## Teachers' <br> Retirement System of the State of Kentucky



# Teachers' Retirement System of the State of Kentucky 



The 70th Comprehensive Annual Financial Report

A Component Unit of the Commonwealth of Kentucky
Fiscal Year Ended June 30, 2010

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

## GARY L. HARBIN, CPA <br> Executive Secretary

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

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## Tintroductory Section

for Fiscal Year ending June 30, 2010

## Chairperson's Letter

## Teachers' Retirement System <br> of the State of Kentucky

## GARY L. HARBIN, CPA

Executive Secretary


December 30, 2010
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, 2010, the 70th 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 2009-2010 fiscal year with $\$ 12.8$ billion net assets. The active membership totaled 76,387 and the retired membership was 43,134 with an annual payroll of $\$ 1.3$ 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.

## BOARD OF TRUSTEES

barbara g sterrett CHAIRPERSON LEXINGTON

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DR. TERRY HOLLIDAY COMMISSIONER DEPARTMENT OF EDUCATION

EX OFFICIO
TODD HOLLENBACH STATE TREASURER

Sincerely,


Barbara G. Sterrett
Chairperson
Board of Trustees

Letter of Transmittal


## Teachers' Retirement System of the State of Kentucky

December 30, 2010

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

Dear Governor Beshear:
It is my pleasure to submit the 70th 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, 2010. 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, 2010. 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 was established on July 1, 1940 as a costsharing multiple-employer defined benefit plan. The primary purpose of the plan is to provide retirement benefits to the educators and some public employees of 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 91 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 pension fund. 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 for retiree health care, the investment program, and information technology.

## "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 on February 26, 2010, as House Bill 540 , passed through both chambers of the General Assembly without a single negative vote, and was signed into law on Tuesday, April 13, 2010, 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 helps the pension fund by stopping the redirection of contributions from the pension 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 pension 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 pension 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.

Although 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, 2010. Furthermore, in the future, the shared responsibility solution for prefunding retiree health care and stopping the redirection of contributions from the pension fund to pay for the costs of current retiree health care will improve the funding status of both the KTRS medical insurance and pension plans.

## Investment Program

KTRS's investment program had solid performance during the year. 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. During the year, KTRS's independent investment consultant completed 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 new information technology system known as the "Pathway Project," making preparations to begin the second phase of the project during the year. The objective of the Pathway Project 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 Project, we expect that the new technology will help the System better serve its membership.

## Economic Condition

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

The investment portfolio experienced a growth in value during the 2009-2010 fiscal year as the portfolio's market value increased from $\$ 11,732,059,913$ to $\$ 12,680,439,457$. 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 2009-2010 fiscal year was $\$ 1,527,495,352$. 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 $\$ 1,170,428,775$. The largest earnings component, $\$ 209,869,513$ was the result of interest income. Other income, net of expenses, of $\$ 147,197,064$ 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 Plan and its Trust Funds. The investment program shall also provide a reasonable rate of total return with major emphasis being placed upon the protection of the invested assets. While the entire portfolio earned a total return of positive $13.1 \%$ in 2009-10, the portfolio's ten-year annualized rate of return is $2.7 \%$ and the
twenty-year annualized rate of return is $7.2 \%$.
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 $\$ 1.6$ 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, 2010. This report reflects the System's assets, based on modified market value; totaled $\$ 14.9$ billion and the liabilities totaled $\$ 24.3$ billion. The funded ratio of actuarial assets to liabilities is $61 \%$. The actuary reports: "In our opinion, the System is not operating on an actuarially sound basis, since a portion of the annual contributions required to fund pension benefits have been allocation to the Medical Insurance Fund. 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). The 2010 employer shortfall of contributions created a net pension obligation of $\$ 576,328,182$ (as detailed on page 85). Annual required employer contributions for the Medical Insurance Fund are provided in the schedule of employer contributions (on page 44). The 2010 employer shortfall of contributions created a net OPEB obligation of $\$ 814,379,040$ (as detailed on page 107).

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 1998-2010. Also contributing to the reduced funded ratio are market fluctuations that are being recognized using actuarial smoothing over a five-year period.

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 pension 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. In calculating the actuarial value of assets as of June 30, 2010, the actuary was able to include the $\$ 465$ million proceeds from the bond (as detailed on page 87).

## KTRS Medical Insurance Plan

KTRS health care costs keep escalating at a much faster clip than revenue growth in the Medical Insurance Plan. An actuarial valuation of the Medical Insurance Plan for the fiscal year ended June 30, 2010 indicated that the fund has an unfunded liability of $\$ 3.0$ billion. The funded ratio of actuarial assets to liabilities is $7.5 \%$. As noted above, 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.

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 insurance fund, adjusting coverage to meet existing revenues, or a combination of the two.

Effective January 1, 1999 KTRS eligible retirees and eligible dependents under the age of 65 have their health insurance provided by 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 65 and over remain in 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 72 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, 2009. 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-two consecutive years (fiscal years ended 1988-2009). 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 2010 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 ensure 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, 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.


Board of Trustees


Ronald L. Sanders
Lay Trustee Hodgenville


Laura Zimmerman
Teacher Trustee Lexington
 Teacher Trustee Lexing


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 $\mathcal{E}$ Administration
PAUL L. YANCEY, CFA
Chief Investment Officer

PROFESSIONAL CONSULTANTS

## ACTUARY

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

AUDITOR
Charles T. Mitchell, LLP
201 West Main Street
P.O. Box 698

Frankfort, Kentucky 40601

* See page 70 of the Investment Section for investment consultants.


## Kentucky Teachers’ Retirement System

 Organizational Chart


Presented to
Teachers' Retirement System of the State of Kentucky

For its Comprehensive Annual
Financial Report for the Fiscal Year Ended June 30, 2009

A Certificate of Achievement for Excellence in Financial
Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.


President


Executive Director

## 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-two consecutive years (fiscal years ended 1988-2009).


# Public Pension Coordinating Council Public Pension Standards 2010 Award 

Presented to

## Kentucky Teachers Retirement System

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

Presented by the Public Pension Coordinating Council, a confederation of

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


Alan H. Winkle Program Administrator

## 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 2010 for implementing and maintaining high professional standards in administering the affairs of the System. The award is based on compliance with principles judged to underlie exemplary retirement system achievements in the areas of benefits, actuarial valuation, financial reporting, investments and disclosure and are widely acknowledged to be marks of excellence for retirement systems. It represents the highest standards of excellence in the public pension industry.

## Financial Section

for Fiscal Year ending June 30, 2010


William G. Johnson, Jr., C.P.A James Clause, 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, 2010 and 2009 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 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 general purpose 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, 2010 and 2009 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 17, 2010 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. That report is an integral part of an audit performed in accordance with Government Auditing Standards and should be read in conjunction with this report in considering the results of our audit.

The Management's Discussion and Analysis on pages 15-19 are not a required part of the basic financial statements but is supplemental information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplemental information. However, we did not audit the information and express no opinion on it.

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 basic financial statements. These schedules are the responsibility of the System's management. Such schedules as of and for the year ended June 30, 2010 have been subjected to the auditing procedures applied in our audit of the basic 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 1. Mitchell lo.

Frankfort, Kentucky

December 17, 2010

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(502) 227-7395 | Fax (502) 227-8005 | www.ctmcpa.com

## MANAGEMENT'S DISCUSSION AND ANALYSIS

This discussion and analysis of Kentucky Teachers' Retirement System's financial performance provides an overview of the defined benefit and medical insurance plans' financial year ended June 30, 2010. 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 a defined benefit pension plan, and the medical and life insurance plans, financial statements alone cannot provide sufficient information to properly reflect the plan's ongoing plan perspective. 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 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, 2010, Kentucky Teachers' Retirement System's combined plan net assets increased by $\$ 956.5$ million - from $\$ 11,830.2$ million to $\$ 12,786.7$ million. The following summaries focus on plan net assets and changes in plan net assets of Kentucky Teachers' Retirement System's defined benefit plan, medical insurance plan, life insurance plan and other funds.

## Summary of Plan Net Assets <br> (In Millions)

| Categories | Defined Benefit Plan |  |  | Medical Insurance Plan |  |  | Life Insurance Fund |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 | 2009 | 2008 | 2010 | 2009 | 2008 | 2010 | 2009 | 2008 |
| Cash \& Investments | \$ 12,513.9 | \$ 11,591.9 | \$ 14,224.0 | \$ 237.1 | \$ 225.0 | \$ 182.0 | \$ 87.1 | \$ 89.0 | \$ 76.8 |
| Receivables | 96.5 | 94.3 | 93.6 | 7.9 | 7.1 | 6.2 | . 9 | . 7 | . 8 |
| Capital Assets | 3.4 |  | 3.0 |  |  |  |  |  |  |
| Total Assets Total Liabilities | $\begin{array}{r} \hline 12,613.8 \\ (157.2) \\ \hline \end{array}$ | $\begin{array}{r} 11,689.4 \\ (174.0) \\ \hline \end{array}$ | $\begin{array}{r} 14,320.6 \\ \quad(243.9) \\ \hline \end{array}$ | $\begin{array}{r} \hline 245.0 \\ (3.8) \\ \hline \end{array}$ | $\begin{array}{r} \hline 232.1 \\ (3.0) \\ \hline \end{array}$ | $\begin{array}{r} 188.2 \\ (2.3) \\ \hline \end{array}$ | $\begin{gathered} 88.0 \\ (0.1) \end{gathered}$ | $\begin{gathered} 89.7 \\ (5.0) \end{gathered}$ | 77.6 |
| Plan Net Assets | \$ 12,456.6 | \$ 11,515.4 | \$ 14,076.7 | \$ 241.2 | \$ 229.1 | \$ 185.9 | \$87.9 | \$84.7 | $\overline{\$ 77.6}$ |


| *TOTALS | 2010 | 2009 | 2008 |
| :---: | :---: | :---: | :---: |
| Cash \& Investments | \$ 12,838.1 | \$ 11,905.9 | \$ 14,482.8 |
| Receivables | 105.3 | 102.1 | 100.6 |
| Capital Assets | 3.4 | 3.2 | 3.0 |
| Total Assets Total Liabilities | $\begin{array}{r} 12,946.8 \\ (161.1) \\ \hline \end{array}$ | $\begin{array}{r} 12,011.2 \\ \quad(182.0) \\ \hline \end{array}$ | $\begin{array}{r} 14,586.4 \\ \quad(246.2) \\ \hline \end{array}$ |
| Plan Net Assets | \$ 12,785.7 | \$ 11,829.2 | \$ 14,340.2 |

* Other Funds consisting of the 403(b) Tax Shelter Plan, the Supplemental Benefit Fund and the Losey Scholarship fund had combined plan net assets of \$.9 million for years ended 2010 and 2009. Only the 403(b) Tax Shelter Plan amount of $\$ .5$ million plan net assets is available for 2008.

Plan net assets of the defined benefit plan increased by $8.2 \%$ ( $\$ 12,456.6$ million compared to $\$ 11,515.4$ million). The increase is primarily due to improvements in market conditions which resulted in a net investment income increase of $\$ 3.5$ billion. The defined benefit plan assets are restricted to providing monthly retirement allowances to members and their beneficiaries.

Plan net assets of the medical insurance plan increased by $5.3 \%$ ( $\$ 241.2$ million compared to $\$ 229.1$ million) primarily due to state allocations from redirecting contributions from the retirement fund to the medical plan. Plan assets are restricted to providing hospital and medical insurance benefits to members and their spouses.

# Financial Section 

Summary of
Changes in Plan Net Assets
(In Millions)

| Categories | Defined Benefit Plan |  |  |  |  | Medical Insurance Plan |  |  | Life Insurance Fund |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2010 | 2009 |  | 2008 | 2010 | 2009 | 2008 | 2010 | 2009 | 2008 |
| ADDITIONS |  |  |  |  |  |  |  |  |  |  |  |
| Member Contributions | \$ | 297.6 | \$ 293.7 | \$ | 291.4 | \$ 63.8 | \$ 58.7 | \$ 55.4 | \$ | \$ | \$ |
| Employer Contributions |  | 479.8 | 442.5 |  | 466.2 | 158.8 | 164.4 | 148.9 | 1.9 | 5.4 | 5.4 |
| Net Investment Income |  | 1,509.8 | $(2,020.7)$ |  | (909.1) | 12.3 | 11.3 | 8.1 | 5.4 | 5.3 | 6.3 |
| Other Income |  |  |  |  |  | 14.6 | 13.7 | 11.9 |  |  |  |
| TOTAL ADDITIONS |  | 2,287.2 | $(1,284.5)$ |  | (151.5) | 249.5 | 248.1 | 224.3 | 7.3 | 10.7 | 11.7 |
| DEDUCTIONS |  |  |  |  |  |  |  |  |  |  |  |
| Benefit Payments |  | 1,321.8 | 1,252.9 |  | 1,170.9 |  |  |  | 4.1 | 3.7 | 4.0 |
| Refunds |  | 15.3 | 15.2 |  | 15.9 |  |  |  |  |  |  |
| Administrative Expense |  | 8.8 | 8.2 |  | 7.6 |  |  |  |  |  |  |
| Insurance Expenses |  |  |  |  |  | 237.4 | 204.8 | 179.2 |  |  |  |
| TOTAL DEDUCTIONS |  | 1,345.9 | 1,276.3 |  | 1,194.4 | 237.4 | 204.8 | 179.2 | 4.1 | 3.7 | 4.0 |
| Increase (Decrease) in Plan Net Assets | \$ | 941.3 | \$ $(2,560.8)$ |  | $(1,345.9)$ | \$ 12.1 | \$ 43.3 | \$ 45.1 | \$ 3.2 | \$ 7.0 | \$ 7.7 |


| TOTALS |  | 2010 |  | 2009 |  | 2008 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ADDITIONS |  |  |  |  |  |  |
| Member Contributions Employer Contributions Net Investment Income Other Income TOTAL ADDITIONS | \$ | 361.4 |  | 352.4 | \$ | 346.8 |
|  |  | 640.5 |  | 612.3 |  | 620.5 |
|  |  | 1,527.5 |  | $(2,004.1)$ |  | (894.7) |
|  |  | 14.6 |  | 13.7 |  | 11.9 |
|  |  | 2,544.0 |  | $(1,025.7)$ |  | 84.5 |
| DEDUCTIONS |  |  |  |  |  |  |
| Benefit Payments |  | 1,325.9 |  | 1,256.6 |  | 1,174.9 |
| Refunds |  | 15.3 |  | 15.2 |  | 15.9 |
| Administrative Expense |  | 8.8 |  | 8.2 |  | 7.6 |
| Insurance Expenses |  | 237.4 |  | 204.8 |  | 179.2 |
| TOTAL DEDUCTIONS |  | 1,587.4 |  | 1,484.8 |  | 1,377.6 |
| Increase (Decrease) in Plan Net Assets | \$ | 956.6 |  | $(2,510.5)$ |  | $(1,293.1)$ |

## DEFINED BENEFIT PLAN ACTIVITIES

Member contributions increased $\$ 3.9$ 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 $\$ 479.8$ million, a net increase of $\$ 37.3$ million over the 2009 fiscal year.

The System experienced an increase in net investment income compared to the loss of the previous year ( $\$ 1,509.8$ million at June 30,2010 as compared to a $\$ 2,020.7$ million decrease at June 30,2009 ). The increase in the fair value of investments is mainly due to favorable market conditions for the year ended June 30, 2010. This can be illustrated as follows:

| (In Millions) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | $\underline{2010}$ | 2009 | $\underline{2008}$ |
| Appreciation (depreciation) <br> in fair value of investments - June 30, prior year | \$ (1,336.2) | \$ 385.4 | \$ 1,904.0 |
| Appreciation (depreciation) <br> in fair value of investments - June 30, end of year | (235.5) | $(1,336.2)$ | 385.4 |
| Change in net appreciation (depreciation) in fair value of investments | 1,100.7 | (1,721.6) | $(1,518.6)$ |
| Net income (net of investment expense) | 341.3 | 373.1 | 426.9 |
| Net gain on sale of investments | 67.8 | (672.2) | 182.6 |
| Investment Income (net) - June 30, end of year | \$ 1,509.8 | \$ (2,020.7) | \$ (909.1) |

Program deductions in 2010 increased $\$ 69.6$ million. The increase was caused principally by an increase of $\$ 68.9$ million in benefit payments. Members who were drawing benefits as of June 2009 received an increase of $1.5 \%$ to their retirement allowances in July 2009. Also, there was an increase of 1,084 members and beneficiaries on the retired payroll as of June 30, 2010.

## OTHER POST EMPLOYMENT BENEFIT ACTIVITIES

During the 2010 fiscal year, the medical insurance plan member contributions increased $\$ 5.1$ million and employer contributions decreased by $\$ 5.6$ million over fiscal year 2009. The employer contributions decreased primarily because less was placed in stabilization funding in the medical insurance fund from the pension fund. Stabilization Funding amounts were scheduled to be repaid over ten years per KRS 161.553 but in August 2010, bond proceeds were received to repay the pension fund for stabilization amounts redirected since fiscal year 2005.

Program deductions increased $\$ 32.6$ million due mainly to an increase of insurance premiums with the Medicare Advantage Program due to federal reimbursement cuts. The monthly premium subsidy for retirees under age 65 increased $8.1 \%$ from fiscal year 2009 to fiscal year 2010 . No increase is expected for calendar year 2011. The monthly premium subsidy for retirees age 65 and over increased by $20 \%$ from
fiscal year 2009 to fiscal year 2010. A decrease is expected for calendar year 2011 due to 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 increased $\$ 1$ million from $\$ 11.3$ million in 2009 to $\$ 12.3$ million in 2010. This is due to the recognition of interest income since all investments for the Medical Insurance Plan are short term in nature and the recognition of appreciation in fair value is not feasible. This can be illustrated as follows:

| (In Millions) | $\underline{2010}$ | 2009 | $\underline{2008}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Appreciation in fair value of investments - June 30, prior year | \$ 0 | \$ 0 | \$ 0 |
| Appreciation in fair value of investments - June 30 end of year | 0 | 0 | - |
| Net appreciation in fair value of investments | 0 | 0 | 0 |
| Net income (net of investment expense) | 12.3 | 11.3 | 8.1 |
| Net gain on sale of investments |  |  | 0 |
| Investment Income (net) - June 30 | \$ 12.3 | \$ 11.3 | \$ 8.1 |

The life insurance plan has an actuarial valuation conducted independently from the defined benefit plan. Total life insurance benefits paid for 2010, 2009 and 2008 were $\$ 4.1, \$ 3.7$ and $\$ 4.0$ 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 projected unit credit cost method.

The 2010 fiscal year reveals a decline in funding position of the pension plan due to an increase in the actuarial liability.

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 $\$ 576,328,182$ as of June 30, 2010 (as detailed on page 85).

The medical insurance plan is not as vulnerable to adverse market conditions since its assets are all short term in nature and less likely to experience huge fluctuations. Although the plan continues to have a large unfunded actuarial liability, the current obligations are being met by current funding.

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 $\$ 814,379,040$ as of June 30, 2010 (as detailed on page 107).


## Statement of Plan Net Assets

As of June 30, 2009


## Statement of Changes in Plan Net Assets

For the Year Ended June 30, 2010


## Statement of Changes in Plan Net Assets

For the Year Ended June 30, 2009

|  | Defined Benefit Plan | Medical Insurance Plan | Life <br> Insurance Plan | Other <br> Funds | $\begin{gathered} 2009 \\ \text { TOTAL } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ADDITIONS |  |  |  |  |  |
| Contributions Employer Member | $\$ \quad 442,489,935$ $293,678,564$ | $\begin{array}{r} \text { \$ } 164,408,037 \\ 58,688,767 \end{array}$ | \$ 5,455,473 | \$ 60,000 | $\begin{array}{r} \$ \quad 612,413,445 \\ 352,367,331 \end{array}$ |
| Total Contributions | 736,168,499 | 223,096,804 | 5,455,473 | 60,000 | 964,780,776 |
| Other Income <br> Recovery Income Medicare D Receipts |  | $\begin{array}{r} 72,082 \\ 13,611,748 \end{array}$ |  |  | $\begin{array}{r} 72,082 \\ 13,611,748 \end{array}$ |
| Total Other Income |  | 13,683,830 |  |  | 13,683,830 |
| Investment Income |  |  |  |  |  |
| Net Appreciation/(Depreciation) in FV of Investments | (2,393,829,082) |  | 1,888,614 | 4,156 | (2,391,936,312) |
| Interest | 206,675,446 | 11,296,280 | 3,394,344 | 23,625 | 221,389,695 |
| Dividends | 150,828,141 |  |  |  | 150,828,141 |
| Rental Income, Net | 29,794,103 |  |  |  | 29,794,103 |
| Securities Lending, Gross Earnings | 3,053,121 |  |  |  | 3,053,121 |
| Gross Investment Income | $(2,003,478,271)$ | 11,296,280 | 5,282,958 | 27,781 | (1,986, 871,252) |
| Less Investment Expense | $(16,321,910)$ |  |  |  | $(16,321,910)$ |
| Less Securities Lending Expense | $(906,950)$ |  |  |  | $(906,950)$ |
| Net Investment Income | $(2,020,707,131)$ | 11,296,280 | 5,282,958 | 27,781 | (2,004,100,112) |
| Total Additions | $(1,284,538,632)$ | 248,076,914 | 10,738,431 | 87,781 | $(1,025,635,506)$ |
| DEDUCTIONS |  |  |  |  |  |
| Benefits | 1,252,914,387 |  | 3,694,000 | 93,752 | 1,256,702,139 |
| Refunds of Contributions | 15,208,419 |  |  |  | 15,208,419 |
| Insurance Expenses |  | 204,857,122 |  |  | 204,857,122 |
| Administrative Expense | 8,165,757 |  |  |  | 8,165,757 |
| Total Deductions | 1,276,288,563 | 204,857,122 | 3,694,000 | 93,752 | 1,484,933,437 |
| Net Increase (Decrease) | $(2,560,827,195)$ | 43,219,792 | 7,044,431 | $(5,971)$ | (2,510,568,943) |
| NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS: |  |  |  |  |  |
| Beginning of year | 14,076,191,347 | 185,883,223 | 77,658,203 | 999,755 | 14,340,732,528 |
| Ending of year | \$ 11,515,364,152 | \$ 229,103,015 | \$ 84,702,634 | \$ 993,784 | \$ 11,830,163,585 |

# Notes to Financial Statements Years Ended June 30, 2010 and 2009 

## Note 1: Description of 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 multipleemployer defined benefit plan established to provide pension benefit plan coverage for local school districts and other public educational agencies in the state.

## B. PARTICIPANTS

As of June 30, 2010 a total of 197 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:

|  | $\underline{\mathbf{2 0 1 0}}$ | $\underline{\mathbf{2 0 0 9}}$ |
| ---: | ---: | ---: |
| Active contributing members: | 47,083 | 45,843 |
| Vested | 29,304 | 30,094 |
| Non-vested | 5,637 | 5,245 |
| Inactive members, vested | $\underline{43,134}$ | $\underline{42,050}$ |
| Retirees and beneficiaries currently receiving benefits | $\underline{\underline{\mathbf{1 2 5 , 1 5 8}}}$ | $\underline{\underline{\mathbf{1 2 3 , 2 3 2}}}$ |
| Total members, retirees, and beneficiaries |  |  |

## 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 (2) percent (service prior to July 1, 1983) and two and one-half (2.5) percent (service after July 1, 1983) of their final average salaries for each year of credited service. University employees receive monthly benefits equal to two (2) percent

## 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 $2 \%$ 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 $2.5 \%$ 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 $2.5 \%$ to $3.0 \%$ to be used in their benefit calculation.

The System also provides disability benefits for vested members at the rate of sixty (60) percent 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 (1.5) percent annually. Additional ad hoc increases and any other benefit amendments must be authorized by the General Assembly.

## Note 2: Summary of Significant Accounting Policies

## A. BASIS OF ACCOUNTING

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

## B. CASH

KTRS has four cash accounts. At June 30, 2010, the pension cash account totaled $\$ 149,297$. The administrative expense fund cash account was $\$ 2,348,195$ and the life insurance cash account totaled $\$ 592,345$. The excess benefit fund cash account contained $\$ 48,283$. Therefore, the carrying value of cash was $\$ 3,138,120$ and the corresponding bank balance was $\$ 4,159,143$. The variance is primarily due to outstanding checks and items not processed by the bank on June 30, 2010.

## 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. Shortterm securities are carried at cost, which approximates fair value. Fixed income and common and

Note 2: Summary of Significant Accounting Policies continued . . .
preferred stocks are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Real estate is primarily valued based on appraisals performed by independent appraisers.

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 200 hours. As of June 30, 2010 and 2009 accrued compensated absences were $\$ 756,747$ and $\$ 733,610$.

## 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, 2010 and 2009 installment contract receivables were $\$ 530,191$ and $\$ 605,511$.

## 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 2009 amounts have been reclassified in conformity with the 2010 presentation.

## Note 3: Contributions and Reserves

## A. CONTRIBUTIONS

Contribution rates are established by Kentucky Revised Statutes. Pre July 2008 members are required to contribute $9.855 \%$ of their salaries to the System; university members are required to contribute $8.375 \%$ of their salaries. KRS 161.580 allows each university to reduce the contribution of its members by $2.215 \%$; therefore, university members contribute $6.16 \%$ of their salary to KTRS. Post July 2008 members are required to contribute an additional $1 \%$ to the medical insurance fund.

Participating employers are required to contribute the percentage contributed by members plus an additional $3.25 \%$ of members' gross salaries. The Commonwealth of Kentucky contributes the required percentages for the local school district employers except for those members who are employed in federally funded positions, in which case the federal program pays the required percentages.

