

# Teachers' Retirement System

*A Component Unit*  
STATE OF  
*of the Commonwealth*  
KENTUCKY  
*of Kentucky*

2011

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COMPREHENSIVE  
ANNUAL  
FINANCIAL  
REPORT

for the fiscal year ended June 30, 2011

# Teachers' Retirement System of the State of Kentucky



## **The 71st Comprehensive Annual Financial Report**

**A Component Unit of the Commonwealth of Kentucky  
Fiscal Year Ended June 30, 2011**

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

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

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

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## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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# **Introductory Section**

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for Fiscal Year ending June 30, 2011

## Chairperson's Letter

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

GARY L. HARBIN, CPA  
*Executive Secretary*



December 30, 2011

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, 2011, the 71st 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 2010-2011 fiscal year with \$15.5 billion net assets. The active membership totaled 76,349 and the retired membership was 44,419 with an annual payroll of \$1.4 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,

Barbara G. Sterrett  
Chairperson  
Board of Trustees

#### BOARD OF TRUSTEES

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*OF EDUCATION*

*EX OFFICIO*  
TODD HOLLENBACH  
STATE TREASURER

## Letter of Transmittal



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

December 30, 2011

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

Dear Governor Beshear:

It is my pleasure to submit the 71st 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, 2011. 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, 2011. 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. 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 94 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

The System 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

The Board of Trustees and Staff appreciate the extraordinary efforts of the many active and retired teachers and education community constituency groups who helped develop a "shared responsibility" solution for adequately funding retiree health care benefits. The Board and Staff are also grateful for the hard work of the General Assembly and Governor in enacting the plan. The shared responsibility solution for funding retiree health care was truly a historic accomplishment that will help insure the retirement security of the state's teachers.

The shared responsibility solution, which was introduced as House Bill 540 in 2010, passed through both chambers of the General Assembly without a single negative vote, and was signed into law by the Governor. The funding solution provides that active teachers, retired teachers, school districts,



and the state will all share in prefunding retiree health care benefits. This approach will help insure that both current retired teachers and active teachers will receive health care benefits during retirement. Moreover, prefunding retiree health care benefits with shared responsibility by all interested parties is the most cost effective and actuarially sound method for providing retiree health care benefits.

The shared responsibility solution also aids the actuarial stability of the retirement annuity fund by stopping the redirection of contributions from the retirement annuity fund to pay for the costs of current retiree health care. From fiscal year 2005 through fiscal year 2010, over \$560 million was redirected from the retirement annuity fund to the medical insurance fund with the agreement that the amount would be repaid by the state with interest over staggered 10 year terms. On August 26, 2010, this debt by the state to the KTRS retirement annuity fund was fully satisfied ahead of schedule when KTRS received the proceeds of a bond issued by the state. The Board is also very grateful to the Governor and General Assembly for this affirmative action to help insure the retirement security of the state's teachers.

The shared responsibility solution for funding retiree health care was effective on July 1, 2010, and the bond proceeds were received in the KTRS pension fund on August 26, 2010, both developments had positive effects on the actuarial valuations of the retiree medical and pension plans as of June 30, 2011. Furthermore, in the future, the shared responsibility solution for prefunding retiree health care and stopping the redirection of contributions from the retirement annuity fund to pay for the costs of current retiree health care will improve the funding status of both the KTRS medical insurance and retirement annuity plans.

### **KTRS Initiatives to Contain Health Plan Costs**

The Board views the obligation to contain health plan costs where practical without shifting material costs to retired members or substantially decreasing retired members' benefits as part of its fiduciary responsibility. During the year, KTRS took action to implement several initiatives to contain costs in the health plan and improve the retirement security of the state's teachers.

On July 1, 2010, KTRS moved its Medicare drug plan to an insured Employer Group Waiver Prescription Drug Plan. KTRS took this action in order to receive deeper federal subsidies on an

annual basis, and to reduce the actuarial liability of the KTRS Medical Insurance Fund by \$900 million. Although the cost savings from this action was dramatic, there were no material changes to the existing drug plan design.

KTRS also took action during the year to add a "commercial wrap" to the existing KTRS Employer Group Waiver Prescription Drug Plan for plan year 2012. The commercial wrap, which is permitted under the federal health care reform, includes some infrastructure changes that will result in cost savings without significant changes to the drug plan for retired members.

During the year, KTRS took action to join the KY Rx Coalition spearheaded by the University of Kentucky. By joining the KY Rx Coalition effective January 1, 2012, KTRS will achieve annual savings through leveraging greater prescription purchasing power and deeper drug discounts. Another advantage will be the availability of the University of Kentucky resources with a dedicated University of Kentucky pharmacist available by phone and assigned to KTRS retirees to field prescription questions and to help find lower-cost generic equivalent drugs.

Implementation of the commercial wrap and joining the KY Rx Coalition during plan year 2012 will produce projected annual savings of \$11 million and reduces the actuarial liability of the KTRS Medical Insurance Fund by \$400 million.

### **Investment Program**

KTRS's investment program had exceptional performance during the year with positive returns of 21.6%. 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. Moreover, during the year, KTRS 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 a bond in the KTRS pension fund. 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 and designing a new information technology system known as the "Pathway System." During the year, the Board took action and authorized hiring a vendor to begin building and installation of the new system. The objective of the Pathway System is to streamline retirement processes, and improve staff efficiency in providing services to retirees and active members. During this project, the current legacy KTRS Pension Management System will be replaced with a new system of database software and applications, which will accomplish these goals. The new system will allow KTRS to redesign and improve office processes and ultimately apply new 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 retirement 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 growth in value during the 2010-2011 fiscal year as the portfolio's market value increased from \$12,680,439,457 to \$15,547,900,381. The increase in value of the portfolio and of the overall market was due to improvements in the financial markets and realized capital gains. Employer and employee contributions also provided significant income to the portfolio.

Investment income, including appreciation of asset values, net of investment expenses, for the 2010-2011 fiscal year was \$2,772,410,985. The major contributing factor of the positive return from the System's investment portfolio was the net appreciation in fair value of investments in the amount of \$2,397,731,918. The largest earnings component, \$212,381,957 was the result of interest income. Other income, net of expenses, of

\$162,297,110 was generated from dividends, rent and securities lending.

According to the KRS 161.430 the KTRS 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 retirement system 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 21.6% in 2010-11, the portfolio's ten-year annualized rate of return is 4.8% and the twenty-year annualized rate of return is 7.7%.

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...etc.) paid this 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, 2011. This report reflects the System's assets, based on modified market value; totaled \$14.9 billion and the liabilities totaled \$26 billion. The funded ratio of actuarial assets to liabilities is 57.4%. The actuary reports: "...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 retirement fund 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 2011 employer contributions there remains a net pension obligation of \$229,548,428 (as detailed on page 88). Annual required employer contributions for the Medical Insurance Fund are provided in the schedule of employer contributions (on page 44). The 2011 employer shortfall of contributions created a net OPEB obligation of \$1,110,938,699 (as detailed on page 112).

The sustained decline in the funded ratio is a continuation of the cumulative effect of the transfer of contributions from the retirement fund to the medical insurance fund from 1998-2005. 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, 2011 indicated that the fund has an unfunded liability of \$3.1 billion. The funded ratio of actuarial assets to liabilities is 8.6%. The actuary reports: "...if the State contributions to the Medical Insurance Fund are

increased to the planned levels, the medical plans 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 successive actuarial valuations, the actuarial soundness of the Medical Insurance Fund to provide the benefits called for under the medical plans 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.

Effective January 1, 1999 KTRS eligible retirees and eligible dependents, who are not eligible for Medicare, have their health insurance through plans administered by the Kentucky Department for Employee Insurance. Under this arrangement, KTRS provides a monthly supplement to assist the eligible retiree in purchasing health insurance. Retirees eligible for Medicare have their health insurance through the Medicare Eligible Health Plan sponsored by KTRS. These retirees also receive a supplement for the cost of their coverage.

### **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. A certification from the Certified Public Accountant and Actuary are enclosed in this report. The System's consultants who are appointed by the Board are listed on pages 46, 47, and 74 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, 2010. 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-three consecutive years (fiscal years ended 1988-2010). We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

### **PPCC Achievement Award**

The Public Pension Coordinating Council (PPCC) awarded a Certificate of Achievement to the Teachers' Retirement of the State of Kentucky for 2011 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.

The PPCC is a coalition of the four major public pension organizations in the nation. These include the National Association of State Retirement Administrators, The National Council on Teacher Retirement, the National Conference on Public Employees Retirement Systems, and the Government Finance Officers Association.

### **NCTR Executive Committee**

Gary L. Harbin serves as the Past-President on the Executive Committee of the National Council on Teacher Retirement (NCTR). NCTR is a national, nonprofit organization whose mission is to promote effective governance and benefits administration in state and local public pension systems in order that adequate and secure retirement benefits are provided to educators and other plan participants. NCTR membership includes 69 state, territorial,

local and university pension systems with combined assets in excess of 2 trillion, serving more than 18 million active and retired teachers, non-teaching personnel and other public employees.

### **Public Sector HealthCare Roundtable**

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 insure that the interests of the public sector are properly represented during the formulation, debate, and implementation of federal health care reform initiatives. Membership in the Roundtable is open to any statewide, regional or local governmental unit that provides health care coverage for public employees and retirees.

### **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 employer members of the System 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



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



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



**Robert M. Conley**  
Lay Trustee  
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**Charles Ludwig**  
Teacher Trustee  
Louisville



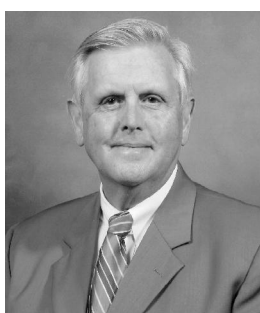
**Dr. Tom Shelton**  
Teacher Trustee  
Lexington



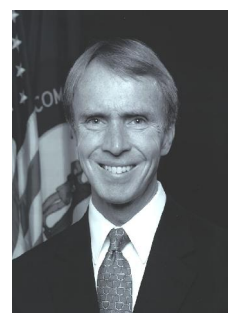
**Ruth Ann Sweazy**  
Teacher Trustee  
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**Laura Zimmerman**  
Teacher Trustee  
Lexington



**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**

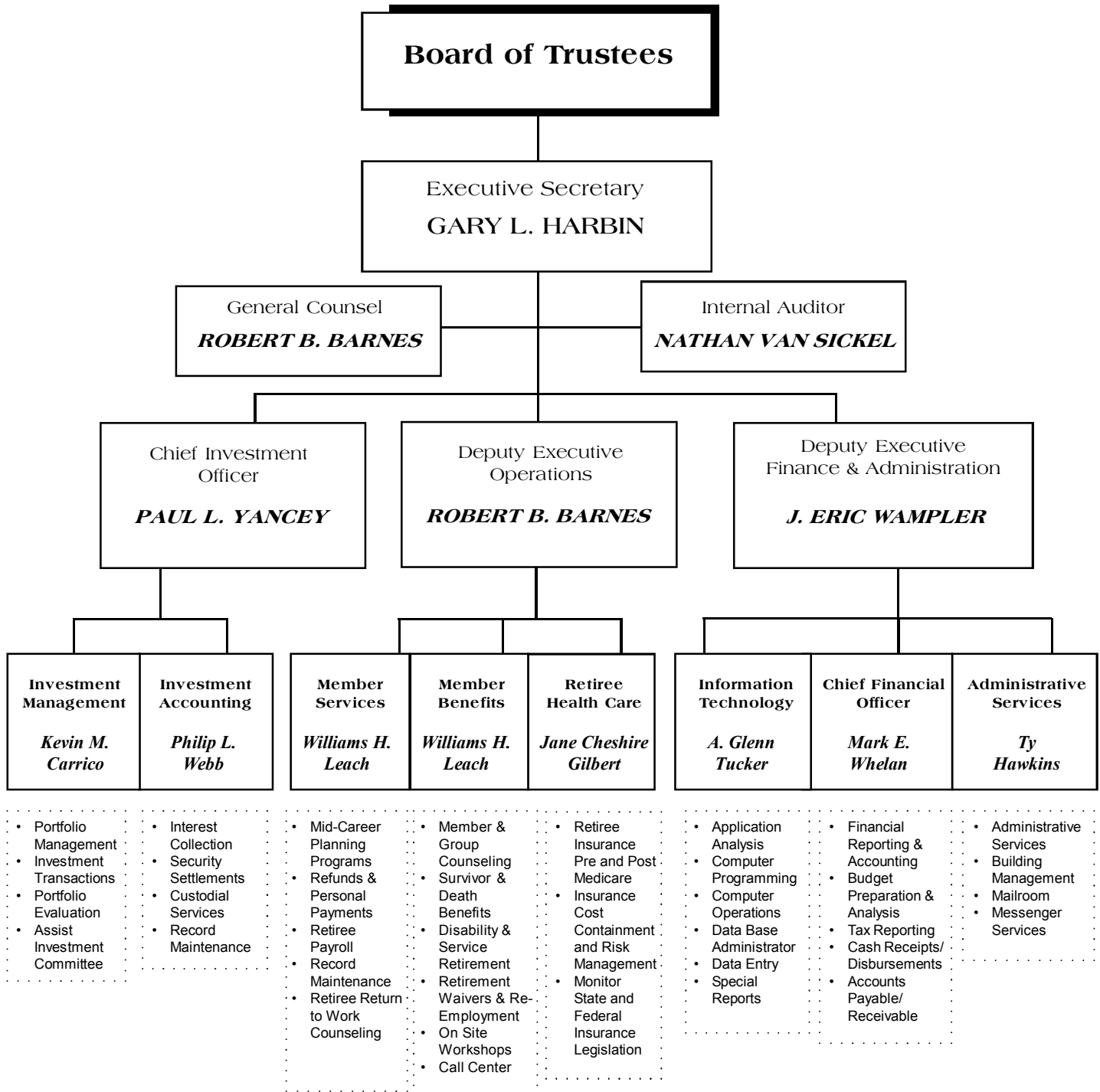
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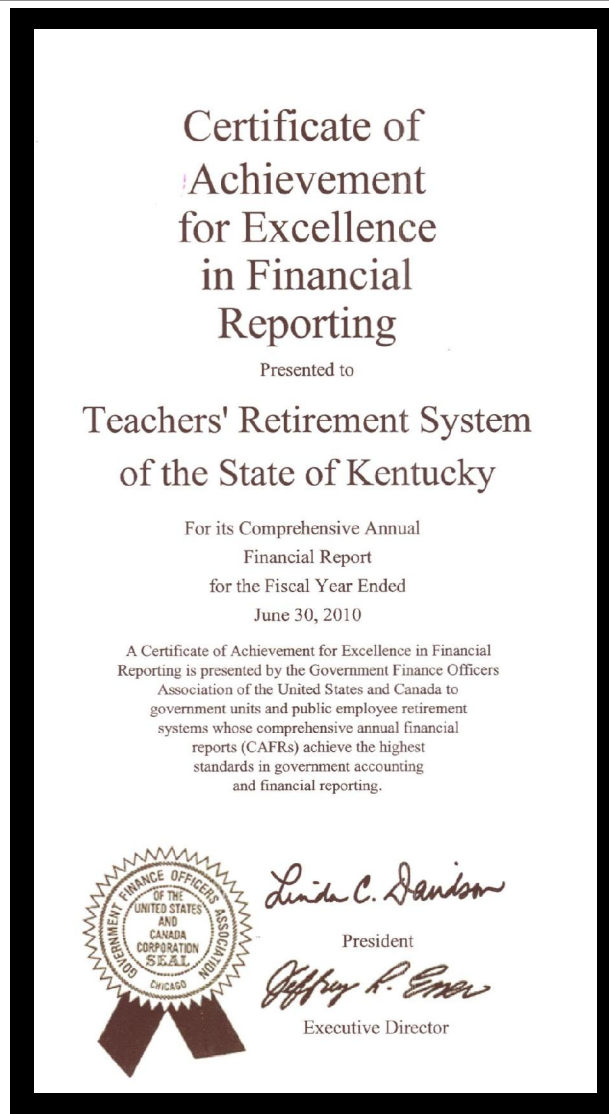
**AUDITOR**

Charles T. Mitchell, LLP  
229 West Main Street, Suite 103  
P.O. Box 698  
Frankfort, Kentucky 40601

*\* See page 74 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-three consecutive years (fiscal years ended 1988-2010).*





**Public Pension Coordinating Council  
Public Pension Standards  
2011 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 a vertical line to its right.

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 2011 for implementing and maintaining high professional standards in administering the affairs of the System. The award is based on compliance with principles judged to underlie exemplary retirement system achievements in the areas of benefits, actuarial valuation, financial reporting, investments and disclosure and are widely acknowledged to be marks of excellence for retirement systems. It represents the highest standards of excellence in the public pension industry.*

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# **Financial Section**

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for Fiscal Year ending June 30, 2011

# KENTUCKY TEACHERS' RETIREMENT SYSTEM



*William G. Johnson, Jr., C.P.A.*  
*James Clouse, C.P.A.*  
*Bernadette Smith, C.P.A.*  
*Kim Field, C.P.A.*  
*Greg Miklavcic, C.P.A.*  
*Don C. Giles, C.P.A., Consultant*

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

We have audited the accompanying statements of plan net assets of the Teachers' Retirement System of the State of Kentucky as of June 30, 2011 and 2010 and the related statements of changes in plan net assets for the years 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 audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits 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 significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide 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, at June 30, 2011 and 2010 and the changes in its plan net assets for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

In accordance with Government Auditing Standards, we have also issued our report dated December 16, 2011 on our consideration of the Teachers' Retirement System of the State of Kentucky's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants. 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 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 regarding the methods of preparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the 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.

The financial section supporting schedules listed in the table of contents are presented for the purpose of additional analysis and are not a required part of the financial statements. These schedules are the responsibility of the Teachers' Retirement System of Kentucky's management. Such schedules as of and for the year ended June 30, 2011 have been subjected to the auditing procedures applied in our audit of the financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

We did not audit the data included in the Introductory and Statistical sections of the report and therefore express no opinion on them.

*Charles T. Mitchell Co.*

Frankfort, Kentucky  
December 16, 2011

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## **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, 2011. 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, and the medical and life insurance plans, financial statements alone cannot provide sufficient information to properly reflect the ongoing perspective of the System. The Statement of 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 43-45) 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 43-45) 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, 2011, Kentucky Teachers' Retirement System's combined plan net assets increased by \$2,728.2 million - from \$12,786.7 million in 2010 to \$15,514.9 million in 2011. In 2009, combined net assets totaled \$11,830.2 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.

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## Summary of Plan Net Assets (In Millions)

Categories	Defined Benefit Plan			Medical Insurance Plan			Life Insurance Fund		
	2011	2010	2009	2011	2010	2009	2011	2010	2009
<b>Cash &amp; Investments</b>	\$ 15,192.9	\$ 12,513.9	\$11,591.9	\$492.2	\$ 237.1	\$ 225.0	\$ 87.4	\$ 87.1	\$ 89.0
<b>Receivables</b>	180.7	96.5	94.3	5.3	7.9	7.1	1.1	.9	.7
<b>Capital Assets</b>	<u>3.8</u>	<u>3.4</u>	<u>3.2</u>						
<b>Total Assets</b>	15,337.4	12,613.8	11,689.4	434.5	245.0	232.1	88.5	88.0	89.7
<b>Total Liabilities</b>	<u>(246.8)</u>	<u>(157.2)</u>	<u>(174.0)</u>	<u>39.7)</u>	<u>(3.8)</u>	<u>(3.0)</u>		<u>(0.1)</u>	<u>(5.0)</u>
<b>Plan Net Assets</b>	\$ 15,130.6	\$ 12,456.6	\$11,515.4	\$ 294.8	\$ 241.2	\$ 229.1	\$ 88.5	\$ 87.9	\$ 84.7

*TOTALS	2011	2010	2009
<b>Cash &amp; Investments</b>	\$ 15,709.5	\$ 12,838.1	\$ 11,905.9
<b>Receivables</b>	187.1	105.3	102.1
<b>Capital Assets</b>	<u>3.8</u>	<u>3.4</u>	<u>3.2</u>
<b>Total Assets</b>	15,900.4	12,946.8	12,011.2
<b>Total Liabilities</b>	<u>(386.5)</u>	<u>(161.1)</u>	<u>(182.0)</u>
<b>Plan Net Assets</b>	\$ 15,513.9	\$ 12,785.7	\$ 11,829.2

\* 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 2011, 2010 and 2009.

Plan net assets of the defined benefit retirement annuity plan increased by 21.5% (\$15,130.6 million compared to \$12,456.6 million) and in 2009, plan net assets of the defined benefit plan totaled \$11,515.4 million. The increase is primarily due to improvements in market conditions which resulted in a net investment income increase of \$1.25 billion more than 2010 which was \$3.5 billion more than 2009. 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 22.2% (\$294.8 million compared to \$241.2 million) primarily due to bond proceeds received for the state's portion of medical funding for the 2010-2012 biennium. This compares to 2009 where plan net assets of the medical insurance fund totaled \$229.1 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		
	2011	2010	2009	2011	2010	2009	2011	2010	2009
<b><u>ADDITIONS</u></b>									
Member Contributions	\$ 302.3	\$ 297.6	\$ 293.7	\$ 84.1	\$ 63.8	\$ 58.7	\$	\$	\$
Employer Contributions	1,037.9	479.8	442.5	188.3	158.8	164.4	1.7	1.9	5.4
Net Investment Income	2,761.0	1,509.8	(2,020.7)	8.3	12.3	11.3	3.1	5.4	5.3
Other Income				<u>0.5</u>	<u>14.6</u>	<u>13.7</u>			
<b>TOTAL ADDITIONS</b>	<u>4,101.2</u>	<u>2,287.2</u>	<u>(1,284.5)</u>	<u>281.2</u>	<u>249.5</u>	<u>248.1</u>	<u>4.8</u>	<u>7.3</u>	<u>10.7</u>
<b><u>DEDUCTIONS</u></b>									
Benefit Payments	1,402.6	1,321.8	1,252.9				4.2	4.1	3.7
Refunds	17.3	15.3	15.2						
Administrative Expense	7.3	8.8	8.2	1.2					
Insurance Expenses				<u>226.4</u>	<u>237.4</u>	<u>204.8</u>			
<b>TOTAL DEDUCTIONS</b>	<u>1,427.2</u>	<u>1,345.9</u>	<u>1,276.3</u>	<u>227.6</u>	<u>237.4</u>	<u>204.8</u>	<u>4.2</u>	<u>4.1</u>	<u>3.7</u>
<b>Increase (Decrease) in Plan Net Assets</b>	<b>\$ 2,674.0</b>	<b>\$ 941.3</b>	<b>\$ (2,560.8)</b>	<b>\$ 53.6</b>	<b>\$ 12.1</b>	<b>\$ 43.3</b>	<b>\$ 0.6</b>	<b>\$ 3.2</b>	<b>\$ 7.0</b>

TOTALS	2011	2010	2009
<b><u>ADDITIONS</u></b>			
Member Contributions	\$ 386.4	\$ 361.4	\$ 352.4
Employer Contributions	1,227.9	640.5	612.3
Net Investment Income	2,772.4	1,527.5	(2,004.1)
Other Income	<u>0.5</u>	<u>14.6</u>	<u>13.7</u>
<b>TOTAL ADDITIONS</b>	<u>4,387.2</u>	<u>2,544.0</u>	<u>(1,025.7)</u>
<b><u>DEDUCTIONS</u></b>			
Benefit Payments	1,406.8	1,325.9	1,256.6
Refunds	17.3	15.3	15.2
Administrative Expense	8.5	8.8	8.2
Insurance Expenses	<u>226.4</u>	<u>237.4</u>	<u>204.8</u>
<b>TOTAL DEDUCTIONS</b>	<u>1,659.0</u>	<u>1,587.4</u>	<u>1,484.8</u>
<b>Increase (Decrease) in Plan Net Assets</b>	<b>\$ 2,728.2</b>	<b>\$ 956.6</b>	<b>\$ (2,510.5)</b>

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

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## DEFINED BENEFIT RETIREMENT ANNUITY PLAN ACTIVITIES

Member contributions increased \$4.6 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 \$1,037.9 million, a net increase of \$558.1 million over the 2010 fiscal year, primarily due to bond proceeds received of \$465,384,165 to satisfy amounts in that were being amortized in the state budget. The employer contributions received in the 2010 fiscal year were \$37.3 million more than 2009 mainly due to an increase in the state appropriation due to increasing amortization payments.

