remain in that period.

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

The actuarial contribution rate for KPERS is comprised of the normal cost rate and a contribution toward the unfunded actuarial liability. In previous valuations, the State and School contribution rate included an additional contribution necessary to pay the debt service payment on the bonds issued by the State in 2003 to finance the increase in liability from making the 13<sup>th</sup> check a permanent benefit. Effective FY 2015, there are no further debt service payments due for these bonds.

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.



## SECTION 5 – EMPLOYER CONTRIBUTIONS

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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<sup>th</sup> check for pre-July 2, 1987 retirees a permanent benefit is funded over a 10 year period with the first contribution in 2005 (and final payment in FY 2014, so no payment is reflected in this valuation). The increase in the unfunded actuarial liability due to the \$300 one-time payment to retirees in 2007 and 2008 is amortized over 10 years (applies only to Local employers as the State fully funded the increased liability for the \$300 one-time payment for its members in both 2007 and 2008). The remainder of the unfunded actuarial liability is amortized over a period originally set at 40 years beginning July 1, 1993. At the December 31, 2012 valuation date, twenty (20) years remain in that period.

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

### **Judges**

The actuarial contribution rate for the Judges is comprised of the normal cost rate and a contribution toward the unfunded actuarial liability. The UAL is amortized over a 40 year period established in 1993 with payments determined as a level dollar amount. As of this valuation date, twenty (20) years remain. In previous valuations, the contribution rate included an additional contribution to pay the debt service payment on the bonds issued by the State in 2003 to finance the increase in liability from making the 13<sup>th</sup> check a permanent benefit. Effective FY 2015, there are no further debt service payments due for these bonds.

### **Contribution Rate Summary**

The normal cost rates for each System are developed in Table 8. Table 9 develops the actuarial contribution rate for the unfunded actuarial liability. Bonds were issued in 2003 by the State to finance the increase in the actuarial liability due to legislation making the 13<sup>th</sup> check for pre-July 2, 1987 retirees a permanent benefit. The total actuarial contribution rates determined as of December 31, 2012, are presented in Table 10. The contribution rates for local employers who affiliated with KPERS for prior service and are amortizing the payment of that liability over a period of years are shown in Tables 11A and 11B. Table 12 shows the KP&F individual employer contribution rates for fiscal years beginning in 2013 and 2014 while Tables 13 and 14 show the calculation of the additional contribution rate due to amortization of prior service UAL or excess benefit liability for fiscal years beginning in 2015.

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 2015.



**TABLE 8**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**NORMAL COST RATE**  
**AS OF DECEMBER 31, 2012**

	State	School	State/School	Local
1. Normal Cost Rate				
a. Retirement Benefit	5.82%	6.69%	6.49%	5.74%
b. Pre-Retirement Death Benefit	0.11%	0.07%	0.08%	0.16%
c. Withdrawal Benefit	1.53%	1.29%	1.34%	1.62%
d. Disability Benefit	0.59%	0.28%	0.35%	0.43%
e. Total	8.05%	8.33%	8.26%	7.95%
2. Estimated Covered Payroll for 2013	\$ 999,272,591	\$ 3,383,104,891	\$ 4,382,377,482	\$ 1,639,398,292
3. Normal Cost for 2013	\$ 80,441,444	\$ 281,812,637	\$ 362,254,081	\$ 130,332,164



**TABLE 8 (cont.)**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**NORMAL COST RATE**  
**AS OF DECEMBER 31, 2012**

	<b>KP&amp;F</b>	<b>Judges</b>	
1. Normal Cost Rate			
a. Retirement Benefit	10.71%	19.33%	
b. Pre-Retirement Death Benefit	0.34%	0.27%	
c. Withdrawal Benefit	1.39%	0.00%	
d. Disability Benefit	2.14%	0.00%	
e. Total	14.58%	19.60%	
2. Estimated Covered Payroll for 2013	\$ 449,106,522	\$ 28,079,426	
3. Normal Cost for 2013	\$ 65,479,731	\$ 5,503,567	



**TABLE 9**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**UNFUNDED ACTUARIAL LIABILITY CONTRIBUTION RATES**  
**AS OF DECEMBER 31, 2012**

	State	School	Local	KPF		Judges
1. Actuarial Liability	\$ 4,015,967,592	\$ 12,586,621,940	\$ 4,190,327,111	\$ 2,582,586,035		\$ 155,920,773
2. Actuarial Value of Assets	<u>2,723,694,106</u>	<u>6,220,280,310</u>	<u>2,491,443,027</u>	<u>1,716,163,204</u>		<u>126,909,647</u>
3. Unfunded Actuarial Liability (UAL)	1,292,273,486	6,366,341,630	1,698,884,084	866,422,831		29,011,126
a. UAL for 2007 One Time Payment	0	0	884,219	301,361		0
b. UAL for 2008 One Time Payment	0	0	1,071,540	374,251		0
c. Prior service and other local employer UAL*	0	0	3,953,483	6,695,973		0
d. Remaining UAL	1,292,273,486	6,366,341,630	1,694,046,382	859,425,498		29,011,126
4. Payment to Amortize UAL (assumed mid-year)						
a. UAL for 2007 One Time Payment	0	0	242,891	82,782	**	0
b. UAL for 2008 One Time Payment	0	0	239,835	83,766	**	0
c. Remaining UAL	<u>93,866,341</u>	<u>462,429,357</u>	<u>122,971,922</u>	<u>56,035,823</u>	**	<u>2,843,303</u>
d. Total	93,866,341	462,429,357	123,454,648	56,202,371	**	2,843,303
5. Total Estimated Payroll for 2013	\$ 999,272,591	\$ 3,383,104,891	\$ 1,639,398,292	\$ 403,425,652	**	\$ 28,079,426
6. Amortization Payment as a Percent of Payroll	9.39%	13.67%	7.53%	13.93%	**	10.13%

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

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



**TABLE 10**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**ACTUARIAL EMPLOYER CONTRIBUTION RATES**  
**FISCAL YEAR COMMENCING IN 2015**

