GROWING **STRONGER**

2017 Comprehensive Annual Financial Report
for the Fiscal Year Ended June 30, 2017

KPERS

Kansas Public Employees Retirement System
a component unit of the State of Kansas

2017 COMPREHENSIVE ANNUAL FINANCIAL REPORT

Kansas Public Employees Retirement System
A component unit of the State of Kansas
Fiscal year ended June 30, 2017

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.

TABLE OF CONTENTS

STATISTICAL **SECTION**

INTRODUCTORY **SECTION**

TRANSMITTAL LETTER

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

November 1, 2017

We are pleased to present the Kansas Public Employees Retirement System's (KPERS) Comprehensive Annual Financial Report (CAFR) for Fiscal Year 2017. 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 web site, 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 LLP conducted an independent audit of the Retirement System's financial statements for 2017.

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 Firemen's
• Judges

Retirement System benefits are offered by slightly over 1,500 state and local employers. KPERS has over 306,000 members, including active, inactive and retired members. The Retirement System paid about $1.6 billion in retirement benefit payments for Fiscal Year 2017. Over 85 percent of those benefits remained in Kansas. Retirement System assets totaled well over $18 billion at June 30, 2017.

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, 315 local public employers also participate. The plan has over 24,000 total and about 13,400 actively contributing participants. Total KPERS 457 plan assets equaled about $1 billion at the end of Fiscal Year 2017. 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 Senate; one is appointed by the Speaker of the House of Representatives; two are elected by Retirement System members; and one is the 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. The Board changed from the long-time 8 percent assumption to 7.75 percent effective January 2017 for funding purposes. In some years, returns will be below that rate, and in other years, returns will exceed it. As of June 30, 2017, KPERS' 25-year average annualized total return average was 8.5 percent, exceeding the 7.75 percent target.

KPERS' broadly diversified investment portfolio produced a total return of 12.7 percent in Fiscal Year 2017, outperforming the KPERS Policy Index by 0.5 percent for the fiscal year. It was a strong period for the investment performance of risk assets, with all four quarters producing positive total returns for the Retirement System's investment portfolio.

The Retirement System's investment portfolio ended the fiscal year at approximately $18.4 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 55. 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.

In spite of continuing State employer contribution shortfalls, KPERS' December 31, 2016, actuarial valuation shows the System's financial health is slowly headed in the right direction, although we still have significant room for improvement and a long path before us.

The Legislature has taken steps over the last ten years to address the funding shortfall, including pension bonds, increasing member contributions, creating a new 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 next 20 years, beginning in Fiscal Year 2018.

As result of nonpayment and funding delays, the KPERS' Board of Trustees increased the target allocation for cash equivalents from 2 percent to 3 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 target over time and steady 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 71.

UNFUNDED ACTUARIAL LIABILITY

According to the December 31, 2016, actuarial valuation, the System's unfunded actuarial liability (UAL) increased by about $522 million to $9 billion. This UAL amount is the gap between the actuarial value of assets and the actuarial liability for service already earned by public employees. The UAL was previously $8.5 billion as of December 31, 2015. 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.

The UAL increased this year due in large part to actuarial assumption changes, including The Board of Trustees decreasing the investment assumption from 8 percent to 7.75 percent.

FUNDED RATIO

The valuation also showed the System's funded ratio held steady at 67 percent. The funded ratio is the ratio of assets to future liabilities. Investment gains and demographic experience were able to slightly mitigate the UAL increase and maintain the funded ratio.

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

Investment Assumption Decrease from 8 percent to 7.75 percent

After extensive analysis and consideration, KPERS Board of Trustees decreased the System's assumed actuarial investment rate of return from 8 percent to 7.75 percent. While KPERS' actual 25-year total return average is 8.5 percent, this performance does not predict long-term future returns.

The decision was based on two major factors. KPERS' assumption needs to reflect the market environment. In addition, it is a matter of fairness. An investment assumption that is too high asks future generations to pay more than their fair share.

The decision and much of the preparation began in Fiscal Year 2017, as well as its inclusion for funding calculations. Operational administration will take effect January 2018.

WORKING-AFTER-RETIREMENT LEGISLATION IMPLEMENTATION

Over the last three years, KPERS has spent significant resources implementing different working-after-retirement legislation from the Legislatures in 2015, 2016 and 2017. This includes modifying our IT systems and administrative processes and procedures. We have also used various communication channels to educate employers and members about these changes.

The most recent changes, passed in 2017, have dramatically simplified working-after-retirement rules for both employers and members. Members no longer have an earnings limit and employers have only two contribution rates, based on retiree earnings levels. This last rule design becomes effective January 2018.

EMPLOYER WEB PORTAL REDESIGN PROJECT

KPERS' current employer web portal went into production in 2009. Employers use this portal to provide salary, contribution and member information, as well as help administer KPERS benefits. Realizing this system was no longer meeting employer and staff needs, KPERS began a two-year project to redesign the interface and review processes. This project has been a partnership between KPERS staff, Sagitec (information technology consultants) and our employers. In Fiscal Year 2017, we finished the design phase, began development and started user acceptance testing. The new portal is slated to go into production April 2018.

KPERS BOARD OF TRUSTEE ELECTION

As defined by statute, KPERS holds an election every four years for members to elect two Board trustees. We held the most recent election in April 2017. The Retirement System leveraged a number of new communications tactics and added phone voting to the voting options. Participation increased by 500 votes over the last election. Trustee Ryan Trader and returning member Trustee Ernie Claudel were elected, and took the oath of office in July 2017 to begin their four-year term.

BY THE NUMBERS—IN FISCAL YEAR 2017:

- About than 1.2 million retirement benefit payments totaling more than $1.6 billion
- 5,668 pension inceptions
- 42,500 beneficiary designations
- $18.5 million in life insurance benefits
- 34,550 member enrollments and transfers
- 10,000 withdrawals totaling $70 million
- $20 million in benefits to 2,350 disabled employees
- 106,170 incoming calls with an average wait time of 10 seconds
- 24,500 email requests

AWARDS & ACKNOWLEDGMENTS

KPERS participated in a benchmarking survey conducted by CEM Benchmarking, Inc. When compared with other public pensions in the 2016 survey, KPERS earned an overall service score of 83, the same score as the peer median. In addition, we measured very favorably with regard to cost. KPERS' administrative cost per member is $45, 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

2016 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 23 consecutive 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 2017 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

Aland 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, Faith Loretto
Human Resources, Julie Baker
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
Kimberly "Kim" Adams
Crystie Amaro
Michael Arvidson Jr
Paige Ashley
Cole Bailey
Julie Baker
Yohonna Barraud
Kristen Basso
Tyler Bean
DuWayne Belles
Lydia Bergman
Dianna Berry
A. Kathleen Billings
Candace Blythe
Anita Bradley
Jeanette Branam
Michael Branam
Terry Brookhouser
Tracy Brull
Annika Bush
Andryana Campbell
Russell Canaday
William "Will" Clark
George Clark
Alan Conroy
Andrea Davenport
Rebecca "Becky" Dekat
Ardith Dunn
Amy Dunton
Joyce Edington
Alexandria "Allie" Engnehl-Thomas
Yarlenis Ensley
Daniel Fairbank
Mitchell Fick
Bruce Fink
Renae Forque
Elaine Gaer
Yong (Sue) Gamblian
Connie Gardner
Billie-Jo Gerisch
Brandon Gil
Michael Gilliland
Kay Gleason
Lisa Gonzales
Mary Beth Green
Susan Hageman
Joseph Haverkamp
Candice Heth
John Hooker
Mirel Howard
Ellen Hurless
C. Marais Johnson-Herl
Teresa Jurgens
Casey Kidder
Shannon Kuehler
Annette Kuti
Debra Lewis
Susan Lewis
Rebecca "Becky" Linquist
Cheri (Melinda) Locke
Faith Loretto
Jared Lowrey
Joyce Mark
Andrew McGrew
Heather McHardie
Laurie McKinnon
Jason McKinzie
Judy McNeal
Elizabeth Miller
Stephanie Moore
Noble Morrell
Kali Newell
Lisa Ngole
Dawn Nichols
Shawn Nix
Jennifer Osborn
Marcus Peavler
Diana Peters
Sammi Peterson
Alissa Powell
Jeeva Purushothaman
Sarah Putman
Justin Quick
Teresa Quick
Cathy Rafferty
Kimberley Raines
Curtis Rasmusson
Alberta Rea
Norm Remp
Kim Robinett
Ron Robinson
Dean Roney
Jamie Rose
Rika Rowe
Teresa Ryan
MaryAnn Sachs
John (Alan) Schuler
Annette Scott
Hallie Shermoen
Rhonda Shumway
Julie Smith
Marsha Stafford
Austin Sturgis
Rachel Swartz
Raquel Talavera
Amber Tarrant
Carmen Torres
Angela Triggs
Daniel "Dan" Tritsch
Jacob Tritsch
Jessica Tufts
Jason Van Fleet
Jackie VandeVelde
Daniel Wadsworth
Jarod Waltner
Michaela Watson
Jessica Wells
Amy Whitmer
Eric Wigginton
Marlin (Max) Williams
Emily Wilson
Deanna Winters
Susan "Susie" Wires
Krystal Yegon
Patricia (Pat) Zimmerman

CONSULTANTS AND ADVISORS

Auditors: Clifton Larsen Allen, Greenwood Village, CO

Accounting: KPMG LLP, Chicago, IL

Actuary: Cavanaugh Macdonald, Englewood, CO

INVESTMENT CONSULTANTS

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

INVESTMENT MANAGERS

AEW Capital Management, LP, Boston, MA
Adrian Lee & Partners, Dublin, Ireland
Advisory Research Inc., St. Louis, MO
Baillie Gifford Overseas Limited, Edinburgh, Scotland
Barings Asset Management Limited, London, UK
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
Systematic Financial Management LP, Teaneck, NJ
T Rowe Price Associates, Inc., Baltimore, MD
Voya Investment Management, New York, NY
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 2016 annual report. KPERS has received the award for each of the last 23 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, 2016

Jeffrey R. Emer

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 2017.

Public Pension Coordinating Council

Public Pension Standards Award
For Funding and Administration
2017

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 AUDITOR'S 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, 2017, 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 entity'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 entity'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, 2017, 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, the schedule of changes in the retirement system's net pension liability, the schedule of the retirement system's net pension liability, the schedule of retirement system's contributions and the 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 opinions 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 November 1, 2017, 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
November 2, 2017

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, 2017. 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 $1.44 billion or approximately 8.4 percent to $18.6 billion as of June 30, 2017, compared to an increase of $557 million or approximately 3.4 percent, from $16.6 billion to $17.2 billion as of June 30, 2016.

The System's June 30, 2017, financial actuarial valuation calculated a total pension liability at June 30, 2017, of $27.8 billion, compared to $26.4 billion as of June 30, 2016, an increase of $1.4 billion or 5.3 percent. The net pension liability at June 30, 2017, decreased to approximately $9.1 billion, compared to $9.2 billion as of June 30, 2016, a decrease of $89.5 million, or 1.0 percent.

As of December 31, 2016, the most recent funding actuarial valuation, the unfunded actuarial liability increased to $9.1 billion from $8.5 billion from the prior year.

As of December 31, 2016, the most recent funding actuarial valuation, the Retirement System's funded ratio was 66.8 percent compared with a funded ratio of 67.1 percent for the prior year.

On a market value basis, this year's money weighted net investment rate of return was a positive 12.35 percent, compared with last year's return of a positive 0.33 percent.

Monthly retirement benefits paid to retirees and beneficiaries increased 3.2 percent to approximately $1.60 billion for Fiscal Year 2017, compared to $1.55 billion in Fiscal Year 2016.

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, 2017, and a Statement of Changes in Fiduciary Net Position for the fiscal year ended June 30, 2017, 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, 2017, amounted to $18.6 billion. Following are two summary schedules, Fiduciary Net Position and Changes in Fiduciary Net Position, showing information for Fiscal Years 2017 and 2016.

SUMMARY STATEMENT OF FIDUCIARY NET POSITION

	As of June 30, 2017	As of June 30, 2016
Assets		
Cash and Deposits	$ 35,427,133	$ 18,596,902
Receivables	290,682,499	270,706,082
Investments at Fair Value	18,586,745,502	17,099,225,041
Capital Assets and Supplies Inventory	3,636,022	2,365,262
Total Assets	18,916,491,156	17,390,893,287
Liabilities		
Administrative Costs	1,108,170	1,609,540
Benefits Payable	12,968,807	12,681,326
Investments Purchased	240,802,996	120,008,923
Payables	27,770,762	64,161,127
Total Liabilites	282,650,735	198,460,916
Net Position	$ 18,633,840,421	$ 17,192,432,371

SUMMARY STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

	Year Ended June 30, 2017	Year Ended June 30, 2016
Additions		
Contributions	$ 1,176,147,718	$ 2,144,040,220
Net Investment Income	2,060,925,477	49,169,897
Other Miscellaneous Income	1,071,115	2,904,581
Total Additions	3,238,144,310	2,196,114,698
Deductions		
Monthly Retirement Benefits	1,604,984,334	1,548,362,844
Refunds	70,481,060	68,122,735
Death Benefits	11,210,914	10,545,850
Administrative Expenses	11,116,172	12,171,633
Uncollectable Pension Contributions	98,943,780	—
Total Deductions	1,796,736,260	1,639,203,062
Net Increase	1,441,408,050	556,911,636
Net Position Beginning of Year (as restated)	17,192,432,371	16,635,520,735
Net Position End of Year	$ 18,633,840,421	$ 17,192,432,371

FINANCIAL ANALYSIS OF THE RETIREMENT SYSTEM

Additions to the System's net assets held in trust for benefits include employer and member contributions, as well as investment income. Total contributions to the Retirement System were approximately $1.18 billion in Fiscal Year 2017, compared to approximately $1.14 billion in Fiscal Year 2016. In addition, the State of Kansas issued pension obligation bonds, 2015H, in August 2015, Fiscal Year 2016, with proceeds of $1.0 billion. The State will pay the annual debt service on the bonds.

The System recognized net investment income of $2.06 billion for Fiscal Year 2017. Total time weighted return for the portfolio net of fees, was 12.3 percent, compared with the benchmark return of 12.2 percent. System investments at fair value amounted to $18.6 billion at June 30, 2017. 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.

2017

1 Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 25 Years*
12.3%	5.2%	9.4%	5.4%	8.2%

**estimated*

The System recognized net investment income of $49.2 million for the 2016 Fiscal Year. System investments at fair value amounted to $17.2 billion at June 30, 2016.

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

At June 30, 2016, the System held $9.1 billion in U.S. equity and international equity securities. U.S. equity and international equity securities earned returns of approximately 2.0 percent and negative 10.2 percent, respectively, for the 2016 Fiscal Year.

The System held $4.8 billion in U.S. 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.

The System held $5.0 billion in U.S. debt and international debt securities at June 30, 2016. The net performance of the System's fixed income securities during Fiscal Year 2016 was 4.8 percent. Real estate investments amounted to $1.8 billion at June 30, 2016, and returned approximately 13.6 percent for the 2016 Fiscal Year. The System held $761.7 million in private equities which earned a return of approximately 3.2 percent for the 2016 Fiscal Year. At June 30, 2016, the System held $454.0 million in short-term investments. Cash and deposits include investment cash and foreign currencies held at the custodial bank as of June 30, 2016, totaling approximately $6.9 million.

Deductions from net assets held in trust for benefits include retirement, refunds, survivor benefits and administrative expenses. For the 2017 Fiscal Year, retirement benefits amounted to approximately $1.69 billion, an increase of $60.0 million or 3.6 percent from Fiscal Year 2016. For the 2017 Fiscal Year, System administrative expenses amounted to $11.1 million, a decrease of $1.0 million from Fiscal Year 2016. 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

Due to the requirements of Governmental Accounting Standards Board (GASB) Statement 67, KPERS had separate actuarial valuations performed for funding purposes and financial reporting as required by the Statement.

The annual financial actuarial valuation for the System, as of June 30, 2017, emphasizes the obligation an employer incurs to employees through the employment-exchange process. The objective of this statement is to improve the decision-usefulness of reported pension information and to increase the transparency, consistency and comparability of pension information across governments. 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. Net Pension Liability (NPL) is the Total Pension Liability, net of the pension plan's fiduciary net position. As of June 30, 2017, the pension plan's fiduciary net position as a percentage of the total pension liability was 67.12%.

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. This legislation also set the State/School group employer contribution rate at 10.91 percent in Fiscal Year 2016 and 10.81 percent in Fiscal Year 2017.

The 2016 Legislature passed and the Governor approved Senate Bill 161, authorizing the delay of up to $100 million in KPERS contributions. The bill required that the delayed Fiscal Year 2016 contributions be paid by June 30, 2018, with interest at 8.00 percent.

The 2017 Legislature passed, and the Governor approved, Senate Sub. for HB 2052 which eliminated the requirement to pay the delayed 2016 contributions. The amount set up as a long-term receivable totaling $99 million in Fiscal Year 2016 has been written off in Fiscal Year 2017. In addition, this bill 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 payment of $6.4 million was received by the System in July 2017.

The Retirement System conducted an experience study in November 2016 and as a result there have been several changes to actuarial assumptions and methods, effective December 31, 2016, which are discussed in detail in the Actuarial Section of this report. As a result of the new experience study, the investment return assumption was lowered from 8.00 percent to 7.75 percent.

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 www.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, 2017

	Pension Plan	Agency Funds[1]
Assets:		
Cash	$ 11,624,494	$ 544,256
Cash at Custodial Bank	23,077,182	—
Deposits with Insurance Carrier	—	181,201
Total Cash	34,701,676	725,457
Receivables:		
Contributions	183,383,512	43,026
Investment Income	56,337,227	16,738
Sale of Investment Securities	50,864,042	—
Due from Others	—	37,954
Total Receivables	290,584,781	97,718
Investments at Fair Value:		
Domestic Equities	5,876,550,272	—
International Equities	4,111,025,326	—
Short Term	713,879,636	26,947,587
Fixed Income	4,815,658,886	—
Alternative Investments	932,394,415	—
Real Estate	2,110,289,380	—
Total Investments	18,559,797,915	26,947,587
Capital Assets and Supplies Inventory	3,636,022	—
Total Assets	18,888,720,394	27,770,762
Liabilities:		
Administrative Costs	1,108,170	—
Benefits Payable	12,968,807	—
Securities Purchased	240,802,996	—
Due to Others	—	27,770,762
Total Liabilities	254,879,973	27,770,762
Net position restricted for pensions	$ 18,633,840,421	$ —

(1)See Note 2 Summary of Significant Accounting Policies, New Accounting Pronouncements
The accompanying notes to financial statements are an integral part of this statement.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

For Fiscal Year Ended June 30, 2017

	Pension Plan
Additions:	
Contributions:	
Member Contributions	$ 414,537,657
Employer Contributions	761,610,061
Total Contributions	1,176,147,718
Investments:	
Net Appreciation in Fair Value of Investments	1,708,585,923
Interest	125,024,597
Dividends	196,065,374
Real Estate Income, Net of Operating Expenses	91,728,610
Other Investment Income	13,394,069
	2,134,798,573
Less Investment Expense	(73,873,096)
Net Investment Income	2,060,925,477
Other Miscellaneous Income	1,071,115
Total Additions	3,238,144,310
Deductions:	
Monthly Retirement Benefits Paid	1,604,984,334
Refunds of Contributions	70,481,060
Death Benefits	11,210,914
Administrative Expenses	11,116,172
Uncollectible Pension Contributions[1]	98,943,780
Total Deductions	1,796,736,260
Increase in Net Position	1,441,408,050
Net Position Restricted for Pensions	
Beginning of Year (as restated, see Note 2)	17,192,432,371
End of Year	$ 18,633,840,421

(1) See Note 2 Summary of Significant Accounting Policies, Receivables
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. 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, article 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, article 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, 2016, (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)	92,048	5,240	259	97,547
Terminated employees entitled to benefits but not yet receiving them	21,209	181	9	21,399
Inactive members, deferred disabled	2,051	204	—	2,255
Inactive members not entitled to benefits	30,931	1,170	—	32,101
Current employees	144,564	7,303	252	152,119
Total	290,803	14,098	520	305,421

(1) Represents System membership at December 31, 2016.
(2) Number of retirement payees as of December 31, 2016.