The System experienced an increase in net investment income compared to the previous year (\$2,761 million at June 30, 2011 as compared to a \$1,509.8 million at June 30, 2010). For 2009, net investment income totaled a negative \$2,020.7 million. The increase in the fair value of investments is mainly due to favorable market conditions for the year ended June 30, 2011.

This can be illustrated as follows:

<u>(In Millions)</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Appreciation (depreciation) in fair value of investments – June 30, prior year	\$ (235.5)	\$ (1,336.2)	\$ 385.4
Appreciation (depreciation) in fair value of investments – June 30, end of year	<u>1,842.0</u>	<u>(235.5)</u>	<u>(1,336.2)</u>
Change in net appreciation (depreciation) in fair value of investments	2,077.5	1,100.7	(1,721.6)
Net income (net of investment expense)	362.3	341.3	373.1
Net gain on sale of investments	<u>321.2</u>	<u>67.8</u>	<u>(672.2)</u>
Investment Income (net) – June 30, end of year	\$ 2,761.0	\$ 1,509.8	\$(2,020.7)

Program deductions in 2011 increased \$81.2 million. The increase was caused principally by an increase of \$80.7 million in benefit payments. Members who were drawing benefits as of June 2010 received an increase of 1.5% to their retirement allowances in July 2010. Also, there was an increase of 1,285 members and beneficiaries on the retired payroll as of June 30, 2011.

## OTHER POST EMPLOYMENT BENEFIT ACTIVITIES

During the 2011 fiscal year, the medical insurance plan member contributions increased \$20.3 million and employer contributions increased by \$29.5 million over fiscal year 2010. The 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 state's contribution for the 2010-2012 biennium was made with bond proceeds received in March 2011.

Program deductions decreased \$9.8 million mainly due to a continued savings with the Medicare Advantage program and the implementation of both an insured Medicare Advantage Regional PPO and an insured Employer Group Waiver Prescription Drug Plan as of July 1, 2010.

Net investment income decreased \$4 million from \$12.3 million in 2010 to \$8.3 million in 2011 and in 2009, net investment income totaled \$11.3 million. This can be illustrated as follows:

<u>(In Millions)</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Appreciation in fair value of investments – June 30, prior year	\$ 0	\$ 0	\$ 0
Appreciation in fair value of investments – June 30 end of year	<u>0</u>	<u>0</u>	<u>0</u>
Net appreciation in fair value of investments	0	0	0
Net income (net of investment expense)	8.3	12.3	11.3
Net gain on sale of investments	<u>0</u>	<u>0</u>	<u>0</u>
Investment Income (net) – June 30	\$ 8.3	\$ 12.3	\$ 11.3

The life insurance plan has an actuarial valuation conducted independently from the defined benefit plan. Total life insurance benefits paid for 2011, 2010 and 2009 were \$4.2, \$4.1 and \$3.7 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 2011 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 declines 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 \$229,548,428 as of June 30, 2011.

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 \$1,110,938,699 as of June 30, 2011.



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## 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
NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:	<u>\$ 15,130,606,279</u>	<u>\$ 294,818,595</u>	<u>\$ 88,526,680</u>	<u>\$ 970,102</u>	<u>\$ 15,514,921,656</u>
<i>The accompanying notes are an integral part of these financial statements.</i>					

**Statement of Plan Net Assets**  
**As of June 30, 2010**

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
<b><u>ASSETS</u></b>					
Cash	\$ 2,497,492	\$	\$ 592,345	\$ 48,283	\$ 3,138,120
Prepaid Expenses	127,531	147,000			274,531
Receivables					
Contributions	38,343,995	3,055,730	32,225		41,431,950
State of Kentucky	71,937				71,937
Investment Income	57,550,193		895,791	7,514	58,453,498
Installment Account Receivable	530,191				530,191
Medicare D Receivables		4,838,295			4,838,295
Total Receivables	96,496,316	7,894,025	928,016	7,514	105,325,871
Investments at Fair Value (See Note 5)					
Short-Term Investments	64,445,908	237,013,895	5,400,000	518,475	307,378,278
Bonds and Mortgages	4,045,405,431		81,056,169	411,764	4,126,873,364
Equities	7,526,938,498				7,526,938,498
Alternative Investments	299,635,647				299,635,647
Real Estate	419,613,670				419,613,670
Total Investments	12,356,039,154	237,013,895	86,456,169	930,239	12,680,439,457
Invested Security Lending Collateral	155,226,862				155,226,862
Capital Assets, at cost net of accumulated depreciation of \$1,995,799 (See Note 2)	3,483,370				3,483,370
Total Assets	12,613,870,725	245,054,920	87,976,530	986,036	12,947,888,211
<b><u>LIABILITIES</u></b>					
Accounts Payable	1,124,143		71,937		1,196,080
Insurance Claims Payable		3,831,080			3,831,080
Investment Purchases Payable	900,638				900,638
Obligations Under Securities Lending	155,226,862				155,226,862
Total Liabilities	157,251,643	3,831,080	71,937	0	161,154,660
NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:	\$ 12,456,619,082	\$ 241,223,840	\$ 87,904,593	\$ 986,036	\$ 12,786,733,551
<i>The accompanying notes are an integral part of these financial statements.</i>					

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## 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><u>ADDITIONS</u></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><u>DEDUCTIONS</u></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
NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:					
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
<i>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, 2010**

	Defined Benefit Plan	Medical Insurance Plan	Life Insurance Plan	Other Funds	TOTAL
<b><u>ADDITIONS</u></b>					
Contributions					
Employer	\$ 479,805,088	\$ 158,761,433	\$ 1,966,826	\$ 60,000	\$ 640,593,347
Member	297,613,965	63,805,573			361,419,538
Total Contributions	777,419,053	222,567,006	1,966,826	60,000	1,002,012,885
Other Income					
Recovery Income		4,063			4,063
Medicare D Receipts		14,614,285			14,614,285
Total Other Income		14,618,348			14,618,348
Investment Income					
Net Appreciation/(Depreciation) in FV of Investments	1,168,500,111		1,943,464	(14,800)	1,170,428,775
Interest	194,088,206	12,312,999	3,440,180	28,128	209,869,513
Dividends	133,351,529				133,351,529
Rental Income, Net	30,968,132				30,968,132
Securities Lending, Gross Earnings	1,549,318				1,549,318
Gross Investment Income	1,528,457,296	12,312,999	5,383,644	13,328	1,546,167,267
Less Investment Expense	(18,206,407)				(18,206,407)
Less Securities Lending Expense	(465,508)				(465,508)
Net Investment Income	1,509,785,381	12,312,999	5,383,644	13,328	1,527,495,352
Total Additions	2,287,204,434	249,498,353	7,350,470	73,328	2,544,126,585
<b><u>DEDUCTIONS</u></b>					
Benefits	1,321,808,770		4,148,511	81,076	1,326,038,357
Refunds of Contributions	15,310,680				15,310,680
Insurance Expenses		237,377,528			237,377,528
Administrative Expense	8,830,054				8,830,054
Total Deductions	1,345,949,504	237,377,528	4,148,511	81,076	1,587,556,619
Net Increase (Decrease)	941,254,930	12,120,825	3,201,959	(7,748)	956,569,966
NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:					
Beginning of year	11,515,364,152	229,103,015	84,702,634	993,784	11,830,163,585
Ending of year	\$ 12,456,619,082	\$ 241,223,840	\$ 87,904,593	\$ 986,036	\$ 12,786,733,551
<i>The accompanying notes are an integral part of these financial statements.</i>					

**Notes to Financial Statements**  
**Years Ended June 30, 2011 and 2010****Note 1: Description of Retirement Annuity Plan****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, 2011 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:

	<u><b>2011</b></u>	<u><b>2010</b></u>
Active contributing members:		
Vested	47,945	47,083
Non-vested	28,404	29,304
Inactive members, vested	6,135	5,637
Retirees and beneficiaries currently receiving benefits	<u>44,419</u>	<u>43,134</u>
Total members, retirees, and beneficiaries	<u><b>126,903</b></u>	<u><b>125,158</b></u>

**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%)

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

of their final average salary for each year of credited service. The final average salary is the member's five (5) highest annual salaries except members at least 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 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.

<b>Note 2: Summary of Significant Accounting Policies</b>
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**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, 2011, the retirement annuity cash account totaled (\$1,388,743). The administrative expense fund cash account was \$3,403,074 and the medical insurance cash account totaled \$175,762. The life insurance plan cash account totaled \$385,672 and the excess benefit fund cash account contained \$65,108. Therefore, the carrying value of cash was \$2,640,873 and the corresponding bank balance was \$6,619,860. The variance is primarily due to outstanding checks and items not processed by the bank on June 30, 2011.

**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 to seven years. The office buildings are depreciated over forty years. Internally created software for the Pathway capital project is capitalized and amortized over five 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

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

security exchanges and securities pricing services. Real estate is primarily valued based on appraisals performed by independent appraisers.

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, 2011 and 2010 accrued compensated absences were \$830,349 and \$756,747.

#### **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, 2011 and 2010 installment contract receivables were \$431,187 and \$530,191.

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 \$726,672 for the 2011 fiscal year. The remaining amount is a receivable from a drug settlement in a civil case.

#### **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. RECLASSIFICATIONS**

Certain 2010 amounts have been reclassified in conformity with the 2011 presentation.

<b>Note 3: Contributions and Reserves</b>
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**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 10.105% of their salaries to the System; university members are required to contribute 8.545% of their salaries. KRS 161.565 allows each university to reduce the contribution of its members by 2.215%; therefore, university members contribute 6.33% of their salary to KTRS. Members who joined the plan on and after July 2008 are required to contribute an additional .75% 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 (1.00% 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 .25% of members' salaries and the state contributes the net cost of health insurance premiums for new retirees after June 30, 2010 in the non-Medicare eligible group.

If a member leaves covered employment before accumulating five (5) years of credited service, accumulated member contributions to the retirement annuity plan plus interest are refunded upon the member's request.

**B. 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



## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

the retired members' contributions until they are exhausted, at which time state matching contributions are used to pay the benefits. After an individual member's contributions and the state matching contributions have been exhausted, retirement benefits are paid from monies transferred from 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:

(Dollar amount in 1,000's)

Valuation Year June 30	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]
2011	\$ 14,908,138	\$ 25,968,692	\$ 11,060,554	57.4%	\$ 3,451,756	320.4%

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, 2010	\$ 14,386,329,749
(2) Market Value End of Year June 30, 2011	15,130,606,279
(3) Market Value Beginning of Year June 30, 2010	12,456,619,082
(4) Cash Flow	
a. Contributions	874,814,647
(exclusive of Pension Obligation Bond)	
b. Benefit Payments	(1,419,861,100)
c. Administrative Expenses	(7,322,739)
d. Net	(552,369,192)
e. Pension Obligation Bond	465,384,165
(5) Investment Income	
a. Market total: (2) - (3) - (4)d - (4)e	2,760,972,224
b. Assumed Rate	7.5%
c. Amount for Immediate Recognition:	
$[(3) \times (5)b] + [(4)d * (5)b * 0.5] + [(4)e * (5)b * 10/12]$	942,619,097
d. Amount for Phased-In Recognition: (5)a - (5)c	1,818,353,127
(6) Phased-In Recognition of Investment Income	
a. Current Year: $0.20 \times (5)d$	363,670,625
b. First Prior Year	133,378,916
c. Second Prior Year	(611,235,941)
d. Third Prior Year	(409,879,449)
e. Fourth Prior Year	190,240,386
f. Total Recognized Investment Gain	(333,825,463)
(7) Actuarial Value End of Year	
(1) + (4)d + (4)e + (5)c + (6)f	14,908,138,356
(8) Difference Between Market & Actuarial Values: (2) - (7)	\$ 222,467,923

*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, 2011, 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%

<p><b>Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements)</b></p>
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## 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 bank's total balance at June 30, 2011 was \$6,619,860. An amount of \$3,403,074 represents funds held in the bank but their investment is controlled by the Commonwealth of Kentucky. There were various outstanding checks and vouchers totaling a \$1,791,228 balance reduction while the amount of \$3,216,786 was the amount invested in cash equivalents. Cash equivalents are created through the daily sweeps of available excess cash by the retirement system's custodial bank into bank sponsored short-term investment funds. These funds are custodial bank sponsored commingled funds which are invested in short-term securities backed by the U.S. Government and its agencies. The actual cash deposits held in bank accounts are currently insured up to \$250,000 as covered by federal depository insurance and uncollateralized until being invested in cash equivalents.

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, 2011, the retirement system's cash equivalents in the amount of \$3,216,786 were not exposed to custodial credit risk since this amount was invested by the custodial bank and collateralized at 102% with the collateral pledged to the Treasurer of the Commonwealth of Kentucky.

# 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. 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, 2011.

<b>Schedule of Investments</b>		
	<b>Market Value June 30, 2011</b>	<b>Market Value June 30, 2010</b>
<b>Short-Term Investments</b>		
Repurchase Agreements	\$ 58,200,000	\$ 304,700,000
STIF (BNYM)	674,203,417	2,678,278
<b>Total Short-Term Investments</b>	<b>732,403,417</b>	<b>307,378,278</b>
<b>Bonds and Mortgages</b>		
U.S. Government	614,166,764	678,247,718
Agency Bonds	354,226,324	337,019,558
Mortgage-Backed Securities	243,091,496	297,733,549
Collateralized Mortgage Obligations	90,802,918	116,575,407
Asset Backed Securities	52,940,222	37,860,172
Commercial Mortgage-Backed Securities	346,576,905	239,293,225
Municipal Bonds	509,893,503	484,588,328
Corporate Bonds	1,807,576,426	1,935,555,407
<b>Total Bonds and Mortgages</b>	<b>4,019,274,558</b>	<b>4,126,873,364</b>
<b>Equities</b>		
Global	150,698,032	-
International Equity	2,417,879,386	1,769,557,930
U. S. Equity	7,170,669,948	5,757,380,568
<b>Total Equities</b>	<b>9,739,247,366</b>	<b>7,526,938,498</b>
<b>Real Estate</b>		
Real Estate Equity	480,447,237	419,613,670
<b>Total Real Estate</b>	<b>480,447,237</b>	<b>419,613,670</b>
<b>Alternative Investments</b>		
Additional Categories	207,077,927	80,295,627
Private Equity	189,131,442	110,757,811
Timberland	180,318,434	108,582,209
<b>Total Alternative Investments</b>	<b>576,527,803</b>	<b>299,635,647</b>
<b>TOTAL INVESTMENTS</b>	<b>\$ 15,547,900,381</b>	<b>\$ 12,680,439,457</b>

*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 maintained in high quality short term investments. Commercial paper, U.S. Treasury and agency obligations, certificates of deposit, banker's acceptances, and repurchase agreements are all permissible investments. The retirement system utilized investment instruments it regards as the most secure and having the best returns and does not use short term investments that finance foreign businesses unless they are issued and guaranteed by the United States Government.

Individual repurchase agreements are ordered by KTRS under the terms of Master Repurchase Agreements with various brokers under terms 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, 2011, 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 \$159,808,327 related to \$156,075,131 securities lent. This is consistent with the KTRS's securities 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 negative impact that changes in interest rates can have on fair value.

As of June 30, 2011 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</u></b> <b><u>(years)</u></b>
U.S. Government	\$ 614,166,764	10.42
Agency	354,226,324	7.44
MBS	243,091,496	12.42
CMO	90,802,918	20.44
ABS	52,940,222	16.32
CMBS	346,576,905	28.97
Muni	509,893,503	13.64
Corporate	1,807,576,426	8.58
<b>Totals</b>	<b>\$ 4,019,274,558</b>	<b>11.76</b>
*This schedule includes \$243,806,044 of fixed income securities classified as additional investments		

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

In addition to the above securities, Repurchase Agreements (short-term investments) and STIF held at the Bank of New York Mellon had a total fair value of \$732,403,417 and had a weighted average maturity of next day. 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. It is widely used in the management of fixed income portfolios by quantifying 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 \$243.1 million in mortgage-backed securities as of June 30, 2011.

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 \$90.8 million in collateralized mortgage obligations as of June 30, 2011.

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 \$52.9 million, held by the retirement system as of June 30, 2011, 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 \$346.6 million in commercial mortgage-backed securities investments as of June 30, 2011.

*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, 2011:

<u>RATING</u>	<u>FAIR VALUE</u>	<u>%</u>
U.S. Government	\$ 614,166,764	15.3
AAA	1,234,366,008	30.7
AA	494,546,589	12.3
A	826,786,400	20.6
BBB	537,734,933	13.4
BB	130,730,057	3.2
B	176,109,302	4.4
<u>CCC</u>	<u>4,834,505</u>	<u>0.1</u>
Total	<u>\$ 4,019,274,558</u>	<u>100.0%</u>

Total market value of the fixed income portfolio was \$4,019,274,558 on June 30, 2011. 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 \$732,403,417 in Cash Equivalents or short term investments. The credit risk associated with these Cash Equivalents is very minimal as the general rating of these securities is higher than AAA. 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 (2.5%) percent 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

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*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**

As of June 30, 2011, the retirement system's exposure to foreign currency risk consisted of \$1,657,656,979 of foreign equity investments through commingled funds managed by UBS Global Asset Management, Baillie Gifford, Baring Asset Management, and Black Rock as follows:

UBS International Collective	\$ 667,852,908
Baillie Gifford	504,036,473
Baring Asset Management	401,567,223
Black Rock	84,200,375
<b>Total</b>	<b><u><u>\$ 1,657,656,979</u></u></b>

These amounts represent the market values of equities held by the retirement system as a result of cash contributions to each portfolio manager by KTRS.

In addition to the commingled funds investing in foreign securities, retirement annuity trust fund held \$844,422,782 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.

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, 2011, 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, 2011:

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

<b>Item</b>	<b>Earnings</b>
Gross Earnings (Interest and fees)	\$ 284,495
Gross Borrower Rebates	2,162,686
Bank Fees	(734,034)
Net Earnings	<u><u>\$ 1,713,147</u></u>

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, 2011 the loan average days to maturity in the retirement annuity trust fund was one (1) day and the weighted average investment maturity of cash collateral investments was one (1) day. At fiscal year end, the retirement annuity trust fund had no credit risk exposure to borrowers, since the amounts the retirement annuity trust fund owes the borrowers exceeds the amounts the borrowers owe the retirement annuity trust fund and there were no losses resulting during the period.

Security lending programs can entail interest rate risk and credit risk. The 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, 2011:

<b><u>Type of Security Lent</u></b>	<b><u>Fair Value</u></b>	<b><u>Cash Collateral Received Non-cash Collateral Value*</u></b>
U.S. Equities	<u><u>\$ 156,075,131</u></u>	<u><u>\$ 159,808,327</u></u>

*\*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 2011, 2010 and 2009 were \$469,896, \$476,918 and \$456,258 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 2011, 2010, and 2009 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 2011, 2010 and 2009 were 16.98%, 11.61% and 10.01% and the System's annual required contributions to KERS were \$241,899, \$174,203 and \$182,399 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, 2011, the seventeen members who are receiving annuities will continue to receive distributions according to the terms of their respective elections.

*Note 7: Other Funds continued . . .*

**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.

<p><b>Note 8: Medical Insurance Plan &amp; Post-Employment Benefits</b></p>
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**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

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

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. KTRS bears the risk for actual drug claims cost in the Medicare Eligible Health Plan through June 30, 2011.

At June 30, 2011, KTRS insurance covered 35,033 retirees and 6,922 dependents. There are 208 participating employers and 76,349 active members contributing to the medical plan.

### **B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

#### **Basis of Accounting**

The 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 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:

(Dollar amount in 1,000's):

Valuation Year June 30	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]
2011	\$ 294,819	\$ 3,423,149	\$ 3,128,330	8.6%	\$ 3,451,756	90.6%

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Year Ended June 30, 2011

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

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, 2011 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)	10.50% - 5.0%
Medical Trend Assumption (Post-Medicare)	8.50% - 5.0%
Year of Ultimate Pre-Medicare trend rate	2019

**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, 2011 and 2010.

	2011	2010
Beginning Unpaid Claims Liability	\$ 3,827,483	\$ 2,969,754
Current Year Claims and Changes in Estimates	177,509,547	233,703,094
Claims Payments	(180,934,030)	(232,845,365)
Ending Unpaid Claims Liability	<u>\$ 403,000</u>	<u>\$ 3,827,483</u>

**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 fiscal years 2011 and 2010, this rate has been .05% and .06% of active members' payroll, respectively.

**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:

(Dollar amounts in 1,000's)

Valuation Year June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liabilities (b)	Unfunded Actuarial Accrued Liabilities (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll [(b-a)/c]
2011	\$ 88,527	\$ 88,088	\$ (439)	100.5%	\$ 3,451,756	(0.01%)

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, 2011 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 amounts in millions)

VALUATION YEAR JUNE 30	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES	UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	<b>a</b>	<b>b</b>	<b>(b-a)</b>	<b>(a/b)</b>	<b>c</b>	<b>[(b-a)/c]</b>
2006	\$ 14,857.6	\$ 20,324.7	\$ 5,467.1	73.1%	\$ 2,859.5	191.2%
2007	15,285.0	21,255.0	5,970.0	71.9	2,975.3	200.7
2008	15,321.3	22,460.3	7,139.0	68.2	3,190.3	223.8
2009	14,885.9	23,400.3	8,514.4	63.6	3,253.1	261.7
2010	14,851.3	24,344.3	9,493.0	61.0	3,321.6	285.8
2011	14,908.1	25,968.7	11,060.6	57.4	3,451.8	320.4

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 JUNE 30	ANNUAL REQUIRED CONTRIBUTIONS	PERCENTAGE CONTRIBUTED
2006	\$ 464,152,466	87%
2007	494,565,369	88
2008	563,789,483	83
2009	600,282,735	74
2010	633,938,088	76
2011	678,741,428	153



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

Required Supplementary Information continued . . .

## Medical Insurance Plan Schedule of Funding Progress (dollar amounts in millions)

VALUATION YEAR JUNE 30	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]
2006	\$ 131.6	\$ 4,341.9	\$ 4,210.3	3.0%	\$ 2,859.5	147.2%
2007	140.8	5,928.8	5,788.0	2.4	2,975.3	194.5
2008	185.9	6,434.5	6,248.6	2.9	3,190.3	195.9
2009	229.1	6,454.7	6,225.6	3.5	3,253.1	191.4
2010	241.2	3,206.8	2,965.6	7.5	3,321.6	89.3
2011	294.8	3,423.1	3,128.3	8.6	3,451.8	90.6

*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 JUNE 30	ANNUAL REQUIRED CONTRIBUTION (ARC)	ACTUAL EMPLOYER CONTRIBUTION	RETIREE DRUG SUBSIDY CONTRIBUTION	TOTAL CONTRIBUTION	PERCENTAGE OF ARC CONTRIBUTED
	(a)	(b)	(c)	(b) + (c)	[(b) + (c)/(a)]
2007	\$ 231,473,321	\$ 113,258,761	\$ 10,312,361	\$ 123,571,122	53.4%
2008	395,282,164	148,954,644	11,911,565	160,866,209	40.7
2009	467,312,904	164,480,119	13,611,748	178,091,867	38.1
2010	457,054,117	158,765,496	14,614,285	173,379,781	37.9
2011	477,723,070	188,453,929	280,585	188,734,514	39.5

*Only five years of actuarial calculations of annual required contributions are available.*

Required Supplementary Information continued . . .

