MAKING PROGRESS

2018 Comprehensive Annual Financial Report
for the Fiscal Year Ended June 30, 2018

KPERS

2018 COMPREHENSIVE ANNUAL FINANCIAL REPORT

Kansas Public Employees Retirement System
A component unit of the State of Kansas
Fiscal year ended June 30, 2018

Prepared by KPERS staff
611 S. Kansas Ave., Ste 100 | Topeka, KS 66603-3869

Alan D. Conroy, Executive Director
Judy McNeal, Chief Fiscal Officer

OUR MISSION

KPERS, in its fiduciary capacity, exists to deliver retirement, disability and survivor benefits to its members and their beneficiaries.

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TRANSMITTAL LETTER

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

October 31, 2018

We are pleased to present the Kansas Public Employees Retirement System's (KPERS) Comprehensive Annual Financial Report (CAFR) for Fiscal Year 2018. In addition to informing the Board of Trustees, members and employers, our annual report fulfills KPERS' reporting responsibilities as defined in Kansas statute. Printed copies are readily available to the public and a full version is posted on our website, kpers.org.

As the first item in the CAFR, this transmittal letter provides a high-level overview of the Retirement System. The Management's Discussion and Analysis section provides a narrative introduction and analysis of our financial activities over the past fiscal year. This letter is intended to complement the Management's Discussion and Analysis, and they should be read together.

ENSURING ACCURACY

Responsibility for the preparation, accuracy and completeness of this report, including all disclosures, rests firmly with KPERS' management. Information is presented in accordance with generally accepted accounting principles. To the best of our knowledge, the included data is accurate in all material respects and fairly presents our financial position and operating results.

The Retirement System maintains a framework of internal controls to establish reasonable assurance that assets are safeguarded, transactions are completed accurately and financial statements are fair and reliable. We also have an internal audit program that reports to the Board of Trustees. There are inherent limitations to internal controls, and risk cannot always be foreseen or completely eliminated. KPERS' objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements, since the cost of internal control should not exceed the benefits obtained. In addition to internal controls, the independent certified public accounting firm CliftonLarsenAllen conducted an independent audit of the Retirement System's financial statements for Fiscal Year 2018.

OUR PROFILE

The Kansas Legislature created the Kansas Public Employees Retirement System in 1962 to secure a financial foundation for those spending their careers in Kansas public service. The Retirement System provides disability and death benefits while employees are still working, and a dependable pension benefit when they retire.

We are a statewide, cost-sharing multiple employer defined benefit retirement plan containing three different groups:

- Public Employees
- Kansas Police and Firefighters
- Judges

Retirement System benefits are offered by slightly over 1,500 state and local employers. KPERS has about 311,000 members, including active, inactive and retired members. The Retirement System paid about $1.7 billion in retirement benefit payments for Fiscal Year 2018. Over 85 percent of those benefits remained in Kansas. Retirement System assets totaled $19.5 billion on June 30, 2018.

Along with the defined benefit plan, KPERS also oversees KPERS 457, a voluntary 457(b) deferred compensation plan for State of Kansas employees. In addition, 351 local public employers also participate. The plan has over 24,500 total and about 13,300 actively contributing participants. Total KPERS 457 plan assets equaled about $1.1 billion at the end of Fiscal Year 2018. The KPERS 457 plan's financial information is not included in this CAFR.

A nine-member Board of Trustees oversees the Retirement System: four are appointed by the Governor; one is appointed by the President of the Kansas Senate; one is appointed by the Speaker of the Kansas House of Representatives; two are elected by Retirement System members; and one is the statewide elected State Treasurer. The Board appoints an executive director who manages a staff to carry out daily operations. The Board approves the System's annual operating budget. As a component unit of the State of Kansas, the budget is also approved by the Kansas Legislature and Governor as part of the regular legislative budgetary process.

INVESTMENTS

KPERS' assets are invested according to the "prudent expert standard of care" for the sole purpose of providing benefits to members and beneficiaries. We have designed our investment portfolio to withstand short-term market volatility and economic downturns, as well as to benefit from strong economic and market environments.

Over time, solid investment performance is an important component to sound funding. Our actuarial projections assume an average, long-term net investment return of 7.75 percent. In 2017, the Board changed from an 8.0 percent assumption to 7.75 percent. For some years, returns will be below that rate and, in other years, returns will exceed it. As of June 30, 2018, KPERS' 25-year annualized total return average was 8.2 percent, exceeding the 7.75 percent target.

The Retirement System's broadly diversified investment portfolio produced a total return of 8.7 percent in Fiscal Year 2018, outperforming the Policy Index benchmark by 0.7 percent and exceeding the actuarial return assumption by 0.95 percent. The so-called "risk assets" produced the strongest returns again during Fiscal Year 2018, led by private equity with a 17.1 percent total return, domestic equity with a 14.9 percent total return, and real estate with an 11.6 percent total return.

All of the asset classes contributed positive total returns to the portfolio, with the exception of core fixed income. Six of the eight asset classes produced positive excess returns (asset class returns exceeded the asset class benchmarks), so 89 percent of the System's assets produced performance results in excess of their respective benchmark.

The Retirement System's investment portfolio ended the fiscal year at approximately $19.5 billion in assets. For more information about KPERS diversified and disciplined approach to executing our investment strategy, please refer to the investment section in this report, beginning on page 56. This section also provides details about our asset allocation and a general overview of each asset class and its performance.

FINANCIAL POSITION AND FUNDING OUTLOOK

For nearly two decades, KPERS has been facing a long-term funding shortfall, significantly affected by two recessions and less than the required employer contributions for 25 years.

KPERS' December 31, 2017, actuarial valuation shows the System's financial health is incrementally headed in the right direction, although we still have room for improvement.

The Legislature has taken steps over the last ten years to address the funding shortfall, including pension bonds, increasing member contributions, creating a cash balance plan for new members and commitments to increase employer contributions over time. Local employers reached the actuarially required contribution rate in calendar year 2015. Some increases with State funding have been implemented, but the full commitment has not been fulfilled, slowing progress.

In 2015, the State of Kansas sold $1 billion in pension obligation bonds, and the proceeds were deposited in the KPERS Trust Fund. The State pays the debt service on the bonds.

On the heels of this large infusion of assets, the Legislature passed and the Governor approved State and School employer contribution reductions and delays over several years. Legislation also included provisions to pay for some of the shortfalls in annual payments with interest over the following 20 years. As scheduled, KPERS received $6.4 million in Fiscal Year 2018 and Fiscal Year 2019. Annual payments will increase to over $25 million going forward. This is in addition to regular statutory employer contributions.

As result of earlier nonpayment and funding delays, the KPERS' Board of Trustees has continued with the increased target allocation for cash equivalents at 4.0 percent in order to be able to meet the System's liquidity needs without disrupting long-term investments.

At the date of this report, projections show the legacy unfunded actuarial liability will extinguish in 2033 as scheduled. It is important to remember that to meet this projection, long-term investment returns are crucial. Continued funding improvement hinges on meeting our investment return target over time and consistent funding with increasing employer contributions to match actuarial funding requirements.

For information on KPERS' funding projections by plan and group, please see the actuarial section beginning on page 72.

UNFUNDED ACTUARIAL LIABILITY

According to the December 31, 2017, actuarial valuation, the System's unfunded actuarial liability (UAL) decreased by about $154 million to $8.9 billion. This UAL amount is the gap between the actuarial value of assets and the actuarial liability for future benefits already earned by public employees. The UAL was previously $9.1 billion as of December 31, 2016. The Retirement System's UAL is projected to hold steady for several years until we see the full results of KPERS employer contribution rates catching up with the actuarially determined rates.

FUNDED RATIO

The valuation also showed the System's funded ratio improved slightly from 67 percent to 68 percent. The funded ratio is the ratio of assets to future liabilities.

For public pension plans like KPERS, funding over 80 percent and rising is generally good. Funding below 60 percent is poor and needs prompt attention. While the System does not have an immediate crisis, long-term funding requires ongoing, careful oversight.

MAJOR INITIATIVES AND ACCOMPLISHMENTS

New Active Workflow Processes

Leveraging technology to meet increasing service demands is one of KPERS' initiatives in the current strategic plan. During Fiscal Year 2018, KPERS implemented business process management for paying withdrawals and retiree death benefits, also known as "active workflow." With active workflow, the information system moves each payment application step by step through the process. This eliminates paper and increases efficiency. It also provides better application tracking. When members call with questions or status inquiries, InfoLine representatives have up-to-date information at their fingertips. Additional functions are slated for implementation in Fiscal Year 2019.

New Employer Portal Rollout

KPERS opened its new employer web portal in April 2018. This two-year project redesigned the user experience and allowed staff to improve some processes. Employers use the portal to provide salary, contribution and member information, as well as help administer KPERS benefits. Staff executed multifaceted customer service and communications plans to support the initial rollout period. Employers responded positively, with 90 percent of employers rating themselves as satisfied or very satisfied with customer service. In addition, KPERS was able to maintain normal levels of pay reporting and revenue during this time. In reference to the new user experience, 85 percent of employers said the new portal is easy to use.

KPERS 457 Web Enhancements

In the fall of 2017, KPERS 457 launched enhanced websites for participants and employers and the public website, kpers457.org. The new participant experience provides a "lifetime income score" for replacing income in retirement. It incorporates 457 savings, KPERS pension benefits and Social Security to help savers gauge their progress toward retirement readiness. Also a key improvement, employees at Local employers can now enroll online, replacing a paper-only process.

Portfolio Liquidity and Cashflow

The most significant challenge for the Investment Division continues to be managing the System's liquidity needs in an environment of reductions and uncertainty regarding State employer contributions. This, along with the expected negative cash flow of our mature pension plan and the System's current funding level, increases the risk of a negative impact on KPERS' long-term financial health. The Retirement System has taken the following steps to mitigate risk:

- Established a 4.0 percent cash equivalents target

- Developed a liquidity policy for the Statement of Investment Policy, Objectives and Guidelines which provides a written protocol for the liquidation of assets in the event of a sustained negative market environment for risk assets

- Developed a "stress test" for the investment portfolio designed to deepen understanding of how it might perform in a two standard deviation downside event for domestic equities

BY THE NUMBERS—IN FISCAL YEAR 2018:

- About 1.2 million retirement benefit payments paid totaling more than $1.6 billion
- 5,534 pension inceptions completed
- 42,600 beneficiary designations processed
- $19.4 million in life insurance benefits paid
- 30,500 member enrollments and transfers processed
- 8,800 withdrawals paid totaling $52.4 million
- $18 million in benefits paid to 2,100 disabled employees
- 100,865 incoming calls answered with an average wait time of 10 seconds
- 21,350 emails answered

AWARDS & ACKNOWLEDGMENTS

KPERS participated in a benchmarking survey conducted by CEM Benchmarking, Inc. When compared with other public pensions in the 2017 survey, KPERS earned an overall service score of 84, the same score as the peer median. In addition, we measured very favorably with regard to cost. KPERS' administrative cost per member is $42, which was about half the peer median cost of $83. Benchmarking results continue to show KPERS is delivering good customer service for a low, economical cost.

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of

Achievement for Excellence in Financial Reporting to the Retirement System for the 2017 CAFR. The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of state and local government financial reports.

To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized comprehensive annual financial report, the contents of which must conform to program standards. The comprehensive annual financial report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. The Retirement System has received the Certificate of Achievement for each of the last 24 fiscal years. We believe our current report again conforms to the program requirements, and we will submit it to the GFOA to determine its eligibility for another certificate.

In addition to the GFOA certificate, KPERS also earned the Public Pension Standards Award for Funding and Administration in 2018 from the Public Pension Coordinating Council (PPCC). The standards serve as a benchmark by which to measure public defined benefit plans in the areas of benefits, actuarial valuation, independent audit, investments, communications and long-term funding.

The CAFR continues to be the product of team effort, both KPERS staff and advisors. We thank the Board for its leadership and our entire dedicated staff whose work this report represents. The CAFR is an important asset to our organization, and we use the information in this report to make key decisions. It helps us honor our fiduciary commitment and provide members with the service they need to get the most from their benefits.

Sincerely,

Alan D. Conroy

Alan D. Conroy,
Executive Director

Judy McNeal

Judy McNeal
Chief Fiscal Officer

BOARD OF TRUSTEES

OUR ORGANIZATION

BOARD OF TRUSTEES

EXECUTIVE DIRECTOR
Alan D. Conroy

ADMINISTRATION
General Counsel, Laurie McKinnon
Internal Audit, Alberta Rea
Planning and Research, Jarod Waltner
Human Resources, Julie Baker
KPERS 457, Laurie Rueschhoff
Communications, Kristen Basso

INVESTMENTS
Chief Investment Officer, Elizabeth B.A. Miller
- Equity Investments
- Real Estate Investments
- Fixed Income Investments
- Alternative Investments

FISCAL SERVICES
Chief Fiscal Officer, Judy McNeal
- Corporate Accounting
- Employer Reporting
- Investment Accounting
- Employer Auditing

BENEFITS AND MEMBER SERVICES
Chief Benefits Officer, Mary Beth Green
- Post-Retirement
- Benefits
- Withdrawals

INFORMATION TECHNOLOGY
Chief Information Officer, Mike Branam
- Data Control
- Operations

KPERS STAFF

Melvin Abbott
Crystie Amaro
Michael Arvidson Jr
Paige Ashley
Julie Baker
Yohonna Barraud
Kristen Basso
DuWayne Belles
Dianna Berry
A. Kathleen Billings
Candace Blythe
Anita Bradley
Terry Brookhouser
Tracy Brull
Annika Bush
Andryana Campbell
Russell Canaday
William "Will" Clark
Amanda Cobler
Alan Conroy
Rebecca "Becky" Dekat
Ardith Dunn
Amy Dunton
Joyce Edington
Alexandria "Allie" Engnehl-Thomas
Yarlenis Ensley
Daniel Fairbank
Melissa Findlay
Bruce Fink
Renae Forque
Elaine Gaer
Yong (Sue) Gamblian
Connie Gardner
Billie-Jo Gerisch
Brandon Gil
Michael Gilliland
Lisa Gonzales
Mary Beth Green
Candice Heth
John Hooker
Mirel Howard
Kaylie Hughes
Charla Jefferson
C. Marais Johnson-Herl
Teresa Jurgens
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Rohit Komaragiri
Shannon Kuehler
Lindsey Leslie
Debra Lewis
Cheri (Melinda) Locke
Joyce Mark
Janette Martin
Heather McHardie
Laurie McKinnon
Jason McKinzie
Judy McNeal
Elizabeth Miller
Stephanie Moore
Noble Morrell
Kali Newell
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Dawn Nichols
Shawn Nix
Jennifer Osborn
Marcus Peavler
Diana Peters
Sammi Peterson
Alissa Powell
Jeeva Purushothaman
Sheila Putman
Sarah Putman
Teresa Quick
Justin Quick
Cathy Rafferty
Kimberley Raines
Curtis Rasmusson
Norm Remp
Dean Roney
Jamie Rose
Rika Rowe
Laurie Rueschhoff
Teresa Ryan
MaryAnn Sachs
John (Alan) Schuler
Annette Scott
Hallie Shermoen
Rhonda Shumway
Brecken Stadler
Marsha Stafford
Rachel Swartz
Raquel Talavera
Amber Tarrant
Carmen Torres
Daniel "Dan" Tritsch
Jessica Tufts
Jason Van Fleet
Jackie VandeVelde
Daniel Wadsworth
Jarod Waltner
Michaela Watson
Lisa Wehrly
Amy Whitmer
Eric Wigginton
William "Lane" Wiley
Marlin (Max) Williams
Emily Wilson
Deanna Winters
Susan "Susie" Wires
Krystal Yegon

CONSULTANTS AND ADVISORS

Auditors: CliftonLarsonAllen, Greenwood Village, CO

Accounting: KPMG LLP, Chicago, IL

Actuary: Cavanaugh Macdonald, Bellevue, NE

INVESTMENT CONSULTANTS

Pavilion Alternatives Group, LLC, El Dorado Hills, CA
Pension Consulting Alliance, Inc., Encino, CA
The Townsend Group, Cleveland, OH

INVESTMENT MANAGERS

Adrian Lee & Partners, Dublin, Ireland
Advisory Research Inc., St. Louis, MO
Baillie Gifford Overseas Limited, Edinburgh, Scotland
BlackRock Institutional Trust Company, San Francisco, CA
Brookfield Asset Management, Coral Gables, FL
CenterSquare Investment Management Inc., Plymouth Meeting, PA
Franklin Templeton Institutional, San Mateo, CA
JP Morgan Investment Management Inc., New York, NY
Lazard Asset Management, LLC, New York, NY
Loomis Sayles & Company, LP, Boston, MA
MacKay Shields LLC, New York, NY
Mellon Capital Management Corporation, San Francisco, CA
Molpus Timberlands Management, Jackson, MS
Insight Investment Inc., New York, NY
Payden & Rygel Investment Counsel, Los Angeles, CA
Russell Investment Group, Tacoma, WA
State Street Global Advisors, Boston, MA
T Rowe Price Associates, Inc., Baltimore, MD
Wellington Management Company, Boston, MA
Western Asset Management Company, Pasadena, CA

Investment Custodian: State Street Bank and Trust, Boston, MA

Life Insurance: Standard Insurance Company, Portland, OR

Long-Term Disability: Self Insured, Administered by Disability Management Services, Inc., Springfield, MA

GFOA CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association of the United States and Canada (GFOA) awarded the Certificate of Achievement for Excellence in Financial Reporting to KPERS for the 2017 annual report. KPERS has received the award for each of the last 24 consecutive fiscal years.

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Kansas Public Employees Retirement System

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO

PPCC PUBLIC PENSION STANDARDS AWARD

The Public Pension Coordinating Council (PPCC) awarded the Public Pension Standards Award for Funding and Administration to KPERS for 2018.

PPCC

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2018

Presented to

Kansas Public Employees Retirement System

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

Alan H. Winkle
Alan H. Winkle
Program Administrator

FINANCIAL SECTION

INDEPENDENT AUDITORS' REPORT

CliftonLarsonAllen

Board of Trustees
Kansas Public Employees Retirement System
Topeka, Kansas

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of the Kansas Public Employees Retirement System (the System), which comprise the statements of fiduciary net position and changes in fiduciary net position, as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

AUDITORS' RESPONSIBILITY

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the System's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

OPINION

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the System as of June 30, 2018, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

OTHER MATTERS

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of changes in the employers' net pension liability, schedule of the employers' net pension liability, schedule of employers' contributions and schedule of investment returns, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

OTHER INFORMATION

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the System's basic financial statements. The other supplementary information listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The other supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The Introductory, Investment, Actuarial and Statistical sections, as listed in the table of contents, have not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

OTHER REPORTING REQUIRED BY GOVERNMENT AUDITING STANDARDS

In accordance with Government Auditing Standards, we have also issued our report dated October 30, 2018, on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the System's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

Denver, Colorado
October 30, 2018

MANAGEMENT'S DISCUSSION AND ANALYSIS

This section presents management's discussion and analysis of the Kansas Public Employees Retirement System's financial performance for the fiscal year ended June 30, 2018. It is presented as a narrative overview and analysis in conjunction with the Executive Director's letter of transmittal.

The Kansas Public Employees Retirement System (KPERS, the Retirement System, or the System) is the administrator of a cost-sharing defined-benefit pension plan (Pension Plan) providing pension benefits to the following three statewide pension groups under one plan, as provided by Chapter 74, Article 49 of the Kansas Statutes:

- Public Employees
- Police and Firemen
- Judges

Substantially all public employees in Kansas are covered by the Pension Plan. The State of Kansas and Kansas schools are required to participate, while participation by local political subdivisions is optional but irrevocable once elected.

FINANCIAL HIGHLIGHTS

The System's net position increased by $1.1 billion or approximately 5.7 percent to $19.7 billion as of June 30, 2018, compared to an increase of $1.4 billion or approximately 8.4 percent, from $17.2 billion to $18.6 billion as of June 30, 2017.

The System's June 30, 2018, financial actuarial valuation calculated a total pension liability at June 30, 2018, of $28.6 billion, compared to $27.8 billion as of June 30, 2017, an increase of $834 million or 2.9 percent. The net pension liability at June 30, 2018, decreased to approximately $8.9 billion, compared to $9.1 billion as of June 30, 2017, a decrease of $228.2 million, or 2.5 percent.

On a market value basis, this year's money weighted net investment rate of return was a positive 8.34 percent, compared with last year's return of a positive 12.35 percent.

Monthly retirement benefits paid to retirees and beneficiaries increased 4.6 percent to approximately $1.7 billion for Fiscal Year 2018, compared to $1.6 billion in Fiscal Year 2017.

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is an introduction to the System's financial status, which comprise the following components:

- Financial statements
- Notes to the financial statements
- Required supplementary information
- Other supplementary schedules

The information available in each of these sections is summarized as follows.

FINANCIAL STATEMENTS

A Statement of Fiduciary Net Position as of June 30, 2018, and a Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2018, are presented in this report. These financial statements reflect the resources available to pay benefits to retirees and other beneficiaries.

NOTES TO THE FINANCIAL STATEMENTS

The financial statement notes provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to the financial statements can be found immediately following the financial statements.

REQUIRED SUPPLEMENTARY INFORMATION

The required supplementary information consists of schedules and related notes concerning the financial status of the Retirement System (Pension Plan).

OTHER SUPPLEMENTARY SCHEDULES

Other schedules include detailed information on contributions by employer coverage groups, administrative expenses, an investment income summary, a schedule of investment fees and expenses, and a statement of changes of assets and liabilities for agency funds.

CONDENSED FINANCIAL INFORMATION OF THE RETIREMENT SYSTEM

The System provides benefits to State of Kansas and other local and school employees. Benefits are funded by member and employer contributions and by investment earnings. Net position at June 30, 2018, amounted to $19.7 billion. Following are two summary schedules, Fiduciary Net Position and Changes in Fiduciary Net Position, showing information for Fiscal Years 2018 and 2017.

SUMMARY STATEMENT OF FIDUCIARY NET POSITION

	As of June 30, 2018	As of June 30, 2017
Assets		
Cash and Deposits	$ 56,405,395	$ 35,427,133
Receivables	307,937,568	290,682,499
Investments at Fair Value	19,612,182,483	18,586,745,502
Capital Assets and Supplies Inventory	3,949,332	3,636,022
Total Assets	19,980,474,778	18,916,491,156
Liabilities		
Administrative Costs	1,298,338	1,108,170
Benefits Payable	12,795,209	12,968,807
Securities Purchased	213,169,905	240,802,996
Payables	57,002,091	27,770,762
Total Liabilities	284,265,543	282,650,735
Fiduciary Net Position Restricted for Pensions	$ 19,696,209,235	$ 18,633,840,421

SUMMARY STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

	Year Ended June 30, 2018	Year Ended June 30, 2017
Additions		
Contributions	$ 1,308,019,741	$ 1,176,147,718
Net Investment Income	1,516,929,281	2,060,925,477
Other Miscellaneous Income	5,733,655	1,071,115
Total Additions	2,830,682,677	3,238,144,310
Deductions		
Monthly Retirement Benefits	1,679,587,567	1,604,984,334
Refunds	64,966,962	70,481,060
Death Benefits	11,299,715	11,210,914
Administrative Expenses	12,459,619	11,116,172
Uncollectable Pension Contributions	—	98,943,780
Total Deductions	1,768,313,863	1,796,736,260
Net Increase	1,062,368,814	1,441,408,050
Fiduciary Net Position Beginning of Year	18,633,840,421	17,192,432,371
Fiduciary Net Position End of Year	$ 19,696,209,235	$ 18,633,840,421

FINANCIAL ANALYSIS OF THE RETIREMENT SYSTEM

Additions to the System's fiduciary net position restricted for pensions include employer and member contributions, as well as investment income. Total contributions to the Retirement System were approximately $1.3 billion in Fiscal Year 2018, compared to approximately $1.2 billion in Fiscal Year 2017.

The System recognized net investment income of $1.5 billion for Fiscal Year 2018. Total time-weighted return for the portfolio net of fees, was 8.3 percent, compared with the benchmark return of 8.0 percent. System investments at fair value amounted to $19.6 billion at June 30, 2018. The Retirement System's time-weighted one-, three-, five-, ten- and estimated 25-year investment performance return net of fees are shown in the following table. The actuarial assumed rate of return is 7.75 percent.

2018

1 year	Last 3 Years	Last 5 Years	Last 10 Years	Last 25 Years*
8.3%	6.8%	8.3%	6.8%	8.0%

**estimated*

The System recognized net investment income of $2.1 billion for the 2017 Fiscal Year. System investments at fair value amounted to $18.6 billion at June 30, 2017.

At June 30, 2018, the System held $10.4 billion in US equity and international equity securities. US equity and international equity securities earned net returns of approximately 14.9 percent and 8.0 percent, respectively, for Fiscal Year 2018.

At June 30, 2017, the System held $10.0 billion in US equity and international equity securities. US equity and international equity securities earned returns of approximately 18.3 percent and 21.4 percent, respectively, for Fiscal Year 2017.

The System held $5.3 billion in US debt and international debt securities at June 30, 2018. The net performance of the System's fixed income securities during Fiscal Year 2018 was negative 0.4 percent. Real estate investments amounted to $2.2 billion at June 30, 2018, and returned approximately 10.4 percent for the 2018 Fiscal Year. The System held $1.3 billion in private equities, which earned a return of approximately 14.8 percent for the 2018 Fiscal Year. At June 30, 2018, the System held $506.1 million in short-term investments. Cash and deposits include investment cash and foreign currencies held at the custodial bank as of June 30, 2018, totaling approximately $39.6 million.

The System held $4.8 billion in US debt and international debt securities at June 30, 2017. The net performance of the System's fixed income securities during Fiscal Year 2017 was 0.4 percent. Real estate investments amounted to $2.1 billion at June 30, 2017, and returned approximately 7.2 percent for the 2017 Fiscal Year. The System held $932.4 million in private equities, which earned a return of approximately 14.6 percent for the 2017 Fiscal Year.

At June 30, 2017, the System held $740.8 million in short-term investments. Cash and deposits include investment cash and foreign currencies held at the custodial bank as of June 30, 2017, totaling approximately $23.1 million.

Deductions from fiduciary net position restricted for pensions include retirement benefits, refunds, survivor benefits and administrative expenses. For the 2018 Fiscal Year, retirement benefits amounted to approximately $1.8 billion, an increase of $70.0 million or 4.1 percent from Fiscal Year 2017. For the 2018 Fiscal Year, System administrative expenses amounted to $12.5 million, an increase of $1.3 million from Fiscal Year 2017. The ratio of System administrative expenses to the number of members continues to be very cost-efficient compared to other statewide retirement plans.

NET PENSION LIABILITY

The annual financial actuarial valuation for the System, as of June 30, 2018, estimates the total pension liability in accordance with requirements established by GASB Statement No. 67, Financial Reporting Standards for Pension Plans, as amended. The total pension liability (TPL) is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of plan member service. The net pension liability (NPL) is the total pension liability, net of the pension plan's fiduciary net position. As of June 30, 2018, the pension plan's fiduciary net position as a percentage of the total pension liability was 68.88 percent.

PENSION PLAN

In response to KPERS' long-term funding shortfall, the 2012 Legislature made changes to future benefits and contributions, affecting both current members and employers, to improve KPERS long-term sustainability. The Governor signed Senate Substitute for HB 2333 into law on June 1, 2012. This legislation affects new hires, current members and employers. Beginning in 2014, the statutory cap on employer contributions was increased. For Fiscal Year 2017 and beyond, the statutory cap is 1.2 percent. The changes are expected to improve KPERS long-term funding and help all three groups reach full funding by 2033. The actual funding progress will be heavily dependent on the actual investment experience of the System in future years. The 2015 Legislature passed and the Governor approved Senate Bill 228 authorizing the issuance of $1.0 billion in pension obligation bonds. The bonds were successfully issued in August 2015 and the proceeds transferred to the Retirement System.

Senate Sub. For HB 2052 authorized the delay of $64.1 million in FY 2017 contributions. These contributions have been set up as a long-term receivable. Payment is scheduled to be made in a series of twenty annual payments of $6.4 million. Senate Sub. for HB 2002 authorized the first two annual payments for Fiscal Year 2018 and 2019. The Fiscal Year 2018 and 2019 payments of $6.4 million have been received by the System.

House Sub. For Senate Bill 109 from the 2018 Legislative session provided for additional funding for the KPERS School Group. A payment of $56 million was paid in Fiscal Year 2018. An additional payment of up to $56 million will be paid in Fiscal Year 2019 if actual Fiscal Year 2019 receipts exceed the consensus revenue estimates. This bill also provided for an additional Fiscal Year 2019 payment of $82 million received by the System in July 2018.

The legislature and the Governor are ultimately responsible for benefits and funding. As a fiduciary devoted to the best financial interest of members, KPERS will continue to advocate for policies that promote the long-term financial health of the Retirement System.

This financial report is designed to provide a general overview of the Kansas Public Employees Retirement Systems' finances for all interested parties. An electronic copy of this report is available at the System's website kpers.org. Requests for a printed copy of this report should be directed to the System as follows:

Kansas Public Employees Retirement System
611 S. Kansas Ave., Suite 100
Topeka, KS 66603-3869
1-888-275-5737

STATEMENT OF FIDUCIARY NET POSITION

As of June 30, 2018

	Pension Plan	Agency Funds
Assets:		
Cash	$ 9,593,175	$ 7,065,442
Cash at Custodial Bank	39,641,971	—
Deposits with Insurance Carrier	—	104,807
Total Cash	49,235,146	7,170,249
Receivables:		
Contributions	211,061,582	10,477,419
Investment Income	44,918,199	46,228
Sale of Investment Securities	41,434,140	—
Total Receivables	297,413,921	10,523,647
Investments at Fair Value:		
Domestic Equities	6,049,135,306	—
International Equities	4,306,647,166	—
Short Term	466,772,091	39,308,195
Fixed Income	5,281,962,250	—
Alternative Investments	1,290,640,877	—
Real Estate	2,177,716,598	—
Total Investments	19,572,874,288	39,308,195
Capital Assets and Supplies Inventory	3,949,332	—
Total Assets	19,923,472,687	57,002,091
Liabilities:		
Administrative Costs	1,298,338	—
Benefits Payable	12,795,209	—
Securities Purchased	213,169,905	—
Due to Others	—	57,002,091
Total Liabilities	227,263,452	57,002,091
Fiduciary Net Position Restricted for Pensions	$19,696,209,235	$ —

The accompanying notes to financial statements are an integral part of this statement.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For the Fiscal Year Ended June 30, 2018

	Pension Plan
Additions:	
Contributions:	
Member Contributions	$ 420,284,941
Employer Contributions	887,734,800
Total Contributions	1,308,019,741
Investments:	
Net Appreciation in Fair Value of Investments	1,145,750,895
Interest	143,874,114
Dividends	219,737,718
Real Estate Income, Net of Operating Expenses	94,853,455
Other Investment Income	14,706,420
	1,618,922,602
Less Investment Expense	101,993,321
Net Investment Income	1,516,929,281
Other Miscellaneous Income	5,733,655
Total Additions	2,830,682,677
Deductions:	
Monthly Retirement Benefits Paid	1,679,587,567
Refunds of Contributions	64,966,962
Death Benefits	11,299,715
Administrative Expenses	12,459,619
Total Deductions	1,768,313,863
Increase in Fiduciary Net Position	1,062,368,814
Fiduciary Net Position Restricted for Pensions Beginning of Year	18,633,840,421
End of Year	$ 19,696,209,235

The accompanying notes to financial statements are an integral part of this statement.

NOTE 1 – ORGANIZATION AND PLAN DESCRIPTION

The Kansas Public Employees Retirement System (KPERS, or the System) is a body corporate and an instrumentality of the State of Kansas. KPERS is governed by a nine-member board of trustees of which: four trustees are appointed by the Governor, one by the President of the Senate, one by the Speaker of the House of Representatives, two are elected by Retirement System members and one is the elected State Treasurer. The Board of Trustees appoints the executive director, who is the System's managing officer. KPERS is a component unit of the State of Kansas.

KPERS is the administrator of a cost-sharing defined-benefit pension plan (Pension Plan) for the State of Kansas providing pension benefits to the following three statewide pension groups under one plan, as provided by K.S.A. Chapter 74, Article 49:

- Public Employees
- Police and Firemen
- Judges

Substantially all public employees in Kansas are covered by the plan. The State of Kansas and Kansas schools are required to participate, while participation by local political subdivisions is optional but irrevocable once elected.

KPERS pays Death and Disability Plan benefits to members on behalf of employers as provided by K.S.A. 74-4927. The benefits are not administered through a qualifying trust based on the criteria in Governmental Accounting Standards Board (GASB) Statement No. 74 and the assets and liabilities are presented in an agency fund.

KPERS also collects and pays premiums for the optional group life insurance plan, as authorized by K.S.A. 74-4927. This plan provides additional employee paid life insurance coverage for active members. The assets and liabilities are presented in an agency fund.

PLAN MEMBERSHIP BY EMPLOYEE GROUP

Participating membership by statewide pension group as of December 31, 2017, (most recent actuarial valuation date) is as follows:

MEMBERSHIP BY RETIREMENT SYSTEMS[1]

	KPERS	KP&F	Judges	Total
Retirees and Beneficiaries Currently Receiving Benefits[2]	94,900	5,392	283	100,575
Terminated Employees Entitled to Benefits But Not Yet Receiving Them	22,926	198	6	23,130
Inactive Members, Deferred Disabled	1,904	200	—	2,104
Inactive Members Not Entitled To Benefits	33,476	1,256	—	34,732
Current Employees	143,947	7,481	259	151,687
Total	297,153	14,527	548	312,228

1) Represents System membership at December 31, 2017.
2) Number of retirement payees as of December 31, 2017.

NUMBER OF PARTICIPATING EMPLOYERS

	KPERS	KP&F	Judges
State of Kansas	1	1	1
Counties	105	35	—
Cities	366	66	—
Townships	60	—	—
School Districts	286	—	—
Libraries	122	—	—
Conservation Districts	83	—	—
Extension Councils	65	—	—
Community Colleges	19	—	—
Educational Cooperatives	23	—	—
Recreation Commissions	44	1	—
Hospitals	28	—	—
Cemetery Districts	13	—	—
Other	204	—	—
Total	1,419	103	1

PLAN BENEFITS

Benefits are established by statute and may only be changed by the Legislature. Members (except Police and Firemen) with ten or more years of credited service, may retire as early as age 55 (Police and Firemen may be age 50 with 20 years of credited service), with an actuarially reduced monthly benefit. Normal retirement is at age 65, age 62 with ten years of credited service, or whenever a member's combined age and years of credited service equal 85 "points" (Police and Firemen normal retirement ages are age 60 with 15 years of credited service, age 55 with 20 years, age 50 with 25 years, or any age with 36 years of service). Monthly retirement benefits are based on a statutory formula that includes final average salary and years of service. When ending employment, members may withdraw their contributions from their individual accounts, including interest. Members who withdraw their accumulated contributions lose all rights and privileges of membership. For all pension coverage groups, the accumulated contributions and interest are deposited into and disbursed from the membership accumulated reserve fund as established by K.S.A. 74-4922.

