

KENTUCKY  
TEACHERS'  
Retirement System



Serving Kentucky Teachers  
— Since 1940 —

COMPREHENSIVE  
ANNUAL  
FINANCIAL REPORT

for the fiscal year ended June 30, 2012

# **Teachers' Retirement System of the State of Kentucky**



## **The 72<sup>nd</sup> Comprehensive Annual Financial Report**

**A Component Unit of the Commonwealth of Kentucky  
Fiscal Year Ended June 30, 2012**

Kentucky Teachers' Retirement System  
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 ~

Chairperson's Letter .....	2
Letter of Transmittal .....	3
Board of Trustees .....	8
Administrative Staff and Professional Consultants .....	9
Organizational Chart .....	10
GFOA Certificate of Achievement .....	11
PPCC Achievement Award .....	12

### ~ FINANCIAL SECTION ~

Independent Auditor's Report .....	14
Management's Discussion & Analysis .....	15
Basic Financial Statements	
Statement of Plan Net Assets .....	20
Statement of Changes in Plan Net Assets .....	22
Notes to Financial Statements .....	24
Required Supplemental Information	
Schedule of Funding Progress .....	43
Schedule of Employer Contributions .....	43
Supporting Schedules	
Schedule of Administrative Expenses .....	45
Schedule of Professional Fees .....	45
Schedule of Contracted Management Expenses .....	46
Combining Statement of Plan Net Assets - Other Funds .....	47
Combining Statement of Changes in Plan Net Assets - Other Funds .....	48
Independent Auditor's Report on Internal Control & Compliance .....	49

### ~ INVESTMENT SECTION ~

Report on Investment Activity .....	52
Consultant Letter .....	53
Retirement Annuity Trust Fund	
Investment Policy and Objectives .....	54
Risk Controls .....	54
Asset Allocation .....	54
Distribution of Investments .....	56
Asset Class Allocation Ranges .....	57
Portfolio Returns .....	58
Fixed Income Investments .....	59
Equity Investments .....	61
Real Estate Investments .....	62
Alternative Assets .....	63
Portfolios Market Values .....	66

Investment Summary .....	68
Contracted Investment Management Expenses .....	68
Ten Largest Stock Holdings .....	69
Top Ten Fixed Income Holdings .....	69
Transaction Commissions .....	70
Proxy Voting and Corporate Behavior .....	72
Security Lending .....	72
Kentucky Investments .....	73
Professional Service Providers .....	73
Health Insurance Trust Fund	
Investment Policy and Objectives .....	74
Risk Controls .....	74
Asset Allocation .....	75
Distribution of Investments .....	75
Portfolio Returns .....	76
Portfolios Market Values .....	77
Investment Summary .....	77
Contracted Investment Management Expenses .....	78
Professional Service Providers .....	79

~ ACTUARIAL SECTIONS ~

**Actuarial Annual Valuation**

Actuary's Certification Letter .....	80
Summary of Principal Results .....	82
Membership Data .....	84
Assets .....	85
Comments on Valuation .....	85
Contributions Payable Under the System .....	85
Comments on Level of Funding .....	88
Analysis of Financial Experience .....	89
Accounting Information .....	90
Valuation Balance Sheet .....	92
Solvency Test .....	93
Actuarial Value of Assets .....	93
Summary of Receipts and Disbursements .....	94
Outline of Actuarial Assumptions and Methods .....	95
Actuarial Cost Method .....	97
Summary of Main System Provisions as Interpreted for Valuation Purposes .....	97
Table of Distribution of Active Members .....	101
Table of Retired Members and Beneficiaries .....	102
Schedule of Retirants, Beneficiaries, and Survivors	
Added to and Removed from Rolls .....	102

**Actuarial Medical and Life Insurance Valuation**

Actuary's Certification Letter .....	104
Summary of Principal Results .....	106
Membership Data .....	108
Assets .....	109
Comments on Valuation .....	109
Derivation of Experience Gains and Losses .....	110

Contributions Payable Under the System .....	110
Comments on Level of Funding .....	112
Accounting Information .....	112
Schedule of Funding Progress .....	113
Valuation Balance Sheet .....	116
Solvency Test .....	116
Summary of Receipts and Disbursements .....	117
Outline of Actuarial Assumptions and Methods .....	118
Summary of Main Plan Provisions as Interpreted for Valuation Purposes .....	123
Table of Distribution of Active Members .....	128
Schedule of Active Member Valuation .....	129
All Retirees and Spouses Receiving Health Benefits .....	129
Schedule of Retirants, Beneficiaries, and Survivors	
Added to and Removed from Rolls .....	130

**~ STATISTICAL SECTION ~**

Defined Benefit Plan	
Additions by Source .....	133
Deductions by Type .....	133
Changes in Net Assets .....	133
Medical Insurance Plan	
Additions by Source .....	134
Deductions by Type .....	134
Changes in Net Assets .....	134
Life Insurance Plan	
Additions by Source .....	135
Deductions by Type .....	135
Changes in Net Assets .....	135
Distribution of Active Contributing Members .....	135
Principal Participating Employers .....	136
KTRS Schedule of Participating Employers .....	136
Geographical Distribution of Retirement Payments Worldwide .....	138
Geographical Distribution of Retirement Payments Statewide .....	139
Growth in Annuitants .....	140
Schedule of KTRS Annuitants by Type of Benefit .....	141
Defined Benefit Plan Average Benefit Payments for the Past Ten Years .....	142
Medical Insurance Plan Average Premium	
Supplements for the Past Ten Years .....	143
Summary of Retiree Sick Leave Payments .....	144
Funding of Additional Payments .....	144

---

# Introductory Section

---

for Fiscal Year ending June 30, 2012



## Chairperson's Letter

### Teachers' Retirement System of the State of Kentucky

GARY L. HARBIN, CPA  
*Executive Secretary*



December 28, 2012

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, 2012, the 72nd 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.

KTRS closed the 2011-2012 fiscal year with \$15.2 billion net assets. The active membership totaled 75,951 and the retired membership was 46,094 with annual annuity and medical insurance benefits totaling \$1.7 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 insure 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 Kentucky Teachers' Retirement System in the most competent and efficient manner possible.

Sincerely,

Dr. Tom Shelton  
Chairperson  
Board of Trustees

#### BOARD OF TRUSTEES

**DR. TOM SHELTON**  
CHAIRPERSON  
LEXINGTON

**RONALD L. SANDERS**  
VICE CHAIRPERSON  
HODGENVILLE

**HOLLIS GRITTON**  
UNION

**CHARLES LUDWIG**  
LOUISVILLE

**BARBARA G. STERRETT**  
LEXINGTON

**RUTH ANN SWEAZY**  
TAYLORSVILLE

**LAURA ZIMMERMAN**  
LEXINGTON

*EX OFFICIO*  
**DR. TERRY HOLLIDAY**  
COMMISSIONER  
DEPARTMENT  
OF EDUCATION

*EX OFFICIO*  
**TODD HOLLENBACH**  
STATE TREASURER

## Letter of Transmittal



### Teachers' Retirement System of the State of Kentucky

December 28, 2012

Honorable Steven L. Beshear, Governor  
Commonwealth of Kentucky  
Capitol Building  
Frankfort, Kentucky

Dear Governor Beshear:

It is my pleasure to submit the 72nd Comprehensive Annual Financial Report of the Teachers' Retirement System of the State of Kentucky, a Component Unit of the Commonwealth of Kentucky, for the fiscal year ended June 30, 2012. State law provides the legal requirement for the publication of this report; in addition, an annual audit and an annual actuarial valuation of the retirement system are also required. Kentucky Teachers' Retirement System (KTRS) has produced an annual report that will provide you, the General Assembly, and the general public, with information necessary to gain a better understanding of KTRS.

This report has been prepared in conformity 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 KTRS 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 KTRS for the year ended June 30, 2012. Discussion and analysis of net assets and related additions and deductions is presented in Management's Discussion and Analysis beginning on page 15.

Management is responsible for maintaining a system of internal controls to establish reasonable assurance that assets are safeguarded, transactions are accurately executed and financial statements are fairly presented. There are limits 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 KTRS's controls provide this

appropriate balance. The system of internal controls includes policies and procedures and an internal audit department that reports to the Executive Secretary and the Governance and Audit Committee of the Board of Trustees.

#### Profile of KTRS

KTRS 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. KTRS is a blended component unit of the Commonwealth of Kentucky. The plan is described in the notes to the basic financial statements on page 24. Also, the summary of the plan provisions starting on page 97 is useful in understanding benefit and contribution provisions. The population of KTRS membership is stated in the preceding chairperson's letter.

Each year an operating budget is prepared for the administration of the retirement system. The budget is approved by the Board of Trustees and submitted to the Kentucky General Assembly for legal adoption. The KTRS investment earnings fund the administrative budget appropriations.

#### Major Initiatives

KTRS continually seeks opportunities to better serve its membership. During the past year, KTRS 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

June 30, 2012 marked the end of the second year 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 KTRS Medical Insurance Fund.

The Governor and Legislative leaders have commended Kentucky's education community for their 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 two years, and \$3.1 billion in savings by converting to a pre-funded plan, the "shared responsibility" solution is truly a significant accomplishment on the road to retirement security for current and future retired teachers.

The Board of Trustees of KTRS 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 seventh year, continues to be stable and financially feasible for members and the KTRS medical plan.

Some recent cost saving initiatives include moving the KTRS sponsored Medicare drug plan to an insured Employer Group Waiver Prescription Drug Plan with a commercial wrap in the drug coverage gap to achieve the greatest amount of federal subsidies for 2012. Additionally, KTRS joined the KY Rx Coalition in 2012, which is spearheaded by the University of Kentucky. By joining the coalition, KTRS will achieve 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.

Other cost containment measures communicated to the membership in 2012 for an effective date of 2013 involved the elimination of the future risk of adverse selection with our Medicare eligible spouses of retired teachers; and assisting those retirees and their spouses who are Medicare eligible, but under the normal Medicare age, to join the Medicare plan in 2013 achieving future savings for our members, the KTRS retiree medical plan, and the Commonwealth of Kentucky. KTRS is also exploring the industry best practice of utilizing a high performance formulary for 2014 with our drug plan.

KTRS 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.

### **Investment Program**

KTRS's investment program was in the top 26% of returns for pension funds with over \$1 billion in assets with positive returns of 2.4%. Additionally, because of

KTRS's focus on fundamental value and risk control, it was able to continue a multiyear program of broadening the portfolio's diversification. This included new opportunistic investments that took advantage of dislocated financial markets. KTRS also continued to implement changes to the investment program based upon an asset liability modeling study, which included an analysis of the shared responsibility solution for funding retiree health care and receipt of the proceeds of bonds in the KTRS retirement annuity and medical insurance funds. 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. KTRS's investment program continues to be recognized as a leader in the public pension community for governance structure, trustee education, and cost effectiveness.

### **Information Technology**

KTRS staff has continued working on a multi-year project planning, designing, and constructing a new information technology system known as the "Pathway System." Last year, the Board took action and authorized hiring a vendor to begin building and installation of the new system.

The vendor has been working with staff on-site at KTRS since September 2011. The focus of work has been developing and constructing the first major component of the new system. The design work for internet based functions including member enrollment, employer reporting, service credit purchases, and related accounting functions, was completed in the spring of 2012. Based upon the design work, the construction of member enrollment and employer reporting was completed and extensive testing of those components has begun. More than 33% of the overall project has been completed and work has been proceeding according to schedule and within budget.

The objective of the Pathway System is to streamline retirement processes and improve staff efficiency in providing services to retirees and active members. In developing the new system, KTRS is redesigning and improving office processes and ultimately will be applying new internet based technologies to these processes. This will increase staff productivity, provide seamless member account management, and simplify future system modifications. As KTRS continues to implement changes to the information technology system under the Pathway System, we expect that the new technology will help the System better serve its membership.

## Economic Condition

The economic condition of the System is based primarily on investment earnings. The Investment Section of this report starting on page 51 contains asset allocations, strategic target ranges for investments, discussion of the current year market environment and historical performance schedules among others.

The investment portfolio experienced a decline in value during the 2011-2012 fiscal year as the portfolio's market value decreased from \$15,547,900,381 to \$15,133,117,118. The decline in value of the portfolio and of the overall market was primarily due to turmoil in the international financial markets. This decline was offset with investment income that included interest income and dividends. Employer and employee contributions also provided significant income to the portfolio. However, because benefits paid out exceeded contributions to the System, the portfolio's market value decreased.

Investment income, including depreciation of asset values, net of investment expenses, for the 2011-2012 fiscal year was \$312,233,315. The major contributing factor of the positive return from the System's investment portfolio resulted from the net depreciation in fair value of investments in the amount of \$75,746,538 which was offset by investment income receipts. The largest earnings component, \$220,176,938 was the result of interest income. Other income, net of expenses, of \$167,802,915 was generated from dividends, rent and securities lending.

According to the KRS 161.430 the Board of Trustees has the responsibility to invest 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. While the entire portfolio earned a total return of positive 2.4% in 2011-12, the portfolio's ten-year annualized rate of return is 5.5%, the twenty-year annualized rate of return is 7.2% and the thirty-year annualized rate of return is 9.5%.

KTRS annuities have a bolstering impact on the Commonwealth of Kentucky's economy, as approximately 92% of retired teachers reside within the state. Total benefits (retirement, medical insurance, life insurance, and other benefits) paid during the fiscal year were approximately \$1.7 billion.

## Funding

Based on recommendations of the Board of Trustees, the General Assembly establishes by statute the levels of contribution 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.

The latest actuarial valuation was for the period ending June 30, 2012. This report reflects the System's actuarial value of assets totaling \$14.7 billion and actuarial determined liabilities totaling \$27 billion. The funded ratio of actuarial assets to liabilities is 54.5%. The actuary reports: "...In our opinion, the System is not being funded on an actuarially sound basis since the actuarially required contributions are not being made by the employer. If contributions by the employer to the System continue to be 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 the 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..."

Annual required employer contributions for the defined benefit plan are provided in the Schedule of Employer Contributions (on page 43). After the 2012 employer contributions there remains a net pension obligation of \$436,123,560 (as detailed on page 91). Annual required employer contributions for the Medical Insurance Fund are provided in the schedule of employer contributions (on page 44). The 2012 employer shortfall of contributions created a net OPEB obligation of \$1,413,736,073 (as detailed on page 114).

The sustained decline in the funded ratio is from the cumulative effect of the employer failing to make actuarially required contributions. Also contributing to the reduced funded ratio are market fluctuations that are being recognized using actuarial smoothing over a five-year period and the changing demographics of the retirement system.

KTRS expects that the shared responsibility solution for funding retiree health care will help improve the funded status of the pension fund in the future by stopping the redirection of contributions from the pension fund to pay for the costs of current retiree health care. As well, on August 26, 2010, KTRS received \$465 million in proceeds from a bond issued by the state. This bond issue was approved by the Governor under the authority of legislation enacted by both chambers of the General Assembly during the 2010 Regular and Special Sessions. The proceeds of this bond issue were deposited in the KTRS retirement annuity fund in repayment of retirement contributions that had been redirected by the state to pay retiree health care from fiscal year 2005 through fiscal year 2010.

### **KTRS 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 insure the retirement security of the state's teachers. An actuarial valuation of the Medical Insurance Plan for the fiscal year ended June 30, 2012 indicated that the fund has an unfunded liability of \$3.3 billion. The funded ratio of actuarial assets to liabilities is 9.4%. The actuary reports: "...if the State contributions to the Medical Insurance Fund are increased to the planned levels, the Retiree Medical Plan will begin to operate in a more actuarially sound basis. Assuming that required contributions to the Medical Insurance Fund are made by the employer from year to year in the future at the levels required on the basis of the successive actuarial valuations, the actuarial soundness of the Retiree Medical Plan to provide 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. KTRS will continue to take measures to contain costs and increase revenues to the Medical Insurance Plan 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 the KTRS. 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 45, 46, 73 and 78 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, 2011. The Certificate of Achievement is a prestigious national award-recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order 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 a period of one year only. KTRS has received the Certificate of Achievement for the last twenty-four consecutive years (fiscal years ended 1988-2011). 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 System of the State of Kentucky for 2012 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 in the public pension industry.

In 2012, for the first time, KTRS was not awarded the PPCC Certificate of Achievement for funding. Failure to qualify for the award reflects the employer's continued underfunding of KTRS's retirement annuity plan.

The PPCC is a coalition of three national associations that represent public retirement systems and administrators. 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**

Gary L. Harbin is the 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 68 state, territorial, local and university pension systems with combined assets of almost \$2 trillion, serving more than 19 million active and retired teachers, non-teaching personnel and other public employees.

**Public Sector HealthCare Roundtable**

Mr. Harbin also serves 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 were properly represented during the formulation and debate, and now implementation of the Patient Protection and Affordable Care Act. Membership in the Roundtable is open to any statewide, regional or local governmental unit that provides health care coverage for public employees and retirees.

**Our Gratitude**

At the regular quarterly meeting of the Board of Trustees on June 18, 2012, Mr. Robert M. Conley announced that he was resigning from the Board effective June 30, 2012. In 1988, Mr. Conley was elected as a lay member of the Board. In 1991, Mr. Conley was appointed vice chair of the Investment Committee and served in that role for 15 years. Thereafter, he served as chair of the Investment Committee until his resignation. He had a significant oversight role in modernizing and diversifying the investment program and during his service assets under management increased from \$3.3 billion to \$15.6 billion. We would like to thank Mr. Conley for his exemplary service and numerous contributions to the successful operation of KTRS.

**Acknowledgments**

The preparation of this report reflects the combined efforts of the KTRS 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 is also used to determine responsible stewardship of the assets contributed by KTRS members and their employers.

This report is located at the KTRS web address [www.ktrs.ky.gov](http://www.ktrs.ky.gov), and is made available to all employers whose cooperation continues to contribute significantly to our success, and who form the vital link between KTRS and its active members.

KTRS 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



**Dr. Tom Shelton**  
Chairperson  
Teacher Trustee  
Lexington



**Ronald L. Sanders**  
Vice Chairperson  
Lay Trustee  
Hodgenville



**Charles Ludwig**  
Teacher Trustee  
Louisville



**Hollis Gritton**  
Lay Trustee  
Union



**Barbara G. Sterrett**  
Retired Teacher Trustee  
Lexington



**Ruth Ann Sweazy**  
Teacher Trustee  
Taylorsville



**Laura Zimmerman**  
Teacher Trustee  
Lexington



**Dr. Terry Holliday**  
Ex Officio Trustee  
Commissioner,  
Dept. of Education



**Todd Hollenbach**  
Ex Officio Trustee  
State Treasurer

**Kentucky Teachers' Retirement System**

479 Versailles Road  
Frankfort, Kentucky 40601-3800

**ADMINISTRATIVE STAFF**

**GARY L. HARBIN, CPA**  
*Executive Secretary*

**ROBERT B. BARNES, JD**  
*General Counsel and  
Deputy Executive Secretary  
Operations*

**J. ERIC WAMPLER, JD**  
*Deputy Executive Secretary  
Finance & Administration*

**PAUL L. YANCEY, CFA**  
*Chief Investment Officer*

**PROFESSIONAL CONSULTANTS**

**ACTUARY**

Cavanaugh Macdonald Consulting, LLC  
3550 Busbee Parkway, Suite 250  
Kennesaw, GA 30144

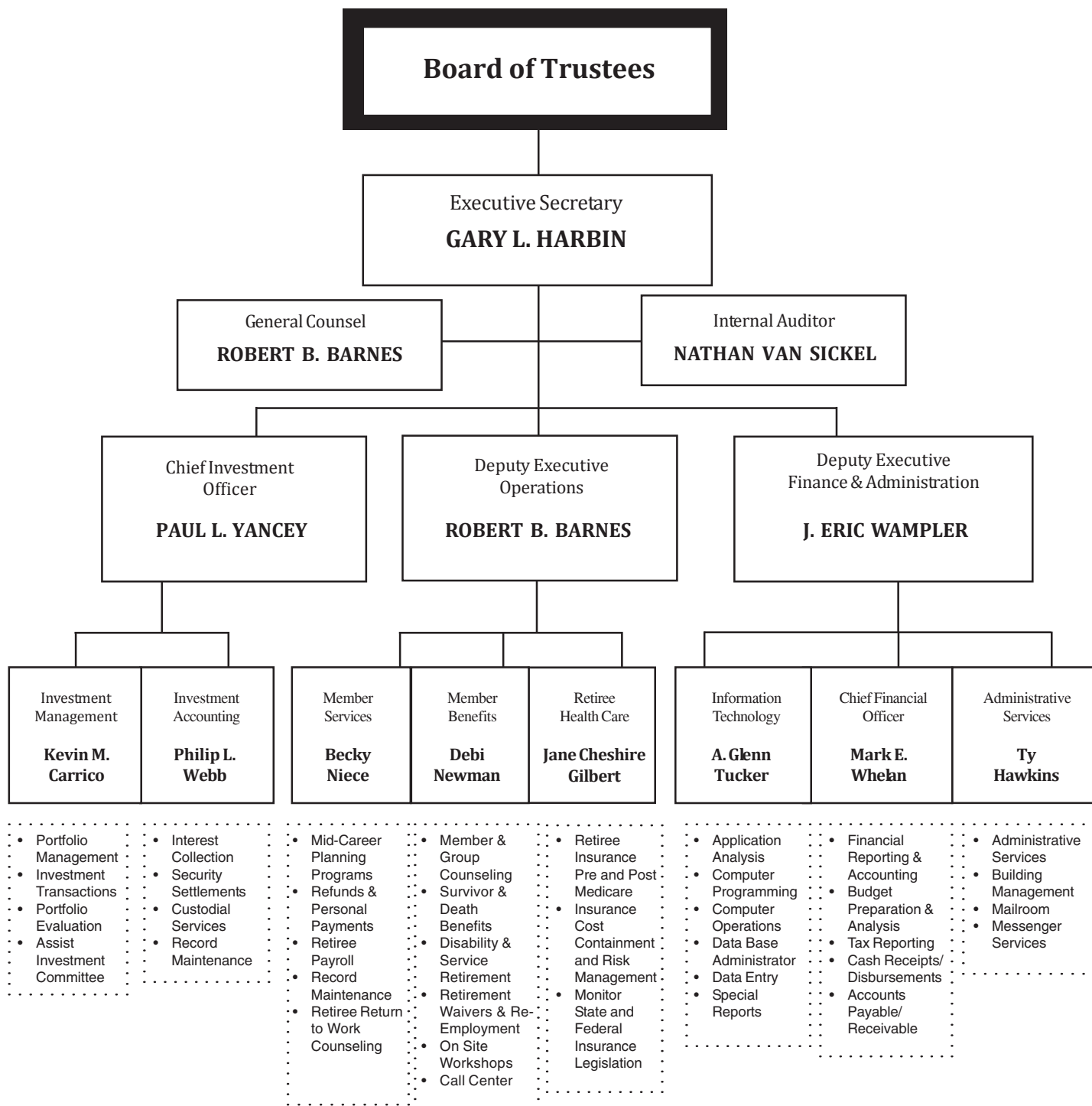
**AUDITOR**

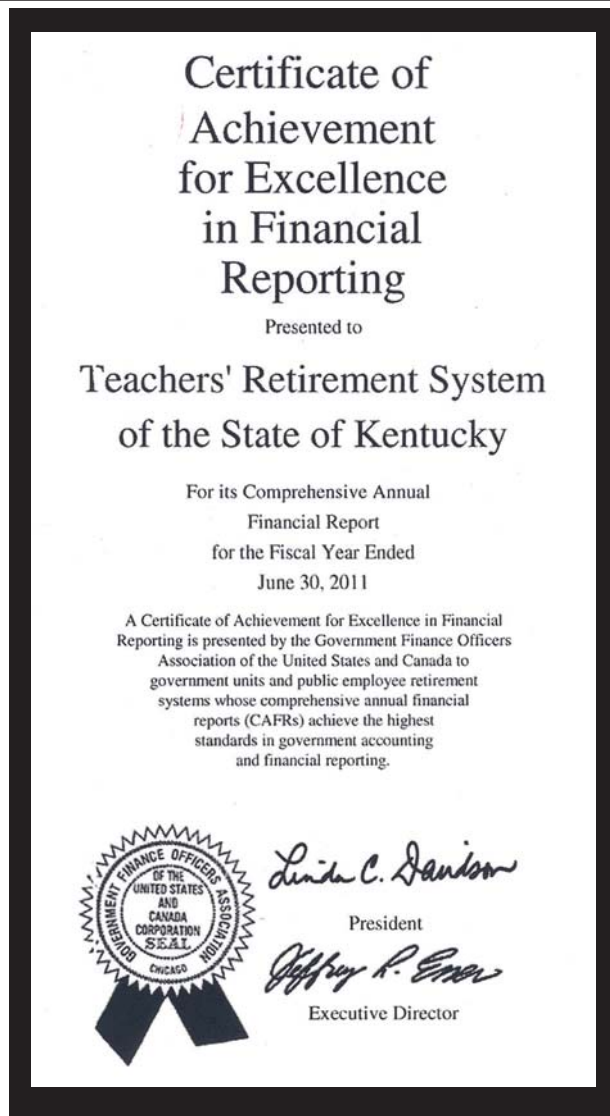
Mountjoy Chilton Medley, LLC  
1000 Bluegrass Corporate Center  
333 West Vine Street  
Lexington, KY 40507

*\* See pages 73 and 78 of the Investment  
Section for investment consultants.*



## Kentucky Teachers' Retirement System Organizational Chart





## GOVERNMENT FINANCIAL OFFICERS ASSOCIATION (GFOA)

*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-four consecutive years (fiscal years ended 1988-2011).*



**Public Pension Coordinating Council**  
**Public Pension Standards**  
**2012 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)

A handwritten signature in black ink, reading 'Alan H. Winkle'. The signature is fluid and cursive, with the first name 'Alan' being more prominent.

Alan H. Winkle  
Program Administrator

**PUBLIC PENSION COORDINATING COUNCIL**  
**PUBLIC PENSION STANDARDS**

*The Public Pension Coordinating Council awarded a Certificate of Achievement to the Teachers' Retirement System of the State of Kentucky for 2012 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.*

---

# Financial Section

---

for Fiscal Year ending June 30, 2012



Mountjoy  
Chilton  
Medley

## Independent Auditor's Report on Financial Statements

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

We have audited the accompanying statement of plan net assets of the Teachers' Retirement System of the State of Kentucky as of and for the year ended June 30, 2012, and the related statement of changes in plan net assets for the year then ended. These component unit financial statements are the responsibility of the Teachers' Retirement System's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Teachers' Retirement System of the State of Kentucky, a component unit of the Commonwealth of Kentucky, as of June 30, 2012, and the respective changes in its plan net assets for the year then ended in conformity with accounting principles generally accepted in the United States of America.

The financial statements of Teachers' Retirement System of the State of Kentucky as of June 30, 2011, were audited by other auditors whose report dated December 16, 2011 expressed an unmodified opinion on those statements.

In accordance with Government Auditing Standards, we have also issued our report dated December 17, 2012, 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 and should be considered in assessing the results of our audit.

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 15 through 19 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.

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Teachers' Retirement System of the State of Kentucky's financial statements as a whole. The financial section and supporting schedules listed in the table of contents are presented for purposes of additional analysis and are not a required part of the financial statements. These schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole. The introductory, statistical, investment, actuarial, and financial 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.

/s/ Mountjoy Chilton Medley LLP

Lexington, Kentucky  
December 17, 2012

**Louisville**  
2000 Meidinger Tower  
462 South Fourth Street  
Louisville, KY 40202

**Lexington**  
175 East Main Street  
Suite 200  
Lexington, KY 40507

**Frankfort**  
150 Flynn Avenue, Suite 100  
P.O. Box 5630  
Frankfort, KY 40602

**Cincinnati**  
1440 PNC Center  
201 East Fifth Street  
Cincinnati, OH 45202

888.587.1719 | [www.mcmcpa.com](http://www.mcmcpa.com)  
An Independent Member of Baker Tilly International

## **MANAGEMENT'S DISCUSSION AND ANALYSIS**

This discussion and analysis of Kentucky Teachers' Retirement System's (KTRS, System, or Plan) financial performance provides an overview of the defined benefit and medical insurance plans' financial year ended June 30, 2012. Please read it in conjunction with the respective financial statements, which begin on page 20.

## **USING THIS FINANCIAL REPORT**

Because of the long-term nature of the defined benefit retirement annuity plan, the medical plan and life insurance plan, financial statements alone cannot provide sufficient information to properly reflect the ongoing perspective of the System. The Statement of Plan Net Assets and Statement of Changes in Plan Net Assets (on pages 20-23) 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 Kentucky Teachers' Retirement System is the fiduciary of funds held in trust for its members.

The Schedule of Funding Progress (on pages 43-44) includes historical trend information about the actuarially funded status of each plan from a long-term, ongoing plan perspective and the progress made in accumulating sufficient assets to pay benefits and insurance premiums when due. The Schedule of Employer Contributions (on pages 43-44) presents historical trend information about the annual 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, 2012, Kentucky Teachers' Retirement System's combined plan net assets decreased by \$285.8 million - from \$15,514.9 million in 2011 to \$15,229.1 million in 2012. In 2010, combined net assets totaled \$12,786.7 million. The following summaries focus on plan net assets and changes in plan net assets of Kentucky Teachers' Retirement System's defined benefit retirement annuity plan, medical insurance plan, life insurance plan and other funds.



**Summary of  
Plan Net Assets  
(In Millions)**

Categories	Defined Benefit Plan			Medical Insurance Plan			Life Insurance Fund		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
Cash & Investments	\$ 15,123.6	\$ 15,192.9	\$ 12,513.9	\$ 345.0	\$ 429.2	\$ 237.1	\$ 91.1	\$ 87.4	\$ 87.1
Receivables	133.4	180.7	96.5	16.3	5.3	7.9	1.1	1.1	0.9
Capital Assets	6.8	3.8	3.4						
Total Assets	15,263.8	15,377.4	12,613.8	361.3	434.5	245.0	92.2	88.5	88.0
Total Liabilities	(466.7)	(246.8)	(157.2)	(22.5)	(139.7)	(3.8)			(0.1)
Plan Net Assets	\$ 14,797.1	\$ 15,130.6	\$ 12,456.6	\$ 338.8	\$ 294.8	\$ 241.2	\$ 92.2	\$ 88.5	\$ 87.9

*TOTALS	2012	2011	2010
Cash & Investments	\$ 15,559.7	\$ 15,709.5	\$ 12,838.1
Receivables	150.8	187.1	105.3
Capital Assets	6.8	3.8	3.4
Total Assets	15,717.3	15,900.4	12,946.8
Total Liabilities	(489.2)	(386.5)	(161.1)
Plan Net Assets	\$ 15,228.1	\$ 15,513.9	\$ 12,785.7

\* Other Funds consisting of the 403(b) Tax Shelter Plan, the Excess Benefit Fund and the Losey Scholarship fund had combined plan net assets of \$.9 million for years ended 2012, 2011 and 2010.