NUMBER OF PARTICIPATING EMPLOYERS

Participating employers by statewide pension group as of June 30, 2017, are as follows:

NUMBER OF PARTICIPATING EMPLOYERS

	KPERS	KP&F	Judges
State of Kansas	1	1	1
Counties	105	32	—
Cities	364	63	—
Townships	60	—	—
School Districts	286	—	—
Libraries	122	—	—
Conservation Districts	83	—	—
Extension Councils	65	—	—
Community Colleges	19	—	—
Educational Cooperatives	24	—	—
Recreation Commissions	44	1	—
Hospitals	29	—	—
Cemetery Districts	13	—	—
Other	202	—	—
Total	1,417	97	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	10.77%	10.81%[(1)]
School Employee	16.03	10.81[(1)]
Judges	21.36	21.36
Local Government Employee [(2)]	8.46	8.46
Police and Firemen [(2)]	19.03	19.03

(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 2017 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

BASIS OF ACCOUNTING

The accompanying financial statements have been prepared on the accrual basis of accounting in conformity with U.S. 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 U.S. 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. They are not required to meet SEC 2a-7 standards. More information is available in Note 5 – Fair Value Measurement.

METHOD USED TO VALUE INVESTMENTS

Investments are reported at fair value. Active, publicly traded securities are priced using industry standard methods consistent with the asset class being priced. 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. Note 5 – Fair Value Measurement includes additional information regarding the inputs used to determine fair value.

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:

- Establishes 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 allocation 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 24 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, 2017:

Asset Class	Interim Target Allocation
Domestic Equities	26.0%
International Equities	24.0
Yield Driven (1)	8.0
Real Return (2)	11.0
Fixed	11.0
Short Term Investments	4.0
Real Estate	10.0
Alternatives	6.0
	100.0%

1) The Yield Driven asset class above, is reported in domestic equites 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 24.0 percent of assets in dedicated international equities. At June, 30 2017, 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, 2017, the System's total foreign currency exposure was 45.9 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 U.S. and foreign treasury or government agency obligations; U.S. 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 which 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, 2017, the outstanding balance was $5,606,138. These payments are due over various time periods up through December 31, 2032.

The 2016 Legislature passed Senate Bill 161, authorizing the delay of up to $100 million in KPERS State/School contributions. The 2017 Legislature and the Governor approved Sub. for Sub. for HB 2052 which eliminated the funding to pay the delayed 2016 contributions. The amount set up as a long-term receivable in Fiscal Year 2016 has been written off in this report.

In addition, this bill authorized 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. The first payment of $6.4 million was received by the Plan in July 2017. The long term receivable of $64.1 million of Fiscal Year 2017 contributions is included in Contributions Receivable in the Statement of Fiduciary Net Position.

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, 2017, was $17,240,532. 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, 2017, was $2,881,990. The office building and garage are being depreciated over a period of 33 years on an accelerated method. At June 30, 2017, the carrying value of the System's administrative headquarters was $736,167.

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

KPERS adopted GASB Statement No. 74, ***Financial Reporting for Post employment Benefit Plans other than Pension Plans*** in Fiscal Year 2017. As a result of the implementation, KPERS determined that the Death and Disability Plan is not administered through a qualifying trust, and accordingly, KPERS will no longer report a statement of fiduciary net position, a statement of changes in net position, notes to basic financial statements and required supplementary information related to the Death and Disability Plan. Any assets accumulated in the trust are now considered to be assets of the applicable employers and will be accounted for in an agency fund. In addition, due to this analysis, the Optional Life Insurance Plan was also reclassified as an agency fund. The net position restricted for pensions in the pensions fund was restated as of July 1, 2016 as follows:

Net Position Restricted for Pensions and Other Employee Trust Funds, as Reported	$ 17,256,593,498
Less:	
Accumulated Group Death and Disability Benefits Due to Employers	(63,959,333)
Accumulated Optional Life Insurance Premiums Due to Others	(201,794)
Net Position Restricted for Pensions	$ 17,192,432,371

KPERS adopted GASB Statement No. 82, ***Pension Issues, an amendment of GASB Statements No. 67, No. 68 and No. 73*** in Fiscal Year 2017. This Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements.

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. 85, ***Omnibus 2017.*** The objective of this Statement is to address practice issues that have been identified during implementation and application of other GASB Statements. Retirement System management is evaluating this Statement. It is effective for the Retirement System in Fiscal Year 2018.

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, 2017, the System's deposits with its disability administrator were $181,201. 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, 2017, at fair value:

Investment Type	Fair Value
Domestic Equities	$ 5,876,550,272
International Equities	4,111,025,326
Fixed Income:	
U.S. Government	1,999,732,859
U.S. Agencies	480,771,787
U.S. Corporate	1,909,132,005
Foreign Fixed Income	426,022,235
Short Term Investments	740,827,223
Real Estate:	
Partnerships	713,816,895
Commingled Funds	1,321,892,040
Separate Accounts	74,580,445
Alternatives/Private Equities	932,394,415
Total	$ 18,586,745,502

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, 2017, the System had US Dollar and foreign currency balances at custodial banks with a net value of $23.08 million. This is primarily foreign currency deposits facilitating international investments in the respective local markets. The System's deposits of $12.2 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 U.S. Government (10.4 percent) and Agencies (3.0 percent). KPERS' investment policy does not prohibit holdings above 5.0 percent in the debt securities of U.S. 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, 2017.

USD Equivalent				
Equity	Fixed	Currency	Total	Percent
$ 40,760,888	$ 6,039,857	Australian Dollar	$ 46,800,745	1.35%
7,884,013	4,328,965	Brazil Real	12,212,978	0.35
499,094,550	180,371,503	British Pound Sterling	679,466,053	19.63
153,996,027	19,383,868	Canadian Dollar	173,379,895	5.01
65,212,909	1,458,752	Danish Krone	66,671,661	1.93
1,012,163,155	164,823,177	Euro Currency Unit	1,176,986,332	34.00
167,047,275	—	Hong Kong Dollar	167,047,275	4.83
7,706,604	3,419,279	Indonesian Rupiah	11,125,883	0.32
17,011,333	—	Israeli Sheqel	17,011,333	0.49
519,554,227	25,928,024	Japanese Yen	545,482,251	15.76
14,902,539	—	Mexican New Peso	14,902,539	0.43
11,915,070	8,740,047	New Zealand Dollar	20,655,117	0.60
41,029,050	—	Norwegian Krone	41,029,050	1.18
2,949	—	Polish Zloty	2,949	0.00
—	3,904,256	Russian Ruble	3,904,256	0.11
32,205,421	—	S African Comm Rand	32,205,421	0.93
49,708,216	—	Singapore Dollar	49,708,216	1.44
78,581,025	—	South Korean Won	78,581,025	2.27
68,762,008	6,133,960	Swedish Krona	74,895,968	2.16
166,097,462	—	Swiss Franc	166,097,462	4.80
68,289,103	—	Taiwan Dollar	68,289,103	1.97
9,692,144	—	Thailand Baht	9,692,144	0.28
3,898,652	882,085	Turkish New Lira	4,780,737	0.14
—	608,463	Uruguayan Peso	608,463	0.02
$ 3,035,514,620	$ 426,022,236		$ 3,461,536,856	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 U.S. Government. U.S. 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, 2017, subject to credit risk are shown with current credit ratings.

CREDIT RISK

Quality Rating	Short Term Investments	Corporate(1)	U.S. Government	Agency	Total
Not Rated	$ 441,607,730	$ 190,967,075	$ —	$ —	$ 632,574,805
AAA	—	193,157,205	1,930,861,882	521,077	2,124,540,164
AA	31,822,764	333,837,236	68,870,977	469,785,034	904,316,011
A	82,003,793	204,923,540	—	5,829,798	292,757,131
A-1/P-1	66,083,172	58,188,449	—	—	124,271,621
BBB	119,309,764	671,284,919	—	3,732,165	794,326,848
BB	—	312,282,510	—	—	312,282,510
B	—	283,340,172	—	903,713	284,243,885
CCC	—	96,089,126	—	—	96,089,126
CC	—	5,332,073	—	—	5,332,073
C	—	1,233,240	—	—	1,233,240
D	—	2,853,736	—	—	2,853,736
Total	$ 740,827,223	$ 2,353,489,281	$ 1,999,732,859	$ 480,771,787	$ 5,574,821,150

(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 shall 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)	U.S. Government	Agency	Total
0 - 1 Yr	$ 740,827,223	$ 259,977,195	$ 238,964,047	$ 143,467,177	$ 1,383,235,642
1 - 3 Yrs	—	431,410,735	267,679,378	68,786,312	767,876,425
3 - 5 Yrs	—	500,965,060	266,632,040	182,925,597	950,522,697
5 - 10 Yrs	—	717,418,519	1,024,634,567	79,069,504	1,821,122,590
> 10 Yrs	—	443,717,772	201,822,827	6,523,197	652,063,796
Grand Total	$ 740,827,223	$ 2,353,489,281	$ 1,999,732,859	$ 480,771,787	$ 5,574,821,150

(1) Includes preferred equities subject to interest rate risk.

ANNUAL MONEY-WEIGHTED RATE OF RETURN

For the year ended June 30, 2017, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 12.35 percent. This return was 0.33 percent for Fiscal Year 2016. 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, 2017.

INVESTMENT DERIVATIVE SUMMARY

	Asset Class[1]	Notional Value	Fair Value
Domestic Equity Futures	Domestic Equities	$ 29,254,110	$ —
Fixed Futures	Fixed	(172,268,629)	—
TBA Agency Bonds[2]	Fixed	100,769,165	100,769,165
Foreign Currency Forwards	Fixed	4,279,312,425	(15,211,743)

(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, 2017, at fair value:

INVESTMENT DERIVATIVE FAIR VALUES

	June 30, 2016	Increases	Decreases	June 30, 2017
Credit Default Swaps	$ 659,844	$ 97,902,144	$ (98,561,988)	$ —
TBA Agency Bonds	70,127,976	1,218,800,767	(1,188,159,578)	100,769,165
Foreign Currency Forwards	52,406,656	143,349,328	(210,967,727)	(15,211,743)
Options Purchased	467,500	853,289	(1,320,789)	—
	$123,661,976	$ 1,460,905,528	$(1,499,010,082)	$ 85,557,422

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, 2017, the System had total net margins receivable the next day of $301,965. 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 $11.6 million were associated with futures for the year ending June 30, 2017.

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, 2017, the fair value of international equities was $4.1 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, 2017:

INVESTMENT CURRENCY FORWARDS

	Notional Cost (USD)	Pending Foreign Exchange Receivables (USD)	Pending Foreign Exchange Payables (USD)	Fair Value June 30, 2017 (USD)
Australian Dollar	$ 261,621,281	$ 263,719,561	$ (262,821,869)	$ 897,692
Brazilian Real	2,271,306	2,261,888	(2,263,839)	(1,951)
Canadian Dollar	289,868,971	291,386,407	(294,952,585)	(3,566,178)
Swiss Franc	147,820,268	148,803,567	(149,373,351)	(569,784)
Danish Krone	30,881,592	30,900,659	(31,576,238)	(675,579)
Euro Currency	1,088,483,964	1,089,118,797	(1,102,570,223)	(13,451,426)
British Pound Sterling	1,114,070,520	1,114,943,382	(1,124,000,398)	(9,057,016)
Hong Kong Dollar	172,537,465	172,442,385	(172,209,225)	233,160
Israeli Sheqel	91,349,180	91,978,797	(91,444,410)	534,387
Japanese Yen	691,246,714	690,940,664	(680,987,736)	9,952,928
Norwegian Krone	99,017,093	99,443,105	(99,124,746)	318,359
New Zealand Dollar	163,542,745	164,854,029	(163,828,354)	1,025,675
Russian Ruble	655,512	655,512	(632,654)	22,858
Swedish Krona	90,958,880	91,909,627	(92,713,148)	(803,521)
Singapore Dollar	34,986,934	35,065,107	(35,136,454)	(71,347)
	$ 4,279,312,425	$ 4,288,423,487	$(4,303,635,230)	$ (15,211,743)

Investment forwards counterparty exposure at June 30, 2017, is as follows:

INVESTMENT FORWARDS COUNTERPARTY EXPOSURE

Counterparty Name	Notional $USD	Fair Value	Worst Long-Term Rating
Australia/New Zealand Bkg Grp	$ 15,479,138	$ (182,501)	AA-
Bank Of America, N.A.	7,435,387	(86,060)	BBB+
Barclays Bank Plc Wholesale	504,959,499	(1,066,422)	A-
BNP Paribas Sa	1,184,001	(542)	A
Citibank N.A.	160,757,252	2,673,290	A
Credit Agricole Cib	1,392,783	4,807	A
Deutsche Bank Ag	738,122,101	(4,807,386)	BBB+
Goldman Sachs International	37,030,279	108,458	BBB+
HSBC Bank Plc	606,340,617	(99,373)	A
HSBC Bank USA	1,534,657	691	AA-
Income Repatriation Boston	698,432	(842)	NR
JPMorgan Chase Bank	505,003	(400)	A+
JPMorgan Chase Bank NA London	616,986,077	1,504,894	A+
Merrill Lynch International	95,855,501	(4,178,641)	BBB+
Morgan Stanley And Co. International Plc	3,488,328	(16)	BBB+
National Australia Bank Limited	283,542,477	(377,724)	AA-
Royal Bank Of Canada (UK)	519,757,383	(5,869,026)	AA-
Societe Generale	6,896,294	42,147	A
State Street Bank And Trust	4,982,544	(9,893)	AA-
State Street Bank London	143,094,385	(970,307)	A
Toronto Dominion Bank	348,090,901	(611,393)	AA-
UBS Ag	30,905	(11)	A+
UBS Ag London	97,581,003	(1,279,247)	A+
Westpac Banking Corporation	83,567,478	(6,246)	AA-
	$ 4,279,312,425	$ (15,211,743)	

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, 2017.

INVESTMENTS AND DERIVATIVE INSTRUMENTS MEASURED AT FAIR VALUE

		Fair Value Measurements Using:		
	Total as of 6/30/2017	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	$ 1,117,068,035	$ —	$ 1,117,068,035	$ —
US Treasury Commingled	813,793,847	—	813,793,847	—
GNMA	68,870,977	—	68,870,977	—
US Agency	380,002,622	—	380,002,622	—
US Corporate, Municipalities	1,483,601,000	—	1,472,391,985	11,209,015
US Bank Loans	150,843,921	—	150,843,921	—
Yankees	274,687,084	—	274,687,084	—
International	426,022,235	—	426,022,235	—
Total Debt Securities	4,714,889,721	—	4,703,680,706	11,209,015
Equity Securities				
Domestic Common Stock	5,873,569,885	5,873,149,987	—	419,898
Domestic Preferred	2,980,387	2,980,387	—	—
International Common	2,977,839,005	2,971,188,576	—	6,650,429
International Commingled and ETF	1,117,831,667	1,117,831,667	—	—
International Preferred Stock	15,354,654	15,354,654	—	—
Total Equity Securities	9,987,575,598	9,980,505,271	—	7,070,327
Real Estate and Alternatives				
Separate Properties	72,728,691	—	—	72,728,691
Home Office Property, Rentable	1,851,754	—	—	1,851,754
Real Estate Partnership	6,241,241	—	—	6,241,241
Alternatives Distribution	244,886	—	—	244,886
Total Real Estate and Alternatives	81,066,572	—	—	81,066,572
Investments by Fair Value Level	14,783,531,891	9,980,505,271	4,703,680,706	99,345,914
Derivatives by Fair Value				
Swaps	—	—	—	—
Options	—	—	—	—
To-Be-Announced Agencies	100,769,165		100,769,165	—
Total Derivatives by Fair Value Level	100,769,165	—	100,769,165	—
Total Investments and Derivatives by Fair Value Level	$14,884,301,056	$ 9,980,505,271	$ 4,804,449,871	$ 99,345,914

INVESTMENTS MEASURED AT NET ASSET VALUE (NAV)

		Unfunded Commitment	Transfer or Redemption Frequency	Transfer or Redemption Notice
Investments Measured at Net Asset Value (NAV)				
Private Equity Partnerships	$ 932,149,529	$ 1,293,507,784	Quarterly	30 days
Real Estate Partnerships	707,575,654	179,328,218	Quarterly	30 days
Real Estate Core Funds	1,246,990,398	—	Quarterly	30 days
Real Estate Other Funds	74,901,642	—	Biannual	30 days
Total Investments Measured at NAV	2,961,617,223			
Short Term Investments Measured at Amortized Cost				
STIF Funds	53,850,832			
Money Market Investments	686,976,391			
Total Short Term Investments	740,827,223			
Total Investment Value	$ 18,586,745,502			

EQUITY SECURITIES

Equity securities classified in Level 1 are priced by identical securities traded on an established exchange. All commingled fund values are the sum of their respective public market holdings and are leveled according to those inputs and not driven by the characteristic of the ownership. Level 3 equity securities are valued based on stale prices or other unobservable inputs.

DEBT SECURITIES

GNMA are those agencies explicitly guaranteed by the U.S. government. U.S. Corporate debt in Level 3 are those securities in inactive markets where prices have been determined to be stale or otherwise do not meet observable Level 2 criteria.

Except for the US Corporate 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.

REAL ESTATE AND ALTERNATIVES MEASURED AT FAIR VALUE

The Retirement System wholly owns three separate properties including timber land 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. All but one of the System's real estate partnerships are included in the net asset value portion of this table. The real estate partnership shown at level 3 is valued at cost in its audited financial statements. Sale of this partnership would be on an inefficient secondary market that could result in value above or below that listed. Transfer to a buyer would be restricted to quarter end dates. No sale is contemplated. 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 $4.3 million in outstanding currency forward contract payables and receivables at June 30, 2017. The net fluctuation in currency rates at that time decreased the unrealized fair value of those contracts by $15,211,743. 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, thirty-two (32) 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, 2016, 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. They are not required to meet SEC 2a-7 standards. There are no redemption restrictions and shares are typically redeemed at book-value of $1 per share using amortized cost. Price per share may vary. Amortized cost is materially equivalent to fair value.

Money Market Investments are highly liquid debt instruments purchased within one year of maturity, including U.S. Treasury and Agency obligations. Asset-backed securities, derivatives and structured notes are not included in money market investments.

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 8.0 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, 2017, were as follows:

Reserves	Balance	Net Pension Liability
Members Accumulated Contribution Reserve	$ 6,008,633,568	$ —
Retirement Benefit Accumulation Reserve	7,927,687,260	(9,128,629,062)
Retirement Benefit Payment Reserve	13,803,183,349	—
Expense Reserve	22,965,306	—
	$27,762,469,483	(9,128,629,062)
Total Pension Reserves		$ 18,633,840,421

NOTE 7 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

The components of the net pension liability of the participating employers at June 30, 2017, were as follows:

	KPERS
State	$ 4,425,279,846
School	14,717,364,378
Local	5,201,842,383
KP&F	3,232,946,675
Judges	185,036,201
Total Pension Liability	27,762,469,483
Fiduciary Net Position	18,633,840,421
Employers' Net Pension Liability	$ 9,128,629,062
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	67.12%

ACTUARIAL ASSUMPTIONS

The total pension liability was determined by an actuarial valuation as of December 31, 2016, which was rolled forward to June 30, 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Cost Method	Entry age normal
Remaining Amortization Period	Layered bases varying from 16 to 25 years
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, 2016, 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

In addition, the System adopted a new method for paying off the unfunded actuarial liability (UAL). Under the new method, the UAL is amortized using a "layered" approach, where the December 31, 2015, UAL serves as the initial (legacy) base and is amortized over the remaining amortization period of sixteen years. The change to the UAL as of December 31, 2016, that resulted from the assumption changes is amortized over a closed twenty-five year period. Any change to the UAL that results from actuarial experience is amortized over a closed twenty year period.

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 S 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 are intended to fully fund the State/School group 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.

Based on 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. 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	$12,415,167,080	$9,128,629,062	$6,358,184,235

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, 2017, 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 November 1, 2017, 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 Four Fiscal Years ($ in Thousands)

	2017	2016	2015	2014
Total Pension Liability:				
Service Cost	$ 570,703	$ 571,263	$ 571,944	$ 572,291
Interest	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	(154,326)	(133,493)	(135,542)	(216,248)
Changes of Assumptions	574,844	—	(53,014)	—
Benefit Payments, Including Refunds of Member Contributions	(1,686,676)	(1,627,032)	(1,524,380)	(1,432,846)
Net Change in Total Pension Liability	1,351,932	796,067	786,880	789,994
Total Pension Liability – Beginning	26,410,538	25,614,471	24,827,591	24,037,597
Total Pension Liability – Ending (a)	27,762,469	26,410,538	25,614,471	24,827,591
Plan Fiduciary Net Position:				
Contributions – Employer	761,610	739,184	690,564	701,818
Contributions – Member	414,538	404,856	382,058	332,163
Contributions – Non-Employer (2)	—	1,000,000	—	—
Total Net Investment Income	2,060,925	49,171	561,174	2,553,843
Other Miscellaneous Income	(97,873)	2,904	1,076	242
Benefit Payments, Including Refunds of Member Contributions	(1,686,676)	(1,627,032)	(1,524,380)	(1,432,846)
Administrative Expenses	(11,116)	(12,172)	(10,768)	(9,636)
Net Change in Plan Fiduciary Net Position	1,441,408	556,911	99,724	2,145,584
Plan Fiduciary Net Position – Beginning	17,192,432	16,635,521	16,535,797	14,390,213
Plan Fiduciary Net Position – Ending (b)	18,633,840	17,192,432	16,635,521	16,535,797
Employers' Net Pension Liability (A) - (B)	$ 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 Four Fiscal Years ($ in Thousands)

	2017	2016	2015	2014
Total Pension Liability	$27,762,469	$26,410,538	$ 25,614,471	$ 24,827,591
Plan Fiduciary Net Position	18,633,840	17,192,432	16,635,521	16,535,797
Employers' Net Pension Liability	$ 9,128,629	$ 9,218,106	$ 8,978,950	$ 8,291,794
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	67.12%	65.10%	64.95%	66.60%
Covered-Employee Payroll	$ 6,715,593	$ 6,388,450	$ 6,635,196	$ 6,424,739
Employers' Net Pension Liability as a Percentage of Covered-Employee Payroll	135.93%	144.29%	135.32%	129.06%

See accompanying independent auditors' report.