<b>Life Insurance Plan</b> <b>Schedule of Funding Progress</b> <i>(dollar amounts in thousands)</i>						
VALUATION YEAR JUNE 30	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES	UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	<b>a</b>	<b>b</b>	<b>(b-a)</b>	<b>(a/b)</b>	<b>c</b>	<b>[(b-a)/c]</b>
2007	\$ 71,426	\$ 82,722	\$ 11,296	86.3%	\$ 2,975,289	0.38%
2008	77,658	84,265	6,607	92.2	3,190,332	0.21
2009	84,703	90,334	5,631	93.8	3,253,077	0.17
2010	87,905	92,091	4,186	95.5	3,321,614	0.13
2011	88,527	88,088	(439)	100.5	3,451,756	(0.01)

*The amounts reported in this schedule of funding progress do not include assets or liabilities for the defined benefit or medical insurance plans, nor are the assets and liabilities of the tax-sheltered annuity plan included. Only five years of actuarial calculations of annual required contributions are available.*

<b>Life Insurance Plan</b> <b>Schedule of Employer Contributions</b>			
FISCAL YEAR ENDED JUNE 30	ANNUAL REQUIRED CONTRIBUTIONS (ARC)	ACTUAL EMPLOYER CONTRIBUTIONS	PERCENTAGE OF ARC CONTRIBUTED
2007	\$ 1,785,173	\$ 5,022,137	281.3 %
2008	1,914,199	5,411,249	282.7
2009	1,498,076	5,455,473	364.2
2010	1,992,969	1,966,826	98.7
2011	1,725,878	1,668,822	96.7

*Only five years of actuarial calculations of annual required contributions are available.*

**Required Supporting Schedules**

**Supporting Schedule 1**  
**Schedule of Administrative Expenses**  
**Year Ended June 30, 2011**

Salaries	\$ 5,866,495
Other Personnel Costs	690,802
Professional Services & Contracts	372,240
Utilities	88,425
Rentals	18,197
Maintenance	110,393
Postage & Related Services	397,574
Printing	163,398
Insurance	127,748
Miscellaneous Services	126,164
Telecommunications	30,653
Computer Services	117,577
Supplies	52,418
Depreciation	105,709
Travel	46,935
Dues & Subscriptions	34,550
Miscellaneous Commodities	11,780
Furniture, Fixtures, & Equipment not Capitalized	96,064
Compensated Absences	73,602
<b>TOTAL ADMINISTRATIVE EXPENSES</b>	<b>\$ 8,530,724</b>

**Supporting Schedule 2**  
**Schedule of Professional Fees for Year Ended June 30, 2011**

<b>PROFESSIONAL</b>	<b>NATURE OF SERVICE</b>	
Cavanaugh Macdonald Consulting	Actuarial Services	\$ 137,311
Charles T. Mitchell Company	Auditing Services	30,600
Farmers Bank	Bank Services	17,169
International Claim Specialist	Investigative Services	2,754
Ice Miller	Attorney Services	84,956
Reinhart, Boerner VanDeuren	Attorney Services	14,595
Stoll Keenon Ogden	Attorney Services	54,428
Schottenstein, Zox & Dunn	Attorney Services	427
Peritus	Communications	30,000
<b>TOTAL</b>		<b>\$ 372,240</b>

*Required Supporting Schedules continued . . .*

**Supporting Schedule 3**  
**Schedule of Contracted Investment Management**  
**Expenses and Miscellaneous Expenses**  
**Year Ended June 30, 2011**

	Pension	Medical	TOTAL
<b>EQUITY MANAGERS</b>			
Baillie Gifford	\$ 1,962,864	\$	\$
Baring Asset Management, Inc.	1,918,420		
Black Rock		28,617	
GE Asset Management	800,000		
Todd-Veredus Asset Management LLC	1,247,781		
UBS Global Asset Management	2,736,299		
Wellington Management Company	2,647,162		
<b>Total Equity Managers</b>	11,312,526	28,617	11,341,143
<b>FIXED INCOME MANAGERS</b>			
Fort Washington Investment Advisors	689,159	25,016	
Galliard Capital Management	344,229		
<b>Total Fixed Income Managers</b>	1,033,388	25,016	1,058,404
<b>REAL ESTATE</b>	899,445		899,445
<b>ALTERNATIVE INVESTMENTS</b>	7,455,007		7,455,007
<b>CUSTODIAN</b>			
The Bank of New York Mellon	330,773		330,773
<b>CONSULTANT</b>			
Hewitt Enis Knupp, Inc.	359,343		359,343
<b>LEGAL &amp; RESEARCH</b>			
Schottenstein, Zox & Dunn	74,956	7,445	
Investment Advisors	80,000		
<b>Total Legal &amp; Research</b>	154,956	7,445	162,401
<b>OTHER</b>			
Subscription/Services	615,252		615,252
<b>TOTAL CONTRACTED INVESTMENT MANAGEMENT EXPENSES</b>	<b>\$ 22,160,690</b>	<b>\$ 61,078</b>	<b>\$ 22,221,768</b>

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

Required Supporting Schedules continued . . .

## Supporting Schedule 4 Combining Statement of Plan Net Assets - Other Funds As of June 30, 2011

	403(b) TAX SHELTERED	SUPPLEMENTAL BENEFIT FUND	LOSEY SCHOLARSHIP	TOTAL
<b>ASSETS</b>				
Cash	\$	\$ 65,108	\$	\$ 65,108
Receivables				
Investment Income			1,149	1,149
Investments at Fair Value				
Short-Term Investments	423,376		275,602	698,978
Bonds and Mortgages			205,312	205,312
Total Investments	<u>423,376</u>	<u></u>	<u>480,914</u>	<u>904,290</u>
Total Assets	423,376	65,108	482,063	970,547
<b>LIABILITIES</b>				
Due to Other Trust Funds	<u>130</u>	<u>225</u>	<u>90</u>	<u>445</u>
Net Assets Held In Trust For Pension And Other Benefits	<u>\$ 423,246</u>	<u>\$ 64,883</u>	<u>\$ 481,973</u>	<u>\$ 970,102</u>

*Required Supporting Schedules continued . . .*

**Supporting Schedule 5**  
**Combining Statement of Changes in Plan Net Assets - Other Funds**  
**For the Year Ended June 30, 2011**

	403(b) TAX SHELTERED	SUPPLEMENTAL BENEFIT FUND	LOSEY SCHOLARSHIP	TOTAL
<b>ADDITIONS</b>				
Contributions				
Employer	\$	\$ 60,000	\$	\$ 60,000
Investment Income				
Net Appreciation/(Depreciation) in Fair Value of Investments			(5,937)	(5,937)
Interest	<u>293</u>	<u>          </u>	<u>15,333</u>	<u>15,626</u>
Net Investment Income	293		9,396	9,689
Total Additions	293	60,000	9,396	69,689
<b>DEDUCTIONS</b>				
Benefits	25,003	43,175	17,000	85,178
Administrative Expense	<u>130</u>	<u>225</u>	<u>90</u>	<u>445</u>
Total Additions	25,133	43,400	17,090	85,623
Net Increase (Decrease)	(24,840)	16,600	(7,694)	(15,934)
<b>Net Assets Held In Trust For Pension And Other Benefits</b>				
Beginning of Year	<u>448,086</u>	<u>48,283</u>	<u>489,667</u>	<u>986,036</u>
End of Year	<u>\$ 423,246</u>	<u>\$ 64,883</u>	<u>\$ 481,973</u>	<u>\$ 970,102</u>



William G. Johnson, Jr., C.P.A.  
James Clouse, C.P.A.  
Bernadette Smith, C.P.A.  
Kim Field, C.P.A.  
Greg Miklavcic, C.P.A.  
Don C. Giles, C.P.A., Consultant

**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**

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

We have audited the financial statements of the Teachers' Retirement System of the State of Kentucky, a component unit of the Commonwealth of Kentucky, as of and for the year ended June 30, 2011, and have issued our report thereon dated December 16, 2011. 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**

In planning and performing our audit, we considered 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 misstatements on a timely basis. A material weakness is a deficiency, or 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 would not necessarily identify all deficiencies in internal control that might be 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 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 and the Commonwealth of Kentucky and is not intended to be and should not be used by anyone other than these specified parties.

*Charles T. Mitchell Co.*

Frankfort, Kentucky  
December 16, 2011

229 West Main Street, Suite 103, Frankfort, Kentucky 40601 | P.O. Box 698, Frankfort, Kentucky 40602-0698  
(502) 227-7395 | Fax (502) 227-8005 | [www.ctmcpa.com](http://www.ctmcpa.com)

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# **Investment Section**

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for Fiscal Year ending June 30, 2011



## 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

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## INVESTMENT COMMITTEE

**Mr. Robert M. Conley**  
Chair

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

**Ms. Barbara G. Sterrett**  
Member

**Dr. Jay Morgan**  
*(Resigned effective  
December 31, 2010)*  
Member

**Dr. Tom Shelton**  
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 1, 2011

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

The retirement system's investment program had a successful year in an environment where financial markets and economies throughout the developed world continued to grapple with the aftermath of the Great Recession and structural economic imbalances. From late summer 2010 until early 2011, markets steadily rallied until Middle East unrest and rising oil prices reintroduced substantial volatility. It was clear by late spring 2011 that the Eurozone debt crisis was deepening and that economic growth was slowing sharply in the U.S. and Europe. As of June 30, 2011, the inflation-adjusted gross domestic product in the U.S. had grown a disappointing 1.6% over the previous year and the unemployment rate stood at 9.2%.

Despite the unsettled environment, the retirement annuity trust fund portfolio returned 21.6% in the fiscal year, beating the benchmark Policy Index return of 20.9%. Equities, which represented 63.5% of assets as of June 30, 2011, were the strongest contributor to those results. Domestic equities returned 32.5% versus 31.7% for the S&P 1500 Index. International equities returned 31.4% versus 30.3% for the MSCI All Country World (ex-U.S.) Index. Fixed income returned 4.8% versus 3.7% for the Barclays Government/Credit Index.

Less traditional asset classes, such as real estate, private equity, and other categories approved by the Board of Trustees represented 8.5% of assets by fiscal year-end and contributed to investment returns despite their still-modest relative balances. Investments in the U.S. Treasury's Public-Private Investment Program returned 27.8% for the fiscal year. Investments in private equity returned 24.1%.

The retirement system's investment program remains alert to a complex and evolving global economic and financial environment and its inherent opportunities and risks. Over the fiscal year, the retirement system committed \$100 million to a distressed debt fund, \$100 million to a multi-sector opportunistic credit mandate, and \$50 million to an opportunistic real estate fund. The retirement system continues to evaluate its asset allocation in order to prudently fund its commitments in a changing investment landscape.

Following critical legislation passed in the previous fiscal year, funding began on a new health insurance trust fund. By June 30, 2011, that Fund had \$379 million in assets and is expected to grow rapidly in the years to come. The pre-funding of retiree medical benefits represents an important step for the retirement system's members. The funding mechanism established by law and investment earnings on those assets will better protect those benefits and provide them at a lower cost to the Commonwealth.

The retirement system has a long and consistent record of strong investment performance. These results have been the product of a sound fundamental investment philosophy and a high degree of professionalism. Continued commitment to those values and to the retirement system's long-term focus on funding its obligations to its members should ensure continued success.

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

Respectfully,

Patrick J. Kelly, CFA  
Principal

**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.

## 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 retirement system. This broad summary is a reference point for management of the retirement system's 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%; while the health insurance trust fund's long term investment objective is 8.0%.

## 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 retirement 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 system's asset allocations by market value as of June 30, 2011, and June 30, 2010, as well as the target and strategic range for each asset class for fiscal year 2011.

**Retirement Annuity Trust\***

	<u>June 30, 2011</u>	<u>%</u>	<u>June 30, 2010</u>	<u>%</u>
Cash Equivalents**	\$ 352,707,345	2.4	\$ 218,429,317	1.7
Fixed Income ***	3,856,183,434	25.6	3,933,016,478	31.1
Domestic Equities	7,356,796,262	48.4	5,872,001,227	46.3
International Equities	2,294,036,935	15.1	1,703,159,180	13.4
Real Estate	480,447,237	3.1	419,613,671	3.3
Private Equity	189,131,441	1.2	110,757,811	0.9
Timberland	180,318,434	1.2	108,582,209	0.8
Additional Categories	457,628,442	3.0	312,947,084	2.5
Totals	<u>\$ 15,167,249,530</u>	<u>100.0</u>	<u>\$ 12,678,506,977</u>	<u>100.0</u>

\* Includes Life Insurance Trust values.

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

\*\*\* Excludes purchased interest of \$779,260 as of June 30, 2011. Also, excludes purchased interest of \$1,450,327 as of June 30, 2010.

**Health Insurance Trust**

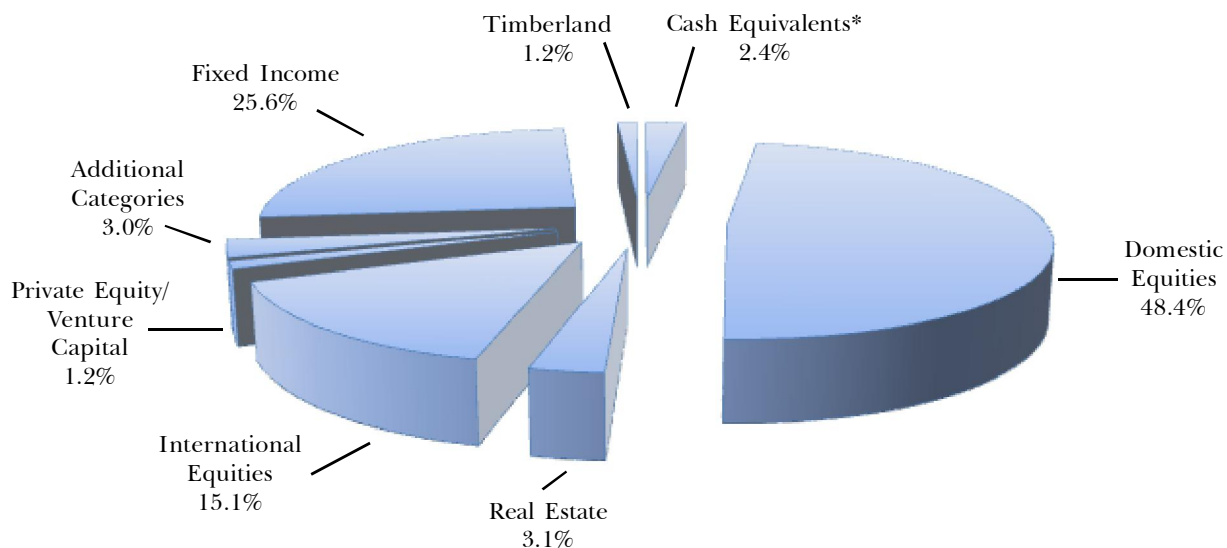
	<u>June 30, 2011</u>	<u>%</u>	<u>June 30, 2010</u>	<u>%</u>
Cash Equivalents *	\$ 63,546,353	16.8	\$ -0-	0.0
Fixed Income **	164,924,873	43.5	-0-	0.0
Global Equities	150,698,032	39.7	-0-	0.0
Totals	<u>\$ 379,169,258</u>	<u>100.0</u>	<u>\$ -0-</u>	<u>0.0</u>

\* 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.

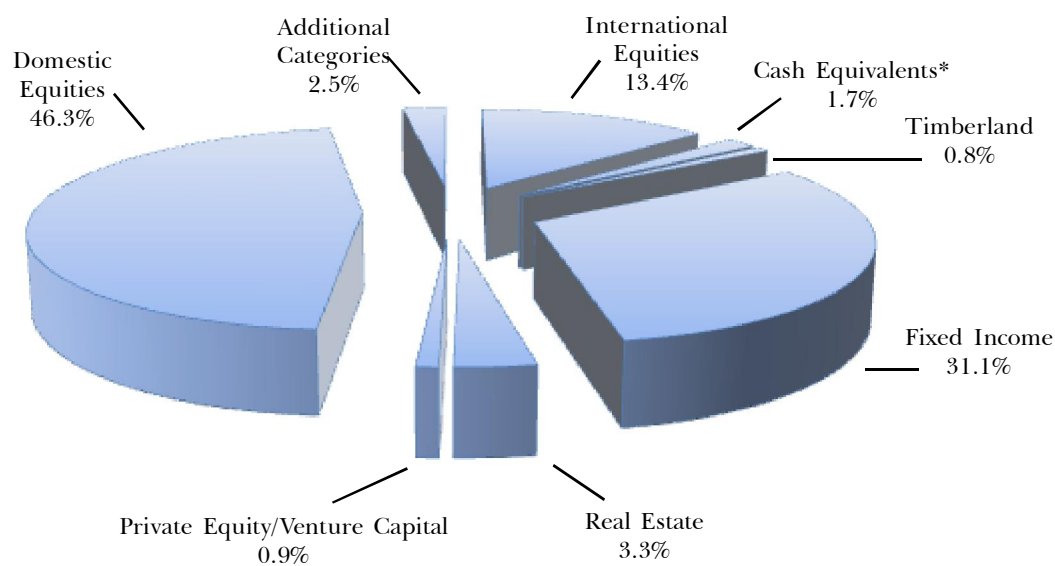
\*\* Excludes purchased interest of \$221,418 as of June 30, 2011.

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

**June 30, 2011**



**June 30, 2010**



\* 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)	6/30/2011 (Mkt)
Cash		1 - 3%	2.0%	2.4%
Fixed Income		24 - 30	27.0	25.6
Government/Agency/Other	Unlimited			13.3
Corporate	35%			12.3
Equity	65%	57 - 65	61.0	63.5
Domestic Large Cap		37 - 45	41.0	41.0
Domestic Mid Cap		3 - 5	4.0	4.5
Domestic Small Cap		1 - 3	2.0	2.9
International	30%	11 - 15	14.0	15.1
Real Estate	10%	2 - 6	4.0	3.1
Alternative Investments*	10%	1 - 5	3.0	2.4
Additional Categories	15%	1 - 5	<u>3.0</u>	<u>3.0</u>
<b>TOTAL</b>			<b>100.0%</b>	<b>100.0%</b>
This weighting reflects cash with manager in the manager's asset class.				
* Alternative Investments includes Private Equity, Timberland, Venture Capital and Infrastructure investments.				

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## PORTFOLIO RETURNS

For the fiscal year, the retirement annuity trust fund's portfolio generated a total return of 21.6%, versus a 20.9% return for the benchmark Policy Index. Domestic equities returned 32.5% versus 31.7% for the Standard & Poor's 1500 Index, while international equities returned 31.4% versus 30.3% for the MSCI All Country World (Ex-US) Index. Fixed income investments outperformed, returning 4.8% versus 3.7% for the Barclays Government/Credit Index.

The table below details historical performance for the retirement annuity trust fund and its component asset classes for the period ended June 30, 2011. The retirement annuity trust fund's domestic equity and fixed income components have regularly exceeded the returns of their benchmarks over long periods of time. International equities, with a shorter history in the retirement annuity trust fund, have outperformed their benchmark. Other asset classes, though modest in relative size, also contributed. Investments in the U.S. Treasury's Public-Private Investment Program returned 27.8%. Investments in private equity returned 24.1%. The retirement annuity trust fund's returns were generated by the 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	21.6	5.6	5.1	4.8	7.7
Policy Index <sup>(1)</sup>	20.9	-	-	-	-
<b>Equities</b>					
Domestic Equities	32.5	4.3	3.6	3.5	9.2
S & P Blended Index <sup>(3)</sup>	31.7	3.9	3.3	2.9	8.8
International Equities	31.4	2.3	4.1	-	-
MSCI AC World (Ex US)	30.3	0.1	4.1	-	-
<b>Total Equities</b>	32.2	4.1	3.6	3.5	9.2
<b>Fixed Income</b>					
Total Fixed Income	4.8	7.9	7.4	6.4	7.2
Barclays Govt/Credit Index	3.7	6.2	6.4	5.7	6.9
<b>Real Estate</b>					
Real Estate Equity	20.5	-11.3	-	-	-
NCREIF ODCE	20.6	-7.6	-	-	-
Triple Net Lease Real Estate	7.2	8.6	8.3	8.7	9.0
CPI plus 2%	5.5	3.1	4.2	4.4	4.6
<b>Alternative Investments</b>					
Private Equity <sup>(4)</sup>	24.1	11.2	-	-	-
Timberland	6.7	2.8	-	-	-
NCREIF Timberland Index	0.5	0.0	-	-	-
<b>Cash</b>					
Cash (Unallocated)	0.1	0.5	2.5	2.5	3.8
<b>Additional Categories</b>					
High Yield Bond Fund	15.6	-	-	-	-
Public-Private Investments	27.8	-	-	-	-
Merrill Lynch High Yield	15.4	-	-	-	-

### 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 retirement annuity trust fund'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 retirement annuity trust fund's long-term expected return for this asset class.

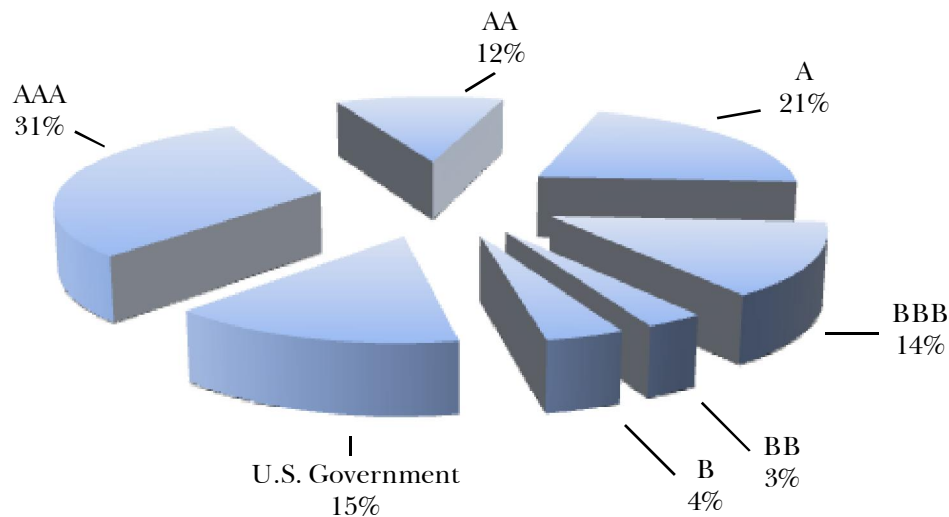
Year Ended June 30, 2011

### FIXED INCOME INVESTMENTS

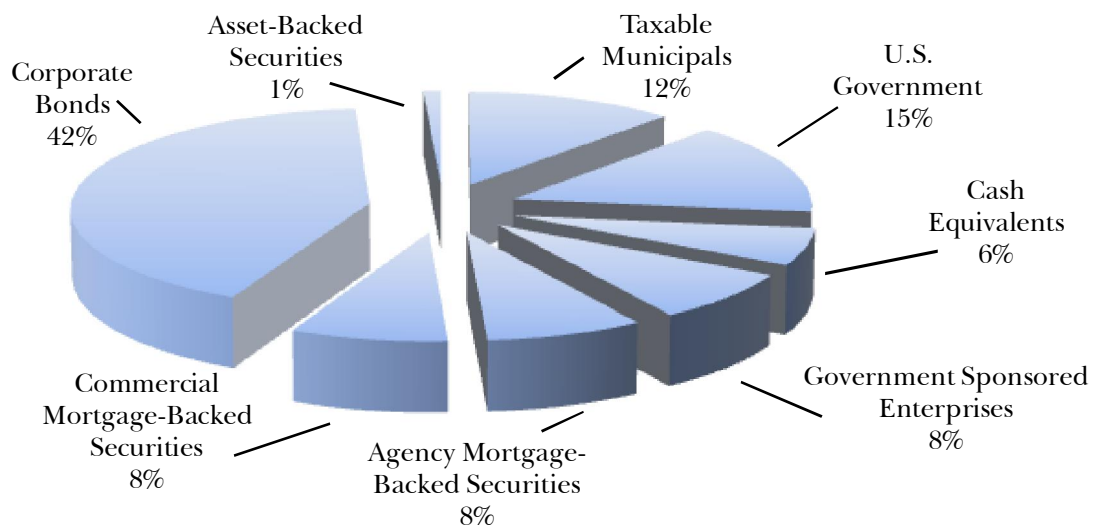
As of June 30, 2011, the retirement annuity trust fund had approximately \$3.86 billion (25.6% of assets) in investment grade fixed income assets. In addition, the retirement annuity trust fund had \$457.6 million (3.0% of assets) in other debt-related investments approved under a regulatory provision 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 the U.S. Treasury's Public-Private Investment Program (PPIP), and an investment in a distressed debt fund. The health insurance trust fund had \$115.1 million in short-term high quality bonds for liquidity purposes and \$49.8 million in a high yield bond portfolio.

