## Teachers' Retirement System of the State of Kentucky



### The 68th Comprehensive Annual Financial Report

#### A Component Unit of the Commonwealth of Kentucky Fiscal Year Ended June 30, 2008

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

> GARY L. HARBIN, CPA Executive Secretary

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

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# Introductory Section

for Fiscal Year ending June 30, 2008

#### Chairperson's Letter

## Teachers' Retirement System of the State of Kentucky

GARY L. HARBIN, CPA Executive Secretary



December 29, 2008

#### 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, 2008, the 68th 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 2007-2008 fiscal year with \$14.3 billion net assets. The active membership totaled 75,539 and the retired membership was 40,739 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. The retirement system is justly proud of the funding level that the System has achieved. Every effort will be made to insure that the System continues to operate in a fiscally sound manner. Present and future members of the System deserve to be able to avail themselves of the best possible retirement as authorized by statute.

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

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

Sincerely,

Barbara G. Sterrett Chairperson Board of Trustees

Berliana Sterrett

#### BOARD OF TRUSTEES

BARBARA G. STERRETT

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COMMISSIONER
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OF EDUCATION

EXOFFICIO TODD HOLLENBACH STATE TREASURER

#### Letter of Transmittal



Teachers' Retirement System of the State of Kentucky

December 29, 2008

Honorable Steven L. Beshear, Governor Commonwealth of Kentucky Capitol Building Frankfort, Kentucky 40601-3800

Dear Governor Beshear:

It is my pleasure to submit the 68th 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, 2008.

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 the Teachers' Retirement System.

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 the System

for the year ended June 30, 2008. 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.

#### Profile of KTRS

Kentucky Teachers' Retirement System was established on July 1, 1940 as a cost-sharing 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 90 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 budget appropriations.

#### **Major Initiatives**

The System continually seeks opportunities to better serve its membership. During the past year, KTRS has undertaken several new major initiatives concerning information technology, new legislation, and the investment program.

KTRS staff is currently working on the design phase of a new information technology system known as the "Pathway Project." 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 databases 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.

The KTRS staff has continued to work to develop a web conferencing project to deliver mid-career and pre-retirement seminar information. When completed, the web conferencing project is expected to expand the reach of KTRS seminars to its members. The KTRS staff has also continued work on the KTRS web site to give members and employers easier navigation to areas of interest.

In June 2008, the Kentucky General Assembly enacted pension reform legislation known as House Bill 1. The KTRS staff took action to implement the new legislation, including updating technology platforms and developing training materials for new members affected by the legislation. Securing adequate funding for retiree health care provided by KTRS remains a major initiative of the System. The Board and Executive Staff continue to educate the General Assembly on the negative impacts of borrowing from the pension fund to keep the health care fund solvent.

The System is currently involved in a multiyear program of broadening the portfolio's diversification into international stocks and nontraditional investments, such as timberland, alternative investments, and private equity. Better diversification should lead to improved returns with less volatility for the overall portfolio. KTRS has also hired an investment consultant to assist with a review of the KTRS investment program and efforts at diversification. These ongoing efforts are simply a continuation of a disciplined investment process and long-term focus. 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.

#### **Economic Condition**

The economic condition of the System is based primarily on investment earnings. The Investment Section of this report starting on page 52 contains asset allocations, strategic target ranges for investments, discussion of the current year market environment and historical performance schedules among others.

The investment portfolio experienced a decline in value during the 2007-08 fiscal year as the portfolio's market value decreased from \$15,538,052,869 to \$14,233,808,958. The decline in value of the portfolio and of the overall market was due to turmoil in the national credit markets and a tightening of credit availability. This decline was partially offset with investment income that included realized capital gains. Employer and employee contributions also provided significant income to the portfolio.

Investment income, including depreciation of asset values, net of investment expenses, for the 2007-2008 fiscal year was negative \$894,616,458. The major cause of the negative return from the System's investment portfolio was the net depreciation in fair value of investments in the amount of \$1,333,118,227. The largest earnings component, \$252,326,244 was the result of interest income. Other income, net of expenses, of \$186,175,525 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 an Investment Committee. The Investment Committee works closely with experienced investment counselors, who are contracted by the Board of Trustees, 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. Also, the investment program shall provide a reasonable rate of total return with major emphasis being placed upon the protection of the invested assets. The entire portfolio earned a total return of negative 5.7% in 2007-08 and the portfolio's ten-year annualized rate of return is 4.6% and the twentyyear annualized rate of return is 8.6%. During

2007-08, 64% of the fixed income investments were rated at least "AAA" in terms of credit quality.

On the state level, KTRS annuities have a bolstering impact on the state's economy, since around 93% of retired teachers reside in Kentucky. Total benefits (retirement, medical...etc.) paid the fiscal year were more than \$1.3 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, 2008. This report reflects the System's assets, based on modified market value; totaled \$15.3 billion and the liabilities totaled \$22.5 billion. The report concludes that 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.

Annual required employer contributions for the defined benefit plan are provided in the Schedule of Employer Contributions (on page 45). The 2008 employer shortfall of contributions created a net pension obligation of \$250,170,583 (as detailed on page 85). Annual required employer contributions for the Medical Insurance Fund are provided in the schedule of employer contributions (on page 46). The 2008 employer shortfall of contributions created a net OPEB obligation of \$234,415,955 (as detailed on page 105).

#### KTRS Medical Insurance Plan

KTRS health care costs are escalating at a much faster rate than revenue growth in the Medical Insurance Plan. An actuarial valuation of the Medical Insurance Plan for the fiscal year ended June 30, 2008 indicated that the fund has an unfunded liability of \$6.2 billion for 2008. The KTRS 2008-2010 biennial budget requested additional funding from the Commonwealth, but sufficient funds were not allocated by the state. The budget bill directs KTRS to allocate a portion of the state employer contribution in a sufficient amount to the Medical Insurance Fund instead of the Pension Fund to fund the Medical Insurance Fund Stabilization Contribution.

Effective January 1, 1999 KTRS eligible retirees and eligible dependents under the age of 65 have their health insurance provided by plans managed 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 administered by KTRS. These retirees also receive a supplement for the cost of their coverage.

The System realizes that the medical insurance fund is in crisis. Additional steps must be taken by the state to fund retiree health care and on a national level to aid with making health care more affordable. Meanwhile, KTRS will address the problem by continuing to take measures to contain costs and by increasing revenues to the insurance fund, adjusting coverage to meet existing revenues, or a combination of the two.

#### **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 9 and 73 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,
2007. 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. The KTRS has received the Certificate of Achievement for the last twenty consecutive years (fiscal years ended 1988-2007). 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 awarded a Certificate of Achievement to the Teachers' Retirement of the State of Kentucky for 2008 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 President-Elect 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 73 state, territorial, local and university pension systems with combined assets in excess of 1.4 trillion, serving more than 19 million active and retired teachers, nonteaching 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 and debate 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.

#### Our Gratitude

KTRS Board of Trustees' Chair, Dr. Zella F. Wells, who had served as a member of the Board of Trustees since July 2004, retired effective July 1, 2008.

We wish to thank Dr. Wells for her commitment to education and for her numerous contributions to the successful operation of the Teachers' Retirement System. We also express appreciation for her service to the public school teachers of the Commonwealth of Kentucky.

Following more than 24 years of dedicated and exemplary public service to the Commonwealth of Kentucky, Mr. C. Joe Hutchison elected to retire effective October 1, 2008. Mr. Hutchison served as the Deputy Executive Secretary of KTRS since January 1, 2001. The KTRS Board and staff wish Mr. Hutchison many years of enjoyable retirement.

#### 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 being mailed 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 effective operation of the retirement system within the parameters of contributions by the employer. Your support is an essential part of this commitment, and we look forward to working with you.

Respectfully submitted,

Gary L. Harbin, CPA Executive Secretary

#### **BOARD OF TRUSTEES**



**Dr. Zella F. Wells**Chairperson
Teacher Trustee
Paintsville



Barbara G. Sterrett
Vice Chairperson
Retired Teacher Trustee
Lexington



Robert M. Conley
Lay Trustee
Paintsville



**Dr. Jay Morgan** Teacher Trustee Murray



Ronald L. Sanders
Lay Trustee
Hodgenville



Ruth Ann Sweazy
Teacher Trustee
Taylorsville



Laura Zimmerman
Teacher Trustee
Lexington



Jon Draud
Ex Officio Trustee
Commissioner,
Dept. of Education



Todd Hollenbach
Ex Officio Trustee
State Treasurer

#### **Kentucky Teachers' Retirement System**

479 Versailles Road Frankfort, Kentucky 40601-3800

#### **ADMINISTRATIVE STAFF**

#### GARY L. HARBIN, CPA

Executive Secretary

#### C. JOE HUTCHISON, MBA, CPA

Deputy Executive Secretary Finance & Administration

#### ROBERT B. BARNES, JD

Deputy Executive Secretary
Operations

#### PAUL L. YANCEY, CFA

Chief Investment Officer

#### PROFESSIONAL CONSULTANTS

#### **ACTUARY**

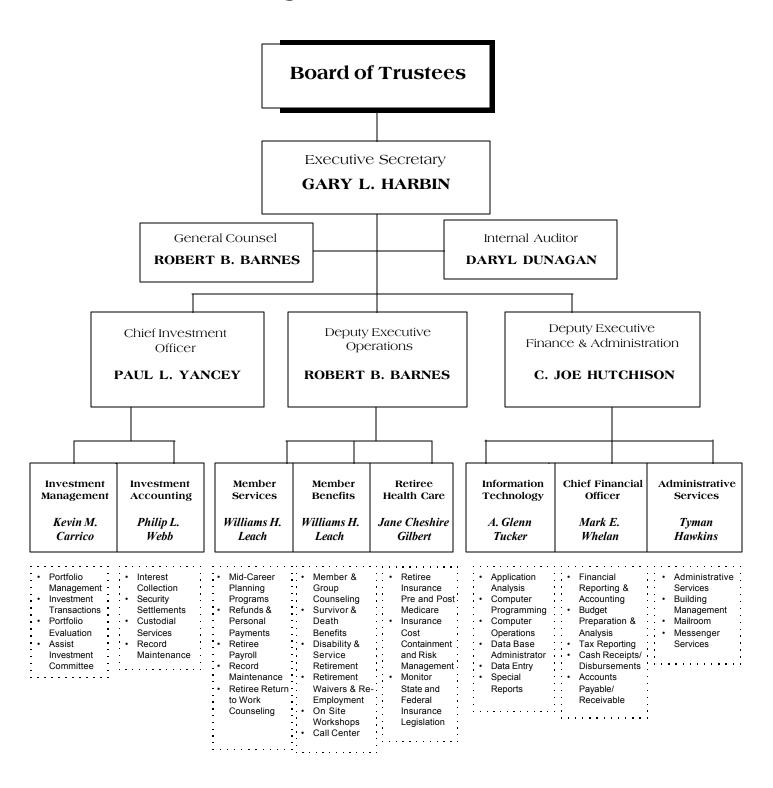
Cavanaugh Macdonald Consulting, LLC 3550 Busbee Parkway, Suite 250 Kennesaw, GA 30144

#### **AUDITOR**

Charles T. Mitchell, LLP 201 West Main Street P.O. Box 698 Frankfort, Kentucky 40601

\* See page 73 of the Investment Section for investment consultants.

## Kentucky Teachers' Retirement System Organizational Chart



Certificate of Achievement for Excellence in Financial Reporting

Presented to

Teachers' Retirement System of the State of Kentucky

For its Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2007

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** 

Upoy R. Ener

## 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 consecutive years (fiscal years ended 1988-2007).



# Public Pension Coordinating Council Public Pension Standards 2008 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 ProgramAdministrator

Clan Helingle

## 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 2008 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, 2008



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

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

We have audited the accompanying statements of plan net assets of the Teachers' Retirement System of the State of Kentucky as of June 30, 2008 and 2007 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, 2008 and 2007 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 11, 2008 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, 2008 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.

Frankfort, Kentucky December 11, 2008

Charles T. Mitchell Co.

201 West Main Street, Frankfort, Kentucky 40601 | P.O. Box 698, Frankfort, Kentucky 40602-0698 (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, 2008. 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 45-46) 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 45-47) 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, 2008, Kentucky Teachers' Retirement System's combined plan net assets decreased by \$1,293.1 million – from \$15,633.8 million to \$14,340.7 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 the tax-sheltered annuity plan.

## Summary of Plan Net Assets

(In Millions)

Categories	De: 2008	fined Benefit 2007	Plan 2006	Medica 2008	al Insuranc 2007	e Plan 2006	Life Insur 2008	ance Fund** 2007
Cash & Investments	\$14,224.0	\$16,204.5	\$14,632.5	\$182.0	\$137.0	\$ 132.1	\$76.8	\$69.1
Receivables	93.6	95.8	94.7	6.2	5.7	7.1	.8	.8
Capital Assets	3.0	3.1	3.2					
Total Assets	14,320.6	16,303.4	$\overline{14,730.4}$	188.2	142.7	139.2	77.6	69.9
<b>Total Liabilities</b>	(243.9)	(880.8)	(879.0)	(2.3)	(1.9)	(7.6)		
Plan Net Assets	\$14,076.7	\$15,422.6	\$13,851.4	\$185.9	\$140.8	\$131.6	\$77.6	\$69.9

*TOTALS	2008	2007	2006
Cash & Investments	\$ 14,482.8	\$16,410.6	\$14,764.6
Receivables	100.6	102.3	101.8
Capital Assets	3.0	3.1	3.2
Total Assets	14,586.4	16,516.0	14,869.6
<b>Total Liabilities</b>	(246.2)	(882.7)	(886.6
Plan Net Assets	\$14,340.2	\$15,633.3	\$13,983.0

<sup>\*</sup> The 403(b) Tax Shelter Plan cash and investments were approximately \$.5 million for the years ended 2008 and 2007 and 2006.

Plan net assets of the defined benefit plan decreased by 8.72% (\$14,076.7 million compared to \$15,422.6 million). The decrease is primarily due to unfavorable market conditions which resulted in a net investment decrease of \$909.1 million. 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 32% (\$185.9 million compared to \$140.8 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.

<sup>\*\*</sup> Separate amounts for the 2006 Life Insurance Fund are unavailable.