Members choose one of seven payment options for their monthly retirement benefits. At retirement a member may receive a lump-sum payment of up to 50 percent of the actuarial present value of the member's lifetime benefit. His or her monthly retirement benefit is then permanently reduced based on the amount of the lump sum. Benefit increases, including ad hoc post-retirement benefit increases, must be passed into law by the Kansas Legislature. Benefit increases are under the authority of the Legislature and the Governor of the State of Kansas.

The 2012 Legislature made changes affecting new hires, current members and employers. A new KPERS 3 cash balance retirement plan for new hires starting January 1, 2015, was created. Normal retirement age for KPERS 3 is 65 with five years of service or 60 with 30 years of service. Early retirement is available at age 55 with ten years of service, with a reduced benefit. Monthly benefit options are an annuity benefit based on the account balance at retirement.

For all pension coverage groups, the retirement benefits are disbursed from the retirement benefit payment reserve fund as established by K.S.A. 74-4922.

For active members (except Police and Firemen) in cases of death as a result of an on-the-job accident for Public Employees, there is a $50,000 lump-sum benefit and a monthly benefit payable to a spouse, minor children or dependent parents (in this order). Service-connected accidental death benefits are in addition to any life insurance benefit. There is a $4,000 death benefit payable to the beneficiary(ies) when a retired member dies from any group.

CONTRIBUTIONS

Member contribution rates are established by state law and are paid by the employee according to the provisions of Section 414(h) of the Internal Revenue Code. State law provides that the employer contribution rates be determined based on the results of each annual actuarial valuation for each of the three statewide pension groups. The contributions and assets of all three groups are deposited in the Kansas Public Employees Retirement Fund established by K.S.A. 74-4921. All of the retirement groups are funded on an actuarial reserve basis.

For fiscal years beginning in 1995, Kansas legislation established statutory limits on increases in contribution rates for KPERS employers, which includes the state, school and local employers. Annual increases in the employer contribution rates related to subsequent benefit enhancements are not subject to these limitations. The statutory cap increase over the prior year contribution rate is 1.2 percent of total payroll.

The actuarially determined employer contribution rate and the statutory contribution rates are as follows:

	Actuarial Employer Rate	Statutory Cap Rate
State Employee[1]	9.62%	12.01%
School Employee[1]	16.38	12.01
Judges[1]	15.89	15.89
Local Government Employee[2]	8.39	8.39
Police and Firemen[2]	20.09	20.09

1) Rates shown for KPERS State, School and Judges represent the rates for fiscal year ending June 30.
2) KPERS Local and KP&F rates are reported for the calendar year.

Employee contribution rates as a percentage of eligible compensation in Fiscal Year 2018 are 6.0 percent for Public Employees, 7.15 percent for Police and Firemen and 6.0 percent or 2.0 percent for Judges.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements have been prepared on the accrual basis of accounting in conformity with US generally accepted accounting principles (GAAP), as prescribed by the Governmental Accounting Standards Board (GASB). KPERS' financial statements include the pension fund and agency funds.

The pension fund is accounted for on the flow of economic resources measurement focus and the accrual basis of accounting. Contributions are recognized as revenues when due pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred, regardless of when contributions are received or payment is made. The agency funds are custodial in nature and account for the assets and liabilities held by KPERS as an agent. Death and disability benefits are paid on behalf of other governments and Optional Group Life Insurance premiums are paid on behalf of employees. These funds do not measure the results of operations.

SHORT TERM INVESTMENTS

The Retirement System considers Short Term Investments to include both Money Market Investments (MMI) and STIF Funds (STIF). MMI are highly liquid debt instruments purchased within one year of maturity, including US Treasury and Agency obligations. Asset-backed securities, derivatives and structured notes are not included in MMI.

STIF funds are an open-end mutual fund provided and operated by the custodian bank, that serves the daily cash needs of specific investment managers. The STIF funds are not a 2a-7 like investment pool. As such, the unit of account is each share held, and the value of the position is the fair value of the total fund's price multiplied by the number of shares held.

More information regarding the measurement of the fair value of the MMI and STIF Funds is available in Note 5 – Fair Value Measurement.

METHODS USED TO VALUE INVESTMENTS

Investments are reported at fair value. The fair value of active, publicly traded securities are quoted market prices. Securities traded on a national or international securities exchange are valued at the last reported sales price at current exchange rates. The fair value of real estate investments is based on independent annual appraisals. Fair value of other securities is determined by the mean of the most recent bid and asked prices as obtained from dealers that make markets in such securities. Fair values of the limited partnership investments are based on valuations of the partnerships as reported by the general partner. Dividends are recorded on the ex-dividend date.

More information regarding the measurement of the fair value of investments is available in Note 5 – Fair Value Measurements.

INVESTMENTS

Investments and the investment process are governed by K.S.A. 74-4921. The Board of Trustees maintains a formal Statement of Investment Policy, which addresses the governing provisions of the law, as well as specifying additional guidelines for the investment process.

Statutory authority for the Retirement System's investment program is provided in K.S.A. 74-4901 et seq., effective July 1, 1993. The Retirement Act addresses the following areas:

- Established the structure of the Board of Trustees, defines the Trustees' responsibilities, imposing the prudent expert standard upon their actions with respect to managing the assets of the Retirement System.

- Requires that the assets be invested to preserve capital and solely to provide benefits to members and the members' beneficiaries.

- Limits the possible allocations of common stock to 60.0 percent of the total book value of the fund.

- Limits the possible allocation of total alternative investments to 15.0 percent of the total investment assets of the fund.

- The annual allowance for new alternative (non-publicly traded) investments is limited to 5.0 percent of the market value of the total investment assets of the fund as measured from the end of the preceding calendar year.

- Establishes limits on the structure of future investments in real estate or alternative investments.

- Requires that the Board develop investment policies and objectives to invest fund assets.

- Authorizes the Board to hire qualified professionals/firms to assist in investing the fund and requires that such professionals/firms obtain errors and omissions insurance coverage and fidelity bond insurance coverage.

- Authorizes the Board to pay for the services of retained professionals/firms at the rates fixed by the Board, excluding any reimbursement for expenses and subject to the provisions of the appropriations act.

- Provides for an annual audit and requires that the Board annually examine the investment program, specific investments and its policies and practices.

In fulfilling its responsibilities, the Board of Trustees has contracted with 20 investment management firms and a master global custodian. The Retirement System has six permissible investment categories: 1) equities, 2) real estate, 3) fixed-income securities, 4) derivative products, 5) cash equivalents, 6) alternative investments.

The pension plan's policy in regard to the allocation of invested assets is established and may be amended by the Board of Trustees. Plan assets are managed on a total return basis with a long-term objective of achieving and maintaining a fully funded status for the benefits provided through the pension plan. The following was the Board of Trustee's adopted asset allocation policy as of June 30, 2018:

Asset Class	Interim Target Allocations
Domestic Equities	24.5%
International Equities	23.5
Yield Driven[1]	8.0
Real Return[2]	11.0
Fixed	11.0
Short Term Investments	4.0
Real Estate	11.0
Alternatives	7.0
	100.0%

1) The Yield Driven asset class above is reported in domestic equities and fixed income on the Statement of Fiduciary Position.
2) The Real Return asset class above is reported in fixed income and real estate on the Statement of Fiduciary Position.

The System's asset allocation and investment policies include active and passive investments in international securities. The Systems target allocation is to have 23.5 percent of assets in dedicated international equities. At June 30, 2018, the System utilized two currency overlay managers to reduce risk by hedging up to 100 percent of the developed foreign currency market for international equity portfolios. At June 30, 2018, the System's total foreign currency exposure was 65.1 percent hedged.

Equities are considered to be common or preferred corporate stocks; warrants or rights; preferred stock which is convertible into common stock; investment trusts; or participation in commingled (equity) funds managed by a bank, insurance company or other professional equity investment manager. These stocks are listed on well-recognized or principal exchanges of the United States or foreign countries.

Fixed income securities are considered to be US and foreign treasury or government agency obligations; US or foreign corporate bonds; asset backed securities such as CMOs, mortgage backed securities and segments of these types of vehicles; or participation in commingled (fixed income) funds, managed by a bank, insurance company or other professional fixed income investment manager. Core fixed managers invest in large, liquid sectors generally consistent with their benchmark. Strategic fixed managers seek investments from the complete range of global fixed income securities. Subject to the Board's limitations, these investments also include the debt of emerging markets. Emerging markets are considered to be those countries that are included in the JP Morgan Emerging Markets Index Global (EMBI Global).

Alternative investments are those investments that do not trade publicly on an organized exchange. Examples include, but are not limited to, partnership funds that focus on private equity, venture capital, buyout, mezzanine financing or special situations or natural resources. Prospective investment in any alternative investments are subject to the following requirements:

- There are at least two other sophisticated investors.
- The System's portion of an investment will not be more than 20.0 percent of the total investment.
- Any individual investment (standing alone or within a pool) must not be more than 2.5 percent of the Fund's total alternative investment commitments.
- A favorable recommendation has been received from an independent expert.
- The investment is consistent with the Investment Policy Statement.
- The Board has received and considered the due diligence findings regarding the investment.
- Criteria have been established that will be used as a guideline to determine when no additional investments will be made and when the investment will be liquidated.

A security's duration is determined by a third-party pricing agency. Real estate investments are investments in real property on a direct ownership basis, through a realty holding corporation, joint partnership, private real estate investment trusts (REITs) (contained within the real estate portfolio), participation in commingled real estate funds (managed by a bank, insurance company or other professional real estate investment manager) or through debt secured by real estate. Any real estate investment shall support the System's intent to hold a real estate portfolio that is diversified by geographic location, property type, stage of development and degree of leverage.

RECEIVABLES

In addition to statutorily determined contractually required contributions, certain agencies also make payments through an additional component of their required employer contribution rate or annual installment payments, both options include interest at 8.0 percent per year, for the cost of service credits granted retroactively when the agency initially joined the Retirement System. As of June 30,2018, the outstanding balance was $4,612,105. These payments are due over various time periods up through December 31, 2032.

The 2017 Legislature passed Senate Sub for Sub House Bill 2052 authorizing the delay of $64.1 million in Fiscal Year 2017 contributions. This amount has been set up as a long-term receivable. Payment was authorized to be made in a series of twenty annual payments of $6.4 million. Senate Sub. for HB 2002 authorized the first two annual payments for Fiscal Years 2018 and 2019.

CAPITAL ASSETS

Furniture, fixtures and equipment are reported on the Statement of Fiduciary Net Position at historical cost, net of accumulated depreciation. These assets are depreciated on a straight-line basis over an average useful life of three to ten years with no salvage value. Accumulated depreciation on all System assets as of June 30, 2018, was $18,446,489. In Fiscal Year 1999, the Retirement System purchased an office building and garage in Topeka, Kansas. Fifty percent of the floor space of the office building is used as the System's administrative headquarters and the remaining 50 percent is a real estate investment. The administrative portion of the building and garage are reported on the Statement of Fiduciary Net Position as a capital asset and are being depreciated. Accumulated depreciation on the administrative portion of the building and garage as of June 30, 2018, was $2,932,761. The office building and garage are being depreciated over a period of 33 years on an accelerated method. At June 30, 2018, the book value of the System's administrative headquarters was $685,396.

USE OF ESTIMATES

The preparation of financial statements in conformity with GAAP requires the System's management to make estimates and assumptions that affect the reported amounts of assets, liabilities and changes therein, disclosure of contingent assets and liabilities and the total pension liability at the date of the financial statements. Actual results could differ from those estimates.

RISKS AND UNCERTAINTIES

The System invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statement of fiduciary net position.

FEDERAL INCOME TAX

The System is a qualified pension plan under Section 401(a) of the Internal Revenue Code (IRC) and, as such, is required to withhold federal income tax from member and benefit recipient payments in accordance with IRC. As a public entity, the System is not required to file a federal income tax return with the Internal Revenue Service.

NEW ACCOUNTING PRONOUNCEMENTS

GASB Statement No. 84, Fiduciary Activities. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes. Retirement System management is evaluating this Statement. It is effective for the Retirement System in Fiscal Year 2020.

GASB Statement No. 87, Leases. The objective of this Statement is to improve accounting and financial reporting for leases by governments. Retirement System management is evaluating this Statement. It is effective for the Retirement System in Fiscal Year 2021.

NOTE 3 – CASH AND INVESTMENTS

CASH

The System advances cash deposits to a disability administrator for monthly disability benefits and death benefits for members who are disabled. As of June 30, 2018, the System's deposits with its disability administrator were $104,807. The System does not have a deposit policy for custodial credit risk associated with these deposits.

INVESTMENTS

The following table presents a summary of the Retirement System's investments by type as of June 30, 2018, at fair value:

Investment Type	Fair Value
Domestic Equities	$ 6,049,135,306
International Equities	4,306,647,166
Fixed Income:	
US Government	2,027,139,561
US Agencies	457,715,229
US Corporate	2,385,557,638
Foreign Fixed Income	411,549,822
Short Term Investments	506,080,286
Real Estate:	
Partnerships	701,147,163
Commingled Funds	1,403,434,117
Separate Accounts	73,135,318
Alternatives/Private Equities	1,290,640,877
Total	$ 19,612,182,483

CUSTODIAL CREDIT RISK

The custodial credit risk for investments is the risk that, in the event of the failure of the custodial counterparty to a transaction, the System will not be able to recover the value of investments or collateral securities that are in the possession of the custodial bank. At June 30, 2018, the System had US dollar and foreign currency balances at custodial banks with a net value of $39.6 million. This is primarily foreign currency deposits facilitating international investments in the respective local markets. The System's deposits of $16.7 million held at the State Treasury were fully collateralized at fiscal year end by FDIC insurance or pledged collateral (government securities or FHLB letters of credit).

CONCENTRATION OF CREDIT RISK

No single issuer represents 1.0 percent or more of System assets other than US Government (9.9 percent) and Agencies (2.8 percent). KPERS' investment policy does not prohibit holdings above 5.0 percent in the debt securities of US government issuers. Government sponsored enterprises (GSEs, such as FNMA) are considered government issuers for the purpose of implementing KPERS investment policy.

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The System does not have a formal investment policy, which limits its exposure to foreign currency risk. The following table presents the foreign currency risk by type of investment as of June 30, 2018.

USD Equivalent				
Equity	Fixed	Currency	Total	Percent
$ 196,018	$ 1,240,761	Argentine Peso	$ 1,436,779	0.04%
36,177,532	7,198,362	Australian Dollar	43,375,894	1.19
8,314,398	6,023,788	Brazilian Real	14,338,186	0.39
525,681,331	194,595,739	British Pound Sterling	720,277,070	19.75
215,935,111	18,449,231	Canadian Dollar	234,384,342	6.43
71,319,472	1,536,726	Danish Krone	72,856,198	2.00
1,057,130,784	120,116,781	Euro Currency Unit	1,177,247,565	32.27
240,238,131	—	Hong Kong Dollar	240,238,131	6.59
8,504,990	4,051,290	Indonesian Rupiah	12,556,280	0.34
12,742,310	—	Israeli New Shekel	12,742,310	0.35
550,643,394	43,194,655	Japanese Yen	593,838,049	16.28
13,116,484	—	Mexican New Peso	13,116,484	0.36
54,122,566	—	New Taiwan Dollar	54,122,566	1.48
10,826,996	4,502,554	New Zealand Dollar	15,329,550	0.42
37,794,587	—	Norwegian Krone	37,794,587	1.04
2,552	—	Polish Zloty	2,552	0.00
2,871	4,045,063	Russian Ruble	4,047,934	0.11
44,519,915	—	Singapore Dollar	44,519,915	1.22
36,752,763	—	S African Comm Rand	36,752,763	1.01
63,744,799	—	South Korean Won	63,744,799	1.75
66,563,832	5,876,624	Swedish Krona	72,440,456	1.99
166,561,112	—	Swiss Franc	166,561,112	4.57
10,038,398	—	Thailand Baht	10,038,398	0.28
4,277,485	—	Turkish New Lira	4,277,485	0.12
—	729,239	Uruguayan Peso	729,239	0.02
$ 3,235,207,831	$ 411,560,813		$ 3,646,768,644	100.00%

CREDIT RISK

Credit risk is the risk that an issuer or other counterparty to a debt investment will not fulfill its obligations. Each fixed portfolio manager is required to maintain a reasonable risk level relative to its benchmark.

In the following table, Short Term includes commercial paper, repurchase agreements and other short-term securities. Agency securities are those implicitly guaranteed by the US Government. US Government securities are treasury securities and agencies explicitly guaranteed. Securities with a "not rated" quality rating are primarily bank loans, certificates of deposit and preferred stock. System assets as of June 30, 2018, subject to credit risk are shown with current credit ratings.

CREDIT RISK

Quality Rating	Short Term Investments	Corporate[1]	US Government	Agency	Total
Not Rated	$ 402,129,815	$ 88,566,197	$ —	$ —	$ 490,696,012
AAA	—	246,776,993	1,938,235,208	390,049	2,185,402,250
AA	10,437,590	435,009,512	88,904,353	447,192,365	981,543,820
A	18,142,618	353,547,067	—	644,081	372,333,766
A-1/P-1	41,226,658	84,946,705	—	—	126,173,363
BBB	34,132,613	771,461,080	—	8,499,313	814,093,006
BB	—	407,768,473	—	—	407,768,473
B	10,992	306,076,528	—	989,421	307,076,941
CCC	—	115,216,806	—	—	115,216,806
CC	—	8,609,077	—	—	8,609,077
C	—	6,251,524	—	—	6,251,524
D	—	1,257,507	—	—	1,257,507
Total	$ 506,080,286	$2,825,487,469	$2,027,139,561	$ 457,715,229	$ 5,816,422,545

1) Includes preferred equities subject to credit risk.

INTEREST RATE RISK

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Investment policy requires all fixed portfolios maintain a reasonable risk level relative to their benchmarks. The same System assets as above are also subject to interest rate risk. These are shown in the following grouped by effective duration ranges. The weighted effective durations shown in the following table are grouped by asset category.

INTEREST RATE RISK

Effective Duration	Short Term Investments	Corporate[1]	US Government	Agency	Total
0 - 1 Yr	$ 506,080,286	$ 579,934,476	$ 208,055,686	$ 29,027,041	$ 1,323,097,489
1 - 3 Yrs	—	487,727,629	304,616,073	90,983,303	883,327,005
3 - 5 Yrs	—	551,700,539	260,237,831	233,835,803	1,045,774,173
5 - 10 Yrs	—	775,721,658	1,067,833,052	101,823,798	1,945,378,508
> 10 Yrs	—	430,403,167	186,396,919	2,045,284	618,845,370
Grand Total	$ 506,080,286	$2,825,487,469	$2,027,139,561	$ 457,715,229	$ 5,816,422,545

1) Includes preferred equities subject to interest rate risk.

ANNUAL MONEY-WEIGHTED RATE OF RETURN

For the year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 8.34 percent. This return was 12.35 percent for Fiscal Year 2017. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 4 – INVESTMENT DERIVATIVES

Derivative instruments are tools for use by the System's investment managers for the purposes of:

- Risk Management: Mitigating or managing portfolio risks through hedging or otherwise modifying specific risk exposure.

- Substitution: In substitution for "cash market" securities/ positions, or for modifying portfolio positioning in lieu of cash market transactions.

- Derivative-based Strategies: As a structural part of an investment strategy.

- Efficiency/Cost Effectiveness: Efficiency and/or cost effectiveness in implementing: portfolio construction, trading, portfolio strategy or managing a portfolio's risk/ return profile.

The following table summarizes the derivatives held by the Retirement System as of June 30, 2018.

INVESTMENT DERIVATIVE SUMMARY

	Asset Class[1]	Notional Value	Fair Value
Domestic Equity Futures	Domestic Equities	$ 51,888,395	$ —
Fixed Futures	Fixed	85,207,726	—
TBA Agency Bonds[2]	Fixed	132,098,225	132,098,225
Foreign Currency Forwards	Fixed	4,829,706,401	27,313,154
Options Purchased	Fixed	50,000	75,000

1)The Asset Class that the Fair Values and Revenues are included in other schedules. Futures and Options reflect the summed absolute values of the exposures.
2)TBA Agency Bond notional values are equal to their fair values. KPERS investment policy allows managers to carry short TBA values as long as they have offsetting long holdings in similar securities with similar characteristics.

The following table summarizes the activity of the derivatives held by the Retirement System during the year ended June 30, 2018, at fair value:

INVESTMENT DERIVATIVE FAIR VALUES

	June 30, 2017	Increases	Decreases	June 30, 2018
TBA Agency Bonds	$ 100,769,165	$ 1,257,671,383	$(1,226,342,323)	$ 132,098,225
Foreign Currency Forwards	(15,211,743)	40,366,952	2,157,945	27,313,154
Options Purchased	—	840,961	(765,961)	75,000
	$ 85,557,422	$ 1,298,879,296	$(1,224,950,339)	$ 159,486,379

FUTURES

Futures contracts are commitments for delayed delivery (liability) or receipt (asset) of securities in which the seller agrees to make delivery and the buyer agrees to take delivery at a specified future date, of a specified instrument, at a specified price. Market risk arises due to market price and interest rate fluctuations that may result in a decrease in the fair value of futures contracts. Futures contracts are traded on organized exchanges and require initial margin in the form of cash or marketable securities. Holders of futures contracts look to the exchange for performance under the contract. Accordingly, the credit risk due to nonperformance of counterparties to futures contracts is minimal. Daily, the net change in the futures contract value is settled in cash with the exchanges, making the fair values always equal to zero after the daily margin flow. At the close of business June 30, 2018, the System had total net margins receivable the next day of $0. Short-term investments in amounts necessary to settle the economic value of the futures contracts were held in the portfolio so that no leverage was employed in accordance with the Statement of Investment Policy. The daily margin flows affect cash assets held at broker. Realized gains/losses are recognized at contract maturity and included with underlying security type returns. Total gains of $9.6 million were associated with futures for the year ending June 30, 2018.

OPTIONS

The Retirement System also participates in option contracts. These contractual agreements give the purchaser the right, but not the obligation, to purchase or sell a financial instrument at a specified price within a specified time. The option buyer has some counterparty risk in the event the seller cannot deliver when exercised. This involves opportunity cost and possible loss of option fees. The option seller holds the securities and has minimal counterparty risk. Options strategies used by the Retirement System are designed to provide exposures to positive market moves and limit exposures to interest rate and currency volatility.

SWAPS

Interest rate swaps are agreements between two counterparties to exchange future cash flows. These are generally fixed vs. variable flows, and can be either received or paid. These swaps are used to adjust interest rate and yield curve exposure and substitute for physical securities. Long swap positions (receive fixed) increase exposure to long-term interest rates; short positions (pay fixed) decrease exposure. Counterparty risk is limited to monthly exchanged or netted cash flows.

Credit default swaps are used to manage credit exposure without direct purchase or sale of securities. Written credit default swaps increase credit exposure (selling protection) obligating the seller to buy the bonds from the counterparty in the event of a default. This creates credit risk, but has very little counterparty risk. Purchased credit default swaps decrease exposure (buying protection), providing the right to "put" bonds to the counterparty in the event of a default. This decreases credit risk, and has counterparty risk in the event the seller of protection fails to cover the defaulting security. Controls are established by the investment managers to monitor the creditworthiness of the counterparties.

TBA AGENCY BONDS

A TBA is a contract for the purchase or sale of agency mortgage-backed securities to be delivered at a future agreed-upon date; however, the actual pool identities or the number of pools that will be delivered to fulfill the trade obligation or terms of the contract are unknown at the time of the trade. A common practice is to buy a TBA security thirty to sixty days in advance of the issue date with the issue date as the trade settle date, then selling the security four days before issue date, with the same settle date. This allows the trader to realize a gain or loss on the security based on changes in interest rates, without taking possession of, or paying for, the security. The only cash cost is the broker cost of the trades. These have minimal credit risk, while this scenario is designed specifically to increase interest rate exposure.

FOREIGN CURRENCY FORWARDS

The Retirement System's international investment managers use forward contracts to obtain currencies necessary for trade execution and manage the exposure of the international investments to fluctuations in foreign currency. Active international investment managers use forward contracts to enhance returns or to control volatility. Currency risk arises due to foreign exchange rate fluctuations. Forward foreign exchange contracts are negotiated between two counterparties. The Retirement System could incur a loss if its counterparties failed to perform pursuant to the terms of their contractual obligations. Since the System holds the offsetting currency in the contract, and controls are established by the investment managers to monitor the creditworthiness of the counterparties, risk of actual loss is minimized. Foreign currency forwards are reflected on the financial statements in offsetting notional receivable and payable amounts for the two sides of the contract. Fair value is reflected as unrealized gains or losses when currency rates fluctuate during the life of the contract.

The Retirement System utilizes two currency overlay managers to reduce, or partially hedge, the System's exposure to foreign currencies through the international equities portfolio. At June 30, 2018, the fair value of international equities was $4.3 billion. The overlay managers evaluate the System's international equities exposure to currencies, and buy/sell inverse currency forwards in relation to the overall currency exposures. The inverse relationship of these hedging investment forwards uses their exposure to currency risks to reduce overall System exposure. The Statement of Investment Policy stipulates that the overlay manager should: "Take forward currency exchange contract positions which will have the intent and effect of hedging the currency exposure of the underlying international equity assets." The Statement of Investment Policy further states the forward currency exchange contract positions be used to "Maintain an acceptable risk level by reducing the negative volatility of the currency component of return."

The forward contracts are purchased as needs are determined by the hedge manager, and mature quarterly. Gains/losses are realized during those periods and the contracts are rolled over to the next period as appropriate. Through these processes, hedging contracts can adapt to any changes to portfolio currency exposures. Since the hedging currency forwards track to the overall exposure, and they reference the same foreign exchange rates as the underlying portfolio, this hedge is known to be effective through consistent critical terms. An investment portfolio hedge such as this does not match the hedging forwards to any specific hedged security. The accessibility and liquidity of the currency forwards market allows these hedging forwards to roll forward and seamlessly hedge the ongoing foreign currency exposures.

Following is a summary of the foreign currency forwards exposure at the fiscal year ended June 30, 2018:

INVESTMENT CURRENCY FORWARDS

	Notional Cost (USD)	Pending Foreign Exchange Receivables (USD)	Pending Foreign Exchange Payables (USD)	Fair Value June 30, 2018 (USD)
Australian Dollar	$ 170,568,708	$ 168,886,982	$ (168,504,877)	$ 382,105
Brazilian Real	160,964	160,965	(142,679)	18,286
British Pound Sterling	1,124,922,677	1,125,166,751	(1,116,454,992)	8,711,759
Canadian Dollar	217,039,244	216,598,054	(215,323,003)	1,275,051
Danish Krone	35,835,026	35,805,775	(35,601,096)	204,679
Euro Currency Unit	1,822,986,010	1,822,168,859	(1,809,167,468)	13,001,391
Hong Kong Dollar	149,146,330	149,146,328	(149,136,009)	10,319
Indonesian Rupiah	923,575	923,575	(892,980)	30,595
Israeli New Shekel	7,564,874	7,564,874	(7,487,867)	77,007
Japanese Yen	768,786,996	768,563,019	(763,934,103)	4,628,916
Mexican New Peso	6,603,189	6,624,830	(6,522,428)	102,402
New Zealand Dollar	92,306,508	90,448,811	(92,161,182)	(1,712,371)
Norwegian Krone	75,806,125	75,581,549	(75,575,611)	5,938
Russian Ruble	600,367	600,367	(598,814)	1,553
Singapore Dollar	34,930,318	34,874,158	(34,530,483)	343,675
South Korean Won	24,882	24,851	(24,882)	(31)
Swedish Krona	71,027,845	70,342,295	(70,327,446)	14,849
Swiss Franc	250,472,763	249,644,485	(249,427,454)	217,031
	$4,829,706,401	$ 4,823,126,528	$ (4,795,813,374)	$ 27,313,154

Investment forwards counterparty exposure at June 30, 2018, is as follows:

INVESTMENT FORWARDS COUNTERPARTY EXPOSURE

Counterparty Name	Notional $USD	Fair Value	Worst Long-Term Rating
Australia and New Zealand Bkg Grp	$ 87,644,322	$ (1,886,634)	AA-
Bank of America N.A.	889,115,185	894,238	AA-
Barclays Bank PLC Wholesale	23,626,471	(260,330)	A
BNP Paribas SA	14,275,577	(49,401)	A
Citibank N.A.	179,609,380	2,360,660	A+
Credit Suisse International	508,285	2,342	A
Deutsche Bank Ag	95,661,358	1,214,217	BBB+
Goldman Sachs International	2,271,684	(13,848)	A
HSBC Bank PLC	147,203,358	(129,082)	AA-
HSBC Bank USA	174,341	(381)	AA-
Income Repatriation Boston	770,725	(1,262)	NR
JPMorgan Chase Bank N.A.	296,506	59	A+
JPMorgan Chase Bank N.A. London	372,269,348	4,543,623	AA
Merrill Lynch International	94,664,899	5,790,626	A-
Morgan Stanley and Co. International PLC	9,050,695	(535,025)	A+
National Australia Bank Limited	433,163,184	2,269,507	AA-
Nomura International PLC	8,760,268	192,682	A-
Royal Bank Of Canada (UK)	834,278,478	4,656,740	AA
State Street Bank and Trust Company	6,812,174	41,041	AA-
State Street Bank London	446,486,089	(1,044,770)	AA-
Subcustodian	24,882	(31)	NR
Toronto Dominion Bank	387,530,371	4,499,370	AA-
UBS Ag London	398,528,471	6,426,549	AA-
Westpac Banking Corporation	396,980,350	(1,657,736)	AA-
	$4,829,706,401	$ 27,313,154	

NOTE 5 – FAIR VALUE MEASUREMENT

The Retirement System categorizes fair value measurements of investment assets and liabilities within the fair value hierarchy established by generally accepted accounting principles. As a pension fund, 100 percent of the System's custodied assets and liabilities are held primarily for income or profit for the purpose of paying current or future member benefits. These investments are valued through industry standard practices for the respective type of security at a price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The hierarchy is based on the transparency of inputs to the valuation of the assets as of the measurement date. The three levels are defined as follows:

Level 1 - Inputs to the valuation methodology are quoted prices for identical instruments in active markets.

Level 2 - Inputs other than quoted prices are observable, either directly or indirectly.

Level 3 - One or more significant inputs to the valuation methodology are unobservable.

The following table presents the Retirement System's recurring fair value measurements as of June 30, 2018.

INVESTMENTS AND DERIVATIVE INSTRUMENTS MEASURED AT FAIR VALUE

		Fair Value Measurements Using:		
	Total as of 6/30/2018	Quoted prices in active markets for identical assets Level 1	Significant other observable inputs Level 2	Significant unobservable inputs Level 3
Investments by Fair Value Level				
Debt Securities				
US Treasury	$ 1,105,687,300	$ 50,234,563	$ 1,055,452,737	$ —
US Treasury Commingled	832,547,908	—	832,547,908	—
GNMA	88,904,353	—	88,904,353	—
US Agency	325,617,004	—	325,617,004	—
US Corporate, Municipalities	1,860,965,264	—	1,857,941,470	3,023,794
US Bank Loans	150,601,114	—	147,111,263	3,489,851
Yankees	373,916,260	—	373,916,260	—
International	411,549,822	—	411,549,822	—
Total Debt Securities	5,149,789,025	50,234,563	5,093,040,817	6,513,645
Equity Securities				
Domestic Common Stock	6,048,441,035	6,045,775,162	—	2,665,873
Domestic Preferred	694,271	694,271	—	—
International Common	3,146,566,901	3,146,566,901	—	—
International Commingled and ETF	1,132,394,527	1,132,394,527	—	—
International Preferred Stock	27,685,738	27,685,738	—	—
Total Equity Securities	10,355,782,472	10,353,116,599	—	2,665,873
Real Estate and Alternatives				
Separate Properties	71,180,107	—	—	71,180,107
Home Office Property, Rentable	1,955,211	—	—	1,955,211
Alternatives Distribution	200,730	—	—	200,730
Total Real Estate and Alternatives	73,336,048	—	—	73,336,048
Investments by Fair Value Level	15,578,907,545	10,403,351,162	5,093,040,817	82,515,566
Derivatives by Fair Value				
Options	75,000	75,000	—	—
To-Be-Announced Agencies	132,098,225	—	132,098,225	—
Total Derivatives by Fair Value Level	132,173,225	75,000	132,098,225	—
Total Investments and Derivatives by Fair Value Level	$15,711,080,770	$ 10,403,426,162	$ 5,225,139,042	$ 82,515,566

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	Total as of 6/30/18	Transfer or Unfunded Commitment	Transfer or Redemption Frequency	Redemption Notice
Investments Measured at Net Asset Value (NAV)				
Private Equity Partnerships	$ 1,290,440,147	$ 1,191,561,585	Quarterly	30 days
Real Estate Partnerships	701,147,163	337,208,211	Quarterly	30 days
Real Estate Core Funds	1,326,827,746	120,000,000	Quarterly	30 days
Real Estate Other Funds	76,606,371	—	Biannual	30 days
Total Investments Measured at NAV	3,395,021,427			
Short Term Investments Measured at Amortized cost				
STIF Funds	28,721,558			
Money Market Investments	477,358,728			
Total Short Term Investments	506,080,286			
Total Investment Value	$ 19,612,182,483			

DEBT SECURITIES

US Treasury Level 1 assets were actively traded 'on the run' at June 30, 2018. GNMA are those agencies explicitly guaranteed by the US government. US Corporate and US Bank Loan debt in Level 3 are those securities in inactive markets where prices are provided by investment managers or other unobservable pricing inputs.

Except for the Treasury Level 1, US Corporate and US Bank Loan Level 3 securities noted above, debt securities use Level 2 inputs priced by recognized third-party vendors based on actual prices of similar securities and utilizing industry standard models that consider various assumptions including time value, yield curves, volatility factors, default rates, credit rating and treasury rates. Significant inputs are observable in the marketplace, can be derived from observable data or are supported by observable levels at which transactions are executed in the marketplace.