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, 2011. 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

Over the fiscal year, the U.S. credit markets were a reflection of a financial system and economy that were still recovering from the 2008 crisis and struggling with a weak and uncertain recovery. The Federal Reserve kept short-term rates near zero throughout the fiscal year and continued to employ unconventional monetary measures to support the economy. A \$600 billion program of bond purchases by the Federal Reserve concluded in June, 2011. Despite the monetary activism, economic growth weakened in the spring and summer of 2011. Inflation-adjusted GDP grew only 1.6% over the fiscal year. The unemployment rate remained stubbornly high at 9.2%, down from 9.5% a year earlier.

A period of decent, if restrained, economic recovery from late 2009 through calendar 2010 was followed by renewed weakness in 2011. Inflation-adjusted GDP grew at a 0.4% annual rate in the quarter ended March 31 and a 1.3% annual rate in the quarter ended June 30. Market volatility surged in mid-2011 and consumer confidence collapsed. The housing downturn dragged on, with the Case-Shiller Index of home prices declining 4.5% over the fiscal year; the Index was down 31.6% from its peak in July, 2006. With U.S. fiscal challenges in the headlines, the Eurozone debt crisis was clearly deepening. By the end of the fiscal year, fears were mounting of a full-blown crisis in Europe and renewed recession in the U.S.

Fixed income sectors that were the most battered during the 2008 crisis continued to outperform. The Barclays High Yield Index returned 15.63% for the fiscal year, while investment grade commercial mortgage-backed securities returned 12.22%. Investment grade corporate bonds returned 6.29% while agency mortgage-backed securities returned 3.77% and U.S. Treasury securities returned 2.24%. The Barclays Government/Credit Index, which is heavily weighted in government bonds, returned 3.68%.

The retirement annuity trust fund's investments in fiscal year 2010 into high yield bonds and the U.S. Treasury's Public-Private Investment Program (PPIP) funds proved to be timely. The high yield bond portfolio returned 15.6% for the fiscal year while the PPIP investments returned 27.8%. In a continuing effort to find attractive alternatives to traditional fixed income, a \$100 million commitment was made in fiscal year 2011 to a distressed debt fund and \$100 million was committed to a multi-sector opportunistic credit mandate. The retirement system continues to evaluate alternative debt-related investment options in an effort to improve the risk/reward tradeoff within the asset class while maintaining the diversification and liquidity that the retirement system's portfolios require.

Despite near-term downside risks to the economy, the long-term risk/reward potential for high quality U.S. fixed income was clearly unattractive at fiscal year-end. On June 30, the yield on the 10-year U.S. Treasury bond was 3.16%, while the consumer price index had risen 3.6% over the previous twelve months, representing a potentially negative inflation-adjusted return. Strategic investments in sectors which represented better relative value continued to make sense. Going forward, the focus remained on structuring the asset class exposure to improve return potential and control risk.

## EQUITY INVESTMENTS

As of June 30, 2011 the retirement annuity trust fund's public equity investments had a market value of \$9.65 billion, representing 63.5% of total assets. Strong equity returns over the first nine months of the year prompted several rebalancing sales to reduce equity exposure back to target levels. The retirement annuity trust fund divides its public equity investments into two broad categories: domestic and international.

The domestic portfolio had a market value of \$7.4 billion as of June 30, representing 48.4% of total assets. The benchmark for the domestic portfolio is the S&P 1500. The S&P 1500 is made up of 3 well known component indices based upon capitalization: the S&P 500 large cap, S&P 400 mid cap, and the small cap S&P 600. The retirement annuity trust fund's domestic equity holdings are comprised of eleven portfolios. Three of the portfolios are internal passively managed portfolios benchmarked to the S&P 500,

S&P 400, and S&P 600. The other eight portfolios are managed externally with each 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 international equity holdings as of June 30, 2011 was \$2.29 billion representing 15.1% of total assets. The benchmark for international equities is the Morgan Stanley Capital International All Country World Index ex US (MSCI ACWI-exUS), which represents the markets of 24 developed countries and 21 emerging markets countries. Four external managers manage the retirement annuity trust fund's international equities. During the fiscal year international equities increased as a percent of total assets. The retirement annuity trust fund plans to continue increasing the international equity exposure during the coming fiscal year.

The health insurance trust fund had \$150.7 million invested in a global stock index fund.

### **EQUITY MARKET OVERVIEW**

For the fiscal year 2011, stocks continued their strong rebound from their financial crisis/recession induced lows of 2009. Returns of domestic stocks as measured by the S&P 1500 were 31.7% for the year after a 15.6% gain in fiscal 2010. The Morgan Stanley Capital International (MSCI) World Index advanced 31.2%, while the MSCI EAFE which measures foreign developed markets returned 30.9%. The MSCI Emerging Markets Index was up 28.2% despite lagging performance in China and India.

Domestic stocks turned in a strong performance for fiscal year 2011 as the S&P 1500 gained 31.7%. Most all the gains came in the first three quarters, as the last quarter returns were flat. The first two quarters produced a 23.9% return as stocks rebounded from the June 2010 quarter sell-off. During the first quarter of the year the market rose on expectations of an economic rebound and strong corporate profit growth. Toward the end of the quarter there were rumors that the Federal Reserve may engage in a Quantitative Easing (QE) whereby the Fed injects more money into the economy by buying financial assets from banks and other private sector businesses. In November Federal Reserve chairman Ben Bernanke announced a \$600 billion QE program, dubbed "QE 2". The QE announcement buoyed expectations that the economy would likely recover and that the Fed stood ready to provide liquidity.

During the second half of fiscal year 2011, the market wrestled with several crosscurrents of economic and political events. The market delivered strong returns during January and February as it digested the strong corporate earnings reports for the December quarter and the continued "QE 2" inspired optimism. The market appeared to disregard disappointing housing statistics, stubbornly high unemployment, rising oil prices, and rumblings of sovereign debt troubles in Europe. The S&P/Case-Shiller Home Price Index showed a 3.6% quarter-over-quarter price decline for the December quarter, which was released in February. Although the national unemployment rate dropped to 8.8% by the end of March from the 9.4% at the end of December, job growth continued to disappoint forecasts. Oil prices continued to rise as the price per barrel of crude rose from \$91 at the end of December to almost \$100 by the end of February.

On March 11 a major earthquake struck off the coast of Japan. The quake along with the resulting tsunami resulted in a catastrophic human toll with more than 16,000 fatalities. The quake and tsunami also crippled several nuclear reactors. The magnitude of the damage and speculation regarding a possible melt-down of some reactors resulted in a sharp decline in the market. Although the market rebounded in late March to finish the month flat, the earthquake and market volatility resulted in a drop in the Conference Board's Consumer Confidence Index (CCI) from a 12 month high of 72 in February to 63.8 by the end of March.

Returns for the domestic equity market were flat for the fourth quarter. Many market analysts expounded that the market looked "cheap" based upon corporate earnings. At the beginning of calendar year 2011, consensus expectations for corporate profits as measured by the S&P 500 were for earnings of \$101.5 per share. With the S&P trading at around 1,326 at the end of March this meant the market was

trading at a price/earnings ratio of 13, inexpensive by historical standards. The expectations for stronger corporate profits were set against a backdrop of deteriorating economic statistics, sovereign debt fears, and political policy uncertainty. Over the final quarter of the fiscal year the unemployment rate climbed to 9.2% from 8.8% at the end of March. Housing statistics continued to remain dismal as the quarter-over-quarter home price index fell 4.2% for the March quarter and the supply of existing single family homes rose to 9.4 months. European sovereign debt issues once again came into the headlines as bearish investors warned that high debt levels in countries such as Portugal, Ireland, Italy, and Spain could lead to needed bailouts or defaults. Leading European countries such as Germany and France which were called upon to help bail Greece out of its debt crisis were sounding a bit more circumspect with regard to continued bailouts as it was becoming politically unpopular in their home countries. Italy represents a particular concern as its GDP represents approximately 12% of the European Union. There were even rumors that the ratings agencies were taking a look at the US as the deficit continues to rise in the face of flagging economic growth and political wrangling. The price of gold continued to rise to over \$1,500 per ounce during the final quarter as investors sought hard asset protection.

The continued weakness in housing and employment had some analysts calling for a QE 3 once QE 2 was to come to an end at the end of June. Many economists however began to question how effective QE 2 actually was. Some argued that it merely inflated asset prices such as stocks and some commodities. There is growing concern that the Fed may not be able to do anything else to boost the economy and that fiscal stimulus may be needed. However, the fiscal situation limits this option.

Within the domestic market the energy sector delivered the best returns for the fiscal year while financials were the weakest performer. Energy stocks rebounded from being the worst performing sector over the prior two years as the price of crude oil averaged almost \$90 per barrel over the past year. For the first half of the year energy and material stocks were the top performing sectors while more defensive sectors such as utility and healthcare were the weakest. This reflected investors' belief that an economic recovery and a rise in interest rates were likely. For the second half of the year the health care and utility sectors were among the best performing as it became clear that economic growth would be much lower than expected and interest rates fell instead of rising.

### REAL ESTATE

The retirement annuity trust fund's real estate investments had a market value of \$480.4 million as of June 30, 2011, representing 3.1% 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 three 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 a real estate limited partnership (Carlyle Realty Partners VI, L.P.), which is managed by the Carlyle Group. This fund 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 will focus on the major markets on the East and West Coasts and across all property types.

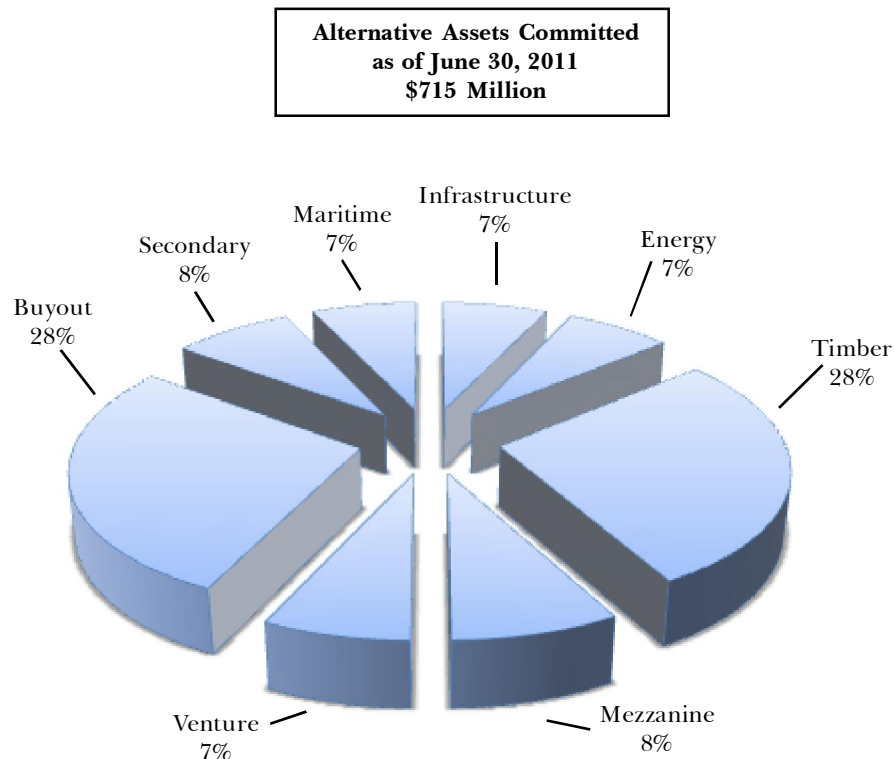
### REAL ESTATE OVERVIEW

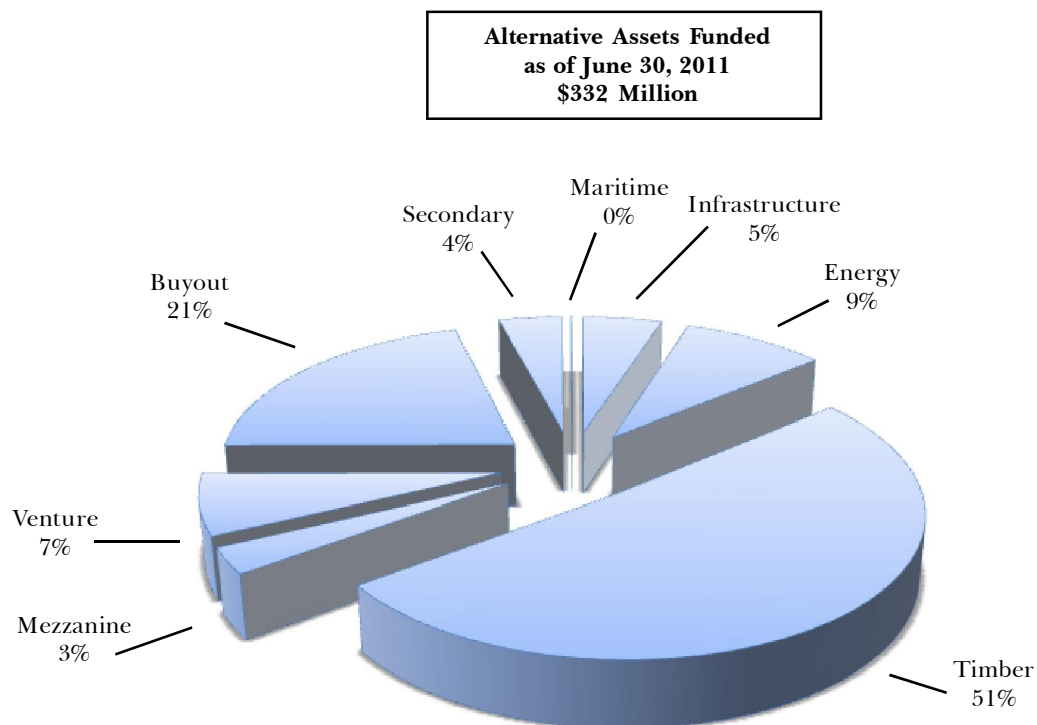
Interest in commercial real estate was quite strong during the fiscal year as investors sought investments offering stable, secure cash flows at attractive yield levels. Property values of core assets located in prime markets saw a meaningful rebound, while the recovery in the broader market was somewhat weaker due to limited transaction activity and distressed sales. Demand was strongest in the apartment and hotel sectors, while industrial and office space saw less investor interest.

With the exception of multifamily housing, new construction activity is expected to be quite limited over the upcoming year. The lack of new supply and an expected moderate increase in tenant demand should lead to higher occupancy rates and an increase in rents in the strongest segments of the market. Opportunistic investments will continue to be available for investors who have ready cash to provide financing at attractive terms, and for those who are in a position to purchase property from owners who are unable to pay or refinance maturing debt.

### ALTERNATIVE ASSETS

As of June 30, 2011, the retirement annuity trust fund had committed \$715 million to alternative investments and had funded \$332 million of those commitments. There were no commitments to the health insurance trust fund. The percentage of the retirement annuity trust fund's portfolio in alternative assets was 2.4%. 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, and will achieve vintage year diversification by building out the portfolio with disciplined levels of commitments over time. The retirement annuity trust fund's 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.

### PRIVATE EQUITY MARKET OVERVIEW

The private equity market continues to heal from the devastating effects of the financial crisis. Fund raising has picked up as many investors have increased their allocation to private equity over the past fiscal year. The reopening of the IPO market has been a key driver in the ability of fund managers to begin to exit their underlying portfolio companies and return funds to the limited partners. With the rebound in the private equity markets we have seen an increase in capital calls and expect this to continue in the foreseeable future.

Limited partners are becoming more selective in their allocation to private equity with a strong bias toward the top tier firms. This should, over the long term, provide a shakeup in this space as the weaker firms are forced to exit. As large buyout funds continue to be out of favor, we are seeing more opportunity in the middle market space and in other more niche areas such as energy, infrastructure and distressed credit. Additionally, the stress in the European markets should continue to present investment opportunities in the private equity space over the next fiscal year.

### **TIMBERLAND**

In addition to private equity, the retirement annuity trust fund has invested in timberland in the alternative asset class. As of June 30, 2011 the retirement annuity trust fund owns approximately 73,000 acres of timberland outright and has a 7.15% interest in a commingled fund that holds approximately 98,000 acres of timberland. Additionally, during the past fiscal year the retirement annuity trust fund purchased an interest in approximately 124,000 acres of timberland located across seven southern states. Timberland is, by nature, a long term investment as our anticipated time horizon in this asset category is generally a minimum of ten to fifteen years. Timberland provides valuable diversification, current income, and a hedge against inflation. Due to the low correlation of returns with other asset classes, timberland investments should lower the overall volatility of the retirement annuity trust fund's portfolio. Timberland should earn real returns comparable to traditional equity investments with volatility between equities and fixed income over the long-term.

The retirement annuity trust fund diversifies its timberland investments by geography, species of trees, and maturity of timber stands. Investment returns from timberland are primarily driven from net cash flow generated from the sale of trees (referred to as stumpage sales) and capital appreciation from the biological growth of the trees. Both of these return factors depend to some degree upon the direction of the 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**

Over the past fiscal year the timber markets, particularly in the Southern U.S., have generally been flat. The soft economy, persistently high unemployment and the ailing housing market have left mills with an oversupply of inventory and limited pricing power for timberland owners. A rebound in the economy and with that a recovery in the construction market should help to alleviate this oversupply and allow for some upward pricing power over the long term. One bright spot in this rather lackluster timber market has been the Pacific Northwest, which has seen demand and prices rebound from their post financial crisis lows. This rebound can be attributed to the demand for timber from the Far East, particularly China and Japan. Demand is stemming from China's growth and Japan's reconstruction, following the earthquake and tsunami that occurred in March 2011.

**RETIREMENT ANNUITY TRUST**

**PORTFOLIOS**

**MARKET VALUES \*\***

**June 30, 2011**

**Internally Managed**

**Cash Equivalents**

Cash Collections Fund (Unallocated)	352,707,345
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**Fixed Income\***

Broad Market Bond Fund	965,175,899
Long Term Bond Fund	548,731,286
Intermediate Bond Fund	442,760,524
Internal Bond Fund	374,955,512
Life Insurance Trust	87,011,298
Tax Shelter Fund	423,376

**Equity**

S & P 500 Stock Index Fund (Large Cap)	2,588,717,651
S & P 400 Stock Index Fund (Mid Cap)	399,534,211
S & P 600 Stock Index Fund (Small Cap)	270,345,296

**Real Estate**

Internally Managed Fund	387,947,157
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**Subtotal**

6,418,309,555

**Externally Managed**

**Fixed Income**

Galliard Capital Management	737,526,988
Ft. Washington Broad Market	699,598,551

**Domestic Equity**

Todd - Veredus (Large Cap Core)	1,255,896,326
UBS (Large Cap Value)	962,991,298
GE Asset Management (Large Cap Growth)	655,251,249
Wellington (Large Cap Core)	526,994,388
Wellington (Mid Cap Core)	293,082,593
Wellington (Small Cap Core)	165,530,699
Todd - Veredus Opportunity Fund	127,546,997
UBS (130/30)	110,905,553

**International Equity**

Todd - Veredus International	720,580,331
UBS International	667,852,908
Baillie Gifford EAFE Alpha	504,036,473
Baring Focused International Equity	401,567,223

**Real Estate**

Prudential PRISA Fund	88,087,181
Carlyle Realty Partners VI	4,412,899

**Alternative Investments**

Molpus Woodlands Group Lake Superior Timberlands LLC	88,927,058
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*continued ...*

**RETIREMENT ANNUITY TRUST PORTFOLIOS continued ...**  
**JUNE 30, 2011**

Molpus Seven States LLC	71,318,161
Riverstone/Carlyle E & P Fund IV	41,757,750
KKR & Co European Fund III	30,832,809
KKR & Co Fund 2006	20,249,639
Hancock Bluegrass LLC - Oregon	20,073,215
Alinda Infrastructure Fund II	19,440,393
Ft. Washington Fund VI	17,978,217
Chrysalis Venture Fund III	14,825,854
Lexington Capital Partners Fund VII	12,717,189
Ft. Washington Fund V	11,615,950
Landmark Equity Partners Fund XIV	6,214,837
Oaktree Mezzanine Fund III	5,164,810
Parish Capital Fund III	5,127,211
CapitalSouth Partners Fund III	1,796,973
Audax Mezzanine Fund III	1,322,241
J. P. Morgan Maritime Fund	87,569
<b>Additional Categories</b>	
Fort Washington High Yield Bond Fund	250,550,515
Marathon Legacy Securities PPIP	72,126,160
AG GECC PPIF, LP	69,150,793
Avenue Special Situations Fund VI	65,800,974
<b>Subtotal</b>	<u>8,748,939,975</u>
<b>Total Assets</b>	<u><u>15,167,249,530</u></u>

\* Excludes purchased interest of \$779,260 as of June 30, 2011

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

**HEALTH INSURANCE TRUST**  
**PORTFOLIOS**  
**MARKET VALUES \*\***  
**June 30, 2011**

<b>Cash Equivalents</b>	
Cash Collections Fund	63,546,353
<b>Fixed Income*</b>	
Internal Bond Fund	<u>115,102,621</u>
<b>Subtotal</b>	<b>178,648,974</b>
<b>Fixed Income*</b>	
Ft. Washington High Yield Bond Fund	49,822,252
<b>Global Equities</b>	
BlackRock Fund B	<u>150,698,033</u>
<b>Subtotal</b>	<b>200,520,285</b>
<b>Total Assets</b>	<u><u>379,169,259</u></u>

\* Excludes purchased interest of \$221,418 as of June 30, 2011.