Plan net assets of the defined benefit retirement annuity plan decreased by 2.2% (\$14,797.1 million compared to \$15,130.6 million) and in 2010, plan net assets of the defined benefit plan totaled \$12,456.6 million. The decrease is primarily due to unfavorable market conditions which resulted in a net investment income decrease of \$2.45 billion less than 2011. The 2012 amount was \$1.2 billion less than 2010. The defined benefit retirement annuity plan assets are restricted to providing monthly retirement allowances to members and their beneficiaries. Plan net assets of the medical insurance plan increased by 14.9% (\$338.8 million compared to \$294.8 million) primarily due to contributions from members and employers exceeding insurance expenses due to legislation passed in 2010. This compares to 2010 where plan net assets of the medical insurance fund totaled \$241.2 million. Plan assets are restricted to providing hospital and medical insurance benefits to members and their spouses.

**Summary of  
Changes in Plan Net Assets**  
(In Millions)

Categories	Defined Benefit Plan			Medical Insurance Plan			Life Insurance Fund		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
<b><u>ADDITIONS</u></b>									
Member Contributions	\$ 309.8	\$ 302.3	\$ 297.6	\$ 100.3	\$ 84.1	\$ 63.8	\$	\$	\$
Employer Contributions	557.3	1,037.9	479.8	174.0	188.3	158.8	1.7	1.7	1.9
Net Investment Income	309.7	2,761.0	1,509.8	(4.0)	8.3	12.3	6.4	3.1	5.4
Other Income				<u>3.8</u>	<u>0.5</u>	<u>14.6</u>			
<b>TOTAL ADDITIONS</b>	<u>1,176.8</u>	<u>4,101.2</u>	<u>2,287.2</u>	<u>274.1</u>	<u>281.2</u>	<u>249.5</u>	<u>8.1</u>	<u>4.8</u>	<u>7.3</u>
<b><u>DEDUCTIONS</u></b>									
Benefit Payments	1,482.9	1,402.6	1,321.8				4.4	4.2	4.1
Refunds	19.5	17.3	15.3						
Administrative Expense	7.8	7.3	8.8	1.2	1.2				
Insurance Expenses				<u>229.0</u>	<u>226.4</u>	<u>237.4</u>			
<b>TOTAL DEDUCTIONS</b>	<u>1,510.2</u>	<u>1,427.2</u>	<u>1,345.9</u>	<u>230.2</u>	<u>227.6</u>	<u>237.4</u>	<u>4.4</u>	<u>4.2</u>	<u>4.1</u>
<b>Increase (Decrease) in Plan Net Assets</b>	<b>\$ (333.4)</b>	<b>\$ 2,674.0</b>	<b>\$ 941.3</b>	<b>\$ 43.9</b>	<b>\$ 53.6</b>	<b>\$ 12.1</b>	<b>\$ 3.7</b>	<b>\$ 0.6</b>	<b>\$ 3.2</b>

TOTALS	2012	2011	2010
<b><u>ADDITIONS</u></b>			
Member Contributions	\$ 410.1	\$ 386.4	\$ 361.4
Employer Contributions	733.0	1,227.9	640.5
Net Investment Income	312.1	2,772.4	1,527.5
Other Income	<u>3.8</u>	<u>0.5</u>	<u>14.6</u>
<b>TOTAL ADDITIONS</b>	<u>1,459.0</u>	<u>4,387.2</u>	<u>2,544.0</u>
<b><u>DEDUCTIONS</u></b>			
Benefit Payments	1,487.3	1,406.8	1,325.9
Refunds	19.5	17.3	15.3
Administrative Expense	9.0	8.5	8.8
Insurance Expenses	<u>229.0</u>	<u>226.4</u>	<u>237.4</u>
<b>TOTAL DEDUCTIONS</b>	<u>1,744.8</u>	<u>1,659.0</u>	<u>1,587.4</u>
<b>Increase (Decrease) in Plan Net Assets</b>	<b>\$ (285.8)</b>	<b>\$ 2,728.2</b>	<b>\$ 956.6</b>

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

DEFINED BENEFIT RETIREMENT ANNUITY PLAN ACTIVITIES

Member contributions increased \$7.5 million. 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.

Employer contributions totaled \$557.3 million, a net decrease of \$480.6 million from the 2011 fiscal year. This was primarily due to bond proceeds received in the 2011 fiscal year of \$465.4 million to satisfy amounts that were being amortized in the state budget. These bond proceeds, along with \$124.3 million of contributions redirected to the medical insurance fund from the pension fund caused the employer contributions to be \$558.1 million more in 2011 when compared to 2010.

The System experienced a decrease in net investment income compared to the previous year (\$309.7 million at June 30, 2012 as compared to a \$2,761.0 million at June 30, 2011). For 2010, net investment income totaled \$1,509.8 million. The decrease in the fair value of investments is mainly due to unfavorable market conditions for the year ended June 30, 2012 and is illustrated as follows:

<i>Dollar Amount in Millions</i>			
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Appreciation (depreciation) in fair value of investments – June 30, prior year	\$ 1,842.0	\$ (235.5)	\$ (1,336.2)
Appreciation (depreciation) in fair value of investments – June 30, end of year	<u>1,411.6</u>	<u>1,842.0</u>	<u>(235.5)</u>
Change in net appreciation (depreciation) in fair value of investments	(430.4)	2,077.5	1,100.7
Net income (net of investment expense)	378.2	362.3	341.3
Net gain on sale of investments	<u>361.9</u>	<u>321.2</u>	<u>67.8</u>
Investment Income (net) – June 30, end of year	\$ 309.7	\$ 2,761.0	\$ 1,509.8

Program deductions in 2012 increased \$83.0 million. The increase was caused principally by an increase of \$80.3 million in benefit payments. Members who were drawing benefits as of June 2011 received an increase of 1.5% to their retirement allowances in July 2011. Also, there was an increase of 1,675 members and beneficiaries on the retired payroll as of June 30, 2012.

OTHER POST EMPLOYMENT BENEFIT ACTIVITIES

During the 2012 fiscal year, the medical insurance plan member contributions increased \$16.2 million and employer contributions decreased \$14.3 million under fiscal year 2011. The member 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. The employer contributions decreased due to less transition funding paid by the state as the Shared Responsibility plan phases in until the 2016 fiscal year. The state's contribution for the 2010-2012 biennium was made with bond proceeds received in March 2011.

Net investment income decreased \$12.3 million from \$8.3 million in 2011 to a negative \$4.0 million in 2012. In 2010, net investment income totaled \$12.3 million. This can be illustrated as follows:

<i>Dollar Amount in Millions</i>			
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Appreciation (depreciation) in fair value of investments – June 30, prior year	\$ 0	\$ 0	\$ 0
Appreciation (depreciation) in fair value of investments – June 30 end of year	<u>(9.7)</u>	<u>0</u>	<u>0</u>
Change in net appreciation(depreciation) in fair value of investments	(9.7)	0	0
Net income (net of investment expense)	6.0	8.3	12.3
Net gain (loss) on sale of investments	<u>(0.3)</u>	<u>0</u>	<u>0</u>
Investment Income (net) – June 30	\$ (4.0)	\$ 8.3	\$ 12.3

The life insurance plan has an actuarial valuation conducted independently from the defined benefit plan. Total life insurance benefits paid for 2012, 2011 and 2010 were \$4.4, \$4.2, and \$4.1 million respectively.

### HISTORICAL TRENDS

Accounting standards require that the Statement of Plan Net Assets state asset value at fair value and include only benefits and refunds due plan members and beneficiaries and accrued investment and administrative expenses as of the reporting date. Information regarding the actuarial funding status of the defined benefit plan, the medical insurance plan, and the life insurance plan is provided in the Schedule of Funding Progress (beginning on page 43). 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.

The 2012 fiscal year reveals a decline in funding position of the retirement annuity plan due primarily to an increase in the actuarial liability while the actuarial value of the assets remained flat due to market decline in prior years. Annual required employer contributions of the defined benefit plan are provided in the Schedule of Employer Contributions (on page 43) and a shortfall of employer contributions has resulted in an accumulated net pension obligation of \$436,123,560 as of June 30, 2012.

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 (on page 44) and a shortfall of employer contributions has resulted in an accumulated net OPEB obligation of \$1,413,736,073 as of June 30, 2012.

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## Statement of Plan Net Assets As of June 30, 2012

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
<b>ASSETS</b>					
Cash	\$ 25,314,512	\$ 5,202,577	\$ 299,153	\$ 9,828	\$ 30,826,070
Prepaid Expenses	62,774	147,000			209,774
Receivables					
Contributions	37,851,376	5,574,370	31,987		43,457,733
Due From Other Trust Funds	2,432,980				2,432,980
State of Kentucky	9,162,962	5,714,136	21,590		14,898,688
Investment Income	49,846,104	1,143,178	1,065,552	1,183	52,056,017
Investment Sales Receivable	33,559,535				33,559,535
Other Receivables	499,433	3,873,520			4,372,953
Total Receivables	133,352,390	16,305,204	1,119,129	1,183	150,777,906
Investments at Fair Value (See Note 5)					
Short-Term Investments	608,260,247	57,658,400	4,521,129	673,015	671,112,791
Bonds and Mortgages	3,481,878,618	140,165,798	86,346,232	270,532	3,708,661,180
Equities	9,260,311,630	141,013,192			9,401,324,822
Alternative Investments	764,469,456	748,103			765,217,559
Real Estate	586,800,766				586,800,766
Total Investments	14,701,720,717	339,585,493	90,867,361	943,547	15,133,117,118
Invested Security Lending Collateral	396,546,893				396,546,893
Capital Assets, at cost net of accumulated depreciation of \$2,202,905 (See Note 2)	6,858,662				6,858,662
Total Assets	15,263,855,948	361,240,274	92,285,643	954,558	15,718,336,423
<b>LIABILITIES</b>					
Accounts Payable	4,052,099	3,762,868			7,814,967
Due to Other Trust Funds		2,387,658	44,397	925	2,432,980
Insurance Claims Payable		67,000			67,000
Revenues Collected in Advance		6,153,310			6,153,310
Investment Purchases Payable	66,136,067	10,122,885			76,258,952
Obligations Under Securities Lending	396,546,893				396,546,893
Total Liabilities	466,735,059	22,493,721	44,397	925	489,274,102
<b>NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:</b>	<b>\$ 14,797,120,889</b>	<b>\$ 338,746,553</b>	<b>\$ 92,241,246</b>	<b>\$ 953,633</b>	<b>\$ 15,229,062,321</b>
<p><i>The "Schedule of Funding Progress" is presented in the Required Supplementary Information section of this report. The accompanying notes are an integral part of these financial statements.</i></p>					

**Statement of Plan Net Assets  
As of June 30, 2011**

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
<b>ASSETS</b>					
Cash	\$ 2,014,331	\$ 175,762	\$ 385,672	\$ 65,108	\$ 2,640,873
Prepaid Expenses	40,263	147,000			187,263
Receivables					
Contributions	30,046,110	3,298,187	27,501		33,371,798
Due From Other Trust Funds	1,207,985				1,207,985
State of Kentucky		193,954			193,954
Investment Income	53,218,525	943,333	1,113,843	1,149	55,276,850
Investment Sales Receivable	95,747,740				95,747,740
Other Receivables	431,187	849,412			1,280,599
Total Receivables	180,651,547	5,284,886	1,141,344	1,149	187,078,926
Investments at Fair Value (See Note 5)					
Short-Term Investments	588,462,274	141,587,315	1,654,850	698,978	732,403,417
Bonds and Mortgages	3,797,591,983	136,110,938	85,366,325	205,312	4,019,274,558
Equities	9,588,077,134	151,170,232			9,739,247,366
Alternative Investments	576,527,803				576,527,803
Real Estate	480,447,237				480,447,237
Total Investments	15,031,106,431	428,868,485	87,021,175	904,290	15,547,900,381
Invested Security Lending Collateral	159,808,327				159,808,327
Capital Assets, at cost net of accumulated depreciation of \$2,101,508 (See Note 2)	3,803,072				3,803,072
Total Assets	15,377,423,971	434,476,133	88,548,191	970,547	15,901,418,842
<b>LIABILITIES</b>					
Accounts Payable	1,221,191				1,221,191
Due to Other Trust Funds		1,186,029	21,511	445	1,207,985
Insurance Claims Payable		403,000			403,000
Revenues Collected in Advance		122,500,000			122,500,000
Investment Purchases Payable	85,788,174	15,568,509			101,356,683
Obligations Under Securities Lending	159,808,327				159,808,327
Total Liabilities	246,817,692	139,657,538	21,511	445	386,497,186
<b>NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:</b>	<b>\$ 15,130,606,279</b>	<b>\$ 294,818,595</b>	<b>\$ 88,526,680</b>	<b>\$ 970,102</b>	<b>\$ 15,514,921,656</b>
<i>The "Schedule of Funding Progress" is presented in the Required Supplementary Information section of this report. The accompanying notes are an integral part of these financial statements.</i>					



**Statement of Changes in Plan Net Assets  
For the Year Ended June 30, 2012**

	<b>Defined Benefit Plan</b>	<b>Medical Insurance Plan</b>	<b>Life Insurance Plan</b>	<b>Other Funds</b>	<b>TOTAL</b>
<b>ADDITIONS</b>					
Contributions					
Employer	\$ 557,339,552	\$ 173,966,623	\$ 1,684,711	\$	\$ 732,990,886
Member	309,729,924	100,346,070			410,075,994
Total Contributions	867,069,476	274,312,693	1,684,711		1,143,066,880
Other Income					
Recovery Income		3,483,583			3,483,583
Medicare D Receipts		297,639			297,639
Total Other Income		3,781,222			3,781,222
Investment Income					
Net Appreciation/(Depreciation) in FV of Investments	(68,546,089)	(9,970,177)	2,703,508	66,220	(75,746,538)
Interest	210,189,576	6,231,117	3,746,222	10,023	220,176,938
Dividends	163,431,233	32,266			163,463,499
Rental Income, Net	30,536,687				30,536,687
Securities Lending, Gross Earnings	3,104,925		292		3,105,217
Gross Investment Income	338,716,332	(3,706,794)	6,450,022	76,243	341,535,803
Less Investment Expense	(28,088,560)	(282,408)			(28,370,968)
Less Securities Lending Expense	(931,520)				(931,520)
Net Investment Income	309,696,252	(3,989,202)	6,450,022	76,243	312,233,315
Total Additions	1,176,765,728	274,104,713	8,134,733	76,243	1,459,081,417
<b>DEDUCTIONS</b>					
Benefits	1,482,939,165		4,397,281	92,232	1,487,428,678
Refunds of Contributions	19,549,073				19,549,073
Insurance Expenses		228,975,126			228,975,126
Administrative Expense	7,762,880	1,201,629	22,886	480	8,987,875
Total Deductions	1,510,251,118	230,176,755	4,420,167	92,712	1,744,940,752
Net Increase (Decrease)	(333,485,390)	43,927,958	3,714,566	(16,469)	(285,859,335)
<b>NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:</b>					
Beginning of year	15,130,606,279	294,818,595	88,526,680	970,102	15,514,921,656
Ending of year	\$ 14,797,120,889	\$ 338,746,553	\$ 92,241,246	\$ 953,633	\$ 15,229,062,321

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

**Statement of Changes in Plan Net Assets  
For the Year Ended June 30, 2011**

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
<b>ADDITIONS</b>					
Contributions					
Employer	\$ 1,037,935,993	\$ 188,241,202	\$ 1,668,822	\$ 60,000	\$ 1,227,906,017
Member	302,262,819	84,147,337			386,410,156
Total Contributions	1,340,198,812	272,388,539	1,668,822	60,000	1,614,316,173
Other Income					
Recovery Income		212,727			212,727
Medicare D Receipts		280,585			280,585
Total Other Income		493,312			493,312
Investment Income					
Net Appreciation/(Depreciation) in FV of Investments	2,398,629,230	(200,122)	(691,253)	(5,937)	2,397,731,918
Interest	200,003,244	8,577,058	3,786,029	15,626	212,381,957
Dividends	152,176,305	18,438			152,194,743
Rental Income, Net	30,610,988				30,610,988
Securities Lending, Gross Earnings	2,447,181				2,447,181
Gross Investment Income	2,783,866,948	8,395,374	3,094,776	9,689	2,795,366,787
Less Investment Expense	(22,160,690)	(61,078)			(22,221,768)
Less Securities Lending Expense	(734,034)				(734,034)
Net Investment Income	2,760,972,224	8,334,296	3,094,776	9,689	2,772,410,985
Total Additions	4,101,171,036	281,216,147	4,763,598	69,689	4,387,220,470
<b>DEDUCTIONS</b>					
Benefits	1,402,535,713		4,120,000	85,178	1,406,740,891
Refunds of Contributions	17,325,387				17,325,387
Insurance Expenses		226,435,363			226,435,363
Administrative Expense	7,322,739	1,186,029	21,511	445	8,530,724
Total Deductions	1,427,183,839	227,621,392	4,141,511	85,623	1,659,032,365
Net Increase (Decrease)	2,673,987,197	53,594,755	622,087	(15,934)	2,728,188,105
<b>NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:</b>					
Beginning of year	12,456,619,082	241,223,840	87,904,593	986,036	12,786,733,551
Ending of year	\$ 15,130,606,279	\$ 294,818,595	\$ 88,526,680	\$ 970,102	\$ 15,514,921,656

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

**Notes to Financial Statements**  
**Years Ended June 30, 2012 and 2011**

<b>Note 1: Description of Retirement Annuity Plan</b>
---

**A. REPORTING ENTITY**

The Teachers' Retirement System of the State of Kentucky (KTRS) 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). KTRS is a blended component unit of the Commonwealth of Kentucky and therefore is included in the Commonwealth's financial statements. KTRS is a cost-sharing multiple-employer defined benefit plan established to provide retirement annuity plan coverage for local school districts and other public educational agencies in the state.

**B. PARTICIPANTS**

As of June 30, 2012 a total of 208 employers participated in the plan. Employers are comprised of 174 local school districts, 17 Department of Education Agencies and other educational organizations, 5 universities and also the Kentucky Community and Technical College System.

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:

	<b><u>2012</u></b>	<b><u>2011</u></b>
Active contributing members:		
Vested	48,383	47,945
Non-vested	27,568	28,404
 Inactive members, vested	 6,668	 6,135
Retirees and beneficiaries currently receiving benefits	<u>46,094</u>	<u>44,419</u>
 <b>Total members, retirees, and beneficiaries</b>	 <b><u>128,713</u></b>	 <b><u>126,903</u></b>

**C. BENEFIT PROVISIONS**

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 27 years of Kentucky service.

Participants that retire before age 60 with less than 27 years of service receive reduced retirement benefits. 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. University employees receive monthly benefits equal to two percent (2%) of their

**Note 1: Description of Plan continued . . .**

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 55 with 27 or more years of service may use their three (3) highest annual salaries. New members (including second retirement accounts started) 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 years. New members after July 1, 2002 who retire with ten 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 years. In addition, non-university members who retire July 1, 2004 and later with more than 30 years of service will have their multiplier increased for all years over 30 from two and one-half percent (2.5%) to three percent (3.0%) to be used in their benefit calculation.

The System provides medical benefits to retirees as fully described in Note 8. The 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 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**

KTRS has five cash accounts. At June 30, 2012, the retirement annuity cash account totaled \$24,131,311 and the administrative expense fund cash account was \$1,183,201 for a total of \$25,314,512 as carrying value of cash in the defined benefit plan. The medical insurance cash account totaled \$5,202,577, the life insurance plan cash account totaled \$299,153 and the excess benefit fund cash account contained \$9,828. Therefore, the carrying value of cash was \$30,826,070 and the bank balance was \$38,615,798 and funds controlled by the Commonwealth of Kentucky of \$4,555,141. The variance is primarily due to outstanding checks and items not processed by the bank on June 30, 2012.

**C. CAPITAL ASSETS**

Fixed assets are recorded at historical cost less straight-line accumulated depreciation. The classes of fixed assets are furniture and equipment, the KTRS office buildings and land. Furniture and equipment are depreciated over an average useful life of five years. The office buildings are depreciated over forty years. Internally created software for the Pathway capital project will be capitalized and amortized over fifteen years. The Pathway project will update technological record keeping abilities and improve timeliness and accuracy of responses to member inquiries.

**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 are valued using the most recent general partner statement of fair value based on independent appraisals, updated

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

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 plan net assets. 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 the System's employees are recorded when earned. Upon termination or retirement, employees of the System are paid for accumulated vacation time limited to 60 days and accumulated compensatory time limited to 240 hours. As of June 30, 2012 and 2011 accrued compensated absences were \$876,573 and \$830,349.

#### **F. RISK MANAGEMENT**

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

#### **G. OTHER RECEIVABLES**

KTRS allows qualified purchases of service credit to be made by installment payments not to exceed a five-year period. Revenue is recognized in the initial year of the installment contract agreement. The June 30, 2012 and 2011 installment contract receivables were \$499,433 and \$431,187.

The other receivables reported in the medical insurance fund consists primarily of Kentucky Retirement Systems' net cost of their retirees who elect to take their health benefits with KTRS in the amount of \$3,873,520 for the 2012 fiscal year.

#### **H. USE OF ESTIMATES**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### **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 June 2011, the GASB issued Statement No. 63, Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position. GASB Statement No. 63 provides financial reporting guidance relative to deferred outflows of resources, a consumption of net assets by KTRS that is applicable to a future reporting period, and deferred inflows of resources, an acquisition of net assets by KTRS that is applicable to a future reporting period. GASB Statement No. 63 incorporates deferred outflows and inflows of resources into the definitions of the required components of the residual measure, renaming such measure as net position, rather than net assets. The provisions of GASB Statement No. 63 are effective for fiscal periods beginning after December 15, 2011 (the fiscal year ended June 30, 2013). While KTRS has not yet evaluated the impact the provisions of GASB Statement No. 63 will have on its financial statements as of and for the year ended June 30, 2013, the adoption of this standard is not expected to have an impact on KTRS's financial position, results of operations, and/or cash flows.

### Note 3: Contributions and Reserves

#### A. CONTRIBUTIONS

Contribution rates are established by Kentucky Revised Statutes. Non-university members who joined the plan prior to July 2008 are required to contribute 10.355% of their salaries to the System; university members are required to contribute 8.715% of their salaries. KRS 161.565 allows each university to reduce the contribution of its members by 2.215%; therefore, university members contribute 6.50% of their salary to KTRS. Members who joined the plan on and after July 2008 are required to contribute an additional .50% to the medical insurance plan.

For members employed by local school districts, the state contributes 13.105% of salary for those who joined before July 1, 2008 and 14.105% for those after, except for those members who are employed in federally funded positions, in which case the federal program pays the required percentages. Other participating employers are required to contribute the percentage contributed by members plus an additional 3.25% of members' gross salaries.

The member and employer contributions consist of retirement annuity contributions and post-employment contributions to the medical insurance plan. The post-employment contribution from employee (1.25% for members prior to July 1, 2008 or 1.75% for members who joined after July 1, 2008) and the employer contribution rate of .75% of members' gross salaries funded KTRS's retiree medical insurance plan. Also, after July 1, 2010 employers (other than the state) contribute .50% 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.

The KTRS defined benefit retirement annuity plan received \$465,384,165 in fiscal year 2011 in funding from the state in the form of bond proceeds which fully satisfied amortized payments that the state was making for amounts that were redirected to the medical insurance plan from fiscal year 2005 through fiscal year 2010.

#### B. RESERVES

##### Member Reserve

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 Unallocated Reserves. 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 Benefit Reserves, the fund from which retirement benefits are paid.

##### Employer Reserve

This fund was established by KRS 161.420(3) as the State Accumulation Fund and receives state appropriations to the Retirement 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.

##### Benefit Reserve

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 the System. These benefits are paid from the retired members' contributions until they are exhausted, at which time state matching contributions are used to pay



## Note 3: Contributions and Reserves continued . . .

the benefits. After an individual member's contributions and the state matching contributions have been exhausted, retirement benefits are paid from monies transferred from Unallocated Reserves.

### Unallocated Reserve

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 the System, and deficiencies not covered by the other funds.

### Administrative Expense Reserve

This fund was established by KRS 161.420(1) as the Expense Fund. Investment income transferred to this fund from Unallocated Reserves is used to pay the administrative expenses of the System. Starting July 1, 2010 administrative expenses are allocated among the funds based on benefits paid.

## Note 4: Funded Status and Funding Progress

### A. DESCRIPTION OF FUNDING PROGRESS

The funded status of the Defined Benefit Retirement Annuity Plan as of the most recent actuarial valuation date is as follows:

Schedule of Funding Progress (Dollar amount in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll	UAAL As a % of Covered Payroll
	A	B	(B-A)	(A/B)	C	[(B-A)/C]
6/30/2012	\$ 14,691,371	\$ 26,973,854	\$ 12,282,483	54.5%	\$ 3,479,567	353.0%

The schedule of funding progress, presented as required supplementary information following the notes to the financial statements, presents multiyear funding trend information as obtained from the System's independent actuary's annual valuation report.

Expressing the actuarial value of assets as a percentage of the actuarial accrued liabilities provides an indication whether the System is becoming financially stronger or weaker. Generally, the greater the percentage the stronger the retirement system. Trends in unfunded actuarial accrued liabilities and annual covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liabilities as a percentage of annual covered payroll aids analysis of progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage the stronger the retirement system.

**Note 4: Funded Status and Funding Progress continued . . .**

The accompanying schedule of employer contributions, presented as required supplementary information following the notes to the financial statements, presents trend information about the amounts contributed to the plan by employers in comparison to the Annual Required Contribution (ARC). The ARC is actuarially determined in accordance with the parameters of GASB Statement 50. The ARC 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.

**B. METHODOLOGIES**

The promised benefits of the System are included in the actuarially calculated contribution rates, which are developed using the entry age actuarial cost method. 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 using an open amortization approach. The five (5) year smoothed market approach is used for asset valuation.

<b>Actuarial Value Assets</b>		
(1)	Actuarial Value of Assets on June 30, 2011	\$ 14,908,138,356
(2)	Market Value End of Year June 30, 2012	14,797,120,889
(3)	Market Value Beginning of Year June 30, 2011	15,130,606,279
(4)	Cash Flow	
	a. Contributions	867,069,476
	b. Benefit Payments	(1,502,488,237)
	c. Administrative Expenses	<u>(7,762,880)</u>
	d. Net	(643,181,641)
(5)	Investment Income	
	a. Market total: (2) - (3) - (4)d	309,696,251
	b. Assumed Rate	7.5%
	c. Amount for Immediate Recognition:	<u>1,110,676,159</u>
	[(3) x (5)b] + [(4)d * (5)b * 0.5]	
	d. Amount for Phased-In Recognition: (5)a - (5)c	<u>(800,979,908)</u>
(6)	Phased-In Recognition of Investment Income	
	a. Current Year: 0.20 x (5)d	(160,195,982)
	b. First Prior Year	363,670,625
	c. Second Prior Year	133,378,916
	d. Third Prior Year	(611,235,941)
	e. Fourth Prior Year	<u>(409,879,449)</u>
	f. Total Recognized Investment Gain	<u>(684,261,831)</u>
(7)	Actuarial Value End of Year (1) + (4)d + (5)c + (6)f	<u>14,691,371,044</u>
(8)	Difference Between Market & Actuarial Values: (2) - (7)	<u>\$ 105,749,845</u>
(9)	Rate of Return on Actuarial Value	2.92%

**Note 4: Funded Status and Funding Progress continued . . .****C. ASSUMPTIONS**

Significant actuarial assumptions employed by the actuary for the funding purposes as of June 30, 2012, the most recent updated actuarial information include:

*	Assumed inflation rate	3.5%
*	Assumed investment rate	7.5%
*	Assumed projected salary increases	4.0% - 8.20%
*	Assumed annual cost of living adjustments	1.5%

**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 KTRS' financial statements assess the risks KTRS 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.

KTRS administers a retirement annuity trust fund, and a health insurance trust fund in accordance with state and federal law. KTRS 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 KTRS shall be referred to collectively as the "retirement 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 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 market value shall be invested in corporate debt obligations.
- Not more than ten percent (10%) of the assets of the retirement annuity trust fund at market value shall be invested in foreign debt.
- Not more than sixty-five percent (65%) of the assets of the retirement annuity trust fund at market 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 market 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 market 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.

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

- Not more than ten percent (10%) of the assets of the retirement annuity trust fund at market 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 market 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 market 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.

**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 retirement system's deposits may not be returned to the system. The retirement system's total cash balance held at J.P. Morgan Chase Bank in noninterest bearing accounts on June 30, 2012 was \$38,615,798. In addition to these funds, an amount of \$4,555,141 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 December 31, 2010, through December 31, 2012, all noninterest-bearing transaction accounts are fully insured, regardless of the balance of the account, at all FDIC-insured institutions.

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, 2012, the retirement system's cash balance in the amount of \$38,615,798 was not exposed to custodial credit risk since this amount was fully insured by the FDIC as outlined above.

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

### C. INVESTMENTS

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

The following chart represents the fair market values of the investments of the Kentucky Teachers' Retirement System for June 30, 2012.

<b>Schedule of Investments</b>		
	<b>Market Value June 30, 2012</b>	<b>Market Value June 30, 2011</b>
<b>Cash Equivalents</b>		
Repurchase Agreements	\$ 0	\$ 58,200,000
Short-Term Cash Investments	<u>671,112,791</u>	<u>674,203,417</u>
<b>Total Short-Term Investments</b>	<b>671,112,791</b>	<b>732,403,417</b>
<b>Bonds and Mortgages</b>		
U. S. Government	503,083,086	614,166,764
Agency Bonds	244,307,582	354,226,324
Mortgage Backed Securities	199,146,287	243,091,496
Asset Backed Securities	60,608,480	52,940,222
Commercial Mortgage Backed Securities	295,710,595	346,576,905
Collateralized Mortgage Obligations	43,276,306	90,802,918
Municipal Bonds	511,058,651	509,893,503
Corporate Bonds	<u>1,851,470,193</u>	<u>1,807,576,426</u>
<b>Total Fixed Income</b>	<b>3,708,661,180</b>	<b>4,019,274,558</b>
<b>Equities</b>		
Global	140,740,862	150,698,032
International Equity	2,307,653,944	2,417,879,386
U.S. Preferred Equity	1,281,501	0
U. S. Equity	<u>6,951,648,515</u>	<u>7,170,669,948</u>
<b>Total Equities</b>	<b>9,401,324,822</b>	<b>9,739,247,366</b>
<b>Real Estate</b>		
Real Estate Equity	<u>586,800,766</u>	<u>480,447,237</u>
<b>Total Real Estate</b>	<b>586,800,766</b>	<b>480,447,237</b>
<b>Alternative Investments</b>		
Additional Categories	313,203,119	207,077,927
Private Equity	266,581,754	189,131,442
Timberland	<u>185,432,686</u>	<u>180,318,434</u>
<b>Total Alternative &amp; Additional Investments</b>	<b>765,217,559</b>	<b>576,527,803</b>
<b>Total Investments</b>	<b><u>\$ 15,133,117,118</u></b>	<b><u>\$ 15,547,900,381</u></b>

Year Ended June 30, 2012

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

Custodial Credit Risk for an investment is the risk that, in the event of the failure of counterparty, the pension trust fund 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 retirement 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 retirement 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 KTRS under the terms of Master Repurchase Agreements with various brokers, the terms are dictated by KTRS. 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 KTRS' nominee name. This account is unique to KTRS. The Master Repurchase Agreements require that the supporting collateral have a market value of at least 102% of the value of the repurchase agreements.