Yankee bonds are international corporate and government bonds that qualify to be sold on domestic exchanges in US dollars.

Bonds in the international category are traded in local currencies and are subject to currency risk. See Note 3.

EQUITY SECURITIES

Equity securities include both direct interest in equities and equity funds. The fair value for those equity securities in Level 1 are based on quoted market prices of identical securities or equity funds traded on an established exchange. Level 3 equity securities are valued based on prices provided by investment managers or other unobservable pricing inputs.

REAL ESTATE AND ALTERNATIVES MEASURED AT FAIR VALUE

The Retirement System wholly owns three separate properties including timberland and its home office. These are valued according to annual independent professional appraisals and can be sold at any time. Appraisals utilize comparable sales, inventory estimates and present values of cash flows to determine respective property valuations. There are no unfunded commitments for these properties. The home office property is 50 percent System occupied and 50 percent rentable space. This building was split into two units of account at purchase. The System's portion is included in capital assets. The alternatives distribution is valued based on general partner information that is unobservable.

FORWARDS

Currency forwards are included in payables and receivables on the Statement of Net Fiduciary Position. Fair value for these is reflected by adjusting those payable/receivable values for daily fluctuations in currency exchange rates. The System had $4.8 billion in outstanding currency forward contract payables and receivables at June 30, 2018. The net fluctuation in currency rates at that time increased the unrealized fair value of those contracts by $27,313,154. See Note 4 of these financial statements for more information on KPERS derivative investments.

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

For seventy-two (72) private equity partnerships, twenty-nine (29) real estate partnerships and three (3) infrastructure partnerships, the fair value of each investment has been determined using the NAV per share or its equivalent of the Retirement System's ownership interest in the partners' capital. All partnerships provided audited December 31, 2017, financial reports with unmodified opinions, along with unaudited quarterly reports. Net asset values one quarter in arrears plus current quarter cash flows are used when recent information is not available. These partnerships are diversified across types and vintage years. The expected term of each partnership is between seven to ten years. Any sales of these would be on an inefficient secondary market that could result in values above or below those listed. Transfers to buyers is restricted to quarter end dates. No sales are contemplated.

Seven real estate core funds holding domestic properties are owned proportionately by investors. All fund properties have annual independent external appraisals and the fair value of each fund has been determined using the NAV per share or its annual independent external appraisals and the fair value of each fund has been determined using the NAV per share or its equivalent of the Retirement System's ownership interest in the partners' capital. Shares may be redeemed quarterly, with notice to the respective funds, subject to cash availability. Real estate other funds are similar to the core funds except that there is a redemption lock-up period through February 2020, followed by biannual redemptions. No redemptions are contemplated.

SHORT TERM INVESTMENTS

STIF funds are an open-end mutual fund provided and operated by the custodian bank, that serves the daily cash needs of specific investment managers. The STIF funds are not a 2a-7 like investment pool and are reported at amortized cost. There are no redemption restrictions and shares were redeemable at $1 per share as of June 30, 2018.

Money Market Investments are highly liquid debt instruments purchased within one year of maturity, including US Treasury and Agency obligations. Asset-backed securities, derivatives and structured notes are not included in money market investments. The amortized cost of the Money Market Investments is materially equivalent to fair value.

NOTE 6 – RESERVES

K.S.A. 74-4922, K.S.A. 74-4927 and K.S.A. 74-49,110 define the title and use of the required Retirement System reserves. This law requires the actuary to:

- Make an annual valuation of the Retirement System's liabilities and reserves.
- Make a determination of the contributions required to discharge the Retirement System's liabilities.
- Recommend to the Board of Trustees employer contribution rates required to maintain the System on an actuarial reserve basis.

The Members Accumulated Contribution Reserve represents the accumulation of member contributions, plus interest, credited to individual member accounts of non-retired members. At the date of retirement, the individual member's account is transferred to the Retirement Benefit Payment Reserve. After ending employment and applying for withdrawal, employee contributions, plus accumulated interest, are charged to this reserve. Interest is credited to active member accounts on June 30 each year, based on the balance in the account as of the previous December 31. The interest-crediting rate, defined by statute as the actuarial interest assumption rate, is 7.75 percent for those who became members prior to July 1, 1993. For those who first became members after June 30, 1993, interest on employee contributions is credited at the rate of 4.0 percent per year.

The Retirement Benefit Accumulation Reserve represents the accumulation of employer contributions, net investment income not credited to any other reserve and the actuarially computed net pension liability not yet funded.

The Retirement Benefit Payment Reserve represents the actuarially computed present value of future benefits for retired members plus interest credited for the current fiscal year, based upon information as of the preceding January 1.

The Expense Reserve represents investment income, which is sufficient to maintain a year-end account balance at two times the most recent fiscal year's administrative expenses amount. The System's administrative expenses are financed from this reserve.

The balance of the System's pension reserves and the net pension liability at June 30, 2018, were as follows:

Reserves	Balance	Net Pension Liability
Members Accumulated Contribution Reserve	$ 6,163,045,422	$ —
Retirement Benefit Accumulations Reserve	7,977,541,462	(8,900,507,111)
Retirement Benefit Payment Reserve	14,431,210,225	—
Expense Reserve	24,919,237	—
	$ 28,596,716,346	(8,900,507,111)
Total Pension Reserves		$ 19,696,209,235

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

The components of the net pension liability of the participating employers at June 30, 2018, were as follows:

	KPERS
State	$ 4,496,592,333
School	15,125,065,644
Local	5,405,939,338
KP&F	3,379,299,575
Judges	189,819,456
Total Pension Liability	28,596,716,346
Fiduciary Net Position	19,696,209,235
Employers' Net Pension Liability	$ 8,900,507,111
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	68.88%

ACTUARIAL ASSUMPTIONS

The total pension liability was determined by an actuarial valuation as of December 31, 2017, which was rolled forward to June 30, 2018, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method	Entry age normal
Price Inflation	2.75 percent
Salary Increase	3.50 to 12.00 percent, including price inflation
Investment Rate of Return	7.75 percent compounded annually, net of investment expense, and including price inflation

Mortality rates were based on the RP-2014 Mortality Tables, with age setbacks and age set forwards as well as other adjustments based on different membership groups. Future mortality improvements are anticipated using Scale MP-2016.

The actuarial assumptions used in the December 31, 2017, valuation were based on the results of an actuarial experience study conducted for the period January 1, 2013, through December 31, 2015. The experience study is dated November 18, 2016.

The actuarial assumption changes adopted by the System for all groups based on the experience study:

- Price inflation assumption lowered from 3.00 percent to 2.75 percent
- Investment return assumption was lowered from 8.00 percent to 7.75 percent
- General wage growth assumption was lowered from 4.00 percent to 3.50 percent
- Payroll growth assumption was lowered from 4.00 percent to 3.00 percent

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage. Best estimates of arithmetic real rates of return for each major asset class as of the most recent experience study, dated November 18, 2016, as provided by KPERS' investment consultant, are summarized in the following table:

Asset Class	Long-Term Target Allocation	Long-Term Expected Real Rate of Return
Global Equities	47.0%	6.85%
Fixed Income	13.0	1.25
Yield Driven	8.0	6.55
Real Return	11.0	1.71
Real Estate	11.0	5.05
Alternatives	8.0	9.85
Short Term Investments	2.0	(0.25)

DISCOUNT RATE

The discount rate used to measure the total pension liability was 7.75 percent. The projection of cash flows used to determine the discount rate was based on member and employer contributions as outlined below.

In KPERS, the State/School and Local groups do not necessarily contribute the full actuarial contribution rate. Based on legislation first passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. Subsequent legislation in 2012 set the statutory cap at 0.90 percent for Fiscal Year 2014, 1.0 percent for Fiscal Year 2015, 1.1 percent for Fiscal Year 2016 and 1.2 percent for Fiscal Years 2017 and beyond.

In recent years, the Legislature has made several changes to statutory rates that deviate from the scheduled contribution increases set under the caps established in 2012 for the State/School group. Under 2015 SB 4, the previously certified State/School statutory rate for FY 2015 of 11.27 percent was reduced to 8.65 percent for the last half of FY 2015 as part of the Governor's allotment. That same session, SB 228 recertified statutory rates for the State/School group to 10.91 percent for FY 2016 and 10.81 percent for FY 2017 in anticipation of the issuance of $1 billion in pension obligation bonds. Legislation in the 2016 session (SB 161) provided for the delay of up to $100 million in State and School contributions to the Retirement System for FY 2016. Concurrently, 2016 House Sub for SB 249 provided that the delayed contributions would be paid in full, with interest at 8 percent, by June 30, 2018. However, legislation passed by the 2017 Legislature removed the repayment provision. In addition, 2017 Senate Sub for Sub HB 2052 delayed $64 million in FY 2017 contributions, to be paid over 20 years in level dollar installments. The first year payment of $6.4 million was paid in full at the beginning of FY 2018, and appropriations for FY 2018 were made at the for the State/School group at the statutory contribution rate of 12.01 percent for that year. Additional legislation in the 2017 Session (S Sub for HB 2002) provided for a reduction of $194 million from the previously certified contribution rate of 13.21 percent in the State/School contributions for FY 2019. Like the FY 2017 reduction, it is to be paid back over a 20-year period, beginning in FY 2020. Therefore, both reductions will be accounted for as long-term receivables by the System. The 2018 Legislature passed House Substitute for Senate Bill 109 that provided additional contributions to the school group of $56 million in FY 2018 and $138 million in FY 2019. KPERS received the payment for $56 million in 2018. The System also received $82 million of the $138 million in FY 2019 to-date. The remaining $56 million is still anticipated.

Based on the employer contribution history as described above, it is a reasonable estimate that the State/School group's contribution rate may not be certified at the statutory rate. It has been assumed that contribution rates will be made within the same range as have been seen in the past few years, between 11 to 12 percent. Using this assumption actuarial modeling indicates that employer contribution rates for the State/School group are sufficient to avoid a depletion date.

The Local, Kansas Police and Firemen, and Judges groups are contributing at the full actuarial contribution rate.

SENSITIVITY OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

The following presents the net pension liability calculated using the discount rate of 7.75 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.75 percent) or 1-percentage-point higher (8.75 percent) than the current rate:

	1% Decrease (6.75%)	Current Discount Rate (7.75%)	1% Increase (8.75%)
Net Pension Liability	$12,239,681,040	$8,900,507,111	$6,079,734,189

NOTE 8 – PENSION OBLIGATION BONDS

In February 2004, the State of Kansas issued $500 million in pension obligation bonds, and KPERS received net proceeds of $440.2 million in March 2004. The proceeds have been invested to assist with financing the State and School group's unfunded actuarial liability. The debt service on the bonds will be paid by the State of Kansas in addition to the State's regular employer contributions to KPERS.

In August 2015, the State of Kansas issued $1 billion in pension obligation bonds and KPERS received the full proceeds. The proceeds have been invested to assist with financing the State and School group's unfunded actuarial liability. The debt service on the bonds will be paid by the State of Kansas in addition to the State's regular employer contributions to KPERS.

NOTE 9 – CONTINGENCIES

As of June 30, 2018, the Retirement System was committed to additional funding of capital expenditures on separate account real estate holdings, commitments on private equity, and capital calls on core and noncore real estate property trust investments, as disclosed in Note 5 – Fair Value Measurement.

The Retirement System is a defendant in legal proceedings and claims arising out of the ordinary course of business. The Retirement System believes it has adequate legal defenses and that the ultimate outcome of these actions will not have a material adverse effect on the Retirement System's financial position.

NOTE 10 – SUBSEQUENT EVENTS

Subsequent events have been evaluated through October 30, 2018, which is the date the financial statements were available to be issued.

REQUIRED SUPPLEMENTARY INFORMATION – RETIREMENT PLAN

SCHEDULE OF CHANGES IN THE EMPLOYERS' NET PENSION LIABILITY

Last Five Fiscal Years ($ in Thousands)[1]

	2018	2017	2016	2015	2014
Total Pension Liability:					
Service Cost	$ 552,423	$ 570,703	$ 571,263	$ 571,944	$ 572,291
Interest	2,084,822	2,046,674	1,985,329	1,926,405	1,866,797
Changes of Benefit Terms	—	713	—	1,467	—
Differences Between Expected and Actual Experience	(47,143)	(154,326)	(133,493)	(135,542)	(216,248)
Changes Of Assumptions	—	574,844	—	(53,014)	—
Benefit Payments, Including Refunds of Member Contributions	(1,755,854)	(1,686,676)	(1,627,032)	(1,524,380)	(1,432,846)
Net Change in Total Pension Liability	834,248	1,351,932	796,067	786,880	789,994
Total Pension Liability – Beginning	27,762,469	26,410,538	25,614,471	24,827,591	24,037,597
Total Pension Liability – Ending (a)	28,596,716	27,762,469	26,410,538	25,614,471	24,827,591
Plan Fiduciary Net Position:					
Contributions – Employer	831,735	761,610	739,184	690,564	701,818
Contributions – Member	420,285	414,538	404,856	382,058	332,163
Contributions – Non-Employer[2]	56,000	—	1,000,000	—	—
Total Net Investment Income	1,516,929	2,060,925	49,171	561,174	2,553,843
Other Miscellaneous Income	5,734	(97,873)	2,904	1,076	242
Benefit Payments, Including Refunds of Member Contributions	(1,755,854)	(1,686,676)	(1,627,032)	(1,524,380)	(1,432,846)
Administrative Expenses	(12,460)	(11,116)	(12,172)	(10,768)	(9,636)
Net Change in Plan Fiduciary Net Position	1,062,369	1,441,408	556,911	99,724	2,145,584
Plan Fiduciary Net Position – Beginning	18,633,840	17,192,432	16,635,521	16,535,797	14,390,213
Plan Fiduciary Net Position – Ending (b)	19,696,209	18,633,840	17,192,432	16,635,521	16,535,797
Employers' Net Pension Liability (a) - (b)	$ 8,900,507	$ 9,128,629	$ 9,218,106	$ 8,978,950	$ 8,291,794

See accompanying independent auditors' report.

1) Schedule is intended to show information for 10 years. Additional years will be displayed as they are available. Numbers may not add due to rounding.
2) Pension Obligation Bond proceeds 2015H received in Fiscal Year 2016.

SCHEDULE OF EMPLOYERS' NET PENSION LIABILITY

Last Five Fiscal Years ($ in Thousands)

	2018	2017	2016	2015	2014
Total Pension Liability	$ 28,596,716	$ 27,762,469	$ 26,410,538	$25,614,471	$ 24,827,591
Plan Fiduciary Net Position	19,696,209	18,633,840	17,192,432	16,635,521	16,535,797
Retirement System's Net Pension Liability	$ 8,900,507	$ 9,128,629	$ 9,218,106	$ 8,978,950	$ 8,291,794
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	68.88%	67.12%	65.10%	64.95%	66.60%
Covered Payroll	$ 6,824,710	$ 6,715,593	$ 6,388,450	$ 6,635,196	$ 6,424,739
Net Pension Liability as a Percentage of Covered Payroll	130.42%	135.93%	144.29%	135.32%	129.06%

See accompanying independent auditors' report.

1) Schedule is intended to show information for 10 years. Additonal years will be displayed as they are available.

SCHEDULE OF EMPLOYERS' CONTRIBUTIONS

Last 10 Fiscal Years ($ in Thousands)

	2018	2017	2016	2015	2014
Actuarially Determined Contribution	$ 937,808	$ 920,789	$ 891,638	$ 908,019	$ 842,286
Contribution in Relation to the Actuarially Determined Contribution	817,653	745,021	721,313	676,173	668,811
Contribution Deficiency (Excess)	$ 120,155	$ 175,768	$ 170,325	$ 231,846	$ 173,475
Covered Payroll	$ 6,824,710	$ 6,715,593	$ 6,388,450	$ 6,635,196	$ 6,424,739
Contributions as a Percentage of Covered Payroll	11.98%	11.09%	11.29%	10.19%	10.41%

	2013	2012	2011	2010	2009
Actuarially Determined Contribution	$ 825,197	843,362	709,964	682,062	660,834
Contribution in Relation to the Actuarially Determined Contribution	617,925	568,015	525,727	492,006	449,236
Contribution Deficiency (Excess)	$ 207,272	$ 275,347	$ 184,237	$ 190,056	$ 211,598
Covered Payroll	$6,523,850	$ 6,541,464	$ 6,483,143	$ 6,527,400	$ 6,403,432
Contributions as a Percentage of Covered Payroll	9.47%	8.68%	8.11%	7.54%	7.02%

See accompanying independent auditors' report.

SCHEDULE OF INVESTMENT RETURNS

Last 10 Fiscal Years

	2018	2017	2016	2015	2014
Annual Money-Weighted Rate of Return, Net of Investment Expense	8.34%	12.35%	0.33%	3.58%	18.10%

	2013	2012	2011	2010	2009
Annual Money-Weighted Rate of Return, Net of Investment Expense	13.87%	0.67%	22.56%	14.96%	(20.08)%

See accompanying independent auditors' report.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

The actuarially determined contribution rates in the schedule of the Retirement System's contributions are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule.

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows.

	KPERS	KP&F	Judges
Valuation Date	12/31/2017	12/31/2017	12/31/2017
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal
Age Normal Amortization Method	Level Percent Closed	Level Percent Closed	Level Dollar Closed
Remaining Amortization Period	Layered bases 15-24 years	Layered bases 15-24 years	Layered bases 15-24 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[1]	7.75%	7.75%	7.75%
Projected Salary Increases[1]	3.50% - 11.50%	3.50% - 12.00%	4.00%
Cost of Living Adjustment	None	None	None

1) Salary increases and investment rate of return include an inflation component of 2.75 percent.

OTHER SUPPLEMENTARY INFORMATION

SCHEDULE OF CONTRIBUTIONS

Fiscal Year Ended June 30, 2018

Kansas Public Employees Retirement System			
State / School Contributions			
Members	$272,888,501		
Employers	630,011,526		
Total State / School Contributions		$ 902,900,027	
Local Contributions			
Members	108,080,562		
Employers	152,223,931		
Total Local Contributions		260,304,493	
Total Contributions KPERS			**$ 1,163,204,520**
Kansas Police and Firemen's System			
State Contributions			
Members	3,714,450		
Employers	9,677,400		
Total State Contributions		13,391,850	
Local Contributions			
Members	33,962,986		
Employers	91,358,061		
Total Local Contributions		125,321,047	
Total Contributions KP&F			**138,712,897**
Kansas Retirement System for Judges			
State Contributions			
Members	1,638,442		
Employers	4,463,882		
Total State Contributions		6,102,324	
Total Contributions Judges			**6,102,324**
Grand Total All Contributions			**$ 1,308,019,741**

SCHEDULE OF ADMINISTRATIVE EXPENSES

Fiscal Year Ended June 30, 2018

Salaries and Wages		$ 7,127,467
Professional Services		
Actuarial	$ 313,317	
Audit	137,000	
Data Processing	1,161,486	
Legal	30,224	
Other Professional Services	1,744,882	
Total Professional Services		3,386,909
Communication		
Postage	259,631	
Printing	120,013	
Telephone	164,200	
Total Communication		543,844
Building Administration		
Building Management	77,592	
Janitorial Service	37,474	
Real Estate Taxes	65,747	
Utilities	53,275	
Total Building Administration		234,088
Miscellaneous		
Dues and Subscriptions	18,472	
Office and Equipment Rent	68,335	
Other Miscellaneous	222,111	
Repair and Maintenance	132,152	
Supplies	103,154	
Temporary Services	35,045	
Travel	99,949	
Depreciation	488,093	
Total Miscellaneous		1,167,311
Total Administrative Expenses		**$12,459,619**

SCHEDULE OF INVESTMENT INCOME BY ASSET CLASS

Fiscal Year Ended June 30, 2018

Asset Classification	Interest Dividends and Other Transactions	Gains and Losses	Total
Marketable Equity Securities			
Domestic Equities	$133,392,176	$ 620,314,812	$ 753,706,988
International Equities	86,345,542	256,853,534	343,199,076
Subtotal Marketable Equities	219,737,718	877,168,346	1,096,906,064
Marketable Fixed Income Securities			
Government	44,431,927	15,586,112	60,018,039
Corporate	96,879,099	(68,711,986)	28,167,113
Subtotal Marketable Fixed	141,311,026	(53,125,874)	88,185,152
Temporary Investments	2,563,088	968,572	3,531,660
Total Marketable Securities	363,611,832	825,011,044	1,188,622,876
Real Estate	94,853,455	149,258,039	244,111,494
Alternative Investments	14,706,420	171,481,812	186,188,232
Total Real Estate and Alternative Investments	109,559,875	320,739,851	430,299,726
	$ 473,171,707	$ 1,145,750,895	$ 1,618,922,602

Manager and Custodian Fees and Expenses	
Investment Manager Fees	(28,253,817)
Custodian Fees & Expenses	(1,400,066)
Investment Legal & Consulting Expenses	(2,181,886)
Partnership Management Fees & Expenses	(68,097,689)
Investment Operations Expenses	(2,059,863)
Total Investment Fees and Expenses	(101,993,321)
Net Investment Income	$ 1,516,929,281

SCHEDULE OF INVESTMENT MANAGEMENT FEES AND EXPENSES

Fiscal Year Ended June 30, 2018

Domestic Equity Managers	
Advisory Research	$ 1,284,952
BlackRock	260,377
Mellon Capital Management	217,123
Subtotal Domestic Equity Managers	**1,762,452**
International Equity Managers	
Baillie Gifford International	3,110,653
JP Morgan International	3,331,419
Lazard Asset Management	2,149,805
State Street International	419,263
Templeton International	2,612,146
Wellington International	2,840,474
Subtotal International Equity Managers	**14,463,760**
Fixed Income Managers	
BlackRock	1,151,948
Loomis, Sayles & Co	1,423,197
MacKay Shields	1,280,003
Templeton	706,395
T. Rowe Price	1,035,178
Western Asset Management Co	1,187,748
Subtotal Fixed Income Managers	**6,784,469**
Currency Overlay and Securitization Managers	
Adrian Lee & Partners	1,401,292
Insight Investment	1,686,858
Russell Overlay	102,954
Subtotal Currency Overlay and Securitization Managers	**3,191,104**
REIT Investment Managers	
Brookfield Redding	689,567
CenterSquare	647,934
Subtotal REIT Managers	**1,337,501**
Cash Equivalent Manager	
Payden & Rygel Investment Counsel	714,531
Subtotal Cash Management	**714,531**
Total Investment Management Fees	**28,253,817**

Other Fees and Expenses	
State Street Bank - Custodian Fees and Other Expenses	1,400,066
Consultant Fees	2,046,432
Legal Expenses	135,454
Investment Operations	2,059,863
Partnership Management Expenses	68,097,689
Subtotal Other Fees and Expenses	**73,739,504**
Total	**$ 101,993,321**

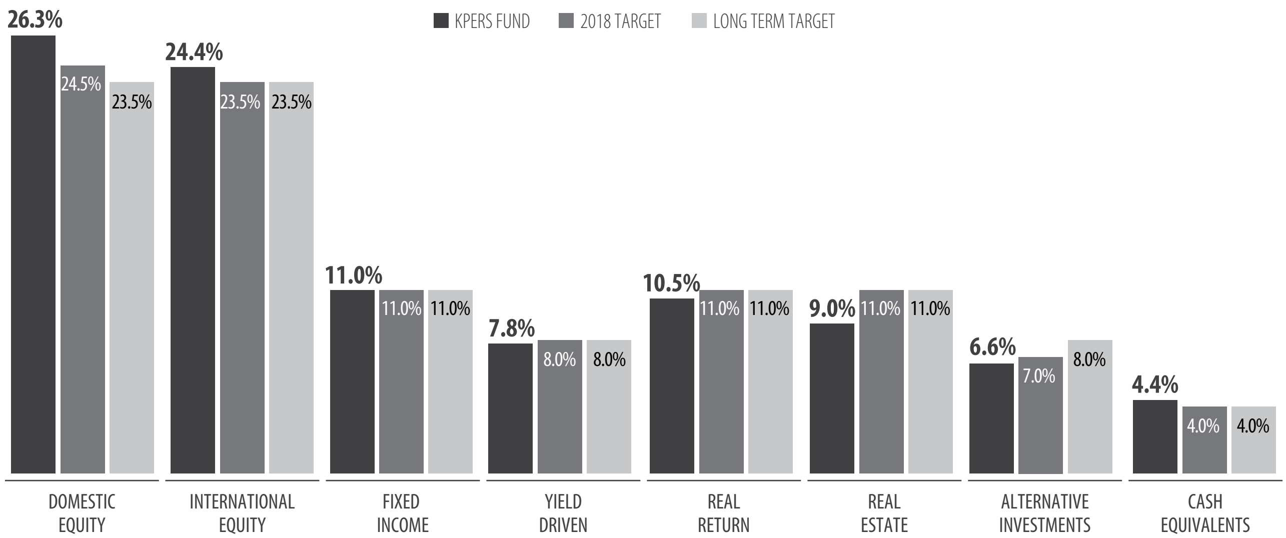
COMBINING STATEMENT OF CHANGES IN ASSETS AND LIABILITIES – AGENCY FUND

	Balance as of June 30, 2017	Additions	Deletions	Balance as of June 30, 2018
Optional Group Life Insurance				
Assets:				
Cash	$ 173,244	$ 11,748,699	$ 10,363,183	$ 1,558,760
Receivables:				
Due from Local/State Governments	43,026	110,941	93,879	60,088
Total Assets	216,270	11,859,640	10,457,062	1,618,848
Liabilities:				
Accounts Payable	7,495	11,736,639	10,457,062	1,287,072
Funds Held for Others	208,775	123,001	—	331,776
Total Liabilities	$ 216,270	$ 11,859,640	$ 10,457,062	$ 1,618,848
Group Death & Disability Benefits				
Assets:				
Cash and Cash Equivalents	$ 371,013	$ 69,819,207	$ 64,683,538	$ 5,506,682
Deposits with Insurance Carrier	181,201	—	76,394	104,807
Total Cash and Cash Equivalents	552,214	69,819,207	64,759,932	5,611,489
Receivables:				
Due from Local/State Government	37,953	29,182,772	18,803,394	10,417,331
Sale of Investment Securities	16,738	37,410	7,920	46,228
Total Receivables	54,691	29,220,182	18,811,314	10,463,559
Investments at Fair Value:				
Short Term	26,947,587	25,303,160	12,942,552	39,308,195
Total Investments	26,947,587	25,303,160	12,942,552	39,308,195
Total Assets	27,554,492	124,342,549	96,513,798	55,383,243
Liabilities:				
Accounts Payable	4,077,810	64,464,875	64,058,584	4,484,101
Funds Held for Others	23,476,682	59,877,674	32,455,214	50,899,142
Total Liabilities	$ 27,554,492	$ 124,342,549	$ 96,513,798	$ 55,383,243
Total-Agency Fund				
Cash and Cash Equivalents	$ 544,257	$ 81,567,906	$ 75,046,721	$ 7,065,442
Deposits with Insurance Carrier	181,201	—	76,394	104,807
Total Cash and Cash Equivalents	725,458	81,567,906	75,123,115	7,170,249
Receivables:				
Due from Others	80,979	29,293,713	18,897,273	10,477,419
Investment Income	16,738	37,410	7,920	46,228
Total Receivables	97,717	29,331,123	18,905,193	10,523,647
Investments at Fair Value:				
Short Term	26,947,587	25,303,160	12,942,552	39,308,195
Total Investments	26,947,587	25,303,160	12,942,552	39,308,195
Total Assets	27,770,762	136,202,189	106,970,860	57,002,091
Liabilities:				
Accounts Payable	4,085,304	76,201,514	74,515,646	5,771,172
Funds Held for Others	23,685,458	60,000,675	32,455,214	51,230,919
Total Liabilities	**$ 27,770,762**	**$ 136,202,189**	**$ 106,970,860**	**$ 57,002,091**

INVESTMENT SECTION

CHIEF INVESTMENT OFFICER'S REVIEW

The Kansas Public Employees Retirement System investment portfolio represents all contributions to the plan, from both members and their employers, as well as net earnings on these assets. Total assets at the end of Fiscal Year 2018 were $19.5 billion. The System's investment portfolio is managed for the long term, in order to generate adequate returns to pay the benefits promised to members. In order to achieve that goal, the assets receive the benefit of a broadly diversified investment portfolio which includes domestic and non-U.S. stocks, bonds, real estate, timber, infrastructure, alternative investments and cash equivalents.



BASIS OF PRESENTATION

The investment performance data is calculated by the Retirement System's custodial bank and prepared by the Retirement System's Investment Division staff. In Fiscal Year 2018, the System's custodial bank was State Street Bank and Trust. Performance calculations were prepared using time-weighted rates of return, gross of fees, unless otherwise indicated.

ASSET ALLOCATION

Portfolio investments are diversified among eight different asset classes for asset allocation and investment performance purposes, including: domestic equity; international (non-U.S.) equity; fixed income; "yield driven" assets; "real return" assets; real estate; alternative investments; and cash equivalents. (NOTE: For financial reporting purposes, as reported in the Financial Section and the Investment Summary in the Investment Section, investments are categorized by the underlying security.)

The Board of Trustees, working with the System's general investment consultant, Pension Consulting Alliance (PCA) and investment staff, last completed an asset/liability study in January 2016. The Board reviewed several investment policy options during the asset/liability study, all of which contained an emphasis on improving funding progress over time. At the conclusion of the asset/liability study, the Board re-adopted the System's existing long term asset allocation targets. The risk philosophy implied by the asset allocation policy targets places significant emphasis on managing and improving the funded status of the Retirement System over time. Subsequent to the completion of the asset/liability study, the Board has increased the cash equivalents target to 4 percent and reduced the fixed income target to 11 percent. This adjustment was necessitated by reductions in State of Kansas employer contributions to the Retirement System for Fiscal Years 2016 through 2019.

The allocation to equity investments (primarily publicly-traded stocks) continues to comprise the largest portion of the Retirement System's investment portfolio. This allocation reflects the System's long-term investment orientation and the expectation that equities will provide attractive real returns over time. Equity investments allow the investment portfolio to participate in the investment returns produced by companies seeking to grow and profit from their business activities. Equity investments are made globally, sourcing investment return from both domestic and foreign companies, and diversifying the accompanying investment risk across a broad spectrum of economies, currencies, economic sectors, and industries. Fixed income investments are also an important component of the System's asset mix. Due to its relatively low correlation with equities, the fixed income portfolio serves to diversify the risk of equity investing, and also provides a source of current income.

The yield driven asset class is designed to house those assets which derive a significant part of their expected return from income and have moderate exposure to growth risk, but also provide a degree of diversification. The yield driven asset class consists of the System's strategic fixed income portfolios, a portion which is invested in bank loan securities, and investments in domestic Real Estate Investment Trusts (REITs) and Master Limited Partnerships (MLPs).

The majority of the real return asset category is made up of Treasury Inflation Protected Securities (TIPS) and global inflation linked bonds (GILBs). The real return asset class also houses the System's investments in timber and infrastructure assets.

Real estate investments generate returns in a different manner than equities or fixed income investments, since real estate follows a different (and, typically longer) market cycle. Because it moves in a different market cycle than publicly-traded stocks and bonds, real estate provides diversification advantages, as well as some inflation protection, to the investment portfolio. The System's real estate portfolio is heavily weighted to "core" real estate, which means that it also produces an attractive current income.

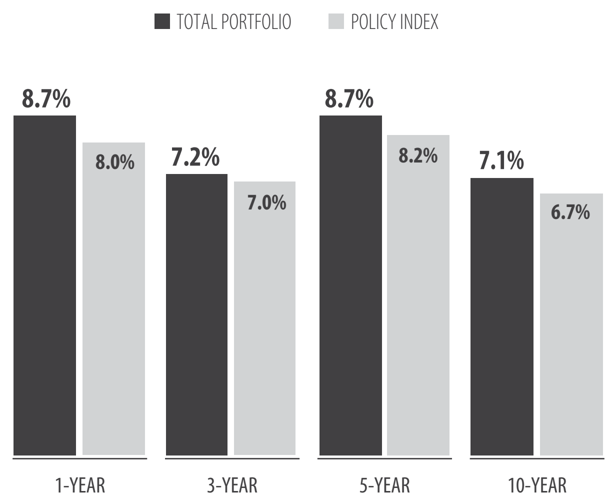
The System's alternative investments, which consist primarily of investments in private partnerships that make venture capital investments, pursue leveraged buyout strategies or own private debt, represent the higher end of the investment risk/return spectrum. Private equity managers pursue higher growth opportunities in pursuit of higher returns, with commensurate investment risk.

The System also holds cash equivalents investments, primarily to facilitate investment transactions and the cash flows needed to pay benefits. The cash equivalents portfolio was bifurcated during Fiscal Year 2018 with a portion of the portfolio invested in a slightly longer duration strategy with daily liquidity.

INVESTMENT POLICY

The Board of Trustees has adopted a Statement of Investment Policy, Objectives and Guidelines (the Statement), which serves as a guide to the implementation of the System's broad investment objectives. The Statement complements state statutes and documents the principles and standards that guide the management of the System's assets. It is binding upon all persons with authority over the assets, including investment managers, custodians, consultants, staff and the members of the Board of Trustees. The Statement is the product of the Board's careful and prudent study and is reviewed annually and updated as needed. It sets forth the investment policies, objectives and guidelines which the Board of Trustees judges to be appropriate and prudent, in consideration of the needs of the System, and to comply with K.S.A. 74-4901 et seq., to direct the System's assets. Although the System is not subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA), the Board intends to abide by the provisions of ERISA to the greatest extent practicable. As such, this Statement is written to be consistent with ERISA. Among other things, the Statement establishes the criteria against which the System's investment managers are to be measured. In addition, it serves as a review document to guide ongoing oversight of the investment of the Fund as a yardstick of compliance with K.S.A 74-4901 et seq.

