

## HISTORY OF KPERS PLAN DESIGN AND LONG-TERM FUNDING

### Introduction

The Kansas Public Employees Retirement System (KPERS) was created by an act of the 1961 Legislature and began operations on January 1, 1962. By law, the State of Kansas became a participating employer on the entry date. The retirement act provides that any county, city, township, special district or instrumentality whose employees are covered by Social Security may elect to become participating employers of KPERS. In 1970, legislation was passed that merged the Kansas School Retirement System (KSRS) with KPERS, effective for benefit coverage purposes on January 1, 1971. There are 1,402 state, local and school participating employers in KPERS and 255,582 members of KPERS (66,623 retirees and beneficiaries, 148,569 current employees, and 40,390 inactive members).

KPERS is a defined benefit plan, and all the plan provisions are established in statutes passed by the Legislature. Under the statutes, a nine-member Board of Trustees administers KPERS. In addition, the Board administers two other defined benefit plans: the Kansas Police and Firemen's Retirement System (KP&F) and the Kansas Retirement System for Judges. This document only discusses KPERS' plan design and funding and does not cover the KP&F and Judges Systems.

### History of KPERS Plan Design

The Legislature established the KPERS benefit plan design in statutes and over the years has made many enhancements to these benefits. The following sections will summarize the history of the key plan design provisions.

**Vesting Period.** The vesting period is the amount of service credit that a member must earn to guarantee a retirement benefit.

- From the inception of KPERS through June 30, 2009, the vesting period was 10 years.
- As part of the new plan design legislation passed in 2007, the vesting period for active KPERS members on July 1, 2009, was reduced to five years and set at five years for the new KPERS Tier 2 members.

**Retirement Eligibility.** There are two types of retirement eligibility rules: normal retirement and early retirement. Under normal retirement, members who attain the required age and service credit can retire with full or unreduced benefits. Members who retire under an early retirement age and service credit rule have their benefit reduced by an age reduction factor.

#### Normal Retirement

- From 1962 through 1985, the basic normal retirement eligibility rule was age 65 and one year of service.
- From 1986 through 1990, provisions that also allowed normal retirement at age 60 with 35 years of service or any age with 40 years of service were enacted for windows of one to two years.

- In 1991, an “age 60 with 30 years of service” rule was added for a retirement period window of July 1, 1991, to July 15, 1992.
- As part of a major benefit enhancement package in 1993, the “85-point” rule and an “age 62 with 10 years of service” rule were added. The “85-point” rule applies when the sum of a member’s age and years of service credit equals 85.
- As part of the new plan design legislation passed in 2007, the “85-point rule” and “age 62 and 10 years of service” rule were eliminated for KPERS Tier 2 members hired after July 1, 2009. Normal retirement for the Tier 2 members is at age 65 with five years of service and age 60 with 30 years of service.

### **Early Retirement**

- From 1962 through 1986, the basic early retirement eligibility rule was at age 60 with 10 years of service.
- In 1987, it was changed to age 55 with 15 years of service, and in 1988, it was changed to the current rule of age 55 with 10 years of service.
- Tier 2 members also have an “age 55 with 10 years of service” early retirement rule. However, the reduction factors for Tier 2 members are greater than those for Tier 1 members.

See Appendix 6.1 for a history of the retirement eligibility rules.

**Benefit Formula.** The retirement benefit formula is as follows:

$$\textit{Final Average Salary} \times \textit{Statutory Multiplier} \times \textit{Years of Service} = \textit{Annual Benefit}$$

### **Final Average Salary**

- From 1962 through 1975, the definition of final average salary (FAS) was the average of the highest five of the last ten years of participating service.
- In 1976, the FAS rule was changed to the average of the highest five years of participating service.
- In 1985, the FAS rule was lowered to the average of the highest four years of participating service.
- In 1993, the FAS rule was modified depending on a member’s membership date. For membership dates prior to July 1, 1993, the FAS is the higher of the four-year average including leave payout “add-ons” or the three-year average without “add-ons.” For membership dates after July 1, 1993, the FAS is the three-year average without add-ons.
- For Tier 2 members, the FAS rule is a five-year average without add-ons.

See Appendix 6.2 for the history of the FAS rules.

**Statutory Multiplier – Participating Service:** Under the KPERS statutes, there are different multipliers for “prior service” by an employee that occurred before an employer affiliated with KPERS and “participating service,” which is any service after the employee’s membership date.