## **Summary of Changes in Plan Net Assets**

(In Millions)

Categories	De 2008	fined Benefit 2007	Plan 2006	Medica 2008	al Insuranc 2007	ee Plan 2006	Life Insur 2008	ance Plan* 2007
ADDITIONS Member Contributions Employer Contributions Net Investment Income	\$ 291.4 466.2 (909.1)	\$ 269.7 434.9 2,063.9	\$ 258.5 410.9 717.3	\$ 55.4 148.9 8.1	\$ 53.1 113.2 6.7	\$ 51.7 89.3 6.8	\$ 5.4 6.3	\$ 5.0 (3.4)
Other Income TOTAL ADDITIONS DEDUCTIONS	\$ (151.5)	\$2,768.5	\$1,386.7	$\frac{11.9}{\$224.3}$	\$183.4	6.1 \$153.9	\$11.7	\$ 1.6
Benefit Payments Refunds Administrative Expense	\$ 1,170.9 15.9 7.6	\$1,102.6 14.8 7.4	\$ 1,035.6 12.9 6.8	\$	\$	\$	\$ 4.0	\$ 4.2
Insurance Expenses TOTAL DEDUCTIONS Increase (Decrease)	1,194.4	1,124.8	1,055.3	179.2 179.2	174.2 174.2	169.6 169.6	4.0	4.2
in Plan Net Assets	\$ (1,345.9)	\$ 1,643.7	\$ 331.4	\$ 45.1	\$ 9.2	\$ (15.7)	\$ 7.7	\$ (2.6)

TOTALS	2008	2007	2006
ADDITIONS Member Contributions Employer Contributions Net Investment Income Other Income TOTAL ADDITIONS	\$ 346.8 620.5 (894.7) 11.9 \$ 84.5	322.8 $553.1$ $2,067.2$ $10.4$ $$2,953.5$	310.2 $500.2$ $724.1$ $6.1$ $$1,540.6$
DEDUCTIONS Benefit Payments Refunds Administrative Expense Insurance Expenses TOTAL DEDUCTIONS Increase (Decrease) in Plan Net Assets	\$ 1,174.9 15.9 7.6 179.2 1,377.6 \$ (1,293.1)	\$1,106.8 14.8 7.4 174.2 1,303.2 \$1,650.3	\$ 1,035.6 12.9 6.8 169.6 1,224.9 \$ 315.7

st Separate amounts for the 2006 Life Insurance Fund are unavailable.

#### **DEFINED BENEFIT PLAN ACTIVITIES**

Member contributions increased \$21.7 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 \$466.2 million, a net increase of \$26.3 million over the 2007 fiscal year.

The System experienced a decrease in net investment income compared to the increase of the previous year (negative \$909.1 million at June 30, 2008 as compared to a \$2,060.5 million increase at June 30, 2007). The decrease in the fair value of investments is mainly due to unfavorable market conditions for the year ended June 30, 2008. This can be illustrated as follows:

(In Millions)	2008	2007	2006
Appreciation (depreciation)	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
in fair value of investments – June 30, prior year	\$ 1,904.0	\$ 690.4	\$ 610.4
Appreciation (depreciation)			
in fair value of investments – June 30, end of year	<u>385.4</u>	1,904.0	690.4
Change in net appreciation (depreciation) in fair value of investments	(1,518.6)	1,213.6	80.0
Net income (net of investment expense)	426.9	443.1	434.8
Net gain on sale of investments	182.6	403.8	202.5
Investment Income (net) – June 30, end of year	\$ (909.1)	\$ 2,060.5	\$ 717.3

Program deductions in 2008 increased \$65.5 million. The increase was caused principally by an increase of \$64.2 million in benefit payments. Members who were drawing benefits as of June 2008 received an increase of 2.1% to their retirement allowances in July 2007. Also, there was an increase of 1,233 members and beneficiaries on the retired payroll as of June 30, 2008.

#### OTHER POST EMPLOYMENT BENEFIT ACTIVITIES

During the 2008 fiscal year, member contributions increased \$2.3 million and employer contributions increased by \$35.7 million over fiscal year 2007. The employer contributions increased primarily because \$125 million in stabilization funding was placed in the medical insurance fund from the pension fund at the recommendation of the System's actuary. The amount will be repaid over a ten-year period per KRS 161.553.

Program deductions increased \$5.1 million due to an increase of insurance expenses of \$5.1 million. The monthly premium subsidy for retirees under age 65 increased 5.80% from fiscal year 2007 to fiscal year 2008. A 17.56% increase is slated for calendar year 2009. The

monthly premium subsidy for retirees age 65 and over decreased by 1.80% from fiscal year 2007 to fiscal year 2008.

Net investment income increased \$1.4 million from \$6.7 million in 2007 to \$8.1 million in 2008. 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)	<u>2008</u>	2007	<u>2006</u>
Appreciation in fair value of investments – June 30, prior year	\$ 0	\$ 0	\$ 0
Appreciation in fair value of investments – June 30 end of year	0	0	0
Net appreciation in fair value of investments	0	0	0
Net income (net of investment expense)	8.1	6.7	6.8
Net gain on sale of investments	0	0	0
Investment Income (net) – June 30	\$ 8.1	\$ 6.7	\$ 6.8

Starting this year, the life insurance plan is being displayed separately due to the actuary conducting a valuation independently from the defined benefit plan. The 2007 financial statements have been restated for comparative purposes. Total life insurance benefits paid for 2008 and 2007 were \$4.0 and \$4.2 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 45). 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 2008 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 45). This schedule indicates that for year 2008 employer shortfall of contributions created a net pension obligation of \$250,170,583.

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 46). This schedule indicates that for year 2008 employer shortfall of contributions created a net OPEB obligation of \$234,415,955.

#### Statement of Plan Net Assets As of June 30, 2008

	Defined Benefit Plan	403(b) Tax Shelter	Medical Insurance Plan	Life Insurance Plan	2008 TOTAL
ASSETS					
Cash Prepaid Expenses	\$ 8,083,548 146,008	\$	\$ 121,000	\$ 587,853	\$ 8,671,401 267,008
Receivables Contributions State of Kentucky Investment Income Installment Account Receivable Medicare D Receivables Other Receivables	29,761,242 500,956 62,223,633 661,499 423,332	29	2,273,890 3,901,214	60,048 736,866	32,095,180 500,956 62,960,528 661,499 3,901,214 423,332
Total Receivables	93,570,662		6,175,104	796,914	100,542,709
Investments at Fair Value (See Note 5) Short Term Investments Bonds and Mortgages Equities Alternative Investments Real Estate	201,290,978 4,208,000,818 9,029,380,841 104,787,575 431,693,774	498,892	181,882,630	5,100,000 71,173,450	388,772,500 4,279,174,268 9,029,380,841 104,787,575 431,693,774
Total Investments	13,975,153,986	498,892	181,882,630	76,273,450	14,233,808,958
Invested Security Lending Collateral Capital Assets, at cost net of accumulated depreciation of \$1,978,998 (See Note 2)	240,638,736 3,018,126				240,638,736 3,018,126
Total Assets	14,320,611,066	498,921	188,178,734	77,658,217	14,586,946,938
LIABILITIES Liabilities					
Accounts Payable Treasurer's Unredeemed Checks Insurance Claims Payable Compensated Absences Payable Revenues Collected in Advance Obligations under Securities Lending	2,618,197 3,518 658,434 240,638,736		2,289,841 5,670	14	2,618,197 3,532 2,289,841 658,434 5,670 240,638,736
Total Liabilities	243,918,885	0	2,295,511	14	246,214,410
NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POST EMPLOYMENT BENEFITS: (See Required Supplemental Schedule 1 for a schedule of funding progress)	\$ 14,076,692,181	\$ 498,921	\$ 185,883,223	\$ 77,658,203	\$ 14,340,732,528 
EMPLOYMENT BENEFITS: (See Required Supplemental Schedule 1 for a schedule of funding				\$ 77,658,203	\$ 14,340,732,52

#### Statement of Plan Net Assets As of June 30, 2007

	Defined Benefit Plan	403(b) Tax Shelter	Medical Insurance Plan	Life Insurance Plan	2007 TOTAL
ASSETS					
Cash	\$ 4,658,755	\$	\$	\$ 729,147	\$ 5,387,902
Prepaid Expenses	86,043		121,000		207,043
Receivables					
Contributions	29,217,090		2,240,981	58,822	31,516,89
State of Kentucky	956,905				956,90
Investment Income	64,796,686	2,233		762,605	65,561,52
Installment Account Receivable	777,938				777,93
Medicare D Receivables	·		3,487,197		3,487,19
Other Receivables			, ,		
Total Receivables	95,748,619	2,233	5,728,178	821,427	102,300,45
Investments at Fair Value (See Note 5)	400 000 074	F00 700	100 000 010	0.000.000	500 457 00
Short Term Investments	422,060,871	509,798	136,896,316	6,990,900	566,457,88
Bonds and Mortgages	4,408,820,024			61,387,003	4,470,207,02
Common Stock	10,114,620,014				10,114,620,01
Private Equity	5,074,147				5,074,14
Real Estate	381,693,796				381,693,79
Total Investments	15,332,268,852	509,798	136,896,316	68,377,903	15,538,052,869
Invested Security Lending Collateral Capital Assets, at cost net of accumulated depreciation of \$1,871,494 (See Note 2)	867,562,185 3,085,129				867,562,18 3,085,12
Total Assets					
101417100010	16,303,409,583	512,031	142,745,494	69,928,477	16,516,595,58
LIABILITIES					
Accounts Payable	2,819,398				2,819,39
Treasurer's Unredeemed Checks	2,203			14	2,21
Insurance Claims Payable	_,		1,966,148		1,966,14
Compensated Absences Payable	636,201		1,000,110		636,20
Revenues Collected in Advance	9,799,500		7,112		9,806,61
Obligations under Securities Lending	867,562,185		7,		867,562,18
Total Liabilities	880,819,487		1,973,260	14	882,792,76
NET ASSETS HELD IN TRUST FOR	, ,	-	1,010,000		, ,
PENSION AND OTHER					1.
POSTEMPLOYMENT BENEFITS:	\$15,422,590,096	\$ 512,031	\$ 140,772,234	\$ 69,928,463	\$ 15,633,802,82
The accompanying notes are an integ	ral part of these fin	nancial statements			
	1	1	İ	1	1

#### Statement of Changes in Plan Net Assets As of June 30, 2008

	Defined Benefit Plan	403(b) Tax Shelter	Medical Insurance Plan	Life Insurance Plan	2008 TOTAL
ADDITIONS					
Contributions Employer Member	\$ 466,247,782 291,423,948	\$	\$ 148,929,322 55,402,830	\$ 5,411,249	\$ 620,588,353 346,826,778
Total Contribution	757,671,730		204,332,152	5,411,249	967,415,131
Other Income Recovery Income Medicare D Receipts			25,322 11,911,565		25,322 11,911,565
Total Other Income			11,936,887		11,936,887
Investment Income Net Appreciation/(Depreciation) in Fair Value of Investments Interest Dividends Rental Income, Net Securities Lending, Gross Earnings	(1,335,940,216) 240,681,166 165,542,769 28,660,581 21,398,859	17,397	8,128,179	2,821,989 3,499,502	(1,333,118,227) 252,326,244 165,542,769 28,660,581 21,398,859
Gross Investment Income	(879,656,841)	17,397	8,128,179	6,321,491	(865,189,774)
Less Investment Expense Less Securities Lending Expense	(9,499,832) (19,926,852)				(9,499,832) (19,926,852)
Net Investment Income	(909,083,525)	17,397	8,128,179	6,321,491	(894,616,458)
Total Additions	(151,411,795)	17,397	224,397,218	11,732,740	84,735,560
DEDUCTIONS					
Benefits Refunds of Contributions Insurance Expenses Administrative Expense	1,170,969,101 15,965,083 7,551,936	30,507	10,014 179,276,215	4,003,000	1,175,002,608 15,975,097 179,276,215 7,551,936
Total Deductions	1,194,486,120	30,507	179,286,229	4,003,000	1,377,805,856
Net Increase (Decrease)  NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:	(1,345,897,915)	(13,110)	45,110,989	7,729,740	(1,293,070,296)
Beginning of year	15,422,590,096	512,031	140,772,234	69,928,463	15,633,802,824
Ending of year	\$ 14,076,692,181	\$ 498,921	\$ 185,883,223	\$ 77,658,203	\$ 14,340,732,528
The accompanying notes are a	n integral part of thes	e financial staten	nents.		

#### Statement of Changes in Plan Net Assets As of June 30, 2007

	Defined Benefit Plan	403(b) Tax Shelter	Medical Insurance Plan	Life Insurance Plan	2007 TOTAL	
ADDITIONS						
Contributions						
Employer Member	\$ 434,890,469 269,687,864	\$	\$ 113,233,784 53,099,678	\$ 5,022,137	\$ 553,146,390	
Member					322,787,542	
Total Contribution	704,578,333		166,333,462	5,022,137	875,933,932	
OtherIncome						
Recovery Income			24,977		24,977	
Medicare D Receipts			10,312,361		10,312,361	
Total Other Income			10,337,338		10,337,338	
Investment Income						
Net Appreciation/(Depreciation) in						
Fair Value of Investments	1,623,818,334	00.010	6 700 000	(6,481,274)	1,617,337,060	
Interest Dividends	251,858,168 165,183,866	28,919	6,722,080	3,067,737	261,676,904 165,183,866	
Rental Income, Net	30,344,247				30,344,247	
Securities Lending, Gross Earnings	52,672,196				52,672,196	
Gross Investment Income	2,123,876,811	28,919	6,722,080	(3,413,537)	2,127,214,273	
Less Investment Expense	(8,667,669)				(8,667,669)	
Less Securities Lending Expense	(51,330,375)				(51,330,375)	
Net Investment Income	2,063,878,767	28,919	6,722,080	(3,413,537)	2,067,216,229	
Total Additions	2,768,457,100	28,919	183,392,880	1,608,600	2,953,487,499	
DEDUCTIONS						
Benefits	1,102,538,879	32,691		4,245,000	1,106,816,570	
Refunds of Contributions	14,822,827		5,834		14,828,661	
Insurance Expenses			174,229,097		174,229,097	
Administrative Expense	7,351,846				7,351,846	
Total Deductions	1,124,713,552	32,691	174,234,931	4,245,000	1,303,226,174	
Not Ingragge ( Degrapes)	1 640 740 540	(0.770)	0.457.040	(0.000.400)	1 650 001 005	
Net Increase ( Decrease )	1,643,743,548	(3,772)	9,157,949	(2,636,400)	1,650,261,325	
NET ASSETS HELD IN TRUST FOR PENSION AND OTHER POSTEMPLOYMENT BENEFITS:						
Beginning of year	13,778,846,548	515,803	131,614,285	72,564,863	13,983,541,499	
Ending of year	\$ 15,422,590,096	\$ 512,031	\$ 140,772,234	\$ 69,928,463	\$ 15,633,802,824	
The accompanying notes are an integral part of these financial statements.						

#### Notes to Financial Statements Years Ended June 30, 2008 and 2007

#### **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 multiple-employer 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, 2008 a total of 199 employers participated in the plan. Employers are comprised of 175 local school districts, 18 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:

	2008	2007
Active contributing members:		
Vested	42,932	42,300
Non-vested	32,607	32,844
Inactive members, vested	4,861	4,498
Retirees and beneficiaries currently receiving benefits	40,739	39,506
Total members, retirees, and beneficiaries	<u>121,139</u>	119,148

#### 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.

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

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 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 (3) three 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 three cash accounts. At June 30, 2008, the pension cash account totaled \$5,210,327, the administrative expense fund cash account was \$2,873,221, and the life insurance cash account totaled \$587,853, therefore, the carrying value of cash was \$8,671,401 and the corresponding bank balance was \$11,695,507. The variance is primarily due to outstanding checks and items not processed by the bank on June 30, 2008.

#### 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.

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

#### D. INVESTMENTS

Plan investments are reported at fair value. Fair value is the amount that a plan can reasonably expect to receive for an investment in a current sale between a willing buyer and a willing seller. Short-term securities are carried at cost, which approximates fair value. Fixed income and common and preferred stocks are generally valued based on published market prices and quotations from national security exchanges and securities pricing services. Real estate is primarily valued based on appraisals performed by independent appraisers.

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 450 hours and accumulated compensatory time limited to 200 hours. As of June 30, 2008 and 2007 accrued compensated absences were \$658,434 and \$636,201.