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



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## Investment Summary Fair Market Value – Total Funds June 30, 2011

Type of Investment	Fair Value 07/01/10	Acquisitions	Appreciation (Depreciation)	Sales Redemptions, Maturities & Paydowns	Fair Value 06/30/11
Cash Equivalents	\$ 307,378,300	\$ 5,265,658,700	\$ -	\$ 4,840,633,600	\$ 732,403,400
Fixed Income	4,126,873,400	3,562,511,300	12,070,600	3,682,180,700	4,019,274,600
Equities	7,526,938,500	2,352,793,400	2,317,955,700	2,458,440,100	9,739,247,400
Real Estate	419,613,700	57,632,800	3,452,800	252,000	480,447,200
Alternative	299,635,600	254,439,000	62,802,600	40,349,500	576,527,800
<b>TOTAL</b>	<u>\$12,680,439,500</u>	<u>\$ 11,493,035,200</u>	<u>\$ 2,396,281,700</u>	<u>\$ 11,021,855,900</u>	<u>\$ 15,547,900,400</u>

## Contracted Investment Management Expenses Fiscal Year 2010-11 (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)	\$ 6,392,236	\$ 11,313	
Fixed Income Manager	1,687,676	1,033	
Real Estate	92,500	899	
Alternative Investments <sup>(2)</sup>	<u>576,528</u>	<u>7,455</u>	
Total	\$ 8,748,940	\$ 20,700	23.7
 <b><u>Other Investment Services</u></b>			
Custodian Fees	\$ 15,167,731	\$ 331	0.2
Consultant Fees		359	
Legal & Research		155	
Subscriptions/Services		<u>615</u>	
Total		\$ <u>1,460</u>	
<b>Grand Total</b>		\$ <u><u>22,160</u></u>	<b>14.6</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 Fund  
Contracted Investment  
Management Expenses  
Fiscal Year 2010-11  
(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)	\$ 150,698	\$ 29	
Fixed Income Manager	49,822	25	
Real Estate	-	-	
Alternative Investments <sup>(2)</sup>	-	-	
<b>Total</b>	<b>\$ 200,520</b>	<b>\$ 54</b>	<b>2.7</b>
 <b><u>Other Investment Services</u></b>			
Custodian Fees	\$ 379,169	\$ -	0.0
Consultant Fees		-	
Legal & Research		7	
Subscriptions/Services		-	
<b>Total</b>		<b>\$ 7</b>	
<b>Grand Total</b>		<b>\$ 61</b>	<b>1.6</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."

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## Transaction Commissions Fiscal Year 2010-11

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE	% OF TOTAL
Barclays Total	1,999,359	66,096	\$0.0331	2.16 %
BB & T Capital Markets Total	5,900	236	0.0400	0.01
Blair, William & Co Total	87,200	3,488	0.0400	0.11
BMO Capital Markets Total	30,075	1,203	0.0400	0.04
BNP Paribas Securities Bond Total	122,375	3,491	0.0285	0.11
BNY ConvergeX Group Total	3,784,214	69,429	0.0183	2.27
Brean Murray, Carret & Co., LLC Total	3,300	132	0.0400	0.00
BTIG Total	176,845	6,444	0.0364	0.21
Canacord Adams Total	18,100	724	0.0400	0.02
Cantor Fitzgerald & Co Total	105,450	4,170	0.0395	0.14
CIBC Oppenheimer Worldmarket Total	96,885	32,893	0.3395	1.08
Citigroup Global Total	277,480	10,005	0.0361	0.33
Collins Stewart LLC Total	52,950	2,118	0.0400	0.07
Cowen & Co Total	472,600	13,105	0.0277	0.43
Credit Research & Trading LLC Total	33,800	1,234	0.0365	0.04
Credit Suisse Sec. LLC Total	3,762,535	111,433	0.0296	3.64
Crowell Weedon & Co Total	9,200	368	0.0400	0.01
CSI US Institutional (Calyon) Total	291,215	10,003	0.0343	0.33
Cuttone & Co Inc Total	49,700	1,118	0.0225	0.04
D A Davidson & Co Total	14,300	572	0.0400	0.02
Dahlman Rose & Co LLC Total	65,520	2,621	0.0400	0.09
Deutsche Bank Total	744,404	22,985	0.0309	0.75
Dowling & Partners Total	11,500	460	0.0400	0.02
Fidelity Capital Markets Total	29,575	810	0.0274	0.03
First Kentucky Securities Corp Total	2,164,600	64,938	0.0300	2.12
Freidman Billings Total	131,508	5,048	0.0384	0.17
Gleacher & Company Securities Total	35,000	1,400	0.0400	0.05
Goldman Sachs Total	4,062,031	125,229	0.0308	4.09
Heflin & Co Total	54,200	2,168	0.0400	0.07
Hudson Securities Total	9,600	384	0.0400	0.01
Investment Tech Grp Transition Total	11,455,230	114,552	0.0100	3.74
Investment Technology Grp Total	37,198,993	513,320	0.0138	16.78
ISI Group Total	3,278,981	94,514	0.0288	3.09
J.J.B. Hilliard, W.L. Lyons Total	3,513,100	105,393	0.0300	3.45
Janney Montgomery Scott Inc Total	145,200	5,808	0.0400	0.19
Jefferies & Co. Total	416,325	14,625	0.0351	0.48
JMP Securities Total	94,225	3,769	0.0400	0.12
Jones & Associates Total	45,600	1,824	0.0400	0.06
JP Morgan & Chase Total	690,605	20,654	0.0299	0.68
Keefe Bruyette & Woods Total	58,575	2,343	0.0400	0.08
Keybanc Capital Total	29,690	1,188	0.0400	0.04
Knight Equity Markets Total	56,630	2,082	0.0368	0.07
Lazard Freres & Co. Total	3,735,410	109,157	0.0292	3.57
Leerink Swann & Co. Total	104,050	2,623	0.0252	0.09
Lexington Investment Co. Total	1,465,890	43,977	0.0300	1.44
Liquidnet Inc Total	11,462,710	120,250	0.0105	3.93
Longbow Securities LLC Total	8,857	354	0.0400	0.01
MacQuarie Securities Inc Total	56,175	2,247	0.0400	0.07
Melvin Securities Inc Total	9,100	91	0.0100	0.00
Merrill Lynch Total	8,570,585	149,920	0.0175	4.90
Merrill Lynch, Pierce, Fenner & Total	15,950	638	0.0400	0.02
Miller Tabak & Co. LLC Total	32,200	1,288	0.0400	0.04
Mizuho Securities, USA Total	1,400	56	0.0400	0.00
MKM Partners Total	43,565	1,187	0.0272	0.04
Morgan Keegan Total	3,038,154	89,966	0.0296	2.94
Morgan Stanley Smith Barney-Hunt Total	3,598,560	107,957	0.0300	3.53

Year Ended June 30, 2011

*Transaction Commissions continued . . .*

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE	% OF TOTAL
Morgan Stanley Smith Barney-Louv Total	2,872,860	86,186	0.0300	2.82
Morgan Stanley Smith Barney-NKY Total	3,679,820	110,395	0.0300	3.61
Morgan Stanley Total	2,303,118	59,171	0.0257	1.93
Needham Total	20,320	813	0.0400	0.03
Nomura Securities Intrntl Inc Total	94,970	3,114	0.0328	0.10
Oppenheimer & Co, Inc Total	4,700	188	0.0400	0.01
Pacific Crest Securities Total	5,600	224	0.0400	0.01
Pershing LLC Total	69,800	1,699	0.0243	0.06
Pipeline Trading Total	7,400	74	0.0100	0.00
Piper Jaffray Total	79,090	4,027	0.0509	0.13
Pulse Trading Total	263,820	5,688	0.0216	0.19
R W Baird Total	344,864	9,696	0.0281	0.32
Raymond James & Assoc Total	5,924,948	179,175	0.0302	5.86
RBC Capital Markets Total	261,510	9,621	0.0368	0.31
Rosenblatt Securities LLC Total	8,000	320	0.0400	0.01
Ross Sinclair & Assoc Total	1,418,450	42,554	0.0300	1.39
Sanford C Bernstein Total	854,578	15,394	0.0180	0.50
SG AMERICAS SECURITIES Total	4,025	161	0.0400	0.01
Simmons & Co Total	8,600	344	0.0400	0.01
SJ Levinson & Sons LLC Total	3,500	140	0.0400	0.00
Soleil Securities Co Total	11,400	456	0.0400	0.01
State Street Global Total	90,550	2,717	0.0300	0.09
Stephens Inc. Total	25,550	1,022	0.0400	0.03
Sterne, Agee & Leach Total	166,195	6,648	0.0400	0.22
Stifel, Nicolaus & Co Total	2,533,489	87,360	0.0345	2.86
Stifel, Nicolaus & Co-Louisville Total	1,409,770	42,293	0.0300	1.38
Suntrust Robinson Total	46,150	1,846	0.0400	0.06
Susquehanna Brokerage Total	219,664	7,443	0.0339	0.24
Think Equity Partners Total	1,700	68	0.0400	0.00
UBS/Paine Webber Securities Total	1,210,582	24,105	0.0199	0.79
UBS/Paine Webber-Louisville Total	4,350,950	130,529	0.0300	4.27
Wedbush Morgan Securities Total	20,100	804	0.0400	0.03
Weeden & Co Total	4,506,244	135,748	0.0301	4.44
Wells Fargo Securities, LLC Total	338,895	13,304	0.0393	0.43
WJB Capital Group Inc	44,250	1,770	0.0400	0.06
<b>TOTAL</b>	<b>141,032,643</b>	<b>3,059,182</b>	<b>0.0217</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 2010-11, the retirement annuity trust fund bought small capitalization IPOs that generated \$122,318 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 \$3,059,182. 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 ConvergeEx during this fiscal year. Trading commissions of \$6,640.43 were associated with third party research obligations. The primary research providers were: Bloomberg, Interactive Data, Rogers Casey, RiskMetrics Group, 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.*

**Ten Largest Stock Holdings Ranked (1) (2)  
by Market Value  
June 30, 2011**

<u>Rank</u>	<u>Name</u>	<u>Market Value</u>	<u>Percentage of Equities</u>
1	Exxon Mobil Corp	163,055,165	2.063
2	Apple Inc	137,503,859	1.739
3	Pepsico Inc	109,219,956	1.381
4	Qualcomm Inc	108,290,352	1.370
5	Chevron Corp	86,019,181	1.088
6	Philip Morris Inc	82,951,042	1.049
7	International Business Machines	79,540,873	1.006
8	Microsoft Corp	78,388,986	0.991
9	Oracle Corp	73,974,835	0.935
10	United Health Group	67,611,786	0.855

**Top Ten Fixed Income Holdings (2)  
by Market Value  
June 30, 2011**

<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	46,000,000	58,355,140	1.503
2	U S Treasury	5/15/2041	4.380	54,820,000	54,734,481	1.410
3	U S Treasury TIPS	4/15/2013	0.630	49,540,000	54,254,212	1.397
4	U S Treasury	5/15/2021	3.130	47,930,000	47,795,317	1.231
5	U S Treasury	4/30/2013	0.630	44,375,000	44,534,306	1.147
6	U S Treasury	5/31/2013	0.500	42,575,000	42,619,704	1.098
7	FNMA Notes	1/15/2030	7.130	25,000,000	33,264,000	0.857
8	U S Treasury Bonds	8/15/2029	6.130	22,000,000	27,953,860	0.720
9	U S Treasury TIPS	1/15/2029	2.500	22,000,000	26,759,839	0.689
10	CMO FHR 3095 JE	7/15/2031	5.500	23,604,000	24,441,010	0.629

(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.

## PROXY VOTING AND CORPORATE BEHAVIOR

The retirement system regularly votes proxy statements associated with its equity ownership. The positions assumed by the retirement 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 retirement system to social or political protests. At the same time, the retirement 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 retirement system 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 retirement system as a shareowner can be instrumental in encouraging action as a responsible corporate citizen by the companies in which the retirement system has invested.

The Board expects the managements of the companies whose equity securities are held in the retirement system'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 retirement system's holdings in the company, if the sale is consistent with sound investment policy.

## SECURITY LENDING

The retirement 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 retirement 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 retirement 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 retirement system cannot pledge or sell collateral securities unless the borrower defaults. The lending agent also indemnifies the retirement 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 retirement system has no credit risk exposure to borrowers, since the amounts the retirement system owes borrowers exceeds the amounts the borrowers owe the retirement system.

Security lending programs can entail considerable interest rate risk and credit risk. The retirement 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 keenly aware of the scale and importance of its role in the Commonwealth's economy. For the fiscal year ended June 30, 2011, approximately \$1.7 billion in benefit payments (retirement, health, ...etc.) were distributed to annuitants living in Kentucky. Approximately \$330 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 the bonds of Kentucky-based corporations. This excludes hundreds of millions in equity investments in companies which have an impact on the Commonwealth's economy but receive earnings from world-wide 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

### 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  
Parish Capital Advisors, LLP  
Audax Group  
J.P. Morgan Asset Management  
Marathon Legacy Securities GP, LLC  
AG GECC PPIF GP, LLC  
Avenue Capital Group

### Attorney

Schottenstein, Zox & Dunn, Co.

## HEALTH INSURANCE TRUST PROFESSIONAL SERVICE PROVIDERS

### Investment Consultants

Hewitt EnnisKnupp, Inc.

### Investment Custodian

The Bank of New York Mellon

### Fixed Income Manager

Ft. Washington Investment Advisors

### Global Equity Manager

BlackRock Institutional Trust  
Company

### Attorney

Schottenstein, Zox & Dunn, Co.

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# **Actuarial Section**

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Report of the Actuary  
on the Annual Valuation

for Fiscal Year ending June 30, 2011





## Cavanaugh Macdonald

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*The experience and dedication you deserve*

December 14, 2011

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, 2011. 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, 2014 required to support the benefits of the System are 29.99% of payroll for university members hired before July 1, 2008, 30.99% of payroll for university members hired on and after July 1, 2008, 32.95% of payroll for non-university members hired before July 1, 2008, and 33.95% 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 0.58% of payroll for the 2013/2014 fiscal year. In addition, there has been a net decrease in the expected state special appropriation from 3.69% to 3.50%, or 0.19% of payroll and a decrease in the amount required for life insurance benefits from 0.05% to 0.03%, or -0.02%. Therefore, the net impact on the required increase in the total employer contribution rate is 0.75% of payroll.

For the 2013/2014 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 8.02%; 0.75% from this valuation and 7.27% 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.

Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2010. These revised changes were adopted by the Board on September 19, 2011 and are discussed in depth on pages 77 and 78 of the report. The valuation takes into account the effect of amendments to the System enacted through the most recent Session of the Legislature.

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

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Board of Trustees  
December 14, 2011  
Page 2

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.

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.

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 retirement fund 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, 2011**  
**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, 2011	June 30, 2010
Number of active members	76,349	76,387
Annual salaries	\$ 3,451,756	\$ 3,321,614
Number of annuitants and beneficiaries	44,419	43,134
Annual allowances	\$ 1,433,386	\$ 1,352,158
Assets		
Market value	\$ 15,130,606	\$ 12,456,619
Actuarial value	\$ 14,908,138	\$ 14,851,330
Unfunded actuarial accrued liability	\$ 11,060,554	\$ 9,492,986
Funded Ratio	57.4%	61.0%
Amortization period (years)	30	30

**Contribution Rates for University Members**

Valuation Date	June 30, 2011		June 30, 2010	
For Fiscal Year Ending	June 30, 2014		June 30, 2013	
	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	11.77 %	11.77 %	13.31 %	13.31 %
Accrued liability	<u>18.22</u>	<u>19.22</u>	<u>16.10</u>	<u>17.10</u>
Total	<u>29.99 %</u>	<u>30.99 %</u>	<u>29.41 %</u>	<u>30.41 %</u>
Member	7.625%	7.625%	7.625%	7.625%
State (ARC)	<u>22.365</u>	<u>23.365</u>	<u>21.785</u>	<u>22.785</u>
Total	29.99 %	30.99 %	29.41 %	30.41 %
Life Insurance Fund:				
State	0.03 %	0.03 %	0.05 %	0.05 %
Medical Insurance Fund:				
Member	1.75 %	1.75 %	1.43 %	1.75 %
State Match	1.75	0.75	1.43	0.75
State Additional	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
Total	<u>3.50 %</u>	<u>2.50 %</u>	<u>2.86 %</u>	<u>2.50 %</u>
Total Contributions	<u>33.52 %</u>	<u>33.52 %</u>	<u>32.32 %</u>	<u>32.96 %</u>
Member Statutory	9.375%	9.375%	9.055%	9.375%
State Statutory	12.625	12.625	12.305	12.625
Required Increase	8.02	8.02	7.27	7.27
State Special	<u>3.50</u>	<u>3.50</u>	<u>3.69</u>	<u>3.69</u>
Total	33.52 %	33.52 %	32.32 %	32.96 %



**Contribution Rates for Non-University Members**

Valuation Date For Fiscal Year Ending	June 30, 2011		June 30, 2010	
	June 30, 2014		June 30, 2013	
	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	15.05 %	15.05 %	17.21 %	17.21 %
Accrued liability	<u>17.90</u>	<u>18.90</u>	<u>15.16</u>	<u>16.16</u>
Total	<u>32.95 %</u>	<u>33.95 %</u>	<u>32.37 %</u>	<u>33.37 %</u>
Member	9.105%	9.105%	9.105%	9.105%
State (ARC)	<u>23.845</u>	<u>24.845</u>	<u>23.265</u>	<u>24.265</u>
Total	32.95 %	33.95 %	32.37 %	33.37 %
Life Insurance Fund:				
State	0.03 %	0.03 %	0.05 %	0.05 %
Medical Insurance Fund:				
Member	2.25 %	2.25 %	1.75 %	1.75 %
State Match	2.25	1.25	1.75	0.75
State Additional	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
Total	<u>4.50 %</u>	<u>3.50 %</u>	<u>3.50 %</u>	<u>2.50 %</u>
Total Contributions	<u>37.48 %</u>	<u>37.48 %</u>	<u>35.92 %</u>	<u>35.92 %</u>
Member Statutory	11.355%	11.355%	10.855%	10.855%
State Statutory	14.605	14.605	14.105	14.105
Required Increase	8.02	8.02	7.27	7.27
State Special	<u>3.50</u>	<u>3.50</u>	<u>3.69</u>	<u>3.69</u>
Total	37.48 %	37.48 %	35.92 %	35.92 %

- 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, 2011 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.
- Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2010. The changes adopted by the Board on September 19, 2011, include various revised demographic and economic assumptions, a valuation interest smoothing methodology and a change in the actuarial cost method from Projected Unit Credit to the Entry Age Normal. Schedule D of this report shows the development of the smoothed interest rate and Schedule F shows a brief description of the actuarial cost method. The following chart summarizes all the changes adopted by the Board that are reflected in the valuation.



**Summary of Assumptions and Methods  
as of June 30, 2011**

**Economic Assumptions**

Price Inflation	Changed assumed rate from 4.00% to 3.50%
Ultimate Investment Rate of Return *	No change to current assumption
Wage Inflation	No change to current assumption

**Demographic Assumptions**

Withdrawal	Changed rates to more closely reflect experience
Pre-Retirement Mortality	Changed to prescribed table that matches Post-Retirement Mortality
Disability	Lowered rates for most ages
Service Retirement	Changed rates to more closely reflect experience
Post-Retirement Mortality	Changed to RP2000 Combined Mortality Table
Salary Scale	No change to current assumption

**Other Assumptions and Methods Changes**

Actuarial Cost Method	Change from Projected Unit Credit (PUC) to Entry Age Normal (EAN) Cost Method
Unused Sick Leave	Increase Load Assumption from 1% to 2%
Asset Smoothing	No change to current method
Interest Smoothing*	Change to interest smoothing methodology

\* The Board adopted a Smoothed Interest Rate Methodology whereby the investment rate of return expected to be earned during a 25 year look forward period beginning on the valuation date and the actual returns earned during the 5 year look back period will result in an average rate of return over the combined 30 year period equivalent to the Ultimate Investment Rate of Return of 7.50%. A corridor of 0.50% around the ultimate investment rate of return will be applied in determining the smoothed interest rate.

5. 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.
6. Provisions of the System, as summarized in Schedule G, were taken into account in the current valuation. The valuation takes into account the effect of amendments to the System enacted through the most recent Session of the Legislature.



## 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, 2011 on the basis of which the valuation was prepared.

Group	Number	Annual Salaries (\$1,000's)
Full Time	59,089	\$ 3,337,547
Part Time	<u>17,260</u>	<u>114,209</u>
Total	<u><u>76,349</u></u>	<u><u>\$ 3,451,756</u></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, 2011		
Group	Number	Annual Retirement Allowances <sup>1</sup> (\$1,000's)
Service Retirements	38,755	\$ 1,310,584
Disability Retirements	2,379	62,730
Beneficiaries of Deceased Members	<u>3,285</u>	<u>60,072</u>
Total	<u><u>44,419</u></u>	<u><u>\$ 1,433,386</u></u>

<sup>1</sup> Includes cost-of-living adjustments effective through July 1, 2011.

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, 2011 the market value of Pension Plan assets for valuation purposes held by the System amounted to \$15,130,606,279. 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, 2011 was \$14,908,138,356. Schedule B shows the development of the actuarial value of assets as of June 30, 2011.
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, 2011. 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 \$15,233,865,216 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 \$15,330,710,085 of which \$965,191,446 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 \$227,185,346. The total prospective liabilities of the System amounts to \$30,791,760,647. Against these liabilities, the System has present assets for valuation purposes of \$14,908,138,356. When this amount is deducted from the total liabilities of \$30,791,760,647, there remains \$15,883,622,291 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 11.77% of payroll for University and 15.05% of payroll for Non-University are required.
4. Prospective normal employer and employee contributions have a present value of \$4,823,068,059. When this amount is subtracted from \$15,883,622,291, which is the present value of the total future contributions to be made by the employer, there remains \$11,060,554,232 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 who becomes a member before July 1, 2008 will contribute 9.375% of annual salary to the System and each non-university member who becomes a member before July 1, 2008 will contribute 11.355% of annual salary. Of this amount, for each university member, 1.75% is paid to the Medical Insurance Fund for medical benefits and for each non-university member, 2.25% 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 161.540 also provides that each university member who becomes a member on or after July 1, 2008 will contribute 9.375% of annual salary to the System and each non-university member who becomes a member on or after July 1, 2008 will contribute 11.355% of annual salary. Of this amount, 1.75% is paid to the Medical Insurance Fund for medical benefits leaving 7.625% for university for university members and 9.105% for non-university members applicable for the retirement benefits taken into account in the valuation.
3. Section 161.550 provides that the State will match the member contributions and contribute a supplemental 3.25% of members' salaries towards discharging the System's unfunded obligations. The System was amended as of June 30, 2000 to allow the Board to allocate up to a maximum of the entire 3.25% to the Medical Insurance Fund. **For the 2013/2014 fiscal year, we recommend that the Board allocate the entire 3.25% towards the Pension Plan.**
4. 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 8.02% 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 3.50% of total payroll will be made by the State. Therefore, the total required employer contribution rate to the Pension Plan is 22.365% for university members who become members before July 1, 2008 and 23.365% for university members who become members on or after July 1, 2008. The total required employer contribution rate to the Pension Plan is 23.845% for non-university members who become members before July 1, 2008 and 24.845% 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**

<u>Member</u>	Members hired before 7/1/2008	Members hired on or after 7/1/2008
Statutory Total	9.375%	9.375%
Statutory Medical Insurance Fund	(1.75)	(1.75)
Contribution to Pension Plan	7.625%	7.625%
<u>Employer</u>		
Statutory Matching Total	9.375%	9.375%
Statutory Medical Insurance Fund	(1.75)	(0.75)
Supplemental Funding	3.25	3.25
Subtotal	10.875%	11.875%
Life Insurance	(0.03) %	(0.03) %
Additional to Maintain 30-Year Amortization	8.02	8.02
Special Appropriation	3.50	3.50
Contribution to Pension Plan	22.365%	22.365%
Total Contribution to Pension Plan	29.99 %	30.99 %





**Contribution Rates by Source  
Non-University**

	Members hired before 7/1/2008	Members hired on or after 7/1/2008
<b><u>Member</u></b>		
Statutory Total	11.355%	11.355%
Statutory Medical Insurance Fund	<u>(2.25)</u>	<u>(2.25)</u>
Contribution to Pension Plan	9.105%	9.105%
<b><u>Employer</u></b>		
Statutory Matching Total	11.355%	11.355%
Statutory Medical Insurance Fund	<u>(2.25)</u>	<u>(1.25)</u>
Supplemental Funding	<u>3.25</u>	<u>3.25</u>
Subtotal	12.355%	13.355%
Life Insurance	(0.03) %	(0.03) %
Additional to Maintain 30-Year Amortization	8.02	8.02
Special Appropriation	<u>3.50</u>	<u>3.50</u>
Contribution to Pension Plan	23.845%	24.845%
Total Contribution to Pension Plan	32.95 %	33.95 %

4. The valuation indicates that normal contributions at the rate of 11.77% of active university members' salaries and 15.05% 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 18.22% for university members hired before July 1, 2008, 19.22% for university members hired on and after July 1, 2008, 17.90% for non-university members hired before July 1, 2008, and 18.90% for non-university members hired on and after July 1, 2008. These rates include special appropriations of 3.50% 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	11.77%	11.77%	15.05%	15.05%
Accrued Liability *	<u>18.22</u>	<u>19.22</u>	<u>17.90</u>	<u>18.90</u>
Total	29.99%	30.99%	32.95%	33.95%

\* Includes special appropriations of 3.50% of payroll to be made by the State.