As of June 30, 2012, cash collateral reinvestment securities acquired through securities lending for the retirement annuity trust fund by KTRS's custodian, who is also the lending agent/counterparty, amounted to \$396,546,893 related to \$391,348,088 securities lent consistent with the lending agreement with the custodian. (Please refer to a following section entitled Securities Lending.)

**Interest Rate Risk**

Interest rate risk on investments is the possibility that changes in interest rates will reduce the fair value of the retirement 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, 2012 KTRS had the following investments and weighted average maturities:

<b><u>Investment Type</u></b>	<b><u>Fair Value</u></b>	<b><u>Average Maturity (years)</u></b>
U.S. Government	\$ 503,083,086	10.42
Agency	244,307,582	8.26
MBS	199,146,287	12.62
CMO	43,276,306	18.85
ABS	60,608,480	13.69
CMBS	295,710,595	28.07
Muni	511,058,651	14.58
Corporate	1,851,470,193	8.49
<b>Totals</b>	<b>\$ 3,708,661,180</b>	<b>11.57</b>

\*This schedule includes \$272,005,420 of fixed income securities classified in additional categories.

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

In addition to the above securities, short-term cash investments in the Dreyfus Institutional Cash Advantage Fund and STIF held at the Bank of New York Mellon had a total fair value of \$671,112,791 and had a weighted average maturity of thirty-seven (37) 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 retirement 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 the retirement 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 system held \$199.1 million in mortgage-backed securities as of June 30, 2012.

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 System held \$43.3 million in collateralized mortgage obligations as of June 30, 2012.

Asset-backed securities are bonds or notes backed by loan paper or accounts receivable originated by banks, credit card companies, or other credit providers. 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 asset-backed securities in the amount of \$60.6 million, held by the retirement system as of June 30, 2012, are moderately sensitive to changes in interest rates.

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 retirement system's commercial mortgage-backed securities investments consist of highly rated relatively senior tranches. The average maturity of the retirement 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 system held \$295.7 million in commercial mortgage-backed securities investments as of June 30, 2012.



**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 schedule lists KTRS's fixed income investments (net of cash equivalents) according to credit ratings as of June 30, 2012:

<b><u>Rating</u></b>	<b><u>Fair Value</u></b>	<b><u>%</u></b>
U.S. Government	\$ 503,083,086	13.6
AAA	492,680,759	13.3
AA	995,406,618	26.8
A	758,182,293	20.4
BBB	636,145,588	17.2
BB	137,417,611	3.7
B	181,166,681	4.9
CCC	4,578,544	0.1
<b>Total</b>	<b>\$ 3,708,661,180</b>	<b>100.0%</b>

\*This schedule includes \$272,005,420 of fixed income securities classified in additional categories.

Total market value of the fixed income portfolio was \$3,708,661,180 on June 30, 2012. The rating system used in the chart is the nationally recognized Standard & Poor's rating system.

In addition to the above categories, the retirement system held \$671,112,791 in short term investments through 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.

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 percent (5%) of the assets of the system.

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

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

KTRS has not invested greater than five percent (5%) of the retirement annuity trust fund's assets at market 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, 2012, the retirement system's exposure to foreign currency risk consisted of \$2,564,615,958 of foreign investments.

The following amounts represent the market values of investments that are subject to foreign currency as a result of cash contributions to each portfolio manager.

<b><u>Investment</u></b>	<b><u>Amount</u></b>
Commingled Funds	
UBS International Collective	\$ 655,036,895
Baillie Gifford	535,638,515
Baring Asset Management	388,140,136
Black Rock Fund B	73,055,358
Alternative Funds	
KKR & Co European Fund III	37,466,724
Oaktree European Principal Fund III	7,561,954
Fixed Income Securities (Misc Funds)	177,129,968
Equity Securities (ADR's)	690,586,408
<b>Total</b>	<b>\$ 2,564,615,958</b>

The following table reflects the various foreign currencies associated with the retirement system's investment in the funds outlined above:

<b><u>Currency</u></b>	<b><u>Market Value</u></b>	<b><u>Currency</u></b>	<b><u>Market Value</u></b>
Austrailian Dollar	\$ 135,452,957	Mexican Peso	50,854,224
Bermudian Dollar	12,972,885	Moroccan Dirham	16,674
Brazilian Real	66,644,745	New Zealand Dollar	94,344
British Pound Sterling	437,457,420	Norwegian Krone	20,365,283
Canadian Dollar	198,176,265	Panamanian Balboa	7,423,200
Cayman Islands Dollar	8,343,708	Papua New Guinea Kina	3,176,493
Chilean Peso	3,400,242	Peruvian Nuevo Sol	4,159,516
Chinese Yuan	142,014,107	Philippine Peso	179,443
Colombian Peso	8,677,301	Polish Z?oty	8,964,135
Czech Crown	55,214	Russian Ruble	61,018,872
Danish Krone	33,887,931	Singapore Dollar	43,547,494
Egyptian Pound	65,781	South African Rand	14,260,974
Euro	457,450,912	South Korean Won	76,672,264
Hong Kong Dollar	70,763,526	Swedish Krona	92,456,804
Hungarian Forint	48,236	Swiss Franc	179,152,580
Indian Rupee	7,018,758	Taiwan Dollar	34,120,691
Indonesian Rupiah	12,014,734	Thai Baht	9,997,268
Israeli New Shekel	46,178,752	Turkish Lira	7,672,924
Japanese Yen	290,285,010	Various	3,273,593
Jersey Pound	5,266,700		
Malaysian Ringgit	6,238,102	<b>Total</b>	<b>\$ 2,564,615,958</b>
Malian Franc	4,795,897		

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

The majority of foreign investments are held in commingled funds managed by 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 \$690,586,408 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. Other foreign securities and investments consisted of debt securities and alternative investment opportunities.

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 market 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).

**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 retirement system. The retirement 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 retirement 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 market 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 retirement 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, 2012, 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, 2012:

<b><u>Item</u></b>	<b><u>Earnings</u></b>
Gross Earnings (Interest and fees)	\$ 314,708
Gross Borrower Rebates	2,790,509
Bank Fees	(931,520)
<b>Net Earnings</b>	<b><u>\$ 2,173,697</u></b>

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 retirement system cannot pledge or sell collateral securities received unless the borrower defaults. The lending agent (Bank of New York Mellon) also indemnifies the retirement system from any financial loss associated with a borrower's default and collateral inadequacy.

As of June 30, 2012 the loan average days to maturity in the retirement annuity trust fund was three (3) days and the weighted average investment maturity of cash collateral investments was three (3) days. 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.

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

---

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

Security lending programs can entail interest rate risk and credit risk. The retirement 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, 2012:

<u>Type of Security Lent</u>	<u>Fair Value</u>	<u>Cash &amp; Non-Cash Collateral Value Received*</u>
Fixed Income	\$ 184,747,586	\$ 191,392,812
Equities	206,600,502	205,154,081
<b>Total</b>	<b>\$ 391,348,088</b>	<b>\$ 396,546,893</b>

*\*Represents value of cash collateral only. Loan or margin collateral requirements met via the use of non-cash collateral (e.g. Government securities or Letters of Credit) are excluded from these values.*

### **Note 6: Retirement Plan for Employees of the System**

Full-time employees of Kentucky Teachers' Retirement System (KTRS) participate in either KTRS or Kentucky Employees Retirement System. Both plans are multiple-employer cost sharing defined benefit retirement annuity plans. All KTRS employees in positions requiring a four-year degree are covered under KTRS. 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 KTRS employee members for the fiscal years 2012, 2011 and 2010 were \$533,378, \$469,896, and \$476,918 respectively. KTRS contributed 100% of the required contribution each year.

All other KTRS employees are covered under the Kentucky Employee Retirement System (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. The System'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 5% of their annual creditable compensation for the fiscal years 2012, 2011 and 2010 and members who joined on or after July 1, 2008 contribute an additional 1%. As the employer, KTRS 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 2012, 2011 and 2010 were 23.61%, 16.98%, and 11.61% and the System's annual required

**Note 6: Retirement Plan for Employees of the System continued . . .**

contributions to KERS were \$350,869, \$241,899, and \$174,203 respectively. KTRS contributed 100% of the required contributions for each year.

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

**Note 7: Other Funds****A. 403(B) TAX-SHELTERED ANNUITY PLAN****Plan Description**

KTRS 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 the System'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, 2012, the fourteen members who are receiving annuities will continue to receive distributions according to the terms of their respective elections.

**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.

**B. 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), KTRS 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 retirement system employed by the employer, whose benefits under the retirement system are limited by Section 415 of the Internal Revenue Code of 1986, as amended from time to time. Funding of benefits payable under this fund are provided by the state, as employer, and are segregated from funds that are maintained by KTRS for payment of the regular benefits provided by the retirement system.

**C. JUNITA LOSEY SCHOLARSHIP BEQUEST**

Junita Losey, a retired teacher, designated KTRS as a residuary beneficiary of her estate and expressed a desire that KTRS 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 KTRS. The scholarship bequest has at all times been segregated from funds that are maintained by KTRS for payment of the regular benefits provided by the retirement 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 KTRS to provide access to post-employment healthcare benefits for eligible members and dependents. The KTRS medical plan is funded by employer and member contributions. Changes made to the medical plan may be made by the KTRS Board of Trustees, the Kentucky Department of Employee Insurance and the General Assembly.

The KTRS 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 KTRS 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. KTRS 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 KTRS 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 KTRS Medicare Eligible Health Plan.

At June 30, 2012, KTRS insurance covered 36,000 retirees and 7,008 dependents. There are 208 participating employers and 75,951 active members contributing to the medical plan.

**B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Accounting**

The KTRS Medical Insurance 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**

Since the investments are all short-term investments they are reported at cost, which approximates fair value.

**C. CONTRIBUTIONS**

The post-employment healthcare benefit provided by KTRS is financed on a pre-funded basis beginning July 1, 2010 with the implementation of the Shared Responsibility Plan. In order to fund healthcare benefits, active member contributions are matched by the state at .75% of members' gross salaries. Those members who joined the System before July 1, 2008 contributed 0.75% of gross payroll to the KTRS medical plan and beginning July 1, 2010 the contribution increases incrementally to 3.75% by July 1, 2015 under the Shared Responsibility Plan. Member contributions to the KTRS medical plan are 1.75% of gross payroll for those who



**Note 8: Medical Insurance Plan & Post-Employment Benefits continued . . .**

joined the System after July 1, 2008 and beginning July 1, 2010 the contribution increases incrementally to 3.75% by July 1, 2015 under the Shared Responsibility Plan. Also, the premiums collected from retirees and investment income contributes to funding the plan. The KTRS medical plan received \$268,400,000 in fiscal year 2011 in funding from the state, which was contributed to the insurance trust fund. This transitional funding and increased contributions are for the 2011 and 2012 fiscal years.

**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 (Dollar amount in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll	UAAL As a % of Covered Payroll
	A	B	(B-A)	(A/B)	C	[(B-A)/C]
6/30/2012	\$ 338,746	\$ 3,594,540	\$ 3,255,794	9.4%	\$ 3,479,567	93.6%

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 ARC, an amount that is actuarially determined in accordance with the parameters of GASB Statement 43. The ARC 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, 2012 valuation date include the following:

Actuarial cost method	Entry Age
Actuarial value of assets	Market value of assets
Assumed inflation rate	3.5%
Investment rate of return	8.0%
Amortization method	Level percent of pay, open
Remaining amortization period	30 years
Medical Trend Assumption (Pre-Medicare)	9.50% - 5.00%
Medical Trend Assumption (Post-Medicare)	7.50% - 5.00%
Year of Ultimate Pre-Medicare trend rate	2019



**Note 8: Medical Insurance Plan & Post-Employment Benefits continued . . .****E. INCURRED BUT NOT REPORTED CLAIMS LIABILITIES**

KTRS recognizes estimates of liabilities for self-insured unpaid claims that have incurred (both reported and unreported) using the development method. This method uses past observed patterns of time between the date the claim is incurred and the date the claim is paid to estimate incurred claims from available paid claim information.

The following schedule shows the change in the claims and liability and the claims activity for the years ended June 30, 2012 and 2011.

	<u>2012</u>	<u>2011</u>
Beginning Unpaid Claims Liability	\$ 403,000	\$ 3,827,483
Current Year Claims and Changes in Estimates	189,926,846	177,509,547
Claims Payments	<u>(190,262,846)</u>	<u>(180,934,030)</u>
<b>Ending Unpaid Claims Liability</b>	<b><u>\$ 67,000</u></b>	<b><u>\$ 403,000</u></b>

**Note 9: Life Insurance Plan****A. PLAN DESCRIPTION**

KTRS 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 KTRS's actuary. For both fiscal years 2012 and 2011, this rate has been .05% of active members' payroll.

Note 9: Life Insurance Plan continued . . .

#### 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 (Dollar amount in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll	UAAL As a % of Covered Payroll
	A	B	(B-A)	(A/B)	C	[(B-A)/C]
6/30/2012	\$ 92,241	\$ 91,398	\$ (843)	100.9%	\$ 3,479,567	(0.02)%

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, 2012 valuation date include the following:

Actuarial cost method	Entry Age
Actuarial value of assets	Market value of assets
Assumed inflation rate	3.5%
Investment rate of return	7.5%
Projected salary increases	4.0%
Amortization method	Level percent of pay, open
Remaining amortization period	30 years

#### Required Supplementary Information

Defined Benefit Plan – Schedule of Funding Progress (Dollar amount in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
	A	B	(B-A)	(A/B)	C	[(B-A)/C]
6/30/2007	\$ 15,285.0	\$ 21,255.0	\$ 5,970.0	71.9%	\$ 2,975.3	200.7%
6/30/2008	15,321.3	22,460.3	7,139.0	68.2	3,190.3	223.8
6/30/2009	14,885.9	23,400.3	8,514.4	63.6	3,253.1	261.7
6/30/2010	14,851.3	24,344.3	9,493.0	61.0	3,321.6	285.8
6/30/2011	14,908.1	25,968.7	11,060.6	57.4	3,451.8	320.4
6/30/2012	14,691.4	26,973.9	12,282.5	54.5	3,479.6	353.0

*The amounts reported in this schedule of funding progress do not include assets or liabilities for postemployment benefits, nor are the assets and liabilities of the tax-sheltered annuity plan included.*

Defined Benefit Plan – Schedule of Employer Contributions				
Fiscal Year Ended	Annual Required Contributions	Actual Employer Contributions	Percentage Contributed	
	(A)	(B)	(B) / (A)	
6/30/2007	\$ 494,565,369	\$ 434,890,469	88%	
6/30/2008	563,789,483	466,247,783	83	
6/30/2009	600,282,735	442,549,935	74	* Includes Pension Obligation Bond proceeds of \$465,384,165
6/30/2010	633,938,088	479,805,088	76	
6/30/2011	678,741,428	1,037,935,993*	153	
6/30/2012	757,822,190	557,339,552	74	

**Medical Insurance Fund – Schedule of Funding Progress**

(Dollar amount in millions)

(Dollar amount in millions)						UAAL
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Funded Ratio	Covered Payroll	as a % of Covered Payroll
A	B	(B-A)	(A/B)	C	[(B-A)/C]	
6/30/2007	\$ 140.8	\$ 5,928.8	\$ 5,788.0	2.4%	\$ 2,975.3	194.5%
6/30/2008	185.9	6,434.5	6,248.6	2.9	3,190.3	195.9
6/30/2009	229.1	6,454.7	6,225.6	3.5	3,253.1	191.4
6/30/2010	241.2	3,206.8	2,965.6	7.5	3,321.6	89.3
6/30/2011	294.8	3,423.1	3,128.3	8.6	3,451.8	90.6
6/30/2012	338.7	3,594.5	3,255.8	9.4	3,479.6	93.6

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.

**Medical Insurance Plan – Schedule of Employer Contributions**

Fiscal Year Ended	Annual Required Contribution	Actual Employer Contribution	Retiree Drug Subsidy Contribution	Total Contribution	Percentage of ARC Contribution
	(A)	(B)	(C)	(B) + (C)	[(B) + (C)]/(A)
6/30/2007	\$ 231,473,321	\$ 113,258,761	\$ 10,312,361	\$ 123,571,122	53.4%
6/30/2008	395,282,164	148,954,644	11,911,565	160,866,209	40.7
6/30/2009	467,312,904	164,480,119	13,611,748	178,091,867	38.1
6/30/2010	457,054,117	158,765,496	14,614,285	173,379,781	37.9
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

**Life Insurance Fund – Schedule of Funding Progress**

(Dollar amount in thousands)

(Dollar amount in thousands)						UAAL
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Covered Payroll	As a % of Covered Payroll
A	B	(B-A)	(A/B)	C	[(B-A)/C]	
6/30/2007	\$ 71,426	\$ 82,722	\$ 11,296	86.3%	\$ 2,975,289	0.38%
6/30/2008	77,658	84,265	6,607	92.2	3,190,332	0.21
6/30/2009	84,703	90,334	5,631	93.8	3,253,077	0.17
6/30/2010	87,905	92,091	4,186	95.5	3,321,614	0.13
6/30/2011	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)

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.

**Life Insurance Plan – Schedule of Employer Contributions**

Fiscal Year Ended	Annual Required Contribution (ARC)	Actual Employer Contribution	Percentage of ARC Contributed
	(A)	(B)	(B) / (A)
6/30/2007	\$ 1,785,173	\$ 5,022,137	281.3%
6/30/2008	1,914,199	5,411,249	282.7
6/30/2009	1,498,076	5,455,473	364.2
6/30/2010	1,992,969	1,966,826	98.7
6/30/2011	1,725,878	1,668,822	96.7
6/30/2012	1,732,831	1,684,711	97.2

### Required Supporting Schedules

#### Supporting Schedule 1 Schedule of Administrative Expenses Year Ended June 30, 2012

<u>Expense</u>	<u>Amount</u>
Salaries	\$ 6,396,770
Other Personnel Costs	692,250
Professional Services and Contracts	327,192
Utilities	90,501
Rentals	20,005
Maintenance	123,873
Postage & Related Services	342,433
Printing	110,040
Insurance	135,510
Miscellaneous Services	108,308
Telecommunications	36,565
Computer Services	140,669
Supplies	62,053
Depreciation	101,396
Travel	36,172
Dues & Subscriptions	44,945
Miscellaneous Commodities	14,357
Furniture, Fixtures, & Equipment not Capitalized	158,612
Compensated Absences	46,224
<b>Total Administrative Expenses</b>	<b><u>\$ 8,987,875</u></b>

#### Supporting Schedule 2 Schedule of Professional Fees for Year Ended June 30, 2012

<u>Professional</u>	<u>Nature of Service</u>	<u>Amount</u>
Cavanaugh Macdonald Consulting	Actuarial Services	\$ 140,250
Charles T. Mitchell Company	Auditing Services	30,825
Farmers Bank	Bank Services	15,149
International Claim Specialist	Investigative Services	1,600
Groom Law Group	Attorney Services	30,000
Ice Miller	Attorney Services	86,265
Reinhart, Boerner VanDeuren	Attorney Services	661
Stoll Keenon Ogden	Attorney Services	771
Wyatt Tarrant and Combs	Attorney Services	10,869
Digital Business Solutions	Website Design Consultant	10,802
<b>Total Professional Services and Contracts</b>		<b><u>\$ 327,192</u></b>

Required Supporting Schedules continued . . .

**Supporting Schedule 3**  
**Schedule of Contracted Investment Management**  
**Expenses and Miscellaneous Expenses**  
**Year Ended June 30, 2012**

	<u>Pension</u>	<u>Medical</u>	<u>Total</u>
<b>Equity Managers</b>			
Baillie Gifford	\$ 2,058,808	\$	\$
Baring Asset Management, Inc.	1,952,455		
Black Rock		89,693	
GE Asset Management	800,000		
Todd-Veredus Asset Management LLC	1,204,513		
UBS Global Asset Management	2,736,797		
Wellington Management Company	2,563,239		
	<hr/>	<hr/>	<hr/>
Total Equity Managers	11,315,812	89,693	11,405,505
<b>Fixed Income Managers</b>			
Fort Washington Investment Advisors	716,490	106,932	
Galliard Capital Management	322,081		
	<hr/>	<hr/>	<hr/>
Total Fixed Income Managers	1,038,571	106,932	1,145,503
<b>Real Estate</b>	2,222,883		2,222,883
<b>Alternative Investments</b>	11,977,439	75,000	12,052,439
<b>Custodian</b>			
The Bank of New York Mellon	304,842	4,998	309,840
<b>Consultant</b>			
Hewitt Ennis Knupp, Inc.	358,720		358,720
<b>Legal &amp; Research</b>			
Schottenstein, Zox & Dunn	8,707		
Ice Miller	33,210	5,785	
Bevis Longstreth	50,417		
George Philip	30,000		
Miscellaneous	1,982		
	<hr/>	<hr/>	<hr/>
Total Legal & Research	124,316	5,785	130,101
<b>Other</b>			
Subscription/Services	745,977		745,977
	<hr/>	<hr/>	<hr/>
<b>Total Contracted Investment Management Expenses</b>	<b>\$ 28,088,560</b>	<b>\$ 282,408</b>	<b>\$ 28,370,968</b>
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

Required Supporting Schedules continued . . .

**Supporting Schedule 4**  
**Combining Statement of Plan Net Assets - Other Funds**  
**As of June 30, 2012**

	<u>403(b) Tax Sheltered</u>	<u>Supplemental Benefit Fund</u>	<u>Losey Scholarship</u>	<u>Total</u>
<b><u>ASSETS</u></b>				
Cash	\$	\$ 9,828	\$	\$ 9,828
Receivables				
Investment Income			1,183	1,183
Investments at Fair Value				
Short-Term Investments	405,136		267,879	673,015
Bonds and Mortgages			270,532	270,532
Total Investments	<u>405,136</u>	<u></u>	<u>538,411</u>	<u>943,547</u>
Total Assets	405,136	9,828	539,594	954,558
<b><u>LIABILITIES</u></b>				
Due to Other Trust Funds	<u>229</u>	<u>513</u>	<u>183</u>	<u>925</u>
<b>Net Assets Held In Trust For Pension And Other Benefits</b>	<u>\$ 404,907</u>	<u>\$ 9,315</u>	<u>\$ 539,411</u>	<u>\$ 953,633</u>

Required Supporting Schedules continued . . .

**Supporting Schedule 5**  
**Combining Statement of Changes in Plan Net Assets - Other Funds**  
**For the Year Ended June 30, 2012**

	<u>403(b) Tax Sheltered</u>	<u>Supplemental Benefit Fund</u>	<u>Losey Scholarship</u>	<u>Total</u>
<b><u>ADDITIONS</u></b>	\$	\$	\$	\$
Contributions Employer				
Investment Income				
Net Appreciation/(Depreciation) in Fair Value of Investments			66,220	66,220
Interest	713		9,310	10,023
Net Investment Income	713		75,530	76,243
Total Additions	713		75,530	76,243
<b><u>DEDUCTIONS</u></b>				
Benefits	18,952	55,280	18,000	92,232
Administrative Expense	99	287	94	480
Net Increase (Decrease)	(18,338)	(55,567)	57,436	(16,469)
<b>Net Assets Held In Trust For Pension And Other Benefits</b>				
<b>Beginning of Year</b>	423,245	64,882	481,975	970,102
<b>End of Year</b>	<u><b>\$ 404,907</b></u>	<u><b>\$ 9,315</b></u>	<u><b>\$ 539,411</b></u>	<u><b>\$ 953,633</b></u>





Mountjoy  
Chilton  
Medley

**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**

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

We have audited the statement of plan net assets of the Teachers' Retirement System of the State of Kentucky, as of and for the year ended June 30, 2012, and the related statement of changes in plan net assets for the year then ended and have issued our report thereon dated December 17, 2012. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States.

**Internal Control Over Financial Reporting**

Management of the Teachers' Retirement System of the State of Kentucky, is responsible for establishing and maintaining effective internal control over financial reporting. In planning and performing our audit, we considered the Teachers' Retirement System of the State of Kentucky's internal control over financial reporting as a basis for designing our auditing procedures for the purpose of expressing our opinions 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 over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Teachers' Retirement System of the State of Kentucky's internal control over financial reporting.

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.

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 deficiencies, significant deficiencies, or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

**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 of 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.

This report is intended solely for the information and use of management, the Board of Trustees, the Commonwealth of Kentucky, and others within the entity and is not intended to be and should not be used by anyone other than these specified parties.

/s/ Mountjoy Chilton Medley LLP

Lexington, KY  
December 17, 2012

**Louisville**  
2000 Meidinger Tower  
462 South Fourth Street  
Louisville, KY 40202

**Lexington**  
175 East Main Street  
Suite 200  
Lexington, KY 40507

**Frankfort**  
150 Flynn Avenue, Suite 100  
P.O. Box 5630  
Frankfort, KY 40602

**Cincinnati**  
1440 PNC Center  
201 East Fifth Street  
Cincinnati, OH 45202

888.587.1719 | [www.mcmcpa.com](http://www.mcmcpa.com)  
An Independent Member of Baker Tilly International

This page was intentionally left blank.

---

# Investment Section

---

for Fiscal Year ending June 30, 2012

## REPORT ON INVESTMENT ACTIVITY

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

**Mr. Paul L. Yancey, CFA**  
Chief Investment Officer

**Mr. Philip L. Webb**  
Director of Investment Accounting

---

## INVESTMENT COMMITTEE

**Mr. Robert M. Conley**  
Chairperson

**Mr. Ronald L. Sanders**  
Vice-Chairperson

**Ms. Barbara G. Sterrett**  
Member

**Dr. Tom Shelton**  
Member

**Ms. Laura A. Zimmerman**  
Member

**Mr. Bevis Longstreth**  
Investment Advisor to KTRS Investment Committee

**Mr. George Philip**  
Investment Advisor to KTRS Investment Committee

---

## EXECUTIVE INVESTMENT STAFF

**Mr. Gary L. Harbin, CPA**  
Executive Secretary

**Mr. Paul L. Yancey, CFA**  
Chief Investment Officer



An Aon Company

December 3, 2012

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

Investment returns were lackluster in the twelve-month period ended June 30, 2012, reflecting a subpar U.S. economic recovery, the ongoing Eurozone debt crisis, and slowing economic growth in emerging markets. The retirement annuity trust fund's total return for the fiscal year was 2.4%. While less than a banner year in an absolute sense, this return ranked in the top 26% of returns of our universe of pension funds with over \$1 billion in assets.

Over the past fiscal year, U.S. inflation-adjusted gross domestic product grew by 2.1% while the unemployment rate fell from 9.1% to a still-high 8.2%. Risk aversion caused by a growth slowdown in the U.S. and an intensification of the Eurozone crisis led risky assets to plunge in the late summer and early fall of 2011 while safe haven assets such as U.S. Treasury bonds rallied. Growth picked up and fear abated, causing risky assets to generally rebound from fall, 2011, to spring, 2012. By late spring, a slowdown in growth in the U.S. and China was apparent and no resolution to the Eurozone crisis was in sight. Equities and other risky assets retreated once again.

Equities, which represented 63.1% of assets as of June 30, 2012, had a particularly difficult fiscal year. Domestic equities returned 2.8% versus 4.6% for the S&P 1500 Index. Most active equity managers underperformed in an environment characterized by enormous outperformance of defensive industries. International equities were battered, with the MSCI All Country World (ex-U.S.) Index declining by 14.2%. The retirement system's international equities were relatively resilient, declining by 12.1%. Investment grade fixed income returned 9.6% versus 8.8% for the Barclays Government/Credit Index.

Real estate investments generally performed well, as the commercial real estate market continued to recover. The retirement system's private equity program, still in its early stages, showed promising results. Other non-traditional strategies, such as alternative credit and timberland, were mixed in a volatile year.

The retirement system's investment performance has been strong in recent years relative to its peers as a multi-year program of improving the diversification of its asset allocation has been implemented. In a rapidly evolving global economic and financial climate, the investment program has responded well to both emerging opportunities and risks.

The philosophy which guides the investment program is grounded in fundamental economic value and, above all, safely funding its long-term obligations to its members. A robust process and uncompromising commitment to best practices has led to successful implementation and strong risk control. We believe continued commitment to this philosophy and process will help ensure long-term success in meeting the retirement system's goals.

We are grateful to be a part of this process. As always, we would like to thank the Board of Trustees, Investment Committee, and investment staff for their confidence.

Respectfully,

Patrick J. Kelly, CFA, CAIA

Partner

**Hewitt EnnisKnupp, Inc.**

10 South Riverside Plaza, Suite 1600 | Chicago, IL 60606

t 312.715.1700 | f 312.715.1952 | [www.hewittennisknupp.com](http://www.hewittennisknupp.com)

Hewitt Investment Group LLC and Ennis, Knupp & Associates, Inc. are part of the Hewitt global investment network.

## **RETIREMENT ANNUITY TRUST FUND**

---

### **INVESTMENT POLICY SUMMARY**

The KTRS 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 KTRS.

### **INVESTMENT OBJECTIVES**

KTRS 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, KTRS 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 KTRS investment program faces various risks; however, the primary risk to KTRS 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 KTRS Investment Committee adopts, and regularly reviews, detailed investment strategies for implementation of the investment policy.

### **ASSET ALLOCATION**

Operating within relevant regulatory limitations, the retirement system's investment consultant, on an annual basis, presents to the Investment Committee for approval target percentages and ranges for the retirement 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 retirement 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 retirement annuity trust fund's asset allocation by market value as of June 30, 2012, and June 30, 2011, as well as the target and strategic range for each asset class for fiscal year 2012.

<b>Retirement Annuity Trust*</b>				
	<b><u>June 30, 2012</u></b>	<b><u>%</u></b>	<b><u>June 30, 2011</u></b>	<b><u>%</u></b>
Cash Equivalents**	\$ 431,810,127	2.9	\$ 352,707,345	2.4
Fixed Income ***4	3,391,777,780	23.0	3,856,183,434	25.6
Domestic Equities	7,044,415,411	47.5	7,356,796,262	48.4
International Equities	2,309,883,058	15.6	2,294,036,935	15.1
Real Estate	586,800,767	4.0	480,447,237	3.1
Private Equity	265,833,651	1.8	189,131,441	1.2
Timberland	185,432,686	1.2	180,318,434	1.2
Additional Categories	587,848,810	4.0	457,628,442	3.0
<b>Totals</b>	<b>\$ <u>14,803,802,290</u></b>	<b><u>100.00</u></b>	<b>\$ <u>15,167,249,530</u></b>	<b><u>100.0</u></b>

\* Includes Life Insurance Trust values of \$90,867,361 Tax Shelter Annuity value of \$405,136, and 401(h) value of \$11,606,479.