#### 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, 2008 and 2007 installment contract receivables were \$661,499 and \$777,938.

#### 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.

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

#### J. ACCOUNTING CHANGES

The System early implemented GASB #50 Pension Disclosures last year.

#### **K. RECLASSIFICATIONS**

Certain 2007 amounts have been reclassified in conformity with the 2008 presentation.

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

#### A. CONTRIBUTIONS

Contribution rates are established by Kentucky Revised Statutes. 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.

The Commonwealth of Kentucky is required to contribute 13.105% of salaries for its non-university members and 13.84% of salaries for university members.

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

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

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. While fiscal years 2008 and 2007 resulted in over-appropriations from the state, a receivable is still due from the state because prior years under-appropriations have not been paid to KTRS.

#### **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.

#### **Unallocated 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.

#### 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 1000's)

Valuation Year June 30	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (uaal)	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
2008	A	B	B-A	(A/B)	C	[(B-A)/C]
	\$ 15,321,325	\$ 22,460,304	\$7,138,979	68.2%	\$3,190,332	223.8%

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

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 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.

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

	Actuarial Value Assets	5
(1)	Actuarial Value of Assets on June 30, 2007	\$ 15,286,452,192
2)	Market Value End of Year June 30, 2008	14,076,692,181
3)	Market Value Beginning of Year June 30, 2007	15,422,590,096
4)	Cash Flow	
′	a. Contributions	757,671,730
	b. Benefit Payments	1,186,934,184
	c. Administrative Expenses	7,551,936
	d. Net	(436,814,390)
(5)	Investment Income	
` /	a. Market total: (2) - (3) - (4)c	(909,083,525)
	b. Assumed Rate	7.5%
	c. Amount for Immediate Recognition:	
	$[(1) \times (5)b] + [(4)c * (5)b * 0.5]$	1,140,313,718
	d. Amount for Phased-In Recognition:	, , ,
	(5)a - (5)c	(2,049,397,243)
(6)	Phased-In Recognition of Investment Income	
` /	a. Current Year: 0.20*(5)d	(409,879,449)
	b. First Prior Year	190,240,386
	c. Second Prior Year	(75,996,339)
	d. Third Prior Year	(23,843,540)
	e. Fourth Prior Year	(349,147,545)
	f. Total Recognized Investment Gain	(668,626,487)
(7)	Actuarial Value End of Year	
V. /	(1) + (4)c + (5)c + (6)f	15,321,325,033
(8)	Difference Between Market & Actuarial Values	
	(2) - (7)	\$ (1,244,632,852)

#### C. Assumptions

Significant actuarial assumptions employed by the actuary for the funding purposes as of June 30, 2008, 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' 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.

#### 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, 2008 was \$11,695,507 of which \$6,237,715 primarily represents deposited amounts due the System for which actual funds are in transit to and waiting to be received by the custodial bank; therefore, these funds were unavailable for

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

investment. An additional amount of \$2,873,221 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 \$3,023,982 balance reduction while the amount of \$2,584,571 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 were insured up to \$100,000 (currently \$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, 2008, the System's cash equivalents in the amount of \$2,584,571 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".

The following chart represents the fair market values of the investments of the Kentucky Teachers' Retirement System for June 30, 2008.

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

Schedule of	Investments	
Short Term Investments	Market Value June 30, 2008	Market Value June 30, 2007
Repurchase Agreements	\$ 338,900,000	\$ 264,900,000
Agency & Other (Short Term)	49,872,500	301,557,885
Total Short Term Investments	388,772,500	566,457,885
Bonds and Mortgages		
U. S. Government	924,161,362	1,072,697,874
Agency Bonds	495,014,012	704,207,195
Mortgage-Backed Securities	500,140,653	432,477,395
Collateralized Mortgage Obligations	160,154,576	141,712,059
Asset Backed Securities	155,645,158	180,985,677
Commercial Mortgage-Backed Securities	205,815,754	185,842,508
Municipal Bonds	329,621,169	252,336,753
Corporate Bonds	1,508,621,584	1,499,947,566
<b>Total Bonds and Mortgages</b>	4,279,174,268	4,470,207,027
Equities		
International Equity	1,328,489,089	1,039,416,148
U. S. Equity	7,700,891,752	9,075,203,866
Total Equities	9,029,380,841	10,114,620,014
Real Estate		
Real Estate Equity	431,693,774	381,693,796
Total Real Estate Equity	431,693,774	381,693,796
Alternative Investments		
Private Equity	28,791,613	5,074,147
Timberland	75,995,962	(
<b>Total Alternative Investments</b>	104,787,575	5,074,147
TOTAL INVESTMENTS	\$ 14,233,808,958	\$ 15,538,052,869

This schedule does not include \$240,638,736 securities lending collateral.

# **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' 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.

In addition to the System's \$14.2 billion in investments at June 30, 2008, cash collateral reinvestment securities acquired through securities lending by the System's custodian, who is also the lending agent/counterparty, amounted to \$240,638,736. 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 retirement System's investments. In general, the longer the period until an investment matures, the greater the negative impact that changes in interest rates can have on fair value.

As of June 30, 2008 KTRS had the following investments and weighted average maturities:

nvestment Type		Average Maturity
	<u>Fair Value</u>	<u>(years)</u>
U.S. Government	\$ 924,161,362	10.4
Agency	495,014,012	9.2
MBS	500,140,653	17.8
CMO	160,154,576	21.0
ABS	155,645,158	8.9
CMBS	205,815,754	29.6
Muni	329,621,169	12.9
Corporate	1,508,621,584	8.6
Totals	\$ 4,279,174,268	12.0

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

In addition to the above securities, Repurchase Agreements (short-term investments) had a total fair value of \$388,772,500 of which Repurchase Agreements had a weighted average maturity of 2 days and other Short-term notes/bonds (Discount Notes) had an average maturity of 42 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 mortgage-backed securities owned by the System were securitized and are guaranteed by Fannie Mae, Freddie Mac, or GNMA. The average life of a mortgage-backed securities 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 \$500.1 million in mortgage-backed securities as of June 30, 2008.

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 \$160.2 million in collateralized mortgage obligations as of June 30, 2008.

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 \$155.6 million held by the System 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

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

consist of highly rated relatively senior tranches. The average maturity of the System's commercial mortgage-backed securities holdings in the schedule above reflects the legal maturity of those holdings. Most of the tranches held are earlier in the planned payment order than the legal maturity suggests. The System held \$205.8 million in commercial mortgage-backed securities investments as of June 30, 2008.

# **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, 2008:

RATING	FAIR VALUE	<u>%</u>
U.S. Government	\$ 924,161,362	21.6
Agency	495,014,012	11.6
AAA	1,296,983,511	30.3
AA	515,293,078	12.0
A	667,521,214	15.6
BBB	370,644,571	8.7
BB	6,116,520	0.1
<u>B</u>	3,440,000	0.1
Total	\$ 4,279,174,268	100.0
		==

Total market value of the fixed income portfolio was \$4,279,174,268 on June 30, 2008. 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 \$388,772,500 in Cash Equivalents or short term investments such as Repurchase Agreements and Agency Discount Note securities. The credit risk associated with Repurchase Agreements and Agency Discount investments 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 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."

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, 2008, KTRS exposure to foreign currency risk consisted of \$770,959,026 of foreign equity investments through commingled funds managed by UBS Global Asset Management, Baring Asset Management, and Baillie Gifford as follows:

Baring Asset Management 143,997,345 Baillie Gifford 138,098,265	UBS Global Asset Management	\$ 488,863,416
Baillie Gifford <u>138,098,265</u>	o contract of the contract of	" / /
Total \$ 770.959.026	ů ů	
$\frac{\pi}{\pi}$	Total	\$ 770,959,026

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 \$557,530,063 associated with foreign interests in American Depositary Receipt (ADR) investments. These ADRs 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. ADRs 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 collateral. U.S. Government and agency securities, selected domestic bonds, and domestic and international (ADR) 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, 2008:

Item	Earnings
Gross Earnings (Interest and fees)	\$21,398,858
Less: Gross Borrower Rebates	19,301,308
Bank Fees	625,544
Net Earnings	\$ 1,472,006

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, 2008 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, 2008:

Fair Value	Non-cash Collateral Value*
\$ 22,871,899	\$ 23,269,578
209,961,719	217,369,158
\$ 232,833,618	\$ 240,638,736
	\$ 22,871,899 209,961,719

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

# Note 6: 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 2008, 2007 and 2006 were \$413,492, \$388,973, and \$368,662 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 2008, 2007, and 2006. 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 2008, 2007 and 2006 were 8.5%, 7.75% and 5.89%; and the System's annual required contributions to KERS were \$542,848, \$114,711 and \$103,137 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: 403(b) Tax-Sheltered Annuity Plan

### A. 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

### Note 7: 403(b) Tax-Sheltered Annuity Plan continued . . .

the System's members. The Board decided, therefore, to discontinue offering the program as of April 30, 1997. Members who were not receiving annuities from their account as of April 30, 1997, were able to transfer their respective accounts directly into other tax-sheltered plans on a tax-free basis. As of June 30, 2008, the twenty-seven members who are receiving annuities will continue to receive distributions according to the terms of their respective elections.

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

### **Basis of Accounting**

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

### **Method Used to Value Investments**

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

# 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 post-retirement healthcare benefits to eligible members and dependents. The KTRS Medical Insurance benefit is a cost-sharing multiple employer defined benefit plan. 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 no risk for excess claims expenses that exceed the premium equivalents charged for the Kentucky Employees Health Plan. Once retired members and eligible spouses attain age 65 and are Medicare eligible, coverage is obtained through the KTRS Medicare Eligible Health Plan. KTRS bears the risk for actual drug claims cost in the Medicare Eligible Health Plan.

At June 30, 2008, KTRS insurance covered 32,164 retirees and 6,585 dependents. There are 199 participating employers and 75,539 active members contributing to the Medical Insurance Fund.

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

### 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, one and five tenths percent (1.5%) of the gross annual payroll of all active members is contributed. One-half (1/2) of this amount is derived from member contributions and one-half (1/2) from state appropriation. 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 \$85,000,000 and \$125,000,000 for fiscal years 2007 and 2008 respectively. Funds allocated to KTRS from the state general fund surplus for the fiscal year ended June 30, 2006 reduced the \$85 million allocation to \$73 million. The remaining balances are to be amortized over a period of 10 years. The Legislature appropriated \$14,133,200 in fiscal year 2007-2008 and \$28,487,400 in 2008-2009 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 1000's):

Valuation Year June 30	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (uaal)	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
2008	A	B	B-A	(A/B)	C	[(B-A)/C]
	\$ 185,883	\$ 6,434,522	\$6,248,639	2.9%	\$3,190,332	195.9%

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

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

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

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

Significant actuarial methodologies and assumptions employed as of the June 30, 2008 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	4.5%
Projected salary increases	4.0%
Amortization method	Level percent of pay, open
Remaining amortization period	30 years
Healthcare trend rate	11.00%
Ultimate trend rate	5.00%

### E. INCURRED BUT NOT REPORTED CLAIMS LIABILITIES

Year of Ultimate Pre-Medicare trend rate

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

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

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, 2008 and 2007.

F	Fiscal Year 2008	Fiscal Year 2007
Beginning Unpaid Claims Liability	\$ 1,966,148	\$ 7,580,738
Current Year Claims and Changes in Estimates	175,915,477	169,502,794
Claims Payments	(175,591,784)	(175,117,384)
Ending Unpaid Claims Liability	\$ 2,289,841	\$ 1,966,148

### Note 9: Life Insurance Plan

### A. PLAN DESCRIPTION

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 199 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.

Note 9: Life Insurance Plan continued . . .

#### 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 2007 and 2008, this rate has been .17% of active members' payroll.

### 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:

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Valuation Year June 30	Actuarial Value of Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities (uaal)	Funded Ratio	Covered Payroll	UAAL as a % of Covered Payroll
2008	A	B	B-A	(A/B)	C	[(B-A)/C]
	\$ 77,658	\$ 84,265	\$6,607	92.2%	\$3,190,332	.21%

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, 2008 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	7.5%
Projected salary increases	4.0%
Amortization method	Level percent of pay, open
Remaining amortization period	30 years

## **Note 10: Subsequent Event**

Subsequent to the June 30 fiscal year end, the financial markets experienced an unprecedented decline in value. The markets are so dynamic and fluid any judgment of the financial statements must be based on current information rather than fiscal year end. To pick a point in time, as of September 30, the investment portfolio had declined \$1.1 billion in value to \$13.1 billion, excluding securities lending collateral.

Since June 30, 2008, the financial markets have continued to falter as a result of the

### Note 10: Subsequent Event continued . . .

general lack of availability of credit. While the market value of KTRS' investments has been negatively affected by current perceptions of global economic conditions, it is management's view that our long-term time horizon, the diversification of our holdings, and present opportunities to acquire securities at discounts to intrinsic value, position the fund to recover when the economy turns around.

# **Required Supplementary Schedules**

# **Defined Benefit Plan Schedule of Funding Progress**

(dollar amounts in millions)

VALUATION YEAR JUNE 30	N ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES	UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL)	FUNDED Ratio	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	a	b	(b-a)	(a/b)	С	[(b-a)/c]
2003	\$ 13,863.8	\$ 16,594.8	\$ 2,731.0	83.5%	\$ 2,497.7	109.3%
2004	14,255.1	17,617.6	3,362.5	80.8	2,641.5	127.3
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

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.

Required Supplemental Schedule
Defined Benefit Plan
<b>Schedule of Employer Contributions</b>

FISCAL YEAR ENDED JUNE 30	ANNUAL REQUIRED CONTRIBUTIONS	PERCENTAGE Contributed
2003	\$ 322,046,968	100%
2004	364,351,412	100
$2005 \\ 2006$	383,776,826 406,107,266	$100 \\ 100$
2007	494,565,369	85
2008	563,789,483	78

# Medical Insurance Plan Schedule of Funding Progress

(dollar amounts in millions)

VALUATION YEAR JUNE 30	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES	UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	a	b	(b-a)	(a/b)	c	[(b-a)/c]
2003	\$ 165.5	\$ 2,886.0	\$ 2,720.5	5.7%	\$ 2,497.7	108.9%
2004	158.9	3,166.6	3,007.7	5.0	2,641.5	113.9
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

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

# Medical Insurance Plan Schedule of Employers Contributions

Fiscal Year	Annual Required	Actual	Retiree Drug	Total	Percentage
Ending	Contribution	Employer	Subsidy	Contribution	of ARC
<u>Date</u>	(ARC)	Contribution	Contribution		Contributed
	<u>( a )</u>	<u>( b )</u>	<u>( c )</u>	(b) + (c)	(b) + (c)
6/30/2007 6/30/2008	\$231,473,321 395,282,164	\$113,258,761 148,954,644	\$ 10,312,361 11,911,565	\$123,571,122 160,866,209	53.40% $40.70$

Only two years of actuarial calculations of annual required contributions is available.