5. The unfunded actuarial accrued liability amounts to \$11,060,554,232 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

1. Our calculations indicate that the contribution rates shown in the previous section will be sufficient to cover the benefits of the System, the annual 1.5% increases in the allowances of retired members and beneficiaries, and the liabilities for minimum annuities, ad hoc increases and sick leave allowances granted after 1981.
2. The valuation indicates that the present statutory contribution rates, supplemental funding and special appropriations, if continued at the current level percentage, along with an additional required contribution of 8.02%, 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.
3. During the 2005 through 2010 fiscal years, a portion of the contributions required for the pension fund were allocated as loans to the Medical Insurance Fund for Stabilization Funding. Beginning with the 2009 fiscal year, additional contributions have also been allocated as loans for non-single subsidy funding. Payments are being made to repay these loans. In August 2010, a pension obligation bond was issued with proceeds used to fully repay the loans for the Stabilization Funding. 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 as of June 30, 2011:

#### Medical Insurance Fund Stabilization Funding

FISCAL YEAR	LOAN AMOUNT	ANNUAL PAYMENT	BALANCE AS OF JUNE 30, 2011
2004/2005	\$ 29,169,700	\$ 0	\$ 0
2005/2006	62,294,800	0	0
2006/2007	73,000,000	0	0
2007/2008	125,000,000	0	0
2008/2009*	133,400,000	1,228,900	7,343,046
2009/2010**	134,200,000	1,345,200	8,746,642
2010/2011***	<u>10,700,000</u>	<u>1,405,600</u>	<u>10,700,000</u>
<b>TOTAL</b>	<b>\$ 567,764,500</b>	<b>\$ 3,979,700</b>	<b>\$ 26,789,688</b>

\* Includes \$125,000,000 for Stabilization Funding and \$8,400,000 for non-single subsidy funding.

\*\* Includes \$125,000,000 for Stabilization Funding and \$9,200,000 for non-single subsidy funding.

\*\*\* For non-single subsidy funding.



4. There are no excess assets or contributions available to provide additional benefits, and there is a cumulative increase in the required employer contribution of 8.02% of payroll for the fiscal year ending June 30, 2014, 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

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 \$1,567,568,343 in the unfunded accrued liability from \$9,492,985,889 to \$11,060,554,232 during the year ending June 30, 2011.

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

ITEM	AMOUNT OF INCREASE/ (DECREASE)
Interest (7.50%) added to previous unfunded accrued liability	\$ 711,974
Expected accrued liability contribution	(331,360)
Contributions allocated to the Medical Insurance Fund (MIF) for Stabilization Funding during 2010/2011 fiscal year with interest	11,101
Repayment of prior year's MIF Stabilization Funding with interest	(2,671)
Experience:	
Valuation asset growth	521,208
Pensioners' mortality	11,676
Turnover and retirements	13,570
New entrants	53,011
Salary increases	(164,032)
Amendments	0
Assumption changes	750,720
Method changes	(7,629)
Total	\$ 1,567,568



**Section VIII - ACCOUNTING INFORMATION**

1. 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, 2011**

<b>GROUP</b>	<b>NUMBER</b>
Retirees and beneficiaries currently receiving benefits	44,419
Terminated employees entitled to benefits but not yet receiving benefits	6,135
Active plan members	<u>76,349</u>
Total	126,903

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

<b>Schedule of Funding Progress (Dollar amount in thousands)</b>						
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)
6/30/2006**	\$ 14,857,641	\$ 20,324,781	\$ 5,467,140	73.1%	\$ 2,859,477	191.2%
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
* Funding method Projected Unit Credit prior to 6/30/2011						
Funding method Entry Age Normal 6/30/2011 and after						
** Reflects change in decremental assumptions						
*** 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, 2011. Additional information as of the latest actuarial valuation follows.

Valuation date	06/30/2011	<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 3.5%</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>Percentage</u> <u>Contributed</u>
2006	\$ 464,152,466	87 %
2007	494,565,369	88
2008	563,789,483	83
2009	600,282,735	74
2010	633,938,088	76
2011	678,741,428	153

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2011. 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, 2011**

(a)	Employer annual required contribution	\$ 678,741,428
(b)	Interest on net pension obligation	43,224,614
(c)	Adjustment to annual required contribution	<u>30,809,803</u>
(d)	Annual pension cost: (a) + (b) - (c)	\$ 691,156,239
(e)	Employer contributions made for fiscal year ending June 30, 2011	<u>1,037,935,993</u>
(f)	Increase (decrease) in net pension obligation: (d) - (e)	(346,779,754)
(g)	Net pension obligation beginning of fiscal year	<u>576,328,182</u>
(h)	Net pension obligation end of fiscal year: (f) + (g)	\$ 229,548,428



**TREND INFORMATION**

YEAR ENDING	ANNUAL PENSION COST (APC)	PERCENTAGE OF APC CONTRIBUTED	NET PENSION OBLIGATION (NPO)
June 30, 2009	\$ 605,671,714	73%	\$ 413,292,362
June 30, 2010	642,840,908	75	576,328,182
June 30, 2011	691,156,239	150	229,548,428

**SCHEDULE A**  
**VALUATION BALANCE SHEET**  
**SHOWING THE PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES**  
**AS OF JUNE 30, 2011**  
**(Dollar amount in thousands)**

<b><u>ACTUARIAL LIABILITIES</u></b>			
Present value of prospective benefits payable in respect of:			
(1)	Present active members		
-	Service retirement benefits	\$ 14,178,955	
-	Disability retirement benefits	697,309	
-	Death and survivor benefits	138,465	
-	Refunds of member contributions	<u>219,136</u>	
	Total		\$ 15,233,865
(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	\$ 14,224,794	
-	Disability retirement benefits	585,781	
-	Death and survivor benefits	<u>520,135</u>	
	Total		\$ 15,330,710
(3)	Present value of prospective benefits payable on account of inactive members and members entitled to deferred vested benefits		<u>\$ 227,186</u>
(4)	TOTAL ACTUARIAL LIABILITIES		<u><u>\$ 30,791,761</u></u>
<b><u>PRESENT AND PROSPECTIVE ASSETS</u></b>			
(5)	Actuarial value of assets		\$ 14,908,138
(6)	Present value of total future contributions = (4)-(5)	\$ 15,883,623	
(7)	Present value of future member contributions and employer normal contributions		4,823,069
(8)	Prospective unfunded accrued liability contributions = (6)-(7)		<u>11,060,554</u>
(9)	TOTAL PRESENT AND PROSPECTIVE ASSETS		<u><u>\$ 30,791,761</u></u>



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

*Schedule A continued ...*

## **Solvency Test** *(in millions of dollars)*

Fiscal Year Ending	(1) Active Member Contributions	(2) Retirants And Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
					(1)	(2)	(3)
6/30/2006	\$ 2,615.8	\$ 12,216.6	\$ 5,492.4	\$ 14,857.6	100%	100%	0%
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

## **SCHEDULE B** **Development of Actuarial Value of Assets** **as of June 30, 2011**

(1)	Actuarial Value of Assets Beginning of Year (exclusive of Pension Obligation Bond)	\$ 14,386,329,749
(2)	Market Value of Assets End of Year	\$ 15,130,606,279
(3)	Market Value of Assets Beginning of Year	\$ 12,456,619,082
(4)	Cash Flow	
a.	Contributions (exclusive of Pension Obligation Bond)	\$ 874,814,647
b.	Benefit Payments	1,419,861,100
c.	Administrative Expense	7,322,739
d.	Net: (4)a - (4)b - (4)c	\$ (552,369,192)
e.	Pension Obligation Bond	\$ 465,384,165
(5)	Investment Income	
a.	Market total: (2) - (3) - (4)d - (4)e	\$ 2,760,972,224
b.	Assumed Rate	7.50%
c.	Amount for Immediate Recognition: [ (3) x (5)b ] + [ (4)d x (5)b x 0.5 ] + [ (4)e x (5)b x 10/12 ]	\$ 942,619,097
d.	Amount for Phased-In Recognition: (5)a - (5)c	\$ 1,818,353,127
(6)	Phased-In Recognition of Investment Income	
a.	Current Year: 0.20 x (5)d	\$ 363,670,625
b.	First Prior Year	133,378,916
c.	Second Prior Year	(611,235,941)
d.	Third Prior Year	(409,879,449)
e.	Fourth Prior Year	190,240,386
f.	Total Recognized Investment Gain	\$ (333,825,463)
(7)	Actuarial Value of Assets End of Year: (1) + (4)d + (4)e + (5)c + (6)f	\$ 14,908,138,356
(8)	Difference Between Market & Actuarial Values: (2) - (7)	\$ 222,467,923

Year Ended June 30, 2011



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

<b>Receipts for the Year</b>	<b>For the Year Ending</b>	
	<u>June 30, 2011</u>	<u>June 30, 2010</u>
Contributions		
Members	\$ 302,262,819	\$ 297,613,965
Employers	<u>1,037,935,993</u>	<u>479,805,088</u>
Total	\$ 1,340,198,812	\$ 777,419,053
Net Investment Income	<u>2,760,972,224</u>	<u>1,509,265,958</u>
Total	\$ 4,101,171,036	\$ 2,286,685,011
<b>Disbursements for the Year</b>		
Benefit Payments	\$ 1,402,535,713	\$ 1,321,808,770
Refunds to Members	17,325,387	15,310,680
Miscellaneous, including expenses	<u>7,322,739</u>	<u>8,830,054</u>
Total	\$ 1,427,183,839	\$ 1,345,949,504
<b>Excess of Receipts over Disbursements</b>	\$ 2,673,987,197	\$ 940,735,507
<b>Reconciliation of Asset Balances</b>		
Asset Balance as of the Beginning of the Year	\$ 12,456,619,082	\$ 11,515,883,575
Excess of Receipts over Disbursements	<u>2,673,987,197</u>	<u>940,735,507</u>
Asset Balances as of the End of the Year	<u>\$ 15,130,606,279</u>	<u>\$ 12,456,619,082</u>
Rate of Return	21.60%	13.44%

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

**SCHEDULE D**  
**SMOTHED 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>
2007	14.56%
2008	(6.46)
2009	(14.64)
2010	13.44
2011	21.60

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, 2011 valuation, the smoothed interest rate during the 25 year look forward period has been determined to be 8.06%.

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 8.06% 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	12.5	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 back 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.

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

**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, 2011. 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.



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## SCHEDULE H

**Table 1: Age - Service Table**  
**Distribution of Active Members as of June 30, 2011**  
**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	2,461	1							2,462
Total Pay	41,168,000	43,000							41,211,000
Avg. Pay	16,728	43,000							16,739
25 to 29	7,124	1,405							8,529
Total Pay	222,544,000	66,018,000							288,562,000
Avg. Pay	31,239	46,988							33,833
30 to 34	3,770	5,093	967						9,830
Total Pay	111,427,000	250,802,000	53,648,000						415,877,000
Avg. Pay	29,556	49,244	55,479						42,307
35 to 39	2,716	2,470	4,124	628					9,938
Total Pay	73,577,000	122,975,000	240,200,000	39,874,000					476,626,000
Avg. Pay	27,090	49,787	58,244	63,494					47,960
40 to 44	3,698	1,903	2,459	3,164	713				11,937
Total Pay	78,560,000	95,796,000	142,806,000	202,764,000	47,075,000				567,001,000
Avg. Pay	21,244	50,339	58,075	64,085	66,024				47,499
45 to 49	1,742	1,259	1,391	1,511	2,273	631			8,807
Total Pay	40,970,000	64,667,000	81,094,000	98,367,000	151,467,000	42,699,000			479,264,000
Avg. Pay	23,519	51,364	58,299	65,101	66,637	67,669			54,419
50 to 54	1,511	973	1,194	1,211	1,320	1,739	381		8,329
Total Pay	31,062,000	49,208,000	70,429,000	78,534,000	90,131,000	123,612,000	26,959,000		469,935,000
Avg. Pay	20,557	50,573	58,986	64,851	68,281	71,082	70,759		56,422
55 to 59	2,245	724	982	1,035	1,125	821	597	82	7,611
Total Pay	33,132,000	37,292,000	59,798,000	68,831,000	77,411,000	61,016,000	46,788,000	7,134,000	391,402,000
Avg. Pay	14,758	51,508	60,894	66,503	68,810	74,319	78,372	87,000	51,426
60 to 64	2,842	519	494	627	638	439	151	115	5,825
Total Pay	38,464,000	26,979,000	31,260,000	41,981,000	46,193,000	33,463,000	13,713,000	10,452,000	242,505,000
Avg. Pay	13,534	51,983	63,279	66,955	72,403	76,226	90,815	90,887	41,632
65 & over	2,164	246	155	144	145	112	40	75	3,081
Total Pay	20,190,000	10,359,000	9,870,000	9,807,000	10,342,000	8,439,000	3,365,000	7,001,000	79,373,000
Avg. Pay	9,330	42,110	63,677	68,104	71,324	75,348	84,125	93,347	25,762
Total	30,273	14,593	11,766	8,320	6,214	3,742	1,169	272	76,349
Total Pay	691,094,000	724,139,000	689,105,000	540,158,000	422,619,000	269,229,000	90,825,000	24,587,000	3,451,756,000
Avg. Pay	22,829	49,622	58,567	64,923	68,011	71,948	77,695	90,393	45,210

Average Age: 43.6

Average Service: 10.9



**SCHEDULE H**

**Table 2: Number of Retired Members and Beneficiaries  
and their Benefits by Age as of June 30, 2011**

<b>Attained Age</b>	<b>Number of Members</b>	<b>Total Annual Benefits</b>	<b>Average Annual Benefits</b>
49 & Under	771	\$ 9,250,517	\$ 11,998
50 - 54	1,067	35,560,948	33,328
55 - 59	5,446	207,980,428	38,190
60 - 64	11,248	407,961,327	36,270
65 - 69	8,963	305,262,297	34,058
70 - 74	6,252	197,772,903	31,634
75 - 79	4,295	123,861,204	28,838
80 & Over	<u>6,377</u>	<u>145,736,271</u>	<u>22,853</u>
<b>TOTAL</b>	<b>44,419</b>	<b>\$ 1,433,385,895</b>	<b>\$ 32,270</b>

**SCHEDULE H**

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

Fiscal Year	ADD TO ROLLS		REMOVED FROM ROLLS		ROLLS END OF YEAR		Increase In Annual Allowances	Average Annual Allowance
	Annual Allowances		Annual Allowances		Annual Allowances			
	Number	(Millions)	Number	(Millions)	Number	(Millions)		
2002	2,577	\$ 86.2	1,063	\$ 16.8	33,408	\$ 749.2	10.2%	\$ 22,425
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





**SCHEDULE H**

**Table 4: Schedule of Active Member Valuation Data**

<b>Valuation Date</b>	<b>Number</b>	<b>Annual Payroll</b>	<b>Annual Average Pay</b>	<b>% Increase in Average Pay</b>
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	3,253,076,000	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
6/30/2006	73,740	2,859,477,425	38,778	3.68

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# **Actuarial Section**

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Report of the Actuary  
on the  
Annual Valuation  
of the  
Retiree Medical and Life Insurance Plans  
for Fiscal Year ending June 30, 2011



## Cavanaugh Macdonald

CONSULTING, LLC

*The experience and dedication you deserve*

December 16, 2011

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 Medical Insurance Fund and OPEB liabilities related to the Life Insurance Fund. Cavanaugh Macdonald Consulting, LLC (CMC) has submitted the results of the annual actuarial valuation prepared as of June 30, 2011. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates a total annual required contribution of 6.95% of active member payroll for the Medical Insurance Fund payable for the fiscal year ending June 30, 2014 is required to support the benefits of the Kentucky Employees' Health Plan (KEHP) and the Medicare Eligible Health Plan (MEHP). Of this amount, 1.75% of payroll is estimated to be paid by University members entering the System prior to July 1, 2008 and 2.25% of payroll is estimated to be paid by all other members, leaving 5.20% and 4.70% 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, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2010. These revised changes were adopted by the Board on September 19, 2011. Effective January 1, 2012, the KTRS MEHP will join the Kentucky Rx Coalition administered by Express Scripts in order to facilitate a more cost effective prescription drug plan for Medicare eligible retirees.

The Life Insurance Fund valuation indicates a total annual required contribution of 0.03% of active member payroll payable for the fiscal year ending June 30, 2014 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 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 medical and life

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Board of Trustees  
December 16, 2011  
Page 2

insurance plans and to reasonable expectations of anticipated experience under the medical and life insurance plans and meet the parameters for the disclosures under GASB 43 and 45.

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 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 medical plans 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 medical plans will improve.

Respectfully submitted,

Eric Gary, FSA, FCA, MAAA  
Senior Actuary

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



**Report of Actuary on the on the Annual Valuation of the Retiree Medical and Life Insurance Plans**  
Prepared as of June 30, 2011

**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):

<b>~ Medical Insurance Fund ~</b>		
<b>Valuation Date</b>	<b>June 30, 2011</b>	<b>June 30, 2010</b>
Number of active members	76,349	76,387
Annual salaries	\$ 3,451,756	\$ 3,321,614
Number of vested former members	3,485	3,412
Number of annuitants in medical plans	35,033	34,315
Number of spouses and beneficiaries in medical plans*	<u>6,922</u>	<u>6,834</u>
Total	41,955	41,149
Assets:		
Market value	\$ 294,819	\$ 241,224
Unfunded actuarial accrued liability	\$ 3,128,330	\$ 2,965,582
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.*

<b>Medical Insurance Fund Contribution Rates for University Members</b>				
<b>Valuation Date</b>	<b>June 30, 2011</b>		<b>June 30, 2010</b>	
For Fiscal Year Ending	June 30, 2014		June 30, 2013	
	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	2.00 %	2.00 %	2.32 %	2.32 %
Accrued liability	<u>4.95</u>	<u>4.95</u>	<u>4.88</u>	<u>4.88</u>
Total	6.95 %	6.95 %	7.20 %	7.20 %
Member	1.75 %	1.75 %	1.43 %	1.75 %
Employer	1.75	0.75	1.43	0.75
State (ARC)	<u>3.45</u>	<u>4.45</u>	<u>4.34</u>	<u>4.70</u>
Total	6.95 %	6.95 %	7.20 %	7.20 %

<b>Medical Insurance Fund Contribution Rates for School District Employees (Non-Federal)</b>				
<b>Valuation Date</b>	<b>June 30, 2011</b>		<b>June 30, 2010</b>	
For Fiscal Year Ending	June 30, 2014		June 30, 2013	
	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	2.00 %	2.00 %	2.32 %	2.32 %
Accrued liability	<u>4.95</u>	<u>4.95</u>	<u>4.88</u>	<u>4.88</u>
Total	6.95 %	6.95 %	7.20 %	7.20 %
Member	2.25 %	2.25 %	1.75 %	1.75 %
Employer	1.50	1.50	1.00	1.00
State (ARC)	<u>3.20</u>	<u>3.20</u>	<u>4.45</u>	<u>4.45</u>
Total	6.95 %	6.95 %	7.20 %	7.20 %



<b>Medical Insurance Fund Contribution Rates for Other Employees</b>				
<b>Valuation Date</b> For Fiscal Year Ending	<b>June 30, 2011</b> June 30, 2014		<b>June 30, 2010</b> June 30, 2013	
	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	2.00 %	2.00 %	2.32 %	2.32 %
Accrued liability	<u>4.95</u>	<u>4.95</u>	<u>4.88</u>	<u>4.88</u>
Total	6.95 %	6.95 %	7.20 %	7.20 %
Member	2.25 %	2.25 %	1.75 %	1.75 %
Employer	2.25	1.25	1.75	0.75
State (ARC)	<u>2.45</u>	<u>3.45</u>	<u>3.70</u>	<u>4.70</u>
Total	6.95 %	6.95 %	7.20 %	7.20 %

<b>~ Life Insurance Fund ~</b> (dollar amounts are \$1,000's)		
<b>Valuation Date</b>	<b>June 30, 2011</b>	<b>June 30, 2010</b>
Number of active members	76,349	76,387
Annual salaries	\$ 3,451,756	\$ 3,321,614
Number of vested former members	3,485	3,412
Number of retirees in Life Insurance Plan	41,118	39,951
Assets:		
Market value	\$ 88,527	\$ 87,905
Unfunded actuarial accrued liability*	\$ (439)	\$ 4,186
Amortization period (years)	30	30
Discount rate	7.50%	7.50%
<b>Contribution for fiscal year ending</b>	<b>June 30, 2014</b>	<b>June 30, 2013</b>
Normal	0.03%	0.04%
Accrued liability	<u>0.00%</u>	<u>0.01%</u>
Total	0.03%	0.05%
* 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 6.95% of active member payroll would be sufficient to support the current benefits of the medical plans 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, 2011 are given in Section IV and further discussion of the contribution levels is set out in Sections VI and VII.
- Since the previous valuation, various assumptions and methods have been revised to reflect the results of the experience investigation for the five-year period ending June 30, 2010. These revised changes were adopted by the Board on September 19, 2011. 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 prescription drug provider for the Medicare eligible plan has changed and plan designs have changed for the Health Insurance plans that cover non-Medicare eligible retirees. The changes are summarized below.

- Effective January 1, 2012, the KTRS MEHP will join the Kentucky Rx Coalition administered by Express Scripts in order to facilitate a more cost effective prescription drug plan for Medicare eligible retirees.
- Plan design changes have also been implemented for Plan Year 2012 for the Kentucky Employees' Health Plan (KEHP), the self-insured plan for active employees and non-Medicare eligible retirees administered by the Commonwealth of Kentucky.

## 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, 2011, upon which the valuation was based. Detailed tabulations of the data are given in Schedule E.