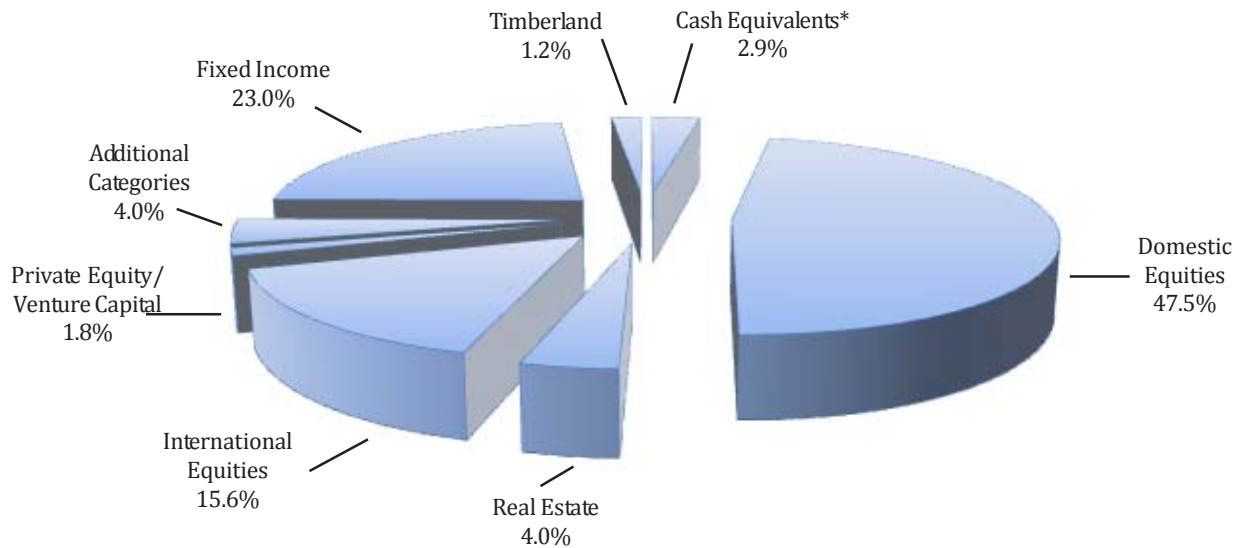
\*\* Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.

\*\*\* Excludes purchased interest of \$797,403 as of June 30, 2012, and \$779,260 as of June 30, 2011.

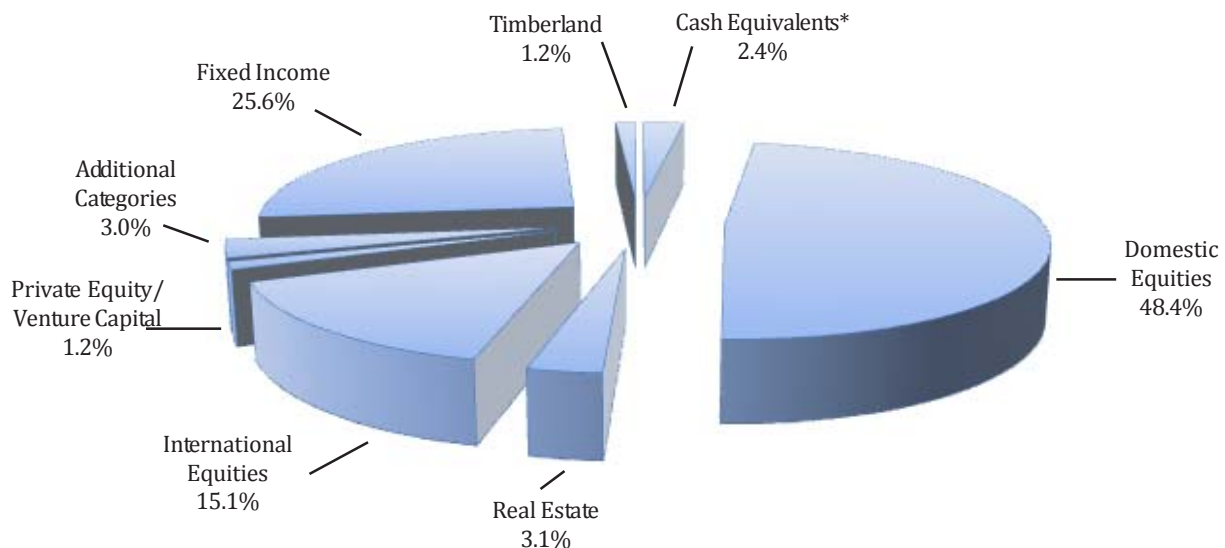


**Distribution of Investments  
Retirement Annuity Trust\*\*  
Market Values**

**June 30, 2012**



**June 30, 2011**



\* 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)	6/30/2012 (Mkt)**
Cash		1 - 3%	2.0%	2.9%
Fixed Income		21 - 27	24.0	23.0
Government/Agency/Other	Unlimited			10.7
Corporate	35%			12.3
Equity	65%	58 - 65	62.0	63.1
Domestic Large Cap		35 - 45	40.0	40.3
Domestic Mid Cap		1 - 5	3.0	4.5
Domestic Small Cap		1 - 3	2.0	2.7
International***	30%	14 - 20	17.0	15.6
Real Estate	10%	2 - 6	4.0	4.0
Alternative Investments*	10%	2 - 6	4.0	3.0
Additional Categories	15%	2 - 6	<u>4.0</u>	<u>4.0</u>
<b>TOTAL</b>			<b>100.0%</b>	<b>100.0%</b>
<p>* Includes private equity, venture capital, timberland, and infrastructure investments.</p> <p>** 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.</p> <p>*** As of 6/30/12, 20.3% of Total International Equities was invested in Emerging Markets.</p>				

### PORTFOLIO RETURNS

For the fiscal year, the retirement annuity trust fund's portfolio generated a total return of 2.4%, versus a 3.1% return for the benchmark Policy Index. Domestic equities returned 2.8% versus 4.6% for the Standard & Poor's 1500 Index, while international equities returned -12.1% versus -14.2% for the MSCI All Country World (Ex-US) Index. Fixed income investments outperformed, returning 9.6% versus 8.8% for the Barclays Government/Credit Index. Investments in real estate, private equity, high yield bonds, and alternative credit contribute a modest, but growing, portion of total return due to increasing exposure to these asset classes.

The table below details historical performance for the retirement annuity trust fund and its component asset classes for the period ended June 30, 2012. 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 the modified Dietz methodology.

	<u>1 Yr.</u> <sup>(2)</sup>	<u>3 Yr.</u> <sup>(2)</sup>	<u>5 Yr.</u> <sup>(2)</sup>	<u>10 Yr.</u> <sup>(2)</sup>	<u>20 Yr.</u> <sup>(2)</sup>
<b>Total Fund</b>					
KTRS	2.4	12.1	2.6	5.5	7.2
Policy Index <sup>(1)</sup>	3.1	12.1	-	-	-
<b>Equities</b>					
Domestic Equities	2.8	16.1	0.4	5.4	8.7
S & P Blended Index <sup>(3)</sup>	4.6	16.8	0.5	5.4	8.4
International Equities	-12.1	9.2	-3.5	-	-
MSCI AC World (Ex US)	-14.2	7.4	-4.2	-	-
Total Equities	-1.0	14.4	-0.4	5.1	8.5
<b>Fixed Income</b>					
Total Fixed Income	9.6	8.7	8.1	6.4	7.0
Barclays Govt/Credit Index	8.8	7.3	6.9	5.8	6.6
<b>Real Estate</b>					
Non-Core Real Estate	4.8	-	-	-	-
NCREIF Index	12.0	-	-	-	-
Core Real Estate	14.7	4.7	-	-	-
NCREIF ODCE	12.4	8.4	-	-	-
Triple Net Lease Real Estate	8.2	8.1	8.3	9.0	9.1
CPI plus 2%	3.7	4.1	4.0	4.5	4.5
<b>Alternative Investments</b>					
Private Equity <sup>(4)</sup>	9.7	16.8	9.3	-	-
Timberland	3.0	1.7	-	-	-
NCREIF Timberland Index	1.1	-0.7	-	-	-
<b>Cash</b>					
Cash (Unallocated)	0.1	0.2	1.1	2.2	3.6
90 Day Treasury Bill	0.0	0.1	1.0	1.8	3.1
<b>Additional Categories</b>					
High Yield Bond Fund	7.6	-	-	-	-
Public-Private Investments	1.7	-	-	-	-
Special Situations Fund	-7.8	-	-	-	-
KTRS Credit Fund	1.4	-	-	-	-
B of A Merrill Lynch	6.5	-	-	-	-
High Yield Master II					

(1) Prior to July 1, 2008, KTRS 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.

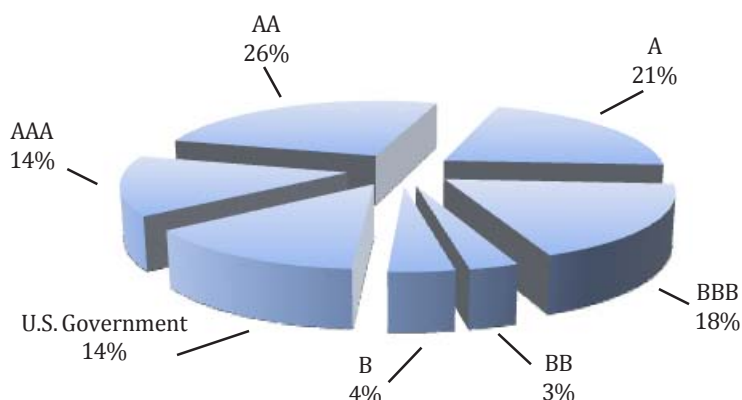
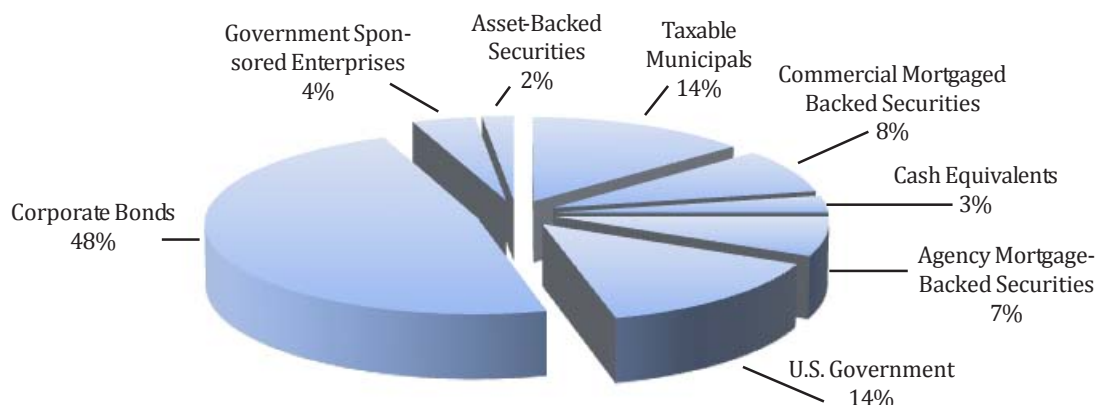
As of 7/1/2007, domestic equity is benchmarked to the S & P 1500 Index since the System's domestic stock mix is most comparable to this index.

(4) For a period of five years private equity 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 commitment date, investments in this class shall be benchmarked versus the S & P 500 plus 3%, which is the System's long-term expected return for this asset class.

**FIXED INCOME INVESTMENTS**

As of June 30, 2012, the retirement annuity trust fund had approximately \$3.39 billion, 23% of total assets, in investment grade fixed income assets. In addition, the retirement annuity trust fund had \$587.85 million, 4% of total assets, in other debt related investments approved 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 a high yield bond portfolio, investments with two managers participating in U.S. Treasury’s Public-Private Investment Program (PPIP), and two alternative credit funds.

Excluding the other debt-related investments discussed above, the retirement annuity trust fund’s fixed income investments maintained the average investment grade rating required by administrative regulation as of June 30, 2012. The credit quality distribution, including the high yield portfolio, is illustrated below. Also illustrated below is the distribution of fixed income assets by sector, again including the high yield portfolio.

**FIXED INCOME QUALITY DISTRIBUTION****FIXED INCOME SECTOR DISTRIBUTION**

**FIXED INCOME MARKET OVERVIEW**

U.S. bond markets performed remarkably well over the fiscal year with all major fixed income market sectors posting positive returns. High quality long-term bonds performed the best as the rally in the fixed income markets was driven by continuing uncertainties in Europe, domestic fiscal gridlock, and the continued application of easy monetary policies by the Federal Reserve. Despite a slow start, the economy showed definite signs of strength as GDP grew 2.1%, up from 1.9% the previous year, and the unemployment rate dropped to 8.2% from 9.1% a year earlier. Inflation was mixed with the headline CPI measure dropping from 3.6% to 1.7% year over year. The CPI "core" measure, which excludes food and energy prices, increased from 1.6% in the year ending June 2011 to 2.2% by June 30, 2012.

The fiscal year began amid turmoil as Eurozone finance ministers struggled to put together a package of supports to keep Greece from defaulting on its sovereign debts. Domestically, the U.S. Government had reached its debt limit in May of 2011 and was embroiled in a stalemate between the Obama administration and the Republican House over raising the debt ceiling. A \$600 billion program of bond purchases by the Federal Reserve had just concluded in June and the economy was slowing. Indeed, U.S. GDP grew at only 1.6% year-over-year in the quarter ending September 2011. The debt of the U.S. Treasury was ultimately downgraded to AA+ from AAA by Standard and Poor's over the handling of the debt ceiling fiasco.

Despite the eventual resolution of these issues, confidence in risky assets dropped sharply; equity and lower quality corporate bond markets were roiled in the first quarter of the fiscal year. The flight out of risky assets caused a sharp rally in U.S. Treasuries, driving the yield on 30 year Treasuries under 2.75% by early October, down from 4.4% in July.

In addition to the crisis of confidence, the rally in high grade bonds was also aided by the announcement of additional policy action by the Federal Reserve. At the September 2011 Federal Open Market Committee meeting, the Federal Reserve announced that it would begin a \$400 billion bond purchase program that would extend until June 2012. This program, commonly referred to as "operation twist", was an attempt to bring down long term interest rates by buying U.S. Treasuries with maturities of 6 to 30 years. The purchases would be financed by sales of Treasuries with less than 3 year maturities.

The Fed's policy was very effective not only in lowering long term interest rates, but also in keeping them low throughout the year, as the yield on 30 year Treasuries ended the fiscal year at 2.75%. The low Treasury rates held down mortgage rates, giving a much needed boost to the real estate market. The average 30 year fixed mortgage rate dropped from 4.51% to 3.66% during the course of operation twist.

As the fiscal year progressed, the low long term Treasury rates provided a boost to other markets as investors accepted additional risk in search of higher yield. Investment grade corporate bonds returned 9.71% for the year while high yield bonds rebounded from lows early in the year to return 6.51%. Agency mortgage-backed securities returned 4.97%. U.S. Treasuries returned 8.32% overall. The retirement annuity trust fund's total fixed income return was 9.6%, outpacing the Barclays Government/Credit index, which returned 8.78% for the year ended June 30, 2012.

In June of 2012, the Federal Reserve announced it would extend its current bond purchase program, operation twist, through the end of calendar year 2012 by adding an additional \$267 billion in long term bond purchases. The Fed's policy of keeping both short and longer term interest rates low has been supportive to some areas of the economy. However, low rates have left investment grade bond prices higher than they would otherwise be. The result is an asset class with unfavorable risk and reward characteristics. The retirement system continues to adjust the structure of its fixed income portfolio to control risk and maintain required liquidity. An important part of this work is an increasing exposure to nontraditional debt-related investments, which offer both diversification and better risk / reward potential.

## EQUITY INVESTMENTS

As of June 30, 2012, the retirement annuity trust fund's public equity investments had a market value of \$9.35 billion, representing 63.1% of total assets. Strong equity returns over the last six months of the fiscal year prompted some rebalancing sales to reduce equity exposure back to target levels and to raise cash to fund pension benefits. The retirement annuity trust fund divides its public equity into two broad categories: domestic and international.

The domestic portfolio had a market value of \$7.04 billion as of June 30, representing 47.5% of total assets. 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 500, S&P 400, and S&P 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, 2012 was \$2.31 billion, representing 15.6% of total assets. 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 23 developed countries and 21 emerging market countries. Four external asset managers manage the retirement annuity trust fund's international equities. During the fiscal year international equities increased slightly as a percent of total assets. The retirement annuity trust fund plans to continue increasing the international equity exposure during the coming fiscal year.

## EQUITY MARKET OVERVIEW

For the fiscal year 2012, stocks were flat to slightly down overall, but experienced high volatility throughout the year. Returns of domestic stocks as measured by the S&P 1500 and Russell 2000 were up 4.63% and down 2.08%, respectively. Domestic large caps fared relatively well on the year, as the Dow Jones advanced 6.63% and the S&P 500 was up 5.45%. The Morgan Stanley Capital International (MSCI) World Index was down 4.41% for the year, brought down by foreign markets. The MSCI EAFE, which measures the foreign developed markets, fell 13.38%, while the MSCI Emerging Markets Index was down 15.66%.

Following two strong years, fiscal year 2012 was a tale of two halves. Momentum died early in the fiscal year as stocks plummeted in late July and continued the downward trend for the better part of the first and second quarters. Volatility was extremely high with the market reaching its lows in October and beginning its recovery in December.

The domestic markets were generally led down by many market uncertainties, both domestic and abroad. Locally, negative investor sentiment was driven by the sluggish labor market and the U.S. government's debt ceiling crisis. Although Congress ultimately reached a compromise, employment and confidence remained weak. Most of the decline was led by the energy and financial sectors. International uncertainty centered on the European debt crisis. This crisis came to the forefront in the first quarter as Greece teetered on defaulting on its sovereign debts. European and International Monetary Fund officials engineered a debt restructuring that kept Greece in the euro. The crisis was, however, ominously spreading to Spain and Italy. The associated austerity measures and political turmoil generated tremendous volatility in the markets.

The second half of the fiscal year was a completely different story, as stocks generally rallied, particularly in the third quarter. This rally was led by strong corporate earnings, despite the uncertain macroeconomic outlook. When calendar year-end earnings were all reported, 61% of the companies in the S&P 500 had exceeded expected earnings with an average 3.9% earnings surprise to the upside. The strong earnings were led by Apple Corp (AAPL) who successfully rolled out their iPad2 and iPhone4S. Also aiding the second half

resurgence was the Fed's decision to keep interest rates low and the European Central Bank's aggressive rate cuts. The housing market benefitted from the continued promise by the Fed to maintain low borrowing rates. The housing and real estate market, as measured by the MSCI US REIT Index, advanced 14.88% in the second half and was up 39.23% from its 52 week low on October 3, 2011. Labor markets also improved on the back of the strong corporate earnings as unemployment fell from 9.07 on September 30, 2011 to 8.17 as of the end of the fiscal year. Stocks, however, did see a slight pullback at the end of the fourth quarter of the fiscal year, as concerns re-emerged about a growth slowdown in the U.S.

Domestically, the Presidential campaign dominated the headlines. Concern over the growing national debt and national healthcare kept investors from buying into the recovery. Internationally, the European debt crisis and an interest rate fixing scandal dampened confidence. China also experienced a pullback in equity markets as investors found better opportunities in other emerging markets.

In summary, despite tremendous volatility manifested in a plummeting first quarter and a soaring third quarter, we ended the year fairly flat. Generally, defensive industries and countries performed relatively well while those perceived as riskier performed poorly. Large cap U.S. stocks did well while small cap stocks were down slightly. European and emerging markets stocks suffered significant declines. Financial markets are expected to remain volatile at least through the national elections in November, 2012.

### REAL ESTATE

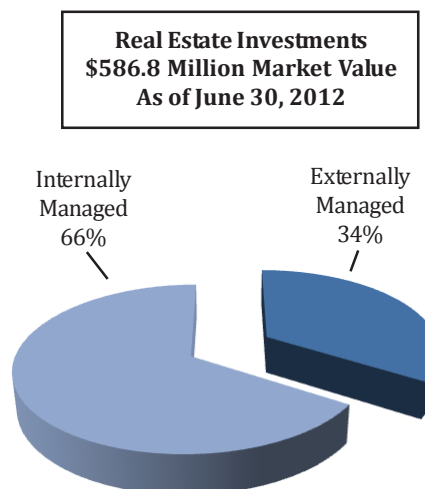
The retirement annuity trust fund's real estate investments had a market value of \$586.8 million as of June 30, 2012, representing 4.0% of total assets. The retirement annuity trust fund's investments in real estate are intended to provide attractive long-term returns, generate reliable cash flow, and provide diversification, thereby reducing the volatility of the overall investment portfolio.

The retirement annuity trust fund's real estate exposure is currently provided through four 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 two real estate limited partnerships: Carlyle Realty Partners VI, L.P., and Blackstone Real Estate Partners VII, L.P. Carlyle Realty Partners VI is an opportunistic real estate fund targeting distressed properties where fundamentals such as supply, demand, and location indicate that the property can be successfully turned around. This fund focuses on the major markets on the East and West Coasts and across all property types. Blackstone Real Estate Partners VII is an opportunistic real estate fund whose goal is to create core real estate by buying distressed and/or undermanaged assets at below market prices, executing a strategy to fix the issues and sell to institutional or strategic buyers or the public markets at higher values. Blackstone prefers to acquire high quality, income-producing assets in favor of engaging in development activities.

### REAL ESTATE OVERVIEW

The commercial real estate market experienced a second consecutive year of moderate recovery during the



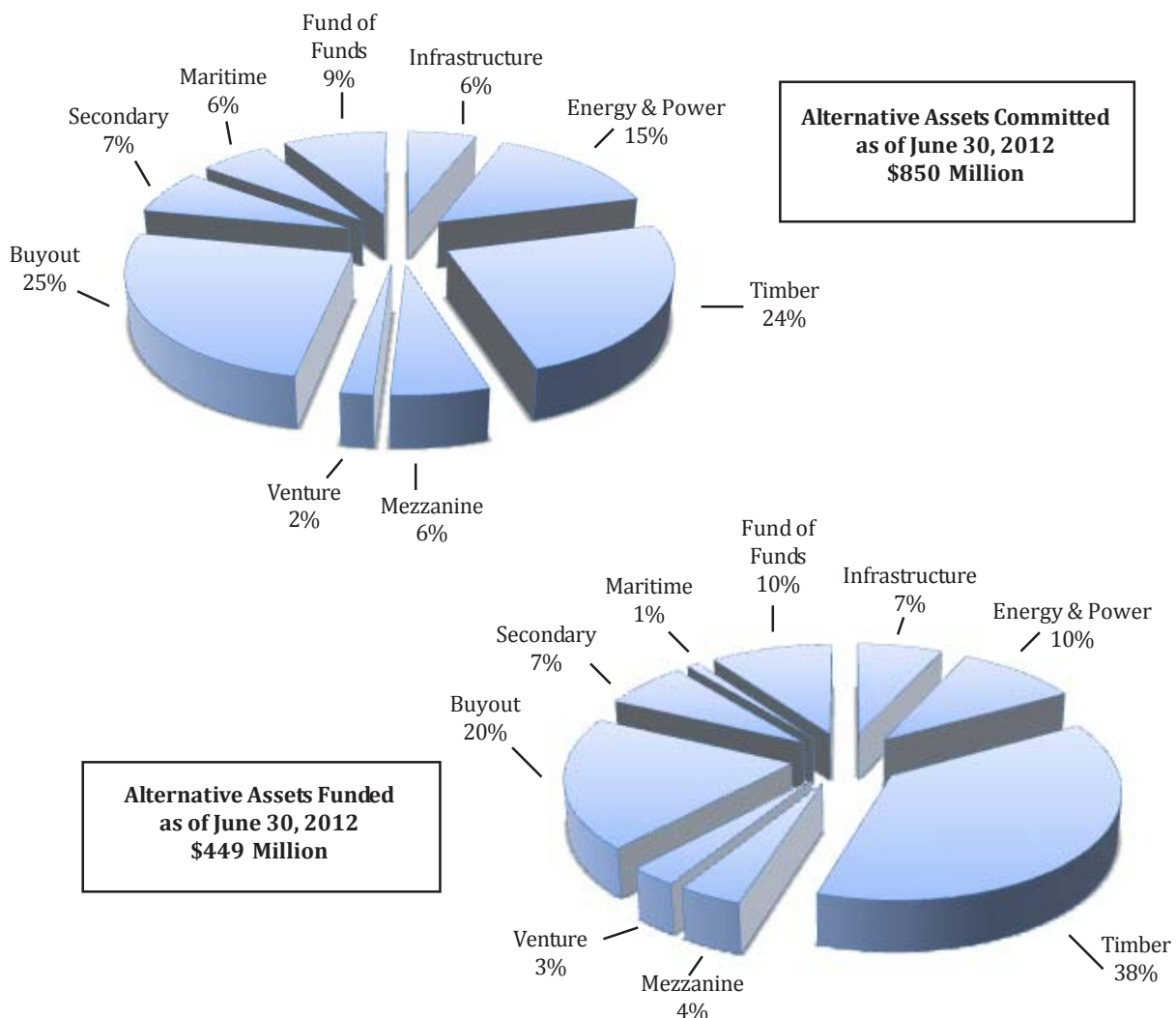


fiscal year. Demand remained strong for trophy properties located in gateway markets, while improving lending conditions helped support growing transaction volume in the broader market as well. Property yields continue to provide an attractive option to investors in a low interest rate environment with government bond yields near record lows. New construction activity in most sectors of the market remained constrained with the notable exception of multifamily construction.

Over the upcoming year, demand for apartments should remain strong due to favorable demographics and declining homeownership rates. The lack of new supply in the office, retail, and industrial sectors should promote a gradual recovery in overall rent and vacancies. It is estimated that up to \$2 trillion in commercial mortgage debt will need to be refinanced over the next five years. These impending debt maturities will force owners who are unable to retire or refinance maturing debt to bring high quality assets to market. This will provide an opportunity for investors with ready capital to acquire commercial real estate properties at attractive prices.

### ALTERNATIVE ASSETS

As of June 30, 2012, the retirement annuity trust fund had committed \$850 million to alternative investments and had funded \$449 million of those commitments. The percentage of the retirement annuity trust fund's portfolio in alternative assets was 3.0%. The retirement annuity trust fund's current alternative asset portfolio consists of private equity investments and timberland.



### 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 is in the early stages of its private equity investment program, which it intends to grow with a disciplined plan of commitments over the next several years. The retirement annuity trust fund looks to diversify its private equity portfolio by firm, 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

The private equity markets continue to rebound from the effects of the financial crisis. Investors, especially on the institutional side, continue to increase their allocation to alternative investments, including private equity. However, continued uncertainty in the financial markets along with the record number of funds coming into the market over the next twelve months means that fund raising will remain challenging for all but the top tier funds. A strong IPO market remains the linchpin of the rebound in private equity as many funds that are in the harvesting period have not been able to dispose of the underlying portfolio companies in the time frame they had anticipated. As the IPO market begins to open back up this trend should reverse itself, and funds will begin to harvest their underlying portfolio companies at an accelerated pace.

As limited partners have become more selective in the funds in which they invest we continue to see a bifurcation in the private equity market 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 a large amount of buyout funds returning to the marketplace with mixed results. We continue to see more opportunity in the middle market space and in other niche areas such as energy, infrastructure, distressed credit, and emerging markets. 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, 2012 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 owns 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**

The stagnation in the general economy and the poor housing market continued to negatively affect the global timber markets over the past fiscal year. However, many economists are expressing a guarded optimism that the domestic housing market is finally beginning a sustained turnaround, with the supply of homes moving downward and housing starts beginning to show some signs of life. Forecasts project timber demand, primarily softwood lumber and hardwoods, used in housing construction, improving over the next several years as the housing market continues its recovery. A return of a strong, stable domestic housing market will be crucial to a reemergence of strong timber markets across the timber-growing regions of the U.S. Currently the export timber markets are a mixed bag, with Vietnam heating up while China is cooling and Europe is mixed, due to its economic issues. However, both the international and domestic sectors are displaying a continued interest in biomass as a renewable energy source. As full-scale biomass facilities continue to come online in the next several years, pulpwood demand could pick up in specific target markets.

**RETIREMENT ANNUITY TRUST  
PORTFOLIOS  
MARKET VALUES \*\*  
June 30, 2012**

**Internally Managed**

**Cash Equivalents**

Cash Collections Fund (Unallocated)	\$ 431,810,127
-------------------------------------	----------------

**Fixed Income\***

Broad Market Bond Fund	750,385,239
Long Term Bond Fund	598,106,329
Intermediate Bond Fund	549,189,016
Internal Bond Fund	201,888,109
Life Insurance Trust	90,866,589
Tax Shelter Fund	405,136

**Equity**

S & P 500 Stock Index Fund (Large Cap)	2,564,993,470
S & P 400 Stock Index Fund (Mid Cap)	379,525,980
S & P 600 Stock Index Fund (Small Cap)	254,716,531

**Real Estate**

Internally Managed Fund	387,922,191
-------------------------	-------------

**Subtotal**

6,209,808,717
---------------

**Externally Managed**

**Fixed Income**

Galliard Capital Management	625,593,033
Ft. Washington Broad Market	575,344,329

**Domestic Equity**

Todd - Veredus (Large Cap Core)	1,149,720,807
UBS (Large Cap Value)	810,731,375
GE Asset Management (Large Cap Growth)	689,778,128
Wellington (Large Cap Core)	531,381,716
Wellington (Mid Cap Core)	280,311,563
Wellington (Small Cap Core)	145,277,634
Todd - Veredus Opportunity Fund	128,992,509
UBS (130/30)	108,985,699

**International Equity**

Todd - Veredus International	692,815,522
UBS All Country World ex US	676,201,690
Baillie Gifford EAFE Alpha	540,343,180
Baring All Country World ex US	400,522,666

*continued ...*

**RETIREMENT ANNUITY TRUST PORTFOLIOS continued ...**  
**JUNE 30, 2012**

**Real Estate**

Prudential PRISA Fund	178,863,056
Blackstone Partners VII, LP	10,677,256
Carlyle Realty Partners VI	9,338,263

**Alternative Investments**

Molpus Woodlands Group Lake Superior Timberlands LLC	90,793,322
Molpus Seven States LLC	72,658,059
Riverstone/Carlyle E & P Fund IV	45,047,180
KKR & Co European Fund III	37,466,724
Alinda Infrastructure Fund II	30,561,419
Ft. Washington Fund VI	25,022,073
Hancock Bluegrass LLC - Oregon	21,981,305
KKR & Co Fund 2006	20,495,041
Chrysalis Venture Fund III	18,654,648
Lexington Capital Partners Fund VII	14,097,411
Landmark Equity Partners Fund XIV	13,821,365
Ft. Washington Fund V	12,975,169
Hellman & Friedman Fund VII	9,619,080
Stepstone Pioneer Capital Fund III, LP	9,396,601
Oaktree Mezzanine Fund III	9,276,709
Oaktree European Principal Fund III	7,561,954
Audax Mezzanine Fund III	4,578,412
NGP Natural Resources X, LP	3,262,969
CapitalSouth Partners Fund III	3,115,049
J. P. Morgan Maritime Fund	881,847

**Additional Categories**

Fort Washington High Yield Bond Fund	274,645,691
Marathon KTRS/Credit Fund LP	100,513,682
Avenue Special Situations Fund VI	91,332,362
Marathon Legacy Securities PPIP	69,805,272
AG GECC PPIF, LP	51,551,803

<b>Subtotal</b>	8,593,993,573
-----------------	---------------

<b>Total Assets</b>	\$ 14,803,802,290
---------------------	-------------------

\* Excludes purchased interest of \$797,403 as of June 30, 2012.