# **Life Insurance Plan Schedule of Funding Progress**

(dollar amounts in thousands)

VALUATION YEAR JUNE 30	ACTUARIAL VALUE OF ASSETS	ACTUARIAL ACCRUED LIABILITIES	UNFUNDED ACTUARIAL ACCRUED LIABILITIES (UAAL)	FUNDED RATIO	COVERED PAYROLL	UAAL AS A % OF COVERED PAYROLL
	a	b	(b-a)	(a/b)	С	[(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

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

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

 FISCAL YEAR
 ANNUAL REQUIRED
 ACTUAL EMPLOYER
 PERCENTAGE OF ARC CONTRIBUTED

 2007
 \$ 1,785,173
 \$ 5,022,137
 281.3 %

 2008
 1,914,199
 5,411,249
 282.7

# **Required Supporting Schedules**

# **Supporting Schedule 1**

# Schedule of Administrative Expenses Year Ended June 30, 2008

Salaries	\$5,455,683
Other Personnel Costs	546,347
Professional Services & Contracts	233,841
Utilities	79,592
Rentals	14,852
Maintenance	124,020
Postage & Related Services	311,616
Printing	143,783
Insurance	99,643
Miscellaneous Services	99,936
Telecommunications	27,685
Computer Services	49,344
Computer & Software Maintenance	65,671
Supplies	52,159
Depreciation	107,504
Travel	51,334
Dues & Subscriptions	31,833
Miscellaneous Commodities	11,903
Furniture, Fixtures, & Equipment not Capitalized	22,958
Compensated Absences	22,232

\$7,551,936

TOTAL ADMINISTRATIVE EXPENSES

# Schedule of Contracted Investment Management Expenses and Miscellaneous Expenses Year Ended June 30, 2008

**BALANCED MANAGER** 

Ft. Washington/Todd Investment Advisors \$ 1,375,000

FIXED INCOME MANAGERS

Galliard Capital Management 478,847

**EQUITY MANAGERS** 

Baring Focused International\$ 138,412GE Asset Management Inc.800,000UBS Global Asset Management Corporation3,123,278Wellington Management Company, LLP2,598,200

Total Equity Managers 6,659,890

**CUSTODIAN** 

Farmers Bank 548,405

**CONSULTANT** 

**PROFESSIONAL** 

Becker, Burke Associates 65,000

**OTHER** 

Private Equity 330,537 Misc Investment Expenses (noncontracted) 42,153

**TOTAL CONTRACTED INVESTMENT MANAGEMENT EXPENSES** \$ 9,499,832

# Schedule of Professional Fees for Year Ended June 30, 2008

NATURE OF SERVICE

#### Cavanaugh Macdonald Consulting **Actuarial Services** \$ 180,835 Charles T. Mitchell Company **Auditing Services** 29,600 Farmers Bank Banking Services 14,314 International Claim Specialist Investigative Services 3,252 Klausner & Kaufman Attorney Services 3,050 Reed, Weitkamp, Schell & Vice Attorney Services 2,790 **TOTAL** 233,841



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

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

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

We have audited the financial statements of the Teachers' Retirement System of the State of Kentucky, a component unit of the Commonwealth of Kentucky, as of and for the year ended June 30, 2008, and have issued our report thereon dated December 11, 2008. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States.

#### Internal Control Over Financial Reporting

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

A control deficiency exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the entity's ability to initiate, authorize, record, process, or report financial data reliably in accordance with generally accepted accounting principles such that there is more than a remote likelihood that a misstatement of the entity's financial statements that is more than inconsequential will not be prevented or detected by the entity's internal control.

A material weakness is a significant deficiency, or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the financial statements will not be prevented or detected by the entity's internal control.

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

### Compliance and Other Matters

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

This report is intended solely for the information and use of management and the Commonwealth of Kentucky and is not intended to be and should not be used by anyone other than these specified parties. However, this report is a matter of public record and its distribution is not limited.

Frankfort, Kentucky December 11, 2008

Charles T. Mitchell Co.

201 West Main Street, Frankfort, Kentucky 40601 | P.O. Box 698, Frankfort, Kentucky 40602-0698 (502) 227-7395 | Fax (502) 227-8005 | www.ctmcpa.com



# INVESTMENT SECTION

for Fiscal Year ending June 30, 2008

# 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

Chairman

Mr. Ronald L. Sanders
Vice-Chairman

Mr. Gary L. Harbin, CPA

Member

# **EXECUTIVE INVESTMENT STAFF**

Mr. Gary L. Harbin, CPA

Executive Secretary

Mr. Paul L. Yancey, CFA
Chief Investment Officer

# Becker, Burke Associates Incorporated

Suite 1000 221 North LaSalle Street Chicago, Illinois 60601 312/782-5665 fax 312/782-6904

October 10, 2008

Mr. Paul Yancey Chief Investment Officer Kentucky Teachers' Retirement System 477 Versailles Road Frankfort, KY 40601

Dear Mr. Yancey:

Becker, Burke Associates served as Investment Consultant to the Kentucky Teachers' Retirement System during the 2007-08 fiscal year, as it has in several previous years. Becker, Burke Associates is familiar with the operation of the System's investment program as well as its performance. The investment program of the Retirement System is operated in a prudent manner that reflects a desire to preserve capital while optimizing the reward/risk characteristics. The assets of the Retirement System are assigned to various investment managers in order to diversify the System's investments and take advantage of opportunities in numerous asset classes and sectors.

During the fiscal year, the System continued to make progress toward its goal of further diversifying the assets in order to enhance the expected reward/risk characteristics of the Plan. The System increased its exposure to international equity, small and mid-cap equity, real estate, and alternative investments. Going forward, the shift in asset allocation will continue to progress in a consistent and prudent manner. This will ensure that sound decisions are being made and will limit the risk of poor timing.

Very truly yours,

Howard H. Pohl

President, Becker, Burke Associates

Tweed X. Poll

### 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 principals 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 KTRS' investment philosophy and practice.

# **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%. For the twenty year period ended June 30, 2008, the System's annualized return was 8.6%, well ahead of the long-term investment objective.

### RISK CONTROLS

The KTRS investment program faces numerous 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 numerous other risks, the board has taken the following steps, on an ongoing basis, to help control risk:

- 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, at a minimum, 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

The System undertakes asset/liability studies every five years. In addition, the System's investment consultant, on an annual basis, presents to the Investment Committee 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 fixed employer contributions, the non-participation of members in Social Security, liability requirements, level of funding, and statutory investment restrictions are important considerations within the context of the asset allocation decision making process. Consequently, asset allocation comparisons between various pension plans may be quite different.

The following information reflects the System's asset allocation by market value as of June 30, 2008, and June 30, 2007, as well as the target and strategic range for each asset class for Fiscal Year 2008.

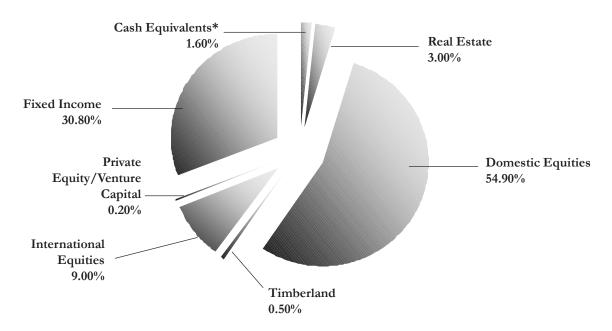
		<u>6-30-2008</u>	<u>%</u>		<u>6-30-2007</u>	<u>%</u>
Cash Equivalents *	\$	221,260,264	1.6	\$	454,641,986	2.9
Fixed Income **		4,381,342,566	30.8		4,523,620,912	29.1
Domestic Equities		7,815,837,500	54.9		9,133,172,818	58.8
International Equities		1,278,613,411	9.0		1,039,849,210	6.7
Real Estate		431,693,774	3.0		381,693,796	2.5
Private Equity		28,791,613	0.2		5,074,147	0.0
Timberland	_	75,995,962	0.5	_	-0-	0.0
Totals	\$	14,233,535,090	100.0	\$	15,538,052,869	100.0

<sup>\*</sup> 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.

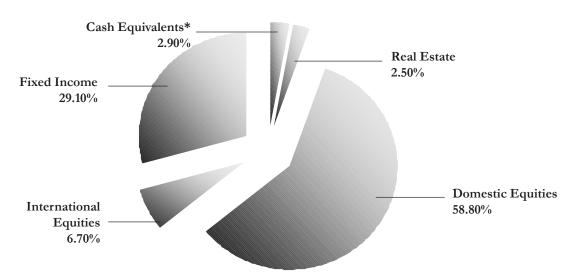
<sup>\*\*</sup> Excludes purchased interest of \$273,868 as of June 30, 2008.

# Distribution of Investments Market Values

# June 30, 2008



# June 30, 2007



<sup>\*</sup> 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.

Asset Class	Regulatory Limits (Mkt Value)	Strategic Range (Mkt)	Target (Mkt)	6/30/2008 (Mkt)
Cash		1-4%	1.0%	1.6%
Fixed Income Government/Agency/Other Corporate	Unlimited 35%	25-32	28.0	30.8 17.6 13.2
Equity Domestic Large Cap Domestic Mid/Small Cap International	65%	50 - 65 40 - 50 5 - 10 5 - 10	65.0 49.0 7.0 9.0	63.9 48.1 6.8 9.0
Real Estate	10%	2 - 5	4.0	3.0
Alternative Investments*	10%	0 - 2	2.0	0.7
Additional Categories	10%		0.0	0.0
TOTAL			100.0%	100.0%

This weighting reflects cash with manager in the manager's asset class.

<sup>\*</sup> Alternative Investments includes Private Equity, Timberland, Venture Capital and Infrastructure investments.

### **PORTFOLIO RETURNS**

The System's portfolio generated a total return of -5.7% for the fiscal year ended June 30, 2008 in a difficult and volatile period in the financial markets. Domestic equities returned -12.5% versus -12.7% for the Standard & Poor's (S&P) 1500, while fixed income returns matched those of the Lehman Government/Credit Index at 7.2%. International equities returned -11.3% versus -10.2% for the MSCI EAFE Index. For one, five, ten, and twenty year periods ended June 30, 2008, the portfolio's domestic equity and fixed income components have matched or exceeded their benchmarks. For the twenty-year period ended June 30, 2008, the total fund's annualized return was 8.6%, well ahead of the actuarial assumed rate of return of 7.5%. 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. The table below outlines historical performance for the total fund and its component asset classes.

	<u>1 Yr</u>	<u>3 Yr</u>	<u>5 Yr</u>	<u>10 Yr</u>	<u>20 Yr</u>
KTRS Total Fund	-5.7	4.7	6.2	4.6	8.6
Allocation Index*	-5.9	4.8	6.0	4.8	8.2
Total Domestic Equity	-12.5	4.5	8.0	3.6	11.1
S&P Blended Index **	-12.7	4.6	7.7	2.9	10.5
Total International Equity	-11.3	—	<del></del>	<del></del>	—
MSCI EAFE	-10.2	<del></del>	<del></del>	<del></del>	<del></del>
Total Fixed Income	7.2	4.0	3.8	5.8	7.5
Lehman Government/ Credit Index	7.2	3.8	3.6	5.7	7.4
Real Estate Equity	7.8	9.1	9.3	9.1	8.6
CPI plus 2%	6.9	5.9	5.5	5.0	5.2
Short Term Investments	4.1	5.4	3.9	4.0	5.1
90 day Treasury Bill	3.6	4.2	3.1	3.6	4.4

<sup>\*</sup> The Allocation Index is based on the System's asset class breakdown for each of the last 20 years.

All stock allocations are benchmarked to the S&P 500.

All fixed income allocations are benchmarked to the Lehman Government/Credit Index

All Short Term allocations are benchmarked to the 90 day Treasury Bill.

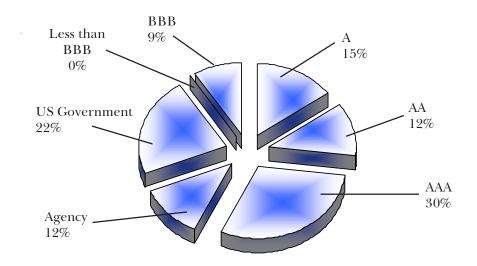
All Real Estate allocations are benchmarked to the CPI plus 2%.

<sup>\*\*</sup> Total Domestic Equity through the fiscal year ending 6/30/07 was benchmarked to the S&P 500. As of 7/01/08 the domestic stock mix is most comparable to the S&P 1500 index. The S&P Blended Index is made up of S&P 500 returns through fiscal year ending 6/30/07 and the S&P 1500 returns for the last fiscal year.

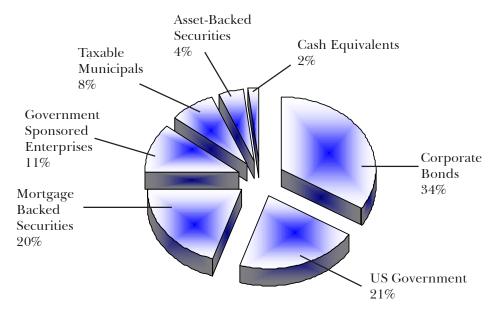
### FIXED INCOME INVESTMENTS

As of June 30, 2008, the System had approximately \$4.4 billion in fixed income assets, or 30.8% of total assets. Over \$2.5 billion was managed internally with the remainder, or about \$1.84 billion, managed by two external managers. The System's investment policy established by administrative regulation requires that all fixed income investments be rated investment grade at the time of purchase by one of the major rating agencies. The regulation further requires that the fixed income portfolio as a whole maintain an average rating equal to at least "AA" by one of the major rating agencies.

# FIXED INCOME QUALITY DISTRIBUTION



### FIXED INCOME SECTOR DISTRIBUTION



### FIXED INCOME MARKET OVERVIEW

The credit markets remained in turmoil throughout the fiscal year. A collapse in the subprime mortgage market and related investment vehicles led to massive writedowns and a crisis of confidence throughout the financial system beginning in the summer of 2007, which threatened the vital flow of liquidity. Interbank lending rates rose dramatically as did yields on all but U.S. government debt, as liquidity threatened to grind to a halt.

The Federal Reserve responded aggressively, taking various unconventional actions to restore liquidity and confidence, including opening its discount window lending facility to nonbank financial institutions. The Fed also made seven progressive moves, lowering the federal funds rate from 5.25% in September, 2007 to 2.00% on April 30, 2008. Despite all this, investment bank Bear Stearns suffered a liquidity crisis in March, 2008 and was forced into a Fed-assisted takeover by J.P. Morgan.

Through the middle of 2008, the credit crisis showed no signs of abating. The underlying housing downturn persisted. As of June, 2008, home prices nationally had declined 18% from their peak in June 2006, according to the S&P/Case-Shiller Index. Delinquencies and foreclosures were soaring even on prime mortgages. An alarming inventory of unsold homes portended further declines in prices.

The problems went beyond housing, however, as the tightness of credit itself was exacerbating underlying economic weakness and threatening a more generalized downward spiral of credit deterioration. Non-farm payrolls steadily declined through the first half of 2008 and the unemployment rate crept up to 5.5% in June, 2008 from a low of 4.4% in March, 2007. Oil prices rose from about \$70 per barrel at the end of June, 2007 to \$140 on June 30, 2008, putting further stress on the consumer.