The member and employer contributions consist of pension contributions and post-retirement contributions to the medical insurance fund. The post-retirement contribution from employee (.75\% 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 help finance KTRS's retiree medical insurance plan.

If an employee leaves covered employment before accumulating five (5) years of credited service, accumulated employee contributions plus interest are refunded to the employee 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 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.

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

## 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.

## Note 4: Funded Status and Funding Progress

## A. DESCRIPTION OF FUNDING PROGRESS

The funded status of the Defined Benefit Plan as of the most recent actuarial valuation date is as follows:
(Dollar amount in 1,000 's)

| Valuation <br> Year <br> June 30 | Actuarial Value of Assets | Actuarial Accrued Liabilities | Unfunded Actuarial Accrued Liabilities (UAAL) | Funded Ratio | Covered <br> Payroll | UAAL <br> as a \% of Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | $\begin{gathered} \mathrm{A} \\ \$ 14,851,330 \end{gathered}$ | $\begin{gathered} \text { B } \\ \$ 24,344,316 \end{gathered}$ | $\begin{gathered} \text { B-A } \\ \$ 9,492,986 \end{gathered}$ | $\begin{gathered} (\mathrm{A} / \mathrm{B}) \\ 61.0 \% \end{gathered}$ | $\begin{gathered} \mathrm{C} \\ \$ 3,321,614 \end{gathered}$ | $\begin{gathered} {[(\mathrm{B}-\mathrm{A}) / \mathrm{C}]} \\ 285.8 \% \end{gathered}$ |

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.

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

Note 4: Funded Status and Funding Progress continued . . .
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 projected unit credit 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.

## Actuarial Value Assets

(1) Actuarial Value of Assets on June 30, 2009
\$ 14,885,981,251
(2) Market Value End of Year June 30, 2010
(3) Market Value Beginning of Year June 30, 2009
(4) Cash Flow
a. Contributions

777,419,053
b. Benefit Payments
c. Administrative Expenses
d. Net

12,456,619,082
$11,515,883,575$
(1,337,119,450)
$(8,830,054)$
(5) Investment Income
a. Market total: (2) - (3) - (4)d $1,509,265,958$
b. Assumed Rate $7.5 \%$
c. Amount for Immediate Recognition:
[(3) x (5)b] + [(4)d x (5)b x 0.5]
d. Amount for Phased-In Recognition: (5)a - (5)c
$842,371,376$
$666,894,589$
(6) Phased-In Recognition of Investment Income
a. Current Year: $0.20 \times(5) \mathrm{d}$

133,378,916
b. First Prior Year
$(611,235,941)$
c. Second Prior Year
(409,879,449)
d. Third Prior Year 190,240,386
e. Fourth Prior Year
f. Total Recognized Investment Gain
$(75,996,339)$
(773,492,427)
(7) Actuarial Value End of Year
$(1)+(4) d+(5) c+(6) f$
14,386,329,749
(8) Additional Contribution from Pension Obligation Bond

465,000,000
(9) Final Actuarial Value of Assets End of Year: (7) + (8)

14,851,329,749
(10) Difference Between Market \& Actuarial Values: (2) - (7) (prior to Pension Obligation Bond)
\$ (1,929,710,667)

## 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, 2010, the most recent updated actuarial information include:

* Assumed inflation rate $4 \%$
* Assumed investment rate 7.5\%
* Assumed projected salary increases $4.0 \%-8.20 \%$
* Assumed post retirement benefit increase 1.5\%


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

## A. LEGAL PROVISIONS FOR INVESTMENTS

The following disclosures are meant to help the users of KTRS's 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. The parameters as outlined in Title 102, Chapter 1.175 , Section 2 of the Kentucky

Administrative Regulations are as follows:

- There shall be no limit on the amount of investments owned by the System if the investments are guaranteed by the U.S. Government.
- Not more than thirty-five percent (35\%) of the assets of the System at market value shall be invested in corporate debt obligations.
- Not more than sixty-five percent ( $65 \%$ ) of the assets of the System at market value shall be invested in common stocks or preferred stocks. Not more than twenty-five percent (25\%) of the assets of the System at market value shall be invested in a stock portfolio designed to replicate a general stock index. Not more than fifteen percent (15\%) of the assets of the System 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.
- Not more than ten percent $(10 \%)$ of the assets of the System 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 System at market value shall be invested in alternative investments. This would include private equity, venture capital, timberland, and infrastructure investments.
- Not more than ten percent ( $10 \%$ ) of the assets of the System 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.

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

## B. CASH AND CASH EQUIVALENTS

For cash deposits and cash equivalents, custodial credit risk is the risk that, in the event of a bank failure, the retirement system's deposits may not be returned to the System. The bank's total balance at June 30, 2010 was $\$ 4,159,143$. An amount of $\$ 2,348,195$ 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 $\$ 1,025,446$ balance reduction while the amount of $\$ 1,810,948$ was the amount invested in cash equivalents. Cash equivalents are created through the daily sweeps of available excess cash by the 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, 2010, the System's cash equivalents in the amount of $\$ 1,810,948$ 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.

## C. INVESTMENTS

All of the System's assets are invested in short-term and long-term debt (bonds and mortgages) securities, equity (stock) securities, real estate and alternative investments. These assets are reported at fair market value. Investments are governed by the Board of Trustees' policy while the Board of Trustees and the Investment Committee shall execute their fiduciary responsibilities in accordance with the "prudent person rule", as identified in KRS 161.430 (2)(b). The prudent person rule establishes a standard for all fiduciaries, to act as a prudent person would be expected to act, with the "care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims."

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .
The following chart represents the fair market values of the investments of the Kentucky Teachers' Retirement System for June 30, 2010.


## 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.

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

The cash reserve of the 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 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's 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, 2010, cash collateral reinvestment securities acquired through securities lending by the System's custodian, who is also the lending agent/counterparty, amounted to $\$ 155,226,862$ related to $\$ 151,070,706$ securities lent. This is consistent with the System'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 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, 2010 KTRS had the following investments and weighted average maturities:

| Investment Type |  | Fair Value | $\frac{\text { Average Maturity }}{\text { (years) }}$ |
| :---: | :---: | :---: | :---: |
| U.S. Government | \$ | 678,247,718 | 9.58 |
| Agency |  | 337,019,558 | 9.71 |
| MBS |  | 297,733,549 | 13.85 |
| CMO |  | 116,575,407 | 20.76 |
| ABS |  | 37,860,172 | 15.48 |
| CMBS |  | 239,293,225 | 29.06 |
| Muni |  | 484,588,328 | 14.04 |
| Corporate |  | 1,935,555,407 | 7.75 |
| Totals |  | 4,126,873,364 | 10.9 |

## 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 $\$ 307,378,278$ and had a weighted average maturity of two days. Average maturity is used as a measure of a security's exposure to interest rate risk due to fluctuations in market interest rates.

Mortgage-backed securities and collateralized mortgage obligations are typically amortizing investments with an average life and interest rate risk significantly less than suggested by the legal maturity.

Mortgage-backed securities, which are generally pre-payable, and other callable bonds, are subject to adverse changes in average life in response to market interest rate changes. The schedule above reflects only the legal maturity of all such bonds.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed by using the effective duration or option adjusted methodology. 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 change in rates and the slope of the yield curve. The control of interest rate risk is not set forth in a particular policy; however, the System manages interest rate risk in practice by establishing appropriate benchmarks for its various portfolios.

Mortgage-backed securities are securities representing pass-through interests in the cash flows from pools of mortgage loans on single-family or multi-family residential properties. All of the mortgagebacked securities owned by the System were securitized and are guaranteed by Fannie Mae, Freddie Mac, or GNMA. The average life of a mortgage-backed security depends upon the level of prepayments experienced in the underlying pool of loans. Market interest rates are a primary determinant of prepayment levels. Lower than anticipated market rates generally lead to higher than anticipated prepayments and a shorter average life; higher than anticipated market rates generally lead to lower than anticipated prepayments and a longer average life. The System held $\$ 297.7$ million in mortgage-backed securities as of June 30, 2010.

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 $\$ 116.6$ million in collateralized mortgage obligations as of June 30, 2010.

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 $\$ 37.9$ million held by the System as of June 30, 2010 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 System's commercial mortgage-backed securities investments consist of highly rated relatively senior tranches. The average maturity of the System's commercial mortgage-backed securities holdings in the

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .
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 System held $\$ 239.3$ million in commercial mortgage-backed securities investments as of June 30, 2010.

## 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, 2010:

| RATING | $\underline{\text { FAIR VALUE }}$ | $\underline{\boldsymbol{\%}}$ |
| :---: | ---: | ---: |
| U.S. Government | $\$$ | $678,247,718$ |
| 16.4 |  |  |
| Agency | $337,019,558$ | 8.2 |
| AAA | $978,277,426$ | 23.6 |
| AA | $451,960,420$ | 11.0 |
| A | $869,787,468$ | 21.1 |
| BBB | $577,703,721$ | 14.0 |
| BB | $99,145,409$ | 2.4 |
| B | $\underline{134,731,644}$ | $\underline{3.3}$ |
| Total | $\underline{\mathbf{4 , 1 2 6 , 8 7 3 , 3 6 4}}$ | $\underline{\underline{\mathbf{1 0 0 . 0}}}$ |

Total market value of the fixed income portfolio was $\$ 4,126,873,364$ on June 30,2010 . The rating system used in the chart is the nationally recognized Standard \& Poor's rating system.

In addition to the above categories, the System held $\$ 307,378,278$ 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 System's policy on credit rating as stated in $102 \mathrm{KAR} 1: 175$ is that:
"A fixed income investment shall be rated at the time of purchase within the four (4) highest credit classifications identified by 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. Notwithstanding the foregoing, the fixed income investment portfolio as a whole shall maintain an average rating equal to at least the second highest credit classification."

The policy also allows that up to ten percent of System assets may be invested in additional categories of investments approved by the Board of Trustees. Having been approved by the Board as an additional category of investments, a high yield bond portfolio was funded in fiscal year 2010 with an initial allotment of $\$ 225$ million.

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

## 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 System is subject to the following policies regarding single issuers of fixed income and equity securities:
"Unless the issuer is the United States Government or a government sponsored enterprise (GSE), the amount invested in the securities of a single issuer shall not equal more than five (5) percent of the assets of the System.
"The System's position in a single stock shall not exceed two and one-half (2.5) percent of the System's assets. The System's position in a single stock shall not exceed five (5) percent of the outstanding stock for that company unless the investment is part of a venture capital program."

KTRS has not invested greater than five percent (5\%) of the System's assets at book value in any single issuer and is in compliance with the System's policies as stated here.

## Foreign Currency Risk

As of June 30, 2010, KTRS exposure to foreign currency risk consisted of $\$ 1,180,792,803$ of foreign equity investments through commingled funds managed by UBS Global Asset Management, Baring Asset Management, and Baillie Gifford as follows:

| UBS International Collective | $\$$ | $514,470,507$ |
| :--- | ---: | ---: |
| Baring Asset Management | $319,619,142$ |  |
| Baillie Gifford | $\underline{346,703,154}$ |  |
| $\quad$ Total | $\underline{\mathbf{1 , 1 8 0 , 7 9 2 , 8 0 3}}$ |  |

These amounts represent the market values of equities held by the Fund as a result of cash contributions to each Fund by KTRS.

In addition to the commingled funds investing in foreign securities, KTRS held $\$ 588,765,127$ 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 System's policy regarding foreign equities is that not more than fifteen percent ( $15 \%$ ) of the assets of the System 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 System. The System operates a securities lending program in which it temporarily lends securities to qualified agents in exchange for a net fee and high quality

Note 5: Deposits With Financial Institutions and Investments (Including Repurchase Agreements) continued . . .
collateral. U.S. Government and agency securities, selected domestic bonds, and domestic and international stocks are the types of securities that are lent. The System's sub-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 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. The following section details the net income earned from securities lending for the fiscal year ended June 30, 2010:

|  |  |
| :--- | :---: |
| Item | Earnings |
| Gross Earnings (Interest and fees) | $\$ 184,579$ |
| Plus: Gross Borrower Rebates | $1,364,739$ |
| Less: Bank Fees | $\$$$\mathbf{1 , 0 8 3 , 5 1 0})$ <br> Net Earnings <br>  |

Cash collateral is invested in short-term obligations fully guaranteed by the United States Government or select Government agencies and Government Repurchase Agreements with qualified agents. The System cannot pledge or sell collateral securities received unless the borrower defaults. The lending agent (Bank of New York Mellon) also indemnifies the System from any financial loss associated with a borrower's default and collateral inadequacy. As of June 30, 2010 the loan average days to maturity was one (1) day and the weighted average investment maturity of cash collateral investments was one (1) day.

At fiscal year end, the System has no credit risk exposure to borrowers, since the amounts the System owes the borrowers exceeds the amounts the borrowers owe the System and there were no losses resulting during the period.

Security lending programs can entail interest rate risk and credit risk. The System minimizes interest rate risk by limiting the term of cash collateral investments to several days. The credit risk is controlled by investing cash collateral in securities with qualities similar to the credit worthiness of lent securities.

The following table presents the fair values of the underlying securities, and the value of the collateral pledged at June 30, 2010:

| Type of Security Lent | Fair Value | Cash Collateral Received Non-cash Collateral Value* |
| :---: | :---: | :---: |
| U.S. Equities | \$ 151,070,706 | \$ 155,226,862 |

## Note 6: Pension 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 pension 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 2010, 2009 and 2008 were $\$ 476,918, \$ 456,258$, and $\$ 413,492$ 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 were required to contribute 5\% of their annual creditable compensation for the fiscal years 2010, 2009, and 2008. 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 2010, 2009 and 2008 were $11.61 \%, 10.01 \%$ and $8.5 \%$; and the System's annual required contributions to KERS were $\$ 174,203, \$ 182,399$ and $\$ 129,356$ 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 taxsheltered plans on a tax-free basis. As of June 30, 2010, the twenty-two members who are receiving

Note 7: 403(b) Tax-Sheltered Annuity Plan continued . . .
annuities will continue to receive distributions according to the terms of their respective elections.

## Summary of Significant Policies

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

Method Used to Value Investments - The short-term investments are reported at cost, which approximates fair value.

## B. SUPPLEMENTAL BENEFIT FUND

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

## C. JUNITA LOSEY SCHOLARSHIP BEQUEST

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

## Note 8: Medical Insurance Plan \& Post-Employment Benefits

## A. PLAN DESCRIPTION

In addition to pension benefits described in Note 1, Kentucky Revised Statute 161.675 requires KTRS to provide access to post-retirement healthcare benefits for eligible members and dependents. The KTRS Medical Insurance benefit is funded by employer and employee 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.

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

Note 8: Medical Insurance Plan छ Post-Employment Benefits continued . . .
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, 2010.

At June 30, 2010, KTRS insurance covered 34,315 retirees and 6,834 dependents. There are 197 participating employers and 76,387 active members contributing to the Medical Insurance Fund.

## 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-retirement healthcare provided by KTRS is financed on a pay-as-you-go basis. In order to fund the post-retirement healthcare benefit, active member contributions are matched by the state at $.75 \%$ of members' gross salaries. Those who became members before July 1, 2008 contribute $0.75 \%$ of gross payroll to the plan. Member contributions are $1.75 \%$ of gross payroll for those who became members of the System after July 1, 2008. Also, the premiums collected from retirees as described in the plan description and investment interest help meet the medical expenses of the plan.

Escalating medical expenses have made it increasingly difficult to meet the expenses of the retiree health insurance program. To further fund the plan, the state legislature has directed a portion of the state employer contribution in a sufficient amount to be allocated to the Medical Insurance Fund instead of the pension fund. The System actuary calculated those amounts to be $\$ 125,000,000$ and $\$ 125,000,000$ for fiscal years 2010 and 2009 respectively. The balances are to be amortized over a period of 10 years. The Legislature appropriated $\$ 36,490,700$ in fiscal year 2010 and $\$ 18,280,000$ in fiscal year 2009 to apply to amortization of the balances.

## 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 <br> Year <br> June 30 | Actuarial Value of Assets | Actuarial Accrued Liabilities | Unfunded Actuarial Accrued Liabilities (UAAL) | Funded Ratio | Covered Payroll | UAAL <br> as a \% of Covered Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | $\begin{gathered} \text { A } \\ \$ 241,224 \end{gathered}$ | $\begin{gathered} \text { B } \\ \$ 3,206,806 \end{gathered}$ | $\begin{gathered} \text { B-A } \\ \$ 2,965,582 \end{gathered}$ | $\begin{aligned} & (\mathrm{A} / \mathrm{B}) \\ & 7.5 \% \end{aligned}$ | $\begin{gathered} \mathrm{C} \\ \$ 3,321,614 \end{gathered}$ | $\begin{gathered} {[(\mathrm{B}-\mathrm{A}) / \mathrm{C}]} \\ 89.3 \% \end{gathered}$ |

Note 8: Medical Insurance Plan छ 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, 2010 valuation date include the following:

| Actuarial cost method | Projected unit credit |
| :--- | :--- |
| Actuarial value of assets | Market value of assets |
| Assumed inflation rate | $4.0 \%$ |
| Investment rate of return | $8.0 \%$ |
| Projected salary increases | $4.0 \%$ |
| 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) | $9.50 \%-5.0 \%$ |
| Year of Ultimate Pre-Medicare trend rate | 2018 |

## 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, 2010 and 2009.

| Fiscal Year 2010 | Fiscal Year 2009 |
| :---: | :---: |
| 2,969,754 | \$ 2,289,841 |
| 233,703,094 | 201,400,693 |
| $(232,845,365)$ | (200,720,780) |
| \$ 3,827,483 | \$ 2,969,754 |

## Note 9: Life Insurance Plan

## A. PLAN DESCRIPTON

The System 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 197 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 System's actuary. For fiscal years 2010 and 2009, this rate has been $.06 \%$ and $.17 \%$ 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 <br> (a) | Actuarial Accrued Liabilities <br> (b) | Unfunded Actuarial Accrued Liabilities (UAAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a \% of Covered Payroll [(b-a)/c] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2010 | \$ 87,905 | \$92,091 | \$ 4,186 | 95.5\% | \$ 3,321,614 | . $13 \%$ |

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, 2010 valuation date include the following:

Actuarial cost method
Actuarial value of assets
Assumed inflation rate
Investment rate of return
Projected salary increases
Amortization method
Remaining amortization period

Projected unit credit
Market value of assets
4.0\%
7.5\%
4.0\%

Level percent of pay, open
30 years

## Note 10: Subsequent Event

On August 26, 2010, KTRS received $\$ 465,384,165$ in proceeds from a bond issued by the Commonwealth of Kentucky. The proceeds of this bond issue were deposited in the KTRS pension fund and represent the repayment of retirement contributions that had been redirected by the state to pay retiree health insurance during Fiscal Year 2005 through Fiscal Year 2010.

## Required Supplementary Information

| Defined Benefit Plan <br> Schedule of Funding Progress <br> (dollar amounts in millions) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { VALUATION } \\ & \text { YEAR } \\ & \text { JUNE } 30 \end{aligned}$ | ACTUARIAL <br> VALUE OF ASSETS |  | ACTUARIAL <br> ACCRUED <br> LIABILITIES | UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL) | $\begin{aligned} & \text { FUNDED } \\ & \text { RATIO } \end{aligned}$ | COVERED <br> PAYROLL | UAAL <br> AS A \% OF COVERED PAYROLL |
|  | a |  | b | (b-a) | (a/b) | c | [(b-a)/c] |
| 2005 | \$ 14,598.8 | \$ | 19,134.8 | \$ 4,536.0 | 76.3\% | \$ 2,703.4 | 167.8\% |
| 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 |
| 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
2005
2006
2007
2008
2009
2010

| ANNUAL |  |
| :---: | :---: |
| REQUIRED |  |
| CONTRIBUTIONS | PERCENTAGE |
| CONTRIBUTED |  |

Required Supplementary Information continued . . .

| Medical Insurance Plan Schedule of Funding Progress (dollar amounts in millions) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { VALUATION } \\ \text { YEAR } \\ \text { JUNE } 30 \end{gathered}$ | ACTUARIAL <br> VALUE OF ASSETS | ACTUARIAL <br> ACCRUED <br> LIABILITIES | UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL) | $\begin{aligned} & \text { FUNDED } \\ & \text { RATIO } \end{aligned}$ | COVERED PAYROLL | UAAL <br> AS A \% OF COVERED PAYROLL |
|  | a | b | (b-a) | (a/b) | c | [(b-a)/c] |
| 2005 | \$ 147.3 | \$ 4,763.9 | \$ 4,616.6 | 3.1\% | \$ 2,703.4 | 170.8\% |
| 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 |
| 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 <br> Schedule of Employer Contributions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FISCAL <br> YEAR <br> ENDED <br> JUNE 30 | ANNUAL REQUIRED CONTRIBUTION (ARC) | ACTUAL EMPLOYER CONTRIBUTION | $\begin{aligned} & \text { RETIREE DRUG } \\ & \text { SUBSIDY } \\ & \text { CONTRIBUTION } \end{aligned}$ | $\begin{gathered} \text { TOTAL } \\ \text { CONTRIBUTION } \end{gathered}$ | 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 |
| Only four years of actuarial calculations of annual required contributions are available. |  |  |  |  |  |

Required Supplementary Information continued . . .

| Life Insurance Plan Schedule of Funding Progress (dollar amounts in thousands) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { VALUATION } \\ \text { YEAR } \\ \text { JUNE } 30 \end{gathered}$ | $\begin{gathered} \text { ACTUARIAL } \\ \text { VALUE OF } \\ \text { ASSETS } \end{gathered}$ | ACTUARIAL <br> ACCRUED <br> LIABILITIES | UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL) | FUNDED RATIO | COVERED <br> PAYROLL | UAAL <br> AS A \% OF COVERED PAYROLL |
|  | a | b | (b-a) | (a/b) | c | [(b-a)/c] |
| 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 |
| The amounts reported in this schedule of funding progress do not include assets or liabilities for the defined benefit or medical insurance plans, nor are the assets and liabilities of the tax-sheltered annuity plan included. |  |  |  |  |  |  |

## Life Insurance Plan

 Schedule of Employer ContributionsFISCAL YEAR ENDED JUNE 30

2007
2008
2009
2010

ANNUAL REQUIRED
CONTRIBUTIONS (ARC)
$\$ 1,785,173$
$1,914,199$
1,498,076
1,992,969

ACTUAL EMPLOYER CONTRIBUTIONS
\$ 5,022,137 5,411,249 5,455,473 1,966,826

PERCENTAGE OF ARC CONTRIBUTED
$281.3 \%$
282.7
364.2
98.7

## Required Supporting Schedules

## Supporting Schedule 1 <br> Schedule of Administrative Expenses <br> Year Ended June 30, 2010

| Salaries | $\$, 001,066$ |
| :--- | ---: |
| Other Personnel Costs | 668,029 |
| Professional Services \& Contracts | 652,175 |
| Utilities | 78,610 |
| Rentals | 17,977 |
| Maintenance | 167,510 |
| Postage \& Related Services | 315,645 |
| Printing | 148,524 |
| Insurance | 139,494 |
| Miscellaneous Services | 117,083 |
| Telecommunications | 27,115 |
| Computer Services | 59,086 |
| Supplies | 61,986 |
| Depreciation | 111,448 |
| Travel | 69,284 |
| Dues \& Subscriptions | 41,037 |
| Miscellaneous Commodities | 13,758 |
| Furniture, Fixtures, \& Equipment not Capitalized | 117,090 |
| Compensated Absences | 23,137 |
|  |  |
| TOTAL ADMINISTRATIVE EXPENSES | $\$ 8,830,054$ |

## Supporting Schedule 2

Schedule of Professional Fees for Year Ended June 30, 2010

## PROFESSIONAL

Cavanaugh Macdonald Consulting
Charles T. Mitchell Company
Farmers Bank
International Claim Specialist Attorney General Ice Miller
Reinhart, Boerner VanDeuren
Stoll Keenon Ogden
Peritus
Bevis Longstreth
George Philip

## NATURE OF SERVICE

Actuarial Services \$ 267,376
Auditing Services
Bank Services 30,600 15,737
Investigative Services 4,025
Attorney Services $\quad 5,500$
Attorney Services 152,017
Attorney Services 16,243
Attorney Services 10,424
Communications 90,000
Investment Committee Advisor 40,253
Investment Committee Advisor

TOTAL
\$ 652,175

# Supporting Schedule 3 Schedule of Contracted Investment Management Expenses and Miscellaneous Expenses <br> Year Ended June 30, 2010 

EQUITY MANAGERS
Baillie Gifford
Baring Asset Management, Inc.
GE Asset Management
Todd-Veredus Asset Management LLC
UBS Global Asset Management
Wellington Management Company
Total Equity Managers
FIXED INCOME MANAGERS
Fort Washington Investment Advisors
Galliard Capital Management
Total Fixed Income Managers
REAL ESTATE
Prudential Real Estate

## ALTERNATIVE INVESTMENTS

PPIP
Privat
CUSTODIAN
138,211
Private Equity
Total Alternative Investments
PPIP
Privat
CUSTODIAN
Farmers Bank
502,751
342,062
763,744
1,188,499
2,480,240
2,251,916
$\$ 9,954,788$
\$ 1,770,389
1,500,000

844,813

## CONSULTANT

Hewitt Enis Knupp 364,178
LEGAL \& RESEARCH
$\begin{array}{lr}\text { Stoll, Keenon, Ogden, PLLC } & 2,450\end{array}$
Schottenstein, Zox \& Dunn $\quad 48,054$
Total Legal \& Research
OTHER
Subscription/Services
5,480,032
328,140

| Total Legal \& Research | 50,504 |
| :--- | ---: |
| OTHER |  |
| Subscription/Services | 543,868 |
| TOTAL CONTRACTED INVESTMENT MANAGEMENT EXPENSES | $\$ 18,206,407$ |

## Required Supporting Schedules continued . . .

Required Supporting Schedules continued . . .