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

SCHEDULE OF EMPLOYERS' CONTRIBUTIONS

Last 10 Fiscal Years ($ in Thousands)

	2017	2016	2015	2014	2013
Actuarially Determined Contribution	$ 920,789	$ 891,638	$ 908,019	$ 842,286	$ 825,197
Contributions in Relation to the Actuarially Determined Contribution	745,021	721,313	676,173	668,811	617,925
Contribution Deficiency (Excess)	$ 175,768	$ 170,325	$ 231,846	$ 173,475	$ 207,272
Covered-Employee Payroll	$ 6,715,593	$ 6,388,450	$ 6,635,196	$ 6,424,739	$ 6,523,850
Contributions as a Percentage of Covered-Employee Payroll	11.09%	11.29%	10.19%	10.41%	9.47%

	2012	2011	2010	2009	2008
Actuarially Determined Contribution	$ 843,362	$ 709,964	$ 682,062	$ 660,834	$ 607,662
Contributions in Relation to the Actuarially Determined Contribution	568,015	525,727	492,006	449,236	395,752
Contribution Deficiency (Excess)	$ 275,347	$ 184,237	$ 190,056	$ 211,598	$ 211,910
Covered-Employee Payroll	$ 6,541,464	$ 6,483,143	$ 6,527,400	$ 6,403,432	$ 6,226,754
Contributions as a Percentage of Covered-Employee Payroll	8.68%	8.11%	7.54%	7.02%	6.36%

See accompanying independent auditors' report.

SCHEDULE OF INVESTMENT RETURNS

Last 10 Fiscal Years

	2017	2016	2015	2014	2013
Annual Money-Weighted Rate of Return, Net of Investment Expense	12.35%	0.33%	3.58%	18.10%	13.87%

	2012	2011	2010	2009	2008
Annual Money-Weighted Rate of Return, Net of Investment Expense	0.67%	22.56%	14.96%	(20.08)%	(4.58)%

See accompanying independent auditors' report.

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION JUNE 30, 2017

NOTE 1 – METHOD AND ASSUMPTIONS USED IN CALCULATIONS OF ACTUARIALLY DETERMINED CONTRIBUTIONS

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	12/31/2016	12/31/2016	12/31/2016
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 16-25 years	Layered bases 16-25 years	Layered bases 16-25 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, 2017

Kansas Public Employees Retirement System			
State / School Contributions			
Members	$ 268,802,239		
Employers	497,175,352		
Total State / School Contributions		$ 765,977,591	
Local Contributions			
Members	106,999,605		
Employers	157,183,834		
Total Local Contributions		264,183,439	
Total Contributions KPERS			**$1,030,161,030**
Kansas Police and Firemen's System			
State Contributions			
Members	3,652,308		
Employers	10,166,096		
Total State Contributions		13,818,404	
Local Contributions			
Members	33,417,281		
Employers	90,950,247		
Total Local Contributions		124,367,528	
Total Contributions KP&F			**138,185,932**
Kansas Retirement System for Judges			
State Contributions			
Members	1,666,224		
Employers	6,134,532		
Total State Contributions		7,800,756	
Total Contributions - Judges			**7,800,756**
Grand Total All Contributions			**$ 1,176,147,718**

SCHEDULE OF ADMINISTRATIVE EXPENSES

Fiscal Year Ended June 30, 2017

Salaries and Wages		$ 6,631,146
Professional Services		
Actuarial	$ 383,926	
Audit	137,500	
Data Processing	1,191,644	
Legal	79,518	
Other Professional Services	1,043,725	
Total Professional Services		2,836,313
Communication		
Postage	345,676	
Printing	159,806	
Telephone	163,014	
Total Communication		668,496
Building Administration		
Building Management	70,287	
Janitorial Service	38,644	
Real Estate Taxes	59,323	
Utilities	49,244	
Total Building Administration		217,498
Miscellaneous		
Dues and Subscriptions	17,183	
Repair and Maintenance	66,173	
Office and Equipment Rent	13,118	
Supplies	68,328	
Temporary Services	9,418	
Travel	85,428	
Other Miscellaneous	302,750	
Depreciation	200,321	
Total Miscellaneous		762,719
Total Administrative Expenses		$11,116,172

SCHEDULE OF INVESTMENT INCOME BY ASSET CLASS

Fiscal Year Ending June 30, 2017

Asset Classification	Interest Dividends and Other Transactions	Gains and Losses	Total
Marketable Equity Securities			
Domestic Equities	$ 132,967,902	$ 921,107,777	$ 1,054,075,679
International Equities	63,097,472	661,165,746	724,263,218
Subtotal Marketable Equities	196,065,374	1,582,273,523	1,778,338,897
Marketable Fixed Income Securities			
Government	35,498,897	(83,940,304)	(48,441,407)
Corporate	81,665,011	15,503,155	97,168,166
Subtotal Marketable Fixed	117,163,908	(68,437,149)	48,726,759
Temporary Investments	7,860,689	994,531	8,855,220
Total Marketable Securities	321,089,971	1,514,830,905	1,835,920,876
Real Estate	91,728,610	69,752,824	161,481,434
Alternative Investments	13,394,069	124,002,194	137,396,263
Total Real Estate and Alternative Investments	105,122,679	193,755,018	298,877,697
	$426,212,650	$1,708,585,923	$ 2,134,798,573

Manager and Custodian Fees and Expenses	
Investment Manager Fees	(24,037,527)
Custodian Fees & Expenses	(1,067,540)
Investment Legal & Consulting Expenses	(2,080,260)
Partnership Management Fees & Expenses	(44,690,833)
Investment Operations Expenses	(1,996,936)
Total Investment Fees and Expenses	(73,873,096)
Net Investment Income	$2,060,925,477

SCHEDULE OF INVESTMENT MANAGEMENT FEES AND EXPENSES

Fiscal Year Ended June 30, 2017

Domestic Equity Managers	
Advisory Research	$ 1,448,946
BlackRock	267,827
Loomis, Sayles & Co.	101,254
Mellon Capital Management	207,300
Systematic Financial Management	78,278
Voya	122,509
Subtotal Domestic Equity Managers	**2,226,114**
International Equity Managers	
Baillie Gifford International	2,639,806
Barings International	221,317
JP Morgan International	2,954,342
Lazard Asset Management	1,802,201
Morgan Stanley Asset Management	3,169
State Street International	509,392
Templeton International	2,355,640
Wellington International	335,950
Subtotal International Equity Managers	**10,821,817**
Fixed Income Managers	
BlackRock	1,279,592
Loomis, Sayles & Co.	1,168,315
MacKay Shields	1,284,808
Templeton	685,610
T. Rowe Price	1,005,755
Western Asset Management Co.	992,209
Subtotal Fixed Income Managers	**6,416,289**
Currency Overlay and Securitization Managers	
Adrian Lee & Partners	1,154,139
Pareto Partners	1,507,107
Russell Overlay	81,479
Subtotal Currency Overlay and Securitization Managers	**2,742,725**
Real Estate and REIT Investment Managers	
AEW Capital Management	80,006
Brookfield Redding	672,023
CenterSquare	619,563
Subtotal Real Estate & REIT Managers	**1,371,592**
Cash Equivalent Manager	
Payden & Rygel Investment Counsel	458,990
Subtotal Cash Management	**458,990**
Total Investment Management Fees	**24,037,527**
Other Fees and Expenses	
State Street Bank - Custodian Fees and Other Expenses	1,067,540
Consultant Fees	1,948,698
Legal Expenses	131,562
Investment Operations	1,996,936
Partnership Management Fees and Expenses	44,690,833
Subtotal Other Fees and Expenses	**49,835,569**
Total	**$ 73,873,096**

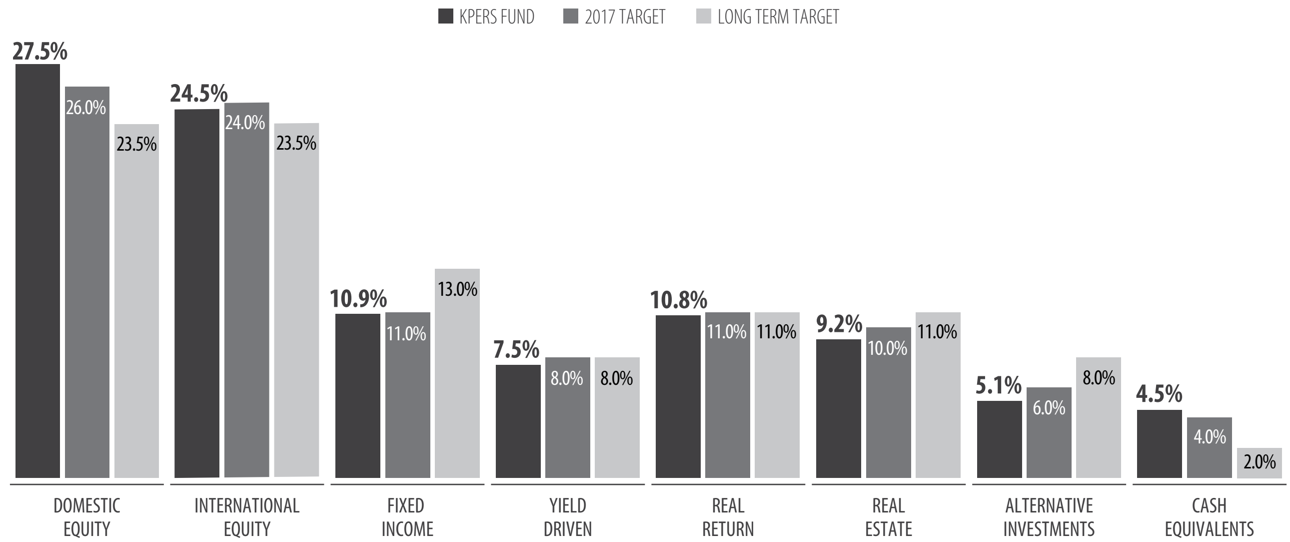
COMBINING STATEMENT OF CHANGES IN ASSETS AND LIABILITIES – AGENCY FUND

	Balance as of June 30, 2016	Additions	Deletions	Balance as of June 30, 2017
Optional Group Life Insurance				
Assets:				
Cash	$ 157,652	$ 6,219,815	$ 6,204,223	$ 173,244
Receivables:				
Due from Local/State Governments	66,160	105,489	128,623	43,026
Total Assets	223,812	6,325,304	6,332,846	216,270
Liabilities:				
Accounts Payable	22,019	6,350,259	6,364,783	7,495
Funds Held for Others	201,794	6,124,981	6,118,000	208,775
Total Liabilities	$ 223,813	$ 12,475,240	$ 12,482,783	$ 216,270
Group Death & Disability Benefits				
Assets:				
Cash and Cash Equivalents	$ 35,545	$ 51,937,759	$ 51,602,291	$ 371,013
Deposits with Insurance Carrier	49,368	484,010	352,177	181,201
Total Cash and Cash Equivalents	84,913	52,421,769	51,954,468	552,214
Receivables:				
Due from Local/State Government	126,636	173,952	262,635	37,953
Sale of Investment Securities	25,097	53,328	61,687	16,738
Total Receivables	151,733	227,280	324,322	54,691
Investments at Fair Value:				
Short Term	63,883,515	—	36,935,928	26,947,587
Total Investments	63,883,515	—	36,935,928	26,947,587
Total Assets	64,120,161	52,649,049	89,214,718	27,554,492
Liabilities:				
Accounts Payable	160,828	69,076,071	65,159,089	4,077,810
Funds Held for Others	63,959,333	252,537	40,735,188	23,476,682
Total Liabilities	$ 64,120,161	$ 69,328,608	$ 105,894,277	$ 27,554,492
Total-Agency Funds				
Assets:				
Cash and Cash Equivalents	$ 193,197	$ 58,157,574	$ 57,806,514	$ 544,257
Deposits with Insurance Carrier	49,368	484,010	352,177	181,201
Total Cash and Cash Equivalents	242,565	58,641,584	58,158,691	725,458
Receivables:				
Due from Others	192,796	279,441	391,258	80,979
Investment Income	25,097	53,328	61,687	16,738
Total Receivables	217,893	332,769	452,945	97,717
Investments at Fair Value:				
Short Term	63,883,515	—	36,935,928	26,947,587
Total Investments	63,883,515	—	36,935,928	26,947,587
Total Assets	64,343,973	58,974,353	95,547,564	27,770,762
Liabilities:				
Accounts Payable	182,847	75,426,329	71,523,872	4,085,304
Funds Held for Others	64,161,127	6,377,519	46,853,188	23,685,458
Total Liabilities	$ 64,343,974	$ 81,803,848	$ 118,377,060	$ 27,770,762

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 2017 were $18.449 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 2017, 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 portfolio 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 asset class also houses the System's investments in timber and infrastructure assets. In Fiscal Year 2017, the System funded new commitments to two infrastructure funds and one timber fund.

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.

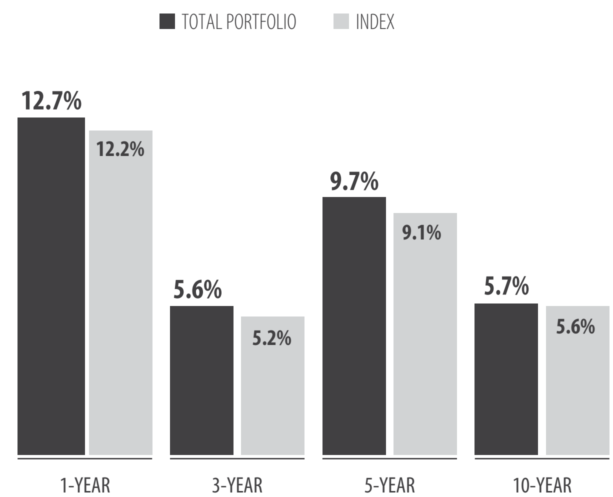
The System also holds cash equivalents investments, primarily to facilitate investment transactions and the cash flows needed to pay benefits.

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.

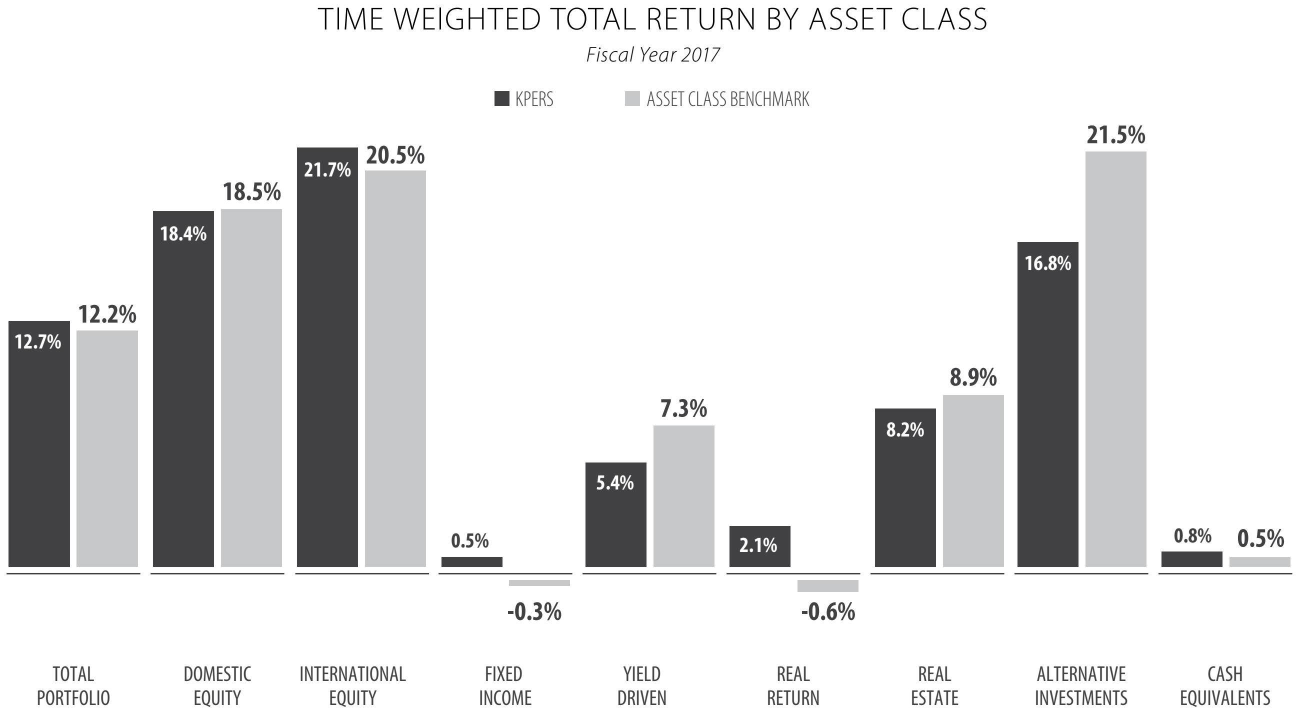
The Statement is the product of the Board's careful and prudent study and is reviewed annually and updated as needed. It sets forth the investment policies, objectives, and guidelines which the Board of Trustees judges to be appropriate and prudent, in consideration of the needs of the System, and to 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 2017 INVESTMENT PERFORMANCE

The Retirement System's total investment portfolio experienced a 12.7 percent total return for the one year ending June 30, 2017. The 12.7 percent return outperformed the KPERS Policy Index by 0.5 percent for the fiscal year. For the three years ending June 30, 2017, the System's total investment portfolio has produced an average annualized return of 5.6 percent, which outperformed the Policy Index by 0.4 percent. The System has enjoyed a robust 9.7 percent total return during the five years ending June 30, 2017, exceeding the Policy Index Benchmark by 0.6 percent. For the ten-year time period, total return has been a more moderate 5.7 percent, exceeding the Policy Index by 0.1 percent. As of June 30, 2017, 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 the 4, 5 and 7-year trailing time periods. For the twenty-five year time period ending June 30, 2017, the System's assets have produced an average annualized total return of 8.5 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.



FINANCIAL MARKET AND PERFORMANCE OVERVIEW

Fiscal Year 2017 was a strong period for the investment performance of risk assets, with all four quarters producing positive total returns for the Retirement System's investment portfolio. During the fiscal year, the System's total investment portfolio produced a 12.7 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 double-digit total returns, led by the international equity portfolio with a 21.7 percent total return. Although Fiscal Year 2017 was a weaker time period for fixed income assets, all asset classes contributed positive returns to the portfolio. Despite a somewhat volatile set of geopolitical events during the fiscal year (including the UK's decision to leave the European Union and the U.S. and French presidential elections), financial markets remained relatively calm throughout the year, with volatility levels in the domestic equity market reaching record lows in early 2017. The outlook for global economic growth brightened in the second half of the fiscal year, particularly for the Eurozone. This was in sharp contrast with Fiscal Year 2016, during which high levels of global financial market volatility made it very difficult for the production of positive investment performance from publicly traded securities. Despite the Federal Reserve's moves to raise interest rates by 25 basis points three times during Fiscal Year 2017, global monetary policy remained widely accommodative and global interest rates remained at historically low levels, which was supportive for the valuation levels of risk assets.

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 domestic and 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

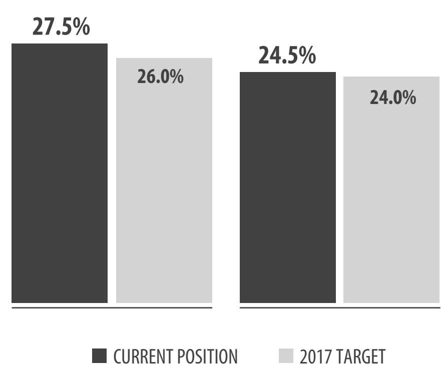
Public equity investments represent the largest strategy allocation within the System's portfolio. As of June 30, 2017, the market value of the System's global equity portfolio was $9.6 billion. The strategy is executed through external managers investing domestically and internationally. Active strategies are utilized for approximately 37.3 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, 2017:

DOMESTIC EQUITY INTERNATIONAL EQUITY

Percent of Total Assets



DOMESTIC EQUITY

Domestic equities represent 52.8 percent of the total public equity portfolio and 27.5 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 47.2 percent of the total public equity portfolio and 24.5 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, 79.1 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.