This environment led to an extraordinary surge in volatility in the fixed income markets as well as extreme divergences in the relative performance of various sectors. In general, there was a flight to the safety of U.S. Treasuries, producing higher prices and lower yields. The reverse was true in many other sectors, however, as risk aversion was the driving force. Broad indices which carry heavy weightings of U.S. Treasury securities produced solid returns. The Lehman Government/ Credit Index returned 7.24% for the fiscal year. Below the surface, the divergences were remarkable. U.S. Treasuries returned 10.33% while investment grade corporate bonds overall returned only 2.95%. Investment grade financial institution bonds returned only 0.65%. Assetbacked securities returned -2.08%, below investment grade corporates overall returned -2.26%, and below investment grade financial institutions returned -17.10%. Agency-backed mortgages performed relatively well, returning 7.92%

As the fiscal year came to an end, the credit markets and financial system overall remained under stress. Economic conditions were weak both domestically and globally. The Fed appeared unlikely to raise short term rates in the foreseeable future. Inflation concerns, driven primarily by energy and other commodity prices, appeared to be receding. The good news was that the turmoil had driven yield premiums over safe Treasury securities quite high, even for high quality fixed income securities. There were opportunities for patient investors. Caution remained in order, however, as market turmoil and continued credit deterioration remained a concern.

# **EQUITY INVESTMENTS**

The System's public equity investments had a market value of \$9.1 billion as of June 30, 2008, representing 63.9% of total assets. Public equities remained close to the 65% target throughout the fiscal year. The System divides its public equity investments into two broad categories: domestic and international.

The domestic portfolio had a market value of \$7.8 billion as of June 30, representing 54.9% of total assets. The domestic portfolio is benchmarked to the S&P 1500 Index. The S&P 1500 is composed of three well-known component indices based upon capitalization: the large cap S&P 500, the mid cap S&P 400, and the small cap S&P 600. The System's domestic equity holdings are divided into eleven portfolios. Three are internally managed index funds benchmarked to the S&P 500, S&P 400, and S&P 600, respectively. Eight other portfolios are externally managed, with each representing a specific capitalization universe and style or strategy; each is compared to an appropriate benchmark. The collective array of portfolios provides diversification by capitalization, manager, style, and strategy.

International equity holdings had a market value of \$1.3 billion as of June 30, representing 9.0% of total assets. International equities are benchmarked against the Morgan Stanley Capital International (MSCI) EAFE (Europe, Australasia, Far East) Index, which represents the markets of twenty-one developed countries. The System's international equity holdings are managed by four external managers. Through much of the fiscal year, the percentage of total assets invested in international equity was 7.5%. In early May, two new international managers, Baillie Gifford and Baring Asset Management, were hired, bringing the international exposure up to the 9.0% level. It is expected that the level of investment in international equity will continue to increase during the coming fiscal year. While international equity holdings are benchmarked against the EAFE Index, which includes only developed country equities, the individual managers are allowed strategic exposure to emerging markets on a limited basis.

# **EQUITY MARKET OVERVIEW**

The fiscal year was a difficult one for equity investors. Equity markets all over the world suffered as the MSCI World Index declined -10.2%. The domestic market fared a bit worse, as the S&P 1500 fell -12.7%. International developed markets, as measured by the MSCI EAFE Index, had a decline of -10.2%. Emerging markets, however, bucked the trend as the MSCI Emerging Markets Index rose 4.9%. This marked the fifth straight fiscal year that international equity returns, as measured by the EAFE Index, have exceeded domestic S&P 1500 returns.

Domestic stocks suffered their first decline in several years as the fallout from a weak housing market and associated mortgages forced large financial institutions to take huge writedowns related to mortgage securities. This led to the stunning collapse of Bear Stearns and its acquisition by J.P. Morgan in March. The damage was not limited to domestic financial institutions as many large international institutions also held securitized securities backed by assets in the U.S. Rising energy prices were largely attributed to increased incremental demand from China and India coupled with OPEC's inability to increase supply. Demand from India and China was also blamed for generally higher commodity prices, especially metal prices. The Commodities Research Bureau (CRB) Index, a broad measure of commodities prices, rose 47% over the fiscal year. The combination of falling home prices and rising energy costs led to a drop in consumer confidence and pressured consumer spending. The University of Michigan's Consumer Sentiment Index fell to its lowest level in almost thirty years. Toward the end of the fiscal year, many investors worried

## KENTUCKY TEACHERS' RETIREMENT SYSTEM

about inflation as commodity prices continued to remain high, the dollar reached new lows, and the Federal Reserve had aggressively cut rates to bolster the financial system.

Within the capitalization segments of the S&P 1500, the mid cap S&P 400 was the best performer with a decline of -7.3% compared with the large cap S&P 500 return of -13.1% and the small cap S&P 600 at -14.7%. For the past five years, the returns of small and mid cap domestic stocks have exceeded those of the larger cap stocks in the S&P 500. This past year, growth stocks within the S&P 500 outperformed value stocks by over 10%. This marked the first time in the last five years that growth stocks have registered better returns than those of value stocks. Sector allocation was a far more important determinant of the relative performance of various indices and portfolios over the fiscal year than capitalization or style. Within the S&P 1500, the energy sector had a positive return of 27.6%, while the financial sector had a decline of -41.0%.

The domestic market peaked in October, 2007, and began a five month decline into the following March as the combination of higher energy prices and credit market woes continued to plague the market. The market reached a climactic bottom in March when Bear Stearns collapsed. After the Bear Stearns collapse, the market rallied into mid-May as investors believed that the worst of the financial institutions' problems were past. The S&P 1500 suffered a 10% drop from the middle of May to the end of June as oil prices rose and financial institutions continued to write down assets and raise capital.

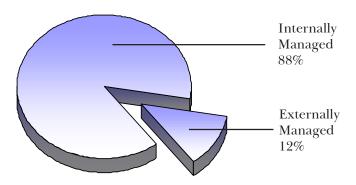
The international equity markets were affected by several of the same factors affecting the domestic markets, namely higher energy prices and asset writedowns at large financial institutions. The pattern of returns for the EAFE Index closely mirrored that of the domestic market. The course was somewhat different, however, for emerging markets. The MSCI Emerging Markets Index, made up of twenty-five less developed countries, returned 4.9% for the fiscal year. Over the past five years, the emerging markets have produced an annualized return of 30.2% versus 17.2% for the developed markets EAFE Index. The emerging markets offer additional diversification benefits, as they are not as correlated with the domestic equity market as the EAFE, but they are more volatile due to less developed economies and are subject to more political instability.

### **REAL ESTATE**

The System's real estate investments had a market value of \$431.7 million as of June 30, 2008, representing 3.0% 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 Investments June 30, 2008 \$431.7 Million Market Value



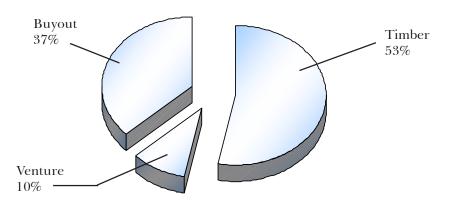
### **REAL ESTATE OVERVIEW**

During the fiscal year, the softening economy and turbulence in the broader capital markets took a toll on commercial real estate markets nationally. Generally, most markets experienced slower leasing activity, declining occupancy levels, and downward pressure on rents. Many economists are predicting continued weakness in the real estate market going into 2009. This slowdown in the real estate market may well provide an opportunity for investors as property prices come down from the historic highs of recent years. The System will look for opportunities to strategically increase commercial real estate exposure over the next 12 to 24 months.

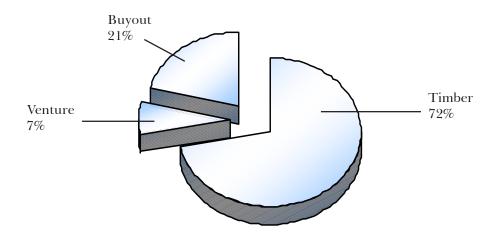
## **ALTERNATIVE ASSETS**

As of June 30, 2008, the System had committed \$375 million to alternative investments and had funded \$106 million of those commitments. The percentage of the System's portfolio in alternative assets was 0.7%. The System's current alternative assets portfolio consists of private equity investments (both venture capital and buyout) and timberland.

# Alternative Assets Committed \$375 Million as of June 30, 2008



# Alternative Assets Funded \$106 Million as of June 30, 2008



# PRIVATE EQUITY

The System has gained exposure to both venture capital and buyouts via direct participation in limited partnerships as well as investment in a fund of funds. The System is in the initial 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 commitment over time. The System's commitment to any given partnership shall not exceed 20% of that partnership's total commitments.

The Board and the 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 boom in private equity buyouts evaporated beginning in the summer of 2007 as financing for deals dried up with the onslaught of the credit crunch. By the summer of 2008, the credit crisis had only intensified and the drought of deal-making continued. Venture firms, meanwhile, were more focused on keeping their businesses afloat as economic growth stagnated, particularly in the industrialized world. However, the most nimble private equity firms were finding opportunities in this environment as many institutions were raising capital through the liquidation of assets at significantly reduced prices. As financial conditions around the world begin to recover, the expectation would be to see more private equity transactions, although with less leverage than in the past.

### **TIMBERLAND**

In addition to private equity, the System has invested in timberland in the alternative asset classification. As of June 30, 2008, the System owned approximately 68,000 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 derived from net cash flow generated from the sale of trees (referred to as stumpage sales) and capital appreciation from the biological growth of the trees. Both of these return factors depend to some degree upon the direction of forest commodity prices (paper goods and lumber products). There can also be gains from the timely sale of timberland and from the conversion of timberland into higher and better uses, such as vacation property sales.

### TIMBER MARKET OVERVIEW

Increases in the US population, income, and economic activity have been strong forces in the growth of demand for timber products. Recently however, the deteriorating US housing market and overall weak US economy have served to dampen demand, putting downward pressure on timber prices. Over the next five to ten years, a shrinking supply of timber from the southern US due to suburbanization, increased demand due to a recovering housing sector, and the growth of wood as an energy source are expected to put upward pressure on timber prices.

# PORTFOLIOS MARKET VALUES \*\* June 30, 2008

# **Internally Managed**

<u>Internally Manage</u>	<u>d</u>
Cash Equivalents	
Cash Collections Fund	\$ 221,260,264
Fixed Income *	
Broad Market Bond Fund	1,115,677,243
Long Term Bond Fund	635,645,904
Intermediate Bond Fund	490,318,668
Internal Bond Fund	220,257,298
Life Insurance Trust (Retired)	74,411,759
Life Insurance Trust (Active)	1,849,400
Tax Shelter Fund	499,048
Scholarship Fund	487,255
Equity	
S&P 500 Index Fund (Large Cap)	2,931,555,579
S&P 400 Index Fund (Mid Cap)	335,002,746
S&P 600 Index Fund (Small Cap)	236,929,479
•	
Real Estate	
Internally Managed Fund	381,693,775
Subtotal	6,645,588,418
Externally Managed	
Fixed Income	864,895,117
Fixed Income Galliard Capital Management	864,895,117 748,040,818
Fixed Income Galliard Capital Management Ft. Washington Broad Market	748,040,818
Fixed Income Galliard Capital Management	
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus	748,040,818
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity:	748,040,818 229,260,056
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core)	748,040,818 229,260,056 1,517,820,961
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value)	748,040,818 229,260,056 1,517,820,961 1,049,211,913
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth)	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core)	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core)	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core)	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30)	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core)	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30) Todd Opportunity Fund	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30) Todd Opportunity Fund  International Equity:	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957 45,839,716
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30) Todd Opportunity Fund  International Equity: Todd International	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957 45,839,716
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30) Todd Opportunity Fund  International Equity: Todd International UBS International	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957 45,839,716 507,654,384 488,863,416
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30) Todd Opportunity Fund  International Equity: Todd International UBS International Baring Focused International Equity	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957 45,839,716 507,654,384 488,863,416 143,997,345
Fixed Income Galliard Capital Management Ft. Washington Broad Market Ft. Washington Bond Index Plus  Domestic Equity: Todd Investment Advisors (Large Cap Core) UBS (Large Cap Value) GE Asset Mgmt. (Large Cap Growth) Wellington (Large Cap Core) Wellington (Mid Cap Core) Wellington (Small Cap Core) UBS (130/30) Todd Opportunity Fund  International Equity: Todd International UBS International	748,040,818 229,260,056 1,517,820,961 1,049,211,913 645,725,658 557,192,302 261,154,364 132,405,825 102,998,957 45,839,716 507,654,384 488,863,416

# **PORTFOLIOS** (CONTINUED) JUNE 30, 2008

Daal	Estate:
кеаі	- Estate:

Total Assets	\$ 14,233,535,090
Subtotal	 7,587,946,672
KKR European Fund III	 2,243,989
Fort Washington Private Equity Fund V	3,399,859
Chrysalis Venture Fund III	5,197,590
KKR 2006 Fund	17,950,175
Lake Superior Timberlands LLC	75,995,962
Molpus Woodlands Group	
Alternative Investments	
Prudential PRISA Fund	\$ 50,000,000
11001 200000	

# **Investment Summary** Fair Market Value 06/30/2008

		0 0/ 0	0,200	Sales Redemptions,	
Type of Investment	Fair Value 07/01/07	Acquisitions	Appreciation (Depreciation)	Maturities & Paydowns	Fair Value 06/30/08
Cash Equivalents	\$ 566,457,900	\$ 34,570,107,000	\$ 8,107,600	\$ 34,755,900,000	\$ 388,772,500
Fixed Income	4,470,207,000	1,714,491,300	91,998,500	1,997,522,600	4,279,174,200
Equities	10,114,620,000	2,886,215,100	(1,431,996,400)	2,539,457,900	9,029,380,800
Real Estate	381,693,800	50,000,000	0	0	431,693,800
Alternative	5,074,200	102,207,500	(1,227,900)	1,266,200	104,787,600
TOTAL	\$ 15,538,052,900	\$ 39,323,020,900	\$ (1,333,118,200)	\$ 39,294,146,700	\$ 14,233,808,900

Excludes purchased interest of \$273,868 as of June 30, 2008.
 Detailed information concerning these market values of all KTRS investments is available upon request.

Contracted Investment Management Expenses Fiscal Year 2007-08 (in thousands of dollars)								
Investment Manager Fees	Assets Under Management		<u>Expense</u>		Basis Points (1)			
Fixed Income Manager(s) Equity Manager(s) Balanced Manager Private Equity Fees (2)	\$	864,895 3,519,648 3,048,616 104,788	\$	384 6,801 1,375 1,084				
Total	\$	7,537,947	\$	9,644	12.8			
Other Investment Services								
Custodian Services Investment Consultant Legal & Research Fees	\$	14,233,535	\$	548 65 37	0.4			
Total			_	650				
Grand Total			\$	10,294	7.2			

<sup>1 –</sup> One basis point is one hundredth of one percent or the equivalent of .0001.

<sup>2 –</sup> Private equity fees are either withheld from the Fund operations or paid by direct disbursement, depending on contract terms. This schedule includes fees withheld from fund operations.