## Supporting Schedule 5

## Combining Statement of Changes in Plan Net Assets - Other Funds For the Year Ended June 30, 2010

| 403(b) TAX | SUPPLEMENTAL | LOSEY | 2010 |
| :---: | :---: | :---: | :---: |
| SHELTERED | BENEFIT | SCHOLARSHIP | TOTAL |
|  | FUND |  |  |


| ADDITIONS |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contributions |  |  |  |  |  |  |
| Employer | \$ | \$ 60,000 | \$ |  | \$ | 60,000 |
| Investment Income |  |  |  |  |  |  |
| Net Appreciation/(Depreciation) |  |  |  |  |  |  |
| Interest | 525 |  |  | 27,603 |  | 28,128 |
| Net Investment Income | 525 |  |  | 12,803 |  | 13,328 |
| Total Additions | 525 | 60,000 |  | 12,803 |  | 73,328 |
| DEDUCTIONS |  |  |  |  |  |  |
| Benefits | 26,800 | 37,276 |  | 17,000 |  | 81,076 |
| Net Increase (Decrease) | $(26,275)$ | 22,724 |  | $(4,197)$ |  | $(7,748)$ |
| Net Assets Held In Trust For |  |  |  |  |  |  |
| Pension And Other Benefits |  |  |  |  |  |  |
| Beginning of Year | 474,361 | 25,559 |  | 493,864 |  | 993,784 |
| End of Year | \$ 448,086 | \$ 48,283 | \$ | 489,667 | \$ | 986,036 |



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

Charles T. Mitchell Co. L1P
Certified Public Accountants

## 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, 2010 have issued our report thereon dated December 17, 2010. 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 Teachers' Retirement System of the State of Kentucky's internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Teachers' Retirement System of the State of Kentucky's internal control over financial reporting.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies, or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

## Compliance and Other Matters

As part of obtaining reasonable assurance about whether 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 1. Mitchell bo.

Frankfort, Kentucky
December 17, 2010

## Givestment Section

for Fiscal Year ending June 30, 2010

## REPORT ON INVESTMENT ACTIVITY

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

Mr. Paul L. Yancey, CFA
Chief Investment Officer
Mr. Philip L. Webb
Director of Investment Accounting

## INVESTMENT COMMITTEE

Mr. Robert M. Conley
Chair

Mr. Ronald L. Sanders<br>Vice-Chair<br>Dr. Jay Morgan<br>Member<br>Ms. Barbara G. Sterrett<br>Member<br>Mr. Tom Shelton<br>Member<br>Mr. Bevis Longstreth<br>Investment Advisor to KTRS Investment Committee<br>Mr. George Philip<br>Investment Advisor to KTRS Investment Committee

## EXECUTIVE INVESTMENT STAFF

Mr. Gary L. Harbin, CPA
Executive Secretary
Mr. Paul L. Yancey, CFA
Chief Investment Officer

## Hewitt ennisknupp

An Bon Company
December 1, 2010

To the members of the Board of Trustees and participants of the Teachers' Retirement System of Kentucky:
The financial markets produced solid returns in the fiscal year ended June 30, 2010 as the frightening downward spiral of financial crisis and severe recession was arrested. Markets rebounded as economic growth resumed in the second half of 2009. It soon became clear, however, that the effects of the financial crisis - and the excesses that led to it-would be long-lasting. At the end of the fiscal year, a still-distressed housing market, an overleveraged consumer sector, and fiscal problems at all levels of government seemed to portend a long, slow recovery with unemployment remaining abnormally high. With the solvency of some European governments coming into question in the spring of 2010, even the stability of the global financial system remained in doubt.

Still-dislocated financial markets afforded exceptional opportunities, which the System actively sought to take advantage of. For the first time, the System invested in high yield bonds, with an allocation of $\$ 225$ million, due to extraordinary value in that sector. A total commitment of $\$ 120$ million was made to two fund managers participating in the U.S. Treasury's Public-Private Investment Program (PPIP) to take advantage of dislocations in the residential and commercial mortgagebacked securities markets. Both the high yield bonds and PPIP commitments were approved by the Board of Trustees as "additional categories" of investments as required by administrative regulation. A total of $\$ 185$ million in private equity commitments were made during the fiscal year, with the focus generally being one of capitalizing on unusual opportunities in specific sectors.

The System's portfolio returned $13.1 \%$ in the fiscal year, matching the return of the benchmark Policy Index. Domestic equities returned $15.1 \%$ versus $15.6 \%$ for the S\&P 1500 Index. International equities returned $12.5 \%$ versus $10.9 \%$ for the MSCI All Country World (ex-U.S.) Index. Fixed income returned $11.7 \%$ versus $9.7 \%$ for the Barclays Government/Credit Index. Alternative strategies, including the opportunistic investments mentioned above, are expected to make a more significant contribution to total return in future years.

An expanded Investment Committee, including two outside experts, improved the decision-making process during the fiscal year. In legislative developments, House Bill 540 was passed by the Kentucky General Assembly, which ended the practice of diverting pension contributions to fund the Medical Insurance Fund and established a plan to, over time, prefund those benefits.

The System's investment program has always been based on fundamental value, a long-term focus on funding obligations to its members, and risk control. This philosophy led to a successful navigation of the financial turmoil of recent years. Continued adherence to these principles will help the System to meet its goals through whatever challenges and opportunities lie ahead.

It is a privilege to work with the System's investment staff, Investment Committee, and Board of Trustees. We look forward to continuing to help the System meet its long-term goals.

Respectfully,


Patrick J. Kelly, CFA
Principal
Hewitt Ennis nupp, Inc.
10 South Riverside Plaza, Suite 1600 | Chicago, Il 60606
t $312.715 .1700 \mid$ f $312.715 .1952 \mid$ 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 System. This broad summary is a reference point for management of System 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 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 System's long-term investment objective is to achieve an annualized rate of return of $7.5 \%$.

## RISK CONTROLS

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

- Actuarial valuations are performed each year to evaluate the funding objectives of the System. In addition, every ten years an external audit of the actuary is conducted to ensure that the assumptions made and calculation methods used are resulting in properly computed liabilities of the System.
- Asset/liability studies are conducted approximately every five years. These studies ensure that the portfolio design is structured to meet the liabilities of the 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 System's investment consultant, on an annual basis, presents to the Investment Committee for approval target percentages and ranges for the System's various asset classes. Annually approved asset allocation parameters serve to balance the System's liquidity requirements, volatility tolerance, and return requirements to meet both short-term and long-term obligations. The System's assets are diversified across a variety of asset classes, investment management styles, and individual securities in order to reduce volatility and enhance the potential of the investment portfolio to achieve the System's long-term goals.

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

The information below shows the System's asset allocation by market value as of June 30, 2010, and June 30, 2009, as well as the target and strategic range for each asset class for fiscal year 2010.

|  |  | June 30, 2010 | \% | June 30, 2009 | \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cash Equivalents * | \$ | 218,429,317 | 1.7 | \$ 134,219,594 | 1.1 |
| Fixed Income ** |  | 3,933,016,478*** | 31.1 | 3,865,135,688 | 33.1 |
| Domestic Equities |  | 5,872,001,227 | 46.3 | 5,784,174,002 | 49.4 |
| International Equities |  | 1,703,159,180 | 13.4 | 1,344,393,598 | 11.3 |
| Real Estate |  | 419,613,671 | 3.3 | 425,746,050 | 3.6 |
| Private Equity |  | 110,757,811 | 0.9 | 60,731,073 | 0.5 |
| Timberland |  | 108,582,209 | 0.8 | 116,599,371 | 1.0 |
| Additional Categories |  | 312,947,084 | 2.5 | -0- | 0.0 |
| Totals |  | 12,678,506,977 | $\underline{100.0}$ | \$11,730,999,376 | $\underline{100.0}$ |

* Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.
** Excludes purchased interest of $\$ 1,450,327$ as of June 30, 2010. Also, excludes purchased interest of $\$ 1,060,537$ as of June 30, 2009.
*** As of June 30, 2010, the Scholarship Fund is no longer reported in the pension fund Investment portfolio. The value of this fund at June 30, 2010 was $\$ 482,153$.


## Distribution of Investments

Market Values


June 30, 2009


[^0]| Strategic Weightings by Asset Class |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Asset Class | Regulatory Limits (Mkt Value) | Strategic Range (Mkt) | Target (Mkt) | $\begin{gathered} \text { 6/30/2010 } \\ \text { (Mkt) } \end{gathered}$ |
| Cash |  | 1-3\% | 2.0\% | 1.7\% |
| Fixed Income |  | 25-32 | 28.0 | 31.1 |
| Government/Agency/Other | Unlimited |  |  | 17.4 |
| Corporate | 35\% |  |  | 13.7 |
| Equity | 65\% | 55-63 | 62.0 | 59.7 |
| Domestic Large Cap |  | 37-43 | 40.0 | 39.2 |
| Domestic Mid Cap |  | 3-6 | 5.0 | 4.4 |
| Domestic Small Cap |  | 2-4 | 3.0 | 2.7 |
| International | 15\% | 11-15 | 14.0 | 13.4 |
| Real Estate | 10\% | 3-5 | 4.0 | 3.3 |
| Alternative Investments* | 10\% | 1-3 | 2.0 | 1.7 |
| Additional Categories | 10\% | 1-4 | 2.0 | 2.5 |
| TOTAL |  |  | 100.0\% | 100.0\% |
| This weighting reflects cash with manager in the manager's asset class. <br> * Alternative Investments includes Private Equity, Timberland, Venture Capital and Infrastructure investments. |  |  |  |  |

## PORTFOLIO RETURNS

For the fiscal year, the System's portfolio generated a total return of $13.1 \%$, matching the return of the benchmark Policy Index. Domestic equities returned $15.1 \%$ versus $15.6 \%$ for the Standard \& Poor's 1500 Index, while international equities returned $12.5 \%$ versus $10.9 \%$ for the MSCI All Country World (Ex-US) Index. Fixed income investments outperformed, returning $11.7 \%$ versus $9.7 \%$ for the Barclays Government/Credit Index. Other asset classes such as alternative investments, though growing, were not large enough to substantially impact total System performance in the fiscal year.

The table below details historical performance for the System and its component asset classes for the period ended June 30, 2010. The System'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 System, have outperformed their benchmark. Other asset classes are expected to generate a more significant portion of the System's total return in the future. The System'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.


## FIXED INCOME INVESTMENTS

As of June 30, 2010, the System had approximately $\$ 4.17$ billion in fixed income assets, including $\$ 232.7$ million in high-yield bonds. The System's investment policy established by administrative regulation requires that all fixed income investments be rated investment grade at the time of purchase and that the fixed income portfolios as a whole maintain an average rating equal to at least "AA" by one of the major rating agencies. The regulation also allows that up to $10 \%$ of System assets may be invested in additional categories of investments approved by the Board of Trustees. Having been approved by the Board as an additional category of investments, a high-yield bond portfolio was funded in the fiscal year with an initial allotment of $\$ 225$ million.

Excluding the high-yield portfolio, fixed income investments maintained the required "AA" average rating as of June 30, 2010. 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 highyield portfolio.


## FIXED INCOME SECTOR DISTRIBUTION



## FIXED INCOME MARKET OVERVIEW

The functioning of credit markets healed surprisingly quickly over the fiscal year, even as it became increasingly clear that healing the economy's woes was a long-term proposition. Bond market sectors that became dysfunctional and plunged in value during the financial crisis and recession recovered impressively. The Barclays High Yield Index returned $26.77 \%$ for the fiscal year, while investment grade commercial mortgage-backed securities returned $30.12 \%$. Investment grade corporate bonds returned $15.92 \%$ while safe havens such as agency mortgage-backed securities returned $7.47 \%$ and U.S. Treasuries returned $6.67 \%$. The Barclays Government/Credit Index returned 9.65\%.

The Federal Reserve kept short-term rates near zero throughout the fiscal year. Yields on risk-free Treasuries trended up from the late fall of 2009 to the early spring of 2010 as the economy rebounded from the depths of the recession. Treasury yields then started a renewed plunge downward in the spring as it became clear that the U.S. recovery was weakening and a sovereign debt crisis in Europe hit the headlines. Over the fiscal year, the yield on the two-year Treasury declined from $1.11 \%$ to $0.60 \%$ and the yield on the thirty-year Treasury declined from $4.33 \%$ to $3.89 \%$.

At the end of the fiscal year, the economic landscape was looking decidedly dismal. Inflation-adjusted GDP growth had slowed from a $5.0 \%$ annual rate in the quarter ended December 31, to 3.7\% in the March 31 quarter, to a mere $1.7 \%$ rate in the June 30 quarter. With the economy too anemic to generate significant job creation, the unemployment rate remained at $9.5 \%$. The housing market, so central to the financial crisis, remained deeply distressed. Mortgage delinquency and foreclosure rates seemed to have peaked, but were still near record levels, and the Case-Shiller Index of home prices remained over 28\% below its peak with a massive inventory of unsold homes still overhanging the market. With confidence weak and credit availability still limited, consumers were in a deleveraging mode. There were fiscal problems at all levels of government. Consumer price inflation, excluding food and energy, was running at $0.9 \%$ annually. There was no prospect of a reversal of monetary policy in the foreseeable future.

The System moved to take advantage of opportunities in still-dislocated sectors of the credit markets during the fiscal year. A $\$ 225$ million initial allotment was made to a high-yield bond portfolio. To take advantage of dislocations in the residential and commercial mortgage-backed securities markets, a total commitment of $\$ 120$ million was made to two fund managers participating in the U.S. Treasury's PublicPrivate Investment Program (PPIP). As required by administrative regulation, both the high-yield bond portfolio and the PPIP commitments were approved by the Board as "additional categories of investments." Other than Board-approved "additional categories," fixed income investments are governed by conservative guidelines in administrative regulation. In those core portfolios, changes were made, such as increasing exposure to high quality commercial mortgage-backed securities, to capture superior relative value. By the end of the fiscal year, previously undervalued sectors had largely recovered and opportunities to pick up relative value had diminished.

As of mid-2010, bond yields were at historic lows, the economy was weak and uncertain, and there appeared no near-term prospect of a change in Federal Reserve policy of near zero short-term interest rates. Return prospects on core fixed income were clearly unappealing. While conditions seemed to portend an extended period of ultra-low yields, the risks of market losses were high in the event of rising rates or credit deterioration. Going forward in this environment, the focus was on risk control and fixed income's role in providing diversification and liquidity to the overall portfolio.

## EQUITY INVESTMENTS

As of June 30, 2010 the System's public equity investments had a market value of $\$ 7.6$ billion, representing $59.7 \%$ 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 System divides its public equity investments into two broad categories: domestic and international.

The domestic portfolio had a market value of $\$ 5.9$ billion as of June 30 , representing $46.3 \%$ of total assets. The benchmark for the domestic portfolio is the S\&P 1500 . The S\&P 1500 is made up of three well known component indices based upon capitalization: the S\&P 500 large cap, S\&P 400 mid cap, and the small cap S\&P 600. The System'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 30,2010 was $\$ 1.7$ billion representing $13.4 \%$ 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 System's international equities. During the fiscal year, international equities increased as a percent of total assets despite the decline in international markets as the System continued to increase its exposure to international equities. The System plans to continue increasing the international equity exposure during the coming fiscal year.

## EQUITY MARKET OVERVIEW

For the fiscal year 2010, equity markets staged a rebound as they recovered from the financial crisis. The Morgan Stanley Capital International (MSCI) World Index advanced 10.8\%. Returns of domestic stocks, as measured by the Standard \& Poor's 1500 Index, were $15.6 \%$. The MSCI EAFE, which measures the returns of international developed markets, had a return of $6.4 \%$. This was the second straight year that domestic equity returns outperformed those of the MSCI EAFE. Emerging market returns topped those of developed markets as the MSCI Emerging Markets Index advanced 23.5\%.

Domestic stocks enjoyed strong returns for the first nine months of the fiscal year as the S\&P 1500 rose $30.1 \%$. Several events occurred late in the year which shook investor confidence and resulted in a decline of $11.2 \%$ over the last quarter. For the first nine months, the market continued to ride the rebound from the March 2009 lows, believing that the worst of the recession was over and that economic activity and corporate profits would improve. As the year progressed, it became apparent that the recovery would not be as robust or as certain as was believed earlier in the year. Real GDP growth, which registered $5.0 \%$ for the December 31 quarter, slowed to $1.7 \%$ for the June 30, 2010 quarter. Housing prices showed only modest improvement from their mid 2009 lows, and the unemployment rate ended the year at $9.5 \%$, the same level as when the year began.

The past year was marked by several events which led to a decline in investor confidence and a late year stock selloff. Fears of sovereign debt default of several European countries had been simmering for months and reached a flashpoint when Standard \& Poor's downgraded Greece's credit rating to junk status in April. Although Greece represents only about $2 \%$ of the European Union's GDP, many feared that the crisis could spread to other European countries such as Spain, Portugal, and Ireland, which, like Greece, have debt levels which are a large percentage of their GDP. Although the European Union agreed to provide financial relief to struggling countries, the damage to confidence had already occurred. Another event undermining investor confidence was dubbed the "flash crash" and occurred late in the afternoon of May 6, 2010. Within minutes the Dow Jones Industrial Average fell hundreds of points to an intra-day decline of almost 1,000 points before rebounding almost as fast to end the day down several hundred points. Many stocks traded at unexplainable levels, forcing the exchange to cancel many trades. The inability of the regulators to explain the event only added to investor anxiety. On April 20, 2010, a rig contracted by BP in the Gulf of Mexico exploded and sank, resulting in the largest domestic oil spill ever. The continual media coverage of the event and the resulting financial and ecological damage had a negative impact on consumer confidence. The accident had a direct effect upon energy stocks, and the energy sector was the worst performing sector for the second year in a row.

## Kentucky Teachers' Retirement System

As was the case in 2009, the role government played with regard to regulation, stimulus, and monetary policy was central to investor confidence. Following the financial crisis and subsequent fallout, much attention was focused on Washington and what new regulations would be crafted regarding financial institutions and the amount of risk they could bear. "Too big to fail", the Madoff fraud, and the "flash crash" were hot topics on the regulatory agenda. While the government was winding down its Troubled Asset Relief Program (TARP), it still found itself in an ownership or creditor relationship with private companies. The government still controlled, or owned large stakes in, Fannie Mae, Freddie Mac, American International Group, Citigroup, Chrysler, and General Motors. On the stimulus front, the administration has made many efforts to boost the economy and create jobs with programs such as the American Recovery and Reinvestment Act of 2009, along with stimulus programs aimed at home ownership and auto sales. The Federal Reserve has continued its policy of keeping rates low to help stimulate the economy. With rates low, the Federal Reserve has also resorted to quantitative easing, whereby it increases the supply of money by buying securities held by banks and other financial institutions. The role of government with regard to regulation, stimulus, and monetary policy will play a central role in the performance of the equity markets during the coming year.

## REAL ESTATE

The System's real estate investments had a market value of $\$ 419.6$ million as of June 30, 2010, representing $3.3 \%$ of total assets. The System'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 System's real estate exposure is currently provided through two portfolios. The System maintains an internally managed portfolio of directly owned properties under long-term lease agreements with high credit quality tenants. The System 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 flow and the potential for capital appreciation. The fund is diversified across several property types including office, retail, industrial, apartment, self-storage, and hotel.

## REAL ESTATE OVERVIEW

Real estate fundamentals improved in the second half of the fiscal year as commercial real estate investors sensed that property values were at or near a cyclical bottom. Both equity and debt capital flows into real estate picked up as occupancy rates and rents started to improve in select property types and markets. While broad market improvement in rents and occupancy will remain sluggish until a sustained improvement in job growth occurs, there were clearly opportunities for investors to take advantage of buying opportunities in a depressed market.

We expect the 2010-2011 fiscal year to be one of transition as fund managers continue to deleverage and refinance existing properties. While the contraction in demand appears to be largely over, new supply is expected to remain subdued for several more years. Opportunistic investments will be abundant for those investors who have available capital to provide financing at profitable rates and who are in a position to
 purchase properties at attractive levels from distressed sellers.

## ALTERNATIVE ASSETS

As of June 30, 2010, the System had committed $\$ 715$ million to alternative investments and had funded $\$ 215$ million of those commitments. The percentage of the System's portfolio in alternative assets was $1.7 \%$. The System's current alternative asset portfolio consists of private equity investments and timberland.


## PRIVATE EQUITY

The System has exposure to venture, buyout, infrastructure, energy, and mezzanine via participation in limited partnerships as well as investments in funds of funds. The System 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 System looks to diversify its private equity portfolio by firm, country, strategy, and vintage year. The System will achieve vintage year diversification by building out the portfolio with disciplined levels of commitments over time. The System'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 System'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 showed notable signs of improvement as the fiscal year progressed after experiencing a near standstill during the credit crisis. While nowhere near pre-crisis levels, the ability of fund managers to raise investment capital has clearly seen an uptick. An overall improvement in the stock market has led to increased activity in the IPO market, providing more opportunities for fund managers to exit existing investments. As the financial markets continue to heal, capital calls will pick up as more investment opportunities present themselves, although distributions will probably remain subdued over the next year.

Large buyout funds have been largely out of favor since the beginning of the financial crisis due to a lack of favorable financing. However, attractive opportunities were ample in the mezzanine and secondary sectors during the past year. Looking forward, it is anticipated that solid investment opportunities will be available in the distressed credit sector of the market, primarily in the middle market space. The financial crisis currently unfolding in the Eurozone should provide a favorable environment to invest in distressed credit markets in Europe

## TIMBERLAND

In addition to private equity, the System has invested in timberland in the alternative asset class. As of June 30, 2010 the System owns approximately 73,000 acres of timberland outright and has a $7.15 \%$ interest in a commingled fund that holds 97,938 acres of timberland. 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 System's portfolio. Timberland should earn real returns comparable to traditional equity investments with volatility between equities and fixed income over the long-term.

The System 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

The tepid pace of recovery in both the U.S. housing market and the overall economy continues to adversely affect U.S. timber markets. A rebound in the housing market remains constrained by record foreclosures, tight credit conditions, and stubbornly high unemployment. However, going into next fiscal year many industry experts are cautiously optimistic about a gradual recovery in the demand for lumber. This optimism is based on an expected increase in U.S. construction spending and an anticipated uptick in home improvement and remodeling activity. Furthermore, as the global economy recovers, we should see a pickup in timber exports to countries such as China and South Korea.

| PORTFOLIOS |
| :---: |
| MARKET VALUES ** |
| June 30, 2010 |

## Internally Managed

## Cash Equivalents

Cash Collections Fund (Unallocated)
218,429,317
Fixed Income*

| Broad Market Bond Fund | $1,029,189,758$ |
| :--- | ---: |
| Long Term Bond Fund | $586,992,599$ |
| Intermediate Bond Fund | $470,484,165$ |
| Internal Bond Fund | $261,006,375$ |
| Life Insurance Trust | $86,455,572$ |
| Tax Shelter Fund | 448,085 |
|  |  |
| Equity | $2,057,546,867$ |
| S \& P 500 Stock Index Fund (Large Cap) | $317,995,096$ |
| S \& P 400 Stock Index Fund (Mid Cap) | $221,369,425$ |
| S \& P 600 Stock Index Fund (Small Cap) |  |

## Real Estate

Internally Managed Fund $\quad 391,439,237$
Subtotal
$5,641,350,496 * * *$

## Externally Managed

## Fixed Income

$\begin{array}{lr}\text { Galliard Capital Management } & 769,966,491 \\ \text { Ft. Washington Broad Market } & 728,479,433\end{array}$
Domestic Equity
Todd - Veredus (Large Cap Core) 1,040,553,447
UBS (Large Cap Value) 752,827,093
GE Asset Management (Large Cap Growth) 550,145,051
Wellington (Large Cap Core) 393,820,288
Wellington (Mid Cap Core) 236,813,283
Wellington (Small Cap Core) 117,881,282
Todd - Veredus Opportunity Fund 97,236,017
UBS (130/30) 85,813,378
International Equity
Todd - Veredus International 522,366,377
UBS International 514,470,507
Baillie Gifford EAFE Alpha 346,703,154
Baring Focused International Equity 319,619,142

## Real Estate

Prudential PRISA Fund 28,174,434

## PORTFOLIOS continued ... <br> JUNE 30, 2010

| Alternative Investments |  |
| :--- | ---: |
| Molpus Woodlands Group Lake Superior Timberlands LLC | $89,260,480$ |
| Hancock Bluegrass LLC - Oregon | $19,321,729$ |
| Riverstone/Carlyle E \& P Fund IV | $22,564,831$ |
| KKR \& Co European Fund III | $21,836,749$ |
| KKR \& Co Fund 2006 | $18,463,171$ |
| Ft. Washington Fund VI | $12,364,325$ |
| Chrysalis Venture Fund III | $10,195,122$ |
| Alinda Infrastructure Fund II | $9,496,506$ |
| Ft. Washington Fund V | $8,422,784$ |
| Landmark Equity Partners Fund XIV | $2,702,755$ |
| CapitalSouth Partners Fund III | $1,718,002$ |
| Oaktree Mezzanine Fund III | $1,400,000$ |
| Parish Capital Fund III | $1,136,304$ |
| J. P. Morgan Maritime Fund | 320,034 |
| Lexington Capital Partners Fund VII | 137,228 |
| Additional Categories | $2,9,651,457$ |
| Fort Washington High Yield Bond Fund | $40,598,924$ |
| Marathon Legacy Securities PPIP | $39,696,703$ |
| AG GECC PPIF, LP | $\mathbf{7 , 0 3 7 , 1 5 6 , 4 8 1}$ |
| Subtotal | $\mathbf{1 2 , 6 7 8 , 5 0 6 , 9 7 7}$ |

* Excludes purchased interest of $\$ 1,450,327$ as June 30, 2010
** Detailed information concerning these market values of all KTRS investments is available upon request.
*** As of June 30, 2010, the Scholarship Fund is no longer reported in the pension fund Investment portfolio. The value of this fund at June 30, 2010 was $\$ 482,153$.

|  |  | Investment Summary <br> Fair Market Value - Total Funds June 30, 2010 |  | Sales <br> Redemptions, Maturities \& Paydowns |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Investment | Fair Value $07 / 01 / 09$ | Acquisitions | Appreciation (Depreciation) |  |  |  | $\begin{array}{r} \text { Fair Value } \\ 06 / 30 / 10 \end{array}$ |
| Cash Equivalents \$ | 256,900,000 | \$ 53,043,964,900 | \$ | \$ | 52,993,486,600 | \$ | 307,378,300 |
| Fixed Income | 3,785,836,400 | 2,233,431,200 | 240,528,800 |  | 2,132,923,000 |  | 4,126,873,400 |
| Equities | 7,086,247,000 | 2,128,364,300 | 929,219,800 |  | 2,616,892,600 |  | 7,526,938,500 |
| Real Estate | 425,746,100 | 2,390,800 | $(8,523,200)$ |  | - |  | 419,613,700 |
| Alternative | 177,330,400 | 129,673,700 | 9,203,400 |  | 16,571,900 |  | 299,635,600 |
| TOTAL \$ | 11,732,059,900 | \$ 57,537,824,900 | \$ 1,170,428,800 | \$ | 57,759,874,100 | \$ | 12,680,439,500 |

## Contracted Investment Management Expenses Fiscal Year 2009-10 (in thousands of dollars)

Investment Manager Fees
Equity Managers
Fixed Income Managers
Real Estate
Alternative Investments (2)
Total

## Other Investment Services

| Custodian Fees | $\$ 12,678,507$ | $\$$ | 502 |
| :--- | ---: | ---: | ---: |
| Consultant Fees |  | 364 |  |
| Legal \& Research |  | 50 |  |
| Subscriptions/Services |  | 544 |  |
| Total |  | 1,460 |  |
|  |  |  |  |
| Total | $\$ \boxed{\mathbf{1 8 , 2 0 6}}$ | $\mathbf{1 4 . 4}$ |  |

Assets Under Management
\$ 4,978,249
1,731,097
28,174
299,636
\$ 7,037,156
\$ 16,746
\$ 9,955
845
328
5,618

Basis Points (1)
23.8
14.4

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.