TIME WEIGHTED TOTAL RETURN
Total Portfolio

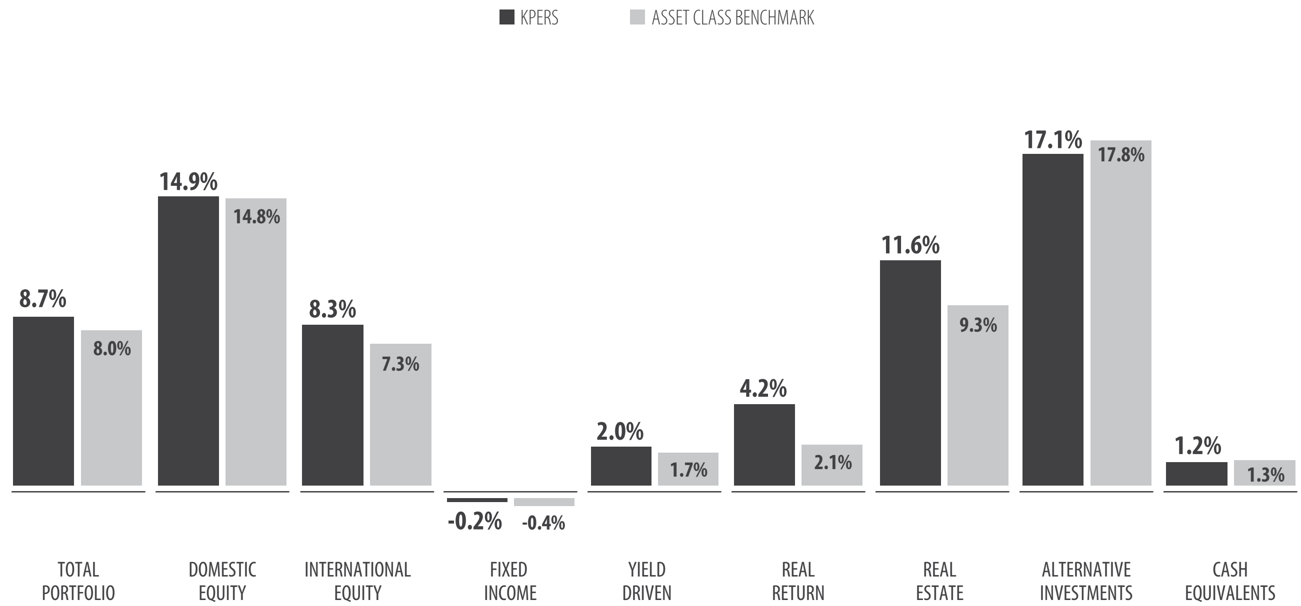


FISCAL YEAR 2018 INVESTMENT PERFORMANCE

The Retirement System's total investment portfolio experienced an 8.7 percent total return for the one year ending June 30, 2018. The 8.7 percent return outperformed the KPERS Policy Index by 0.7 percent for the fiscal year. For the three years ending June 30, 2018, the System's total investment portfolio has produced an average annualized return of 7.2 percent, which outperformed the Policy Index by 0.2 percent. The System's investment portfolio generated an 8.7 percent total return during the five years ending June 30, 2018, exceeding the Policy Index benchmark by 0.5 percent. For the ten year time period, total return has been a more moderate 7.1 percent, but has still exceeded the Policy Index by 0.4 percent. As of June 30, 2018, the System's total return on total assets ranked above the median of the Wilshire TUCS universe for all pension plans for all time periods reported. The System's total return ranking was in the top quartile for 7 year trailing time period and for all time periods less than one year. For the twenty-five year time period ending June 30, 2018, the System's assets have produced an average annualized total return of 8.2 percent, exceeding the historical 8 percent actuarial return assumption. The System's Board of Trustees took action to reduce the actuarially assumed rate of return from 8 percent to 7.75 percent in November 2016.

TIME WEIGHTED TOTAL RETURN BY ASSET CLASS

Fiscal Year 2018



FINANCIAL MARKET AND PERFORMANCE OVERVIEW

While volatility returned to the global financial markets in the middle of Fiscal Year 2018, overall it was a relatively strong period for the investment performance of risk assets. During the fiscal year, the System's total investment portfolio produced an 8.7 percent total return, exceeding both the Policy Index and the actuarial return assumption. All forms of equity assets (domestic, international, and private equity) contributed strong positive total returns. Private equity and domestic equity were the standout performers, with total returns of 17.1 percent and 14.9 percent, respectively. The System's international equity portfolio produced an 8.3 percent total return, despite the adverse impact of the appreciation in the US dollar late in the fiscal year. Real estate also produced a double digit total return of 11.6 percent for the fiscal year. Interest rates rose and the Treasury yield curve flattened, as the Federal Reserve Bank tightened monetary policy, producing a slightly negative total return of -0.2 percent for the System's core fixed income portfolio, while all other asset classes produced positive total returns.

Global economic growth moved from an environment of synchronization to one of desynchronization during the fiscal year. Globally, divergence in approaches to monetary policy also began to emerge during the fiscal year, with the Federal Reserve tightening monetary policy, while the ECB and BOJ both retained their accommodative stances. Domestically, a divergence between monetary policy and fiscal policy also emerged. These conditions, along with a host of geopolitical risks (including but not limited to escalating global trade tariffs, US/North Korea relations, UK "Brexit" negotiations, political turmoil in Italy, Spain and Turkey, etc.) contributed to global financial market volatility. However, a very robust environment for corporate earnings underpinned equity valuations in the US, and domestic equity markets continued to move higher during the fiscal year.

INVESTMENT STAFF

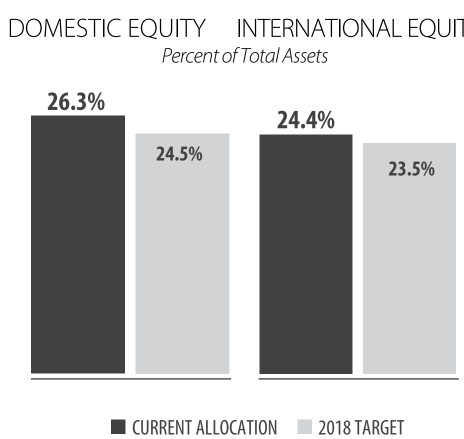
The System employs a staff of nine investment professionals to provide oversight and management of the assets and external investment managers. Under the oversight of the Chief Investment Officer (CIO), responsibility for the portfolio is assigned to the respective investment teams. The Deputy CIO for Public Markets has oversight responsibility for the publicly-traded asset classes, and oversees the System's active international equity investments, as well as the System's cash equivalents manager. The Investment Officer for Public Markets oversees the yield driven investment portfolios, and the passive domestic and international equity portfolios. The Assistant Investment Officer has oversight responsibility for the core fixed income and TIPS/GILB portfolios in the real return asset class. The Deputy CIO for Private Markets manages the System's real estate and private equity investments, as well as the allocations to timber and infrastructure. The Chief Investment Officer and the four Investment Officers are supported by a team of four Investment Analysts who provide research support and assistance in managing the portfolios. Investment staff are focused on bringing a consistent, disciplined management process to all aspects of oversight of investment managers, compliance monitoring, and risk management.

PUBLIC EQUITY INVESTMENTS

Public equity investments represent the largest strategy allocation within the System's portfolio. As of June 30, 2018, the market value of the System's global equity portfolio was $9.9 billion. The strategy is executed through external managers investing domestically and internationally. Active strategies are utilized for approximately 38.5 percent of the public equity portfolio, focusing entirely on international equities. The balance of the global equity portfolio is passively managed to replicate the return of broad market indices.

PORTFOLIO STRUCTURE

The following graphs describe the current and target allocations at June 30, 2018:



DOMESTIC EQUITY

Domestic equities represent 51.8 percent of the total public equity portfolio and 26.3 percent of total assets. Domestic equity investments are benchmarked against the Russell 3000 index. It is the System's view that consistent outperformance over time through active management is extremely difficult when investing in U.S. equities. Therefore, 100 percent of the domestic equity portfolio is passively managed in an index strategy. This passive exposure is designed to replicate the return on the Russell 3000 index and is implemented through two investment managers.

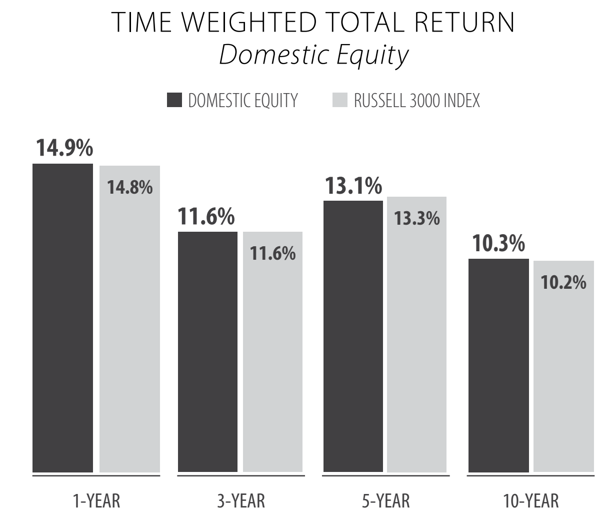
INTERNATIONAL EQUITY

International equities represent 48.2 percent of the total public equity portfolio and 24.4 percent of total assets. International equity investments are benchmarked against the MSCI All Country World – Ex U.S. Net Index. Equity investments in companies domiciled outside of the United States offer the potential to add value through prudent active management. Therefore, 80 percent of this portfolio is actively managed. The System has retained five active managers to invest across the non-U.S. developed markets and emerging markets. The balance of the international equity portfolio is invested to replicate the return on the MSCI All Country World – Ex U.S. Net Index.

PERFORMANCE

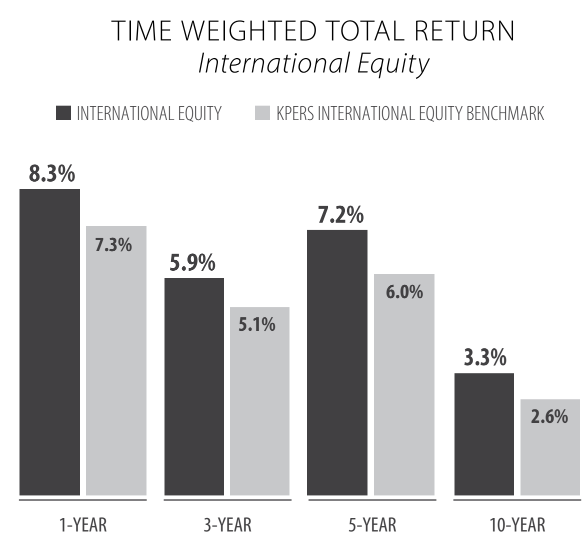
The return of the System's domestic equity portfolio was in line with the portfolio's benchmark during Fiscal Year 2018. The domestic equity portfolio produced a 14.9 percent total return during the fiscal year. Over longer time periods, the return on the domestic equity portfolio was also in line with its benchmark, as expected, given its purely passive approach.

The following chart reports the performance of the domestic equity portfolio:



The international equity portfolio performed well on both an absolute and relative basis during Fiscal Year 2018. Returns were positive in Fiscal Year 2018, outperforming the strategy benchmark. The international equity portfolio produced a total return of 8.3 percent for the fiscal year, relative to the 7.3 percent return for the benchmark. Over longer time periods, the international equity portfolio has produced strong relative returns, as active management has added value relative to the benchmark.

The following chart reports the performance of the international equity portfolio:

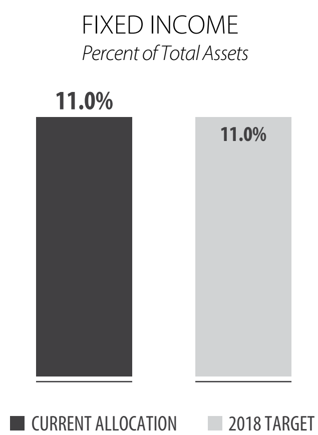


FIXED INCOME INVESTMENTS

As of June 30, 2018, the Retirement System's fixed income portfolio had a market value of $2.1 billion, representing 11.0 percent of the total assets of the System. The portfolio is structured with external managers investing through an active core fixed income U.S. mandate. The strategy is managed by two investment managers.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2018.



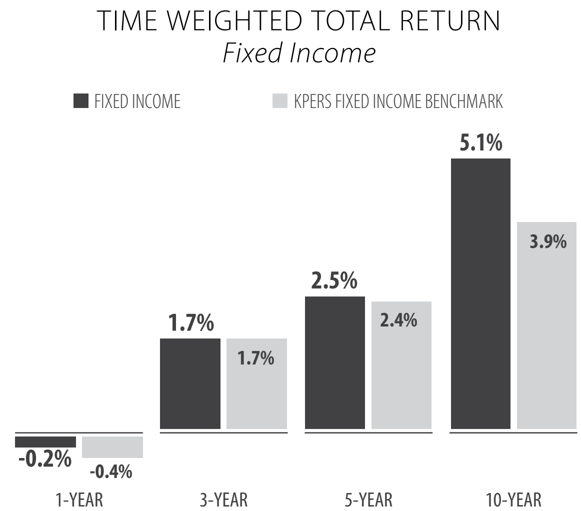
CORE U.S. FIXED INCOME

The fixed income portfolio is invested in core U.S. strategies through two active investment managers. The portfolio's objective is to provide diversification to other assets in the System's portfolio and to preserve capital while providing current income. The core fixed income U.S. strategies are primarily invested in traditional investment grade securities. The fixed income portfolio utilizes the Barclays Capital U.S. Aggregate Index as the benchmark.

PERFORMANCE

The core U.S. fixed income portfolio outperformed its benchmark during Fiscal Year 2018, though rising interest rates resulted in a negative absolute return of -0.2 percent for the fiscal year. Duration and curve positioning by managers within the portfolio contributed positively to relative return during Fiscal Year 2018. The portfolio provided positive absolute and relative performance across all longer term time periods reported.

The following chart reports the performance of the fixed income portfolio:

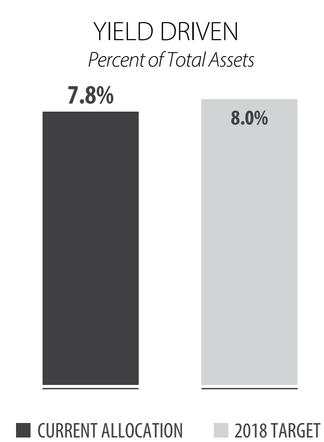


YIELD DRIVEN INVESTMENTS

Yield driven investments represent one of the newer strategy allocations within the System's investment portfolio. As of June 30, 2018, the System's yield driven portfolio had a market value of $1.5 billion representing 7.8 percent of total assets. The strategy is actively managed by two strategic fixed income managers, one bank loan manager, two REIT managers and one MLP manager. The yield driven asset class is designed to produce current income and an element of diversification away from equity risk, while also maintaining some degree of correlation with equities.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2018:



STRATEGIC FIXED INCOME

The strategic fixed income strategy represents approximately 48.1 percent of the total yield driven portfolio and 3.7 percent of total assets. The strategy is currently measured against the Barclays U.S. High Yield 2% Issuer Cap Index. The strategic fixed income portfolio maintains a minimum investment of 70 percent in high yield corporate debt securities. The System's two strategic fixed income managers produced positive returns for Fiscal Year 2018.

REAL ESTATE INVESTMENT TRUSTS (REITS)

REITs represent 20.7 percent of the yield driven asset class and 1.6 percent of the System's total assets. This strategy is benchmarked against the MSCI U.S. REIT Index. The publicly-traded real estate securities portfolio is implemented by managers which actively invest in domestic REITs, real estate operating companies (REOCs) and related investment vehicles. The domestic REIT strategy is actively managed by two investment managers. REIT fundamentals continued to improve, producing modest, positive total returns for Fiscal Year 2018.

MASTER LIMITED PARTNERSHIPS (MLPS)

MLPs represent 20.6 percent of the yield driven asset class and 1.6 percent of the System's total assets. The strategy is benchmarked against the Alerian MLP Index. The MLP sector offers attractive current yields and long term growth prospects. The MLP portfolio is comprised of diversified energy sectors including companies focused on "midstream," gathering and processing, infrastructure and natural gas pipelines and storage. The System currently has one active MLP investment manager. MLPs produced negative total returns and positive relative returns for Fiscal Year 2018. MLP investments were adversely affected by rising interest rates and regulatory changes during the fiscal year.

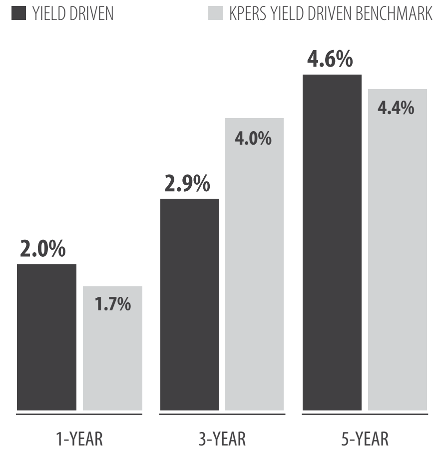
BANK LOANS

The bank loan allocation represents 10.6 percent of the yield driven asset class and 0.8 percent of the System's total assets. The strategy is managed by one manager and is measured against the Credit Suisse Leveraged Loan Index. The strategy is intended to generate current yield through credit exposure to senior-secured, U.S. dollar denominated bank loans. The bank loan strategy is an effective hedge against rising interest rates. The bank loan portfolio produced a positive total return, while underperforming its benchmark, during Fiscal Year 2018.

PERFORMANCE

The yield driven portfolio produced a total return of 2.0 percent in Fiscal Year 2018, outperforming the asset class benchmark return of 1.7 percent. The yield driven portfolio also outperformed its benchmark over the trailing five year time period.

TIME WEIGHTED TOTAL RETURN
Yield Driven



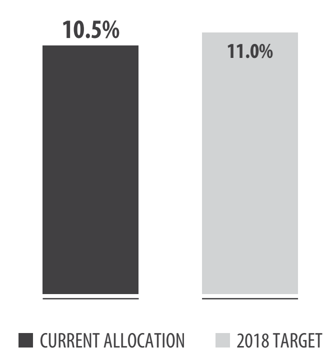
REAL RETURN INVESTMENTS

The real return portfolio is designed to provide the System with a hedge against future inflationary episodes. This strategy utilizes both public and private market investments. Public market exposure is global and achieved primarily through inflation linked fixed income securities issued by governments and their agencies in the U.S. as well as in developed countries around the world. Exposure in the private markets is currently achieved through investments in timber and infrastructure. The real return portfolio represents 10.5 percent of the System's total assets, and had a market value of $2.1 billion as of June 30, 2018.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2018:

REAL RETURN
Percent of Total Assets



U.S. TREASURY INFLATION LINKED BONDS (TIPS)

The TIPS portfolio represents 40.6 percent of the real return portfolio and is benchmarked against the Barclays U.S. TIPS Index. This passively managed exposure is designed to replicate the return on domestic inflation linked bonds. It is the System's view that the minimal excess return available through active management of TIPS is not sufficient to compensate for the incremental costs of active management fees. The TIPS portfolio performed in line with its benchmark during Fiscal Year 2018, as expected.

GLOBAL INFLATION LINKED BONDS (GILBS)

The GILB portfolio represents 39.1 percent of the real return portfolio and is benchmarked against the Barclays World ILB Index (USD Hedged). The GILB portfolio provides global diversification by broadening the opportunity set to capture unexpected inflation within investment grade sovereign bonds. The GILB portfolio delivered a positive total return and outperformed its benchmark slightly in Fiscal Year 2018, while also providing diversification. This portfolio will be transitioned to a passive GILB mandate in July 2018.

TIMBER

Timber investments are a component of the System's real return asset allocation due to their historically high correlation to inflation. The System is diversified within timber markets located in Idaho and throughout eight states in the southern U.S. Over time, timber investments are expected to provide the System with current cash yields and modest capital appreciation. For Fiscal Year 2018, the System's timber investments produced a 4.4 percent total return, underperforming the strategy benchmark. For the five years ending June 30, 2018, however, the timber portfolio has outperformed the strategy benchmark, and produced a 7.7 percent total return.

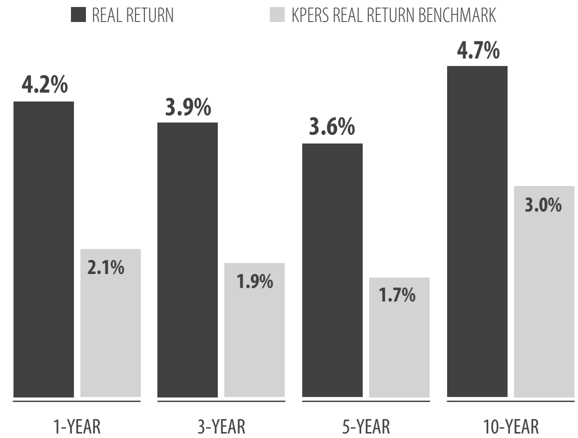
INFRASTRUCTURE

The System's three infrastructure managers have been successful in operating their infrastructure investments. The System's infrastructure portfolio is well diversified, with investments in Australia, the United Kingdom and throughout North and South America. It is invested across multiple sectors, including renewable power, toll roads, electric utilities, seaports and energy. The infrastructure portfolio produced a total return of 11.6 percent for the fiscal year, and outperformed the strategy benchmark by 2.9 percent.

PERFORMANCE

The System's real return portfolio outperformed its benchmark in Fiscal Year 2018, producing a 4.2 percent total return against a benchmark return of 2.1 percent. Infrastructure was the strongest performing investment strategy in the asset class. The real return portfolio has also outperformed its benchmark over the three, five and ten year time periods ending June 30, 2018.

TIME WEIGHTED TOTAL RETURN
Real Return



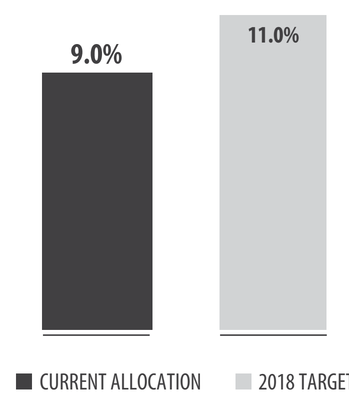
REAL ESTATE INVESTMENTS

As of June 30, 2018, the real estate portfolio had a market value of $1.8 billion, representing 9.0 percent of the total fund. The real estate portfolio is primarily designed to provide diversification to the broader portfolio, while also providing a meaningful current income. Capital appreciation is a tertiary objective of current real estate investment activities.

PORTFOLIO STRUCTURE

The System's real estate portfolio is classified into two categories: "core" and "noncore." The "core" portion of the portfolio is targeted at a 75 percent allocation, while the "noncore" segment is targeted at a 25 percent allocation.

REAL ESTATE
Percent of Total Assets



CORE REAL ESTATE

The largest segment of the real estate portfolio is "core" real estate. This portion of the portfolio is expected to produce steady current income in the form of investment yield while also providing portfolio diversification, and serving as an inflation hedge. The Retirement System's core portfolio primarily consists of partial and full commitments to seven commingled funds.

The System continued to invest into pooled real estate investment funds during Fiscal Year 2018. This strategy is expected to result in improved liquidity, enhanced portfolio diversification, lower management fees and a reduction in the single event risk associated with owning individual real estate assets.

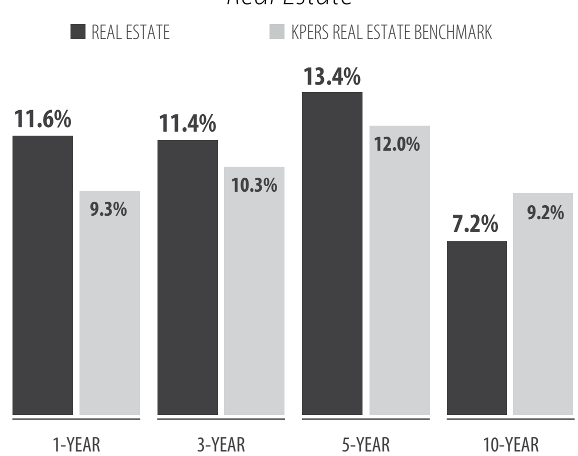
NON-CORE REAL ESTATE

The "non-core" segment consists of investments that generally involve some element of property lifecycle risk (such as positioning, leasing and development) while also utilizing greater leverage (debt) than core strategies. While providing elements of inflation protection and a diversification benefit to the broader portfolio, the System expects non-core real estate investments to produce meaningful capital appreciation and higher overall long-term returns than core investments. The non-core portfolio consists of investment funds employing a diversity of strategies and property types, both domestically and internationally.

REAL ESTATE PERFORMANCE

The System's real estate portfolio outperformed its benchmark in Fiscal Year 2018. The core real estate portfolio produced a total return of 9.3 percent, exceeding its benchmark by 0.9 percent, while the non-core real estate portfolio outperformed its benchmark by a robust 7.4 percent, with a total return of 18.8 percent. In total, the System's real estate portfolio produced a total return of 11.6 percent, which outperformed the benchmark return by 2.3 percent. Overall, most of the System's real estate fund investments continued to benefit from the stable economic landscape, with the majority generating positive returns.

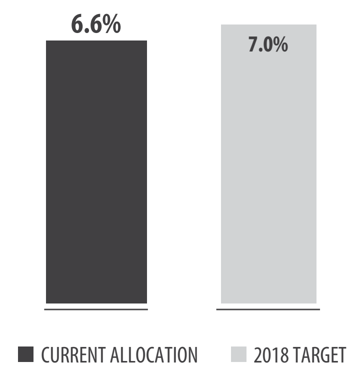
TIME WEIGHTED TOTAL RETURN
Real Estate



ALTERNATIVE INVESTMENTS

At June 30, 2018, the System's alternative investment portfolio had a fair market value of $1.3 billion, representing 6.6 percent of the total portfolio. Since the inception of the alternative investment program in 1997 through June 30, 2018, the System has committed $3.6 billion to 110 funds with 60 general partners.

ALTERNATIVE INVESTMENTS
Percent of Total Assets



PORTFOLIO STRUCTURE

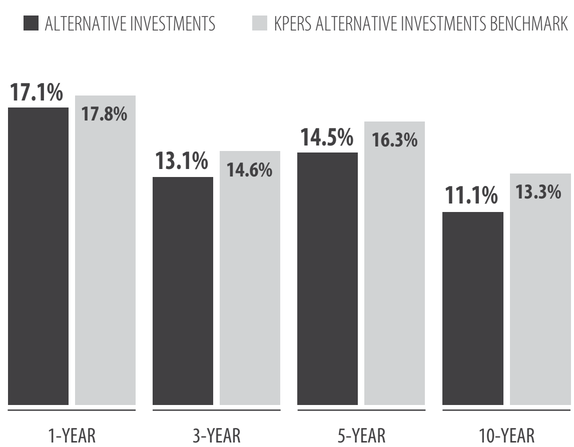
The alternative investment portfolio consists primarily of interests in private partnerships that provide equity and debt to companies. The portfolio contains two primary sub-portfolios based on investment period. Each portfolio has its own set of directives, guidelines, external fund managers and consultants who provide advice on investment strategy and investment selection during its investment period. The largest portfolio is the Private Equity Program (PEP), representing 99.4 percent of the market value of the asset class. The PEP portfolio actively seeks new commitments to private equity funds in three styles: buyout, venture capital/growth equity and special situations. Since the inception of PEP in 2007, the System has committed $2.6 billion to 56 funds with 28 general partners.

The second portfolio is the Alternative Investment Portfolio (AIP) which represents 0.6 percent of the market value of the asset class. From 1997 to 2001, AIP made commitments to 54 funds with 35 general partners across five styles: buyout, venture capital, mezzanine, distressed debt and natural resources. As this is a mature portfolio, the remaining funds in the AIP portfolio are currently pursuing exit strategies for their existing holdings.

ALTERNATIVE INVESTMENTS PERFORMANCE

Private equity investments typically span ten years or longer. Therefore, the longer term returns from this asset class are more relevant in assessing its success in adding value to the overall portfolio. The System's long-term performance objective for alternative investments is to exceed the return of the Russell 3000 plus 3 percent. As the chart below shows, the alternative investments portfolio is underperforming this objective over the ten year time period, with a total return of 11.1 percent, due to exceptionally strong performance from the publicly-traded domestic equity benchmark in recent years.

TIME WEIGHTED TOTAL RETURN
Alternative Investments



As required by K.S.A 74-4904, a schedule of alternative investments initiated on or after July 1, 1991, is listed on the following two pages.

ALTERNATIVE INVESTMENTS INITIATED ON OR AFTER JULY 1, 1991[1]

As of June 30, 2018

Description	Cost	Market Value
Advanced Technology Ventures VI, L.P.	$8,269,289	$55,561
Apax Europe IX, L.P.	31,060,991	34,656,083
Apollo Investment Fund VII, L.P.	7,318,573	5,756,899
Apollo Investment Fund VIII, L.P.	40,279,305	52,628,094
Ares Corporate Opportunities Fund III, L.P.	8,493,246	18,825,857
Ares Corporate Opportunities Fund IV, L.P.	16,928,524	23,287,081
Ares Corporate Opportunities Fund V, L.P.	22,559,742	23,071,510
Ares Special Situations Fund IV, L.P.	30,524,752	24,773,706
Audax Mezzanine Fund III, L.P.	6,704,924	6,042,565
Battery Ventures VI, L.P.	3,338,584	46,106
Beacon Group Energy Fund II, L.P.	1,841,499	469,853
Capital Resource Partners IV, L.P.	4,547,576	—
CCMP Capital Investors III, L.P.	36,399,316	47,651,546
Centerbridge Capital Partners II, L.P.	15,510,108	12,999,999
Centerbridge Capital Partners III, L.P.	12,651,797	15,999,994
Clayton Dublier & Rice VI, L.P.	2,998,283	12,098
Crestview Partners III, L.P.	16,015,190	22,362,714
Cypress Merchant Banking II, L.P.	6,889,672	11,058
El Dorado Ventures VI, L.P.	4,537,915	349,497
Encap Energy Capital VIII, L.P.	15,334,270	7,858,660
Encap Energy Capital IX, L.P.	32,366,779	28,957,974
Encap Energy Capital X, L.P.	33,223,012	35,605,567
First Reserve Fund XII, L.P.	17,479,179	5,569,566
FS Equity Partners VII, L.P.	29,052,140	34,696,826
Green Equity Investors VII, L.P.	27,503,636	26,552,092
GSO Capital Solutions Fund, L.P.	6,441,225	2,888,277
GSO Capital Solutions Fund II, L.P.	16,100,166	17,630,728
GSO Capital Solutions Fund III, L.P.	2,418,639	2,888,955
Halpern Denny Fund III, L.P.	1	—
HD Access, Inc.	200,730	200,730
Hellman & Friedman VII, L.P.	5,173,715	19,333,035
Hellman & Friedman VIII, L.P.	26,055,454	31,893,569
JMI Equity Fund VII, L.P.	8,345,710	11,338,490
Montagu IV, L.P.	9,391,328	15,480,075
Montagu V, L.P.	15,816,895	23,387,358
New Enterprise Associates 13, L.P.	8,088,810	9,344,573
New Enterprise Associates 16, L.P.	13,125,000	13,168,181
New Mountain Partners V, L.P.	13,628,867	15,177,679
Oak Hill Capital Partners, L.P.	1,187,040	41,051
OCM Opportunities Fund VIIb, L.P.	—	1,485,295
OneLiberty Fund IV, L.P.	1,155,056	818,252
OneLiberty Ventures 2000, L.P.	12,493,019	3,319,033

ALTERNATIVE INVESTMENTS INITIATED ON OR AFTER JULY 1, 1991[1] (CONTINUED)

As of June 30, 2018

Description	Cost	Market Value
Pine Brook Capital Partners, L.P.	9,021,022	4,151,132
Pine Brook Capital Partners II, L.P.	41,634,891	55,686,001
Platinum Equity Capital Partners III, L.P.	18,593,556	32,091,251
Platinum Equity Capital Partners IV, L.P.	36,520,567	36,556,795
Quad-C Partners IX, L.P.	9,096,405	10,697,891
Snow Phipps II, L.P.	15,373,842	16,614,803
Snow Phipps III, L.P.	22,792,157	28,630,915
TA XII, L.P.	28,825,650	37,265,166
TCV IV, L.P.	6,910,657	27,587
TowerBrook Investors III, L.P.	6,189,127	4,071,369
TowerBrook Investors IV, L.P.	13,895,530	20,926,071
TPG Growth II, L.P.	15,967,612	30,378,382
TPG Growth III, L.P.	33,443,389	40,305,270
TPG Partners VI, L.P.	12,593,328	10,808,098
TPG Partners VII, L.P.	42,314,874	53,088,241
VantagePoint Venture Partners III, L.P.	7,072,782	—
VantagePoint Venture Partners IV, L.P.	9,862,169	2,070,898
Vestar Capital Partners IV, L.P.	1,389,968	336,860
Vista Equity Partners Fund IV, L.P.	9,745,166	24,024,962
Vista Equity Partners Fund V, L.P.	64,113,587	97,931,709
Vista Equity Partners Fund VI, L.P.	52,597,690	59,454,693
Warburg Pincus Equity Partners, L.P.	—	64,005
Warburg Pincus Private Equity X, L.P.	12,249,558	26,047,423
Warburg Pincus Private Equity XI, L.P.	26,150,354	49,457,536
Warburg Pincus Private Equity XII, L.P.	30,479,424	38,627,062
Wellspring Capital Partners V, L.P.	7,835,401	10,919,948
Wellspring Capital Partners VI, L.P.	3,746,687	3,746,687
Windjammer Mezzanine & Equity Fund II, L.P.	—	23,935
	$1,109,865,350	$1,290,640,877

1) Investment values quoted without spin-offs or distributions.

LIST OF LARGEST HOLDINGS[1]

As of June 30, 2018

EQUITIES			FIXED INCOME			
Shares	Security	Fair Value ($)	Par Value	Security	Description	Fair Value ($)
894,357	Apple Inc	$165,554,424	130,135,000	US Treasury N/B	2.375% 30 Apr 2020	$129,799,252
1,372,608	Microsoft Corp	135,352,875	94,955,000	US Treasury N/B	2.75% 30 Apr 2023	95,048,056
73,643	Amazon.Com Inc	125,178,371	72,930,787	Tsy Infl IX N/B	0.125% 15 Apr 2022	71,437,905
430,906	Facebook Inc A	83,733,654	54,906,698	Tsy Infl IX N/B	0.125% 15 Apr 2021	54,063,620
3,277,635	Prudential PLC	75,057,012	52,100,000	US Treasury N/B	3% 15 Feb 2048	52,275,056
350,922	Berkshire Hathaway Inc Cl B	65,499,591	52,275,521	Tsy Infl IX N/B	0.375% 15 Jul 2027	50,871,656
615,725	JP Morgan Chase & Co	64,158,545	50,000,000	Treasury Bill	0.01% 30 Aug 2018	49,847,180
768,051	Exxon Mobil Corp	63,540,859	50,000,000	Treasury Bill	0.01% 25 Oct 2018	49,688,560
55,153	Alphabet Inc Cl C	61,531,444	48,708,693	Tsy Infl IX N/B	0.125% 15 Apr 2020	48,194,970
54,159	Alphabet Inc Cl A	61,155,801	46,000,000	US Treasury N/B	1.5% 31 Jan 2019	45,807,720

1) A complete listing of the System's holdings is available at the Retirement System office.