### Transaction Commissions Fiscal Year 2007-08

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE
AG Edwards	5,000	200.00	0.0400
B Trade Services	6,900	34.50	0.0050
Bank of America	275,430	11,526.70	0.0418
Bass Trading	33,400	774.00	0.0232
Bear Stearns & Co Inc	182,560	7,629.50	0.0418
Blair William & Co	2,000	80.00	0.0400
BMO Capital Markets	2,500	125.00	0.0500
BNY Brokerage / LJR	2,442,300	97,692.00	0.0400
Boenning & Scattergood	159,000	3,577.50	0.0225
Canacord Adams	50,400	2,016.00	0.0400
Cantor Fitzgerald & Co	97,600	3,859.00	0.0395
CIBC Oppenheimer Worldmarket	30,570	4,260.80	0.1394
Citigroup Global	1,510,116	70,038.56	0.0464
Citigroup-Huntington	4,047,700	161,908.00	0.0400
Citigroup-Louisville	4,080,455	163,218.20	0.0400
Cowen & Co	71,200	2,848.00	0.0400
Credit Suisse Sec LLC	2,801,901	111,050.42	0.0396
Crowell Weedon & Co	52,011	2,080.44	0.0400
Deutsche Bank	100,700	7,254.40	0.0720
Fidelity Capital Markets	9,800	286.50	0.0292
First Kentucky Securities Corp	3,249,729	129,989.16	0.0400
Fox Pitt Kelton Inc	16,000	640.00	0.0400
Freidman Billings	126,645	3,563.80	0.0281
FTN Financial	5,500	220.00	0.0400
Goldman Sachs	5,367,884	180,430.71	0.0336
Heflin & Co	60,600	2,279.00	0.0376
Howe Barnes Investment	12,475	499.00	$0.0400 \\ 0.0400$
Imperial Capital	21,000	840.00 1,056.75	0.0400
Instinct	51,800 3,178,000		0.0204 $0.0075$
Investment Technology Crn	33,409,132	23,835.03 587,764.05	0.0075
Investment Technology Grp ISI Group	4,075,700	163,028.00	0.0400
Jefferies & Co	3,763,359	148,399.61	0.0394
JJB Hilliard WL Lyons	3,965,100	158,604.00	0.0400
JMP Securities	33,800	1,047.00	0.0310
Jones & Associates	38,210	1,528.40	0.0400
JP Morgan & Chase	126,600	13,969.62	0.1103
Keefe Bruyette & Woods	14,488	624.52	0.0431
Knight Equity Markets	159,369	5,166.06	0.0324
Lazard Freres & Co	5,727,900	229,116.00	0.0400
Lehman Brothers	5,214,076	227,438.16	0.0436
Lexington Investment Co	1,569,012	62,760.48	0.0400
Liquidnet Inc	1,962,143	38,147.86	0.0194
Merrill Lynch	8,233,638	198,511.85	0.0241
/	, , ,	<i>'</i>	•

#### Transaction Commissions continued . . .

COMPANIES	SHARES TRADED	COMMISSIONS	COMMISSION PER SHARE
Morgan Keegan	3,173,800	126,952.00	0.0400
Morgan Stanley	6,546,293	242,841.69	0.0371
Murphy & Durieu	30,400	684.00	0.0225
Needham	8,700	348.00	0.0400
OTA Limited Partners	1,800	72.00	0.0400
Pipeline Trading	1,100	16.50	0.0150
Piper Jaffray	31,400	2,330.00	0.0742
Pulse Trading	33,950	763.88	0.0225
R W Baird	84,375	3,375.00	0.0400
Raymond James & Assoc	6,528,850	261,191.25	0.0400
RBC Capital Markets	11,600	464.00	0.0400
Robbins & Henderson	4,300	96.75	0.0225
Ross Sinclaire & Assoc	2,422,200	96,888.00	0.0400
Sandler O'Neill	44,600	1,784.00	0.0400
Sanford C Bernstein	22,300	367.00	0.0165
SG Cowen	3,900	156.00	0.0400
Source Trading	26,500	596.25	0.0225
State Street Global	93,300	2,799.00	0.0300
Sterne Agee & Leach	5,300	212.00	0.0400
Stifel Nicolaus & Co	3,151,200	126,048.00	0.0400
Suntrust Robinson	4,000	160.00	0.0400
Thomas Weisel Partners	17,000	703.00	0.0414
<b>UBS/Paine Webber Securities</b>	5,721,857	104,092.33	0.0182
UBS/Paine Webber-Louisville	7,186,800	287,472.00	0.0400
Wachovia / First Clearing Corp	193,835	7,753.40	0.0400
Wedbush Morgan Securities	2,200	88.00	0.0400
Weeden & Co	4,068,716	162,748.64	0.0400
Grand Total	135,763,979	4,260,921.27	0.0314

The over-the-counter commission rate on medium to large capitalization stocks is assumed to be \$.04 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 2007-08, the System bought small capitalization IPOs that generated \$122,317.53 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 \$4,260,921.27. 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 Lynch Jones Ryan, Merrill Lynch and Lehman Brothers. Trading commissions of \$97,692.00 were associated with third party research obligations. The primary research providers were: Bloomberg, Interactive Data, Rogers Casey, RiskMetrics Group, QED Financial Systems, and Thomson Financial.

#### Ten Largest Stock Holdings Ranked (1) (2) by Market Value 06/30/08

<u>Rank</u>	<u>Name</u>	<u>Market Value</u>	Percentage of Equities
1	Microsoft	160 970 995	2.062
1		168,279,825	
2	Exxon Mobil Corp	148,957,326	1.825
3	General Electric	127,243,881	1.559
4	Chevron Corp	121,034,459	1.483
5	A T & T	108,320,122	1.327
6	ConocoPhillips	103,125,039	1.263
7	Intel Corp	99,282,708	1.216
8	Cisco Systems Inc	95,772,655	1.173
9	Qualcomm Inc	94,839,544	1.162
10	AFLAC Inc	87,262,672	1.069

#### Top Ten Fixed Income Holdings (2) by Market Value 06/30/08

Rank Description	<u>Maturity</u>	<u>Coupon</u>	<u>Par</u>	Market Value	Percent of Fixed Income
1 U S Treasury Bonds	08/15/23	6.250	102,000,000.00	121,356,540.00	2.836
2 U S Treasury Notes	04/30/12	4.500	75,555,000.00	79,202,795.40	1.851
3 U S Treasury Notes	05/15/15	4.125	53,000,000.00	54,768,080.00	1.280
4 FNMA Notes	11/15/21	5.625	54,000,000.00	54,759,240.00	1.280
5 U S Treasury Bonds	02/15/21	7.875	33,500,000.00	44,664,880.00	1.044
6 U S Treasury Bonds	08/15/21	8.125	29,815,000.00	40,732,358.55	0.952
7 U S Treasury Bonds	08/15/29	6.125	30,000,000.00	36,185,100.00	0.846
8 U S Treasury Bonds	11/15/26	6.500	29,000,000.00	35,848,930.00	0.838
9 U S Treasury Bonds	05/15/16	7.250	27,500,000.00	33,788,425.00	0.790
10 FNMA Notes	01/15/30	7.125	25,000,000.00	31,172,000.00	0.729

<sup>(1)</sup> Includes only actively managed separate accounts

<sup>(2)</sup> 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 selected domestic stocks and bonds are the types of securities lent. The System's sub-custodian, The Bank of New York Mellon, acts as ending 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, 2008, approximately \$1.3 billion in defined benefit pension payments were distributed to annuitants living in Kentucky. Approximately \$330 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 Consultants**

Becker, Burke Associates, Inc. Ennis Knupp + Associates

#### Investment Custodian/Subcustodian

Farmers Bank and Capital Trust Co. The Bank of New York Mellon

#### **Fixed Income Managers**

Galliard Capital Management Ft. Washington Investment Advisors

#### **Domestic Equity Managers**

Todd Investment Advisors UBS Global Asset Management Wellington Management Company GE Asset Management

#### **International Equity Managers**

Todd Investment Advisors UBS Global Asset Management Baring Asset Management, Inc. Baillie Gifford

#### **Real Estate Managers**

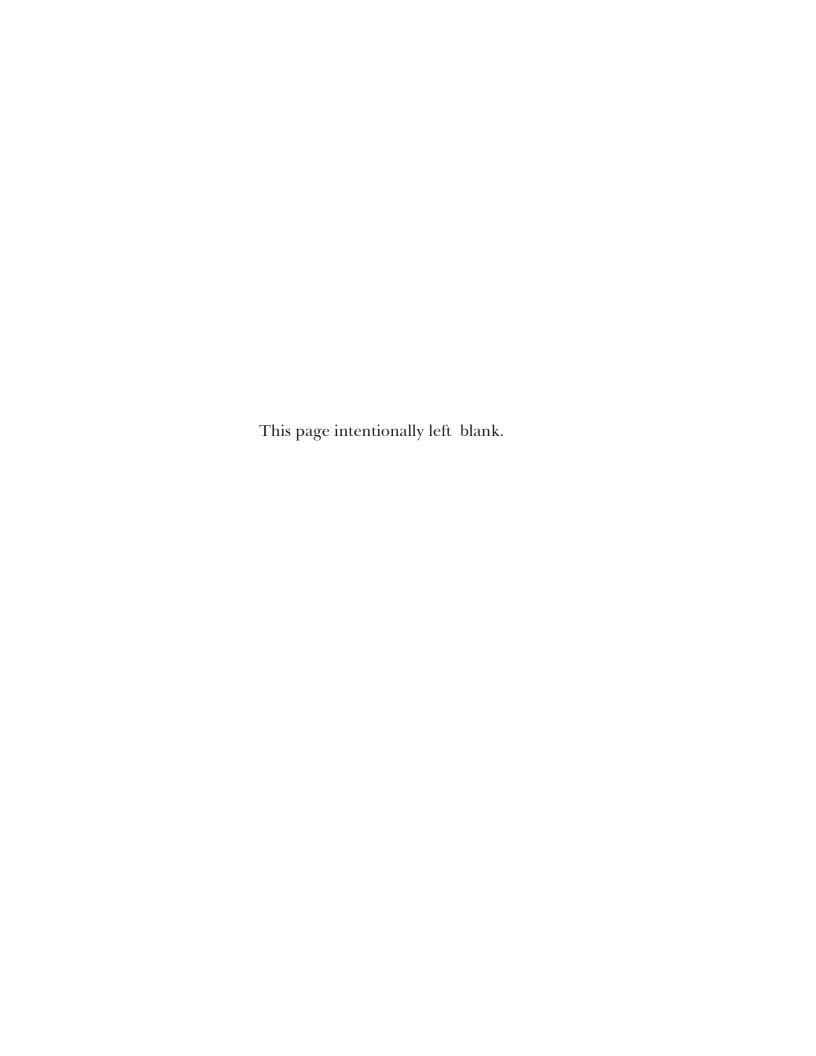
**Prudential Real Estate Investors** 

#### **Private Equity/Venture Capital Managers**

Kohlberg Kravis Roberts & Co. Chrysalis Ventures Fort Washington Private Equity Investors

#### **Timberland Managers**

Molpus Woodlands Group Hancock Natural Resources Group



# ACTUARIAL SECTION

## Report of the Actuary on the Annual Valuation

for Fiscal Year ending June 30, 2008



#### Cavanaugh Macdonald

CONSULTING, LLC

December 5, 2008

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, 2008. While not verifying the data at source, the actuary performed tests for consistency and reasonability. The valuation indicates that combined member and state contributions for the fiscal year ending June 30, 2011 at the rate of 26.07% of university members' salaries and 29.03% of non-university members' salaries are required to support the benefits of the System. This represents an increase since the previous valuation in the required employer contribution rate of 1.00% of payroll for the 2010/2011 fiscal year. There has been a net decrease in the expected state special appropriation from 4.28% to 4.15%, or -0.13% of payroll.

Therefore, for the 2010/2011 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 3.59%; 1.13% from this valuation and 2.46% 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 2008 Session of the Legislature. 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 will be reflected in the June 30, 2009 valuation

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. Therefore, there is a Net Pension Obligation (NPO) under GASB 27 for the fiscal year ending June 30, 2008.

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.

Respectfully submitted,

Edward A. Macdonald, ASA, FCA, MAAA

President

Edward J. Koebel, EA, FCA, MAAA

Senior Actuary

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

#### Report of Actuary on the Valuation Prepared as of June 30, 2008 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, 2008	June 3	0, 2007		
Number of active members Annual salaries	75,539 \$ 3,190,332		75,144 \$ 2,945,289			
Number of annuitants and beneficiaries Annual allowances	\$ 1	40,739 ,206,812	\$ 1,1	39,506 35,635		
Assets Market value Actuarial value		,076,692 ,321,325		£21,092 £84,955		
Unfunded actuarial accrued liability	\$ 7	,138,979	\$ 5,970,019			
Amortization period (years)		30		30		
Pension Plan:	University	Non- University	University	Non- University		
Normal Accrued liability Total	$\begin{array}{c} 13.450\% \\ \underline{12.620} \\ \underline{26.070}\% \end{array}$	17.110 % 11.920 29.030 %	$13.820\%$ $\underline{11.250}$ $\underline{25.070}\%$	17.340 % 10.690 28.030 %		
Member State (ARC) Total	$7.625\%$ $\underline{18.445}$ $26.070\%$	9.105% $19.925$ $29.030%$	$7.625\% \\ \underline{17.445} \\ 25.070\%$	9.105% $18.925$ $28.030%$		
Life Insurance Fund: State	0.170%	0.170%	0.170%	0.170%		
Medical Insurance Fund:	0.750% $0.750$ $0.000$ $1.500%$ $27.740%$	$0.750\% \\ 0.750 \\ 0.000 \\ \hline 1.500 \%$ $30.700\%$	$0.750\% \\ 0.750 \\ \underline{0.000} \\ 1.500\%$ $\underline{26.740\%}$	0.750% 0.750 0.000 1.500% 29.700%		
Contribution rates for fiscal year ending:	June 30, 2011		June 30, 2011 June		June 30	, 2010
Member Statutory State Statutory Required Increase State Special Total	8.375% $11.625$ $3.590$ $-4.150$ $27.740%$	9.855% $13.105$ $3.590$ $4.150$ $30.700%$	8.375% $11.625$ $2.460$ $-4.280$ $-26.740%$	$9.855\%$ $13.105$ $2.460$ $\underline{4.280}$ $29.700\%$		



- 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. The valuation indicates that combined member and State contributions at the rate of 26.07% of salaries for university members and at 29.03% for non-university members are sufficient to support the current benefits of the System. Comments on the valuation results as of June 30, 2008 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 2008 Session of the Legislature. 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 will be reflected in the June 30, 2009 valuation.
- 6. All amounts shown prior to the 2004/2005 fiscal year were developed and/or reported by the prior actuarial firm.

#### 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, 2008 on the basis of which the valuation was prepared.

Group	Number	Annual Salaries (\$1,000)
Full Time Part Time	57,439 18,100	\$ 3,069,016 121,316
Total	75,539	\$ 3,190,332

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, 2008

Group	Number	Annual Retirement Allowances <sup>1</sup> (\$1,000)
Service Retirements Disability Retirements Beneficiaries of Deceased Members	35,623 2,155 2,961	\$ 1,106,145 52,960 
Total	40,739	\$ 1,206,812

<sup>&</sup>lt;sup>1</sup>Includes cost-of-living adjustments effective through July 1, 2008.

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, 2008 the market value of Pension Plan assets for valuation purposes held by the System amounted to \$14,076,692,181. 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, 2008 was \$15,321,325,033. Schedule B shows the development of the actuarial value of assets as of June 30, 2008.
- 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 \$8,874,483,618 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 \$13,385,235,262 of which \$1,040,362,185 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 \$200,584,896. The total actuarial accrued liability of the System amounts to \$22,460,303,776. Against these liabilities, the System has present assets for valuation purposes of \$15,321,325,033. When this amount is deducted from the actuarial accrued liability of \$22,460,303,776, there remains \$7,138,978,743 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 13.45% of payroll for university members and 17.11% for non-university members.