	<b>Total Normal Cost</b>	<b>Employee Normal Cost</b>	<b>Employer Normal Cost</b>	<b>Unfunded Actuarial Liability</b>	<b>Total Employer Contribution*</b>
State	8.05%	6.00%	2.05%	9.39%	11.44%
Correctional Employees - Normal Retirement Age 55					12.21%
Correctional Employees - Normal Retirement Age 60					12.27%
School	8.33%	6.00%	2.33%	13.67%	16.00%
State/School	8.26%	6.00%	2.26%	12.69%	14.95%
Local	7.95%	6.00%	1.95%	7.53%	9.48%
KP&F Uniform Contribution Rate					
State **	14.58%	7.15%	7.43%	13.89%	21.32%
Local **	14.58%	7.15%	7.43%	13.93%	21.36%
Judges	19.60%	5.76%	13.85%	10.13%	23.98%

\* 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 or the 15% excess benefit liability, determined separately for each employer. (See Table 11)



**TABLE 11A  
LOCAL AFFILIATION COST FACTORS  
FOR FISCAL YEAR BEGINNING IN 2015**

<b>Employer</b>	<b>Year Affiliated</b>	<b>Projected 2015 Annual Payroll</b>	<b>Projected 1/1/2015 Unfunded Actuarial Liability</b>	<b>Projected 1/1/2015 Excess Benefit Liability</b>	<b>Payment on 1/1/2015 Unfunded Liabilities<sup>2</sup></b>	<b>Payment on Unfunded Liability as % of Payroll</b>	<b>Total Rate for Years Commencing<sup>1</sup> in 2015</b>
St. Francis Housing Authority	1999	\$16,738	\$8,336	\$0	\$621	3.71%	13.19%
City of Burden	1999	88,086	16,453	0	1,224	1.39%	10.87%
City of Longton	1999	66,884	19,986	0	1,490	2.23%	11.71%
Bourbon County RWD#2	1999	209,792	115,852	0	8,632	4.11%	13.59%
Towanda Township	1999	52,893	9,474	0	704	1.33%	10.81%
Hays Housing Authority	2000	47,155	1,834	0	142	0.30%	9.78%
Haysville Community Library	2000	197,035	210,533	0	15,675	7.96%	17.44%
Hamilton County Library	2000	80,755	13,939	0	1,038	1.29%	10.77%
Ellis Public Library	2000	31,755	5,294	0	394	1.24%	10.72%
Bucklin Public Library	2000	18,931	13,164	0	983	5.19%	14.67%
Elkhart Cemetery District	2000	49,962	1,846	0	140	0.28%	9.76%
City of Linn Valley	2000	95,583	1,033	0	77	0.08%	9.56%
City of Blue Mound	2000	90,685	2,987	0	216	0.24%	9.72%
Kansas Workers' Risk Coop for Counties	2000	402,294	53,561	0	3,968	0.99%	10.47%
Lindsborg Community Library	2002	19,793	3,792	0	271	1.37%	10.85%
City of North Newton	2002	305,341	171,657	0	12,467	4.08%	13.56%
City of Arcadia	2002	107,557	16,794	0	1,218	1.13%	10.61%
City of Linwood	2003	75,424	2,515	0	183	0.24%	9.72%
Johnson County Fire District #2 Rural	2003	2,597,697	467,936	0	33,988	1.31%	10.79%
Basehor Community Library	2003	290,867	59,500	0	4,321	1.49%	10.97%
City of Gypsum	2003	46,637	5,056	0	368	0.79%	10.27%
Greenleaf Housing Authority	2003	12,736	23,749	0	1,724	13.54%	23.02%
City of Bentley	2004	101,851	39,395	0	3,074	3.02%	12.50%
Mulvane Public Library	2004	63,933	14,124	0	1,103	1.72%	11.20%
The Center for Counseling and Consultation	2004	2,762,050	1,187,432	0	92,696	3.36%	12.84%
Doniphan County RFD #2	2005	81,949	9,435	0	736	0.90%	10.38%





**TABLE 11A (cont.)  
LOCAL AFFILIATION COST FACTORS  
FOR FISCAL YEAR BEGINNING IN 2015**

<b>Employer</b>	<b>Year Affiliated</b>	<b>Projected 2015 Annual Payroll</b>	<b>Projected 1/1/2015 Unfunded Actuarial Liability</b>	<b>Projected 1/1/2015 Excess Benefit Liability</b>	<b>Payment on 1/1/2015 Unfunded Liabilities<sup>2</sup></b>	<b>Payment on Unfunded Liability as % of Payroll</b>	<b>Total Rate for Years Commencing<sup>1</sup> in 2015</b>
City of Denison	2005	\$59,661	\$20,820	\$0	\$1,625	2.72%	12.20%
Stanton County Recreation Commission	2005	68,975	25,645	0	2,001	2.90%	12.38%

The rate for Unified Government - Wyandotte Co./ KCK for 2014 was changed from 9.26% to 9.59% to reflect the final payment of the excess benefit liability.

<b>Total</b>		\$8,043,018	\$2,522,141	\$0	\$191,081		
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<sup>1</sup>Basic local employer contribution rates excluding Death and Disability contribution: FY 2014: 8.84% FY 2015: 9.48%

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



**TABLE 11B**  
**LOCAL AFFILIATION COST FACTORS - AFFILIATION AFTER 1/1/06**  
**FOR FISCAL YEAR BEGINNING IN 2015**

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.

<b>Employer</b>	<b>Year Affiliated</b>	<b>Unfunded Actuarial Liability on Jan 1 Following Affiliation</b>	<b>Annual Payment Due January 1 to Amortize Unfunded Liability</b>	<b>Final Payment Year</b>
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
Golden Prarie Extension District #12	2011	1,999	185	2032
Rural Water District #5, Douglas County	2012	376,429	51,944	2022
Salt Creek Township	2012	22,542	4,500	2017



**TABLE 12**  
**KP&F**  
**EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS**  
**COMMENCING IN CALENDAR YEARS 2014 AND 2015**