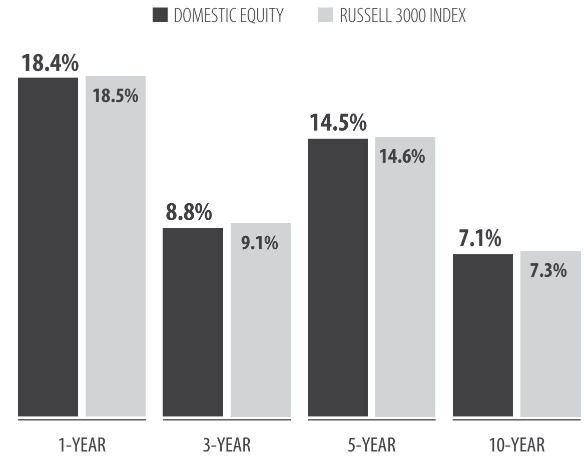
PERFORMANCE

The return of the System's domestic equity portfolio was in line with the portfolio's benchmark during Fiscal Year 2017. The domestic equity portfolio produced an 18.4 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:

TIME WEIGHTED TOTAL RETURN

Domestic Equity

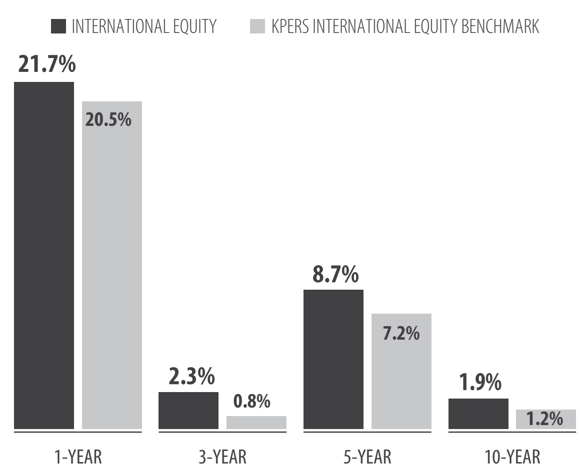


The international equity portfolio performed well on both an absolute and relative basis during Fiscal Year 2017. Returns were strongly positive in Fiscal Year 2017, outperforming the strategy benchmark. The international equity portfolio produced a total return of 21.7 percent for the fiscal year, relative to the 20.5 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:

TIME WEIGHTED TOTAL RETURN

International Equity

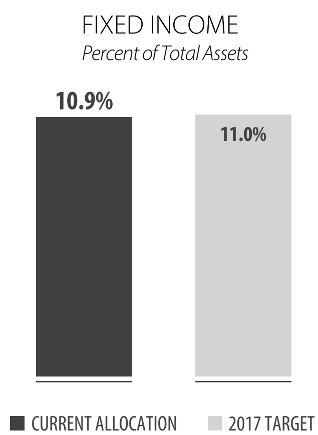


FIXED INCOME INVESTMENTS

As of June 30, 2017, the Retirement System's fixed income portfolio had a market value of $2.012 billion, representing 10.9 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, 2017.



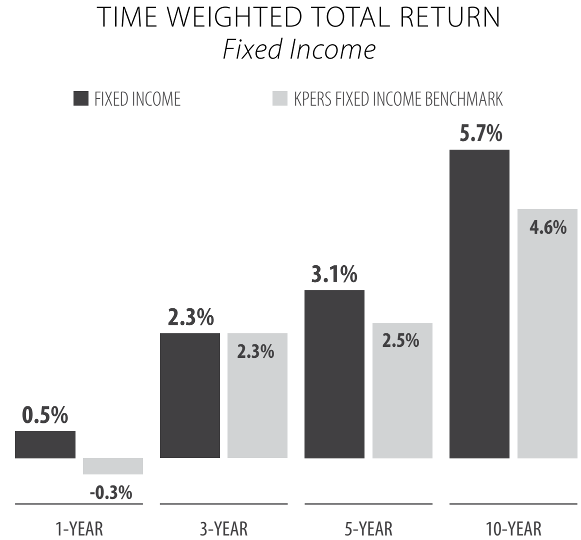
CORE U.S. FIXED INCOME

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 2017, and has provided positive relative performance across all longer-term time periods reported. Overall, the fixed income portfolio's positioning in the investment grade corporate segment of the market drove performance during Fiscal Year 2017.

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

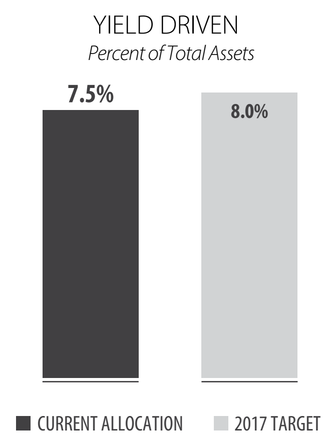


YIELD DRIVEN INVESTMENTS

Yield driven investments represent one of the newer strategy allocations within the System's investment portfolio. As of June 30, 2017, the System's yield driven portfolio had a market value of $1.383 billion representing 7.5 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, 2017:



STRATEGIC FIXED INCOME

The strategic fixed income strategy represents approximately 50.7 percent of the total yield driven portfolio and 3.8 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 2017.

REAL ESTATE INVESTMENT TRUSTS (REITS)

REITs represent 18.6 percent of the yield driven asset class and 1.4 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. REITs struggled during Fiscal Year 2017 as interest rates rose, producing flat or negative returns for the yield driven portfolio.

MASTER LIMITED PARTNERSHIPS (MLPS)

MLPs represent 19.4 percent of the yield driven asset class and 1.5 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 modestly positive total returns for Fiscal Year 2017, as MLP investments were adversely affected by both energy prices and rising interest rates.

BANK LOANS

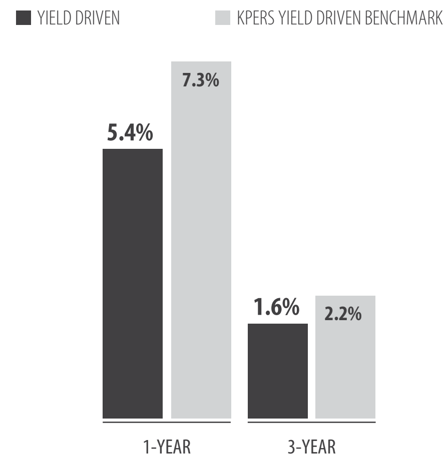
The bank loan allocation represents 11.3 percent of the yield driven asset class and 0.8 percent of the System's total assets. The strategy is managed by one manager and is measured against the Credit Suisse Leveraged Loan Index. The strategy is intended to generate current yield through credit exposure to senior-secured, U.S. dollar denominated bank loans. The bank loan portfolio produced strong absolute and relative performance in the yield driven asset class during Fiscal Year 2017, with a 9.2 percent total return.

PERFORMANCE

The yield driven portfolio produced a total return of 5.4 percent in Fiscal Year 2017, underperforming the asset class benchmark return of 7.3 percent.

TIME WEIGHTED TOTAL RETURN

Yield Driven



REAL RETURN INVESTMENTS

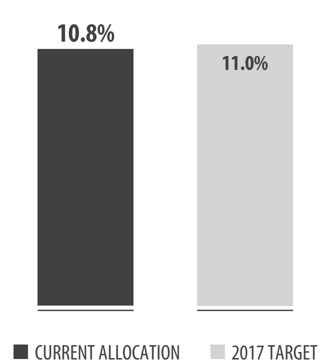
The real return portfolio is designed to provide the System with a hedge against future inflationary episodes. This strategy utilizes both public and private market investments. Public market exposure is global and achieved primarily through inflation linked fixed income securities issued by governments 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 10.8 percent of the System's total assets and had a market value of $2.0 billion as of June 30, 2017.

PORTFOLIO STRUCTURE

The following graph describes the current and target allocations at June 30, 2017:

REAL RETURN

Percent of Total Assets



U.S. TREASURY INFLATION LINKED BONDS (TIPS)

The TIPS portfolio represents 40.7 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 2017, as expected.

GLOBAL INFLATION LINKED BONDS (GILBS)

The GILB portfolio represents 38.6 percent of the real return portfolio and is benchmarked against the Barclays World ILB Index (U.S.D Hedged). The GILB portfolio provides global diversification by broadening the opportunity set to capture unexpected inflation within investment-grade sovereign bonds. GILBs' sources of excess return include the identification of mispricing due to the direction of global interest rates, the shape of each country's yield curve, global breakeven inflation and relative value in global nominal bonds. The GILB portfolio outperformed its benchmark in Fiscal Year 2017 while also providing diversification. Low levels of global inflation had an impact on returns from inflation linked bonds, and the inflation linked portion of the real return portfolio produced a total return of 0.9 percent in Fiscal Year 2017.

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. During Fiscal Year 2017, the System approved a commitment to a second timber manager to further diversify the timber portfolio. Over time, timber investments are expected to provide the System with current cash yields and modest capital appreciation. For Fiscal Year 2017, the System's timber investments produced a 7.4 percent total return, underperforming the strategy benchmark. For the three years ending June 30, 2017, however, the timber portfolio has outperformed the strategy benchmark, and produced a 7.6 percent total return.

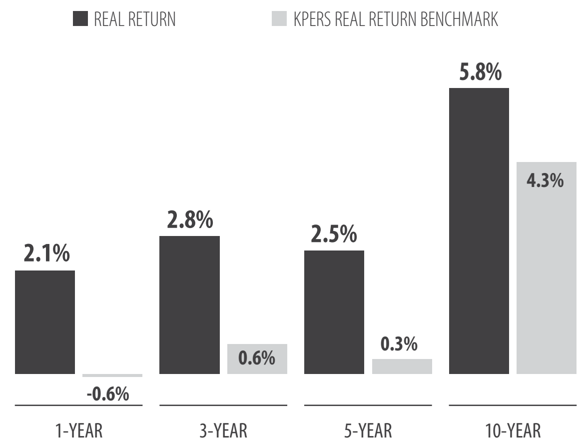
INFRASTRUCTURE

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, and invested across multiple sectors, including renewable power, toll roads, electric utilities, sea ports and energy. The infrastructure portfolio produced a total return of 8.8 percent for the fiscal year, and outperformed the strategy benchmark.

PERFORMANCE

The System's real return portfolio outperformed its benchmark in Fiscal Year 2017, producing a 2.1 percent total return against a benchmark return of -0.6 percent. Infrastructure and timber were the strongest performing investment strategies 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, 2017.

TIME WEIGHTED TOTAL RETURN
Real Return

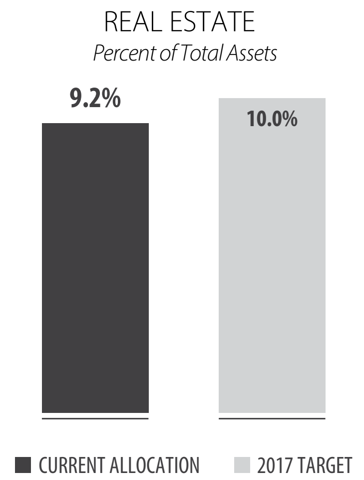


REAL ESTATE INVESTMENTS

As of June 30, 2017, the real estate portfolio had a market value of $1.696 billion, representing 9.2 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 65 percent allocation, while the "noncore" segment is targeted at a 35 percent allocation.



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 currently consists of:

- A separate account containing one directly owned commercial property in the U.S.
- Full commitments to seven commingled funds.

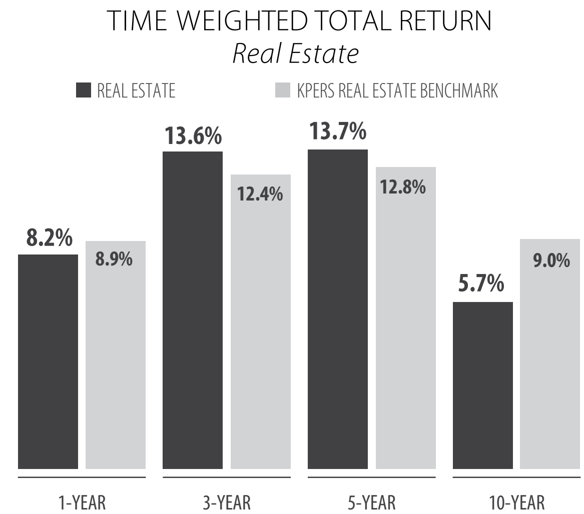
The System completed the gradual liquidation of the separate account real estate portfolio and reinvestment of the proceeds into pooled real estate investment funds during Fiscal Year 2017. This strategy is expected to result in improved liquidity, enhanced portfolio diversification, lower management 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 underperformed its benchmark in Fiscal Year 2017. The core real estate portfolio produced a total return of 7.8 percent, lagging its benchmark slightly by 0.1 percent, while the non-core real estate portfolio underperformed its benchmark by 1.6 percent, with a total return of 9.3 percent. In total, the System's real estate portfolio produced a total return of 8.2 percent, which underperformed the benchmark return by 0.7 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. However, both core and non-core real estate returns have moderated from the very robust levels of the recent past.



ALTERNATIVE INVESTMENTS

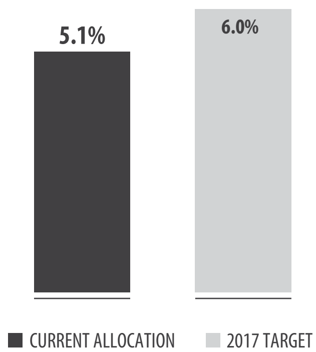
At June 30, 2017, the System's alternative investment portfolio had a fair market value of $932.4 million, representing 5.1 percent of the total portfolio. Since the inception of the alternative investment program in 1997 through June 30, 2017, the System has committed $3.4 billion to 106 funds with 59 general partners.

PORTFOLIO STRUCTURE

The alternative investment portfolio consists primarily of interest 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 98.8 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 $2.3 billion to 52 funds with 27 general partners.

The second portfolio is the Alternative Investment Portfolio (AIP) which represents 1.2 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.

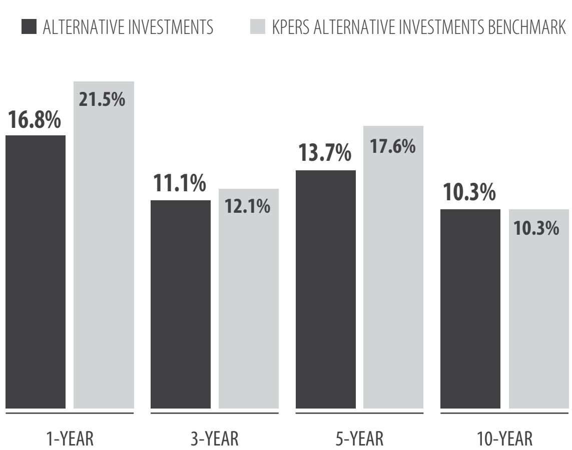
ALTERNATIVE INVESTMENTS
Percent of Total Assets



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 has met that objective over the ten-year time period, with a total return of 10.3 percent

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 pages.

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

As of June 30, 2017

Description	Cost	Market Value
Advanced Technology Ventures VI, L.P.	$8,402,883	$204,215
Apax Europ IX, L.P.	1,418,938	36,716
Apax Europe V, L.P.	7,519,592	112,819
Apollo Investment Fund VII, L.P.	7,684,458	6,545,206
Apollo Investment Fund VIII, L.P.	32,562,330	40,204,937
Ares Corporate Opportunities Fund III, L.P.	9,430,449	15,714,136
Ares Corporate Opportunities Fund IV, L.P.	17,232,900	23,826,311
Ares Corporate Opportunities Fund V, L.P.	2,887,235	2,887,235
Ares SSF IV, L.P.	20,660,066	15,259,298
Audax Mezzanine Fund III, L.P.	9,962,976	10,106,473
Battery Ventures VI, L.P.	3,338,584	43,001
Beacon Group Energy Fund II, L.P.	1,841,499	530,378
Capital Resource Partners IV, L.P.	4,604,598	435,706
CCMP Capital Investors III, L.P.	30,032,495	39,898,560
Centerbridge Capital Partners II, L.P.	18,005,845	18,700,006
Centerbridge Capital Partners III, L.P.	7,125,441	9,900,002
Clayton Dublier & Rice VI, L.P.	3,032,896	48,120
Crestview Partners III, L.P.	12,963,867	15,162,318
Cypress Merchant Banking II, L.P.	6,889,672	11,520
El Dorado Ventures VI, L.P.	4,537,915	353,463
Encap Energy Capital Fund X, L.P.	21,651,379	22,385,015
Encap Energy Capital IX, L.P.	29,580,166	26,740,352
Encap Energy Capital VIII, L.P.	17,532,084	10,867,630
First Reserve Fund XII, L.P.	18,275,864	7,451,819
FS Equity Partners VII, L.P.	22,370,241	24,963,601
Green Equity Investors VII, L.P.	7,673,999	7,673,999
GSO Capital Solutions Fund, L.P.	7,817,086	5,426,652
GSO Capital Solutions Fund II, L.P.	25,041,403	27,701,025
Halpern Denny Fund III, L.P.	1	—
HD Access Inc.	244,886	244,886
Hellman & Friedman VII, L.P.	9,125,221	17,352,630
Hellman & Friedman VIII, L.P.	1,949,150	2,550,983
JMI Equity Fund VII, L.P.	11,347,337	13,037,625
Littlejohn Fund II, L.P.	386,206	75,247
Montagu IV, L.P.	12,692,552	17,335,833
Montagu V, L.P.	3,385,207	3,691,331
New Enterprise Associates 13, L.P.	8,334,976	13,474,430
New Enterprise Associates 16, L.P.	1,500,000	1,500,000
Oak Hill Capital Partners, L.P.	1,187,040	70,762
OCM Opportunities Fund III, L.P.	904,886	6,232
OCM Opportunities Fund VIIb, L.P.	—	1,807,140
OneLiberty Fund IV, L.P.	1,155,056	1,134,818

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

As of June 30, 2017

Description	Cost	Market Value
OneLiberty Ventures 2000, L.P.	12,493,019	3,936,138
Pine Brook Capital Partners, L.P.	13,109,971	11,176,238
Pine Brook Capital Partners II, L.P.	34,770,734	42,492,340
Platinum Equity Capital Partners III, L.P.	21,050,364	32,040,296
Platinum Equity Capital Partners IV, L.P.	6,280,479	7,694,592
Quad-C Partners IX, L.P.	1,416,015	1,433,525
Snow Phipps II, L.P.	15,875,558	24,664,442
Snow Phipps III, L.P.	9,691,044	10,213,246
TA XII, L.P.	18,451,825	21,539,184
TCV IV, L.P.	6,910,657	22,598
TowerBrook Investors III, L.P.	6,394,130	7,037,642
TowerBrook Investors IV, L.P.	5,458,857	9,959,663
TPG Growth II, L.P.	19,290,316	42,261,050
TPG Growth III, L.P.	20,895,273	22,504,084
TPG Partners VI, L.P.	13,815,205	13,029,313
TPG Partners VII, L.P.	22,795,895	25,573,643
VantagePoint Venture Partners III, L.P.	7,072,782	129,001
VantagePoint Venture Partners IV, L.P.	10,007,728	3,001,548
Vestar Capital Partners IV, L.P.	1,439,283	338,504
Vista Equity Partners Fund IV, L.P.	13,051,774	28,194,547
Vista Equity Partners Fund V, L.P.	64,953,712	73,411,660
Vista Equity Partners Fund VI, L.P.	34,643,986	35,070,384
Warburg Pincus Equity Partners, L.P.	—	113,604
Warburg Pincus Private Equity X, L.P.	14,556,847	26,802,708
Warburg Pincus Private Equity XI, L.P.	34,658,556	52,891,486
Warburg Pincus Private Equity XII, L.P.	17,855,078	20,119,673
Wellspring Capital Partners V, L.P.	7,620,129	11,247,676
Windjammer Mezzanine & Equity Fund II, L.P.	—	23,200
	$846,848,596	$932,394,415

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

LIST OF LARGEST HOLDINGS(1)