- From 1962 through 1967, the statutory multiplier was 1.0% for participating service.
- In 1968, it was raised to 1.25%, and in 1982, it was raised to 1.4% for service after July 1, 1982.
- In 1987, additional enhancements were made for different years of service credit.
- As part of the major benefit enhancement package in 1993, the multiplier was increased to 1.75% for all participating service, both previous and future.
- The Tier 2 multiplier is 1.75%.

See Appendix 6.3 for the history of the participating service multiplier rule.

**Statutory Multiplier – Prior Service Credit:** Credit for “prior service” is given to members for periods of time served under a retirement system that was subsequently merged with KPERS or for continuous service with an employer prior to the employer’s affiliation with KPERS. The merger of the prior Kansas School Retirement System with KPERS in 1971 represented the largest award of prior service credit. There is a separate calculation for years of service based on a prior service credit – the multiplier for such service is .75% or 1.0%, depending upon the type of prior service credit granted. See Appendix 6.4 for the history of the prior service credit rules.

**Years of Service:** Beginning in 1971, opportunities were provided for members to increase the number of years of service used to calculate their benefits by purchasing types of service.

- Some of the most common types of service that members can purchase include the initial year of service prior to membership (added in 1971); service forfeited on withdrawing from membership (added in 1971); military service (added 1974); and out-of-state, nonfederal service (added in 1995).
- Others are more specialized, such as service as an elected official (added in 1980), service in the United States Peace Corps (added in 1996) or VISTA (added in 2000), or service as law enforcement personnel in support of United Nations missions (added in 2007).
- The form of the repurchase is typically either in a lump sum or at an additional rate of contribution. The amount and limitations on the time period in which the purchase must be completed vary by the type of service that is purchased.

See Appendix 6.5 for the history of service purchase options and rules.

**Post-Retirement Benefit Adjustments.** The Legislature has periodically granted three types of post-retirement benefit adjustments: ad hoc cost-of living adjustments (COLAs), one-time benefit payments, and the annual retirant dividend payment (“13<sup>th</sup> Check”).

#### **COLAs**

- The first ad hoc COLA was a 5% increase granted in 1972.
- From 1972 through 1994, an ad hoc COLA or one-time benefit payment was granted nearly every year by the Legislature.

- The last ad hoc COLA was a 3% increase in 1998, and the last one-time benefit payment was a \$300 payment in 2008 to members who had been retired at least 10 years with 10 or more years of service.

### “13<sup>th</sup> Check”

- Starting in 1980, an extra monthly benefit called the annual retirant dividend payment (“13<sup>th</sup> Check”) was granted. This benefit was conditional – it was based on an investment income formula.
- The group was closed to persons who retired prior to July 2, 1987.
- In 2003, because of negative investment returns that put this benefit in jeopardy, the Legislature provided funding that made this benefit permanent for the closed group.

See Appendix 6.6 for the history of post-retirement benefit adjustments. Tier 2 members hired after July 1, 2009, will receive a 2% annual, automatic COLA beginning at age 65.

**Retiree Death Benefit.** In 1982, the Legislature established a \$750 lump-sum death benefit for the beneficiaries of retired members. This benefit was incrementally increased five times between 1983 and 1993 to its current amount of \$4,000. See Appendix 6.7 for the history of the retiree death benefit increases.

## Retirement Plan Funding

### Sources of Funding

The funding of KPERS’ benefits come from three sources – employee contributions, employer contributions and investment earnings – and can be summarized according to the following equation:

$$\text{Contributions} + \text{Investment Earnings} - \text{Expenses} = \text{Benefits}$$

To pay benefits, KPERS accumulates assets by collecting contributions from members and employers. Assets accumulated during members’ working careers are invested and, in combination with investment earnings, used to pay retirement benefits to members throughout their retirement years.

**Member Contributions.** Member contribution rates are established by state law. Since the inception of KPERS in 1962, the Tier 1 KPERS member contribution rate has been 4% of compensation. As part of the new plan design passed by the Legislature in 2007, the Tier 2 KPERS member contribution rate is 6% of compensation for employees hired on or after July 1, 2009.

**Employer Contributions.** On the basis of an annual actuarial valuation by the Retirement System’s consulting actuary, the Board certifies an annual employer contribution rate required to fund each group in KPERS on an actuarial basis. This actuarially required employer contribution (ARC) rate is the level of contributions required to fully fund KPERS or a KPERS Group by the

end of the amortization period for the unfunded actuarial liability. As part of the funding plan for the 1993 benefit enhancement package, a statutory cap was placed on annual increases in the ARC rate. This statutory cap has been raised several times and is currently 0.6%. See Appendix 6.8 for a history of employer contribution rates.

