TEACHERS' Retirement System

TRS

KENTUCKY

Serving Kentucky Teachers
— Since 1940 —

COMPREHENSIVE ANNUAL FINANCIAL REPORT

for the fiscal year ended June 30, 2016

Teachers' Retirement System of the State of Kentucky

The 76th Comprehensive Annual Financial Report

A Component Unit of the Commonwealth of Kentucky
Fiscal Year Ended June 30, 2016

Teachers’ Retirement System
of the State of Kentucky
479 Versailles Road
Frankfort, Kentucky 40601-3800

GARY L. HARBIN, CPA
Executive Secretary

This report was prepared by the
Teachers' Retirement System staff.

TABLE OF CONTENTS

~ INTRODUCTORY SECTION ~

~ FINANCIAL SECTION ~

~ INVESTMENT SECTION ~

~ ACTUARIAL SECTIONS ~

~ STATISTICAL SECTION ~

Teachers' Retirement System
of the State of Kentucky

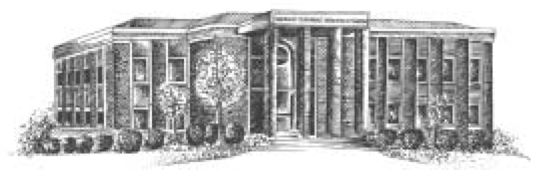
2016

Introductory Section

Chairperson's Letter

Teachers' Retirement System of the State of Kentucky

GARY L. HARBIN, CPA
Executive Secretary



December 19, 2016

Dear Members:

On behalf of the Board of Trustees and staff, I am pleased to present this Comprehensive Annual Financial Report of the Teachers' Retirement System of the State of Kentucky for the year ending June 30, 2016, the 76th year of operation of the System. The accompanying reports from the independent auditor and the consulting actuary substantiate the financial integrity and the actuarial soundness of the system.

TRS closed the 2015-2016 fiscal year with $17.6 billion net assets. The active membership totaled 71,848 and the retired membership was 51,563 with an annual annuity and medical insurance benefits of $2.1 billion.

The Board of Trustees is totally committed to managing the retirement system funds in a prudent, professional manner. Every effort will be made to ensure that the system continues to operate in a fiscally sound manner. Present and future members of the system deserve to be able to avail themselves of the best possible retirement as authorized by statute.

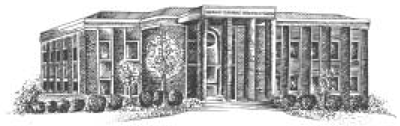
We appreciate the support and cooperation extended by the Governor and the Legislature. This cooperation allows the system to not only meet current challenges but to also make timely provisions for the future.

The Board of Trustees pledges to continue to administer the affairs of the Teachers' Retirement System in the most competent and efficient manner possible.

Sincerely,

Arthur Green
Chairperson
Board of Trustees

Letter of Transmittal



Teachers' Retirement System of the State of Kentucky

December 19, 2016

Honorable Matthew G. Bevin, Governor
Commonwealth of Kentucky
Capitol Building
Frankfort, Kentucky

Dear Governor Bevin:

It is my pleasure to submit the 76th Comprehensive Annual Financial Report of the Teachers' Retirement System of the State of Kentucky (TRS), a component unit of the Commonwealth of Kentucky, for the fiscal year ended June 30, 2016. Allow me to begin this year's transmittal letter with another expression of my thanks for your work and the work of the General Assembly in approving a biennial budget for the commonwealth that provides $973 million in additional funding for TRS. The initial installments of that funding already are being invested to fulfill the promise made by the state to teachers.

TRS produced this annual report, which is required by state law along with an annual audit and actuarial valuation of the retirement system, that provides you, the General Assembly and the public with information necessary to better understand TRS, which is the largest financial institution in the commonwealth. Contained within are numerous examples of how Kentucky teachers' future well-being is being provided for at a low cost with a great economic benefit for those educators and the state's businesses that receive many of the retirement dollars spent by the 89 percent of retirees who live in Kentucky.

This report conforms with the principles of governmental accounting and generally accepted accounting principles. Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with TRS management. To the best of our knowledge and belief, the enclosed data is accurate in all material aspects and reported in a manner designed to present fairly the financial position and results of operations of TRS for the year ended June 30, 2016. Discussion and analysis of net assets and related additions and deductions are presented in Management's Discussion and Analysis beginning on page 18.

Management is responsible for maintaining a system of internal controls to establish reasonable assurance that assets are safeguarded, transactions are executed accurately and financial statements are fairly presented. Limits are inherent in all systems of internal control based on the recognition that the costs of such systems should be related to the benefits to be derived. Management believes the system's controls provide this appropriate balance. The system of internal controls includes policies and procedures and an internal audit department that reports to the Board of Trustees.

Profile of TRS

TRS began operations on July 1, 1940, as a cost-sharing, multiple-employer defined benefit plan. The primary purpose of the plan is to provide retirement annuity plan coverage for local school districts and other public educational agencies in the state. TRS is a blended component unit of the Commonwealth of Kentucky. The plan is described in the notes to the basic financial statements on page 29. Also, the summary of the plan provisions, which starts on page 110, is useful in understanding benefit and contribution provisions. The population of TRS membership is stated in the preceding board chair's letter.

An annual operating budget is prepared for the administration of the retirement system and approved by the Board of Trustees. Biennial budget requests also are submitted to the Kentucky General Assembly for adoption. TRS's investment earnings pay for the agency's administrative expenses, which are among the lowest of its peers.

Major Initiatives

The system continually seeks better to serve its membership as the highest levels of professionalism, integrity, performance and teamwork are required at all levels of the organization. TRS is an organization that "does it right." As such, during the past year, TRS has continued work on several major initiatives concerning funding and cost containment for retiree health care, the investment program and information technology.

Implementation of the "Shared Responsibility" Solution for Funding Retiree Health Care and Careful Management of Medical Insurance Costs

Kentucky is a national leader in prefunding retiree health care benefits. June 30, 2016, marked the end of the six-year phase in of the "shared responsibility" solution for prefunding retired teacher health care. The Board of Trustees and staff are very pleased to report that $3.1 billion in actuarial liability has been eliminated from the retired teacher health care plan through implementation of this solution. Another $1.9 billion savings in actuarial liability was accomplished through careful management of health care costs. Thus, since implementing "shared responsibility" and other cost control measures, more than $5 billion in actuarial accrued liability has been eliminated from the TRS Medical Insurance Fund.

Elected officials have commended Kentucky's education community for its strong leadership and hard work in developing and implementing the solution. Constituent groups – representing retired teachers, active teachers, school boards, school superintendents and the state – all worked on the consensus funding solution. The solution provides that all the groups share in the solution by investing a little more now to receive substantial returns later. After six years and $3.1 billion in lowered liabilities by converting to a prefunded plan and other cost-saving measures, the "shared responsibility" solution is truly a significant accomplishment on the road to retirement security for current and future retired teachers.

TRS is efficient, effective and always working to improve the retirement security of Kentucky's teachers. Eliminating more than $5 billion in liability helps the financial condition of the commonwealth and eases burdens on taxpayers.

The Board of Trustees regularly reviews the health care plan to contain costs and maintain a meaningful benefit for retired teachers. The move to Medicare Advantage, now in the 10th year, continues to be stable and financially feasible for our members and the TRS medical plan. The cost of coverage for 2017 is a reduction from the 2016 cost.

Some recent cost-saving initiatives include moving the TRS-sponsored Medicare drug plan from fully insured to a self-funded plan to achieve the greatest amount of federal subsidies. Additionally, TRS joined the KY Rx Coalition in 2012, which is spearheaded by the University of Kentucky. By joining the coalition, TRS achieves annual savings through leveraging greater prescription purchasing power and deeper drug discounts. As an added benefit, a dedicated staff of pharmacists with the KY Rx Coalition can help each member with their prescriptions and how to maximize their prescription dollars.

The Board contracts with Edumedics for disease management services for Medicare-eligible retirees with diabetes, hypertension and hyperlipidemia. Edumedics is a Kentucky-based company spun out from the University of Louisville. Edumedics is educating retirees with these conditions about nutrition, drug regime, exercise and other matters. These educational efforts are ongoing, involving routine face-to-face checkups with participating retirees. It is anticipated that this trial will continue beyond fiscal year 2016, when the original pilot period was to conclude.

TRS continued development and implementation of a system for reconciling reciprocal health insurance costs between TRS and KRS and other state plans monthly. Pathway was built to calculate the reconciliation, which is in production. TRS's system has been adopted by the state's other pension plans for reconciling reciprocal accounts.

Investment Program

For the 12-month period ended June 30, 2016, the market value of TRS's investment program fell a net 1.3 percent in what was a difficult year for institutional investors. However, during the last five years, TRS's investment returns rank in the top 10 percent of plans with more than $1 billion under management. Moreover, during the last 30 years, TRS investment returns have exceeded the long-term assumed rate of return of 7.5 percent.

A multiyear program of diversifying the portfolio continued in line with TRS's focus on fundamental value and risk control. These ongoing efforts are a continuation of a disciplined investment process and long-term focus on retirement security. This focus has generated exceptionally stable returns through the system's history, and we have every confidence that it will do so in the future. TRS's investment program continues to be recognized as a leader in the public pension community for governance structure, trustee education and cost effectiveness.

TRS regularly obtains independent reviews and always is seeking to improve its investment program and continue the tradition of adhering to best governance practices that lead to sound investment returns.

Information Technology

TRS completed the Pathway information technology system project on time, under budget and meeting expectations. Members now can access account information online - available anytime from anywhere. The members' portal was the final phase of a multiyear effort to modernize TRS's information technology infrastructure. The vendor authorized by the board to build and install the new system has worked with staff onsite at TRS since September 2011. In July 2013, member enrollment, employer reporting, service credit purchases and related accounting functions were put into production. In January 2015, new modules for member benefits, insurance and retiree payroll went live.

The objective of Pathway is to make it easier for members to answer their own questions about their retirement and insurance accounts while streamlining retirement processes and improving staff efficiency in providing services to retirees and active members. The new pension administration system includes an upgraded imaging system for storage of member account information and other business records. Staff is currently working with the Kentucky Department for Libraries and Archives to update TRS's records retention schedule consistent with Pathway's data and document storage capabilities.

As an extension of this project, TRS created and now offers a mobile application for Pathway that allows members to access the same account information on mobile devices as is available through the Pathway website.

Communications

To reach members more easily, TRS created Facebook and Twitter accounts to communicate information about the system on a more timely basis. In less than a year, the Facebook account received more than 1,200 likes, and posts often reach more than 1,000 users - led by 7,600 users who saw a post congratulating this year's retirees and almost 4,600 who saw a post expressing appreciation for the additional funding in the budget. The social media accounts frequently link to information on the TRS website, which was revamped during the year to be more user friendly.

Internal and External Reviews

TRS responds to legislative and administration inquiries and mandates throughout the year. Voluminous records were turned over to the Office of State Budget Director and the team performing the performance review. TRS also coordinated development of a report, with the cooperation of leaders from the other Kentucky public pension plans, as mandated by HB 271 (RS 2016), that shows what individuals in any Kentucky state pension are to receive annually, including listing combined amounts for what members who have reciprocity receive and protecting the confidentiality of the recipients as mandated by statute.

I undertook a detailed review of actuarial service purchases with the assistance of the board's independent actuary. The purchase methodology from this review has been built into Pathway. The revised methodology has improved, and will continue to improve, the understanding of service purchases for both staff and the membership.

Economic Condition

The economic condition of the system is based primarily on investment earnings. The Investment Section of this report starting on page 63 contains asset allocations, strategic target ranges for investments, discussion of the current year market environment and historical performance schedules, among others.

The fiscal year was a very challenging year for TRS's active managers causing a lag in performance. Also, TRS's investing was limited by negative cash flow - selling assets to pay benefits -

as a result of prior underfunding. However, TRS continues to have strong relative performance compared to plans with more than $1 billion under management. For example, TRS registered top 10 percent performance compared to peers over the prior five-year period. Over the prior 30-year period, TRS's portfolio returned 8 percent (gross), exceeding the 7.5 percent assumed rate of return.

According to KRS 161.430, the TRS Board of Trustees is responsible for investing the assets of the system. The Board of Trustees delegates investment authority to the Investment Committee. The Investment Committee works closely with experienced investment counselors and the system's professional staff in evaluating and selecting investment allocations.

The investment objectives of the Board of Trustees are to ensure that funds shall be invested solely in the interest of its members and their beneficiaries and that investment income shall be used for the exclusive purpose of providing benefits to the members and their beneficiaries, while making payment of reasonable expenses in administering the plan and its trust funds. The investment program shall also provide a reasonable rate of total return with major emphasis being placed upon the protection of the invested assets.

The investment portfolio experienced a decrease in value during the 2015-2016 fiscal year as the portfolio's market value went from $18,447,494,794 to $17,405,060,831. The decrease in value of the portfolio was the result of challenging market conditions, negative cash flow for the pension fund and the compounded impact of lost opportunity due to underfunding. This decrease was offset partially by investment income that included interest income and dividends. Employer and employee contributions also provided significant income to the portfolio.

Net investment income was negative at $249,661,104 for 2015-2016 compared to adding $871,554,710 in 2014-2015. The major contributing factor of the decrease in return from the system's investment portfolio resulted from the net depreciation in fair value of investments of $598,818,560 at June 30, 2016, compared to a net appreciation of $428,758,194 at June 30, 2015.

As mentioned earlier, it should be noted that TRS annuities bolster the Commonwealth of Kentucky's economy, as approximately 89 percent of retired teachers reside within the state. TRS paid more than $2 billion in total benefits (retirement, medical ... etc.) during the fiscal year.

Funding

The commonwealth, through the actions of Gov. Bevin and the General Assembly, took a huge first step in addressing an unfunded liability that built up over the last decade. Education groups, teachers (both current and retired) and TRS officials repeatedly have expressed thanks for the $973 million in funding provided through the budget (HB 303, RS 2016), representing 94 percent of the actuarially determined employer contribution.

Based on recommendations of the Board of Trustees, the General Assembly establishes, by statute, the contribution levels that are to be made by members and employers to fund the liabilities of the system. Each year, an independent actuary performs a valuation to determine whether the current levels of contribution will be sufficient to cover the cost of benefits earned by members.

Since fiscal year 2008, the state has not paid the full recommended annual employer contribution necessary to prefund the benefit requirements of members of the retirement system as determined by the actuary. Over this period, because of not making the additional appropriation beyond salary-based contributions, the actuary says the state's annual additionally required employer contributions have grown significantly from $60.5 million (fiscal year 2009) to $553.6 million (fiscal year 2019). The following schedule details the growth of the additional annual employer contributions payable by the state:

Fiscal Year	Cumulative Increase as a % of Payroll	Cumulative Increase of Annual Retirement Appropriations Payable by the State
2009	1.88 %	$ 60,499,800
2010	2.46	82,331,200
2011	3.59	121,457,000
2012	5.81	208,649,000
2013	7.27	260,980,000
2014	8.02	299,420,000
2015	10.42	386,400,000
2016	12.97	487,400,000
2017	13.80	520,372,000
2018	13.49	512,883,000
2019	14.61	553,597,000

(Source: TRS Report of the Actuary on the Annual Valuation Prepared as of June 30, 2016).

The board always has acted as required by state law and recommended annual employer contributions payable by the state that would ensure that the state meets the contractual obligations to members.

The latest actuarial valuation was for the period ending June 30, 2016. This report reflects the system's actuarial value of assets totaling $17.5 billion and actuarial determined liabilities totaling $32 billion. The funded ratio of actuarial assets to liabilities is 54.6 percent, which is a decrease from the previous year and is primarily due to market depreciation of investments and smoothing of investment returns. The actuary reports: "In our opinion, the system has not been funded on an actuarially sound basis since the full actuarially determined contributions were not made by the employer. If contributions by the employer to the system in subsequent fiscal years are less than those required, the assets are expected to become insufficient to pay promised benefits. Assuming that contributions to the system are made by the employer from year to year in the future at rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the assets to provide the benefits called for under the System may be safely anticipated. It is our understanding that the state budget includes additional appropriations of $973 million to fund the required contribution for the 2016-18 biennium."

Annual required employer contributions for the defined benefit plan are provided in the Schedule of Employer Contributions (on page 54). Based on the 2016 valuation report, the actuary recommends a cumulative increase in employer contributions of 14.61 percent of pay for the 2018-2019 fiscal year (as detailed on page 96). Annual required employer contributions for the Medical Insurance Fund are provided in the schedule of employer contributions (on page 56). Past contribution shortfalls created a net OPEB obligation of $1,394,141,069 (as detailed on page 130).

TRS Medical Insurance Plan

The shared responsibility solution for funding retiree health care, which went into effect on July 1, 2010, provides a method of prefunding retiree health care over a 30-year period. The system believes that the shared responsibility solution for funding retiree health care will help ensure the retirement security of the state's teachers. An actuarial valuation of the Medical Insurance Plan for the fiscal year ended June 30, 2016, indicated that the fund has an unfunded liability of $2.84 billion. The funded ratio of actuarial assets to liabilities is 21.9 percent, which is trending upward from past years. The actuary's opinion is: "… if the contributions to the Medical Insurance Fund (MIF) continue at the current statutorily required levels, the funded ratio of the Retiree Medical Plan will continue to increase, and the ability of the MIF to fund the benefits called for under the Retiree Medical Plan will improve."

Additionally, the system believes continued steps must be taken to realize true cost containment through legislation on both the state and national levels. TRS will continue to take measures to contain costs and increase revenues to the Medical Insurance Fund or may adjust coverage to meet existing revenues.

Professional Services

Professional consultants are appointed by the Board of Trustees to perform professional services that are essential to the effective and efficient operation of TRS. Certifications from the board's external auditor and independent actuary are enclosed in this report. The system's consultants who are appointed by the board are listed on pages 57, 58, 85 and 91 of this report.

National Recognition

The System was honored by two national professional organizations in regard to the administration of the retirement program.

GFOA Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Teachers' Retirement System of the State of Kentucky for its Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2015. 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 government unit must publish an easily readable and efficiently organized comprehensive annual financial report, whose contents conform to program standards. Such CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for one year. TRS has received the Certificate of Achievement for the last 28 consecutive years (fiscal years ended 1988-2015). We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

PPCC Achievement Award

The Public Pension Coordinating Council (PPCC) awarded a Certificate of Achievement to the Teachers' Retirement of the State of Kentucky for 2016 for implementing and maintaining high professional standards in administering the affairs of the system. The award is based on compliance with principles judged to underlie exemplary retirement system achievements in the areas of benefits, actuarial valuation, financial reporting, investments and disclosure. Those principles are widely acknowledged to be marks of excellence in the public pension industry.

The PPCC is a coalition of three national associations that represent public retirement systems and administrators. Combined, these associations serve retirement systems that provide pension coverage for most of the nation's 16 million employees of state and local government. The associations that form the PPCC are the National Association of State Retirement Administrators; the National Council on Teacher Retirement; and the National Conference on Public Employee Retirement Systems.

NCTR Executive Committee

I am past-president of the National Council on Teacher Retirement (NCTR). NCTR is a national, nonprofit organization whose mission is to promote effective governance and benefits administration in state and local public pension systems in order that adequate and secure retirement benefits are provided to educators and other plan participants. NCTR membership includes 69 state, territorial, local and university pension systems with combined assets in excess of $2 trillion, serving more than 18 million active and retired teachers, non-teaching personnel and other public employees.

Public Sector HealthCare Roundtable

Additionally, I serve on the Board of Directors and as president of the Public Sector HealthCare Roundtable. The roundtable is a national coalition of public sector health care purchasers that was formed to ensure that the interests of the public sector are represented properly during the formulation, debate and implementation of federal health care policies. Membership in the Roundtable is open to any statewide, regional or local governmental unit that provides health care coverage for public employees and retirees.

Acknowledgements

The preparation of this report reflects the combined efforts of the TRS staff, under the leadership of the Board of Trustees. The report is intended to provide complete and reliable information that serves as a basis for making management decisions and for determining compliance with legal provisions. It also is used to determine responsible stewardship of the assets contributed by TRS members and their employers.

This report is located at the TRS web address https://trs.ky.gov/financial-reports-information/#CAFR and is made available to all system employer members, whose cooperation continues to contribute significantly to our success, and who form the vital link between TRS and its active members.

TRS management and staff are committed to the continued operation of an actuarially sound retirement system. Your support is an essential part of this commitment, and we look forward to working with you.

Respectfully submitted,

Gary L. Harbin, CPA
Executive Secretary

Board of Trustees

Teachers' Retirement System
of the State of Kentucky
479 Versailles Road
Frankfort, Kentucky 40601-3800

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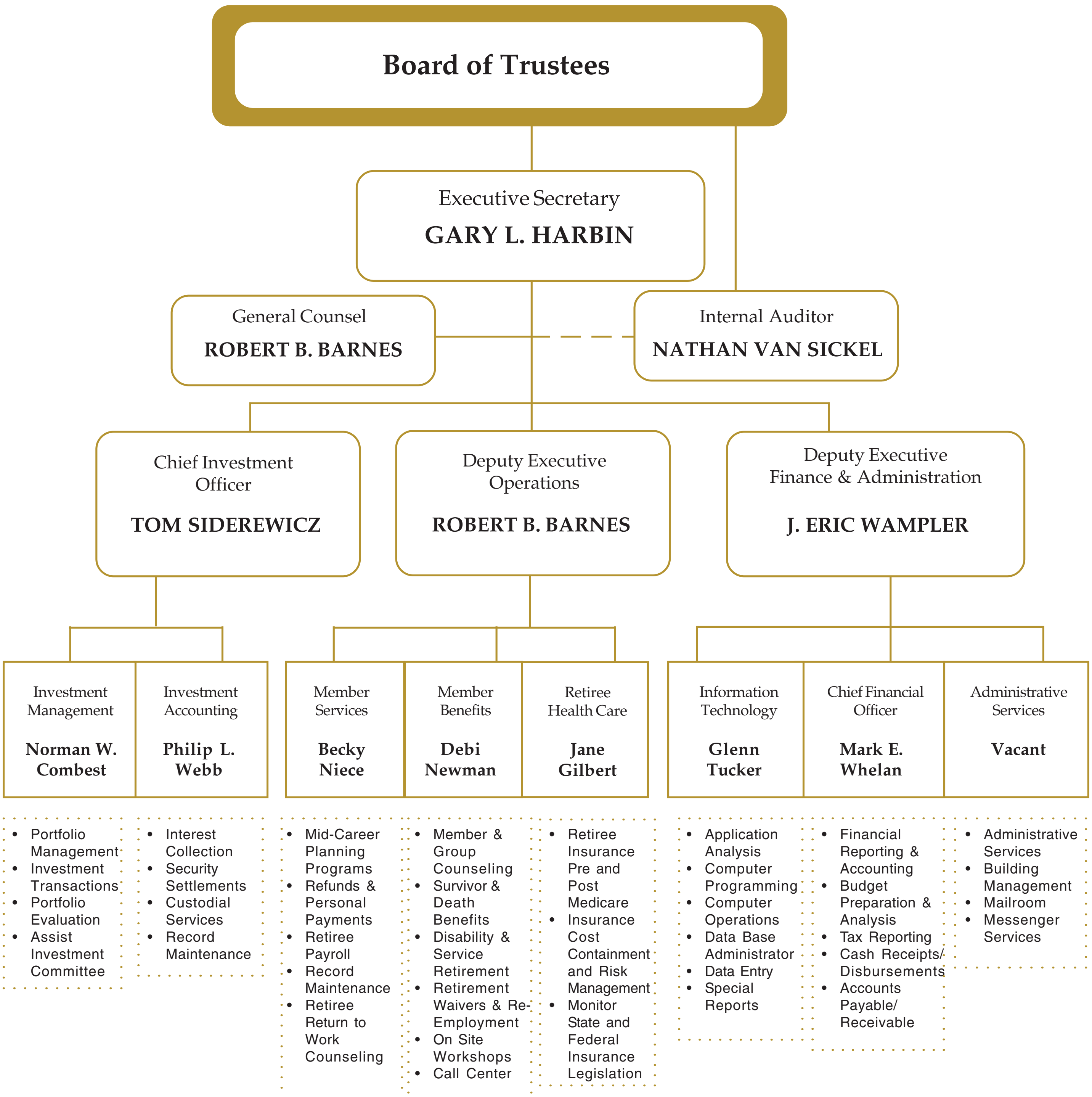
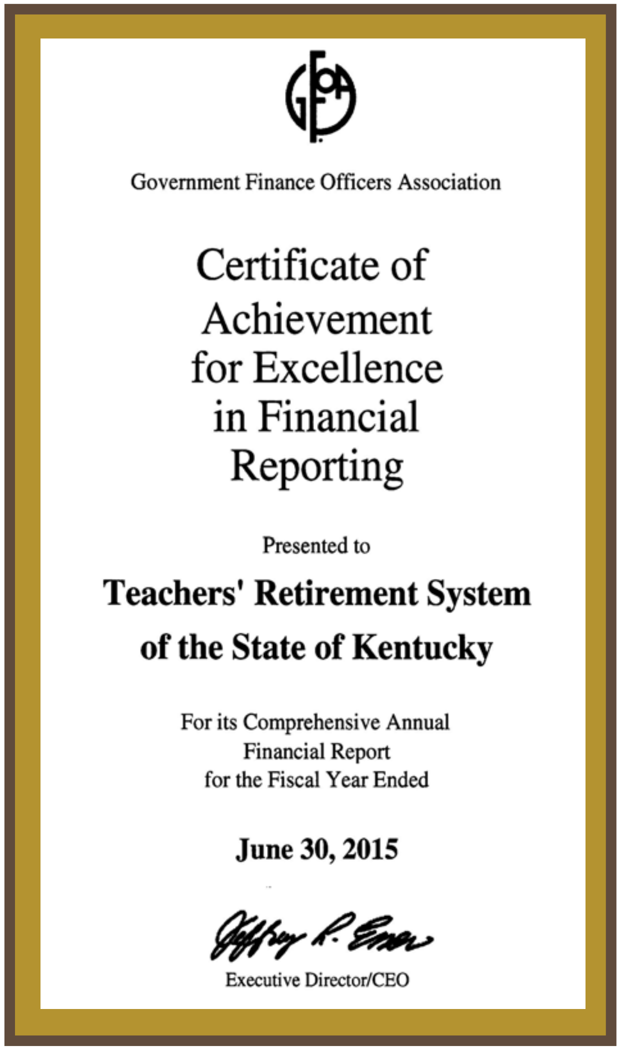
1000 Bluegrass Corporate Center
333 West Vine Street
Lexington, KY 40507

** See pages 85 and 91 of the Investment Section for investment consultants.*

Teachers' Retirement System
Organizational Chart



GOVERNMENT FINANCE OFFICERS ASSOCIATION (GFOA)



Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Teachers' Retirement System of the State of Kentucky

For its Comprehensive Annual Financial Report for the Fiscal Year Ended

June 30, 2015

Executive Director/CEO

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Teachers' Retirement System of the State of Kentucky The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Teachers' Retirement System of the State of Kentucky. The KTRS has received the Certificate of Achievement for the last twenty-eight consecutive years (fiscal years ended 1988-2015).

PUBLIC PENSION COORDINATING COUNCIL
PUBLIC PENSION STANDARDS

Public Pension Coordinating Council

Public Pension Standards

2016 Award

Presented to

Kentucky Teachers' Retirement System

In recognition of meeting professional standards for
plan design 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
Program Administrator

The Public Pension Coordinating Council awarded a Certificate of Achievement to the Teachers' Retirement System of the State of Kentucky for 2016 for implementing and maintaining high professional standards in administering the affairs of the System. The award is based on compliance with principles judged to underlie exemplary retirement system achievements in the areas of benefits, actuarial valuation, financial reporting, investments and disclosure and are widely acknowledged to be marks of excellence for retirement systems. It represents the highest standards of excellence in the public pension industry.

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Teachers' Retirement System
of the State of Kentucky

2016

Financial Section

CPAs & ADVISORS

Independent Auditor's Report

Board of Trustees
Teachers' Retirement System of the State of Kentucky
Frankfort, Kentucky

Report on the Financial Statements

We have audited the accompanying statement of fiduciary net position of the Teachers' Retirement System of the State of Kentucky as of June 30, 2016 and 2015, and the related statement of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the component unit financial statements of the Teachers' Retirement System of the State of Kentucky 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.

Auditor's Responsibility

Our responsibility is to express an opinion on the financial statements based on our audits. We conducted our audits 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 auditor's 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 on the financial statements.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the Teachers' Retirement System of the State of Kentucky, a component unit of the Commonwealth of Kentucky, as of June 30, 2016 and 2015, and the respective changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

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An Independent Member of Baker Tilly International

Kentucky
Indiana
Ohio

Independent Auditor's Report (continued) Page 2

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 18 through 21 and the Schedule of Changes in Net Pension Liability (page 53), Schedule of Net Pension Liability and Schedule of Employer Contributions (page 54). Schedule of Investment Returns (page 55), Medical Insurance Plan Schedule of Funding Progress (page 55) and Schedule of Employer Contributions (page 56), and Life Insurance Plan Schedule of Funding Progress and Schedule of Employer Contributions (page 56) 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.

Supplementary Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Kentucky Teachers' Retirement System's basic financial statements. The additional supporting schedules (pages 57 through 59) are presented for purposes of additional analysis and are not a required part of the basic financial statements. The Schedule of Administrative Expenses, Schedule of Professional Services and Contracts, and Schedule of Contracted Investment Management Expenses are the responsibility of management and were derived from and relate 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 audits 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 Schedule of Administrative Expenses, Schedule of Professional Services and Contracts, and Schedule of Contracted Investment Management Expenses are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 21, 2016, on our consideration of the Teachers' Retirement System of the State of Kentucky'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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on 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 Teachers' Retirement System of the State of Kentucky's internal control over financial reporting and compliance.

/s/ Mountjoy Chilton Medley LLP

Lexington, Kentucky
November 21, 2016

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF KENTUCKY MANAGEMENT'S DISCUSSION AND ANALYSIS

This discussion and analysis of the Teachers' Retirement System of the State of Kentucky (TRS, System, or Plan) financial performance provides an overview of the defined benefit and medical insurance plans' financial year ended June 30, 2016. Please read it in conjunction with the respective financial statements, which begin on page 22.

USING THIS FINANCIAL REPORT

Because of the long-term nature of the defined benefit retirement annuity plan, and the medical and life insurance plans, financial statements alone cannot provide sufficient information to properly reflect the ongoing perspective of the System. The Statement of Fiduciary Net Position and Statement of Changes in Fiduciary Net Position (on pages 22-25) provide information about the activities of the defined benefit retirement annuity plan, medical insurance plan, life insurance plan and the tax-sheltered annuity plan as a whole. The Teachers' Retirement System of the State of Kentucky is the fiduciary of funds held in trust for its members.

The Required Supplementary Information includes historical trend information about the funded status of the defined benefit retirement annuity plan. The Additional Supporting Schedules section includes historical trend information about the actuarial funded status of the medical insurance and life insurance plans from a long-term, ongoing plan perspective and the progress made in accumulating sufficient assets to pay benefits and insurance premiums when due. The Schedules of Employer Contributions present historical trend information about the required contributions of employers and the contributions made by employers in relation to the requirement. These schedules provide information that contributes to understanding the changes over time in the funded status of the plans.

KENTUCKY TEACHERS' RETIREMENT SYSTEM AS A WHOLE

In the fiscal year ended June 30, 2016, the System's combined fiduciary net position decreased by $1,128.3 million – from $18,766.8 million in 2015 to $17,638.5 million in 2016. In 2014, the combined net position totaled $18,720.4 million. The following summaries focus on the fiduciary net position and changes in fiduciary net position of the System's defined benefit retirement annuity plan, medical insurance plan, and life insurance plan.

Summary of Fiduciary Net Position
(In millions of dollars)

Categories	Defined Benefit Plan			Medical Insurance Plan			Life Insurance Fund		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Cash & Investments	$ 17,149.0	$ 18,428.9	$ 18,426.8	$ 681.4	$ 609.7	$ 536.2	$ 90.1	$ 88.6	$ 89.7
Receivables	119.5	295.4	310.5	58.3	29.1	12.4	1.2	1.1	1.1
Capital Assets	17.0	14.9	11.5						
Total Assets	17,285.5	18,739.2	18,748.8	739.7	638.8	548.6	91.3	89.7	90.8
Total Liabilities	(472.7)	(690.1)	(656.2)	(5.9)	(11.8)	(12.6)	(0.4)		
Net Position	$ 16,812.8	$ 18,049.1	$ 18,092.6	$ 733.8	$ 627.0	$ 536.0	$ 90.9	$ 89.7	$ 90.8

*TOTALS	2016	2015	2014
Cash & Investments	$ 17,920.5	$ 19,127.2	$ 19,052.7
Receivables	179.0	325.6	324.0
Capital Assets	17.0	14.9	11.5
Total Assets	18,117.0	19,467.7	19,388.2
Total Liabilities	(479.0)	(701.9)	(668.8)
Net Position	$ 17,637.5	$ 18,765.8	$ 18,719.4

* *Other Funds consisting of the 403(b) Tax Shelter Plan, the Excess Benefit Fund and the Losey Scholarship fund had a combined fiduciary net position of $1.0 million for years ended 2016, 2015 and 2014.*

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF KENTUCKY
MANAGEMENT'S DISCUSSION AND ANALYSIS

The fiduciary net position of the defined benefit retirement annuity plan decreased by 6.85 percent ($16,812.8 million compared to $18,049.1 million) and in 2014, the fiduciary net position of the defined benefit plan totaled $18,092.6 million. The decrease is primarily due to deteriorations in market conditions which resulted in a net investment income decrease of $1.1 billion less than 2015. The 2015 amount was $1.9 billion less than 2014. The defined benefit retirement annuity plan assets are restricted to providing monthly retirement allowances to members and their beneficiaries. The fiduciary net position of the medical insurance plan increased by 17.03 percent ($733.8 million compared to $627 million) primarily due to contributions from members and employers exceeding insurance expenses due to legislation passed in 2010. This compares to 2014 where fiduciary net position of the medical insurance fund totaled $536 million. Plan assets are restricted to providing hospital and medical insurance benefits to members and their spouses.

Summary of Changes in Fiduciary Net Position

(In millions of dollars)

Categories	Defined Benefit Plan			Medical Insurance Plan			Life Insurance Fund		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
ADDITIONS									
Member Contributions	$ 313.0	$ 308.2	$ 305.0	$ 184.4	$ 157.5	$ 135.2	$	$	$
Employer Contributions	565.5	559.6	563.3	178.6	145.3	157.7	1.0	1.0	1.0
Net Investment Income/(Loss)	(245.2)	862.2	2,803.2	(9.3)	7.4	67.7	4.8	2.0	4.6
Other Income				43.3	22.8	4.9			
TOTAL ADDITIONS	633.0	1,730.0	3,671.5	397.0	333.0	365.5	6.0	3.0	5.6
DEDUCTIONS									
Benefit Payments	1,833.0	1,741.5	1,654.4				5.0	4.1	4.7
Refunds	27.8	23.1	25.5						
Administrative Expense	8.6	8.9	7.9	1.7	1.6	1.1			
Insurance Expenses				288.5	240.4	242.1			
TOTAL DEDUCTIONS	1,869.6	1,773.5	1,687.8	290.2	242.0	243.2	4.6	4.1	4.7
Increase/(Decrease) in Net Position	$ (1,236.3)	$ (43.5)	$ 1,983.7	$ 106.8	$ 91.0	$ 122.3	$ 1.2	$ (1.1)	$ 0.9

*TOTALS

	2016	2015	2014
ADDITIONS			
Member Contributions	$ 497.4	$ 465.7	$ 440.2
Employer Contributions	745.1	705.9	722.0
Net Investment Income/(Loss)	(249.7)	871.6	2,875.5
Other Income	43.3	22.8	4.9
TOTAL ADDITIONS	1,036.0	2,066.0	4,042.6
DEDUCTIONS			
Benefit Payments	1,838.0	1,745.6	1,659.1
Refunds	27.8	23.1	25.5
Administrative Expense	10.3	10.5	9.0
Insurance Expenses	288.5	240.4	242.1
TOTAL DEDUCTIONS	2,164.0	2,019.6	1,935.7
Increase/(Decrease) in Net Position	$ (1,128.3)	$ 46.4	$ 2,106.9

* *Other Funds consisting of the 403(b) Tax Shelter Plan, the Excess Benefit Fund and the Losey Scholarship fund had a combined change in fiduciary net position of $1.0 million for years ended 2016, 2015 and 2014.*

DEFINED BENEFIT RETIREMENT ANNUITY PLAN ACTIVITIES

Retirement contributions are calculated by applying a percentage factor to salary and are paid monthly by each member. Members may also pay contributions to repurchase previously refunded service credit or to purchase various types of elective service credit.

TEACHERS' RETIREMENT SYSTEM OF THE STATE OF KENTUCKY
MANAGEMENT'S DISCUSSIONAND ANALYSIS (Continued)

In 2016, Employer contributions totaled $565.5 million, a net increase of $5.9 million from the prior fiscal year. The increase was due to a repayment of prior year shortfalls. In 2015, Employer contributions decreased $3.7 million compared to the prior fiscal year due to declining amortization payments from the State on prior benefit improvements.

In 2016, the System experienced a decrease in net investment income compared to the previous year (negative $245.2 million compared to $862.2 million). For 2014, net investment income totaled $2,803.2 million. The decrease in net investment income is mainly due to unfavorable market conditions for the year ended June 30, 2016 compared to 2015. Total deductions in 2016 increased $96.1 million. The increase was caused principally by an increase of $91.7 million in defined benefit payments. Members who were drawing benefits as of June 2015 received an increase of one and one-half percent to their retirement allowances in July 2015. Also, there was an increase of 1,741 members and beneficiaries on the retired payroll as of June 30, 2016.

OTHER POSTEMPLOYMENT BENEFIT ACTIVITIES

During the 2016 fiscal year, the medical insurance plan member contributions increased $26.9 million and employer contributions increased $33.3 million from fiscal year 2015. The member, employer and state contributions increased primarily due to the implementation of the Shared Responsibility Plan beginning July 1, 2010 which includes increased contributions from active and retired members, employers and the state.

Net investment income for the medical insurance plan decreased $16.7 million from $7.4 million in 2015 to negative $9.3 million in 2016. In 2014, net investment income totaled $67.7 million.

The life insurance plan has an actuarial valuation conducted independently from the defined benefit plan. Total life insurance benefits paid for 2016, 2015 and 2014 were $4.6, $4.1 and $4.7 million respectively.

FUNDING

Since fiscal year 2008, the State has not paid all of the annual required contribution (ARC), as determined by the actuary, necessary to prefund the pension benefit requirements of members of the System. Over this period of time, because of the failure to fund the full ARC, the State's additional annual employer contributions have grown significantly from $60.5 million (Fiscal Year 2009) to $553 million (Fiscal Year 2019). The latest actuarial valuation was for the period ending June 30, 2016. This report reflects the System's actuarial value of assets totaling $17.5 billion and actuarial determined liabilities totaling $32 billion. The funded ratio of actuarial assets to liabilities is 54.6%. Based upon these circumstances, the actuary opines the pension system is not being funded on an actuarially sound basis. Because a plan to address the unfunded liability is not in place, the State's credit rating has been downgraded. Moreover, taxpayers pay higher ultimate pension costs as liability grows compounded.

For the 2016-2018 biennium, the State budgeted $973 million of additional employer contributions for the unfunded liability of the System. Assuming that contributions to the System are made by the state from year to year in the future as recommended by the actuary, the System should have sufficient assets to provide the benefits defined by law.

The actuarial funding of the medical insurance and life insurance plans is provided in the Schedule of Funding Progress presented in the Required Supplementary Information. The asset value, stated in the Schedule of Funding Progress, is determined by the System's independent actuary. The actuarial accrued liability is calculated using the entry age cost method. Although the medical insurance plan continues to have a large unfunded actuarial liability, the current obligations are being met by current funding. Effective July 1, 2010 the Shared Responsibility Plan for funding retiree health benefits requires members, retirees, participating employers and the state to make contributions for pre-funding retiree medical benefits. Annual required contributions of the medical insurance plan are provided in the Schedule of Employer Contributions presented in the Required Supplementary Information. Past shortfalls of employer contributions has resulted in an accumulated net Other Post Employment Benefit obligation of $1,394,141,069 as of June 30, 2016.

HISTORICAL TRENDS

Accounting standards require that the Statement of Fiduciary Net Position present asset values at fair value and include only benefits and refunds due to plan members and beneficiaries and accrued investment and administrative expenses as of the reporting date. Detailed information regarding the funded status, including the key actuarial assumptions, target allocations and the sensitivity of the blended discount rate of the pension plan can be found in Note 4 of the financial statements. The blended discount rate mandated by accounting standards result in a lower funding level when compared to the actuarially determined funded levels reported in past years. The Schedule of Employer Contributions is provided in the Required Supplementary Information.

The System's independent consulting actuaries are members of the American Academy of Actuaries and experienced in performing valuations for public retirement systems. As mandated by state law, the valuations of the retirement annuity and health care plans are prepared in accordance with principles of practice prescribed by the Actuarial Standards Board consistent with accepted actuarial procedures. Actuarial assumptions used in the valuations are internally consistent and reasonable based on the actual experience of the plans. An actuarial audit was completed in 2015, which confirmed the accuracy of actuarial procedures and the reasonableness of assumptions. A five-year experience study was completed in 2016, which also confirmed the reasonableness of assumptions based upon the actual experience of the plans. The actuarial assumptions reflected in the results may be reasonably relied upon. However, projections using other assumptions may produce significantly different results.

This financial report is designed to provide citizens, participating employers, plan members, and other users with an overview of the Kentucky Teachers' Retirement System's fiscal practices and responsibility. If you have questions or need additional information, please contact Mark Whelan, Chief Financial Officer, Kentucky Teachers' Retirement System at 479 Versailles Road, Frankfort, Kentucky 40601.

STATEMENT OF FIDUCIARY NET POSITION
As of June 30, 2016

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
ASSETS					
Cash	$ 15,156,496	$ 59,843,503	$	$ 481	$ 75,000,480
Prepaid Expenses	89,235				89,235
Receivables					
Contributions	34,664,070	21,525,458	95,285		56,284,813
Due From Other Trust Funds	3,719,997				3,719,997
State of Kentucky	22,766,523	1,359,808	54,392		24,180,723
Investment Income	39,619,872	1,333,953	1,090,402	2,417	42,046,644
Investment Sales Receivable	18,182,733	633,642			18,816,375
Other Receivables	559,913	33,481,047			34,040,960
Total Receivables	119,513,108	58,333,908	1,240,079	2,417	179,089,512
Investments at Fair Value (See Note 5)					
Short-Term Investments	507,724,996	18,186,502	913,077	410,590	527,235,165
Bonds and Mortgages	2,734,474,510	62,555,400	89,200,103	290,132	2,886,520,145
Equities	10,267,066,002	354,369,798		242,351	10,621,678,151
Alternative Investments	932,813,350	23,931,317			956,744,667
Real Estate	940,860,202	25,433,241			966,293,443
Additional Categories	1,309,513,418	137,075,842			1,446,589,260
Total Investments, at fair value	16,692,452,478	621,552,100	90,113,180	943,073	17,405,060,831
Invested Security Lending Collateral	441,380,830				441,380,830
Capital Assets, at cost net of accumulated depreciation of $6,022,382 (See Note 2)	16,973,670				16,973,670
Total Assets	17,285,565,817	739,729,511	91,353,259	945,971	18,117,594,558
LIABILITIES					
Accounts Payable	1,917,838	19,811	325,494		2,263,143
Due to Other Trust Funds	1,935,385	1,747,115	36,837	660	3,719,997
Revenues Collected in Advance		2,047,051			2,047,051
Investment Purchases Payable	27,499,881	2,134,567			29,634,448
Obligations Under Securities Lending	441,380,830				441,380,830
Total Liabilities	472,733,934	5,948,544	362,331	660	479,045,469
Net Position - Restricted for Pension and Other Postemployment Benefits	$ 16,812,831,883	$ 733,780,967	$ 90,990,928	$ 945,311	$ 17,638,549,089

The "Combining Statement of Fiduciary Net Position - Other Funds" is presented on page 26.
The accompanying notes are an integral part of these financial statements.

STATEMENT OF FIDUCIARY NET POSITION
As of June 30, 2015

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
ASSETS					
Cash	$ 153,403,413	$ 27,608,169	$ $688,739	$ $66,698	$ 181,767,019
Prepaid Expenses	109,881	1,000			110,881
Receivables					
Contributions	50,495,681	7,531,532	67,162		58,094,375
Due From Other Trust Funds	4,312,155				4,312,155
State of Kentucky	26,885,159	2,580,839	61,789		29,527,787
Investment Income	40,683,260	1,289,669	999,217	2,434	42,974,580
Investment Sales Receivable	172,483,377	673,686			173,157,063
Other Receivables	588,560	16,979,307			17,567,867
Total Receivables	295,448,192	29,055,033	1,128,168	2,434	325,633,827
Investments at Fair Value (See Note 5)					
Short-Term Investments	611,762,670	35,611,846	2,374,735	439,079	650,188,330
Bonds and Mortgages	2,945,268,960	42,746,464	85,589,214	250,032	3,073,854,670
Equities	11,163,565,280	355,702,555		226,083	11,519,493,918
Alternative Investments	844,688,096	11,698,357			856,386,453
Real Estate	825,335,346	1,762,328			827,097,674
Additional Categories	1,385,897,391	134,576,358			1,520,473,749
Total Investments, at fair value	17,776,517,743	582,097,908	87,963,949	915,194	18,447,494,794
Invested Security Lending Collateral	498,859,702				498,859,702
Capital Assets, at cost net of accumulated depreciation of $4,486,539 (See Note 2)	14,906,438				14,906,438
Total Assets	18,739,245,369	638,762,110	89,780,856	984,326	19,468,772,661
LIABILITIES					
Accounts Payable	1,666,331	20,094	360	4	1,686,789
Due to Other Trust Funds		4,277,470	33,989	696	4,312,155
Revenues Collected in Advance		4,914,365			4,914,365
Investment Purchases Payable	189,588,599	2,587,811			192,176,410
Obligations Under Securities Lending	498,859,702				498,859,702
Total Liabilities	690,114,632	11,799,740	34,349	700	701,949,421
Net Position - Restricted for Pension and Other Postemployment Benefits	$ 18,049,130,737	$ 626,962,370	$ 89,746,507	$ 983,626	$ 18,766,823,240

The "Combining Statement of Fiduciary Net Position - Other Funds" is presented on page 26.
The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
For the Fiscal Year Ended June 30, 2016

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
ADDITIONS					
Contributions					
State of Kentucky	$ 484,986,954	$ 74,367,250	$ 872,990	$	$ 560,227,194
Other Employers	80,467,636	104,271,120	164,779		184,903,535
Members	313,044,226	184,365,215			497,409,441
Total Contributions	878,498,816	363,003,585	1,037,769		1,242,540,170
Other Income					
Recovery Income		43,328,335			43,328,335
Total Other Income		43,328,335			43,328,335
Investment Income/(Loss)					
Net Appreciation/(Depreciation) in Fair Value of Investments	(584,310,367)	(16,291,780)	1,742,044	41,543	(598,818,560)
Interest	162,339,804	8,029,465	3,095,887	10,013	173,475,169
Dividends	194,570,308	1,207,958		5,187	195,783,453
Rental Income, Net	28,039,967				28,039,967
Securities Lending, Gross Earnings	2,767,119		3,550	404	2,771,073
Gross Investment Income/(Loss)	(196,593,169)	(7,054,357)	4,841,481	57,147	(198,748,898)
Less: Investment Expense	(47,791,624)	(2,278,133)	(11,080)	(116)	(50,080,953)
Less: Securities Lending Expense	(830,067)		(1,065)	(121)	(831,253)
Net Investment Income/(Loss)	(245,214,860)	(9,332,490)	4,829,336	56,910	(249,661,104)
Total Additions	633,283,956	396,999,430	5,867,105	56,910	1,036,207,401
DEDUCTIONS					
Benefits	1,833,198,630		4,595,489	94,665	1,837,888,784
Refunds of Contributions	27,747,742				27,747,742
Insurance Expenses		288,494,763			288,494,763
Administrative Expense	8,636,438	1,686,070	27,195	560	10,350,263
Total Deductions	1,869,582,810	290,180,833	4,622,684	95,225	2,164,481,552
Net Increase (Decrease)	(1,236,298,854)	106,818,597	1,244,421	(38,315)	(1,128,274,151)
Net Position - Restricted for Pension and Other Postemployment Benefits					
Beginning of Year	18,049,130,737	626,962,370	89,746,507	983,626	18,766,823,240
End of Year	$ 16,812,831,883	$ 733,780,967	$ 90,990,928	$ 945,311	$ 17,638,549,089

The "Combining Statement of Changes in Fiduciary Net Position - Other Funds" is presented on page 27.
The accompanying notes are an integral part of these financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
For the Fiscal Year Ended June 30, 2015

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
ADDITIONS					
Contributions					
State of Kentucky	$ 480,073,445	$ 67,608,148	$ 855,012	$	$ 548,536,605
Other Employers	79,505,845	77,655,778	164,507	80,000	157,406,130
Members	308,159,763	157,467,680			465,627,443
Total Contributions	867,739,053	302,731,606	1,019,519	80,000	1,171,570,178
Other Income					
Recovery Income		22,820,427			22,820,427
Total Other Income		22,820,427			22,820,427
Investment Income					
Net Appreciation/(Depreciation) in Fair Value of Investments	429,089,219	783,495	(1,131,703)	17,183	428,758,194
Interest	242,306,932	7,901,793	3,130,146	9,317	253,348,188
Dividends	204,861,024			4,391	204,865,415
Rental Income, Net	28,785,045				28,785,045
Securities Lending, Gross Earnings	2,661,499		204	172	2,661,875
Gross Investment Income	907,703,719	8,685,288	1,998,647	31,063	918,418,717
Less: Investment Expense	(44,726,561)	(1,330,584)	(8,262)	(89)	(46,065,496)
Less: Securities Lending Expense	(798,399)		(61)	(51)	(798,511)
Net Investment Income	862,178,759	7,354,704	1,990,324	30,923	871,554,710
Total Additions	1,729,917,812	332,906,737	3,009,843	110,923	2,065,945,315
DEDUCTIONS					
Benefits	1,741,456,095		4,061,000	97,230	1,745,614,325
Refunds of Contributions	23,032,624				23,032,624
Insurance Expenses		240,394,582			240,394,582
Administrative Expense	8,868,971	1,545,235	25,306	606	10,440,118
Total Deductions	1,773,357,690	241,939,817	4,086,306	97,836	2,019,481,649
Net Increase (Decrease)	(43,439,878)	90,966,920	(1,076,463)	13,087	46,463,666
Net Position - Restricted for Pension and Other Postemployment Benefits					
Beginning of Year	18,092,570,615	535,995,450	90,822,970	970,539	18,720,359,574
End of Year	$ 18,049,130,737	$ 626,962,370	$ 89,746,507	$ 983,626	$ 18,766,823,240

The "Combining Statement of Changes in Fiduciary Net Position - Other Funds" is presented on page 28.
The accompanying notes are an integral part of these financial statements.