## Transaction Commissions

## Fiscal Year 2009-10

## COMPANIES

| Barclays | 1,826,271 |
| :---: | :---: |
| Bass / Baypoint Trading | 42,300 |
| BB \& T Capital Markets | 74,300 |
| Bear Stearns \& Co., Inc. | 12,200 |
| Blair, William \& Co | 209,880 |
| BMO Capital Markets | 63,900 |
| BNY ConvergEX Group | 1,313,914 |
| Boenning \& Scattergood | 4,000 |
| BTIG | 246,000 |
| Canacord Adams | 69,700 |
| Cantor Fitzgerald \& Co | 62,600 |
| Chapdelaine Institutional | 10,340 |
| CIBC Oppenheimer Worldmarket | 87,800 |
| Citigroup Global | 1,006,706 |
| Collins Stewart LLC | 6,900 |
| Cowen \& Co | 306,690 |
| Credit Research \& Trading LLC | 41,700 |
| Credit Suisse Sec. LLC | 3,410,840 |
| Crowell Weedon \& Co | 82,100 |
| CRT Capital LLC | 14,100 |
| CSI US Institutional (Calyon) | 43,200 |
| Cuttone \& Co Inc | 6,200 |
| D A Davidson \& Co | 47,400 |
| Dahlman Rose \& Co LLC | 14,600 |
| Deutsche Bank | 618,650 |
| Dowling \& Partners | 60,200 |
| First Kentucky Securities Corp | 2,421,500 |
| Fox Pitt Kelton Inc | 16,200 |
| Freidman Billings | 183,100 |
| FTN Financial | 3,600 |
| Goldman Sachs | 3,208,992 |
| Heflin \& Co | 73,200 |
| Hudson Securities | 1,300 |
| ICAP Corporates LLC | 9,600 |
| Instinet | 9,053 |
| Investment Tech Grp Transition | 10,118,787 |
| Investment Technology Grp | 56,588,062 |
| ISI Group | 3,401,610 |
| J.J.B. Hilliard, W.L. Lyons | 3,157,502 |
| Janney Montgomery Scott Inc | 72,300 |
| Jefferies \& Co. | 556,680 |
| JMP Securities | 108,800 |
| Jones \& Associates | 2,500 |
| JP Morgan \& Chase | 1,098,385 |
| Keefe Bruyette \& Woods | 43,366 |
| Kellogg Partners Inst Svs | 1,300 |
| Keybanc Capital | 18,200 |
| Knight Equity Markets | 251,200 |
| LaBranche Financial Svs LLC | 46,400 |
| Lazard Freres \& Co. | 3,038,630 |
| Leerink Swann \& Co. | 54,800 |
| Legent Clearing Corp | 14,000 |
| Lexington Investment Co. | 1,271,570 |
| Liquidnet Inc | 7,180,595 |
| Longbow Securities LLC | 3,800 |
| MacQuarie Securities Inc | 65,200 |

## COMMISSIONS COMMISSION PER SHARE <br> SHARES TRADED

\$

| 63,006.25 | 0.0345 |
| :---: | :---: |
| 1,692.00 | 0.0400 |
| 2,972.00 | 0.0400 |
| 488.00 | 0.0400 |
| 8,147.20 | 0.0388 |
| 2,556.00 | 0.0400 |
| 40,327.01 | 0.0307 |
| 90.00 | 0.0225 |
| 10,403.00 | 0.0423 |
| 2,788.00 | 0.0400 |
| 2,406.00 | 0.0384 |
| 413.60 | 0.0400 |
| 3,512.00 | 0.0400 |
| 30,070.03 | 0.0299 |
| 288.00 | 0.0417 |
| 11,517.60 | 0.0376 |
| 1,668.00 | 0.0400 |
| 116,603.20 | 0.0342 |
| 3,067.00 | 0.0374 |
| 564.00 | 0.0400 |
| 1,728.00 | 0.0400 |
| 139.50 | 0.0225 |
| 1,896.00 | 0.0400 |
| 584.00 | 0.0400 |
| 28,928.75 | 0.0468 |
| 2,408.00 | 0.0400 |
| 80,182.00 | 0.0331 |
| 648.00 | 0.0400 |
| 7,324.00 | 0.0400 |
| 144.00 | 0.0400 |
| 105,126.88 | 0.0328 |
| 2,928.00 | 0.0400 |
| 52.00 | 0.0400 |
| 384.00 | 0.0400 |
| 103.03 | 0.0114 |
| 88,092.45 | 0.0087 |
| 718,544.07 | 0.0127 |
| 110,749.52 | 0.0326 |
| 103,835.07 | 0.0329 |
| 2,892.00 | 0.0400 |
| 19,183.60 | 0.0345 |
| 4,422.00 | 0.0406 |
| 100.00 | 0.0400 |
| 26,557.23 | 0.0242 |
| 7,731.89 | 0.1783 |
| 29.25 | 0.0225 |
| 3,227.00 | 0.1773 |
| 9,797.00 | 0.0390 |
| 1,856.00 | 0.0400 |
| 102,561.20 | 0.0338 |
| 2,215.00 | 0.0404 |
| 560.00 | 0.0400 |
| 39,786.60 | 0.0313 |
| 102,243.76 | 0.0142 |
| 152.00 | 0.0400 |
| 2,678.00 | 0.0411 |

Transaction Commissions continued . . .

| COMPANIES | SHARES TRADED | COMMISSIONS | COMMISSION PER SHARE |
| :---: | :---: | :---: | :---: |
| Melvin Securities Inc | 4,400 | 44.00 | 0.0100 |
| Merrill Lynch | 10,913,793 | 204,129.33 | 0.0187 |
| Miller Tabak \& Co. LLC | 40,200 | 1,608.00 | 0.0400 |
| Morgan Keegan | 1,919,200 | 63,000.50 | 0.0328 |
| Morgan Stanley Smith Barney-Hunt | 3,074,524 | 100,980.84 | 0.0328 |
| Morgan Stanley Smith Barney-Louv | 1,876,300 | 61,692.00 | 0.0329 |
| Morgan Stanley Smith Barney-NKY | 3,049,400 | 101,229.00 | 0.0332 |
| Morgan Stanley | 2,417,049 | 51,930.77 | 0.0215 |
| Murphy \& Durieu | 27,400 | 616.50 | 0.0225 |
| Needham | 38,700 | 1,548.00 | 0.0400 |
| Nomura Securities Intrntl Inc | 10,800 |  | 0.0000 |
| Nova Capital Markets LLC | 32,900 | 1,316.00 | 0.0400 |
| OTA Limited Partners | 68,800 | 2,752.00 | 0.0400 |
| Pali Capital Inc. | 45,500 | 1,820.00 | 0.0400 |
| Pershing LLC | 125,850 | 3,363.63 | 0.0267 |
| Pickering Energy Partners Inc. | 6,800 | 272.00 | 0.0400 |
| Pipeline Trading | 65,000 | 650.00 | 0.0100 |
| Piper Jaffray | 115,100 | 4,398.00 | 0.0382 |
| Pulse Trading | 448,490 | 9,174.53 | 0.0205 |
| R W Baird | 171,600 | 5,761.00 | 0.0336 |
| Raymond James \& Assoc | 5,375,858 | 175,434.86 | 0.0326 |
| RBC Capital Markets | 207,300 | 8,218.00 | 0.0396 |
| Ross Sinclaire \& Assoc | 1,219,500 | 40,110.00 | 0.0329 |
| Sandler O'Neill | 28,400 | 7,350.60 | 0.2588 |
| Sanford C Bernstein | 856,527 | 13,043.27 | 0.0152 |
| Simmons \& Co | 65,750 | 2,630.00 | 0.0400 |
| SJ Levinson \& Sons LLC | 18,200 | 728.00 | 0.0400 |
| Soleil Securities Co | 17,600 | 704.00 | 0.0400 |
| State Street Global | 12,500 | 375.00 | 0.0300 |
| Stephens Inc. | 24,300 | 3,819.00 | 0.1572 |
| Sterne, Agee \& Leach | 191,300 | 8,689.00 | 0.0454 |
| Stifel, Nicolaus \& Co | 2,649,300 | 88,755.00 | 0.0335 |
| Stifel, Nicolaus \& Co-Louisville | 1,270,600 | 43,846.00 | 0.0345 |
| Suntrust Robinson | 24,400 | 976.00 | 0.0400 |
| Susquehanna Brokerage | 351,326 | 10,473.50 | 0.0298 |
| The Benchmark Company LLC | 14,200 | 568.00 | 0.0400 |
| Think Equity Partners | 8,600 | 344.00 | 0.0400 |
| Thomas Weisel Partners | 63,900 | 1,484.00 | 0.0232 |
| UBS/Paine Webber Securities | 1,939,009 | 37,000.98 | 0.0191 |
| UBS/Paine Webber-Louisville | 5,107,300 | 162,385.49 | 0.0318 |
| Wachovia / First Clearing Corp | 7,100 | 284.00 | 0.0400 |
| Weeden \& Co | 3,270,600 | 108,422.00 | 0.0332 |
| Wells Fargo Securities, LLC | 124,000 | 5,120.00 | 0.0413 |
| White Cap Trading LLC | 4,400 | 99.00 | 0.0225 |
| WUB Capital Group Inc | 42,000 | 1,680.00 | 0.0400 |
| GRAND TOTAL | 150,048,499 | \$ 3,221,194.49 | 0.0215 |

[^1]
## Ten Largest Stock Holdings Ranked (1) (2) by Market Value <br> June 30, 2010

| Rank | Name | Market Value | Percentage of Equities |
| :--- | :--- | ---: | :--- |
|  |  |  |  |
| 1 | Microsoft Corp | $115,166,684$ | 1.839 |
| 2 | Exxon Mobil Corp | $106,591,180$ | 1.702 |
| 3 | Apple Inc | $103,743,549$ | 1.657 |
| 4 | Pepsico Inc | $93,166,281$ | 1.488 |
| 5 | A T \& T Inc | $82,812,070$ | 1.329 |
| 6 | Johnson \& Johnson | $81,913,503$ | 1.308 |
| 7 | Cisco Systems Inc | $76,585,114$ | 1.223 |
| 8 | Qualcomm Inc | $69,987,163$ | 1.117 |
| 9 | Hewlett Packard | $65,526,656$ | 1.046 |
| 10 | Chevron Corp | $60,874,967$ | 0.972 |
|  |  |  |  |

## Top Ten Fixed Income Holdings (2) by Market Value <br> June 30, 2010

| Rank Description | Maturity | Coupon | Par | Market Value | Percent of <br> Fixed Income |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 U S Treasury Bonds | 8/15/2023 | 6.250 | 61,500,000.00 | 79,719,375.00 | 2.048 |
| 2 U S Treasury Notes | 5/15/2020 | 3.500 | 75,640,000.00 | 79,161,798.40 | 2.033 |
| 3 U S Treasury Notes | 6/30/2016 | 3.250 | 40,000,000.00 | 42,422,000.00 | 1.090 |
| 4 U S Treasury TIPS | 4/15/2012 | 2.000 | 37,000,000.00 | 41,177,296.30 | 1.058 |
| 5 U S Treasury Notes | 3/31/2015 | 2.500 | 38,000,000.00 | 39,377,500.00 | 1.011 |
| 6 FNMA Notes | 1/15/2030 | 7.130 | 25,000,000.00 | 34,031,250.00 | 0.874 |
| 7 U S Treasury Bonds | 8/15/2029 | 6.130 | 22,000,000.00 | 29,225,680.00 | 0.751 |
| 8 U S Treasury TIPS | 1/15/2029 | 2.500 | 25,000,000.00 | 28,689,475.75 | 0.737 |
| 9 CMO FHR 3095 JE | 7/15/2031 | 5.500 | 23,604,000.00 | 24,862,109.72 | 0.639 |
| 10 U S Treasury Notes | 11/15/2013 | 4.250 | 22,000,000.00 | 24,261,820.00 | 0.623 |

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

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

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

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

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

## SECURITY LENDING

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

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

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

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

## KENTUCKY INVESTMENTS

The System is ever-mindful of its impact on the Commonwealth's economy. For the fiscal year ended June 30, 2010, approximately $\$ 1.2$ billion in defined benefit pension payments were distributed to annuitants living in Kentucky. Approximately $\$ 325$ million of the System's investments directly impact the Commonwealth. These investments include: pools of single-family mortgages in Kentucky; financing for multi-family housing; bonds issued by public agencies of the Commonwealth and those of local municipalities; direct ownership of commercial real estate, 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 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<br>Hewitt Ennis Knupp + Associates<br>Investment Custodian/Subcustodian<br>Farmers Bank \& Capital Trust Company<br>The Bank of New York Mellon<br>Fixed Income Managers<br>Galliard Capital Management<br>Ft. Washington Investment Advisors<br>Domestic Equity Managers<br>Todd-Veredus Asset Management LLC<br>UBS Global Asset Management<br>Wellington Management Company<br>GE Asset Management<br>International Equity Managers<br>Todd-Veredus Asset Management LLC<br>UBS Global Asset Management<br>Baring Asset Management, Inc.<br>Baillie Gifford<br>Real Estate Managers<br>Prudential Real Estate Investors

Alternative Investment Managers<br>Molpus Woodlands Group<br>Hancock Natural Resources Group<br>Kohlberg Kravis Roberts \& Co.<br>Chrysalis Ventures<br>Ft. Washington Private Equity Investors<br>Alinda Capital Partners, LLC<br>Riverstone Holdings, LLC<br>CapitalSouth Partners<br>Landmark Partners<br>Lexington Partners<br>Oaktree Capital Management<br>Parish Capital Advisors, LLP<br>Audax Group<br>J.P. Morgan Asset Management<br>Marathon Legacy Securities GP, LLC

AG GECC PPIF GP, LLC

## Attorney

Schottenstein, Zox \& Dunn, Co.

## Actuarial <br> Section

Report of the Actuary on the Annual Valuation

for Fiscal Year ending June 30, 2010

## Cavanaugh Macdonald

CONSULTING,LLC
December 10, 2010
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 30,2010. 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, 2013 required to support the benefits of the System are $29.41 \%$ of payroll for university members hired before July 1, 2008, $30.41 \%$ of payroll for university members hired on and after July 1, 2008, 32.37\% of payroll for non-university members hired before July 1, 2008, and $33.37 \%$ of payroll for non-university members hired on and after July $1,2008$.

These rates represent an increase since the previous valuation in the required employer contribution rate of $1.27 \%$ of payroll for the $2012 / 2013$ fiscal year. There has been a net decrease in the expected state special appropriation from $3.88 \%$ to $3.69 \%$, or $-0.19 \%$ of payroll. Therefore, for the $2012 / 2013$ 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 $7.27 \% ; 1.46 \%$ from this valuation and $5.81 \%$ from the previous valuation. In order to maintain the actuarial soundness of the retirement system, the entire required contributions will need to be made without any being used as a Stabilization Contribution for the Medical Insurance Fund.

The 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 unit credit actuarial cost method with projected benefits.

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 in the aggregate 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.

## Board of Trustees

December 10, 2010
Page 2

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

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

In our opinion, since a portion of the annual contributions required to fund the pension benefits have been allocated to the Medical Insurance Fund by the employer, the retirement fund is not funded by the employer on an actuarially sound basis. 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.


Edward A. Macdonald, ASA, FCA, MAAA President


Edward J. Koebel, EA, FCA, MAAA Senior Actuary

## Report of Actuary on the Valuation <br> Prepared as of June 30, 2010 <br> 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, 2010 | June 30, 2009 |
| :--- | ---: | ---: |
| Number of active members | 76,387 | 75,937 |
| Annual salaries | $\$ 3,321,614$ | $\$ 3,253,077$ |
| Number of annuitants and beneficiaries | 43,134 | 42,050 |
| Annual allowances | $\$ 1,352,158$ | $\$ 1,280,316$ |
| Assets $\quad$ Market value | $\$ 12,456,619$ | $\$ 11,515,884$ |
| $\quad$ Actuarial value | $\$ 14,851,330$ | $\$ 14,885,981$ |
| Unfunded actuarial accrued liability | $\$ 9,492,986$ | $\$ 8,514,445$ |
| Funded Ratio | $61.0 \%$ | $63.6 \%$ |
| Amortization period (years) | 30 | 30 |

Contribution Rates for University Members


## Contribution Rates for Non-University Members


2. The valuation includes only the assets and liabilities associated with the pension plan. The valuation of the Medical Insurance Fund and the Active and Retired Life Insurance Benefits will be prepared separately.
3. Comments on the valuation results as of June 30, 2010 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.
4. Schedule B shows the development of the actuarial value of assets. Schedule D of this report outlines the full set of actuarial assumptions and methods employed in the current valuation.
5. Provisions of the System, as summarized in Schedule E, 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, 2010 on the basis of which the valuation was prepared.

| Group | Number | Annual <br> Salaries (\$1,000's) |
| :---: | :---: | :---: |
| Full Time | 58,983 | \$ 3,211,563 |
| Part Time | 17,404 | 110,051 |
| Total | 76,387 | \$ 3,321,614 |

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, 2010

| Group | Number | Annual Retirement <br> Allowances <br> $\mathbf{( \$ 1 , 0 0 0 ' s )}$ |
| ---: | ---: | ---: |
| Service Retirements <br> Disability Retirements | 37,667 | 2,284 |
| of Deceased Members | $\underline{3,183}$ | $\underline{1,237,529}$ |
| Total | $\underline{43,134}$ | $\underline{55,736}$ |
|  |  | $\underline{\$ 1,352,158}$ |

${ }^{1}$ Includes cost-of-living adjustments effective through July 1, 2010.
3. Table 1 of Schedule $F$ 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, 2010 the market value of Pension Plan assets for valuation purposes held by the System amounted to $\$ 12,456,619,082$. 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, 2010 was $\$ 14,851,329,749$. This amount includes a Pension Obligation Bond of $\$ 465,000,000$ contributed on August 26, 2010. Schedule B shows the development of the actuarial value of assets as of June 30, 2010.
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 outlines the results of the actuarial valuation. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule D.
2. The valuation shows that the System has an actuarial accrued liability of $\$ 9,333,934,383$ 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 benefits payable to annuitants and beneficiaries amounts to $\$ 14,790,872,620$ of which $\$ 990,508,323$ 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 $\$ 219,508,635$. The total actuarial accrued liability of the System amounts to $\$ 24,344,315,638$. Against these liabilities, the System has present assets for valuation purposes of $\$ 14,851,329,749$. When this amount is deducted from the actuarial accrued liability of $\$ 24,344,315,638$, there remains $\$ 9,492,985,889$ as the unfunded actuarial accrued liability.
3. The normal contribution rate is equal to the actuarial present value of benefits accruing during the current year divided by the annual active members' payroll. The normal contribution rate is determined to be $13.31 \%$ of payroll for university members and $17.21 \%$ for non-university members.

## 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 $9.055 \%$ of annual salary to the System and each non-university member who becomes a member before July 1,2008 will contribute $10.855 \%$ of annual salary. Of this amount, for each university member, $1.43 \%$ is paid to the Medical Insurance Fund for medical benefits and for each non-university member, $1.75 \%$ if 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 $10.855 \%$ 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 2012/2013 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, $0.05 \%$ of payroll will be allocated to the Life Insurance Fund. Based on the results of the valuation, an additional $7.27 \%$ 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 $3.69 \%$ of total payroll will be made by the State. Therefore, the total required employer contribution rate to the Pension Plan is $21.785 \%$ for university members who become members before July 1, 2008 and $22.785 \%$ for university members who become members on or after July 1, 2008. The total required employer contribution rate to the Pension Plan is $23.265 \%$ for non-university members who become members before July 1, 2008 and $24.265 \%$ for non-university members who become members on or after July 1, 2008. The total member and employer contribution rates to the Pension Plan are shown in the following table.

## Contribution Rates by Source University

|  | Members hired before 7/1/2008 | Members hired on or after 7/1/2008 |
| :---: | :---: | :---: |
| Statutory Total | 9.055\% | 9.375\% |
| Statutory Medical Insurance Fund | (1.43) | (1.75) |
| Contribution to Pension Plan | 7.625\% | 7.625\% |
| Employer |  |  |
| Statutory Matching Total | 9.055\% | 9.375\% |
| Statutory Medical Insurance Fund | (1.43) | (0.75) |
| Supplemental Funding | 3.250 | 3.250 |
| Subtotal | 10.875\% | 11.875\% |
| Life Insurance | (0.05) \% | (0.05) \% |
| Additional to Maintain 30-Year Amortization | 7.27 | 7.27 |
| Special Appropriation | $\underline{3.69}$ | $\underline{3.69}$ |
| Contribution to Pension Plan | 21.785\% | 22.785\% |
| Total Contribution to Pension Plan | 29.41 \% | 30.41 \% |

## Contribution Rates by Source

 Non-University|  | Members hired before 7/1/2008 | Members hired on or after 7/1/2008 |
| :---: | :---: | :---: |
| Statutory Total | 10.855\% | 10.855\% |
| Statutory Medical Insurance Fund | (1.75) | (1.75) |
| Contribution to Pension Plan | 9.105\% | 9.105\% |
| Employer |  |  |
| Statutory Matching Total | 10.855\% | 10.855\% |
| Statutory Medical Insurance Fund | (1.75) | (0.75) |
| Supplemental Funding | 3.250 | 3.250 |
| Subtotal | 12.355\% | 13.355\% |
| Life Insurance | (0.05) \% | (0.05) \% |
| Additional to Maintain 30-Year Amortization | 7.27 | 7.27 |
| Special Appropriation | $\underline{3.69}$ | $\underline{3.69}$ |
| Contribution to Pension Plan | 23.265\% | 24.265\% |
| Total Contribution to Pension Plan | 32.37 \% | 33.37 \% |

4. The valuation indicates that normal contributions at the rate of $13.31 \%$ of active university members' salaries are required to meet the cost of benefits currently accruing. The normal rate for nonuniversity members is $17.21 \%$. 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 $16.10 \%$ for university members hired before July $1,2008,17.10 \%$ for university members hired on and after July $1,2008,15.16 \%$ for non-university members hired before July 1, 2008, and $16.16 \%$ for non-university members hired on and after July 1, 2008. These rates include special appropriations of $3.69 \%$ 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 |  |
|  | $\begin{array}{c}\text { Members hired } \\ \text { before } 7 / 1 / 2008\end{array}$ | $\begin{array}{c}\text { Members hired on or } \\ \text { after } 7 / 1 / 2008\end{array}$ | $\begin{array}{c}\text { Members hired } \\ \text { before } 7 / 1 / 2008\end{array}$ | $\begin{array}{c}\text { Members hired on or } \\ \text { after } 7 / 1 / 2008\end{array}$ |
| Normal |  |  |  |  |
| Accrued Liability * | $\underline{13.31 \%}$ | $\underline{16.10}$ | $\underline{17.31 \%}$ | $17.21 \%$ |$]$| $17.21 \%$ |
| :--- |
| Total |

* Includes special appropriations of $3.69 \%$ of payroll to be made by the State.