CHANGES IN FAIR VALUE OF INVESTMENTS[1]

(In Thousands)

For the Fiscal Year Ended June 30, 2018

	June 30, 2017 Fair Value	Purchases and Other Increases	Sales and Other Decreases	June 30, 2018 Fair Value	Asset Mix Fair Value
Marketable Securities					
Domestic Equities	$5,876,550	$ 1,867,891	$(1,695,306)	$6,049,135	30.84%
International Equities	4,111,026	2,278,668	(2,083,047)	4,306,647	21.96
Total Fixed	4,815,659	9,160,453	(8,694,150)	5,281,962	26.93
Temporary[2] Investments	740,827	3,858,577	(4,093,324)	506,080	2.58
Total Marketable Securities	15,544,062	17,165,589	(16,565,827)	16,143,824	82.31
Real Estate and Alternative Investments					
Real Estate	2,110,289	148,312	(80,884)	2,177,717	11.10
Alternatives	932,394	395,327	(37,080)	1,290,641	6.59
Total Real Estate and Alternative Investments	3,042,683	543,639	(117,964)	3,468,358	17.69
Total	$18,586,745	$17,709,228	$(16,683,791)	$19,612,182	100.00%

1) Amounts include changes in unrealized appreciation and exclude interest and dividend accruals.
2) Temporary Investments include currencies, short term pools and securities maturing within one year of purchase.

U.S. EQUITY COMMISSIONS

For the Fiscal Year Ending June 30, 2018

Broker Name	Comissions Paid	Shares	Comissions per Share	Percent of Total Comissions
Liquidnet Inc	$127,655	5,982,175	$0.02	18.8%
Merrill Lynch Pierce Fenner & Smith Inc	75,973	6,446,625	0.01	11.2
Wells Fargo Securities LLC	51,068	1,665,737	0.03	7.5
J.P. Morgan Securities LLC	41,151	2,927,328	0.01	6.1
Citigroup Global Markets Inc	35,962	1,444,300	0.02	5.3
UBS Securities LLC	30,291	2,258,496	0.01	4.5
Raymond James & Associates	29,287	839,275	0.03	4.3
BTIG LLC	26,648	1,328,358	0.02	3.9
Jonestrading Institutional Services LLC	23,251	1,157,973	0.02	3.4
ISI Group Inc	22,653	843,578	0.03	3.3
Goldman Sachs & Co	21,400	2,220,103	0.01	3.1
Barclays Capital	20,597	1,899,516	0.01	3.0
Jefferies & Company Inc	19,913	987,332	0.02	2.9
Stifel Nicolaus & Co Inc	19,003	636,480	0.03	2.8
Green Street Trading LLC	17,909	611,208	0.03	2.6
Morgan Stanley Co Inc	17,345	682,388	0.03	2.6
Cowen & Company LLC	14,095	987,071	0.01	2.1
Weeden & Co	13,976	1,279,761	0.01	2.1
Investment Technology Group Inc	12,983	1,334,585	0.01	1.9
Instinet	11,726	1,526,289	0.01	1.7
Other	46,546	4,119,721	0.01	6.9
Total Broker Comissions	**$679,432**	**41,178,299**		**100.0%**

ACTUARIAL SECTION

ACTUARIAL CERTIFICATION LETTER

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 13, 2018

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, 2017, for the purpose of determining contribution rates for Fiscal Year 2021 for the State and 2020 for Local employers. Actuarial valuations are prepared annually for the System. The Board of Trustees is responsible for establishing and maintaining the funding policy, but must comply with the statutory requirement that the employer statutory contribution rate for KPERS cannot increase by more than the statutory cap each year. The major findings of the valuation are contained in this section, which reflects the plan provisions in place on December 31, 2017, and any legislative changes from the 2018 Session. There have been no changes to the plan provisions or actuarial assumptions since the prior valuation.

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

We further certify that all costs, liabilities, 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); meet applicable Actuarial Standards of Practice; and which, in combination, offer our best estimate of anticipated experience affecting the System. Nevertheless, the emerging costs of the System will vary from those presented herein 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 of our valuation report.

Future actuarial measurements may differ significantly from the current measurements presented in the December 31, 2017, valuation 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 section are for purposes of determining the recommended and statutory funding amounts for the System. The calculations have been made on a basis consistent with our understanding of the System's funding requirements and goals. Determinations for purposes other than meeting these requirements may be significantly different from the results shown in the December 31, 2017, valuation report. Accordingly, additional determinations may be needed for other purposes.

The actuary prepared the following supporting schedules for the Comprehensive Annual Financial Report:

ACTUARIAL SECTION

Schedule of Funding Progress
Summary of Change in Unfunded Actuarial Liability
Summary of Changes in Actuarial Contribution Rate
Summary of Historical Changes to Total System UAL
Summary of Principal Results
Summary of Actuarial Assumptions and Methods
Summary of Membership Data

Actuarial computations, based on the actuarial valuation performed as of December 31, 2017, were also prepared as of June 30, 2018 for purposes of fulfilling financial accounting requirements for the System under Governmental Accounting Standard Number 67 (GASB 67). The assumptions used in the funding valuation were also used for GASB 67 reporting, including the use of a 7.75 percent discount rate for GASB 67 calculations (7.75 percent is the assumed rate of return used in the funding valuation). In addition, the entry age normal actuarial cost method, which is required to be used under GASB 67, is also used in the funding valuation. The actuarial assumptions and methods meet the parameters set by Actuarial Standards of Practice (ASOPs), as issued by the Actuarial Standards Board, and generally accepted accounting principles (GAAP) applicable in the United States of America as promulgated by the Governmental Accounting Standards Board (GASB). The Total Pension Liability was rolled forward to June 30, 2018 based on standard actuarial formulae. Additional information related to GASB 67 can be found in the Financial Section of this report.

Cavanaugh Macdonald Consulting, LLC provided the following supporting schedules:

FINANCIAL SECTION

Calculation of the Total Pension Liability and Net Pension Liability
Schedule of the Net Pension Liability
Sensitivity Analysis of the Net Pension Liability
Schedule of Changes in the Net Pension Liability

In addition, the Schedule of Employer Contributions which compares the actuarially determined employer contribution amounts and the actual contribution amounts is included in the Required Supplementary Information (RSI). Amounts in that schedule were provided by the System.

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.

We certify that, to the best of our knowledge and belief, the December 31, 2017, actuarial valuation 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.

Sincerely,

Patrice Beckham

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

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

SECTION I BOARD SUMMARY OVERVIEW

The Kansas Public Employees Retirement System is an umbrella organization which administers the following three statewide pension groups: the Kansas Public Employees Retirement System (KPERS), the Kansas Police and Firemen's Retirement System (KP&F) and the Kansas Retirement System for Judges (Judges). This report presents the results of the December 31, 2017, actuarial valuations for each of the groups.

The primary purposes of performing actuarial valuations are to:

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

The 2018 Legislature passed House Substitute for Senate Bill 109 that provided for the following additional funding to the KPERS School group:

- An additional payment of $82 million in July 2018 Fiscal Year 2019 (received by KPERS).
- A contingent additional payment of up to $56 million to be paid in Fiscal Year 2018, if actual Fiscal Year 2018 receipts exceed the consensus revenue estimates (full amount received by KPERS).
- A contingent additional payment of up to $56 million to be paid in Fiscal Year 2019, if actual Fiscal Year 2019 receipts exceed the consensus revenue estimates.

For the purposes of determining the State/School actuarial contribution rate in this report, which is applicable for Fiscal Year 2021, the $82 million payment and the first payment of $56 million already received were reflected. In addition, it was assumed that the additional contribution for Fiscal Year 2019 will be made on June 30, 2019. As a result of these three additional contributions, the State/School actuarial contribution rate for Fiscal Year 2021 is lower by 0.36 percent.

KPERS 3 (Cash Balance members) refers to non-corrections members who either began their participation or were rehired on or after January 1, 2015. Of the 143,947 active KPERS members, 38,752 (about 27 percent) were KPERS 3 members as of the valuation date. KPERS 3 members receive guaranteed interest credits of 4.0 percent on their account balances. There is also the possibility of additional interest credits that are dependent on KPERS' actual investment returns. The additional interest credits, referred to as "dividends", are equal to 75 percent of the five-year average net compound rate of return, as determined by the Board, for the preceding calendar year and the prior four calendar years on the market value of assets that is above 6.0 percent. If applicable, the dividend is granted as soon as administratively feasible after March 31 and is credited on the account balance as of the previous December 31. Transition rules apply for the initial years until the Cash Balance Plan has been effective for five full calendar years (January 1, 2020). The dividend for 2017 was dependent on the net rate of return on the market value of assets for calendar years 2015, 2016 and 2017. The average annualized net return for the three-year period, as calculated by KPERS, was 7.4 percent. Using the statutory formula, the additional interest credit (dividend) is equal to 1.1 percent.

The valuation results provide a "snapshot" view of the System's financial condition on December 31, 2017. The unfunded actuarial liability (UAL), for the System as a whole, decreased by $154 million due to multiple factors, the most significant of which was the amortization payment on the 2015 legacy UAL base. The total UAL is composed of various pieces or layers of UAL. However, the initial UAL base, referred to as the 2015 legacy UAL base, still represents the majority of the current UAL. The current amortization period is fifteen years as of the valuation date. As the remaining amortization period for that base shortens over time, the portion of the amortization payment that is applied to the principal of the outstanding balance, instead of interest, will increase. As a result, the remaining balance of the 2015 legacy UAL base is expected to decline more rapidly over time and have a significant positive impact on the System's total UAL, if the full statutory contributions are made.

In KPERS, the State and School 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 has changed over time, but the current cap is 1.20 percent for Fiscal Year 2021 (the rate is set based on the December 31, 2017, actuarial valuation). Although separate valuations are performed for the State and School groups, the statutory contribution rate for the two groups is determined using the combined valuation results. For the first time since the statutory cap was implemented, the statutory and actuarial contribution rates are equal in this valuation. By statute, if the actuarial required contribution (ARC) for the State alone is less than the statutory contribution rate when the two groups are combined (as it is in this valuation), the excess of the statutory contribution rate over the actuarial required contribution rate for the State alone is allocated to the School to improve the funding of that group.

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

DECEMBER 31, 2017 VALUATION

System	Actuarial	Statutory	Difference
State[1]	9.22%	14.23%	(5.01%)
School[1]	15.59%	14.23%	1.36%
State/School[1]	14.23%	14.23%	0.00%
Local[1]	8.61%	8.61%	0.00%
Police & Fire - Uniform Rates[1]	21.93%	21.93%	0.00%
Judges	17.26%	17.26%	0.00%

DECEMBER 31, 2016, VALUATION

System	Actuarial	Statutory	Difference
State[1]	9.49%	14.41%	(4.92%)
School[1]	16.15%	14.41%	1.74%
State/School[1]	14.74%	14.41%	0.33%
Local[2]	8.89%	8.89%	0.00%
Police & Fire - Uniform Rates[2]	22.13%	22.13%	0.00%
Judges	18.65%	18.65%	0.00%

1)By statute, rates are allowed to increase by a maximum of 1.2 percent, plus the cost of any benefit enhancements. The December 31, 2017, valuation sets the employer contribution rate for Fiscal Year 2021 for the State and School group and calendar year 2020 for the Local group. An additional contribution of 0.68 percent applies to the School group in Fiscal Year 2021 due to contribution reductions in Fiscal Year 2017 and Fiscal Year 2019 (see following table).

2)For KP&F, the statutory contribution rate is equal to the "Uniform" rate. The rate shown is for both State and Local employers. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer. (See Table 15)

Legislation passed in the 2017 session provided for the payment of the delayed contributions for the School group from Fiscal Year 2017 and Fiscal Year 2019 in level annual installments of $6.4 million and $19.4 million over a 20-year period commencing in Fiscal Year 2018 and Fiscal Year 2020, respectively. These installment payments are determined as an additional contribution rate for the School group and are added to the regular statutory contribution rate determined for the State/School group. The additional contribution rate for the $64 million delayed School contributions for Fiscal Year 2017 is 0.18 percent for Fiscal Year 2019 and 0.17 percent for Fiscal Year 2020 and Fiscal Year 2021. The additional contribution rate for the scheduled $194 million delayed School contributions for Fiscal Year 2019 is 0.52 percent for Fiscal Year 2020 and 0.51 percent for Fiscal Year 2021. The total statutory contribution rates for the School group for Fiscal Year 2019 through Fiscal Year 2021 are shown in the following table:

	Fiscal Year 2019	Fiscal Year 2020	Fiscal Year 2021
Regular Statutory State/School Contribution Rate	13.21%	14.41%	14.23%
Contribution for FY 2017 Contribution Reduction	0.18%	0.17%	0.17%
Contribution for FY 2019 Contribution Reduction	0.00%	0.52%	0.51%
Total School Contribution Rate	13.39%	15.10%	14.91%

The net rate of return on the market value of assets in 2017 was 14.0 percent, as reported by KPERS, which was higher than the 2017 assumed return of 7.75 percent. Due to the reflection of past investment experience through the asset smoothing method, the net rate of return on the actuarial value of assets for calendar year 2017 was 8.4 percent. The combined impact of recognizing the scheduled portion of deferred asset experience and the favorable investment experience during 2017 changed the net deferred asset loss of $566 million in the prior valuation to a net deferred asset gain of $338 million in the current valuation. Based on the results of this valuation, the State and Local groups continue to be at the actuarial required contribution rate. In addition, for the first time since the 1994 valuation the statutory contribution rate is equal to the actuarial required contribution rate for the State/School group in Fiscal Year 2021.

EXPERIENCE - ALL SYSTEMS COMBINED

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, 2017. On that date, the assets available for the payment of benefits are appraised. The assets are compared with the liabilities of the System, which are generally in excess of assets. The actuarial process leads to a method of determining the contributions needed by members and employers in the future to balance the System assets and liabilities.

Changes in both the System's membership, assets and liabilities impacted the change in the actuarial contribution rates between the December 31, 2016, and December 31, 2017, actuarial valuations. On the following pages, each component is examined.

MEMBERSHIP

The following table contains a summary of the changes in the active membership between the December 31, 2016, and December 31, 2017, actuarial valuations.

	State	School	Local
12/31/2016 (Starting count)	21,879	84,321	38,364
New actives	2,611	11,051	5,383
Non-vested Terminations	(956)	(4,336)	(2,098)
Elected Refund	(707)	(1,236)	(1,189)
Vested Terminations	(546)	(3,014)	(1,202)
Total Withdrawals	(2,209)	(8,586)	(4,489)
Deaths	(34)	(65)	(60)
Disabilities	(24)	(41)	(24)
Retirements	(775)	(2,355)	(995)
Other/Transfer	(21)	(86)	102
12/31/2017 (Ending count)	21,427	84,239	38,281

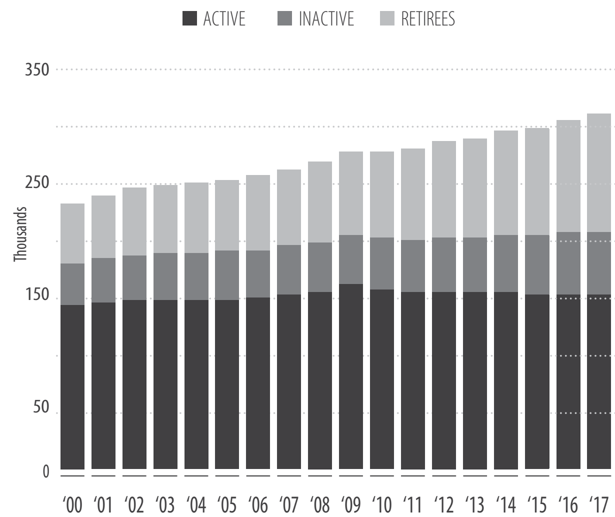
	KP&F	Judges	Total
12/31/2016 (Starting count)	7,303	252	152,119
New actives	776	21	19,842
Non-vested Terminations	(236)	(0)	(7,626)
Elected Refund	(115)	(2)	(3,249)
Vested Terminations	(37)	(0)	(4,799)
Total Withdrawals	(388)	(2)	(15,674)
Deaths	(3)	(0)	(162)
Disabilities	(13)	(0)	(102)
Retirements	(200)	(11)	(4,336)
Other/Transfer	6	(1)	0
12/31/2017 (Ending count)	7,481	259	151,687

As can be seen from the table, KPERS, in total, experienced a small net decrease in the number of active members with the largest decrease occurring in the State group. This pattern of low (or negative) employee growth has not been unusual in recent years. However, the decline in active membership has an adverse impact on the valuation results. As a result of fewer active members, coupled with low salary increases, the total active member payroll has not grown as expected, so there have been fewer contribution dollars to help fund the System's unfunded actuarial liability.

The following graph shows the number of active and inactive vested members, as well as retirees, in current and prior valuations. The number of active members has declined since 2009 while the number of retirees has continued to grow.

SYSTEM MEMBERSHIP

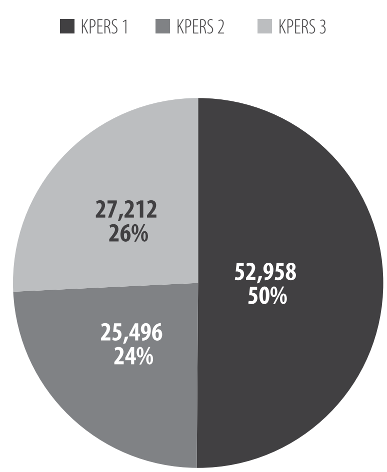
By Calendar Year

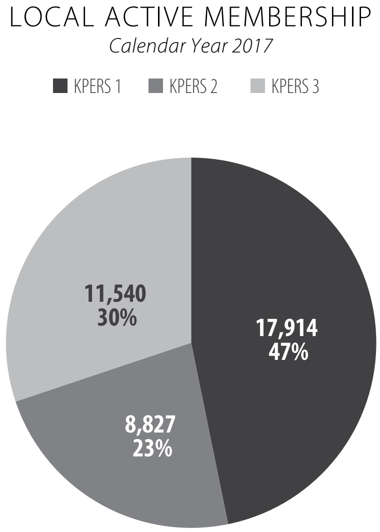


There are currently three different benefit structures in KPERS. The most recent tier, KPERS 3 (Cash Balance members), refers to non-corrections members who either began their participation or were rehired on or after January 1, 2015. KPERS 2 refers to members who either began their participation or were rehired on or after July 1, 2009, but before January 1, 2015. Of the 143,947 active KPERS members, 34,323 (about 24 percent) are KPERS 2 members and 38,752 (about 27 percent) are KPERS 3 members as of the valuation date. The split of KPERS members in the State/School group and Local group by benefit tier is shown below:

STATE/SCHOOL ACTIVE MEMBERSHIP

Calendar Year 2017





ASSETS

As of December 31, 2017, the System had total funds of $19.6 billion on a market value basis, excluding assets held for the Group Insurance and Optional Life reserves. This was an increase of $1.9 billion from the December 31, 2016, value of $17.7 billion.

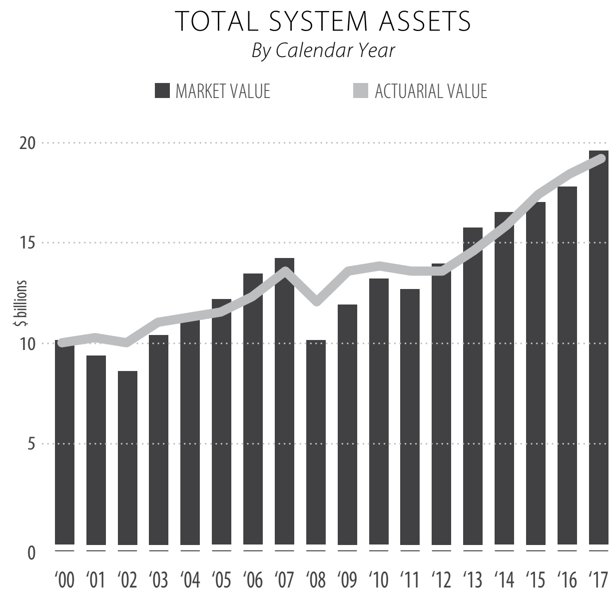
The market value of assets is not used directly in the calculation of contribution rates. An asset valuation method is used to smooth the effect of market fluctuations. The smoothing method calculates the difference between the actual return and the expected return (assumed net rate of return) on the market value of assets each year. The difference is recognized equally over a five-year period.

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

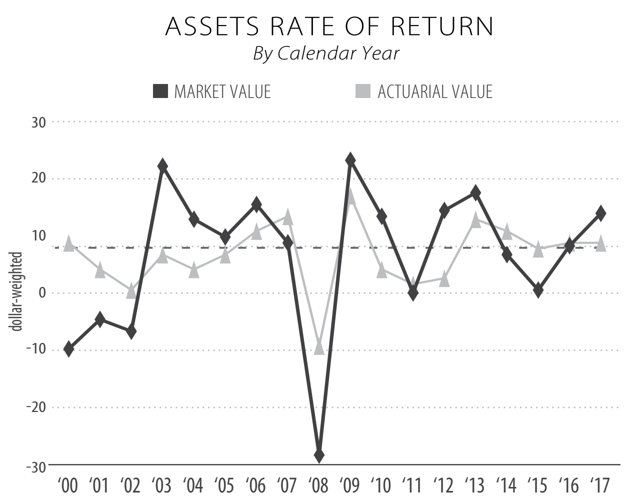
	Market Value $(millions)	Actuarial Value $(millions)
Assets, December 31, 2016	$17,690	$18,256
• Employer and Member Contributions	1,198	1,198
• Benefit Payments	(1,720)	(1,720)
• Investment Income, Net of Expenses	2,417	1,513
Assets, December 31, 2017	$19,585	$19,247
Net Rate of Return	14.0%	8.4%

The actuarial value of assets as of December 31, 2017, was $19.247 billion. The annualized dollar-weighted net rate of return for 2017 was 8.4 percent, measured on the actuarial value of assets, and 14.0 percent, measured on the market value of assets as reported by KPERS.

Due to the use of an asset smoothing method, there is $338 million of net deferred investment gain experience that has not yet been recognized, i.e. the market value of assets is greater than the actuarial value. This deferred investment gain will be recognized in the actuarial value of assets over the next four years, but may be offset by actual investment experience if it is less favorable than assumed.



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



The net rate of return on the actuarial (smoothed) value of assets has been less volatile than the market value return. The deferred investment loss will be reflected in the actuarial value of assets in the next few years, absent favorable 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 UAL will be reduced if the employer contributions exceed the employer normal cost for the year, after allowing for interest on the previous balance of the UAL. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods will also impact the total actuarial liability and the unfunded portion thereof.

The UAL by group is summarized below (in millions):

	State	School	Local
Actuarial Liability	$4,457	$14,891	$ 5,300
Actuarial Value of Assets	3,588	9,178	3,841
Unfunded Actuarial Liability*	$ 869	$ 5,712	$ 1,458
	KP&F	**Judges**	**Total***
Actuarial Liability	$3,320	$ 186	$28,154
Actuarial Value of Assets	2,460	179	19,247
Unfunded Actuarial Liability*	$ 860	$ 8	$ 8,907

**May not add due to rounding.*

The UAL is amortized using a "layered" approach. The legacy UAL is the amount of UAL from the December 31, 2015, valuation which was projected to June 30, 2018, for State/School and Judges and December 31, 2017, for Local and KP&F to reflect the lag between the valuation date and the fiscal year to which the contribution rates set in the valuation apply. This initial or legacy UAL amortization base continues to be amortized over the original period, which was set at 40 years beginning July 1, 1993, (15 years remaining as of December 31, 2017). The increase in the UAL, resulting from the assumption changes reflected in the 2016 valuation, was amortized over a closed 25-year period. Changes in the UAL that result from actuarial experience each year (gains and losses) are amortized over a closed 20-year period that begins with the fiscal year in which the contribution rates will apply.

For the State/School group, the statutory contribution rate has been less than the actuarial contribution rate since 1994 which results in an increase in the UAL for that group. Other factors influencing the UAL from year to year include actual experience versus that expected, based on the actuarial assumptions (on both assets and liabilities), changes in actuarial assumptions, procedures or methods, and changes in benefit provisions.

The actual experience measured in this valuation is that which occurred during the prior plan year (calendar year 2017). For all of the groups, except KP&F, the valuation results reflect a net liability gain for the year (which decreases the UAL), largely due to salary increases that were lower than expected. The total net liability gain for the System was $46 million. The liability loss for KP&F was primarily due to salary increases that were higher than expected. In addition, the System experienced a return of 8.4 percent on the actuarial value of assets, which is higher than the assumed return of 7.75 percent, resulting in an aggregate experience gain of $117 million. Therefore, the net result of all experience (asset and liability) in 2017 for all groups was an experience gain for the System of $163 million.

Between December 31, 2016, and December 31, 2017, the change in the unfunded actuarial liability for the System, as a whole, was as follows (in millions):

	$ millions
Unfunded Actuarial Liability, December 31, 2016	$9,061
• effect of contribution cap/time lag	149
• expected decrease due to amortization	(136)
• (gain)/loss from investment return on actuarial assets	(117)
• demographic experience[1]	(46)
• all other experience	(4)
• assumption changes	0
• benefit provision changes	0
Unfunded Actuarial Liability, December 31, 2017[2]	**$ 8,907**

1)Liability gain is about 0.16 percent of total actuarial liability.
2)May not add due to rounding.

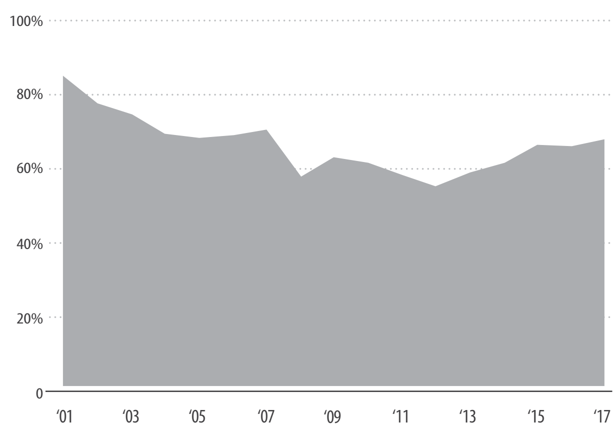
An evaluation of the UAL on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the UAL and the progress made in its funding is to track the funded status, the ratio of the actuarial value of assets to the actuarial liability. The funded ratio does not necessarily indicate whether or not additional funding is needed, nor does it indicate whether or not the plan could settle all liabilities with current assets. The funded status information for the KPERS System is shown in the following table (in millions).

KPERS FUNDED STATUS

	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17
Using Actuarial Value of Assets:							
Funded Ratio (AVA/AL)	59%	56%	60%	62%	67%	67%	68%
Unfunded Actuarial							
Liability (AL-AVA)	$9,228	$10,253	$9,766	$9,468	$8,539	$9,061	$8,907
Using Market Value of Assets:							
Funded Ratio (MVA/AL)	55%	59%	65%	65%	65%	65%	70%
Unfunded Actuarial							
Liability (AL-MVA)	$10,130	$9,714	$8,584	$8,808	$9,055	$9,627	$8,569

Changes in actuarial assumptions and methods, coupled with investment returns below the assumed rate and contributions below the actuarial rate significantly reduced the funded ratio over much of this period. The funded ratio is expected to increase steadily in the future assuming assumptions are met and scheduled contributions are made.

FUNDED RATIO – ACTUARIAL VALUE



Given the current funded status of the System, the deferred investment experience, the amortization method, the amortization period and the scheduled employer contribution rates, the dollar amount of the UAL for the entire System is expected to hold steady over the next few years and then start to decline. The funded ratio is expected to improve absent experience losses in the future, but will continue to be heavily dependent on the actual investment returns.

CONTRIBUTION RATES

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

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 and an expense load for administrative expenses for the year.

- A "UAL 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, so the death and disability contribution rate is not reflected in this report.

The 2018 Legislature passed House Substitute for Senate Bill 109 that provided for the following additional funding to the KPERS School group:

- An additional payment of $82 million in July 2018 (received by KPERS).

- A contingent additional payment of up to $56 million to be paid in Fiscal Year 2018, if actual Fiscal Year 2018 receipts exceed the consensus revenue estimates (full amount received by KPERS).

- A contingent additional payment of up to $56 million to be paid in Fiscal Year 2019, if actual Fiscal Year 2019 receipts exceed the consensus revenue estimates.

For the purposes of determining the State/School actuarial contribution rate in this report, which is applicable for Fiscal Year 2021, the $82 million payment and the first payment of $56 million already received were reflected. In addition, it was assumed that the additional contribution of $56 million for Fiscal Year 2019 will be made on June 30, 2019. As a result of these three additional contributions, the State/School actuarial contribution rate for Fiscal Year 2021 is lower by 0.36 percent.

In KPERS, State and School employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap, which has been changed periodically, is 1.2 percent for all three groups (0.9 percent in Fiscal Year 2014, 1.0 percent in 2015, 1.1 percent in 2016 and 1.2 percent in 2017 and beyond). In 2015, SB 4 reset the previously certified employer contribution rate for the State/School group for the last half of Fiscal Year 2015 from 11.27 percent to 8.65 percent. In addition, SB 228 lowered the statutory rates for the State/School group from 12.37 percent to 10.91 percent for Fiscal Year 2016 and 13.57 percent to 10.81 percent for Fiscal Year 2017. The December 31, 2014, valuation set the statutory contribution rates for Fiscal Year 2018, based on the 1.2 percent statutory cap.

The results of the December 31, 2017, valuation are used to set employer contribution rates for Fiscal Year 2021 for the State and School (July 1, 2020 to June 30, 2021) and Fiscal Year 2020 for Local employers (calendar year 2020). Given the lag between the valuation date in which the employer contribution rates are determined and the effective date of those contribution rates, i.e., a two year lag for Local employers and a two and one-half year lag for the State/School and Judges groups, the UAL is projected from the valuation date to the first day of the fiscal year in which the contribution rate will apply based on the statutory contribution rates and expected payroll in the intervening years. The UAL is amortized as a level-percentage of payroll for all groups except the Judges who use a level-dollar payment. The payroll growth assumption is 3.0 percent, so the annual amortization payments will increase 3.0 percent each year. As a result, if total payroll grows 3.0 percent per year, as assumed, the amortization payment will remain level as a percentage of total current payroll.

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

DECEMBER 31, 2017, VALUATION

System	Actuarial	Statutory	Difference
State[1]	9.22%	14.23%	(5.01%)
School[1]	15.59%	14.23%	1.36%
State/School[1]	14.23%	14.23%	0.00%
Local[2]	8.61%	8.61%	0.00%
Police & Fire - Uniform Rates[2]	21.93%	21.93%	0.00%
Judges	17.26%	17.26%	0.00%

1)By statute, rates are allowed to increase by a maximum of 1.2 percent, plus the cost of any benefit enhancements. The December 31, 2017, valuation sets the employer contribution rate for Fiscal Year 2021 for the State and School group and calendar year 2020 for the Local group. An additional contribution of 0.68 percent applies to the School group in Fiscal Year 2021 due to contribution reductions in Fiscal Year 2017 and Fiscal Year 2019.

2)For KP&F, the statutory contribution rate is equal to the "Uniform" rate. The rate shown is for both State and Local employers. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer. (See Table 15)

Due to statutory caps, the full actuarial contribution rate is not necessarily contributed for all KPERS groups. The State and Local groups reached the actuarial required contribution (ARC) date (the year in which the statutory contribution rate is equal to or greater than the ARC rate) in 2010 and 2012, respectively, and remain at ARC rate in this valuation. Based on the current valuation, there is a difference (shortfall) between the actuarial and statutory contribution rates of 1.36 percent for the School group. However, the statutory contribution rate is set for the combined State/School group and, based on the current valuation results, the ARC date is reached in Fiscal Year 2021 at a rate of 14.23 percent of pay.

Separate employer contribution rates are calculated for two subgroups of the State: Correctional Employee Groups with normal retirement age 55 (C55) and normal retirement age 60 (C60). The contribution rates are to be calculated by increasing the state statutory contribution rate by the difference in the normal cost rate for the C55 and C60 groups over the normal cost rate for regular state members, but not to exceed the statutory cap on contribution increases. The higher contribution rates are intended to finance the earlier normal retirement age. However, SB 228 reset the statutory employer contribution rates for Fiscal Year 2016 and Fiscal Year 2017 for the Correctional Employee groups to be the same as the employer contribution rate for the State/School group (10.91 percent and 10.81 percent respectively), eliminating the intended rate differential. The resulting contribution rates for the Correctional Employee Groups for Fiscal Year 2021 are shown in the following table:

Corrections Group	Statutory Rate
Retirement Age 55:	14.51%
Retirement Age 60:	15.37%

The employer contribution rates decreased from those in the December 31, 2016, valuation for all groups, due to various reasons. For the State/School group, the primary reason for the decrease was the combined impact of the additional contributions under H Sub for SB 109 and net favorable actuarial experience. For the Local, KPF and Judges groups, the primary reason for the decrease in contribution rates was actuarial experience that was more favorable than expected during 2017.

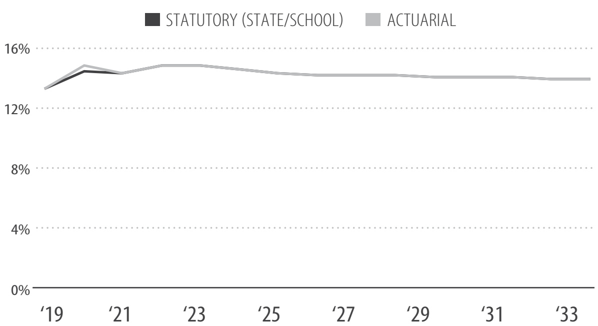
The following graphs show the preliminary projected employer contribution rates assuming all actuarial assumptions are met in the future, including a 7.75 percent net rate of return on the market value of assets in all years, and that the current statutory funding policy for the State/School group continues and contributions are made as scheduled, including the repayment of the reduced contributions for Fiscal Year 2017 and Fiscal Year 2019.

Note that although separate valuations are performed for the State and School groups, the statutory contribution rate for the two is determined using the combined valuation results for the two groups. Contributions which result from the excess of the statutory contribution rate over the actuarial required contribution rate for the State are allocated to the School to improve the funding of that group.

Based on the current valuation results, the actuarial required contribution (ARC) date for the State/School group will occur in Fiscal Year 2021 at an ARC rate of 14.23 percent, and then increase to around 14.83 percent before dropping to around 13.89 percent. The projected ARC date in last year's valuation was Fiscal Year 2021 at an ARC rate of 14.99 percent. Actual experience in future years, particularly investment returns, will impact the future actuarial and statutory rates.