\*\* Detailed information concerning these market values of all KTRS investments is available upon request.

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## Investment Summary Fair Market Value - Retirement Annuity Trust\* June 30, 2012

Type of Investment	Fair Value 07/01/11	Acquisitions	Appreciation (Depreciation)	Sales Redemptions, Maturities & Paydowns	Fair Value 06/30/12
Cash Equivalents	\$ 640,018,300	\$ 3,663,036,500	\$ -	\$ 3,678,261,800	\$ 624,793,000
Fixed Income**	3,882,958,300	2,610,743,300	182,636,200	3,108,112,800	3,568,225,000
Equities	9,588,077,100	3,171,547,400	(249,922,900)	3,249,390,000	9,260,311,600
Real Estate	480,447,200	103,402,100	11,274,300	8,322,900	586,800,700
Alternative	576,527,800	219,172,600	(9,829,200)	21,401,800	764,469,400
<b>TOTAL</b>	<b>\$ 15,168,028,700</b>	<b>\$ 9,767,901,900</b>	<b>\$ (65,841,600)</b>	<b>\$ 10,065,489,300</b>	<b>\$ 14,804,599,700</b>

\* Includes Life Insurance Trust Values and Tax Shelter Annuity.

\*\* Includes Purchased Interest.

## Contracted Investment Management Expenses Fiscal Year 2011-12 (in thousands of dollars)

<u>Investment Counselor Fees</u>	<u>Assets Under Management</u>	<u>Expense</u>	<u>Basis Points <sup>(1)</sup></u>
Equity Manager(s)	\$ 6,155,062	\$ 11,316	
Fixed Income Manager	1,475,583	1,039	
Real Estate	198,879	2,223	
Alternative Investments <sup>(2)</sup>	764,469	11,977	
Total	\$ 8,593,993	\$ 26,555	30.9
 <b><u>Other Investment Services</u></b>			
Custodian Fees	\$ 14,805,138	\$ 305	0.2
Consultant Fees		359	0.2
Legal & Research		124	0.1
Subscriptions/Services		746	0.5
Total		\$ 1,534	1.0
<b>Grand Total</b>		<b>\$ 28,089</b>	<b>19.0</b>

(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.

**Ten Largest Stock Holdings Ranked <sup>(1) (2)</sup>  
by Market Value  
June 30, 2012**

<u>Rank</u>	<u>Description</u>	<u>Market Value</u>	<u>Percentage of Equities</u>
1	Apple Inc	231,970,640	3.078
2	Exxon Mobil Corp	119,695,145	1.588
3	Philip Morris Inc	95,036,611	1.261
4	Microsoft Corp	93,227,338	1.237
5	Pepsico Inc	86,087,480	1.142
6	Qualcomm Inc	81,809,009	1.085
7	Chevron Corp	78,823,587	1.046
8	Wells Fargo & Co	74,800,832	0.992
9	Oracle Corp	72,683,236	0.964
10	International Business Machines	71,949,970	0.954

**Top Ten Fixed Income Holdings <sup>(2)</sup>  
by Market Value  
June 30, 2012**

<u>Rank</u>	<u>Description</u>	<u>Maturity</u>	<u>Coupon</u>	<u>Par Value</u>	<u>Market Value</u>	<u>Percent of Fixed Income</u>
1	U S Treasury Bonds	8/15/2023	6.250	31,900,000	46,334,750	1.298
2	U S Treasury TIPs	4/15/2014	1.250	39,515,000	44,344,111	1.243
3	U S Treasury	5/15/2022	1.750	39,270,000	39,589,265	1.109
4	U S Treasury	2/15/2022	2.000	36,670,000	37,904,679	1.062
5	U S Treasury Bonds	8/15/2029	6.130	22,000,000	33,986,480	0.952
6	Treasury Inflation Index	2/15/2042	0.750	30,000,000	32,037,420	0.898
7	U S Treasury	4/30/2017	0.880	29,800,000	30,025,884	0.841
8	U S Treasury	3/31/2017	1.000	28,180,000	28,567,475	0.800
9	U S Treasury Bonds	11/15/2026	6.500	16,000,000	24,664,960	0.691
10	U S Treasury Bonds	2/15/2020	8.500	14,980,000	22,961,494	0.643

(1) Includes only actively managed separate accounts.

(2) Detailed information concerning these values along with book values and cost values of all KTRS investments is available upon request.



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## Transaction Commissions Fiscal Year 2011-12

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE	% OF TOTAL
Allen & Co	1,400	\$ 764	\$ 0.5460	0.03 %
Assent LLC	3,815	153	0.0400	0.01
Avondale Partners, LLC	48,460	1,938	0.0400	0.08
Barclays	1,882,919	69,378	0.0368	2.71
Bass / Baypoint Trading	8,030	321	0.0400	0.01
BB & T Capital Markets	21,905	876	0.0400	0.03
Blair, William & Co	91,195	3,648	0.0400	0.14
BMO Capital Markets	39,025	1,561	0.0400	0.06
BNP Paribas Securities Bond	46,860	1,874	0.0400	0.07
BNY ConvergeX Group	3,123,502	65,901	0.0211	2.58
Boenning & Scattergood	7,770	311	0.0400	0.01
Brean Murray, Carret & Co., LLC	50,995	2,040	0.0400	0.08
Broadpoint Capital	8,866	582	0.0656	0.02
BTIG	174,970	5,073	0.0290	0.20
Burke & Quick Partners LLC	9,025	361	0.0400	0.01
Cabrera Capital	21,805	590	0.0271	0.02
Canaccord Genuity, Inc.	89,876	3,595	0.0400	0.14
Cantor Fitzgerald & Co	38,826	1,265	0.0326	0.05
CIBC Oppenheimer Workmarket	98,140	3,952	0.0403	0.15
Citigroup Global	247,000	9,503	0.0385	0.37
Collins Stewart LLC	56,680	2,267	0.0400	0.09
Cowen & Co	367,515	13,231	0.0360	0.52
Credit Suisse Sec. LLC	3,524,206	88,051	0.0250	3.44
Crowell Weedon & Co	68,105	2,724	0.0400	0.11
CSI US Institutional (Calyon)	90,972	3,639	0.0400	0.14
Cuttone & Co Inc 3	19,270	434	0.0225	0.02
D A Davidson & Co	9,600	384	0.0400	0.02
Dahlman Rose & Co LLC	26,300	1,052	0.0400	0.04
Davenport & Company LLC	6,800	272	0.0400	0.01
Deutsche Bank	627,405	21,622	0.0345	0.84
Dowling & Partners	60,285	2,411	0.0400	0.09
Fidelity Capital Markets	1,980	59	0.0300	0.00
First Kentucky Securities Corp	1,656,895	49,707	0.0300	1.94
Freidman Billings	136,135	5,529	0.0406	0.22
Gleacher & Company Securities	1,500	60	0.0400	0.00
Goldman Sachs	2,858,273	94,979	0.0332	3.71
Green Street Advisors	41,355	1,654	0.0400	0.06
Heflin & Co	20,325	813	0.0400	0.03
HSBC	4,400	176	0.0400	0.01
Instinet	2,700	108	0.0400	0.00
Investment Tech Group Transition	17,228,270	159,122	0.0092	6.22
Investment Technology Group	22,935,980	337,885	0.0147	13.20
ISI Group	2,589,165	73,717	0.0285	2.88
J.J.B. Hilliard, W.L. Lyons	2,823,420	84,703	0.0300	3.31
Janney Montgomery Scott Inc	157,725	6,097	0.0387	0.24
Jefferies & Co.	514,239	18,942	0.0368	0.74
JMP Securities	18,420	737	0.0400	0.03
Jones & Associates	7,724	309	0.0400	0.01
JP Morgan & Chase	951,563	55,076	0.0579	2.15
Keefe Bruyette & Woods	90,635	11,412	0.1259	0.45
Keybank Capital	114,805	10,582	0.0922	0.41
King, CL, & Associates, Inc.	8,090	324	0.0400	0.01
Knight Equity Markets	71,399	2,635	0.0369	0.10
Lazard Freres & Co.	2,713,805	81,775	0.0301	3.20
Leerink Swann & Co.	98,675	30,666	0.3108	1.20
Lexington Investment Co.	1,130,475	33,914	0.0300	1.33
Liquidnet Inc	10,382,594	107,285	0.0103	4.19
Longbow Securities LLC	21,135	845	0.0400	0.03
Loop Capital Markets, LLC	11,820	309	0.0261	0.01

Year Ended June 30, 2012

*Transaction Commissions continued . . .*

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE	% OF TOTAL
MacQuarie Securities Inc	100,545	4,053	0.0403	0.16
Merrill Lynch	3,538,209	120,064	0.0339	4.69
Merrill Lynch, Pierce, Fenner	67,915	2,717	0.0400	0.11
Miller Tabak & Co. LLC	146,005	5,840	0.0400	0.23
Mischler Financial Group Inc	4,500	180	0.0400	0.01
Mizuho Securities, USA	7,900	316	0.0400	0.01
MKM Partners	41,945	1,678	0.0400	0.07
Morgan Keegan	2,151,500	64,545	0.0300	2.52
Morgan Stanley Smith Barney-Huntington	2,176,090	65,283	0.0300	2.55
Morgan Stanley Smith Barney-Louisville	2,184,750	65,543	0.0300	2.56
Morgan Stanley Smith Barney-Northern KY	2,931,559	87,947	0.0300	3.44
Morgan Stanley	1,335,761	33,226	0.0249	1.30
Needham	3,900	156	0.0400	0.01
Nomura Securities Intrntl Inc	181,260	6,247	0.0345	0.24
Pacific Crest Securities	20,755	1,632	0.0786	0.06
Pershing LLC	47,250	1,790	0.0379	0.07
Pipeline Trading	20,455	205	0.0100	0.01
Piper Jaffray	109,980	4,399	0.0400	0.17
Pulse Trading	37,830	559	0.0148	0.02
R W Baird	460,136	19,064	0.0414	0.75
Raymond James & Assoc	4,991,335	154,456	0.0309	6.04
RBC Capital Markets	540,215	21,301	0.0394	0.83
Rosenblatt Securities LLC	1,500	60	0.0400	0.00
Ross Sinclair & Assoc	1,116,600	33,498	0.0300	1.31
Sandler O'Neill	10,450	468	0.0448	0.02
Sanford C Bernstein	633,536	13,484	0.0213	0.53
SG AMERICAS SECURITIES	12,620	505	0.0400	0.02
Sidoti & Company LLC	8,380	335	0.0400	0.01
Simmons & Co	31,120	1,245	0.0400	0.05
SJ Levinson & Sons LLC	7,400	296	0.0400	0.01
State Street Global	21,400	642	0.0300	0.03
Stephens Inc.	74,550	2,982	0.0400	0.12
Sterne, Agee & Leach	134,925	5,397	0.0400	0.21
Stifel, Nicolaus & Co	1,934,149	93,922	0.0486	3.67
Stifel, Nicolaus & Co-Louisville	1,103,085	33,093	0.0300	1.29
Suntrust Robinson	15,661	626	0.0400	0.02
Susquehanna Brokerage	55,980	2,239	0.0400	0.09
Telsey Advisory Group LLC	153,865	5,837	0.0379	0.23
The Benchmark Company LLC	3,950	158	0.0400	0.01
UBS/Paine Webber Securities	760,251	16,949	0.0223	0.66
UBS/Paine Webber-Louisville	2,687,140	80,614	0.0300	3.15
Wedbush Morgan Securities	15,010	600	0.0400	0.02
Weeden & Co	3,588,160	107,853	0.0301	4.21
Wells Fargo Securities, LLC	410,185	12,213	0.0298	0.48
Williams Capital Group	5,830	233	0.0400	0.01
WJB Capital Group Inc	129,500	5,180	0.0400	0.20
<b>TOTAL</b>	<b>111,480,066</b>	<b>\$ 2,558,823</b>	<b>\$ 0.0230</b>	<b>100%</b>

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 2011-12, the retirement annuity trust fund bought small capitalization IPOs that generated \$240,230 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 \$2,558,823. 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. On occasion, investment companies direct third party research to active clients. The retirement system received third party research credit through BNY ConvergeX during this fiscal year. The primary research providers were: Bloomberg, Interactive Data, Segal Rogers Casey, ISS, QED Financial Systems, and Thomson Financial; however, KTRS began the process of paying for research directly to vendors instead of through third party research agreements.

### **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 retirement system is ever mindful of its significance to the Commonwealth's economy. For the fiscal year ended June 30, 2012, approximately \$1.5 billion in benefits were distributed to members living in Kentucky. Approximately \$331 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 retirement 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**

Hewitt EnnisKnupp, Inc.

**Investment Custodian**

The Bank of New York Mellon

**Fixed Income Managers**

Galliard Capital Management

Ft. Washington Investment Advisors

**Domestic Equity Managers**

Todd-Veredus Asset Management LLC

UBS Global Asset Management

Wellington Management Company

GE Asset Management

**International Equity Managers**

Todd-Veredus Asset Management LLC

UBS Global Asset Management

Baring Asset Management, Inc.

Baillie Gifford

**Real Estate Managers**

Prudential Real Estate Investors

Carlyle Realty Partners

Blackstone 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

Marathon Legacy Securities GP, LLC

AG GECC PPIF GP, LLC

Avenue Capital Group

Hellman & Friedman Capital Partners

Natural Gas Partners

Marathon Asset Management

**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, 2012, the health insurance trust fund had approximately \$327.9 million in total assets. This included \$22.3 million in cash and \$110.9 million in short-term high quality bonds for liquidity purposes. This trust fund also had \$53.3 million in high yield bonds, \$140.7 million in a global stock index fund, and \$748,000 in private equity investments.

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, 2012 and June 30, 2011.

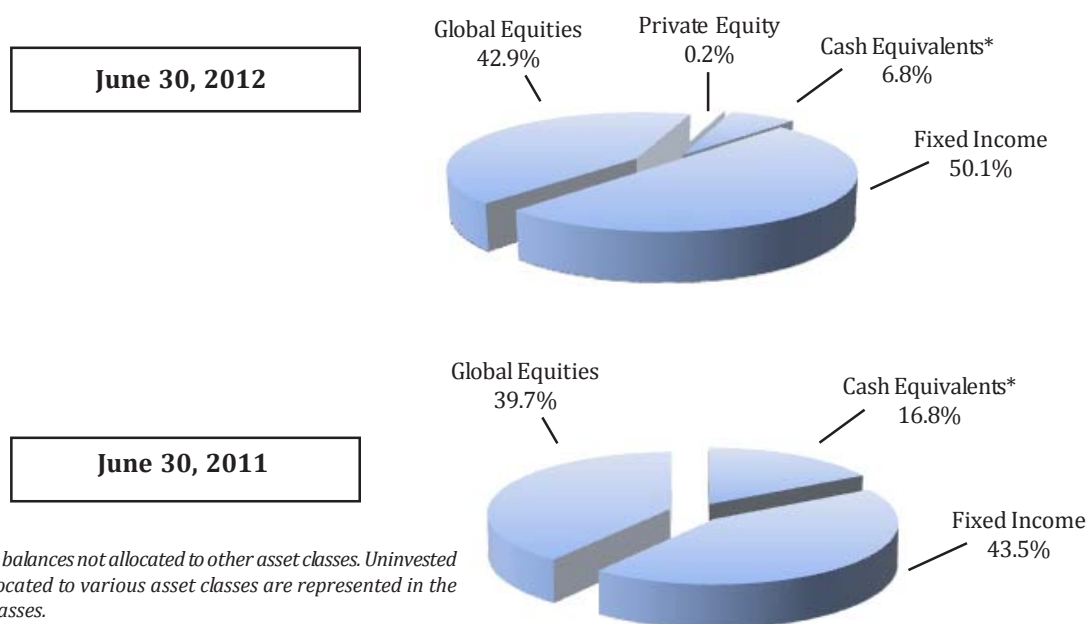
## Health Insurance Trust

	<u>June 30, 2012</u>	<u>%</u>	<u>June 30, 2011</u>	<u>%</u>
Cash Equivalents *	\$ 22,265,278	6.8	\$ 63,546,353	16.8
Fixed Income **	164,189,966	50.1	164,924,873	43.5
Global Equities	140,740,861	42.9	150,698,032	39.7
Private Equity	748,103	0.2	-0-	0.0
<b>Totals</b>	<b>\$ 327,944,208</b>	<b>100.0</b>	<b>\$ 379,169,258</b>	<b>100.0</b>

\* 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.

\*\* Excludes purchased interest of \$34,806 as of June 30, 2012, and \$221,418 as of June 30, 2011. Also excludes 401(h) value of \$11,606,479.

## Distribution of Investments Health Insurance Trust Market Values



## HEALTH INSURANCE TRUST

### PORTFOLIO RETURNS

For the fiscal year, the health insurance trust fund's portfolio returned -1.1%, largely the net result of exposure to global equities offset by the stability of short-term bonds. The fund's global equities returned -6.6% versus -6.9% for the MSCI All country World IMI Index. A short-term bond fund held for liquidity purposes returned 0.8%. A high yield bond fund returned 8.1% versus 6.5% for its benchmark.

Due to a necessary focus on liquidity needs early in the fund's existence and rapidly evolving asset allocation as its funding mechanism is implemented, no policy benchmark has yet been established. Returns were generated by the Segal Rogers Casey performance reporting system using a time-weighted rate of return calculation based upon the modified Dietz methodology.

	<u>1 Yr.</u> <sup>(1)</sup>	<u>3 Yr.</u> <sup>(1)</sup>	<u>5 Yr.</u> <sup>(1)</sup>	<u>10 Yr.</u> <sup>(1)</sup>	<u>20 Yr.</u> <sup>(1)</sup>
<b>Total Fund</b>					
KTRS Health Insurance Trust	-1.1	-	-	-	-
<b>Equities</b>					
Global Equities	-6.6	-	-	-	-
MSCI AC World IMI	-6.9	-	-	-	-
<b>Fixed Income</b>					
High Yield Bond Fund	8.1	-	-	-	-
B of A MerrillLynch High Yield Master II	6.5	-	-	-	-
Internal Bond Fund	0.8	-	-	-	-
90 Day Treasury Bill	0.0	-	-	-	-
<b>Alternative Investments</b>					
Private Equity <sup>(2)</sup>	-	-	-	-	-
<b>Cash</b>					
Cash (Unallocated)	0.1	-	-	-	-
90 Day Treasury Bill	0.0	-	-	-	-

(1) Annualized.

(2) For a period of five years private equity 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 commitment date, investments in this class shall be benchmarked versus the S & P 500 plus 3%, which is the System's long-term expected return for this asset class.



**HEALTH INSURANCE TRUST**  
**PORTFOLIOS**  
**MARKET VALUES \*\***  
**June 30, 2012**

<b>Cash Equivalents</b>	
Cash Collections Fund	\$ 22,265,278
<b>Fixed Income*</b>	
Internal Bond Fund	<u>110,899,830</u>
<b>Subtotal</b>	133,165,108
<b>Fixed Income*</b>	
Ft. Washington High Yield Bond Fund	53,290,136
<b>Global Equities</b>	
BlackRock Fund B	140,740,861
<b>Alternative Investments</b>	
Ft. Washington Fund VII	<u>748,103</u>
<b>Subtotal</b>	194,779,100
<b>Total Assets</b>	<u><u>\$ 327,944,208</u></u>

\* Excludes purchased interest of \$34,806 as of June 30, 2012.

\*\* Detailed information concerning these market values of all KTRS investments is available upon request.

**Investment Summary**  
**Fair Market Value - Medical Insurance Trust**  
**June 30, 2012**

Type of Investment	Fair Value 06/30/11	Acquisitions	Appreciation (Depreciation)	Sales Redemptions, Maturities & Paydowns	Fair Value 06/30/12
Cash Equivalents	\$ 92,109,500	\$ 479,798,400	\$ -	\$ 525,856,000	\$ 46,051,900
Fixed Income *	136,110,900	136,294,900	112,600	132,352,600	140,165,800
Equities	151,170,200	-	(9,925,000)	232,000	141,013,200
Real Estate	-	-	-	-	-
Alternative	-	750,000	19,100	21,000	748,100
<b>TOTAL</b>	<u><u>\$ 379,390,600</u></u>	<u><u>\$ 616,843,300</u></u>	<u><u>\$ (9,793,300)</u></u>	<u><u>\$ 658,461,600</u></u>	<u><u>\$ 327,979,000</u></u>

\* Includes Purchased Interest.

**Health Insurance Trust Fund  
Contracted Investment  
Management Expenses  
Fiscal Year 2011-12  
(in thousands of dollars)**

<b><u>Investment Counselor Fees</u></b>	<b><u>Assets Under Management</u></b>	<b><u>Expense</u></b>	<b><u>Basis Points</u> <sup>(1)</sup></b>
Equity Manager(s)	\$ 140,741	\$ 89	
Fixed Income Manager	53,325	107	
Real Estate	-	-	
Alternative Investments <sup>(2)</sup>	<u>748</u>	<u>75</u>	
Total	\$ 194,814	\$ 271	13.9
 <b><u>Other Investment Services</u></b>			
Custodian Fees	\$ 327,979	\$ 5	0.2
Consultant Fees		-	0.0
Legal & Research		6	0.2
Subscriptions/Services		<u>-</u>	0.0
Total		<u>\$ 11</u>	0.3
<b>Grand Total</b>		<u><u>\$ 282</u></u>	<b>8.6</b>

(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."

**HEALTH INSURANCE TRUST PROFESSIONAL SERVICE PROVIDERS**

**Investment Consultants**

Hewitt EnnisKnupp, Inc.

**Global Equity Manager**

BlackRock Institutional Trust Company

**Investment Custodian**

The Bank of New York Mellon

**Alternative Investment Manager**

Ft. Washington Private Equity Investors

**Fixed Income Manager**

Ft. Washington Investment Advisors

**Attorney**

Ice Miller LLP

---

# Actuarial Section

---

Report of the Actuary  
on the Annual Valuation

for Fiscal Year ending June 30, 2012



## Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

December 11, 2012

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, 2012. While not verifying the data at source, the actuary performed tests for consistency and reasonability. The combined member and state contributions for the fiscal year ending June 30, 2015 required to support the benefits of the System are 31.89% of payroll for university members hired before July 1, 2008, 32.89% of payroll for university members hired on and after July 1, 2008, 34.85% of payroll for non-university members hired before July 1, 2008, and 35.85% of payroll for non-university members hired on and after July 1, 2008.

These rates represent an increase since the previous valuation in the Pension required employer contribution rate of 1.90% of payroll for the 2014/2015 fiscal year. In addition, there has been a net decrease in the expected state special appropriation from 3.50% to 3.00%, or 0.50% of payroll and no change in the amount required for life insurance benefits. Therefore, the net impact on the required increase in the total employer contribution rate is 2.40% of payroll.

For the 2014/2015 fiscal year, in addition to the State statutory contribution rates and the state special appropriation, there is a required increase in the employer contribution rate of 10.42%; 2.40% from this valuation and 8.02% from the previous valuation. In order to maintain the actuarial soundness of the retirement system, the entire required contributions will need to be made without any being used as a Stabilization Contribution for the Medical Insurance Fund.

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 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 4.0% 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 and meet the parameters for the disclosures under GASB 25 and 27.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

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

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



Board of Trustees  
December 11, 2012  
Page 2

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 have been 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.

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.

In our opinion, the System is not being funded on an actuarially sound basis since the actuarially required contributions are not being made by the employer. If contributions by the employer to the System continue to be 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.

Respectfully submitted,

Edward A. Macdonald, ASA, FCA, MAAA  
President

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



**Report of Actuary on the Valuation**  
**Prepared as of June 30, 2012**  
**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 (all dollar amounts are \$1,000's):

Valuation Date	June 30, 2012	June 30, 2011
Number of active members	75,951	76,349
Annual salaries	\$ 3,479,567	\$ 3,451,756
Number of annuitants and beneficiaries	46,094	44,419
Annual allowances	\$ 1,525,184	\$ 1,433,386
Assets		
Market value	\$ 14,797,121	\$ 15,130,606
Actuarial value	\$ 14,691,371	\$ 14,908,138
Unfunded actuarial accrued liability	\$ 12,282,483	\$ 11,060,554
Funded Ratio	54.5%	57.4%
Amortization period (years)	30	30

**Contribution Rates for University Members**

Valuation Date	June 30, 2012		June 30, 2011	
For Fiscal Year Ending	June 30, 2015		June 30, 2014	
	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	11.790 %	11.790 %	11.770 %	11.770 %
Accrued liability	<u>20.100</u>	<u>21.100</u>	<u>18.220</u>	<u>19.220</u>
Total	31.890 %	32.890 %	29.990 %	30.990 %
Member	7.625 %	7.625 %	7.625 %	7.625 %
State (ARC)	<u>24.265</u>	<u>25.265</u>	<u>22.365</u>	<u>23.365</u>
Total	31.890 %	32.890 %	29.990 %	30.990 %
Life Insurance Fund:				
State	0.030 %	0.030 %	0.030 %	0.030 %
Medical Insurance Fund:				
Member	2.270 %	2.270 %	1.750 %	1.750 %
State Match	<u>2.270</u>	<u>1.270</u>	<u>1.750</u>	<u>0.750</u>
Total	4.540 %	3.540 %	3.500 %	2.500 %
Total Contributions	<u>36.460 %</u>	<u>36.460 %</u>	<u>33.520 %</u>	<u>33.520 %</u>
Member Statutory	9.895 %	9.895 %	9.375 %	9.375 %
State Statutory	13.145	13.145	12.625	12.625
Required Increase	10.420	10.420	8.020	8.020
State Special	<u>3.000</u>	<u>3.000</u>	<u>3.500</u>	<u>3.500</u>
Total	36.460 %	36.460 %	33.520 %	33.520 %



**Contribution Rates for Non-University Members**

Valuation Date For Fiscal Year Ending	June 30, 2012		June 30, 2011	
	June 30, 2015		June 30, 2014	
	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	15.150 %	15.150 %	15.050 %	15.050 %
Accrued liability	<u>19.700</u>	<u>20.700</u>	<u>17.900</u>	<u>18.900</u>
Total	34.850 %	35.850 %	32.950 %	33.950 %
Member	9.105 %	9.105 %	9.105 %	9.105 %
State (ARC)	<u>25.745</u>	<u>26.745</u>	<u>23.845</u>	<u>24.845</u>
Total	34.850 %	35.850 %	32.950 %	33.950 %
Life Insurance Fund:				
State	0.030 %	0.030 %	0.030 %	0.030 %
Medical Insurance Fund:				
Member	3.000 %	3.000 %	2.250 %	2.250 %
State Match	<u>3.000</u>	<u>2.000</u>	<u>2.250</u>	<u>1.250</u>
Total	6.000 %	5.000 %	4.500 %	3.500 %
Total Contributions	<u>40.880 %</u>	<u>40.880 %</u>	<u>37.480 %</u>	<u>37.480 %</u>
Member Statutory	12.105 %	12.105 %	11.355 %	11.355 %
State Statutory	15.355	15.355	14.605	14.605
Required Increase	10.420	10.420	8.020	8.020
State Special	<u>3.000</u>	<u>3.000</u>	<u>3.500</u>	<u>3.500</u>
Total	40.880 %	40.880 %	37.480 %	37.480 %

- 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.
- Comments on the valuation results as of June 30, 2012 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.
- Schedule B shows the development of the actuarial value of assets. Schedule E of this report outlines the full set of actuarial assumptions and methods employed in the current valuation. There have been no changes since the previous valuation.
- The System currently uses a smoothed interest rate methodology to determine liabilities. The development of the smoothed interest rate used in the June 30, 2012 valuation is shown in Schedule D.
- Provisions of the System, as summarized in Schedule G, 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, 2012 on the basis of which the valuation was prepared.

Group	Number	Annual Salaries (\$1,000's)
Full Time	58,874	\$ 3,361,793
Part Time	<u>7,077</u>	<u>117,774</u>
Total	<u>75,951</u>	<u>\$ 3,479,567</u>

The table reflects the active membership for whom complete valuation data was submitted. The results of the valuation were adjusted to take account of inactive members and members for whom incomplete data was submitted.

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, 2012		
Group	Number	Annual Retirement Allowances <sup>1</sup> (\$1,000's)
Service Retirements	40,152	\$ 1,392,874
Disability Retirements	2,477	67,006
Beneficiaries of Deceased Members	<u>3,465</u>	<u>65,304</u>
Total	<u>46,094</u>	<u>\$ 1,525,184</u>

<sup>1</sup> Includes cost-of-living adjustments effective through July 1, 2012.

3. Table 1 of Schedule H 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, 2012 the market value of Pension Plan assets for valuation purposes held by the System amounted to \$14,797,120,889. 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.
2. The five-year market related value of Pension Plan assets used for valuation purposes as of June 30, 2012 was \$14,691,371,043. Schedule B shows the development of the actuarial value of assets as of June 30, 2012.
3. 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.

### 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, 2012. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule E and Schedule F.
2. The valuation balance sheet shows that the System has total prospective liabilities of \$15,391,786,788 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 \$16,229,256,850 of which \$832,505,614 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 \$242,964,774. The total prospective liabilities of the System amounts to \$31,864,008,412. Against these liabilities, the System has present assets for valuation purposes of \$14,691,371,043. When this amount is deducted from the total liabilities of \$31,864,008,412, there remains \$17,172,637,369 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 11.79% of payroll for University and 15.15% of payroll for Non-University are required.
4. Prospective normal employer and employee contributions have a present value of \$4,890,154,454. When this amount is subtracted from \$17,172,637,369, which is the present value of the total future contributions to be made by the employer, there remains \$12,282,482,915 as the amount of future unfunded accrued liability contributions.