5. The unfunded actuarial accrued liability amounts to $\$ 9,492,985,889$ 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 $7.27 \%$, 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. Since the 2005 fiscal year, a portion of the contributions required for the pension fund have been 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. 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, 2010:

## Medical Insurance Fund Stabilization Funding

| FISCAL YEAR | LOAN AMOUNT | ANNUAL PAYMENT | BALANCE AS <br> OF JUNE 30, 2010 |
| :---: | :---: | ---: | ---: |
| $2004 / 2005$ | $\$ 29,169,700$ | $\$ 4,249,600$ | $\$ 17,193,538$ |
| $2005 / 2006$ | $62,294,800$ | $9,075,500$ | $42,598,781$ |
| $2006 / 2007$ | $73,000,000$ | $10,207,400$ | $53,174,638$ |
| $2007 / 2008$ | $125,000,000$ | $18,280,000$ | $106,522,125$ |
| $2008 / 2009^{*}$ | $133,400,000$ | $19,516,900$ | $123,970,500$ |
| $2009 / 2010^{* *}$ | $134,200,000$ | $19,611,300$ | $134,200,000$ |
| TOTAL | $\$ 557,064,500$ | $\$ 80,940,700$ | $\$ 477,659,582$ |
|  |  |  |  |

* 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.

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 $7.27 \%$ of payroll for the fiscal year ending June 30, 2013, 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 |

* The 2009 Valuation Results were revised from last year due to a reduction in the Life Insurance Fund State Contribution Rate from $0.17 \%$ to $0.05 \%$. This in turn lowered the required increase for the 2012 fiscal year from $5.93 \%$ to $5.81 \%$.

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 $\$ 978,540,691$ in the unfunded accrued liability from $\$ 8,514,445,198$ to $\$ 9,492,985,889$ during the year ending June 30, 2010.

## Analysis of Financial Experience <br> (Dollar amounts in thousands)

| ITEM | AMOUNT OF INCREASE/ (DECREASE) |
| :---: | :---: |
| Interest (7.5\%) added to previous unfunded accrued liability | \$ 638,583 |
| Expected accrued liability contribution | $(294,071)$ |
| Contributions allocated to the Medical Insurance Fund (MIF) for Stabilization Funding during 2009/2010 fiscal year with interest | 139,233 |
| Repayment of prior year's MIF Stabilization Funding with interest | $(63,544)$ |
| Pension Obligation Bond contribution made in August 2010 | $(465,000)$ |
| Experience: |  |
| Valuation asset growth | 1,026,250 |
| Pensioners' mortality | 20,027 |
| Turnover and retirements | 18,096 |
| New entrants | 56,140 |
| Salary increases | $(97,173)$ |
| Amendments | 0 |
| Assumption and method changes | 0 |
| Total | \$ 978,541 |

## 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, 2010

| GROUP <br> Retirees and beneficiaries currently <br> receiving benefits | NUMBER |
| :---: | :---: |
| Terminated employees entitled to benefits <br> but not yet receiving benefits | 43,134 |
| Active plan members | 5,637 |
| Total | $\frac{76,387}{125,158}$ |

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

| Actuarial <br> Valuation Date | Actuarial Value of Assets | Schedule of Funding Progress (Dollar amount in thousands) |  |  | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a)/c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | tuarial Accrued <br> Liability <br> (AAL) <br> Projected Unit <br> Credit <br> (b) | Unfunded (UAAL) (b-a) | Funded Ratio $(\mathrm{a} / \mathrm{b})$ |  |  |
| 6/30/2005 | \$ 14,598,843 | \$ 19,134,870 | \$ 4,536,027 | 76.3\% | \$ 2,703,430 | 167.8\% |
| 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 |
| * Reflects change in decremental assumptions. |  |  |  |  |  |  |

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2010. Additional information as of the latest actuarial valuation follows.

| Valuation Date | $06 / 30 / 2010$ | Actuarial Assumptions: <br> Investment Rate of Return* |
| :--- | :--- | :--- |
| Actuarial cost method | Projected unit credit | $\frac{7.50 \%}{\text { Projected Salary Increases* }}$ |
| Amortization method | Level percent of pay, open | $4.00-8.20 \%$ |
| Remaining amortization period | 30 years | $\frac{\text { Cost-of-Living Adjustments }}{1.50 \% \text { Annually }}$ |
| Asset valuation method | 5-year smoothed market | *Includes Inflation at 4.00\% |

## Schedule of Employer Contributions

| $\frac{\text { Fiscal Year Ended }}{\text { June 30 }}$ | $\frac{\text { Annual Required }}{\text { Contributions }}$ | $\frac{\text { Percentage }}{\text { Contributed }}$ <br> 2005 |
| :---: | :---: | :---: |
| 2006 | $412,946,526$ | $93 \%$ |
| 2007 | $464,152,466$ | 87 |
| 2008 | $494,565,369$ | 88 |
| 2009 | $563,789,483$ | 83 |
| 2010 | $600,282,735$ | 74 |

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2010. 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, 2010
(a) Employer annual required contribution
(b) Interest on net pension obligation
(c) Adjustment to annual required contribution
(d) Annual pension cost: (a) + (b) - (c)
(e) Employer contributions made for fiscal year ending June 30, 2010
(f) Increase (decrease) in net pension obligation: (d) - (e)
(g) Net pension obligation beginning of fiscal year
(h) Net pension obligation end of fiscal year: $(\mathrm{f})+(\mathrm{g})$
\$ 633,938,088 30,996,927
22,094,107
\$ 642,840,908
479,805,088
\$ 163,035,820
413,292,362
\$ 576,328,182

## TREND INFORMATION

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| YEAR | ANNUAL PENSION COST | PERCENTAGE OF APC | NET PENSION |
| ENDING | (APC) | CONTRIBUTED | OBLIGATION (NPO) |
| June 30, 2008 | $\$ 567,007,965$ | $82 \%$ | $\$ 250,170,583$ |
| June 30, 2009 | $605,671,714$ | 73 | $413,292,362$ |
| June 30, 2010 | $642,840,908$ | 75 | $576,328,182$ |

## SCHEDULE A

## Results of the Valuation

## Prepared as of June 30, 2010

(\$1,000's)

## 1. ACTUARIAL ACCRUED LIABILITY

Present value of prospective benefits payable in respect of:
(a) Present active members

| - | Service retirement benefits | $8,706,018$ |
| :--- | :--- | ---: |
| - | Disability retirement benefits | 393,535 |
| - | Death and survivor benefits | 72,141 |
| - | Refunds of member contributions | 162,240 |

(b) Present inactive members and members entitled to deferred vested benefits:
(c) Present annuitants and benficiaries:

| - | Service retirement benefits |
| :--- | :--- |
| - | Disability retirement benefits |
| - | Death and survivor benefits |

\$ 13,828,755
467,724

- Death and survivor benefits

494,394
(d) Total actuarial accrued liability
\$ 24,344,316
2. PRESENT ASSETS FOR VALUATION PURPOSES
\$ 14,851,330
3. UNFUNDED ACTUARIAL ACCRUED LIABILITY [ $1(\mathrm{~d})$ - 2 ]
$\$ 9,492,986$
4. NORMAL CONTRIBUTION RATE
(a) Actuarial present value of benefits accruing annually

UNIVERSITY
NON-
UNIVERSITY
(b) Annual payroll of active members
$\begin{array}{lr}\$ & 27,520 \\ \$ & 206,89\end{array}$
\$ 536,038
(c) Normal contribution rate
[ (4(a) / 4(b) ]
13.31\%
$17.21 \%$

## Solvency Test <br> (in millions of dollars)

| Fiscal Year Ending | (1) <br> Active <br> Member <br> Contributions | (2) <br> Retirants And Beneficiaries | (3) <br> Active Members (Employer Financed Portion) | Valuation Assets | Portion of Accrued Liabilities Covered by Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | (1) | (2) | (3) |
| 6/30/2005 | \$ 2,621.3 | \$ 11,370.4 | \$ 5,143.2 | \$ 14,598.8 | 100\% | 100\% | 12\% |
| 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 |

## SCHEDULE B

## Development of Actuarial Value of Assets <br> as of June 30, 2010

| (1) | Actuarial Value of Assets Beginning of Year | \$ | 14,885,981,251 |
| :---: | :---: | :---: | :---: |
| (2) | Market Value of Assets End of Year | \$ | 12,456,619,082 |
| (3) | Market Value of Assets Beginning of Year | \$ | 11,515,883,575 |
| (4) | Cash Flow |  |  |
|  | a. Contributions | \$ | 777,419,053 |
|  | b. Benefit Payments |  | 1,337,119,450 |
|  | c. Administrative Expense |  | 8,830,054 |
|  | d. Net: (4)a-(4)b-(4)c | \$ | (568,530,451) |
| (5) | Investment Income |  |  |
|  | a. Market total: (2) - (3) - (4)d | \$ | 1,509,265,958 |
|  | b. Assumed Rate |  | 7.50\% |
|  | c. Amount for Immediate Recognition: |  |  |
|  | [ (3) x (5)b ] + [ (4)d $\times$ (5) $\mathrm{b} \times 0.5$ ] | \$ | 842,371,376 |
|  | d. Amount for Phased-In Recognition: (5)a-(5)c | \$ | 666,894,582 |
| (6) | Phased-In Recognition of Investment Income |  |  |
|  | a. Current Year: $0.20 \mathrm{x}(5) \mathrm{d}$ | \$ | 133,378,916 |
|  | b. First Prior Year |  | $(611,235,941)$ |
|  | c. Second Prior Year |  | $(409,879,449)$ |
|  | d. Third Prior Year |  | 190,240,386 |
|  | e. Fouth Prior Year |  | $(75,996,339)$ |
|  | f. Total Recognized Investment Gain | \$ | (773,492,427) |
| (7) | Actuarial Value of Assets End of Year: |  |  |
| (8) | Additional Contribution from Pension Obligation Bond | \$ | 465,000,000 |
| (9) | Final Actuarial Value of Assets End of Year: (7) + (8) | \$ | 14,851,329,749 |
| (10) | Difference Between Market \& Actuarial Values: (2) - (7) (prior to Pension Obligation Bond) | \$ | (1,929,710,667) |



| SCHEDUL <br> PENSION PLAN <br>  <br> (Market Val |  | $\begin{aligned} & \text { S } \\ & \text { ements* } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | For the Year Ending |  |  |  |
| Receipts for the Year <br> June 30, 2010 <br> June 30, 2009 <br> Contributions |  |  |  |  |
|  |  |  |  |  |
| Members | \$ | 297,613,965 | \$ | 293,678,564 |
| Employers |  | 479,805,088 |  | 442,549,935 |
| Total | \$ | 777,419,053 | \$ | 736,228,499 |
| Net Investment Income |  | 1,509,265,958 |  | $(2,020,682,522)$ |
| TOTAL | \$ | 2,286,685,011 | \$ | $(1,284,454,023)$ |
| Disbursements for the Year |  |  |  |  |
| Benefit Payments | \$ | 1,321,808,770 | \$ | 1,252,980,407 |
| Refunds to Members |  | 15,310,680 |  | 15,208,419 |
| Medical Insurance Payments |  | 0 |  | 0 |
| Miscellaneous, including expenses |  | 8,830,054 |  | 8,165,757 |
| TOTAL | \$ | 1,345,949,504 | \$ | 1,276,354,583 |
| Excess of Receipts over Disbursements | \$ | 940,735,507 | \$ | $(2,560,808,606)$ |
| Reconciliation of Asset Balances |  |  |  |  |
| Asset Balance as of the Beginning of the Year |  | 11,515,883,575 |  | 14,076,692,181 |
| Excess of Receipts over Disbursements |  | 940,735,507 |  | $(2,560,808,606)$ |
| Asset Balances as of the End of the Year | \$ | 12,456,619,082 | \$ | 11,515,883,575 |
| Rate of Return |  | 13.44\% |  | -14.64\% |
| * Excludes assets for Medical Insurance Fund, the 403(b) Program Reserve Fund and the Life Insurance Fund. |  |  |  |  |

## SCHEDULE D

## Outline of Actuarial Assumptions and Methods

The assumptions and methods used in the valuation were selected based on the actuarial experience study prepared as of June 30, 2005, submitted to and adopted by the Board on September 18, 2006.

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 $4.0 \%$ per annum:

| Age | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual <br> Rate | $8.10 \%$ | $7.20 \%$ | $6.20 \%$ | $5.50 \%$ | $5.00 \%$ | $4.70 \%$ | $4.50 \%$ | $4.30 \%$ | $4.20 \%$ | $4.00 \%$ |

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 . . . |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | HDRAW |  |  |  |
|  |  |  |  | RVICE |  | RETIR | MENT |
| AGE | DEATH | DISABILITY | 0-4 | 5-9 | 10+ | Before 27 Years of Service | After 27 Years of Service* |
| 20 | 0.003\% | 0.01\% | 9.00\% |  |  |  |  |
| 25 | 0.010 | 0.01 | 9.00 | 1.50\% |  |  |  |
| 30 | 0.016 | 0.02 | 9.00 | 3.00 | 3.00\% |  |  |
| 35 | 0.032 | 0.05 | 10.00 | 3.25 | 1.50 |  |  |
| 40 | 0.048 | 0.08 | 10.00 | 3.75 | 1.50 |  |  |
| 45 | 0.064 | 0.22 | 9.50 | 2.50 | 1.50 |  | 25.0\% |
| 50 | 0.104 | 0.42 | 10.00 | 4.00 | 3.00 |  | 20.0 |
| 55 | 0.216 | 0.60 | 11.00 | 3.00 | 2.70 | 6.0\% | 35.0 |
| 60 | 0.375 | 0.79 | 11.00 | 3.00 | 2.70 | 14.0 | 25.0 |
| 62 | 0.438 | 0.83 | 11.00 | 3.00 | 2.70 | 14.0 | 23.0 |
| 65 | 0.566 | 0.90 | 11.00 | 3.00 | 2.70 | 22.5 | 35.0 |
| 70 | 0.905 | 0.00 | 0.00 | 0.00 | 0.00 | 100.0 | 100.0 |
|  |  |  |  |  |  |  |  |
| *Plus 5\% before age 55 and $15 \%$ after age 55 in year when first eligible for unreduced retirement with 27 years of service. |  |  |  |  |  |  |  |


| FEMALES: Annual Rate of . . . |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AGE | DEATH | DISABILITY | WITHDRAWAL |  |  |  |  |
|  |  |  | 0-4 $\begin{gathered}\text { SERVICE } \\ 5-9\end{gathered}$ |  |  | Before 27 Years After 27 Years of Service of Service* |  |
| 20 | 0.002\% | 0.03\% | 6.00\% |  |  |  |  |
| 25 | 0.007 | 0.03 | 8.50 | 3.00\% |  |  |  |
| 30 | 0.014 | 0.04 | 9.00 | 4.00 | 1.50\% |  |  |
| 35 | 0.026 | 0.11 | 8.50 | 4.00 | 2.00 |  |  |
| 40 | 0.044 | 0.22 | 8.50 | 2.50 | 1.50 |  |  |
| 45 | 0.055 | 0.38 | 7.00 | 2.50 | 1.50 |  | 25.0\% |
| 50 | 0.066 | 0.44 | 8.50 | 3.00 | 2.25 |  | 20.0 |
| 55 | 0.085 | 0.56 | 10.00 | 3.50 | 2.50 | 7.5\% | 35.0 |
| 60 | 0.122 | 0.85 | 11.00 | 3.50 | 2.50 | 16.5 | 30.0 |
| 62 | 0.137 | 0.85 | 11.00 | 3.50 | 2.50 | 12.5 | 25.0 |
| 65 | 0.159 | 0.85 | 11.00 | 3.50 | 2.50 | 26.0 | 30.0 |
| 70 | 0.195 | 0.00 | 0.00 | 0.00 | 0.00 | 100.0 | 100.0 |
|  |  |  |  |  |  |  |  |

DEATHS AFTER RETIREMENT: According to the 1994 Group Annuity Mortality Table for the period after service retirement. Special rates are used for the period after disability retirement. Representative values of the assumed annual rates of death after service and disability retirement are as follows:

| Annual Rate of Death After . . . |  | Service Retirement |  | Disability Retirement |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age | MALE | FEMALE | MALE | FEMALE |
|  | 45 | 0.1578\% | 0.0973\% | 6.500\% | 6.500\% |
|  | 50 | 0.2579 | 0.1428 | 10.000 | 10.000 |
|  | 55 | 0.4425 | 0.2294 | 10.000 | 10.000 |
|  | 60 | 0.7976 | 0.4439 | 9.000 | 9.000 |
|  | 65 | 1.4535 | 0.8636 | 10.000 | 10.000 |
|  | 70 | 2.3730 | 1.3730 | 6.500 | 4.500 |
|  | 75 | 3.7211 | 2.2686 | 7.000 | 6.000 |
|  | 80 | 6.2027 | 3.9396 | 10.000 | 6.500 |
|  | 85 | 9.7240 | 6.7738 | 12.500 | 7.500 |
|  | 90 | 15.2931 | 11.6265 | 15.000 | 17.500 |
|  | 95 | 23.3606 | 18.6213 | 23.368 | 31.702 |

Actuarial Method: Unit Credit Actuarial Cost Method with projected benefits. Actuarial gains and losses are reflected in the unfunded actuarial accrued liability.

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 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.

Expense Load: None.
Percent Married: 100\%, with females 3 years younger than males.
Loads: Unused Sick Leave: 1\% of active liability

## SCHEDULE E

## 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, 2010. Effective July 1, 2008, the System has been amended to change the benefit structure for members hired on or after that date. These plan changes are reflected in the June 30, 2009 valuation. 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:

| $\underline{\text { Number of Children }}$ | $\underline{\mathbf{1}}$ | $\underline{\mathbf{2}}$ | $\underline{\underline{\mathbf{3}}}$ | $\$ 4,800$ |
| :--- | :---: | :---: | :---: | :---: |$\quad \underline{\$ 5,080} \quad \underline{\text { 4 or more }}$

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

Members before 7/1/2008: University members contribute $8.375 \%$ of salary of which $7.625 \%$ is contributed to the Retirement System and $0.75 \%$ is contributed to the Medical Insurance Fund. Nonuniversity members contribute $9.855 \%$ of salary of which $9.105 \%$ is contributed to the Retirement System and $0.75 \%$ is contributed to the Medical Insurance Fund. Member contributions are picked up by the employer.

Members on and after 7/1/2008: University members contribute $9.375 \%$ of salary of which $7.625 \%$ is contributed to the Retirement System and $1.75 \%$ is contributed to the Medical Insurance Fund. Nonuniversity members contribute $10.855 \%$ of salary of which $9.105 \%$ is contributed to the Retirement System and $1.75 \%$ is contributed to the Medical Insurance Fund. Member contributions are picked up by the employer.

## SCHEDULE F

Table 1: Age - Service Table Distribution of Active Members as of June 30, 2010 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 Total Pay Avg. Pay | $\begin{array}{r} 2,552 \\ 41,410,302 \\ 16,227 \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 2,552 \\ 41,410,302 \\ 16,227 \end{array}$ |
| 25 to 29 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 7,342 \\ 217,949,175 \\ 29,685 \end{array}$ | $\begin{array}{r} 1,401 \\ 63,246,757 \\ 45,144 \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 8,743 \\ 281,195,932 \\ 32,162 \end{array}$ |
| 30 to 34 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 3,818 \\ 111,452,897 \\ 29,191 \end{array}$ | $\begin{array}{r} 4,865 \\ 227,947,351 \\ 46,855 \end{array}$ | $\begin{array}{r} 937 \\ 49,974,032 \\ 53,334 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 9,620 \\ 389,374,280 \\ 40,475 \end{array}$ |
| 35 to 39 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 2,817 \\ 74,313,656 \\ 26,380 \end{array}$ | $\begin{array}{r} 2,509 \\ 120,604,468 \\ 48,069 \end{array}$ | $\begin{array}{r} 4,012 \\ 225,193,125 \\ 56,130 \end{array}$ | $\begin{array}{r} 706 \\ 42,603,634 \\ 60,345 \end{array}$ |  |  |  |  | $\begin{array}{r} 10,044 \\ 462,714,883 \\ 46,069 \end{array}$ |
| 40 to 44 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 3,879 \\ 79,944,872 \\ 20,610 \end{array}$ | $\begin{array}{r} 1,808 \\ 88,446,267 \\ 48,919 \end{array}$ | $\begin{array}{r} 2,277 \\ 128,003,793 \\ 56,216 \end{array}$ | $\begin{array}{r} 2,904 \\ 178,515,920 \\ 61,472 \end{array}$ | $\begin{array}{r} 723 \\ 46,125,557 \\ 63,797 \end{array}$ |  |  |  | $\begin{array}{r} 11,591 \\ 521,036,409 \\ 44,952 \end{array}$ |
| 45 to 49 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 1,814 \\ 44,689,939 \\ 24,636 \end{array}$ | $\begin{array}{r} 1,269 \\ 62,904,777 \\ 49,570 \end{array}$ | $\begin{array}{r} 1,334 \\ 75,802,300 \\ 56,823 \end{array}$ | $\begin{array}{r} 1,528 \\ 95,801,767 \\ 62,697 \end{array}$ | $\begin{array}{r} 2,155 \\ 138,579,018 \\ 64,306 \end{array}$ | $\begin{array}{r} 639 \\ 42,056,954 \\ 65,817 \end{array}$ |  |  | $\begin{array}{r} 8,739 \\ 459,834,755 \\ 52,619 \end{array}$ |
| 50 to 54 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 1,657 \\ 34,303,799 \\ 20,702 \end{array}$ | $\begin{array}{r} 1,023 \\ 50,798,111 \\ 49,656 \end{array}$ | $\begin{array}{r} 1,173 \\ 67,243,927 \\ 57,326 \end{array}$ | $\begin{array}{r} 1,232 \\ 77,191,072 \\ 62,655 \end{array}$ | $\begin{array}{r} 1,377 \\ 90,754,269 \\ 65,907 \end{array}$ | $\begin{array}{r} 1,645 \\ 113,263,204 \\ 68,853 \end{array}$ | $\begin{array}{r} 476 \\ 32,669,109 \\ 68,633 \end{array}$ |  | $\begin{array}{r} 8,583 \\ 466,223,491 \\ 54,319 \end{array}$ |
| 55 to 59 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 2,510 \\ 39,542,880 \\ 15,754 \end{array}$ | $\begin{array}{r} 755 \\ 39,660,051 \\ 52,530 \end{array}$ | $\begin{array}{r} 944 \\ 56,148,619 \\ 59,479 \end{array}$ | $\begin{array}{r} 1,083 \\ 70,541,207 \\ 65,135 \end{array}$ | $\begin{array}{r} 1,158 \\ 77,380,607 \\ 66,823 \end{array}$ | $\begin{array}{r} 823 \\ 59,083,162 \\ 71,790 \end{array}$ | $\begin{array}{r} 707 \\ 54,593,179 \\ 77,218 \end{array}$ | $\begin{array}{r} 103 \\ 8,806,679 \\ 85,502 \end{array}$ | $\begin{array}{r} 8,083 \\ 405,756,384 \\ 50,199 \end{array}$ |
| 60 to 64 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 2,844 \\ 39,563,979 \\ 13,911 \end{array}$ | $\begin{array}{r} 431 \\ 23,085,640 \\ 53,563 \end{array}$ | $\begin{array}{r} 487 \\ 30,037,551 \\ 61,679 \end{array}$ | $\begin{array}{r} 573 \\ 37,299,758 \\ 65,096 \end{array}$ | $\begin{array}{r} 583 \\ 40,586,147 \\ 69,616 \end{array}$ | $\begin{array}{r} 372 \\ 27,094,465 \\ 72,835 \end{array}$ | $\begin{array}{r} 165 \\ 13,907,160 \\ 84,286 \end{array}$ | $\begin{array}{r} 122 \\ 11,098,734 \\ 90,973 \end{array}$ | $\begin{array}{r} 5,577 \\ 222,673,434 \\ 39,927 \end{array}$ |
| 65 \& over Total Pay Avg. Pay | $\begin{array}{r} 2,096 \\ 19,263,491 \\ 9,191 \end{array}$ | $\begin{array}{r} 148 \\ 7,200,683 \\ 48,653 \end{array}$ | $\begin{array}{r} 134 \\ 8,811,446 \\ 65,757 \end{array}$ | $\begin{array}{r} 119 \\ 8,107,359 \\ 68,129 \end{array}$ | $\begin{array}{r} 129 \\ 9,067,291 \\ 70,289 \end{array}$ | $\begin{array}{r} 98 \\ 7,442,506 \\ 75,944 \end{array}$ | $\begin{array}{r} 47 \\ 3,632,962 \\ 77,297 \end{array}$ | $\begin{array}{r} 84 \\ 7,868,617 \\ 93,674 \end{array}$ | $\begin{array}{r} 2,855 \\ 71,394,355 \\ 25,007 \end{array}$ |
| Total <br> Total Pay Avg. Pay | $\begin{array}{r} 31,329 \\ 702,434,990 \\ 22,421 \end{array}$ | $\begin{array}{r} 14,209 \\ 683,894,105 \\ 48,131 \end{array}$ | $\begin{array}{r} 11,298 \\ 641,214,793 \\ 56,755 \end{array}$ | $\begin{array}{r} 8,145 \\ 510,060,717 \\ 62,623 \end{array}$ | $\begin{array}{r} 6,125 \\ 402,492,889 \\ 65,713 \end{array}$ | $\begin{array}{r} 3,577 \\ 248,940,291 \\ 69,595 \end{array}$ | $\begin{array}{r} 1,395 \\ 104,802,410 \\ 75,127 \end{array}$ | $\begin{array}{r} 309 \\ 27,774,030 \\ 89,884 \end{array}$ | $\begin{array}{r} 76,387 \\ 3,321,614,225 \\ 43,484 \end{array}$ |

Average Age: 43.5 Average Service: 10.8

## SCHEDULE F

Table 2

## Number of Retired Members and Beneficiaries and their Benefits by Age

| Attained <br> Age | Number of <br> Members | Total Annual <br> Benefits | Average Annual <br> Benefits |
| :---: | :---: | ---: | ---: |
| $49 \&$ Under | 761 | $\$$ | $8,716,500$ |
| $50-54$ | 1,166 | $38,144,970$ | $\$ 11,454$ |
| $55-59$ | 6,003 | $221,760,971$ | 32,714 |
| $60-64$ | 10,935 | $386,467,941$ | 36,942 |
| $65-69$ | 8,197 | $271,854,309$ | 35,342 |
| $70-74$ | 5,781 | $176,024,375$ | 33,165 |
| $75-79$ | 4,103 | $113,668,963$ | 30,449 |
| $80 \&$ Over | 6,188 | $\mathbf{1 3 5 , 5 1 9 , 5 3 7}$ | 27,704 |
| TOTAL | $\mathbf{4 3 , 1 3 4}$ | $\mathbf{\$ 1 , 3 5 2 , 1 5 7 , 5 6 6}$ | $\mathbf{\$ 3 1 , 9 0 0}$ |

## SCHEDULE F

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

| Year <br> Ended | ADDED TO ROLLS |  | REMOVED FROM ROLLS |  | ROLLS AT END OF YEAR |  | Increase in Annual Allowances | Average <br> Annual <br> Allowance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Annual Allowances (in millions) | Number | Annual Allowances (in millions) | Number | Annual Allowances (in millions) |  |  |
| 2001 | 2,410 | \$77.0 | 1,128 | \$16.5 | 31,897 | \$679.8 | 9.8\% | \$21,311 |
| 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 |

## Actuarial Section -

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

for Fiscal Year ending June 30, 2010

# Cavanaugh Macdonald <br> consulting, llc 

December 16, 2010
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, 2010 . While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates a total annual required contribution of $7.20 \%$ of active member payroll for the Medical Insurance Fund payable for the fiscal year ending June 30, 2013 is required to support the benefits of the Kentucky Employees Health Plan and the Medicare Eligible Health Plan. Of this amount, 1.43\% of payroll is estimated to be paid by University members entering the system prior to July 1, 2008 and $1.75 \%$ of payroll is estimated to be paid by all other members, leaving $5.77 \%$ and $5.45 \%$ respectively, as the remaining annual required contribution. This annual required contribution reflects the assets currently held in the Medical Insurance Fund. Given the changes to benefits, funding, and investment policy, the discount rate for valuing liabilities is $8.00 \%$. Schedule A provides the liabilities of the medical plans under the alternate discount rate assumptions of $4.50 \%$ and $7.50 \%$.