Combining Statement of Fiduciary Net Position - Other Funds
As of June 30, 2016

	403(b) Tax Shelter	Supplemental Benefit Fund	Losey Scholarship	TOTAL
Assets				
Cash	$	$ 481	$	$ 481
Receivables				
Investment Income	111		2,306	2,417
Investments at Fair Value				
Short Term Investments	352,773		57,817	410,590
Bonds and Mortgages			290,132	290,132
Equities			242,351	242,351
Total Investments	352,773		590,300	943,073
Total Assets	352,884	481	592,606	945,971
Liabilities				
Due to Other Trust Funds	110	389	161	660
Total Liabilities	110	389	161	660
Net Position - Restricted for Pension and Other Postemployment Benefits	$ 352,774	$ 92	$ 592,445	$ 945,311

Combining Statement of Fiduciary Net Position - Other Funds
As of June 30, 2015

	403(b) Tax Shelter	Supplemental Benefit Fund	Losey Scholarship	TOTAL
Assets				
Cash	$	$ 66,698	$	$ 66,698
Receivables				
Investment Income	26		2,408	2,434
Investments at Fair Value				
Short Term Investments	363,978		75,101	439,079
Bonds and Mortgages			250,032	250,032
Equities			226,083	226,083
Total Investments	363,978		551,216	915,194
Total Assets	364,004	66,698	553,624	984,326
Liabilities				
Accounts Payable	2		2	4
Due to Other Trust Funds	119	410	167	696
Total Liabilities	121	410	169	700
Net Position - Restricted for Pension and Other Postemployment Benefits	$ 363,883	$ 66,288	$ 553,455	$ 983,626

The accompanying notes are an integral part of these financial statements.

Combining Statement of Changes in Fiduciary Net Position - Other Funds
For the Fiscal Year Ended June 30, 2016

	403(b) Tax Shelter	Supplemental Benefit Fund	Losey Scholarship	TOTAL
Additions				
Investment Income				
Net Appreciation in				
Fair Value of Investments	$	$	$ 41,543	$ 41,543
Interest	863		9,150	10,013
Dividends			5,187	5,187
Securities Lending, Gross			404	404
Gross Investment Income	863		56,284	57,147
Less Investment Expense	(43)		(73)	(116)
Less Securities Lending Expense			(121)	(121)
Net Investment Income	820		56,090	56,910
Total Additions	820		56,090	56,910
Deductions				
Benefits	11,858	65,807	17,000	94,665
Administrative Expense	71	389	100	560
Total Deductions	11,929	66,196	17,100	95,225
Net Increase (Decrease)	(11,109)	(66,196)	38,990	(38,315)
Net Position - Restricted for Pension and Other Postemployment Benefits				
Beginning of Year	363,883	66,288	553,455	983,626
End of Year	$ 352,774	$ 92	$ 592,445	$ 945,311

The accompanying notes are an integral part of these financial statements.

Combining Statement of Changes in Fiduciary Net Position - Other Funds
For the Fiscal Year Ended June 30, 2015

	403(b) Tax Shelter	Supplemental Benefit Fund	Losey Scholarship	TOTAL
Additions				
Contributions				
Other Employers	$	$ 80,000	$	$ 80,000
Investment Income				
Net Appreciation in				
Fair Value of Investments			17,183	17,183
Interest	261		9,056	9,317
Dividends			4,391	4,391
Securities Lending, Gross			172	172
Gross Investment Income	261		30,802	31,063
Less Investment Expense	(37)		(52)	(89)
Less Securities Lending Expense			(51)	(51)
Net Investment Income	224		30,699	30,923
Total Additions	224	80,000	30,699	110,923
Deductions				
Benefits	13,423	65,807	18,000	97,230
Administrative Expense	84	410	112	606
Total Deductions	13,507	66,217	18,112	97,836
Net Increase (Decrease)	(13,283)	13,783	12,587	13,087
Net Position - Restricted for Pension and Other Postemployment Benefits				
Beginning of Year	377,166	52,505	540,868	970,539
End of Year	$ 363,883	$ 66,288	$ 553,455	$ 983,626

The accompanying notes are an integral part of these financial statements.

NOTES TO FINANCIAL STATEMENTS

Note 1: Description of Retirement Annuity Plan

A. REPORTING ENTITY

The Kentucky Teachers' Retirement System (TRS) was created by the 1938 General Assembly and is governed by Chapter 161 Section 220 through Chapter 161 Section 990 of the Kentucky Revised Statutes (KRS). TRS is a blended component unit of the Commonwealth of Kentucky and therefore is included in the Commonwealth's financial statements. TRS is a cost-sharing multiple-employer defined benefit plan with a special funding situation established to provide retirement annuity plan coverage for local school districts and other public educational agencies in the Commonwealth.

KRS 161.250 provides that the general administration and management of TRS, and the responsibility for its proper operation, is vested in a board of trustees. The board of trustees consists of the chief state school officer, the State Treasurer, and seven elected trustees. Four of the elected trustees are active teachers, two are not members of the teaching profession, and one is an annuitant of the System.

B. PARTICIPANTS

As of June 30, 2016 a total of 208 employers participated in the plan. Employers are comprised of local school districts, Department of Education Agencies, universities, the Kentucky Community and Technical College System, and other educational organizations. The State under the Governmental Accounting Standards Board (GASB) No. 67 is recognized as a non-employer contributing entity providing the employer matching contributions for members employed by the local school districts and regional educational cooperatives.

According to KRS 161.220 " . . . any regular or special teacher, or professional occupying a position requiring certification or graduation from a four (4) year college or university . . . " is eligible to participate in the System. The following illustrates the classifications of members:

	2016	2015
Active contributing members:		
Vested	48,292	48,426
Non-vested	23,556	23,820
Inactive members, vested	9,240	8,051
Retirees and beneficiaries currently receiving benefits	51,563	49,822
Total members, retirees, and beneficiaries	**132,651**	**130,119**

C. BENEFIT PROVISIONS

For Members Before July 1, 2008:

Members become vested when they complete five (5) years of credited service. To qualify for monthly retirement benefits, payable for life, members must either:

1.) Attain age fifty-five (55) and complete five (5) years of Kentucky service, or

2.) Complete twenty-seven (27) years of Kentucky service.

Non-university members receive monthly payments equal to two percent (2%) (service prior to July 1, 1983) and two and one-half percent (2.5%) (service after July 1, 1983) of their final average salaries for each year of credited service. Non-university members who became members on or after July 1, 2002 will receive monthly benefits equal to two percent (2%) of their final average salary for each year of service if, upon retirement, their total service is less than ten (10) years. New members after July 1, 2002 who retire with ten (10) or more years of total service will receive monthly benefits equal to two and one-half percent (2.5%) of their final average salary for each year of service, including the first ten (10) years. In addition, non-university members who retire July 1, 2004 and later with more than thirty (30) years of service will have their multiplier increased for all years over thirty (30) from two and one-half

Note 1: Description of Retirement Annuity Plan continued . . .

percent (2.5%) to three percent (3%) to be used in their benefit calculation.

University employees receive monthly benefits equal to two percent (2%) of their final average salary for each year of credited service.

The final average salary is the member's five (5) highest annual salaries except members at least age fifty-five (55) with twenty-seven (27) or more years of service may use their three (3) highest annual salaries. For all members, the annual allowance is reduced by 5% per year from the earlier of age 60 or the date the member would have completed 27 years of service. The minimum annual service allowance for all members is $440 multiplied by credited service.

For Members On or After July 1, 2008:

Members become vested when they complete five (5) years of credited service. To qualify for monthly retirement benefits, payable for life, members must either:

1.) Attain age sixty (60) and complete five (5) years of Kentucky service, or

2.) Complete twenty-seven (27) years of Kentucky service, or

3.) Attain age fifty-five (55) and complete ten (10) years of Kentucky service.

The annual retirement allowance for non-university members is equal to: (a) one and seven tenths percent (1.7%) of final average salary for each year of credited service if their service is 10 years or less; (b) two percent (2.0%) of final average salary for each year of credited service if their service is greater than 10 years but no more than 20 years; (c) two and three tenths percent (2.3%) of final average salary for each year of credited service if their service is greater than 20 years but no more than 26 years; (d) two and one half percent (2.5%) of final average salary for each year of credited service if their service is greater than 26 years but no more than 30 years; (e) three percent (3.0%) of final average salary for years of credited service greater than 30 years.

The annual retirement allowance for university members is equal to: (a) one and one-half percent (1.5%) of final average salary for each year of credited service if their service is 10 years or less; (b) one and seven tenths percent (1.7%) of final average salary for each year of credited service if their service is greater than 10 years but no more than 20 years; (c) one and eighty five hundredths percent (1.85%) of final average salary for each year of credited service if their service is greater than 20 years but less than 27years; (d) two percent (2.0%) of final average salary for each year of credited service if their service is greater than or equal to 27 years.

The final average salary is the member's five (5) highest annual salaries except members at least age fifty-five (55) with twenty-seven (27) or more years of service may use their three (3) highest annual salaries. For all members, the annual allowance is reduced by 6% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

Other Benefits:

TRS provides post-employment medical benefits to retirees as fully described in Note 8. The Retirement System also provides disability benefits for vested members at the rate of sixty percent (60%) of the final average salary. A life insurance benefit, payable upon the death of a member, is $2,000 for active contributing members and $5,000 for retired or disabled members.

Cost of living increases are one and one-half percent (1.5%) annually. Additional ad hoc increases and any other benefit amendments must be authorized by the General Assembly.

Note 2: Summary of Significant Accounting Policies

A. BASIS OF ACCOUNTING

The financial statements are prepared on the accrual basis of accounting. Member contributions and employer matching contributions are recognized in the fiscal year due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan.

B. CASH

TRS has seven cash accounts. At June 30, 2016, the retirement annuity cash account totaled a negative $11,989,861, the control cash account totaled $24,299,653 and the administrative expense fund cash account was $2,846,704 for a total of $15,156,496 as carrying value of cash in the defined benefit plan. The medical insurance trust cash account totaled $37,716,487, the medical insurance 401(h) cash account totaled $22,013,449 and the medical insurance claims cash account totaled $113,567 for a total of $59,843,503 as carrying value of cash in the medical insurance plan. The excess benefit fund cash account contained $481. Therefore, the carrying value of cash was $75,000,480 and the bank balance was $78,232,834 and funds controlled by the Commonwealth of Kentucky of $5,895,564. The variance is primarily due to outstanding checks and items not processed by the bank on June 30, 2016.

C. CAPITAL ASSETS

Property and equipment are carried at cost, less accumulated depreciation. All costs of property and equipment $5,000 (actual dollars) or greater are capitalized. Expenditures for maintenance and repairs are charged to operations as incurred. Depreciation is calculated using the straight-line method, with estimated lives ranging from five to forty years in the following major classes: office furniture and equipment, five years; other equipment, five years; computer software, ten years; TRS office buildings, forty years. The Pathway System will replace TRS's legacy computer system and be TRS's primary line of business information technology system. The Pathway System will be capitalized and amortized or depreciated over ten years. As of June 30, 2016, the project to build and implement the Pathway System was substantially complete.

D. INVESTMENTS

Plan investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller. Short-term securities are carried at cost, which approximates fair value. Fixed income and common and preferred stocks are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Real estate is primarily valued based on appraisals performed by independent appraisers. Alternative investments such as private equity, timberland, and other additional categories, such as opportunistic credit, high yield bonds, and direct lending are valued using the most recent general partner statement of fair value based on independent appraisals, updated for any subsequent partnership interests' cash flows.

Purchase and sales of debt securities, equity securities, and short-term investments are recorded on the trade date. Real estate equity transactions are recorded on the settlement date. Upon sale of investments, the difference between sales proceeds and cost is reflected in the statement of changes in fiduciary net position. Investment expenses consist of investment manager and consultant fees along with fees for custodial services.

E. COMPENSATED ABSENCES

Expenses for accumulated vacation days and compensatory time earned by TRS's employees are recorded when earned. Upon termination or retirement, employees of TRS are paid for accumulated vacation time limited to sixty (60) days and accumulated compensatory time limited to two hundred-forty (240) hours. As of June 30, 2016 and 2015 accrued compensated absences were included in the accounts payable on the balance sheet amounting to $1,166,764 and $1,135,872, respectively.

F. RISK MANAGEMENT

Destruction of assets, theft, employee injuries and court challenges to administrative policy are among the various risks to which TRS is exposed. In order to cover such risks TRS carries appropriate insurance policies such as fire and tornado, employee bonds, fiduciary liability, worker's compensation and equipment insurance.

Note 2: Summary of Significant Accounting Policies continued . . .

G. OTHER RECEIVABLES

TRS allows qualified purchases of service credit to be made by installment payments not to exceed a five (5) year period. Revenue is recognized in the initial year of the installment contract agreement. The June 30, 2016 and 2015 installment contract receivables were $559,913 and $588,560, respectively.

H. USE OF ESTIMATES

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates. The most significant estimates impacting the financial statements relate to the actuarial assumptions.

I. INCOME TAXES

The defined benefit plan is organized as a tax-exempt retirement plan under the Internal Revenue Code. The tax sheltered annuity plan is no longer continued and will be fully terminated when all lifetime annuities have expired. The System's management believes that it has operated the plans within the constraints imposed by federal tax law.

J. RECENT PRONOUNCEMENTS

In February 2015, GASB issued Statement No. 72, Fair Value Measurement and Application. This pronouncement clarifies the definition of fair value for financial reporting purposes, establishes general principles for measuring fair value, providing additional fair value guidance, and enhancing disclosures about fair value measurements. GASB Statement No. 72 is effective for fiscal years beginning after June 15, 2015. Accordingly, TRS adopted the statement for the fiscal year ended June 30, 2016.

In June 2015, GASB issued Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans and Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits other Than Pensions. GASB Statement No. 74 replaces GASB Statement No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans. GASB Statement No. 75 replaces GASB Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefit Plans Other Than Pensions. GASB Statement No. 74 is effective for fiscal years beginning after June 15, 2016, and GASB Statement No. 75 is effective for fiscal years beginning after June 15, 2017. At this time, management is reviewing the recently issued pronouncements to determine the impact on TRS's financial statements.

In March 2016, GASB issued Statement No. 82, Pension Issues. This Statement clarifies issues raised with respect to GASB Statements No. 67, 68 and 73. Specifically, Statement No. 82 addresses issues regarding the presentation of payroll-related measures in required supplementary information, the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice for financial reporting purposes and the classification of payments made by employers to satisfy plan member contribution requirements. GASB Statement No. 82 is effective for fiscal years beginning after June 15, 2016. TRS early adopted the statement during, fiscal year ended June 30, 2016, which did not have a significant impact.

Note 3: Contributions and Funds of the System

A. CONTRIBUTIONS

Contribution rates are established by Kentucky Revised Statutes. Non-university members are required to contribute 12.855 percent of their salaries to the System effective July 1, 2015; university members are required to contribute 10.40 percent of their salaries effective July 1, 2015. KRS 161.565 allows each university to reduce the contribution of its members by 2.215 percent; therefore, university members contribute 8.185 percent of their salary to TRS. For members employed by local school districts, the State, as a non-employer contributing entity, contributes 13.105 percent of salary for those who joined before July 1, 2008 and 14.105 percent for those who joined thereafter.

Other participating employers are required to contribute the percentage contributed by members plus an additional 3.25 percent of members' gross salaries.

The member and employer contributions consist of retirement annuity contributions and other post-employment benefit contributions to the medical and life insurance plans. The member post-employment medical contribution is 3.75 percent. The employer post-employment medical contribution is .75 percent of member gross salaries. Also, after July 1, 2015 employers (other than the state) contribute 3.0 percent of members' salaries and the state contributes the net cost of health insurance premiums for new retirees after June 30, 2010 in the non-Medicare eligible group. If a member leaves covered employment before accumulating five (5) years of credited service, accumulated member contributions to the retirement annuity plan plus interest are refunded upon the member's request.

B. FUNDS OF THE SYSTEM

Teacher Savings Fund

This fund was established by KRS 161.420(2) as the Teacher Savings Fund and consists of contributions paid by university and non-university members. The fund also includes interest authorized by the Board of Trustees from the Guarantee Fund. The accumulated contributions of members that are returned upon withdrawal or paid to the estate or designated beneficiary in the event of death are paid from this fund. Upon retirement, the member's contributions and the matching state contributions are transferred from this fund to Allowance Reserve Fund, the fund from which retirement benefits are paid.

State Accumulation Fund

This fund was established by KRS 161.420(3) as the State Accumulation Fund and receives state appropriations to the System. The state matches an amount equal to members' contributions. State appropriations during the year are based on estimates of members' salaries. At year-end when actual salaries are known, the required state matching is also realized by producing either a receivable from or a payable to the State of Kentucky.

Allowance Reserve Fund

This fund was established by KRS 161.420(4) as the Allowance Reserve Fund, the source for retirement, disability, and survivor benefits paid to members of TRS. These benefits are paid from the retired members' contributions until they are exhausted, at which time state matching contributions are used to pay the benefits. After an individual member's contributions and the state matching contributions have been exhausted, retirement benefits are paid from monies transferred from the Guarantee Fund.

Guarantee Fund

This fund was established by KRS 161.420(6) as the Guarantee Fund, to collect income from investments, state matching contributions of members withdrawn from the System, and state matching contributions for cost of living adjustments (COLAs). In addition, it receives money for which disposition is not otherwise provided. This fund provides interest to the other funds, benefits in excess of both members' and state matching contributions, monies for administrative expenses of TRS, and deficiencies not covered by the other funds.

Administrative Expense

This fund was established by KRS 161.420(1) as the Expense Fund. Investment income transferred to this fund from the Guarantee Fund is used to pay the administrative expenses of TRS. Administrative expenses are allocated among the funds based on benefits paid.

Note 4: Net Pension Liability of Employers

A. NET PENSION LIABILITY OF EMPLOYERS

The net pension liability (i.e., the System's liability determined in accordance with GASB No. 67 less the fiduciary net position) as of June 30, 2016 is shown below.

Net Pension Liability of Employers
(In thousands of dollars)

Fiscal Year Ending June 30	Total Pension Liability A	Plan Fiduciary Net Position B	Employers Net Liability (A-B)	Plan Fiduciary Net Position as a % of Total Pension Liability (B/A)	Covered Payroll C	Net Pension Liability as a % of Covered Payroll [A-B/C]
2016	$ 47,736,901	$ 16,812,832	$ 30,924,069	35.2 %	$ 3,390,539	912.07 %

B. SUMMARY OF ACTUARIAL ASSUMPTIONS

A summary of the actuarial assumptions as of the latest actuarial valuation is shown below.

Valuation Date	6/30/2015
Actuarial cost method	Entry Age
Actuarial Assumptions:	
Investment rate of return	7.50%, net of pension plan investment expense, including inflation.
Projected salary increases	4.00 - 8.20%, including inflation
Inflation rate	3.50%
Municipal Bond Index Rate	3.01%
Single Equivalent Interest Rate	4.20%

Mortality rates were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on a projection of Scale AA to 2020 with a setback of 1 year for females. The results of the experience study for the period July 1, 2010 - June 30, 2015 will be reflected in the June 30, 2016 valuation and the June 30, 2017 GASB 67 report.

C. TARGET ALLOCATIONS

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis 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 and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by TRS's investment consultant, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	45.0 %	6.4 %
Non U.S. Equity	17.0	6.5
Fixed Income	24.0	1.6
High Yield Bonds	4.0	3.1
Real Estate	4.0	5.8
Alternatives	4.0	6.8
Cash	2.0	1.5
Total	100.0 %	

Note 4: Net Pension Liability of Employers continued ...

D. DISCOUNT RATE

The discount rate used to measure the total pension liability was 4.20%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and the Employer contributions will be made at statutorily required rates, and the additional amounts appropriated for fiscal years 2017 and 2018. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the 2040 plan year. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments through 2039 and a municipal bond index rate of 3.01% was applied to all periods of projected benefit payments after 2039. The Single Equivalent Interest Rate (SEIR) that discounts the entire projected benefit stream to the same amount as the sum of the present values of the two separate benefit payments streams was used to determine the total pension liability.

The following table presents the net pension liability of the System, calculated using the discount rate of 4.20%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.20%) or 1-percentage-point higher (5.20%) than the current rate:

(in thousands)	**1% Decrease (3.20%)**	**Current Discount Rate (4.20%)**	**1% Increase (5.20%)**
System's net pension liability	$ 37,937,230	$ 30,924,069	$ 25,168,197

June 30, 2015 is the actuarial valuation date upon which the TPL is based. The TPL from this valuation was determined using a discount rate of 4.20% which was based on a municipal bond index rate as of that date equal to 3.01%. The TPL used last year was determined using a discount rate equal to 4.88%, which was based on a municipal bond index rate of 3.82%. These two amounts are rolled forward to June 30, 2016 using standard roll forward techniques. The roll forward calculation adds the annual normal cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year and then applies the assumed interest rate (SEIR) for the year. The difference between the two roll-forward amounts as of June 30, 2016 is the gain or loss due to changes in assumptions and other inputs.

In addition, we have determined an expected TPL as of June 30, 2016 based on the TPL roll-forward in the June 30, 2015 GASB 67 report. The difference between this amount and the roll-forward of the actual TPL based on the 4.88% interest rate is reflected as an experience gain or loss for the year. These procedures are shown in the following table:

TPL Roll-Forward *(In thousands of dollars)*	**Expected**	**Actual Before Assumption Change**	**Actual After Assumption Change**
(a) Interest Rate	4.88%	4.88%	4.20%
(b) TPL as of June 30, 2015	$ 42,476,699	$ 42,421,364	$ 46,355,565
(c) Entry Age Normal Cost for the Year July 1, 2015 - June 30, 2016	1,120,893	1,120,893	1,334,428
(d) Actual Benefit Payments (including refunds) For the year July 1, 2015 - June 30, 2016	1,860,946	1,860,946	1,860,946
(e) TPL as of June 30, 2016 (b) x (1 + (a)) + (c) - (d) x (1 + 0.5 x (a))	43,764,102	43,706,067	47,736,901
(f) Difference between Expected and Actual Experience (Gain)/Loss		(58,035)	
(g) Difference due to change in Assumptions and Other Inputs (Gain)/Loss			4,030,834

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements)

A. LEGAL PROVISIONS FOR INVESTMENTS

The following disclosures are meant to help the users of TRS' financial statements assess the risks TRS takes in investing member funds. The Board of Trustees and the Investment Committee are guided by asset allocation parameters that the Board approves through its powers as defined in KRS 161.430.

TRS administers a retirement annuity trust fund and a health insurance trust fund in accordance with state and federal law. TRS provides service and disability retirement benefits, death and survivor benefits, health insurance benefits, and life insurance benefits for Kentucky public education employees and their beneficiaries. The trust funds managed by TRS shall be referred to collectively as the "System" unless the context requires a specific reference to a particular fund.

The asset allocation parameters for the retirement annuity trust fund are set forth in Title 102, Chapter 1:175, Section 2 and Section 3 of the Kentucky Administrative Regulations as follows:

- There shall be no limit on the amount of investments owned by the retirement annuity trust fund if the investments are guaranteed by the United States government.
- Not more than thirty-five percent (35%) of the assets of the retirement annuity trust fund at fair value shall be invested in corporate debt obligations.
- Not more than ten percent (10%) of the assets of the retirement annuity trust fund at fair value shall be invested in foreign debt.
- Not more than sixty-five percent (65%) of the assets of the retirement annuity trust fund at fair value shall be invested in common stocks or preferred stocks.
- Not more than twenty-five percent (25%) of the assets of the retirement annuity trust fund at fair value shall be invested in a stock portfolio designed to replicate a general stock index.
- Not more than thirty percent (30%) of the assets of the retirement annuity trust fund at fair value shall be invested in the stocks of companies domiciled outside of the United States; any amounts so invested shall be included in the sixty-five percent (65%) limitation for total stocks.
- Not more than ten percent (10%) of the assets of the retirement annuity trust fund at fair value shall be invested in real estate. This would include real estate equity, real estate lease agreements, and shares in real estate investment trusts.
- Not more than ten percent (10%) of the assets of the retirement annuity trust fund at fair value shall be invested in alternative investments. This category may include private equity, venture capital, timberland, and infrastructure investments.
- Not more than fifteen percent (15%) of the assets of the retirement annuity trust fund at fair value shall be invested in any additional category or categories of investments. The Board of Trustees shall approve by resolution such additional category or categories of investments.

The asset allocation parameters for the health insurance trust fund are set forth in Title 102, Chapter 1:178, Section 2 of the Kentucky Administrative Regulations as follows:

- In order to preserve the assets of the health insurance trust fund and produce the required rate of return while minimizing risk, assets shall be prudently diversified among various classes of investments.
- In determining asset allocation policy, the investment committee and the board shall be mindful of the health insurance trust fund's liquidity and its capability of meeting both short and long-term obligations.

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

B. CASH AND CASH EQUIVALENTS

For cash deposits and cash equivalents, custodial credit risk is the risk that, in the event of a bank failure, the System's deposits may not be returned to the System. The System's total cash balance held at J.P. Morgan Chase Bank in noninterest-bearing accounts on June 30, 2016 was $78,232,834. In addition to these funds, an amount of $5,895,564 represents funds transferred to and controlled by the Commonwealth of Kentucky.

On November 9, 2010, the FDIC issued a Final Rule implementing Section 343 of the Dodd-Frank Wall Street Reform and Consumer Protection Act that provides for unlimited insurance coverage of noninterest-bearing transaction accounts. Beginning January 1, 2013, all cash balances at J.P. Morgan Chase Bank were insured up to $250,000 and the remaining balances fully collateralized with securities held by the Federal Reserve Bank of New York in the name of the Commonwealth of Kentucky-Teachers' Retirement.

Deposits are exposed to custodial credit risk if they are not covered by depository insurance and the deposits are:

a. uncollateralized,
b. collateralized with securities held by the pledging financial institution, or
c. collateralized with securities held by the pledging financial institution's trust department or agent

but not in the depositor-government's name.

As of June 30, 2016, the System's cash balance in the amount of $78,232,834 was not exposed to custodial credit risk since this amount was fully insured by the FDIC limit of $250,000 and the remaining balances collateralized with securities valued at $153,685,487.

C. INVESTMENTS

All of the System's assets are invested in short-term and long-term debt (bonds and mortgages) securities, equity (stock) securities, real estate, alternative investments, and additional categories as permitted by regulation. These assets are reported at fair value.

Investments are governed by the Board of Trustees' policies while the Board of Trustees and the Investment Committee shall execute their fiduciary responsibilities in accordance with the "prudent person rule", as identified in KRS 161.430 (2)(b). The prudent person rule establishes a standard for all fiduciaries, to act as a prudent person would be expected to act, with the "care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims".

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

The following chart represents the fair values of the investments of the Teachers' Retirement System of the State of Kentucky for June 30, 2016 and 2015.

Schedule of Investments
Retirement Annuity Trust

	Fair Value June 30, 2016	Fair Value June 30, 2015
Money Market Fund*	$ 508,661,966	$ 614,434,346
STIFF (BNYM)	386,697	142,138
Total Cash Equivalents	**509,048,663**	**614,576,484**
U.S. Government	797,819,019	769,355,884
Agency Bonds	55,607,806	82,898,405
Mortgage Backed Securities	90,812,117	103,213,170
Asset Backed Securities	62,625,012	82,126,975
Commercial Mtg Backed Securities	61,720,221	118,318,341
Collateralized Mtg Obligations	27,572,453	12,884,110
Municipal Bonds	405,755,392	444,405,813
Corporate Bonds	1,322,052,725	1,417,905,508
Total Fixed Income	**2,823,964,745**	**3,031,108,206**
International Equity	3,681,811,400	3,964,258,297
U.S. Equity	6,585,496,953	7,199,533,066
Total Equities	**10,267,308,353**	**11,163,791,363**
Real Estate Equity	940,860,202	825,335,346
Total Real Estate Equity	**940,860,202**	**825,335,346**
Private Equity	731,560,317	636,890,428
Timberland	201,253,033	207,797,668
Total Alternative Investments	**932,813,350**	**844,688,096**
Opportunistic Credit	512,173,863	524,212,360
Corporate Bonds	411,948,487	308,659,155
Corporate Loans	385,391,068	463,525,551
International Bonds		89,500,325
Total Additional Categories	**1,309,513,418**	**1,385,897,391**
TOTAL INVESTMENTS	**$ 16,783,508,731**	**$ 17,865,396,886**

** Money Market Funds consist of the Life Insurance Plan, 403(b) Tax Shelter Plan, and Losey Scholarship fund.*

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

Schedule of Investments
Health Insurance Trust

	Fair Value June 30, 2016	Fair Value June 30, 2015
Money Market Fund	$ 18,186,502	$ 36,640,065
STIFF (BNYM)		(1,028,219)
Total Cash Equivalents	**18,186,502**	**35,611,846**
Agency Bonds	6,380,550	1,000,830
Corporate Bonds	56,174,850	41,745,634
Total Fixed Income	**62,555,400**	**42,746,464**
Global Equities	354,369,798	355,702,555
Total Equities	**354,369,798**	**355,702,555**
Real Estate Equity	25,433,241	1,762,328
Total Real Estate Equity	**25,433,241**	**1,762,328**
Private Equity	23,931,317	11,698,357
Total Alternative Investments	**23,931,317**	**11,698,357**
Opportunistic Credit	45,955,526	43,821,956
Corporate Bonds	64,192,800	65,525,790
Corporate Loans	26,927,516	25,228,612
Total Additional Categories	**137,075,842**	**134,576,358**
TOTAL INVESTMENTS	**$ 621,552,100**	**$ 582,097,908**

Custodial Credit Risk

Custodial Credit Risk for an investment is the risk that, in the event of the failure of counterparty, the System will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either:

a. the counterparty or
b. the counterparty's trust department or agent, but not in the System's name.

The cash reserve of the System is primarily maintained in high quality short term investments through the Dreyfus Institutional Cash Advantage Fund. This fund invests in a diversified portfolio of high quality, short-term debt securities and the Fund is rated AAA by S&P, Moody's, and Fitch, Inc. The Fund's portfolio is structured within the confines of Rule 2a-7 under the Investment Company Act of 1940, as amended. Commercial paper, U.S. Treasury and agency obligations, certificates of deposit, bankers' acceptances, repurchase agreements, time deposits, etc. are all permissible investments within this Fund.

Whenever repurchase agreements are ordered by TRS under the terms of Master Repurchase Agreements with various brokers, the terms are dictated by TRS. The repurchase agreements and their supporting collateral are held by the custodial agent's correspondent bank in an account identified by the custodian's name and TRS' nominee name. This account is unique to TRS. The Master Repurchase Agreements require that the supporting collateral have a fair value of at least 102 percent of the value of the repurchase agreements.

As of June 30, 2016, cash collateral reinvestment securities acquired through securities lending for the retirement annuity trust fund by TRS's custodian, who is also the lending agent/counterparty, amounted to $441,380,830 related to $435,403,965 securities lent consistent with the lending agreement with the custodian. (Please refer to a following section entitled Securities Lending.)

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

Interest Rate Risk

Interest rate risk on investments is the possibility that changes in interest rates will reduce the fair value of the System's investments. In general, the longer the period until an investment matures, the greater the risk of a negative impact on fair value resulting from changes in interest rates.

As of June 30, 2016, the retirement annuity trust and health insurance trusts had the following investment fair values and weighted average maturities:

Retirement Annuity Trust

Investment Type	Fixed Income	Additional Categories	Average Maturity (years)
U.S. Government	$ 797,819,019	$	8.34
Agency	55,607,806		8.61
MBS	90,812,117		12.24
CMO	27,572,453		12.67
ABS	62,625,012		14.31
CMBS	61,720,221		20.55
Muni	405,755,392		12.47
Corporate Bonds	1,322,052,725	411,948,488	7.83
Corporate Loans*	-	380,989,944	4.56
TOTAL	**$ 2,823,964,745**	**$ 792,938,432**	**8.61**

** Does not include 4,401,124 in cash held directly at Babson Capital Management.*

Health Insurance Trust

Investment Type	Fixed Income	Additional Categories	Average Maturity (years)
U.S. Government	$ 6,380,550	$	11.53
Corporate Bonds	56,174,849	64,192,800	4.49
Corporate Loans		26,927,516	5.04
TOTAL	**$ 62,555,399**	**$ 91,120,316**	**4.88**

In addition to the above securities, the System held short-term cash investments in the Dreyfus Institutional Cash Advantage Fund and STIF, held at the Bank of New York Mellon, with a total fair value of $527,235,165 and had a weighted average maturity of twenty-four (24) days. Average maturity is used as a measure of a security's exposure to interest rate risk due to fluctuations in market interest rates. Mortgage-backed securities and collateralized mortgage obligations are typically amortizing investments with an average life and interest rate risk significantly less than suggested by the legal maturity. Mortgage-backed securities, which are generally pre-payable, and other callable bonds are subject to adverse changes in average life in response to market interest rate changes. The schedule above reflects only the legal maturity of all such bonds.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed by using the effective duration or option adjusted methodology to quantify the risk of interest rate changes. This methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending upon the degree of changes in rates and the slope of the yield curve. The control of interest rate risk is not set forth in a particular policy; however, the System manages interest rate risk in practice by establishing appropriate benchmarks for its various portfolios.

Mortgage-backed securities are securities representing pass-through interests in the cash flows from pools of mortgage loans on single-family or multi-family residential properties. All of the mortgage-backed securities owned by

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

the System were securitized and are guaranteed by Fannie Mae, Freddie Mac, or GNMA. The average life of a mortgage-backed security depends upon the level of prepayments experienced in the underlying pool of loans. Market interest rates are a primary determinant of prepayment levels. Lower than anticipated market rates generally lead to higher than anticipated prepayments and a shorter average life; higher than anticipated market rates generally lead to lower than anticipated prepayments and a longer average life. The retirement annuity trust held $90.8 million in mortgage-backed securities as of June 30, 2016, compared to $103.2 million as of June 30, 2015.

Collateralized mortgage obligations are bonds that are collateralized by whole loan mortgages, mortgage pass-through securities or stripped mortgage-backed securities. Income is derived from payments and prepayments of principal and interest generated from collateral mortgages. Cash flows are distributed to different investment classes in accordance with a collateralized mortgage obligations established payment order. The retirement annuity trust held $27.6 million in collateralized mortgage obligations as of June 30, 2016, compared to $12.9 million as of June 30, 2015.

Asset-backed securities are bonds or notes backed by loan paper or accounts receivables originated by banks, credit card companies, or other credit providers, and are considered to be moderately sensitive to changes in interest rates. The originator of the loan or accounts receivable paper sells it to a specially created trust, which repackages it as securities. Asset-backed securities have been structured as pass-throughs and as structures with multiple bond classes. The retirement annuity trust held $62.6 million as of June 30, 2016, compared to $82.1 million as of June 30, 2015.

Commercial mortgage-backed securities are securities representing interests in the cash flows from pools of mortgage loans on commercial properties. The interests in a securitized pool of loans are generally divided into various tranches based upon planned payment order and level of seniority. The System's commercial mortgage-backed securities investments consist of highly rated relatively senior tranches. The average maturity of the System's commercial mortgage-backed securities holdings in the schedule above reflects the legal maturity of those holdings. Most of the tranches held are earlier in the planned payment order than the legal maturity suggests. The retirement annuity trust held $61.7 million in commercial mortgage-backed securities investments as of June 30, 2016, compared to $118.3 million as of June 30, 2015.

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

Credit Risk

Credit risk is the risk that an issuer or counterparty to an investment will not fulfill its obligations. The following schedules list the Retirement System's fixed income investment fair values (net of cash equivalents) according to credit ratings as of June 30, 2016:

Retirement Annuity Trust

Rating	Bonds & Mortgages	Additional Categories	Total	%
U.S. Government	$ 797,819,019	$	$ 797,819,019	22.06%
AAA	246,954,820		246,954,820	6.83%
AA	640,674,139		640,674,139	17.71%
A	517,571,569		517,571,569	14.31%
BBB	574,578,935	47,754,834	622,333,769	17.21%
BB	21,968,709	287,254,645	309,223,354	8.55%
B	13,654,700	267,438,487	281,093,187	7.77%
CCC	3,151,610	17,517,637	20,669,247	0.57%
CC		1,271,750	1,271,750	0.04%
D		836,481	836,481	0.02%
Not Rated	7,591,244	170,864,598	178,455,842	4.93%
TOTAL	**$ 2,823,964,745**	**$ 792,938,432**	**$ 3,616,903,177**	**100.00%**

Health Insurance Trust

Rating	Bonds & Mortgages	Additional Categories	Total	%
AAA	$ 5,042,219	$	$ 5,042,219	3.28%
AA	17,465,602		17,465,602	11.37%
A	26,633,606		26,633,606	17.33%
BBB	13,413,972	7,489,048	20,903,020	13.60%
BB		42,642,309	42,642,309	27.75%
B		34,663,206	34,663,206	22.56%
CCC		2,537,454	2,537,454	1.65%
D		194,842	194,842	0.13%
Not Rated		3,593,457	3,593,457	2.34%
TOTAL	**$ 62,555,399**	**$ 91,120,316**	**$ 153,675,715**	**100.00%**

Total fair value of the retirement annuity trust's fixed income portfolio was $3,616,903,177 on June 30, 2016. The health insurance trust's fixed income portfolio was valued at $153,675,715. The rating system used in the above charts is the Standard and Poor's rating system. For securities where a Standard and Poor's rating is not provided, another nationally recognized system is used and translated to the Standard and Poor's rating system.

In addition to the above categories, the retirement annuity trust held $523,351,505 in short term investments through the Dreyfus Institutional Cash Advantage Fund. The health insurance trust held $3,883,660 in the Dreyfus Institutional Cash Advantage Fund. The credit risk associated with this Fund is minimal as the securities held are required to maintain the highest possible short-term credit ratings by Moody's and Standard & Poor's. In addition, investments in US Government and Agency securities are also highly rated securities since they are backed by the US Government. Notation is made that the ratings of securities is subject to change due to circumstances and thereby may have a lower rating than when first purchased.

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

The retirement annuity trust fund's policy on credit rating is set forth in 102 KAR 1:175 and reads as follows:

"A fixed income investment shall be rated at the time of purchase as investment grade by at least one (1) of the major rating services. A private placement debt investment shall be subject to the same credit qualifications as each fixed income investment. The fixed income investment portfolio as a whole shall maintain an average rating of investment grade by at least one (1) of the major rating services."

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Losses from credit risk are heightened if a significant portion of resources are invested with a single issuer. Per Administrative Regulation 102 KAR 1:175, the retirement annuity trust fund is subject to the following policies regarding single issuers of fixed income and equity securities:

"Unless the issuer is the United States Government or a government sponsored enterprise (GSE), the amount invested in the securities of a single issuer shall not equal more than five (5) percent of the assets of the System."

"The System's position in a single stock shall not exceed two and one-half (2.5) percent of the System's assets. The System's position in a single stock shall not exceed five (5) percent of the outstanding stock for that company unless the investment is part of a venture capital program."

TRS has not invested greater than five percent (5%) of the retirement annuity trust fund's assets at fair value in any single issuer and is in compliance with 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. As of June 30, 2016, the System's exposure to foreign currency risk consisted of $4,226,815,771 and $210,884,648 in the retirement annuity trust and health insurance trust funds respectively.

The following tables respresent the fair values of investments that are subject to foreign currency as a result of cash contributions to each portfolio manager:

Retirement Annuity Trust

Commingled Funds	
Babson Capital European Loan Fd	$ 83,723,731
Baillie Gifford Intrntl EAFE	734,894,403
Baring All Country World ex US	496,968,194
Black Rock ACWI EX-US IMI	600,737,023
UBS All Country World ex US	576,221,719
Alternative Funds	
Carlyle Europe Partners IV, L.P.	17,509,391
KKR & Co European Fund III	49,515,576
KKR & European Fund IV	16,088,979
Oaktree European Principal III	24,409,242
ADRs (Equities)	458,137,096
Cross-Listed Equities	718,502,718
Bonds (Fixed Income)	247,293,462
Additional Categories (Fixed Income)	83,423,983
Additional Categories (Opportunistic)	119,390,254
TOTAL	**$ 4,226,815,771**

Health Insurance Trust

Commingled Funds	
Medical Ins. Black Rock Fund B	$ 173,166,422
Alternative Funds	
Medical Ins. Carlyle Europe IV	3,501,879
Medical Ins. KKR European IV	3,217,797
Bonds (Fixed Income)	7,090,460
Additional Categories (Fixed Income)	12,602,739
Additional Categories (Opportunistic)	11,305,351
TOTAL	**$ 210,884,648**

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

The following tables reflect the various foreign currencies associated with the Retirement System's investments in the funds outlined previously:

Retirement Annuity Trust

Currency	Fair Value
Argentine Peso	$ 7,929,600
Austrailian Dollar	117,642,969
Bermudian Dollar	51,636,166
Brazilian Real	29,642,858
British Pound Sterling	542,857,180
Bulgarian Lev	325,816
Canadian Dollar	305,265,009
Cayman Islands Dollar	82,711,544
Chilean Peso	5,099,683
Chinese Yuan	149,888,039
Colombian Peso	6,919,734
Czech Crown	275,888
Danish Krone	69,964,944
Egyptian Pound	340,728
Euro	1,431,414,303
Hong Kong Dollar	148,792,516
Hungarian Forint	349,215
Indian Rupee	53,386,927
Indonesian Rupiah	7,086,814
Israeli New Shekel	50,530,727
Japanese Yen	504,456,061
Korean Won	39,837,403
Liberian Dollar	2,717,693
Malaysian Ringgit	8,375,874
Mexican Peso	60,042,605
Netherlands Antillean Guilder	31,869,794
New Zealand Dollar	1,468,579
Norwegian Krone	19,279,653
Panamanian Balboa	29,110,068
Peruvian Nuevo Sol	71,390
Philippine Peso	3,795,486
Polish Zloty	5,239,446
Qatari Rial	1,148,933
Russian Ruble	43,832,381
Singapore Dollar	14,630,090
South African Rand	35,391,881
Swedish Krona	109,926,460
Swiss Franc	143,631,290
Taiwan Dollar	73,906,720
Thai Baht	6,106,618
Turkish Lira	7,940,689
UAE Dirham	17,657,398
Various	4,318,599
TOTAL	**$ 4,226,815,771**

Health Insurance Trust

Currency	Fair Value
Austrailian Dollar	$ 10,520,315
Bermudian Dollar	1,766,016
Brazilian Real	2,477,384
British Pound Sterling	25,478,499
Canadian Dollar	18,803,103
Cayman Islands Dollar	2,812,299
Chilean Peso	447,558
Chinese Yuan	141,703
Colombian Peso	168,485
Czech Crown	59,152
Danish Krone	2,228,544
Egyptian Pound	85,907
Euro	62,852,767
Hong Kong Dollar	10,982,771
Hungarian Forint	92,975
Indian Rupee	3,416,016
Indonesian Rupiah	995,857
Israeli New Shekel	925,797
Japanese Yen	28,521,314
Korean Won	5,712,246
Liberian Dollar	223,243
Malaysian Ringgit	1,121,622
Mexican Peso	1,486,499
New Zealand Dollar	397,301
Norwegian Krone	866,284
Panamanian Balboa	168,383
Peruvian Nuevo Sol	19,342
Philippine Peso	564,995
Polish Zloty	401,767
Qatari Rial	309,925
Russian Ruble	826,876
Singapore Dollar	2,447,734
South African Rand	2,596,781
Swedish Krona	3,650,524
Swiss Franc	10,815,063
Taiwan Dollar	4,749,926
Thai Baht	921,116
Turkish Lira	498,876
UAE Dirham	326,765
Various	2,918
TOTAL	**$ 210,884,648**

The majority of foreign investments are held in commingled funds managed by Babson Capital Management, UBS Global Asset Management, Baillie Gifford, Baring Asset Management, and Black Rock. In addition to the commingled funds investing in foreign securities, the retirement annuity trust fund held $458,137,096 associated with foreign interests in American Depositary Receipt investments. These American Depositary Receipts are securities that are issued by a U.S. bank in place of the foreign stock shares held in trust by that bank, thereby facilitating the trading of foreign shares in U.S. markets. American Depositary Receipts are denominated in U.S. currency. Also, the cross listed equities, in the amount of $718,502,718, represent securities domiciled in foreign countries, but are listed and traded on

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

U.S. exchanges. Other foreign securities and investments consisted of debt securities and alternative investment opportunities. Foreign holdings, including investment receivables/payables, that were not readably identifiable to a specific country were listed in the "various" category pertaining to currency type.

The retirement annuity trust fund's policy regarding foreign equities is that not more than thirty percent (30%) of the assets of the retirement annuity trust fund at fair value shall be invested in the stocks of companies domiciled outside of the United States. Any amounts so invested shall be included in the sixty-five percent (65%) limitation for total stocks per 102 KAR 1:175 Section 2(e).

Fair Value Measurement

TRS categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date. Level 2 inputs are inputs - other than quoted prices included within Level 1 - that are observable for an asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for an asset or liability. The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. The following tables depict the following recurring fair value measurements as of June 30, 2016.

Retirement Annuity Trust

Investments	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Fair Value
Cash Equivalents	$ 509,048,663	$	$	$ 509,048,663
Fixed Income				
ABS		57,155,175	5,469,837	62,625,012
Agency		55,607,806		55,607,806
CMBS		61,720,221		61,720,221
CMO		27,572,453		27,572,453
Corporate Bonds	2,611,579	1,315,197,986	4,243,160	1,322,052,725
MBS		88,464,701	2,347,416	90,812,117
Muni		398,730,802	7,024,590	405,755,392
US Government	791,216,358	6,602,661	-	797,819,019
Total Fixed Income	793,827,937	2,011,051,805	19,085,003	2,823,964,745
Equities				
International	1,207,010,018	2,474,801,382		3,681,811,400
US Equity	6,389,949,438	195,547,351	164	6,585,496,953
Total Equity	7,596,959,456	2,670,348,733	164	10,267,308,353
Real Estate			940,860,202	940,860,202
Alternative Investments				
Private Equity			731,560,317	731,560,317
Timberland			201,253,033	201,253,033
Total Alternative Investments			932,813,350	932,813,350
Additional Categories				
Corporate Bonds	1,454,239	410,494,248		411,948,487
Corporate Loans		599,745	384,791,323	385,391,068
Opportunistic Credit			512,173,863	512,173,863
Total Additional Categories	1,454,239	411,093,993	896,965,186	1,309,513,418
TOTAL INVESTMENTS	**$ 8,901,290,295**	**$ 5,092,494,531**	**$ 2,789,723,905**	**$ 16,783,508,731**

Health Insurance Trust

Investments	Level 1 Inputs	Level 2 Inputs	Level 3 Inputs	Fair Value
Cash Equivalents	$ 18,186,502	$	$	$ 18,186,502
Fixed Income				
Corporate Bonds		56,174,850		56,174,850
US Government	6,380,550			6,380,550
Total Fixed Income	6,380,550	56,174,850		62,555,400
Equities				
Global		354,369,798		354,369,798
Total Equity		354,369,798		354,369,798
Real Estate			25,433,241	25,433,241
Alternative Investments				
Private Equity			23,931,317	23,931,317
Total Alternative Investments			23,931,317	23,931,317
Additional Categories				
Corporate Bonds	87,780	64,105,020		64,192,800
Corporate Loans			26,927,516	26,927,516
Opportunistic Credit			45,955,526	45,955,526
Total Additional Categories	87,780	64,105,020	72,883,042	137,075,842
Total Investments	**$ 24,654,832**	**$ 474,649,668**	**$ 122,247,600**	**$ 621,552,100**

Cash Equivalents

Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Cash equivalents can be valued with inputs from quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date and therefore are classified as Level 1 assets.

Equity and Fixed Income Securities

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors for these securities. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing technique that values securities based on their relationship to benchmark quoted prices. Debt and equity securities classified in Level 3 are securities whose stated market price is unobservable by the market place and are instead priced by the issuers or industry groups for these securities.

Real Estate

Real Estate falls into the level 3 classification of the fair value hierarchy. Much of our real estate is comprised of owned properties leased to various commercial enterprises. The fair value measurement for real estate is determined by professional appraisals recurring every five years. Real Estate also includes some Limited Partnerships that are valued the same as Alternative Investments

Alternative Investments

Alternative Investments are comprised of Private Equity investments classified as Level 3 assets. Private equity funds invest in equity and debt securities issued by private and publicly-held companies in connection with leveraged buyouts, recapitalizations and expansion opportunities. These investments do not allow redemptions. Alternatively, we receive distributions as the underlying assets of the fund liquidate. These are investments for which exchange quotations are not readily available. Therefore, private equity investments are valued at an estimated fair value determined in good faith by the General Partner ("GP"). A GP is an owner of a partnership that has unlimited liability and is a managing partner that is active in the day to day business of a Limited Partnership. These investments are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results and other factors deemed relevant by the GP.

The GP values each investment by applying generally accepted valuations methods including the market approach and the income approach. The determination of fair value using these methodologies takes into consideration a range of factors, including but not limited to, the price at which the investment was acquired, the nature of the investment, local market conditions, trading values on public exchanges for comparable securities, current and projected operating performance and financing transactions subsequent to the acquisition of the investment. Because of the subjective nature of estimated fair value of the private investments, such values may differ significantly from the values that would have been used had a ready market existed for these investments.