### Section V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 161.540 of the retirement law provides that each university member contribute 9.895% of annual salary to the System and each non-university member contribute 12.105% of annual salary. Of this amount, for each university member, 2.27% is paid to the Medical Insurance Fund for medical benefits and for each non-university member, 3.00% 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, 0.03% of payroll will be allocated to the Life Insurance Fund. Based on the results of the valuation, an additional 10.42% 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 within a 30-year period. An additional special appropriation of 3.00% of total payroll will be made by the State. Therefore, the total required employer contribution rate to the Pension Plan is 24.265% for university members who become members before July 1, 2008 and 25.265% for university members who become members on or after July 1, 2008. The total required employer contribution rate to the Pension Plan is 25.745% for non-university members who become members before July 1, 2008 and 26.745% 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
<b><u>Member</u></b>		
Statutory Total	9.895 %	9.895 %
Statutory Medical Insurance Fund	<u>(2.270)</u>	<u>(2.270)</u>
Contribution to Pension Plan	7.625 %	7.625 %
<b><u>Employer</u></b>		
Statutory Matching Total	9.895 %	9.895 %
Statutory Medical Insurance Fund	<u>(2.270)</u>	<u>(1.270)</u>
Supplemental Funding	<u>3.250</u>	<u>3.250</u>
Subtotal	10.875 %	11.875 %
Life Insurance	(0.030) %	(0.030) %
Additional to Maintain 30-Year Amortization	10.420	10.420
Special Appropriation	<u>3.000</u>	<u>3.000</u>
Contribution to Pension Plan	24.265 %	24.265%
Total Contribution to Pension Plan	31.890 %	32.890 %



Contribution Rates by Source Non-University		
<u>Member</u>	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Statutory Total	12.105 %	12.105 %
Statutory Medical Insurance Fund	<u>(3.000)</u>	<u>(3.000)</u>
Contribution to Pension Plan	9.105 %	9.105 %
<u>Employer</u>		
Statutory Matching Total	12.105 %	12.105 %
Statutory Medical Insurance Fund	<u>(3.000)</u>	<u>(2.000)</u>
Supplemental Funding	<u>3.250</u>	<u>3.250</u>
Subtotal	12.355 %	13.355 %
Life Insurance	(0.030) %	(0.030) %
Additional to Maintain 30-Year Amortization	10.420	10.420
Special Appropriation	<u>3.000</u>	<u>3.000</u>
Contribution to Pension Plan	25.745 %	26.745 %
Total Contribution to Pension Plan	34.850 %	35.850 %

4. The valuation indicates that normal contributions at the rate of 11.79% of active university members' salaries and 15.15% 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 actuarial accrued liability. This accrued liability rate is 20.10% for university members hired before July 1, 2008, 21.10% for university members hired on and after July 1, 2008, 19.70% for non-university members hired before July 1, 2008, and 20.70% for non-university members hired on and after July 1, 2008. These rates include special appropriations of 3.00% 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		NON-UNIVERSITY	
	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	11.79 %	11.79 %	15.15 %	15.15 %
Accrued Liability *	<u>20.10</u>	<u>21.10</u>	<u>19.70</u>	<u>20.70</u>
Total	31.89 %	32.89 %	34.85 %	35.85 %

\* Includes special appropriations of 3.00% of payroll to be made by the State.



- The unfunded actuarial accrued liability amounts to \$12,282,482,915 as of the valuation date. Accrued liability contributions at the rates in the table above are sufficient to amortize the unfunded actuarial accrued liability over a 30-year period, based on the assumption that the payroll will increase by 4.0% annually.

### Section VI - COMMENTS ON LEVEL OF FUNDING

- 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.
- 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 10.42%, not currently provided in statute, are sufficient 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. However, as existing special contributions expire, the statutory contributions or supplemental funding will be required to increase as an equal percentage of payroll, in order to amortize the unfunded liability within a period of 30 years.
- 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 2011, a pension obligation bond was issued with proceeds used to fully repay the loans for the Stabilization Funding. In addition, it is our understanding that beginning with the 2011 fiscal year, there will be no further loans for Stabilization Funding. The following table shows the amounts borrowed, annual payments and remaining balances for the non-single subsidy funding as of June 30, 2012:

Medical Insurance Fund Stabilization Funding			
FISCAL YEAR	LOAN AMOUNT	ANNUAL PAYMENT	BALANCE AS OF JUNE 30, 2012
2008/2009*	\$ 8,400,000	\$ 1,228,900	\$ 6,645,514
2009/2010*	9,200,000	1,345,200	8,037,793
2010/2011*	10,700,000	1,564,500	10,172,724
2011/2012	<u>12,300,000</u>	<u>1,798,700</u>	<u>12,300,000</u>
TOTAL	\$ 40,600,000	\$ 5,937,300	\$ 37,156,031

\* For non-single subsidy funding.

- There are no excess assets or contributions available to provide additional benefits, and there is a cumulative increase in the required employer contribution of 10.42% of payroll for the fiscal year ending June 30, 2015, as shown in the following table:



VALUATION DATE	FISCAL YEAR	INCREASE	CUMULATIVE INCREASE
June 30, 2004	June 30, 2007	0.11%	0.11%
June 30, 2005	June 30, 2008	1.21	1.32
June 30, 2006	June 30, 2009	0.56	1.88
June 30, 2007	June 30, 2010	0.58	2.46
June 30, 2008	June 30, 2011	1.13	3.59
June 30, 2009	June 30, 2012	2.22	5.81
June 30, 2010	June 30, 2013	1.46	7.27
June 30, 2011	June 30, 2014	0.75	8.02
June 30, 2012	June 30, 2015	2.40	10.42

In addition, as existing special contributions expire, the statutory contributions or supplemental funding will be required to increase as an equal percentage of payroll, in order to amortize the unfunded liability within 30 years. 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 \$1,221,928,683 in the unfunded accrued liability from \$11,060,554,232 to \$12,282,482,915 during the year ending June 30, 2012.

#### Analysis of Financial Experience (Dollar amounts in thousands)

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (8.00%) added to previous unfunded accrued liability	\$ 884,844
Expected accrued liability contribution	(377,897)
Contributions allocated to the Medical Insurance Fund (MIF) for Stabilization Funding during 2011/2012 fiscal year with interest	12,792
Repayment of prior year's MIF Stabilization Funding with interest	(4,304)
Experience:	
Valuation asset growth	740,509
Pensioners' mortality	15,768
Turnover and retirements	34,857
New entrants	53,409
Salary increases	(108,489)
Amendments	0
Assumption changes*	(29,560)
Method changes	0
Total	\$ 1,221,929

\* Change occurs due to interest smoothing methodology.



## Section VIII - ACCOUNTING INFORMATION

- Governmental Accounting Standards Board Statements 25 and 27 set forth certain items of required supplementary information to be disclosed in the financial statements of the System and the employer. One such item is a distribution of the number of employees by type of membership, as follows:

Number of Active and Retired Members as of June 30, 2012	
GROUP	NUMBER
Retirees and beneficiaries currently receiving benefits	46,094
Terminated employees entitled to benefits but not yet receiving benefits	6,668
Active plan members	<u>75,951</u>
Total	128,713

- Another such item is the schedule of funding progress as shown below.

Schedule of Funding Progress (Dollar amount in thousands)						
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL)* (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) /c)
6/30/2007	\$ 15,284,955	\$ 21,254,974	\$ 5,970,019	71.9%	\$ 2,975,289	200.7%
6/30/2008	15,321,325	22,460,304	7,138,979	68.2	3,190,332	223.8
6/30/2009	14,885,981	23,400,426	8,514,445	63.6	3,253,077	261.7
6/30/2010	14,851,330	24,344,316	9,492,986	61.0	3,321,614	285.8
6/30/2011 **	14,908,138	25,968,692	11,060,554	57.4	3,451,756	320.4
6/30/2012	14,691,371	26,973,854	12,282,483	54.5	3,479,567	353.0

\* Funding method Projected Unit Credit prior to 6/30/2011  
Funding method Entry Age Normal 6/30/2011 and after

\*\* Reflects change in assumptions and methods





3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2012. Additional information as of the latest actuarial valuation follows.

Valuation date	06/30/2012	<b>Actuarial Assumptions:</b>
Actuarial cost method	Entry age	<u>Investment rate of return*</u>
Amortization method	Level percent of pay, open	7.50%
Remaining amortization period	30 years	<u>Projected salary increases**</u>
Asset valuation method	5-year smoothed market	4.00 - 8.20%
		<u>Cost-of-living adjustments</u>
		1.50% Annually
		<i>*Includes price inflation at 3.50%</i>
		<i>**Includes wage inflation at 4.00%</i>

**Schedule of Employer Contributions**

<u>Fiscal Year Ended</u> <u>June 30</u>	<u>Annual Required</u> <u>Contributions</u>	<u>Actual Employer</u> <u>Contributions</u>	<u>Percentage</u> <u>Contributed</u>	
2007	\$ 494,565,369	\$ 434,890,469	88 %	
2008	563,789,483	466,247,783	83	
2009	600,282,735	442,549,935	74	<i>* Includes Pension</i>
2010	633,938,088	479,805,088	76	<i>Obligation Bond</i>
2011	678,741,428	1,037,935,993*	153	<i>proceeds of</i>
2012	757,822,190	557,339,552	74	<i>\$465,384,165.</i>

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2012. Since KTRS is a cost sharing multi employer pension plan, GASB Statement 27 does not require the participating employers to disclose this information.

**Annual Pension Cost and Net Obligation for Fiscal Year Ending June 30, 2012**

(a)	Employer annual required contribution	\$ 757,822,190
(b)	Interest on net pension obligation	18,363,874
(c)	Adjustment to annual required contribution	<u>12,271,380</u>
(d)	Annual pension cost: (a) + (b) - (c)	763,914,684
(e)	Employer contributions made for fiscal year ending June 30, 2012	<u>557,339,552</u>
(f)	Increase (decrease) in net pension obligation: (d) - (e)	206,575,132
(g)	Net pension obligation beginning of fiscal year	<u>229,548,428</u>
(h)	Net pension obligation end of fiscal year: (f) + (g)	\$ 436,123,560



**Schedule of Employer Contributions**  
**KENTUCKY TEACHERS' RETIREMENT SYSTEM**

**Trend Information**

<b>YEAR ENDING</b>	<b>ANNUAL PENSION COST (APC)</b>	<b>PERCENTAGE OF APC CONTRIBUTED</b>	<b>NET PENSION OBLIGATION (NPO)</b>
June 30, 2010	\$ 642,840,908	75%	\$ 576,328,182
June 30, 2011	691,156,239	150	229,548,428
June 30, 2012	763,914,684	73	436,123,560

**SCHEDULE A**  
**VALUATION BALANCE SHEET**  
**SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES**  
**AS OF JUNE 30, 2012**  
**(Dollar amount in thousands)**

**ACTUARIAL LIABILITIES**

(1)	Present value of prospective benefits payable in respect of present active members		
-	Service retirement benefits	\$ 14,341,125	
-	Disability retirement benefits	706,593	
-	Death and survivor benefits	131,049	
-	Refunds of member contributions	<u>213,019</u>	
	Total		\$ 15,391,786
(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	\$ 15,035,616	
-	Disability retirement benefits	622,588	
-	Death and survivor benefits	<u>571,053</u>	
	Total		\$ 16,229,257
(3)	Present value of prospective benefits payable on account of inactive members and members entitled to deferred vested benefits		<u>\$ 242,965</u>
(4)	TOTAL ACTUARIAL LIABILITIES		<u><u>\$ 31,864,008</u></u>

**PRESENT AND PROSPECTIVE ASSETS**

(5)	Actuarial value of assets	\$ 14,691,371
(6)	Present value of total future contributions = (4)-(5)	17,172,637
(7)	Present value of future member contributions and employer normal contributions	4,890,154
(8)	Prospective unfunded accrued liability contributions = (6)-(7)	<u>12,282,483</u>
(9)	TOTAL PRESENT AND PROSPECTIVE ASSETS	<u><u>\$ 31,864,008</u></u>



*Schedule A continued ...*  
**Solvency Test**  
*(in millions of dollars)*

Fiscal Year Ending	(1)	(2)	(3)	Valuation of Assets	Portion of Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants And Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
6/30/2007	\$ 2,762.8	\$ 12,843.7	\$ 5,648.5	\$ 15,285.0	100%	97 %	0%
6/30/2008	2,899.0	13,585.8	5,975.5	15,321.3	100	91	0
6/30/2009	3,042.3	14,309.9	6,048.2	14,886.0	100	83	0
6/30/2010	3,196.3	15,010.4	6,137.6	14,851.3	100	78	0
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

**SCHEDULE B**  
**Development of Actuarial Value of Assets**  
**as of June 30, 2012**

(1)	Actuarial Value of Assets Beginning of Year	\$ 14,908,138,356
(2)	Market Value of Assets End of Year	14,797,120,889
(3)	Market Value of Assets Beginning of Year	15,130,606,279
(4)	Cash Flow	
a.	Contributions	867,069,476
b.	Benefit Payments	1,502,488,238
c.	Administrative Expense	<u>7,762,880</u>
d.	Net: (4)a - (4)b - (4)c	(643,181,642)
(5)	Investment Income	
a.	Market total: (2) - (3) - (4)d	309,696,252
b.	Assumed Rate	7.50%
c.	Amount for Immediate Recognition: [ (3) x (5)b ] + [ (4)d x (5)b x 0.5 ]	1,110,676,159
d.	Amount for Phased-In Recognition: (5)a - (5)c	(800,979,907)
(6)	Phased-In Recognition of Investment Income	
a.	Current Year: 0.20 x (5)d	(160,195,981)
b.	First Prior Year	363,670,625
c.	Second Prior Year	133,378,916
d.	Third Prior Year	(611,235,941 )
e.	Fourth Prior Year	<u>(409,879,449)</u>
f.	Total Recognized Investment Gain	(684,261,830)
(7)	Actuarial Value of Assets End of Year: (1) + (4)d + (5)c + (6)f	<u>14,691,371,043</u>
(8)	Difference Between Market & Actuarial Values: (2) - (7)	<u>\$ 105,749,846</u>
(9)	Rate of Return on Actuarial Value:	2.92%



**SCHEDULE C**  
**PENSION PLAN ASSETS**  
**Summary of Receipts & Disbursements\***  
**(Market Value)**

<b>Receipts for the Year</b>	<b>For the Year Ending</b>	
	<b>June 30, 2012</b>	<b>June 30, 2011</b>
Contributions		
Members	\$ 309,729,924	\$ 302,262,819
Employers	557,339,552	1,037,935,993
Total	867,069,476	1,340,198,812
Net Investment Income	309,696,252	2,760,972,224
Total	1,176,765,728	4,101,171,036
<b>Disbursements for the Year</b>		
Benefit Payments	1,482,939,165	1,402,535,713
Refunds to Members	19,549,073	17,325,387
Miscellaneous, including expenses	7,762,880	7,322,739
Total	1,510,251,118	1,427,183,839
<b>Excess of Receipts over Disbursements</b>	<b>(333,485,390)</b>	<b>2,673,987,197</b>
<b>Reconciliation of Asset Balances</b>		
Asset Balance as of the Beginning of the Year	15,130,606,279	12,456,619,082
Excess of Receipts over Disbursements	(333,485,390)	2,673,987,197
Asset Balances as of the End of the Year	<u>\$ 14,797,120,889</u>	<u>\$ 15,130,606,279</u>
Rate of Return	2.4%	21.60%

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

**SCHEDULE D**  
**SMOOTHED INTEREST RATE**  
**Actual Rate of Return for 5-Year Look Back Period**

<b>Fiscal Year Ending June 30</b>	<b>Actual Rate of Return for Fiscal Year</b>
2008	-5.7%
2009	-14.3
2010	13.1
2011	21.6
2012	2.4

SMOOTHED INTEREST RATE: The assumed rate of return during the 25 year look forward period beginning on the valuation date. This is the investment rate of return expected to be earned during this period based on the actual rates earned during the five year look back period shown above such that the average rate of return over the combined 30 year period is equivalent to the ultimate investment rate of return (currently 7.50%). On this basis, for the June 30, 2012 valuation, the smoothed interest rate during the 25 year look forward period has been determined to be 8.50%.

ULTIMATE INVESTMENT RATE OF RETURN (DISCOUNT RATE): The assumed investment rate of return used in determining the smoothed interest rate described above. This is also the assumed investment rate of return after the 25 year look forward period and is currently 7.50%.

CORRIDOR AROUND SMOOTHED INTEREST RATE: A corridor of 0.50% around the ultimate investment rate of return is applied in determining the smoothed interest rate.

LIMITED SMOOTHED INTEREST RATE: The assumed rate of return during the 25 year look forward period as limited based on the application of the corridor above and used for valuation purposes. Since the smoothed interest rate above is 8.50% the assumed rate for the first 25 years after the valuation date is limited to 8.00% by the corridor.



**SCHEDULE E**

**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, 2010, submitted to and adopted by the Board on September 19, 2011.

**ULTIMATE INVESTMENT RATE OF RETURN:** 7.5% per annum, compounded annually.

**SALARY INCREASES:** Representative values of the assumed annual rates of future salary increases are as follows and include inflation at 3.5% 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 . . .							
AGE	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
			SERVICE			Before 27 Years of Service	After 27 Years of Service*
			0 - 4	5 - 9	10+		
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.



**FEMALES: Annual Rate of . . .**

AGE	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
			SERVICE			Before 27 Years of Service	After 27 Years of Service*
			0 - 4	5 - 9	10+		
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:

**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.

Age	Annual Rate of Death After . . .			
	Service Retirement		Disability Retirement	
	MALE	FEMALE	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

**EXPENSE LOAD:** None.

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

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

**VALUATION INTEREST RATE SMOOTHING:** The valuation liabilities are calculated using a smoothed interest rate method. The interest rate assumed during the look forward period (currently 25 years from the valuation date) is the investment rate of return expected to be earned during the look forward period based on



the actual rate of return earned during the look back period (currently 5 years) such that the average assumed rate of return over the combined 30-year period is equivalent to the assumed ultimate investment rate of return (currently 7.50%). The interest rate after the 25-year look forward period is the ultimate investment rate of return of 7.50%.

**CORRIDOR LIMIT ON INTEREST RATE SMOOTHING:** The smoothed interest rate used during the 25-year look forward period is limited to a corridor of 0.50% around the ultimate investment rate of return.

## **SCHEDULE F**

### **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 (see Schedules C and E for a description of the interest rate used), 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 G**

### **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, 2012. 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: 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.

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: Members On or 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:** The annual retirement allowance for non-university members is equal to:

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

The annual retirement allowance for university members is equal to:

- (a) 1.5% of final average salary if service is 10 years or less.
- (b) 1.7% of final average salary if service is greater than 10 years and no more than 20 years.
- (c) 1.85% of final average salary if service is greater than 20 years but less than 27 years.
- (d) 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 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:

<b><u>Number of Children</u></b>	<b><u>1</u></b>	<b><u>2</u></b>	<b><u>3</u></b>	<b><u>4 or more</u></b>
<b><u>Annual Allowance</u></b>	\$ 2,400	\$ 4,080	\$ 4,800	\$ 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 H**  
**Table 1: Age - Service Table**  
**Distribution of Active Members as of June 30, 2012**  
**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	2,365	1							2,366
Total Pay	40,846,000	45,000							40,891,000
Avg. Pay	17,271	45,000							17,283
25 to 29	7,069	1,365							8,434
Total Pay	222,006,000	64,597,000							286,603,000
Avg. Pay	31,406	47,324							33,982
30 to 34	3,713	5,255	908						9,876
Total Pay	109,834,000	260,683,000	50,523,000						421,040,000
Avg. Pay	29,581	49,607	55,642						42,633
35 to 39	2,605	2,485	4,229	628					9,947
Total Pay	70,984,000	124,123,000	248,149,000	40,344,000					483,600,000
Avg. Pay	27,249	49,949	58,678	64,242					48,618
40 to 44	3,521	1,920	2,490	3,371	673	1			11,976
Total Pay	77,925,000	98,559,000	146,062,000	217,339,000	45,705,000	205,000			585,795,000
Avg. Pay	22,131	51,333	58,659	64,473	67,912	205,000			48,914
45 to 49	1,722	1,231	1,454	1,576	2,373	651			9,007
Total Pay	40,472,000	63,140,000	85,800,000	102,363,000	160,069,000	44,672,000			496,516,000
Avg. Pay	23,503	51,292	59,010	64,951	67,454	68,621			55,126
50 to 54	1,483	956	1,148	1,173	1,332	1,704	336		8,132
Total Pay	30,482,000	48,757,000	67,472,000	76,713,000	91,714,000	122,232,000	24,752,000		462,122,000
Avg. Pay	20,554	51,001	58,774	65,399	68,854	71,732	73,667		56,828
55 to 59	2,153	667	955	1,048	1,068	792	444	74	7,201
Total Pay	33,635,000	33,944,000	57,464,000	69,754,000	74,916,000	59,806,000	35,896,000	6,522,000	371,937,000
Avg. Pay	15,622	50,891	60,172	66,559	70,146	75,513	80,847	88,135	51,651
60 to 64	2,643	533	520	596	625	418	114	113	5,562
Total Pay	36,178,000	25,746,000	32,732,000	41,293,000	45,923,000	33,164,000	10,223,000	11,375,000	236,634,000
Avg. Pay	13,688	48,304	62,946	69,284	73,477	79,340	89,675	100,664	42,545
65 & over	2,276	359	181	176	177	155	43	83	3,450
Total Pay	20,242,000	12,464,000	11,931,000	12,303,000	13,673,000	12,141,000	3,921,000	7,754,000	94,429,000
Avg. Pay	8,894	34,719	65,917	69,903	77,249	78,329	91,186	93,422	27,371
Total	29,550	14,772	11,885	8,568	6,248	3,721	937	270	75,951
Total Pay	682,604,000	732,058,000	700,133,000	560,109,000	432,000,000	272,220,000	74,792,000	25,651,000	3,479,567,000
Avg. Pay	23,100	49,557	58,909	65,372	69,142	73,158	79,821	95,004	45,813

Average Age: 43.6

Average Service: 11.0



**SCHEDULE H**

**Table 2: Number of Retired Members and Beneficiaries  
and their Benefits by Age as of June 30, 2012**

<b>Attained Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
49 & Under	823	\$ 9,726,856	\$ 11,819
50 - 54	1,148	40,343,440	35,142
55 - 59	5,076	198,687,289	39,142
60 - 64	10,970	408,588,247	37,246
65 - 69	10,087	350,225,048	34,720
70 - 74	6,879	224,196,637	32,591
75 - 79	4,544	136,335,293	30,003
80 & Over	<u>6,567</u>	<u>157,080,688</u>	<u>23,920</u>
<b>TOTAL</b>	<b>46,094</b>	<b>\$ 1,525,183,498</b>	<b>\$ 33,089</b>

**SCHEDULE H**

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

<b>Fiscal Year</b>	<b>ADD TO ROLLS</b>		<b>REMOVED FROM ROLLS</b>		<b>ROLLS END OF YEAR</b>		<b>Increase In Annual Allowances</b>	<b>Average Annual Allowance</b>
	<b>Number</b>	<b>Annual Allowances (Millions)</b>	<b>Number</b>	<b>Annual Allowances (Millions)</b>	<b>Number</b>	<b>Annual Allowances (Millions)</b>		
2003	2,252	\$ 86.7	1,015	\$ 16.9	34,645	\$ 819.0	9.3%	\$ 23,641
2004	2,126	85.4	1,033	17.5	35,738	887.0	8.3	24,819
2005	2,644	105.1	1,036	18.9	37,346	973.1	9.7	26,058
2006	2,266	121.1	1,115	20.0	38,497	1,074.2	10.4	27,902
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

---

# Actuarial Section

---

Report of the Actuary  
on the  
Annual Valuation  
of the  
Retiree Medical and Life Insurance Plans  
for Fiscal Year ending June 30, 2012



## Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

December 10, 2012

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 and OPEB liabilities related to the Life Insurance Plan funded by the Life Insurance Fund. Cavanaugh Macdonald Consulting, LLC (CMC) has submitted the results of the annual actuarial valuation prepared as of June 30, 2012. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates a total annual required contribution of 7.10% of active member payroll for the Medical Insurance Fund payable for the fiscal year ending June 30, 2015 is required to support the benefits of the Kentucky Employees' Health Plan (KEHP) and the Medicare Eligible Health Plan (MEHP). Of this amount, 2.27% of payroll is estimated to be paid by University members and 3.00% of payroll is estimated to be paid by all other members, leaving 4.83% and 4.10% respectively, as the remaining annual required contribution. This annual required contribution reflects the assets currently held in the Medical Insurance Fund and an 8.00% discount rate for valuing liabilities.

Since the previous valuation, the assumed rates of participation of future retirees in the Retiree Medical Plan have been adjusted to reflect experience.

The Life Insurance Plan valuation indicates a total annual required contribution of 0.03% of active member payroll payable for the fiscal year ending June 30, 2015 is required to support the benefits of the Life Insurance Fund. As contributions to the Life Insurance Fund meet the required levels, the discount rate for valuing liabilities is 7.50%.

The promised benefits of the Retiree Medical and Life Insurance Plans are included in the actuarially calculated contribution rates which are developed using the entry age normal actuarial cost method. The market 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 4.0% 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.

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

Phone (678) 388-1700 • Fax (678) 388-1730

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

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



Board of Trustees  
December 10, 2012  
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.

In our opinion, if the State contributions to the Medical Insurance Fund are increased to the planned levels, the Retiree Medical Plan will begin to operate in a more actuarially sound basis. Assuming that required contributions to the Medical Insurance Fund are made by the employer from year to year in the future at the levels required on the basis of the successive actuarial valuations, the actuarial soundness of the Medical Insurance Fund to provide the benefits called for under the Retiree Medical Plan will improve.

Respectfully submitted,

Eric Gary, FSA, FCA, MAAA  
Senior Actuary

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

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144





**Report of Actuary on the on the Annual Valuation of the Retiree Medical and Life Insurance Plans**  
Prepared as of June 30, 2012

**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 (all dollar amounts are \$1,000's):

~ Medical Insurance Fund ~		
Valuation Date	June 30, 2012	June 30, 2011
Number of active members	75,951	76,349
Annual salaries	\$ 3,479,567	\$ 3,451,756
Number of vested former members	3,641	3,485
Number of annuitants in medical plans	36,000	35,033
Number of spouses and beneficiaries in medical plans*	<u>7,008</u>	<u>6,922</u>
Total	43,008	41,955
Assets:		
Market value	\$ 338,746	\$ 294,819
Unfunded actuarial accrued liability	\$ 3,255,794	\$ 3,128,330
Amortization period (years)	30	30
Discount rate	8.00%	8.00%

*\*Spouses of post-65 retirees, as well as surviving spouses of deceased retirees, 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, 2012		June 30, 2011	
For Fiscal Year Ending	June 30, 2015		June 30, 2014	
	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	1.99 %	1.99 %	2.00 %	2.00 %
Accrued liability	<u>5.11</u>	<u>5.11</u>	<u>4.95</u>	<u>4.95</u>
Total	7.10 %	7.10 %	6.95 %	6.95 %
Member	2.27 %	2.27 %	1.75 %	1.75 %
Employer (ARC)	2.27	1.27	1.75	0.75
State (ARC)	<u>2.56</u>	<u>3.56</u>	<u>3.45</u>	<u>4.45</u>
Total	7.10 %	7.10 %	6.95 %	6.95 %

Medical Insurance Fund Contribution Rates for School District Employees (Non-Federal)				
Valuation Date	June 30, 2012		June 30, 2011	
For Fiscal Year Ending	June 30, 2015		June 30, 2014	
	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	1.99 %	1.99 %	2.00 %	2.00 %
Accrued liability	<u>5.11</u>	<u>5.11</u>	<u>4.95</u>	<u>4.95</u>
Total	7.10 %	7.10 %	6.95 %	6.95 %
Member	3.00 %	3.00 %	2.25 %	2.25 %
Employer (ARC)	2.25	2.25	1.50	1.50
State (ARC)	<u>1.85</u>	<u>1.85</u>	<u>3.20</u>	<u>3.20</u>
Total	7.10 %	7.10 %	6.95 %	6.95 %



<b>Medical Insurance Fund Contribution Rates for Other Employees</b>				
Valuation Date For Fiscal Year Ending	June 30, 2012 June 30, 2015		June 30, 2011 June 30, 2014	
	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	1.99 %	1.99 %	2.00 %	2.00 %
Accrued liability	<u>5.11</u>	<u>5.11</u>	<u>4.95</u>	<u>4.95</u>
Total	7.10 %	7.10 %	6.95 %	6.95 %
Member	3.00 %	3.00 %	2.25 %	2.25 %
Employer (ARC)	3.00	2.00	2.25	1.25
State (ARC)	<u>1.10</u>	<u>2.10</u>	<u>2.45</u>	<u>3.45</u>
Total	7.10 %	7.10 %	6.95 %	6.95 %

<b>~ Life Insurance Fund ~</b> (dollar amounts are \$1,000's)		
Valuation Date	June 30, 2012	June 30, 2011
Number of active members	75,951	76,349
Annual salaries	\$ 3,479,567	\$ 3,451,756
Number of vested former members	3,641	3,485
Number of retirees in Life Insurance Plan	42,602	41,118
Assets:		
Market value	\$ 92,241	\$ 88,527
Unfunded actuarial accrued liability*	\$ (843)	\$ (439)
Amortization period (years)	30	30
Discount rate	7.50%	7.50%
Contribution for fiscal year ending	June 30, 2015	June 30, 2014
Normal	0.03%	0.03%
Accrued liability	<u>0.00</u>	<u>0.00</u>
Total	0.03%	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.

- The valuation indicates combined member, employer, and State contributions of 7.10% of active member payroll would be sufficient to support the current benefits of the Retiree Medical Plan and State contributions of 0.03% 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, 2012 are given in Section IV and further discussion of the contribution levels is set out in Sections VI and VII.
- Since the previous valuation an assumption change regarding future retiree participation was made to reflect fewer retirees electing coverage under the KEHP or the MEHP if the maximum benefit is not payable upon retirement. Schedule C of this report outlines the full set of actuarial assumptions and methods employed in the current valuation.



4. There were no changes in benefit provisions since the last valuation. However, the health insurance plan designs have changed for eligible retirees. The changes are summarized below.
- Plan design changes are to be implemented for Plan Year 2013 for the KEHP, the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky.
  - The open enrollment for the MEHP for an effective date of January 1, 2013 is the last open enrollment opportunity for a spouse who is currently waiving coverage under the MEHP. After January 1, 2013, an MEHP spouse must have one of six qualifying events occur to enroll in the MEHP.
  - In 2013, the Kentucky Retirement Systems' (KRS) Medicare eligible premium is expected to be less than the MEHP premium. KRS will only allow a bill for a portion of the lower KRS premium, creating a discrepancy in premiums for 2013. As such, reciprocity retirees with less than 20 years of KTRS service (or less than 27 KTRS years for retirees who entered KTRS after 2002) will be responsible for the balance of the premium in addition to any other portion of the premium for which he/she is responsible. As the discrepancy is assumed to occur over a short period and impact a small number of participants, the impact to the Retiree Medical Plan's liability is assumed to be de minimis.

## Section II - MEMBERSHIP DATA

1. Data regarding the membership of the 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, 2012, upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Active Members as of June 30, 2012		
Group	Number	Annual Salaries (\$1,000's)
Full Time	58,874	\$ 3,361,793
Part Time	17,007	117,774
Total	75,951	\$ 3,479,567

*The table reflects the active membership for whom complete valuation data was submitted. The results of the valuation were adjusted to take account of inactive members and members for whom incomplete data was submitted.*

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, 2012			
	Under Age 65	Age 65 and Over	TOTAL
Number	14,952	21,048	36,000
Average Age	60.3	74.4	68.6
Spouses Receiving Health Benefits as of June 30, 2012			
Number	3,273	3,735	7,008
Average Age	59.1	75.6	67.9

3. The valuation also includes 3,641 deferred vested members eligible for health care at age 60.



### Section III - ASSETS

1. As of June 30, 2012 the market value of Medical Insurance Fund assets for valuation purposes held by the Retiree Medical Plan amounted to \$338,746,553 and the market value of Life Insurance Fund assets for valuation purposes held by the Life Insurance Plan amounted to \$92,241,246.
2. Schedule B shows the receipts and disbursements for the year preceding the valuation date and a reconciliation of the asset balances for the Medical Insurance Fund and the Life Insurance Fund.