The Medical Insurance Fund valuation takes into account, as appropriate, the effect of amendments to the medical plans enacted through the most recent session of the Legislature. These changes include: an increase in cost sharing for current and future retirees not eligible for Medicare in the form of a minimum contribution based upon the projected Medicare Part B premium (phased-in over three years, beginning July 1, 2010); payment by the Commonwealth of KTRS' net premium cost (capped at $3.00 \%$ of payroll) of those members who retire July 1 , 2010 and later that are not eligible for Medicare; and the increases in member and employer contributions scheduled to begin July 1, 2010. The valuation's discount rate assumption has been increased to $8.00 \%$ to reflect the impact of these changes, along with the adjustment to the Medical Insurance Fund's investment policy to achieve a long-term rate of return of $8.00 \%$. Additionally, the assumed rates of health care inflation were revised to reflect current expectations. The actuarial accrued liability decreased from $\$ 6.5$ billion in 2009 to $\$ 3.2$ billion in 2010 .

The Life Insurance Fund valuation indicates a total annual required contribution of $0.05 \%$ of active member payroll payable for the fiscal year ending June 30,2013 is required to support the benefits of the Life Insurance Fund. The contribution rate of $0.05 \%$ equals the amount to be contributed in the prior fiscal year. With the State contributions to the Life Insurance Fund meeting 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 unit credit actuarial cost method with projected benefits. 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

## Board of Trustees

December 16, 2010
Page 2
the actuary and adopted by the Board are in aggregate reasonably related to the experience under the medical and life 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 Schedule A and Schedule C shown in the Actuarial Section of the Annual Report.

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 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, 2010

## Section I - Summary of Principal Results

1. For convenience of reference, the principal results of the valuation and a comparison with the results of the previous valuation are summarized below (all dollar amounts are $\$ 1,000$ 's):

| ~ Medical Insurance Fund ~ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Valuation Date | June 30, 2010 |  | June 30, 2009 |  |
| Number of active members |  | 76,387 |  | 75,937 |
| Annual salaries | \$ | 3,321,614 | \$ | 3,253,077 |
| Number of annuitants in medical plans |  | 34,315 |  | 33,481 |
| Number of spouses and beneficiaries in medical plans |  | 6,834 |  | 6,808 |
| Total |  | 41,149 |  | 40,289 |
| Assets: |  |  |  |  |
| Market value | \$ | 241,224 | \$ | 229,103 |
| Unfunded actuarial accrued liability |  | 2,965,582 | \$ | 6,225,630 |
| Amortization period (years) |  | 30 |  | 30 |
| Discount rate |  | 8.00\% |  | 4.50\% |



| Medical Insurance Fund Contribution Rates for School District Employees (Non-Federal) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Valuation Date | June 30, 2010 |  | June 30, 2009* |  |
| For Fiscal Year Ending | June 30, 2013 |  | June 30, 2012 |  |
|  | 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 | 2.32 \% | 2.32 \% | 7.53 \% | 7.53 \% |
| Accrued liability | 4.88 | 4.88 | 6.83 | 6.83 |
| Total | 7.20 \% | 7.20 \% | 14.36 \% | 14.36 \% |
| Member | 1.75 \% | 1.75 \% | 0.75 \% | 1.75 \% |
| Employer | 1.00 | 1.00 | 0.00 | 0.00 |
| State (ARC) | 4.45 | 4.45 | 13.61 | 12.61 |
| Total | 7.20 \% | 7.20 \% | 14.36 \% | 14.36 \% |
| DM *The June 30, 2009 valuation results reflect provisions as of that date and are provided for informational purposes. For the fiscal years ending June 30, 2011 and June 30, 2012, it is recommended that the results of the June 30, 2010 valuation be appropriately used to determine the State contribution. |  |  |  |  |



| ~Life Insurance Fund ~ (dollar amounts are $\$ 1,000$ 's) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Valuation Date | June 30, 2010 |  | June 30, 2009 |  |
| Number of active members |  | 76,387 |  | 75,937 |
| Annual salaries | \$ | 3,321,614 | \$ | 3,253,077 |
| Number of retirees in Life Insurance Plan |  | 39,951 |  | 38,958 |
| Assets: |  |  |  |  |
| Market value |  | 87,905 |  | 84,703 |
| Unfunded actuarial accrued liability* |  | 4,186 |  | 5,631 |
| Amortization period (years) |  | 30 |  | 30 |
| Discount rate |  | 7.50\% |  | 7.50\% |
| Contribution for fiscal year ending | June 30, 2012 |  | June 30, 2012 |  |
| Normal |  | 0.04\% |  | 0.04\% |
| Accrued liability |  | 0.01\% |  | 0.01\% |
| Total |  | 0.05\% |  | 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 . |  |  |  |  |

2. The valuation indicates combined member, employer, and State contributions of $7.20 \%$ of active member payroll would be sufficient to support the current benefits of the medical plans and State contributions of $0.05 \%$ 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, 2010 are given in Section IV and further discussion of the contribution levels is set out in Sections V and VI.
3. Schedule C of this report outlines the full set of actuarial assumptions and methods employed in the current valuation. Since the previous valuation, the medical plan discount rate was increased from $4.50 \%$ to $8.00 \%$. The impact of this change is shown on Schedule A.
4. The valuation takes into account the effect of amendments to the medical plans enacted
through the most recent session of the Legislature. Effective July 1, 2010, retirees under age 65 began a three year phase-in of the Shared Responsibility Contribution, the basis of which will, in the third year, equal the Standard Medicare Part B premium required to be paid by retirees age 65 and over. This additional contribution required from retirees under age 65 resulted in a decrease of $\$ 173,536,621$ in the accrued liability and $\$ 16,306,917$, or $0.49 \%$ of payroll, in the annual required contribution. Effective July 1, 2010, the Commonwealth of Kentucky will begin paying the System's cost of medical insurance for new retirees under the age of 65 , less what those retirees are otherwise required to pay (capped at an ultimate amount of $3.00 \%$ of payroll). This change represents $\$ 590,529,804$ of the accrued liability and $\$ 68,599,691$, or $2.06 \%$ of payroll, in the annual required contribution. Effective July 1, 2010, active members will begin a six-year phase-in to an additional contribution to the medical insurance fund. Previously, members hired before July 1, 2008 were required to contribute $0.75 \%$ of pay and members hired on or after July 1, 2008 were required to contribute $1.75 \%$ of pay. For the fiscal year ending June 30, 2013, member contributions will be $1.43 \%$ for University employees who became members of the System before July 1, 2008 and $1.75 \%$ for all other members.

## 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 office. The following table shows the number of active members and their annual salaries as of June 30, 2010 on the basis of which the valuation was prepared.

| Group | Number | Annual <br> Salaries (\$1,000's) |
| :---: | :---: | :---: |
| Full Time <br> Part Time | 58,983 <br> 17,404 <br> Total | 76,387 <br> $3,211,563$ <br> 110,051 |
| $3,321,614$ |  |  |

## Section III - ASSETS

1. As of June 30, 2010 the market value of Medical Insurance Fund assets for valuation purposes held by the medical plans amounted to $\$ 241,223,840$ and the market value of Life Insurance Fund assets for valuation purposes held by the life insurance plan amounted to $\$ 87,904,593$.
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 and illustrates the benefits of pre-funding the liability for the medical and life insurance plans. 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 $\$ 1,258,246,049$ 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 benefits payable to retirees and covered spouses
amounts to $\$ 1,948,560,035$. The total actuarial accrued liability of the medical plans amounts to $\$ 3,206,806,084$. Against these liabilities, the medical plans have present assets for valuation purposes of $\$ 241,223,840$. When this amount is deducted from the actuarial accrued liability of $\$ 3,206,806,084$ there remains $\$ 2,965,582,244$ 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 $\$ 77,101,531$ or $2.32 \%$ of payroll.
4. The valuation shows that the life insurance plan has an actuarial accrued liability of $\$ 17,657,348$ 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 benefits payable to retirees amounts to $\$ 74,433,365$. The total actuarial accrued liability of the life insurance plan amounts to $\$ 92,090,713$. 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 $\$ 87,904,593$. When this amount is deducted from the actuarial accrued liability of $\$ 92,090,713$ there remains $\$ 4,186,120$ 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 $\$ 1,275,631$, or $0.04 \%$ of payroll.

## Section V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

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

| Employer Percentage of Payroll Contributions Made to Medical Insurance Fund |  |  |  |  |  |  | * In addition to the amounts contributed by School Districts on behalf of NonFederal employees, the State contributes $0.75 \%$. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | UNIVE EMPL | $\begin{aligned} & \text { ERSITY } \\ & \text { OYEES } \end{aligned}$ | $\begin{array}{r} \text { SCHOOL } \\ \text { EMPL } \\ \text { (Non-F } \end{array}$ | DISTRICT <br> OYEES <br> ederal)* | $\begin{array}{r} \text { OT } \\ \text { EMPL } \end{array}$ | HER <br> OYEES |  |  |
| Fiscal Year Ending | $\begin{aligned} & \text { Members } \\ & \text { hired } \\ & \text { before } \\ & 7 / 1 / 2008 \end{aligned}$ | 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 | Member hired on or after 7/1/2008 |  |  |
| 2011 | 0.920\% | 0.750\% | 0.250\% | 0.250\% | 1.000\% | 0.750\% |  |  |
| 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 |  |  |
| ${ }_{2015}^{2015}$ | 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 |  |  |

For the fiscal year ending June 30, 2013, member contributions will be $1.43 \%$ for University employees who became members of the System before July 1, 2008 and $1.75 \%$ for all other members. CMC recommends employer and State contributions increase to the required amount of $5.77 \%$ of payroll for University employees hired prior to July 1, 2008 and $5.45 \%$ 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, 2012. CMC's valuation indicates the same contribution of $0.05 \%$ for the fiscal year ending June 30, 2013 is required to sufficiently support the benefits of the life insurance plan.


| Life Insurance Fund |  |
| :---: | :---: |
| Normal | 0.04\% |
| Accrued liability | 0.01 |
| Total | 0.05\% |
| Member | 0.00\% |
| State (ARC) | 0.05 |
| Total | 0.05\% |

2. The valuation indicates that a total normal contribution of $2.32 \%$ of payroll is required to meet the cost of benefits currently accruing under the medical plans and $0.04 \%$ 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 $4.88 \%$ of payroll for the medical plans and $0.01 \%$ of payroll for the life insurance plan.
3. The unfunded actuarial accrued liability amounts to $\$ 2,965,582,244$ for the medical plans and $\$ 4,186,120$ for the life insurance plan as of the valuation date. An accrued liability contribution of $4.88 \%$ of payroll for the medical plans and $0.01 \%$ of payroll for the life insurance plan is sufficient to amortize the unfunded actuarial accrued liabilities over a 30-year period, based on the assumption that the payroll will increase by $4.0 \%$ annually.

## Section VI - COMMENTS ON LEVEL OF FUNDING

1. 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.
2. The valuation indicates an increase in 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 $1.43 \%$ of payroll together with employer and State contributions of $5.77 \%$ 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 $1.75 \%$ of payroll together with employer and State contributions of $5.45 \%$ 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 VII - ACCOUNTING INFORMATION

1. Governmental Accounting Standards Board Statements 43 and 45 set forth certain items of required supplementary information to be disclosed in the financial statements of the medical and life insurance plans and the employer.

| Number of Active and Retired Members in <br> Medical Plan as of June 30, 2010 |  |
| :---: | :---: |
| GROUP | NUMBER |
| Retirees currently <br> receiving health benefits <br> Spouses of retirees currently <br> receiving health benefits* <br> Active plan members <br> Total$\quad 34,315$ |  |
| $\underline{76,387}$ |  |


| Number of Active and Retired Members <br> in Life Insurance Plan as of June 30, 2010 |  |
| :---: | :---: |
| GROUP | NUMBER |
| Retirees | 39,951 |
| Active plan members | $\underline{76,387}$ |
| Total | $\underline{\underline{\mathbf{1 1 6 , 3 3 8}}}$ |
|  |  |

[^2]
2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2010. Additional information as of the latest actuarial valuation follows.

| Valuation Date .................................................... 06/30/2010 | Actuarial Assumptions: <br> Investment Rate of Return* |
| :---: | :---: |
| Actuarial cost method ............................ Projected unit credit | 8.0\% for Medical \& $7.50 \%$ for Life Insurance |
| Amortization method .....................Level percent of pay, open | Medical Trend Assumption (Pre-Medicare)** |
| Remaining amortization period .................................. 30 years | 10.5\%-5.0\% |
| Asset valuation method ........................ Market Value of Assets | Medical Trend Assumption (Post-Medicare) |
| * Includes Inflation at $4.00 \%$. <br> ** Alternate trend rates were used for Medicare Part B premiums and are disclosed in Schedule C. | $\frac{\text { Year of Ultimate Trend Rate }}{2018}$ |


| Schedule of Employer Contributions Medical Insurance Fund |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { VALUATION } \\ & \text { YEAR } \\ & \text { JUNE } 30 \\ & \hline \end{aligned}$ | ANNUAL REQUIRED CONTRIBUTION | $\begin{gathered} \text { ACTUAL } \\ \text { EMPLOYER } \\ \text { CONTRIBUTION } \end{gathered}$ | $\begin{gathered} \text { RDS } \\ \text { CONTRIBUTION } \end{gathered}$ | $\begin{gathered} \text { TOTAL } \\ \text { CONTRIBUTION } \end{gathered}$ | PERCENTAGE OF ARC CONTRIBUTED |
|  | (a) | (b) | (c) | (b) + (c) | $[(\mathbf{b})+(\mathbf{c})] /(\mathbf{a})$ |
| 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 |
| Schedule of Employer Contributions Life Insurance Fund |  |  |  |  |  |
| $\begin{aligned} & \text { FISCAL } \\ & \text { YEAR } \\ & \text { ENDING } \end{aligned}$ |  | ANNUAL REQUIRED CONTRIBUTION (ARC) | ACTUAL <br> 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 |  |

3. Following is the calculation of the Annual OPEB Cost (AOC) and the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2010. 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, 2010

(a) Employer Annual Required Contribution
\$ 457,054,117
(b) Interest on Net OPEB Obligation 23,661,734
(c) Adjustment to Annual Required Contribution 18,773,335
(d) Annual OPEB Cost: (a) + (b) - (c)
(e) Employer Contributions for Fiscal Year 2010
461,942,516
(e) Employ Contibutions for Fisal Year 2010 173,379,781
(f) Increase in Net OPEB Obligation: (d) - (e)
288,562,734
(g) Net OPEB Obligation at beginning of Fiscal Year 525,816,306
(h) Net OPEB Obligation at end of Fiscal Year: (f) $+(\mathrm{g})$
$\$ 814,379,040$

## Trend Information for the Medical Insurance Fund

| Fiscal <br> Year <br> Ending | Annual OPEB <br> Cost (AOC) | Percentage <br> of AOC <br> Contributed | Net OPEB <br> Obligation <br> (NOO) |
| :---: | :---: | :---: | :---: |
| $6 / 30 / 2008$ | $\$ 395,282,164$ | $40.7 \%$ | $\$ 234,415,955$ |
| $6 / 30 / 2009$ | $469,492,218$ | 37.9 | $525,816,306$ |
| $6 / 30 / 2010$ | $461,942,516$ | 37.5 | $814,379,040$ |

## Annual OPEB Cost and Net OPEB Obligation for the Life Insurance Fund for Fiscal year Ending June 30, 2010

(a) Employer Annual Required Contribution
\$ 1,992,969
(b) Interest on Net OPEB Obligation
(c) Adjustment to Annual Required Contribution $(389,738)$
(d) Annual OPEB Cost: (a) + (b) - (c) 1,817,516
(e) Employer contributions for Fiscal Year 2010
1,966,826
(f) Increase in Net OPEB Obligation: (d) - (e)
(g) Net OPEB Obligation at beginning of Fiscal Year
$(7,535,867)$
(h) Net OPEB Obligation at end of Fiscal Year: $(\mathrm{f})+(\mathrm{g})$
\$(7,685,177)

## Trend Information for the Life Insurance Fund

| Fiscal <br> Year <br> Ending | Annual OPEB <br> Cost (AOC) | Percentage <br> of AOC <br> Contributed | Net OPEB <br> Obligation <br> (NOO) |
| :---: | :---: | :---: | :---: |
| $6 / 30 / 2008$ | $\$ 1,914,199$ | $282.7 \%$ | $\$(3,497,050)$ |
| $6 / 30 / 2009$ | $1,416,656$ | 385.1 | $(7,535,867)$ |
| $6 / 30 / 2010$ | $1,817,516$ | 108.2 | $(7,685,177)$ |

## SCHEDULE A Benefits of Pre-Funding Medical Plan (1,000's)

PAYROLL
ACTUARIAL ACCRUED LIABILITY
Present value of prospective benefits payable in respect of:
(a) Present active members:
(b) Present retired members and covered spouses:
(c) Total actuarial accrued liability

| Pay-As-You-Go Discount Rate 4.50\% | Pre-Funding Discount Rate 7.50\% | Pre-Funding Discount Rate 8.00\% |
| :---: | :---: | :---: |
| \$ 3,321,614 | \$ 3,321,614 | \$ 3,321,614 |
| \$ 2,648,229 | \$ 1,382,989 | \$ 1,258,246 |
| 2,853,671 | 2,045,561 | 1,948,560 |
| 5,501,900 | 3,428,550 | 3,206,806 |
| 241,224 | 241,224 | 241,224 |
| \$ 5,260,676 | 3,187,326 | 2,965,582 |
| 5.58 \% | 2.60 \% | 2.32\% |
| 5.65 11.23 \% | 4.96 \% | 4.88 7.20 |
| 1.73 \% | 1.73 \% | 1.73\% |
| 1.02 | 1.02 | 1.02 |
| 8.48 | 4.81 | 4.45 |
| 11.23 \% | 7.56 \% | 7.20\% |

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

For the Year Ending

## RECEIPTS FOR THE YEAR

Contributions
Members Statutory
Payment by Retired Members Total Members

State Statutory Contributions
State Special
General Fund Surplus
Allotment from Pension Fund
Total Employer
Grand Total
Recovery Income
Medicare D Receipts
Net Investment Income TOTAL

DISBURSEMENTS FOR THE YEAR
Refunds to Members
Medical Insurance Expense
TOTAL
EXCESS OF RECEIPTS OVER DISBURSEMENTS
RECONCILIATION OF ASSET BALANCES
Asset Balance as of the Beginning of the Year
Excess of Receipts over Disbursements
Asset Balance as of the End of the Year

| June 30, 2010 | Iune 30, 2009 |
| ---: | ---: |
| $\$ 26,579,278$ |  |
| $37,226,295$ | $\$ 25,134,252$ |
| $63,805,573$ | $33,554,515$ |
| $24,561,433$ | $58,688,767$ |
| 0 | $25,022,737$ |
| 0 | 0 |
| $134,200,000$ | 0 |
| $158,761,433$ | $139,385,300$ |
| $222,567,006$ | $164,408,037$ |
|  | $223,096,804$ |


| 4,063 | 72,082 |
| ---: | ---: |
| $14,614,285$ | $13,61,748$ |
| $12,312,999$ | $11,296,280$ |
| $249,498,353$ | $248,076,914$ |


| 0 | 0 |
| ---: | ---: |
| $237,377,528$ | $204,857,122$ |
| $237,377,528$ | $204,857,122$ |
| $12,120,825$ | $43,219,792$ |
| $299,103,015$ |  |
| $12,120,825$ | $185,883,223$ |
| $\$ 241,223,840$ | $\underline{43,219,792}$ |


| SCHEDULE B (continued) <br> LIFE INSURANCE FUND <br> Summary of Receipts \& Disbursements (Market Value) |  |  |
| :---: | :---: | :---: |
|  | For the Year Ending |  |
| RECEIPTS FOR THE YEAR | June 30, 2010 | June 30, 2009 |
| Contributions |  |  |
| Members | \$ 0 | \$ 0 |
| Employers | 1,966,826 | 5,455,473 |
| Total | 1,966,826 | 5,455,473 |
| Net Investment Income | 5,383,644 | 5,282,958 |
| TOTAL | 7,350,470 | 10,738,431 |
| DISBURSEMENTS FOR THE YEAR |  |  |
| Benefit Payments | 4,148,511 | 3,694,000 |
| Refunds to Members | 0 | 0 |
| Medical Insurance Payments | 0 | 0 |
| Miscellaneous, including expenses | 0 | 0 |
| TOTAL | 4,148,511 | 3,694,000 |
| EXCESS OF RECEIPTS OVER DISBURSEMENTS | 3,201,959 | 7,044,431 |
| RECONCILIATION OF ASSET BALANCES |  |  |
| Asset Balance as of the Beginning of the Year | 84,702,634 | 77,658,203 |
| Excess of Receipts over Disbursements | 3,201,959 | 7,044,431 |
| Asset Balance as of the End of the Year | \$87,904,593 | \$84,702,634 |

## SGHEDULE C

## Outline of Actuarial Assumptions and Methods

The rates of retirement, disability, mortality, and termination used in the valuation were selected by the Actuary based on the actuarial experience investigation as of June 30, 2005 and adopted by the Board of Trustees on September 18, 2006. 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, 2010
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 <br> YEAR | MEDICARE <br> PART B <br> TREND | UNDER <br> AGE 65 <br> TREND |  <br> OVER <br> TREND |
| :---: | :---: | :---: | :---: |
| 2011 | $4.4 \%$ | $10.5 \%$ | $9.0 \%$ |
| 2012 | -1.4 | 9.5 | 8.5 |
| 2013 | 3.0 | 8.5 | 7.5 |
| 2014 | 5.0 | 7.5 | 7.0 |
| 2015 | 4.1 | 6.5 | 6.5 |
| 2016 | 4.5 | 6.0 | 6.0 |
| 2017 | 5.5 | 5.5 | 5.5 |
| 2018 | 6.8 | 5.0 | 5.0 |
| 2019 | 6.1 | 5.0 | 5.0 |
| 2020 | 5.5 | 5.0 | 5.0 |
| 2021 and | 5.0 | 5.0 | 5.0 |
| beyond |  |  |  |

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:

| $\frac{\text { Participant Age }}{65-69}$ | $\frac{\text { Annual Increase }}{}$ |
| :---: | :---: |
| $70-74$ | $3.0 \%$ |
| $75-79$ | 2.5 |
| $80-84$ | 1.0 |
| $85-89$ | 0.5 |
| 90 and over | 0.0 |