<b>Employer</b>	<b>Total Rate for Fiscal Year Commencing in 2014</b>	<b>Recommended Total Rate for Fiscal Year Commencing in 2015</b>
Douglas County Law Enforcement	22.62 %	24.04 %
Ford County	19.92	21.36
Franklin County Sheriff's Dept	19.92	21.36
Gray County Sheriff's Dept.	19.92	21.36
Harvey County Sheriff's Dept.	19.92	21.36
Johnson County Fire Dept.	19.92	21.36
Johnson County Fire No. 1	19.92	21.36
Johnson County Fire No. 2	19.92	21.36
Johnson County Park Commission	19.92	21.36
Johnson County Sheriff's Dept.	20.11	21.41
Labette County Sheriff's Dept.	22.24	23.63
Reno County Sheriff's Dept.	19.92	21.36
Riley County Law Enforcement	19.92	21.36
Sedgwick County Fire No. 1	19.92	21.36
Sedgwick County Sheriff's Dept.	20.28	21.72
Sedgwick County EMT's	20.08	21.36
Shawnee County Sheriff's Dept.	22.26	23.77
Sumner County Sheriff's Dept.	21.33	22.70
Unified Gov't of Wyandotte County	19.92	21.36
Unified Gov't of Wyandotte Co. - KCK	28.30 *	21.36
City of Abilene	19.92	21.36
City of Arkansas City	19.92	21.36
City of Atchison	22.86 *	21.36
City of Bonner Springs	19.92	21.36
City of Chanute	19.92	21.36
City of Cimarron	19.92	21.36
City of Coffeyville	24.89	26.43
City of Concordia	22.98	24.33
City of Derby	19.92	21.36
City of Dodge City	25.73	26.95
City of Emporia	19.92	21.36
City of Erie	19.92	21.36
City of Eudora	19.92	21.36
City of Fairway	19.92	21.36
City of Fort Scott	25.48	27.15
City of Herington	20.65	22.14
City of Hutchinson	19.92	21.36

\* This rate was changed from the prior valuation to reflect a final payment on the excess benefit liability balance.



**TABLE 12 (cont.)**  
**KP&F**  
**EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS**  
**COMMENCING IN CALENDAR YEARS 2014 AND 2015**

<b>Employer</b>	<b>Total Rate for Fiscal Year Commencing in 2014</b>	<b>Recommended Total Rate for Fiscal Year Commencing in 2015</b>
City of Junction City	19.92 %	21.36 %
City of Lawrence	19.92	21.36
City of Leavenworth	20.96 *	21.36
City of Leawood	20.49	21.95
City of Lenexa	19.97	21.36
City of Manhattan	19.92	21.36
City of Merriam	19.92	21.36
City of McPherson	19.92	21.36
City of Mission	22.39	21.36
City of Newton EMTs	23.42	24.60
City of Newton	19.92	21.36
City of Olathe	19.92	21.36
City of Ottawa	19.92	21.36
City of Parsons	19.92	21.36
City of Pittsburg	22.66	24.15
City of Salina	24.75 *	23.56
City of Shawnee	25.72 *	21.56
City of Topeka	19.92	21.36
City of Wellington	23.14	24.41
City of Westwood	19.92	21.36
City of Winfield	23.69	25.13
Board of Regents Campus Police	19.25	21.32
Kansas Bureau of Investigation	19.25	21.32
Kansas Highway Patrol	19.25	21.32
Cowley County Sheriff's Dept	19.92	21.36
City of Gardner Public Safety Officers	19.92	21.36
City of Liberal Police & Firemen	19.92	21.36
City of Oswego	19.92	21.36
Leavenworth County	19.92	21.36
Pottawatomie County	19.92	21.36
City of Roeland Park	19.92	21.36
City of Edwardsville Police	21.87	23.56
City of Garden City	19.92	21.36
City of Lake Quivira	19.92	21.36
City of Paola	19.92	21.36
City of Winfield (EMS)	27.01	29.25
Miami County	19.92	21.36

\* This rate was changed from the prior valuation to reflect a final payment on the excess benefit liability balance.



**TABLE 12 (cont.)**  
**KP&F**  
**EMPLOYER CONTRIBUTION RATES FOR FISCAL YEARS**  
**COMMENCING IN CALENDAR YEARS 2014 AND 2015**

<b>Employer</b>	<b>Total Rate for Fiscal Year Commencing in 2014</b>	<b>Recommended Total Rate for Fiscal Year Commencing in 2015</b>
Atchinson County	19.92 %	21.36 %
City of Park City	19.92	21.36
Dickinson County	19.92	21.36
Leavenworth County (EMS)	19.92	21.36
City of Basehor	19.92	21.36
City of Edwardsville Firemen	24.56	25.77
City of Marion	19.92	21.36
City of Overbrook	19.92	21.36
Leavenworth County Fire District #1	19.92	21.36
Shawnee Heights Fire District	19.92	21.36
City of Lansing	19.92	21.36
State Fire Marshall	19.25	21.32
Seward County	19.92	21.36
City of Hays	19.92	21.36
Ellis County	19.92	21.36
City of Baldwin City	19.92	21.36
McPherson County Rural Fire District #9	19.92	21.36
City of Spring Hill	19.92	21.36
City of Andover	19.92	21.36
Kearny County	19.92	21.36
Neosho County	19.92	21.36
Clark County	19.92	21.36
City of Wakefield	19.92	21.36
Russell County	19.92	21.36
City of Rossville	19.92	21.36
City of Goddard	19.92	21.36
City of El Dorado	19.92	21.36
Northwest Consolidated Fire District	19.92	21.36
City of Girard	19.92	21.36
City of Overland Park	19.92	21.36
City of Victoria	19.92	21.36
City of Burden	19.92	21.36

\* This rate was changed from the prior valuation to reflect a final payment on the excess benefit liability balance.



**TABLE 13A**  
**KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES**  
**PRIOR SERVICE LIABILITY**  
**FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>1/1/2013 Unfunded Prior Service Liability</b>	<b>Payment on Unfunded Liability*</b>
Douglas County Law Enforcement	\$1,168,473	\$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.	16,992	17,659
Labette County Sheriff's Dept.	169,184	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.	161,883	54,352
Sedgwick County EMT's	0	0
Shawnee County Sheriff's Dept.	893,336	154,845
Sumner County Sheriff's Dept.	52,854	11,639
Unified Gov't of Wyandotte County	0	0
Unified Gov't of Wyandotte Co. - KCK	0	0
City of Abilene	0	0
City of Arkansas City	0	0
City of Atchison	0	0
City of Bonner Springs	0	0
City of Chanute	0	0
City of Cimarron	0	0
City of Coffeyville	209,817	122,214
City of Concordia	21,239	12,471
City of Derby	0	0
City of Dodge City	1,597,189	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	126,065	73,266
City of Herington	3,023	3,014
City of Hutchinson	0	0
City of Junction City	0	0
City of Lawrence	0	0
	0	0