Group	Number	Annual Salaries (\$1,000's)
Full Time	59,089	\$ 3,337,547
Part Time	17,260	114,209
Total	76,349	\$ 3,451,756

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, 2011

	Under Age 65	Age 65 and Over	TOTAL
Number	15,557	19,476	35,033
Average Age	60.3	74.8	68.4

### Spouses Receiving Health Benefits as of June 30, 2011

	Under Age 65	Age 65 and Over	TOTAL
Number	3,348	3,574	6,922
Average Age	59.1	75.9	67.8

The valuation also includes 3,485 inactive members eligible for health care at age 60.



### Section III - ASSETS

1. As of June 30, 2011 the market value of Medical Insurance Fund assets for valuation purposes held by the medical plans amounted to \$294,818,595 and the market value of Life Insurance Fund assets for valuation purposes held by the life insurance plan amounted to \$88,526,680.
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 that the medical plans have an actuarial accrued liability of \$1,513,059,331 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 inactive members amounts to \$14,242,655. The liability on account of benefits payable to retirees and covered spouses amounts to \$1,895,846,379. The total actuarial accrued liability of the medical plans amounts to \$3,423,148,365. Against these liabilities, the medical plans have present assets for valuation purposes of \$294,818,595. When this amount is deducted from the actuarial accrued liability of \$3,423,148,365 there remains \$3,128,329,770 as the unfunded actuarial accrued liability for the medical plans.
3. The normal contribution is equal to the actuarial present value of benefits accruing during the current year. The normal contribution for the medical plans is determined to be \$68,938,173, or 2.00% of payroll.
4. The valuation shows that the life insurance plan has an actuarial accrued liability of \$15,918,883 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 inactive members amounts to \$1,666,481. The liability on account of benefits payable to retirees amounts to \$70,502,418. The total actuarial accrued liability of the life insurance plan amounts to \$88,087,782. 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 \$88,526,680. When this amount is deducted from the actuarial accrued liability of \$88,087,782 there remains \$(438,898) 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 \$1,070,709, 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, 2011 is shown below (\$1,000's).

EXPERIENCE GAIN/(LOSS) OF THE:		MEDICAL INSURANCE FUND	LIFE INSURANCE FUND
(1)	UAAL* as of 6/30/2010	\$ 2,965,582	\$ 4,186
(2)	Normal cost from last valuation	77,102	1,276
(3)	Expected employer contributions	<u>477,723</u>	<u>1,726</u>
(4)	Interest accrual: [(1) + (2) - (3)] x interest**	205,197	280
(5)	Expected UAAL before changes: (1) + (2) - (3) + (4)	\$ 2,770,158	\$ 4,016
(6)	Change due to plan amendments	0	0
(7)	Change due to new actuarial assumptions	363,153	(4,792)
(8)	Change due to claims experience	(476,581)	0
(9)	Expected UAAL after changes: (5) + (6) + (7) + (8)	\$ 2,656,730	\$ (776)
(10)	Actual UAAL as of 6/30/2011	\$ 3,128,330	\$ (439)
(11)	Total gain/(loss): (9) - (10)	\$ (471,600)	\$ (337)
	(a) Contribution shortfall and investment loss	(314,847)	(3,487)
	(b) Experience gain/(loss) (11) - (11a)	\$ (156,753)	\$ 3,150
(12)	Accrued liabilities as of 6/30/2010	\$ 3,206,806	\$ 92,091
(13)	Experience gain/(loss) as percent of actuarial accrued liabilities at start of year (11b) / (12)	(4.9%)	3.4%

\* 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 SYSTEM

- 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.



<b>Employer Percentage of Payroll Contributions Made to Medical Insurance Fund</b>						
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
2012	1.090%	0.750%	0.500%	0.500%	1.250%	0.750%
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, 2014, member contributions will be 1.75% for University employees who became members of the System before July 1, 2008 and 2.25% for all other members. CMC recommends employer and State contributions increase to the required amount of 5.20% of payroll for University employees hired prior to July 1, 2008 and 4.70% of payroll for all other members. The State is scheduled to contribute 0.05% of salary to the Life Insurance Fund for the fiscal year ending June 30, 2013. CMC's valuation indicates a contribution of 0.03% for the fiscal year ending June 30, 2014 is required to sufficiently support the benefits of the life insurance plan.

<b>REQUIRED CONTRIBUTION RATES For Fiscal Year Ending June 30, 2014 Medical Insurance Fund</b>						
Normal		2.00%				
Accrued liability		<u>4.95</u>				
Total		6.95%				
	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	1.75%	1.75%	2.25%	2.25%	2.25%	2.25%
Employer (ARC)	1.75	0.75	1.50	1.50	2.25	1.25
State (ARC)	<u>3.45</u>	<u>4.45</u>	<u>3.20</u>	<u>3.20</u>	<u>2.45</u>	<u>3.45</u>
Total	6.95%	6.95%	6.95%	6.95%	6.95%	6.95%

<b>Life Insurance Fund</b>	
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 2.00% of payroll is required to meet the cost of benefits currently accruing under the medical plans and 0.03% of payroll is required to meet the cost of benefits currently accruing under the life insurance plan. The difference between the total contribution and the normal contribution remains to be applied toward the liquidation of the unfunded actuarial accrued liability. This accrued liability payment is 4.95% of payroll for the medical plans and 0.00% of payroll for the life insurance plan.



- The unfunded actuarial accrued liability amounts to \$3,128,329,770 for the medical plans and \$(438,898) for the life insurance plan as of the valuation date. An accrued liability contribution of 4.95% of payroll for the medical plans 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 to opt into the medical plan is based upon date of hire and years of service at retirement. Additionally, beneficiary contributions may vary by 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 member 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 medical plans in an actuarially sound manner and to ensure the future solvency of the Medical Insurance Fund. For University employees who became members of the System before July 1, 2008, a member contribution of 1.75% of payroll together with employer and State contributions of 5.20% 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 2.25% of payroll together with employer and State contributions of 4.70% 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, 2011		Number of Active and Retired Members in Life Insurance Plan as of June 30, 2011	
GROUP	NUMBER	GROUP	NUMBER
Retirees currently receiving health benefits	35,033	Retirees	41,118
Spouses of retirees currently receiving health benefits	6,922	Terminated employees	3,485
Terminated employees entitled to benefits but not yet receiving benefits	3,485	Active plan members	<u>76,349</u>
Active plan members	<u>76,349</u>	<b>Total</b>	<u><u>120,952</u></u>
<b>Total</b>	<u><u>121,789</u></u>		



<b>Schedule of Funding Progress</b> <b>Medical Insurance Fund</b> <i>(Dollar amount in thousands)</i>						
ACTUARIAL VALUATION DATE	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES (AAL)	UNFUNDED AAL (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	<b>a</b>	<b>b</b>	<b>(b-a)</b>	<b>(a/b)</b>	<b>c</b>	<b>[(b-a)/c]</b>
6/30/2005	\$ 147,311	\$ 4,763,947	\$ 4,616,636	3.1%	\$ 2,703,430	170.8
6/30/2006 <sup>1</sup>	131,614	4,341,963	4,210,349	3.0	2,859,477	147.2
6/30/2007 <sup>2</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>3</sup>	229,103	6,454,733	6,225,630	3.5	3,253,077	191.4
6/30/2010 <sup>4</sup>	241,224	3,206,806	2,965,582	7.5	3,321,614	89.3
6/30/2011 <sup>5</sup>	294,819	3,423,149	3,128,330	8.6	3,451,756	90.6
<sup>1</sup> Reflects change in decrement assumptions and plan design. <sup>2</sup> Reflects change in discount rate to 4.5% and updating medical trend. <sup>3</sup> Reflects change in participation assumptions and plan design. <sup>4</sup> Reflects change in discount rate to 8.0%, change in plan design and updating medical trend. <sup>5</sup> Reflects changes in decrement assumptions and updating medical trend.						

<b>Schedule of Funding Progress</b> <b>Life Insurance Fund</b> <i>(Dollar amount in thousands)</i>						
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
	<b>a</b>	<b>b</b>	<b>(b-a)</b>	<b>(a/b)</b>	<b>c</b>	<b>[(b-a)/c]</b>
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)

2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2011. Additional information as of the latest actuarial valuation follows.

Valuation Date .....	06/30/2011	<b>Actuarial Assumptions:</b>
Actuarial cost method .....	Entry age	<u>Investment Rate of Return*</u>
Amortization method .....	Level percent of pay, open	8.0% for Medical &
Remaining amortization period .....	30 years	7.5% for Life Insurance
Asset valuation method .....	Market Value of Assets	<u>Medical Trend Assumption</u>
		<u>(Pre-Medicare)**</u>
		10.5% - 5.0%
		<u>Medical Trend Assumption</u>
		<u>(Post-Medicare)</u>
		8.5% - 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					
VALUATION YEAR JUNE 30	ANNUAL REQUIRED CONTRIBUTION	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

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	

3. Following is the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2011. As the 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, 2011	
(a) Employer Annual Required Contribution	\$ 477,723,070
(b) Interest on Net OPEB Obligation	36,647,057
(c) Adjustment to Annual Required Contribution	<u>29,075,954</u>
(d) Annual OPEB Cost: (a) + (b) - (c)	\$ 485,294,173
(e) Employer Contributions for Fiscal Year 2011	<u>188,734,514</u>
(f) Increase in Net OPEB Obligation: (d) - (e)	\$ 296,559,659
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>\$ 814,379,040</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	<u><u>\$ 1,110,938,699</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

**Annual OPEB Cost and Net OPEB Obligation  
for the Life Insurance Fund for Fiscal year Ending June 30, 2011**

(a) Employer Annual Required Contribution	\$ 1,725,878
(b) Interest on Net OPEB Obligation	(576,388)
(c) Adjustment to Annual Required Contribution	<u>(397,460)</u>
(d) Annual OPEB Cost: (a) + (b) - (c)	\$ 1,546,950
(e) Employer contributions for Fiscal Year 2011	<u>1,668,822</u>
(f) Increase in Net OPEB Obligation: (d) - (e)	\$ (121,872)
(g) Net OPEB Obligation at beginning of Fiscal Year	<u>(\$ 7,685,177)</u>
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	<u><u>(\$ 7,807,049)</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)



<b>SCHEDULE A</b> <b>RESULTS OF THE VALUATION AS OF JUNE 30, 2011</b> <b>(Dollar amounts in thousands)</b>		
	Medical Insurance Fund	Life Insurance Fund
<b>PAYROLL</b>	\$ 3,451,756	\$ 3,451,756
<b>ACTUARIAL ACCRUED LIABILITY</b>		
Present value of prospective benefits payable in respect of:		
(a) Present active members	\$ 1,513,059	\$ 15,919
(b) Present terminated vested members	14,243	1,667
(c) Present retired members and covered spouses	<u>1,895,847</u>	<u>70,502</u>
(d) Total actuarial accrued liability	3,423,149	88,088
<b>PRESENT ASSETS FOR VALUATION PURPOSES</b>	<u>294,819</u>	<u>88,527</u>
<b>UNFUNDED ACTUARIAL ACCRUED LIABILITY</b>	<u>\$ 3,128,330</u>	<u>\$ (439)</u>
<b>CONTRIBUTIONS FOR FISCAL YEAR ENDING JUNE 30, 2014:</b>		
Normal	2.00 %	0.03 %
Accrued Liability	<u>4.95</u>	<u>0.00</u>
Total	6.95 %	0.03 %
Member	2.22 %	0.00 %
Employer (ARC)	1.51	0.00
State (ARC)	<u>3.22</u>	<u>0.03</u>
Total	6.95 %	0.03 %

<b>MEDICAL INSURANCE FUND</b> <b>Solvency Test</b> <b>(Dollar amounts in millions)</b>							
Valuation Date	(1) Active Member Contributions	(2) Retirants And Beneficiaries	(3) Active Members (Employer Financed Portion)	Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
					(1)	(2)	(3)
6/30/2006	\$ 0.0	\$ 2,434.1	\$ 1,907.9	\$ 131.6	n/a	5%	0%
6/30/2007	0.0	2,816.3	3,112.5	140.8	n/a	5	0
6/30/2008	0.0	3,084.4	3,350.2	185.9	n/a	6	0
6/30/2009	0.0	3,203.7	3,251.0	229.1	n/a	7	0
6/30/2010	0.0	1,948.6	1,258.2	241.2	n/a	12	0
6/30/2011	0.0	1,910.1	1,513.1	294.8	n/a	15	0



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

	(1)	(2)	(3)		Portion of Accrued Liabilities Covered by Assets		
Valuation Date	Active Member Contributions	Retirants And Beneficiaries	Active Members (Employer Financed Portion)	Valuation Assets	(1)	(2)	(3)
6/30/2007	\$ 0.0	\$ 64.8	\$ 18.0	\$ 71.4	n/a	100%	37%
6/30/2008	0.0	66.9	17.4	77.7	n/a	100	62
6/30/2009	0.0	72.0	18.4	84.7	n/a	100	69
6/30/2010	0.0	74.4	17.7	87.9	n/a	100	76
6/30/2011	0.0	72.2	15.9	88.5	n/a	100	103

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

	<i>For the Year Ending</i>	
	<u>June 30, 2011</u>	<u>June 30, 2010</u>
<b><u>RECEIPTS FOR THE YEAR</u></b>		
Contributions		
Members Statutory	\$ 35,472,931	\$ 26,579,278
Payment by Retired Members	48,674,406	37,226,295
Total Members	84,147,337	63,805,573
State Statutory Contributions	32,455,802	24,561,433
State Special	145,900,000	0
Allotment from Pension Fund	9,885,400	134,200,000
TOTAL EMPLOYER	188,241,202	158,761,433
GRAND TOTAL	273,388,539	222,567,006
Recovery Income	212,727	4,063
Medicare D Receipts	280,585	14,614,285
Net Investment Income	8,334,296	12,312,999
TOTAL	281,216,147	249,498,353
<b><u>DISBURSEMENTS FOR THE YEAR</u></b>		
Administrative Expense	1,186,029	0
Medical Insurance Expense	226,435,363	237,377,528
TOTAL	227,621,392	237,377,528
<b><u>EXCESS OF RECEIPTS OVER DISBURSEMENTS</u></b>	53,594,755	12,120,825
<b><u>RECONCILIATION OF ASSET BALANCES</u></b>		
Asset Balance as of the Beginning of the Year	241,223,840	229,103,015
Excess of Receipts over Disbursements	53,594,755	12,120,825
Asset Balance as of the End of the Year	<u>\$ 294,818,595</u>	<u>\$ 241,223,840</u>





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

	<b>For the Year Ending</b>	
	<b><u>June 30, 2011</u></b>	<b><u>June 30, 2010</u></b>
<b><u>RECEIPTS FOR THE YEAR</u></b>		
Contributions		
Members	\$ 0	\$ 0
State	<u>1,668,822</u>	<u>1,966,826</u>
TOTAL	1,668,822	1,966,826
Net Investment Income	<u>3,094,776</u>	<u>5,383,644</u>
TOTAL	4,763,598	7,350,470
<b><u>DISBURSEMENTS FOR THE YEAR</u></b>		
Benefit Payments	4,120,000	4,148,511
Miscellaneous, including expenses	<u>21,511</u>	<u>0</u>
TOTAL	4,141,511	4,148,511
<b><u>EXCESS OF RECEIPTS OVER DISBURSEMENTS</u></b>	<u>622,087</u>	<u>3,201,959</u>
<b><u>RECONCILIATION OF ASSET BALANCES</u></b>		
Asset Balance as of the Beginning of the Year	87,904,593	84,702,634
Excess of Receipts over Disbursements	<u>622,087</u>	<u>3,201,959</u>
Asset Balance as of the End of the Year	<u>\$ 88,526,680</u>	<u>\$ 87,904,593</u>

**SCHEDULE C**  
**Outline 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 discount rate, 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, 2011

**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	MEDICARE PART B TREND	UNDER AGE 65 TREND	AGE 65 & OVER TREND
2012	-13.4%	10.5%	8.5%
2013	10.6	9.5	7.5
2014	4.8	8.5	7.0
2015	4.3	7.5	6.5
2016	4.3	6.5	6.0
2017	5.3	6.0	5.5
2018	5.7	5.5	5.0
2019	5.8	5.0	5.0
2020	5.5	5.0	5.0
2021 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:

<u>Participant Age</u>	<u>Annual Increase</u>
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

**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 age 65 and older, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

Average Monthly KTRS Full Costs & Contributions			
<u>Year</u>	<u>Pre-65 Full Cost and Contributions</u>	<u>Post-65 Full Costs</u>	<u>Post-65 Contributions</u>
CY 2004	\$ 293	\$ 274	\$ 274
CY 2005	412	288	288
CY 2006	461	315	315
CY 2007	458	283	283
CY 2008	484	278	278
CY 2009	545	301 <sup>1</sup>	285
CY 2010	594	373 <sup>1</sup>	342
CY 2011	626	289	289
CY 2012	638	270 <sup>2</sup>	270

<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> 1,800 current benefit recipients are not eligible for premium-free Medicare Part A benefits. For these individuals, the full cost of coverage is, on average, \$590 per month. It is assumed no new members will enter this population, as all active members are assumed to have begun contributing to Medicare as of 4/1/1986.



**Pre-65 Full Costs as of January 1, 2012**

<u>Tier</u>	<u>Commonwealth Standard PPO</u>	<u>Commonwealth Capitol Choice</u>	<u>Commonwealth Optimum PPO</u>
Single	\$ 496	\$ 638	\$ 663
Parent Plus	765	927	923
Couple	1,145	1,414	1,432
Family	1,273	1,568	1,596

**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:

<u>Commonwealth Standard PPO</u>	<u>Commonwealth Capitol Choice</u>	<u>Commonwealth Optimum PPO</u>
3%	19%	78%

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

**Member Participation\***

<u>Years of Service</u>	<u>Hired Before 7/1/2002 (Age 65 on 12/31/2004 or Earlier)</u>	<u>Hired Before 7/1/2002 (Age 65 on 1/1/2005 or Later)</u>	<u>Hired After 6/30/ 2002 and Before 7/1/2008</u>	<u>Hired 7/1/2008 and Later</u>
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	93	93	65	65
25-25.99	93	93	90	90
26-26.99	93	93	93	93
27 or more	93	93	93	93

\* Members retiring from inactive 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.

**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.

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



**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 (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 back 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:

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

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

**Price Inflation:** 3.50% per annum, compounded annually.

**Actuarial Method:** Entry age normal cost method. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability. For pre-Medicare retiree healthcare liabilities, the current premium charged by the Kentucky Employees' Health Plan (KEHP) is used as the base cost is projected forward using the healthcare trend assumption. No implicit rate subsidy is calculated or recognized as the subsidy is the responsibility of KEHP. For the Medicare-eligible retirees, claims were analyzed and current premiums were utilized with appropriate aging factors applied.

**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.

### **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 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 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 coverage.

**Termination:** Members that terminated with at least 5 years of service and have attained age 60 are eligible for retiree medical coverage.

**COVERED MEMBER MEDICAL PLAN CONTRIBUTIONS:**

**Retiree Years of Service Percentage Contribution:** Retirees contribute the following percentages based on years of service at retirement:

Retiree Percentage Contribution				
Years of Service	Hired before 7/1/02 (age 65 on 12/31/04 or earlier)	Hired Before 7/1/02 (age 65 on 1/1/05 or later)	Hired after 6/30/02 and before 7/1/08	Hired 7/1/08 and 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 contributions toward pre-65 healthcare are based upon the rate of \$600.92 per month for single coverage effective January 1, 2012, and retiree contributions toward post-65 healthcare are based upon the rate of \$270 per month for single coverage effective January 1, 2012.

**Pre-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. Effective July 1, 2012, the full Shared Responsibility Contribution will equal the Standard Part B premium that is paid by retirees age 65 and over.

Pre-65 Shared Responsibility 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



**Pre-65 Retiree Plan Cost Contribution:** A contribution according to the table below is required to be paid by pre-65 retirees based on the plan elected:

<b>Pre-65 Full Cost Contribution*</b>			
<b>Tier</b>	<b><u>Commonwealth Standard PPO</u></b>	<b><u>Commonwealth Capitol Choice</u></b>	<b><u>Commonwealth Optimum PPO</u></b>
Single	\$ 0	\$ 37	\$ 63
Parent Plus	8	160	196
Couple	282	493	521
Family	288	584	623
* Does not include the additional contribution required to be paid by pre-65 retiree smokers, which also varies on the plan elected.			

**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.

<b>Pre-65 Surviving Spouse Contribution</b>			
<b>Tier</b>	<b><u>Commonwealth Standard PPO</u></b>	<b><u>Commonwealth Capitol Choice</u></b>	<b><u>Commonwealth Optimum PPO</u></b>
Single Spouse	\$ 502	\$ 644	\$ 669

**SYSTEM MEDICAL PLAN CONTRIBUTIONS:** The full contribution is determined by KTRS; and the full cost is projected based on historical claims data. For retirees the following percentages of full contributions are provided based on years of service at retirement:

<b>Percentage of Full Medical Contribution Provided to Retirees</b>				
<b><u>Years of Service</u></b>	<b><u>Hired Before 7/1/2002 (Age 65 on 12/31/2004 or Earlier)</u></b>	<b><u>Hired Before 7/1/2002 (Age 65 on 1/1/2005 or Later)</u></b>	<b><u>Hired After 6/30/2002 and Before 7/1/2008</u></b>	<b><u>Hired 7/1/2008 and Later</u></b>
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



Effective January 1, 2009, contributions toward pre-65 healthcare are based upon the Commonwealth Capital Choice Plan which has a net rate of \$600.92 (\$638.16 less the required retiree plan cost contribution of \$37.24) per month for single coverage effective January 1, 2012.

Contributions toward post-65 healthcare are based upon the rate of \$270 per month for single coverage effective January 1, 2012.

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

<b>Active Member Percentage of Payroll Contribution Made to Medical Insurance Fund</b>						
<b>Fiscal Year Ending</b>	<b>UNIVERSITY EMPLOYEES</b>		<b>SCHOOL DISTRICT EMPLOYEES (Non-Federal)</b>		<b>OTHER EMPLOYEES</b>	
	<b>Hired Before 7/1/2008</b>	<b>Hired On or After 7/1/2008</b>	<b>Hired Before 7/1/2008</b>	<b>Hired On or After 7/1/2008</b>	<b>Hired Before 7/1/2008</b>	<b>Hired On or After 7/1/2008</b>
2012	1.090%	1.750%	1.250%	1.750%	1.250%	1.750%
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 Benefit

(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:** Qualified members working 45 days per year will be eligible for survivor benefits and a life insurance benefit for the balance of the fiscal year and disability benefits under certain conditions. For substitute and part-time members, the survivor benefits and life insurance benefit are provided during the first 44 days if death occurs as the result of a physical injury on the job. The disability benefit is available as a direct result of a physical injury on the job during the five-year vesting period. After vesting, the disability benefit is available upon working 45 days for the balance of that fiscal year in accordance with the regular KTRS disability program.