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

| $\underline{\text { Years of Service }}$ | $\frac{\text { Hired } 7 / 1 / 08}{\text { and later }}$ | $\begin{aligned} & \underline{\text { Hired after }} \\ & \text { 6/30/02 and } \\ & \text { before } 7 / 1 / 08 \\ & \hline \end{aligned}$ | Hired 6/30/02 and earlier |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Years of Service | $\begin{gathered} \text { Age } 65 \text { on } \\ \text { 12/31/04 } \\ \text { and earlier } \end{gathered}$ | Age 65 on <br> 1/1/05 <br> and later |
| 5-9.99 | Not Eligible | 10\% | 5-9.99 | 70\% | 25\% |
| 10-14.99 | Not Eligible | 25 | 10-14.99 | 80 | 50 |
| 15-19.99 | 45\% | 45 | 15-19.99 | 90 | 75 |
| 20-24.99 | 65 | 65 | 20-24.99 | 93 | 93 |
| 25-25.99 | 90 | 90 | 25-25.99 | 93 | 93 |
| 26-26.99 | 93 | 93 | 26-26.99 | 93 | 93 |
| 27 or more | 93 | 93 | 27 or more | 93 | 93 |

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 |  |
|  |  |  |  | 0-4 | $\begin{gathered} \text { RVICI } \\ 5-9 \end{gathered}$ | 10+ | Before 27 <br> Years of Service | After 27 <br> Years of Service** |
| 20 | 8.10\% | 0.003\% | 0.01\% | 9.00\% |  |  |  |  |
| 25 | 7.20 | 0.010 | 0.01 | 9.00 | 1.50\% |  |  |  |
| 30 | 6.20 | 0.016 | 0.02 | 9.00 | 3.00 | 3.00\% |  |  |
| 35 | 5.50 | 0.032 | 0.05 | 10.00 | 3.25 | 1.50 |  |  |
| 40 | 5.00 | 0.048 | 0.08 | 10.00 | 3.75 | 1.50 |  |  |
| 45 | 4.70 | 0.064 | 0.22 | 9.50 | 2.50 | 1.50 |  | 25.0\% |
| 50 | 4.50 | 0.104 | 0.42 | 10.00 | 4.00 | 3.00 |  | 20.0 |
| 55 | 4.30 | 0.216 | 0.60 | 11.00 | 3.00 | 2.70 | 6.0\% | 35.0 |
| 60 | 4.20 | 0.375 | 0.79 | 11.00 | 3.00 | 2.70 | 14.0 | 25.0 |
| 62 | 4.10 | 0.438 | 0.83 | 11.00 | 3.00 | 2.70 | 14.0 | 23.0 |
| 65 | 4.00 | 0.566 | 0.90 | 11.00 | 3.00 | 2.70 | 22.5 | 35.0 |
| 70 | 4.00 | 0.905 | 0.00 | 0.00 | 0.00 | 0.00 | 100.0 | 100.0 |
| *Includes inflation at 4.0\% per annum. <br> **Plus $5 \%$ before age 55 and $15 \%$ after age 55 in year when first eligible for unreduced retirement with 27 years of service. |  |  |  |  |  |  |  |  |


| FEMALES: Annual Rate of . . . |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | HDRA |  | RETIR | MENT |
| AGE | SALARY* | DEATH | DISABILITY | 0-4 | $\begin{gathered} \text { RVICI } \\ 5-9 \end{gathered}$ | 10+ | Before 27 <br> Years of Service | After 27 <br> Years of <br> Service* |
| 20 | 8.10\% | 0.002\% | 0.03\% | 6.00 |  |  |  |  |
| 25 | 7.20 | 0.007 | 0.03 | 8.50 | $3.00 \%$ |  |  |  |
| 30 | 6.20 | 0.014 | 0.04 | 9.00 | 4.00 | 1.50\% |  |  |
| 35 | 5.50 | 0.026 | 0.11 | 8.50 | 4.00 | 2.00 |  |  |
| 40 | 5.00 | 0.044 | 0.22 | 8.50 | 2.50 | 1.50 |  |  |
| 45 | 4.70 | 0.055 | 0.38 | 7.00 | 2.50 | 1.50 |  | 25.0\% |
| 50 | 4.50 | 0.066 | 0.44 | 8.50 | 3.00 | 2.25 |  | 20.0 |
| 55 | 4.30 | 0.085 | 0.56 | 10.00 | 3.50 | 2.50 | 7.5\% | 35.0 |
| 60 | 4.20 | 0.122 | 0.85 | 11.00 | 3.50 | 2.50 | 16.5 | 30.0 |
| 62 | 4.10 | 0.137 | 0.85 | 11.00 | 3.50 | 2.50 | 12.5 | 25.0 |
| 65 | 4.00 | 0.159 | 0.85 | 11.00 | 3.50 | 2.50 | 26.0 | 30.0 |
| 70 | 4.00 | 0.195 | 0.00 | 0.00 | 0.00 | 0.00 | 100.0 | 100.0 |
| *Includes inflation at $4.0 \%$ per annum.$* *$ Plus $5 \%$ before age 55 and $15 \%$ after age 55 in year when first eligible for unreduced retirement with 27 years of service |  |  |  |  |  |  |  |  |

Deaths After Retirement: According to the 1994 Group Annuity Mortality table for the period after service retirement. Special rates are used for the period after disability retirement. Representative values of the assumed annual rates of death after service and disability retirement are as follows:

| Annual Rate of Death After . . . |  | Service Retirement |  | Disability Retirement |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Age | MALE | FEMALE | MALE | FEMALE |
|  | 45 | $0.1578 \%$ | 0.0973 \% | $6.500 \%$ | 6.500\% |
|  | 50 | 0.2579 | 0.1428 | 10.000 | 10.000 |
|  | 55 | 0.4425 | 0.2294 | 10.000 | 10.000 |
|  | 60 | 0.7976 | 0.4439 | 9.000 | 9.000 |
|  | 65 | 1.4535 | 0.8636 | 10.000 | 10.000 |
|  | 70 | 2.3730 | 1.3730 | 6.500 | 4.500 |
|  | 75 | 3.7211 | 2.2686 | 7.000 | 6.000 |
|  | 80 | 6.2027 | 3.9396 | 10.000 | 6.500 |
|  | 85 | 9.7240 | 6.7738 | 12.500 | 7.500 |
|  | 90 | 15.2931 | 11.6265 | 15.000 | 17.500 |
|  | 95 | 23.3606 | 18.6213 | 23.368 | 31.702 |

Actuarial Method: Costs were determined using the Projected Unit Credit Actuarial Cost Method. The annual service cost is the present value of the portion of the projected benefit attributable to participation service during the upcoming year, and the Actuarial Accrued Liability (AAL) is equal to the present value of the portion of the projected benefit attributable to service before the valuation date. Service from hire date through the date of full retirement eligibility was used in allocating costs.
Assets: 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.
Spouse Coverage in Medical Plans: Use 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.
Medical Plan Costs: Assumed per capita health care costs were based on past experience and trended based on the assumptions. Following is a chart 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

| Year | $\frac{\text { Pre-65 Full Cost and }}{\text { Contributions }}$ | $\frac{\text { Post-65 Full }}{\text { Costs }}$ | Post-65 <br> Contributions |
| :--- | :---: | :---: | :---: |
| 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 | $301^{1}$ | 285 |
| CY 2010 | 594 | $373^{1}$ | 342 |
| CY 2011 | 626 | $289^{2}$ | 289 |

[^3]SCHEDULE D Summary of Main Plan Provisions as Interpreted for Valuation Purposes

RETIREE MEDICAL ELIGIBILITY: For those hired prior to July 1, 2008, retiree medical 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 those 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 medical benefits. Disabled employees, who are totally and permanently incapable of being employed as a teacher and under age 60, but after completing the minimum years of service requirement, are eligible for subsidized retiree medical coverage that is based on the number of years of service credit accrued at disability retirement. At the expiration of the disability entitlement period, the subsidy is recalculated based upon the number of years of service credit that would have accrued had the member remained active. Spouses of those actives who die while eligible to retire are eligible for retiree medical coverage when the death occurred prior to July 1, 2002.

MEDICAL PLAN CONTRIBUTIONS: The full contribution is provided to retirees with 27 or more years of service. The full contribution is determined by KTRS; the full cost is projected based on historical claims data. For retirees with less than 27 years of service, the following percentages of these full contributions are provided:

| Percentage of Full Medical Contribution Provided to Retirees |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Years of Service | Hired before $7 / 1 / 02$ (age 65 on 12/31/04 or earlier) | Hired Before <br> 7/1/02 <br> (age 65 on <br> 1/1/05 or later) | Hired after 6/30/02 and before 7/1/08 | $\begin{gathered} \text { Hired } \\ 7 / 1 / 08 \\ \text { and later } \end{gathered}$ |
| 27 or more | 100\% | 100\% | 100\% | 100\% |
| 26-26.99 | 100 | 100 | 95 | 95 |
| 25-25.99 | 100 | 100 | 90 | 90 |
| 20-24.99 | 100 | 100 | 65 | 65 |
| 15-19.99 | 90 | 75 | 45 | 45 |
| 10-14.99 | 80 | 50 | 25 | Not Eligible |
| 5-9.99 | 70 | 25 | 10 | Not Eligible |

Effective January 1, 2009, contributions towards pre-65 retirees and spouses healthcare are based upon the Commonwealth Capital Choice Plan which has a total rate of $\$ 625.68$ per month for single coverage (rate effective January 1, 2011). A minimum contribution of $\$ 36.54$ is required to be paid by all pre- 65 retirees and an additional $\$ 24.00$ per month contribution is required for pre- 65 retiree smokers.

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, and is the full Shared Responsibility Contribution amount adjusted by the appropriate percentage from the above table. In the first six months, the full amount equaled $\$ 37$ per month and will increase slightly to $\$ 39$ per month due to the increase in the Medicare Part B premium cost from $\$ 110.50$ in 2010 to $\$ 115.40$ in 2011. Effective July 1, 2011 , the full amount will equal $\$ 77$, which represents two-thirds of the Medicare Part B premium. 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.

Spouses of post-65 retirees, as well as surviving spouses of deceased retirees, pay $100 \%$ of the full contribution. For spouses of active members who died while eligible to retire, prior to July 1, 2002, KTRS provides the same subsidy they would have provided to the retiree for the lifetime of the spouse, or until remarriage. For spouses of active members who die while eligible to retire July 1, 2002, or later, spouses pay $100 \%$ of the full contribution. $100 \%$ of the full cost for non-Medicare eligible dependents is paid through a combination of payments from beneficiaries and the State.

MEMBER CONTRIBUTIONS: Active members make payroll contributions to the Medical Insurance Fund based upon the following schedule:

| Employer Percentage of Payroll Contributions Made to Medical Insurance Fund |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | UNIVERSITY <br> EMPLOYEES |  | SCHOOL DISTRICT <br> EMPLOYEES <br> (Non-Federal)* |  | OTHER <br> EMPLOYEES |  |
| Fiscal Year Ending | $\begin{array}{\|l} \text { Members } \\ \text { hired } \\ \text { prior } \\ 7 / 1 / 2008 \end{array}$ | Members hired on or after 7/1/2008 | $\begin{aligned} & \text { Members } \\ & \text { hired } \\ & \text { prior } \\ & 7 / 1 / 2008 \end{aligned}$ | Members hired on or after 7/1/2008 | Members hired prior 7/1/2008 | Members hired on or after 7/1/2008 |
| 2011 | 0.920\% | 1.750\% | 1.000\% | 1.750\% | 1.000\% | 1.750\% |
| 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 and 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

## Active Age and Service Table as of June 30, 2010

| 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 Total Pay Avg. Pay | $\begin{array}{r} 2,552 \\ 41,410,302 \\ 16,227 \end{array}$ |  |  |  |  |  |  |  | $\begin{array}{r} 2,552 \\ 41,410,302 \\ 16,227 \end{array}$ |
| $\begin{gathered} 25 \text { to } 29 \\ \text { Total Pay } \\ \text { Avg. Pay } \end{gathered}$ | $\begin{array}{r} 7,342 \\ 217,949,175 \\ 29,685 \end{array}$ | $\begin{array}{r} 1,401 \\ 63,246,757 \\ 45,144 \end{array}$ |  |  |  |  |  |  | $\begin{array}{r} 8,743 \\ 281,195,932 \\ 32,162 \end{array}$ |
| 30 to 34 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 3,818 \\ 111,452,897 \\ 29,191 \end{array}$ | $\begin{array}{r} 4,865 \\ 227,947,351 \\ 46,855 \end{array}$ | $\begin{array}{r} 937 \\ 49,974,032 \\ 53,334 \end{array}$ |  |  |  |  |  | $\begin{array}{r} 9,620 \\ 389,374,280 \\ 40,475 \end{array}$ |
| 35 to 39 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 2,817 \\ 74,313,656 \\ 26,380 \end{array}$ | $\begin{array}{r} 2,509 \\ 120,604,468 \\ 48,069 \end{array}$ | $\begin{array}{r} 4,012 \\ 225,193,125 \\ 56,130 \end{array}$ | $\begin{array}{r} 706 \\ 42,603,634 \\ 60,345 \end{array}$ |  |  |  |  | $\begin{array}{r} 10,044 \\ 462,714,883 \\ 46,069 \end{array}$ |
| 40 to 44 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 3,879 \\ 79,944,872 \\ 20,610 \end{array}$ | $\begin{array}{r} 1,808 \\ 88,446,267 \\ 48,919 \end{array}$ | $\begin{array}{r} 2,277 \\ 128,003,793 \\ 56,216 \end{array}$ | $\begin{array}{r} 2,904 \\ 178,515,920 \\ 61,472 \end{array}$ | $\begin{array}{r} 723 \\ 46,125,557 \\ 63,797 \end{array}$ |  |  |  | $\begin{array}{r} 11,591 \\ 521,036,409 \\ 44,952 \end{array}$ |
| $\begin{aligned} & 45 \text { to } 49 \\ & \text { Total Pay } \\ & \text { Avg. Pay } \end{aligned}$ | $\begin{array}{r} 1,814 \\ 44,689,939 \\ 24,636 \end{array}$ | $\begin{array}{r} 1,269 \\ 62,904,777 \\ 49,570 \end{array}$ | $\begin{array}{r} 1,334 \\ 75,802,300 \\ 56,823 \end{array}$ | $\begin{array}{r} 1,528 \\ 95,801,767 \\ 62,697 \end{array}$ | $\begin{array}{r} 2,155 \\ 138,579,018 \\ 64,306 \end{array}$ | $\begin{array}{r} 639 \\ 42,056,954 \\ 65,817 \end{array}$ |  |  | $\begin{array}{r} 8,739 \\ 459,834,755 \\ 52,619 \end{array}$ |
| 50 to 54 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 1,657 \\ 34,303,799 \\ 20,702 \end{array}$ | $\begin{array}{r} 1,023 \\ 50,798,111 \\ 49,656 \end{array}$ | $\begin{array}{r} 1,173 \\ 67,243,927 \\ 57,326 \end{array}$ | $\begin{array}{r} 1,232 \\ 77,191,072 \\ 62,655 \end{array}$ | $\begin{array}{r} 1,377 \\ 90,754,269 \\ 65,907 \end{array}$ | $\begin{array}{r} 1,645 \\ 113,263,204 \\ 68,853 \end{array}$ | $\begin{array}{r} 476 \\ 32,669,109 \\ 68,633 \end{array}$ |  | $\begin{array}{r} 8,583 \\ 466,223,491 \\ 54,319 \end{array}$ |
| 55 to 59 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 2,510 \\ 39,542,880 \\ 15,754 \end{array}$ | $\begin{array}{r} 755 \\ 39,660,051 \\ 52,530 \end{array}$ | $\begin{array}{r} 944 \\ 56,148,619 \\ 59,479 \end{array}$ | $\begin{array}{r} 1,083 \\ 70,541,207 \\ 65,135 \end{array}$ | $\begin{array}{r} 1,158 \\ 77,380,607 \\ 66,823 \end{array}$ | $\begin{array}{r} 823 \\ 59,083,162 \\ 71,790 \end{array}$ | $\begin{array}{r} 707 \\ 54,593,179 \\ 77,218 \end{array}$ | $\begin{array}{r} 103 \\ 8,806,679 \\ 85,502 \end{array}$ | $\begin{array}{r} 8,083 \\ 405,756,384 \\ 50,199 \end{array}$ |
| 60 to 64 <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 2,844 \\ 39,563,979 \\ 13,911 \end{array}$ | $\begin{array}{r} 431 \\ 23,085,640 \\ 53,563 \end{array}$ | $\begin{array}{r} 487 \\ 30,037,551 \\ 61,679 \end{array}$ | $\begin{array}{r} 573 \\ 37,299,758 \\ 65,096 \end{array}$ | $\begin{array}{r} 583 \\ 40,586,147 \\ 69,616 \end{array}$ | $\begin{array}{r} 372 \\ 27,094,465 \\ 72,835 \end{array}$ | $\begin{array}{r} 165 \\ 13,907,160 \\ 84,286 \end{array}$ | $\begin{array}{r} 122 \\ 11,098,734 \\ 90,973 \end{array}$ | $\begin{array}{r} 5,577 \\ 222,673,434 \\ 39,927 \end{array}$ |
| 65 \& over Total Pay Avg. Pay | $\begin{array}{r} 2,096 \\ 19,263,491 \\ 9,191 \end{array}$ | $\begin{array}{r} 148 \\ 7,200,683 \\ 48,653 \end{array}$ | $\begin{array}{r} 134 \\ 8,811,446 \\ 65,757 \end{array}$ | $\begin{array}{r} 119 \\ 8,107,359 \\ 68,129 \end{array}$ | $\begin{array}{r} 129 \\ 9,067,291 \\ 70,289 \end{array}$ | $\begin{array}{r} 98 \\ 7,442,506 \\ 75,944 \end{array}$ | $\begin{array}{r} 47 \\ 3,632,962 \\ 77,297 \end{array}$ | $\begin{array}{r} 84 \\ 7,868,617 \\ 93,674 \end{array}$ | $\begin{array}{r} 2,855 \\ 71,394,355 \\ 25,007 \end{array}$ |
| Total <br> Total Pay <br> Avg. Pay | $\begin{array}{r} 31,329 \\ 702,434,990 \\ 22,421 \end{array}$ | $\begin{array}{r} 14,209 \\ 683,894,105 \\ 48,131 \end{array}$ | $\begin{array}{r} 11,298 \\ 641,214,793 \\ 56,755 \end{array}$ | $\begin{array}{r} 8,145 \\ 510,060,717 \\ 62,623 \end{array}$ | $\begin{array}{r} 6,125 \\ 402,492,889 \\ 65,713 \end{array}$ | $\begin{array}{r} 3,577 \\ 248,940,291 \\ 69,595 \end{array}$ | $\begin{array}{r} 1,395 \\ 104,802,410 \\ 75,127 \end{array}$ | $\begin{array}{r} 309 \\ 27,774,030 \\ 89,884 \end{array}$ | $\begin{array}{r} 76,387 \\ 3,321,614,225 \\ 43,484 \end{array}$ |

Average Age: 43.5 Average Service10.8

## All Retirees and Spouses Receiving Health Benefits as of June 30, 2010

 Male and Femal Demographic Breakdown| ATTAINED <br> AGE |  | NUMBER OF <br> MALES | NUMBER OF <br> FEMALES |  | TOTAL <br> NUMBER |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Under 40 | 6 | 30 | 36 |  |  |
| $40-44$ | 18 | 65 | 83 |  |  |
| $45-49$ | 42 | 175 | 217 |  |  |
| $50-54$ | 344 | 980 | 1,324 |  |  |
| $55-59$ | 1,804 | 4,178 | 5,982 |  |  |
| $60-64$ | 3,581 | 6,867 | 10,448 |  |  |
| $65-69$ | 2,942 | 4,729 | 7,671 |  |  |
| $70-74$ | 2,134 | 3,344 | 5,478 |  |  |
| $75-79$ | 1,645 | 2,315 | 3,960 |  |  |
| $80-84$ | 1,045 | 1,873 | 2,918 |  |  |
| $85-89$ | 597 | 1,186 | 1,783 |  |  |
| $90-94$ | 221 | 623 | 844 |  |  |
| $95-99$ | 63 | 288 | 351 |  |  |
| 100 | 2 | 19 | 21 |  |  |
| 101 | 1 | 16 | 17 |  |  |
| 102 | 0 | 5 | 5 |  |  |
| 103 | 0 | 5 | 5 |  |  |
| 104 | 0 | 2 | 2 |  |  |
| $105 \&$ Over | 0 | 4 | 4 |  |  |
| Total | 14,445 |  |  |  |  |


| Retirees Receiving Health Benfits as of June 30, 2010 |  |  |  |
| :---: | :---: | :---: | :---: |
|  | UNDER AGE 65 | $\begin{aligned} & \text { AGE } 65 \text { AND } \\ & \text { OVER } \end{aligned}$ | TOTAL |
| Number | 15,627 | 18,688 | 34,315 |
| Average Age | 60.0 | 74.9 | 68.1 |


| Spouses Receiving Health Benfits as of June 30, 2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | UNDER <br> AGE 65 | AGE 65 AND <br> OVER |  |  |
| Number | 3,272 | 3,562 |  |  |
| Average Age | 58.8 | 75.8 |  |  |

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for Fiscal Year ending June 30, 2010

## Kentucky Teachers' Retirement System

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 121

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 123

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 129

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 Member <br> Contributions <br> Contributions  |  |  | Net Investment Income |  | Total Additions to Plan <br> Net Assets |  |
| $\begin{aligned} & 2010 \\ & 2009 \\ & 2008 \\ & 2007 \\ & 2006 \\ & 2005 \\ & 2004 \\ & 2003 \\ & 2002 \\ & 2001 \end{aligned}$ | \$ $479,805,088$ $442,549,935$ $466,247,782$ $434,890,469$ $410,920,969$ $388,346,438$ $382,280,099$ $341,132,900$ $303,521,106$ $280,108,701$ | $\$ 297,613,965$$293,678,564$$291,423,948$$269,687,864$$258,464,856$$247,024,518$$238,922,086$$233,429,797$$224,361,453$$208,702,802$ |  | $\$ 1,509,785,381$$(2,020,682,522)$$(909,083,525)$$2,063,878,767$$717,308,002$$946,070,556$$1,158,182,688$$538,552,074$$(520,214,494)$$(104,903,741)$ |  | $\begin{array}{r} \$ 2,287,204,434 \\ (1,284,454,023) \\ (151,411,795) \\ 2,768,457,100 \\ 1,386,693,827 \\ 1,581,441,512 \\ 1,779,384,873 \\ 1,113,114,771 \\ 7,668,065 \\ 383,907,762 \end{array}$ |  |
| Deductions by Type (Including Benefits by Type) |  |  |  |  |  |  |  |
| YEARService <br> Retirants | Disability Retirants | Survivors | Life Insurance* | TOTAL <br> Benefits | Refunds ${ }^{\text {A }}$ | Administrative Expense | Total Deductions to Plan Net Assets |
| 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 |
| 2001 627,637,879 | 32,233,070 | 10,005,656 | 4,110,400 | 673,987,005 | 10,673,981 | 5,950,036 | 690,611,022 |
| * Life Insurance Plan valued separately-- see page 119. |  |  |  |  |  |  |  |

## Changes in Net Assets

|  | Total Additions <br> to Plan Net <br> Assets | Total Deductions <br> to Plan Net <br> Assets | Changes in <br> Plan Net |
| :---: | :---: | :---: | :---: |
| YEAR | $\$ 2,287,204,434$ | Assets |  |
| 2010 | $(1,284,454,023)$ | $\$ 1,345,949,504$ | $\$ 1,276,354,583$ |
| 2009 | $(151,411,795)$ | $1,194,486,120$ | $(2,560,808,606)$ |
| 2008 | $2,768,457,100$ | $1,124,713,552$ | $(1,345,897,915)$ |
| 2007 | $1,386,693,827$ | $1,055,280,362$ | $1,643,743,548$ |
| 2006 | $1,581,441,512$ | $981,000,153$ | $331,413,465$ |
| 2005 | $1,779,384,873$ | $902,336,116$ | $600,441,359$ |
| 2004 | $1,113,114,771$ | $833,404,261$ | $877,048,757$ |
| 2003 | $7,668,065$ | $755,269,821$ | $279,710,510$ |
| 2002 | $383,907,762$ | $690,611,022$ | $(747,601,756)$ |
| 2001 |  |  | $(306,703,260)$ |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

## Medical Insurance Plan

Past Ten Fiscal Years

| Additions by Source |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  Employer <br> YEAR Contributions |  |  | Member Contributions |  | Recovery Income | Net <br> Investment Income | Total Additions to Plan <br> Net Assets |
| 2010 |  | ,761,433 | \$ | 63,805,573 | \$ 14,618,348 | \$ 12,312,999 | \$ 249,498,353 |
| 2009 |  | ,408,037 |  | 58,688,767 | 13,683,830 | 11,296,280 | 248,076,914 |
| 2008 |  | ,929,322 |  | 55,402,830 | 11,936,887 | 8,128,179 | 224,397,218 |
| 2007 |  | ,233,784 |  | 53,099,678 | 10,337,338 | 6,722,080 | 183,392,880 |
| 2006 |  | ,319,498 |  | 51,697,167 | 6,117,979 | 6,804,286 | 153,938,930 |
| 2005 |  | ,022,562 |  | 51,576,031 |  | 6,507,537 | 137,106,130 |
| 2004 |  | ,346,747 |  | 53,903,551 |  | 7,127,109 | 114,377,407 |
| 2003 |  | ,235,407 |  | 50,718,084 |  | 7,391,671 | 135,345,162 |
| 2002 |  | ,261,407 |  | 46,184,010 |  | 6,142,817 | 147,588,234 |
| 2001 |  | ,429,167 |  | 40,017,682 |  | 5,286,426 | 137,733,275 |
| Deductions by Type luding Benefits by Type) |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Insurance Benefit Expense |  |  | Third Party Service Fee |  | Total Insurance Benefits Expense | Refunds | Total Deductions to Plan Net Assets |
| YEAR | Under <br> Age 65 | Age 65 <br> \& Over |  |  |  |  |  |
| 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 |  | 3,221,712 | 104,978,915 | 6,066 | 104,984,981 |
| 2001 | 46,544,264 | 38,389,936 |  | 3,023,755 | 88,155,912 | 5,155 | 88,161,067 |