**TABLE 13A (cont.)**  
**KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES**  
**PRIOR SERVICE LIABILITY**  
**FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>1/1/2013 Unfunded Prior Service Liability</b>	<b>Payment on Unfunded Liability*</b>
City of Leawood	\$193,406	\$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	42,471	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	174,266	101,429
City of Salina	416,596	242,452
City of Shawnee	35,372	20,681
City of Topeka	0	0
City of Wellington	97,067	56,430
City of Westwood	0	0
City of Winfield	306,501	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	223,411	18,952
City of Garden City	0	0
City of Lake Quivira	0	0
City of Paola	0	0
City of Winfield (EMS)	391,369	39,655
Miami County	0	0
Atchinson County	0	0
City of Park City	0	0
Dickinson County	0	0
Leavenworth County (EMS)	0	0
City of Basehor	0	0
City of Edwardsville Firemen	395,187	37,963



**TABLE 13A (cont.)**  
**KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES**  
**PRIOR SERVICE LIABILITY**  
**FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>1/1/2013 Unfunded Prior Service Liability</b>	<b>Payment on Unfunded Liability*</b>
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
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
<b>Total</b>	<b>\$ 6,695,701</b>	<b>\$ 1,522,445</b>

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





**SECTION 5 – EMPLOYER CONTRIBUTIONS**

**TABLE 13B  
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES  
PRIOR SERVICE LIABILITY - AFFILIATION AFTER 1/1/06  
FOR FISCAL YEAR BEGINNING IN 2015**

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.

<b>Employer</b>	<b>Year Affiliated</b>	<b>Unfunded Actuarial Liability on Jan 1 Following Affiliation</b>	<b>Annual Payment Due January 1 to Amortize Unfunded Liability</b>	<b>Final Payment Year</b>
McPherson County Rural Fire District #9	2007	\$457	\$63	2017

Only employers with remaining obligations are shown.



**TABLE 14**  
**KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES**  
**FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>Number of Employees</b>	<b>Total Estimated 2015 Payroll</b>	<b>Projected 1/1/2013 Excess Benefit Liability</b>	<b>Payment on Excess Benefit Liability*</b>	<b>Payment on Unfunded Liability (Table 13)</b>	<b>Total Payment Amount</b>	<b>As Percent of Payroll</b>
Douglas County Law Enforcement	86	\$6,758,383	\$0	\$0	\$181,138	\$181,138	2.68 %
Ford County	49	2,868,787	0	0	0	0	0.00
Franklin County Sheriff's Dept	49	2,691,850	0	0	0	0	0.00
Gray County Sheriff's Dept.	10	486,199	0	0	0	0	0.00
Harvey County Sheriff's Dept.	19	1,003,286	0	0	0	0	0.00
Johnson County Fire Dept.	150	11,374,345	0	0	0	0	0.00
Johnson County Fire No. 1	29	1,810,536	0	0	0	0	0.00
Johnson County Fire No. 2	67	5,948,496	0	0	0	0	0.00
Johnson County Park Commission	18	1,021,208	0	0	0	0	0.00
Johnson County Sheriff's Dept.	467	37,537,473	0	0	17,659	17,659	0.05
Labette County Sheriff's Dept.	16	730,672	0	0	16,582	16,582	2.27
Reno County Sheriff's Dept.	41	2,533,713	0	0	0	0	0.00
Riley County Law Enforcement	98	6,931,209	0	0	0	0	0.00
Sedgwick County Fire No. 1	139	10,119,987	0	0	0	0	0.00
Sedgwick County Sheriff's Dept.	233	15,011,959	0	0	54,352	54,352	0.36
Sedgwick County EMT's	147	8,860,283	0	0	0	0	0.00
Shawnee County Sheriff's Dept.	105	6,433,328	0	0	154,845	154,845	2.41
Sumner County Sheriff's Dept.	18	869,433	0	0	11,639	11,639	1.34
Unified Gov't of Wyandotte County	860	4,481,535	0	0	0	0	0.00
Unified Gov't of Wyandotte Co. - KCK	0	62,337,243	0	0	0	0	0.00
City of Abilene	21	1,090,330	0	0	0	0	0.00
City of Arkansas City	46	2,691,655	0	0	0	0	0.00
City of Atchison	41	1,959,942	0	0	0	0	0.00
City of Bonner Springs	23	1,467,528	0	0	0	0	0.00
City of Chanute	31	1,731,814	0	0	0	0	0.00
City of Cimarron	0	0	0	0	0	0	0.00
City of Coffeyville	43	2,412,479	0	0	122,214	122,214	5.07
City of Concordia	8	419,614	0	0	12,471	12,471	2.97
City of Derby	61	3,438,804	0	0	0	0	0.00



**TABLE 14 (cont.)  
KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES  
FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>Number of Employees</b>	<b>Total Estimated 2015 Payroll</b>	<b>Projected 1/1/2013 Excess Benefit Liability</b>	<b>Payment on Excess Benefit Liability*</b>	<b>Payment on Unfunded Liability (Table 13)</b>	<b>Total Payment Amount</b>	<b>As Percent of Payroll</b>
							%
City of Dodge City	68	\$3,855,729	\$0	\$0	\$215,432	\$215,432	5.59
City of Emporia	87	4,880,284	0	0	0	0	0.00
City of Erie	3	146,862	0	0	0	0	0.00
City of Eudora	7	453,567	0	0	0	0	0.00
City of Fairway	9	675,392	0	0	0	0	0.00
City of Fort Scott	30	1,264,527	0	0	73,266	73,266	5.79
City of Herington	8	385,295	0	0	3,014	3,014	0.78
City of Hutchinson	155	10,332,553	0	0	0	0	0.00
City of Junction City	97	5,439,388	0	0	0	0	0.00
City of Lawrence	279	24,048,128	0	0	0	0	0.00
City of Leavenworth	111	6,039,343	0	0	0	0	0.00
City of Leawood	105	8,097,169	0	0	47,701	47,701	0.59
City of Lenexa	167	11,905,808	0	0	0	0	0.00
City of Manhattan	75	4,386,194	0	0	0	0	0.00
City of Merriam	51	3,547,011	0	0	0	0	0.00
City of McPherson	48	2,716,407	0	0	0	0	0.00
City of Mission	28	1,837,205	0	0	0	0	0.00
City of Newton EMTs	3	244,080	0	0	7,898	7,898	3.24
City of Newton	77	5,008,443	0	0	0	0	0.00
City of Olathe	279	21,962,056	0	0	0	0	0.00
City of Ottawa	45	2,808,756	0	0	0	0	0.00
City of Parsons	41	1,936,325	0	0	0	0	0.00
City of Pittsburg	72	3,637,467	0	0	101,429	101,429	2.79
City of Salina	161	11,025,525	0	0	242,452	242,452	2.20
City of Shawnee	141	10,308,673	0	0	20,681	20,681	0.20
City of Topeka	512	37,774,909	0	0	0	0	0.00
City of Wellington	33	1,848,872	0	0	56,430	56,430	3.05
City of Westwood	7	518,659	0	0	0	0	0.00
City of Winfield	40	2,297,644	0	0	86,672	86,672	3.77