PROJECTED EMPLOYER CONTRIBUTION RATES – STATE/SCHOOL

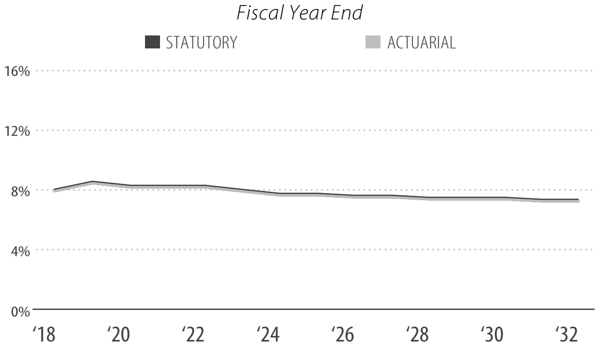
Fiscal Year End



The Local group reached the ARC date in the 2012 valuation at an ARC rate of 9.48 percent, which has decreased and is now 8.61 percent in the 2017 valuation. The projected contribution rate is expected to decrease to around 7.70 percent as the deferred investment experience is realized, 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.

PROJECTED EMPLOYER CONTRIBUTION RATES – LOCAL

Fiscal Year End



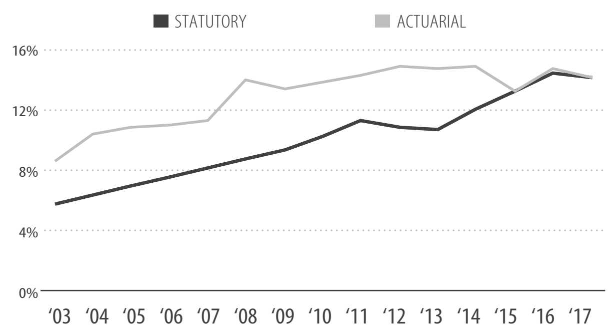
Historical contribution rates for each group are shown on the following pages. Please note that prior to the December 31, 2003, valuation, one contribution rate was developed for the State and School together as one group. Legislation passed in 2004 split the actuarial valuations into two separate groups, although the statutory contribution rate has still been determined on a combined basis. By statute, any excess of the statutory contribution over the actuarial required contribution for the State is allocated to the School group.

Significant changes in funding methods occurred in 2003, and the System received bond proceeds in 2004 ($440.2 million) and 2015 ($1 billion). Actuarial assumptions were changed in the 2004, 2007, 2011, 2014 and 2016 valuations. These changes impact the comparability of contribution rates between various valuation dates.

Numerous factors have contributed to the increase in the ARC rate for the State/School group over much of this period including investment experience, changes in actuarial assumptions, and contributions significantly below the actuarial rate. Due to favorable actuarial experience during 2017, the ARC rate decreased to 14.23 percent and the State/School group reached the full ARC rate in the current valuation.

STATE/SCHOOL CONTRIBUTION RATES

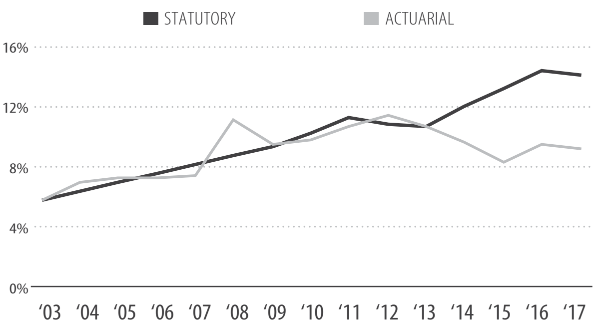
Fiscal Year End



The split of the State group into a separate group with the 2003 valuation, coupled with the bond issue, lowered the State ARC rate. The State reached the full ARC rate in the 2010 valuation and has remained at ARC except for the recertification of the statutory contribution rate for Fiscal Year 2016 from 12.37 percent to 10.91 percent. In this valuation, the State's ARC rate decreased to 9.22 percent, due to favorable actuarial experience in 2017.

STATE CONTRIBUTION RATES

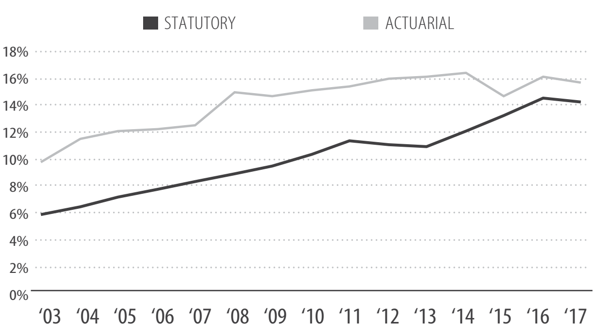
Fiscal Year End



Due to investment experience, changes in actuarial assumptions and the magnitude of the difference between the actuarial and statutory contribution rates, the funded status of the School group has declined and the ARC rate has increased during the early part of this period. Increases to the statutory contribution rate and contribution sharing from the State group helped to stabilize ARC rate and improve the funded ratio.

SCHOOL CONTRIBUTION RATES

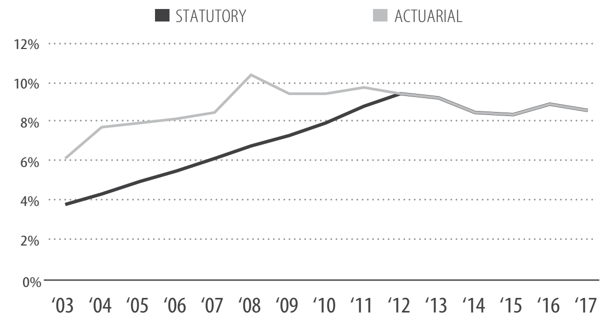
Fiscal Year End



The Local contribution rate has also been impacted by changes in actuarial assumptions and methods as well as investment performance. With the significant changes in 2012 Sub House Bill 2333 and favorable investment returns, the statutory contribution rate was equal to the ARC rate in the 2012 valuation. In this valuation, the Local group's ARC rate decreased to 8.61 percent, due to favorable actuarial experience in 2017.

LOCAL CONTRIBUTION RATES

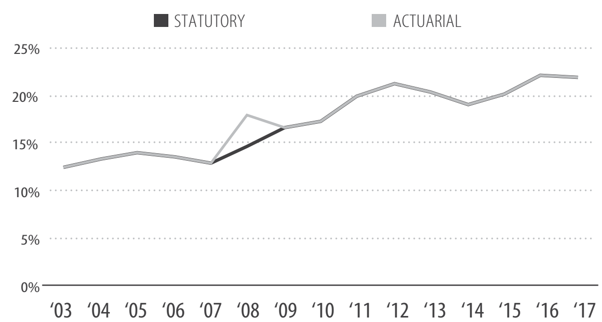
Fiscal Year End



Investment experience in 2008 and 2011 resulted in higher contribution rates in the latter part of the period. The assumption changes reflected in the 2016 valuation increased the contribution rate. Favorable investment experience during 2017 resulted in a decrease in the ARC rate for the KP&F System.

KP&F CONTRIBUTION RATES (LOCAL)

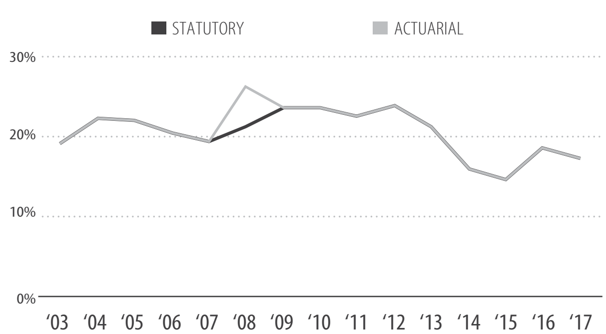
Fiscal Year End



Investment experience in 2008 and 2011 resulted in higher contribution rates in the middle of the period. The assumption changes reflected in the 2016 valuation increased the contribution rate. Favorable actuarial experience during 2017 resulted in a decrease in the ARC rate for the Judges System.

JUDGES CONTRIBUTION RATES

Fiscal Year End



Over the last 10 to 15 years, 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 percent to 0.40 percent in Fiscal Year 2006, 0.50 percent in Fiscal Year 2007 and 0.60 percent in Fiscal Year 2008 and beyond. It also authorized the issuance of up to $500 million in pension obligation bonds (POBs). The POBs were sold and proceeds of $440.2 million were received on March 10, 2004. The debt service payments on the bonds are paid by the State in addition to the regular KPERS employer contribution rate.

The 2004 Legislature passed SB 520, which continued to address issues related to the long term funding of the System (KPERS 2). 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 percent to 0.40 percent in Fiscal Year 2006, 0.50 percent in Fiscal Year 2007 and 0.60 percent in Fiscal Year 2008 and beyond.

The 2007 Legislature passed SB 362 which created a new benefit structure for members first employed on or after July 1, 2009, (KPERS 2). 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, included:

- Increased the statutory cap on employer contribution rates to 0.9 percent in Fiscal Year 2014, 1.0 percent in Fiscal Year 2015, 1.1 percent in Fiscal Year 2016 and 1.2 percent in Fiscal Year 2017 and until actuarially required rate is reached.

- Contingent upon IRS approval, established an election by Tier 1 members between different contribution rate and benefit levels. The legislation provided that, if the IRS rejected or did not take action to approve the election, Tier 1 members would default to an increase in their employee contributions to 5 percent of compensation effective January 1, 2014, and 6 percent effective January 1, 2015, with an increase in the benefit multiplier to 1.85 percent beginning January 1, 2014, for future years of service only. Subsequently, the IRS issued a private letter ruling stating that the election granted to KPERS 1 members under 2012 HB 2333 was impermissible.

- For KPERS 2 members retiring after July 1, 2012, the cost of living adjustment (COLA) was eliminated, but members received a 1.85 percent multiplier for all years of service.

- Created a Cash Balance Plan for new hires beginning January 1, 2015. A cash balance plan is a type of defined benefit plan that includes some elements of a defined contribution plan and shares risk between the employer and employee. Each member has a hypothetical account that is credited with employee contributions, employer pay credits and interest credits. At retirement, the account balance is annuitized to create a guaranteed monthly benefit payable for the member's lifetime. Up to 30 percent of the account value at retirement may be paid as a lump sum.

- Beginning in Fiscal Year 2014 Sub House Bill 2333, provided for the state to make additional contributions to help pay down KPERS' unfunded actuarial liability until the State/School group reaches a funded ratio of at least 80 percent. The revenue was to come from the Expanded Lottery Act Revenues Fund (ELARF). However, for Fiscal Year 2014 through 2018, the ELARF funds were appropriated as a partial funding source to meet the statutory contribution requirements for the School group rather than contributed in addition to the statutory contributions. Therefore, no additional funding of the unfunded actuarial liability has occurred. As a result, projections assume there will not be any additional payments to the unfunded actuarial liability from the ELARF funds.

- If the State of Kansas sells surplus real estate, 80 percent of the proceeds is to be used to pay down KPERS' unfunded actuarial liability until the System reaches an 80 percent funded ratio. However, 2016 SB249 suspended this provision with respect to any sales of surplus real estate during Fiscal Year 2017.

The 2014 Legislature passed HB 2533 which made changes to the KPERS 3 benefit structure, generally decreasing the portion of the benefit that is guaranteed, thereby increasing the risk-sharing portion of the benefit. The changes in House Bill 2533 were designed to further improve KPERS long term funding and to better manage the investment risk.

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

- Net proceeds of up to $1.0 billion from bonds issued by the state of Kansas were to be deposited into the KPERS trust fund for the State/School group, subject to certain criteria. The bonds had to be issued at an interest rate no greater than 5.0 percent and approved by the State Finance Council (approval received July 2, 2015).

- Revised the previously certified State/School employer contribution rate from 12.37 percent to 10.91 percent for Fiscal Year 2016 and from 13.57 percent to 10.81 percent for Fiscal Year 2017. The statutory cap of 1.2 percent per year was still applicable to employer contribution rates in Fiscal Year 2018 and until the actuarially required rate is reached.

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

The 2016 Legislature passed House Sub for SB 168 which revised the rules pertaining to working after retirement. The bill also made technical and clarifying amendments to statutes related to death and disability contributions, KPERS 3 members and the Deferred Retirement Option Program (DROP) for certain members of KP&F. None of these provisions had an impact on the December 31, 2015, valuation results. The 2016 Legislature also passed House Sub for SB 161 which provided for the delay of up to $100 million in State and School contributions for Fiscal Year 2016. House Sub for SB 249 provided that the delayed contributions would be repaid in full, with interest at 8 percent, by June 30, 2018. The Governor used this allotment authority to delay payments of $97.4 million in State/School group and KP&F State contributions during the final quarter of Fiscal Year 2016. However, S Sub for Sub HB 2052, passed in the 2017 session, provided that the repayment of these contributions will not be paid.

The 2017 Legislature passed several bills that impacted the provisions and funding of KPERS:

- Senate Substitute for Substitute HB 2052 (S Sub for Sub HB 2052) provides that the contributions for the School group for Fiscal Year 2017 (Fiscal Year 2017) will be reduced so the total State/School contribution will be $64.13 million less than the scheduled statutory contributions. This reduction in employer contributions for Fiscal Year 2017 will be repaid in level-dollar annual installments of $6.4 million over twenty years beginning in Fiscal Year 2018. These payments are determined as a contribution rate for School employers to be paid in addition to the statutory State/School contribution rate. Further, S Sub for Sub HB 2052 provides that the repayment of the contribution reduction from Fiscal Year 2016 with interest ($115 million), scheduled in Fiscal Year 2018, will not be paid.

- Senate Substitute for HB 2002 contains KPERS funding provisions for Fiscal Year 2018 and Fiscal Year 2019, including the following:

  - **Fiscal Year 2018:** The contributions for the State/School group for Fiscal Year 2018 will be made at the scheduled statutory rate of 12.01 percent. In addition, the first installment of $6.4 million on the 20-year amortization of the contribution reduction for Fiscal Year 2017 will be included.

  - **Fiscal Year 2019:** The contributions for School employers within the State/School group for Fiscal Year 2019 will be reduced so the total employer contribution is $420 million, including the second installment of $6.4 million on the contribution reduction for Fiscal Year 2017. This results in an expected reduction of $194 million that will be repaid by the School group, as a level dollar amount over 20 years beginning in Fiscal Year 2020.

  - **Fiscal Year 2020:** The current statutory cap of 1.2 percent per year will apply in determining the statutory contribution rate for the State/School group for Fiscal Year 2020. The certified statutory rate from Fiscal Year 2019 of 13.21 percent, without inclusion of the $6.4 million amortization of the contribution reduction for Fiscal Year 2017 and $19.4 million amortization of the contribution reduction for Fiscal Year 2019, will be increased by 1.2 percent, resulting in a statutory contribution rate for Fiscal Year 2020 of 14.41 percent. The current statutory cap of 1.2 percent per year will apply for all subsequent years until the actuarially required rate is reached.

- SB 205 changed the duty-related death benefit for KP&F members to the greater of 50 percent of Final Average Salary and the member's accrued retirement benefit under the 100 percent joint and survivor option, payable to the member's spouse. Including any benefits that may be due to child beneficiaries, the total monthly benefits may not exceed 90 percent of the member's Final Average Salary. Prior to this this bill, the duty-related death benefit for a KP&F member was 50 percent of Final Average Salary, and the maximum available to the family was 75 percent of the member's Final Average Salary.

- House Substitute for SB 21 included changes to the working after retirement rules for members who retire on or after January 1, 2018. The key provisions of the bill were to lengthen the waiting period for KPERS members to return to work from 60 days to 180 days for members who retire before attaining age 62, remove the earnings limitation for all retirees, and establish a single employer contribution schedule for all retirees.

The 2018 Legislature passed House Substitute for Senate Bill 109 that provided for the following additional funding to the KPERS School group:

- An additional payment of $82 million in July 2018 (received by KPERS).
- A contingent additional payment of up to $56 million to be paid in Fiscal Year 2018, if actual Fiscal Year 2018 receipts exceed the consensus revenue estimates (full amount received by KPERS).
- A contingent additional payment of up to $56 million to be paid in Fiscal Year 2019, if actual Fiscal Year 2019 receipts exceed the consensus revenue estimates.

COMMENTS

As a result of these additional contributions, the actuarial contribution rate for Fiscal Year 2021 is lower by 0.36 percent for the State/School group.

Like most public retirement systems, KPERS uses an asset smoothing method to average investment experience above and below the assumed net rate of return (7.75 percent). Under the asset smoothing method, the difference between the dollar amount of the actual and assumed investment experience is recognized equally over a five-year period. Due to the recognition of the experience in the prior four years using the asset smoothing method, the return on the actuarial value of assets in 2017 was 8.4 percent. As of the valuation date, the market value of assets exceeds the actuarial value of assets by about 1.8 percent or $338 million. This deferred experience will flow through the asset smoothing method in the next four years and be recognized in the valuation process, unless offset by investment experience below the 7.75 percent assumed net rate of return. As the deferred investment experience is recognized, the funded ratio can be expected to increase and the actuarial contribution rate to decrease.

While the use of an asset smoothing method is a common procedure used by public retirement systems, it is important to identify the potential impact of the deferred (unrecognized) investment experience. This is particularly important when there are significant deferred investment losses, but it is also useful to consider the impact on the key actuarial measurements if the deferred investment gains are recognized. To illustrate the impact of the deferred investment experience, the key valuation results are shown in the following table for the State/School and KPF groups using both the actuarial value of assets and the pure market value. The impact would be similar for the other groups.

	State/School		KP&F	
	Actuarial	Market	Actuarial	Market
Actuarial Liability	$19,348	$19,348	$3,320	$3,320
Asset Value	12,767	12,990	2,460	2,495
Unfunded Actuarial Liability*	6,581	6,358	860	825
Funded Ratio	66%	67%	74%	75%
Contribution Rate:				
Normal Cost Rate	8.05%	8.05%	14.85%	14.85%
UAL Payment	12.18%	11.75%	14.23%	13.66%
Actuarial Contribution Rate	20.23%	19.80%	29.08%	28.51%
Employee Rate	6.00%	6.00%	7.15%	7.15%
Employer Rate	14.23%	13.80%	21.93%	21.36%

** May not add due to rounding*

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 7.75 percent return in future years. Also, please refer to the graphs later in this section that show the projected contribution rates assuming a 7.75 percent net rate of return in all future years.

The legacy unfunded actuarial liability is amortized over a closed period ending in 2033 (15 years remaining as of this valuation date). Increases in the unfunded actuarial liability resulting from the assumption changes adopted in the December 31, 2016, valuation are amortized over a closed 25 year period, while other actuarial experience (gains/losses) is amortized over closed 20 year periods. While all of the groups (State/School, Local, KP&F and Judges) are projected to reach a funded ratio of 100 percent, the actual funding progress will be heavily dependent on the actual investment experience of the System in future years, the continuation of the current statutory funding policy for the State/School group and actual contributions at the statutory rate.

SUMMARY OF CHANGE IN UNFUNDED ACTUARIAL LIABILITY BY SYSTEM

December 31, 2017, Valuation ($ millions)

	State	School	State/School	Local	KP&F	Judges	Total
UAL in 12/31/2016 Valuation Report	**$921.7**	**$5,768.3**	**$6,690.0**	**$1,514.7**	**$845.5**	**$11.1**	**$9,061.4**
· Effect of Contribution Cap/Time Lag	(9.4)	138.7	129.3	6.0	13.7	(0.3)	148.7
· Expected Decrease Due to UAL Amortization	(13.8)	(86.1)	(99.9)	(22.6)	(12.6)	(0.4)	(135.5)
· Actual vs. Expected Experience							
Investment Return	(24.7)	(54.0)	(78.7)	(24.9)	(13.1)	(0.8)	(117.5)
Demographic Experience	(7.4)	(57.7)	(65.1)	(9.6)	30.5	(1.7)	(45.8)
All Other Experience	2.4	3.3	5.7	(5.3)	(4.1)	(0.2)	(4.0)
· Change in Actuarial Assumptions/Methods	0.0	0.0	0.0	0.0	0.0	0.0	0.0
· Change in Benefit Provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UAL in 12/31/2017 Valuation Report	**$868.8**	**$5,712.5**	**$6,581.3**	**$1,458.3**	**$859.9**	**$7.7**	**$8,907.2**

Note: Numbers may not add due to rounding.

SUMMARY OF CHANGES IN EMPLOYER ACTUARIAL CONTRIBUTION RATE BY SYSTEM

As of December 31, 2017

Percentage of Payroll	State	School	State/School	Local	KP&F[1]	Judges
Actuarial Contribution Rate in 12/31/2016 Valuation	**9.49%**	**16.15%**	**14.74%**	**8.89%**	**22.13%**	**18.65%**
Change Due to Amortization of UAL						
· Effect of Contribution Cap/Time Lag	(0.07)	0.28	0.21	0.02	0.19	(0.09)
· UAL Amortization	0.00	0.00	0.00	0.00	0.00	(0.12)
· Investment Experience	(0.19)	(0.11)	(0.13)	(0.10)	(0.18)	(0.25)
· Liability Experience	(0.06)	(0.12)	(0.10)	(0.04)	0.43	(0.54)
· All Other Experience	0.13	(0.08)	(0.04)	(0.08)	(0.61)	(0.47)
· Additional Contributions in Fiscal Year 2019/2020	0.00	(0.45)	(0.36)	0.00	0.00	0.00
· Change in Assumptions/Methods	0.00	0.00	0.00	0.00	0.00	0.00
· Change in Benefit Provisions	0.00	0.00	0.00	0.00	0.00	0.00
Change in Employer Normal Cost Rate						
· Change in Benefit Provisions	0.00	0.00	0.00	0.00	0.00	0.00
· Change in Assumptions/Methods	0.00	0.00	0.00	0.00	0.00	0.00
· All Other Experience	(0.08)	(0.08)	(0.09)	(0.08)	(0.03)	0.08
Actuarial Contribution Rate in 12/31/2017 Valuation	**9.22%**	**15.59%**	**14.23%**	**8.61%**	**21.93%**	**17.26%**

1) Contribution rate for Local employers only.
Note: Numbers may not add due to rounding.

SUMMARY OF HISTORICAL CHANGES IN TOTAL SYSTEM UAL

As of December 31, 2017, Valuation

	As Reported on Valuation Date							
(millions)	6/30/94	6/30/95	6/30/96	6/30/97	6/30/98	6/30/99	6/30/00	12/31/00
Actual Experience vs. Assumed								
• Investment	$(102)	$(143)	$(280)	$(323)	$(413)	$(369)	$(441)	$(23)
• Other	320	72	136	157	104	46	99	84
Assumption Changes	0	(96)	0	0	350	0	0	(206)
Changes in Data/Procedures	244	0	0	0	0	21	71	145**
Change in Cost Method	0	0	0	0	0	0	0	0
Effect of Contribution Cap/Lag	*	95	70	63	54	78	66	60
Amortization Method	*	47	38	35	32	30	22	12
Change in Benefit Provisions	75	0	0	0	88	0	19	0
Change in Actuarial Firm/Software	0	0	0	0	0	0	0	0
Bond Issue	0	0	0	0	0	0	0	0
Non-Collectible Pension Contributions	0	0	0	0	0	0	0	0
Total	$537	$(25)	$(36)	$(68)	$215	$(194)	$(164)	$72

(millions)	12/31/01	12/31/02	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08	12/31/09
Actual Experience vs. Assumed									
• Investment	$350	$644	$140	$456	$167	$(293)	$(626)	$2,332	$(1,011)
• Other	(9)	68	(32)	16	(84)	140	99	78	(70)
Assumption Changes	0	0	0	437	(5)	0	384	0	0
Changes in Data/Procedures	5	177**	(286)***	0	0	0	0	0	0
Change in Cost Method	0	0	1,147	0	0	0	0	0	0
Effect of Contribution Cap/Lag	115	143	178	179	247	258	251	246	383
Amortization Method	14	21	47	68	84	83	78	71	96
Change in Benefit Provisions	0	37	3	1	0	24	2	0	0
Change in Actuarial Firm/Software	0	0	0	0	0	0	0	0	0
Bond Issue	0	(41)	(440)	0	0	0	0	0	0
Non-Collectible PensionContributions	0	0	0	0	0	0	0	0	0
Total	$475	$1,049	$757	$1,157	$409	$212	$188	$2,727	$(602)

(millions)	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17	Total
Actual Experience vs. Assumed									
• Investment	$560	$852	$732	$(653)	$(368)	$52	$(59)	$(117)	$1,064
• Other	(334)	(190)	(78)	(125)	(78)	(130)	(144)	(50)	95
Assumption Changes	0	(64)	0	0	(50)	0	593	0	1,343
Changes in Data/Procedures	0	0	0	0	0	0	0	0	377
Change in Cost Method	0	0	0	0	0	0	0	0	1,147
Effect of Contribution Cap/Lag	320	289	303	246	178	160	70	149	4,201
Amortization Method	68	62	49	46	18	(11)	(38)	(136)	836
Change in Benefit Provisions	0	15	19	0	1	0	1	0	285
Change in Actuarial Firm/Software	(27)	0	0	0	0	0	0	0	(27)
Bond Issue	0	0	0	0	0	(1,000)	0	0	(1,481)
Non-Collectible Pension Contributions	0	0	0	0	0	0	99	0	99
Total	$587	$964	$1,025	$(487)	$(298)	$(929)	$522	$(154)	$7,939

Unfunded Actuarial Liability 6/30/93: $968 million

Unfunded Actuarial Liability 12/31/17: $8,907 million

** 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.*

**** Change in asset valuation method.*

Note: Although a total column is shown, the amounts in each year are not additive because they are calculated on each valuation date and, therefore, represent a value at a different point in time.

SUMMARY OF PRINCIPAL RESULTS—KPERS (STATE)

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	21,427	21,879	(2.1%)
Retired Members and Beneficiaries	20,075	19,652	2.2%
Inactive Members	8,901	8,477	5.0%
Total Members	50,403	50,008	0.8%
Projected Annual Salaries of Active Members	$ 946,342,010	$ 939,183,195	0.8%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 286,058,578	$ 276,258,764	3.5%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$4,457,117,349	$4,385,680,350	1.6%
b. Assets for Valuation Purposes	$3,588,341,301	$3,463,997,332	3.6%
c. Unfunded Actuarial Liability (a) - (b)	$ 868,776,048	$ 921,683,018	(5.7%)
d. Funded Ratio (b) / (a)	80.5%	79.0%	1.9%
e. Market Value of Assets	$3,653,660,034	$3,354,619,933	8.9%
f. Funded Ratio on Market Value (e) / (a)	82.0%	76.5%	7.2%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	7.66%	7.74%	
Member	6.00	6.00	
Employer	1.66	1.74	
Amortization of Unfunded Actuarial Liability	7.56	7.75	
Actuarial Contribution Rate	9.22	9.49	
Statutory Employer Contribution Rate*	14.23%	14.41%	

** The rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20 percent for Fiscal Year 2017 and until actuarially required rate is reached. This rate excludes the contribution rate for the Death and Disability Program. Any excess of the statutory over actuarial contribution rates applied to actual State payroll is deposited to the School assets.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (SCHOOL)

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	84,239	84,321	(0.1%)
Retired Members and Beneficiaries	53,521	51,813	3.3%
Inactive Members	31,307	28,490	9.9%
Total Members	169,067	164,624	2.7%
Projected Annual Salaries of Active Members	$ 3,497,953,735	$ 3,469,951,831	0.8%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 825,729,117	$ 786,385,615	5.0%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$14,890,672,923	$14,481,094,448	2.8%
b. Assets for Valuation Purposes	$ 9,178,189,403	$ 8,712,789,560	5.3%
c. Unfunded Actuarial Liability (a) - (b)	$ 5,712,483,520	$ 5,768,304,888	(1.0%)
d. Funded Ratio (b) / (a)	61.6%	60.2%	2.3%
e. Market Value of Assets	$ 9,335,940,612	$ 8,444,384,754	10.6%
f. Funded Ratio on Market Value (e) / (a)	62.7%	58.3%	7.5%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.16%	8.24%	
Member	6.00	6.00	
Employer	2.16	2.24	
Amortization of Unfunded Actuarial Liability	13.43	13.91	
Actuarial Contribution Rate	15.59	16.15	
Statutory Employer Contribution Rate*	14.23%	14.41%	

** The rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20 percent for Fiscal Year 2017 and until actuarially required rate is reached. This rate excludes the contribution rate for the Death and Disability Program. An additional contribution rate of 0.18 percent applies for Fiscal Year 2019, 0.69 percent for Fiscal Year 2020 and 0.68 percent for Fiscal Year 2021.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (STATE/SCHOOL)

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	105,666	106,200	(0.5%)
Retired Members and Beneficiaries	73,596	71,465	3.0%
Inactive Members	40,208	36,967	8.8%
Total Members	219,470	214,632	2.3%
Projected Annual Salaries of Active Members	$ 4,444,295,745	$ 4,409,135,026	0.8%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 1,111,787,695	$ 1,062,644,379	4.6%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 19,347,790,272	$ 18,866,774,798	2.5%
b. Assets for Valuation Purposes	$ 12,766,530,704	$ 12,176,786,892	4.8%
c. Unfunded Actuarial Liability (a) - (b)	$ 6,581,259,568	$ 6,689,987,906	(1.6%)
d. Funded Ratio (b) / (a)	66.0%	64.5%	2.3%
e. Market Value of Assets	$ 12,989,600,646	$ 11,799,004,687	10.1%
f. Funded Ratio on Market Value (e) / (a)	67.1%	62.5%	7.4%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.05%	8.14%	
Member	6.00	6.00	
Employer	2.05	2.14	
Amortization of Unfunded Actuarial Liability	12.18	12.60	
Actuarial Contribution Rate	14.23	14.74	
Statutory Employer Contribution Rate*	14.23%	14.41%	

** The rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20 percent for Fiscal Year 2017 and until actuarially required rate is reached. This rate excludes the contribution rate for the Death and Disability Program. An additional contribution rate of 0.18 percent applies for Fiscal Year 2019, 0.69 percent for Fiscal Year 2020 and 0.68 percent for Fiscal Year 2021.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (LOCAL)

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	38,281	38,364	(0.2%)
Retired Members and Beneficiaries	20,534	19,805	3.7%
Inactive Members	18,098	17,224	5.1%
Total Members	76,913	75,393	2.0%
Projected Annual Salaries of Active Members	$ 1,763,898,722	$ 1,728,976,958	2.0%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 249,049,467	$ 232,450,548	7.1%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 5,299,548,013	$ 5,094,727,138	4.0%
b. Assets for Valuation Purposes	$ 3,841,214,560	$ 3,579,987,885	7.3%
c. Unfunded Actuarial Liability (a) - (b)	$ 1,458,333,453	$ 1,514,739,253	(3.7%)
d. Funded Ratio (b) / (a)	72.5%	70.3%	3.1%
e. Market Value of Assets	$ 3,920,141,884	$ 3,469,920,041	13.0%
f. Funded Ratio on Market Value (e) / (a)	74.0%	68.1%	8.7%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	7.59%	7.67%	
Member	6.00	6.00	
Employer	1.59	1.67	
Amortization of Unfunded Actuarial Liability	7.02	7.22	
Actuarial Contribution Rate	8.61	8.89	
Statutory Employer Contribution Rate*	8.61%	8.89%	

** The Statutory Employer Contribution Rate in this valuation may not exceed last year's rate by more than the statutory rate increase limit of 1.20 percent for Fiscal Year 2017 and until the actuarially required rate is reached. This rate excludes the contribution rate for the Death and Disability Program.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (TOTAL KPERS)

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	143,947	144,564	(0.4%)
Retired Members and Beneficiaries	94,130	91,270	3.1%
Inactive Members	58,306	54,191	7.6%
Total Members	296,383	290,025	2.2%
Projected Annual Salaries of Active Members	$ 6,208,194,467	$ 6,138,111,984	1.1%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 1,360,837,162	$ 1,295,094,927	5.1%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 24,647,338,285	$ 23,961,501,936	2.9%
b. Assets for Valuation Purposes	$ 16,607,745,264	$ 15,756,774,777	5.4%
c. Unfunded Actuarial Liability (a) - (b)	$ 8,039,593,021	$ 8,204,727,159	(2.0%)
d. Funded Ratio (b) / (a)	67.4%	65.8%	2.4%
e. Market Value of Assets	$ 16,909,742,530	$ 15,268,924,728	10.7%
f. Funded Ratio on Market Value (e) / (a)	68.6%	63.7%	7.7%

SUMMARY OF PRINCIPAL RESULTS – KANSAS POLICE & FIREMEN'S RETIREMENT SYSTEM

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	7,481	7,303	2.4%
Retired Members and Beneficiaries	5,398	5,232	3.2%
Inactive Members	1,654	1,555	6.4%
Total Members	14,533	14,090	3.1%
Projected Annual Salaries of Active Members	$ 507,774,486	$ 485,215,228	4.6%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 179,970,191	$ 170,130,904	5.8%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 3,320,247,686	$ 3,174,533,709	4.6%
b. Assets for Valuation Purposes	$ 2,460,340,659	$ 2,329,029,290	5.6%
c. Unfunded Actuarial Liability (a) - (b)	$ 859,907,027	$ 845,504,419	1.7%
d. Funded Ratio (b) / (a)	74.1%	73.4%	1.0%
e. Market Value of Assets	$ 2,495,082,288	$ 2,256,070,037	10.6%
f. Funded Ratio on Market Value (e) / (a)	75.1%	71.1%	5.6%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	14.85%	14.88%	
Member	7.15	7.15	
Employer	7.70	7.73	
Amortization of Unfunded Actuarial and Supplemental Liability	14.23	14.40	
Actuarial Contribution Rate (Local Employers)	21.93	22.13	
Statutory Employer Contribution Rate*	21.93%	22.13%	

** 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

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	259	252	2.8%
Retired Members and Beneficiaries	279	272	2.6%
Inactive Members	6	9	(33.3%)
Total Members	544	533	2.1%
Projected Annual Salaries of Active Members	$ 28,332,177	$ 27,123,449	4.5%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 11,707,915	$ 11,272,287	3.9%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 186,241,018	$ 181,718,728	2.5%
b. Assets for Valuation Purposes	$ 178,527,349	$ 170,569,206	4.7%
c. Unfunded Actuarial Liability (a) - (b)	$ 7,713,669	$ 11,149,522	(30.8%)
d. Funded Ratio (b) / (a)	95.9%	93.9%	2.1%
e. Market Value of Assets	$ 180,462,402	$ 165,322,736	9.2%
f. Funded Ratio on Market Value (e) / (a)	96.9%	91.0%	6.5%
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	20.38%	20.30%	
Member	5.65	5.64	
Employer	14.73	14.66	
Amortization of Unfunded Actuarial and Supplemental Liability	2.53	3.99	
Actuarial Contribution Rate	17.26	18.65	
Statutory Employer Contribution Rate*	17.26%	18.65%	

**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

	12/31/2017 Valuation	12/31/2016 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	151,687	152,119	(0.3%)
Retired Members and Beneficiaries	99,807	96,774	3.1%
Inactive Members	59,966	55,755	7.6%
Total Members	311,460	304,648	2.2%
Projected Annual Salaries of Active Members	$ 6,744,301,130	$ 6,650,450,661	1.4%
Annual Retirement Payments for Retired Members and Beneficiaries	$ 1,552,515,268	$ 1,476,498,118	5.1%
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$ 28,153,826,989	$ 27,317,754,373	3.1%
b. Assets for Valuation Purposes	$ 19,246,613,272	$ 18,256,373,273	5.4%
c. Unfunded Actuarial Liability (a) - (b)	$ 8,907,213,717	$ 9,061,381,100	(1.7%)
d. Funded Ratio (b) / (a)	68.4%	66.8%	2.4%
e. Market Value of Assets	$ 19,585,287,220	$ 17,690,317,501	10.7%
f. Funded Ratio on Market Value (e) / (a)	69.6%	64.8%	7.4%

SUMMARY OF PLAN PROVISIONS

PLAN MEMBERSHIP

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

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

SUMMARY OF PROVISIONS *

*KPERS 1 refers to members before July 1, 2009. KPERS 2 refers to members who either began their participation or rehired on or after July 1, 2009, but before January 1, 2015. KPERS 3 refers to non-corrections members who either began their participation or rehired on or after January 1, 2015. Corrections members do not participate in KPERS 3.