Timberland Investments

Timberland investments are managed investments regarding the acquiring, growing and disposing of timber on timberlands owned by the System. Fair value determinations for Level 3 measurements of investments are the responsibility of the Advisor, The Molpus Woodlands Group, LLC. The Advisor contracts with outside appraisors to generate fair value estimates on an annual basis. The outside appraisors utilized the cost, sales comparison and income capitalization approaches to estimate the fair value of the timber and timberlands. The Advisor challenges the reasonableness of the assumptions used and reviews the methodology to ensure the estimated fair value complies with accounting standards generally accepted in the United States of America.

Additional Categories

Investments in this category do not fit the regular parameters for the retirement annuity trust fund set forth in Title 102, Chapter 1:175 of the Kentucky Administrative Regulations. Rather, they fall into the allowable 15% of assets of the retirement annuity trust fund invested in any additional category or categories of investments approved by the Board of Trustees. Debt securities in this category classified as Level 1 are valued using prices quoted in active markets for those securities. Debt securities in the Additional Categories classified as Level 2 are valued using a matrix pricing technique that values securities based on their relationship to benchmark quoted prices. Opportunistic credits classified as Level 3 in the fair value hierarchy are valued using consensus pricing.

D. SECURITIES LENDING

Section 161.430 of the Kentucky Revised Statutes empowers the Board of Trustees with complete fiduciary responsibility for the funds of the System. The System operates a securities lending program in which it temporarily lends securities to qualified agents in exchange for a net fee and high quality collateral. U.S. Government and agency securities, selected domestic bonds, and domestic and international stocks are the types of securities that are lent. The System's custodian, The Bank of New York Mellon, acts as lending agent in exchanging securities for collateral. The collateral has a value of not less than 102% of the fair value of the lent securities plus any accrued, unpaid distributions. The collateral may consist of cash, marketable U.S. Government securities, and select marketable U.S. Government agency securities approved by the System.

Securities lending transactions are accounted for in accordance with GASB Statement No. 28 Accounting and Financial Reporting for Securities Lending Transactions, which established standards of accounting and financial reporting for securities lending transactions. During the fiscal year ended June 30, 2016, only the retirement annuity trust fund had securities lending transactions. The following section details the net income earned in the retirement annuity trust fund from securities lending for the fiscal year ended June 30, 2016 and 2015:

Item	2016 Earnings	2015 Earnings
Gross Earnings (Interest and Fees)	$ 687,380	$ 338,644
Gross Borrower Rebates	2,083,693	2,323,231
Bank Fees	(831,253)	(798,511)
Net Earnings	**$ 1,939,820**	**$ 1,863,364**

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .

Cash collateral is invested in short-term obligations fully guaranteed by the United States Government or select Government agencies and Government Repurchase Agreements with qualified agents. The System cannot pledge or sell collateral securities received unless the borrower defaults. The lending agent (Bank of New York Mellon) also indemnifies the System from any financial loss associated with a borrower's default and collateral inadequacy.

As of June 30, 2016, the loan average days to maturity in the retirement annuity trust fund was one (1) day and the weighted average investment maturity of cash collateral investments was one (1) day. At fiscal year end, the retirement annuity trust fund had no credit risk exposure to borrowers, since the amounts the retirement annuity trust fund owes the borrowers exceeds the amounts the borrowers owe the retirement annuity trust fund and there were no losses resulting during the period.

Security lending programs can entail interest rate risk and credit risk. The System minimizes interest rate risk by limiting the term of cash collateral investments to several days.

The credit risk is controlled by investing cash collateral in securities with qualities similar to the credit worthiness of lent securities.

The following table presents the fair values of the underlying securities, and the value of the collateral pledged at June 30, 2016 and 2015:

Type of Securities Lent	Fair Value	Cash Collateral Received	Non-Cash Collateral Received	Total Collateral Received 2016	Total Collateral Received 2015
Fixed Income	$ 132,768,889	$ 4,089,710	$ 131,652,562	$ 135,742,272	$ 347,416,026
Equities	302,635,076	140,493,387	165,145,171	305,638,558	151,443,676
TOTAL	**$ 435,403,965**	**$ 144,583,097**	**$ 296,797,733**	**$ 441,380,830**	**$ 498,859,702**

E. ANNUAL MONEY-WEIGHTED RATE OF RETURN

A money-weighted rate of return is an expression of investment performance that is net of the plan's investment expenses (net the plan's administrative expenses). The following tables reflect the money-weighted rate of return for both the retirement annuity trust fund and the health insurance trust fund:

Annual Rate of Return Net of Investment Expense

	2016	2015	2014
Retirement Annuity Trust	-1.32 %	4.96 %	17.95 %
Health Insurance Trust	-2.20 %	1.38 %	15.38 %

Note 6: Retirement Plan for Employees of the Retirement System

Full-time employees of TRS participate in either TRS or Kentucky Employees Retirement System (KERS). Both plans are multiple-employer cost sharing defined benefit retirement annuity plans. All TRS employees in positions requiring a four-year degree are covered under TRS. The contribution rates and required employer matching are the same as state agency employers in the System. These rates, the plan description and funding policy are fully disclosed in the notes to the financial statements.

The System's annual required contributions for TRS employee members for the fiscal years 2016, 2015 and 2014 were $820,077, $767,958 and $656,152, respectively. TRS contributed one hundred percent (100%) of the required contribution each year.

All other TRS employees are covered under KERS in the Non-Hazardous Employees' Pension Plan. The plan provides for retirement, disability, and death benefits to plan members. Retirement benefits may be extended to beneficiaries of plan members under certain circumstances. Per KRS 61.565(3), contribution rates shall be determined by the Board on the basis of an annual actuarial valuation. Rates may be amended by the Board as needed. TRS's administrative budget and employer contribution rates are subject to the approval of the Kentucky General Assembly. Employee contribution rates are set by the statute and may be changed only by the Kentucky General Assembly.

Members of KERS who joined prior to July 1, 2008, are required to contribute five percent (5%) of their annual creditable compensation and members who joined on or after July 1, 2008 contribute an additional one percent (1%). As the employer, TRS is required to contribute the annual actuarially determined rate of the creditable compensation (or the rate approved by legislators). The approved rate for the fiscal years 2016, 2015 and 2014 were 38.77 percent, 38.77 percent and 26.79 percent and TRS's annual required contributions to KERS were $547,105, $552,133 and $365,610, respectively. TRS contributed one hundred percent (100%) of the required contributions for each year.

KERS issues a publicly available financial report that may be obtained by writing Kentucky Retirement Systems, 1260 Louisville Road, Frankfort, Kentucky 40601-6124.

Note 7: Other Funds

A. 403(B) TAX-SHELTERED ANNUITY PLAN

Plan Description

TRS has, in prior years, administered a salary deferral program as permitted by section 403(b) of the Internal Revenue Code. Under this program members were able to voluntarily defer a portion of their compensation within the limits established by the applicable laws and regulations. However, the System's Board of Trustees determined that the cost of providing the necessary services to assure the System of continuing compliance with these laws and regulations was not economically feasible due to the limited participation in the program by TRS's members. The Board decided, therefore, to discontinue offering the program as of April 30, 1997. Members who were not receiving annuities from their account as of April 30, 1997, were able to transfer their respective accounts directly into other tax-sheltered plans on a tax-free basis. As of June 30, 2016, the eight members who are receiving annuities will continue to receive distributions according to the terms of their respective elections.

B. SUMMARY OF SIGNIFICANT POLICIES

Basis of Accounting

The Tax-sheltered Annuity Plan financial statements are prepared using an accrual basis of accounting. Contributions are no longer being accepted into the plan; therefore, there are no receivables to be recognized.

Method Used to Value Investments

The short-term investments are reported at cost, which approximates fair value.

C. SUPPLEMENTAL BENEFIT FUND

The Supplemental Retirement Benefit Fund is a qualified governmental excess benefit arrangement as described in Section 415 of the Internal Revenue Code. In accordance with KRS 161.611 and KRS 161.420(8), TRS is authorized to provide a supplemental retirement benefit fund for the sole purpose of enabling the employer to apply the same formula for determining benefits payable to all members of the System employed by the employer, whose benefits under the System are limited by Section 415 of the Internal Revenue Code of 1986, as amended from time to time.

Note 7: Other Funds continued . . .

Funding of benefits payable under this fund are provided by the state, as employer, and are segregated from funds that are maintained by TRS for payment of the regular benefits provided by the System.

D. JUNITA LOSEY SCHOLARSHIP BEQUEST

Junita Losey, a retired teacher, designated TRS as a residuary beneficiary of her estate and expressed a desire that TRS establish a scholarship program for Kentucky students studying to be teachers. Ms. Losey died in 1997 and thereafter her estate provided a scholarship bequest to TRS. The scholarship bequest has at all times been segregated from funds that are maintained by TRS for payment of the regular benefits provided by the System. The Scholarship Committee of the System's Board of Trustees meets each December to consider scholarship standards and administration of the scholarship bequest.

Note 8: Medical Insurance Plan & Post-employment Benefits

A. PLAN DESCRIPTION

In addition to the retirement annuity plan described in Note 1, Kentucky Revised Statute 161.675 requires TRS to provide access to post-employment healthcare benefits for eligible members and dependents. The TRS medical plan is funded by employer and member contributions. Changes made to the medical plan may be made by the TRS Board of Trustees, the Kentucky Department of Employee Insurance and the General Assembly.

The TRS medical plan is funded by employee contributions to an account established pursuant to 26 U.S.C. sec. 401(h). Additional funding is derived from the Kentucky Teachers' Retirement System insurance trust fund that went into effect on July 1, 2010. The insurance trust fund provides a trust separate from the account established pursuant to 26 U.S.C. sec. 401(h). The insurance trust fund includes employer and retired member contributions required under KRS 161.550 and KRS 161.675(4)(b).

To be eligible for medical benefits, the member must have retired either for service or disability. The TRS medical plan offers coverage to members under the age of 65 through the Kentucky Employees Health Plan administered by the Kentucky Department of Employee Insurance. TRS retired members are given a supplement to be used for payment of their health insurance premium. The amount of the member's supplement is based on a contribution supplement table approved by the TRS Board of Trustees. The retired member pays premiums in excess of the monthly supplement. The Commonwealth of Kentucky bears risk for excess claims expenses that exceed the premium equivalents charged for the Kentucky Employees Health Plan. Once retired members and eligible spouses attain age 65 and are Medicare eligible, coverage is obtained through the TRS Medicare Eligible Health Plan.

At June 30, 2016, TRS insurance covered 38,815 retirees and 7,181 dependents. There are 208 participating employers and 71,848 active members contributing to the medical plan.

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The TRS medical plan financial statements are prepared using the accrual basis of accounting. Member contributions and employer matching are recognized in the fiscal year due. Healthcare premiums charged to retired members are recognized when due and any premiums collected in advance are recognized as a liability.

Method Used to Value Investments

All of the System's assets are invested in short-term and long-term debt (bonds and mortgages) securities, equity (stock) securities, real estate, alternative investments, and additional categories as permitted by regulation. These assets are reported at fair value.

C. CONTRIBUTIONS

The post-employment medical benefit provided by TRS is financed on a pre-funded basis beginning July 1, 2010 with the implementation of the "Shared Responsibility" legislation. In order to fund medical benefits, active member contributions are matched by the state at .75% of members' gross salaries. Beginning July 1, 2010 member contributions to the TRS medical plan increased incrementally to 3.75% on July 1, 2015 under the Shared Responsibility Plan. Also, the premiums collected from retirees and investment income contributes to funding the plan.

Note 8: Medical Insurance Plan & Postemployment Benefits continued . . .

D. FUNDED STATUS AND FUNDING PROGRESS

The funded status of the Medical Insurance Plan as of the most recent actuarial valuation date is as follows:

Schedule of Funding Progress
(In thousands of dollars)

Valuation Year Ending June 30	Actuarial Value of Assets A	Actuarial Accrued Liabilities B	Unfunded Actuarial Accrued Liabilities (UAAL) (B-A)	Funded Ratio (A/B)	Covered Payroll C	UAAL as a % of Covered Payroll [B-A/C]
2016	$ 795,055	$ 3,634,073	$ 2,839,018	21.9 %	$ 3,537,226	80.3 %

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The schedules of funding progress, presented as required supplementary information following the notes to the financial statements, present multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

The accompanying schedule of employer contributions present trend information about the amounts contributed to the plan by employers in comparison to the Annual Required Contribution, an amount that is actuarially determined in accordance with the parameters of GASB Statement 43. The Annual Required Contribution represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost for each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Significant actuarial methodologies and assumptions employed as of the June 30, 2016 valuation date include the following:

Actuarial Cost Method	Actuarial Value of Assets	Assumed Inflation Rate	Investment Rate of Return	Amortization Method	Remaining Amortization Period
Entry Age	Fair value of assets	3.00%	8.00%	Level percent of pay, open	30 years

Medical Trend Assumption	Pre-Medicare	Medicare
Fiscal Year Ending 6/30/2016	7.75%	5.75%
Fiscal Year Ending 6/30/2017	7.00%	5.50%
Ultimate Trend Rate	5.00%	5.00%
Year of Ultimate Trend Rate	2023	2020

Note 9: Life Insurance Plan

A. PLAN DESCRIPTON

TRS administers the Life Insurance Plan as provided by KRS 161.655 to provide life insurance benefits to retired and active members. This benefit is financed by actuarially determined contributions from the 208 participating employers. The benefit is $5,000 for members who are retired for service or disability, and $2,000 for active contributing members.

B. SUMMARY OF SIGNIFICANT POLICIES

Basis of Accounting

The Life Insurance Plan financial statements are prepared using the accrual basis of accounting. Employer contributions are recognized in the fiscal year due.

Method Used to Value Investments

Life Insurance Plan investments are reported at fair value. The short-term securities are carried at cost, which approximates fair value. Fixed income is generally valued based on published market prices and quotations from national security exchanges and securities pricing services.

C. CONTRIBUTIONS

To finance the life insurance benefit a portion of the employer contribution rate is directed to the plan as recommended by the TRS's actuary. The contribution rate of active members' payroll recommended by the actuary was .03% for fiscal years 2016 and 2015.

D. FUNDED STATUS AND FUNDING PROGRESS

The funded status of the Life Insurance Plan as of the most recent actuarial valuation date is as follows:

Schedule of Funding Progress
(In thousands of dollars)

Valuation Year June 30	Actuarial Value of Assets A	Actuarial Accrued Liabilities B	Unfunded Actuarial Accrued Liabilities (UAAL) (B-A)	Funded Ratio (A/B)	Covered Payroll C	UAAL as a % of Covered Payroll [B-A/C]
2016	$ 97,269	$ 106,059	$ 8,790	91.7%	$ 3,537,226	0.25%

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. The required supplementary schedules following the notes to the financial section contain more actuarial information. Significant actuarial methodologies and assumptions employed as of the June 30, 2016 valuation date include the following:

Actuarial Cost Method	Actuarial Value of Assets	Assumed Inflation Rate	Investment Rate of Return	Projected Salary Increases	Amortization Method	Remaining Amortization Period
Entry Age	Fair value of assets	3.00%	7.50%	3.50%	Level percent of pay, open	30 years

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Net Pension Liability

(In thousands of dollars)

Change in the Total Pension Liability	2016	2015	2014
Total pension liability			
Service Cost	$ 1,120,893	$ 1,015,080	$ 1,002,338
Interest	2,027,457	2,029,372	1,956,610
Difference between expected and actual experience	(58,035)		
Changes of assumptions	4,030,834	1,511,960	(353,043)
Benefit payments	(1,833,199)	(1,741,456)	(1,654,376)
Refunds of contributions	(27,748)	(23,033)	(25,462)
Net change in total pension liability	5,260,202	2,791,923	926,067
Total pension liability - beginning	42,476,699	39,684,776	38,758,709
Total pension liability - ending (a)	$ 47,736,901	$ 42,476,699	$ 39,684,776
Plan Net Position			
Contributions - State of Kentucky	$ 484,987	$ 480,073	$ 483,330
Contributions - Other Employers	80,468	79,506	79,996
Contributions - Members	313,044	308,160	304,982
Net investment income	(245,215)	862,179	2,803,248
Benefit payments	(1,833,199)	(1,741,456)	(1,654,375)
Administrative expense	(8,636)	(8,869)	(7,956)
Refunds of contributions	(27,748)	(23,033)	(25,462)
Net change in plan net position	(1,236,299)	(43,440)	1,983,763
Plan net position - beginning	18,049,131	18,092,571	16,108,808
Plan net position - ending (b)	16,812,832	18,049,131	18,092,571
Net pension liability - ending (a) - (b)	**$ 30,924,069**	**$ 24,427,568**	**$ 21,592,205**

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

NOTE 1
Schedule of Changes in the Net Pension Liability

The total pension liability contained in this schedule was provided by TRS's actuary, Cavanaugh Macdonald Consulting, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System.

Changes of Benefit Terms. None

Changes of assumptions. In the 2011 valuation and later, the expectation of retired life mortality was changed to the RP-2000 Mortality Tables rather than the 1994 Group Annuity Mortality Table, which was used prior to 2011.

In the 2011 valuation, rates of withdrawal, retirement, disability and mortality were adjusted to more closely reflect actual experience. In the 2011 valuation, the Board adopted an interest smoothing methodology to calculate liabilities for purposes of determining the actuarially determined contributions. Beginning with the 2014 valuation, the interest smoothing methodology is no longer used.

See accompanying independent auditor's report.

Required Supplementary Information continued . . .

Schedule of Net Pension Liability

(In thousands of dollars)

	2016	2015	2014
Total pension liability	$ 47,736,901	$ 42,476,699	$ 39,684,776
Plan net position	16,812,832	18,049,131	18,092,571
Net pension liability	$ 30,924,069	$ 24,427,568	$ 21,592,205
Ratio of plan net position to total pension liability	35.22%	42.49%	45.59%
Covered-employee payroll	$ 3,390,539	$ 3,455,008	$ 3,317,422
Net pension liability as a percentage of covered-employee payroll	912.07%	707.02%	650.87%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Schedule of Employer Contributions

(In thousands of dollars)

Fiscal Year Ended June 30	Covered Payroll	Actual Employer Contributions	Actuarially Determined Employer Contributions	Annual Contribution Excess (Deficiency)	Actual Contributions as a Percentage of Covered Payroll
2016	$ 3,390,539	$ 565,455	$ 999,270	$ (433,815)	16.68 %
2015	3,455,008	559,579	913,654	(354,075)	16.20
2014 *	3,317,422	563,326	823,446	(260,120)	16.98
2013	3,310,710	568,233	802,985	(234,752)	17.16
2012	3,310,176	557,340	757,822	(200,482)	16.84
2011	3,283,749	1,037,936	678,741	359,195	31.61
2010	3,321,614	479,805	633,938	(154,133)	14.44
2009	3,253,077	442,550	600,283	(157,733)	13.60
2008	3,190,332	466,248	563,789	(97,541)	14.61
2007	2,975,289	434,890	494,565	(59,675)	14.62

** Revised from previous year to reflect actual covered-employee payroll.*

See accompanying independent auditor's report.

Required Supplementary Information continued . . .

NOTE 2
Schedule of Employer Contributions

The required employer contributions and percent of those contributions actually made are presented in the schedule.

NOTE 3
Actuarial Methods and Assumptions

The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, three 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 the most recent year of the schedule:

Actuarial Cost Method	Amortization Period	Remaining Amortization Period	Asset Valuation Method	Inflation	Salary Increase	Ultimate Investment Rate of Return*
Entry Age	Level percentage of payroll, open	30 Years	5-year smoothed market	3.50%	4.00 to 8.20%, including inflation	7.50 percent, net of pension plan investment expense, including inflation

**The actuarially determined contribution rates are determined using the interest smoothing methodology adopted by the Board.*

Schedule of Investment Returns

	2016	2015	2014
Annual money weighted rate of return, net of investment expense	-1.32%	4.96%	17.95%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

Medical Insurance Plan – Schedule of Funding Progress
(In millions of dollars)

Valuation Year June 30	Actuarial Value of Assets A	Actuarial Accrued Liabilities (AAL) B	Unfunded Actuarial Accrued Liabilities (UAAL) (B-A)	Funded Ratio (A/B)	Covered Payroll C	UAAL as a % of Covered Payroll [(B-A)/C]
2016	$ 795.1	$ 3,634.1	$ 2,839.0	21.9 %	$ 3,537.2	80.3 %
2015	637.8	3,525.6	2,887.8	18.1	3,515.1	82.2
2014	508.9	3,194.7	2,685.8	15.9	3,486.3	77.0
2013	412.2	3,521.1	3,108.9	11.7	3,480.0	89.3
2012	338.7	3,594.5	3,255.8	9.4	3,479.6	93.6
2011	294.8	3,423.1	3,128.3	8.6	3,451.8	90.6
2010	241.2	3,206.8	2,965.6	7.5	3,321.6	89.3
2009	229.1	6,454.7	6,225.6	3.5	3,253.1	191.4

The amounts reported in this schedule of funding progress do not include assets or liabilities for the defined benefit or life insurance plans, nor are the assets and liabilities of the tax-sheltered annuity plan included.

See accompanying independent auditor's report.

Required Supplementary Information continued . . .

Medical Insurance Plan – Schedule of Employer Contributions

Valuation Year June 30	Annual Required Contribution (ARC) (A)	Actual Employer Contribution (B)	Retiree Drug Subsidy Contribution (C)	Total Contribution (B) + (C)	Percentage of ARC Contributed [(B) + (C)]/(A)
2016	$ 97,982,580	$ 221,966,705	$	$ 221,966,705	226.5 %
2015	106,606,132	168,084,353		168,084,353	157.7
2014	159,583,400	162,568,395		162,568,395	101.9
2013	186,725,823	166,611,420		166,611,420	89.2
2012	470,217,067	177,450,206	297,639	177,747,845	37.8
2011	477,723,070	188,453,929	280,585	188,734,514	39.5
2010	457,054,117	158,765,496	14,614,285	173,379,781	37.9
2009	467,312,904	164,480,119	13,611,748	178,091,867	38.1

Life Insurance Plan – Schedule of Funding Progress

(In thousands of dollars)

Valuation Year June 30	Actuarial Value of Assets A	Actuarial Accrued Liabilities (AAL) B	Unfunded AAL (UAAL) (B-A)	Funded Ratio (A/B)	Covered Payroll C	UAAL as a % of Covered Payroll [(B-A)/C]
2016	$ 97,269	$ 106,059	$ 8,790	91.7 %	$ 3,537,226	0.25 %
2015	97,186	98,739	1,553	98.4	3,515,113	0.04
2014	96,130	97,354	1,224	98.7	3,486,327	0.04
2013	94,863	94,325	(538)	100.6	3,480,066	(0.02)
2012	92,241	91,398	(843)	100.9	3,479,567	(0.02)
2011	88,527	88,088	(439)	100.5	3,451,756	(0.01)
2010	87,905	92,091	4,186	95.5	3,321,614	0.13
2009	84,703	90,334	5,631	93.8	3,253,077	0.17

The amounts reported in this schedule of funding progress do not include assets or liabilities for the defined benefit or medical insurance plans, nor are the assets and liabilities of the tax-sheltered annuity plan included.

Life Insurance Plan – Schedule of Employer Contributions

Valuation Year June 30	Annual Required Contribution (ARC) (A)	Actual Employer Contribution (B)	Percentage of ARC Contributed (B) / (A)
2016	$ 1,057,851	$ 1,037,769	98.1 %
2015	1,050,216	1,019,519	97.1
2014	1,044,959	1,006,091	96.3
2013	1,739,908	1,680,495	96.6
2012	1,732,831	1,684,711	97.2
2011	1,725,878	1,668,822	96.7
2010	1,992,969	1,966,826	98.7
2009	1,498,076	5,455,473	364.2

See accompanying independent auditor's report.

ADDITIONAL SUPPORTING SCHEDULES

Schedule of Administrative Expenses
For the Year Ended June 30,

Expense	2016	2015
Salaries	$ 5,808,287	$ 6,207,452
Other Personnel Costs	696,933	891,855
Professional Services and Contracts	647,708	459,012
Utilities	93,633	93,144
Rentals	20,991	25,546
Maintenance	93,521	150,180
Postage & Related Services	442,610	417,187
Printing	199,837	175,972
Insurance	183,329	172,849
Miscellaneous Services	164,405	136,523
Telecommunications	22,126	22,875
Computer Services	151,789	155,391
Supplies	51,059	56,168
Depreciation	1,535,843	1,093,167
Travel	45,221	45,910
Dues & Subscriptions	63,752	43,337
Miscellaneous Commodities	12,724	25,169
Furniture, Fixtures, & Equipment not Capitalized	85,604	190,969
Compensated Absences	30,891	77,412
Total Administrative Expenses	**$ 10,350,263**	**$ 10,440,118**

Schedule of Professional Services and Contracts
For the Year Ended June 30,

Professional	Nature of Service	2016	2015
Cavanaugh Macdonald Consulting	Actuarial Services	$ 284,189	$ 207,431
Segal Consulting	Actuarial Services	89,017	
Auditor of Public Accounts	Auditing Services	32,200	70,005
Mountjoy Chilton Medley	Auditing Services	45,000	
International Claim Specialist	Investigative Services	2,176	960
Ice Miller	Attorney Services	46,798	45,191
Reinhart, Boerner VanDeuren	Attorney Services	6,125	1,384
Stoll, Keenon, and Ogden	Attorney Services	21,672	14,041
Attorney General	Attorney Services	531	
Peritus	Communications	120,000	120,000
Total Professional Services and Contracts		**$ 647,708**	**$ 459,012**

See accompanying independent auditor's report.

Additional Supporting Schedules continued . . .

Schedule of Contracted Investment Management Expenses
Year Ended June 30, 2016

	Pension	Medical	Total
Equity Managers			
Baillie Gifford	$ 2,800,298	$	$ 2,800,298
Baring Asset Management, Inc.	2,419,271		2,419,271
Black Rock	265,816	191,346	457,162
GE Asset Management	800,000		800,000
Todd-Veredus Asset Management LLC	1,295,310		1,295,310
UBS Global Asset Management	2,980,341		2,980,341
Wellington Management Company	2,917,720		2,917,720
Total Equity Managers	13,478,756	191,346	13,670,102
Fixed Income Managers			
Fort Washington Investment Advisors	150,088		150,088
Galliard Capital Management	229,226		229,226
Total Fixed Income Managers	379,314		379,314
Real Estate	7,010,123	503,596	7,513,719
Additional Categories	8,701,619	683,241	9,384,860
Alternative Investments	14,469,348	794,844	15,264,192
Custodian			
The Bank of New York Mellon	380,233	30,275	410,508
Consultant			
Hewitt Ennis Knupp, Inc.	358,850		358,850
Bevis Longstreth	50,137		50,137
George Philip	38,962		38,962
Total Consultants	447,949		447,949
Legal & Research			
Reinhart, Boerner Van Deuren	5,560		5,560
Ice Miller	84,697		84,697
Total Legal & Research	90,257		90,257
Other			
Administrative and Operational (includes Personnel)	2,845,221	74,831	2,920,052
Total Contracted Investment Management Expenses	**$ 47,802,820**	**$ 2,278,133**	**$ 50,080,953**

See accompanying independent auditor's report.

Additional Supporting Schedules continued . . .

Schedule of Contracted Investment Management Expenses
Year Ended June 30, 2015

	Pension	Medical	Total
Equity Managers			
Baillie Gifford	$ 3,083,458	$	$ 3,083,458
Baring Asset Management, Inc.	2,463,293		2,463,293
Black Rock	235,529	187,274	422,803
GE Asset Management	800,000		800,000
Todd-Veredus Asset Management LLC	1,377,639		1,377,639
UBS Global Asset Management	4,529,001		4,529,001
Wellington Management Company	3,107,897		3,107,897
Total Equity Managers	15,596,817	187,274	15,784,091
Fixed Income Managers			
Fort Washington Investment Advisors	157,680		157,680
Galliard Capital Management	245,252		245,252
Total Fixed Income Managers	402,932		402,932
Real Estate	5,862,636	264,176	6,126,812
Additional Categories	8,043,331	518,978	8,562,309
Alternative Investments	11,478,820	299,357	11,778,177
Custodian			
The Bank of New York Mellon	335,800	8,263	344,063
Consultant			
Hewitt Ennis Knupp, Inc.	358,850		358,850
Bevis Longstreth	55,262		55,262
George Philip	34,134		34,134
Total Consultants	448,246		448,246
Legal & Research			
Ice Miller	84,131		84,131
Total Legal & Research	84,131		84,131
Other			
Administrative and Operational (includes Personnel)	2,473,848	52,536	2,526,384
Total Contracted Investment Management Expenses	**$ 44,726,561**	**$ 1,330,584**	**$ 46,057,145**

See accompanying independent auditor's report.

CPAs & ADVISORS

REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

Independent Auditor's Report

To the Board of Trustees
Teachers' Retirement System of the State of Kentucky
Frankfort, KY

We have audited, in accordance with the 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, the financial statements of the Teachers' Retirement System of the State of Kentucky, which comprise the statement of fiduciary net position as of June 30, 2016, and the related statement of changes in fiduciary net position for the year then ended, and the related notes to the financial statements, which collectively comprise the Teachers' Retirement System of the State of Kentucky's basic financial statements, and have issued our report thereon dated November 21, 2016.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Teachers' Retirement System of the State of Kentucky's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Teachers' Retirement System of the State of Kentucky's internal control. Accordingly, we do not express an opinion on the effectiveness of the Teachers' Retirement System of the State of Kentucky's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

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Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Teachers' Retirement System of the State of Kentucky's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Teachers' Retirement System of the State of Kentucky's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Teachers' Retirement System of the State of Kentucky's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

/s/ Mountjoy Chilton Medley LLP

Lexington, KY

November 21, 2016

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Teachers' Retirement System

of the State of Kentucky

2016

Investment Section

REPORT ON INVESTMENT ACTIVITY

This report is prepared by the Investment staff of the Teachers' Retirement System of Kentucky.

Mr. Tom Siderewicz, CFA
Chief Investment Officer

Mr. Philip L. Webb
Director of Investment Accounting

INVESTMENT COMMITTEE

Mr. Ronald L. Sanders
Chairperson

Mr. Arthur Green
Vice-Chairperson

Mr. Hollis Gritton
Member

Dr. Jay Morgan
Member

Ms. Ali Wright
Member

Mr. Bevis Longstreth
Investment Advisor to TRS Kentucky Investment Committee

Mr. George Philip
Investment Advisor to TRS Kentucky Investment Committee

EXECUTIVE INVESTMENT STAFF

Mr. Gary L. Harbin, CPA
Executive Secretary

Mr. Tom Siderewicz, CFA
Chief Investment Officer

December 1, 2016

To the members of the Board of Trustees and participants of the Teachers' Retirement System of Kentucky:

The Teacher Retirement System of Kentucky (TRS) investment program produced a total return of -1.0% in the twelve-month period ended June 30, 2016 and underperformed the policy benchmark by 2.5 percentage points. The relative performance was mainly driven by the U.S. equity managers' returns relative to their given benchmarks. It was a challenging fiscal year for active stock management as approximately 90% of public fund U.S. equity portfolios failed to outperform the broad U.S. stock market. Partially offsetting these detractors was the strong absolute and relative performance of the fixed income and real estate portfolios. The relative performance of the real estate portfolio was particularly favorable as it outperformed the benchmark by more than double (13.1% vs. 6.3% for the benchmark).

Despite the short-term underperformance, the investment program ranked in the top quartile, relative to public pensions with assets greater than $1 billion, over the trailing three-, five-, and ten-year periods. Favorable asset allocation strategy and implementation, specifically a meaningful allocation to U.S. equity, propelled TRS to near the top of its peer universe.

Over the past fiscal year, the equity markets experienced volatility due to China's economic slowdown, fickle energy prices, and the decision by the United Kingdom to leave the European Union. The global macroeconomic concerns caused the central banks to continue easing and maintain accommodative monetary policy positions. In the bond market, the 10-year U.S. Treasury yield ended the fiscal year at 1.49%, 86 basis points lower than the beginning of the fiscal year.

Equities, which represented 62.1% of the system's assets as of June 30, 2016, returned -4.7%. Domestic equities returned -1.8% versus 3.6% for the S&P 1500 Index. International equities returned -10.9% versus -9.8% for the MSCI All Country World (ex-U.S.) Index. Fixed income, which composed 17.1% of assets, returned 6.9% versus 6.7% for the Barclays Government/Credit Index.

The system's other asset classes, including real estate, private equity, and alternative credit strategies, rose to 19.1% of total assets over the fiscal year, up from 17.2% a year earlier. Real estate was one of the top performing asset classes over the trailing one year as fundamentals remained positive and continued to support above average income growth across most property types.

Over the trailing five-year period, TRS' investment returns rank in the top 9% of the pension fund universe cited earlier. We believe the consistently strong relative returns achieved over the past several years have been the result of the successful implementation of a sound investment philosophy and a high degree of professionalism.

The retirement annuity trust fund's returns were calculated by the Segal Rogers Casey performance reporting system using a time-weighted rate of return calculation based upon the modified Dietz methodology.

We would like to thank the Board of Trustees, Investment Committee, and Investment Staff for their confidence. We appreciate the opportunity to assist the retirement system in meeting its investment goals.

Respectfully,

Patrick J. Kelly

Patrick J. Kelly, CFA, CAIA
Partner

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RETIREMENT ANNUITY TRUST FUND

INVESTMENT POLICY SUMMARY

The TRS Board of Trustees has a statutory obligation to invest the members' assets in a manner consistent with the fiduciary standards set forth in the "prudent person rule." Consistent with these fiduciary standards, the board has recognized certain principles that guide investment–related decisions. First, the board will preserve the long-term corpus of the fund. Second, the board will seek to maximize total investment return within prudent risk parameters. Third, the board will act in the exclusive interest of the members and beneficiaries of the System. This broad summary is a reference point for management of retirement assets and outlines the investment philosophy and practice of TRS.

INVESTMENT OBJECTIVES

TRS invests the members' funds in several diverse classes of assets, including equities, bonds and real estate. This diversification helps us earn the highest possible long-term rate of return within appropriate risk levels. In turn this enables us to pay guaranteed benefits to members and their beneficiaries at the lowest possible cost to participating employers and the taxpayers that fund them. Generally, the retirement system's liabilities will not be paid for as many as 30-40 years. Therefore, as a long-term investor, TRS holdings can withstand some short-term volatility. The retirement annuity trust fund's long-term investment objective is to achieve an annualized rate of return of 7.5%.

RISK CONTROLS

The TRS investment program faces various risks; however, the primary risk to TRS is that the assets will not support liabilities over long periods of time. In order to control this risk and any other risks, the board has taken the following steps on an ongoing basis:

- Actuarial valuations are performed each year to evaluate the funding objectives of the retirement system. In addition, every ten years an external audit of the actuary is conducted to ensure that the assumptions made and calculation methods used are resulting in properly computed liabilities of the System.
- Asset/liability studies are conducted approximately every five years. These studies ensure that the portfolio design is structured to meet the liabilities of the retirement system.
- The TRS Investment Committee adopts, and regularly reviews, detailed investment strategies for implementation of the investment policy.

ASSET ALLOCATION

Operating within relevant regulatory limitations, the System's investment consultant, on an annual basis, presents to the Investment Committee for approval target percentages and ranges for the System's various asset classes. Annually approved asset allocation parameters serve to balance the retirement system's liquidity requirements, volatility tolerance, and return requirements to meet both short-term and long-term obligations. The System's assets are diversified across a variety of asset classes, investment management styles, and individual securities in order to reduce volatility and enhance the potential of the investment portfolio to achieve the retirement system's long-term goals.

Asset allocation decisions for pension plans are highly dependent on the unique characteristics of a particular plan. Factors such as liability requirements, the level of funding, and statutory investment restrictions are important considerations within the context of the asset allocation decision making process. Consequently, asset allocations may differ markedly between various pension plans due to their unique circumstances.

The information below shows the System's asset allocation by fair value as of June 30, 2016, and June 30, 2015, as well as the target and strategic range for each asset class for fiscal year 2016.

Retirement Annuity Trust

	June 30,2016*	%	June 30,2015 **	%
Cash Equivalents***	$ 294,405,676	1.7	$ 477,398,294	2.6
Fixed Income	2,878,918,409	17.1	3,103,821,351	17.4
Domestic Equities	7,210,451,881	42.9	7,798,497,485	43.6
International Equities	3,220,445,062	19.2	3,439,336,257	19.2
Real Estate	940,860,202	5.6	825,335,346	4.6
Private Equity	731,560,317	4.4	636,890,428	3.6
Timberland	201,253,033	1.2	207,797,668	1.1
Additional Categories	1,319,326,624	7.9	1,404,919,549	7.9
TOTALS	**$ 16,797,221,204**	**100.0**	**$ 17,893,996,378**	**100.0**

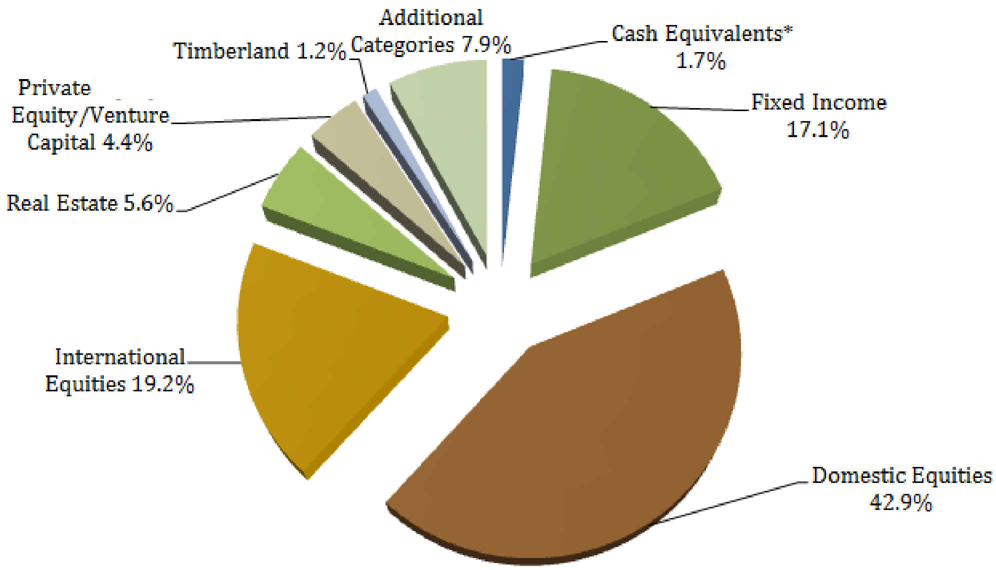
* *Includes Life Insurance Trust values of $90,113,180, Tax Shelter Annuity value of $352,773, and 401(h) value of 14,302,842.*

** *Includes Life Insurance Trust values of $87,963,949, Tax Shelter Annuity value of $363,978, and 401(h) value of $29,150,708.*

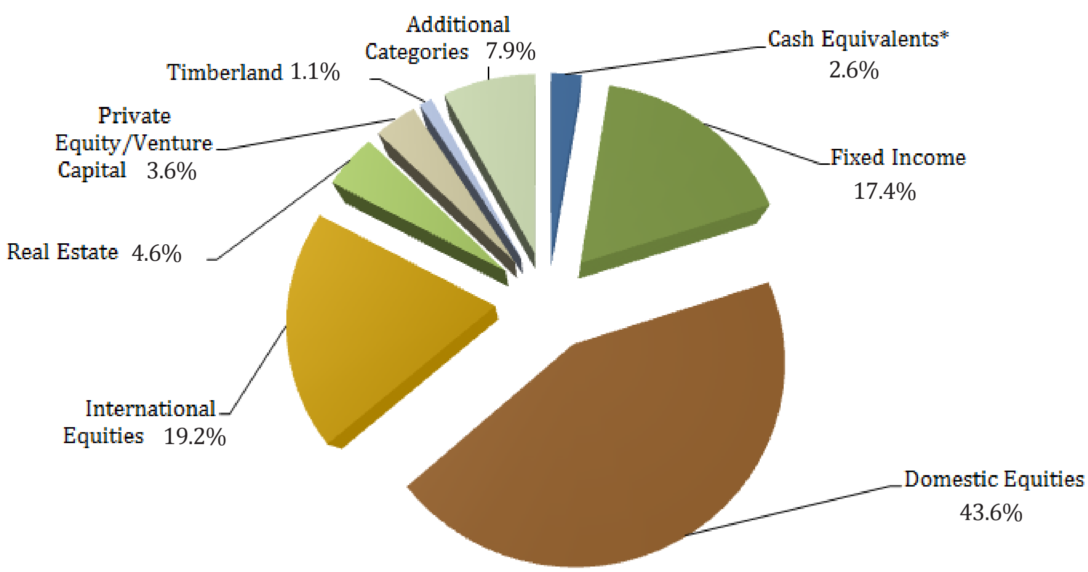
*** *Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.*

Distribution of Investments
Retirement Annuity Trust**
Fair Values

June 30, 2016



June 30, 2015



* Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.

** Includes Life Insurance Trust values.

Strategic Weightings by Asset Class

Asset Class	Regulatory Limits (Mkt Value)	Strategic Range (Mkt)	Target (Mkt)	6/30/2016 (Mkt)**
Cash		1 - 3%	2.0%	**1.7%**
Fixed Income		13 - 19	16.0	**17.1**
Government/Agency/Other	Unlimited			9.2
Corporate	35%			7.9
Equity	65%	58 - 65	62.0	**62.1**
Domestic Large Cap		33 - 41	37.0	36.5
Domestic Mid Cap		1 - 5	3.0	4.0
Domestic Small Cap		1 - 3	2.0	2.4
International* **	30%	17 - 23	20.0	19.2
Real Estate	10%	3 - 7	5.0	**5.6**
Alternative Investments*	10%	3 - 9	6.0	**5.6**
Additional Categories	15%	6 - 12	9.0	**7.9**
TOTAL			**100.0%**	**100.0%**

* Includes private equity, venture capital, timberland, and infrastructure investments

** Starting with 7/2008, Cash is only the unallocated cash balance. Manager cash balances will be included with the asset type of the managers investments.

*** As of 6/30/16, 19.0% of Total International Equities was invested in Emerging Markets.

PORTFOLIO RETURNS

For the fiscal year, the retirement annuity trust fund's portfolio generated a total return of -1.0%, trailing the policy benchmark return of 1.5%. Domestic equities returned -1.8% versus 3.6% for the Standard & Poor's 1500 Index, while international equities returned -10.9% versus -9.8% for the MSCI All Country World (Ex-US) Index. Fixed income investments outperformed, returning 6.9% versus 6.7% for the Barclays Government/Credit Index. Less traditional asset classes such as real estate, private equity, timberland, and alternative credit are beginning to contribute meaningfully to total return as those programs are expanded.

The following table details historical performance for the retirement annuity trust fund and its component asset classes for the period ended June 30, 2016. The retirement annuity trust fund's returns were generated by the Segal Rogers Casey performance reporting system using a time-weighted rate of return calculation based upon market values.

Portfolio Returns continued ...

SCHEDULE OF INVESTMENT RETURNS - RETIREMENT ANNUITY TRUST - GROSS

	1 Yr(2)	3 Yr(2)	5 Yr(2)	10 Yr(2)	20 Yr(2)
Total Fund					
TRS	-1.0	7.1	7.5	6.3	6.9
Policy Index (1)	1.5	7.2	7.5	-	-
Equities					
Domestic Equities	-1.8	10.6	11.2	7.3	8.2
S & P Blended Index (3)	3.6	11.5	11.9	7.5	7.9
International Equities (4)	-10.9	2.5	1.6	2.9	-
MSCI AC World (Ex US)	-9.8	1.6	0.6	2.3	-
Total Equities	-4.7	8.1	8.5	6.0	7.5
Fixed Income					
Total Fixed Income	6.9	4.6	4.8	6.1	6.3
Barclays Govt/Credit Index	6.7	4.2	4.1	5.2	5.8
Real Estate					
Non-Core Real Estate	19.1	18.8	19.0	-	-
NCREIF Property Index	10.6	11.6	11.5	-	-
Core Real Estate	14.2	14.1	13.3	-	-
NCREIF ODCE	11.8	13.0	12.7	-	-
Triple Net Lease Real Estate	9.4	8.0	8.1	8.2	8.8
CPI plus 2%	3.1	3.1	3.3	3.8	4.2
Alternative Investments					
Private Equity (5)	5.0	11.6	10.7	-	-
Timberland	2.0	5.3	5.2	-	-
NCREIF Timberland Index	3.4	7.7	6.7	-	-
Cash					
Cash(Unallocated)	0.3	0.1	0.1	1.3	2.6
90 Day Treasury Bill	0.1	0.1	0.1	1.0	2.3
Additional Categories					
Additional Categories	-1.3	3.3	5.4	-	-
B of A Merrill Lynch High Yield Master II	1.7	4.2	5.7	-	-

(1) *Prior to July 1, 2008, TRS did not benchmark overall fund performance. Effective July 1, 2008, the Board of Trustees approved a Policy Index which represents the returns of appropriate benchmarks for the various asset classes weighted by the mid-point of the strategic range for the current fiscal year.*

(2) *Annualized.*

(3) *Total Domestic Equity is benchmarked to a S&P Blended Index. Total domestic equity was benchmarked to the S&P 500 through the fiscal year ending 6/30/2007. As of 7/1/2007, domestic equity is benchmarked to the S&P 1500 Index since the System's domestic stock mix is most comparable to this index.*

(4) *As of 06/30/16 19.0% of Total International Equities were invested in emerging markets.*

(5) *For a period of five years private equity investments will be benchmarked against their own returns. The primary reason for this is that these investments have a minimum investment horizon of ten years and there is no market benchmark that would be expected to track these types of assets in their early years. Beginning five years after the first capital call, investments in this class shall be benchmarked versus theS & P 500 plus 3%, which is the System's long-term expected return for this asset class.*

SCHEDULE OF INVESTMENT RETURNS - RETIREMENT ANNUITY TRUST

2016	Annual Rate of Return Net of Investment Expense	-1.32%
2015	Annual Rate of Return Net of Investment Expense	4.96%
2014	Annual Rate of Return Net of Investment Expense	17.95%

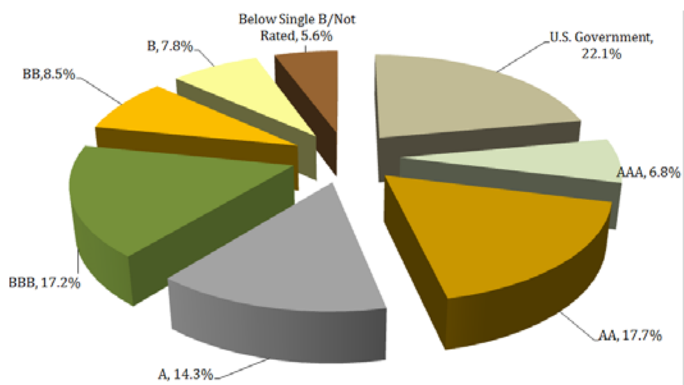
FIXED INCOME INVESTMENTS

As of June 30, 2016, the retirement annuity trust fund had approximately $2.9 billion, 17.1% of total assets, in the fixed income category of investments. The retirement annuity trust fund's fixed income investments maintained the average investment grade rating required by administrative regulation as of June 30, 2016.

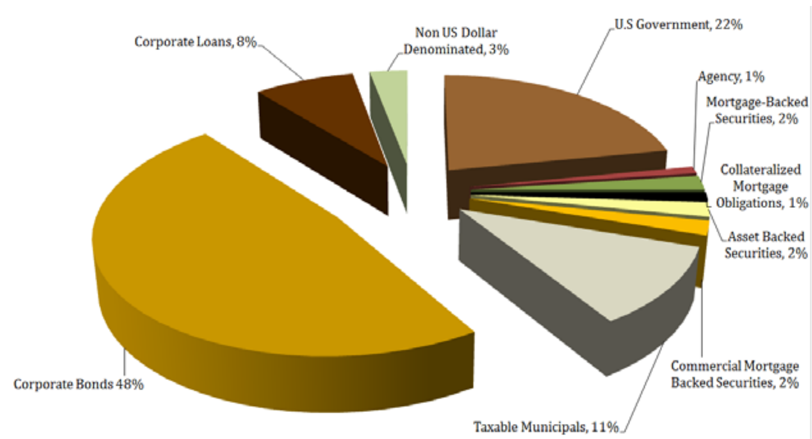
In addition, the retirement annuity trust fund had $1.3 billion, 7.9% of total assets, in other debt related investments under a regulatory provision which allows for up to 15% of assets in "additional categories of investments" approved by the Board of Trustees. Investments under this authorization included two high yield bond portfolios, an international fixed income portfolio, and two syndicated bank loan portfolios. Also under this provision are several alternative credit portfolios including a multi - strategy opportunistic credit portfolio as well as distressed debt and specialty lending funds.

The credit quality distribution for the retirement annuity trust fund is illustrated below. This chart includes the fixed income category of investments as well as the high yield bonds, international fixed income, and the syndicated bank loan portfolios included in "additional categories of investments". Also illustrated below is the distribution of fixed income assets by sector, again including the high yield bonds, international fixed income, and the syndicated bank loan portfolios held under "additional categories of investments".

FIXED INCOME QUALITY DISTRIBUTION



FIXED INCOME SECTOR DISTRIBUTION



FIXED INCOME MARKET OVERVIEW

The retirement annuity trust fund's investment grade fixed income portfolios returned 6.9% for the fiscal year ending June 30, 2016. This compares favorably to the trust fund's fixed income benchmark, the Barclays U.S. Government / Credit Index, which returned 6.7%. The outperformance was driven by the system's overweighting in corporate bonds which provided higher coupon interest than government bonds of similar duration.

The Federal Reserve finally pulled the trigger and increased the Federal Funds Rate by 25 basis points to 0.25% - 0.50% in December, the first increase in almost ten years. As for the future, the Fed's statement in December read "The committee expects that economic conditions will evolve in a manner that will warrant only gradual increases in the federal funds rate." At year-end, the median projection of the Fed officials was for four more 25 basis points moves in 2016 which would bring the funds rate up to 1.25% to 1.50%. However, federal - funds futures, which are an indicator of market expectations, were priced for only two 25 basis points moves in 2016. There were no more rate increases in fiscal year 2016 because economic conditions (mainly inflation expectations) did not warrant any more rate increased via the fed.