As of June 30, 2017

EQUITIES			FIXED INCOME			
Shares	Security	Fair Value ($)	Par Value	Security	Description	Fair Value ($)
1,044,632	Apple Inc	$150,447,901	80,000,000	Citigroup Hldg Inc	1.07% 03 Jul 2017	$80,000,000
1,501,847	Microsoft Corp	103,522,314	56,085,000	US Treasury N/B	1.125% 30 Sep 2021	54,555,562
79,529	Amazon.com Inc	76,984,072	54,224,092	Tsy Infl Ix N/B	0.125% 15 Apr 2022	53,965,443
540,240	Johnson + Johnson	71,468,350	50,000,000	Fed Home Ln Discount Nt	0.01% 05 Jul 2017	49,997,000
467,063	Facebook Inc A	70,517,172	50,000,000	WI Treasury Sec	0.01% 06 Jul 2017	49,996,885
849,331	Exxon Mobil Corp	68,566,492	50,000,000	US Treasury N/B	0.875% 15 Jan 2018	49,922,000
385,059	Berkshire Hathaway Inc Cl B	65,217,443	50,000,000	US Treasury N/B	0.875% 31 May 2018	49,820,500
708,683	JP Morgan Chase + Co	64,773,626	50,000,000	US Treasury N/B	0.625% 30 Apr 2018	49,734,500
59,513	Alphabet Inc Cl A	55,328,046	50,000,000	US Treasury N/B	0.625% 30 Jun 2018	49,681,500
60,542	Alphabet Inc Cl C	55,016,332	50,000,000	Treasury Bill	0.01% 29 Mar 2018	49,580,670

(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, 2017

	June 30, 2016 Fair Value	Purchases and Other Increases	Sales and Other Decreases	June 30, 2017 Fair Value	Asset Mix Fair Value
Marketable Securities					
Domestic Equities	$ 5,513,807	$ 3,578,188	$ (3,215,445)	$ 5,876,550	31.62%
International Equities	3,599,589	3,371,999	(2,860,562)	4,111,026	22.12
Total Fixed .	4,964,360	9,187,731	(9,336,432)	4,815,659	25.91
Temporary(2) Investments	390,125	28,014,139	(27,663,437)	740,827	3.98
Total Marketable Securities	14,467,881	44,152,057	(43,075,876)	15,544,062	83.63
Real Estate and Alternative Investments					
Real Estate	1,805,745	406,554	(102,010)	2,110,289	11.35
Alternatives	761,716	254,019	(83,341)	932,394	5.02
Total Real Estate and Alternative Investments	2,567,461	660,573	(185,351)	3,042,683	16.37
Total	$ 17,035,342	$44,812,630	$(43,261,227)	$18,586,745	100.00%

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

U.S. EQUITY COMMISSIONS

For the Fiscal Year Ending June 30, 2017

Broker Name	Commissions Paid	Shares	Commission Per Share	Percent of Total Commissions
Merrill Lynch Pierce Fenner & Smith Inc.	$301,673	28,939,588	$0.01	29.7%
Liquidnet Inc.	87,634	4,046,345	0.02	8.6
UBS Securities LLC	75,412	6,053,960	0.01	7.4
ICBC Financial Services	59,522	5,952,225	0.01	5.9
J.P. Morgan Securities Inc.	56,245	3,617,037	0.02	5.5
Morgan Stanley Co. Inc.	47,094	3,600,862	0.01	4.6
Citigroup Global Markets Inc.	43,039	3,178,203	0.01	4.2
Jefferies & Company Inc.	37,637	2,198,808	0.02	3.7
Investment Technology Group Inc.	37,522	2,987,131	0.01	3.7
Barclays Capital	28,767	1,229,250	0.02	2.8
Raymond James and Associates	27,588	752,685	0.04	2.7
Goldman Sachs & Co.	23,327	1,098,364	0.02	2.3
Wells Fargo Securities, LLC	23,307	676,718	0.03	2.3
ISI Group Inc.	21,005	676,192	0.03	2.1
Stifel Nicolaus & Co. Inc.	16,810	536,743	0.03	1.7
Robert W. Baird Co.	16,091	511,908	0.03	1.7
Green Street Trading, LLC	16,020	524,569	0.03	1.6
RBC Capital Markets	11,173	752,520	0.01	1.1
Other	85,169	8,489,134	0.01	8.4
Total Broker Commissions	**$1,015,035**	**75,822,242**		**100.0%**

ACTUARIAL **SECTION**

ACTUARIAL CERTIFICATION LETTER

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

October 19, 2017

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, 2016, for the purpose of determining contribution rates for Fiscal Year 2020 for the State and 2019 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, 2016, as amended by legislation passed by the 2017 legislature. There was one change to the benefit provisions for the Kansas Police and Firemen's Retirement System along with changes to the scheduled contributions for the State/School group. In addition, the KPERS Board adopted a new set of actuarial assumptions as the result of an experience study completed in November 2016.

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, 2016, 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, 2016, 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, 2016, were also prepared as of June 30, 2017, 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% discount rate for GASB 67 calculations (7.75% 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, 2017, 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, 2016, 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

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). The results of the December 31, 2016, actuarial valuations for each of the Systems is discussed below.

The primary purposes of performing actuarial valuations are to:

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

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

- Senate Substitute for Substitute for 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 paid 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 payment of the contribution reduction from Fiscal Year 2016 with interest ($115 million), scheduled in Fiscal Year 2018, will not be made.

- Senate Substitute for HB 2002 (S Sub 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 currently 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 paid.

  - Fiscal Year 2019: The contributions for School employers within the State/School group for Fiscal Year 2019 will be reduced so the total State/School 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 paid to 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 achieved (projected to be in Fiscal Year 2021 if all assumptions are met).

- 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 bill, the duty-related spousal 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 (H Sub for SB21) 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 valuation process does not include a specific assumption regarding the re-employment of retirees in KPERS covered positions so the change to the working after retirement provisions in House Substitute for SB 21 did not have an impact on the current valuation results. However, if the changes in the working after retirement provisions impact the current patterns of retirement, this experience will be reflected in future valuations and may eventually impact the retirement assumption used in future valuations.

As a result of the experience study completed in November 2016, there have been several changes to the actuarial assumptions and methods since the prior valuation. The changes to the economic assumptions, which apply to all groups, are effective December 31, 2016, and include:

- The price inflation assumption was lowered from 3.00 percent to 2.75 percent.
- The investment return assumption was lowered from 8.00 percent to 7.75 percent.
- The general wage growth assumption was lowered from 4.00 percent to 3.50 percent.
- The payroll growth assumption was lowered from 4.00 percent to 3.00 percent.

The changes to the demographic assumptions, by System, are shown below:

KPERS

- The post-retirement healthy mortality assumption was changed to the RP-2014 Mortality Table, with adjustments to better fit the observed experience for the various KPERS groups. The most recent mortality improvement scale, MP-2016, is used to anticipate future mortality improvements in the valuation process through the next experience study.
- The active member mortality assumption was modified to also be based on the RP-2014 Employee Mortality Table with adjustments.
- The retirement rates for the select period (when first eligible for unreduced benefits under Rule of 85) were increased, but all other retirement rates were decreased.
- Disability rates were decreased for all three groups.
- The termination of employment assumption was increased for all three groups.
- The interest crediting rate assumption for KPERS 3 members was lowered from 6.50 percent to 6.25 percent.

KP&F

- The post-retirement healthy mortality assumption was changed to the RP-2014 Mortality Table with 1-year age set forward and the MP-2016 Scale is used to anticipate future mortality improvements.
- The mortality assumption for disabled members was changed to the RP-2014 Disabled Lives Table (generational using MP-2016) with a 1-year age set forward.
- The active member mortality assumption was modified to the RP-2014 Employee Mortality Table with a 1-year age set forward with a 90 percent scaling factor.
- The retirement rates for Tier I were lowered and the ultimate assumed retirement age was changed from 63 to 65 for Tier II.
- The termination of employment rates for Tier II were increased to better match the observed experience.

JUDGES

- The post-retirement healthy mortality assumption was changed to the RP-2014 Mortality Table with a 2-year age setback and the MP-2016 Scale is used to anticipate future mortality improvements.
- The active member mortality assumption was modified to the RP-2014 Employee Mortality Table with a 2-year age setback with an 80 percent scaling factor.
- The retirement rates were modified with increases at some ages and decreases at others.

In addition to the changes pertaining to actuarial assumptions, the Board has also adopted a new method for paying off the unfunded actuarial liability (UAL). Under the new method, the UAL is amortized using a "layered" approach, where the December 31, 2015 UAL serves as the initial (legacy) base and is amortized over a period originally set at 40 years beginning July 1, 1993. As of December 31, 2016, sixteen years remain in that period. The increase in the UAL, as of December 31, 2016, that resulted from the assumption changes is amortized over a closed 25-year period. Any change to the UAL that results from actuarial experience is amortized over closed 20-year periods.

For more information on the change to the actuarial assumptions and methods, please see the complete 2016 Experience Study report, dated November 18, 2016. A summary of the cost impact of the assumption changes on the December 31, 2016, valuation results is shown in the following table:

	Old Assumptions and Methods	New Assumptions and Methods	Change
State/School			
Accrued Liability (millions)	$18,465	$ 18,867	$ 402
Actuarial Value of Assets	12,177	12,177	0
Unfunded Accrued Liability (millions)	$ 6,288	$ 6,690	$ 402
Normal Cost Rate	8.21%	8.14%	(0.07%)
UAL Amortization Rate	11.05%	12.60%	1.55%
Actuarial Contribution Rate	19.26%	20.74%	1.48%
Local			
Accrued Liability (millions)	$ 4,994	$ 5,095	$ 101
Actuarial Value of Assets	3,580	3,580	0
Unfunded Accrued Liability (millions)	$ 1,414	$ 1,515	$ 101
Normal Cost Rate	7.82%	7.67%	(0.15%)
UAL Amortization Rate	6.30%	7.22%	0.92%
Actuarial Contribution Rate	14.12%	14.89%	0.77%

	Old Assumptions and Methods	New Assumptions and Methods	Change
KP&F			
Accrued Liability (millions)	$ 3,093	$ 3,175	$ 82
Actuarial Value of Assets	2,329	2,329	0
Unfunded Accrued Liability (millions)	$ 764	$ 846	$ 82
Normal Cost Rate	15.10%	14.88%	(0.22%)
UAL Amortization Rate	12.30%	14.40%	2.10%
Actuarial Contribution Rate	27.40%	29.28%	1.88%
Judges			
Accrued Liability (millions)	$ 172.1	$ 181.7	$ 9.6
Actuarial Value of Assets	170.6	170.6	0.0
Unfunded Accrued Liability (millions)	$ 1.5	$ 11.1	$ 9.6
Normal Cost Rate	19.60%	20.30%	0.70%
UAL Amortization Rate	(0.07%)	3.99%	4.06%
Actuarial Contribution Rate	19.53%	24.29%	4.76%

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 144,564 active KPERS members, 28,511 (about 20 percent) were KPERS 3 members as of the valuation date. KPERS 3 members receive guaranteed interest of 4.0 percent on their account balances. There is also the possibility of additional interest credits that are dependent on KPERS' investment return. 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 2016 was dependent on the rate of return on the market value of assets for 2015 and 2016. Because the compound average rate of return during this period was 4.3 percent, no dividend was payable.

The valuation results provide a "snapshot" view of the System's financial condition on December 31, 2016. The unfunded actuarial liability (UAL), for the System as a whole, increased by $522 million due to multiple factors, the most significant of which was the increase in the actuarial liability due to the assumption changes adopted since the prior valuation.

In KPERS, the State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap has changed over time, but the current cap is 1.20 percent for Fiscal Year 2020 (the rate is set based on the December 31, 2016, 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. 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 this year), 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 for this valuation and the prior valuation follows:

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[1]	8.89%	8.89%	0.00%
Police & Fire - Uniform Rates[2]	22.13%	22.13%	0.00%
Judges	18.65%	18.65%	0.00%

DECEMBER 31, 2015 VALUATION

System	Actuarial	Statutory	Difference
State[1]	8.28%	13.21%	(4.93%)
School[1]	14.59%	13.21%	1.38%
State/School[1]	13.23%	13.21%	0.02%
Local[1]	8.39%	8.39%	0.00%
Police & Fire - Uniform Rates [2]	20.09%	20.09%	0.00%
Judges	14.68%	14.68%	0.00%

1) By statute, rates are allowed to increase by a maximum of 0.9 percent for 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 beyond plus the cost of any benefit enhancements. The December 31, 2016, valuation sets the employer contribution rate for Fiscal Year 2020 for the State and School group and calendar year 2019 for the Local group. An additional contribution of 0.18 percent applies to the School group beginning in Fiscal Year 2018 which increases to 0.69 percent in Fiscal Year 2020 due to contribution reductions in Fiscal Year 2017 and Fiscal Year 2019 (see table below).

2) For KP&F, the statutory contribution rate is equal to the "Uniform" rate. The rate shown is for local employers. The rate for State employers is 22.11 percent this year. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer.

Legislation passed in the 2017 session provides for the payment of the contribution reductions for the School group from 2017 and 2019 in level annual installments over a twenty-year period commencing in Fiscal Years 2018 and 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 reduction to the Fiscal Year 2017 School contributions is 0.18 percent for Fiscal Years 2018 and 2019 and 0.17 percent for Fiscal Year 2020. The additional contribution rate for the scheduled $194 million reduction to the Fiscal Year 2019 School contributions is 0.52 percent, beginning in Fiscal Year 2020. Therefore, the total statutory contribution rates for the School group for Fiscal Year 2018 through Fiscal Year 2020 are shown in the following table:

	Fiscal Year 2018	Fiscal Year 2019	Fiscal Year 2020
Regular Statutory State/School			
Contribution Rate	12.01%	13.21%	14.41%
Contribution for FY 2017			
Contribution Reduction	0.18%	0.18%	0.17%
Contribution for FY 2019			
Contribution Reduction	0.00%	0.00%	0.52%
Total School Contribution Rate	12.19%	13.39%	15.10%

The rate of return on the market value of assets in 2016 was 8.5 percent, as reported by KPERS, which was higher than the 2016 assumed return of 8.0 percent. Due to the asset smoothing method, the resulting rate of return on the actuarial value of assets for calendar year 2016 was 8.4 percent. The net impact of recognizing the scheduled portion of deferred asset experience and the favorable investment experience during 2016 was an increase in the net deferred asset loss from $515 million in the prior valuation to $566 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, the statutory contribution rate for the State/School group is projected to converge with the actuarial required contribution rate before 2033, the end of the amortization period for the legacy unfunded actuarial liability, based on the current statutory funding policy and assuming all actuarial assumptions are met and contributions are made, as scheduled, in future years.

EXPERIENCE - ALL SYSTEMS COMBINED

December 31, 2015 – December 31, 2016

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, 2016. 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 assets and liabilities impacted the change in the actuarial contribution rates between the December 31, 2015, and December 31, 2016, 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, 2015, and December 31, 2016, actuarial valuations.

	State	School	Local
12/31/2015 (Starting count)	22,117	84,020	38,532
New actives	2,765	10,566	5,307
Non-vested Terminations	(859)	(3,991)	(2,134)
Elected Refund	(680)	(1,390)	(1,237)
Vested Terminations	(571)	(2,360)	(1,132)
Total Withdrawals	(2,110)	(7,741)	(4,503)
Deaths	(37)	(101)	(67)
Disabilities	(26)	(59)	(37)
Retirements	(797)	(2,288)	(977)
Other/Transfer	(33)	(76)	109
12/31/2016 (Ending count)	21,879	84,321	38,364

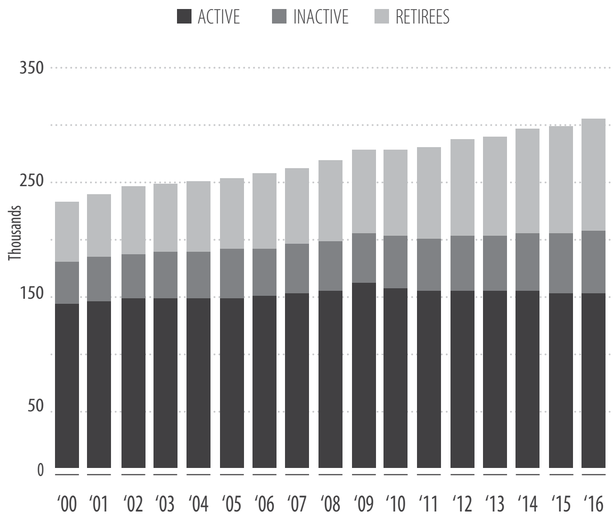
	KP&F	Judges	Total
12/31/2015 (Starting count)	7,244	262	152,175
New actives	631	16	19,285
Non-vested Terminations	(223)	(0)	(7,207)
Elected Refund	(89)	(1)	(3,397)
Vested Terminations	(49)	(1)	(4,113)
Total Withdrawals	(361)	(2)	(14,717)
Deaths	(5)	(0)	(210)
Disabilities	(15)	(0)	(137)
Retirements	(193)	(22)	(4,277)
Other/Transfer	2	(2)	0
12/31/2016 (Ending count)	7,303	252	152,119

KPERS 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



ASSETS

As of December 31, 2016, the System had total funds of $17.7 billion on a market value basis. This was an increase of $0.8 billion from the December 31, 2015, value of $16.9 billion.

In the 2016 session, legislation was passed that provided for the delay of up to $100 million in State and School contributions to KPERS which were to be paid, with interest at 8.0 percent, in Fiscal Year 2018. The actual contribution reduction for Fiscal Year 2016 was $97.4 million, including $410,000 in State agency contributions to KP&F. The scheduled payment was $115 million (including interest) on June 30, 2018. As a result, KPERS had reflected the contribution reduction as a long-term receivable and the contributions were assumed to be paid when calculations were performed in the December 31, 2015, valuation. Due to legislation in 2017, the contribution reduction will not be paid, and KPERS has written down the value of the receivable as of December 31, 2016, ($99 million with accrued interest), resulting in a decrease in the asset value. For purposes of our reporting, the impact of the legislative change is labeled as "non-collectible pension contributions" which lowers the market value of assets as well as the actuarial value of assets, thereby increasing the unfunded actuarial liability.

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

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

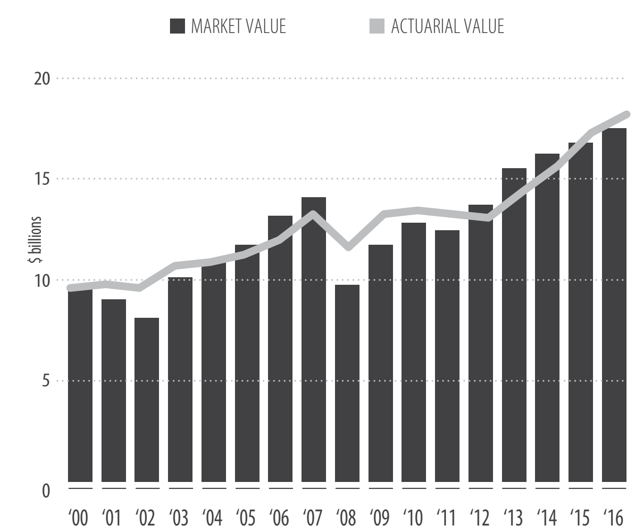
	Market Value $(millions)	Actuarial Value $(millions)
Assets, December 31, 2015	$16,893	$17,409
• Employer and Member Contributions	1,163	1,163
• Benefit Payments	(1,649)	(1,649)
• Non-collectible Pension Contributions	(99)	(99)
• Investment Income, Net of Expenses	1,382	1,432
Assets, December 31, 2016	$17,690	$18,256
Rate of Return	8.5%	8.4%

The actuarial value of assets as of December 31, 2016, was $18.256 billion. The annualized dollar-weighted net rate of return for 2016 was 8.4 percent, measured on the actuarial value of assets, and 8.5 percent, measured on the market value of assets, as reported by KPERS.

Due to the use of an asset smoothing method, there is $566 million of net deferred investment loss experience that has not yet been recognized, i.e. the market value of assets is lower than the actuarial value. This deferred investment loss 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 more favorable than assumed.

TOTAL SYSTEM ASSETS

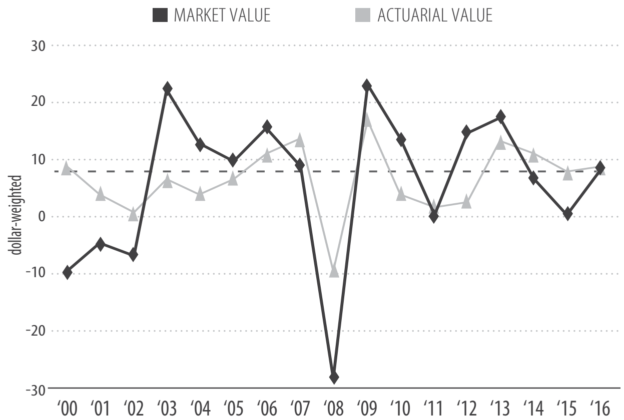
By Calendar Year



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.