**SCHEDULE E**

**Table 1**  
**Active Age and Service Table**  
**as of June 30, 2011**

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	2,461	1							2,462
Total Pay	41,168,000	43,000							41,211,000
Avg. Pay	16,728	43,000							16,739
25 to 29	7,124	1,405							8,529
Total Pay	222,544,000	66,018,000							288,562,000
Avg. Pay	31,239	46,988							33,833
30 to 34	3,770	5,093	967						9,830
Total Pay	111,427,000	250,802,000	53,648,000						415,877,000
Avg. Pay	29,556	49,244	55,479						42,307
35 to 39	2,716	2,470	4,124	628					9,938
Total Pay	73,577,000	122,975,000	240,200,000	39,874,000					476,626,000
Avg. Pay	27,090	49,787	58,244	63,494					47,960
40 to 44	3,698	1,903	2,459	3,164	713				11,937
Total Pay	78,560,000	95,796,000	142,806,000	202,764,000	47,075,000				567,001,000
Avg. Pay	21,244	50,339	58,075	64,085	66,024				47,499
45 to 49	1,742	1,259	1,391	1,511	2,273	631			8,807
Total Pay	40,970,000	64,667,000	81,094,000	98,367,000	151,467,000	42,699,000			479,264,000
Avg. Pay	23,519	51,364	58,299	65,101	66,637	67,669			54,419
50 to 54	1,511	973	1,194	1,211	1,320	1,739	381		8,329
Total Pay	31,062,000	49,208,000	70,429,000	78,534,000	90,131,000	123,612,000	26,959,000		469,935,000
Avg. Pay	20,557	50,573	58,986	64,851	68,281	71,082	70,759		56,422
55 to 59	2,245	724	982	1,035	1,125	821	597	82	7,611
Total Pay	33,132,000	37,292,000	59,798,000	68,831,000	77,411,000	61,016,000	46,788,000	7,134,000	391,402,000
Avg. Pay	14,758	51,508	60,894	66,503	68,810	74,319	78,372	87,000	51,426
60 to 64	2,842	519	494	627	638	439	151	115	5,825
Total Pay	38,464,000	26,979,000	31,260,000	41,981,000	46,193,000	33,463,000	13,713,000	10,452,000	242,505,000
Avg. Pay	13,534	51,983	63,279	66,955	72,403	76,226	90,815	90,887	41,632
65 & over	2,164	246	155	144	145	112	40	75	3,081
Total Pay	20,190,000	10,359,000	9,870,000	9,807,000	10,342,000	8,439,000	3,365,000	7,001,000	79,373,000
Avg. Pay	9,330	42,110	63,677	68,104	71,324	75,348	84,125	93,347	25,762
Total	30,273	14,593	11,766	8,320	6,214	3,742	1,169	272	76,349
Total Pay	691,094,000	724,139,000	689,105,000	540,158,000	422,619,000	269,229,000	90,825,000	24,587,000	3,451,756,000
Avg. Pay	22,829	49,622	58,567	64,923	68,011	71,948	77,695	90,393	45,210

Average Age: 43.6 Average Service 10.9



**Table 2**  
**Schedule of Total Active Member Valuation Data**

Valuation Date	Number	Annual Payroll	Annual Average Pay	Percentage Increase in Average Pay
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
6/30/2006	73,740	2,859,477,425	38,778	3.68

**Table 3**  
**All Retirees and Spouses Receiving Health Benefits as of June 30, 2011**  
**Male and Femal Demographic Breakdown**

ATTAINED AGE	NUMBER OF MALES	NUMBER OF FEMALES	TOTAL NUMBER
Under 40	8	29	37
40-44	18	57	75
45-49	50	180	230
50-54	301	868	1,169
55-59	1,604	3,813	5,417
60-64	3,573	7,120	10,693
65-69	3,112	5,227	8,339
70-74	2,232	3,610	5,842
75-79	1,724	2,350	4,074
80-84	1,076	1,927	3,003
85-89	643	1,202	1,845
90-94	234	606	840
95-99	51	273	324
100	6	23	29
101	2	13	15
102	0	13	13
103	0	3	3
104	0	2	2
105 & Over	0	5	5
<b>Total</b>	<b>14,634</b>	<b>27,321</b>	<b>41,955</b>



**Table 4**  
**Terminated Vested Members Eligible for Health Care at Age 60**  
**Male and Female Demographic Breakdown**  
**As of June 30, 2011**

<u>Attained Age</u>	<u>Number of Males</u>	<u>Number of Females</u>	<u>Total Number</u>
Under 30	1	15	16
30-34	47	228	275
35-39	110	420	530
40-44	139	498	637
45-49	144	458	602
50-54	154	473	627
55-59	132	377	509
60 & Over	80	209	289
Total	807	2,678	3,485

**Table 5**  
**Schedule of Retireants, Beneficiaries and Survivors added to and Removed From Rolls\***  
**Medical Insurance Fund**

<b>Fiscal Year Ending June 30</b>	<b>Number of Members Added to Rolls</b>	<b>Number of Spouses** Added to Rolls</b>	<b>Total Number Added to Rolls</b>	<b>Number of Members Removed from Rolls</b>	<b>Number of Spouses** Removed from Rolls</b>	<b>Total Number Removed from Rolls</b>	<b>Number of Members on Rolls at the End of the Year</b>	<b>Number of Spouses** on Rolls at the End of the Year</b>	<b>Total Number on Rolls at the End of the Year</b>
2006	n/a	n/a	n/a	n/a	n/a	n/a	30,977	6,606	37,583
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

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

**Table 6**  
**Schedule of Retireants, Beneficiaries and Survivors added to and Removed From Rolls\***  
**Life Insurance Fund**

<b>Fiscal Year Ending June 30</b>	<b>Number Added to Rolls</b>	<b>Life Insurance Benefit (\$1,000's)</b>	<b>Number Removed from Rolls</b>	<b>Life Insurance Benefit (\$1,000's)</b>	<b>Number on Rolls at the End of the Year</b>	<b>Life Insurance Benefit (\$1,000's)</b>	<b>Increase in Life Insurance Benefit</b>	<b>Average Life Insurance Benefit</b>
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

*\* 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.*

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# **Statistical Section**

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for Fiscal Year ending June 30, 2011

This section of the Kentucky Teachers' Retirement System Comprehensive Annual Financial Report (KTRS CAFR) presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information regarding the System's overall financial health.

### Contents

Financial Trends ..... page 129

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 131

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 137

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
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
2002	303,521,106	224,361,453	(520,214,494)	7,668,065

**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
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
2002	688,754,130	35,947,786	10,532,466	4,210,800	739,445,182	9,146,820	6,677,819	755,269,821

\* Life Insurance Plan valued separately-- see page 131.

**Changes in Net Assets**

YEAR	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
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
2002	7,668,065	755,269,821	(747,601,756)

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

## 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
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
2002	95,261,407	46,184,010		6,142,817	147,588,234

### 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				
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
2002	54,412,278	50,566,637		108,200,627	6,066	104,984,981

### Changes in Net Assets

YEAR	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
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
2002	147,588,234	104,984,981	42,603,253
	137,733,275	88,161,067	49,572,208
	89,050,373	80,365,738	8,684,635

Year Ended June 30, 2011

**Life Insurance Plan**  
Past Four Fiscal Years

**Additions by Source**

YEAR	Employer Contributions	Net Investment Income	Total Additions to Plan Net Assets
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
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, 2011**

By Age			By Service		
Age	Male	Female	Years of Service	Male	Female
20-24	909	2,884	Less than 1	6,093	15,492
25-29	2,705	7,634	1-4	4,205	13,092
30-34	2,687	7,654	5-9	3,143	9,948
35-39	2,423	7,527	10-14	2,298	7,335
40-44	2,296	7,732	15-19	1,615	4,935
45-49	2,058	6,438	20-24	1,158	3,585
50-54	1,910	6,035	25-29	627	1,958
55-59	1,882	5,273	30-34	171	522
60-64	1,548	3,799	35 or more	<u>68</u>	<u>103</u>
65-69	637	1,328	TOTAL	19,379	56,970
Over 70	<u>324</u>	<u>666</u>			
TOTAL	19,379	56,970			



# KENTUCKY TEACHERS' RETIREMENT SYSTEM

Principal Participating Employers Current Year and Nine Years Ago						
	2011			2002		
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System
Jefferson County Schools	10,172	1	13.16%	7,135	1	12.77%
Fayette County Public Schools	4,581	2	5.93	2,965	2	5.31
Boone County Schools	1,832	3	2.37	968	4	1.73
Hardin County Schools	1,413	4	1.83	1,002	3	1.79
Kenton County Schools	1,320	5	1.71	867	7	1.55
Warren County Schools	1,278	6	1.65	810	9	1.45
Bullitt County Schools	1,237	7	1.60	755	11	1.35
Oldham County Schools	1,176	8	1.52	671	15	1.20
Madison County Schools	1,169	9	1.51	687	14	1.23
Daviess County Schools	1,112	10	1.44	789	10	1.41
All Other *	51,995		67.28%	39,228		70.20
Total (208 Employers)	77,285		100.00%	55,877		100.00

\* Includes new retirees with contributions during the fiscal year.

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

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

**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

110 Alabama	5 New Hampshire
1 Alaska	7 New Jersey
77 Arizona	18 New Mexico
33 Arkansas	38 New York
95 California	234 North Carolina
45 Colorado	1 North Dakota
9 Connecticut	549 Ohio
7 Delaware	26 Oklahoma
5 District of Columbia	22 Oregon
915 Florida	39 Pennsylvania
218 Georgia	0 Rhode Island
5 Hawaii	155 South Carolina
8 Idaho	7 South Dakota
83 Illinois	745 Tennessee
586 Indiana	175 Texas
14 Iowa	17 Utah
27 Kansas	1 Vermont
26 Louisiana	132 Virginia
14 Maine	33 Washington
27 Maryland	82 West Virginia
14 Massachusetts	21 Wisconsin
32 Michigan	2 Wyoming
18 Minnesota	
52 Mississippi	
68 Missouri	
7 Montana	
6 Nebraska	
19 Nevada	

## Distribution of Retirement Payments Worldwide

As of June 30, 2011



### Additional Distribution Outside USA

5 Canada	1 Switzerland
2 Military Apo	1 Barbados
1 Philippines	

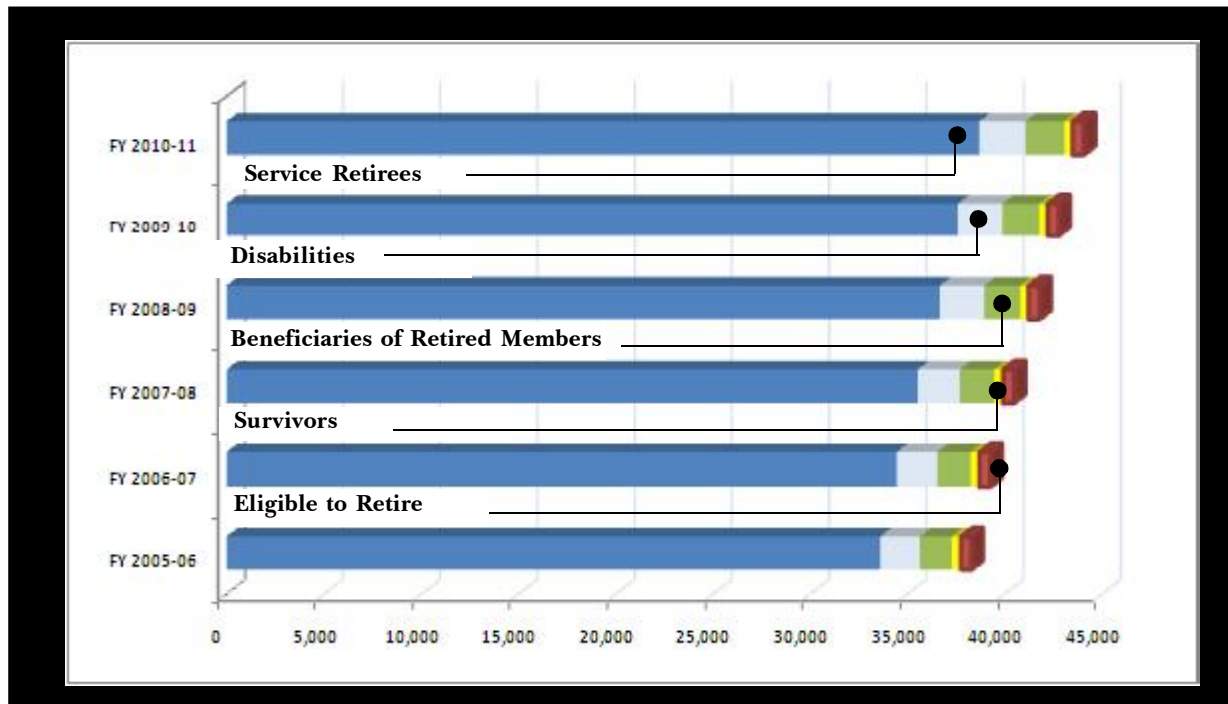
**TOTAL:** Number of Out of State Payments ..... 4,841  
**TOTAL:** Out of State Payments ..... \$110,007,651  
**TOTAL:** Number of Payments ..... 45,551  
**GRAND TOTAL:** Amount of Payments ..... \$1,402,549,141

## Distribution of Retirement Payments Statewide

as of June 30, 2011

County Name	Total Payments	Number of Recipients	County Name	Total Payments	Number of Recipients
Adair	\$ 5,233,448	183	Laurel	15,670,450	542
Allen	4,785,797	152	Lawrence	4,222,014	148
Anderson	5,697,262	186	Lee	1,867,060	73
Ballard	3,288,662	108	Leslie	4,208,936	140
Barren	11,952,131	380	Letcher	9,284,792	316
Bath	3,470,564	124	Lewis	5,199,520	167
Bell	10,466,016	353	Lincoln	8,237,318	267
Boone	25,178,324	745	Livingston	2,605,071	91
Bourbon	5,487,804	186	Logan	8,066,485	266
Boyd	16,559,422	495	Lyon	2,961,617	96
Boyle	13,104,405	409	Madison	39,525,948	1,210
Bracken	2,645,227	84	Magoffin	4,587,318	153
Breathitt	6,408,351	230	Marion	4,729,380	167
Breckinridge	5,717,749	173	Marshall	10,431,482	320
Bullitt	13,686,036	384	Martin	3,802,830	131
Butler	2,445,702	84	Mason	5,742,354	184
Caldwell	5,250,715	174	McCracken	20,488,681	657
Calloway	20,064,704	627	McCreary	5,578,758	189
Campbell	21,245,143	635	McLean	3,194,699	100
Carlisle	1,305,603	46	Meade	5,169,276	149
Carroll	2,368,599	74	Menifee	1,705,659	64
Carter	9,814,691	340	Mercer	6,541,398	232
Casey	4,468,713	158	Metcalfe	3,104,667	102
Christian	15,557,803	480	Monroe	4,640,572	152
Clark	9,608,390	319	Montgomery	8,458,163	273
Clay	8,264,588	271	Morgan	5,387,863	169
Clinton	3,918,310	134	Muhlenberg	9,097,658	276
Crittenden	1,860,090	67	Nelson	11,470,902	354
Cumberland	2,522,327	81	Nicholas	1,695,270	56
Daviess	31,435,483	972	Ohio	5,840,973	193
Edmonson	2,924,123	97	Oldham	14,155,987	407
Elliott	1,669,660	64	Owen	2,452,339	82
Estill	4,057,525	130	Owsley	3,244,445	110
Fayette	83,079,140	2,624	Pendleton	3,872,617	127
Fleming	4,665,451	160	Perry	10,739,899	364
Floyd	15,449,360	541	Pike	23,794,681	806
Franklin	22,178,888	863	Powell	3,362,974	113
Fulton	2,135,347	68	Pulaski	18,900,826	640
Gallatin	643,697	22	Robertson	632,174	22
Garrard	5,161,948	163	Rockcastle	5,310,724	177
Grant	5,361,220	160	Rowan	14,253,534	463
Graves	11,735,187	375	Russell	5,972,359	197
Grayson	7,877,744	254	Scott	11,218,054	348
Green	3,222,546	106	Shelby	12,922,166	389
Greenup	10,646,811	344	Simpson	4,918,868	156
Hancock	2,177,643	68	Spencer	3,981,495	115
Hardin	24,379,364	748	Taylor	8,420,766	280
Harlan	11,661,174	395	Todd	2,400,126	86
Harrison	5,666,832	183	Trigg	4,929,107	167
Hart	4,532,177	140	Trimble	1,746,995	49
Henderson	12,141,371	379	Union	3,715,314	128
Henry	4,983,006	166	Warren	46,189,060	1,486
Hickman	1,039,784	35	Washington	3,134,198	108
Hopkins	13,964,492	435	Wayne	6,449,849	218
Jackson	3,126,004	117	Webster	4,030,539	137
Jefferson	216,188,278	5,963	Whitley	17,859,017	601
Jessamine	9,433,149	312	Wolfe	3,156,862	108
Johnson	10,259,129	329	Woodford	8,175,794	261
Kenton	26,216,699	806			
Knott	7,049,396	243			
Knox	6,983,261	246			
Larue	4,661,142	138			
			<b>Total in Kentucky</b>	<b>\$1,292,541,490</b>	<b>40,710</b>

**Growth in Annuitants  
as of June 30, 2011**



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

**Schedule of Annuitants by Type of Benefit  
as of June 30, 2011**

Amount of Monthly Benefit (\$)	Number of Annuitants	Type of Retirement*				
		1	2	3	4	5
1 - 500	3,180	2,283	18	381	202	296
501 - 1,000	2,676	2,042	189	10	435	0
1,001 - 1,500	3,283	2,381	326	0	576	0
1,501 - 2,000	4,059	3,244	419	2	394	0
2,001 - 2,500	6,248	5,218	643	14	373	0
2,501 - 3,000	8,641	7,899	471	14	257	0
3,001 - 3,500	6,299	5,976	169	4	150	0
3,501 - 4,000	3,971	3,787	94	1	89	0
4,001 - 4,500	2,451	2,371	28	3	49	0
4,501 - 5,000	1,401	1,360	17	0	24	0
5,001 & OVER	2,188	2,144	5	1	38	0
Total**	44,397	38,705	2,379	430	2,587	296

**\*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	1,571	379	258	66	9	391	122	384
501 - 1,000	1,391	322	225	132	8	302	207	89
1,001 - 1,500	1,688	377	312	155	11	365	287	88
1,501 - 2,000	2,158	458	377	166	8	502	287	103
2,001 - 2,500	2,939	596	555	231	10	1,026	606	285
2,501 - 3,000	4,381	896	656	230	10	1,393	887	188
3,001 - 3,500	3,231	686	496	204	10	904	710	58
3,501 - 4,000	2,006	427	342	131	6	579	450	30
4,001 - 4,500	1,232	254	215	98	7	336	299	10
4,501 - 5,000	693	151	128	71	5	192	155	6
5,001 & OVER	1,121	195	237	112	13	248	259	3
Total	22,411	4,741	3,801	1,596	97	6,238	4,269	1,244

**\*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

# KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

Retirement Effective Dates	00-4.99	05-9.99	10-14.99	15-19.99	20-24.99	25-29.99	30>=	TOTAL
07/01/2001 TO 06/30/2002								
Average monthly benefit	\$204	\$408	\$790	\$1,296	\$1,898	\$2,552	\$3,407	
Average final average salary	\$4,143	\$2,950	\$3,312	\$3,613	\$3,920	\$4,115	\$4,884	
Number of retired members	65	128	82	116	107	1019	574	2,091
07/01/2002 TO 06/30/2003								
Average monthly benefit	\$205	\$480	\$940	\$1,344	\$1,940	\$2,715	\$3,592	
Average final average salary	\$4,301	\$3,380	\$3,714	\$3,798	\$4,078	\$4,378	\$5,121	
Number of retired members	58	83	98	103	155	837	508	1,842
07/01/2003 TO 06/30/2004								
Average monthly benefit	\$220	\$474	\$839	\$1,444	\$1,978	\$2,758	\$3,486	
Average final average salary	\$5,243	\$3,357	\$3,349	\$3,936	\$4,182	\$4,425	\$5,062	
Number of retired members	43	84	98	96	145	818	405	1,689
07/01/2004 TO 06/30/2005								
Average monthly benefit	\$187	\$528	\$906	\$1,488	\$2,037	\$2,892	\$3,860	
Average final average salary	\$4,353	\$3,511	\$3,647	\$4,055	\$4,317	\$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	\$2,136	\$2,998	\$4,063	
Average final average salary	\$4,106	\$3,253	\$4,052	\$4,117	\$4,537	\$4,721	\$5,490	
Number of retired members	44	105	106	132	193	689	604	1,873
07/01/2006 TO 06/30/2007								
Average monthly benefit	\$178	\$514	\$930	\$1,559	\$2,276	\$3,140	\$4,263	
Average final average salary	\$4,102	\$3,346	\$3,590	\$4,228	\$4,612	\$4,970	\$5,758	
Number of retired members	48	113	90	109	169	534	514	1,577
07/01/2007 TO 06/30/2008								
Average monthly benefit	\$199	\$524	\$1,117	\$1,658	\$2,436	\$3,279	\$4,319	
Average final average salary	\$3,816	\$3,066	\$4,215	\$4,412	\$4,983	\$5,067	\$5,786	
Number of retired members	50	130	112	150	217	557	615	1,831
07/01/2008 TO 06/30/2009								
Average monthly benefit	\$200	\$573	\$1,005	\$1,725	\$2,427	\$3,368	\$4,496	
Average final average salary	\$4,617	\$3,942	\$3,873	\$4,686	\$4,974	\$5,278	\$5,960	
Number of retired members	72	168	137	115	242	505	585	1,824
07/01/2009 TO 06/30/2010								
Average monthly benefit	\$185	\$525	\$1,104	\$1,700	\$2,513	\$3,468	\$4,670	
Average final average salary	\$3,654	\$3,637	\$4,124	\$4,508	\$5,184	\$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	\$2,529	\$3,621	\$4,827	
Average final average salary	\$3,570	\$3,640	\$4,423	\$4,825	\$5,143	\$5,574	\$6,235	
Number of retired members	45	157	144	112	235	544	617	1,854

Year Ended June 30, 2011

**Medical Insurance Plan**

Average Insurance Premium Supplements for the Last Ten Years

	Years of Service Credit				
	00-9.99	10-14.99	15-19.99	20>=	TOTAL
<b>Retirement Effective Dates</b>					
07/01/2001 TO 06/30/2002					
Average monthly supplement	\$ 128.78	\$ 167.74	\$ 201.48	\$ 252.15	
Number of retired members	59	62	99	1,694	1,914
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	1,570



**Summary of Fiscal Year 2010-2011  
Retiree Sick Leave Payments**

**ACTUARIAL RATE**

Grand Total Members Retiring	2,002
Total members receiving sick leave payments	1,432
Total amount of sick leave payments @ 10.105% contribution rate	\$ 17,843,855.37
Average payment per retiree	\$ 12,460.79
Total increase in final 3/5 average salary base	\$ 5,107,614.48
Average increase in final average salary	\$ 3,566.77
Total service credit of 1,432 retirees	37,285.59
Average service credit of 1,432 retirees	26.04
Additional Average Monthly Annuity payment per Retirement Formula	
$3,566.77 \times 26.04 \times 2.50\% =$	\$ 2,321.97
$2,321.97 / 12 \text{ months}$	\$ 193.50
Anticipated Lifetime Payout of Additional Annuity	
$193.50 \times 144.5250 \times 1432 \text{ new factor}$	\$ 40,046,721.30

**Funding of Additional Payments**

Member contributions	$10.105\% \times \$17,843,855.37 =$	\$ 1,803,121.59
Employer contributions	$13.355\% \times \$17,843,855.37 =$	2,383,046.88
<b>Total Contributions</b>		<u>\$ 4,186,168.47</u>
<b>DEFICIT:</b>		
Anticipated additional payout		\$ 40,046,721.30
Less total contributions		<u>4,186,168.47</u>
Subtotal unfunded debt		35,860,552.83
Less current year appropriation		<u>6,516,600.00</u>
<b>TOTAL DEFICIT (overpayment) *</b>		<u><u>\$ 29,343,952.83 *</u></u>

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