**TABLE 14 (cont.)**  
**KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES**  
**FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>Number of Employees</b>	<b>Total Estimated 2015 Payroll</b>	<b>Projected 1/1/2013 Excess Benefit Liability</b>	<b>Payment on Excess Benefit Liability*</b>	<b>Payment on Unfunded Liability (Table 13)</b>	<b>Total Payment Amount</b>	<b>As Percent of Payroll</b>	<b>%</b>
Board of Regents Campus Police	141	\$7,335,608	\$0	\$0	\$0	\$0	0.00	
Kansas Bureau of Investigation	67	4,984,554	0	0	0	0	0.00	
Kansas Highway Patrol	492	33,042,461	0	0	0	0	0.00	
Cowley County Sheriff's Dept	23	1,065,337	0	0	0	0	0.00	
City of Gardner Public Safety Officers	24	1,492,117	0	0	0	0	0.00	
City of Liberal Police & Firemen	52	2,690,843	0	0	0	0	0.00	
City of Oswego	5	200,105	0	0	0	0	0.00	
Leavenworth County	53	2,757,584	0	0	0	0	0.00	
Pottawatomie County	25	1,244,578	0	0	0	0	0.00	
City of Roeland Park	15	918,640	0	0	0	0	0.00	
City of Edwardsville Police	13	859,820	0	0	18,952	18,952	2.20	
City of Garden City	91	4,985,518	0	0	0	0	0.00	
City of Lake Quivira	0	0	0	0	0	0	0.00	
City of Paola	16	899,360	0	0	0	0	0.00	
City of Winfield (EMS)	8	502,762	0	0	39,655	39,655	7.89	
Miami County	46	2,669,785	0	0	0	0	0.00	
Atchinson County	10	464,165	0	0	0	0	0.00	
City of Park City	15	747,139	0	0	0	0	0.00	
Dickinson County	18	790,391	0	0	0	0	0.00	
Leavenworth County (EMS)	37	1,664,990	0	0	0	0	0.00	
City of Basehor	11	585,344	0	0	0	0	0.00	
City of Edwardsville Firemen	15	859,955	0	0	37,963	37,963	4.41	
City of Marion	5	209,546	0	0	0	0	0.00	
City of Overbrook	1	48,304	0	0	0	0	0.00	
Leavenworth County Fire District #1	7	370,354	0	0	0	0	0.00	
Shawnee Heights Fire District	10	617,858	0	0	0	0	0.00	
City of Lansing	15	847,201	0	0	0	0	0.00	
State Fire Marshall	9	479,020	0	0	0	0	0.00	
Seward County	26	1,404,630	0	0	0	0	0.00	



**TABLE 14 (cont.)**  
**KP&F EMPLOYER ADDITIONAL CONTRIBUTION RATES**  
**FOR FISCAL YEARS BEGINNING IN 2015**

<b>Employer</b>	<b>Number of Employees</b>	<b>Total Estimated 2015 Payroll</b>	<b>Projected 1/1/2013 Excess Benefit Liability</b>	<b>Payment on Excess Benefit Liability*</b>	<b>Payment on Unfunded Liability (Table 13)</b>	<b>Total Payment Amount</b>	<b>As Percent of Payroll</b>	
City of Hays	56	\$3,146,848	\$0	\$0	\$0	\$0	0.00	%
Ellis County	45	2,469,993	0	0	0	0	0.00	
City of Baldwin City	7	422,946	0	0	0	0	0.00	
McPherson County Rural Fire District #9	1	25,232	0	0	0	0	0.00	
City of Spring Hill	12	608,040	0	0	0	0	0.00	
City of Andover	36	1,909,196	0	0	0	0	0.00	
Kearny County	19	998,148	0	0	0	0	0.00	
Neosho County	13	568,939	0	0	0	0	0.00	
Clark County	6	294,719	0	0	0	0	0.00	
City of Wakefield	0	0	0	0	0	0	0.00	
Russell County	10	445,864	0	0	0	0	0.00	
City of Rossville	2	88,468	0	0	0	0	0.00	
City of Goddard	10	452,514	0	0	0	0	0.00	
City of El Dorado	44	2,251,743	0	0	0	0	0.00	
Northwest Consolidated Fire District	14	659,083	0	0	0	0	0.00	
City of Girard	10	456,054	0	0	0	0	0.00	
City of Overland Park	35	1,657,520	0	0	0	0	0.00	
City of Victoria	2	119,096	0	0	0	0	0.00	
City of Burden	1	36,890	0	0	0	0	0.00	
<b>Total</b>	<b>7,187</b>	<b>\$ 485,753,621</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 1,522,445</b>	<b>\$ 1,522,445</b>		

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



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## SECTION 6 – ACCOUNTING AND OTHER INFORMATION

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### SECTION 6

#### ACCOUNTING AND OTHER INFORMATION

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

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

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

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

In 2012, GASB issued the final version of GASB Statements No. 67 and 68 which will supersede GASB 25 and 27. GASB 67, which applies to the retirement system, will be effective for KPERS for the fiscal year ending June 30, 2014. GASB 68, which applies to participating employers, is first effective for fiscal years beginning after June 15, 2014.