There were several events that drove interest rates lower in fiscal year 2016. The labor market showed surprising weakness with only 184,000 non-farm jobs added. Gains over 200,000 are considered to be representative of a healthy economy. This led to a rally in Treasury prices and pushed rate hikes further into the future. Dollar strength and weaker than anticipated global demand contributed to broad declines for rates across the U. S treasury curve. The Brexit vote that took place on June 23rd 2016, led to more financial market volatility, a temporary flight to quality, and increased uncertainty about the future. One of the largest catalyst for low U.S. rates this fiscal year has been negative rates around the world. In the Eurozone, in Denmark, Sweden, Switzerland and Japan, central banks have decided to have a negative rate on commercial banks' excess funds held on deposit at the central bank. In effect, private sector banks have to pay to deposit their money. The aim in the Eurozone is to stimulate economic growth and to raise inflation, which is also below zero and even further adrift of the European Central Bank's target of below but close to 2%. In the case of Sweden, the central bank has gone below zero on the rate it lends money to the banks, as its main policy tool. The 10-year U.S. treasury bond saw yields fall from 2.42% July 1st 2015 to 1.47% June 30, 2016 as a result of some of the aforementioned items detailed above. This is a key indicator for the economy as most consumer debt is priced from this bond.

One of the most volatile times of this fiscal year for spread products was January-mid February. This time frame began with Investment Grade (IG) Corporates at +172 to comparable treasuries and got to +220 as of February 11th 2016. This time frame was a total risk off trade in all spread products. High Yield went from +707 to +897 in this time frame. By the end of March 2016 levels were +167 for IG corporates and +700 for High Yield. This was just a snapshot of the increased volatility experienced in the 1st quarter of 2016. Spreads for Investment Grade Corporates ended fiscal year 2016 +162.

With U.S. Treasury rates and risk premiums on corporate bonds both still near the low end of their historical range, investment grade fixed income is an asset class with moderately unfavorable risk / reward characteristics and below average upside potential. The retirement system continues to adjust the structure of its fixed income portfolio to control risk and maintain required liquidity. Specifically, the retirement system continues to increase exposure to nontraditional debt-related investments, reduce exposure to investment grade fixed income, and limit our interest rate risk by being slightly short benchmark durations.

EQUITY INVESTMENTS

As of June 30, 2016 the retirement annuity trust fund's public equity investments had a market value of $10.43 billion, representing 62.1% of total assets. Negative equity returns over the fiscal year coupled with several rebalancing sales to raise cash to fund pension benefits explains the year over year reduced market value. The retirement annuity trust fund divides its public equity into two broad categories: domestic and international.

The domestic portfolio had a market value of $7.21 billion as of June 30, representing 42.9% of total assets. This is a $590 million decrease from last year due mainly to the rebalancing sales. The benchmark for the domestic portfolio is the S&P 1500. The S&P 1500 is made up of three well known component indices based upon market capitalization: the S&P 500 large cap, S&P 400 mid cap, and the S&P 600 small cap. The retirement annuity trust fund's domestic equity holdings are comprised of eleven portfolios. Three of the portfolios are internal passively managed index portfolios benchmarked to the S&P 400, 500, and 600. The other eight portfolios are managed externally by four different asset managers, with each portfolio representing a specific strategy and measured against an appropriate benchmark. The collective array of portfolios provides diversification by capitalization, manager, style, and strategy.

The market value of the international equity holdings as of June 30, 2016 was $3.22 billion, representing 19.2% of total assets. While the percentage of total assets remained the same, the market value decreased by $220 million year over year. This was the result of slight negative returns in the International portfolio. The benchmark for international equities is the Morgan Stanley Capital International All Country World Index ex US (MSCI ACWI ex US), which represents the markets of 22 developed countries and 23 emerging market countries. Five external asset managers manage the retirement annuity trust fund's international equities, one of which is a passively managed international index fund. The retirement annuity trust fund plans to continue incremental increases in the international equity exposure during the coming fiscal year.

EQUITY MARKET OVERVIEW

Public Equities maintained mostly flat levels throughout fiscal year 2016, despite increased volatility. The flat returns were the result of the polarizing returns of both domestic and international equities. Domestic returns saw moderate gains, while international equities had significant headwinds throughout the year. Returns of domestic stocks as measured by the S&P 1500 and Wilshire 5000 were 3.6% and 3.0%, respectively. Within the S&P 1500, small (S&P 600) and mid-cap (S&P 400) stocks were mostly flat at 0.0% and 1.3%, while the large-cap S&P 500 led the gains at 4.0%. The performance of International stocks was a drag on overall equity returns. The Morgan Stanley Capital International (MSCI) All Country World (ex-U.S.) Index returned -9.8%. The MSCI Emerging Markets Index was down -11.7%, with both indices showing volatile returns across international markets.

The domestic markets advanced slightly overall throughout the fiscal year. Domestic large cap stocks led the way, while small and mid-cap names remained mostly flat. The first half of the fiscal year saw major pullbacks in August and September, then rallied in October. Weaker than anticipated global demand and a sharp strengthening of the US Dollar were the main contributors to the equity pullbacks. Weak global demand provided the headwind for all global markets, although the US domestic market stayed strong relative to its international counterpart. Biotech and small cap names were the biggest drag on domestic equities. In the first quarter of our fiscal year several economic indicators showed weakening growth and inflation. The labor market showed weakness as the non-farm payroll average gains saw significant declines in the quarter. The strengthening of the US Dollar was due mainly to the People's Bank of China (PBOC) decision to devalue the Chinese Yaun vs. the US Dollar. This not only devalued US exports, but also directly contributed to weakening global demand. Fortunately, domestic equities rallied back in the second quarter of our fiscal year. This rally was led almost solely by large cap stocks. More specifically, mega-cap names were the main drivers of the rally, as the top 10 names in terms of capitalization in the S&P 500 accounted for all its gains. On the heels of this rally, the US Central Bank (FOMC) voted to raise the federal funds rate by .25% in December. The FOMC cited stronger economic conditions and declining unemployment numbers as support for their gradual firming of monetary policy.

The second half of the fiscal year continued the overall slightly upward trend domestically, but started with severe declines in January and February followed by a sharp recovery, then steady returns to end the fiscal year. The Market sell off in January and February were mostly attributed to negative investor sentiment and economic uncertainty. After the FOMC raised the Federal Funds target rate in December for the first time in over nine years, investors reacted negatively to the equity markets over concerns for further tightening of rates. At the same time the Bank of Japan (BoJ) and the European central Bank (ECB) both announced further quantitative easing programs. As interest rates lowered internationally with rising rates domestically, the US Dollar continued to strengthen. This, again, hurt the US export and commodity economy. In March, the FOMC communicated a more dovish policy stance. They chose to keep rates steady for the near future, citing asymmetric risks in further tightening of rates. The US Dollar reacted accordingly, reversing a prolonged strengthening trend. This provided price support to dollar-based commodities, and served as a tailwind for equity and debt assets. This broad-based rally continued through the end of June. The UK surprise referendum vote to leave the European Union (commonly known as Brexit) caused a sudden flight to safety and sharp, albeit brief, decline in the market. The equity markets rallied quickly to end the fiscal year on a high note, following a series of dovish statement from several central banks worldwide.

Internationally, markets lagged the US as non-US equities produced negative returns for the fiscal year. The main drivers of this were the economic slowdowns in Europe and China. China was the focus internationally throughout the first half of the fiscal year. A country's economic ties with China was directly correlated to its underperformance. This was further exasperated by the Chinese Yaun devaluation causing the US dollar to strengthen, as international investors fled Europe and Asia to invest in US markets. The Chinese economy grew at its slowest pace in seven years as energy prices stagnated. Emerging markets were consequently hit the hardest at first but rebounded in the second quarter as China accelerated its domestic consumption as retail sales grew much faster than its overall economy. The second half of the fiscal year focused more on Europe and Japan. The ECB and BoJ's quantitative easing programs proved to be detractors as European and Japanese stocks lagged. This came to a head in the infamous Brexit vote, where the UK voted to leave the European Union over concerns of its economic viability. This all led to International markets serving as a severe drag on equity returns for the fiscal year.

In summary, we experienced a mostly flat equity market for the fiscal year. Domestic large caps were the drivers, while mid and small caps experienced flat to slight gains on the year. International and emerging markets were the drag on equity performance this year. Domestic and International monetary policies provided the headwinds for equities, while growing geopolitical tension and an economic slowdown in China provided headwinds internationally. Softening Domestic monetary policies and the performance of the mega cap stocks provided the tailwinds for the year. Investor sentiment expects the FOMC to continue its dovish stance on its monetary policy although another small rate hike is not off the table for the coming fiscal year. However, the main driver will be the pending presidential election in the US as all eyes internationally will wait to see who takes command of the largest economy in the world.

REAL ESTATE

The retirement annuity trust fund's real estate investments had a market value of $940.9 million as of June 30, 2016, representing 5.6% of total assets. The retirement annuity trust fund's investments in real estate are intended to provide attractive long-term returns, generate reliable cash flow, and provide diversification, thereby reducing the volatility of the overall investment portfolio.

The retirement annuity trust fund's real estate exposure is currently provided through nine portfolios. The retirement annuity trust fund maintains an internally managed portfolio of directly owned properties under long-term lease agreements with high credit quality tenants. The retirement annuity trust fund is also invested in a commingled real estate fund (PRISA Fund), which is managed by Prudential Real Estate Investors. This fund is a core real estate equity fund which invests primarily in existing income-producing properties with strong cash flows and the potential for capital appreciation. The fund is diversified across several property types including office, retail, industrial, apartment, self-storage and hotel.

Additionally, the retirement annuity trust fund is invested in nine real estate limited partnerships: Carlyle Realty Partners VI, Carlyle Realty Partners VII, Blackstone Real Estate Partners VII, Blackstone Real Estate Partners VIII, Rockwood Capital Real Estate Fund IX, TA Realty Associates Fund X, TA Realty Associates Fund XI, AG Net Lease Realty Fund III, and Landmark Real Estate Partners VII. Going forward, investment staff will continue to opportunistically add to the annuity trust fund's real estate investments.

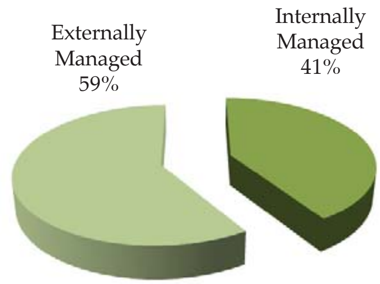
REAL ESTATE OVERVIEW

Due to the prolonged low-interest rate environment occurring globally the real estate sector proved to be an attractive option during the fiscal year ending June 30, 2016.

In the U.S., real estate fundamentals remain solid. Occupancy rates remain strong across property types. In the apartment sector, occupancy is near the structural vacancy rate. Retail and office occupancies are forecasted to continue strengthening amid low new inventories. New construction also remains low relative to historical levels, excluding the apartment sector. In the retail and office sectors, new development is forecasted to increase, but positive net absorption is expected to outpace development. Annual rent growth is above historical averages for all property types, with apartments and industrial leading the way with growth rates near all-time highs. The retail recovery has been uneven but is viewed as having a promising outlook amid the strengthening economy and limited new supply. Increasing rents, occupancy, and limited supply have driven solid cash flow growth.

Private core real estate returns are normalizing. The trend since 2010 of steady returns in core and domestic real estate, continued, though the proportion of gains attributed to appreciation relative to income have declined in the third and fourth quarters. Despite slowing return growth in domestic real estate, capital from foreign investors is flowing into the U.S. in increasing proportions. Valuations are surpassing pre-crisis peaks in some sectors, and investors continue to be attracted to the strong fundamentals of the US real estate market, such as low vacancy rates and consistent rent growth.

Real Estate Investments
$940.9 Million Fair Value
As of June 30, 2016

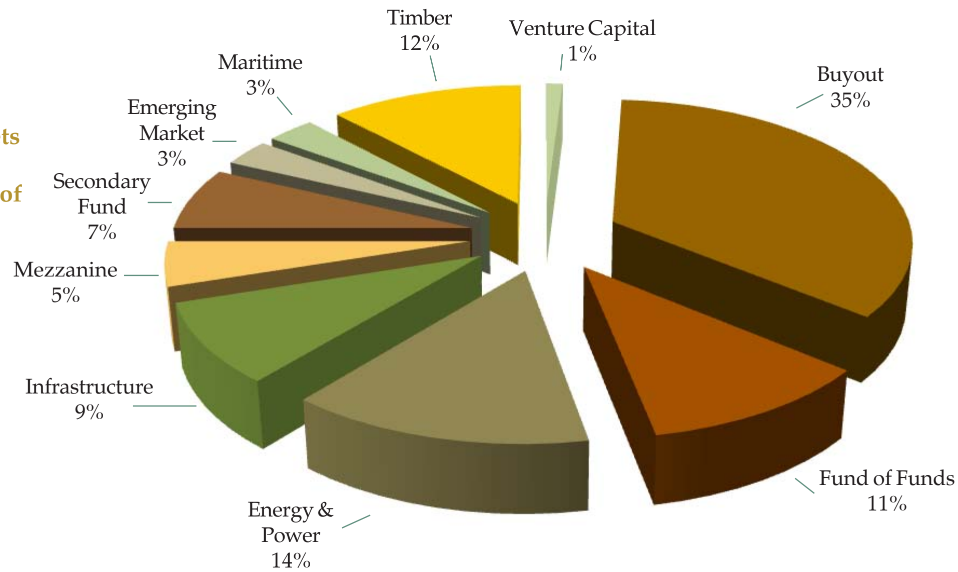


Regarding non-core real estate (value-add and opportunistic strategies), according to NEPC LLC, a real estate consultant, non-core real estate remains attractive with the firm continuing to favor "cash flow-driven managers who are attentive to duration risk at the current stage of the expansion cycle." NEPC believes that the flight to quality will continue to favor U.S. real estate markets, and that select opportunities will remain in Europe and the emerging markets to capitalize on distress and/or capital markets inefficiencies.

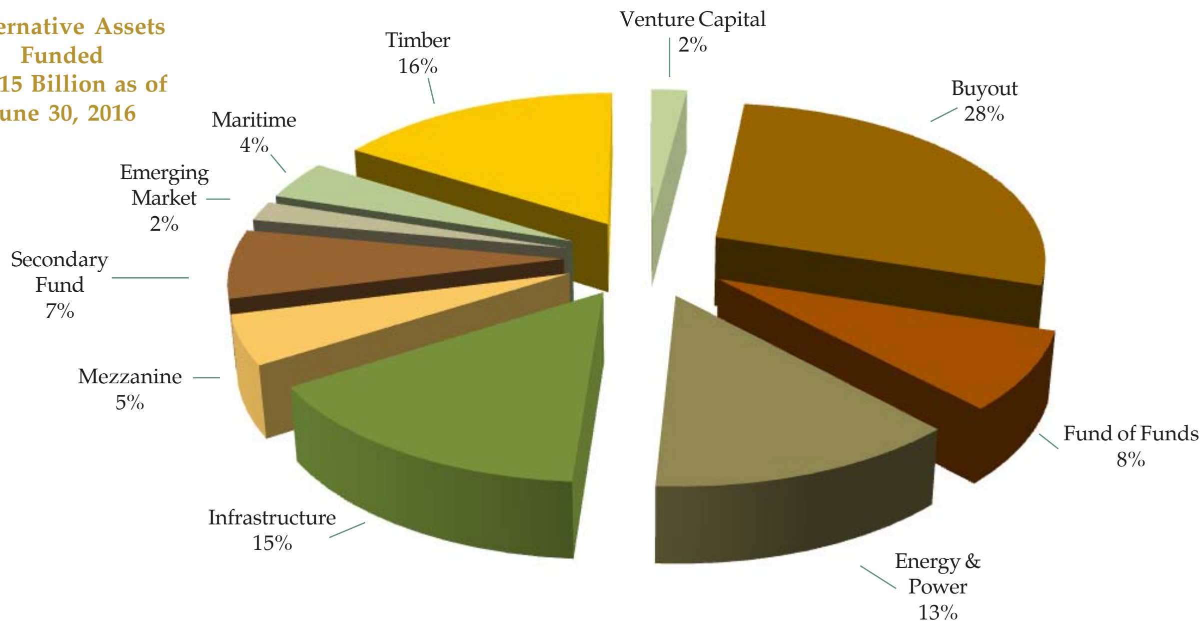
ALTERNATIVE ASSETS

As of June 30, 2016, the retirement annuity trust fund had committed $1.660 billion to alternative investments and had funded $1.015 billion of those commitments. The percentage of the retirement annuity trust fund's portfolio invested in alternative assets was 4.0%. The retirement annuity trust fund's current alternative asset portfolio consists of private equity investments and timberland.

Alternative Assets Committed $1.660 Billion as of June 30, 2016



Alternative Assets Funded $1.015 Billion as of June 30, 2016



PRIVATE EQUITY

The retirement annuity trust fund has exposure to venture, buyout, infrastructure, energy, mezzanine and several other private equity sectors via participation in limited partnerships as well as investments in funds of funds. The retirement annuity trust fund has a young private equity investment program, which it intends to continue to grow with a disciplined plan of commitments each year. The retirement annuity trust fund looks to diversify its private equity portfolio by manager, country, strategy, and vintage year. Vintage year diversification is achieved by building out the portfolio with disciplined levels of commitments over time. A commitment to any given partnership shall not exceed 20% of the partnership's total commitments.

The Board and staff understand that private equity (along with many other forms of alternative assets) are illiquid and have a long-term holding period. When added to a portfolio with other publicly traded assets, this asset class can help to diversify and reduce risk for the retirement annuity trust fund's overall portfolio while enhancing returns. Private equity returns for the first several years of a partnership's life are routinely negative due to the J-curve effect. Positive returns are typically realized only several years into a partnership's existence, during the harvesting period.

PRIVATE EQUITY MARKET OVERVIEW

Private equity markets are positively affected by the strong public equity markets. When public markets are strong more private equity deals are completed and more IPOs brought to market. The pull back in the public equity markets and the increased volatility in beginning of the fiscal year caused a slowdown in announced deals exits during this time. As the public markets recovered more deals were announced and exits were made. However, many older funds are still struggling with limited exit avenues and we have seen many older funds need to extend the life of their fund(s).

The bifurcation in the private equity market continues with the top tier funds raising capital much easier than less desirable funds. This should, over the long term, provide a shakeup in this space as the weaker firms are forced to exit. The past fiscal year has also seen large buyout funds returning to the marketplace. While there is a decrease in the number of funds coming to market, there is an increase in the capital raised by these funds which can be partially attributed to investors increasing committed capital while reducing their number of fund relationships. We have begun to see more opportunity in the large cap buyout space while continuing to see opportunity in the middle market space and in other niche areas such as infrastructure and distressed credit. Additionally, the stress in the European markets should continue to present investment opportunities in the private equity space over the next fiscal year.

TIMBERLAND

In addition to private equity, the retirement annuity trust fund has invested in timberland in the alternative asset class. As of June 30, 2016 the retirement annuity trust fund owns approximately 73,000 acres of timberland outright, has a 7.15% interest in a commingled fund that holds approximately 98,000 acres of timberland and is a member of a joint venture that purchased an interest in approximately 124,000 acres of timberland located across seven southern states. Timberland is, by nature, a long term investment as our anticipated time horizon in this asset category is generally a minimum of ten to fifteen years. Timberland provides valuable diversification, current income, and a hedge against inflation. Due to the low correlation of returns with other asset classes, timberland investments should lower the overall volatility of the retirement annuity trust fund's portfolio. Timberland should earn real returns comparable to traditional equity investments with volatility between equities and fixed income over the long-term.

The retirement annuity trust fund diversifies its timberland investments by geography, species of trees, and maturity of timber stands. Investment returns from timberland are primarily driven from net cash flow generated from the sale of trees (referred to as stumpage sales) and capital appreciation from the biological growth of the trees. Both of these return factors depend to some degree upon the direction of forest commodity prices (paper goods and lumber products). There can also be gains from the timely sale of timberland from the conversion of timberland into higher and better uses, such as vacation property sales.

TIMBERLAND MARKET OVERVIEW

U.S. timber markets have been lackluster. Housing starts were expected to show further marked improvement, but have been only slightly positive thus far this year. Most recently, U.S. housing starts rose more than expected in June 2016 as construction activity increased broadly, but a downward revision to the prior month's data pointed to a housing sector treading water in the second quarter. Although lumber exports increased, this improvement was overshadowed by a significant decrease in log exports which were down 25 percent in the first quarter. As a result, many more domestically produced logs were pushed into the U.S. market. This oversupply issue was further exasperated by Canadian imports which were up around 30 percent from this time last year.

Delivered prices for timber followed a general downward trend for the first half of 2016. Together with the drivers mentioned above, favorable weather conditions and low fuel costs during the last four months have freed up supply and nudged prices lower. Wood-using facilities are carrying excess inventories and are managing purchases through tight quotas. With only a few localized exceptions, timber supply has not been an issue on a national basis.

On a positive note, the wood products industry continues to expand and consumption is increasing. In fact, the first new paper mill to be built in the South in 30 years was announced in the spring. One of China's largest private companies, Sun Paper, will invest in excess of $1 billion to build a facility in south Arkansas. Also, the Timber Innovation Act was passed earlier this year and should help to accelerate the use of wood in buildings, especially tall wood buildings, and for other purposes.

RETIREMENT ANNUITY TRUST
PORTFOLIOS
FAIR VALUES *
June 30, 2016

INTERNALLY MANAGED

Cash Equivalents		
Cash Collections Fund (Unallocated)	$	294,405,676
Fixed Income		
Intermediate Bond Fund		692,345,445
Long Term Bond Fund		548,224,590
Broad Market Bond Fund		542,084,933
Internal Bond Fund		180,562,499
Life Insurance Trust		90,113,180
Tax Shelter Fund		352,815
Equity		
S & P 500 Stock Index Fund (Large Cap)		2,406,731,643
S & P 400 Stock Index Fund (Mid Cap)		361,784,512
S & P 600 Stock Index Fund (Small Cap)		229,830,842
Real Estate		
Internally Managed Fund		389,654,372
Subtotal		5,736,090,507

EXTERNALLY MANAGED

Fixed Income	
Galliard Capital Management	418,746,771
Ft. Washington Broad Market	406,488,176
Domestic Equity	
Todd Asset Management (Large Cap Core)	1,004,830,831
UBS (Large Cap Value)	903,782,941
GE Asset Management (Large Cap Growth)	678,762,725
Wellington (Large Cap Core)	583,196,968
Todd Asset Management Opportunity Fund	378,914,768
Wellington (Mid Cap Core)	304,410,348
UBS (130/30)	192,349,447
Wellington (Small Cap Core)	165,856,856
International Equity	
Baillie Gifford EAFE Alpha	749,089,275
Todd Asset Management International	663,698,403
UBS All Country World ex US	608,147,824
Baring All Country World ex US	607,968,740
BlackRock All Country World ex US IMI	509,595,543
Todd Asset Management International Intrinsic Value	81,945,276
Real Estate	
Prudential PRISA Fund	291,091,846
Blackstone Partners VII, LP	50,631,618
The Realty Associates Fund X	50,138,220
Rockwood Capital Real Estate Fund IX	37,778,398
Carlyle Realty Partners VI, LP	28,135,149
Landmark Real Estate Partners, VII	23,973,100
Blackstone Partners VIII, LP	19,615,611
Carlyle Realty Partners VII, LP	19,391,605
AG Net Lease Realty Fund III, LP	17,950,284
The Realty Associates Fund XI	12,500,000
Alternative Investments	
Molpus Woodlands Group Lake Superior Timberlands LLC	110,505,232

Externally Managed continued ...

IFM Global Infrastructure LP		108,485,743
Molpus Seven States LLC		59,064,471
Alinda Infrastructure Fund II		57,421,125
KKR & Co European Fund III		49,515,576
Hellman & Friedman Fund VII		48,637,997
APAX VIII, LP		34,282,505
Ft. Washington Fund VI		33,450,093
Hancock Bluegrass LLC - Oregon		31,683,330
Actis Global Fund IV		28,716,419
NGP Natural Resources X, LP		28,455,869
J. P. Morgan Maritime Fund		25,630,815
Riverstone/Carlyle E & P Fund IV		24,571,146
Oaktree European Principal Fund III		24,409,242
Chrysalis Venture Fund III		21,257,684
Audax Private Equity Fund IV, LP		20,902,268
Stepstone Pioneer Capital Fund III, LP		19,450,659
Carlyle Europe Partners IV, LP		17,509,391
Carlyle Global Financial Services Partners II		16,769,688
Riverstone E & P Fund V		16,199,016
KKR & Co European Fund IV		16,088,979
Lexington Capital Partners Fund VII		15,564,046
KKR & Co Fund 2006		14,731,716
Landmark Equity Partners Fund XIV, LP		14,316,746
Audax Mezzanine Fund III		13,519,936
Ft. Washington Fund VIII		12,876,469
Ft. Washington Fund V		10,990,341
NGP Natural Resources XI, LP		9,714,513
Oaktree Mezzanine Fund III		9,033,176
Oaktree Mezzanine Fund IV		8,676,647
Lexington Capital Partners Fund VIII		8,495,883
Landmark Equity Partners Fund XV, LP		7,987,506
Gavea Investments Fund V, LP		4,945,296
Public Pension Capital LLC		4,426,191
Ft. Washington Fund IX		1,414,530
Ft. Washington Fund IX-K		1,400,000
CapitalSouth Partners Fund III		961,143
Audax Private Equity Fund V, LP		751,963
Additional Categories		
Ft. Washington High Yield Bond Fund		310,775,328
Marathon KTRS/Credit Fund LP		242,345,595
Shenkman Capital Management		163,232,647
Golub Capital Pearls 11, LLC		131,600,059
Babson Capital European Loan Fund		100,840,000
Columbia High Yield Fund		100,704,727
Marathon European Credit Opp Fund II		62,615,746
Avenue Special Situations Fund VI		53,517,812
Oaktree Opportunities IX, LP		47,824,358
Highbridge Principal Strategies III		44,109,300
Marathon European Credit Opp Fund III		34,220,234
Oaktree European Capital Solutions Fund		12,925,533
Oaktree European Dislocation Fund, LP		9,628,741
Oaktree Opportunities X, LP		3,974,545
AG Select Partners Advantage Fund		1,011,999
Subtotal	**$**	**11,061,130,697**
TOTAL ASSETS	**$**	**16,797,221,204**

* *Detailed information concerning the market values of all TRS investments is available upon request.*

Investment Summary
Fair Value – Retirement Annuity Trust*
June 30, 2016

Type of Investment	Fair Value 06/30/15	Acquisitions	Appreciation (Depreciation)	Sales Redemptions, Maturities & Paydowns	Fair Value 06/30/16
Cash Equivalents	$ 643,652,091	$ 3,867,185,161	$ -	$ 3,987,543,633	$ 523,293,619
Fixed Income	3,030,858,174	2,683,578,622	94,068,587	2,984,830,771	2,823,674,612
Real Estate	825,335,346	116,449,192	61,249,243	62,173,579	940,860,202
Alternative	844,688,096	210,047,434	30,980,210	152,902,389	932,813,351
Equities	11,163,565,280	2,909,339,458	(691,799,072)	3,114,039,664	10,267,066,002
Additional Categories	1,385,897,391	478,497,727	(77,067,292)	477,814,408	1,309,513,418
TOTAL	**$ 17,893,996,378**	**$ 10,265,097,594**	**$ (582,568,325)**	**$ 10,779,304,444**	**$ 16,797,221,204**

* *Includes Life Insurance Trust Values of $90,113,180, Tax Shelter Annuity value of $352,815, and 401(h) value of $14,302,842.*

Contracted Investment Management Expenses
Fiscal Year 2015-16
(In thousands of dollars)

Investment Counselor Fees	Assets Under Management	Expense	Basis Points (1)
Equity Manager(s)	$ 7,432,550	$ 13,479	18.1
Fixed Income Manager(s)	825,235	379	4.6
Real Estate	551,206	7,010	127.2
Additional Categories	1,319,327	8,702	66.0
Alternative Investments (2)	932,813	14,469	155.1
TOTAL	**$ 11,061,131**	**$ 44,039**	**39.8**
Administrative and Operation Expenses			
Custodian Fees (3)	$ 16,797,812	$ 380	0.2
Consultant Fees		448	0.3
Legal & Research		90	0.1
Other Administrative and Operational		2,846	1.7
TOTAL	**$ 16,797,812**	**$ 3,764**	**2.2**
GRAND TOTAL		**$ 47,803**	**28.5**

(1) – One basis point is one hundredth of one percent or the equivalent of .0001.
(2) – Private equity fees are either withheld from the Fund operations or paid by direct disbursement, depending on contract terms.
(3) – Includes J. Losey Scholarship Fund.

Schedule of Contracted and Administrative Investment Expenses
Retirement Annuity Trust
June 30, 2016

INVESTMENT COUNSELOR FEES

EQUITY MANAGERS		
Baillie Gifford	$	2,800,298
Baring Asset Management, Inc.		2,419,271
GE Asset Management		800,000
Todd-Veredus Asset Management LLC		1,295,310
UBS Global Asset Management		2,980,341
Wellington Management Company		2,917,720
Blackrock		265,816
Total Equity Managers	**$**	**13,478,756**
FIXED INCOME MANAGERS		
Fort Washington Investment Broad Market		150,088
Galliard Capital Mangement		229,226
Total Fixed Income Managers	**$**	**379,314**
REAL ESTATE		
Prudential PRISA		1,814,682
Angelo Gordon Net Lease Fund III		456,007
Blackstone Partners Fund VII, L.P.		557,515
Blackstone Partners Fund VIII, L.P.		666,667
Carlyle Realty Partners Fund VI, L.P.		381,472
Carlyle Realty Partners Fund VII, L.P.		652,867
Landmark Real Estate Fund VII		490,087
Rockwood Capital Real Estate Fund IX, L.P.		513,750
Rockwood Capital Real Estate Fund X, L.P.		366,694
TA Realty Associates Fund X, L.P.		1,047,882
TA Realty Associates Fund XI, L.P.		62,500
Total Real Estate Managers	**$**	**7,010,123**
ADDITIONAL CATEGORIES		
Angelo Gordon Select Partners Advantage Fund		22,704
Avenue Capital Special Situations Fund VI, L.P.		256,879
Babson European Capital		464,860
Columbia High Yield Fund		113,586
Ft. Washington Investments High Yield		581,271
Golub Capital - Pearls 11, LLC		1,077,023
Highbridge Principle Strategies Fund III, L.P.		760,027
Marathon Credit Fund		2,309,805
Marathon European Credit Fund II		798,839
Marathon European Credit Fund III		111,952
Oaktree European Capital Solutions Fund, L.P.		39,873
Oaktree European Dislocation Fund, L.P.		304,448
Oaktree Opportunities Fund IX, L.P.		795,406
Oaktree Opportunities Fund X, L.P.		215,459
Rogge Global International Fund		70,924
Shenkman Capital		778,563
Total Additional Category Managers	**$**	**8,701,619**
ALTERNATIVE INVESTMENTS		
Actis Global Fund IV, L.P.		995,000
Alinda Infrastructure Fund II, L.P.		589,702
APAX Fund VIII, L.P.		338,829
Audax Mezzanine Fund III, L.P.		253,149
Audax Private Equity Fund IV, L.P.		0
Audax Private Equity Fund V, L.P.		94,556
Capital South Fund III, L.P.		0
Carlyle Europe Parners IV, L.P.		1,723,472
Carlyle Global Finacial Services Fund II, L.P.		615,441
Chrysalis Fund III, L.P.		313,469
Ft. Washington Fund V, L.P.		80,315
ALTERNATIVE INVESTMENTS continued ...		
Ft. Washington Fund VI, L.P.		200,070
Ft. Washington Fund VIII, L.P.		115,938
Ft. Washington Fund IX, L.P.		958
Ft. Washington Fund IX-K, L.P.		1,838
Gavea V		600,000
Hancock Bluegrass LLC Oregon		237,592
Hellman and Friedman Fund VII, L.P.		736,473
IFM Global		1,006,503
JP Morgan Maritime Fund , L.P.		493,870
KKR Fund 2006, L.P.		-31,692
KKR European Fund III, L.P.		247,351
KKR European Fund IV, L.P.		433,593
Landmark Equity Partners Fund XIV, L.P.		298,400
Landmark Equity Partners Fund XV, L.P.		283,366
Lexington Capital Partners Fund VII, L.P.		191,609
Lexington Capital Partners Fund VIII, L.P.		192,032
Molpus Lake Superior Michigan		897,165
Molpus Lake Superior Hiwassee		67,171
Molpus Seven States		563,282
NGP Natural Resources Fund X, L.P.		567,649
NGP Natural Resources Fund XI, L.P.		376,697
Oaktree European Principal Fund III, L.P.		390,698
Oaktree Mezzanine Fund III, L.P.		125,263
Oaktree Mezzanine Fund IV, L.P.		69,602
Stepstone Partners Fund III, L.P.		173,715
Public Pension Capital		914,973
Riverstone/Carlyle Energy and Power Fund IV, L.P.		168,757
Riverstone Energy and Power Fund V, L.P.		142,542
Total Alternative Managers	**$**	**14,469,348**

ADMINISTRATIVE & OPERATIONAL EXPENSES

CUSTODIAN		
The Bank of New York Mellon		380,233
Total Custodian Fees	**$**	**380,233**
CONSULTANT		
Aon Hewitt		358,850
Bevis Longstreth		50,137
George Philip		38,962
Total Consultant Fees	**$**	**447,979**
LEGAL & RESEARCH		
Reinhart Boerner Van Deuren		5,560
Ice Miller		84,697
Total Legal & Research	**$**	**90,257**
OTHER		
Other Administrative and Operational (includes Personnel, Subscription services, etc…)	$	2,845,221
Total Other Expenses	**$**	**2,845,221**
TOTAL INVESTMENT EXPENSES	**$**	**47,802,820**

Ten Largest Stock Holdings Ranked (1) (2)
by Fair Value
June 30, 2016

Rank	Description	Fair Value	Percentage of Equities
1	Apple Inc	123,973,889	1.631
2	Amazon.com Inc	107,449,627	1.413
3	Microsoft	92,025,100	1.210
4	Facebook Inc	84,358,182	1.109
5	JP Morgan Chase	83,134,496	1.093
6	UnitedHealth Group	75,045,541	0.987
7	Pepsico Inc	73,974,618	0.973
8	Allergan PLC	71,560,023	0.941
9	Philip Morris Inc	70,135,940	0.922
10	Alphabet Inc/Ca	67,436,840	0.887

Top Ten Fixed Income Holdings (2)
by Fair Value
June 30, 2016

Rank	Description	Maturity	Coupon	Par Value	Fair Value	Percent of Fixed Income
1	U S Treasury	6/30/2019	1.630	45,000,000	46,200,600	1.636
2	U S Treasury Bonds	8/15/2023	6.250	31,900,000	42,757,165	1.514
3	U S Treasury	5/15/2024	2.500	31,000,000	33,670,030	1.192
4	U S Treasury Bonds	8/15/2029	6.130	22,000,000	33,657,360	1.192
5	U S Treasury	2/15/2025	2.000	32,000,000	33,480,000	1.186
6	U S Treasury	6/30/2018	0.630	30,790,000	30,804,471	1.091
7	U S Treasury	11/30/2019	1.500	30,000,000	30,698,400	1.087
8	U S Treasury	7/31/2019	1.630	28,800,000	29,577,312	1.047
9	U S Treasury	2/15/2046	2.500	23,089,000	24,042,345	0.851
10	U S Treasury Bonds	11/15/2026	6.500	16,000,000	23,696,320	0.839

(1) Includes only actively managed separate accounts.
(2) Detailed information concerning these values along with book values and cost of all TRS investments is available upon request.

Transaction Commissions Fiscal Year 2015-2016

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE	% OF TOTAL
Abel Noser	10,185,856.00	$ 89,661.92	$ 0.009	5.43 %
Allen & Co	9,154.00	357.41	0.039	0.02
B. Riley & Co. LLC	9,716.00	340.07	0.035	0.02
Barclays Capital, London	8,152.00	327.00	0.040	0.02
Barclays	109,932.00	3,523.79	0.032	0.21
Bass / Baypoint Trading	5,800.00	261.00	0.045	0.02
BB & T Capital Markets	4,451.00	155.79	0.035	0.01
Blair, William & Co	109,852.00	5,042.37	0.046	0.31
BMO Capital Markets	89,898.00	3,681.83	0.041	0.22
BNY ConvergEX Group	72,070.00	2,797.67	0.039	0.17
Brean Murray, Carret & Co., LLC	27,363.00	957.72	0.035	0.06
Broadpoint Capital	5,300.00	185.50	0.035	0.01
BTIG	229,747.00	8,727.07	0.038	0.53
Burke & Quick Partners LLC	390.00	13.65	0.035	0.00
Canaccord Genuity, Inc.	24,784.00	885.56	0.036	0.05
Cantor Fitzgerald & Co	1,100.00	49.50	0.045	0.00
CIBC Worldmarket	62,391.00	2,338.69	0.037	0.14
Citigroup Global	123,867.00	2,234.81	0.018	0.14
Collins Stewart LLC	3,512.00	122.92	0.035	0.01
ConvergEx - Algos	30,482,035.00	152,746.27	0.005	9.25
ConvergEx - FS	4,492,580.00	44,925.80	0.010	2.72
ConvergEx - Transitions	5,248,220.00	26,241.12	0.005	1.59
ConvergEx ADR Conversions	7,775,315.00	148,485.29	0.019	9.00
Cornerstone	1,132,536.00	33,976.08	0.030	2.06
Cowen & Co	66,073.00	2,387.66	0.036	0.14
Credit Agricole Securities	23,888.00	836.08	0.035	0.05
Credit Research & Trading LLC	18,732.00	750.48	0.040	0.05
Credit Suisse Sec. LLC	1,622,834.00	49,498.33	0.031	3.00
Cuttone & Co Inc	6,700.00	234.50	0.035	0.01
Default broker	6,300.00	393.00	0.062	0.02
Depfa First Albany Sec. LLC	17,561.00	693.66	0.040	0.04
Deutsche Bank	443,641.00	12,429.92	0.028	0.75
Evercore Group LLC	7,334.00	73.34	0.010	0.00
First Kentucky Securities Corp	308,849.00	9,265.47	0.030	0.56
Freidman Billings	27,499.00	1,009.78	0.037	0.06
Goldman Sachs	1,898,348.00	54,018.12	0.028	3.27
Instinet	157,378.00	1,573.70	0.010	0.10
Investment Tech Grp Transition	11,024,101.00	101,917.26	0.009	6.17
Investment Technology Grp	16,033,396.00	159,873.29	0.010	9.69
ISI Algos	1,900,825.00	19,008.25	0.010	1.15
ISI Group	1,416,033.00	38,396.58	0.027	2.33
J.J.B. Hilliard, W.L. Lyons	757,078.00	22,712.34	0.030	1.38
Janney Montgomery Scott Inc	13,303.00	468.41	0.035	0.03
Jefferies & Co.	302,597.00	8,355.07	0.028	0.51
JMP Securities	18,738.00	817.91	0.044	0.05
Jones & Associates	32,649.00	1,448.41	0.044	0.09
JP Morgan & Chase	473,299.00	8,454.02	0.018	0.51
Keefe Bruyette & Woods	41,347.00	1,473.20	0.036	0.09
Keybanc Capital	13,894.00	508.54	0.037	0.03
King, CL, & Associates, Inc.	200.00	7.00	0.035	0.00
Knight Equity Markets	5,095.00	197.63	0.039	0.01
Leerink Swann & Co.	10,338.00	367.59	0.036	0.02
Lexington Investment Co.	139,380.00	4,181.40	0.030	0.25
Liquidnet Inc - Transition	9,386,870.00	59,395.78	0.006	3.60
Liquidnet Inc	15,128,658.00	141,605.95	0.009	8.58
Longbow Securities LLC	18,408.00	644.28	0.035	0.04
Luminex Trading	2,009.00	5.03	0.003	0.00

Transaction Commissions continued . . .

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE	% OF TOTAL
MacQuarie Securities Inc	108,500.00	3,087.65	0.028	0.19
Merrill Lynch ADR Conversions	781,950.00	7,819.50	0.010	0.47
Merrill Lynch	2,608,422.00	79,070.39	0.030	4.79
Merrill Lynch, Pierce, Fenner	56,384.00	1,973.46	0.035	0.12
Mizuho Securities, USA	24,360.00	895.61	0.037	0.05
MKM Partners	33,235.00	1,163.23	0.035	0.07
Morgan Stanley Smith Barney-Huntington	460,600.00	13,818.00	0.030	0.84
Morgan Stanley Smith Barney-Louisville	672,166.00	20,164.98	0.030	1.22
Morgan Stanley Smith Barney-NKY	687,500.00	20,625.00	0.030	1.25
Morgan Stanley	348,333.00	12,901.58	0.037	0.78
Pershing LLC	65,796.00	2,312.54	0.035	0.14
Piper Jaffray	75,145.00	2,632.53	0.035	0.16
Pulse Trading	73,996.00	739.96	0.010	0.04
R W Baird	149,683.00	5,303.08	0.035	0.32
Raymond James & Assoc	2,716,670.00	82,206.74	0.030	4.98
RBC Capital Markets	85,218.00	2,250.94	0.026	0.14
Ross Sinclaire & Assoc	161,334.00	4,840.02	0.030	0.29
Sandler O'Neill	50,219.00	1,757.67	0.035	0.11
Sanford C Bernstein	346,062.00	4,946.63	0.014	0.30
Scotia Capital, USA	58,742.00	1,726.98	0.029	0.10
State Street Global	3,196.00	112.32	0.035	0.01
Stephens Inc.	100,013.00	3,540.37	0.035	0.21
Stifel, Nicolaus & Co	1,093,242.00	33,315.12	0.030	2.02
Stifel, Nicolaus & Co-Louisville	132,800.00	3,984.00	0.030	0.24
Suntrust Robinson	43,192.00	1,513.01	0.035	0.09
Susquehanna Brokerage	14,965.00	595.70	0.040	0.04
Tradebook	1,490,262.00	7,451.34	0.005	0.45
UBS/Paine Webber Securities	280,309.00	6,303.88	0.022	0.38
UBS/Paine Webber-Louisville	1,122,123.00	33,663.69	0.030	2.04
Wedbush Morgan Securities	13,430.00	503.55	0.037	0.03
Weeden & Co	1,860,483.00	56,561.86	0.030	3.43
Wells Fargo Securities, LLC	49,534.00	1,900.85	0.038	0.12
TOTAL	**137,305,240.00**	**$ 1,650,722.99**	**$ 0.012**	**100%**

The acquisition of initial public offerings (IPOs)represented a portion of small capitalization stock purchases. IPOs usually have a high commission rate; however, the security issuers and not the investors pay the commissions. In 2015-16, the retirement annuity trust fund bought small capitalization IPOs that generated $150,809 in commissions. Although these commissions were not paid by the retirement system, they resulted from the retirement annuity trust fund's investment activities and are included in the total commissions of $1,650,723. Typical stock transactions occur at lower commission rates than IPO transactions, frequently $.03 per share or less. Investment companies usually provide investment research for brokerage clients.

PROXY VOTING AND CORPORATE BEHAVIOR

The System regularly votes proxy statements associated with its equity ownership. The positions assumed by the System are intended to represent the financial interests of the membership. The Board of Trustees has adopted a policy that directs the staff not to subjugate the financial concerns of the System to social or political protests. At the same time, the System expects the companies in which it acquires stock to be solid corporate citizens that abide by federal, state, and local laws. The Board has adopted the following position on corporate behavior:

The Board's stated fiduciary duty is to obtain the highest return for the Fund commensurate with acceptable levels of risk. This implies that non-financial considerations cannot take precedence to pure risk/return considerations in the evaluation of investment decisions. However, action taken by the Fund as a shareowner can be instrumental in encouraging action as a responsible corporate citizen by the companies in which the Fund has invested.

The Board expects the managements of the companies whose equity securities are held in the Fund's portfolio to conduct themselves with propriety and with a view toward social considerations. A level of performance above minimum adherence to the law is generally expected. If any improper practices come into being, the Board expects corporate management to move decisively to eliminate them and effect adequate controls to prevent recurrence.

On the other hand, the Board does not intend to supplant the duties which are the responsibility of federal or state regulatory agencies, such as the Equal Employment Opportunity Commission, the Environmental Protection Agency, the Occupational Safety and Health Agency, the Nuclear Regulatory Commission, the Securities and Exchange Commission, and others which are covered by the laws of the United States Government or the State of Kentucky.

Should satisfaction of the Board's criteria by any company not be adequate, the Board will consider what action to take, which may include, but not be limited to, correspondence with the company, meetings with company officials, sponsoring of shareholder resolutions or, as a last resort, liquidation of the System's holdings in the company, if the sale is consistent with sound investment policy.

SECURITY LENDING

The System operates a security lending program in which it temporarily lends securities to qualified agents in exchange for a net fee and high quality collateral. U.S. Government and agency securities and select stocks and bonds are the types of securities loaned. The System's custodian, The Bank of New York Mellon, acts as lending agent in exchanging securities for collateral. The collateral, at the time of the loan, has a value of not less than 102% of the market value of the lent securities plus any accrued, unpaid distributions. The collateral consists of cash, marketable U.S. Government securities, and selected marketable U.S. Government agency securities approved by the System.

Cash collateral is invested in short term obligations fully guaranteed by the United States Government or select Government agencies and Government Repurchase Agreements with qualified agents. The System cannot pledge or sell collateral securities unless the borrower defaults. The lending agent also indemnifies the System from any financial loss associated with a borrower's default and collateral inadequacy. The weighted average maturity of cash collateral investments is typically two days. The System has no credit risk exposure to borrowers, since the amounts the System owes borrowers exceeds the amounts the borrowers owe the System.

Security lending programs can entail considerable interest rate risk and credit risk. The System has structured its program to minimize these two main categories of risk. The interest rate risk is managed, as mentioned above, by limiting the term of cash collateral investments to several days. The credit risk is controlled by investing cash collateral in securities with qualities similar to the creditworthiness of lent securities.

KENTUCKY INVESTMENTS

The System is always cognizant of its significant role in the Commonwealth's economy. Over $1.8 billion in benefits are distributed to members and annuitants living in Kentucky annually. Approximately $300 million of the retirement annuity trust fund's investments directly impact the Commonwealth. These investments include: commercial real estate; bonds issued by public agencies of the Commonwealth and those of local municipalities; pools of single-family mortgages in Kentucky; financing for multi-family housing, and; investments in companies which have an impact on the Commonwealth's economy but receive earnings from global operations. Fiduciary duty requires that investments be made solely for the benefit of the System's members and annuitants. Investments which benefit the Commonwealth's economy are made only when fully consistent with this fiduciary duty.

PROFESSIONAL SERVICE PROVIDERS

Investment Consultant
Aon Hewitt

Investment Custodian
The Bank of New York Mellon

Fixed Income Managers
Galliard Capital Management
Ft. Washington Investment Advisors

Domestic Equity Managers
Todd Asset Management LLC
UBS Global Asset Management
Wellington Management Company
GE Asset Management

International Equity Managers
Todd Asset Management LLC
UBS Global Asset Management
Baring Asset Management, Inc.
Baillie Gifford
BlackRock Institutional Trust Company

Real Estate Managers
Prudential Real Estate Investors
Carlyle Realty Partners
Blackstone Real Estate Partners
Rockwood Capital Real Estate
TA Associates Realty
Angelo Gordon & Co.
Landmark Real Estate Partners

Alternative Investment Managers
Molpus Woodlands Group
Hancock Natural Resources Group
Kohlberg Kravis Roberts & Co.
Chrysalis Ventures
Ft. Washington Private Equity Investors
Alinda Capital Partners, LLC
Riverstone Holdings, LLC
CapitalSouth Partners
Landmark Partners
Lexington Partners
Oaktree Capital Management
Stepstone Pioneer Capital
Audax Group
J.P. Morgan Asset Management
Hellman & Friedman Capital Partners
Natural Gas Partners
Apax Partners
Actis LLP
Carlyle Global Partners
Public Pension Capital
IFM Investors
Gavea Investimentos

Additional Categories Investment Managers
Avenue Capital Group
Marathon Asset Management
Ft. Washington Investment Advisors
Oaktree Capital Management
Shenkman Capital Management, Inc
Highbridge Principal Strategies, LLC
Angelo Gordon & Co.
Golub Capital
Babson Capital Management
Columbia Threadneedle Investments

Attorney
Ice Miller LLP

HEALTH INSURANCE TRUST FUND

INVESTMENT POLICY SUMMARY

The statute that created the health insurance trust fund on July 1, 2010, KRS 161.677, obliges the Board to "manage the assets of the fund in the same general manner in which it administers the retirement funds, except that the asset allocation may differ and separate accounting and financial reporting shall be maintained for the trust fund." KRS 161.430, which governs the investment of funds for the retirement funds, requires that members' assets be managed in a manner consistent with fiduciary standards set forth in the "prudent person rule." Subject to this statute, administrative regulation 102 KAR 1:178 establishes investment policies for the health insurance trust fund. This regulation requires the Board and Investment Committee to prudently diversify assets and to consider the fund's "liquidity and its capability of meeting both short and long-term obligations" in setting asset allocation policy.

Due to an imbalance of required distributions over contributions early in the fund's existence, liquidity needs have dominated investment policy. This will evolve as contribution rate increases provided in statute improve cash flow in future years. As near-term liquidity needs recede in importance, the focus will increasingly be on establishing an investment policy which achieves the required rate of return and matches the health insurance liability.

INVESTMENT OBJECTIVES

The definitive objective of the health insurance trust fund is to provide for beneficiaries' health insurance benefit obligations, both short and long-term. In support of this objective, investment policy will be designed, on an ongoing basis, to: (1) meet all liquidity needs, (2) achieve the actuarially assumed 8.0% rate of return over the long-term, and (3) do so within appropriate risk levels.

RISK CONTROLS

Any investment program faces various risks; as with the retirement funds, the primary risk is that the assets will not support liabilities over the long-term. Risk control measures for the health insurance trust fund mirror those of the retirement annuity trust fund, but are customized to reflect the fund's unique liability. Primary risk control measures include the following steps:

- Actuarial valuations are performed each year to evaluate the funding objectives of the health insurance trust fund. Every ten years an external audit of the actuary is conducted to ensure that the assumptions made and calculation methods used are resulting in properly computed liabilities of the fund.
- Asset/liability studies are conducted approximately every five years. These studies ensure that the portfolio design is structured to meet the liabilities of the fund.
- In accordance with administrative regulation 102 KAR 1:178, which governs investment policies for the fund, the KTRS Investment Committee adopts and regularly reviews an asset allocation policy designed to meet the fund's needs.