This valuation reflects the benefit structure in place as of December 31, 2017.

EMPLOYEE MEMBERSHIP

Membership is mandatory for all employees in covered positions, except elected officials. A covered position for non-school employees is one that is covered by Social Security, is not seasonal or temporary, and requires at least 1,000 hours of work per year. School employees who work at least 630 hours per year or 3.5 hours per day for at least 180 days are eligible for membership. Effective July 1, 2009, all employees become KPERS members on their date of employment. Prior to July 1, 2009, only School employees were covered immediately, but there was a one-year service requirement for the State and Local groups. Members who retire under the provisions of the Retirement System may not become contributing members again.

NORMAL RETIREMENT

Eligibility – KPERS 1: (a) Age 65 or (b) age 62 with ten years of credited service or (c) any age when combined age and years of credited service equal 85 "points". Age is determined by the member's last birthday and is not rounded up.

KPERS 2 & 3: (a) Age 65 with 5 years of credited service or (b) age 60 with 30 years of credited service.

Benefit – KPERS 1 & 2: Benefits are based on the member's years of credited service, Final Average Salary (FAS) and a statutory multiplier. For those who were hired prior to July 1, 1993, Final Average Salary equals the greater of either: a four-year Final Average Salary, including add-ons, such as sick and annual leave; or a three-year Final Average Salary, excluding add-ons, such as sick and annual leave. For those who are hired on or after July 1, 1993, and before July 1, 2009, Final Average Salary equals the average of the three highest years of salary, excluding add-ons, such as sick and annual leave. Effective July 1, 2009, (KPERS 2), Final Average Salary equals the average of the five highest years of salary, excluding additional compensation.

KPERS 3: KPERS 3 members participate in a cash balance plan with benefits based on the Annuity Savings Account balance, the Retirement Annuity Account balance, and an annuity factor. The member's annuity factor at retirement is based on the member's age and benefit payment form. The current annuity factors were adopted by the Board upon recommendation of the actuary. They are expected to be updated periodically. The interest rate used to calculate the current annuity factors is 5.75 percent (7.75 percent assumed investment return, minus 2.00 percent), and the mortality table used is a set of blended mortality rates from the current post-retirement mortality assumptions for KPERS members. The blended mortality rates are projected to 2030 using improvement scale MP-2016. The weighting used to blend the mortality rates is shown in the following table:

	Members	Beneficiaries
State – Males	17.5%	42.5%
State – Females	42.5%	17.5%
School – Males	7.5%	8.5%
School – Females	8.5%	7.5%
Local – Males	12.5%	11.5%
Local– Females	11.5%	12.5%

A member's Annuity Savings Account balance is the sum of mandatory member contributions plus the interest credits and dividends on those contributions. A member's Retirement Annuity Account is the sum of all employer retirement credits to the account plus the interest credits and dividends on those credits.

Mandatory member contributions are 6 percent of compensation. The employer retirement credits follow the schedule below:

Years of Service	Retirement Credit Rate
Less than 5	3%
5 – 11	4%
12 – 23	5%
24 or more	6%

Interest credits are 4 percent per annum, paid quarterly. The interest credits are based on the account balances as of the last day of the preceding quarter. There is also a possibility of additional interest credits, depending on KPERS' investment return. These additional interest credits are called "dividends" and are equal to 75 percent of the five-year average net compound rate of return, as determined by the board, for the preceding calendar year and the previous four calendar years on the market value of assets that is above 6.0 percent. A schedule of historical dividend rates is contained in the following table:

Year	Applicable Rate of Return	Compound Average	Dividend
2015	0.2%	0.2%	0.0%
2016	8.5%	4.3%	0.0%
2017	14.0%	7.4%	1.1%

Prior Service Credit – Prior service credit is 0.75 percent or 1.00 percent of Final Average Salary per year [School employees receive 0.75 percent of Final Average Salary for each year of prior service that is not credited under the former Kansas School Retirement System (KSRS)].

PARTICIPATING SERVICE CREDIT

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

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

KPERS 3: Not applicable for the Cash Balance Plan.

EARLY RETIREMENT

Eligibility – Eligibility is age 55 and 10 years of credited service.

Benefit – KPERS 1: The normal retirement benefit is reduced 0.2 percent per month for each month between the ages of 60 and 62, and 0.6 percent for each month between the ages of 55 and 60.

KPERS 2: The normal retirement benefit is reduced actuarially for early commencement. The reduction factor is 35.0 percent at age 60 and 57.5 percent at age 55. If the member has 30 years of credited service, the early retirement reduction is less (50 percent of regular reduction).

KPERS 3: The early retirement benefit is determined in the same manner as a normal retirement benefit, but is based on the account balances and annuity factor at the member's retirement age.

VESTING REQUIREMENTS

Eligibility – Effective July 1, 2009, a member must have five years of credited service (ten years prior to July 1, 2009). Should the vested member terminate employment, the member must leave accumulated contributions on deposit with the Retirement System to be eligible for future benefits. If a vested member terminates employment and withdraws accumulated contributions, the member forfeits all rights and privileges under the Retirement System.

Benefit – KPERS 1 & 2: Retirement benefits are payable when the vested member reaches normal retirement age, or reduced benefits are payable when the vested member reaches a specified early retirement age.

KPERS 3: Retirement benefits are payable when the vested member meets the retirement eligibility requirements and is based on the member's account balances at retirement. The member's vested account will be granted interest credits and dividends during the deferral period between termination of employment and retirement.

OTHER BENEFITS

Withdrawal Benefit – Members who terminate employment may withdraw contributions with interest after the last day on the employer's payroll. Withdrawing member contributions forfeits all membership rights and benefits, which a member may have accrued prior to withdrawing their contributions from the Retirement System. Inactive, non-vested members who return to covered employment within five years after terminating employment, will not have lost any membership rights or privileges if they haven't withdrawn contributions. The Retirement Act provides for withdrawal of contributions 31 days after employment terminates, but it does not allow members to borrow from contributions.

Disability Benefit – KPERS 1 & 2: Members receiving disability benefits under the KPERS Death and Disability Benefits Program continue to receive service credit under KPERS. If a disabled member retires after receiving disability benefits for at least five years immediately preceding retirement, the member's Final Average Salary is adjusted by the actuarial salary increase assumption rates in existence during the member's period of disability prior to July 1, 1993, 5 percent per year to July, 1998 and the change in CPI-U less 1 percent, not to exceed 4 percent after July, 1998.

KPERS 3: For any KPERS 3 member who becomes disabled, such member's Annuity Savings Account and Retirement Annuity Account will be credited with employee contributions, employer retirement credits, interest credits and dividends for the entire period of disability, but no later than the member's normal retirement age. The salary upon which credits are based shall be the employee's salary at the time of disability. After five years of disability, the underlying salary shall be increased by the lesser of (a) the percentage increase in CPI-U, minus 1 percent or (b) 4 percent per annum.

Death Benefits – Pre-retirement death (non-service connected)

KPERS 1 & 2: The member's accumulated contributions plus interest are paid in a lump sum to the designated beneficiary. In lieu of receiving the member's accumulated contributions, the surviving spouse of a member who is eligible to retire at death may elect to receive benefits under any survivor option. The spouse must be the member's sole designated beneficiary to exercise this option. If the member had at least 10 years of credited service, but had not reached retirement age, the spouse may elect to leave the member's contributions on deposit with the System and receive a monthly benefit to begin on the date the member would have been eligible to retire.

KPERS 3: If a vested member dies before attaining normal retirement age, the member's surviving spouse shall receive an annuity on the date the member would have attained normal retirement age had such member not died. The benefit is based upon the member's Annuity Savings Account and Retirement Annuity Account, and is payable as a single life annuity with 10-year certain.

Service-connected accidental death – The member's accumulated contributions plus interest, plus lump sum amount of $50,000, plus annual benefit based on 50 percent of Final Average Salary; reduced by Workers' Compensation benefits and subject to a minimum benefit of $100 a month; are payable to a spouse, minor children or dependent parents, for life, or until the youngest child reaches age 18 (or up to age 23 if they are full-time students), in this order of preference. The monthly accidental death benefit is in lieu of any joint/survivor benefit for which the surviving spouse would have been eligible. For KPERS 3 members, Final Average Salary equals the average of the three final years of salary.

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

MEMBER CONTRIBUTIONS

KPERS 1: Prior to January 1, 2014, member contributions were 4 percent of compensation for KPERS 1. 2012 HB 2333 established an election by KPERS 1 members, contingent upon IRS approval, between different contribution rate and benefit levels. The legislation provided that, if the IRS rejected or did not take action to approve the election, KPERS 1 members would default to an increase in their employee contributions to 5 percent of compensation effective January 1, 2014, and 6 percent effective January 1, 2015, with an increase in the benefit multiplier to 1.85 percent beginning January 1, 2014, for future years of service only. Subsequently, the IRS issued a private letter ruling stating that the election granted to KPERS 1 members under 2012 HB 2333 was impermissible.

KPERS 2: The member contribution rate for KPERS 2 is 6 percent of compensation.

KPERS 3: The member contribution rate for KPERS 3 is 6 percent of compensation.

INTEREST ON MEMBER CONTRIBUTIONS

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

KPERS 2: Interest is credited to members' contribution accounts on June 30 each year, based on the account balance as of the preceding December 31, at the rate of 4 percent per year.

KPERS 3: Interest credited varies by years of service. Please refer to the KPERS 3 Benefit section under Normal Retirement in these Plan Provisions.

EMPLOYER CONTRIBUTIONS

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

BOARD OF REGENTS PLAN MEMBERS (TIAA AND EQUIVALENTS)

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

CORRECTIONAL MEMBERS

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

KPERS 1: For groups (a) and (b) with at least 3 consecutive years of credited service in such positions immediately preceding retirement, normal retirement age is 55 or Rule of 85; and early retirement requirements are age 50 with 10 years of credited service. For groups (c), (d), (e) and (f) with at least 3 consecutive years of service in such positions immediately preceding retirement, normal retirement age is 60 or Rule of 85, and early retirement requirements are 55 with 10 years of credited service.

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

COST OF LIVING ADJUSTMENTS (COLAS)

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

KPERS 3: Upon retirement, the benefit option selected by the member may include a self-funded cost of living adjustment feature, in which the account value is converted to a benefit amount that increases by a fixed percentage over time.

KANSAS POLICE & FIREMEN'S RETIREMENT SYSTEM

NORMAL RETIREMENT

Tier I – age 55 and 20 years of service or 32 years of service (regardless of age).

Tier II – age 50 and 25 years of service, or age 55 and 20 years of service, or age 60 and 15 years of service.

Benefits – Benefits are based on the member's Final Average Salary. For those who were hired prior to July 1, 1993, Final Average Salary equals the average of the highest three of the last five years of credited participating service, including add-ons, such as sick and annual leave. For those who are hired on or after July 1, 1993, Final Average Salary equals the average of the highest three of the last five years of participating service, excluding add-ons, such as sick and annual leave. Benefits are based on a member's years of credited service and a multiplier of 2.5 percent of Final Average Salary for each year of credited service, to a maximum of 90 percent of Final Average Salary (first effective July 1, 2013).

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

EARLY RETIREMENT

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

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

VESTING REQUIREMENTS

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

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

OTHER BENEFITS

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

DISABILITY BENEFITS

Tier I: Service-connected disability – There are no age or service requirements to be eligible for this benefit. There is an annual benefit of 50 percent of Final Average Salary, plus 10 percent of Final Average Salary for each dependent child under age 18 (or up to age 23 for full-time students), to a maximum of 75 percent of Final Average Salary. If dependent child benefits aren't payable, the benefit is 50 percent of Final Average Salary or 2.5 percent for each year of credited service up to a maximum of 90 percent of Final Average Salary. Upon the death of a member after two years from the proximate cause of death which is the original service-connected disability, the same benefits are payable. Upon the death of a member after two years from a cause different than the disability for which the member is receiving service-connected disability benefits, the surviving spouse receives a lump sum payment of 50 percent of Final Average Salary. Additionally, a pension benefit of one-half the member's benefit is payable to either the spouse or to the dependent children.

Tier I: Non-Service-connected disability – An annual benefit of 2.5 percent times years of credited service times Final Average Salary with a minimum of 25 percent of FAS and a maximum of 90 percent of FAS.

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

DEATH BENEFITS (TIER I AND TIER II)

Active Member Service Connected Death – There is no age or service requirement. An annual benefit equal to the greater of the accrued retirement benefit under the 100 percent joint and survivor option and 50 percent of Final Average Salary is payable to the spouse, plus 10 percent of Final Average Salary for each dependent child under age 18 (or up to age 23 for full-time students), to a maximum of 90 percent of Final Average Salary Active Member.

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

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

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

CLASSIFICATIONS

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

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

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

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

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

MEMBER CONTRIBUTIONS

Member contributions are 7.15 percent of compensation, effective July 1, 2013.

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

EMPLOYER CONTRIBUTIONS

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

Deferred Retirement Option Program (DROP) for Kansas Highway Patrol (KHP)

Upon attaining normal retirement age, members of the KHP have the option of participating in the DROP plan for a minimum of three years and no more than five years. This is a one-time, irrevocable election. After electing to participate, a member's monthly retirement benefit is deposited into the member's DROP account for the duration of the DROP period. The DROP account accrues interest on an annual basis, equalling either 0.0 percent or 3.0 percent. Employer and employee contributions continue to be made to the System, but the member does not earn any additional service credit after the effective date of the DROP election. At the end of the DROP period, a member is entitled to a distribution from the DROP account.

KANSAS JUDGES RETIREMENT SYSTEM

NORMAL RETIREMENT

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

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

EARLY RETIREMENT

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

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

VESTING REQUIREMENTS

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

Benefit – Normal benefit accrued at termination is payable at age 62 or in reduced amount at age 55, provided the member has 10 years of credited service. Otherwise, benefits are not payable until age 65.

OTHER BENEFITS

Disability Benefits – These benefits are payable if a member is defined as totally and permanently disabled as certified by the Supreme Court. The disability benefit, payable until age 65, is 3.5 percent of Final Average Salary for each year of service (minimum of 50 percent and maximum of 70 percent of Final Average Salary). Benefits are recalculated when the member reaches retirement age based on participating service credit for the period of disability. If a judge is disabled for at least five years immediately preceding retirement, the judge's Final Average Salary is adjusted.

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

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

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

MEMBER CONTRIBUTIONS

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

EMPLOYER CONTRIBUTIONS

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

ASSUMPTIONS AND METHODS – KPERS

Rate of Investment Return 7.75 percent

Price Inflation 2.75 percent

Payroll Growth: 3.00 percent

KPERS 3 Interest Crediting Rate, Including Dividends 6.25 percent per annum

Administrative Expenses: 0.16 percent of covered payroll

Rates of Mortality: Post-retirement

The RP-2014 Healthy Annuitant table was first adjusted by an age setback or set forward. Rates were further adjusted to fit actual experience. Rates are projected into the future using Scale MP-2016.

Starting Table

School Males:	RP-2014 M White Collar Healthy	+0
School Females:	RP-2014 F White Collar Healthy	+0
State Males:	RP-2014 M Healthy	+2
State Females:	RP-2014 F Healthy	+1
Local Males:	RP-2014 M Healthy	+2
Local Females:	RP-2014 F Healthy	+1

Sample Rates (2014)

	School		State		Local	
Age	Male	Female	Male	Female	Male	Female
50	0.310%	0.172%	0.462%	0.332%	0.532%	0.276%
55	0.438%	0.225%	0.635%	0.397%	0.732%	0.367%
60	0.585%	0.323%	0.868%	0.582%	1.001%	0.536%
65	0.849%	0.544%	1.267%	0.909%	1.461%	0.838%
70	1.389%	0.876%	1.974%	1.460%	2.276%	1.346%
75	2.383%	1.459%	3.208%	2.381%	3.699%	2.196%
80	4.520%	3.192%	5.255%	4.249%	6.163%	3.939%
85	8.618%	6.444%	9.025%	7.662%	10.674%	7.119%
90	15.900%	11.824%	15.570%	13.531%	18.416%	12.573%
95	26.671%	20.501%	23.721%	22.137%	28.057%	20.570%
100	39.563%	31.961%	32.978%	32.888%	39.006%	30.559%

Pre-retirement

School Males:	80 % of RP-2014 M White Collar	+0
School Females:	80% of RP-2014 F White Collar	+0
State Males:	90% of RP-2014 M Total Dataset	+2
State Females:	90% of RP-2014 F Total Dataset	+1
Local Males:	90% of RP-2014 M Total Dataset	+2
Local Females:	90% of RP-2014 F Total Dataset	+1

Disabled Life Mortality RP-2014 Disabled Life Table with same age adjustments as used for pre-retirement mortality tables.

Rates of Salary Increase

Years of	Rate of Increase*		
Service	School	State	Local
1	11.50%	10.00%	10.00%
5	6.05%	5.10%	5.70%
10	4.60%	4.40%	4.70%
15	4.10%	3.90%	4.30%
20	3.60%	3.60%	4.10%
25	3.50%	3.50%	3.60%
30	3.50%	3.50%	3.50%

**Includes general wage increase assumption of 3.50 percent (composed of 2.75 percent inflation and 0.75 percent productivity)*

Load for Pre-1993 Hires

State: 2.2 percent,
School: 0.5 percent,
Local: 2.0 percent,
KPF: 7.0 percent
C55/C60: 2.2 percent

Rates of Termination

	School		State		Local	
Duration	Male	Female	Male	Female	Male	Female
0	21.00%	23.00%	21.00%	21.00%	21.00%	24.00%
1	18.00%	18.00%	18.00%	18.00%	17.00%	21.00%
2	14.50%	14.50%	15.25%	15.25%	14.25%	18.00%
3	11.00%	11.00%	13.50%	12.75%	12.50%	14.75%
4	8.50%	9.00%	12.00%	10.75%	11.00%	12.75%
5	7.00%	7.75%	10.75%	9.75%	9.75%	11.00%
6	6.25%	7.00%	9.50%	8.75%	8.75%	10.00%
7	5.75%	6.25%	8.50%	7.75%	7.75%	9.00%
8	5.25%	5.50%	7.50%	7.00%	6.50%	8.00%
9	4.75%	5.00%	6.50%	6.25%	5.75%	7.00%
10	4.25%	4.50%	5.50%	5.50%	5.25%	6.25%
11	4.00%	4.00%	5.00%	5.00%	4.75%	5.50%
12	3.75%	3.50%	4.50%	4.50%	4.50%	5.00%
13	3.50%	3.25%	4.25%	4.25%	4.25%	4.75%
14	3.25%	3.00%	4.00%	4.00%	4.00%	4.50%
15	3.00%	2.75%	3.80%	3.80%	3.80%	4.25%
16	2.75%	2.50%	3.60%	3.60%	3.60%	4.00%
17	2.50%	2.25%	3.40%	3.40%	3.40%	3.80%
18	2.25%	2.00%	3.20%	3.20%	3.20%	3.60%
19	2.00%	1.75%	3.00%	3.00%	3.00%	3.40%
20	1.75%	1.50%	2.80%	2.80%	2.80%	3.20%
21	1.50%	1.40%	2.60%	2.60%	2.60%	3.00%
22	1.40%	1.30%	2.40%	2.40%	2.40%	2.75%
23	1.30%	1.20%	2.20%	2.20%	2.20%	2.50%
24	1.20%	1.00%	2.00%	2.00%	2.00%	2.25%
25	1.00%	1.10%	1.80%	1.80%	1.80%	2.00%
26	1.10%	1.00%	1.60%	1.60%	1.60%	1.75%
27	1.00%	0.75%	1.40%	1.40%	1.40%	1.50%
28	0.75%	0.50%	1.20%	1.20%	1.20%	1.25%
29	0.50%	0.50%	1.00%	1.00%	1.00%	1.00%
30	0.50%	0.50%	0.80%	0.80%	0.80%	0.80%
30+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Retirement Rates

School

	Rule of 85					
	1st Year	After 1st Year	Early Retirement		Normal Retirement	
Age	With 85 Points	With 85 Points	Age	Rate	Age	Rate
53	20%	15%	55	3%	62	25%
55	20%	15%	56	3%	63	25%
57	24%	15%	57	3%	64	30%
59	28%	22%	58	5%	65	35%
61	25%	25%	59	10%	66-74	30%
			60	12%	75	100%
			61	16%		

State

	Rule of 85					
	1st Year	After 1st Year	Early Retirement		Normal Retirement	
Age	With 85 Points	With 85 Points	Age	Rate	Age	Rate
53	16%	12%	55	4%	62	20%
55	16%	12%	56	4%	63	20%
57	16%	10%	57	4%	64	20%
59	16%	10%	58	6%	65	35%
61	25%	20%	59	6%	66-74	27%
			60	8%	75	100%
			61	15%		

Local

	Rule of 85					
	1st Year	After 1st Year	Early Retirement		Normal Retirement	
Age	With 85 Points	With 85 Points	Age	Rate	Age	Rate
53	15%	7%	55	3%	62	22%
55	15%	10%	56	3%	63	22%
57	15%	10%	57	3%	64	22%
59	15%	12%	58	3%	65	35%
61	25%	20%	59	6%	66-69	27%
			60	6%	70-74	25%
			61	15%	75	100%

• Inactive vested members – Earliest unreduced retirement age.

• For correctional employees with an age 55 normal retirement date -

Age	Rate
55	10%
58	10%
60	15%
62	20%
65	100%

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

Age	Rate
60	20%
61	20%
62	35%
63	20%
64	20%
65	60%
66	60%
67	60%
68	100%

• For TIAA employees – Age 66.

Rates of Disability

Age	School	State	Local
25	.020%	.023%	.022%
30	.022%	.065%	.047%
35	.027%	.103%	.070%
40	.046%	.200%	.103%
45	.088%	.300%	.180%
50	.145%	.400%	.260%
55	.195%	.500%	.310%
60	.280%	.550%	.380%

Indexation of Final Average Salary for Disabled Members: 1.75 percent per year

Probability of Vested Members Leaving Contributions With System

KPERS 1:

Age	School	State	Local
25	80%	65%	60%
30	80%	65%	70%
35	80%	65%	70%
40	80%	65%	70%
45	82%	75%	70%
50	87%	85%	74%
55	100%	100%	100%

KPERS 2: Members are assumed to elect to take a refund if it is more valuable than the deferred annuity. The comparison is based on 7.75 percent interest and a 50 percent Male/50 percent Female blend of the RP-2014 Mortality Table, projected to 2045 (static).

KPERS 3: 100 percent of vested members are assumed to leave their contributions with the System.

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

Partial Lump Sum Option (PLSO): 40 percent of KPERS 1 and KPERS 2 members are assumed to take a PLSO equal to 30 percent of the value of their benefit upon retirement. 100 percent of KPERS 3 members are assumed to take a PLSO equal to 30 percent of the value of their benefit upon retirement.

ASSUMPTIONS AND METHODS—KP&F

Rate of Investment Return 7.75 percent

Price Inflation 2.75 percent

Payroll Growth: 3.00 percent

Administrative Expenses: 0.16 percent of covered payroll

Rates of Mortality: Mortality rates are projected into the future using Scale MP-2016

Post-retirement RP-2014 Total Dataset Table, set forward one year

Pre-retirement 90 percent of the RP-2014 Total Dataset Table, set forward one year*

**70 percent of preretirement deaths assumed to be service related.*

Disabled Life Mortality RP-2014 Disabled Life Table, set forward one year

Rates of Salary Increase

Years of Service	Rate of Increase*
1	12.0%
5	6.5%
10	4.4%
15	3.8%
20	3.5%
25	3.5%

**Includes general wage increase assumption of 3.50 percent (composed of 2.75 percent inflation and 0.75 percent productivity)*

Rates of Termination

Years of Service	Rate
1	11.0%
5	6.0%
10	2.8%
15	1.8%
20	1.1%
25	0.0%

Retirement Rates

Tier 1:

Early Retirement		Normal Retirement	
Age	Rate	Age	Rate
50	5%	55	30%
51	7%	56	30%
52	7%	57	30%
53	15%	58	30%
54	30%	59	30%
		60	30%
		61	30%
		62	100%

Tier 2:

Early Retirement Age	Early Retirement Rate	Normal Retirement Age	Normal Retirement Rate
50	10%	50	25%
51	10%	51	25%
52	10%	52	25%
53	10%	53	25%
54	20%	54	25%
		55	25%
		56	35%
		57	35%
		58	20%
		59	30%
		60	25%
		61	25%
		62	30%
		63	30%
		64	30%
		65	100%

Inactive Vested: Earliest unreduced retirement age.

Rates of Disability

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

**90 percent assumed to be service-connected under KP & F Tier 1.*

Marriage Assumption: 80 percent of all members assumed married with male spouse assumed to be three years older than female. When an active member dies, they have no child beneficiaries.

DROP Election 75 percent of Kansas Highway Patrol members are assumed to enter DROP for the maximum DROP period.

ASSUMPTIONS AND METHODS—JUDGES

Rate of Investment Return 7.75 percent

Price Inflation 2.75 percent

Administrative Expenses: 0.16 percent of covered payroll

Rates of Mortality: Mortality rates are projected into the future using Scale MP-2016.

Post-retirement RP-2014 Total Dataset Table, set back two years

Pre-retirement 80 percent of RP-2014 Total Dataset Table, set back two years

Rates of Salary Increase 4.00 percent

Rates of Termination None assumed

Disabled Life Mortality	RP-2014 Disabled Retiree Table, set back two years	
Rates of Disability	None assumed	
Retirement Rates	Age	Rate
	62	20%
	63-64	10%
	65-66	25%
	67-69	10%
	70+	100%
Marriage Assumption:	70 percent of all members are assumed married with male spouse assumed 3 years old than female.	

TECHNICAL VALUATION PROCEDURES

DATA PROCEDURES

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

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

Not in-pay members: If a birth date is not available, it is assigned according to the following schedule:

System	Active member age at hire	Inactive member age at valuation
KPERS	34.7	50
KPF	27.5	49
Judges	43.4	54

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

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

System	Salary
KPERS	$24,700
KPF	$36,100
Judges	$79,100

Salaries for first year members are annualized.

OTHER VALUATION PROCEDURES

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

Benefits above the projected IRC Section 415 limit for active participants are assumed to be immaterial for the valuation. The compensation limitation under IRC Section 401(a) (17) is considered in this valuation. On a projected basis, the impact of this limitation is insignificant.

Salary increases are assumed to apply to annual amounts.

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

KPERS 3 employees who transfer employment to a non-KPERS covered position are treated as actives who are not accruing benefits.

ACTUARIAL METHODS

1. Funding Method

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

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

For valuations beginning with December 31, 2016, and following, the unfunded actuarial liability is amortized using a "layered" approach. The unfunded actuarial liability in the December 31, 2015, valuation, which was projected to June 30, 2018, for the State/School and Judges groups and to December 31, 2017, for the Local and KP&F groups, serves as the initial or "legacy" amortization base and continues to be amortized over the original period, set at 40 years beginning July 1, 1993, (16 years in the December 31, 2016, valuation). The change in the unfunded actuarial liability in the December 31, 2016, valuation as a result of the assumption changes, which is projected to June 30, 2019, for State/School and Judges and to December 31, 2018, for Local and KP&F, is amortized over a closed 25-year period, and changes in the unfunded actuarial liability that result from actuarial experience are amortized over a closed 20-year period beginning with the fiscal year in which the contribution rates will apply.

The UAL is amortized as a level percentage of payroll for all groups except Judges, who use a level dollar payment. The payroll growth assumption is 3 percent so the annual amortization payments will increase 3 percent each year. As a result, if total payroll grows 3 percent per year, as assumed, the amortization payment will remain level as a percentage of total current payroll.

2. Asset Valuation Method

For actuarial purposes, assets are valued using an asset smoothing method. The difference between the actual return and the expected return (based on the actuarial assumed net rate of return) on the market value of assets is calculated each year and recognized equally over a five-year period.

SCHEDULE OF FUNDING PROGRESS

Last Ten Years as of December 31 (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 Percentage of Covered Payroll ((b - a)/c)
12/31/08	$11,827,619	$20,106,787	$8,279,168	59%	$6,226,526	133%
12/31/09	13,461,221	21,138,206	7,676,985	64	6,532,496	118
12/31/10	13,589,658	21,853,783	8,264,125	62	6,494,048	127
12/31/11	13,379,020	22,607,170	9,228,150	59	6,401,462	144
12/31/12	13,278,490	23,531,423	10,252,933	56	6,498,962	158
12/31/13	14,562,765	24,328,670	9,765,906	60	6,509,809	150
12/31/14	15,662,010	25,130,467	9,468,457	62	6,560,105	144
12/31/15	17,408,577	25,947,781	8,539,203	67	6,603,613	129
12/31/16	18,256,373	27,317,754	9,061,381	67	6,650,451	136
12/31/17	19,246,613	28,153,827	8,907,214	68	6,744,301	132

SHORT TERM SOLVENCY TEST

Last Ten Years as of December 31

Valuation Date	Member Contributions (A)	Retirants and Beneficiaries (B)	Active Member Employer Financed Portion (C)	Actuarial Value of Assets	Portions of Accrued Liabilities Covered by Assets		
					(A)	(B)	(C)
12/31/08	$4,642,675,652	$7,945,452,582	$7,518,658,666	$11,827,618,574	100%	90%	—%
12/31/09	5,132,772,778	8,459,191,163	7,546,242,173	13,461,220,705	100	99	—
12/31/10	5,017,361,438	9,090,575,924	7,745,845,940	13,589,658,118	100	96	—
12/31/11	5,334,463,714	9,923,555,011	7,349,151,307	13,379,020,161	100	81	—
12/31/12	5,448,296,911	10,585,891,383	7,497,235,156	13,278,490,294	100	74	—
12/31/13	5,636,937,795	11,298,180,557	7,393,551,786	14,562,764,625	100	79	—
12/31/14	5,791,313,287	12,361,327,805	6,977,825,595	15,662,009,783	100	80	—
12/31/15	5,942,762,790	13,095,276,871	6,909,740,897	17,408,577,508	100	88	—
12/31/16	6,008,633,568	14,095,278,126	7,213,842,679	18,256,373,273	100	87	—
12/31/17	6,008,405,879	14,751,711,502	7,393,709,608	19,246,613,272	100	90	—

SCHEDULE OF ACTIVE MEMBER VALUATION DATA[1]

Last Ten Years as of December 31

Valuation Date	Number of Active Members[(2)]	Percentage Change in Membership	Number of Participating Employers	Percentage Increase in Number of Participating Employers	Total Annual Payroll (in millions)[(2)]	Average Payroll	Percentage Increase in Average Payroll
12/31/08	156,073	1.5%	1,492	0.6%	$6,227	$39,113	3.1%
12/31/09	160,831	3.0	1,499	0.5	6,532	39,821	1.8
12/31/10	157,919	(1.8)	1,511	0.8	6,494	41,123	3.2
12/31/11	155,054	(1.9)	1,504	(0.5)	6,401	41,285	0.4
12/31/12	156,053	0.6	1,506	0.1	6,499	41,646	0.9
12/31/13	155,446	(0.4)	1,508	0.1	6,510	41,878	0.6
12/31/14	154,203	(0.8)	1,518	0.7	6,560	42,542	1.6
12/31/15	152,175	(1.3)	1,517	(0.1)	6,604	43,395	2.0
12/31/16	152,119	(0.04)	1,515	(0.1)	6,650	43,719	0.8
12/31/17	151,687	(0.3)	1,523	0.5	6,744	44,462	1.7

1) Data provided to actuary reflects active membership information as of January 1.
2) Excludes TIAA salaries.