ASSETS RATE OF RETURN

By Calendar Year



The 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 unfunded actuarial liability 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 unfunded actuarial liability. Benefit improvements, experience gains and losses, and changes in actuarial assumptions and methods will also impact the total actuarial liability (AL) and the unfunded portion thereof.

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

	State	School	Local
Actuarial Liability	$4,386	$14,481	$5,095
Actuarial Value of Assets	3,464	8,713	3,580
Unfunded Actuarial Liability*	$ 922	$ 5,768	$ 1,515
	KP&F	**Judges**	**Total***
Actuarial Liability	$ 3,175	$ 182	$27,318
Actuarial Value of Assets	2,329	171	18,256
Unfunded Actuarial Liability*	$ 846	$ 11	$ 9,061

**May not add due to rounding.*

As mentioned earlier, there were several changes to the actuarial assumptions in this valuation, including a change in the investment return assumption from 8.00 percent to 7.75 percent. The net impact of all assumption changes was an increase in the unfunded actuarial liability at December 31, 2016, of $593 million.

Beginning with this valuation, the unfunded actuarial liability is amortized using a "layered" approach. The legacy unfunded actuarial liability is the amount 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. This initial or legacy amortization base continues to be amortized over the original period, which was set at 40 years beginning July 1, 1993, (16 years remaining as of December 31, 2016). The change in the unfunded actuarial liability in the December 31, 2016, valuation as a result of the assumption changes (projected to June 30, 2019, or December 31, 2018, as appropriate) is amortized over a closed 25-year period. Changes in the unfunded actuarial liability each year that result from actuarial experience are amortized over a closed 20-year period that begins with the Fiscal Year in which the contributions will apply.

For the State/School group, the current statutory contribution rate is less than the actuarial contribution rate which leads to an increase in the unfunded actuarial liability for the State/School group. Other factors influencing the unfunded actuarial liability 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 2016), based on the previous assumptions that were used in the December 31, 2015, valuation. For all of the groups, except KP&F, the valuation reflects a net liability gain for the year, largely due to lower salary increases than expected. The total net liability gain for the System was $156 million. The liability loss for KP&F was primarily due to unfavorable mortality experience. The System experienced a return of 8.4 percent on the actuarial value of assets, which is higher than the assumed return for 2016 of 8.0 percent. This resulted in an experience gain for all groups of $59 million. Therefore, the net result of all experience in 2016 (asset and liability) for all groups was an experience gain for the System of $215 million.

Between December 31, 2015, and December 31, 2016, the change in the unfunded actuarial liability for the System, as a whole, was as shown in the following table (in millions):

	$ millions
Unfunded Actuarial Liability, December 31, 2015	$ 8,539
• effect of contribution cap/time lag	70
• expected decrease due to amortization	(38)
• (gain)/loss from investment return on actuarial assets	(59)
• demographic experience[1]	(156)
• all other experience	12
• assumption changes	593
• benefit provision changes	1
• non-collectible pension contributions	99
Unfunded Actuarial Liability, December 31, 2016[2]	**$ 9,061**

1) Liability gain is about 0.57 percent of total actuarial liability.
2) May not add due to rounding.

Effective with the December 31, 2016, actuarial valuation, the unfunded actuarial liability is amortized by components or "pieces", e.g., the legacy portion of unfunded actuarial liability (over 16 years), the increase due to the changes in actuarial assumptions (over 25 years), the change due to actuarial experience (over 20 years) and the change due to modifying the KP&F benefit structure (over 20 years).

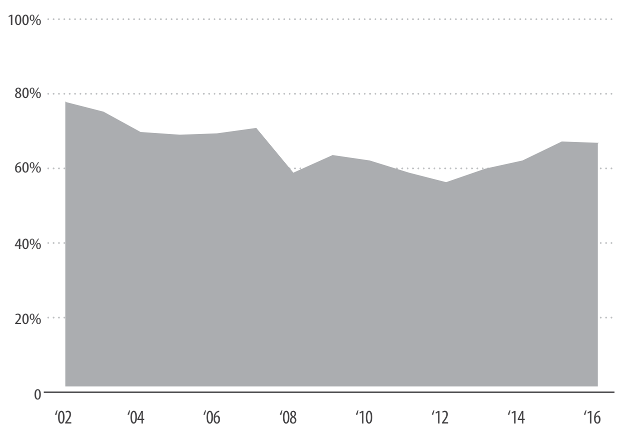
An evaluation of the unfunded actuarial liability on a pure dollar basis may not provide a complete analysis since only the difference between the assets and liabilities (which are both very large numbers) is reflected. Another way to evaluate the unfunded actuarial liability and the progress made in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

	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16
Using Actuarial Value of Assets:							
Funded Ratio (AVA/AL)	62%	59%	56%	60%	62%	67%	67%
Unfunded Actuarial Liability (AL-AVA)	$8,264	$9,228	$10,253	$9,766	$9,468	$8,539	$9,061
Using Market Value of Assets:							
Funded Ratio (MVA/AL)	59%	55%	59%	65%	65%	65%	65%
Unfunded Actuarial Liability (AL-MVA)	$8,936	$10,130	$9,714	$8,584	$8,808	$9,055	$9,627

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

Fiscal Year End



Given the current funded status of the System, the deferred investment experience, the amortization method, the amortization period and the scheduled increases in employer contribution rates, the dollar amount of the unfunded actuarial liability for the entire System is expected to increase 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,
- an "unfunded actuarial liability contribution" for the excess of the portion of projected liabilities allocated to service to date over the actuarial value of assets.

In KPERS, State, School and Local employers do not necessarily contribute the full actuarial contribution rate. Based on legislation passed in 1993, the employer contribution rates certified by the Board may not increase by more than the statutory cap. The statutory cap, which has been changed periodically, is 1.2 percent for all three groups (0.9 percent in Fiscal Year 2014, 1.0 percent in 2015, and 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, 2016, valuation are used to set employer contribution rates for Fiscal Year 2020 for the State and School (July 1, 2019, to June 30, 2020) and 2019 for Local employers (calendar year 2019).

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 unfunded actuarial liability 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 unfunded actuarial liability is amortized as a level percentage of payroll for all groups, except the Judges, for whom a level-dollar payment is used. 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, 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[1]	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 0.9 percent for 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 beyond plus the cost of any benefit enhancements. The December 31, 2016, valuation sets the employer contribution rate for Fiscal Year 2020 for the State and School group and calendar year 2019 for the Local group. An additional contribution of 0.18 percent applies to the School group beginning in Fiscal Year 2018, which increases to 0.69 percent in Fiscal Year 2020, 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 local employers. The rate for State employers is 22.11 percent this year. The uniform rate does not include the payment required to amortize the unfunded past service liability determined separately for each employer.

Separate employer contribution rates are calculated for two subgroups of the State: Correctional Employee Groups with normal retirement age 55 (C55) and normal retirement age 60 (C60). The contribution rates are calculated by increasing the state statutory contribution rate by the difference in the normal cost rate for the C55 and C60 groups over the normal cost rate for regular state members, but not to exceed the statutory cap on contribution increases. The higher contribution rates 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 2020 are shown in the following table:

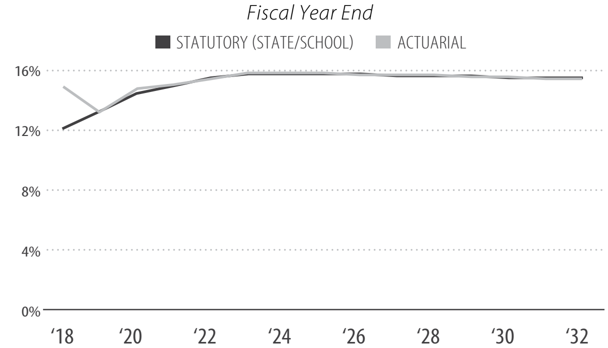
Corrections Group	Statutory Rate
Retirement Age 55:	14.41%
Retirement Age 60:	14.41%

The employer contribution rates increased from those in the December 31, 2015, valuation primarily due to the new set of assumptions, adopted by the Board as a result of the most recent experience study.

Due to statutory caps, the full actuarial contribution rate is not 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 actuarial required contribution rate) in 2010 and 2012, respectively, and remain at the actuarial required contribution rate in this valuation. Based on the current valuation, there is a difference (shortfall) between the actuarial and statutory contribution rates of 1.74 percent for the School group and 0.33 percent for the State/School group. Assuming a 7.75 percent return on the market value of assets for 2017 and beyond, all other actuarial assumptions are met in the future, and the current statutory funding policy continues and contributions are made as scheduled, the estimated ARC Date for the combined State/School group is Fiscal Year 2021 at a rate of 14.99 percent. For comparison purposes, the projections in last year's valuation (under different assumptions and scheduled contributions) estimated a projected ARC Date of Fiscal Year 2020 at a rate of 13.12 percent.

PROJECTED EMPLOYER CONTRIBUTION RATES – STATE/SCHOOL

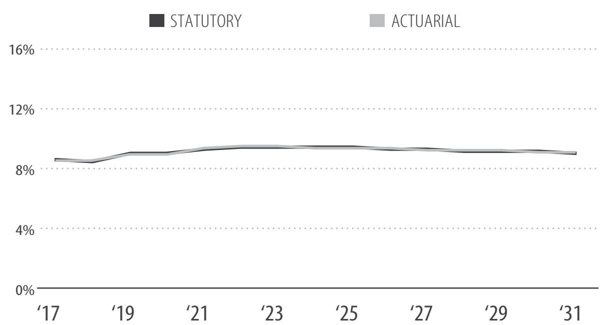
Fiscal Year End



Based on preliminary modeling results which are subject to change, the actuarial required contribution (ARC) date for the State/School group is projected to occur in Fiscal Year 2021 with an actuarial required contribution rate of 14.99 percent, assuming all actuarial assumptions are met in future years, and then increase to around 15.75 percent. The projected ARC date in last year's valuation (under the old assumptions), was Fiscal Year 2020 with an ARC rate of 13.12 percent. Future experience, especially investment returns, will heavily influence the ultimate ARC date and rate.

PROJECTED EMPLOYER CONTRIBUTION RATES – LOCAL

Fiscal Year End



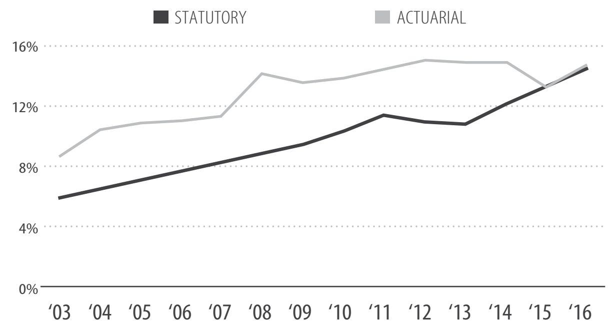
The Local group reached the actuarial required contribution (ARC) Date in the 2012 valuation with an ARC rate of 9.48 percent. It is now 8.89 percent in the 2016 valuation. The projected contribution rate is expected to increase to around 9.43 percent as the deferred investment experience is realized, 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.

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

Significant changes in funding methods occurred in 2003, and the System received bond proceeds in 2004 and 2015. 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.

STATE/SCHOOL CONTRIBUTION RATES

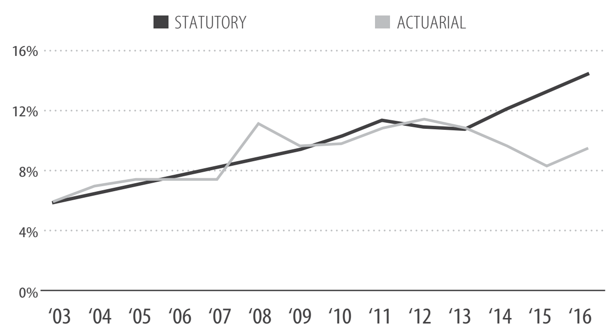
Fiscal Year End



Numerous factors have contributed to the increase in the actuarial required contribution (ARC) rate over much of this period including investment experience, changes in actuarial assumptions, and contributions significantly below the actuarial rate. The ARC rate increased in the current valuation due to the new set of assumptions. As a result, the shortfall between the statutory and actuarial contribution rates increased to 0.33 percent.

STATE CONTRIBUTION RATES

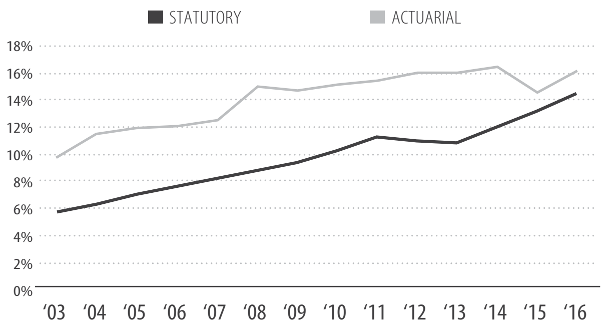
Fiscal Year End



The split of the State group into a separate group with the 2003 valuation, coupled with the bond issue, lowered the State actuarial required contribution (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 actuarial required contribution rate increased to 9.49 percent, due to the new set of assumptions and methods.

SCHOOL CONTRIBUTION RATES

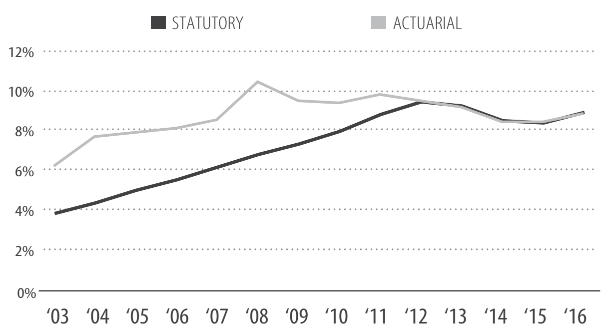
Fiscal Year End



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 actuarial required contribution (ARC) rate has increased over most of this period. The bond proceeds in 2015 decreased the ARC rate, but it increased significantly in the 2016 valuation due to the use of new assumptions and methods.

LOCAL CONTRIBUTION RATES

Fiscal Year End

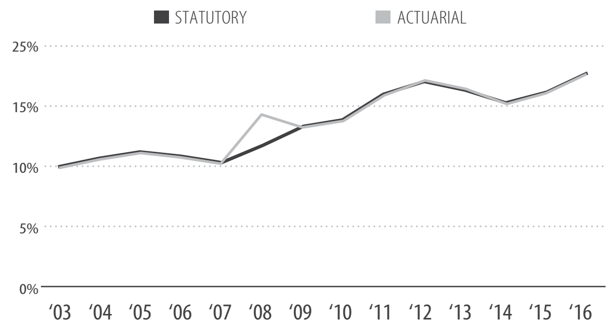


The Local contribution rate has also been impacted by changes in actuarial assumptions and methods as well as investment performance. With the significant changes in 2012 Sub House Bill 2333 and favorable investment returns, the statutory contribution rate was equal to the actuarial required contribution rate (ARC) in the 2012 valuation. The statutory rate remains equal to the ARC in the 2016 valuation despite the impact of the new assumptions and methods.

Investment experience in 2008 and 2011 resulted in higher contribution rates in the latter part of the period. The change in the assumptions in the 2016 valuation resulted in an increase in the actuarial contribution rate.

KP&F CONTRIBUTION RATES (LOCAL)

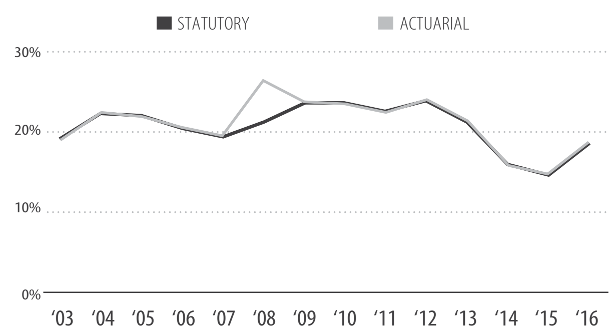
Fiscal Year End



Investment experience in 2008 and 2011 resulted in higher contribution rates in the middle of the period. Changes to the actuarial assumptions and methods in the 2016 valuation resulted in a significant increase in the actuarial required contribution (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. 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 Tier 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 beyond.

- Contingent upon IRS approval, established an election by Tier 1 members between different contribution rate and benefit levels. The legislation provided that, if the IRS rejected or did not take action to approve the election, Tier 1 members would default to an increase in their employee contributions to 5 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 Tier 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, 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 2017, 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 Tier 3 benefit structure, generally decreasing the portion of the benefit that is guaranteed, thereby increasing the risk-sharing portion of the benefit. The changes in House Bill 2533 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 beyond.

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

The 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 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 paid 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 payment 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 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 paid 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 payment 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 currently 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 paid 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 for 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 reaching ARC rate in FY 2021.

- 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.

COMMENTS

The most significant impact on the December 31, 2016, valuation was the impact of the new set of actuarial assumptions, adopted by the KPERS Board of Trustees in November 2016. Those changes increased the unfunded actuarial liability by $593 million and the actuarial contribution rates for all systems. The changes were implemented to provide a better estimate of the future liabilities of the System.

Legislation in 2017 resulted in the reduction in the School group contribution amounts for Fiscal Years 2017 ($64.4 million) and 2019 ($194.4 million). Those reductions are to be paid in annual installments, as level dollar amounts, over twenty years. As a result, KPERS will treat them as a long-term receivable. In the valuation process, we also treat these contributions as if they have or will be made so there is no negative impact on the System's funding. However, legislation in the 2017 session provided that the reduced contribution of $97.4 million from Fiscal Year 2016, scheduled to be paid in Fiscal Year 2018, will not be made, therefore reducing the market value and actuarial value of assets and increasing the unfunded actuarial liability for the State/School group and, to a small extent, KP&F.

Like most public retirement systems, KPERS uses an asset smoothing method to average investment experience above and below the assumed rate of return (7.75 percent for 2017 and forward). 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 2016 was 8.4 percent. As of the valuation date, the actuarial value of assets exceeds the market value of assets by about 3.2 percent or $566 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 above the 7.75 percent assumed rate of return. As the deferred investment experience is recognized, the funded ratio can be expected to decrease and the actuarial contribution rate to increase.

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 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	$18,867	$18,867	$3,175	$3,175
Asset Value	12,177	11,799	2,329	2,256
Unfunded Actuarial Liability*	6,690	7,068	846	918
Funded Ratio	65%	63%	73%	71%
Contribution Rate:				
Normal Cost Rate	8.14%	8.14%	14.88%	14.88%
UAL Payment	12.60%	13.43%	14.40%	15.87%
Actuarial Contribution Rate	20.74%	21.59%	29.28%	30.75%
Employee Rate	6.00%	6.00%	7.15%	7.15%
Employer Rate	14.74%	15.59%	22.13%	23.60%

** May not add due to rounding*

Future investment experience will impact the extent to which the deferred investment experience (which is currently a net loss) 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.

The legacy unfunded actuarial liability is amortized over a period ending in 2033. Increases in the unfunded actuarial liability resulting from the assumption changes adopted following the experience study are amortized over 25 years, while other actuarial experience is being amortized over 20 years. While all of the groups (State/School, Local, KP&F, and Judges) are projected to reach a funded ratio of 100 percent with the December 31, 2041, valuation when the assumption changes are fully amortized, 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, 2016, VALUATION ($ millions)

	State	School	State/School	Local	KP&F	Judges	Total
UAL in 12/31/2015 Valuation Report	**$870.4**	**$5,405.5**	**$6,275.9**	**$1,485.7**	**$771.6**	**$6.0**	**$8,539.2**
· Effect of contribution Cap/Time Lag	(25.7)	119.8	94.1	(16.5)	(4.8)	(2.5)	70.3
· Expected Decrease Due to UAL Amortization	(3.9)	(24.2)	(28.1)	(6.6)	(3.4)	(0.2)	(38.3)
· Actual vs. Expected Experience							
Investment Return	(15.3)	(27.0)	(42.3)	(8.7)	(7.5)	(0.6)	(59.2)
Demographic Experience	(36.3)	(88.0)	(124.3)	(37.6)	7.7	(1.4)	(155.7)
All Other Experience	8.1	6.8	14.9	(2.2)	(1.1)	0.2	11.8
· Change in Actuarial Assumptions/Methods	120.3	281.0	401.3	100.6	81.9	9.6	593.4
· Change in Benefit Provisions	0.0	0.0	0.0	0.0	0.7	0.0	0.7
· Non-Collectible Pension Contributions	4.1	94.4	98.5	0.0	0.4	0.0	98.9
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**

Note: Numbers may not add due to rounding.