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



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

**Schedule of Funding Progress**  
(\$ in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percent of Covered Payroll ((b-a)/c)
12/31/2007	\$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%





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

	<b>KPERS System</b>	<b>KP&amp; F System</b>	<b>Judges System</b>
Valuation Date	12/31/12	12/31/12	12/31/12
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal
Amortization Method	Level Percent Closed	Level Percent Closed	Level Dollar Closed
Remaining Amortization Period	20 years	20 years	20 years
Asset Valuation Method	Difference between actual return and expected return on market value recognized evenly over five-year period.		
Actuarial Assumptions:			
Investment Rate of Return	8.0%	8.0%	8.0%
Projected Salary Increases	4.0% - 12.0%	4.0% - 12.5%	4.5%
Cost of Living Adjustment	None	None	None



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

**Schedule of Employer Contributions**

For the Fiscal Year Ended June 30

Year	Annual Required Contribution	Percentage Contributed
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	819,325,098	75.0% *

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

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



**TABLE 17**  
**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM**  
**PROJECTED BENEFIT PAYMENTS**

Year	State	School	Local	Total KPERS	KP&F	Judges	Total
2013	\$282,906,000	\$762,062,000	\$230,024,000	\$1,274,992,000	\$156,949,000	\$11,524,000	\$1,443,465,000
2014	288,206,000	802,598,000	238,512,000	1,329,316,000	160,283,000	11,965,000	1,501,564,000
2015	299,775,000	847,951,000	255,783,000	1,403,509,000	168,401,000	12,659,000	1,584,569,000
2016	310,463,000	891,772,000	273,013,000	1,475,248,000	177,641,000	13,148,000	1,666,037,000
2017	322,320,000	934,436,000	290,367,000	1,547,123,000	187,130,000	13,847,000	1,748,100,000
2018	334,405,000	976,617,000	309,469,000	1,620,491,000	196,402,000	14,812,000	1,831,705,000
2019	345,705,000	1,017,245,000	329,324,000	1,692,274,000	206,038,000	15,492,000	1,913,804,000
2020	356,817,000	1,059,042,000	349,201,000	1,765,060,000	216,136,000	16,026,000	1,997,222,000
2021	367,832,000	1,099,921,000	370,019,000	1,837,772,000	226,676,000	16,771,000	2,081,219,000
2022	378,461,000	1,139,765,000	391,051,000	1,909,277,000	236,813,000	17,569,000	2,163,659,000
2023	387,910,000	1,179,365,000	411,303,000	1,978,578,000	246,584,000	18,203,000	2,243,365,000
2024	395,909,000	1,218,133,000	431,054,000	2,045,096,000	258,562,000	18,654,000	2,322,312,000
2025	404,097,000	1,255,723,000	450,847,000	2,110,667,000	269,449,000	19,121,000	2,399,237,000
2026	410,664,000	1,293,149,000	469,614,000	2,173,427,000	280,076,000	19,508,000	2,473,011,000
2027	416,257,000	1,328,480,000	487,148,000	2,231,885,000	291,779,000	19,580,000	2,543,244,000
2028	420,393,000	1,363,573,000	503,778,000	2,287,744,000	301,752,000	19,635,000	2,609,131,000
2029	423,385,000	1,399,033,000	519,615,000	2,342,033,000	312,633,000	19,913,000	2,674,579,000
2030	425,755,000	1,431,912,000	534,148,000	2,391,815,000	323,488,000	19,757,000	2,735,060,000
2031	427,691,000	1,464,169,000	549,360,000	2,441,220,000	334,520,000	19,624,000	2,795,364,000
2032	428,995,000	1,495,829,000	563,410,000	2,488,234,000	345,100,000	19,380,000	2,852,714,000
2033	428,879,000	1,526,795,000	576,200,000	2,531,874,000	355,362,000	18,980,000	2,906,216,000
2034	428,132,000	1,555,029,000	588,408,000	2,571,569,000	364,503,000	18,428,000	2,954,500,000
2035	426,895,000	1,583,949,000	600,034,000	2,610,878,000	372,432,000	17,873,000	3,001,183,000
2036	425,324,000	1,612,795,000	610,763,000	2,648,882,000	380,135,000	17,346,000	3,046,363,000
2037	423,633,000	1,637,236,000	620,973,000	2,681,842,000	387,014,000	16,781,000	3,085,637,000

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



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**HISTORICAL SUMMARY OF MEMBERS**

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

**KPERS**

Valuation		Active Members						Number			Act/Ret Ratio
		Average		Entry Age	Service	Annual Pay (\$)	Pay Increase	Deferred Disabled*	Inactives	Retired	
Date December 31	Total Count	Number	Age								
2000	222,968	137,086	44.2	34.1	10.1	30,307	N/A		34,667	51,215	2.68
2001	229,185	139,253	44.4	34.2	10.2	31,279	3.2%		37,175	52,757	2.64
2002	234,023	140,498	44.7	34.3	10.4	31,634	1.1%		39,420	54,105	2.60
2003	237,123	141,401	45.0	34.4	10.6	32,111	1.5%	2,933	37,280	55,509	2.55
2004	238,375	140,779	45.3	34.4	10.8	32,937	2.6%	3,004	37,191	57,401	2.45
2005	241,684	142,047	45.3	34.4	10.9	33,724	2.4%	3,099	37,015	59,523	2.39
2006	245,555	144,227	45.4	34.6	10.8	35,284	4.6%	3,007	36,513	61,808	2.33
2007	249,624	146,406	45.5	34.7	10.8	36,924	4.6%	2,911	37,140	63,167	2.32
2008	255,427	148,569	45.6	34.7	10.9	38,087	3.1%	2,823	37,567	66,468	2.24
2009	264,280	153,386	45.4	34.7	10.7	38,749	1.7%	2,781	39,212	68,901	2.23
2010	265,477	150,482	45.6	34.9	10.7	40,109	3.5%	2,749	40,122	72,124	2.09
2011	267,713	147,647	45.6	34.4	11.2	40,166	0.1%	2,711	41,358	75,997	1.94
2012	272,561	148,605	45.5	34.3	11.2	40,522	0.9%	2,575	41,991	79,390	1.87