#### Section V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

- 1. Section 161.540 of the retirement law provides that each university member will contribute 8.375% of annual salary to the System and each non-university member will contribute 9.855% of annual salary. Of this amount, 0.75% is paid to the Medical Insurance Fund for medical benefits leaving 7.625% for university members and 9.105% for non-university members applicable for the retirement benefits taken into account in the valuation.
- 2. 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 2010/2011 fiscal year, we recommend that the Board allocate the entire 3.25% towards the Pension Plan.
- 3. Therefore, 10.875% of active university members' salaries and 12.355% of active non-university members' salaries is funded by statute or supplemental funding for the Pension Plan and Life Insurance Fund. Of this amount, 0.17% of payroll will be allocated to the Life Insurance Fund. Based on the results of the valuation, an additional 3.59% 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 4.15% of total payroll will be made by the State. The total required employer contribution rate to the Pension Plan is, therefore, 18.445% for university members and 19.925% for non-university members. The total member and employer contribution rates to the Pension Plan are shown in the following table.



Contribution Rates by Source			
NON-UNIVERSITY			
9.855%			
<u>(0.750</u> )			
9.105%			
9.855			
(0.750)			
3.250			
12.355%			
(0.170)			
3.590			
4.150			
19.925%			
29.030%			

4. The valuation indicates that normal contributions at the rate of 13.45% of active university members' salaries are required to meet the cost of benefits currently accruing. The normal rate for non-university members is 17.11%. 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 12.62% for university members and 11.92% for non-university members. These rates include special appropriations of 4.15% of payroll to be made by the State. These rates are shown in the following table.

İ	PERCENTAGE OF ACTIVE MEMBERS' SALARIES		
Rate	University	   Non-University	
Normal	13.82%	17.34%	
Accrued Liability*	11.25	10.69	
   Total	25.07%	28.03%	

5. The unfunded actuarial accrued liability amounts to \$7,138,978,743 as of the valuation date. Accrued liability contributions at the rate of 12.62% of active university members' payroll and 11.92% of non-university members' payroll 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. The benefit percentage for non-university members is 2.0% for service accrued through July 1, 1983 and 2.5% for service up to 30 years accrued after that date. However, for members who join the System on or after July 1, 2002 and retire with less than 10 years of service, the benefit percentage is 2.0%. For members who joined the System on or after July 1, 2002, who retire with 10 or more years of service, the benefit percentage is 2.5% for all years of service up to 30 years. For all members who retire on or after July 1, 2004, the benefit percentage for service earned in excess of 30 years is 3.0%. The total net contribution rate is 29.03% of payroll for non-university members. For university members the benefit percentage is 2.0% for all service and the contribution rate is 26.07%. Our calculations indicate that these contribution rates 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. 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 will be reflected in the June 30, 2009 valuation.
- 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 3.59%, 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. Payments are being made to repay these loans, but the borrowing is expected to continue in the future. The following table shows the amounts borrowed, annual payments and remaining balances as of June 30, 2008:

	Medical Insurance Fu	nd - Stabilization Funding	Balances as
	Loan Amount	Annual Payment	of July 1, 2008
2004/2005 2005/2006 2006/2007 2007/2008 Total	\$ 29,169,700 62,294,800 73,000,000 125,000,000 \$ 289,464,500	\$ 4,249,600 9,075,500 10,207,400 18,280,000 \$ 41,812,500	\$ 22,508,563 53,157,766 64,341,800 125,000,000 \$265,008,129

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 3.59% of payroll for the fiscal year ending June 30, 2011, as shown in the following table:

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	A
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	IJ.

Valuation Date	Fiscal Year	Increase	<b>Cumulative Increase</b>
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

In addition, as existing special contributions expire, the statutory contributions or supplemental funding will be required to increase as an equal percentage of payroll, in order to amortize the unfunded liability within 30 years. Any further benefit improvements must be accompanied by the entire additional contributions necessary to support the benefits.

#### Section VII - ANALYSIS OF FINANCIAL EXPERIENCE

The following table shows the estimated gain or loss from various factors that resulted in an increase of \$1,168,959,470 in the unfunded accrued liability from \$5,970,019,273 to \$7,138,978,743 during the year ending June 30, 2008.

(Dollar amounts in thousands)	Amount of Increase/(Decrease)
Interest (7.50%) added to previous unfunded accrued liability Expected accrued liability contribution Contributions allocated to the Medical Insurance Fund (MIF) for	\$ 447,751 (299,751)
Stabilization Funding during 2006/2007 fiscal year with interest	129,398
Repayment of prior year's MIF Stabilization Funding	(28,488)
Experience:	
Valuation asset growth	668,626
Pensioners' mortality	9,428
Turnover and retirements	(26,001)
New entrants	57,003
Salary increases	210,993
Amendments	0
Assumption and method changes	0
TOTAL	\$ 1,168,959 ———————————————————————————————————

#### 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, 2008					
GROUP	NUMBER				
Retirees and Beneficiaries currently receiving benefits	40,739				
Terminated employees entitled to benefits but not yet receiving benefits	4,861				
Active Plan Members	75,539				
TOTAL	121,139				

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

Schedule of Funding Progress (Dollar amount in thousands)							
Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Projected Unit Credit (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ( (b-a)/c)	
6/30/2003	\$13,863,786	\$ 16,594,781	\$ 2,730,995	83.5%	\$2,497,731	109.3%	
6/30/2004	14,255,131	17,617,626	3,362,495	80.9	2,641,533	127.3	
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	

3. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2008. Additional information as of the latest actuarial valuation follows.

Valuation Date	06/30/2008	Actuarial Assumptions:
Actuarial cost method	Projected unit credit	Investment Rate of Return* 7.50% Projected Salary Increases*
Amortization method	Level percent of pay, open	4.00 - 8.20%
Remaining amortization period	30 years	Cost-of-Living Adjustments 1.50% Annually
Asset valuation method	5-year smoothed market	*Includes Inflation at 4.00%



Schedule of Employer Contributions							
<b>Annual Required Contributions</b>	Increase						
\$ 322,046,968	100%						
364,351,412	100						
383,776,826	100						
406,107,266	100						
494,565,369	85						
563,789,483	78						
	Annual Required Contributions  \$ 322,046,968						

4. Following is the calculation of the annual pension cost and net pension obligation for the fiscal year ending June 30, 2008:

#### Annual Pension Cost and Net Obligation for Fiscal Year Ending June 30, 2008

(a)	Employer annual required contribution	\$ 563,789,483
(b)	Interest on net pension obligation	11,205,780
(c)	Adjustment to annual required contribution	 35,445,598
(d)	Annual pension cost: (a) + (b) - (c)	539,549,665
(e)	Employer contributions made for fiscal year ending June 30, 2008	 438,789,483
(f)	Increase (decrease) in net pension obligation: (d) - (e)	100,760,182
(g)	Net pension obligation beginning of fiscal year	 149,410,401
(h)	Net pension obligation end of fiscal year: (f) + (g)	\$ 250,170,583

TREND INFORMATION							
Year <u>Ending</u>	Annual Pension Cost (APC)	Percentage of APC Contributed	Net Pension Obligation (NPO)				
June 30, 2006	\$ 406,107,266	100%	\$ O				
June 30, 2007	476,544,275	100	149,410,401				
June 30, 2008	539,549,665	88	250,170,583				



#### **SCHEDULE A**

#### Results of the Valuation Prepared as of June 30, 2008 (\$1,000's)

#### 1. ACTUARIAL ACCRUED LIABILITY

Present value of prospective benefits payable in respect of:

- (a) Present active members:
  - Service retirement benefits
    Disability retirement benefits
    Death and survivor benefits
    Refunds of member contributions
    \$ 8,281,186
    374,926
    68,878
    149,494

Total \$ 8,874,484

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

200,585

(c) Present annuitants and beneficiaries:

Service retirement benefits 12,525,471
Disability retirement benefits 426,776
Death and survivor benefits 432,988

Total 13,385,235

(d) Total actuarial accrued liability

22,460,304

2. PRESENT ASSETS FOR VALUATION PURPOSES

15,321,325

3. Unfunded Actuarial Accrued Liability

[1(d)-2]

\$ 7,138,979

4.	NOR	MAL CONTRIBUTION RATE	UNIVERSITY	NON-UNIVERSITY
	(a)	Actuarial present value of benefits accruing annually	\$ 25,967	512,772
	(b)	Annual payroll of active members	\$ 193,007	2,997,325

(c) Normal contribution rate [4(a) divided by 4(b)]

193,007 2,997,325 13.45% 17.11%

#### **Solvency Test**

(in millions of dollars)

Fiscal Year	(1) Active Member Contributions	(2) Retirants and Beneficiaries	( Active Membe (Employer Finance Portio	ed Valuation
6/30/2003	\$ 2,413.9	\$ 9,329.3	\$ 4,851.	6 \$ 13,863.8
6/30/2004	2,546.1	9,906.2	5,165.	3 14,255.1
6/30/2005	2,621.3	11,370.4	5,143.	2 14,598.8
6/30/2006	2,615.8	12,216.6	5,492.	4 14,857.6
6/30/2007	2,762.8	12,843.7	5,648.	5 15,285.0
6/30/2008	2,899.0	13,585.8	5,975.	5 15,321.3
	Fiscal Year	(1)	(2)	(3)
Portion of	6/30/2003	100%	100%	44%
Accrued	6/30/2004	100	100	35
Liabilities	6/30/2005	100	100	12
Covered	6/30/2006	100	100	0
by	6/30/2007	100	97	0
Assets	6/30/2008	100	91	0



	SCHEDULE B Development of Actuarial Value of Assets as of June 30, 2008							
(1)	Actuarial Value of Assets Beginning of Year	\$ 15,286,452,192*						
(2)	Market Value of Assets End of Year	14,076,692,181						
(3)	Market Value of Assets Beginning of Year	15,422,590,096*						
(4)	Cash Flow  a. Contributions  b. Benefit Payments  c. Administrative Expense  d. Net: (4)a - (4)b - (4)c  Investment Income  a. Market total: (2) - (3) - (4)d	757,671,730 1,186,934,184 7,551,936 (436,814,390) (909,083,525)						
	<ul> <li>a. Market total: (2) - (3) - (4)d</li> <li>b. Assumed Rate</li> <li>c. Amount for Immediate Recognition:         <ul> <li>[ (3) x (5)b ] + [ (4)d x (5)b x 0.5 ]</li> </ul> </li> <li>d. Amount for Phased-In Recognition: (5)a - (5)c</li> </ul>	(\$09,003,323) 7.50% 1,140,313,718 (2,049,397,243)						
(6)	Phased-In Recognition of Investment Income  a. Current Year: 0.20 x (5)d  b. First Prior Year  c. Second Prior Year  d. Third Prior Year  e. Fouth Prior Year  f. Total Recognized Investment Gain	(409,879,449) 190,240,386 (75,996,339) (23,843,540) (349,147,545) (668,626,487)						
(7)	Actuarial Value of Assets End of Year: (1) + (4)d + (5)c + (6)f	15,321,325,033						
(8)	Difference Between Market & Actuarial Values: (2) - (7)	\$ (1,244,632,852)						

#### SCHEDULE C

#### PENSION PLAN ASSETS

#### Summary of Receipts & Disbursements\*

(Market Value)

#### For the Year Ending

RECEIPTS FOR THE YEAR Contributions	<u>June 30, 2008</u>	June 30, 2007
Members	\$ 291,423,948	\$ 269,687,864
Employers	466,247,782	434,890,468
Total	757,671,730	704,578,332
Net Investment Income	(909,083,525)	2,057,397,493
TOTAL	$\frac{(363,366,323)}{(151,411,795)}$	2,761,975,825
DISBURSEMENTS FOR THE YEAR		
Benefits Payments	1,170,969,101	1,102,538,879
Refunds to Members	15,965,083	14,822,827
Medical Insurance Payments	0	0
Miscellaneous, including expenses	7,551,936	7,351,846
TOTAL	1,194,486,120	1,124,713,552
EXCESS OF RECEIPTS OVER DISBURSEMENTS	(1,345,897,915)	1,637,262,273
RECONCILIATION OF ASSET BALANCES		
Asset Balance as of the Beginning of the Year	15,422,590,096 **	13,783,830,173
Excess of Receipts over Disbursements	(1,345,897,915)	1,637,262,273
Asset Balance as of End of the Year	<del></del>	
	\$ 14,076,692,181	\$ 15,421,092,446

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

\*\* Adjusted since previous valuation.



#### 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 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:

			WITHDRAWAL			RETIREMENT		
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%	l			
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		25.0%	
45	0.064	0.22	9.50	2.50	1.50		20.0	
50	0.104	0.42	10.00	4.00	3.00		35.0	
55	0.216	0.60	11.00	3.00	2.70	6.0%	25.0	
60	0.375	0.79	11.00	3.00	2.70	14.0	23.0	
62	0.438	0.83	11.00	3.00	2.70	14.0	35.0	
65	0.566	0.90	11.00	3.00	2.70	22.5	100.0	
70	0.905	0.00	0.00	0.00	0.00	100.0		

<sup>\*</sup>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						
	WITHDRAWAL RETIREMENT				Γ		
AGE	DEATH	DISABILITY	0 - 4	5 - 9	10+	Before 27 Years of Service	After 27 Years 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
		l İ					

<sup>\*</sup>Plus 5% before age 55 and 20% 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 A	fter .	

	Service 1	Retirement	Disability	Retirement
Age	MALE	FEMALE	MALE	FEMALE
45 50 55 60 65 70 75 80 85 90	0.1578% 0.2579 0.4425 0.7976 1.4535 2.3730 3.7211 6.2027 9.7240 15.2931 23.3606	0.0973% 0.1428 0.2294 0.4439 0.8636 1.3730 2.2686 3.9396 6.7738 11.6265 18.6213	6.500% 10.000 10.000 9.000 10.000 6.500 7.000 10.000 12.500 15.000 23.368	6.500% 10.000 10.000 9.000 10.000 4.500 6.000 6.500 7.500 17.500 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, 2008. 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 will be 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

**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 actuarial equivalent factors 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.

#### **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:

Number of Children	<b>Annual Allowance</b>
1	\$ 2,400
2	4,080
3	4,800
4 or more	5,280

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

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

#### **Options:**

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

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

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



#### KENTUCKY TEACHERS' RETIREMENT SYSTEM

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

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

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

#### Post-Retirement Adjustments

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

#### 3. CONTRIBUTIONS

#### **Member Contributions**

University members contribute 8.375% of salary of which 7.625% is contributed to the Retirement System and 0.75% is contributed to the Medical Insurance Fund. Non-university 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.