**Investment Earnings.** The Retirement System's assets are invested in a diversified portfolio of stocks, bonds, real estate, alternative investments and cash. The portfolio is managed for the long-term in an effort to generate adequate returns to pay member benefits. On average, investment earnings have provided approximately 70 percent of the funding of benefit payments. Investment earnings vary significantly from year to year, depending on economic conditions and capital market returns. Based on historical experience and the triennial asset/liability study, the Retirement System's current actuarial investment return assumption has been set at 8% since 1986. The Retirement System's actual investment experience over the long term is the most significant factor in the emerging costs.

### **1993 Funding Plan**

In 1991, the Legislature established the Kansas Public Employees Retirement Study Commission. The Commission's charge was to study KPERS' benefits and costs, and propose changes and recommendations regarding the long-term policy objectives of the Kansas pension system for public employees. As a result of the Commission's recommendations, the Legislature passed a benefit enhancement package that was effective July 1, 1993. As noted previously, the benefit enhancements package included changes to retirement eligibility requirements, the benefits formula multiplier, final average salary calculations, and the death benefit, plus a one-time ad hoc COLA. The key components of the funding plan associated with the package included the following:

- Extended the amortization period for the unfunded actuarial liability (UAL) from 8.5 years for non-school employers and 17.5 years for school employers to 40 years, which results in higher costs over time.
- Computed the amortization payments as a level percent of payroll, which results in negative amortization of the UAL in the first 20 to 25 years of the 40-year amortization period, and as a result, automatic increases in the UAL.
- Changed the actuarial funding method to the projected unit credit method, thereby reducing the amount of employer contributions necessary to fund the benefits in the initial years.
- Placed a statutory cap of 0.1% on annual increases in the employer contribution rates until they reach actuarially required rates.
- Lowered the interest on new employees' contribution accounts to 4%.

All of these funding plan changes, with the exception of lowering the interest on new employees' accounts (which had only a minor impact on costs), were changes in actuarial methods that lowered initial annual employer contributions and shifted the cost of the benefit enhancements many years in the future. The result of the funding plan changes made in 1993 was to significantly increase the UAL over time and to build in higher costs over the course of the amortization period. Although it did not become fully apparent for several years, these funding

plan changes, along with subsequent experience losses and other factors that adversely affected liabilities, contributed to the long-term funding issues that emerged in 2001 to 2002.

## History of Funding Status

Two of the key measures used in analyzing the funded status of a pension fund are the unfunded actuarial liability and the funded ratio.

- **Unfunded Actuarial Liability.** The actuarial liability is the difference between the actuarial present value of KPERS benefits and the actuarial value of future normal costs. The difference between this liability and the actuarial value of assets at the same date is referred to as the unfunded actuarial liability.
- **Funded Ratio.** The funded ratio is the ratio of KPERS' actuarial value of assets to its actuarial liability.

Throughout most of the 1990s, double-digit positive investment returns produced substantial gains in the actuarial value of KPERS' assets,<sup>\*</sup> which largely offset and masked the effects of experience losses, actuarial changes, and other factors that increased KPERS' actuarial liabilities during this period. Appendix 6.9 shows the history of KPERS' UAL and funded ratio since June 30, 1993, which was the actuarial valuation just prior to the major 1993 benefit enhancement package. As can be seen from the Appendix, the UAL declined and KPERS' funded ratio climbed above 80% in a number of the years prior to the December 31, 2001, Actuarial Valuation. A funded ratio of 80% and rising is generally considered to indicate an adequately funded public sector defined benefit plan.

However, with the economic downturn in 2001 to 2002 and the accompanying investment losses, the UAL rose sharply, the funded ratio declined, and KPERS was out of actuarial balance. Due to strong investment returns from FY 2004 through FY 2007, as well as a series of steps taken by the Legislature and KPERS to improve KPERS' funded status, those trends moderated. The funded ratio for each of the KPERS groups had improved during this time period, KPERS was back in actuarial balance, and projected ARC rates were leveling off before the economic crisis began unfolding in FY 2008 and FY 2009.

Looking back over the entire period from the benefit enhancement and funding plan changes in 1993 through the economic crisis in 2008, the major reasons for the increase in the UAL and decline in the funded ratio can be summarized as follows:

**Statutory Contribution Cap and Lag.** Due to the statutory cap on employer contribution rate increases, the full ARC rate is not contributed. Also, there is a statutory three-year lag between the time when the actuary calculates the employer rates and the year those rates become effective. The UAL is like any other type of fixed debt, i.e. if a full payment is not made or is made late, the debt increases by the amount of the shortfall, along with interest on that amount.