ASSET ALLOCATION

As of June 30, 2016, the health insurance trust fund had approximately $607.2 million in total assets. This included $63 million in short-term high quality bonds for liquidity purposes. This trust fund also had $64.6 million in high yield bonds, $354.3 million in a global stock index fund, $23.9 million in private equity investments, $28.4 million in bank loan investments, and $46 million in an alternative credit funds, and $25.4 million in real estate funds.

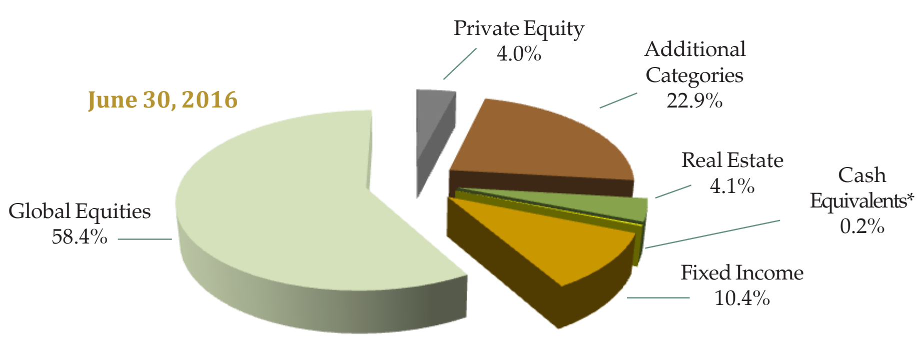
Asset allocation will be adjusted annually by the Investment Committee to reflect changing liquidity needs and actuarial funding status. Due to upcoming contribution rate increases enacted in statute, liquidity needs are expected to decline in coming years while funding status improves. The information below shows the health insurance trust fund's asset allocation by market value as of June 30, 2016 and June 30, 2015.

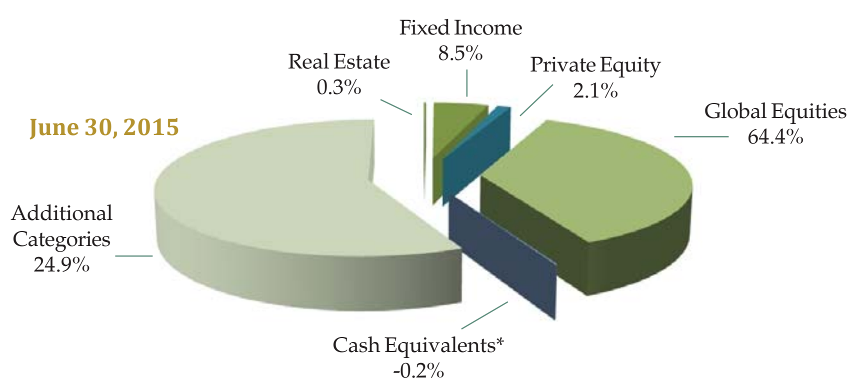
Health Insurance Trust

	June 30,2016	%	June 30,2015	%
Cash Equivalents*	$ 1,426,565	0.2	$ -1,034,005	-0.2
Fixed Income	63,053,784	10.4	47,019,105	8.5
Global Equities	354,369,798	58.4	355,702,555	64.4
Real Estate	25,433,241	4.1	1,762,328	0.3
Additional Categories	139,034,552	22.9	137,798,860	24.9
Private Equity	23,931,317	4.0	11,698,357	2.1
TOTALS	**$ 607,249,257**	**100.0**	**$ 552,947,200**	**100.0**

* *Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.*

Distribution of Investments Health Insurance Trust Fair Values





* *Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.*

HEALTH INSURANCE TRUST
PORTFOLIO RETURNS

For the fiscal year 2016, the health insurance trust fund's portfolio returned -1.8% versus a policy index of -0.3%. The fund's global equities returned -3.4% versus -3.9% for the MSCI All Country World IMI Index. A high quality bond fund held returned 5.4% versus 6.7% for the Barclays Government/Credit Index. This was the first full year of managing the bond fund against this index. In the previous years it was managed against 90-day T-bills. We are working to extend duration but given the historically low interest rates we are being very selective at our extension points. A high yield bond fund returned -0.5% versus 1.7% for its benchmark.

Prior to July 1,2015 TRS did not benchmark overall fund performance. Effective July 1, 2015 the Board of Trustees approved a Policy Index which represents the returns of appropriate benchmarks for the various asset classes weighted by the mid-point of the strategic range for the current fiscal year. Returns were generated by the Segal Rogers Casey performance reporting system using a time-weighted rate of return calculation based upon market values.

	1 Yr(1)	3 Yr(1)	5 Yr(1)	10 Yr(1)	20 Yr(1)
Total Fund					
KTRS Health Insurance Trust	-1.8	4.8	4.6	-	-
Policy Index (3)	-0.3	-	-		
Equities					
Global Equities	-3.4	6.6	5.9	-	-
MSCI AC World IMI	-3.9	6.1	5.4	-	-
Fixed Income					
Internal Bond Fund	5.4	2.4	1.6	-	-
Barclays Govt/Credit Index	6.7	4.2	4.1	-	-
Alternative Investments					
Private Equity(2)	10.7	13.4	-	-	-
Additional Categories					
Additional Categories	-2.9	2.6	5.1	-	-
B of A Merrill Lynch High Yield Master II	1.7	4.2	5.7	-	-
Real Estate					
Non-Core Real Estate	20.3	-	-	-	-
NCREIF Index	10.6	-	-	-	-
Cash					
Cash(Unallocated)	0.3	0.1	0.1	-	-
90 Day Treasury Bill	0.1	0.1	0.1	-	-

(1) Annualized.

(2) For a period of five years private equity investments will be benchmarked against their own returns. The primary reason for this is that these investments have a minimum investment horizon of ten years and there is no market benchmark that would be expected to track these types of assets in their early years. Beginning five years after the first capital call, investments in this class shall be benchmarked versus theS & P 500 plus 3%, which is the System's long-term expected return for this asset class.

(3) Prior to July 1, 2015, TRS did not benchmark overall fund performance. Effective July 1, 2015, the Board of Trustees approved a Policy Index which represents the returns of appropriate benchmarks for the various asset classes weighted by the mid-point of the strategic range for the current fiscal year.

SCHEDULE OF INVESTMENT RETURNS - HEALTH INSURANCE TRUST

2016	Annual Rate of Return Net of Investment Expense	-2.20%
2015	Annual Rate of Return Net of Investment Expense	1.38%
2014	Annual Rate of Return Net of Investment Expense	15.38%

HEALTH INSURANCE TRUST
PORTFOLIOS
FAIR VALUES *
June 30, 2016

INTERNALLY MANAGED

Cash Equivalents		
Cash Collections Fund (Unallocated)	$	1,426,565
Fixed Income		
Internal Bond Fund		63,053,784
Subtotal	**$**	**64,480,349**

EXTERNALLY MANAGED

Global Equities		
BlackRock Fund B		354,369,798
Alternative Investments		
Ft. Washington Fund VII		4,016,966
Ft. Washington Fund VIII		3,678,991
Carlyle Europe Fund IV		3,501,879
KKR European Fund IV		3,217,797
Actis Global Fund IV		2,870,842
Ft. Washington PE Opp III		2,321,061
NGP Natural Resources XI		1,942,905
Landmark Equity XV		1,331,252
Ft. Washington Fund IX-K		400,000
Ft. Washington Fund IX		398,970
Audax PE Fund V		250,654
Additional Categories		
Ft. Washington High Yield Bond Fund		35,077,675
Marathon/KTRS Credit Fund		30,239,245
Columbia High Yield Fund		29,556,833
Shenkman Capital Management		28,444,518
Marathon European Credit Opp Fund III		4,562,698
Highbridge Principal Strategies III		4,410,930
Marathon European Credit Opp Fund II		4,174,383
Oaktree European Capital Solutions		2,568,270
Real Estate		
Prudential PRISA Fund		10,337,178
Landmark Real Estate VII		4,794,620
Blackstone Realty Fund VIII		3,923,122
Carlyle Realty VII		3,878,321
TA Realty Fund XI		2,500,000
Subtotal	**$**	**542,768,908**
TOTAL ASSETS	**$**	**607,249,257**

** Detailed information concerning the market values of all TRS investments is available upon request.*

Investment Summary
Fair Value – Health Insurance Trust
June 30, 2016

Type of Investment	Fair Value 06/30/15	Acquisitions	Appreciation (Depreciation)	Sales Redemptions, Maturities & Paydowns	Fair Value 06/30/16
Cash Equivalents	$ 6,461,138	$ 162,385,333	$ -	$ 164,962,810	$ 3,883,661
Fixed Income	42,746,464	31,478,277	2,071,309	13,740,651	62,555,399
Real Estate	1,762,328	22,766,686	2,085,678	1,181,451	25,433,241
Equities	355,702,555	10,007,721	(11,340,478)	-	354,369,798
Alternative	11,698,357	14,571,616	1,590,099	3,928,756	23,931,316
Additional Categories	134,576,358	86,105,600	(10,698,388)	72,907,728	137,075,842
TOTAL	$ 552,947,200	**$ 327,315,233**	**$ (16,291,780)**	**$ 256,721,396**	**$ 607,249,257**

Health Insurance Trust Fund
Contracted Investment Management Expenses
Fiscal Year 2015-16
(In thousands of dollars)

Investment Counselor Fees	Assets Under Management	Expense	Basis Points [1]
Equity Manager(s)	$ 354,370	$ 191	54.0
Fixed Income Manager(s)	-	-	
Real Estate [2]	25,433	504	198.2
Additional Categories	139,035	683	49.1
Alternative Investments [3]	23,931	795	332.2
TOTAL	**$ 542,769**	**$ 2,173**	**40.0**
Other Investment Services			
Custodian Fees	607,249	$ 30	0.5
Consultant Fees		-	0.0
Legal & Research		-	0.0
Other Administrative and Operational		75	1.2
TOTAL	**$ 607,249**	**$ 105**	**1.7**
GRAND TOTAL		$ 2,278	37.5

1 - One basis point is one hundredth of one percent or the equivalent of .0001.
2 - Accrual of fees payable as of June 30, 2016.
3 - Private equity fees are either withheld from the Fund operations or paid by direct disbursement, depending on contract terms.

Schedule of Contracted and Administrative Investment Expenses
Health Insurance Trust Fund
June 30, 2016

INVESTMENT COUNSELOR FEES

EQUITY MANAGERS	
BlackRock	191,346
Total Equity Managers	**$ 191,346**
REAL ESTATE	
Blackstone VIII	133,333
Carlyle VII	130,574
Landmark VII	98,017
Rockwood Capital X	76,078
TA Realty XI	12,499
Prudential	53,095
Total Real Estate	**$ 503,596**
ADDITIONAL CATEGORIES	
Highbridge Principal Strategies Find III,L.P.	76,002
Columbia High Yield Fund	12,755
Ft. Washington Investments High Yield	109,151
Marathon Credit Fund	288,632
Marathon European Credit Fund II	53,256
Marathon European Credit Fund III	14,927
Oaktree European Capital Solutions	13,613
Shenkman Capital	114,905
Total Additional Category Managers	**$ 683,241**
ALTERNATIVE INVESTMENTS	
Actis Global Fund IV, L.P.	100,000
Audax Private Equity Fund V	31,519
Carlyle Europe IV, L.P.	345,034
Ft. Washington Private Equity III, L.P.	37,500
Ft. Washington Fund VII, L.P.	37,500
Ft. Washington Fund VIII, L.P.	33,125
Ft. Washington Fund IX, L.P.	270
Ft. Washington Fund IX-K, L.P.	525
KKR European IV, L.P.	86,721
Landmark Fund XV ,L.P.	47,311
NGP Natural Resources XI, L.P.	75,339
Total Alternative Managers	**$ 794,844**

ADMINISTRATIVE AND OPERATIONAL EXPENSES

CUSTODIAN	
The Bank of New York Mellon	30,275
Total Custodian	**$ 30,275**
LEGAL & RESEARCH	
Ice Miller	
Total Legal & Research	
OTHER	
Other Administrative and Operational (includes Personnel, Subscription services, etc…)	74,831
Total Other	**$ 74,831**
TOTAL INVESTMENT EXPENSES	**$ 2,278,133**

HEALTH INSURANCE TRUST PROFESSIONAL SERVICE PROVIDERS

Investment Consultant
AON Hewitt

Investment Custodian
The Bank of New York Mellon

Additional Categories Managers
Ft. Washington Investment Advisors
Shenkman Capital Management, Inc.
Highbridge Principal Strategies, LLC
Marathon Asset Management
Oaktree Capital Management
Columbia Threadneedle Investments

Global Equity Manager
BlackRock Institutional Trust Company

Real Estate
Carlyle Realty Partners
Landmark Real Estate Partners
Blackstone Real Estate Partners
TA Associates Realty
Prudential Real Estate Investors

Alternative Investment Managers
Ft. Washington Private Equity Investors
Actis LLP
Landmark Partners
Kohlberg Kravis Roberts & Co.
Natural Gas Partners
Carlyle Global Partners
Audax Group

Attorney
Ice Miller LLP

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Teachers' Retirement System
of the State of Kentucky

2016

Actuarial Section

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 21, 2016

Board of Trustees
Teachers' Retirement System of the
State of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Members of the Board:

Section 161.400 of the law governing the operation of the Teachers' Retirement System of the State of Kentucky provides that the actuary shall make an actuarial valuation of the System. We have submitted the results of the annual actuarial valuation prepared as of June 30, 2016. While not verifying the data at source, the actuary performed tests for consistency and reasonability. The combined member and state contribution rates as a percentage of payroll for the fiscal year ending June 30, 2019 required to support the total benefits of the System are as follows:

Group	Combined Member and State Contribution Requirement
University members hired before July 1, 2008	35.90%
University members hired on or after July 1, 2008	36.90%
Non-University members hired before July 1, 2008	38.86%
Non-University members hired on or after July 1, 2008	39.86%

These rates represent an increase since the previous valuation in the Pension actuarially determined employer contribution rate of 1.00% of payroll for the fiscal year ending June 30, 2019. In addition, there has been a net decrease in the expected state special appropriation from 2.94% to 2.83%, or 0.11% of payroll and an increase of 0.01% in the amount required for life insurance benefits.

For the fiscal year ending June 30, 2019, in addition to the State statutory contribution rates and the state special appropriation, there is an additional employer contribution rate of 14.61% of payroll required in order to amortize the unfunded accrued liability according to the funding policy adopted by the Board. This is 1.12% greater than the 13.49% determined in the previous valuation.

Since the previous valuation, various economic and demographic assumptions have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2015. These revised changes were adopted by the Board on September 19, 2016 and are discussed on page 97 of the report. The valuation takes into account the effect of membership to the System enacted through the most recent Session of the Legislature.

The financing objective of the System is that contribution rates will remain relatively level over time as a percentage of payroll. The promised benefits of the System are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method.

Five-year market related value of plan assets is used for actuarial valuation purposes. Gains and losses are reflected in the total unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of

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Offices in Englewood, CO • Kennesaw, GA • Bellevue, NE

Board of Trustees
November 21,2016
Page 2

payroll in accordance with the funding policy adopted by the Board, on the assumption that payroll will increase by 3.5% annually. The assumptions recommended by the actuary and adopted by the Board are reasonably related to the experience under the System and to reasonable expectations of anticipated experience under the System.

We have prepared the trend information shown in the Schedule of Funding Progress in the Financial Section of the Annual Report and Schedule A, Schedule B, Schedule C, Solvency Test and Analysis of Financial Experience shown in the Actuarial Section of the Annual Report.

The valuation reflects that a portion of the annual required contributions to the fund from 2005 to 2010 were allocated to the Medical Insurance Fund and are being repaid over time. A pension obligation bond was issued August 26, 2010 and was used to repay the balances of a substantial portion of the loans previously made to the Medical Insurance Fund. No additional contributions were allocated during the 2016 fiscal year.

This is to certify that the independent consulting actuary is a member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the retirement system and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

This actuarial valuation was performed to determine the recommended funding amount for the System. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return of assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.

In our opinion, the System has not been funded on an actuarially sound basis since the full actuarially determined contributions were not made by the employer. If contributions by the employer to the System in subsequent fiscal years are less than those required, the assets are expected to become insufficient to pay promised benefits. Assuming that contributions to the System are made by the employer from year to year in the future at rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the assets to provide the benefits called for under the System may be safely anticipated. It is our understanding that the State budget includes additional appropriations of $973 million to fund the required contribution for the 2016-2018 biennium.

Respectfully submitted,

Edward J. Koebel

Edward J. Koebel, EA, FCA, MAAA
Principal and Consulting Actuary

Eric H. Gary, FSA, FCA, MAAA
Chief Health Actuary

Cathy Turcot

Cathy Turcot
Principal and Managing Director

Report of Actuary on the Valuation
Prepared as of June 30, 2016
Section I - Summary of Principal Results

1. For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below (dollar amounts in thousands):

Valuation Date	June 30, 2016	June 30, 2015
Number of active members	71,848	72,246
Annual salaries	$ 3,537,226	$ 3,515,113
Number of annuitants and beneficiaries	51,563	49,822
Annual allowances	$ 1,868,875	$ 1,767,637
Assets		
Market value	$ 16,812,832	$ 18,049,131
Actuarial value	17,496,894	17,219,520
Unfunded actuarial accrued liability	$ 14,531,333	$ 13,930,442
Funded Ratio	54.6 %	55.3 %
Amortization period (years)	28.1	29.3

Contribution rates are shown separately for university and non-university members on the following pages.

Contribution Rates for University Members

Valuation Date	June 30, 2016		June 30, 2015	
For Fiscal Year Ending	June 30, 2019		June 30, 2018	
	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Pension Plan:				
Normal	11.030 %	11.030 %	12.340 %	12.340 %
Accrued liability	24.870	25.870	22.560	23.560
Total	35.900 %	36.900 %	34.900 %	35.900 %
Member	7.625 %	7.625 %	7.625 %	7.625 %
State (ARC)	28.275	29.275	27.275	28.275
Total	35.900 %	36.900 %	34.900 %	35.900 %
Life Insurance Fund:				
State	0.040 %	0.040 %	0.030 %	0.030 %
Medical Insurance Fund:				
Member	2.775 %	2.775 %	2.775 %	2.775 %
State Match	2.775	1.775	2.775	1.775
Total	5.550 %	4.550 %	5.550 %	4.550 %
Total Contributions	41.490%	41.490%	40.480%	40.480%
Member Statutory	10.400 %	10.400 %	10.400 %	10.400 %
State Statutory	13.650	13.650	13.650	13.650
Required Increase	14.610	14.610	13.490	13.490
State Special	2.830	2.830	2.940	2.940
Total	41.490 %	41.490 %	40.480 %	40.480 %

Contribution Rates for Non-University Members

Valuation Date	June 30, 2016		June 30, 2015	
For Fiscal Year Ending	June 30, 2019		June 30, 2018	
	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Pension Plan:				
Normal	14.940 %	14.940 %	16.720 %	16.720 %
Accrued liability	23.920	24.920	21.140	22.140
Total	38.860 %	39.860 %	37.860 %	38.860 %
Member	9.105 %	9.105 %	9.105 %	9.105 %
State (ARC)	29.755	30.755	28.755	29.755
Total	38.860 %	39.860 %	37.860 %	38.860 %
Life Insurance Fund:				
State	0.040 %	0.040 %	0.030 %	0.030 %
Medical Insurance Fund:				
Member	3.750 %	3.750 %	3.750 %	3.750 %
State Match	3.750	2.750	3.750	2.750
Total	7.500 %	6.500 %	7.500 %	6.500 %
Total Contributions	46.400 %	46.400 %	45.390 %	45.390 %
Member Statutory	12.855 %	12.855 %	12.855 %	12.855 %
State Statutory	16.105	16.105	16.105	16.105
Required Increase	14.610	14.610	13.490	13.490
State Special	2.830	2.830	2.940	2.940
Total	46.400 %	46.400 %	45.390 %	45.390 %

2. The valuation includes only the assets and liabilities associated with the pension plan. The valuation of the Medical Insurance Fund and the Active and Retired Life Insurance Benefits will be prepared separately.

3. Comments on the valuation results as of June 30, 2016 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.

4. Since the previous valuation, various economic and demographic assumptions have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2015. The changes adopted by the Board on September 19, 2016, include various demographic and economic assumptions summarized below:
   - Price Inflation changed assumed rate from 3.50% to 3.00%,
   - Wage Inflation changed assumed rate from 4.00% to 3.50%,
   - Assumed Salary Scale adjusted to reflect a decrease of 0.25% in merit & promotion for all ages, and
   - Assumed rates of Withdrawal, Disability, Retirement, and Mortality have been adjusted to more closely reflect experience.

5. Schedule B shows the development of the actuarial value of assets. The assumed investment rate of return is 7.50%. Schedule D of this report outlines the full set of actuarial assumptions and methods employed in the current valuation.

6. The funding policy is shown in Schedule H of the Report.

7. Provisions of the System, as summarized in Schedule F, were taken into account in the current valuation. There have been no changes since the previous valuation.

Section II - MEMBERSHIP DATA

1. Data regarding the membership of the System for use as a basis of the valuation were furnished by the Retirement System office. The following table shows the number of active members and their annual salaries as of June 30, 2016 on the basis of which the valuation was prepared.

Group	Number	Annual Salaries ($1,000's)
University hired before 7/1/2008	1,883	$ 137,213
University hired after 7/1/2008	1,453	72,056
Non-University Full Time hired before 7/1/2008	38,065	2,429,982
Non-University Full Time hired after 7/1/2008	18,846	826,256
Non-University Part Time hired before 7/1/2008	2,797	24,219
Non-University Part Time hired after 7/1/2008	8,804	47,500
TOTAL	**71,848**	**$ 3,537,226**

2. The following table shows the number and annual retirement allowances payable to annuitants and beneficiaries on the roll of the Retirement System as of the valuation date.

The Number and Annual Retirement Allowances of Annuitants and Beneficiaries on the Roll as of June 30, 2016

Group	Number	Annual Retirement Allowances[1] ($1,000's)
Service Retirements	44,970	$ 1,704,041
Disability Retirements	2,751	80,652
Beneficiaries of Deceased Members	3,842	84,182
TOTAL	**51,563**	**$ 1,868,875**

[1] *Includes cost-of-living adjustments effective through July 1, 2016.*

3. Table 1 of Schedule G shows a distribution by age and years of service of the number and annual salaries of active members included in the valuation, while Table 2 shows the number and annual retirement allowances of annuitants and beneficiaries included in the valuation, distributed by age.

Section III - ASSETS

1. As of June 30, 2016 the market value of Pension Plan assets for valuation purposes held by the System amounted to $16,812,831,883. This value excludes assets in the Medical Insurance Fund, the 403(b) Program Reserve Fund, and the Life Insurance Fund, which are not included in the assets used for Pension Plan valuation purposes. The estimated market investment return for the plan year was (1.0)%. Schedule C shows the receipts and disbursements for the year preceding the valuation date and a reconciliation of the asset balances for the Pension Plan.

2. The five-year market related value of Pension Plan assets used for valuation purposes as of June 30, 2016 was $17,496,894,437. The estimated investment return for the plan year ending June 30, 2016 on an actuarial value of assets basis was 7.58%, compared to the assumed investment rate of return for the period of 7.50% Schedule B shows the development of the actuarial value of assets as of June 30, 2016.

Section IV - COMMENTS ON VALUATION

1. Schedule A of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the System as of June 30, 2016. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule D and Schedule E.

2. The valuation balance sheet shows that the System has total prospective liabilities of $16,231,288,904 for benefits expected to be paid on account of the present active members. The liability on account of benefits payable to annuitants and beneficiaries amounts to $20,002,749,810 of which $781,756,333 is for special appropriations remaining to be made toward funding minimum annuities, ad hoc increases and sick leave allowances granted after 1981. The liability for benefits expected to be paid to inactive members and to members entitled to deferred vested benefits is $413,616,742. The total prospective liabilities of the System amounts to $36,647,655,456. Against these liabilities, the System has present assets for valuation purposes of $17,496,894,437. When this amount is deducted from the total liabilities of $36,647,655,456, there remains $19,150,761,019 as the present value contributions to be made in the future.

3. The employer's contributions to the System consist of normal contributions and accrued liability contributions. The valuation indicates that employer normal contributions at the rate of 11.03% of payroll for University and 14.94% of payroll for Non-University are required.

4. Prospective normal employer and employee contributions have a present value of $4,619,427,935. When this amount is subtracted from $19,150,761,019, which is the present value of the total future contributions to be made by the employer, there remains $14,531,333,084 as the amount of future unfunded accrued liability contributions.

5. The unfunded accrued liability increased by approximately $601 million for the plan year ending June 30, 2016 and the funding ratio decreased from 55.3% to 54.6%. The increase in the unfunded accrued liability was primarily due to the contribution shortfall for the plan year and demographic losses due to turnover, retirement and mortality. Offsetting these losses were a gain due to the assumption changes from the experience study and small gains for the investment return on an actuarial value basis that was greater than expected and salary increases that were less than assumed. See Section VII for a complete breakdown of the experience of the System.

Section V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 161.540 of the retirement law provides that each university member contribute 10.400% of annual salary to the System and each non-university member contribute 12.855% of annual salary. Of this amount, for each university member, 2.775% is paid to the Medical Insurance Fund for medical benefits and for each non-university member, 3.75% is paid to the Medical Insurance Fund for medical benefits. The remainder, 7.625% for university members and 9.105% for non-university members, is applicable for the retirement benefits taken into account in the valuation.

2. Section 161.550 provides that the State will match a portion of the member contributions and contribute a supplemental 3.25% of members' salaries towards discharging the System's unfunded obligations. Additional contributions are made to the Medical Insurance Fund as required under 161.550(3).

3. Therefore for university members, 10.875% of the salaries of active members who become members before July 1, 2008 and 11.875% of the salaries of active members who become members on or after July 1, 2008 is funded by

statute or supplemental funding for the Pension Plan and Life Insurance Fund. For non-university members, 12.355% of the salaries of active members who become members before July 1, 2008 and 13.355% of the salaries of active members who become members on or after July 1, 2008 is funded by statute or supplemental funding for the Pension Plan and Life Insurance Fund. Of these amounts, 0.04% of payroll will be allocated to the Life Insurance Fund. Based on the results of the valuation, an additional 14.61% of payroll for both university and non-university will be required in order to maintain the amortization of the unfunded liability of the Pension Plan based on the funding policy adopted by the Board. An additional special appropriation of 2.83% of total payroll will be made by the State. Therefore, the total actuarially determined employer contribution rate to the Pension Plan is 28.275% for university members who become members before July 1, 2008 and 29.275% for university members who become members on or after July 1, 2008. The total actuarially determined employer contribution rate to the Pension Plan is 29.755% for non-university members who become members before July 1, 2008 and 30.755% for non-university members who become members on or after July 1, 2008. The total member and employer contribution rates to the Pension Plan are shown in the following table.

Contribution Rates by Source
University

	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Member		
Statutory Total	10.400 %	10.400 %
Statutory Medical Insurance Fund	(2.775)	(2.775)
Contribution to Pension Plan	7.625 %	7.625 %
Employer		
Statutory Matching Total	10.400 %	10.400 %
Statutory Medical Insurance Fund	(2.775)	(1.775)
Supplemental Funding	3.250	3.250
Subtotal	10.875 %	11.875 %
Life Insurance	(0.040) %	(0.040) %
Additional to Comply with Board Funding Policy	14.610	14.610
Special Appropriation	2.830	2.830
Contribution to Pension Plan	28.275 %	29.275 %
Total Contribution to Pension Plan	**35.900 %**	**36.900 %**

Contribution Rates by Source
Non-University

	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Member		
Statutory Total	12.855 %	12.855 %
Statutory Medical Insurance Fund	(3.750)	(3.750)
Contribution to Pension Plan	9.105 %	9.105 %
Employer		
Statutory Matching Total	12.855 %	12.855 %
Statutory Medical Insurance Fund	(3.750)	(2.750)
Supplemental Funding	3.250	3.250
Subtotal	12.355 %	13.355 %
Life Insurance	(0.040) %	(0.040) %
Additional to Comply with Board Funding Policy	14.610	14.610
Special Appropriation	2.830	2.830
Contribution to Pension Plan	29.755 %	30.755 %
Total Contribution to Pension Plan	**38.860**	**39.860 %**

4. The valuation indicates that normal contributions at the rate of 11.03% of active university members' salaries and 14.94% of active non-university members' salaries are required. The difference between the total contribution rate and the normal rate remains to be applied toward the liquidation of the unfunded accrued liability. This accrued liability rate is 24.87% for university members hired before July 1, 2008, 25.87% for university members hired on and after July 1, 2008, 23.92% for non-university members hired before July 1, 2008, and 24.92% for non-university members hired on and after July 1, 2008. These rates include special appropriations of 2.83% of payroll to be made by the State. These rates are shown in the following table:

Actuarially Determined Contribution Rates

Rate	Percentage of Active Members' Salaries: UNIVERSITY — Members hired before 7/1/2008	UNIVERSITY — Members hired on or after 7/1/2008	NON-UNIVERSITY — Members hired before 7/1/2008	NON-UNIVERSITY — Members hired on or after 7/1/2008
Normal	11.03 %	11.03 %	14.94 %	14.94 %
Accrued Liability *	24.87	25.87	23.92	24.92
Total	**35.90%**	**36.90%**	**38.86 %**	**39.86 %**

** Includes special appropriations of 2.83% of payroll to be made by the State.*

5. The following table shows the components of the total UAAL and the derivation of the UAAL contribution rate in accordance with the funding policy:

Total UAAL and UAAL Contribution Rate
(In thousands of dollars)

	UAAL	Remaining Amortization Period (years)	Amortization Payment
Legacy	$ 14,543,130	28	$ 859,217
New Incremental 6/30/2015	(352,563)	19	(26,536)
New Incremental 6/30/2016	340,766	20	24,775
Total UAAL	$ 14,531,333		$ 857,456
Blended Amortization Period (years)			28.1

Section VI - COMMENTS ON LEVEL OF FUNDING

1. Our calculations indicate that the contribution rates shown in the previous section will be sufficient to cover the benefits of the System, the annual 1.5% increases in the allowances of retired members and beneficiaries, and the liabilities for minimum annuities, ad hoc increases and sick leave allowances granted after 1981.

2. The valuation indicates that the present statutory contribution rates, supplemental funding and special appropriations, if continued at the current level percentage, along with an additional required contribution of 14.61%, not currently provided in statute, are sufficient to meet the cost of benefits currently accruing and provide for the amortization of the unfunded accrued liability in accordance with the Board funding policy. However, as existing special contributions expire, the statutory contributions or supplemental funding may be required to increase as an equal percentage of payroll.

3. During the 2005 through 2010 fiscal years, a portion of the contributions required for the pension fund were allocated as loans to the Medical Insurance Fund for Stabilization Funding. Beginning with the 2009 fiscal year, contributions have also been allocated as loans for non-single subsidy funding. Payments are being made to repay these loans. In August 2010, a pension obligation bond was issued with proceeds used to fully repay the loans for the Stabilization Funding. Beginning with the 2011 fiscal year, there have been no further loans for Stabilization Funding. In addition, there were no loans for single-subsidy funding for fiscal years 2013 through 2015. The table on the following page shows the amounts borrowed, annual payments and remaining balances for the non-single subsidy funding as of June 30, 2016:

Medical Insurance Fund
Stabilization Funding

FISCAL YEAR	LOAN AMOUNT	ANNUAL PAYMENT	BALANCES AS OF JUNE 30, 2016
2008/2009	$ 8,400,000	$ 1,228,900	$ 3,274,213
2009/2010	9,200,000	1,345,200	4,611,791
2010/2011	10,700,000	1,564,500	6,473,479
2011/2012	12,300,000	1,798,700	8,627,015
TOTAL	**$ 40,600,000**	**$ 5,937,300**	**$ 22,986,498**

4. There are no excess assets or contributions available to provide additional benefits, and there is a cumulative increase in the required employer contribution of 14.61% of payroll for the fiscal year ending June 30, 2019, as shown in the following table:

VALUATION DATE	FISCAL YEAR	INCREASE (DECREASE)	CUMULATIVE INCREASE	AMOUNT
June 30, 2004	June 30, 2007	0.11%	0.11%	$ 3,174,600
June 30, 2005	June 30, 2008	1.21	1.32	38,965,900
June 30, 2006	June 30, 2009	0.56	1.88	60,499,800
June 30, 2007	June 30, 2010	0.58	2.46	82,331,200
June 30, 2008	June 30, 2011	1.13	3.59	121,457,000
June 30, 2009	June 30, 2012	2.22	5.81	208,649,000
June 30, 2010	June 30, 2013	1.46	7.27	260,980,000
June 30, 2011	June 30, 2014	0.75	8.02	299,420,000
June 30, 2012	June 30, 2015	2.40	10.42	386,400,000
June 30, 2013	June 30, 2016	2.55	12.97	487,400,000
June 30, 2014	June 30, 2017	0.83	13.80	520,372,000
June 30, 2015	June 30, 2018	(0.31)	13.49	512,883,000
June 30, 2016	June 30, 2019	1.12	14.61	553,597,000

In addition, as existing special contributions expire, the statutory contributions or supplemental funding may be required to increase as an equal percentage of payroll, in order to amortize the unfunded actuarial accrued liability in accordance with the Board funding policy. Any further benefit improvements must be accompanied by the entire additional contributions necessary to support the benefits.

Section VII - ANALYSIS OF FINANCIAL EXPERIENCE

The following table shows the estimated gain or loss from various factors that resulted in an increase of $600,891,107 in the unfunded accrued liability from $13,930,441,977 to $14,531,333,084 during the year ending June 30, 2016.

Analysis of Financial Experience
(In thousands of dollars)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50%) added to previous unfunded accrued liability	$ 1,044,783
Expected accrued liability contribution	(784,659)
Loss due to Contribution Shortfall and Timing	472,425
Experience:	
Valuation asset growth	(14,160)
Pensioners' mortality	71,058
Turnover and retirements	135,219
New entrants	37,907
Salary increases	(64,476)
Amendments	0
Assumption changes	(297,206)
Method changes	0
Total	**$ 600,891**

Section VIII - ACCOUNTING INFORMATION

Governmental Accounting Standards Board (GASB) has issued Statements No. 67 and 68 which replace Statement No. 25 and 27. The information required under the new GASB Statements will be issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership.

Number of Active and Retired Members as of June 30, 2016

GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	51,563
Terminated vested employees entitled to benefits but not yet receiving benefits	9,240
Inactive non-vested members	46,055
Active plan members	71,848
Total	**178,706**

2. The schedule of funding progress is shown below.

Schedule of Funding Progress
(In thousands of dollars)

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)
6/30/2011*	$ 14,908,138	$ 25,968,693	$ 11,060,554	57.4 %	$ 3,451,756	320.4 %
6/30/2012	14,691,371	26,973,853	12,282,483	54.5	3,479,567	353.0
6/30/2013	14,962,758	28,817,232	13,854,474	51.9	3,480,066	398.1
6/30/2014**	16,174,199	30,184,404	14,010,205	53.6	3,486,327	401.9
6/30/2015	17,219,520	31,149,962	13,930,442	55.3	3,515,113	396.3
6/30/2016**	17,496,894	32,028,227	14,531,333	54.6	3,537,226	410.8

* *Reflects change in assumptions and methods.*
** *Reflects change in assumption.*

3. The information presented above was determined as part of the actuarial valuation at June 30, 2016. Additional information as of the latest actuarial valuation follows.

Valuation date	06/30/2016
Actuarial cost method	Entry age
Amortization method	Level percent of pay, closed
Remaining amortization period	28.1 years
Asset valuation method	5-year smoothed market

Actuarial Assumptions:
Investment rate of return*
7.50%
Projected salary increases**
3.50 - 7.30%

Cost-of-living adjustments
1.50% Annually

**Includes price inflation at 3.00%*
***Includes wage inflation at 3.50%*

Schedule of Employer Contributions

Fiscal Year Ended June 30	Actuarial Determined Employer Contributions	Actual Employer Contributions	Percentage Contributed
2011	$ 678,741,428	$ 1,037,935,993*	153 %
2012	757,822,190	557,339,552	74
2013	802,984,644	568,233,446	71
2014	823,446,156	563,326,249	68
2015	913,653,854	559,579,290	61
2016	999,270,174	565,454,590	57

** Includes Pension Obligation Bond proceeds of $465,384,165.*

SCHEDULE A

VALUATION BALANCE SHEET
SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES
AS OF JUNE 30, 2016
(In thousands of dollars)

ACTUARIAL LIABILITIES

(1)	Present value of prospective benefits payable on account of present active members		
	- Service retirement benefits	$ 15,144,582	
	- Disability retirement benefits	711,697	
	- Death and survivor benefits	127,458	
	- Refunds of member contributions	247,552	
	Total		$ 16,231,289
(2)	Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and members entitled to deferred vested benefits		
	- Service retirement benefits	$ 18,488,211	
	- Disability retirement benefits	787,689	
	- Death and survivor benefits	726,850	
	Total		$ 20,002,750
(3)	Present value of prospective benefits payable on account of inactive members and members entitled to deferred vested benefits		$ 413,616
(4)	TOTAL ACTUARIAL LIABILITIES		$ 36,647,655

PRESENT AND PROSPECTIVE ASSETS

(5)	Actuarial value of assets		$ 17,496,894
(6)	Present value of total future contributions = (4)-(5)	$ 19,150,761	
(7)	Present value of future member contributions and employer normal contributions		4,619,428
(8)	Prospective unfunded accrued liability contributions = (6)-(7)		14,531,333
(9)	TOTAL PRESENT AND PROSPECTIVE ASSETS		$ 36,647,655

Schedule A continued ...

Solvency Test

(In millions of dollars)

Valuation Date	(1) Active Member Contributions	(2) Retirants And Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation of Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
6/30/2011	$ 3,325.7	$ 15,557.9	$ 7,085.1	$ 14,908.1	100%	74 %	0 %
6/30/2012	3,415.2	16,472.2	7,086.4	14,691.4	100	68	0
6/30/2013	3,514.4	17,716.4	7,586.5	14,962.8	100	65	0
6/30/2014	3,629.7	18,676.3	7,878.3	16,174.2	100	67	0
6/30/2015	3,700.6	19,522.5	7,926.8	17,219.5	100	69	0
6/30/2016	3,756.0	20,416.4	7,855.8	17,496.9	100	67	0

SCHEDULE B

Development of Actuarial Value of Assets as of June 30, 2016

(1)	Actuarial Value of Assets Beginning of Year		$ 17,219,519,677
(2)	Market Value of Assets End of Year		16,812,831,883
(3)	Market Value of Assets Beginning of Year		18,049,130,737
(4)	Cash Flow		
	a.	Contributions	878,498,816
	b.	Benefit Payments	1,860,946,372
	c.	Administrative Expense	8,636,438
	d.	Net: (4)a - (4)b - (4)c	(991,083,994)
(5)	Investment Income		
	a.	Market total: (2) - (3) - (4)d	(245,214,860)
	b.	Assumed Rate	7.50%
	c.	Amount for Immediate Recognition: [(3) x (5)b] + [(4)d x (5)b x 0.5]	1,316,519,156
	d.	Amount for Phased-In Recognition: (5)a - (5)c	(1,561,734,016)
(6)	Phased-In Recognition of Investment Income		
	a.	Current Year: 0.20 x (5)d	(312,346,803)
	b.	First Prior Year	(92,160,668)
	c.	Second Prior Year	325,163,609
	d.	Third Prior Year	191,479,441
	e.	Fourth Prior Year	(160,195,981)
	f.	Total Recognized Investment Gain	(48,060,402)
(7)	Actuarial Value of Assets End of Year: (1) + (4)d + (5)c + (6)f		$ 17,496,894,437
(8)	Difference Between Market & Actuarial Values: (2) - (7)		$ (684,062,554)
(9)	Rate of Return on Actuarial Value:		7.58%

SCHEDULE C

PENSION PLAN ASSETS
Summary of Receipts & Disbursaements*
(Market Value)

	For the Year Ending June 30, 2016	For the Year Ending June 30, 2015
Receipts for the Year		
Contributions		
Members	$ 313,044,226	$ 308,159,763
Employers	565,454,590	559,579,290
Total	878,498,816	867,739,053
Net Investment Income	(245,214,860)	862,178,759
Total	633,283,956	1,729,917,812
Disbursements for the Year		
Benefit Payments	1,833,198,630	1,741,456,095
Refunds to Members	27,747,742	23,032,624
Miscellaneous, including expenses	8,636,438	8,868,971
Total	1,869,582,810	1,773,357,690
Deficiency of Receipts over Disbursements	(1,236,298,854)	(43,439,878)
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of the Year	18,049,130,737	18,092,570,615
Excess of Receipts over Disbursements	(1,236,298,854)	(43,439,878)
Asset Balance as of the End of the Year	$ 16,812,831,883	$ 18,049,130,737
Rate of Return on Market Value	(1.0)%	5.1%

* *Excludes assets for Medical Insurance Fund, the 403(b) Program Reserve Fund and the Life Insurance Fund.*

SCHEDULE D
Outline of Actuarial Assumptions and Methods

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2015, submitted to and adopted by the Board on September 19, 2016.

INVESTMENT RATE OF RETURN: 7.50% per annum, compounded annually, including price inflation at 3.00% per annum.

SALARY INCREASES: Representative values of the assumed annual rates of future salary increases are as follows and include wage inflation at 3.50% per annum:

Age	20	25	30	35	40	45	50	55	60	65
Annual Rate	7.20%	6.40%	5.40%	4.70%	4.20%	3.80%	3.70%	3.50%	3.50%	3.50%

SEPARATIONS FROM SERVICE: Representative values of the assumed annual rates of death, disability, withdrawal, service retirement and early retirement are as follows:

MALES: Annual Rate of . . .

			WITHDRAWAL			RETIREMENT	
			SERVICE				
AGE	DEATH	DISABILITY	0 - 4	5 - 9	10+	Before 27 Years of Service	After 27 Years of Service*
20	0.019 %	0.01%	11.00 %				
25	0.021	0.01	11.00	3.00%			
30	0.025	0.01	11.00	3.00	3.00%		
35	0.043	0.04	12.00	3.50	1.40		
40	0.060	0.09	12.00	4.50	1.40		
45	0.084	0.20	12.00	4.50	1.30		17.0%
50	0.119	0.30	14.00	4.50	1.90		17.0
55	0.202	0.58	15.00	4.50	2.40	5.0%	45.0
60	0.340	0.75	15.00	4.00	2.40	13.0	35.0
62	0.419	0.75	15.00	3.80	2.40	15.0	25.0
65	0.565	0.75	15.00	3.50	2.40	20.0	25.0
70	0.913	0.75	20.00	0.00	0.00	20.0	20.0
75	1.556	0.75	20.00	0.00	0.00	100.0	100.0

**Plus 7.5% in year when first eligible for unreduced retirement with 27 years of service.*

Schedule D continued ...

FEMALES: Annual Rate of . . .

AGE	DEATH	DISABILITY	WITHDRAWAL SERVICE 0 - 4	5 - 9	10+	RETIREMENT Before 27 Years of Service	After 27 Years of Service*
20	0.007 %	0.01 %	9.00 %				
25	0.008	0.01	9.00	4.00 %			
30	0.010	0.03	12.00	4.00	1.65 %		
35	0.018	0.06	12.00	4.00	1.50		
40	0.026	0.12	12.00	4.00	1.30		
45	0.042	0.25	13.00	4.00	1.20		15.0 %
50	0.062	0.44	13.00	5.00	1.50		18.0
55	0.096	0.65	15.00	5.00	2.00	5.5 %	50.0
60	0.157	0.85	15.00	5.00	2.00	14.0	40.0
62	0.197	0.85	15.00	4.60	2.00	14.0	40.0
65	0.287	0.85	15.00	4.00	2.00	22.0	35.0
70	0.495	0.85	15.00	0.00	0.00	20.0	35.0
75	0.831	0.85	15.00	0.00	0.00	100.0	100.0

**Plus 7.5% in year when first eligible for unreduced retirement with 27 years of service.*

DEATHS AFTER RETIREMENT: The RP-2000 Combined Mortality Table projected to 2025 using scale BB (set forward two years for males and one year for females) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table (set forward two years for males and seven years for females) is used for death after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on September 19, 2016, the numbers of expected future deaths are 15-19% less than the actual number of deaths that occurred during the study period for healthy retirees and 13-17% less than expected under the selected table for disabled retirees. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

ASSETS: Five-year market related actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the ultimate assumed valuation rate of return of 7.50%. The amount recognized each year is 20% of the difference between market value and expected actuarial value.

Annual Rate of Death After . . .

AGE	SERVICE RETIREMENT MALE	SERVICE RETIREMENT FEMALE	DISABILITY RETIREMENT MALE	DISABILITY RETIREMENT FEMALE
45	0.1609 %	0.1135 %	2.3306 %	1.2482 %
50	0.2474	0.1718	2.9279	1.5650
55	0.4246	0.2658	3.4400	1.7807
60	0.6985	0.4409	3.5881	2.3164
65	1.1300	0.8100	3.8275	3.1687
70	1.8697	1.3739	4.7566	4.4032
75	3.2147	2.2899	6.3153	6.0857
80	5.5160	3.7551	8.3527	8.4679
85	9.5631	6.3873	10.9122	12.7572
90	17.2787	11.2476	17.2787	19.4718
95	27.1263	18.1190	27.1263	24.2074

EXPENSE LOAD: None.

PERCENT MARRIED: 100%, with females 3 years younger than males.

LOADS: Unused sick leave: 2% of active liability.

SCHEDULE E

Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently at 7.50%), of each active member's expected benefit at retirement or death is determined, based on his age, service, sex and compensation. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. Future salary increases and post-retirement cost-of-living adjustments are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries and inactive members to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the System.

SCHEDULE F

Summary of Main System Provisions as Interpreted for Valuation Purposes

The Teachers' Retirement System of the State of Kentucky was established on July 1, 1940. The valuation took into account amendments to the System effective through June 30, 2016. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 - DEFINITIONS

"Final average salary" means the average of the five highest annual salaries which the member has received for service in a covered position and on which the member has made contributions or on which the public board, institution or agency has picked up the member contributions. For a member who retires after attaining age 55 with 27 years of service, "final average salary" means the average of the three highest annual salaries.

2 - BENEFITS

Service Retirement Allowance for Members Before 7/1/2008
Condition for Allowance

- Completion of 27 years of service or attainment of age 55 and 5 years of service.

Amount of Allowance

- The annual retirement allowance for non-university members is equal to:
  - (a) 2.0% of final average salary multiplied by service before July 1, 1983, plus
  - (b) 2.5% of final average salary multiplied by service after July 1, 1983.
  - (c) For individuals who become members of the Retirement System on or after July 1, 2002 and have less than 10 years of service at retirement, the retirement allowance is 2.0% of final average salary multiplied by service. If, however, they have 10 or more years, they receive a benefit percentage of 2.5% for all years of service up to 30 years.
  - (d) For members retiring on or after July 1, 2004, the retirement allowance formula is 3.0% of final average salary for each year of service credit earned in excess of 30 years.

Schedule F continued ...

The annual retirement allowance for university members is equal to 2.0% of final average salary multiplied by all years of service.

For all members, the annual allowance is reduced by 5% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

The minimum annual service allowance for all members is $440 multiplied by credited service.

Service Retirement Allowance for Members on and after 7/1/2008
Condition for Allowance

- Completion of 27 years of service, attainment of age 60 and 5 years of service or attainment of age 55 and 10 years of service.

Amount of Allowance
The annual retirement allowance for non-university members is equal to:

- 1.7% of final average salary if service is 10 years or less.
- 2.0% of final average salary if service is greater than 10 years and no more than 20 years.
- 2.3% of final average salary if service is greater than 20 years but no more than 26 years.
- 2.5% of final average salary if service is greater than 26 years but no more than 30 years.
- 3.0% of final average salary for years of service greater than 30 years.

The annual retirement allowance for university members is equal to:

- 1.5% of final average salary if service is 10 years or less.
- 1.7% of final average salary if service is greater than 10 years and no more than 20 years.
- 1.85% of final average salary if service is greater than 20 years but less than 27 years.
- 2.0% of final average salary if service is greater than or equal to 27 years.

For all members, the annual allowance is reduced by 6% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

Disability Retirement Allowance
Condition for Allowance

- Totally and permanently incapable of being employed as a teacher and under age 60 but after completing 5 years of service.

Amount of Allowance

- The disability allowance is equal to the greater of the service retirement allowance or 60% of the member's final average salary. The disability allowance is payable over an entitlement period equal to 25% of the service credited to the member at the date of disability or five years, whichever is longer. After the disability entitlement period has expired and if the member remains disabled, he will be retired under service retirement. The service retirement allowance will be computed with service credit given for the period of disability retirement. The allowance will not be less than $6,000 per year. The service retirement allowance will not be reduced for commencement of the allowance before age 60 or the completion of 27 years of service.

Benefits Payable on Separation from Service

- Any member who ceases to be in service is entitled to receive his contributions with allowable interest. A member who has completed 5 years of creditable service and leaves his contributions with the System may be continued in the membership of the System after separation from service, and file application for service retirement after the attainment of age 60.

Life Insurance

- A separate Life Insurance fund has been created as of June 30, 2000 to pay benefits on behalf of deceased TRS active and retired members.

Death Benefits
A surviving spouse of an active member with less than 10 years of service may elect to receive an annual allowance of $2,880 except that if income from other sources exceeds $6,600 per year the annual allowance will be $2,160.

A surviving spouse of an active member with 10 or more years of service may elect to receive an allowance which is the actuarial equivalent of the allowance the deceased member would have received upon retirement. The allowance

Schedule F continued ...

will commence on the date the deceased member would have been eligible for service retirement and will be payable during the life of the spouse.

If the deceased member is survived by unmarried children under age 18 the following schedule of annual allowances applies:

Number of Children	Annual Allowance
1	$ 2,400
2	4,080
3	4,800
4 or more	5,280

The allowances are payable until a child attains age 18, or age 23 if a full-time student.

If the member has no eligible survivor, a refund of his accumulated contributions is payable to his estate.