### 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 C.
2. The valuation shows the Retiree Medical Plan has an actuarial accrued liability of \$1,547,871,105 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 \$13,409,898. The liability on account of benefits payable to retirees and covered spouses amounts to \$2,033,259,311. The total actuarial accrued liability of the Retiree Medical Plan amounts to \$3,594,540,314. Against these liabilities, the Retiree Medical Plan has present assets for valuation purposes of \$338,746,553. When this amount is deducted from the actuarial accrued liability of \$3,594,540,314 there remains \$3,255,793,761 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 \$69,338,237, or 1.99% of payroll.
4. The valuation shows that the Life Insurance Plan has an actuarial accrued liability of \$16,160,647 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 \$1,726,221. The liability on account of benefits payable to retirees amounts to \$73,511,496. The total actuarial accrued liability of the Life Insurance Plan amounts to \$91,398,364. 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 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 \$92,241,246. When this amount is deducted from the actuarial accrued liability of \$91,398,364 there remains (\$842,882) 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 \$1,065,834, or 0.03% of payroll.



## Section V - DERIVATION OF EXPERIENCE GAINS AND LOSSES

- 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, 2012 is shown below (\$1,000's).

EXPERIENCE GAIN/(LOSS) OF THE:		MEDICAL INSURANCE FUND	LIFE INSURANCE FUND
(1)	UAAL* as of 6/30/2011	\$ 3,128,330	\$ (439)
(2)	Normal cost from last valuation	68,938	1,071
(3)	Expected employer contributions	239,910	1,048
(4)	Interest accrual: [(1) + (2) - (3)] x interest**	236,589	(31)
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	3,193,947	(447)
(6)	Change due to plan amendments	0	0
(7)	Change due to new actuarial assumptions	(11,834)	0
(8)	Change due to claims experience	(13,009)	0
(9)	Expected UAAL after changes: (5) + (6) + (7) + (8)	3,169,104	(447)
(10)	Actual UAAL as of 6/30/2012	3,255,794	(843)
(11)	Total gain/(loss): (9) - (10)	(86,690)	396
	(a) Contribution shortfall and investment loss	(52,060)	574
	(b) Experience gain/(loss) (11) - (11a)	(34,630)	(178)
(12)	Accrued liabilities as of 6/30/2011	\$ 3,423,148	\$ 88,088
(13)	Experience gain/(loss) as percent of actuarial accrued liabilities at start of year (11b) / (12)	(1.0%)	(0.2%)

\* 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

- 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 fiscal year, date of membership, and employee type.



Employer Percentage of Payroll Contributions Made to Medical Insurance Fund						
Fiscal Year Ending	UNIVERSITY EMPLOYEES		SCHOOL DISTRICT EMPLOYEES (Non-Federal)*		OTHER EMPLOYEES	
	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
2013	1.430%	0.750%	1.000%	1.000%	1.750%	0.750%
2014	1.750	0.750	1.500	1.500	2.250	1.250
2015	2.270	1.270	2.250	2.250	3.000	2.000
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, 2015, member contributions will be 2.27% for University employees and 3.00% for all other members. CMC recommends employer and State contributions increase to the required amount of 4.83% of payroll for University employees and 4.10% 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, 2014. CMC's valuation indicates a contribution of 0.03% for the fiscal year ending June 30, 2015 is required to sufficiently support the benefits of the Life Insurance Plan.

REQUIRED CONTRIBUTION RATES For Fiscal Year Ending June 30, 2015 Medical Insurance Fund						
Normal		1.99%				
Accrued liability		<u>5.11</u>				
Total		7.10%				
	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	2.27%	2.27%	3.00%	3.00%	3.00%	3.00%
Employer (ARC)	2.27	1.27	2.25	2.25	3.00	2.00
State (ARC)	<u>2.56</u>	<u>3.56</u>	<u>1.85</u>	<u>1.85</u>	<u>1.10</u>	<u>2.10</u>
Total	7.10%	7.10%	7.10%	7.10%	7.10%	7.10%

Life Insurance Fund	
Normal	0.03%
Accrued liability	<u>0.00</u>
Total	0.03%
Member	0.00%
State (ARC)	<u>0.03</u>
Total	0.03%

- The valuation indicates that a total normal contribution of 1.99% 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 5.11% of payroll for the Retiree Medical Plan and 0.00% of payroll for the Life Insurance Plan.



- The unfunded actuarial accrued liability amounts to \$3,255,793,761 for the Retiree Medical Plan and (\$842,882) for the Life Insurance Plan as of the valuation date. An accrued liability contribution of 5.11% of payroll for the Retiree Medical Plan and 0.00% 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 4.0% annually.

### Section VII - COMMENTS ON LEVEL OF FUNDING

- 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. Current employer and State contributions have been determined to be insufficient 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 D.
- The valuation indicates an increase in scheduled contributions is required to fund the Retiree Medical Plan in an actuarially sound manner and to ensure the future solvency of the Medical Insurance Fund. For University employees a member contribution of 2.27% of payroll together with employer and State contributions of 4.83% 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 3.00% of payroll together with employer and State contributions of 4.10% 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

- 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 medical and life insurance plans and the employer.

Number of Active and Retired Members in Medical Plan as of June 30, 2012		Number of Active and Retired Members in Life Insurance Plan as of June 30, 2012	
GROUP	NUMBER	GROUP	NUMBER
Retirees currently receiving health benefits	36,000	Retirees	42,602
Spouses of retirees currently receiving health benefits	7,008	Terminated employees	3,641
Terminated employees entitled to benefits but not yet receiving benefits	3,641	Active plan members	<u>75,951</u>
Active plan members	<u>75,951</u>	<b>Total</b>	<b><u>122,194</u></b>
<b>Total</b>	<b><u>122,600</u></b>		



Schedule of Funding Progress Medical Insurance Fund (Dollar amount in thousands)						
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]
6/30/2007 <sup>1</sup>	\$ 140,772	\$ 5,928,761	\$ 5,787,989	2.4%	\$ 2,975,289	194.5%
6/30/2008	185,883	6,434,522	6,248,639	2.9	3,190,332	195.9
6/30/2009 <sup>2</sup>	229,103	6,454,733	6,225,630	3.5	3,253,077	191.4
6/30/2010 <sup>3</sup>	241,224	3,206,806	2,965,582	7.5	3,321,614	89.3
6/30/2011 <sup>4</sup>	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
<sup>1</sup> Reflects change in discount rate to 4.5% and updating medical trend.						
<sup>2</sup> Reflects change in participation assumptions and plan design.						
<sup>3</sup> Reflects change in discount rate to 8.0%, change in plan design and updating medical trend.						
<sup>4</sup> Reflects change in decrement assumptions and updating medical trend.						

Schedule of Funding Progress Life Insurance Fund (Dollar amount in thousands)						
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]
6/30/2007	\$ 71,426	\$ 82,722	\$ 11,296	86.3%	\$ 2,975,289	0.38%
6/30/2008	77,658	84,265	6,607	92.2	3,190,332	0.21
6/30/2009	84,703	90,334	5,631	93.8	3,253,077	0.17
6/30/2010	87,905	92,091	4,186	95.5	3,321,614	0.13
6/30/2011	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)

2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2012. Additional information as of the latest actuarial valuation follows.

Valuation Date	06/30/2012	<b>Actuarial Assumptions:</b>
Actuarial cost method	Entry age	<u>Investment Rate of Return*</u>
Amortization method	Level percent of pay, open	8.00% for Medical &
Remaining amortization period	30 years	7.50% for Life Insurance
Asset valuation method	Market Value of Assets	<u>Medical Trend Assumption</u>
		<u>(Pre-Medicare)**</u>
		9.5% - 5.0%
		<u>Medical Trend Assumption</u>
		<u>(Post-Medicare)</u>
		7.5% - 5.0%
		<u>Year of Ultimate Trend Rate</u>
		2019
* Includes Inflation at 3.50%.		
** Alternate trend rates were used for Medicare Part B premiums and are disclosed in Schedule C.		





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)
6/30/2007	\$ 231,473,321	\$ 113,258,761	\$ 10,312,361	\$ 123,571,122	53.4%
6/30/2008	395,282,164	148,954,644	11,911,565	160,866,209	40.7
6/30/2009	467,312,904	164,480,119	13,611,748	178,091,867	38.1
6/30/2010	457,054,117	158,765,496	14,614,285	173,379,781	37.9
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

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)
6/30/2007	\$ 1,785,173	\$ 5,022,137	281.3%
6/30/2008	1,914,199	5,411,249	282.7
6/30/2009	1,498,076	5,455,473	364.2
6/30/2010	1,992,969	1,966,826	98.7
6/30/2011	1,725,878	1,668,822	96.7
6/30/2012	1,732,831	1,684,711	97.2

3. Following is the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2012. 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, 2012	
(a) Employer Annual Required Contribution	\$ 470,217,067
(b) Interest on Net OPEB Obligation	49,992,241
(c) Adjustment to Annual Required Contribution	<u>39,664,089</u>
(d) Annual OPEB Cost: (a) + (b) - (c)	480,545,219
(e) Employer Contributions for Fiscal Year 2012	<u>177,747,845</u>
(f) Increase in Net OPEB Obligation: (d) - (e)	302,797,374
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>1,110,938,699</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	<u><u>\$ 1,413,736,073</u></u>



**Trend Information for the Medical Insurance Fund**

<b>Fiscal Year Ending</b>	<b>Annual OPEB Cost (AOC)</b>	<b>Percentage of AOC Contributed</b>	<b>Net OPEB Obligation (NOO)</b>
6/30/2008	\$ 395,282,164	40.7%	\$ 234,415,955
6/30/2009	469,492,218	37.9	525,816,306
6/30/2010	461,942,516	37.5	814,379,040
6/30/2011	485,294,173	38.9	1,110,938,699
6/30/2012	480,545,219	37.0	1,413,736,073

**Annual OPEB Cost and Net OPEB Obligation  
for the Life Insurance Fund for Fiscal year Ending June 30, 2012**

(a) Employer Annual Required Contribution	\$ 1,732,831
(b) Interest on Net OPEB Obligation	(585,529)
(c) Adjustment to Annual Required Contribution	<u>(403,763)</u>
(d) Annual OPEB Cost: (a) + (b) - (c)	1,551,065
(e) Employer contributions for Fiscal Year 2012	<u>1,684,711</u>
(f) Increase in Net OPEB Obligation: (d) - (e)	(133,646)
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>(7,807,049)</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	<u><u>\$ (7,940,695)</u></u>

**Trend Information for the Life Insurance Fund**

<b>Fiscal Year Ending</b>	<b>Annual OPEB Cost (AOC)</b>	<b>Percentage of AOC Contributed</b>	<b>Net OPEB Obligation (NOO)</b>
6/30/2008	\$ 1,914,199	282.7%	\$ (3,497,050)
6/30/2009	1,416,656	385.1	(7,535,867)
6/30/2010	1,817,516	108.2	(7,685,177)
6/30/2011	1,546,950	107.9	(7,807,049)
6/30/2012	1,551,065	108.6	(7,940,695)



**SCHEDULE A**  
**RESULTS OF THE VALUATION AS OF JUNE 30, 2012**  
**(Dollar amounts in thousands)**

	Medical Insurance Fund	Life Insurance Fund
<b>PAYROLL</b>	\$ 3,479,567	\$ 3,479,567
<b>ACTUARIAL ACCRUED LIABILITY</b>		
Present value of prospective benefits payable in respect of:		
(a) Present active members	\$ 1,547,871	\$ 16,161
(b) Present terminated vested members	13,410	1,726
(c) Present retired members and covered spouses	<u>2,033,259</u>	<u>73,511</u>
(d) Total actuarial accrued liability	\$ 3,594,540	\$ 91,398
<b>PRESENT ASSETS FOR VALUATION PURPOSES</b>	338,746	92,241
<b>UNFUNDED ACTUARIAL ACCRUED LIABILITY</b>	<u>\$ 3,255,794</u>	<u>\$ (843)</u>
<b>CONTRIBUTIONS FOR FISCAL YEAR ENDING JUNE 30, 2014:</b>		
Normal	1.99 %	0.03 %
Accrued Liability	<u>5.11</u>	<u>0.00</u>
Total	7.10 %	0.03 %
Member	2.96 %	0.00 %
Employer (ARC)	2.24	0.00
State (ARC)	<u>1.90</u>	<u>0.03</u>
Total	7.10 %	0.03 %

**MEDICAL INSURANCE FUND**  
**Solvency Test**  
**(Dollar amounts in millions)**

Valuation Date	(1)	(2)	(3)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants And Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
6/30/2007	n/a	\$ 2,816.3	\$ 3,112.5	\$ 140.8	n/a	5 %	0 %
6/30/2008	n/a	3,084.4	3,350.2	185.9	n/a	6	0
6/30/2009	n/a	3,203.7	3,251.0	229.1	n/a	7	0
6/30/2010	n/a	1,948.6	1,258.2	241.2	n/a	12	0
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



**LIFE INSURANCE FUND**  
**Solvency Test**  
**(Dollar amounts in millions)**

Valuation Date	(1)	(2)	(3)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	Active Member Contributions	Retirants And Beneficiaries	Active Members (Employer Financed Portion)		(1)	(2)	(3)
6/30/2007	n/a	\$ 64.8	\$ 18.0	\$ 71.4	n/a	100%	37%
6/30/2008	n/a	66.9	17.4	77.7	n/a	100	62
6/30/2009	n/a	72.0	18.4	84.7	n/a	100	69
6/30/2010	n/a	74.4	17.7	87.9	n/a	100	76
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

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

	<i>For the Year Ending</i>	
	<u>June 30, 2012</u>	<u>June 30, 2011</u>
<b><u>RECEIPTS FOR THE YEAR</u></b>		
Contributions		
Members Statutory	\$ 44,243,026	\$ 35,472,931
Payment by Retired Members	<u>56,103,044</u>	<u>48,674,406</u>
Total Members	100,346,070	84,147,337
Employer/State Statutory Contributions	39,166,623	32,455,802
State Statutory - Transition Fund/KEHP	122,500,000	145,900,000
General Fund Surplus	0	0
Allotment from Pension Fund	<u>12,300,000</u>	<u>9,885,400</u>
TOTAL EMPLOYER	173,966,623	188,241,202
GRAND TOTAL	274,312,693	273,388,539
Recovery Income	3,483,583	212,727
Medicare D Receipts	297,639	280,585
Net Investment Income	<u>(3,989,202)</u>	<u>8,334,296</u>
TOTAL	274,104,713	281,216,147
<b><u>DISBURSEMENTS FOR THE YEAR</u></b>		
Refunds to Members	0	0
Administrative Expense	1,201,629	1,186,029
Medical Insurance Expense	<u>228,975,126</u>	<u>226,435,363</u>
TOTAL	230,176,755	227,621,392
<b>Excess of Receipts over Disbursements</b>	43,927,958	53,594,755
<b><u>RECONCILIATION OF ASSET BALANCES</u></b>		
Asset Balance as of the Beginning of the Year	294,818,595	241,223,840
Excess of Receipts over Disbursements	<u>43,927,958</u>	<u>53,594,755</u>
Asset Balance as of the End of the Year	<u>\$ 338,746,553</u>	<u>\$ 294,818,595</u>



**SCHEDULE B (continued)**  
**LIFE INSURANCE FUND**  
**Summary of Receipts & Disbursements**  
**(Market Value)**

	<b>For the Year Ending</b>	
	<u>June 30, 2012</u>	<u>June 30, 2011</u>
<b><u>RECEIPTS FOR THE YEAR</u></b>		
Contributions		
Members	\$ 0	\$ 0
State	<u>1,684,711</u>	<u>1,668,822</u>
TOTAL	1,684,711	1,668,822
Net Investment Income	<u>6,450,022</u>	<u>3,094,776</u>
TOTAL	8,134,733	4,763,598
<b><u>DISBURSEMENTS FOR THE YEAR</u></b>		
Benefit Payments	4,397,281	4,120,000
Refunds to Members	0	0
Medical Insurance Payments	0	0
Miscellaneous, including expenses	<u>22,886</u>	<u>21,511</u>
TOTAL	4,420,167	4,141,511
<b><u>EXCESS OF RECEIPTS OVER DISBURSEMENTS</u></b>	3,714,566	622,087
<b><u>RECONCILIATION OF ASSET BALANCES</u></b>		
Asset Balance as of the Beginning of the Year	88,526,680	87,904,593
Excess of Receipts over Disbursements	<u>3,714,566</u>	<u>622,087</u>
Asset Balance as of the End of the Year	<u>\$ 92,241,246</u>	<u>\$ 88,526,680</u>

**SCHEDULE C**  
**Statement of Actuarial Assumptions and Methods**

The rates of retirement, disability, mortality, termination, and salary increases used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2010, submitted to and adopted by the Board on September 19, 2011. The rates of future participation, health care cost trend rates, and expected plan costs were determined by the actuary based on plan experience.

**Valuation Date:** June 30, 2012

**Discount Rate:** 8.0% per annum, compounded annually for medical plans.  
7.5% per annum, compounded annually for life insurance plan.



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

FISCAL YEAR ENDED	MEDICARE PART B TREND	UNDER AGE 65 TREND	AGE 65 & OVER TREND
2013	5.0%	9.5%	7.5%
2014	6.9	8.5	7.0
2015	4.4	7.5	6.5
2016	4.3	6.5	6.0
2017	5.1	6.0	5.5
2018	5.7	5.5	5.0
2019	6.0	5.0	5.0
2020	5.8	5.0	5.0
2021	5.5	5.0	5.0
2022 and beyond	5.0	5.0	5.0

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

Participant Age	Annual Increase
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 healthcare trend assumption. No implicit rate subsidy is calculated or recognized as the implicit rate subsidy is deemed the responsibility of the KEHP.

**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 KTRS pays as the full contribution amount. For retirees ages 65 and older, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

Under Age65 (KEHP) Full Costs as of January 1, 2013			
Fiscal Year	Commonwealth Standard PPO	Commonwealth Common choice	Commonwealth Optimum PPO
Single	\$ 506.06	\$ 650.22	\$ 675.34
Parent Plus	791.54	961.42	961.84
Couple	1,177.80	1,457.90	1,476.00
Family	1,314.12	1,613.74	1,642.78



### Average Monthly KTRS Full Costs & Contributions

Calendar Year	Under Age 65 (KEHP) Contributions	Age 65 & Over (MEHP) Full Costs	Age 65 & Over (MEHP) Contributions
2004	\$ 293	\$ 274	\$ 274
2005	412	288	288
2006	461	315	315
2007	458	283	283
2008	484	278	278
2009	545	301 <sup>1</sup>	285
2010	594	373 <sup>1</sup>	342
2011	626	289	289
2012	622	270 <sup>2</sup>	270
2013	635	294 <sup>2</sup>	290

<sup>1</sup> 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.

<sup>2</sup> 2,000 current benefit recipients are not eligible for premium-free Medicare Part A benefits. For these individuals, the full cost of coverage is, on average, \$650 per month. It is assumed 17% of current benefit recipients under the age of 65 who were hired prior to 4/1/1986 and left covered employment prior to 4/1/1996 will not be eligible for premium-free Medicare Part A benefits. 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.

### Anticipated Future Medical Plan

**Elections:** The assumed annual rates of member plan elections were based upon current retiree under age 65 plan elections, and are as follows:

Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
4%	18%	78%

**Anticipated Member Medical Plan Participation:** Representative values of the assumed annual rates of medical plan participation are as follows:

### Member Participation\*

Years of Service	Hired before 7/1/2002 (age 65 on 12/31/2004 or earlier)	Hired Before 7/1/2002 (age 65 on 1/1/2005 or later)	Hired after 6/30/2002 and hired before 7/1/2008	Hired 7/1/2008 and later
5-9.99	63.0%	23.0%	9.0%	Not Eligible
10-14.99	72.0	45.0	23.0	Not Eligible
15-19.99	81.0	68.0	41.0	41.0%
20-24.99	93.0	93.0	59.0	59.0
25-25.99	93.0	93.0	81.0	81.0
26-26.99	93.0	93.0	86.0	86.0
27 or more	93.0	93.0	93.0	93.0

\* Members retiring from deferred vested status are assumed to participate at 50% of the corresponding rate listed.



**Spouse Coverage in Medical Plans:** Used actual census data and current plan elections for spouses of current retirees. For spouses of future retirees, assumed 20% of future retirees will cover spouses, with females 3 years younger than males.

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

**Reciprocity Service:** In 2013, the Kentucky Retirement Systems' (KRS) Medicare eligible premium is expected to be less than the MEHP premium. KRS will only allow a bill for a portion of the lower KRS premium, creating a discrepancy in premiums for 2013. As such, reciprocity retirees with less than 20 years of KTRS service (or less than 27 KTRS years for retirees who entered KTRS after 2002) will be responsible for the balance of the premium in addition to any other portion of the premium for which he/she is responsible. As the discrepancy is assumed to occur over a short period and impact a small number of participants, the impact to the Retiree Medical Plan's liability is assumed to be de minimis.

**Withdrawal Assumption:** It is assumed 30% of the vested members who terminate elect to withdraw their contributions while the remaining 70% elect to leave their contributions in the plan in order to be eligible for a benefit at their retirement date.

**Payroll Growth:** 4.00% per annum, compounded annually.

**Price Inflation:** 3.5% per annum, compounded annually.

**Asset Valuation Method:** Market Value as provided by KTRS. Return on assets assumed to be 8.00% for the Medical Insurance Fund and 7.50% for the Life Insurance Fund.

**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 . . .								
AGE	SALARY*	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
				SERVICE			Before 27 Years of Service	After 27 Years of Service**
				0 - 4	5 - 9	10+		
20	8.10%	0.012%	0.01%	9.00%				
25	7.20	0.015	0.01	9.00	3.00%			
30	6.20	0.020	0.02	9.00	3.00	3.00%		
35	5.50	0.035	0.05	10.00	3.25	1.75		
40	5.00	0.046	0.09	10.00	4.00	1.40		
45	4.60	0.058	0.18	11.00	4.00	1.50		17.0%
50	4.50	0.074	0.33	9.00	4.00	2.00		17.0
55	4.30	0.124	0.55	12.00	3.50	2.50	5.5%	35.0
60	4.20	0.244	0.70	12.00	3.50	2.50	13.0	24.0
62	4.10	0.324	0.70	12.00	3.50	2.50	15.0	25.0
65	4.00	0.480	0.70	12.00	3.50	2.50	21.0	26.0
70	4.00	0.821	0.70	0.00	0.00	0.00	100.0	100.0

\* Includes inflation at 3.5% per annum  
 \*\* Plus 10% in year when first eligible for unreduced retirement with 27 years of service.





**FEMALES: Annual Rate of . . .**

AGE	SALARY*	DEATH	DISABILITY	WITHDRAWAL			RETIREMENT	
				SERVICE			Before 27 Years of Service	After 27 Years of Service**
				0 - 4	5 - 9	10+		
20	8.10%	0.007%	0.01%	7.00%				
25	7.20	0.008	0.02	8.50	4.00%			
30	6.20	0.010	0.04	9.00	4.00	1.65%		
35	5.50	0.017	0.08	9.00	3.75	1.85		
40	5.00	0.024	0.14	8.50	3.25	1.50		
45	4.60	0.037	0.32	7.50	3.25	1.25		15.0%
50	4.50	0.055	0.42	9.50	3.50	1.75		15.0
55	4.30	0.103	0.56	11.00	4.00	2.00	6.0%	35.0
60	4.20	0.201	0.85	11.00	4.00	2.00	14.0	30.0
62	4.10	0.263	0.85	11.00	4.00	2.00	12.5	25.0
65	4.00	0.390	0.85	11.00	4.00	2.00	22.0	30.0
70	4.00	0.672	0.85	0.00	0.00	0.00	100.0	100.0

\* Includes inflation at 3.5% per annum

\*\* 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		Disability Retirement	
	MALE	FEMALE	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



**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 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.

#### **SCHEDULE D**

### **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 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 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.

**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.



**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 on the following page. 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	$(1/3 \times \$110.50)$	\$ 37.00
January 1, 2011	115.40	$(1/3 \times 115.40)$	39.00
July 1, 2011	115.40	$(2/3 \times 115.40)$	77.00
January 1, 2012	99.90	$(2/3 \times 99.90)$	66.00
July 1, 2012	99.90	99.90	99.90
January 1, 2013	104.90	104.90	104.90

**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 on 12/31/2004 or earlier)	Hired before 7/1/2002 (age 65 on 1/1/2005 or earlier)	Hired after 6/30/2002 and before 7/1/2008	Hired after 7/1/2008 or later
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

**Retiree Contribution Rate Basis  
Effective January 1, 2013  
Under Age 65 (KEHP)**

Tier Elected	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO	Age 65 & Older (MEHP)
Single	\$506.06	\$612.94	\$612.58	\$290.00
Parent Plus	612.94	612.94	612.94	290.00
Couple	612.94	612.94	612.94	290.00
Family	612.94	612.94	612.94	290.00



**Under Age 65 Retiree Plan Cost Contribution:** A contribution according to the table below is required to be paid by retirees under the age of 65 based upon the plan elected:

Under Age 65 Plan Cost Contribution* Effective January 1, 2013			
Tier Elected	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
Single	\$ 0.00	\$ 37.28	\$ 62.76
Parent Plus **	178.60	348.48	348.90
Couple **	564.86	844.96	863.06
Family **	701.18	1,000.80	1,029.84
* Does not include the additional contribution required to be paid by retirees under the age of 65 who smoke, which also varies on the plan elected.			
** Contribution for Parent Plus, Couple, and Family tiers is offset by the State Under Age 65 Spouse/Dependent Subsidy			

The Under Age 65 Plan Cost Contribution is reduced by subtracting the State Under Age 65 Spouse/Dependent Subsidy multiplied by 100% less the appropriate percentage in the Retiree Percentage Contribution table on the previous page, from the Under Age 65 Plan Cost Contribution.

State Under Age 65 Spouse/Dependent Subsidy Effective January 1, 2013			
Tier Elected	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO
Parent Plus	\$ 158.60	\$ 169.48	\$ 128.90
Couple	266.86	326.96	317.06
Family	391.18	390.80	379.84

**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 post-65 retirees, as well as surviving spouses of deceased retirees, 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 KTRS 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 July 1, 2002, and later, pay 100% of the full contribution.

Surviving Spouse Contribution Effective January 1, 2013 Under Age 65 (KEHP)				
Tier Elected	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO	Ages 65 & Older (MEHP)
Single Spouse	\$ 511.76	\$ 655.92	\$ 681.04	\$ 290.00



**System Retiree Medical Plan Contributions:** The System Contribution Rate Basis is determined annually by KTRS; 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	Hired before 7/1/2002 (age 65 on 12/31/2004 or earlier)	Hired before 7/1/2002 (age 65 on 1/1/2005 or earlier)	Hired after 6/30/2002 and before 7/1/2008	Hired after 7/1/2008 or later
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

System Contribution Rate Basis Effective January 1, 2013 Under Age 65 (KEHP)				
Tier Elected	Commonwealth Standard PPO	Commonwealth Capitol Choice	Commonwealth Optimum PPO	Age 65 & Older (MEHP)
Single	\$ 506.06	\$ 612.94	\$ 612.58	\$ 290.00
Parent Plus	612.94	612.94	612.94	290.00
Couple	612.94	612.94	612.94	290.00
Family	612.94	612.94	612.94	290.00

**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						
Fiscal Year Ending	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
2013	1.430%	1.750%	1.750%	1.750%	1.750%	1.750%
2014	1.750	1.750	2.250	2.250	2.250	2.250
2015	2.270	2.270	3.000	3.000	3.000	3.000
2016 & Later	2.775	2.775	3.750	3.750	3.750	3.750



**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.



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## SCHEDULE E

**Table 1 – Service Table**  
**Distribution of Active Members as of June 30, 2012**  
**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	2,365	1							2,366
Total Pay	40,846,000	45,000							40,891,000
Avg. Pay	17,271	45,000							17,283
25 to 29	7,069	1,365							8,434
Total Pay	222,006,000	64,597,000							286,603,000
Avg. Pay	31,406	47,324							33,982
30 to 34	3,713	5,255	908						9,876
Total Pay	109,834,000	260,683,000	50,523,000						421,040,000
Avg. Pay	29,581	49,607	55,642						42,633
35 to 39	2,605	2,485	4,229	628					9,947
Total Pay	70,984,000	124,123,000	248,149,000	40,344,000					483,600,000
Avg. Pay	27,249	49,949	58,678	64,242					48,618
40 to 44	3,521	1,920	2,490	3,371	673	1			11,976
Total Pay	77,925,000	98,559,000	146,062,000	217,339,000	45,705,000	205,000			585,795,000
Avg. Pay	22,131	51,333	58,659	64,473	67,912	205,000			48,914
45 to 49	1,722	1,231	1,454	1,576	2,373	651			9,007
Total Pay	40,472,000	63,140,000	85,800,000	102,363,000	160,069,000	44,672,000			496,516,000
Avg. Pay	23,503	51,292	59,010	64,951	67,454	68,621			55,126
50 to 54	1,483	956	1,148	1,173	1,332	1,704	336		8,132
Total Pay	30,482,000	48,757,000	67,472,000	76,713,000	91,714,000	122,232,000	24,752,000		462,122,000
Avg. Pay	20,554	51,001	58,774	65,399	68,854	71,732	73,667		56,828
55 to 59	2,153	667	955	1,048	1,068	792	444	74	7,201
Total Pay	33,635,000	33,944,000	57,464,000	69,754,000	74,916,000	59,806,000	35,896,000	6,522,000	371,937,000
Avg. Pay	15,622	50,891	60,172	66,559	70,146	75,513	80,847	88,135	51,651
60 to 64	2,643	533	520	596	625	418	114	113	5,562
Total Pay	36,178,000	25,746,000	32,732,000	41,293,000	45,923,000	33,164,000	10,223,000	11,375,000	236,634,000
Avg. Pay	13,688	48,304	62,946	69,284	73,477	79,340	89,675	100,664	42,545
65 & over	2,276	359	181	176	177	155	43	83	3,450
Total Pay	20,242,000	12,464,000	11,931,000	12,303,000	13,673,000	12,141,000	3,921,000	7,754,000	94,429,000
Avg. Pay	8,894	34,719	65,917	69,903	77,249	78,329	91,186	93,422	27,371
Total	29,550	14,772	11,885	8,568	6,248	3,721	937	270	75,951
Total Pay	682,604,000	732,058,000	700,133,000	560,109,000	432,000,000	272,220,000	74,792,000	25,651,000	3,479,567,000
Avg. Pay	23,100	49,557	58,909	65,372	69,142	73,158	79,821	95,004	45,813

Average Age: 43.6

Average Service: 11.0



**SCHEDULE E**

**Table 2 – Total Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	Percentage Increase in Average Pay
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
6/30/2010	76,387	3,321,614,223	43,484	1.51
6/30/2009	75,937	3,253,076,600	42,839	1.43
6/30/2008	75,539	3,190,332,239	42,234	6.67
6/30/2007	75,144	2,975,289,033	39,594	2.10

**SCHEDULE E**

**Table 3 – Eligible Deferred Vested Members as of June 30, 2012  
Male & Female Demographic Breakdown**

Attained Age	Number of Males	Number of Females	Total Number
Under 30	4	17	21
30-34	53	258	311
35-39	115	433	548
40-44	154	519	673
45-49	147	493	640
50-54	150	473	623
55-59	149	370	519
60 & Over	82	224	306
<b>Total</b>	<b>854</b>	<b>2,787</b>	<b>3,641</b>

**SCHEDULE E**

**Table 4 – All Retirees & Spouses Receiving Health Care Benefits as of June 30, 2012  
Male & Female Demographic Breakdown**

Attained Age	Number of Males	Number of Females	Total Number
Under 40	7	30	37
40-44	24	59	83
45-49	61	216	277
50-54	357	1,028	1,385
55-59	1,666	3,966	5,632
60-64	3,571	7,240	10,811
65-69	3,245	5,624	8,869
70-74	2,295	3,701	5,996
75-79	1,714	2,376	4,090
80-84	1,053	1,884	2,937
85-89	616	1,162	1,778
90-94	226	558	784
95-99	49	220	269
100	3	23	26
101	2	14	16
102	1	9	10
103	0	2	2
104	0	0	0
105 & Over	0	6	6
<b>Total</b>	<b>14,890</b>	<b>28,118</b>	<b>43,008</b>





**SCHEDULE E**

**Table 5 – Retirees, Beneficiaries and Survivors added to and Removed From Rolls \***

Fiscal Year Ending June 30	Medical Insurance Fund						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
	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			
2007	1,674	580	2,254	1,009	512	1,521	31,642	6,674	38,316
2008	1,850	593	2,443	901	589	1,490	32,591	6,678	39,269
2009	1,777	640	2,417	887	510	1,397	33,481	6,808	40,289
2010	1,710	555	2,265	876	529	1,405	34,315	6,834	41,149
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

\* Reflects members, spouses, and beneficiaries participating in a health care plan. \*\* Includes spouses, beneficiaries, and surviving spouses.