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<sup>\*</sup> From FY 1993 through FY 2000, the value of the System's assets more than doubled from \$5.1 million to \$10.7 billion. Those gains are averaged in for actuarial purposes, which "smoothed" the rate of growth in the actuarial value of assets for the same period of time.

When the ARC rate is not paid into KPERS, it loses ground on its funding plan, and the UAL increases by the difference between the actuarial contribution rate and the actual contribution rate.

**Amortization Method.** When a pension plan has a UAL, it must be financed as part of the actuarial cost of the system's benefits. This is accomplished by creating a payment schedule to pay off the UAL in the number of years specified in the funding plan. As part of the 1993 benefit enhancement, the Legislature adopted a 40-year amortization period and the level percentage of payroll methodology. Under that methodology, the payment on the UAL is expected to increase as covered payroll increases for all future years remaining in the amortization period. Due to this increasing payment methodology, contributions to finance the UAL during the first half of the amortization period are less than the interest on the UAL, and the dollar amount of the UAL increases even if the actuarial contribution rate is made and all assumptions are met. Therefore, more of the payment of the UAL is shifted to later years.

**Changes in Actuarial Procedures and Methods.** In 1994, KPERS contracted with a new consulting actuary, Milliman & Robertson, Inc. (now Milliman, Inc.). Milliman's first valuation of the Retirement System was for the year ended June 30, 1994, and Milliman experienced significant difficulties in reconciling liabilities with those of the Retirement System's previous actuary, Segal Company, which had served from 1961 to 1993. The Legislature hired a third actuary to conduct an actuarial audit (Buck Consulting), and this firm confirmed Milliman's findings. Milliman made a number of changes in the actuarial procedures for the 1994 valuation that significantly increased the UAL that year. Also, after experience studies could validate the actual experience of KPERS in the late 1990s and early 2000s, Milliman recommended additional changes in actuarial procedures and methods to correct methodology problems from the prior actuary. These actuarial changes significantly increased the UAL. Independent actuarial audits contracted by the Legislature in 2002 and 2008 have confirmed Milliman's methodology.

**Investment Experience.** The investment return assumption is the most significant assumption in the valuation process as it is used to determine current value for all future benefit payments. The Retirement System's investment return assumption has been 8% since 1986. Appendix 6.10 provides historical information on KPERS' annual investment returns and asset values by fiscal year. It shows that, throughout the 1980s and 1990s, the investment portfolio significantly outperformed the 8% return assumption in most years and over longer-term measurement periods. During the period of FY 1994 to FY 2009, the fund earned more than 8% in 10 years and less than 8% in 6 years. Overall, the aggregate investment experience, measured on the actuarial value of assets, was favorable through 2007.

However, four of the years with underperformance involved negative investment returns that occurred during the last 10 years, due to the market downturns of 2001 to 2002 and 2008. In particular, the 2008 U.S. and global stock market performance was the worst year since 1931, resulting in a calendar year 2008 investment return for KPERS of -28.5%. This loss was reflected in the December 31, 2008, Actuarial Valuation Report. Following further declines in early 2009, the investment markets began to rebound in March 2009, and the Retirement System's fiscal year 2009 return ended at -19.6%. The Retirement System's asset value declined

from a high of \$14.2 billion at the end of FY 2007 to \$10.2 billion at the end of FY 2009. This dramatic drop in the asset value resulted in a significant increase in the actuarial contribution rate and the UAL.

**Demographic Experience and Assumption Changes.** The actuarial valuation is based on a number of demographic assumptions about future contingent events, such as: termination of employment, salary increases, retirement and death. To the extent actual experience differs from that anticipated by the assumptions, the experience is reflected in the UAL. Favorable experience will result in a decrease in the UAL, and unfavorable experience will result in an increase in the UAL. Every three years, the actuary performs an in-depth analysis of the recent experience of the Retirement System and recommends changes to better align the assumptions with expectations for future experience. From 1994 through 2008, the most significant demographic experience and assumption changes that increased the UAL related to improvements in mortality, earlier-than-expected retirements, and salary increases above expected levels.

## HISTORY OF KPERS PLAN DESIGN AND LONG-TERM FUNDING

### APPENDICES

- Appendix 6.1:** History of KPERS Retirement Eligibility Rules
- Appendix 6.2:** History of KPERS Final Average Salary Rules
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