Options

In lieu of the regular Option 1, a retirement allowance payable in the form of a life annuity with refundable balance, any member before retirement may elect to receive a reduced allowance which is actuarially equivalent to the full allowance, in one of the following forms:

Option 2. A single life annuity payable during the member's lifetime with payments for 10 years certain.

Option 3. At the death of the member his allowance is continued throughout the life of his beneficiary.

Option 3(a). At the death of the beneficiary designated by the member under Option 3, the member's benefit will revert to what would have been paid had he not selected an option.

Option 4. At the death of the member one half of his allowance is continued throughout the life of his beneficiary.

Option 4(a). At the death of the beneficiary designated by the member under Option 4, the member's benefit will revert to what would have been paid had he not selected an option.

Post-Retirement Adjustments

The retirement allowance of each retired member and of each beneficiary shall be increased by 1.50% each July 1.

3- CONTRIBUTIONS

Member Contributions

University members contribute 7.625% of salary to the Retirement System. Non-university members contribute 9.105% of salary to the Retirement System. Member contributions are picked up by the employer.

SCHEDULE G
Table 1: Age - Service Table
Distribution of Active Members as of June 30, 2016
by Age and Service Groups

Attained Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 35	>= 35	TOTAL
24 & under	2,355								2,355
Total Pay	45,330,040								45,330,040
Avg. Pay	19,248								19,248
25 to 29	5,983	1,390	6						7,379
Total Pay	203,433,582	67,448,815	290,024						271,172,421
Avg. Pay	34,002	48,524	48,337						36,749
30 to 34	3,012	4,867	1,237	5					9,121
Total Pay	95,202,602	245,417,243	70,031,584	254,892					410,906,321
Avg. Pay	31,608	50,425	56,614	50,978					45,051
35 to 39	2,269	2,377	4,756	984	4				10,390
Total Pay	63,198,818	122,108,596	281,358,005	63,149,812	239,758				530,054,989
Avg. Pay	27,853	51,371	59,159	64,177	59,940				51,016
40 to 44	1,785	1,520	2,196	4,060	746	1			10,308
Total Pay	45,830,416	77,450,441	131,391,508	267,885,302	52,046,889	53,664			574,658,220
Avg. Pay	25,675	50,954	59,832	65,982	69,768	53,664			55,749
45 to 49	1,483	1,177	1,593	2,266	3,343	750	3		10,615
Total Pay	39,361,503	60,147,545	93,765,291	147,455,842	233,185,542	54,299,673	169,293		628,384,689
Avg. Pay	26,542	51,102	58,861	65,073	69,753	72,400	56,431		59,198
50 to 54	1,196	717	1,039	1,272	1,534	1,826	286	2	7,872
Total Pay	25,260,952	36,290,570	61,397,451	82,245,956	106,693,617	134,430,589	21,213,845	131,648	467,664,628
Avg. Pay	21,121	50,614	59,093	64,659	69,553	73,620	74,174	65,824	59,409
55 to 59	1,345	467	678	996	1,069	818	352	19	5,744
Total Pay	21,138,039	21,468,016	39,649,701	64,095,061	75,667,783	62,721,524	30,314,021	1,529,398	316,583,543
Avg. Pay	15,716	45,970	58,480	64,352	70,784	76,677	86,119	80,495	55,116
60 to 64	1,837	341	387	608	577	412	102	65	4,329
Total Pay	23,796,325	13,577,768	22,772,409	40,965,044	42,005,811	32,467,970	9,324,712	5,479,043	190,389,082
Avg. Pay	12,954	39,818	58,843	67,377	72,800	78,806	91,419	84,293	43,980
65 & over	2,291	524	181	227	214	169	65	64	3,735
Total Pay	20,398,952	12,356,675	11,463,858	15,532,839	16,369,811	14,008,597	5,681,398	6,270,288	102,082,418
Avg. Pay	8,904	23,581	63,336	68,427	76,494	82,891	87,406	97,973	27,331
Total	23,556	13,380	12,073	10,418	7,487	3,976	808	150	71,848
Total Pay	582,951,229	656,265,669	712,119,831	681,584,748	526,209,211	297,982,017	66,703,269	13,410,377	3,537,226,351
Avg. Pay	24,747	49,048	58,984	65,424	70,283	74,945	82,554	89,403	49,232

Average Age: 43.5 **Average Service:** 10.8

Schedule G continued ...

Table 2: Number of Retired Members and Beneficiaries and their Benefits by Age as of June 30, 2016

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
49 & Under	848	$ 11,407,720	$ 13,453
50 - 54	1,322	51,147,401	38,689
55 - 59	4,074	174,702,723	42,882
60 - 64	8,959	364,324,086	40,666
65 - 69	13,703	520,359,554	37,974
70 - 74	9,332	336,374,000	36,045
75 - 79	5,933	201,434,460	33,952
80 - 84	3,715	114,780,225	30,896
85 - 89	2,315	62,949,170	27,192
90 & Over	1,362	31,395,212	23,051
TOTAL	51,563	$ 1,868,874,551	$ 36,244

Average Age: 69.2 **Average Age at Retirement: 55.9**

Table 3: Schedule of Retirants, Beneficiaries and Survivors Added to and Removed from Rolls

Fiscal Year Ending June 30	ADD TO ROLLS		REMOVED FROM ROLLS		ROLLS AT END OF YEAR		Increase In Annual Allowances	Average Annual Allowance
	Number	Annual Allowances (Millions)	Number	Annual Allowances (Millions)	Number	Annual Allowances (Millions)		
2007	2,050	$ 82.1	1,041	$ 20.7	39,506	$ 1,135.6	5.7%	$ 28,746
2008	2,183	90.6	950	19.4	40,739	1,206.8	6.3	29,623
2009	2,351	96.2	1,040	22.7	42,050	1,280.3	6.1	30,447
2010	2,105	93.7	1,021	21.8	43,134	1,352.2	5.6	31,348
2011	2,133	98.9	848	17.7	44,419	1,433.4	6.0	32,270
2012	2,513	111.2	838	19.4	46,094	1,525.2	6.4	33,089
2013	2,303	105.7	991	22.2	47,406	1,608.7	5.5	33,934
2014	2,146	99.6	976	23.4	48,576	1,684.9	4.7	34,685
2015	2,917	119.1	1,671	36.3	49,822	1,767.6	4.9	35,479
2016	2,753	128.2	1,012	26.9	51,563	1,868.9	5.7	36,244

Schedule H

Board Funding Policy

Introduction

Pursuant to the provisions of KRS 161.250, the Board of Trustees ("Board") of the Teachers' Retirement System ("TRS") is vested with the responsibility for the general administration and management of the retirement system. The Board may adopt procedures necessary to conduct the business of the retirement system as needed. The applicable provisions of the Kentucky Revised Statutes ("state law") shall control if any inconsistency exists between state law and this policy.

Background

State law provides that the retirement benefits promised to members of TRS are "…an inviolable contract of the Commonwealth…." (KRS 161.714.) To satisfy this solemn commitment, the Commonwealth of Kentucky ("state") is required to pay annual retirement appropriations necessary to fund the benefit requirements of members of the retirement system. All employers participating in TRS are responsible for paying the fixed employer contribution rate set forth in state law. However, the state-as plan guarantor-is solely responsible for paying the additional annual retirement appropriations necessary to keep the retirement system actuarially sound and able to satisfy the contract with members to provide promised benefits. (KRS 161.550(6).)

Since fiscal year 2008, the state has not paid the recommended annual retirement appropriations necessary to pre-fund the benefit requirements of members of the retirement system as determined by the actuary. Over this period of time, because of the failure to fund, the state's annual retirement appropriations have grown significantly from $60.5 million (Fiscal Year 2009) to $487 million (Fiscal Year 2016). The following schedule details the growth of the annual retirement appropriations payable by the state:

	Cumulative Increase as a % of Payroll	Cumulative Increase of Annual Retirement Appropriations Payable by the State
2009	1.88 %	$ 60,499,800
2010	2.46	82,331,200
2011	3.59	121,457,000
2012	5.81	208,649,000
2013	7.27	260,980,000
2014	8.02	299,420,000
2015	10.42	386,400,000
2016	12.97	487,400,000

(Source: TRS Report of the Actuary on the Annual Valuation Prepared as of June 30, 2013).

The Board has always taken action as required by state law and recommended annual retirement appropriations payable by the state that would ensure that the state meets the contractual obligations to members. This policy confirms the Board's process for recommending annual retirement appropriations payable by the state and the primary actuarial assumptions and methodologies associated with calculating the annual retirement appropriations. Other related actuarial assumptions and methodologies not listed in this policy are reported in annual valuations, the most recent experience study, or resolutions adopted by the Board.

1. Annual Retirement Appropriations Payable by the State: In each biennial budget request, the Board will recommend annual retirement appropriations payable by the state to meet the benefit requirements of the members of the retirement system. The annual retirement appropriations payable by the state are the sum of the fixed employer contribution rate set by state law and the additional annual retirement appropriations necessary to fund the benefit requirements of members of the retirement system. (KRS 161.550.) The recommended additional annual retirement appropriations payable by the state are calculated by the Board's actuary based upon the results of an annual valuation preceding the beginning of each biennium. (KRS 161.400.)

Section H: Board Funding Policy continued ...

2. Calculation of Annual Retirement Appropriations Payable by the State: The Board will recommend annual retirement appropriations payable by the state, which—if paid—will meet the benefit requirements of the members of the retirement system consistent with generally accepted actuarial principles. Based upon technical advice from the Board's actuary, the Board hereby adopts the following principles for calculating the recommended annual retirement appropriations payable by the state:

   - Use the Entry Age Normal actuarial cost method;
   - Use a five-year asset smoothing method;
   - Use a thirty-year closed period to amortize legacy unfunded liability ("legacy unfunded liability" is that unfunded liability recognized as of the valuation prepared for June 30, 2014);
   - Use a twenty-year closed period to amortize new sources of unfunded liability ("new sources of unfunded liability" is that unfunded liability consisting of all benefit changes, assumption and method changes, and experience gains and/or losses that have occurred since the previous valuation); and
   - Reach a 100 percent minimum funded ratio within the thirty-year closed amortization period.

The Board also recognizes that, from time to time, the state may desire to contribute lump sum payments toward satisfaction of unfunded liability rather than amortization of the debt. Total unfunded liability is published in every annual valuation of the retirement system and TRS will work with the state to develop reasonable and appropriate plans for receipt of lump sum payments toward the satisfaction of unfunded liability.

This policy will be reviewed regularly and amended or revised as necessary.

After valuation

Teachers' Retirement System of Kentucky
Sensitivitiy Analysis

The valuation results are projections based on the actuarial assumptions. Actual experience will differ from these assumptions, either increasing or decreasing cost. The charts on the following pages provide a simple analysis on how the costs are sensitive to changes to the assumed discount rate, the assumed inflation rate and the rate of payroll growth. The charts show the actuarial accrued liability, the unfunded liability, the funded ratio and the employer contribution rate under the following scenarios:

- The discount rate assumption sensitivity analysis shows the valuation results with the baseline discount rate assumption, and 7.50% together with a decrease in the discount rate to 6.50% and an increase in the discount rate to 8.50%. Under this scenario, the underlying inflation rate assumption is held constant at 3.00% and the payroll growth assumption is held constant at 3.50%.
- The inflation assumption sensitivity analysis shows the valuation results with the baseline underlying inflation rate assumption, 3.00%, together with decreases in the inflation rate to 2.75% and 2.50%. Under this scenario, the decrease in the underlying inflation rate assumption leads to corresponding decreases in the discount rate, the payroll growth assumption and the assumed rates of salary increase for active members.
- The payroll growth assumption sensitivity analysis shows the valuation results with the baseline underlying payroll growth assumption, 3.50%, together with decreases in the payroll growth assumption to 2.00% and 0.00%. Under this scenario, all other assumptions, including the individual member salary scale, are held constant so that the only impact is in the amortization of the unfunded liability, leading to higher employer contribution rates.

Assumed Discount Rate Sensitivity Analysis
(In thousands of dollars)

	Decrease Discount Rate	Valuation Results	Increase Discount Rate
Actuarial Accrued Liability	$ 35,774,968	$ 32,028,227	$ 28,888,441
Actuarial Value of Assets	17,496,894	17,496,894	17,496,894
Unfunded Liability	$ 18,278,074	$ 14,531,333	$ 11,391,547
Funded Ratio	48.9%	54.6%	60.6%
Employer ADEC - University*	37.685%	29.275%	22.015%
Employer ADEC - Non-University*	39.165%	30.755%	23.495%
Discount Rate	6.50%	7.50%	8.50%
Payroll Growth	3.50%	3.50%	3.50%
Inflation Rate	3.00%	3.00%	3.00%

** Less 1% for members hired before July 1, 2008.*

Inflation Assumption Sensitivity Analysis

(In thousands of dollars)

	Valuation Results	Decrease Inflation Rate 25 Basis Points	Decrease Inflation Rate 50 Basis Points
Actuarial Accrued Liability	$ 32,028,227	$ 32,783,305	$ 33,569,703
Actuarial Value of Assets	17,496,894	17,496,894	17,496,894
Unfunded Liability	$ 14,531,333	$ 15,286,411	$ 16,072,809
Funded Ratio	54.6%	53.4%	52.1%
Employer ADEC - University*	29.275%	31.305%	33.435%
Employer ADEC - Non-University*	30.755%	32.785%	34.915%
Discount Rate	7.50%	7.25%	7.00%
Payroll Growth	3.50%	3.25%	3.00%
Inflation Rate	3.00%	2.75%	2.50%

** Less 1% for members hired before July 1, 2008.*

Payroll Growth Assumption Sensitivity Analysis

(In thousands of dollars)

	Valuation Results	Decrease Payroll Growth 2%	No Payroll Growth
Actuarial Accrued Liability	$ 32,028,227	$ 32,028,227	$ 32,028,227
Actuarial Value of Assets	17,496,894	17,496,894	17,496,894
Unfunded Liability	$ 14,531,333	$ 14,531,333	$ 14,531,333
Funded Ratio	54.6%	54.6%	54.6%
Employer ADEC - University*	29.275%	33.765%	40.505%
Employer ADEC - Non-University*	30.755%	35.245%	41.985%
Discount Rate	7.50%	7.50%	7.50%
Payroll Growth	3.50%	2.00%	0.00%
Inflation Rate	3.00%	3.00%	3.00%

** Less 1% for members hired before July 1, 2008.*

Teachers' Retirement System
of the State of Kentucky

2016

Actuarial Section

Report of the Actuary
Annual Valuation
of the Retiree Medical Plan
and the Life Insurance Plan

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 21, 2016

Board of Trustees
Teachers' Retirement System of the State of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Members of the Board:

Governmental Accounting Standards Board Statements No. 43 and 45 require the Teachers' Retirement System of the State of Kentucky (the System) to conduct actuarial valuations of the System's retiree medical and other post-employment benefit plans. This report covers the Retiree Medical Plan funded by the Medical Insurance Fund (MIF) and OPEB liabilities related to the Life Insurance Plan funded by the Life Insurance Fund (LIF). Cavanaugh Macdonald Consulting, LLC (CMC) has submitted the results of the annual actuarial valuation prepared as of June 30, 2016. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates a total annual required contribution of 6.59% of active member payroll for the MIF payable for the fiscal year ending June 30, 2017 is required to support the benefits of the Kentucky Employees' Health Plan (KEHP) and the Medicare Eligible Health Plan (MEHP). Of this amount, 2.775% of payroll is estimated to be paid by University members and 3.750% of payroll is estimated to be paid by all other members, leaving 3.815% and 2.840% respectively, as the remaining annual required contribution. This annual required contribution reflects the actuarial value of assets of the MIF and an 8.00% discount rate for valuing liabilities.

Since the previous valuation, various economic and demographic assumptions have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2015. These revised changes were adopted by the Board on September 19, 2016 and are discussed on page 123 of the report. Additionally, the results of the valuation include a change to the KEHP dependent subsidies offered to retirees who retired prior to July 1, 2010. Finally, the initial per capita costs of health care and the rates of health care inflation used to project the per capita health care costs have been revised since the previous valuation to reflect recent experience and revised expectations.

The Life Insurance Plan valuation indicates a total annual required contribution of 0.04% of active member payroll payable for the fiscal year ending June 30, 2019 is required to support the benefits of the LIF. This annual required contribution reflects the actuarial value of assets of the LIF and a 7.50% discount rate for valuing liabilities.

The promised benefits of the Retiree Medical and Life Insurance Plans are included in the actuarially calculated contribution rates that are developed using the entry age normal actuarial cost method. Five-year market related value of plan assets is used for actuarial valuation purposes. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll within a 30-year period, on the assumption that payroll will increase by 3.50% annually. The assumptions recommended by the actuary and adopted by the Board are in aggregate reasonably related to the experience under the Retiree Medical and Life Insurance Plans and to reasonable expectations of anticipated experience under the Retiree Medical and Life Insurance Plans and meet the parameters for the disclosures under GASB 43 and 45.

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Board of Trustees
November 21, 2016
Page 2

CMC has prepared the trend information shown in the Schedule of Funding Progress in the Financial Section of the Annual Report and Section VII shown in the Actuarial Section of the Annual Report.

This is to certify that the independent consulting actuaries are members of the American Academy of Actuaries and have experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Retiree Medical and Life Insurance Plans and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plans.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

This actuarial valuation was performed to determine the recommended funding amount for the System. The asset values used to determine unfunded liabilities and funded ratios are not market values, but less volatile market-related values. A smoothing technique is applied to market values to determine the market-related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return of assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.

In our opinion, if the contributions to the Medical Insurance Fund continue at the current statutorily required levels, the funded ratio of the Retiree Medical Plan will continue to increase, and the ability of the MIF to fund the benefits called for under the Retiree Medical Plan will improve.

Respectfully submitted,

Eric Gary, FSA, FCA, MAAA
Chief Health Actuary

Alisa Bennett, FSA, EA, FCA, MAAA
Principal and Consulting Actuary

Report of Actuary on the Annual Valuation of the Retiree Medical and Life Insurance Plans
Prepared as of June 30, 2016
Section I - Summary of Principal Results

1. For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below (dollar amounts are in thousands):

Medical Insurance Fund

Valuation Date	June 30, 2016	June 30, 2015
Number of active members	71,848	72,246
Annual salaries	$ 3,537,226	$ 3,515,113
Number of deferred vested members	8,145	5,430
Number of annuitants in medical plans	38,815	38,075
Number of spouses and beneficiaries in medical plans*	7,181	7,129
Total	45,996	45,204
Assets:		
Market value	$ 733,781	$ 626,962
Actuarial value	$ 795,055	$ 637,839
Unfunded actuarial accrued liability	$ 2,839,018	$ 2,887,745
Amortization period (years)	30	30
Discount rate	8.00%	8.00%

* *Spouses of post-65 retirees, as well as surviving spouses of deceased retirees on or after July 1, 2002, pay 100% of the full contribution. 100% of the full contribution for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State.*

Medical Insurance Fund Contribution Rates for University Members

Valuation Date	**June 30, 2016**		**June 30, 2015**	
Contribution For Fiscal Year Ending	June 30, 2017		June 30, 2016	
	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Normal	1.95 %	1.95 %	1.95 %	1.95 %
Accrued liability	4.64	4.64	4.49	4.49
Total	6.59 %	6.59 %	6.44 %	6.44 %
Member	2.775 %	2.775 %	2.775 %	2.775 %
Employer (ARC)	2.775	1.775	2.775	1.775
State (ARC)	1.040	2.040	0.890	1.890
Total	6.590 %	6.590 %	6.440 %	6.440 %

Medical Insurance Fund Contribution Rates for School District Employees (Non-Federal)

Valuation Date	**June 30, 2016**		**June 30, 2015**	
Contribution For Fiscal Year Ending	June 30, 2017		June 30, 2016	
	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Normal	1.95 %	1.95 %	1.95 %	1.95 %
Accrued liability	4.64	4.64	4.49	4.49
Total	6.59 %	6.59 %	6.44 %	6.44 %
Member	3.750 %	3.750 %	3.750 %	3.750 %
Employer (ARC)	3.000	3.000	3.000	3.000
State (ARC)	(0.160)	(0.160)	(0.310)	(0.310)
Total	6.590 %	6.590 %	6.440 %	6.440 %

Medical Insurance Fund Contribution Rates for Other Employees

Valuation Date	**June 30, 2016**		**June 30, 2015**	
Contribution For Fiscal Year Ending	June 30, 2017		June 30, 2016	
	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Normal	1.95 %	1.95 %	1.95 %	1.95 %
Accrued liability	4.64	4.64	4.49	4.49
Total	6.59 %	6.59 %	6.44 %	6.44 %
Member	3.750 %	3.750 %	3.750 %	3.750 %
Employer (ARC)	3.750	2.750	3.750	2.750
State (ARC)	(0.910)	(0.090)	(1.060)	(0.060)
Total	6.590 %	6.590 %	6.440 %	6.440 %

Life Insurance Fund

(In thousands of dollars)

Valuation Date	**June 30, 2016**	**June 30, 2015**
Number of active members	71,848	72,246
Annual salaries	$ 3,537,226	$ 3,515,113
Number of vested former members	9,058	4,295
Number of retirees in Life Insurance Plan	47,071	45,484
Assets:		
Market value	$ 90,991	$ 89,747
Actuarial value	97,269	97,186
Unfunded actuarial accrued liability*	$ 8,790	$ 1,553
Amortization period (years)	30	30
Discount rate	7.50%	7.50 %

Contribution for fiscal year ending	**June 30, 2019**	**June 30, 2018**
Normal	0.03 %	0.03 %
Accrued liability	0.01	0.00
Total	0.04 %	0.03 %

* *Includes liability for death in active service. This amount could be segregated from the OPEB liability and assets could be split for active and post-employment purposes. However, since this could be administratively burdensome and since death in active service liabilities can be considered de minimis, it is acceptable to consider the entire liability an OPEB liability under GASB 43 and 45.*

2. The valuation indicates combined member, employer, and State contributions of 6.59% of active member payroll would be sufficient to support the current benefits of the Retiree Medical Plan and State contributions of 0.04% of active member payroll would be sufficient to support the current benefits of the Life Insurance Plan. Comments on the valuation results as of June 30, 2016 are given in Section IV and further discussion of the contribution levels is set out in Sections VI and VII.

3. Since the previous valuation, various economic and demographic assumptions have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2015. The changes adopted by the Board on September 19, 2016, include various demographic and economic assumptions summarized below:

   - Price Inflation changed assumed rate from 3.50% to 3.00%,
   - Wage Inflation changed assumed rate from 4.00% to 3.50%,
   - Assumed Salary Scale adjusted to reflect a decrease of 0.25% in merit & promotion for all ages, and

Report of Actuary on the Annual Valuation of the Retiree Medical and Life Insurance Plans continued ...

- Assumed rates of Withdrawal, Disability, Retirement, and Mortality have been adjusted to reflect experience more closely.
- Assumed rates of Retiree Medical Plan coverage election, spouse coverage by the Retiree Medical Plan, terminated and vested withdrawal, and terminated and vested participation in the Retiree Medical Plan have been adjusted to reflect experience more closely.
- The assumed age difference between covered male and female spouses has been adjusted to reflect experience more closely.

Additionally, the initial per capita costs of health care and the rates of health care inflation used to project the per capita health care costs have been revised to reflect recent experience.

4. Since the previous valuation, there has been a change to the KEHP dependent subsidies offered to retirees. KEHP-participating members who retired prior to July 1, 2010 will no longer be provided a premium subsidy for dependent coverage after June 30, 2016.

Section II - MEMBERSHIP DATA

1. Data regarding the membership of the Retiree Medical and Life Insurance Plans for use as a basis of the valuation were furnished by the System's office. The following tables summarize the membership of the System as of June 30, 2016, upon which the valuation was based. Detailed tabulations of the data are given in Schedule F.

Active Members as of June 30, 2016

Group	Number	Annual Salaries ($1,000's)
University Full Time hired before 7/1/2008	1,883	$ 137,213
University Full Time hired after 7/1/2008	1,453	72,056
Non-University Full Time hired before 7/1/2008	38,065	2,429,982
Non-University Full Time hired after 7/1/2008	18,846	826,256
Non-University Part Time hired before 7/1/2008	2,797	24,219
Non-University Part Time hired after 7/1/2008	8,804	47,500
TOTAL	71,848	$ 3,537,226

2. The following tables show the number of retired members and their beneficiaries receiving health care as of the valuation date as well as average ages.

Retirees Receiving Health Benefits as of June 30, 2016

	Under Age 65	Age 65 and Over	TOTAL
Number	11,813	27,002	38,815
Average Age	60.3	73.9	69.8

Spouses Receiving Health Benefits as of June 30, 2016

	Under Age 65	Age 65 and Over	TOTAL
Number	2,790	4,391	7,181
Average Age	59.2	74.9	68.8

3. The Retiree Medical Plan valuation includes 8,145 deferred vested members eligible for health care at age 60 and the Life Insurance Plan valuation includes 9,058 deferred vested members eligible for retiree life insurance at age 60.

Section III - ASSETS

1. As of June 30, 2016, the market value of MIF assets held by the Retiree Medical Plan amounted to $733,780,967 and the market value of LIF assets held by the Life Insurance Plan amounted to $90,990,928.

2. The five-year market related value of MIF assets used for valuation purposes as of June 30, 2016 was $795,055,116 and the five-year market related value of LIF assets used for valuation purposes as of June 30, 2016 was $97,268,990. Schedule B shows the development of the actuarial value of assets as of June 30, 2016.

3. Schedule C shows the receipts and disbursements for the year preceding the valuation date and a reconciliation of the asset balances for the MIF and the LIF.

Section IV - COMMENTS ON VALUATION

1. Schedule A of this report outlines the results of the actuarial valuation. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule D.

2. The valuation shows the Retiree Medical Plan has an actuarial accrued liability of $1,683,152,725 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability on account of deferred vested members amounts to $47,229,083. The liability on account of benefits payable to retirees and covered spouses amounts to $1,903,691,219. The total actuarial accrued liability of the Retiree Medical Plan amounts to $3,634,073,027. Against these liabilities, the Retiree Medical Plan has present assets for valuation purposes of $795,055,116. When this amount is deducted from the actuarial accrued liability of $3,634,073,027, there remains $2,839,017,911 as the unfunded actuarial accrued liability for the Retiree Medical Plan.

3. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the Retiree Medical Plan is determined to be $69,042,666, or 1.95% of payroll.

4. The valuation shows that the Life Insurance Plan has an actuarial accrued liability of $17,050,108 for benefits expected to be paid on account of the present active membership, based on service to the valuation date. The liability on account of deferred vested members amounts to $3,470,026. The liability on account of benefits payable to retirees amounts to $85,538,672. The total actuarial accrued liability of the Life Insurance Plan amounts to $106,058,806. This amount includes liability for death in active service. The liability for death in active service could be segregated from the OPEB liability and assets could be split for active and post-employment purposes. As this could be administratively burdensome and, as death in active service liabilities can be considered de minimis, it is viewed to be acceptable to consider the entire liability an OPEB liability under GASB 43 and 45. Against these liabilities, the Life Insurance Plan has present assets for valuation purposes of $97,268,990. When this amount is deducted from the actuarial accrued liability of $106,058,806, there remains $8,789,816 as the unfunded actuarial accrued liability for the life insurance plan.

5. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the life insurance plan is determined to be $992,606, or 0.03% of payroll.

Section V - DERIVATION OF EXPERIENCE GAINS AND LOSSES

1. Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the experience gain (loss) for the year ended June 30, 2016 is shown below ($1,000's).

	EXPERIENCE GAIN/(LOSS) OF THE:	MEDICAL INSURANCE FUND	LIFE INSURANCE FUND
(1)	UAAL* as of 6/30/2015	$ 2,887,745	$ 1,553
(2)	Normal cost from last valuation	68,409	1,038
(3)	Expected employer contributions	226,232	1,024
(4)	Interest accrual: [(1) + (2) - (3)] x interest**	218,394	118
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	2,948,316	1,685
(6)	Change due to benefit provisions	(8,264)	0
(7)	Change due to new actuarial assumptions	218,842	3,927
(8)	Change due to claims experience	(269,249)	0
(9)	Expected UAAL after changes: (5) + (6) + (7) + (8)	2,889,645	5,612
(10)	Actual UAAL as of 6/30/2016	2,839,018	8,790
(11)	Total gain/(loss): (9) - (10)	50,627	(3,178)
	(a) Contribution excess and investment gain/(loss)	113,260	(3,507)
	(b) Experience gain/(loss) (11) - (11a)	(62,633)	329
(12)	Accrued liabilities as of 6/30/2015	$ 3,525,584	$ 98,739
(13)	Experience gain/(loss) as percent of actuarial accrued liabilities at start of year (11b) / (12)	(1.8%)	0.3%

* *Unfunded Actuarial Accrued Liability*
** *Interest is 8.0% for the Medical Insurance Fund and 7.5% for the Life Insurance Fund*

Section VI - CONTRIBUTIONS PAYABLE UNDER THE PLANS

1. Sections 161.420 and 161.550 of the Kentucky Revised Statutes provide the amounts employers and the State are required to contribute to the Medical Insurance Fund. These contribution amounts vary by date of membership and employee type.

Employer Percentage of Payroll Contributions Made to Medical Insurance Fund

	UNIVERSITY EMPLOYEES		SCHOOL DISTRICT EMPLOYEES (Non-Federal)*		OTHER EMPLOYEES	
Fiscal Year Ending	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008	Members hired before 7/1/2008	Members hired on or after 7/1/2008
2016 and Later	2.775 %	1.775 %	3.000 %	3.000 %	3.750 %	2.750 %

* *In addition to the amounts contributed by School Districts on behalf of Non-Federal employees, the State contributes 0.75%.*

For the fiscal year ending June 30, 2017, member contributions will be 2.775% for University employees and 3.750% for all other members. Based upon the amortization of the unfunded accrued liability over a 30-year period as a level percentage of payroll, the valuation indicates employer and State contributions of 3.815% of payroll for University employees and 2.840% of payroll for all other members. The State is scheduled to contribute 0.03% of salary to the Life Insurance Fund for the fiscal year ending June 30, 2018. CMC's valuation indicates a contribution of 0.04% for the fiscal year ending June 30, 2019 is required to support sufficiently the benefits of the Life Insurance Plan.

Required Contribution Rates
For Fiscal Year Ending June 30, 2017
Medical Insurance Fund

Normal	1.95 %
Accrued liability	4.64
Total	6.59 %

	UNIVERSITY EMPLOYEES		SCHOOL DISTRICT EMPLOYEES (Non-Federal)		OTHER EMPLOYEES	
	Members hired prior 7/1/2008	Members hired on or after 7/1/2008	Members hired prior 7/1/2008	Members hired on or after 7/1/2008	Members hired prior 7/1/2008	Members hired on or after 7/1/2008
Member	2.775 %	2.775 %	3.750 %	3.750 %	3.750 %	3.750 %
Employer (ARC)	2.775	1.775	3.000	3.000	3.750	2.750
State (ARC)	1.040	2.040	(0.160)	(0.160)	(0.910)	0.090
Total	6.590 %	6.590 %	6.590 %	6.590 %	6.590%	6.590%

Required Contribution Rates
Life Insurance Fund
For Fiscal Year Ending June 30, 2019

Normal	0.03 %
Accrued liability	0.01
Total	0.04%
Member	0.00 %
State (ARC)	0.04
Total	0.04 %

2. The valuation indicates that a total normal contribution of 1.95% of payroll is required to meet the cost of benefits currently accruing under the Retiree Medical Plan and 0.03% of payroll is required to meet the cost of benefits currently accruing under the Life Insurance Plan. The difference between the total contribution and the normal contribution remains to be applied toward the liquidation of the unfunded actuarial accrued liability. This accrued liability payment is 4.64% of payroll for the Retiree Medical Plan and 0.01% of payroll for the Life Insurance Plan.

3. The unfunded actuarial accrued liability amounts to $2,839,017,911 for the Retiree Medical Plan and $8,594,846 for the Life Insurance Plan as of the valuation date. An accrued liability contribution of 4.64% of payroll for the Retiree Medical Plan and 0.01% of payroll for the Life Insurance Plan is sufficient to amortize the unfunded actuarial accrued liabilities over a 30-year period, based on the assumption that the payroll will increase by 3.50% annually.

Section VII - COMMENTS ON LEVEL OF FUNDING

1. The System's monthly contribution for retirees who opt into the Retiree Medical Plan is based upon date of hire, date of attaining age 65, and years of service at retirement. Additionally, beneficiary contributions may vary by date of hire, date of attaining age 65, years of service at retirement, plan election, Medicare eligibility, and tobacco use. Beneficiary contributions for dependents are targeted to be 100% of the cost of expected claims for spouses age 65 and older. Historically, this target has been achieved. 100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State on a current disbursement basis. Current employer and State contributions have been determined to be sufficient to fund the cost of the benefits to be provided. Benefits for university, school district (non-Federal), and other members are identical, although active employee contributions collected from university, school district (non-Federal), and other members differ. A listing of active member Retiree Medical Plan contributions by fiscal year, date of membership, and employer type is provided in Schedule E.

2. This valuation provides the contributions required to fund sufficiently the Retiree Medical Plan and to ensure the future solvency of the Medical Insurance Fund. For University employees, a member contribution of 2.775% of payroll together with employer and State contributions of 3.815% of payroll are required to meet the cost of benefits currently accruing and provide for the amortization of the unfunded actuarial accrued liability over a period of 30 years. For the remaining membership, a member contribution of 3.750% of payroll together with employer and State contributions of 2.840% of payroll is required to meet the cost of benefits currently accruing and provide for the amortization of the unfunded actuarial accrued liability over a period of 30 years.

Section VIII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the Retiree Medical and Life Insurance Plans and the employer.

Number of Active and Retired Members in Medical Plan as of June 30, 2016

GROUP	NUMBER
Retirees currently receiving health benefits	38,815
Spouses of retirees currently receiving health benefits	7,181
Terminated employees entitled to benefits but not yet receiving benefits	8,145
Active plan members	71,848
Total	**125,989**

Number of Active and Retired Members in Life Insurance Plan as of June 30, 2016

GROUP	NUMBER
Retirees	47,071
Terminated employees	9,058
Active plan members	71,848
Total	**127,977**

Schedule of Funding Progress
Medical Insurance Fund
(In thousands of dollars)

2

ACTUARIAL VALUATION DATE	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES (AAL)	UNFUNDED AAL (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	A	B	(B-A)	(A/B)	C	[(B-A)/C]
6/30/2011[1]	$ 294,819	$ 3,423,149	$ 3,128,330	8.6 %	$ 3,451,756	90.6 %
6/30/2012	338,746	3,594,540	3,255,794	9.4	3,479,567	93.6
6/30/2013	412,185	3,521,073	3,108,888	11.7	3,480,066	89.3
6/30/2014	508,913	3,194,689	2,685,776	15.9	3,486,327	77.0
6/30/2015	637,839	3,525,584	2,887,745	18.1	3,515,113	82.2
6/30/2016[1]	795,055	3,634,073	2,839,018	21.9	3,537,226	80.3

[1] *Reflects change in decrement and participation assumptions.*

Schedule of Funding Progress
Life Insurance Fund
(In thousands of dollars)

ACTUARIAL VALUATION DATE	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES (AAL)	UNFUNDED AAL (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	A	B	(B-A)	(A/B)	C	[(B-A)/C]
6/30/2011[1]	$ 88,527	$ 88,088	$ (439)	100.5 %	$ 3,451,756	(0.01) %
6/30/2012	92,241	91,398	(843)	100.9	3,479,567	(0.02)
6/30/2013	94,863	94,325	(538)	100.6	3,480,066	(0.02)
6/30/2014	96,130	97,354	1,224	98.7	3,486,327	0.04
6/30/2015	97,186	98,739	1,553	98.4	3,515,113	0.04
6/30/2016[1]	97,269	106,059	8,790	91.7	3,537,226	0.25

[1] *Reflects change in decrement and participation assumptions.*

2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2016. Additional information as of the latest actuarial valuation follows.

Valuation Date	Actuarial Cost Method	Amortization Method	Remaining Amortization Period	Asset Valuation Method	Actuarial Assumptions: Investment Rate of Return*	Actuarial Assumptions: Investment Rate of Return*
06/30/2016	Entry age	Level percent of pay, open	30 years	5-Year Smoothed Market	8.00%-Retiree Medical Plan	7.50%-Retiree Life Insurance Plan

Medical Trend Assumption	Pre-Medicare**	Medicare
Fiscal Year Ending 6/30/2017	7.75 %	5.75 %
Fiscal Year Ending 6/30/2018	7.00 %	5.50 %
Ultimate Trend Rate	5.00 %	5.00 %
Year of Ultimate Trend Rate	2023	2020

* *Includes price inflation at 3.00%.*
***Alternate trend rates were used for Medicare Part B premiums and are disclosed in Schedule D.*

Schedule of Employer Contributions
Medical Insurance Fund

FISCAL YEAR ENDING	ANNUAL REQUIRED CONTRIBUTION (ARC)	ACTUAL EMPLOYER CONTRIBUTION	RDS CONTRIBUTION	TOTAL CONTRIBUTION	PERCENTAGE OF ARC CONTRIBUTED
	(A)	(B)	(C)	(B) + (C)	[(B) + (C)]/(A)
6/30/2011	$ 477,723,070	$ 188,453,929	$ 280,585	$ 188,734,514	39.5 %
6/30/2012	470,217,067	177,450,206	297,639	177,747,845	37.8
6/30/2013	186,725,823	166,611,420	0	166,611,420	89.2
6/30/2014	159,583,400	162,568,395	0	162,568,395	101.9
6/30/2015	106,606,132	168,084,353	0	168,084,353	157.7
6/30/2016	97,982,580	221,966,705	0	221,966,705	226.5

Schedule of Employer Contributions
Life Insurance Fund

FISCAL YEAR ENDING	ANNUAL REQUIRED CONTRIBUTION (ARC)	ACTUAL EMPLOYER CONTRIBUTION	PERCENTAGE OF ARC CONTRIBUTED
	(A)	(B)	(B) / (A)
6/30/2011	$ 1,725,878	$ 1,668,822	96.7 %
6/30/2012	1,732,831	1,684,711	97.2
6/30/2013	1,739,908	1,680,495	96.6
6/30/2014	1,044,959	1,006,091	96.3
6/30/2015	1,050,216	1,019,519	97.1
6/30/2016	1,057,851	1,037,769	98.1

3. Following is the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2016. As the Retiree Medical and Life Insurance Plans are cost-sharing multiple-employer plans, GASB Statement 45 does not require the participating employers to disclose this information.

Annual OPEB Cost and Net OPEB Obligation
for the Medical Insurance Fund for Fiscal Year Ending June 30, 2016

(a) Employer Annual Required Contribution	$ 97,982,580
(b) Interest on Net OPEB Obligation	118,447,672
(c) Adjustment to Annual Required Contribution	80,918,376
(d) Annual OPEB Cost: (a) + (b) - (c)	$ 135,511,876
(e) Employer Contributions for Fiscal Year 2016	221,966,705
(f) Increase (decrease) in Net OPEB Obligation: (d) - (e)	$ (86,454,829)
(g) Net OPEB Obligation at beginning of Fiscal Year	1,480,595,898
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	$ 1,394,141,069

Trend Information for the Medical Insurance Fund

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2011	$ 485,294,173	38.9 %	$ 1,110,938,699
6/30/2012	480,545,219	37.0	1,413,736,073
6/30/2013	222,560,394	74.9	1,469,685,047
6/30/2014	196,836,134	82.6	1,503,952,786
6/30/2015	144,727,465	116.1	1,480,595,898
6/30/2016	135,511,876	163.8	1,394,141,069

Annual OPEB Cost and Net OPEB Obligation for the Life Insurance Fund for Fiscal Year Ending June 30, 2016

(a) Employer Annual Required Contribution	$ 1,057,851
(b) Interest on Net OPEB Obligation	(628,174)
(c) Adjustment to Annual Required Contribution	(433,171)
(d) Annual OPEB Cost: (a) + (b) - (c)	862,848
(e) Employer contributions for Fiscal Year 2016	1,037,769
(f) Increase (decrease) in Net OPEB Obligation: (d) - (e)	(174,921)
(g) Net OPEB Obligation at beginning of Fiscal Year	(8,375,658)
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	$ (8,550,579)

Trend Information for the Life Insurance Fund

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2011	$ 1,546,950	107.9 %	$ (7,807,049)
6/30/2012	1,551,065	108.6	(7,940,695)
6/30/2013	1,555,031	108.1	(8,066,159)
6/30/2014	857,161	117.4	(8,215,089)
6/30/2015	858,950	118.7	(8,375,658)
6/30/2016	862,848	120.3	(8,550,579)

4. On June 2, 2015, GASB Statement No. 74 and GASB Statement No. 75 (GASB 74 and 75) were unanimously adopted by the GASB Board. The disclosure requirements of GASB 74 and 75 will be similar to the disclosure requirements for pension benefits under GASB Statement No. 67 and GASB Statement No. 68. GASB 74 relates to accounting disclosures for plan sponsors and, as such, replaces GASB 43 beginning with fiscal years ending June 30, 2017. GASB 75 relates to accounting disclosures for contributing employers and, as such, replaces GASB 45 beginning with fiscal years ending June 30, 2018. GASB 74 and 75 will require applicable OPEB plan sponsors and contributing employers to disclose the net OPEB liability on the statement of financial position and book an accounting expense based upon the entry age normal actuarial cost method. Beyond the use of a specified actuarial cost method, GASB's new disclosure standards will also require the discount rate used to calculate liabilities to be based upon the yield of 20-year, tax-exempt municipal bonds and the expected rate of return on plan assets, to the extent plan assets are projected to be available for the payment of future benefits. Additionally, GASB 74 and 75 will bring about many other changes in the liability valuation and accounting disclosure processes currently in place which are expected to significantly impact data collection, timing, and effort. As details for the new GASB OPEB disclosure standards emerge, planning and coordination between plan sponsors, contributing employers, actuaries, and auditors is recommended.

SCHEDULE A

RESULTS OF THE VALUATION AS OF JUNE 30, 2016

(In thousands of dollars)

		Medical Insurance Fund	Life Insurance Fund
PAYROLL		$ 3,537,226	$ 3,537,226
ACTUARIAL ACCRUED LIABILITY			
Present value of prospective benefits payable in respect of:			
(a)	Present active members	1,683,153	17,050
(b)	Present terminated vested members	47,229	3,470
(c)	Present retired members and covered spouses	1,903,691	85,539
(d)	Total actuarial accrued liability	3,634,073	106,059
PRESENT ASSETS FOR VALUATION PURPOSES		795,055	97,269
UNFUNDED ACTUARIAL ACCRUED LIABILITY		$ 2,839,018	$ 8,790
CONTRIBUTIONS		Fiscal Year Ending June 30, 2017	Fiscal Year Ending June 30, 2019
	Normal	1.95%	0.03%
	Accrued Liability	4.64	0.01
	Total	6.59%	0.04%
	Member	3.69%	0.00%
	Employer (ARC)	2.97	0.00
	State (ARC)	(0.07)	0.04
	Total	6.59%	0.04%

MEDICAL INSURANCE FUND
Solvency Test

(In millions of dollars)

Valuation Date	(1) Active Member Contributions	(2) Retirants And Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
6/30/2011	n/a	$ 1,910.1	$ 1,513.1	$ 294.8	n/a	15%	0%
6/30/2012	n/a	2,046.7	1,547.9	338.7	n/a	17	0
6/30/2013	n/a	2,001.8	1,519.3	412.2	n/a	21	0
6/30/2014	n/a	1,771.9	1,422.8	508.9	n/a	29	0
6/30/2015	n/a	1,982.2	1,543.4	637.8	n/a	32	0
6/30/2016	n/a	1,950.9	1,683.2	795.1	n/a	41	0

Schedule A continued ...

LIFE INSURANCE FUND
Solvency Test
(In millions of dollars)

Valuation Date	(1) Active Member Contributions	(2) Retirants And Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets (1)	(2)	(3)
6/30/2011	n/a	$ 72.2	$ 15.9	$ 88.5	n/a	100%	103 %
6/30/2012	n/a	75.2	16.2	92.2	n/a	100	105
6/30/2013	n/a	78.1	16.2	94.9	n/a	100	104
6/30/2014	n/a	81.0	16.3	96.1	n/a	100	93
6/30/2015	n/a	82.7	16.0	97.2	n/a	100	91
6/30/2016	n/a	89.0	17.1	97.3	n/a	100	49

SCHEDULE B

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
MEDICAL INSURANCE FUND
AS OF JUNE 30, 2016

(1)	Actuarial Value of Assets Beginning of Year		$ 637,838,912
(2)	Market Value of Assets End of Year		733,780,967
(3)	Market Value of Assets Beginning of Year		626,962,370
(4)	Cash Flow		
	a.	Contributions	406,331,920
	b.	Benefit Payments	288,494,763
	c.	Administrative Expense	1,686,070
	d.	Net: (4)a - (4)b - (4)c	116,151,087
(5)	Investment Income		
	a.	Market total: (2) - (3) - (4)d	(9,332,490)
	b.	Assumed Rate	8.00%
	c.	Amount for Immediate Recognition: [(3) x (5)b] + [(4)d x (5)b x 0.5]	54,803,033
	d.	Amount for Phased-In Recognition: (5)a - (5)c	(64,135,523)
(6)	Phased-In Recognition of Investment Income		
	a.	Current Year: 0.20 x (5)d	(12,827,105)
	b.	First Prior Year	(7,773,884)
	c.	Second Prior Year	6,492,851
	d.	Third Prior Year	370,219
	e.	Fourth Prior Year	3
	f.	Total Recognized Investment Gain	(13,737,916)
(7)	Actuarial Value of Assets End of Year: (1) + (4)d + (5)c + (6)f		795,055,116
(8)	Difference Between Market & Actuarial Values: (2) - (7)		$ (61,274,149)
(9)	Rate of Return on Actuarial Value:		5.90%

Schedule B continued ...

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
LIFE INSURANCE FUND
AS OF JUNE 30, 2016

(1)	Actuarial Value of Assets Beginning of Year		$	97,185,537
(2)	Market Value of Assets End of Year			90,990,928
(3)	Market Value of Assets Beginning of Year			89,746,507
(4)	Cash Flow			
	a.	Contributions		1,037,769
	b.	Benefit Payments		4,595,489
	c.	Administrative Expense		27,195
	d.	Net: (4)a - (4)b - (4)c		(3,584,915)
(5)	Investment Income			
	a.	Market total: (2) - (3) - (4)d		4,829,336
	b.	Assumed Rate		7.50%
	c.	Amount for Immediate Recognition: [(3) x (5)b] + [(4)d x (5)b x 0.5]		6,596,554
	d.	Amount for Phased-In Recognition: (5)a - (5)c		(1,767,218)
(6)	Phased-In Recognition of Investment Income			
	a.	Current Year: 0.20 x (5)d		(353,444)
	b.	First Prior Year		(941,279)
	c.	Second Prior Year		(406,987)
	d.	Third Prior Year		(1,226,477)
	e.	Fourth Prior Year		1
	f.	Total Recognized Investment Gain		(2,928,186)
(7)	Actuarial Value of Assets End of Year: (1) + (4)d + (5)c + (6)f			97,268,990
(8)	Difference Between Market & Actuarial Values: (2) - (7)		$	(6,278,062)
(9)	Rate of Return on Actuarial Value:			3.85%

SCHEDULE C

MEDICAL INSURANCE FUND
Summary of Receipts & Disbursements
(Market Value)

	For the Year Ending June 30, 2016	June 30, 2015
RECEIPTS FOR THE YEAR		
Contributions		
Members Statutory	$ 128,068,782	$ 100,622,991
Payment by Retired Members	56,296,433	56,844,689
TOTAL MEMBERS	184,365,215	157,467,680
State Statutory Contributions	21,824,740	21,375,292
Employer Contributions	104,271,120	77,655,778
State Statutory - Transition Fund/KEHP	52,542,510	46,232,856
TOTAL EMPLOYER	178,638,370	145,263,926
GRAND TOTAL	363,003,585	302,731,606
Recovery Income	43,328,335	22,820,427
Net Investment Income	(9,332,490)	7,354,704
TOTAL	396,999,430	332,906,737
DISBURSEMENTS FOR THE YEAR		
Administrative Expense	1,686,070	1,545,235
Medical Insurance Expense	288,494,763	240,394,582
TOTAL	290,180,833	241,939,817
Excess of Receipts over Disbursements	106,818,597	90,966,920
RECONCILIATION OF ASSET BALANCES		
Asset Balance as of the Beginning of the Year	626,962,370	535,995,450
Excess of Receipts over Disbursements	106,818,597	90,966,920
Asset Balance as of the End of the Year	$ 733,780,967	$ 626,962,370

Schedule C continued ...

LIFE INSURANCE FUND
Summary of Receipts & Disbursements
(Market Value)

	For the Year Ending June 30, 2016	June 30, 2015
RECEIPTS FOR THE YEAR		
Contributions		
Members	$ 0	$ 0
State	872,990	855,012
Employer	164,779	164,507
TOTAL	$ 1,037,769	$ 1,019,519
Net Investment Income	4,829,336	1,990,324
TOTAL	$ 5,867,105	$ 3,009,843
DISBURSEMENTS FOR THE YEAR		
Benefit Payments	$ 4,595,489	$ 4,061,000
Refunds to Members	0	0
Medical Insurance Payments	0	0
Miscellaneous, including expenses	27,195	25,306
TOTAL	$ 4,622,684	$ 4,086,306
EXCESS OF RECEIPTS OVER DISBURSEMENTS	$ 1,244,421	$ (1,076,463)
RECONCILIATION OF ASSET BALANCES		
Asset Balance as of the Beginning of the Year	$ 89,746,507	$ 90,822,970
Excess of Receipts over Disbursements	1,244,421	(1,076,463)
Asset Balance as of the End of the Year	$ 90,990,928	$ 89,746,507

SCHEDULE D
Statement of Actuarial Assumptions and Methods

The rates of retirement, disability, mortality, termination, salary increases, and rates of future benefit participation used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2015, submitted to and adopted by the Board on September 19, 2016. The health care cost trend rates, and expected plan costs were determined by the actuary based on recent experience.

Valuation Date: June 30, 2016

Discount Rate: 8.0% per annum, compounded annually for Medical Insurance Fund.
7.5% per annum, compounded annually for Life Insurance Fund.

Schedule D continued ...