Changes in Net Assets

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Total Additions <br> to Plan Net | Total Deductions <br> to Plan Net | Changes in <br> Plan Net |
| YEAR | $\$ 249,498,353$ | Assets | Assets |

# Life Insurance Plan 

Past Four Fiscal Years


## Distribution of Active Contributing Members <br> as of June 30, 2010

| By Age |  |  |
| :---: | ---: | ---: |
| Age | Male | Female |
| $20-24$ | 900 | 2,934 |
| $25-29$ | 2,740 | 7,761 |
| $30-34$ | 2,552 | 7,462 |
| $35-39$ | 2,473 | 7,753 |
| $40-44$ | 2,202 | 7,322 |
| $45-49$ | 2,084 | 6,524 |
| $50-54$ | 1,976 | 6,247 |
| $55-59$ | 1,951 | 5,498 |
| $60-64$ | 1,507 | 3,562 |
| $65-69$ | 636 | 1,319 |
| Over 70 | 312 | 672 |
| TOTAL | 19,333 | 57,054 |


| By Service |  |  |
| :--- | ---: | ---: |
| Years of Service | Male | Female |
| Less than 1 | 6,047 | 15,431 |
| $1-4$ | 4,312 | 13,559 |
| $5-9$ | 3,098 | 9,801 |
| $10-14$ | 2,261 | 7,115 |
| $15-19$ | 1,591 | 4,914 |
| $20-24$ | 1,144 | 3,584 |
| $25-29$ | 614 | 1,904 |
| 30-34 | 194 | 645 |
| 35 or more | 72 | 101 |
| TOTAL | 19,333 | 57054 |
|  |  |  |


| Principal Participating Employers Current Year and Nine Years Ago |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Covered <br> Employees | Rank | Percentage of Total System | Covered Employees | Rank | Percentage of Total System |
| Jefferson County Schools | 10,058 | 1 | 13.02\% | 7,108 | 1 | 12.83\% |
| Fayette County Public Schools | 4,384 | 2 | 5.67 | 2,958 | 2 | 5.34 |
| Boone County Schools | 1,826 | 3 | 2.36 | 929 | 5 | 1.68 |
| Hardin County Schools | 1,370 | 4 | 1.77 | 982 | 3 | 1.77 |
| Kenton County Schools | 1,299 | 5 | 1.68 | 833 | 8 | 1.50 |
| Warren County Schools | 1,260 | 6 | 1.63 | 779 | 10 | 1.41 |
| Bullitt County Schools | 1,239 | 7 | 1.60 | 758 | 11 | 1.37 |
| Oldham County Schools | 1,190 | 8 | 1.54 | 649 | 15 | 1.17 |
| Madison County Schools | 1,177 | 9 | 1.52 | 679 | 14 | 1.23 |
| Daviess County Schools | 1,157 | 10 | 1.50 | 790 | 9 | 1.43 |
| All Other * | 52,316 |  | 67.70\% | 38,930 |  | 70.28\% |
| Total (197 Employers) | 77,276 |  | 100.00\% | 55,395 |  | 100.00\% |
| * Includes new retirees with contributions during the fiscal year. |  |  |  |  |  |  |

## KTRS Schedule of Participating Employers <br> School Districts: County Schools

$\left.\begin{array}{llllllll}\text { 1. } & \text { Adair } & \text { 28. } & \text { Crittenden } & \text { 55. } & \text { Jackson } & \text { 82. Meade } & \text { 109. Taylor } \\ \text { 2. } & \text { Allen } & \text { 29. } & \text { Cumberland } & \text { 56. } & \text { Jefferson } & \text { 83. } & \text { Menifee }\end{array}\right)$ 110. Todd

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

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

## Universities \& Community/ Technical Colleges

## State of Kentucky/ Other Organizations

1. Eastern Kentucky
2. Kentucky State
3. Morehead State
4. Murray State
5. Western Kentucky
6. Kentucky Community \& Technical College System

## 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 President
3. Kentucky Academic Association
4. Kentucky Educational Development Cooperative
5. Kentucky High School Athletic Association
6. Kentucky School Boards Association
7. Kentucky Valley Educational Cooperative
8. Northern Kentucky Cooperative for Educational Services
9. Ohio Valley Educational Cooperative
10. West Kentucky Education Cooperative
11. Green River Regional Education Cooperative
12. Central Kentucky Special Education Cooperative
13. Jefferson County Teacher's Association


## Additional Distribution Outside USA

| 5 | Canada | 1 | Switzerland |
| :--- | :--- | :--- | :--- |
| 2 | Military Apo | 1 | Barbados |
| 1 | Philippines |  |  |

TOTAL: Number of Out of State Payments
TOTAL: Out of State Payments \$ 103,518,389
TOTAL: Number of Payments 44,285
GRAND TOTAL: Amount of Payments \$ 1,321,792,347

## Distribution of Retirement Payments Statewide

as of June 30, 2010

| County Name | Total Payments | Number of Recipients | County Name | Total Payments | Number of Recipients |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Adair | \$ 5,046,949 | 179 | Laurel | 14,703,176 | 524 |
| Allen | 4,358,581 | 147 | Lawrence | 3,671,436 | 133 |
| Anderson | 5,464,510 | 184 | Lee | 1,865,249 | 75 |
| Ballard | 3,140,870 | 105 | Leslie | 3,859,452 | 137 |
| Barren | 11,356,861 | 372 | Letcher | 8,723,935 | 305 |
| Bath | 3,336,531 | 122 | Lewis | 4,819,792 | 161 |
| Bell | 9,929,150 | 354 | Lincoln | 7,761,152 | 256 |
| Boone | 23,174,458 | 708 | Livingston | 2,515,494 | 90 |
| Bourbon | 5,214,215 | 180 | Logan | 7,436,422 | 261 |
| Boyd | 15,375,237 | 479 | Lyon | 2,720,016 | 91 |
| Boyle | 11,882,687 | 394 | Madison | 37,153,119 | 1,172 |
| Bracken | 2,374,046 | 80 | Magoffin | 4,379,390 | 152 |
| Breathitt | 6,094,900 | 228 | Marion | 4,376,032 | 153 |
| Breckinridge | 5,301,383 | 164 | Marshall | 10,026,018 | 320 |
| Bullitt | 12,958,840 | 375 | Martin | 3,636,487 | 133 |
| Butler | 2,175,714 | 76 | Mason | 5,394,409 | 179 |
| Caldwell | 4,949,493 | 168 | McCracken | 19,448,847 | 633 |
| Calloway | 18,832,064 | 611 | McCreary | 5,226,260 | 182 |
| Campbell | 19,921,235 | 608 | McLean | 2,902,186 | 93 |
| Carlisle | 1,261,293 | 46 | Meade | 4,983,202 | 148 |
| Carroll | 2,401,493 | 80 | Menifee | 1,571,667 | 63 |
| Carter | 9,479,770 | 331 | Mercer | 6,249,553 | 230 |
| Casey | 4,375,854 | 159 | Metcalfe | 2,936,495 | 99 |
| Christian | 14,754,328 | 474 | Monroe | 4,537,651 | 158 |
| Clark | 9,199,139 | 316 | Montgomery | 7,714,870 | 259 |
| Clay | 7,676,353 | 265 | Morgan | 5,218,535 | 170 |
| Clinton | 3,601,262 | 127 | Muhlenberg | 8,568,917 | 282 |
| Crittenden | 1,775,228 | 65 | Nelson | 10,861,058 | 335 |
| Cumberland | 2,242,385 | 77 | Nicholas | 1,685,432 | 58 |
| Daviess | 29,231,301 | 945 | Ohio | 5,672,205 | 189 |
| Edmonson | 2,582,356 | 89 | Oldham | 13,290,103 | 401 |
| Elliott | 1,579,785 | 63 | Owen | 2,264,598 | 77 |
| Estill | 3,825,725 | 133 | Owsley | 3,117,552 | 108 |
| Fayette | 77,645,414 | 2,539 | Pendleton | 3,733,108 | 124 |
| Fleming | 4,392,084 | 158 | Perry | 10,181,615 | 349 |
| Floyd | 14,865,877 | 540 | Pike | 22,680,322 | 779 |
| Franklin | 21,067,838 | 838 | Powell | 3,188,425 | 107 |
| Fulton | 2,090,200 | 67 | Pulaski | 18,180,253 | 627 |
| Gallatin | 561,070 | 20 | Robertson | 588,138 | 22 |
| Garrard | 4,705,953 | 156 | Rockcastle | 4,871,269 | 176 |
| Grant | 4,838,170 | 149 | Rowan | 13,279,586 | 446 |
| Graves | 10,789,694 | 357 | Russell | 5,657,935 | 194 |
| Grayson | 7,484,611 | 246 | Scott | 10,617,302 | 336 |
| Green | 3,020,972 | 105 | Shelby | 12,003,580 | 383 |
| Greenup | 10,313,662 | 345 | Simpson | 4,623,705 | 153 |
| Hancock | 2,061,265 | 69 | Spencer | 3,647,377 | 105 |
| Hardin | 22,852,558 | 722 | Taylor | 7,924,415 | 265 |
| Harlan | 11,114,936 | 385 | Todd | 2,292,982 | 85 |
| Harrison | 5,324,263 | 174 | Trigg | 4,554,520 | 157 |
| Hart | 4,457,442 | 144 | Trimble | 1,649,437 | 46 |
| Henderson | 11,606,657 | 370 | Union | 3,322,984 | 120 |
| Henry | 4,643,080 | 161 | Warren | 43,156,408 | 1,444 |
| Hickman | 1,074,428 | 36 | Washington | 2,966,809 | 109 |
| Hopkins | 13,276,111 | 432 | Wayne | 6,200,471 | 213 |
| Jackson | 3,113,651 | 121 | Webster | 3,885,168 | 133 |
| Jefferson | 205,877,867 | 5,839 | Whitley | 16,195,251 | 565 |
| Jessamine | 8,428,108 | 291 | Wolfe | 3,277,435 | 115 |
| Johnson | 9,503,858 | 312 | Woodford | 7,806,516 | 253 |
| Kenton | 24,747,630 | 783 |  |  |  |
| Knott | 6,510,376 | 235 | Total in |  |  |
| Knox | 6,624,048 | 230 | Kentucky | \$1,218,273,958 | 39,601 |
| Larue | 4,632,418 | 140 |  |  |  |

## Growth in Annuitants

as of June 30, 2010


| Fiscal <br> Year | Service <br> Retirees | Disabilities | Beneficiaries of <br> Retired Members | Survivors | Eligible to <br> Retire |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FY 2004-05 | 32,506 | 1,987 | 1,566 | 507 | 525 |
| 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 |
|  |  |  |  |  |  |

## Schedule of Annuitants by Type of Benefit as of June 30, 2010

| Amount of Monthly Benefit (\$) | Number of Annuitants | Type of Retirement* |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |
| 1-500 | 3,142 | 2,251 | 17 | 387 | 196 | 291 |
| 501-1,000 | 2,661 | 2,020 | 189 | 9 | 443 | 0 |
| 1,001-1,500 | 3,399 | 2,481 | 336 | 0 | 582 | 0 |
| 1,501-2,000 | 4,165 | 3,343 | 446 | 2 | 374 | 0 |
| 2,001-2,500 | 6,563 | 5,590 | 611 | 14 | 348 | 0 |
| 2,501-3,000 | 8,544 | 7,880 | 409 | 14 | 241 | 0 |
| 3,001-3,500 | 5,875 | 5,595 | 150 | 4 | 126 | 0 |
| 3,501-4,000 | 3,558 | 3,390 | 84 | 2 | 82 | 0 |
| 4,001-4,500 | 2,171 | 2,101 | 23 | 2 | 45 | 0 |
| 4,501-5,000 | 1,211 | 1,182 | 11 | 0 | 18 | 0 |
| 5,001 \& OVER | 1,810 | 1,774 | 8 | 1 | 27 | 0 |
| Total** | 43,099 | 37,607 | 2,284 | 435 | 2,482 | 291 |
|  | *Type of Retirement |  |  |  |  |  |
| 1-Normal Retirement for Age \& Service 4-Beneficiary Payment - Retired Member <br> 2-Disability Retirement 5-Disabled Adult Child <br> 3-Survivor Payment - Active Member  |  |  |  |  |  |  |


| Amount of Monthly | Option Selected* |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Benefit (\$) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | None |
| 1-500 | 1,556 | 369 | 246 | 65 | 9 | 381 | 123 | 393 |
| 501-1,000 | 1,382 | 325 | 218 | 141 | 9 | 295 | 207 | 84 |
| 1,001-1,500 | 1,776 | 403 | 318 | 161 | 16 | 350 | 282 | 93 |
| 1,501-2,000 | 2,208 | 481 | 371 | 160 | 5 | 522 | 296 | 122 |
| 2,001-2,500 | 3,086 | 610 | 590 | 234 | 9 | 1,114 | 648 | 272 |
| 2,501-3,000 | 4,387 | 902 | 642 | 241 | 11 | 1,327 | 890 | 144 |
| 3,001-3,500 | 3,030 | 627 | 465 | 194 | 9 | 843 | 652 | 55 |
| 3,501-4,000 | 1,768 | 376 | 318 | 122 | 7 | 513 | 430 | 24 |
| 4,001-4,500 | 1,084 | 237 | 195 | 84 | 7 | 305 | 253 | 6 |
| 4,501-5,000 | 594 | 128 | 127 | 64 | 4 | 152 | 140 | 2 |
| 5,001 \& OVER | 922 | 160 | 202 | 99 | 14 | 196 | 213 | 4 |
| Total | 21,793 | 4,618 | 3,692 | 1,565 | 100 | 5,998 | 4,134 | 1,199 |

*Option selected:

1-Straight-life annuity with refundable balance
2-Period certain benefit and life thereafter
3-Joint-survivor annuity
4-Joint-survivor annuity, one-half benefit to beneficiary

5-Other payment - special option
6-Joint-survivor annuity with "pop-up" option
7 - Joint-survivor annuity, one-half benefit to beneficiary with "pop-up" option

# Defined Benefit Plan <br> Average Benefit Payments for the Past Ten Years <br> 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07/01/2000 TO 06/30/2001 <br> Average monthly benefit <br> Average final average salary <br> Number of retired members | $\begin{array}{r} \$ 145 \\ \$ 3,695 \\ 48 \end{array}$ | $\begin{array}{r} \$ 402 \\ \$ 2,842 \\ 73 \end{array}$ | $\begin{array}{r} \$ 881 \\ \$ 3,444 \\ 86 \end{array}$ | $\begin{array}{r} \$ 1,283 \\ \$ 3,550 \\ 85 \end{array}$ | $\begin{array}{r} \$ 1,779 \\ \$ 3,807 \\ 143 \end{array}$ | $\begin{array}{r} \$ 2,472 \\ \$ 4,024 \\ 1008 \end{array}$ | $\begin{array}{r} \$ 3,246 \\ \$ 4,707 \\ 486 \end{array}$ | 1,929 |
| 07/01/2001 TO 06/30/2002 <br> Average monthly benefit Average final average salary Number of retired members | $\begin{array}{r} \$ 204 \\ \$ 4,143 \\ 65 \end{array}$ | $\begin{array}{r} \$ 408 \\ \$ 2,950 \\ 128 \end{array}$ | $\begin{array}{r} \$ 790 \\ \$ 3,312 \\ 82 \end{array}$ | $\begin{array}{r} \$ 1,296 \\ \$ 3,613 \\ 116 \end{array}$ | $\begin{array}{r} \$ 1,898 \\ \$ 3,920 \\ 107 \end{array}$ | $\begin{array}{r} \$ 2,552 \\ \$ 4,115 \\ 1019 \end{array}$ | $\begin{array}{r} \$ 3,407 \\ \$ 4,884 \\ 574 \end{array}$ | 2,091 |
| 07/01/2002 TO 06/30/2003 <br> Average monthly benefit <br> Average final average salary <br> Number of retired members | $\begin{array}{r} \$ 205 \\ \$ 4,301 \\ 58 \end{array}$ | $\begin{array}{r} \$ 480 \\ \$ 3,380 \\ 83 \end{array}$ | $\begin{array}{r} \$ 940 \\ \$ 3,714 \\ 98 \end{array}$ | $\begin{array}{r} \$ 1,344 \\ \$ 3,798 \\ 103 \end{array}$ | $\begin{array}{r} \$ 1,940 \\ \$ 4,078 \\ 155 \end{array}$ | $\begin{array}{r} \$ 2,715 \\ \$ 4,378 \\ 837 \end{array}$ | $\begin{array}{r} \$ 3,592 \\ \$ 5,121 \\ 508 \end{array}$ | 1,842 |
| 07/01/2003 TO 06/30/2004 <br> Average monthly benefit Average final average salary Number of retired members | $\begin{array}{r} \$ 220 \\ \$ 5,243 \\ 43 \end{array}$ | $\begin{array}{r} \$ 474 \\ \$ 3,357 \\ 84 \end{array}$ | $\begin{array}{r} \$ 839 \\ \$ 3,349 \\ 98 \end{array}$ | $\begin{array}{r} \$ 1,444 \\ \$ 3,936 \\ 96 \end{array}$ | $\begin{array}{r} \$ 1,978 \\ \$ 4,182 \\ 145 \end{array}$ | $\begin{array}{r} \$ 2,758 \\ \$ 4,425 \\ 818 \end{array}$ | $\begin{array}{r} \$ 3,486 \\ \$ 5,062 \\ 405 \end{array}$ | 1,689 |
| 07/01/2004 TO 06/30/2005 <br> Average monthly benefit <br> Average final average salary <br> Number of retired members | $\begin{array}{r} \$ 187 \\ \$ 4,353 \\ 55 \end{array}$ | $\begin{array}{r} \$ 528 \\ \$ 3,511 \\ 98 \end{array}$ | $\begin{array}{r} \$ 906 \\ \$ 3,647 \\ 107 \end{array}$ | $\begin{array}{r} \$ 1,488 \\ \$ 4,055 \\ 106 \end{array}$ | $\begin{array}{r} \$ 2,037 \\ \$ 4,317 \\ 145 \end{array}$ | $\begin{array}{r} \$ 2,892 \\ \$ 4,602 \\ 811 \end{array}$ | $\begin{array}{r} \$ 3,860 \\ \$ 5,275 \\ 875 \end{array}$ | 2,197 |
| 07/01/2005 TO 06/30/2006 <br> Average monthly benefit Average final average salary Number of retired members | $\begin{array}{r} \$ 202 \\ \$ 4,106 \\ 44 \end{array}$ | $\begin{array}{r} \$ 473 \\ \$ 3,253 \\ 105 \end{array}$ | $\begin{array}{r} \$ 1,019 \\ \$ 4,052 \\ 106 \end{array}$ | $\begin{array}{r} \$ 1,493 \\ \$ 4,117 \\ 132 \end{array}$ | $\begin{array}{r} \$ 2,136 \\ \$ 4,537 \\ 193 \end{array}$ | $\begin{array}{r} \$ 2,998 \\ \$ 4,721 \\ 689 \end{array}$ | $\begin{array}{r} \$ 4,063 \\ \$ 5,490 \\ 604 \end{array}$ | 1,873 |
| 07/01/2006 TO 06/30/2007 <br> Average monthly benefit Average final average salary Number of retired members | $\begin{array}{r} \$ 178 \\ \$ 4,102 \\ 48 \end{array}$ | $\begin{array}{r} \$ 514 \\ \$ 3,346 \\ 113 \end{array}$ | $\begin{array}{r} \$ 930 \\ \$ 3,590 \\ 90 \end{array}$ | $\begin{array}{r} \$ 1,559 \\ \$ 4,228 \\ 109 \end{array}$ | $\begin{array}{r} \$ 2,276 \\ \$ 4,612 \\ 169 \end{array}$ | $\begin{array}{r} \$ 3,140 \\ \$ 4,970 \\ 534 \end{array}$ | $\begin{array}{r} \$ 4,263 \\ \$ 5,758 \\ 514 \end{array}$ | 1,577 |
| 07/01/2007 TO 06/30/2008 <br> Average monthly benefit Average final average salary Number of retired members | $\begin{array}{r} \$ 199 \\ \$ 3,816 \\ 50 \end{array}$ | $\begin{array}{r} \$ 524 \\ \$ 3,066 \\ 130 \end{array}$ | $\begin{array}{r} \$ 1,117 \\ \$ 4,215 \\ 112 \end{array}$ | $\begin{array}{r} \$ 1,658 \\ \$ 4,412 \\ 150 \end{array}$ | $\begin{array}{r} \$ 2,436 \\ \$ 4,983 \\ 217 \end{array}$ | $\begin{array}{r} \$ 3,279 \\ \$ 5,067 \\ 557 \end{array}$ | $\begin{array}{r} \$ 4,319 \\ \$ 5,786 \\ 615 \end{array}$ | 1,831 |
| 07/01/2008 TO 06/30/2009 <br> Average monthly benefit <br> Average final average salary <br> Number of retired members | $\begin{array}{r} \$ 200 \\ \$ 4,617 \\ 72 \end{array}$ | $\begin{array}{r} \$ 573 \\ \$ 3,942 \\ 168 \end{array}$ | $\begin{array}{r} \$ 1,005 \\ \$ 3,873 \\ 137 \end{array}$ | $\begin{array}{r} \$ 1,725 \\ \$ 4,686 \\ 115 \end{array}$ | $\begin{array}{r} \$ 2,427 \\ \$ 4,974 \\ 242 \end{array}$ | $\begin{array}{r} \$ 3,368 \\ \$ 5,278 \\ 505 \end{array}$ | $\begin{array}{r} \$ 4,496 \\ \$ 5,960 \\ 585 \end{array}$ | 1,824 |
| 07/01/2009 TO 06/30/2010 <br> Average monthly benefit Average final average salary Number of retired members | $\begin{array}{r} \$ 185 \\ \$ 3,654 \\ 28 \end{array}$ | $\begin{array}{r} \$ 525 \\ \$ 3,637 \\ 133 \end{array}$ | $\begin{array}{r} \$ 1,104 \\ \$ 4,124 \\ 98 \end{array}$ | $\begin{array}{r} \$ 1,700 \\ \$ 4,508 \\ 103 \end{array}$ | $\begin{array}{r} \$ 2,513 \\ \$ 5,184 \\ 242 \end{array}$ | $\begin{array}{r} \$ 3,468 \\ \$ 5,383 \\ 442 \end{array}$ | $\begin{array}{r} \$ 4,670 \\ \$ 6,102 \\ 601 \end{array}$ | 1,647 |

## 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 |
| Retirement Effective Dates |  |  |  |  |  |
| 07/01/2000 TO 06/30/2001 |  |  |  |  |  |
| Average monthly supplement | \$107.71 | \$ 165.08 | \$ 201.72 | \$ 233.51 |  |
| Number of retired members | 42 | 69 | 96 | $1,634$ | 1,841 |
| 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 | 1,522 |
| Number of retired members | 26 | 64 | 103 | 1,329 |  |
| 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 |

## Summary of Fiscal Year 2009-2010 <br> Retiree Sick Leave Payments

## ACTUARIAL RATE

Grand Total Members Retiring 1,911
Total members receiving sick leave payments 1,403
Total amount of sick leave payments @ 9.855\% contribution rate \$ 17,974,601.49
Average payment per retiree
Total increase in final 3/5 average salary base
Average increase in final average salary
\$ 12,811.55

Total service credit of 1,403 retirees \$ 5,260,978.02

Average service credit of 1,403 retirees 37,779.32

Additional Average Monthly Annuity payment per Retirement Formula

| $3,749.81 \times 26.93 \times 2.50 \%=$ | $\$$ | $2,524.56$ |
| :--- | :--- | ---: |
| $2,524.56 / 12$ months | $\$$ | 210.38 |
| ated Lifetime Payout of Additional Annuity  <br> $210.38 \times 142.1587 \times 1403$ new factor | $\$ 41,960,008.27$ |  |

## Funding of Additional Payments

Member Contributions $9.855 \% \times \$ 17,974,601.49=$
State Contributions $\quad 13.105 \% \times \$ 17,974,601.49=$


Total Member-State Contributions

## DEFICIT:

Anticipated additional payout
Less total Member \& State Contributions
Subtotal unfunded debt
Less current year appropriation
TOTAL DEFICIT (overpayment) *

[^4]
[^0]:    * Reflects only cash balances not allocated to other asset classes. Uninvested cash balances allocated to various asset classes are represented in the respective asset classes.

[^1]:    The over-the-counter commission rate on medium to large capitalization stocks is assumed to be $\$ .03$ per share. 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 2009-10, the System bought small capitalization IPOs that generated $\$ 43,352$ in commissions. Although these commissions were not paid by the Retirement System, they resulted from the System's investment activities and are included in the total commissions of $\$ 3,221,194$. 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 through BNY Convergex. Trading commissions of $\$ 30,399$ were associated with third party research obligations. The primary research providers were: Bloomberg, Interactive Data, Rogers Casey, RiskMetrics Group, QED Financial Systems, Standard E® Poor's, and Thomson Financial.

[^2]:    * 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.

[^3]:    ${ }^{1}$ Under GASB 43 and 45, cost reductions for the amount of the Medicare Part D Retiree Drug Subsidy cannot be taken into account in the gross cost calculations.
    ${ }^{2} 1,800$ current benefit recipients are not eligible for premium-free Medicare Part A benefits. For these individuals, the full cost of coverage is, on average, $\$ 606$ 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.

[^4]:    * NOTE: Actuarial factors used for sick leave calculations changed effective July 1, 1998. Sick leave deficits are amortized over 20 year periods.