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



**HISTORICAL SUMMARY OF MEMBERS  
(continued)**

**KP&F**

Valuation		Active Members						Number			Act/Ret Ratio
		Average		Entry Age	Service	Annual Pay (\$)	Pay Increase	Deferred Disabled*	Inactives	Retired	
Date December 31	Total Count	Number	Age								Age
2000	10,083	6,258	38.1	27.7	10.4	44,511	N/A		794	3,031	2.06
2001	10,471	6,405	38.3	27.7	10.6	46,483	4.4%		855	3,211	1.99
2002	10,847	6,548	38.4	27.8	10.6	47,580	2.4%		961	3,338	1.96
2003	11,007	6,464	38.8	27.9	11.0	49,017	3.0%	0	1,087	3,456	1.87
2004	11,528	6,721	38.9	28.0	11.0	51,014	4.1%	187	1,062	3,558	1.89
2005	11,719	6,772	38.9	27.9	11.0	52,222	2.4%	194	1,099	3,654	1.85
2006	12,070	6,965	39.0	28.1	11.0	53,939	3.3%	186	1,134	3,785	1.84
2007	12,210	7,137	39.1	28.1	11.0	56,068	3.9%	175	1,143	3,755	1.90
2008	12,499	7,242	39.1	28.0	11.1	57,800	3.1%	173	1,175	3,909	1.85
2009	12,556	7,179	39.5	28.1	11.4	60,287	4.3%	181	1,136	4,060	1.77
2010	12,691	7,173	39.6	28.2	11.4	61,805	2.5%	181	1,169	4,168	1.72
2011	12,863	7,143	39.6	27.9	11.7	61,907	0.2%	197	1,208	4,315	1.66
2012	13,109	7,187	39.5	27.8	11.7	62,489	0.9%	203	1,194	4,525	1.59

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



**HISTORICAL SUMMARY OF MEMBERS  
(continued)**

**JUDGES**

Valuation		Active Members						Number		Act/Ret Ratio
Date December 31	Total Count	Average						Inactives	Retired	
		Number	Age	Entry Age	Service	Annual Pay (\$)	Pay Increase			
2000	411	247	54.2	43.5	10.8	84,794		14	150	1.65
2001	417	252	54.4	43.9	10.5	85,625	1.0%	18	147	1.71
2002	417	248	55.0	43.9	11.1	86,116	0.6%	15	154	1.64
2003	424	250	55.1	43.8	11.3	86,770	0.8%	15	159	1.56
2004	435	251	55.5	43.9	11.6	88,761	2.3%	18	166	1.51
2005	444	254	55.7	44.1	11.6	90,585	2.1%	19	171	1.47
2006	447	257	56.2	44.2	11.9	96,743	6.8%	18	172	1.49
2007	455	261	56.6	44.8	11.8	101,732	5.2%	14	180	1.45
2008	463	262	57.1	45.2	11.9	104,159	2.4%	11	190	1.38
2009	483	266	57.1	45.6	11.5	105,709	1.5%	14	203	1.31
2010	480	264	57.8	45.7	12.1	107,019	1.2%	10	206	1.28
2011	486	264	58.1	45.5	12.6	109,387	2.2%	7	215	1.23
2012	494	261	58.3	46.0	12.3	107,584	(1.6)%	6	227	1.15



**APPENDIX A - SUMMARY OF MEMBERSHIP DATA**

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**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	97,107
Removed deaths prior to 12/31/12	(12,965)
Records used in the valuation	84,142
Records on the not-in-pay data file	225,555
Records removed because the member has received all benefits or is not eligible for KPERS benefits	(23,533)
Records used in the valuation	202,022

These records are allocated as follows:

	<b>State</b>	<b>School</b>	<b>Local</b>	<b>KP&amp;F</b>	<b>Judges</b>
Active members	23,826	85,428	39,351	7,187	261
Inactive vested members	3,733	9,666	5,021	392	6
Inactive nonvested members	<u>3,202</u>	<u>13,812</u>	<u>9,132</u>	<u>1,005</u>	<u>0</u>
Total	30,761	108,906	53,504	8,584	267
Retirees and beneficiaries	18,098	44,687	16,605	4,525	227
<b>GRAND TOTAL</b>	<b>48,859</b>	<b>153,593</b>	<b>70,109</b>	<b>13,109</b>	<b>494</b>





**SUMMARY OF MEMBERSHIP DATA**

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM  
ACTIVE MEMBER DATA

	12/31/2012	12/31/2011	Change
<b>State/School</b>			
Number	109,254	108,100	1.1%
Average Current Age	45.57	45.68	(0.3%)
Average Service	11.61	11.67	(0.5%)
Average Pay	\$40,112	\$39,874	0.6%
<b>State</b>			
Number	23,826	23,917	(0.4%)
Average Current Age	46.84	46.77	0.1%
Average Service	12.28	12.16	1.0%
Average Pay	\$41,940	\$41,632	0.7%
<b>School</b>			
Number	85,428	84,183	1.5%
Average Current Age	45.21	45.37	(0.4%)
Average Service	11.42	11.53	(1.0%)
Average Pay	\$39,602	\$39,375	0.6%
<b>Local</b>			
Number	39,351	39,547	(0.5%)
Average Current Age	45.37	45.30	0.2%
Average Service	10.24	10.09	1.5%
Average Pay	\$41,661	\$40,964	1.7%
<b>KPERS Total</b>			
Number	148,605	147,647	0.6%
Average Current Age	45.51	45.58	(0.1%)
Average Service	11.25	11.25	(0.0%)
Average Pay	\$40,522	\$40,166	0.9%



## SUMMARY OF MEMBERSHIP DATA

### KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM ACTIVE MEMBER DATA

	12/31/2012	12/31/2011	Change
<b>KP&amp;F</b>			
Number	7,187	7,141	0.6%
Tier I	329	373	(11.8%)
Tier II	6,858	6,770	1.3%
Average Current Age	39.52	39.56	(0.1%)
Average Service	11.68	11.66	0.2%
Average Pay	\$62,489	\$61,907	0.9%
 <b>Judges</b>			
Number	261	264	(1.1%)
Average Current Age	58.27	58.08	0.3%
Average Service	12.26	12.57	(2.5%)
Average Pay	\$107,584	\$109,387	(1.6%)
 <b>System Total</b>			
Number	156,053	155,054	0.6%
Average Current Age	45.26	45.32	(0.1%)
Average Service	11.27	11.27	(0.0%)
Average Pay	\$41,646	\$41,285	0.9%