Health Care Cost Trend Rates: Following is a chart detailing trend assumptions.

Annual Trend Rate

Fiscal Year Ended	Medicare Part B	Under Age 65	Age 65 and Over
2017	1.02 %	7.75%	5.75%
2018	(0.93)	7.00	5.50
2019	5.66	6.50	5.25
2020	4.84	6.00	5.00
2021	4.23	5.50	5.00
2022	5.04	5.25	5.00
2023	5.44	5.00	5.00
2024	5.10	5.00	5.00
2025	5.42	5.00	5.00
2026	5.62	5.00	5.00
2027	5.37	5.00	5.00
2028	5.12	5.00	5.00
2029 and beyond	5.00	5.00	5.00

Age Related Morbidity: For retirees ages 65 and older, per capita health care costs are adjusted to reflect expected health care cost changes related to age. The increase to the net incurred health care claims is assumed to be:

Participant Age	Annual Increases
65 – 69	3.0 %
70 – 74	2.5
75 – 79	2.0
80 – 84	1.0
85 - 89	0.5
90 and over	0.0

For the retiree health care liabilities of those under age 65, the current premium charged by the Kentucky Employees' Health Plan (KEHP) is used as the base cost and is projected forward using the health care trend assumption. No implicit rate subsidy is calculated or recognized as the implicit rate subsidy is deemed the responsibility of the KEHP. Under Actuarial Standard of Practice No. 6 (ASOP No. 6), aging subsidies (or implicit rate subsidies) should be recognized, as the differences in health care utilization and cost due to age have been demonstrated and well quantified. The impact of aging on a valuation's results can be as significant as the use of mortality, trend, and discounting. It has been the long-standing position that the responsibility for compliance with GASB Statement No. 43, when it relates to KEHP implicit subsidies, rests with KEHP, not the System, as the System has no operational authority over KEHP. As such, KEHP implicit subsidies are excluded from the OPEB valuation process of the Retiree Medical Plan. As GASB 74 and 75 prohibit such a deviation from ASOP No. 6, additional consideration to the current treatment of KEHP implicit rate subsidies may be needed in the future. The estimated impact of KEHP implicit subsidies to the actuarial accrued liability is an increase of $630,058,164.

Retiree Medical Plan Costs: Assumed per capita health care costs were based on past experience and trended based on the assumptions. Following are charts detailing retiree per capita assumptions. These amounts include medical, drug, and administrative costs and represent the amount that the System pays as the full contribution amount. The amounts include medical and drug costs. An additional $7.14 per month is paid to the Department of Employee Insurance (DEI) and is not included in the under age 65 costs listed below. For retirees ages 65 and older, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

Under Age 65 (KEHP) Full Costs as of January 1, 2017

Tier Elected	LivingWell CDHP	LivingWell PPO	Standard PPO	Standard CDHP
Single	$ 702.10	$ 721.14	$ 678.22	$ 663.80
Parent Plus	967.18	1,023.04	964.58	930.94
Couple	1,302.74	1,564.20	1,477.72	1,431.76
Family	1,453.94	1,738.40	1,644.22	1,594.52
Family C-R	810.00	865.64	815.50	793.18

Schedule D continued ...

Average Monthly TRS Full Costs & Contributions

Calendar Year	Under Age 65 (KEHP) Contributions	Age 65 & Over (MEHP) Full Costs	Age 65 & Over (MEHP) Contributions
2007	$ 458	$ 283	$ 283
2008	484	278	278
2009	545	301[1]	285
2010	594	373[1]	342
2011	626	289	289
2012	622	270[2]	270
2013	635	294[2]	290
2014	679	290[2]	290
2015	669	240[2]	240
2016	681	260[2]	260
2017	680	252[2]	252

1 *Under GASB 43 and 45, cost reductions for the amount of the Medicare Part D Retiree Drug Subsidy cannot be taken into account in the gross cost calculations.*

2 *2,183 current, Medicare-eligible benefit recipients have been identified by the client to be ineligible for premium-free Medicare Part A benefits. For these individuals, the full cost of coverage is, on average, $589 per month. It is assumed 9% of current retirees under the age of 65 who were hired prior to 4/1/1986 will be ineligible for premium-free Medicare Part A benefits upon reaching Medicare eligibility (age 65) and 0% of these retirees will cover a spouse. All active members are assumed to have begun contributing to Medicare as of 4/1/1986 and are assumed eligible for premium-free Medicare Part A benefits.*

Current Retiree Medical Plan Participation: Actual census data and current plan elections (including waivers) provided by the System were used for those retirees currently participating in the Retiree Medical Plan. Current participants are assumed to maintain their current Retiree Medical Plan coverage until they are no longer eligible.

Anticipated Retireee Medical Plan Participation: The assumed annual rates of health care plan participation for future retirees are as follows:

Member Participation

Years of Service	Entered TRS Before 7/1/2002	Entered TRS After 6/30/2002 & Before 7/1/2008	Entered TRS After 6/30/2008
5-9.99	20 %	20%	Not Eligible
10-14.99	49	20	Not Eligible
15-19.99	70	41	41%
20-24.99	91	61	61
25-25.99	91	76	76
26-26.99	91	84	84
27 or more	91	91	91

Anticipated Retiree Medical Plan Elections: The assumed rates of plan election for future retirees participating in the KEHP plans are provided in the following table. As the assumed plan election rates are estimates and actual results may be materially different, this assumption will need to be revised as experience evolves.

LivingWell CDHP	LivingWell PPO	Standard PPO	Standard CDHP
40%	45%	7%	8%

Schedule D continued ...

Spouse Coverage in Medical Plans: Actual census data and current plan elections were used for MEHP and KEHP covered spouses (including beneficiaries) of current retirees. For spouses of future retirees, 25% of future male retirees are assumed to cover their spouse and 15% of future female retirees are assumed to cover their spouse. Male retirees are assumed to be three years older than their spouse and female retirees are assumed to be one year younger than their spouse.

Disabled Dependent Children in Retiree Medical Plan: The liability associated with disabled dependent children was determined to be de minimis and was therefore excluded from this valuation.

Withdrawal Assumption: Future vested members who terminate employment prior to retirement are assumed to elect to withdraw their contributions based upon their age and service at termination of employment as follows:

Rates of Withdrawal Upon Termination of Employment

Age at Termination of Employment	Years of Service 5 - 10	10 - 15	15+
Under Age 55	20%	15%	10%
Ages 55+	10%	10%	10%

All vested members who terminate employment prior to retirement are assumed to elect to withdraw their contributions prior to receiving a pension benefit based upon their service as follows:

Rates of Withdrawal Prior to Receiving a Pension Benefit

Years of Service 5 - 10	10 - 15	15 - 27	27+
25%	15%	**10%**	25%

All vested members who terminate employment prior to retirement and who are assumed to elect to receive a pension benefit are assumed to begin receiving their benefit at age 60.

Payroll Growth: 3.50% per annum, compounded annually.

Price Inflation: 3.00% per annum, compounded annually.

Affordable Care Act (ACA): The impact of the Affordable Care Act (ACA) was addressed in this valuation. Review of the information currently available did not identify any specific provisions of the ACA that are anticipated to significantly impact results. While the impact of certain provisions such as the excise tax on high-value health insurance plans beginning in 2020 (if applicable), mandated benefits and participation changes due to the individual mandate should be recognized in the determination of liabilities, overall future plan costs and the resulting liabilities are driven by the assumed rate of health care inflation (i.e., trend). The trend assumption forecasts the anticipated increase to initial per capita costs, taking into account health care cost inflation, increases in benefit utilization, government-mandated benefits, and technological advances. Given the uncertainty regarding the ACA's implementation (e.g., the impact of excise tax on high-value health insurance plans, changes in participation resulting from the implementation of state-based health insurance exchanges), continued monitoring of the ACA's impact on the Retiree Medical Plan's liability will be required.

Asset Valuation Method: Five-year market related actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the ultimate assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected actuarial value. The ultimate assumed valuation rate of return is assumed to be 8.00% for the Medical Insurance Fund and 7.50% for the Life Insurance Fund.

Actuarial Cost Method: The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future, of each active member's expected benefit at retirement or death is determined, based on his/her age, service, and gender. The calculations take into account the probability of a

Schedule D continued ...

member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his/her terminating with a service, disability or survivor's benefit. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries and deferred vested members to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.

The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.

The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his/her anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his/her behalf.

The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the System.

Separation From Service: Representative values of the assumed annual rates of salary increases, death, disability, withdrawal, service retirement and early retirement are as follows:

MALES: Annual Rate of . . .

				WITHDRAWAL			RETIREMENT	
				SERVICE				
AGE	SALARY*	DEATH	DISABILITY	0 - 4	5 - 9	10+	Before 27 Years of Service	After 27 Years of Service**
20	7.20%	0.019%	0.01%	11.00%				
25	6.40	0.021	0.01	11.00	3.00%			
30	5.40	0.025	0.01	11.00	3.00	3.00%		
35	4.70	0.043	0.04	12.00	3.50	1.40		
40	4.20	0.060	0.09	12.00	4.50	1.40		
45	3.80	0.084	0.20	12.00	4.50	1.30		17.0%
50	3.70	0.119	0.30	14.00	4.50	1.90		17.0
55	3.50	0.202	0.58	15.00	4.50	2.40	5.0%	45.0
60	3.50	0.340	0.75	15.00	4.00	2.40	13.0	35.0
62	3.50	0.419	0.75	15.00	3.80	2.40	15.0	25.0
65	3.50	0.565	0.75	15.00	3.50	2.40	20.0	25.0
70	3.50	0.913	0.75	20.00	0.00	0.00	20.0	20.0
75	3.50	1.556	0.75	20.00	0.00	0.00	100.0	100.0

FEMALES: Annual Rate of . . .

				WITHDRAWAL			RETIREMENT	
				SERVICE				
AGE	SALARY*	DEATH	DISABILITY	0 - 4	5 - 9	10+	Before 27 Years of Service	After 27 Years of Service**
20	7.20%	0.007%	0.01%	9.00%				
25	6.40	0.008	0.01	9.00	4.00%			
30	5.40	0.010	0.03	12.00	4.00	1.65%		
35	4.70	0.018	0.06	12.00	4.00	1.50		
40	4.20	0.026	0.12	12.00	4.00	1.30		
45	3.80	0.042	0.25	13.00	4.00	1.20		15.0%
50	3.70	0.062	0.44	13.00	5.00	1.50		18.0
55	3.50	0.096	0.65	15.00	5.00	2.00	5.5%	50.0
60	3.50	0.157	0.85	15.00	5.00	2.00	14.0	40.0
62	3.50	0.197	0.85	15.00	4.60	2.00	14.0	40.0
65	3.50	0.287	0.85	15.00	4.00	2.00	22.0	35.0
70	3.50	0.495	0.85	15.00	0.00	0.00	20.0	35.0
75	3.50	0.831	0.85	15.00	0.00	0.00	100.0	100.0

* *Includees inflation at 3.5% per annum.*

** *Plus 7.5% in year when first eligible for unreduced retirement with 27 years of service.*

Schedule D continued ...

Deaths After Retirement: The RP-2000 Combined Mortality Table projected to 2025 using scale BB (set forward two years for males and one year for females) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table (set forward two years for males and seven years for females) is used for death after disability retirement. There is a margin for future mortality improvement in the tables used by the System. Based on the results of the most recent experience study adopted by the Board on September 19, 2016, the numbers of expected future deaths are 15-19% less than the actual number of deaths that occurred during the study period for healthy retirees and 13-17% less than expected under the selected table for disabled retirees. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown:

Annual Rate of Death After . . .

	Service Retirement		Disability Retirement	
Age	MALE	FEMALE	MALE	FEMALE
45	0.1609%	0.1135%	2.3306%	1.2482%
50	0.2474	0.1718	2.9279	1.5650
55	0.4246	0.2658	3.4400	1.7807
60	0.6985	0.4409	3.5881	2.3164
65	1.1300	0.8100	3.8275	3.1687
70	1.8697	1.3739	4.7566	4.4032
75	3.2147	2.2899	6.3153	6.0857
80	5.5160	3.7551	8.3527	8.4679
85	9.5631	6.3873	10.9122	12.7572
90	17.2787	11.2476	17.2787	19.4718
95	27.1263	18.1190	27.1263	24.2074

SCHEDULE E

Summary of Main Plan Provisions as Interpreted for Valuation Purposes

ELIGIBILITY FOR ACCESS TO RETIREE MEDICAL COVERAGE

Service Retirement: For employees hired prior to July 1, 2008, Retiree Medical Plan coverage eligibility is attained when an employee retires, which is possible after the completion of 27 years of service or attainment of age 55 and 5 years of service. For employees hired on or after July 1, 2008, employees may retire after the completion of 27 years of service, the attainment of age 55 and 10 years of service, or the attainment of age 60 and 5 years of service, but must complete a minimum of 15 years of service to be eligible for Retiree Medical Plan coverage.

Disability Retirement: Disabled employees hired prior to July 1, 2008 with at least 5 years of service, who are totally and permanently incapable of being employed as a teacher, are eligible for Retiree Medical Plan coverage. Disabled employees hired after July 1, 2008 must have 15 years of service to be eligible for Retiree Medical Plan coverage.

Members and dependents under age 65 and eligible for Medicare due to a disability after January 1, 2013 are required to be covered under MEHP. Under age 65 members who retired prior to Jan. 1, 2013, are grandfathered from this requirement and allowed a choice of KEHP or MEHP coverage. Actual census data and current plan elections were used for current disabled retirees. Until sufficient experience emerges, the valuation conservatively assumes all future disabled members under the age of 65 will be covered under KEHP.

Survivors: Spouses of employees who die in service while eligible to retire, as well as survivors of service and disabled retirees, are eligible for Retiree Medical Plan coverage.

Termination: For employees hired prior to July 1, 2008 and who terminated with at least 5 years of service, Retiree Medical Plan coverage eligibility is attained at age 60. For employees hired on or after July 1, 2008 and who terminated with at least 15 years of service, Retiree Medical Plan coverage eligibility is attained at age 60.

Reemployed Retirees: Retirees who return to work in an agency that participates in KEHP are required to terminate their coverage through the System. Additionally, if a retiree returns to work somewhere that does not participate in the KEHP, but offers health insurance, the retiree must terminate System coverage unless the employer coverage is of lesser value. For valuation purposes, active employees identified as currently receiving retiree health care through the System are valued as retirees.

Schedule E continued ...

COVERED MEMBER MEDICAL PLAN CONTRIBUTIONS

Under Age 65 Retiree Shared Responsibility Contribution: Effective July 1, 2010, retirees under the age of 65 began a three-year phase-in of the Shared Responsibility Contribution. This contribution reduces the applicable amount of the full contribution provided by the System to retirees, by adjusting the Shared Responsibility Contribution amount by 100% less the appropriate percentage from the Retiree Percentage Contribution table below. Effective July 1, 2012, the full Shared Responsibility Contribution equals the Standard Medicare Part B premium paid by retirees ages 65 and older.

Under Age 65 Shared Responsibility Contribution Timeline

Effective Date	Medicare Part B Monthly Cost	Formula	Shared Responsibility Contribution
July 1, 2010	$ 110.50	(1/3 x $110.50)	$ 37.00
January 1, 2011	115.40	(1/3 x 115.40)	39.00
July 1, 2011	115.40	(2/3 x 115.40)	77.00
January 1, 2012	99.90	(2/3 x 99.90)	66.00
July 1, 2012	99.90	99.90	99.90
January 1, 2013	104.90	104.90	104.90
January 1, 2014	104.90	104.90	104.90
January 1, 2015	104.90	104.90	104.90
January 1, 2016	121.80	121.80	121.80
January 1, 2017	134.00	134.00	134.00

Retiree Years of Service Percentage Contribution: Retirees contribute the following percentages based on years of service at retirement, which are then applied to the Retiree Contribution Rate Basis:

Retiree Percentage Contribution*

Years of Service	Hired before 7/1/2002: Age 65 or Older and Covered Before 1/1/2005	Hired before 7/1/2002: Age 65 After or Covered After 12/31/2004	Entered TRS After 6/30/2002 and Before 7/1/2008	Entered TRS After 6/30/2008
5 - 9.99	30%	75%	90%	Not Eligible
10 - 14.99	20	50	75	Not Eligible
15 - 19.99	10	25	55	55%
20 - 24.99	0	0	35	35
25 - 25.99	0	0	10	10
26 - 26.99	0	0	5	5
27 or more	0	0	0	0

** 0% for disabled retirees that retired prior to 1/1/2002.*

Retiree Contribution Rate Basis
Effective January 1, 2017

Tier Elected	LivingWell CDHP	LivingWell PPO	Standard PPO	Standard CDHP	Ages 65 and Older (MEHP)
Single	$ 654.12	$ 641.16	$ 629.76	$ 650.70	$ 252.00
Parent Plus*	844.20	795.06	840.38	870.36	n/a
Couple*	1,014.76	1,051.22	1,186.86	1,179.28	n/a
Family*	1,115.96	1,095.42	1,302.86	1,291.54	n/a
Family C-R*	732.02	712.66	736.74	764.92	n/a

**For members who retired prior to July 1, 2010, the monthly Retiree Contribution Rate Basis is $654.12*

Schedule E continued ...

Under Age 65 Retiree Plan Cost Contribution: An additional contribution according to the table below is required to be paid by retirees under the age of 65 based upon the plan elected and the date of retirement:

Under Age 65 Plan Cost Contribution*
Effective January 1, 2017

Tier Elected	LivingWell CDHP	LivingWell PPO	Standard PPO	Standard CDHP
Retired Prior to July 1, 2010				
Single	$ 47.98	$ 79.98	$ 48.46	$ 13.10
Parent Plus	313.06	368.92	310.46	276.82
Couple	648.62	910.08	823.60	777.64
Family	799.82	1,084.28	990.10	940.40
Family C-R	155.88	211.52	161.38	139.06
Retired After June 30, 2010				
Single	$ 47.98	$ 79.98	$ 48.46	$ 13.10
Parent Plus	122.98	227.98	124.20	60.58
Couple	287.98	512.98	290.86	252.48
Family	337.98	642.98	341.36	302.98
Family C-R	77.98	152.98	78.76	28.26

* *Does not include the additional contribution required to be paid by retirees under the age of 65 who use tobacco ($40 for Single or Family Cross-Reference, and $80 for Parent Plus, Couple or Family).*

Spouse Contributions: 100% of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State. Spouses of current post-65 retirees and surviving spouses of deceased retirees with a date of death on or after July 1, 2002 pay 100% of the full contribution. Spouses of active members who died while eligible to retire prior to July 1, 2002, are provided the same subsidy by the System that would have been provided to the retiree for the lifetime of the spouse, or until remarriage. Spouses of active members who die while eligible to retire on or after July 1, 2002 later pay 100% of the full contribution.

Monthly Surviving Spouse Contribution
Effective January 1, 2017

Tier Elected	LivingWell CDHP	LivingWell PPO	Standard PPO	Standard CDHP	Age 65 and Older (MEHP)
Single	$ 709.24	$ 728.28	$ 685.36	$ 670.94	$ 252.00
Parent Plus	974.32	1,030.18	971.72	938.08	n/a

Schedule E continued ...

System Retiree Medical Plan Contributions: The System Contribution Rate Basis is determined annually by the System; and the full cost is projected based on historical claims data. For retirees, the following percentages are based on years of service at retirement and are then applied to the System Contribution Rate Basis:

Percentage of System Contribution Rate Provided to Retirees*

Years of Service	Entered TRS Before 7/1/2002: Age 65 or Older & Covered Before 1/1/2005	Entered TRS Before 7/1/2002: Age 65 After or Covered After 12/31/2004	Entered TRS After 6/30/2002 and Before 7/1/2008	Entered TRS After 6/30/2008
5 - 9.99	70 %	25 %	10 %	Not Eligible
10 - 14.99	80	50	25	Not Eligible
15 - 19.99	90	75	45	45%
20 - 24.99	100	100	65	65
25 - 25.99	100	100	90	90
26 - 26.99	100	100	95	95
27 or more	100	100	100	100

** 100% for disabled retirees that retired prior to 1/1/2002.*

System Monthly Contribution Rate Basis
Effective January 1, 2017
Under Age 65 (KEHP)

Tier Elected	LivingWell CDHP	LivingWell PPO	Standard PPO	Standard CDHP	Ages 65 and Older (MEHP)
Single	$ 654.12	$ 641.16	$ 629.76	$ 650.70	$ 252.00
Parent Plus**	844.20	795.06	840.38	870.36	n/a
Couple**	1,014.76	1,051.22	1,186.86	1,179.28	n/a
Family**	1,115.96	1,095.42	1,302.86	1,291.54	n/a
Family C-R**	732.02	712.66	736.74	764.92	n/a

* *Irrespective of a participating retiree's service, an additional $7.14 per month is paid by the System to the Department of Employee Insurance (DEI) for KEHP coverage.*
** *For members who retired prior to July 1, 2010, the monthly Retiree Contribution Rate Basis is $654.12.*

Active Member Retiree Medical Plan Contributions: Actively employed members make payroll contributions to the Medical Insurance Fund based upon the following schedule:

Active Member Percentage of Payroll Contribution Made to Medical Insurance Fund

UNIVERSITY EMPLOYEES		SCHOOL DISTRICT EMPLOYEES (Non-Federal)		OTHER EMPLOYEES	
Hired Before 7/1/2008	Hired on or After 7/1/2008	Hired Before 7/1/2008	Hired on or After 7/1/2008	Hired Before 7/1/2008	Hired on or After 7/1/2008
2.775 %	2.775 %	3.750 %	3.750%	3.750 %	3.750 %

Schedule E continued ...

Life Insurance Plan Benefits:
(1) Effective July 1, 2000, the Teachers' Retirement System shall:

(a) Provide a life insurance benefit in a minimum amount of five thousand dollars ($5,000) for its members who are retired for service or disability. This life insurance benefit shall be payable upon the death of a member retired for service or disability to the member's estate or to a party designated by the member on a form prescribed by the retirement system; and

(b) Provide a life insurance benefit in a minimum amount of two thousand dollars ($2,000) for its active contributing members. This life insurance benefit shall be payable upon the death of an active contributing member to the member's estate or to a party designated by the member on a form prescribed by the retirement system.

Note: Members employed on a substitute or part-time basis and working at least 69% of a full contract year in a single fiscal year will be eligible for a life insurance benefit for the balance of the fiscal year or the immediately succeeding fiscal year under certain conditions. For non-vested members employed on a substitute or part-time basis, the life insurance benefit is provided if death occurs as the result of a physical injury on the job. For vested members employed on a substitute or part-time basis, death does not have to be the result of a physical injury on the job for life insurance benefits to be provided.

SCHEDULE F
Table 1 – Service Table
Distribution of Active Members as of June 30, 2016
by Age and Service Groups

Attained Age	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	>= 35	TOTAL
24 & under	2,355								2,355
Total Pay	45,330,040								45,330,040
Avg. Pay	19,248								19,248
25 to 29	5,983	1,390	6						7,379
Total Pay	203,433,582	67,448,815	290,024						271,172,421
Avg. Pay	34,002	48,524	48,337						36,749
30 to 34	3,012	4,867	1,237	5					9,121
Total Pay	95,202,602	245,417,243	70,031,584	254,892					410,906,321
Avg. Pay	31,608	50,425	56,614	50,978					45,051
35 to 39	2,269	2,377	4,756	984	4				10,390
Total Pay	63,198,818	122,108,596	281,358,005	63,149,812	239,758				530,054,989
Avg. Pay	27,853	51,371	59,159	64,177	59,940				51,016
40 to 44	1,785	1,520	2,196	4,060	746	1			10,308
Total Pay	45,830,416	77,450,441	131,391,508	267,885,302	52,046,889	53,664			574,658,220
Avg. Pay	25,675	50,954	59,832	65,982	69,768	53,664			55,749
45 to 49	1,483	1,177	1,593	2,266	3,343	750	3		10,615
Total Pay	39,361,503	60,147,545	93,765,291	147,455,842	233,185,542	54,299,673	169,293		628,384,689
Avg. Pay	26,542	51,102	58,861	65,073	69,753	72,400	56,431		59,198
50 to 54	1,196	717	1,039	1,272	1,534	1,826	286	2	7,872
Total Pay	25,260,952	36,290,570	61,397,451	82,245,956	106,693,617	134,430,589	21,213,845	131,648	467,664,628
Avg. Pay	21,121	50,614	59,093	64,659	69,553	73,620	74,174	65,824	59,409
55 to 59	1,345	467	678	996	1,069	818	352	19	5,744
Total Pay	21,138,039	21,468,016	39,649,701	64,095,061	75,667,783	62,721,524	30,314,021	1,529,398	316,583,543
Avg. Pay	15,716	45,970	58,480	64,352	70,784	76,677	86,119	80,495	55,116
60 to 64	1,837	341	387	608	577	412	102	65	4,329
Total Pay	23,796,325	13,577,768	22,772,409	40,965,044	42,005,811	32,467,970	9,324,712	5,479,043	190,389,082
Avg. Pay	12,954	39,818	58,843	67,377	72,800	78,806	91,419	84,293	43,980
65 & over	2,291	524	181	227	214	169	65	64	3,735
Total Pay	20,398,952	12,356,675	11,463,858	15,532,839	16,369,811	14,008,597	5,681,398	6,270,288	102,082,418
Avg. Pay	8,904	23,581	63,336	68,427	76,494	82,891	87,406	97,973	27,331
Total	23,556	13,380	12,073	10,418	7,487	3,976	808	150	71,848
Total Pay	582,951,229	656,265,669	712,119,831	681,584,748	526,209,211	297,982,017	66,703,269	13,410,377	3,537,226,351
Avg. Pay	24,747	49,048	58,984	65,424	70,283	74,945	82,554	89,403	49,232

Average Age: 43.5 **Average Service: 10.8**

Schedule F continued ...

Table 2 – Total Active Member Valuation Data

Valuation Date	Number	Annual Payroll	Annual Average Pay	Percentage Increase in Average Pay
6/30/2016	71,848	$ 3,537,226,348	$ 49,232	1.19 %
6/30/2015	72,246	3,515,113,126	48,655	2.45
6/30/2014	73,407	3,486,326,799	47,493	2.12
6/30/2013	74,831	3,480,066,406	46,506	1.51
6/30/2012	75,951	3,479,567,004	45,813	1.33
6/30/2011	76,349	3,451,756,288	45,210	3.97

Table 3 – Eligible Deferred Vested Members as of June 30, 2016 Medical Insurance Fund

Male & Female Demographic Breakdown

Attained Age	Number of Males	Number of Females	Total Number
Under 30	3	9	12
30-34	125	534	659
35-39	338	1,021	1,359
40-44	340	1,067	1,407
45-49	326	1,191	1,517
50-54	301	1,010	1,311
55-59	221	807	1,028
60 & Over	236	616	852
Total	**1,890**	**6,255**	**8,145**

Table 3 – Eligible Deferred Vested Members as of June 30, 2016 Life Insurance Fund

Male & Female Demographic Breakdown

Attained Age	Number of Males	Number of Females	Total Number
Under 30	18	66	84
30-34	215	752	967
35-39	377	1,135	1,512
40-44	374	1,154	1,528
45-49	343	1,275	1,618
50-54	325	1,070	1,395
55-59	240	843	1,083
60 & Over	239	632	871
Total	**2,131**	**6,927**	**9,058**

Schedule F continued ...

Table 4 – All Retirees & Spouses Receiving Health Care Benefits as of June 30, 2016
Male & Female Demographic Breakdown

Attained Age	Number of Males	Number of Females	Total Number
Under 40	3	18	21
40-44	15	54	69
45-49	66	203	269
50-54	367	974	1,341
55-59	1,169	2,908	4,077
60-64	2,758	6,068	8,826
65-69	3,939	8,236	12,175
70-74	2,843	4,937	7,780
75-79	1,869	3,231	5,100
80-84	1,216	2,010	3,226
85-89	601	1,399	2,000
90-94	196	645	841
95-99	49	179	228
100	1	15	16
101	0	9	9
102	1	11	12
103	0	1	1
104	0	1	1
105 & Over	0	4	4
Total	**15,093**	**30,903**	**45,996**

Table 5 – Retirees, Beneficiaries and Survivors Added To and Removed From Rolls *
Medical Insurance Fund

Fiscal Year Ending June 30	Number of Members Added to Rolls	Number of Spouses** Added to Rolls	Total Number Added to Rolls	Number of Members Removed from Rolls	Number of Spouses** Removed from Rolls	Total Number Removed from Rolls	Number of Members on Rolls at the End of the Year	Number of Spouses** on Rolls at the End of the Year	Total Number on Rolls at the End of the Year
2011	1,770	629	2,399	1,052	541	1,593	35,033	6,922	41,955
2012	1,996	702	2,698	1,029	616	1,645	36,000	7,008	43,008
2013	1,853	664	2,517	1,076	619	1,695	36,777	7,053	43,830
2014	1,663	638	2,301	1,165	660	1,825	37,275	7,031	44,306
2015	1,990	731	2,721	1,190	633	1,823	38,075	7,129	45,204
2016	2,045	726	2,771	1,305	674	1,979	38,815	7,181	45,996

* *Reflects members, spouses, and beneficiaries participating in a health care plan.*
** *Includes spouses, beneficiaries, and surviving spouses.*

Schedule F continued ...

Table 6 – Retirees, Beneficiaries and Survivors Added To and Removed From Rolls *
Life Insurance Fund

Fiscal Year Ending June 30	Number Added to Rolls	Life Insurance Benefit ($1,000's)	Number Removed from Rolls	Life Insurance Benefit ($1,000's)	Number on Rolls at the End of the Year	Life Insurance Benefit ($1,000's)	Increase in Life Insurance Benefit	Average Life Insurance Benefit
2011	2,025	$ 10,125	858	$ 4,290	41,118	$ 205,590	2.92 %	$ 5,000
2012	2,364	11,820	880	4,400	42,602	213,010	3.61	5,000
2013	2,195	10,975	952	4,760	43,845	219,225	2.92	5,000
2014	1,964	9,820	954	4,770	44,855	224,275	2.30	5,000
2015	2,270	11,350	1,641	8,205	45,484	227,420	1.40	5,000
2016	2,394	11,970	807	4,035	47,071	235,355	3.49	5,000

** The life insurance benefit is payable upon the death of only members retired for service or disability. Numbers do not include life insurance benefits payable upon the death of an active contributing member.*

Teachers' Retirement System of Kentucky
Sensitivitiy Analysis

The June 30, 2016 valuation results of the Medical Insurance Fund (MIF) are projections based on the actuarial assumptions. Actual experience will differ from these assumptions, either increasing or decreasing cost. The charts on the following pages provide a simple analysis on how the costs are sensitive to changes to the assumed discount rate, the assumed inflation rate, the assumed rate of payroll growth, and the assumed rates of health care inflation (trend). The charts show the actuarial accrued liability, the unfunded liability, the funded ratio and the employer contribution rate under the following scenarios:

- The discount rate assumption sensitivity analysis shows the valuation results with the baseline discount rate assumption, 8.00%, together with a decrease in the discount rate to 7.00% and an increase in the discount rate to 9.00%. Under this scenario, the underlying inflation rate assumption is held constant at 3.00% and the payroll growth assumption is held constant at 3.50%.
- The inflation assumption sensitivity analysis shows the valuation results with the baseline underlying inflation rate assumption, 3.00%, together with decreases in the inflation rate to 2.75% and 2.50%. Under this scenario, the decrease in the underlying inflation rate assumption leads to corresponding decreases in the discount rate, the payroll growth assumption, and the assumed rates of salary increase for active members. The assumed decreases in inflation are not assumed to impact the assumed rates of health care inflation (trend).
- The payroll growth assumption sensitivity analysis shows the valuation results with the baseline underlying payroll growth assumption, 3.50%, together with decreases in the payroll growth assumption to 2.00% and 0.00%. Under this scenario, all other assumptions, including the individual member salary scale, are held constant so that the only impact is in the amortization of the unfunded liability, leading to higher employer contribution rates.
- The health care inflation (trend) assumption sensitivity analysis shows the valuation results with the baseline trend assumption along with a 1.00% increase in all assumed trend rates and a 1.00% decrease in all assumed trend rates.

Medical Insurance Fund
Assumed Discount Rate Sensitivity Analysis

(In thousands of dollars)

	Decrease Discount Rate	Valuation Results	Increase Discount Rate
Actuarial Accrued Liability	$ 4,133,195	$ 3,634,073	$ 3,222,555
Actuarial Value of Assets	795,055	795,055	795,055
Unfunded Liability	$ 3,338,140	$ 2,839,018	$ 2,427,500
Funded Ratio	19.2%	21.9%	24.7%
Contributions			
Normal Cost	2.57%	1.95%	1.49%
Accrued Liability	4.89%	4.64%	4.39%
Total	7.46%	6.59%	5.88%
Member	(3.69%)	(3.69%)	(3.69%)
Employer/State	3.77%	2.90%	2.19%
Discount Rate	7.00%	8.00%	9.00%
Payroll Growth	3.50%	3.50%	3.50%
Inflation Rate	3.00%	3.00%	3.00%

Medical Insurance Fund
Inflation Assumption Sensitivity Analysis

(In thousands of dollars)

	Valuation Results	Decrease Inflation Rate 25 Basis Points	Decrease Inflation Rate 50 Basis Points
Actuarial Accrued Liability	$ 3,634,073	$ 3,764,727	$ 3,903,231
Actuarial Value of Assets	795,055	795,055	795,055
Unfunded Liability	$ 2,839,018	$ 2,969,672	$ 3,108,176
Funded Ratio	21.9%	21.1%	20.4%
Contributions			
Normal Cost	1.95%	2.07%	2.20%
Accrued Liability	4.64%	4.86%	5.09%
Total	6.59%	6.93%	7.29%
Member	(3.69%)	(3.69%)	(3.69%)
Employer/State	2.90%	3.24%	3.60%
Discount Rate	8.00%	7.75%	7.50%
Payroll Growth	3.50%	3.25%	3.00%
Inflation Rate	3.00%	2.75%	2.50%

Medical Insurance Fund
Payroll Growth Sensitivity Analysis

(In thousands of dollars)

	Valuation Results	Decrease Payroll Growth 150 Basis Points	No Payroll Growth
Actuarial Accrued Liability	$ 3,634,073	$ 3,634,073	$ 3,634,073
Actuarial Value of Assets	795,055	795,055	795,055
Unfunded Liability	$ 2,839,018	$ 2,839,018	$ 2,839,018
Funded Ratio	21.9%	21.9%	21.9%
Contributions			
Normal Cost	1.95%	1.95%	1.95%
Accrued Liability	4.64%	5.44%	6.60%
Total	6.59%	7.39%	8.55%
Member	(3.69%)	(3.69%)	(3.69%)
Employer/State	2.90%	3.70%	4.86%
Discount Rate	8.00%	8.00%	8.00%
Payroll Growth	3.50%	2.00%	0.00%
Inflation Rate	3.00%	3.00%	3.00%

Medical Insurance Fund
Health Care Trend Sensitivity Analysis

(In thousands of dollars)

	Decrease Trend Rates 100 Basis Points	Valuation Results	Increase Trend Rates 100 Basis Points
Actuarial Accrued Liability	$ 3,182,056	$ 3,634,073	$ 4,193,972
Actuarial Value of Assets	795,055	795,055	795,055
Unfunded Liability	$ 2,387,001	$ 2,839,018	$ 3,398,917
Funded Ratio	25.0%	21.9%	19.0%
Contributions			
Normal Cost	1.54%	1.95%	2.50%
Accrued Liability	3.90%	4.64%	5.55%
Total	5.44%	6.59%	8.05%
Member	(3.69%)	(3.69%)	(3.69%)
Employer/State	1.75%	2.90%	4.36%
Discount Rate	8.00%	8.00%	8.00%
Payroll Growth	3.50%	3.50%	3.50%
Inflation Rate	3.00%	3.00%	3.00%

Teachers' Retirement System of Kentucky
Life Insurance Fund
Sensitivitiy Analysis

The June 30, 2016 valuation results of the Life Insurance Fund (LIF) are projections based on the actuarial assumptions. Actual experience will differ from these assumptions, either increasing or decreasing cost. The charts on the following pages provide a simple analysis on how the costs are sensitive to changes to the assumed discount rate, the assumed inflation rate, and the assumed rate of payroll growth. The charts show the actuarial accrued liability, the unfunded liability, the funded ratio and the employer contribution rate under the following scenarios:

- The discount rate assumption sensitivity analysis shows the valuation results with the baseline discount rate assumption, and 7.50% together with a decrease in the discount rate to 6.50% and an increase in the discount rate to 8.50%. Under this scenario, the underlying inflation rate assumption is held constant at 3.00% and the payroll growth assumption is held constant at 3.50%.
- The inflation assumption sensitivity analysis shows the valuation results with the baseline underlying inflation rate assumption, 3.00%, together with decreases in the inflation rate to 2.75% and 2.50%. Under this scenario, the decrease in the underlying inflation rate assumption leads to corresponding decreases in the discount rate, the payroll growth assumption, and the assumed rates of salary increase for active members.
- The payroll growth assumption sensitivity analysis shows the valuation results with the baseline underlying payroll growth assumption, 3.50%, together with decreases in the payroll growth assumption to 2.00% and 0.00%. Under this scenario, all other assumptions, including the individual member salary scale, are held constant so that the only impact is in the amortization of the unfunded liability, leading to higher employer contribution rates.

Life Insurance Fund
Assumed Discount Rate Sensitivity Analysis

(In thousands of dollars)

	Decrease Discount Rate	Valuation Results	Increase Discount Rate
Actuarial Accrued Liability	$ 120,369	$ 106,059	$ 94,354
Actuarial Value of Assets	97,269	97,269	97,269
Unfunded Liability	$ 23,100	$ 8,790	$ (2,915)
Funded Ratio	80.8%	91.7%	103.1%
Contributions			
Normal Cost	0.04%	0.03%	0.02%
Accrued Liability	0.03%	0.01%	(0.01%)
Total	0.07%	0.04%	0.01%
Member	(0.00%)	(0.00%)	(0.00%)
Employer/State	0.07%	0.04%	0.01%
Discount Rate	6.50%	7.50%	8.50%
Payroll Growth	3.50%	3.50%	3.50%
Inflation Rate	3.00%	3.00%	3.00%

Life Insurance Fund
Inflation Assumption Sensitivity Analysis

(In thousands of dollars)

	Valuation Results	Decrease Inflation Rate 25 Basis Points	Decrease Inflation Rate 50 Basis Points
Actuarial Accrued Liability	$ 106,059	$ 109,535	$ 113,210
Actuarial Value of Assets	97,269	97,269	97,269
Unfunded Liability	$ 8,790	$ 12,266	$ 15,941
Funded Ratio	91.7%	88.8%	85.9%
Contributions			
Normal Cost	0.03%	0.03%	0.03%
Accrued Liability	0.01%	0.02%	0.02%
Total	0.04%	0.05%	0.05%
Member	(0.00%)	(0.00%)	(0.00%)
Employer/State	0.04%	0.05%	0.05%
Discount Rate	7.50%	7.25%	7.00%
Payroll Growth	3.50%	3.25%	3.00%
Inflation Rate	3.00%	2.75%	2.50%

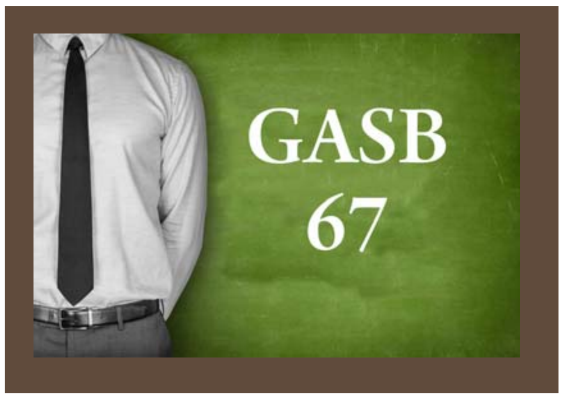
Life Insurance Fund
Payroll Growth Sensitivity Analysis

(In thousands of dollars)

	Valuation Results	Decrease Payroll Growth 150 Basis Points	No Payroll Growth
Actuarial Accrued Liability	$ 106,059	$ 106,059	$ 106,059
Actuarial Value of Assets	97,269	97,269	97,269
Unfunded Liability	$ 8,790	$ 8,790	$ 8,790
Funded Ratio	91.7%	91.7%	91.7%
Contributions			
Normal Cost	0.03%	0.03%	0.03%
Accrued Liability	0.01%	0.02%	0.02%
Total	0.04%	0.05%	0.05%
Member	(0.00%)	(0.00%)	(0.00%)
Employer/State	0.04%	0.05%	0.05%
Discount Rate	7.50%	7.50%	7.50%
Payroll Growth	3.50%	2.00%	0.00%
Inflation Rate	7.50%	7.50%	7.50%

Teachers' Retirement System
of the State of Kentucky

2016



Actuarial Section

Additional Report on

GASB Statement Number 67

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

November 21, 2016

Board of Trustees
Teachers' Retirement System
of the State of Kentucky
479 Versailles Road
Frankfort, KY 40601-3800

Members of the Board:

Presented in this report is information to assist the Teachers' Retirement System of the State of Kentucky (TRS), in meeting the requirements of the Governmental Accounting Standards Board (GASB) Statement No. 67. This report has been prepared as of June 30, 2016 (the Measurement Date) to assist TRS in better understanding the requirements of GASB 67 and to identify the information to be provided by TRS's actuary, Cavanaugh Macdonald Consulting (CMC).

The annual actuarial valuation used as a basis for much of the information presented in this report was performed as of June 30, 2015. The valuation was based upon data, furnished by the Executive Secretary and TRS staff, concerning active, inactive and retired members along with pertinent financial information.

To the best of our knowledge, this report is complete and accurate. The necessary calculations were performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems.

The calculations were prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board, and, in our opinion, meet the requirements of GASB 67.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the

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Board of Trustees
November 21, 2016
Page 2

System, and on actuarial assumptions that are, individually and in the aggregate, internally consistent and reasonably based on the actual experience of the System. In addition, the calculations were completed in compliance with the laws governing the System. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

These results are only for financial reporting and may not be appropriate for funding purposes or other types of analysis. Calculations for purposes other than satisfying the requirements of GASB 67 may produce significantly different results. Future actuarial results may differ significantly from the current results presented in this report due to such factors as changes in plan experience or changes in economic or demographic assumptions.

Respectfully submitted,

Edward J. Koebel

Edward J. Koebel, EA, FCA, MAAA
Principal and Consulting Actuary

Eric H. Gary, FSA, FCA, MAAA
Principal and Chief Health Actuary

Cathy Turcot

Cathy Turcot
Principal and Managing Director

REPORT OF THE ANNUAL GASB STATEMENT NO. 67 REQUIRED INFORMATION FOR THE TEACHERS' RETIREMENT SYSTEM OF THE STATE OF KENTUCKY PREPARED AS OF JUNE 30, 2016

Section 1: Introduction

The Governmental Accounting Standards Board issued Statement No. 67 (GASB 67), "Financial Reporting For Pension Plans", in June 2012. This report, prepared as of June 30, 2016 (the Measurement Date), presents information to assist the Teachers' Retirement System of the State of Kentucky (TRS), in meeting the requirements of GASB 67. Much of the material provided in this report is based on the data, assumptions and results of the annual actuarial valuation of TRS as of June 30, 2015. The results of that valuation were detailed in a report dated December 7, 2015.

GASB 67 requires a measurement of the Total Pension Liability (TPL) utilizing the Entry Age Normal actuarial funding method. If the valuation date at which the TPL is determined is before the measurement date, as is the case here, the TPL must be rolled forward to the measurement date. The Net Pension Liability (NPL) is then set equal to the rolled forward TPL minus the System's Fiduciary Net Position (FNP) (basically the market values of assets) as of the Measurement Date. The benefit provisions recognized in the calculation of the TPL are summarized in Schedule B. The development of the roll-forward of the TPL is shown in the table on page 160.

Among the assumptions needed for the liability calculation is a Single Equivalent Interest Rate (SEIR) as described by GASB 67. To determine the SEIR, the FNP must be projected into the future for as long as there are anticipated benefits payable under the plan's provisions applicable to the membership and beneficiaries of the System on the Measurement Date. We have projected future employer contributions to be made based on the amounts required by statute. Although the TRS Board of Trustees adopted a funding policy, shown in Schedule E, on December 16, 2013, the State has not funded the actuarially determined contributions since 2009. However, it is our understanding that the State budget includes additional appropriations to the pension plan for fiscal years 2017 and 2018, which have been taken into account. On this basis, if the FNP is not projected to be depleted at any point in the future, the long term expected rate of return on plan investments expected to be used to finance the benefit payments may be used as the SEIR.

If, however, the FNP is projected to be depleted, the SEIR is determined as the single rate that will generate a present value of benefit payments equal to the sum of the present value determined by discounting all projected benefit payments through the date of depletion by the long term expected rate of return, and the present value determined by discounting those benefits after the date of depletion by a 20-year tax-exempt municipal bond (rating AA/Aa or higher) rate. Our calculations indicated that the FNP is projected to be depleted, so the bond rate is used in the determination of the SEIR. On this basis, we have determined that a discount rate of 4.20 percent meets the requirements of GASB 67.

The sections that follow provide the results of all the necessary calculations, presented in the order laid out in GASB 67 for note disclosure and Required Supplementary Information.

Section 2: Financial Statement Notes

The material presented herein will follow the order presented in GASB 67. Paragraph numbers are provided for ease of reference.

Paragraphs 30(a) (1)-(3): The information required is to be supplied by the System.

Paragraph 30(a) (4): The data required regarding the membership of the TRS were furnished by the System office. The following table summarizes the membership of the System as of June 30, 2015, the actuarial valuation date.

Membership	Number
Retirees And Survivors Currently Receiving Benefits	49,822
Terminated Vested Employees Entitled To But Not Yet Receiving Benefits	8,051
Inactive Non-vested Members	19,720
Active Members	72,246
TOTAL	**149,839**

Paragraphs 30(a)(5)-(6) and Paragraphs 30(b)-(f): The information required is to be supplied by the System.

Paragraphs 31(a) (1)-(4): The information is provided in the following table. As stated on the previous page, the Net Pension Liability (NPL) is equal to the Total Pension Liability (TPL) minus the Fiduciary Net Position (FNP). That result as of June 30, 2016 is presented in the table below ($ thousands).

	Fiscal Year Ending 6/30/2016
Total Pension Liability (TPL)	$ 47,736,901
Fiduciary Net Position (FNP)	16,812,832
Net Pension Liability (NPL)	$ 30,924,069
Ratio of FNP to TPL	35.22%

Paragraph 31(b) (1)(a)-(f): This paragraph requires information regarding the actuarial assumptions used to measure the TPL. The set of actuarial assumptions utilized in developing the TPL are outlined in Schedule C. The total pension liability was determined by an actuarial valuation as of June 30, 2015, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.50 percent
Salary increases	4.00 - 8.20 percent, including inflation
Investment rate of return	7.50 percent, net of pension plan investment expense, including inflation
Municipal Bond Index Rate	3.01%
Single Equivalent Interest Rate	4.20%

Mortality rates were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on a projection of Scale AA to 2020 with a set back of 1 year for females.

The actuarial assumptions used in the June 30, 2015 valuation were based on the results of an actuarial experience study for the period July 1, 2005 - June 30, 2010 adopted by the Board on December 19, 2011. The results of the experience study for the period July 1, 2010 - June 30, 2015 will be reflected in the June 30, 2016 valuation and the June 30, 2017 GASB 67 report.

The long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis 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 and by adding expected inflation.

The target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by TRS's investment consultant, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	45.0%	6.4%
Non U.S. Equity	17.0%	6.5%
Fixed Income	24.0%	1.6%
High Yield Bonds	4.0%	3.1%
Real Estate	4.0%	5.8%
Alternatives	4.0%	6.8%
Cash	2.0%	1.5%
Total	100.0%	

Section 2: Financial Statement Notes continued ...

Discount rate. The discount rate used to measure the total pension liability was 4.20 percent. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rates and that Employer contributions will be made at statutorily required rates, and the additional amounts appropriated for fiscal years 2017 and 2018. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the 2040 plan year. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments through 2039 and a municipal bond index rate of 3.01 percent was applied to all periods of projected benefit payments after 2039. The Single Equivalent Interest Rate (SEIR) that discounts the entire projected benefit stream to the same amount as the sum of the present values of the two separate benefit payments streams was used to determine the total pension liability.

Paragraph 31(b) (1) (g): This paragraph requires disclosure of the sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the System, calculated using the discount rate of 4.20 percent, as well as what the System's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (3.20 percent) or 1-percentage-point higher (5.20 percent) than the current rate ($ thousands):

(In thousands of dollars)	1% Decrease (3.20%)	Current Discount Rate (4.20%)	1% Increase (5.20%)
System's net pension liability	$ 37,937,230	$ 30,924,069	$ 25,168,197

Paragraph 31(c): June 30, 2015 is the actuarial valuation date upon which the TPL is based. The TPL from this valuation was determined using a discount rate of 4.20%, which was based on a municipal bond index rate as of that date equal to 3.01%. The TPL used last year was determined using a discount rate equal to 4.88%, which was based on a municipal bond index rate of 3.82%. These two amounts are rolled forward to June 30, 2016 using standard roll forward techniques. The roll forward calculation adds the annual normal cost (also called the service cost), subtracts the actual benefit payments and refunds for the plan year and then applies the assumed interest rate (SEIR) for the year. The difference between the two roll-forward amounts as of June 30, 2016 is the gain or loss due to changes in assumptions and other inputs.

In addition, we have determined an expected TPL as of June 30, 2016 based on the TPL roll-forward in the June 30, 2015 GASB 67 report. The difference between this amount and the roll-forward of the actual TPL based on the 4.88% interest rate is reflected as an experience gain or loss for the year. These procedures are shown in the following table:

TPL Roll-Forward
(In thousands of dollars)

		Expected	Before Assumption Change	After Assumption Change
(a)	Interest rate	4.88%	4.88%	4.20%
(b)	TPL as of June 30, 2015	$ 42,476,699	$ 42,421,364	$ 46,355,565
(c)	Entry Age Normal Cost for the Year			
	July 1, 2015 - June 30, 2016	1,120,893	1,120,893	1,334,428
(d)	Actual Benefit Payments (including refunds)			
	For the year July 1, 2015 - June 30, 2016	1,860,946	1,860,946	1,860,946
(e)	TPL as of June 30, 2016			
	(b) x (1 + (a)) + (c) - (d) x (1 + 0.5 x (a))	$ 43,764,102	$ 43,706,067	$ 47,736,901
(f)	Difference between Expected and Actual Experience (Gain)/Loss		$ (58,035)	
(g)	Difference due to change in Assumptions and Other Inputs (Gain)/Loss			$ 4,030,834

Section 3: Required Supplementary Information

There are several tables of Required Supplementary Information (RSI) that need to be included in the System's financial statements:

Paragraphs 32(a)-(c): The required tables are provided in Schedule A.