SUMMARY OF CHANGES IN EMPLOYER ACTUARIAL CONTRIBUTION RATE BY SYSTEM

AS OF DECEMBER 31, 2016

Percentage of Payroll	State	School	State/School	Local	KP&F[1]	Judges
Actuarial Contribution Rate in 12/31/2015 Valuation	**8.28%**	**14.59%**	**13.23%**	**8.39%**	**20.09%**	**14.68%**
Change Due to Amortization of UAL						
· Effect of Contribution Cap/Time Lag	(0.23)	0.29	0.18	(0.08)	(0.08)	(0.92)
· UAL Amortization	(0.03)	(0.06)	(0.05)	(0.03)	(0.06)	(0.04)
· Investment Experience	(0.13)	(0.06)	(0.08)	(0.04)	(0.13)	(0.22)
· Liability Experience	(0.32)	(0.21)	(0.23)	(0.18)	0.13	(0.51)
· All Other Experience	0.66	(0.04)	0.13	0.17	0.25	0.69
· Change in Assumptions/Methods	1.52	1.56	1.55	0.92	2.10	4.06
· Change in Benefit Provisions	0.00	0.00	0.00	0.00	0.01	0.00
· Non-Collectible Pension Contributions	0.04	0.22	0.18	0.00	0.01	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	(0.22)	(0.04)	(0.07)	(0.15)	(0.22)	0.70
· All Other Experience	(0.08)	(0.10)	(0.10)	(0.11)	0.03	0.21
Actuarial Contribution Rate in 12/31/2016 Valuation	**9.49%**	**16.15%**	**14.74%**	**8.89%**	**22.13%**	**18.65%**

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, 2016, 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
Actual Experience vs. Assumed								
• Investment	$350	$644	$140	$456	$167	$(293)	$(626)	$2,332
• Other	(9)	68	(32)	16	(84)	140	99	78
Assumption Changes	0	0	0	437	(5)	0	384	0
Changes in Data/Procedures	5	177**	(286)***	0	0	0	0	0
Change in Cost Method	0	0	1,147	0	0	0	0	0
Effect of Contribution Cap/Lag	115	143	178	179	247	258	251	246
Amortization Method	14	21	47	68	84	83	78	71
Change in Benefit Provisions	0	37	3	1	0	24	2	0
Change in Actuarial Firm/Software	0	0	0	0	0	0	0	0
Bond Issue	0	(41)	(440)	0	0	0	0	0
Non-Collectible Pension Contributions	0	0	0	0	0	0	0	0
Total	$475	$1,049	$757	$1,157	$409	$212	$188	$2,727

$(millions)	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16	Total
Actual Experience vs. Assumed									
• Investment	$(1,011)	$560	$852	$732	$(653)	$(368)	$52	$(59)	$1,181
• Other	(70)	(334)	(190)	(78)	(125)	(78)	(130)	(144)	145
Assumption Changes	0	0	(64)	0	0	(50)	0	593	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	383	320	289	303	246	178	160	70	4,052
Amortization Method	96	68	62	49	46	18	(11)	(38)	972
Change in Benefit Provisions	0	0	15	19	0	1	0	1	285
Change in Actuarial Firm/Software	0	(27)	0	0	0	0	0	0	(27)
Bond Issue	0	0	0	0	0	0	(1,000)	0	(1,481)
Non-Collectible Pension Contributions	0	0	0	0	0	0	0	99	99
Total	$(602)	$587	$964	$1,025	$(487)	$(298)	$(929)	$522	$8,093

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

Unfunded actuarial liability 12/31/16: $9,061 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.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (STATE)

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	21,879	22,117	(1.1%)
Retired Members and Beneficiaries	19,652	19,311	1.8
Inactive Members	8,477	7,978	6.3
Total Members	50,008	49,406	1.2
Projected Annual Salaries of Active Members	$ 939,183,195	$ 950,204,558	(1.2)
Annual Retirement Payments for Retired Members and Beneficiaries	$ 276,258,764	$ 266,428,213	3.7
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$4,385,680,350	$4,211,018,764	4.1
b. Assets for Valuation Purposes	3,463,997,332	3,340,654,264	3.7
c. Unfunded Actuarial Liability (a) - (b)	921,683,018	870,364,500	5.9
d. Funded Ratio (b) / (a)	79.0%	79.3%	(0.4)
e. Market Value of Assets	3,354,619,933	3,244,225,487	3.4
f. Funded Ratio on Market Value (e) / (a)	76.5%	77.0%	(0.6)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	7.74%	8.04%	
Member	6.00	6.00	
Employer	1.74	2.04	
Amortization of Unfunded Actuarial Liability	7.75	6.24	
Actuarial Contribution Rate	9.49	8.28	
Statutory Employer Contribution Rate*	14.41%	13.21%	

**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 later. 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)

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	84,321	84,020	0.4%
Retired Members and Beneficiaries	51,813	50,188	3.2
Inactive Members	28,490	27,321	4.3
Total Members	164,624	161,529	1.9
Projected Annual Salaries of Active Members	$ 3,469,951,831	$ 3,428,810,555	1.2
Annual Retirement Payments for Retired Members and Beneficiaries	$ 786,385,615	$ 749,416,332	4.9
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$14,481,094,448	$13,798,734,403	4.9
b. Assets for Valuation Purposes	8,712,789,560	8,393,193,573	3.8
c. Unfunded Actuarial Liability (a) - (b)	5,768,304,888	5,405,540,830	6.7
d. Funded Ratio (b) / (a)	60.2%	60.8%	(1.0)
e. Market Value of Assets	8,444,384,754	8,151,104,207	3.6
f. Funded Ratio on Market Value (e) / (a)	58.3%	59.1%	(1.4)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.24%	8.38%	
Member	6.00	6.00	
Employer	2.24	2.38	
Amortization of Unfunded Actuarial Liability	13.91	12.21	
Actuarial Contribution Rate	16.15	14.59	
Statutory Employer Contribution Rate*	14.41%	13.21%	

**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 later. An additional contribution rate of 0.18 percent applies for Fiscal Year 2018 and Fiscal Year 2019, and 0.69 percent for Fiscal Year 2020.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (STATE/SCHOOL)

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	106,200	106,137	0.1%
Retired Members and Beneficiaries	71,465	69,499	2.8
Inactive Members	36,967	35,299	4.7
Total Members	214,632	210,935	1.8
Projected Annual Salaries of Active Members	$ 4,409,135,026	$ 4,379,015,113	0.7
Annual Retirement Payments for Retired Members and Beneficiaries	$ 1,062,644,379	$ 1,015,844,545	4.6
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$18,866,774,798	$18,009,753,167	4.8
b. Assets for Valuation Purposes	12,176,786,892	11,733,847,837	3.8
c. Unfunded Actuarial Liability (a) - (b)	6,689,987,906	6,275,905,330	6.6
d. Funded Ratio (b) / (a)	64.5%	65.2%	(1.1)
e. Market Value of Assets	11,799,004,687	11,395,329,694	3.5
f. Funded Ratio on Market Value (e) / (a)	62.5%	63.3%	(1.3)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	8.14%	8.31%	
Member	6.00	6.00	
Employer	2.14	2.31	
Amortization of Unfunded Actuarial Liability	12.60	10.92	
Actuarial Contribution Rate	14.74	13.23	
Statutory Employer Contribution Rate*	14.41%	13.21%	

**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 later. For the School group only, an additional contribution rate of 0.18 percent applies for Fiscal Year 2018 and Fiscal Year 2019, and 0.69 percent for Fiscal Year 2020.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (LOCAL)

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	38,364	38,532	(0.4%)
Retired Members and Beneficiaries	19,805	19,046	4.0
Inactive Members	17,224	16,399	5.0
Total Members	75,393	73,977	1.9
Projected Annual Salaries of Active Members	$1,728,976,958	$1,718,698,667	0.6
Annual Retirement Payments for Retired Members and Beneficiaries	$ 232,450,548	$ 216,314,510	7.5
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$5,094,727,138	$4,806,144,236	6.0
b. Assets for Valuation Purposes	3,579,987,885	3,320,449,548	7.8
c. Unfunded Actuarial Liability (a) - (b)	1,514,739,253	1,485,694,688	2.0
d. Funded Ratio (b) / (a)	70.3%	69.1%	1.7
e. Market Value of Assets	3,469,920,041	3,216,043,938	7.9
f. Funded Ratio on Market Value (e) / (a)	68.1%	66.9%	1.8
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	7.67%	7.93%	
Member	6.00	6.00	
Employer	1.67	1.93	
Amortization of Unfunded Actuarial Liability	7.22	6.46	
Actuarial Contribution Rate	8.89	8.39	
Statutory Employer Contribution Rate*	8.89%	8.39%	

**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 later.*

SUMMARY OF PRINCIPAL RESULTS – KPERS (TOTAL KPERS)

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	144,564	144,669	(0.1%)
Retired Members and Beneficiaries	91,270	88,545	3.1
Inactive Members	54,191	51,698	4.8
Total Members	290,025	284,912	1.8
Projected Annual Salaries of Active Members	$ 6,138,111,984	$6,097,713,780	0.7
Annual Retirement Payments for Retired Members and Beneficiaries	$1,295,094,927	$1,232,159,055	5.1
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$23,961,501,936	$22,815,897,403	5.0
b. Assets for Valuation Purposes	15,756,774,777	15,054,297,385	4.7
c. Unfunded Actuarial Liability (a) - (b)	8,204,727,159	7,761,600,018	5.7
d. Funded Ratio (b) / (a)	65.8%	66.0%	(0.3)
e. Market Value of Assets	15,268,924,728	14,611,373,632	4.5
f. Funded Ratio on Market Value (e) / (a)	63.7%	64.0%	(0.5)

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

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	7,303	7,244	0.8%
Retired Members and Beneficiaries	5,232	5,065	3.3
Inactive Members	1,555	1,453	7.0
Total Members	14,090	13,762	2.4
Projected Annual Salaries of Active Members	$ 485,215,228	$ 477,559,955	1.6
Annual Retirement Payments for Retired Members and Beneficiaries	$ 170,130,904	$ 159,271,328	6.8
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$3,174,533,709	$2,965,712,160	7.0
b. Assets for Valuation Purposes	2,329,029,290	2,194,103,726	6.1
c. Unfunded Actuarial Liability (a) - (b)	845,504,419	771,608,434	9.6
d. Funded Ratio (b) / (a)	73.4%	74.0%	(0.8)
e. Market Value of Assets	2,256,070,037	2,126,561,947	6.1
f. Funded Ratio on Market Value (e) / (a)	71.1%	71.7%	(0.8)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	14.88%	15.07%	
Member	7.15	7.15	
Employer	7.73	7.92	
Amortization of Unfunded Actuarial and Supplemental Liability	14.40	12.17	
Actuarial Contribution Rate (Local Employers)	22.13	20.09	
Statutory Employer Contribution Rate*	22.13%	20.09%	

**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

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	252	262	(3.8%)
Retired Members and Beneficiaries	272	256	6.3
Inactive Members	9	8	12.5
Total Members	533	526	1.3
Projected Annual Salaries of Active Members	$ 27,123,449	$ 28,339,546	(4.3)
Annual Retirement Payments for Retired Members and Beneficiaries	$ 11,272,287	$ 10,289,243	9.6
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$181,718,728	$166,170,995	9.4
b. Assets for Valuation Purposes	170,569,206	160,176,397	6.5
c. Unfunded Actuarial Liability (a) - (b)	11,149,522	5,994,598	86.0
d. Funded Ratio (b) / (a)	93.9%	96.4%	(2.6)
e. Market Value of Assets	165,322,736	155,264,020	6.5
f. Funded Ratio on Market Value (e) / (a)	91.0%	93.4%	(2.6)
3. EMPLOYER CONTRIBUTION RATES AS A PERCENT OF PAYROLL			
Normal Cost			
Total	20.30%	19.39%	
Member	5.64	5.62	
Employer	14.66	13.77	
Amortization of Unfunded Actuarial and Supplemental Liability	3.99	0.91	
Actuarial Contribution Rate	18.65	14.68	
Statutory Employer Contribution Rate*	18.65%	14.68%	

**Statutory Employer Contribution Rate is equal to the Actuarial Rate.*

SUMMARY OF PRINCIPAL RESULTS – ALL SYSTEMS COMBINED

	12/31/2016 Valuation	12/31/2015 Valuation	% Change
1. PARTICIPANT DATA			
Number of:			
Active Members	152,119	152,175	(0.0%)
Retired Members and Beneficiaries	96,774	93,866	3.1
Inactive Members	55,755	53,159	4.9
Total Members	304,648	299,200	1.8
Projected Annual Salaries of Active Members	$6,650,450,661	$6,603,613,281	0.7
Annual Retirement Payments for Retired Members and Beneficiaries	$1,476,498,118	$1,401,719,626	5.3
2. ASSETS AND LIABILITIES			
a. Total Actuarial Liability	$27,317,754,373	$25,947,780,558	5.3
b. Assets for Valuation Purposes	18,256,373,273	17,408,577,508	4.9
c. Unfunded Actuarial Liability (a) - (b)	9,061,381,100	8,539,203,050	6.1
d. Funded Ratio (b) / (a)	66.8%	67.1%	(0.4)
e. Market Value of Assets	17,690,317,501	16,893,199,599	4.7
f. Funded Ratio on Market Value (e) / (a)	64.8%	65.1%	(0.5)

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 part of a defined benefit, contributory plan that cover nearly all public employees in Kansas. The Kansas Retirement System for Judges is a single employer, while the other two are cost-sharing, multiple employer groups. 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 certain legislative employees.

KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM

SUMMARY OF PROVISIONS *

* Tier 2 refers to members who either began their participation or rehired on or after July 1, 2009, but before January 1, 2015. Tier 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 Tier 3.

This valuation reflects the benefit structure in place as of December 31, 2016.

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

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

Benefit – Tiers 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 additional compensation, or a three-year Final Average Salary, excluding additional compensation, 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 additional compensation, such as sick and annual leave. Effective July 1, 2009, (Tier 2), Final Average Salary equals the average of the five highest years of salary, excluding additional compensation, such as sick and annual leave.

Tier 3: Tier 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. 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 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%

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

Tier 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.

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

Tier 3: Not applicable for the Cash Balance Plan.

EARLY RETIREMENT

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

Benefit – Tier 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.

Tier 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).

Tier 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 – Tiers 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.

Tier 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 – Tiers 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.

Tier 3: For any Tier 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 the lesser of (a) the percentage increase in CPI-U, minus 1 percent and (b) 4 percent per annum.

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

Tier 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 Tier 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

Tier 1: Prior to January 1, 2014, member contributions were 4 percent of compensation for Tier 1. 2012 HB 2333 established an election by Tier 1 members, contingent upon IRS approval, between different contribution rate and benefit levels. The legislation provided that, if the IRS rejected or did not take action to approve the election, Tier 1 members would default to an increase in their employee contributions to 5 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.

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

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

INTEREST ON MEMBER CONTRIBUTIONS

Tier 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 7.75 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.

Tier 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.

Tier 3: Interest credited varies by years of service. Please refer to the Tier 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.

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

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

COST OF LIVING ADJUSTMENTS (COLAS)

Tier 2 Members Who Retired Prior to July 1, 2012: 2 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 Tier 2 members will not receive a COLA.

Tier 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 additional compensation, 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 additional compensation, 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, 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 aren't withdrawn.

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

MEMBER CONTRIBUTIONS

Judges contributions are 6 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 2.75percent 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					
Age	1st Year With 85 Points	After 1st Year With 85 Points	Early Retirement Age	Early Retirement Rate	Normal Retirement Age	Normal Retirement 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					
Age	1st Year With 85 Points	After 1st Year With 85 Points	Early Retirement Age	Early Retirement Rate	Normal Retirement Age	Normal Retirement 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					
Age	1st Year With 85 Points	After 1st Year With 85 Points	Early Retirement Age	Early Retirement Rate	Normal Retirement Age	Normal Retirement 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% per year

Probability of Vested Members Leaving Contributions With System

Tier 1:

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

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

Tier 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 Tier 1 and Tier 2 members are assumed to take a PLSO equal to 30 percent of the value of their benefit upon retirement. 100 percent of Tier 3 members are assumed to take a PSLO 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%	53	25%
52	10%	55	25%
53	10%	58	20%
54	20%	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.

Tier 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. In addition, the increase in the unfunded actuarial liability due to the $300 one-time payment to retirees in 2008 is amortized over 10 years (applies only to Local employers as the State fully funded the increased liability for the $300 one-time payment for its members in 2008).

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 rate of return) on the market value of assets is calculated each year and recognized equally over a five-year period.

SCHEDULES 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)
12/31/07	$13,433,115	$18,984,915	$5,551,800	71%	$5,949,228	93%
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

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)
12/31/07	$4,423,194,339	$7,417,933,822	$7,143,786,763	$13,433,115,014	100	100	22%
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	—

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
12/31/07	153,804	1.5%	1,482	0.5%	$5,949	$37,922	4.4%
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

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
12/31/07	153,804	41,383	67,102	262,289
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

RETIRANTS, BENEFICIARIES - CHANGES IN ROLLS – ALL SYSTEMS

Last Ten Fiscal Years

		Additions		Deletions						
Year	Number at Beginning of Year	Number Added	Annual Allowances	Number Removed	Annual Allowances	Number at End of Year	% Change in Number of Retirants	% Change in Additions Allowances	Average Annual Allowance	Year-End Annual Allowances
6/30/08	66,063	5,195	$73,055,348	2,515	$18,681,361	68,743	4.10%	8.70%	$13,758	$945,739,016
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

SUMMARY OF MEMBERSHIP DATA

Retiree and Beneficiary Member Valuation Data[1]	12/31/16	12/31/15
KPERS		
Number	91,270	88,545
Average Benefit	$14,190	$13,915
Average Age	72.27	72.15
Police & Fire		
Number	5,232	5,065
Average Benefit	$32,517	$31,445
Average Age	65.35	65.01
Judges		
Number	272	256
Average Benefit	$41,442	$40,192
Average Age	74.97	74.77
System Total		
Number	96,774	93,866
Average Benefit	$15,257	$14,933
Average Age	71.90	71.77

Active Member Valuation Data[1]	12/31/16	12/31/15
KPERS		
Number	144,564	144,669
Average Current Age	45.37	45.36
Average Service	11.18	11.19
Average Pay	$42,460	$42,149
Police & Fire		
Number	7,303	7,244
Tier I	149	200
Tier II	7,154	7,044
Average Current Age	39.34	39.45
Average Service	11.58	11.69
Average Pay	$66,441	$65,925
Judges		
Number	252	262
Average Current Age	58.14	58.44
Average Service	11.59	11.97
Average Pay	$107,633	$108,166
System Total		
Number	152,119	152,175
Average Current Age	45.10	45.11
Average Service	11.20	11.22
Average Pay	$43,719	$43,395

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]			KPERS Local		
Fiscal Year	Actuarial Rate	Actual Rate	Fiscal Year	Actuarial Rate	Actual Rate
2008	10.37%	6.37%	2008	7.92%	4.93%
2009	10.86	6.97	2009	8.12	5.54
2010	10.98	7.57	2010	8.52	6.14
2011	11.30	8.17	2011	10.42	6.74
2012	14.09	8.77	2012	9.44	7.34
2013	13.46	9.37	2013	9.43	7.94
2014	13.83	10.27	2014	9.77	8.84
2015(2)	14.34	11.27/8.65	2015(2)	9.48	9.48
2016	14.95	10.91	2016	9.18	9.18
2017	14.85	10.81	2017	8.46	8.46

KP&F Uniform Rate			Judges		
Fiscal Year	Actuarial Rate	Actual Rate	Fiscal Year	Actuarial Rate	Actual Rate
2008	13.88%	13.88%	2008	22.38%	22.38%
2009	13.51	13.51	2009	22.08	22.08
2010	12.86	12.86	2010	20.50	20.50
2011	17.88	14.57	2011	19.49	19.49
2012	16.54	16.54	2012	21.28	21.28
2013	17.26	17.26	2013	23.75	23.75
2014	19.92	19.92	2014	23.62	23.62
2015	21.36	21.36	2015	22.59	22.59
2016	20.42	20.42	2016	23.98	23.98
2017	19.03	19.03	2017	21.36	21.36

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 employers' 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	Misc	Net Investment Income	Total
2008	$262,707,155	$395,752,214	$225,736	$(650,071,204)	$8,613,901
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[2]	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

1) Schedule restated to remove Optional Group Life Insurance and Death and Disability Group Insurance.
2) 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
2008	$ 940,870,530	$ 4,834,127	$ 8,388,935	$ 43,197,593	$ 5,275,097
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

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 [2]	Total
2008	$ 954,093,592	$ 43,197,593	$5,275,097	$ 9,253,050	$ —	$ 1,011,819,332
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

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

2) See Note 2 Summary of Significant Accounting Policies, Receivables

CHANGES IN NET POSITION

Last Ten Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Additions										
Contributions										
Member Contributions	$ 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	$ 262,707,155
Employer Contributions	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	395,752,213
Total Contributions	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	658,459,368
Investments										
Net Appreciation in Fair Value of Investments	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)	(1,012,601,549)
Interest	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	211,727,774
Dividends	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	137,983,566
Real Estate Income, Net of Operating Expenses	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	40,288,418
Other Investment Income	13,394,069	9,562,040	10,573,421	0	0	436,311	388,174	216,499	264,000	264,000
	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)	(622,337,791)
Less Investment Expense	(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)	(31,029,901)
Net Investment Income	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)	(653,367,692)
From Securities Lending Activities										
Securities Lending Income	0	0	3,932,462	5,255,071	4,827,054	4,353,102	5,431,118	5,372,538	(8,838,220)	95,645,344
Securities Lending Expenses										
Borrower Rebates	0	0	648,826	1,501,910	2,450,894	1,769,773	739,912	(48,804)	(10,469,638)	(89,471,546)
Management Fees	0	0	(463,776)	(1,147,400)	(1,309,439)	(1,305,208)	(1,020,082)	(692,273)	(1,309,509)	(2,870,760)
Total Securities Lending Activities Expense	0	0	185,050	354,510	1,141,455	464,565	(280,170)	(741,077)	(11,779,147)	(92,342,306)
Net Income from Security Lending Activities	0	0	4,117,512	5,609,581	5,968,509	4,817,667	5,150,948	4,631,461	(20,617,367)	3,303,038
Total Net Investment Income	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)	(650,064,654)
Other Miscellaneous Income	1,071,115	2,904,581	1,076,391	241,438	533,842	127,412	170,862	67,266	110,178	136,955
Total Additions (Net Reductions) to Plan Net Position	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)	8,531,669
Deductions										
Monthly Retirement Benefits	(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)	(945,704,657)
Refunds of Contributions	(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)	(48,472,690)
Death Benefits	(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)	(8,388,935)
Administrative Expenses	(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)	(9,253,050)
Uncollectable Pension Contributions	(98,943,780)	0	0	0	0	0	0	0	0	0
Total Deductions to Plan Net Position	(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)	(1,011,819,332)
Change in Net Position	$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)	$ (1,003,287,663)

1) Schedule restated to remove Optional Group Life Insurance.