## SUMMARY OF MEMBERSHIP DATA

### KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM INACTIVE MEMBER DATA

	12/31/2012	12/31/2011	Change
<b>State</b>			
inactive vested	2,879	4,639	(37.9%)
inactive nonvested	3,202	3,088	3.7%
deferred disabled	854	941	(9.2%)
<b>School</b>			
inactive vested	8,670	7,893	9.8%
inactive nonvested	13,812	15,054	(8.3%)
deferred disabled	996	1,022	(2.5%)
<b>Local</b>			
inactive vested	4,296	4,073	5.5%
inactive nonvested	9,132	8,808	3.7%
deferred disabled	725	748	(3.1%)
<b>KPERS Total</b>			
inactive vested	15,845	14,605	8.5%
inactive nonvested	26,146	26,950	(3.0%)
deferred disabled	2,575	2,711	(5.0%)
<b>KP&amp;F</b>			
inactive vested	189	199	(5.0%)
inactive nonvested	1,005	1,009	(0.4%)
deferred disabled	203	197	3.0%
<b>Judges</b>			
inactive vested	6	7	(14.3%)
inactive nonvested	0	0	
deferred disabled	0	0	
<b>System Total</b>			
inactive vested	16,040	14,811	8.3%
inactive nonvested	27,151	27,959	(2.9%)
deferred disabled	2,778	2,908	(4.5%)



## SUMMARY OF MEMBERSHIP DATA

### KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM RETIREE AND BENEFICIARY MEMBER DATA

	12/31/2012	12/31/2011	Change
<b>State</b>			
Number	18,098	17,801	1.7%
Average Benefit	\$12,941	\$12,734	1.6%
Average Age	72.62	72.51	0.2%
<b>School</b>			
Number	44,687	42,590	4.9%
Average Benefit	\$13,968	\$13,737	1.7%
Average Age	72.02	72.02	0.0%
<b>Local</b>			
Number	16,605	15,606	6.4%
Average Benefit	\$10,118	\$9,781	3.4%
Average Age	72.42	72.59	(0.2%)
<b>KPERS Total</b>			
Number	79,390	75,997	4.5%
Average Benefit	\$12,929	\$12,690	1.9%
Average Age	72.24	72.25	(0.0%)
<b>KP&amp;F</b>			
Number	4,525	4,315	4.9%
Average Benefit	\$28,600	\$27,696	3.3%
Average Age	65.16	65.32	(0.2%)
<b>Judges</b>			
Number	227	215	5.6%
Average Benefit	\$38,261	\$37,367	2.4%
Average Age	74.07	74.50	(0.6%)
<b>System Total</b>			
Number	84,142	80,527	4.5%
Average Benefit	\$13,840	\$13,560	2.1%
Average Age	71.86	71.89	(0.0%)

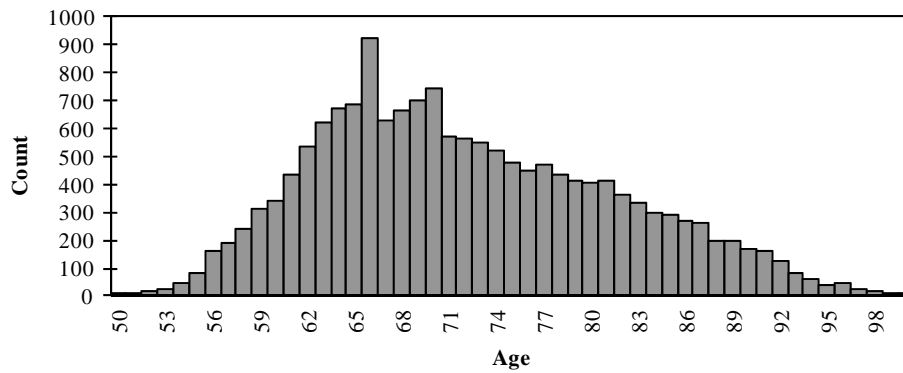


**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM  
DISTRIBUTION OF RETIREES AND BENEFICIARIES**

as of December 31, 2012

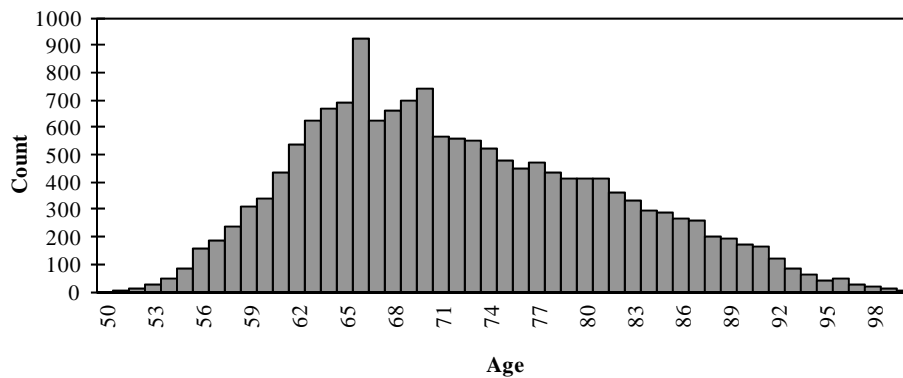
**STATE**

**Retirees**



Count: 16,284    Average age: 72.2    Average benefit: \$13,448

**Beneficiaries**



Count: 1,814    Average age: 76.7    Average benefit: \$8,391



**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM  
DISTRIBUTION OF RETIREES AND BENEFICIARIES**

as of December 31, 2012

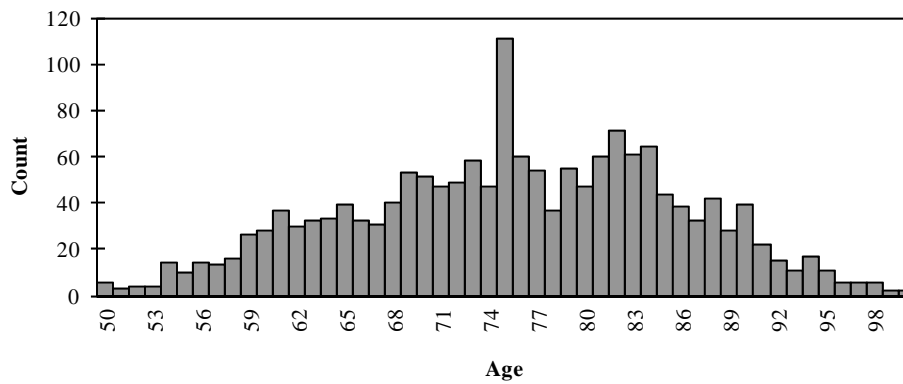
**LOCAL**

**Retirees**



Count: 14,922    Average age: 72.7    Average benefit: \$10,498

**Beneficiaries**



Count: 1,683    Average age: 75.0    Average benefit: \$6,746





















































