Paragraph 32(d): The money-weighted rates of return required are to be supplied by the System.

Paragraph 34: In addition the following should be noted regarding the RSI:

Changes of benefit terms. None

Changes of assumptions. In the 2011 valuation and later, the expectation of retired life mortality was changed to the RP-2000 Mortality Tables rather than the 1994 Group Annuity Mortality Table, which was used prior to 2011. In the 2011 valuation, rates of withdrawal, retirement, disability and mortality were adjusted to more closely reflect actual experience. In the 2011 valuation, the Board adopted an interest smoothing methodology to calculate liabilities for purposes of determining the actuarially determined contributions. Beginning with the 2014 valuation, the interest smoothing methodology is no longer used.

Methods and assumptions used in calculations of actuarially determined contributions. The actuarially determined contribution rates in the schedule of employer contributions are calculated as of June 30, three years prior to the end of the fiscal year in which contributions are reported (as of June 30, 2013 for the fiscal year 2016 contributions). The following actuarial methods and assumptions were used to determine contribution rates reported in the most recent year of that schedule:

Actuarial Cost Method	Amortization Method	Remaining Amortization Period	Asset Valuation Method	Inflation	Salary Increase	Ultimate Investment Rate of Return*
Entry Age	Level percentage of payroll, open	30 years	5-year smoothed market	3.50%	4.00 to 8.20 percent, including inflation	7.50 percent, net of pension plan investment expense, including inflation

** The actuarially determined contribution rates are determined using the interest smoothing methodology adopted by the Board.*

Schedule A
Required Supplementary Information
Schedule of Changes in the Net Pension Liability
GASB 67 Paragraph 32(a)
(In thousands of dollars)

	2016	2015	2014
Total Pension Liability			
Service Cost	$ 1,120,893	$ 1,015,080	$ 1,002,338
Interest	2,027,457	2,029,372	1,956,610
Benefit Changes	0	0	0
Difference Between Expected and Actual Experience	(58,035)	0	0
Changes of Assumptions	4,030,834	1,511,960	(353,043)
Benefit Payments	(1,833,199)	(1,741,456)	(1,654,376)
Refunds of Contributions	(27,748)	(23,033)	(25,462)
Net Change in Total Pension Liability	5,260,202	2,791,923	926,067
Total Pension Liability-Beginning	42,476,699	39,684,776	38,758,709
Total Pension Liability-Ending (a)	$ 47,736,901	$ 42,476,699	$ 39,684,776
Plan Net Position			
Contributions-State of KY	$ 484,987	$ 480,073	$ 483,330
Contributions-Other Employers	80,468	79,506	38,445
Contributions-Member	313,044	308,160	304,982
Net Investment Income	(245,215)	862,179	2,803,249
Benefit Payments	(1,833,199)	(1,741,456)	(1,654,376)
Administrative Expense	(8,636)	(8,869)	(7,956)
Refunds of Contributions	(27,748)	(23,033)	(25,462)
Other	0	0	41,551
Net Change in Plan Net Position	(1,236,299)	(43,440)	1,983,763
Plan Net Position - Beginning	18,049,131	18,092,571	16,108,808
Plan Net Position - Ending (b)	$ 16,812,832	$ 18,049,131	$ 18,092,571
Employers' Net Pension Liability - Ending (a) - (b)	$ 30,924,069	$ 24,427,568	$ 21,592,205

Schedule A: Required Supplementary Information continued ...

Schedule A
Required Supplementary Information
Schedule of Net Pension Liability
GASB 67 Paragraph 32(b)
(In thousands of dollars)

	2016	2015	2014
Total Pension Liability	$ 47,736,901	$ 42,476,699	$ 39,684,776
Plan Net Position	16,812,832	18,049,131	18,092,571
Net Pension Liability	$ 30,924,069	$ 24,427,568	$ 21,592,205
Ratio of Plan Net Position to Total Pension Liability	35.22%	42.49 %	45.59 %
Covered-Employee Payroll	$ 3,390,539	$ 3,455,008	$ 3,317,422
Net Pension Liability as a Percentage of Covered-Employee Payroll	912.07%	707.02 %	650.87 %

Schedule A
Required Supplementary Information
Schedule of Employer Contributions
GASB 67 Paragraph 32(c)
(In thousands of dollars)

	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
Covered-Employee Payroll	$ 3,390,539	$ 3,455,008	$ 3,317,422	$ 3,310,710	$ 3,310,176	$ 3,283,749	$ 3,321,614	$ 3,253,077	$ 3,190,332	$ 2,975,289
Actual Employer Contributions	565,455	559,579	563,326	568,233	557,340	1,037,936	479,805	442,550	466,248	434,890
Actuarially Determined Employer Contributions	999,270	913,654	823,446	802,985	757,822	678,741	633,938	600,283	563,789	494,565
Annual Contribution Excess (Deficiency)	$ (433,815)	$ (354,075)	$ (260,120)	$ (234,752)	$ (200,482)	$ 359,195	$ (154,133)	$ (157,733)	$ (97,541)	$ (59,675)
Actual Contributions as a Percentage of Covered-Employee Payroll	16.68%	16.20%	16.98%	17.16%	16.84%	31.61%	14.44%	13.60%	14.61%	14.62%

Schedule B

Summary of Main Benefit Provisions

The Teachers' Retirement System of the State of Kentucky was established on July 1, 1940. The valuation took into account amendments to the System effective through June 30, 2015. The following summary describes the main benefit and contribution provisions of the System as interpreted for the valuation.

1 - DEFINITIONS

"Final average salary" means the average of the five highest annual salaries which the member has received for service in a covered position and on which the member has made contributions or on which the public board, institution or agency has picked up the member contributions. For a member who retires after attaining age 55 with 27 years of service, "final average salary" means the average of the three highest annual salaries.

2 - BENEFITS

Service Retirement Allowance for Members Before 7/1/2008
Condition for Retirement

- Completion of 27 years of service or attainment of age 55 and 5 years of service.

Amount of Allowance

- The annual retirement allowance for non-university members is equal to:
  - (a) 2.0% of final average salary multiplied by service before July 1, 1983, plus
  - (b) 2.5% of final average salary multiplied by service after July 1, 1983.
  - (c) For individuals who become members of the Retirement System on or after July 1, 2002 and have less than 10 years of service at retirement, the retirement allowance is 2.0% of final average salary multiplied by service. If, however, they have 10 or more years, they receive a benefit percentage of 2.5% for all years of service up to 30 years.
  - (d) For members retiring on or after July 1, 2004, the retirement allowance formula is 3.0% of final average salary for each year of service credit earned in excess of 30 years.

The annual retirement allowance for university members is equal to 2.0% of final average salary multiplied by all years of service.

For all members, the annual allowance is reduced by 5% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

The minimum annual service allowance for all members is $440 multiplied by credited service.

Service Retirement Allowance for Members on and after 7/1/2008
Condition for Retirement

- Completion of 27 years of service, attainment of age 60 and 5 years of service or attainment of age 55 and 10 years of service.

Amount of Allowance

- 1.7% of final average salary if service is 10 years or less.
- 2.0% of final average salary if service is greater than 10 years and no more than 20 years.
- 2.3% of final average salary if service is greater than 20 years but no more than 26 years.
- 2.5% of final average salary if service is greater than 26 years but no more than 30 years.
- 3.0% of final average salary for years of service greater than 30 years.

The annual retirement allowance for university members is equal to:

- 1.5% of final average salary if service is 10 years or less.
- 1.7% of final average salary if service is greater than 10 years and no more than 20 years.
- 1.85% of final average salary if service is greater than 20 years but less than 27 years.
- 2.0% of final average salary if service is greater than or equal to 27 years.

For all members, the annual allowance is reduced by 6% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

Section B: Summary of Main Benefit Provisions continued ...

Disability Retirement Allowance
Condition for Retirement

- Totally and permanently incapable of being employed as a teacher and under age 60 but after completing 5 years of service.

Amount of Allowance

- The disability allowance is equal to the greater of the service retirement allowance or 60% of the member's final average salary. The disability allowance is payable over an entitlement period equal to 25% of the service credited to the member at the date of disability or five years, whichever is longer. After the disability entitlement period has expired and if the member remains disabled, he will be retired under service retirement. The service retirement allowance will be computed with service credit given for the period of disability retirement. The allowance will not be less than $6,000 per year. The service retirement allowance will not be reduced for commencement of the allowance before age 60 or the completion of 27 years of service.

Benefits Payable on Separation from Service

- Any member who ceases to be in service is entitled to receive his contributions with allowable interest. A member who has completed 5 years of creditable service and leaves his contributions with the System may be continued in the membership of the System after separation from service, and file application for service retirement after the attainment of age 60.

Life Insurance

- A separate Life Insurance fund has been created as of June 30, 2000 to pay benefits on behalf of deceased KTRS active and retired members.

Death Benefits

A surviving spouse of an active member with less than 10 years of service may elect to receive an annual allowance of $2,880 except that if income from other sources exceeds $6,600 per year the annual allowance will be $2,160.

A surviving spouse of an active member with 10 or more years of service may elect to receive an allowance which is the actuarial equivalent of the allowance the deceased member would have received upon retirement. The allowance will commence on the date the deceased member would have been eligible for service retirement and will be payable during the life of the spouse.

If the deceased member is survived by unmarried children under age 18 the following schedule of annual allowances applies:

Number of Children	Annual Allowance
1	$ 2,400
2	4,080
3	4,800
4 or more	5,280

The allowances are payable until a child attains age 18, or age 23 if a full-time student.

If the member has no eligible survivor, a refund of his accumulated contributions is payable to his estate.

Options

In lieu of the regular Option 1, a retirement allowance payable in the form of a life annuity with refundable balance, any member before retirement may elect to receive a reduced allowance which is actuarially equivalent to the full allowance, in one of the following forms:

Option 2. A single life annuity payable during the member's lifetime with payments for 10 years certain.

Option 3. At the death of the member his allowance is continued throughout the life of his beneficiary.

Option 3(a). At the death of the beneficiary designated by the member under Option 3, the member's benefit will revert to what would have been paid had he not selected an option.

Option 4. At the death of the member one half of his allowance is continued throughout the life of his beneficiary.

Option 4(a). At the death of the beneficiary designated by the member under Option 4, the member's benefit will revert to what would have been paid had he not selected an option.

Section B: Summary of Main Benefit Provisions continued ...

Post-Retirement Adjustments
The retirement allowance of each retired member and of each beneficiary shall be increased by 1.50% each July 1.

3- CONTRIBUTIONS

Member Contributions
University members contribute 7.625% of salary to the Retirement System. Non-university members contribute 9.105% of salary to the Retirement System. Member contributions are picked up by the employer.

Schedule C

Statement of Actuarial Assumptions and Methods

Investment Rate of Return: 7.50% per annum, compounded annually.

Salary Increases: Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 3.50% per annum:

Age	20	25	30	35	40	45	50	55	60	65
Annual Rate	8.10%	7.20%	6.20%	5.50%	5.00%	4.60%	4.50%	4.30%	4.20%	4.00%

Separations From Service: : Representative values of the assumed annual rates of death, disability, withdrawal, service retirement and early retirement are as follows:

MALES: Annual Rate of . . .

			WITHDRAWAL			RETIREMENT	
			SERVICE				
AGE	DEATH	DISABILITY	0 - 4	5 - 9	10+	Before 27 Years of Service	After 27 Years of Service*
20	0.012%	0.01%	9.00%				
25	0.015	0.01	9.00	3.00%			
30	0.020	0.02	9.00	3.00	3.00%		
35	0.035	0.05	10.00	3.25	1.75		
40	0.046	0.09	10.00	4.00	1.40		
45	0.058	0.18	11.00	4.00	1.50		17.0%
50	0.074	0.33	9.00	4.00	2.00		17.0
55	0.124	0.55	12.00	3.50	2.50	5.5%	35.0
60	0.244	0.70	12.00	3.50	2.50	13.0	24.0
62	0.324	0.70	12.00	3.50	2.50	15.0	25.0
65	0.480	0.70	12.00	3.50	2.50	21.0	26.0
70	0.821	0.70	0.00	0.00	0.00	100.0	100.0

**Plus 10% in year when first eligible for unreduced retirement with 27 years of service.*

Section C: Statement of Actuarial Assumptions and Methods continued ...

FEMALES: Annual Rate of . . .

AGE	DEATH	DISABILITY	WITHDRAWAL SERVICE 0 - 4	5 - 9	10+	RETIREMENT Before 27 Years of Service	After 27 Years of Service*
20	0.007%	0.01%	7.00%				
25	0.008	0.02	8.50	4.00%			
30	0.010	0.04	9.00	4.00	1.65%		
35	0.017	0.08	9.00	3.75	1.85		
40	0.024	0.14	8.50	3.25	1.50		
45	0.037	0.32	7.50	3.25	1.25		15.0%
50	0.055	0.42	9.50	3.50	1.75		15.0
55	0.103	0.56	11.00	4.00	2.00	6.0%	35.0
60	0.201	0.85	11.00	4.00	2.00	14.0	30.0
62	0.263	0.85	11.00	4.00	2.00	12.0	25.0
65	0.390	0.85	11.00	4.00	2.00	22.0	30.0
70	0.672	0.85	0.00	0.00	0.00	100.0	100.0

Plus 10% in year when first eligible for unreduced retirement with 27 years of service.

Deaths After Retirement: The RP-2000 Combined Mortality Table projected to 2020 using scale AA (set back one year for females) is used for death after service retirement and beneficiaries. The RP-2000 Disabled Mortality Table (set back seven years for males and set forward five years for females) is used for death after disability retirement. Mortality improvement is anticipated under these assumptions as recent mortality experience shows actual deaths are approximately 4% greater for healthy lives and 5% greater for disabled lives than expected under the selected tables. Representative values of the assumed annual rates of death after service retirement and after disability retirement are shown below:

Annual Rate of Death After . . .

AGE	SERVICE RETIREMENT MALE	FEMALE	DISABILITY RETIREMENT MALE	FEMALE
45	0.1161%	0.0745%	2.2571%	1.1535%
50	0.1487	0.1100	2.2571	1.6544
55	0.2469	0.2064	2.6404	2.1839
60	0.4887	0.4017	3.2859	2.8026
65	0.9607	0.7797	3.9334	3.7635
70	1.6413	1.3443	4.6584	5.2230
75	2.8538	2.1680	5.6909	7.2312
80	5.2647	3.6066	7.3292	10.0203
85	9.6240	6.1634	9.7640	14.0049
90	16.9280	11.2205	12.8343	19.4509
95	25.6992	17.5624	16.2186	23.7467

ASSETS: Market Value

EXPENSE LOAD: None.

PERCENT MARRIED: 100%, with females 3 years younger than males.

LOADS: Unused sick leave: 2% of active liability

Schedule D
Actuarial Cost Method

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future, of each active member's expected benefit at retirement or death is determined, based on his age, service, sex and compensation. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. Future salary increases and post-retirement cost-of-living adjustments are also anticipated. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries and inactive members to obtain the present value of all expected benefits payable from the System on account of the present group of members and beneficiaries.

2. The employer contributions required to support the benefits of the System are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.

3. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the uniform and constant percentage rate of employer contribution which, if applied to the compensation of the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.

4. The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the System.

Schedule E
Board Funding Policy

Introduction

Pursuant to the provisions of KRS 161.250, the Board of Trustees ("Board") of the Teachers' Retirement System of Kentucky ("TRS") is vested with the responsibility for the general administration and management of the retirement system. The Board may adopt procedures necessary to conduct the business of the retirement system as needed. The applicable provisions of the Kentucky Revised Statutes ("state law") shall control if any inconsistency exists between state law and this policy.

Background

State law provides that the retirement benefits promised to members of TRS are "…an inviolable contract of the Commonwealth…." (KRS 161.714.) To satisfy this solemn commitment, the Commonwealth of Kentucky ("state") is required to pay annual retirement appropriations necessary to fund the benefit requirements of members of the retirement system. All employers participating in TRS are responsible for paying the fixed employer contribution rate set forth in state law. However, the state-as plan guarantor-is solely responsible for paying the additional annual retirement appropriations necessary to keep the retirement system actuarially sound and able to satisfy the contract with members to provide promised benefits. (KRS 161.550(6).)

Since fiscal year 2008, the state has not paid the recommended annual retirement appropriations necessary to pre-fund the benefit requirements of members of the retirement system as determined by the actuary. Over this period of time, because of the failure to fund, the state's annual retirement appropriations have grown significantly from $60.5 million (Fiscal Year 2009) to $520 million (Fiscal Year 2017). The following schedule details the growth of the annual retirement appropriations payable by the state:

Section E: Board Funding Policy continued ...

	Cumulative Increase as a % of Payroll	Cumulative Increase of Annual Retirement Appropriations Payable by the State
2009	1.88	$ 60,499,800
2010	2.46	82,331,200
2011	3.59	121,457,000
2012	5.81	208,649,000
2013	7.27	260,980,000
2014	8.02	299,420,000
2015	10.42	386,400,000
2016	12.97	487,400,000
2017	13.80	520,372,000

(Source: TRS Report of the Actuary on the Annual Valuation Prepared as of June 30, 2014).

The Board has always taken action as required by state law and recommended annual retirement appropriations payable by the state that would ensure that the state meets the contractual obligations to members. This policy confirms the Board's process for recommending annual retirement appropriations payable by the state and the primary actuarial assumptions and methodologies associated with calculating the annual retirement appropriations. Other related actuarial assumptions and methodologies not listed in this policy are reported in annual valuations, the most recent experience study, or resolutions adopted by the Board.

1. Annual Retirement Appropriations Payable by the State: In each biennial budget request, the Board will recommend annual retirement appropriations payable by the state to meet the benefit requirements of the members of the retirement system. The annual retirement appropriations payable by the state are the sum of the fixed employer contribution rate set by state law and the additional annual retirement appropriations necessary to fund the benefit requirements of members of the retirement system. (KRS 161.550.) The recommended additional annual retirement appropriations payable by the state are calculated by the Board's actuary based upon the results of an annual valuation preceding the beginning of each biennium. (KRS 161.400.)

2. Calculation of Annual Retirement Appropriations Payable by the State: The Board will recommend annual retirement appropriations payable by the state, which-if paid-will meet the benefit requirements of the members of the retirement system consistent with generally accepted actuarial principles. Based upon technical advice from the Board's actuary, the Board hereby adopts the following principles for calculating the recommended annual retirement appropriations payable by the state:

   - Use the Entry Age Normal actuarial cost method;
   - Use a five-year asset smoothing method;
   - Use a thirty-year closed period to amortize legacy unfunded liability ("legacy unfunded liability" is that unfunded liability recognized as of the valuation prepared for June 30, 2014);
   - Use a twenty-year closed period to amortize new sources of unfunded liability ("new sources of unfunded liability" is that unfunded liability consisting of all benefit changes, assumption and method changes, and experience gains and/or losses that have occurred since the previous valuation); and
   - Reach a 100 percent minimum funded ratio within the thirty-year closed amortization period.

The Board also recognizes that, from time to time, the state may desire to contribute lump sum payments toward satisfaction of unfunded liability rather than amortization of the debt. Total unfunded liability is published in every annual valuation of the retirement system and TRS will work with the state to develop reasonable and appropriate plans for receipt of lump sum payments toward the satisfaction of unfunded liability.

This policy will be reviewed regularly and amended or revised as necessary.

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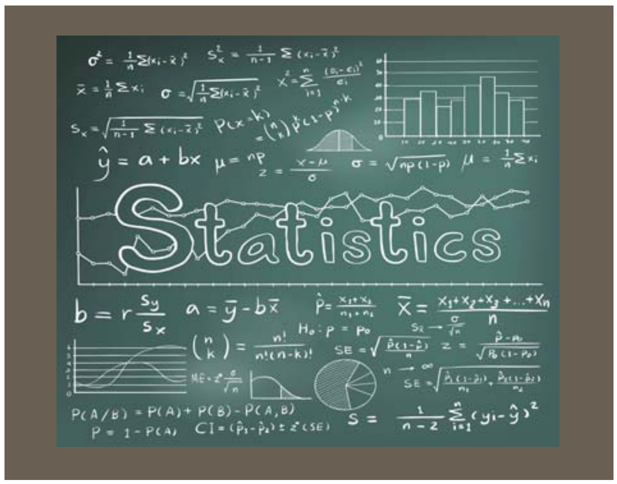
Teachers' Retirement System

of the State of Kentucky

2016



Statistical Section

This section of the Teachers' Retirement System of the State of Kentucky's Comprehensive Annual Financial Report (TRS CAFR) presents detailed information as a context for understanding the information in the financial statements, note disclosures, and required supplementary information regarding the System's overall financial health.

CONTENTS

Defined Benefit Plan
Past Ten Fiscal Years

Additions by Source

Year	Employer Contributions	Member Contributions	Net Investment Income (Loss)	Total Additions to Plan Net Position
2016	$ 565,454,590	$ 313,044,226	$ (245,214,860)	$ 633,283,956
2015	559,579,290	308,159,763	862,178,759	1,729,917,812
2014	563,326,249	304,981,620	2,803,247,956	3,671,555,825
2013	568,233,446	304,738,728	2,039,874,263	2,912,846,437
2012	557,339,552	309,729,924	309,696,252	1,176,765,728
2011	1,037,935,993	302,262,819	2,760,972,224	4,101,171,036
2010	479,805,088	297,613,965	1,509,785,381	2,287,204,434
2009	442,549,935	293,678,564	(2,020,682,522)	(1,284,454,023)
2008	466,247,782	291,423,948	(909,083,525)	(151,411,795)
2007	434,890,469	269,687,864	2,063,878,767	2,768,457,100

Deductions by Type
(Including Benefits by Type)

Year	Service Retirants	Disability Retirants	Survivors	TOTAL Benefits	Refunds	Administrative Expense	Total Deductions to Plan Net Position
2016	$ 1,735,374,416	$ 79,808,432	$ 18,015,782	1,833,198,630	$ 27,747,742	$ 8,636,438	$ 1,869,582,810
2015	1,647,205,474	76,912,574	17,338,047	1,741,456,095	23,032,624	8,868,971	1,773,357,690
2014	1,563,634,993	73,501,441	17,239,266	1,654,375,700	25,461,843	7,955,972	1,687,793,515
2013	1,484,132,938	69,808,291	16,781,695	1,570,722,924	22,059,094	8,377,003	1,601,159,021
2012	1,401,380,816	65,297,491	16,260,858	1,482,939,165	19,549,073	7,762,880	1,510,251,118
2011	1,326,033,698	60,950,214	15,551,801	1,402,535,713	17,325,387	7,322,739	1,427,183,839
2010	1,249,272,057	57,782,651	14,754,062	1,321,808,770	15,310,680	8,830,054	1,345,949,504
2009	1,184,075,934	54,562,038	14,342,435	1,252,980,407	15,208,419	8,165,757	1,276,354,583
2008	1,105,078,345	51,842,271	14,048,485	1,170,969,101	15,965,083	7,551,936	1,194,486,120
2007	1,040,003,417	48,863,876	13,671,586	1,102,538,879	14,822,827	7,351,846	1,124,713,552

Changes in Plan Net Position

Year	Total Additions to Plan Net Position	Total Deductions to Plan Net Position	Changes in Plan Net Position
2016	$ 633,283,956	$ 1,869,582,810	$ (1,236,298,854)
2015	1,729,917,812	1,773,357,690	(43,439,878)
2014	3,671,555,825	1,687,793,515	1,983,762,310
2013	2,912,846,437	1,601,159,021	1,311,687,416
2012	1,176,765,728	1,510,251,118	(333,485,390)
2011	4,101,171,036	1,427,183,839	2,673,987,197
2010	2,287,204,434	1,345,949,504	941,254,930
2009	(1,284,454,023)	1,276,354,583	(2,560,808,606)
2008	(151,411,795)	1,194,486,120	(1,345,897,915)
2007	2,768,457,100	1,124,713,552	1,643,743,548

Medical Insurance Plan
Past Ten Fiscal Years

Additions by Source

Year	Employer Contributions	Member Contributions	Recovery Income	Net Investment Income (Loss)	Total Additions to Plan Net Position
2016	$ 178,638,370	$ 184,365,215	$ 43,328,335	$ (9,332,490)	$ 396,999,430
2015	145,263,926	157,467,680	22,820,427	7,354,704	332,906,737
2014	157,688,414	135,190,891	4,879,981	67,741,063	365,500,349
2013	166,576,444	119,795,780	34,976	30,718,836	317,126,036
2012	173,966,623	100,346,070	3,781,222	(3,989,202)	274,104,713
2011	188,241,202	84,147,337	493,312	8,334,296	281,216,147
2010	158,761,433	63,805,573	14,618,348	12,312,999	249,498,353
2009	164,408,037	58,688,767	13,683,830	11,296,280	248,076,914
2008	148,929,322	55,402,830	11,936,887	8,128,179	224,397,218
2007	113,233,784	53,099,678	10,337,338	6,722,080	183,392,880

Deductions by Type
(Including Benefits by Type)

	Insurance Benefit Expense					
Year	Under Age 65	Age 65 & Over	Administrative Expense	Total Insurance Benefits Expense	Refunds*	Total Deductions to Plan Net Position
2016	$ 127,673,325	$ 160,821,438	$ 1,686,070	$ 290,180,833	$	$ 290,180,833
2015	131,396,480	108,998,102	1,545,235	241,939,817		241,939,817
2014	136,963,208	105,107,323	1,100,133	243,170,664		243,170,664
2013	142,170,438	98,761,180	1,275,206	242,206,824		242,206,824
2012	156,228,181	72,746,945	1,201,629	230,176,755		230,176,755
2011	145,544,405	80,890,958	1,186,029	227,621,392		227,621,392
2010	136,702,152	100,675,376		237,377,528		237,377,528
2009	123,819,475	81,037,647		204,857,122		204,857,122
2008	107,437,450	71,838,765		179,276,215	10,014	179,286,229
2007	104,828,254	69,400,843		174,229,097	5,834	174,234,931

**Refunds are netted against member contributions beginning fiscal year 2009.*

Changes in Plan Net Position

Year	Total Additions to Plan Net Position	Total Deductions to Plan Net Position	Changes in Plan Net Position
2016	$ 396,999,430	$ 290,180,833	$ 106,818,597
2015	332,906,737	241,939,817	90,966,920
2014	365,500,349	243,170,664	122,329,685
2013	317,126,036	242,206,824	74,919,212
2012	274,104,713	230,176,755	43,927,958
2011	281,216,147	227,621,392	53,594,755
2010	249,498,353	237,377,528	12,120,825
2009	248,076,914	204,857,122	43,219,792
2008	224,397,218	179,286,229	45,110,989
2007	183,392,880	174,234,931	9,157,949

Life Insurance Plan

Past Ten Fiscal Years

Additions by Source

Year	Employer Contributions	Net Investment Income (Loss)	Total Additions to Plan Net Position
2016	$ 1,037,769	$ 4,829,336	$ 5,867,105
2015	1,019,519	1,990,324	3,009,843
2014	1,006,091	4,572,845	5,578,936
2013	1,680,495	674,760	2,355,255
2012	1,684,711	6,450,022	8,134,733
2011	1,668,822	3,094,776	4,763,598
2010	1,966,826	5,383,644	7,350,470
2009	5,455,473	5,282,958	10,738,431
2008	5,411,249	6,321,491	11,732,740
2007	5,022,137	(3,413,537)	1,608,600

Deductions by Type

(Including Benefits by Type)

Year	Life Insurance	Total Deductions to Plan Net Position
2016	$ 4,595,489	$ 4,622,684
2015	4,061,000	4,086,306
2014	4,692,000	4,713,324
2013	4,614,718	4,639,143
2012	4,397,281	4,420,167
2011	4,120,000	4,141,511
2010	4,148,511	4,148,511
2009	3,694,000	3,694,000
2008	4,003,000	4,003,000
2007	4,245,000	4,245,000

Changes in Plan Net Position

Total Additions to Plan Net Position	Total Deductions to Plan Net Position	Changes in Plan Net Position
$ 5,867,105	$ 4,622,684	$ 1.244.421
3,009,843	4,086,306	(1,076,463)
5,578,936	4,713,324	865,612
2,355,255	4,639,143	(2,283,888)
8,134,733	4,420,167	3,714,566
4,763,598	4,141,511	622,087
7,350,470	4,148,511	3,201,959
10,738,431	3,694,000	7,044,431
11,732,740	4,003,000	7,729,740
1,608,600	4,245,000	(2,636,400)

Distribution of Active Contributing Members as of June 30, 2016

By Age

Age	Male	Female
20-24	631	2,406
25-29	1,806	5,878
30-34	2,297	7,097
35-39	2,596	7,857
40-44	2,563	7,903
45-49	2,414	7,962
50-54	1,973	6,060
55-59	1,509	4,648
60-64	1,209	3,427
65 & over	1,153	2,667
TOTAL	**18,151**	**55,905**

By Service

Years of Service	Male	Female
Less than 1	2,895	8,924
1-4	4,124	12,572
5-9	3,206	9,909
10-14	2,820	8,949
15-19	2,357	7,680
20-24	1,679	4,908
25-29	843	2,435
30-34	191	455
35 or more	36	73
TOTAL	**18,151**	**55,905**

Principal Participating Employers
Current Year and Nine Years Ago

	2016			2007		
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System
Jefferson County Schools	10,288	1	13.89%	9,822	1	12.90%
Fayette County Public Schools	4,480	2	6.05	4,039	2	5.30
Boone County Schools	1,908	3	2.58	1,619	3	2.13
Warren County Schools	1,331	4	1.80	1,130	8	1.48
Hardin County Schools	1,308	5	1.77	1,368	4	1.80
Bullitt County Schools	1,272	6	1.72	1,155	6	1.52
Kenton County Schools	1,259	7	1.70	1,251	5	1.64
Oldham County Schools	1,198	8	1.62	1,103	10	1.45
Daviess County Schools	1,126	9	1.52	1,128	9	1.48
Madison County Schools	1,088	10	1.47	1,138	7	1.49
All Other*	48,798		65.89	52,408		68.81
TOTAL (208 Employers)	**74,056**		**100.00%**	**76,161**		**100.00%**

** In 2016, "all other" consisted of:*

Type	*Number*	*Employees*
Local School Districts	*163*	*43,309*
Higher Education	*6*	*3,454*
State Agencies	*15*	*1,576*
Regional Coops	*8*	*343*
Other	*6*	*116*
TOTAL	***198***	***48,798***

TRS Schedule of Participating Employers
School Districts: County Schools

1. Adair
2. Allen
3. Anderson
4. Ballard
5. Barren
6. Bath
7. Bell
8. Boone
9. Bourbon
10. Boyd
11. Boyle
12. Bracken
13. Breathitt
14. Breckinridge
15. Bullitt
16. Butler
17. Caldwell
18. Calloway
19. Campbell
20. Carlisle
21. Carroll
22. Carter
23. Casey
24. Christian
25. Clark
26. Clay
27. Clinton
28. Crittenden
29. Cumberland
30. Daviess
31. Edmonson
32. Elliott
33. Estill
34. Fayette
35. Fleming
36. Floyd
37. Franklin
38. Fulton
39. Gallatin
40. Garrard
41. Grant
42. Graves
43. Grayson
44. Green
45. Greenup
46. Hancock
47. Hardin
48. Harlan
49. Harrison
50. Hart
51. Henderson
52. Henry
53. Hickman
54. Hopkins
55. Jackson
56. Jefferson
57. Jessamine
58. Johnson
59. Kenton
60. Knott
61. Knox
62. Larue
63. Laurel
64. Lawrence
65. Lee
66. Leslie
67. Letcher
68. Lewis
69. Lincoln
70. Livingston
71. Logan
72. Lyon
73. Madison
74. Magoffin
75. Marion
76. Marshall
77. Martin
78. Mason
79. McCracken
80. McCreary
81. McLean
82. Meade
83. Menifee
84. Mercer
85. Metcalfe
86. Monroe
87. Montgomery
88. Morgan
89. Muhlenberg
90. Nelson
91. Nicholas
92. Ohio
93. Oldham
94. Owen
95. Owsley
96. Pendleton
97. Perry
98. Pike
99. Powell
100. Pulaski
101. Robertson
102. Rockcastle
103. Rowan
104. Russell
105. Scott
106. Shelby
107. Simpson
108. Spencer
109. Taylor
110. Todd
111. Trigg
112. Trimble
113. Union
114. Warren
115. Washington
116. Wayne
117. Webster
118. Whitley
119. Wolfe
120. Woodford

TRS Schedule of Participating Employers *(continued)*
School Districts: City Schools

1. Anchorage
2. Ashland
3. Augusta
4. Barbourville
5. Bardstown
6. Beechwood
7. Bellevue
8. Berea
9. Bowling Green
10. Burgin
11. Campbellsville
12. Caverna
13. Cloverport
14. Corbin
15. Covington
16. Danville
17. Dawson Springs
18. Dayton
19. East Bernstadt
20. Elizabethtown
21. Eminence
22. Erlanger-Elsmere
23. Fairview
24. Fort Thomas
25. Frankfort
26. Fulton
27. Glasgow
28. Harlan
29. Hazard
30. Jackson
31. Jenkins
32. Ludlow
33. Mayfield
34. Middlesboro
35. Murray
36. Newport
37. Owensboro
38. Paducah
39. Paintsville
40. Paris
41. Pikeville
42. Pineville
43. Raceland
44. Russell
45. Russellville
46. Science Hill
47. Silver Grove
48. Somerset
48. Southgate
50. Walton-Verona
51. West Point
52. Williamsburg
53. Williamstown

Universities & Community/ Technical Colleges

1. Eastern Kentucky
2. Kentucky State
3. Morehead State
4. Murray State
5. Western Kentucky
6. Kentucky Community & Technical College System

State of Kentucky/ Other Organizations

1. Education and Workforce Development Cabinet
2. Department of Corrections

Other Organizations

1. Education Professional Standards Board
2. Kentucky Education Association
3. Kentucky Academic Association
4. Kentucky Educational Development Cooperative
5. Kentucky High School Athletic Association
6. Kentucky School Boards Association
7. Kentucky Valley Educational Cooperative
8. Northern Kentucky Cooperative for Educational Services
9. Ohio Valley Educational Cooperative
10. West Kentucky Education Cooperative
11. Green River Regional Education Cooperative
12. Central Kentucky Special Education Cooperative
13. Southeast South-Central Educational Cooperative

Distribution of Retirement and Medical Payments Worldwide

As of June 30, 2016

Number of Payments in United States

131	Alabama
2	Alaska
76	Arizona
34	Arkansas
101	California
65	Colorado
10	Connecticut
13	Delaware
1,194	Florida
252	Georgia
6	Hawaii
8	Idaho
102	Illinois
694	Indiana
17	Iowa
32	Kansas
45	Louisiana
17	Maine
35	Maryland
22	Massachusetts
51	Michigan
25	Minnesota
48	Mississippi
86	Missouri
6	Montana
8	Nebraska
25	Nevada
5	New Hampshire
7	New Jersey
18	New Mexico
46	New York
264	North Carolina
3	North Dakota
632	Ohio
27	Oklahoma
33	Oregon
54	Pennsylvania
199	South Carolina
7	South Dakota
920	Tennessee
196	Texas
25	Utah
1	Vermont
163	Virginia
45	Washington
101	West Virginia
29	Wisconsin
4	Wyoming

Number of Payments Outside United States

2	AMERICAN SAMOA
4	MILITARY APO
2	AUSTRALIA
1	BARBADOS
5	CANADA
1	CHILE
1	MEXICO
1	NEW ZEALAND
1	PHILIPPINES
1	SWEDEN
1	SWITZERLAND
1	UNITED KINGDOM

TOTALS

Number of Out of State Payments	**5,913**
Out of State Payments	**$179,660,987**
Number of Payments	**53,034**
Amount of Payments	**$2,123,092,985**

Distribution of Retirement and Medical Payments Statewide as of June 30, 2016

County Name	Total Payments	Number of Recipients
Adair	$ 8,492,553	217
Allen	7,305,284	181
Anderson	8,608,129	231
Ballard	2,905,995	75
Barren	17,601,142	431
Bath	4,717,656	131
Bell	15,231,838	381
Boone	42,499,939	979
Bourbon	8,188,811	213
Boyd	22,959,392	544
Boyle	19,138,838	464
Bracken	4,359,254	105
Breathitt	9,481,396	248
Breckinridge	7,383,048	178
Bullitt	19,833,081	451
Butler	4,283,332	110
Caldwell	7,649,543	192
Calloway	28,222,154	695
Campbell	31,209,327	728
Carlisle	1,854,657	51
Carroll	3,873,290	92
Carter	15,088,572	399
Casey	6,300,693	163
Christian	22,773,204	567
Clark	14,622,206	371
Clay	12,638,377	297
Clinton	5,725,090	154
Crittenden	2,347,844	70
Cumberland	3,903,160	95
Daviess	47,167,559	1147
Edmonson	4,329,718	110
Elliott	2,551,012	70
Estill	6,398,192	161
Fayette	128,704,198	3131
Fleming	7,282,945	194
Floyd	21,850,733	562
Franklin	31,177,864	934
Fulton	3,007,930	77
Gallatin	1,226,979	34
Garrard	8,411,939	207
Grant	8,130,417	179
Graves	17,509,158	432
Grayson	11,116,183	278
Green	5,027,757	122
Greenup	16,079,672	403
Hancock	3,248,252	78
Hardin	37,603,144	910
Harlan	16,233,891	418
Harrison	8,376,155	210
Hart	5,698,025	138
Henderson	18,728,367	458
Henry	7,631,913	200
Hickman	1,567,035	38
Hopkins	19,857,440	487
Jackson	5,539,830	151
Jefferson	325,984,204	7002
Jessamine	16,930,866	424
Johnson	14,658,283	351
Kenton	40,421,172	964
Knott	9,944,295	252
Knox	11,247,677	301
Larue	7,275,350	164

County Name	Total Payments	Number of Recipients
Laurel	26,733,555	666
Lawrence	5,514,389	148
Lee	3,104,522	82
Leslie	6,450,110	155
Letcher	13,119,907	345
Lewis	7,412,707	191
Lincoln	12,015,090	292
Livingston	3,615,436	92
Logan	11,408,895	277
Lyon	4,618,960	115
Madison	58,305,153	1396
Magoffin	7,491,649	188
Marion	7,733,260	198
Marshall	15,317,658	371
Martin	5,535,489	142
Mason	8,513,356	215
McCracken	32,360,445	786
McCreary	8,424,656	220
McLean	5,035,784	119
Meade	8,170,630	184
Menifee	2,592,937	77
Mercer	10,114,442	279
Metcalfe	3,963,154	97
Monroe	6,125,564	153
Montgomery	13,643,858	335
Morgan	7,225,836	190
Muhlenberg	15,280,179	357
Nelson	17,041,518	430
Nicholas	2,447,207	63
Ohio	8,159,850	216
Oldham	21,153,832	473
Owen	4,045,148	100
Owsley	4,516,548	118
Pendleton	5,435,166	136
Perry	16,462,690	415
Pike	32,725,070	829
Powell	5,032,326	124
Pulaski	29,305,878	756
Robertson	1,073,432	27
Rockcastle	8,385,536	200
Rowan	20,230,778	513
Russell	9,852,171	242
Scott	18,296,345	452
Shelby	20,938,575	486
Simpson	7,043,311	178
Spencer	6,239,848	141
Taylor	12,699,684	321
Todd	3,643,774	98
Trigg	7,320,866	190
Trimble	2,444,092	55
Union	4,773,232	124
Warren	70,239,020	1727
Washington	4,929,896	128
Wayne	9,298,046	232
Webster	4,955,786	130
Whitley	27,370,603	709
Wolfe	4,515,375	118
Woodford	12,912,815	320
Total in Kentucky	**1,943,431,998**	**47,121**

Growth in Annuitants
as of June 30, 2016

Fiscal Year	Service Retirees	Disabilities	Beneficiaries of Retired Members	Beneficiaries of Deceased Members Eligible to Retire	Survivors	Disabled Adult Child
2015-16	45,096	2,762	2,544	652	370	327
2014-15	43,634	2,691	2,442	653	349	328
2013-14	42,581	2,641	2,304	596	429	316
2012-13	41,255	2,582	2,207	601	432	303
2011-12	40,107	2,478	2,126	596	444	304
2010-11	38,705	2,379	2,003	584	430	296
2009-10	37,607	2,284	1,915	567	435	291
2008-09	36,684	2,209	1,837	559	448	283
2007-08	35,550	2,155	1,778	554	468	271
2006-07	34,462	2,086	1,722	549	466	267

Schedule of Annuitants by Type of Benefit
as of June 30, 2016

Amount of Monthly Benefit ($)	Number of Annuitants	Type of Benefit*					
		1	2	3	4	5	6
1 - 500	3,741	2,833	11	170	32	368	327
501 - 1,000	2,835	2,282	165	294	94	0	0
1,001 - 1,500	3,024	2,130	300	476	116	2	0
1,501 - 2,000	3,517	2,650	398	397	72	0	0
2,001 - 2,500	4,967	3,976	555	329	107	0	0
2,501 - 3,000	8,305	7,190	724	312	79	0	0
3,001 - 3,500	8,234	7,619	348	205	62	0	0
3,501 - 4,000	6,067	5,750	147	137	33	0	0
4,001 - 4,500	3,929	3,740	69	96	24	0	0
4,501 - 5,000	2,642	2,558	24	47	13	0	0
5,001 & OVER	4,490	4,368	21	81	20	0	0
TOTAL	**51,751**	**45,096**	**2,762**	**2,544**	**652**	**370**	**327**

*Type of Benefit
1-*Normal Retirement for Age & Service*
2-*Disability Retirement*
3-*Beneficiaries of Retired Members*
4-*Beneficiaries of Deceased Member Eligible to Retire*
5-*Survivor Payments*
6-*Disabled Adult Child*

Schedule of Annuitants by Option Selected
as of June 30, 2016

Amount of Monthly Benefit ($)	Option Selected*							
	1	2	3	4	5	6	7	8
1 - 500	1,849	386	282	43	5	390	88	698
501 - 1,000	1,594	348	233	112	6	347	188	7
1,001 - 1,500	1,504	308	289	146	15	407	322	33
1,501 - 2,000	1,836	381	321	154	7	474	282	62
2,001 - 2,500	2,414	486	441	179	3	784	491	169
2,501 - 3,000	4,013	811	689	218	9	1,438	788	339
3,001 - 3,500	4,315	936	579	221	11	1,232	828	112
3,501 - 4,000	3,143	637	458	180	9	945	639	56
4,001 - 4,500	1,996	393	330	118	5	593	475	19
4,501 - 5,000	1,372	277	203	91	9	377	305	8
5,001 & OVER	2,281	418	453	210	16	580	522	10
TOTAL	**26,317**	**5,381**	**4,278**	**1,672**	**95**	**7,567**	**4,928**	**1,513**

***Option selected:**
1 - Straight-life annuity with refundable balance
2 - Period certain benefit and life thereafter
3 - Joint-survivor annuity
4 - Joint-survivor annuity, one-half benefit to beneficiary
5 - Other payment - special option
6 - Joint-survivor annuity with "pop-up" option
7 - Joint-survivor annuity, one-half benefit to beneficiary with "pop-up" option
8 - Disability, survivors and disabled adult children - set by statute

Defined Benefit Plan
Average Benefit Payments for the Past Ten Years
By Years of Service Credit

Retirement Effective Dates	00-4.99	05-9.99	10-14.99	15-19.99	20-24.99	25-29.99	30>=	TOTAL
07/01/2006 TO 06/30/2007								
Average monthly benefit	$178	$514	$930	$1,559	$2,136	$3,140	$4,263	**$2,900**
Average final average salary	$4,102	$3,346	$3,590	$4,228	$4,537	$4,970	$5,758	**$4,916**
Number of retired members	48	113	90	109	193	534	514	**1,577**
07/01/2007 TO 06/30/2008								
Average monthly benefit	$199	$524	$1,117	$1,658	$2,276	$3,279	$4,319	**$2,984**
Average final average salary	$3,816	$3,066	$4,215	$4,412	$4,612	$5,067	$5,786	**$5,017**
Number of retired members	50	130	112	150	169	557	615	**1,831**
07/01/2008 TO 06/30/2009								
Average monthly benefit	$200	$573	$1,005	$1,725	$2,436	$3,368	$4,496	**$2,941**
Average final average salary	$4,617	$3,942	$3,873	$4,686	$4,983	$5,278	$5,960	**$5,164**
Number of retired members	72	168	137	115	217	505	585	**1,824**
07/01/2009 TO 06/30/2010								
Average monthly benefit	$185	$525	$1,104	$1,700	$2,427	$3,468	$4,670	**$3,222**
Average final average salary	$3,654	$3,637	$4,124	$4,508	$4,974	$5,383	$6,102	**$5,316**
Number of retired members	28	133	98	103	242	442	601	**1,647**
07/01/2010 TO 06/30/2011								
Average monthly benefit	$149	$519	$1,225	$1,781	$2,513	$3,621	$4,827	**$3,240**
Average final average salary	$3,570	$3,640	$4,423	$4,825	$5,184	$5,574	$6,235	**$5,392**
Number of retired members	45	157	144	112	242	544	617	**1,854**
07/01/2011 TO 06/30/2012								
Average monthly benefit	$175	$507	$1,170	$1,897	$2,613	$3,674	$4,726	**$3,148**
Average final average salary	$3,292	$3,759	$4,307	$4,898	$5,219	$5,605	$6,109	**$5,331**
Number of retired members	45	197	146	162	303	778	569	**2,200**
07/01/2012 TO 06/30/2013								
Average monthly benefit	$161	$475	$1,186	$1,963	$2,781	$3,811	$5,162	**$3,149**
Average final average salary	$3,362	$3,660	$4,498	$4,956	$5,518	$5,799	$6,632	**$5,476**
Number of retired members	44	234	156	154	294	685	447	**2,014**
07/01/2013 TO 06/30/2014								
Average monthly benefit	$192	$484	$1,270	$2,068	$2,797	$3,847	$5,362	**$3,126**
Average final average salary	$4,148	$3,677	$4,751	$5,364	$5,600	$5,902	$6,860	**$5,589**
Number of retired members	56	211	161	145	258	678	344	**1,853**
07/01/2014 TO 06/30/2015								
Average monthly benefit	$157	$472	$1,282	$2,038	$2,890	$3,898	$5,124	**$3,173**
Average final average salary	$3,331	$3,577	$4,892	$5,266	$5,709	$5,948	$6,552	**$5,577**
Number of retired members	60	231	183	206	314	806	456	**2,256**
07/01/2015 TO 06/30/2016								
Average monthly benefit	$177	$519	$1,316	$1,998	$2,934	$3,935	$5,389	$3,195
Average final average salary	$3,364	$3,791	$4,847	$5,188	$5,777	$6,019	$6,858	$5,664
Number of retired members	61	254	194	217	356	807	448	2,337
Ten Years Ended June 30, 2016								
Average monthly benefit	**$178**	**$507**	**$1,183**	**$1,870**	**$2,656**	**$3,646**	**$4,783**	**$3,114**
Average final average salary	**$3,798**	**$3,641**	**$4,432**	**$4,896**	**$5,333**	**$5,609**	**$6,232**	**$5,365**
Number of retired members	**509**	**1,828**	**1,421**	**1,473**	**2,630**	**6,336**	**5,196**	**19,393**

Medical Insurance Plan
Average Insurance Premium Supplements for the Last Five Years
By Years of Service Credit

Retirement Effective Dates	00-9.99	10-14.99	15-19.99	20>=	TOTAL
07/01/2011 to 06/30/2012					
Average monthly supplement	$ 164.12	$ 302.19	$ 433.25	$ 579.29	
Number of retired members	29	81	121	1,568	1,799
07/01/2012 to 06/30/2013					
Average monthly supplement	$ 80.23	$ 227.32	$ 366.98	$ 499.25	
Number of retired members	29	90	104	1,373	1,596
07/01/2013 to 06/30/2014					
Average monthly supplement	$ 51.99	$ 189.59	$ 335.34	$ 483.65	
Number of retired members	15	82	100	1,227	1,424
07/01/2014 to 06/30/2015					
Average monthly supplement	$ 78.48	$ 204.26	$ 369.27	$ 492.30	
Number of retired members	24	101	176	1,411	1,712
07/01/2015 to 06/30/2016					
Average monthly supplement	$ 86.82	$ 182.41	$ 323.14	$ 483.93	1,751
Number of retired members	68	98	178	1,407	

Summary of Fiscal Year 2015-2016

Retiree Sick Leave Payments

ACTUARIAL RATE

Total members retiring		2,386
Total members receiving sick leave payments		1,597
Total amount of sick leave payments @12.855% contribution rate	$	20,890,558
Average sick leave payment per retiree	$	13,081
Total increase in final 3/5 year average salary base	$	5,676,069
Average increase in Final Average Salary	$	3,554
Total service credit of 1,597 retirees		40,763
Average service credit of 1,597 retirees		25.52

ANTICIPATED LIFETIME PAYOUT OF ADDITIONAL ANNUITY

Actuarial cost of sick leave as salary credit	$	46,160,679

Funding of Additional Payments

Member Contributions ($20,890,558 x 9.105%)=	$ 1,902,085
Employer Contributions ($20,890,558 x 12.325%) =	2,574,761
Total Contributions	$ 4,476,847
DEFICIT:	
Anticipated additional payout	$ 46,160,679
Less total member & state contributions	4,476,847
Subtotal unfunded debt	41,683,832
Less current year appropriation	4,920,700
TOTAL UNFUNDED COST OF SICK LEAVE PAYMENTS*	$ 36,763,132

* *This amount will be amortized over a twenty year period.*

NOTE: *Actuarial factors used for sick leave calculations changed effective July 1, 1998. The unfunded cost of sick leave payments are amortized over 20 year periods per KRS 161.553.*

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