BENEFIT AND REFUND DEDUCTIONS FROM NET POSITION BY TYPE

Last Ten Fiscal Years

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Type of Benefit										
Age and service benefits:										
Retirees	$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	$ 898,910,097
Survivors	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	46,794,560
Death in service benefits	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	8,388,935
Total Benefits	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	954,093,592
Type of Refund										
Death	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	5,275,097
Separation	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	43,197,593
Total Refunds	$ 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	$ 48,472,690

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

HIGHLIGHT OF OPERATIONS

Ten Year Summary

	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008
Membership Composition										
Number of Retirants	89,284	87,103	83,911	80,900	77,727	74,665	70,349	67,219	64,803	61,489
Number of Survivors[1]	7,490	7,230	6,996	6,770	6,591	6,360	6,149	5,945	5,764	5,613
New Retirants During the Fiscal Year	4,277	6,494	6,419	6,022	6,071	6,941	6,245	5,188	4,893	4,780
Active and Inactive Members[2]	207,874	205,334	204,458	202,930	202,022	200,732	202,150	204,155	197,822	195,187
Participating Employers	1,515	1,517	1,518	1,508	1,506	1,504	1,511	1,499	1,492	1,482
Financial Results (in millions)										
Member Contributions	$415	$405	$382	$332	$301	$292	$289	$282	$272	$263
Employer Contributions[3]	762	1,739	691	702	617	568	575	492	449	396
Retirement / DeathBenefits	1,616	1,559	1,460	1,376	1,298	1,247	1,157	1,069	1,009	954
Investment Income	2,061	49	561	2,554	1,747	89	2,499	1,486	(2,592)	(650)
Employer Contribution Rate[4]										
KPERS–State/School	10.81%	10.91%	11.27/8.65%	10.27%	9.37%	8.77%	8.17%	7.57%	6.97%	6.37%
KPERS–Local[4]	8.46	9.18	9.48	8.84	7.94	7.34	6.74	6.14	5.54	4.93
KP&F (Uniform Participating)[4]	19.03	20.42	21.36	19.92	17.26	16.54	14.57	12.86	13.51	13.88
Judges	21.36	23.98	22.59	23.62	23.75	21.28	19.49	20.50	22.08	22.38
Unfunded Actuarial Liability (in millions)										
KPERS–State / School	$6,690	$6,276	$7,244	$7,351	$7,658	$6,920	$6,244	$5,805	$6,240	$4,312
KPERS–Local	1,515	1,486	1,488	1,590	1,699	1,542	1,395	1,315	1,385	941
KP&F	846	772	726	803	866	739	598	530	619	284
Judges	11	6	11	21	29	27	27	26	36	15
Funding Ratios[5]										
KPERS–State / School	64.50%	65.20%	58.80%	57.00%	53.90%	56.80%	59.90%	61.60%	56.90%	68.60%
KPERS–Local	70.30	69.10	67.40	63.70	59.50	61.20	63.20	63.70	59.00	70.10
KP&F	73.40	74.00	74.10	70.30	66.50	69.80	74.20	76.20	70.50	85.50
Judges	93.90	96.40	93.50	86.90	81.40	82.50	82.50	82.30	74.60	88.70

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.

Schedule has been restated to remove Optional Group Life Insurance and Death and Disability Group Insurance.

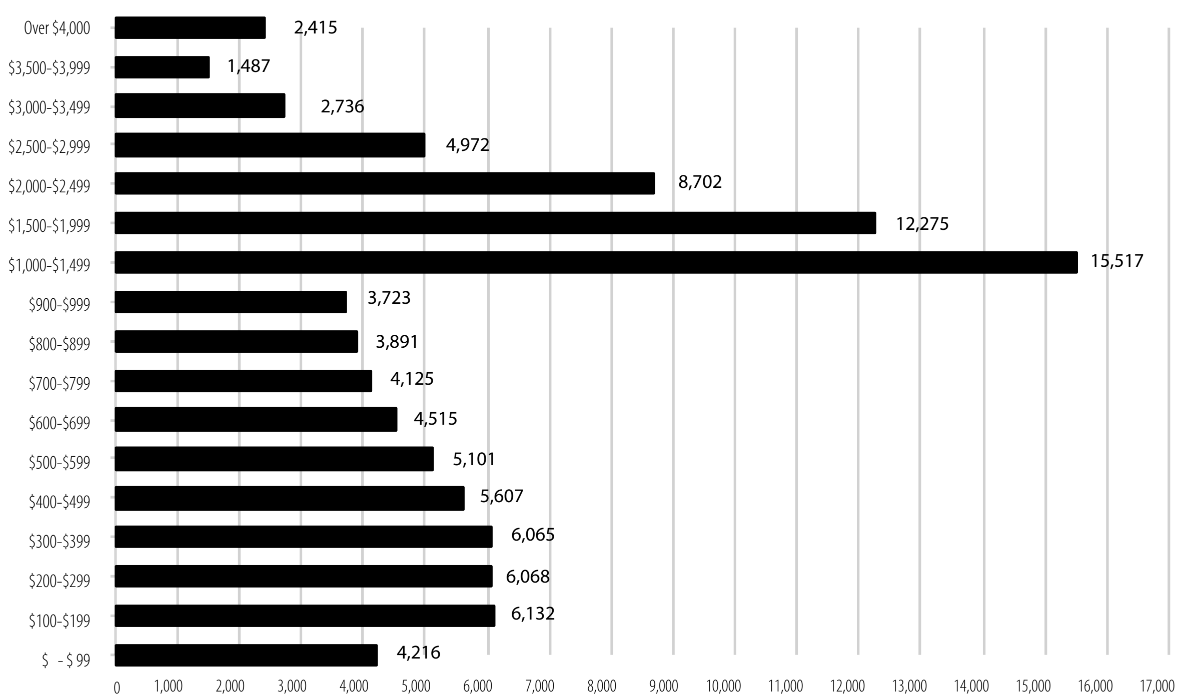
NUMBER OF RETIRED MEMBERS AND SURVIVORS BY TYPE OF BENEFIT

As of December 31, 2016

Monthly Benefit	Number of Retirees	Normal Retirement	Early Retirement	Service-Connected Death or Disability	Nonservice-Connected Death or Disability
$ - 99	4,216	3,827	383	2	4
$100-199	6,132	4,235	1,860	24	13
$200-299	6,068	3,797	2,246	18	7
$300-399	6,065	3,750	2,280	22	13
$400-499	5,607	3,569	1,989	34	15
$500-599	5,101	3,349	1,712	29	11
$600-699	4,515	3,071	1,406	23	15
$700-799	4,125	2,888	1,201	27	9
$800-899	3,891	2,844	995	45	7
$900-999	3,723	2,852	820	35	16
$1,000-1,499	15,517	13,210	2,067	174	66
$1,500-1,999	12,275	11,506	557	118	94
$2,000-2,499	8,702	8,425	184	46	47
$2,500-2,999	4,972	4,844	70	21	37
$3,000-3,499	2,736	2,664	43	18	11
$3,500-3,999	1,487	1,449	21	14	3
$4,000 or More	2,415	2,366	38	9	2
Totals	97,547	78,646	17,872	659	370

NUMBER OF RETIRED MEMBERS AND SURVIVORS BY MONTHLY BENEFIT AMOUNT

As of December 31, 2016



NUMBER OF RETIRED MEMBERS AND SURVIVORS BY TYPE OF PAYMENT OPTION

As of December 31, 2016

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
$ - 99	3,249	264	480	55	40	4	31	93	0
$100-199	4,326	587	801	118	120	27	30	122	1
$200-299	4,216	633	870	87	133	13	30	86	0
$300-399	4,159	660	848	73	158	30	31	106	0
$400-499	3,802	635	790	98	158	43	21	60	0
$500-599	3,429	628	716	51	166	28	29	54	0
$600-699	3,019	539	658	57	144	33	16	49	0
$700-799	2,742	507	571	47	163	28	18	49	0
$800-899	2,506	590	519	39	158	33	14	32	0
$900-999	2,366	592	497	40	158	30	13	27	0
$1,000-1,499	9,561	2,527	2,084	162	847	179	48	109	0
$1,500-1,999	7,755	2,068	1,442	77	704	151	27	51	0
$2,000-2,499	5,683	1,489	857	57	503	70	21	22	0
$2,500-2,999	3,228	897	462	36	302	30	8	9	0
$3,000-3,499	1,766	485	262	14	181	13	5	10	0
$3,500-3,999	926	268	159	8	110	12	1	3	0
$4,000 or More	1,279	583	329	11	206	0	2	5	0
Totals	64,012	13,952	12,345	1,030	4,251	724	345	887	1

AVERAGE BENEFIT BY YEARS OF SERVICE - FIVE YEAR SUMMARY

New Retirees by Calendar Year

Service Credit		2012	2013	2014	2015	2016
Less Than 5	Retired Members	259	185	172	211	270
	Average FAS*	$27,378.64	$29,524.62	$33,225.92	$32,163.67	$30,267.75
	Average Monthly Benefit	$138.07	$171.29	$213.67	$226.67	$223.01
	Average Years	2.80	2.92	3.46	3.46	3.33
5-9.99	Retired Members	459	517	586	698	731
	Average FAS*	$32,228.24	$32,086.25	$34,679.01	$33,764.28	$35,021.46
	Average Monthly Benefit	$325.52	$313.09	$349.62	$372.98	$425.48
	Average Years	7.61	7.56	7.58	7.77	7.63
10-14.99	Retired Members	975	946	929	941	943
	Average FAS*	$33,774.49	$34,608.84	$37,012.47	$36,877.93	$37,846.67
	Average Monthly Benefit	$484.07	$506.31	$570.48	$629.08	$634.00
	Average Years	12.22	12.32	12.41	12.37	12.30
15-19.99	Retired Members	770	803	822	899	803
	Average FAS*	$39,659.90	$40,507.90	$41,291.91	$41,886.24	$42,730.81
	Average Monthly Benefit	$860.25	$901.19	$901.18	$949.16	$1,052.23
	Average Years	17.38	17.37	17.30	17.33	17.34
20-24.99	Retired Members	911	892	930	1,015	1,023
	Average FAS*	$45,799.95	$47,140.00	$44,664.92	$49,276.16	$49,807.58
	Average Monthly Benefit	$1,308.97	$1,327.01	$1,311.24	$1,504.25	$1,607.37
	Average Years	22.42	22.39	22.50	22.40	22.42
25-29.99	Retired Members	870	967	967	1,048	1,014
	Average FAS*	$53,691.38	$53,522.25	$54,795.55	$57,442.35	$59,197.60
	Average Monthly Benefit	$1,944.89	$1,936.22	$2,007.73	$2,199.23	$2,368.91
	Average Years	27.25	27.25	27.40	27.44	27.40
30-34.99	Retired Members	799	807	752	750	601
	Average FAS*	$57,857.40	$58,014.33	$59,822.27	$62,314.41	$62,791.89
	Average Monthly Benefit	$2,475.40	$2,426.52	$2,542.62	$2,698.51	$2,848.18
	Average Years	32.10	32.11	32.15	32.12	32.12
35-39.99	Retired Members	311	372	359	313	260
	Average FAS*	$61,819.37	$62,230.61	$64,093.82	$64,900.76	$62,497.86
	Average Monthly Benefit	$2,915.96	$2,856.00	$3,036.30	$3,080.16	$3,030.92
	Average Years	36.95	36.90	37.11	36.94	36.88
40-44.99	Retired Members	108	122	113	89	59
	Average FAS*	$65,700.90	$65,508.74	$62,560.20	$63,507.91	$60,403.31
	Average Monthly Benefit	$3,230.99	$3,287.98	$3,353.11	$3,326.81	$3,224.57
	Average Years	41.52	41.77	42.06	41.65	41.59
45-49.99	Retired Members	11	24	15	12	8
	Average FAS*	$56,584.64	$60,619.03	$51,048.89	$64,115.21	$62,219.46
	Average Monthly Benefit	$2,842.29	$4,126.28	$2,917.43	$3,643.02	$3,666.62
	Average Years	47.34	46.90	47.17	46.13	46.69
50 and Over	Retired Members	1	5	1	4	—
	Average FAS*	$79,425.94	$72,383.16	$49,358.02	$66,836.27	—
	Average Monthly Benefit	$4,676.20	$3,876.26	$8,337.12	$4,228.92	—
	Average Years	50.25	53.05	51.00	52.56	—
Total Number	Retired Members	5,474	5,640	5,646	5,980	5,712
	Average FAS*	$45,129.48	$46,258.78	$46,895.04	$47,937.36	$47,759.75
	Average Monthly Benefit	$1,365.30	$1,417.09	$1,435.77	$1,493.26	$1,502.07
	Average Years	21.16	21.72	21.47	20.90	20.04

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

PRINCIPAL PARTICIPATING EMPLOYERS

Last Ten Calendar Years

	2016			2015		
Participating Government	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
State of Kansas	23,577	1	15.50%	23,748	1	15.49%
USD 259, Wichita	6,820	2	4.48%	6,926	2	4.52%
USD 233, Olathe	4,233	3	2.78%	4,225	3	2.76%
USD 500, Kansas City	3,488	4	2.29%	3,493	4	2.28%
USD 512, Shawnee Mission	3,315	5	2.18%	3,337	5	2.18%
USD 229, Blue Valley	3,118	6	2.05%	3,100	6	2.02%
Johnson County	3,065	7	2.01%	3,067	7	2.00%
Sedgwick County	2,488	8	1.64%	2,490	8	1.62%
USD 501, Topeka Public Schools	2,374	9	1.56%	2,351	9	1.53%
Unified Government of Wyandotte Co	2,029	10	1.33%	1,757	10	1.15%
All Other [1]	97,612		64.17%	98,843		64.46%
Total (1,515 employers)	152,119		100.00%	153,337		100.00%

	2014			2013		
Participating Government	Covered Employees	Rank	% of Total System	Covered Employees	Rank	% of Total System
State of Kansas	24,389	1	15.82%	24,631	1	15.78%
USD 259, Wichita	6,921	2	4.49%	6,861	2	4.40%
USD 233, Olathe	4,310	3	2.80%	4,293	3	2.75%
USD 500, Kansas City	3,544	4	2.30%	3,392	5	2.17%
USD 512, Shawnee Mission	3,428	5	2.22%	3,621	4	2.32%
USD 229, Blue Valley	3,106	6	2.01%	3,130	6	2.01%
Johnson County	3,052	7	1.98%	3,099	7	1.99%
Sedgwick County	2,536	8	1.64%	2,535	8	1.62%
USD 501, Topeka Public Schools	2,408	9	1.56%	2,387	9	1.53%
Unified Government of Wyandotte Co	1,784	10	1.16%	1,733	10	1.11%
All Other [1]	98,725		64.02%	100,375		64.32%
Total (1,515 employers)	154,203		100.00%	155,446		100.00%

1) In 2016, "All Other" consisted of:

Type	*Number*	*Covered Employees*
School districts	*280*	*47,502*
Cities and Counties	*561*	*26,183*
Post-Secondary Education[2]	*43*	*12,170*
Other	*621*	*11,757*
	1,505	*97,612*

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

Participating Government	2012 Covered Employees	2012 Rank	2012 % of Total System	2011 Covered Employees	2011 Rank	2011 % of Total System
State of Kansas	25,293	1	16.21%	25,382	1	16.37%
USD 259, Wichita	6,709	2	4.30%	6,542	2	4.22%
USD 233, Olathe	4,274	3	2.74%	4,185	3	2.70%
USD 500, Kansas City	3,287	5	2.11%	3,191	5	2.06%
USD 512, Shawnee Mission	3,678	4	2.36%	3,705	4	2.39%
USD 229, Blue Valley	3,088	6	1.98%	3,098	6	2.00%
Johnson County	3,065	7	1.96%	3,014	7	1.94%
Sedgwick County	2,549	8	1.63%	2,336	8	1.51%
USD 501, Topeka Public Schools	2,339	9	1.50%	2,605	9	1.68%
Unified Government of Wyandotte Co	1,697	10	1.09%	1,627	10	1.05%
All Other[1]	100,074		64.13%	99,369		64.09%
Total(1,515 employers)	156,053		100.00%	155,054		100.00%

Participating Government	2010 Covered Employees	2010 Rank	2010 % of Total System	2009 Covered Employees	2009 Rank	2009 % of Total System
State of Kansas	27,066	1	17.05%	26,735	1	16.55%
USD 259, Wichita	6,749	2	4.25%	6,861	2	4.25%
USD 233, Olathe	4,082	3	2.57%	4,339	3	2.69%
USD 500, Kansas City	3,165	5	1.99%	3,178	5	1.97%
USD 512, Shawnee Mission	3,837	4	2.42%	4,005	4	2.48%
USD 229, Blue Valley	2,633	7	1.66%	2,706	7	1.68%
Johnson County	2,977	6	1.88%	2,957	6	1.83%
Sedgwick County	2,341	8	1.48%	2,466	8	1.53%
USD 501, Topeka Public Schools	2,256	9	1.42%	2,298	9	1.42%
Unified Government of Wyandotte Co	1,595	10	1.01%	1,715	10	1.06%
All Other[1]	102,004		64.27%	104,291		64.56%
Total (1,515 employers)	158,705		100.00%	161,551		100.00%

1) In 2016, "All Other" consisted of:

Type	*Number*	*Covered Employees*
School districts	*280*	*47,502*
Cities and Counties	*561*	*26,183*
Post-Secondary Education[2]	*43*	*12,170*
Other	*621*	*11,757*
	1,505	*97,612*

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

	2008			2007		
Participating Government	**Covered Employees**	**Rank**	**% of Total System**	**Covered Employees**	**Rank**	**% of Total System**
State of Kansas	25,775	1	16.41%	25,299	1	16.35%
USD 259, Wichita	6,850	2	4.36%	6,748	2	4.36%
USD 233, Olathe	4,625	3	2.94%	4,307	3	2.78%
USD 500, Kansas City	3,324	5	2.12%	3,337	5	2.16%
USD 512, Shawnee Mission	4,167	4	2.65%	4,128	4	2.67%
USD 229, Blue Valley	2,476	8	1.58%	3,137	6	2.03%
Johnson County	2,983	6	1.90%	2,930	7	1.89%
Sedgwick County	2,529	7	1.61%	2,548	8	1.65%
USD 501, Topeka Public Schools	1,847	9	1.18%	2,313	9	1.50%
Unified Government of Wyandotte Co	1,766	10	1.12%	1,712	10	1.11%
All Other[1]	100,723		64.13%	98,231		63.50%
Total (1,515 employers)	157,065		100.00%	154,690		100.00%

1) In 2016, "All Other" consisted of:

Type	*Number*	*Covered Employees*
School districts	*280*	*47,502*
Cities and Counties	*561*	*26,183*
Post-Secondary Education[2]	*43*	*12,170*
Other	*621*	*11,757*
	1,505	*97,612*

2) Not including State Board of Regents institutions.

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