**SCHEDULE E**

**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
2007	n/a	n/a	n/a	n/a	36,616	\$ 183,080	n/a	\$ 5,000
2008	1,966	\$ 9,830	804	\$ 4,020	37,778	188,890	3.17%	5,000
2009	1,949	9,745	769	3,845	38,958	194,790	3.12	5,000
2010	1,799	8,995	806	4,030	39,951	199,755	2.55	5,000
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

\* 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.

---

# Statistical Section

---

for Fiscal Year ending June 30, 2012

**T**his section of the Kentucky Teachers' Retirement System Comprehensive Annual Financial Report (KTRS 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**

Financial Trends ..... page 133

These schedules contain trend information to help the reader understand how KTRS's financial performance & well-being have changed over time.

Demographic & Economic Information ..... page 135

These schedules offer demographic and economic indicators to help the reader understand the System's environment within which KTRS's financial activities take place.

Operating Information ..... page 141

These schedules contain benefits, service, and employer contribution data to help the reader understand how KTRS's financial report relates to KTRS's services and activities.

**Defined Benefit Plan**  
Past Ten Fiscal Years

**Additions by Source**

YEAR	Employer Contributions	Member Contributions	Net Investment Income	Total Additions to Plan Net Assets
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
2006	410,920,969	258,464,856	717,308,002	1,386,693,827
2005	388,346,438	247,024,518	946,070,556	1,581,441,512
2004	382,280,099	238,922,086	1,158,182,688	1,779,384,873
2003	341,132,900	233,429,797	538,552,074	1,113,114,771

**Deductions by Type**  
(Including Benefits by Type)

YEAR	Service Retirants	Disability Retirants	Survivors	Life Insurance*	TOTAL Benefits	Refunds	Administrative Expense	Total Deductions to Plan Net Assets
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
2006	972,018,057	46,750,585	12,943,639	3,894,000	1,035,606,281	12,834,222	6,839,859	1,055,280,362
2005	902,863,420	44,070,071	12,585,248	3,852,800	963,371,539	10,975,941	6,652,673	981,000,153
2004	827,731,523	41,491,490	12,047,275	4,015,801	885,286,089	10,471,607	6,578,420	902,336,116
2003	763,099,082	38,744,454	11,259,332	3,961,800	817,064,668	9,951,410	6,388,183	833,404,261

\* Life Insurance Plan valued separately-- see page 135.

**Changes in Net Assets**

YEAR	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
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
2006	1,386,693,827	1,055,280,362	331,413,465
2005	1,581,441,512	981,000,153	600,441,359
2004	1,779,384,873	902,336,116	877,048,757
2003	1,113,114,771	833,404,261	279,710,510

**Medical Insurance Plan**

Past Ten Fiscal Years

**Additions by Source**

YEAR	Employer Contributions	Member Contributions	Recovery Income	Net Investment Income	Total Additions to Plan Net Assets
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
2006	89,319,498	51,697,167	6,117,979	6,804,286	153,938,930
2005	79,022,562	51,576,031		6,507,537	137,106,130
2004	53,346,747	53,903,551		7,127,109	114,377,407
2003	77,235,407	50,718,084		7,391,671	135,345,162

**Deductions by Type**  
 (Including Benefits by Type)

Insurance Benefit Expense			Administrative Expense	Total Insurance Benefits Expense	Refunds*	Total Deductions to Plan Net Assets
YEAR	Under Age 65	Age 65 & Over				
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
2006	102,970,290	66,660,106		169,630,396	5,143	169,635,539
2005	82,186,847	64,233,482		146,420,329	9,072	146,429,401
2004	69,139,458	54,128,210		123,267,668	12,150	123,279,818
2003	63,546,028	52,300,059		115,846,087	7,808	115,853,895

\*Refunds are netted against member contributions beginning fiscal year 2009.

**Changes in Net Assets**

YEAR	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
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
2006	153,938,930	169,635,539	(15,696,609)
2005	137,106,130	146,429,401	(9,323,271)
2004	114,377,407	123,279,818	(8,902,411)
2003	135,345,162	115,853,895	19,491,267

**Life Insurance Plan**  
Past Six Fiscal Years

**Additions by Source**

YEAR	Employer Contributions	Net Investment Income	Total Additions to Plan Net Assets
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)

**Changes in Net Assets**

YEAR	Life Insurance	Total Deductions to Plan Net Assets	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
2012	\$ 4,397,281	\$ 4,420,167	\$ 8,134,733	\$ 4,420,167	\$ 3,714,566
2011	4,120,000	4,141,511	4,763,598	4,141,511	622,087
2010	4,148,511	4,148,511	7,350,470	4,148,511	3,201,959
2009	3,694,000	3,694,000	10,738,431	3,694,000	7,044,431
2008	4,003,000	4,003,000	11,732,740	4,003,000	7,729,740
2007	4,245,000	4,245,000	1,608,600	4,245,000	(2,636,400)

**Distribution of Active Contributing Members  
as of June 30, 2012**

By Age			By Service		
Age	Male	Female	Years of Service	Male	Female
20-24	828	2,712	Less than 1	6,126	15,467
25-29	2,703	7,653	1-4	4,131	12,705
30-34	2,754	7,799	5-9	3,142	10,016
35-39	2,476	7,385	10-14	2,286	7,350
40-44	2,406	7,872	15-19	1,668	5,016
45-49	2,076	6,424	20-24	1,163	3,561
50-54	1,803	5,826	25-29	605	1,951
55-59	1,731	4,951	30-34	135	453
60-64	1,475	3,787	35 or more	<u>68</u>	<u>108</u>
65-69	720	1,535	TOTAL	19,324	56,627
Over 70	<u>352</u>	<u>683</u>			
Total	19,324	56,627			

**Principal Participating Employers**  
Current Year and Nine Years Ago

	2012			2003		
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System
Jefferson County Schools	10,304	1	13.34%	9,139	1	12.68%
Fayette County Public Schools	4,651	2	6.02	3,900	2	5.41
Boone County Schools	1,866	3	2.42	1,341	3	1.86
Hardin County Schools	1,402	4	1.82	1,194	4	1.66
Kenton County Schools	1,332	5	1.72	1,099	5	1.53
Warren County Schools	1,302	6	1.69	1,043	7	1.45
Oldham County Schools	1,230	7	1.59	925	11	1.28
Bullitt County Schools	1,218	8	1.58	981	10	1.36
Madison County Schools	1,162	9	1.50	988	9	1.37
Daviess County Schools	1,118	10	1.45	994	8	1.38
All Other*	<u>51,653</u>		<u>66.88%</u>	<u>50,452</u>		<u>70.02%</u>
<b>TOTAL (208 Employers)</b>	<b><u>77,238</u></b>		<b><u>100.00%</u></b>	<b><u>72,056</u></b>		<b><u>100.00%</u></b>

\* In 2012, "all other" consisted of:

Type	Number	Employees
Local School Districts	164	45,885
Higher Education	6	3,613
State Agencies	16	1,755
Regional Coops	7	303
Other	<u>5</u>	<u>97</u>
<b>TOTAL</b>	<b><u>198</u></b>	<b><u>51,653</u></b>

**KTRS Schedule of Participating Employers**  
School Districts: County Schools

1. Adair	25. Clark	49. Harrison	73. Madison	97. Perry
2. Allen	26. Clay	50. Hart	74. Magoffin	98. Pike
3. Anderson	27. Clinton	51. Henderson	75. Marion	99. Powell
4. Ballard	28. Crittenden	52. Henry	76. Marshall	100. Pulaski
5. Barren	29. Cumberland	53. Hickman	77. Martin	101. Robertson
6. Bath	30. Daviess	54. Hopkins	78. Mason	102. Rockcastle
7. Bell	31. Edmonson	55. Jackson	79. McCracken	103. Rowan
8. Boone	32. Elliott	56. Jefferson	80. McCreary	104. Russell
9. Bourbon	33. Estill	57. Jessamine	81. McLean	105. Scott
10. Boyd	34. Fayette	58. Johnson	82. Meade	106. Shelby
11. Boyle	35. Fleming	59. Kenton	83. Menifee	107. Simpson
12. Bracken	36. Floyd	60. Knott	84. Mercer	108. Spencer
13. Breathitt	37. Franklin	61. Knox	85. Metcalfe	109. Taylor
14. Breckinridge	38. Fulton	62. Larue	86. Monroe	110. Todd
15. Bullitt	39. Gallatin	63. Laurel	87. Montgomery	111. Trigg
16. Butler	40. Garrard	64. Lawrence	88. Morgan	112. Trimble
17. Caldwell	41. Grant	65. Lee	89. Muhlenberg	113. Union
18. Calloway	42. Graves	66. Leslie	90. Nelson	114. Warren
19. Campbell	43. Grayson	67. Letcher	91. Nicholas	115. Washington
20. Carlisle	44. Green	68. Lewis	92. Ohio	116. Wayne
21. Carroll	45. Greenup	69. Lincoln	93. Oldham	117. Webster
22. Carter	46. Hancock	70. Livingston	94. Owen	118. Whitley
23. Casey	47. Hardin	71. Logan	95. Owsley	119. Wolfe
24. Christian	48. Harlan	72. Lyon	96. Pendleton	120. Woodford

**KTRS Schedule of Participating Employers (*continued*)**  
**School Districts: City Schools**

- |                    |                      |                 |                   |
|--------------------|----------------------|-----------------|-------------------|
| 1. Anchorage       | 15. Covington        | 29. Hazard      | 43. Pineville     |
| 2. Ashland         | 16. Danville         | 30. Jackson     | 44. Raceland      |
| 3. Augusta         | 17. Dawson Springs   | 31. Jenkins     | 45. Russell       |
| 4. Barbourville    | 18. Dayton           | 32. Ludlow      | 46. Russellville  |
| 5. Bardstown       | 19. East Bernstadt   | 33. Mayfield    | 47. Science Hill  |
| 6. Beechwood       | 20. Elizabethtown    | 34. Middlesboro | 48. Silver Grove  |
| 7. Bellevue        | 21. Eminence         | 35. Monticello  | 48. Somerset      |
| 8. Berea           | 22. Erlanger-Elsmere | 36. Murray      | 50. Southgate     |
| 9. Bowling Green   | 23. Fairview         | 37. Newport     | 51. Walton-Verona |
| 10. Burgin         | 24. Fort Thomas      | 38. Owensboro   | 52. West Point    |
| 11. Campbellsville | 25. Frankfort        | 39. Paducah     | 53. Williamsburg  |
| 12. Caverna        | 26. Fulton           | 40. Paintsville | 54. Williamstown  |
| 13. Cloverport     | 27. Glasgow          | 41. Paris       |                   |
| 14. Corbin         | 28. Harlan           | 42. Pikeville   |                   |

**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**

**State of Kentucky**

1. Education and Humanities Cabinet
2. Legislative Research Commission
3. Workforce Investment Cabinet
4. Finance and Administration Cabinet

**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



113 ALABAMA	7 NEW JERSEY
1 ALASKA	17 NEW MEXICO
79 ARIZONA	39 NEW YORK
33 ARKANSAS	237 NORTH CAROLINA
96 CALIFORNIA	1 NORTH DAKOTA
50 COLORADO	550 OHIO
9 CONNECTICUT	29 OKLAHOMA
8 DELAWARE	23 OREGON
967 FLORIDA	43 PENNSYLVANIA
228 GEORGIA	0 RHODE ISLAND
5 HAWAII	160 SOUTH CAROLINA
8 IDAHO	10 SOUTH DAKOTA
92 ILLINOIS	777 TENNESSEE
613 INDIANA	177 TEXAS
16 IOWA	20 UTAH
33 KANSAS	1 VERMONT
29 LOUISIANA	141 VIRGINIA
15 MAINE	38 WASHINGTON
30 MARYLAND	91 WEST VIRGINIA
16 MASSACHUSETTS	25 WISCONSIN
36 MICHIGAN	2 WYOMING
18 MINNESOTA	
50 MISSISSIPPI	
68 MISSOURI	
7 MONTANA	
7 NEBRASKA	
21 NEVADA	
4 NEW HAMPSHIRE	

## Distribution of Retirement Payments Worldwide

As of June 30, 2012



### Additional Distribution Outside USA

1 Australia	1 England
1 Barbados	2 Military APO
5 Canada	1 Philippines
5 District of Columbia	1 Switzerland

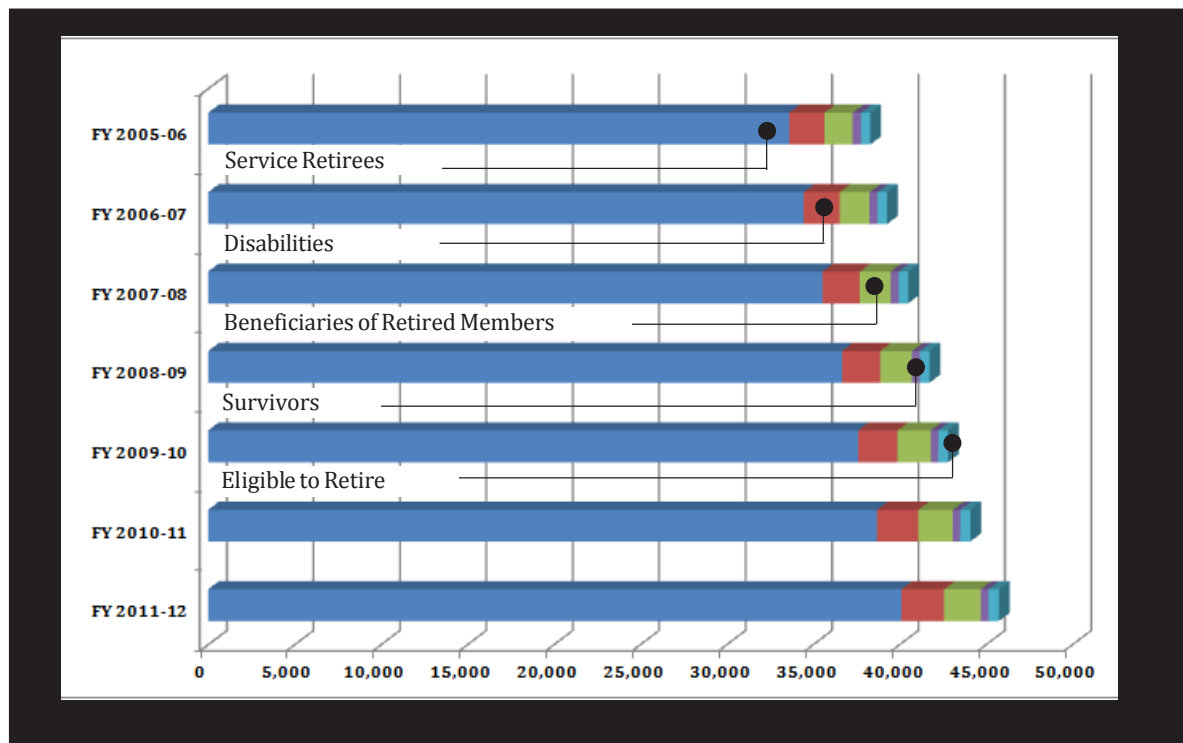
**TOTAL:** Number of Out of State Payments ..... 5,057  
**TOTAL:** Out of State Payments ..... \$118,380,267  
**TOTAL:** Number of Payments ..... 47,294  
**GRAND TOTAL:** Amount of Payments ..... \$1,482,878,645

## Distribution of Retirement Payments Statewide

as of June 30, 2012

County Name	Total Payments	Number of Recipients	County Name	Total Payments	Number of Recipients
Adair	\$ 5,361,714	156	Laurel	17,425,065	502
Allen	5,148,856	132	Lawrence	4,395,874	127
Anderson	6,046,502	157	Lee	2,063,208	61
Ballard	3,771,119	100	Leslie	4,490,182	127
Barren	12,675,064	343	Letcher	9,640,930	258
Bath	3,481,149	103	Lewis	5,527,016	152
Bell	11,145,513	310	Lincoln	8,794,937	243
Boone	27,322,199	645	Livingston	2,714,942	73
Bourbon	5,774,922	159	Logan	8,395,640	240
Boyd	17,219,133	438	Lyon	3,152,136	84
Boyle	13,749,513	361	Madison	40,888,796	1,043
Bracken	2,775,932	77	Magoffin	4,844,987	150
Breathitt	6,876,973	194	Marion	5,029,973	141
Breckinridge	5,947,309	154	Marshall	10,919,029	287
Bullitt	14,207,654	328	Martin	3,916,876	120
Butler	2,615,408	80	Mason	5,870,058	156
Cadwell	5,492,391	153	McCracken	21,293,602	590
Calloway	20,624,636	551	McCreary	6,091,884	174
Campbell	22,700,398	538	McLean	3,592,783	96
Carlisle	1,369,940	37	Meade	5,631,916	134
Carroll	2,456,077	66	Menifee	1,710,421	54
Carter	10,550,689	300	Mercer	6,959,709	202
Casey	4,566,117	137	Metcalfe	3,226,371	92
Christian	16,148,327	434	Monroe	4,776,083	136
Clark	9,993,538	278	Montgomery	9,241,195	261
Clay	8,701,555	238	Morgan	5,447,426	145
Clinton	4,180,402	117	Muhlenberg	9,631,396	245
Crittenden	1,989,034	59	Nelson	12,297,380	304
Cumberland	2,814,774	70	Nicholas	1,710,359	48
Daviess	33,082,496	873	Ohio	6,025,076	158
Edmonson	3,045,755	90	Oldham	14,653,030	340
Elliott	1,661,897	53	Owen	2,576,599	67
Estill	4,114,853	113	Owsley	3,461,516	97
Fayette	88,226,306	2,244	Pendleton	4,088,581	112
Fleming	4,858,000	139	Perry	11,308,752	308
Floyd	16,136,831	452	Pike	25,114,557	678
Franklin	23,181,292	567	Powell	3,858,367	101
Fulton	2,186,185	59	Pulaski	19,945,751	570
Gallatin	798,583	23	Robertson	683,616	20
Garrard	5,503,819	144	Rockcastle	5,492,031	162
Grant	5,788,445	150	Rowan	14,461,053	382
Graves	12,331,243	341	Russell	6,503,429	177
Grayson	7,962,964	214	Scott	12,017,910	296
Green	3,564,990	105	Shelby	13,733,897	314
Greenup	11,329,413	297	Simpson	4,923,623	143
Hancock	2,326,185	58	Spencer	4,402,648	108
Hardin	25,801,780	610	Taylor	8,661,209	244
Harlan	11,969,815	336	Todd	2,670,977	74
Harrison	6,065,657	168	Trigg	5,105,223	146
Hart	4,552,218	119	Trimble	1,844,548	46
Henderson	13,132,900	344	Union	3,816,683	104
Henry	5,300,246	149	Warren	49,205,808	1,288
Hickman	1,033,512	26	Washington	3,165,872	87
Hopkins	14,184,581	371	Wayne	6,675,154	201
Jackson	3,577,426	106	Webster	4,121,103	121
Jefferson	229,335,342	5,170	Whitley	19,122,431	533
Jessamine	10,203,349	284	Wolfe	3,230,747	91
Johnson	10,933,920	286	Woodford	8,760,420	212
Kenton	27,595,605	671			
Knott	7,108,870	185			
Knox	7,651,212	216			
Larue	4,935,065	133			
			<b>Total in Kentucky</b>	<b>\$ 1,364,498,378</b>	<b>35,236</b>

**Growth in Annuitants  
as of June 30, 2012**



Fiscal Year	Service Retirees	Disabilities	Beneficiaries of Retired Members	Survivors	Eligible to Retire
2005-06	33,618	2,039	1,631	495	531
2006-07	34,462	2,086	1,722	466	549
2007-08	35,550	2,155	1,778	468	554
2008-09	36,684	2,209	1,837	448	559
2009-10	37,607	2,284	1,915	435	567
2010-11	38,705	2,379	2,003	430	584
2011-12	40,107	2,478	2,126	444	596

**Schedule of Annuitants by Type of Benefit  
as of June 30, 2012**

Amount of Monthly Benefit (\$)	Number of Annuitants	Type of Retirement*				
		1	2	3	4	5
1 - 500	3,318	2,399	18	398	199	304
501 - 1,000	2,678	2,064	178	7	429	0
1,001 - 1,500	3,184	2,274	321	0	589	0
1,501 - 2,000	3,956	3,111	427	1	417	0
2,001 - 2,500	5,996	4,959	631	14	392	0
2,501 - 3,000	8,751	7,917	544	15	275	0
3,001 - 3,500	6,767	6,398	188	3	178	0
3,501 - 4,000	4,429	4,209	115	1	104	0
4,001 - 4,500	2,796	2,703	30	4	59	0
4,501 - 5,000	1,615	1,565	17	0	33	0
5,001 & OVER	2,565	2,508	9	1	47	0
Total**	46,055	40,107	2,478	444	2,722	304

**\*Type of Retirement**

1-Normal Retirement for Age & Service  
2-Disability Retirement  
3-Survivor Payment - Active Member

4-Beneficiary Payment - Retired Member  
5-Disabled Adult Child

\*\* Retirees in waiver program are not included.

Amount of Monthly Benefit (\$)	Option Selected*							
	1	2	3	4	5	6	7	None
1 - 500	1,674	394	269	63	8	398	118	394
501 - 1,000	1,392	324	230	124	8	313	202	85
1,001 - 1,500	1,626	341	304	141	12	375	299	86
1,501 - 2,000	2,102	442	361	166	7	493	280	105
2,001 - 2,500	2,822	591	529	225	6	986	581	256
2,501 - 3,000	4,434	888	675	235	13	1,393	879	234
3,001 - 3,500	3,480	730	509	216	9	1,003	754	66
3,501 - 4,000	2,267	460	365	137	6	655	493	46
4,001 - 4,500	1,406	289	251	99	7	380	355	9
4,501 - 5,000	799	176	135	84	6	235	175	5
5,001 & OVER	1,338	220	276	122	14	290	300	5
Total	23,340	4,855	3,904	1,612	96	6,521	4,436	1,291

**\*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

**Defined Benefit Plan**  
**Average Benefit Payments for the Past Ten Years**  
**By Years of Service Credit**

<b>Retirement Effective Dates</b>	<b>00-4.99</b>	<b>05-9.99</b>	<b>10-14.99</b>	<b>15-19.99</b>	<b>20-24.99</b>	<b>25-29.99</b>	<b>30&gt;=</b>	<b>TOTAL</b>
07/01/2002 TO 06/30/2003								
Average monthly benefit	\$205	\$480	\$940	\$1,344	\$1,898	\$2,715	\$3,592	
Average final monthly salary	\$4,301	\$3,380	\$3,714	\$3,798	\$3,920	\$4,378	\$5,121	
Number of retired members	58	83	98	103	107	837	508	1,794
07/01/2003 TO 06/30/2004								
Average monthly benefit	\$220	\$474	\$839	\$1,444	\$1,940	\$2,758	\$3,486	
Average final monthly salary	\$5,243	\$3,357	\$3,349	\$3,936	\$4,078	\$4,425	\$5,062	
Number of retired members	43	84	98	96	155	818	405	1,699
07/01/2004 TO 06/30/2005								
Average monthly benefit	\$187	\$528	\$906	\$1,488	\$1,978	\$2,892	\$3,860	
Average final monthly salary	\$4,353	\$3,511	\$3,647	\$4,055	\$4,182	\$4,602	\$5,275	
Number of retired members	55	98	107	106	145	811	875	2,197
07/01/2005 TO 06/30/2006								
Average monthly benefit	\$202	\$473	\$1,019	\$1,493	\$2,037	\$2,998	\$4,063	
Average final monthly salary	\$4,106	\$3,253	\$4,052	\$4,117	\$4,317	\$4,721	\$5,490	
Number of retired members	44	105	106	132	145	689	604	1,825
07/01/2006 TO 06/30/2007								
Average monthly benefit	\$178	\$514	\$930	\$1,559	\$2,136	\$3,140	\$4,263	
Average final monthly salary	\$4,102	\$3,346	\$3,590	\$4,228	\$4,537	\$4,970	\$5,758	
Number of retired members	48	113	90	109	193	534	514	1,601
07/01/2007 TO 06/30/2008								
Average monthly benefit	\$199	\$524	\$1,117	\$1,658	\$2,276	\$3,279	\$4,319	
Average final monthly salary	\$3,816	\$3,066	\$4,215	\$4,412	\$4,612	\$5,067	\$5,786	
Number of retired members	50	130	112	150	169	557	615	1,783
07/01/2008 TO 06/30/2009								
Average monthly benefit	\$200	\$573	\$1,005	\$1,725	\$2,436	\$3,368	\$4,496	
Average final monthly salary	\$4,617	\$3,942	\$3,873	\$4,686	\$4,983	\$5,278	\$5,960	
Number of retired members	72	168	137	115	217	505	585	1,799
07/01/2009 TO 06/30/2010								
Average monthly benefit	\$185	\$525	\$1,104	\$1,700	\$2,427	\$3,468	\$4,670	
Average final monthly salary	\$3,654	\$3,637	\$4,124	\$4,508	\$4,974	\$5,383	\$6,102	
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	
Average final monthly salary	\$3,570	\$3,640	\$4,423	\$4,825	\$5,184	\$5,574	\$6,235	
Number of retired members	45	157	144	112	242	544	617	1,861
07/01/2011 TO 06/30/2012								
Average monthly benefit	\$175	\$507	\$1,170	\$1,897	\$2,613	\$3,674	\$4,726	
Average final monthly salary	\$3,292	\$3,759	\$4,307	\$4,898	\$5,219	\$5,605	\$6,109	
Number of retired members	45	197	146	162	303	778	569	2,200

### Medical Insurance Plan

Average Insurance Premium Supplements for the Last Ten Years

	Years of Service Credit				TOTAL
	00-9.99	10-14.99	15-19.99	20>=	
Retirement Effective Dates					
07/01/2002 TO 06/30/2003					
Average monthly supplement	\$ 106.62	\$ 142.57	\$ 212.81	\$ 277.64	
Number of retired members	34	59	91	1,457	1,641
07/01/2003 TO 06/30/2004					
Average monthly supplement	\$ 100.50	\$ 148.85	\$ 219.41	\$ 289.98	
Number of retired members	30	59	82	1,365	1,536
07/01/2004 TO 06/30/2005					
Average monthly supplement	\$ 138.29	\$ 214.32	\$ 305.39	\$ 394.92	
Number of retired members	36	70	93	1,768	1,967
07/01/2005 TO 06/30/2006					
Average monthly supplement	\$ 161.03	\$ 241.76	\$ 362.31	\$ 487.23	
Number of retired members	28	49	106	1,440	1,623
07/01/2006 TO 06/30/2007					
Average monthly supplement	\$ 146.24	\$ 260.95	\$ 363.45	\$ 489.73	
Number of retired members	29	53	80	949	1,111
07/01/2007 TO 06/30/2008					
Average monthly supplement	\$ 162.54	\$ 260.71	\$ 378.28	\$ 512.29	
Number of retired members	36	61	104	952	1,153
07/01/2008 TO 06/30/2009					
Average monthly supplement	\$ 167.78	\$ 298.09	\$ 414.38	\$ 562.59	
Number of retired members	26	64	103	1,329	1,522
07/01/2009 TO 06/30/2010					
Average monthly supplement	\$ 151.05	\$ 339.31	\$ 435.19	\$ 621.12	
Number of retired members	32	73	103	1,276	1,484
07/01/2010 TO 06/30/2011					
Average monthly supplement	\$ 167.03	\$ 311.93	\$ 438.84	\$ 597.41	
Number of retired members	30	32	109	1,360	1,531
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

**Summary of Fiscal Year 2011-2012  
Retiree Sick Leave Payments**

**ACTUARIAL RATE**

Grand Total Members Retiring	2,318
Total members receiving sick leave payments	1,657
Total amount of sick leave payments @ 10.355% contribution rate	\$ 22,590,093.82
Average payment per retiree	\$ 13,633.13
Total increase in final 3/5 average salary base	\$ 6,337,194.60
Average increase in final average salary	\$ 3,824.50
Total service credit of 1,657 retirees	42,631.49
Average service credit of 1,657 retirees	25.73
Additional Average Monthly Annuity payment per Retirement Formula	
$3,824.50 \times 25.73 \times 2.50\% =$	\$ 2,459.93
$2,459.93 / 12 \text{ months}$	\$ 204.99
Anticipated Lifetime Payout of Additional Annuity	
$204.99 \times 142.1587 \times 1,657 \text{ new factor}$	\$ 48,287,781.48

**Funding of Additional Payments**

Member contributions $9.105\% \times \$22,590,093.82 =$	\$ 2,056,828.04
Employer contributions $12.305\% \times \$22,590,093.82 =$	<u>2,779,711.04</u>
<b>Total Contributions</b>	<u><u>\$ 4,836,539.08</u></u>
<b>DEFICIT:</b>	
Anticipated additional payout	\$ 48,287,781.48
Less total contributions	<u>4,836,539.09</u>
Subtotal unfunded debt	43,451,242.39
Less current year appropriation	<u>7,158,200.00</u>
<b>TOTAL DEFICIT (overpayment) *</b>	<u><u>\$ 36,293,042.39</u></u>

*\* NOTE: Actuarial factors used for sick leave calculations changed effective July 1, 1998.  
Sick leave deficits are amortized over 20 year periods.*