MEMBERSHIP PROFILE

Last Ten Years as of December 31

Valuation Date	Active	Inactive	Retirees & Beneficiaries	Total Membership
12/31/08	156,073	41,749	70,724	268,546
12/31/09	160,831	43,324	73,339	277,494
12/31/10	157,919	44,231	76,744	278,894
12/31/11	155,054	45,678	81,025	281,757
12/31/12	156,053	45,969	84,318	286,340
12/31/13	155,446	47,484	87,670	290,600
12/31/14	154,203	50,255	90,907	295,365
12/31/15	152,175	53,159	94,333	299,667
12/31/16	152,119	55,755	97,547	305,421
12/31/17	151,687	59,966	100,575	312,228

RETIRANTS, BENEFICIARIES - CHANGES IN ROLLS – ALL SYSTEMS

Last Ten Fiscal Years

Year	Number at Beginning of Year	Additions: Number Added	Additions: Annual Allowances	Deletions: Number Removed	Deletions: Annual Allowances	Number at End of Year	% Change in Number of Retirants	% Change in Additions Allowances	Average Annual Allowance	Year-End Annual Allowances
6/30/09	68,743	5,330	$81,815,349	2,467	$20,966,802	71,606	4.20%	12.00%	$13,964	$999,939,615
6/30/10	71,606	5,593	88,709,733	2,332	20,528,013	74,867	4.60	8.40	14,182	1,060,205,818
6/30/11	74,867	6,245	99,091,348	2,698	23,230,288	78,414	4.70	11.70	14,630	1,147,209,272
6/30/12	78,414	6,941	112,628,928	2,644	23,775,195	82,711	5.50	13.70	14,962	1,237,559,898
6/30/13	82,711	6,071	97,203,958	2,707	24,577,721	86,075	4.10	(15.90)	14,975	1,288,986,517
6/30/14	86,075	6,022	99,401,460	2,793	26,057,706	89,304	3.80	2.50	15,298	1,366,173,782
6/30/15	89,304	6,419	108,490,198	2,981	29,617,203	92,742	3.80	9.10	15,634	1,449,898,078
6/30/16	92,742	6,494	110,741,918	3,055	30,319,950	96,150	3.70	2.10	16,104	1,548,362,854
6/30/17	96,150	6,252	108,364,288	3,203	32,500,089	99,199	3.20	3.70	16,179	1,604,984,334
6/30/18	99,199	6,164	108,928,173	4,788	36,466,045	100,575	1.42	3.20	16,700	1,679,587,567

SUMMARY OF MEMBERSHIP DATA

Retiree and Beneficiary Member Valuation Data[1]	12/31/17	12/31/16
KPERS		
Number	94,130	91,270
Average Benefit	$14,457	$14,190
Average Age	72.41	72.27
Police & Fire		
Number	5,398	5,232
Average Benefit	$33,340	$32,517
Average Age	65.66	65.35
Judges		
Number	279	272
Average Benefit	$41,964	$41,442
Average Age	75.11	74.97
System Total		
Number	99,807	96,774
Average Benefit	$15,555	$15,257
Average Age	72.05	71.90

Active Member Valuation Data[1]	12/31/17	12/31/16
KPERS		
Number	143,947	144,564
Average Current Age	45.34	45.37
Average Service	11.11	11.18
Average Pay	$43,128	$42,460
Police & Fire		
Number	7,481	7,303
Tier I	111	149
Tier II	7,370	7,154
Average Current Age	39.06	39.34
Average Service	11.33	11.58
Average Pay	$67,875	$66,441
Judges		
Number	259	252
Average Current Age	58.03	58.14
Average Service	11.42	11.59
Average Pay	$109,391	$107,633
System Total		
Number	151,687	152,119
Average Current Age	45.05	45.10
Average Service	11.12	11.20
Average Pay	$44,462	$43,719

1) Data provided to actuary reflects membership information as of January 1.

SCHEDULE OF EMPLOYER CONTRIBUTION RATES

Last Ten Fiscal Years[1]

KPERS State/School[2]		
Fiscal Year	Actuarial Rate	Actual Rate
2009	10.86%	6.97%
2010	10.98	7.57
2011	11.30	8.17
2012	14.09	8.77
2013	13.46	9.37
2014	13.83	10.27
2015[2]	14.34	11.27/8.65
2016	14.95	10.91
2017	14.85	10.81
2018	14.89	12.01

KPERS Local		
Fiscal Year	Actuarial Rate	Actual Rate
2009	8.12%	5.54%
2010	8.52	6.14
2011	10.42	6.74
2012	9.44	7.34
2013	9.43	7.94
2014	9.77	8.84
2015(2)	9.48	9.48
2016	9.18	9.18
2017	8.46	8.46
2018	8.39	8.39

KP&F Uniform Rate		
Fiscal Year	Actuarial Rate	Actual Rate
2009	13.51%	13.51%
2010	12.86	12.86
2011	17.88	14.57
2012	16.54	16.54
2013	17.26	17.26
2014	19.92	19.92
2015	21.36	21.36
2016	20.42	20.42
2017	19.03	19.03
2018	20.09	20.09

Judges		
Fiscal Year	Actuarial Rate	Actual Rate
2009	22.08%	22.08%
2010	20.50	20.50
2011	19.49	19.49
2012	21.28	21.28
2013	23.75	23.75
2014	23.62	23.62
2015	22.59	22.59
2016	23.98	23.98
2017	21.36	21.36
2018	15.89	15.89

1) Rates shown for KPERS State/School and Judges represent the rates for the fiscal years ending June 30. KPERS Local and KP&F rates are reported for the calendar year. Rates have been restated to exclude Group Life and Disability insurance premiums.

2) Due to budget constraints, the Governor used the allotment procedure and reduced the State/School KPERS employer combined contribution rate to 8.65% for the second half of the 2015 fiscal year.

STATISTICAL SECTION

STATISTICAL HIGHLIGHTS OF THE SYSTEM'S FINANCIAL TRENDS

The Statistical Section presents several schedules that provide financial trend analysis of the Retirement System's overall financial health and additional analytical information on employees' membership data and retirement benefits. The schedules beginning on this page through page 120 provide revenues, expenses and funding status information for the past ten years for the pension plan. On page 121, a schedule shows the total benefits and type of refunds that were paid.

On pages 122 through 125, various schedules are presented to depict the level of monthly benefits by number of retirees, retirement type and options and years of service. On pages 126 through 128, information is provided showing the top ten participating employers determined by number of covered active employees. The source of the information in these schedules is derived from the comprehensive annual financial reports, unless otherwise indicated.

REVENUES BY SOURCE

Last Ten Fiscal Years

Fiscal Year	Contributions Member	Contributions Employer	Miscellaneous	Net Investment Income	Total
2009	$ 271,600,651	$ 449,235,653	$ 154,113	$ (2,592,555,321)	$ (1,871,564,904)
2010	282,505,891	492,005,566	101,899	1,485,935,124	2,260,548,480
2011	287,600,902	525,726,734	190,770	2,499,472,278	3,312,990,684
2012	291,894,311	568,015,364	129,622	89,045,782	949,085,079
2013	300,471,480	617,925,370	537,741	1,747,230,627	2,666,165,218
2014	332,163,439	701,818,160	241,743	2,553,842,632	3,588,065,974
2015	382,057,886	690,564,482	1,076,946	561,194,353	1,634,893,667
2016[1]	404,856,265	1,739,183,965	2,906,188	49,169,897	2,196,116,315
2017	414,537,657	761,610,061	1,071,115	2,060,925,477	3,238,144,310
2018	420,284,941	887,734,800	5,733,655	1,516,929,281	2,830,682,677

1) The State of Kansas issued $1 billion in pension obligation bonds, Series 2015H, in August 2015.

BENEFITS BY TYPE

Last Ten Fiscal Years

Fiscal Year	Monthly Retirement Benefits	Retirement Dividend	Death Benefits	Refund of Contributions Separations	Refund of Contributions Deaths
2009	$ 995,530,221	$ 4,409,393	$ 9,237,740	$ 38,156,001	$ 5,773,422
2010	1,056,190,915	4,014,903	8,959,388	37,214,954	6,147,736
2011	1,143,594,256	3,615,016	9,614,688	43,579,892	5,984,123
2012	1,234,350,781	3,209,118	9,414,234	49,665,542	6,231,284
2013	1,286,133,859	2,852,658	9,458,321	48,265,870	5,633,961
2014	1,363,636,798	2,536,984	9,702,485	49,947,483	7,023,286
2015	1,447,659,817	2,238,261	10,019,588	57,187,901	7,274,097
2016	1,546,424,413	1,938,441	10,545,850	62,141,534	5,981,201
2017	1,603,302,922	1,681,412	11,210,914	63,915,235	6,565,825
2018	1,678,136,889	1,450,678	11,299,715	58,339,135	6,627,827

1) Schedule restated to remove Optional Group Life Insurance and Death and Disability Group Insurance.

EXPENSES BY TYPE

Last Ten Fiscal Years

Fiscal Year	Benefits	Refund of Contributions Separations	Refund of Contributions Death	Administration (Retirement)	Uncollectable Pension Contributions [1]	Total
2009	$ 1,009,177,354	$ 38,156,001	$ 5,773,422	$ 11,085,498	$ —	$ 1,064,192,275
2010	1,069,165,206	37,214,954	6,147,736	10,158,398	—	1,122,686,294
2011	1,156,823,960	43,579,892	5,984,123	9,261,260	—	1,215,649,235
2012	1,246,974,132	49,665,542	6,231,284	9,620,933	—	1,312,491,891
2013	1,298,444,838	48,265,870	5,633,961	10,426,813	—	1,362,771,482
2014	1,375,876,267	49,947,483	7,023,286	9,703,808	—	1,442,550,844
2015	1,459,917,666	57,187,901	7,274,097	10,789,271	—	1,535,168,935
2016	1,558,908,704	62,141,534	5,981,201	12,171,633	—	1,639,203,072
2017	1,616,195,248	63,915,235	6,565,825	11,116,172	98,943,780	1,796,736,260
2018	1,690,887,282	58,339,135	6,627,827	12,459,619	—	1,768,313,863

1) In the 2017 Legislative session, Sub for HB 2052 eliminated the repayment of delayed FY 2016 contributions. The receivable was written off in FY 2017.

CHANGES IN NET POSITION

Last Ten Fiscal Years

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Additions										
Contributions										
Member Contributions	$ 420,284,941	$ 414,537,657	$ 404,856,265	$ 382,057,886	$ 332,163,439	$ 300,501,667	$ 291,901,525	$ 287,600,902	$ 282,505,891	$ 271,600,651
Employer Contributions	887,734,800	761,610,061	1,739,183,965	690,564,482	701,818,160	617,925,370	568,015,364	525,726,734	492,005,566	449,235,653
Total Contributions	1,308,019,741	1,176,147,718	2,144,040,230	1,072,622,368	1,033,981,599	918,427,037	859,916,889	813,327,636	774,511,457	720,836,304
Investments										
Net Appreciation in Fair Value of Investments	1,145,750,895	1,708,585,923	(267,355,951)	263,094,676	2,267,287,461	1,490,141,704	(132,729,256)	2,211,302,374	1,221,425,633	(2,824,249,931)
Interest	143,874,114	125,024,597	137,732,569	132,688,575	104,382,643	100,530,311	103,584,321	158,120,734	160,050,212	152,897,354
Dividends	219,737,718	196,065,374	160,160,990	140,607,740	165,226,153	153,201,135	110,902,858	123,098,602	105,808,081	91,464,527
Real Estate Income, Net of Operating Expenses	94,853,455	91,728,610	79,977,708	75,353,304	62,989,928	39,973,754	44,259,544	48,997,734	37,551,411	31,062,438
Other Investment Income	14,706,420	13,394,069	9,562,040	10,573,421	—	—	436,311	388,174	216,499	264,000
	1,618,922,602	2,134,798,573	120,077,356	622,317,716	2,599,886,185	1,783,846,904	126,453,778	2,541,907,618	1,525,051,836	(2,548,561,612)
Less Investment Expense	(101,993,321)	(73,873,096)	(70,907,459)	(65,240,875)	(51,653,134)	(42,584,786)	(42,225,663)	(47,586,288)	(43,748,173)	(23,376,342)
Net Investment Income	1,516,929,281	2,060,925,477	49,169,897	557,076,841	2,548,233,051	1,741,262,118	84,228,115	2,494,321,330	1,481,303,663	(2,571,937,954)
From Securities Lending Activities										
Securities Lending Income	—	—	—	3,932,462	5,255,071	4,827,054	4,353,102	5,431,118	5,372,538	(8,838,220)
Securities Lending Expenses										
Borrower Rebates	—	—	—	648,826	1,501,910	2,450,894	1,769,773	739,912	(48,804)	(10,469,638)
Management Fees	—	—	—	(463,776)	(1,147,400)	(1,309,439)	(1,305,208)	(1,020,082)	(692,273)	(1,309,509)
Total Securities Lending Activities Expense	—	—	—	185,050	354,510	1,141,455	464,565	(280,170)	(741,077)	(11,779,147)
Net Income from Security Lending Activities	—	—	—	4,117,512	5,609,581	5,968,509	4,817,667	5,150,948	4,631,461	(20,617,367)
Total Net Investment Income	1,516,929,281	2,060,925,477	49,169,897	561,194,353	2,553,842,632	1,747,230,627	89,045,782	2,499,472,278	1,485,935,124	(2,592,555,321)
Other Miscellaneous Income	5,733,655	1,071,115	2,904,581	1,076,391	241,438	533,842	127,412	170,862	67,266	110,178
Total Additions (Net Reductions) to Plan Net Position	2,830,682,677	3,238,144,310	2,196,114,708	1,634,893,112	3,588,065,668	2,666,191,505	949,090,083	3,312,970,776	2,260,513,847	(1,871,608,839)
Deductions										
Monthly Retirement Benefits	(1,679,587,567)	(1,604,984,334)	(1,548,362,854)	(1,449,898,078)	(1,366,173,782)	(1,288,986,517)	(1,237,559,898)	(1,147,209,272)	(1,060,205,818)	(999,939,614)
Refunds of Contributions	(64,966,962)	(70,481,060)	(68,122,735)	(64,461,998)	(56,970,769)	(53,899,831)	(55,896,826)	(49,564,015)	(43,362,690)	(43,929,423)
Death Benefits	(11,299,715)	(11,210,914)	(10,545,850)	(10,019,588)	(9,702,485)	(9,458,321)	(9,414,234)	(9,614,688)	(8,959,388)	(9,237,740)
Administrative Expenses	(12,459,619)	(11,116,172)	(12,171,633)	(10,789,271)	(9,634,863)	(10,426,813)	(9,620,933)	(9,261,260)	(10,158,398)	(11,085,498)
Uncollectable Pension Contributions	—	(98,943,780)	—	—	—	—	—	—	—	—
Total Deductions to Plan Net Position	(1,768,313,863)	(1,796,736,260)	(1,639,203,072)	(1,535,168,935)	(1,442,481,899)	(1,362,771,482)	(1,312,491,891)	(1,215,649,235)	(1,122,686,295)	(1,064,192,275)
Change in Net Position	$ 1,062,368,814	$ 1,441,408,050	$ 556,911,636	$ 99,724,177	$ 2,145,583,769	$ 1,303,420,023	$ (363,401,808)	$ 2,097,321,542	$ 1,137,827,553	$ (2,935,801,114)

BENEFIT AND REFUND DEDUCTIONS FROM NET POSITION BY TYPE

Last Ten Fiscal Years

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Type of Benefit										
Age and Service Benefits:										
Retirees	$ 1,602,718,657	$ 1,531,384,982	$ 1,478,101,413	$ 1,383,140,272	$1,302,838,465	$1,228,537,001	$1,180,214,270	$1,092,518,456	$1,008,271,726	$ 950,746,107
Survivors	76,868,910	73,599,352	70,261,441	66,757,806	63,335,317	60,449,516	57,345,628	54,690,816	51,934,092	49,193,507
Death in Service Benefits	11,299,715	11,210,914	10,545,850	10,019,588	9,702,485	9,458,321	9,414,234	9,614,688	8,959,388	9,237,740
Total Benefits	$ 1,690,887,282	$ 1,616,195,248	$ 1,558,908,704	$ 1,459,917,666	$ 1,375,876,267	$1,298,444,838	$ 1,246,974,132	$ 1,156,823,960	$1,069,165,206	$1,009,177,354
Type of Refund										
Death	$ 6,627,827	$ 6,643,401	$ 5,981,201	$ 7,274,097	$ 7,023,286	$ 5,633,961	$ 6,231,284	$ 5,984,123	$ 6,147,736	$ 5,773,422
Separation	58,339,135	63,837,659	62,141,534	57,187,901	49,947,483	48,265,870	49,665,542	43,579,892	37,214,954	38,156,001
Total Refunds	$ 64,966,962	$ 70,481,060	$ 68,122,735	$ 64,461,998	$ 56,970,769	$ 53,899,831	$ 55,896,826	$ 49,564,015	$ 43,362,690	$ 43,929,423

HIGHLIGHT OF OPERATIONS

Last Ten Fiscal Years

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Membership Composition										
Number of Retirants	92,101	89,284	87,103	83,911	80,900	77,727	74,665	70,349	67,219	64,803
Number of Survivors[1]	7,706	7,490	7,230	6,996	6,770	6,591	6,360	6,149	5,945	5,764
New Retirants During the Fiscal Year	5,534	4,277	6,494	6,419	6,022	6,071	6,941	6,245	5,188	4,893
Active and Inactive Members[2]	211,653	207,874	205,334	204,458	202,930	202,022	200,732	202,150	204,155	197,822
Participating Employers	1,523	1,515	1,517	1,518	1,508	1,506	1,504	1,511	1,499	1,492
Financial Results (in millions)										
Member Contributions	$420	$415	$405	$382	$332	$301	$292	$289	$282	$272
Employer Contributions[3]	888	762	1,739	691	702	617	568	575	492	449
Retirement / Death Benefits	1,691	1,616	1,559	1,460	1,376	1,298	1,247	1,157	1,069	1,009
Investment Income	1,517	2,061	49	561	2,554	1,747	89	2,499	1,486	(2,592)
Employer Contribution Rate										
KPERS--State/School	12.01%	10.81%	10.91%	11.27% / 8.65%	10.27%	9.37%	8.77%	8.17%	7.57%	6.97%
KPERS--Local[4]	8.39	8.46	9.18	9.48	8.84	7.94	7.34	6.74	6.14	5.54
KP&F (Uniform Participating)[4]	20.09	19.03	20.42	21.36	19.92	17.26	16.54	14.57	12.86	13.51
Judges	15.89	21.36	23.98	22.59	23.62	23.75	21.28	19.49	20.50	22.08
Unfunded Actuarial Liability (in millions)										
KPERS--State / School	$6,581	$6,690	$6,276	$7,244	$7,351	$7,658	$6,920	$6,244	$5,805	$6,240
KPERS--Local	1,458	1,515	1,486	1,488	1,590	1,699	1,542	1,395	1,315	1,385
KP&F	860	846	772	726	803	866	739	598	530	619
Judges	8	11	6	11	21	29	27	27	26	36
Funding Ratios[5]										
KPERS--State / School	66.00%	64.50%	65.20%	58.80%	57.00%	53.90%	56.80%	59.90%	61.60%	56.90%
KPERS--Local	72.50	70.30	69.10	67.40	63.70	59.50	61.20	63.20	63.70	59.00
KP&F	74.10	73.40	74.00	74.10	70.30	66.50	69.80	74.20	76.20	70.50
Judges	95.90	93.90	96.40	93.50	86.90	81.40	82.50	82.50	82.30	74.60

1 This is the number of joint annuiants as of December 31st, per the System's records.
2 Membership information taken from System's actuarial valuation.
3 The State of Kansas issued pension obligation bonds, Series 2015H, in August 2015.
4 KPERS Local and KP&F contribution rates are reported on a calendar year basis.
5 The funding percentage indicates the actuarial soundess of the System. Generally, the greater the percentage, the stronger the System.

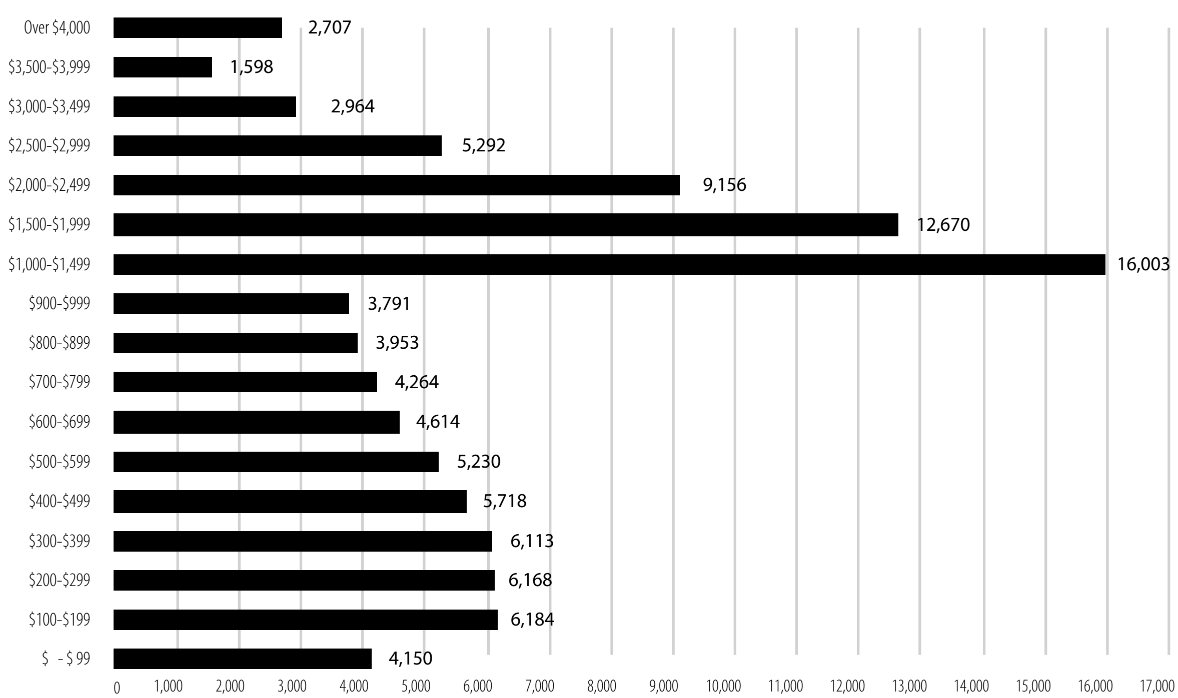
NUMBER OF RETIRED MEMBERS AND SURVIVORS BY TYPE OF BENEFIT

as of December 31, 2017

Monthly Benefit	Number of Retirees	Normal Retirement	Early Retirement	Service-Connected Death or Disability	Nonservice-Connected Death or Disability
$ - 99	4,150	3,756	389	2	3
$100-199	6,184	4,319	1,834	20	11
$200-299	6,168	3,921	2,226	14	7
$300-399	6,113	3,806	2,274	21	12
$400-499	5,718	3,714	1,958	31	15
$500-599	5,230	3,473	1,717	29	11
$600-699	4,614	3,156	1,419	23	16
$700-799	4,264	3,029	1,200	26	9
$800-899	3,953	2,899	1,002	45	7
$900-999	3,791	2,930	811	34	16
$1,000-1,499	16,003	13,630	2,142	169	62
$1,500-1,999	12,670	11,864	595	117	94
$2,000-2,499	9,156	8,877	191	45	43
$2,500-2,999	5,292	5,161	73	22	36
$3,000-3,499	2,964	2,892	44	18	10
$3,500-3,999	1,598	1,557	22	15	4
$4,000 or More	2,707	2,653	43	9	2
Totals	100,575	81,637	17,940	640	358

NUMBER OF RETIRED MEMBERS AND SURVIVORS BY MONTHLY BENEFIT AMOUNT

As of December 31, 2017



NUMBER OF RETIRED MEMBERS AND SURVIVORS BY TYPE OF PAYMENT OPTION

as of December 31, 2017

Monthly Benefit	Maximum No Survivor	Joint 1/2 to Survivor	Joint Same to Survivor	Life Certain w/10 Yrs	Joint 3/4 to Survivor	Widowed Children Survivor	Life Certain w/5 Yrs	Life Certain w/15 Yrs	Lump Sum Acc Contr
$ - 99	3,164	263	491	57	42	3	31	99	0
$100-199	4,358	590	815	109	126	24	35	126	1
$200-299	4,265	634	901	93	133	13	30	99	0
$300-399	4,206	667	855	68	153	29	27	108	0
$400-499	3,879	647	815	101	159	40	21	56	0
$500-599	3,510	657	727	51	171	26	29	59	0
$600-699	3,072	569	676	56	145	32	15	49	0
$700-799	2,824	533	596	45	171	27	19	49	0
$800-899	2,542	599	538	39	158	32	14	31	0
$900-999	2,407	595	517	42	158	30	15	27	0
$1,000-1,499	9,873	2,589	2,172	164	866	178	49	112	0
$1,500-1,999	8,007	2,123	1,500	83	720	151	28	58	0
$2,000-2,499	5,973	1,569	924	57	521	67	21	24	0
$2,500-2,999	3,440	949	489	37	323	34	9	11	0
$3,000-3,499	1,923	518	286	14	194	13	5	11	0
$3,500-3,999	993	283	174	9	120	14	2	3	0
$4,000 or More	1,424	663	370	13	230	0	2	5	0
Totals	65,860	14,448	12,846	1,038	4,390	713	352	927	1

AVERAGE BENEFIT BY YEARS OF SERVICE - FIVE YEAR SUMMARY

New Retirees by Calendar Year

Service Credit		2013	2014	2015	2016	2017
Less Than 5	Retired Members	185	172	211	270	365
	Average FAS*	$29,524.62	$33,225.92	$32,163.67	$30,267.75	$33,846.93
	Average Benefit	$171.29	$213.67	$226.67	$223.01	$283.62
	Average Years	2.92	3.46	3.46	3.33	2.85
5-9.99	Retired Members	517	586	698	731	828
	Average FAS*	$32,086.25	$34,679.01	$33,764.28	$35,021.46	$37,992.46
	Average Benefit	$313.09	$349.62	$372.98	$425.48	$497.32
	Average Years	7.56	7.58	7.77	7.63	7.29
10-14.99	Retired Members	946	929	941	943	832
	Average FAS*	$34,608.84	$37,012.47	$36,877.93	$37,846.67	$39,212.18
	Average Benefit	$506.31	$570.48	$629.08	$634.00	$761.52
	Average Years	12.32	12.41	12.37	12.30	12.43
15-19.99	Retired Members	803	822	899	803	882
	Average FAS*	$40,507.90	$41,291.91	$41,886.24	$42,730.81	$46,143.88
	Average Benefit	$901.19	$901.18	$949.16	$1,052.23	$1,228.16
	Average Years	17.37	17.30	17.33	17.34	17.38
20-24.99	Retired Members	892	930	1,015	1,023	1,084
	Average FAS*	$47,140.00	$44,664.92	$49,276.16	$49,807.58	$53,412.30
	Average Benefit	$1,327.01	$1,311.24	$1,504.25	$1,607.37	$1,856.53
	Average Years	22.39	22.50	22.40	22.42	22.45
25-29.99	Retired Members	967	967	1,048	1,014	928
	Average FAS*	$53,522.25	$54,795.55	$57,442.35	$59,197.60	$61,798.08
	Average Benefit	$1,936.22	$2,007.73	$2,199.23	$2,368.91	$2,546.49
	Average Years	27.25	27.40	27.44	27.40	27.18
30-34.99	Retired Members	807	752	750	601	411
	Average FAS*	$58,014.33	$59,822.27	$62,314.41	$62,791.89	$64,043.08
	Average Benefit	$2,426.52	$2,542.62	$2,698.51	$2,848.18	$3,021.72
	Average Years	32.11	32.15	32.12	32.12	32.18
35-39.99	Retired Members	372	359	313	260	167
	Average FAS*	$62,230.61	$64,093.82	$64,900.76	$62,497.86	$64,763.50
	Average Benefit	$2,856.00	$3,036.30	$3,080.16	$3,030.92	$3,253.21
	Average Years	36.90	37.11	36.94	36.88	36.91
40-44.99	Retired Members	122	113	89	59	40
	Average FAS*	$65,508.74	$62,560.20	$63,507.91	$60,403.31	$68,167.31
	Average Benefit	$3,287.98	$3,353.11	$3,326.81	$3,224.57	$3,810.83
	Average Years	41.77	42.06	41.65	41.59	41.41
45-49.99	Retired Members	24	15	12	8	7
	Average FAS*	$60,619.03	$51,048.89	$64,115.21	$62,219.46	$71,886.65
	Average Benefit	$4,126.28	$2,917.43	$3,643.02	$3,666.62	$4,424.05
	Average Years	46.90	47.17	46.13	46.69	46.46
50 and Over	Retired Members	5	1	4	—	3
	Average FAS*	$72,383.16	$49,358.02	$66,836.27	—	$50,134.77
	Average Benefit	$3,876.26	$8,337.12	$4,228.92	—	$3,517.13
	Average Years	53.05	51.00	52.56	—	54.00
Total Number	Retired Members	5,640	5,646	5,980	5,712	5,547
	Average FAS*	$46,258.78	$46,895.04	$47,937.36	$47,759.75	$49,197.83
	Average Benefit	$1,417.09	$1,435.77	$1,493.26	$1,502.07	$1,548.03
	Average Years	21.72	21.47	20.90	20.04	18.72

**Average "Final Average Salary"*
Source: Data provided by KPERS Information Technology and Benefits and Member Services divisions.

PRINCIPAL PARTICIPATING EMPLOYERS

Last Ten Calendar Years

Participating Government	2017 Covered Employees	2017 Rank	2017 % of Total System	2016 Covered Employees	2016 Rank	2016 % of Total System
State of Kansas	23,215	1	15.19%	23,577	1	15.50%
USD 259 Wichita	6,903	2	4.52	6,820	2	4.48
USD 233 Olathe	4,441	3	2.91	4,233	3	2.78
USD 500 Kansas City	3,558	4	2.33	3,488	4	2.29
USD 512 Shawnee Mission	3,385	5	2.22	3,315	5	2.18
USD 229 Blue Valley	3,200	6	2.09	3,118	6	2.05
Johnson County	3,162	7	2.07	3,065	7	2.01
Sedgwick County	2,514	8	1.65	2,488	8	1.64
USD 501 Topeka Public Schools	2,373	9	1.55	2,374	9	1.56
Unified Government of Wyandotte Co	2,048	10	1.34	2,029	10	1.33
All Other[1]	96,888		64.14	97,612		64.17
Total (1,523 employers)	151,687		100.00%	152,119		100.00%

Participating Government	2015 Covered Employees	2015 Rank	2015 % of Total System	2014 Covered Employees	2014 Rank	2014 % of Total System
State of Kansas	23,748	1	15.49%	24,389	1	15.82%
USD 259 Wichita	6,926	2	4.52	6,921	2	4.49
USD 233 Olathe	4,225	3	2.76	4,310	3	2.80
USD 500 Kansas City	3,493	4	2.28	3,544	4	2.30
USD 512 Shawnee Mission	3,337	5	2.18	3,428	5	2.22
USD 229 Blue Valley	3,100	6	2.02	3,106	6	2.01
Johnson County	3,067	7	2.00	3,052	7	1.98
Sedgwick County	2,490	8	1.62	2,536	8	1.64
USD 501 Topeka Public Schools	2,351	9	1.53	2,408	9	1.56
Unified Government of Wyandotte Co	1,757	10	1.15	1,784	10	1.16
All Other[1]	98,843		64.46	98,725		64.02
Total (1,523 employers)	153,337		100.00%	154,203		100.00%

1) In 2017, "All Other" consisted of:

Type	*Number*	*Covered Employees*
School Districts	*280*	*47,704*
Cities and Counties	*503*	*25,859*
Post Secondary Education[2]	*44*	*11,457*
Other	*686*	*11,868*
	1,513	*96,888*

2) Not Including State Board of Regents institutions

Source: Data provided by KPERS Information Technology and Benefit and Member Services divisions.

PRINCIPAL PARTICIPATING EMPLOYERS

Last Ten Calendar Years

	2013			2012		
Participating Government	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
State of Kansas	24,631	1	15.78%	25,293	1	16.21%
USD 259 Wichita	6,861	2	4.40	6,709	2	4.30
USD 233 Olathe	4,293	3	2.75	4,274	3	2.74
USD 500 Kansas City	3,392	5	2.17	3,287	5	2.11
USD 512 Shawnee Mission	3,621	4	2.32	3,678	4	2.36
USD 229 Blue Valley	3,130	6	2.01	3,088	6	1.98
Johnson County	3,099	7	1.99	3,065	7	1.96
Sedgwick County	2,535	8	1.62	2,549	8	1.63
USD 501 Topeka Public Schools	2,387	9	1.53	2,339	9	1.50
Unified Government of Wyandotte Co	1,733	10	1.11	1,697	10	1.09
All Other[1]	100,375		64.32	100,074		64.13
Total (1,523 employers)	155,446		100.00%	156,053		100.00%

	2011			2010		
Participating Government	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
State of Kansas	25,382	1	16.37%	27,066	1	17.05%
USD 259 Wichita	6,542	2	4.22	6,749	2	4.25
USD 233 Olathe	4,185	3	2.70	4,082	3	2.57
USD 500 Kansas City	3,191	5	2.06	3,165	5	1.99
USD 512 Shawnee Mission	3,705	4	2.39	3,837	4	2.42
USD 229 Blue Valley	3,098	6	2.00	2,633	7	1.66
Johnson County	3,014	7	1.94	2,977	6	1.88
Sedgwick County	2,336	8	1.51	2,341	8	1.48
USD 501 Topeka Public Schools	2,605	9	1.68	2,256	9	1.42
Unified Government of Wyandotte Co	1,627	10	1.05	1,595	10	1.01
All Other[1]	99,369		64.09	102,004		64.27
Total (1,523 employers)	155,054		100.00%	158,705		100.00%

1) In 2017, "All Other" consisted of:

Type	*Number*	*Covered Employees*
School Districts	*280*	*47,704*
Cities and Counties	*503*	*25,859*
Post Secondary Education[2]	*44*	*11,457*
Other	*686*	*11,868*
	1,513	*96,888*

2) Not Including State Board of Regents institutions

Source: Data provided by KPERS Information Technology and Benefit and Member Services divisions.

PRINCIPAL PARTICIPATING EMPLOYERS

Last Ten Calendar Years

	2009			2008		
Participating Government	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
State of Kansas	26,735	1	16.55%	25,775	1	16.41%
USD 259 Wichita	6,861	2	4.25	6,850	2	4.36
USD 233 Olathe	4,339	3	2.69	4,625	3	2.94
USD 500 Kansas City	3,178	5	1.97	3,324	5	2.12
USD 512 Shawnee Mission	4,005	4	2.48	4,167	4	2.65
USD 229 Blue Valley	2,706	7	1.68	2,476	8	1.58
Johnson County	2,957	6	1.83	2,983	6	1.90
Sedgwick County	2,466	8	1.53	2,529	7	1.61
USD 501 Topeka Public Schools	2,298	9	1.42	1,847	9	1.18
Unified Government of Wyandotte Co	1,715	10	1.06	1,766	10	1.12
All Other[1]	104,291		64.56	100,723		64.13
Total (1,515 employers)	161,551		100.00%	157,065		100.00%

1) In 2017, "All Other" consisted of:

Type	*Number*	*Covered Employees*
School Districts	*280*	*47,704*
Cities and Counties	*503*	*25,859*
Post Secondary Education[2]	*44*	*11,457*
Other	*686*	*11,868*
	1,513	*96,888*

2) Not Including State Board of Regents institutions

Source: Data provided by KPERS Information Technology and Benefit and Member Services divisions.