#### SCHEDULE F Table 1 Age - Service Table

Distribution of Active Members as of June 30, 2008 by Age and Service Groups

**Completed Years of Service** 

	Completed Teals of Service								
Attatined 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	2,733 40,156,278 14,693								2,733 40,156,278 14,693
25 to 29 Total Pay Avg. Pay	7,737 226,985,257 29,338	1,244 55,162,946 44,343							8,981 282,148,203 31,416
30 to 34 Total Pay Avg. Pay	3,824 109,014,464 28,508	4,651 215,186,990 46,267	716 38,055,186 53,150						9,191 362,256,640 39,414
35 to 39 Total Pay Avg. Pay	3,127 82,804,226 26,480	2,701 126,588,449 46,867	3,741 206,390,005 55,170	696 41,204,804 59,202					10,265 456,987,484 44,519
40 to 44 Total Pay Avg. Pay	3,884 76,518,540 19,701	1,592 76,734,470 48,200	1,836 101,966,614 55,537	2,585 155,651,263 60,213	626 38,970,337 62,253				10,523 449,841,224 42,748
45 to 49 Total Pay Avg. Pay	1,942 48,048,107 24,742	1,311 64,439,406 49,153	1,290 72,824,251 56,453	1,398 85,020,118 60,816	2,226 140,513,875 63,124	583 38,127,851 65,399			8,750 448,973,608 51,311
50 to 54 Total Pay Avg. Pay	1,808 37,799,289 20,907	1,107 55,399,696 50,045	1,179 67,881,950 57,576	1,318 80,824,830 61,324	1,388 90,155,860 64,954	1,643 109,389,413 66,579	639 43,184,738 67,582		9,082 484,635,776 53,362
55 to 59 Total Pay Avg. Pay	2,991 52,396,113 17,518	775 40,966,577 52,860	918 53,795,878 58,601	1,086 68,408,653 62,991	1,107 72,964,249 65,912	762 53,284,559 69,927	826 62,979,695 76,247	124 10,384,836 83,749	8,589 415,180,560 48,339
60 to 64 Total Pay Avg. Pay	2,539 37,225,994 14,662	380 20,763,246 54,640	368 23,223,662 63,108	459 29,893,634 65,128	505 34,749,706 68,811	278 20,422,141 73,461	129 10,455,098 81,047	133 11,722,331 88,138	4,791 188,455,812 39,335
65 & over Total Pay Avg. Pay	2,022 19,805,734 9,795	102 5,623,767 55,135	86 5,460,182 63,490	97 6,432,333 66,313	126 8,488,526 67,369	67 4,896,583 73,083	54 4,198,098 77,743	80 6,791,435 84,893	2,634 61,696,658 23,423
Total Total Pay Avg. Pay	32,607 730,754,002 22,411	13,863 660,865,547 47,671	10,133 569,597,728 56,212	7,639 467,435,635 61,191	5,978 385,842,553 64,544	3,333 226,120,547 67,843	1,649 120,817,629 73,267	337 28,898,602 85,753	75,539 3,190,332,243 42,234

Average Age: 43.3

Average Service 10.4



#### **SCHEDULE F**

Table 2

Number of Retired Members and Beneficiaries and their Benefits by Age

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefits
49 & Under	770	\$ 8,775,677	\$ 11,397
50 - 54	1,588	50,193,641	31,608
55 - 59	6,907	243,164,138	35,205
60 - 64	9,456	315,956,441	33,413
65 - 69	7,319	229,752,845	31,391
70 - 74	5,032	143,385,189	28,495
75 - 79	3,849	99,163,829	25,764
80 & Over	5,818	116,420,533	20,010
Total	40,739	\$1,206,812,293	\$ 29,623



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

Add Remove Rolls Endto Rolls from Rolls of-Year

Fiscal Year	All Number (I	Annual owances Millions)	Number	Annual Allowances (Millions)	Number	Annual Allowances (Millions)
1999	2,415	\$ 73.9	998	\$ 13.9	29,161	\$ 554.0
2000	2,462	79.2	1,008	14.1	30,615	619.2
2001	2,410	77.0	1,128	16.5	31,897	679.8
2002	2,577	86.2	1,063	16.8	33,408	749.2
2003	2,252	86.7	1,015	16.9	34,645	819.0
2004	2,126	85.4	1,033	17.5	35,738	887.0
2005	2,644	105.1	1,036	18.9	37,346	973.1
2006	2,266	121.1	1,115	20.0	38,497	1,074.2
2007	2,050	82.1	1,041	20.7	39,506	1,135.6
2008	2,183	90.6	950	19.4	40,739	1,206.8

Fiscal Year	% Increase in Annual Allowances	Average Annual Allowances
1999	12.1%	\$ 19,000
2000	11.8	20,226
2001	9.8	21,311
2002	10.2	22,425
2003	9.3	23,641
2004	8.3	24,819
2005	9.7	26,058
2006	10.4	27,902
2007	5.7	28,746
2008	6.3	29,623





# ACTUARIAL SECTION

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

for Fiscal Year ending June 30, 2008



#### Cavanaugh Macdonald

CONSULTING, LLC

December 5, 2008

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 actuarial valuations of retiree medical and other post employment benefit plans. This report covers the Medical Insurance Fund and OPEB liabilities related to the Life Insurance Fund. We have submitted the results of the annual actuarial valuation prepared as of June 30, 2008. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The valuation indicates that a total annual required contribution of 14.59% of active member payroll for the Medical Insurance Fund payable for the fiscal year ending June 30, 2011 is required to support the benefits of the Kentucky Employees Health Plan and the Medicare Eligible Health Plan. Of this amount, 0.75% of payroll is paid by the members leaving 13.84% as the State contribution. This required State contribution reflects the assets currently held in the Medical Insurance Fund. Since the State contributions are less than the required levels, the discount rate for valuing liabilities is 4.5%. Schedule A shows the decrease in liabilities of the medical plans if the required contributions were made each year and the funded discount rate of 7.5% could be utilized. Since the full amount of the Annual Required Contribution (ARC) is not being contributed to the Medical Insurance Fund each year, there will be a Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2008, as shown in Section VII.

The Medical Insurance Fund valuation takes into account the effect of amendments to the medical plans enacted through the 2008 Session of the Legislature. The actuarial accrued liability increased from \$5.9 billion in 2007 to \$6.4 billion in 2008.

The Life Insurance Fund valuation indicates that a total annual required contribution of 0.05% of active member payroll payable for the fiscal year ending June 30, 2011 is required to support the benefits of the Life Insurance Plan. The current contribution rate of 0.17% of active member payroll payable for the fiscal year ending June 30, 2011 exceeds the amount sufficient to support the benefits of the Life Insurance Fund. With the State contributions to the Life Insurance Funds exceeding the required levels, the discount rate for valuing liabilities is 7.5%. Additionally, as an amount exceeding the Annual Required Contribution (ARC) is being contributed to the Life Insurance Fund each year, the Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2008 is less than zero.

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 the actuary and adopted by the Board are in the 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 45.

We have 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 required levels, the medical Plans will begin to operate in an actuarially sound basis. Assuming that required contributions to the 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 Fund to provide the benefits called for under the Plans will improve.

Respectfully submitted

Edward A. Macdonald, ASA, FCA, MAAA

President

Alisa Bennett, ASA, EA, FCA, MAAA Senior Actuary

3550 Busbee Pkwy, Suite 250, Kennesaw, GA 30144

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

Prepared as of June 30, 2008

#### 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, 2008	June 30, 2007			
Number of active members Annual salaries	75,539 \$ 3,190,332	75,144 \$ 2,975,289			
Number of annuitants in medical plans Number of spouses and	32,591	31,642			
beneficiaries in medical plans* Total	$\frac{6,678}{39,269}$	6,674 38,316			
Assets:					
Market value	\$ 185,883	\$ 140,772			
Unfunded actuarial accrued liability	\$ 6,248,639	\$ 5,787,989			
Amortization period (years) Discount rate	$30 \\ 4.50\%$	30 4.50%			
Contribution for fiscal year ending:	June 30, 2011	June 30, 2010			
Normal	7.60%	7.53%			
Accrued liability	6.99%	6.95%			
Total	14.59%	14.48%			
Member	0.75%	0.75%			
State (ARC)	13.84%	13.73%			
Total	14.59%	14.48%			

s, pay

fe Insurance Fund ~	
June 30, 2008	June 30, 2007
75,539	75,144
\$ 3,190,332	\$ 2,975,289
37,778	36,616
\$ 77,658	\$ 71,426
\$ 6,607	\$ 11,296
30	30
7.50%	7.50%
June 30, 2011	June 30, 2010
0.04%	0.04%
0.01%	0.02%
0.05%	0.06%
	June 30, 2008  75,539 \$ 3,190,332  37,778  \$ 77,658 \$ 6,607

Includes liability for death in active service. This amount could be segregated from the OPEB liability and assets could be split for pre 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 that combined member and State contributions of 14.59% of active member payroll would be sufficient to support the current benefits of the medical plans and combined member 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, 2008 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. There have been no changes since the previous valuation.
- 4. The valuation takes into account the effect of amendments to the medical plans enacted through the 2008 Session of the Legislature.
- 5. All amounts shown prior to the 2005 valuation year were developed and/or reported by the prior actuarial firm.

#### 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 Retirement System office. The following table shows the number of active members and their annual salaries as of June 30, 2008 on the basis of which the valuation was prepared.

Group	Number	Annual Salaries (\$1,000)
Full Time	57,439	\$ 3,069,016
Part Time	<u> 18,100</u>	<u>121,316</u>
Total	75,539	\$ 3,190,332



#### **Section III - ASSETS**

- 1. As of June 30, 2008 the market value of Medical Insurance Fund assets for valuation purposes held by the medical plans amounted to \$185,883,223 and the market value of Life Insurance Fund assets for valuation purposes held by the life insurance plans amounted to \$77,658,203.
- 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 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 \$3,350,166,476 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 \$3,084,356,138. The total actuarial accrued liability of the medical plans amounts to \$6,434,522,614. Against these liabilities, the medical plans have present assets for valuation purposes of \$185,883,223. When this amount is deducted from the actuarial accrued liability of \$6,434,522,614 there remains \$6,248,639,391 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 \$242,335,245, or 7.60% of payroll.
- 4. The valuation shows that the life insurance plan has an actuarial accrued liability of \$17,395,022 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 \$66,870,544. The total actuarial accrued liability of the life insurance plan amounts to \$84,265,566. 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 pre 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. Against these liabilities, the life insurance plan has present assets for valuation purposes of \$77,658,203. When this amount is deducted from the actuarial accrued liability of \$84,265,566 there remains \$6,607,363 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 \$1,152,310, or 0.04% of payroll.



#### Section V - CONTRIBUTIONS PAYABLE UNDER THE SYSTEM

1. Section 161.420(5) of the Kentucky Revised Statutes provides that members and the State will each contribute 0.75% of salary to the Medical Insurance Fund. We recommend that the State contribution increase to the required amount of 13.84% of payroll. The State is currently contributing 0.17% of salary to the Life Insurance Fund. Our valuation indicates a contribution of 0.05% is required to sufficiently support the benefits of the life insurance plan.

For	Required Contribution : Fiscal Year Ending June	
	Medical Insurance Fund	Life Insurance Fund
Normal	7.60%	0.04%
Accrued liability	6.99%	0.01%
Total	14.59%	0.05%
Member	0.75%	0.00%
State (ARC)	13.84%	0.05%
Total	14.59%	0.05%

- 2. The valuation indicates that a total normal contribution of 7.60% 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 6.99% of payroll for the medical plans and 0.01% of payroll for the life insurance plan.
- 3. The unfunded actuarial accrued liability amounts to \$6,248,639,391 for the medical plans and \$6,607,363 for the life insurance plan as of the valuation date. An accrued liability contribution of 6.99% 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 monthly contribution for retirees to opt into the medical plan is based on years of service at retirement, and can also vary by plan election, Medicare eligibility and tobacco use. Contributions for spouses of retirees are targeted to be 100% of the cost of expected claims. Historically, this target has been achieved for both Medicare and non-Medicare eligible spouses. Current employer contributions have been determined to be insufficient to fund the cost of the benefits to be provided. Benefits and contributions for university and non-university members are identical.
- 2. The valuation indicates that a significant increase in the employer contribution rate is required to fund the medical plans in an actuarially sound manner and to ensure the future solvency of the Medical Insurance Fund. A member contribution of 0.75% of payroll together with a state contribution of 13.84% 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. the employer.

Number of Active and Retired Members in Medical Plan as of June 30, 2008					
GROUP	NUMBER				
Retirees currently receiving health benefits	32,591				
Spouses of retirees currently receiving health benefits	6,678				
Active plan members	75,539				
Total	114,808				

Number of Active and Retired Members in Life Insurance Plan as of June 30, 2008				
GROUP	NUMBER			
Retirees	37,778			
Active plan members	75,539			
Total	113,317			



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

(Dollar amount in thousands)

	1	Actuarial Accrued				
		Liability				UAAL as a
		(AAL)	Unfunded			Percentage
Actuarial	Actuarial Value	Projected Unit	AAL	Funded	Covered	of Covered
Valuation	ofAssets	Credit	(UAAL)	Ratio	Payroll	Payroll
Date	(a)	(b)	<u>(b-a)</u>	<u>(a/b)</u>	<u>(c)</u>	( (b-a) /c)
6/30/2003	\$165,537	\$2,886,000	\$2,720,463	5.7%	\$2,497,731	108.9%
6/30/2004	158,862	3,166,568	3,007,706	5.0	2,641,533	113.9
6/30/2005	147,311	4,763,947	4,616,636	3.1	2,703,430	170.8
6/30/2006*	131,614	4,341,963	4,210,349	3.0	2,859,477	147.2
6/30/2007**	140,772	5,928,761	5,787,989	2.4	2,975,289	194.5
6/30/2008	185,883	6,434,522	6,248,639	2.9	3,190,332	195.9

<sup>\*</sup> Reflects change in decremental assumptions and plan design.

#### Schedule of Funding Progress Life Insurance Fund

(Dollar amount in thousands)

	A	Actuarial Accrued Liability				UAAL as a
Actuarial Valuation Date	Actuarial Value of Assets (a)	(AAL) Projected Unit Credit (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	Percentage of Covered Payroll ( (b-a)/c)
6/30/2007 6/30/2008	\$71,426 77,658	\$ 82,722 84,265	\$ 11,296 6,607	86.3% 92.2	\$2,975,289 3,190,332	0.38% 0.21

2. The information presented in the required supplementary schedules was determined as part of the actuarial valuation at June 30, 2008. Additional information as of the latest actuarial valuation follows.

#### **Actuarial Assumptions:**

Investment Rate of Return\*
4.50%for Medical &
7.50% for Life Insurance

Healthcare Trend Rate\* 11.00%

Ultimate Trend Rate 5.00%

Year of Ultimate Trend Rate
2015
\*Includes Inflation at 4.00%



<sup>\*\*</sup> Reflects change in discount rate to 4.5% and updating medical trend

Schedule of Employer Contributions Medical Insurance Fund							
Fiscal Year Ending	Annual Required Contribution (ARC) (a)	Actual Employer Contribution (b)	Retiree Drug Subsidy Contribution (c)	Total Contribution (b) + (c)	Percentage of ARC Contributed [(b) + (c)] / (a)		
6/30/2007 6/30/2008	\$ 231,473,321 395,282,164	\$113,258,761 148,954,644	\$ 10,312,361 11,911,565	\$123,571,122 160,866,209	53.4% 40.7		
		Schedule of Em		outions			
		Life Ins	urance Fund				
	Fiscal Year Ending	Annual Required Contribution (ARC) (a)	Actual Employer Contribution (b)	Percentage of ARC Contributed (b)/(a)			
			\$5,022,137	281.3%			

3. The full amount of the Annual Required Contribution (ARC) is not being contributed to the Medical Insurance Fund each year. Therefore, the Annual OPEB Cost (AOC) will be greater than the ARC and there will be a Net OPEB Obligation (NOO) for the fiscal year ending June 30, 2008, as shown in the following table.

Annual OPEB Cost and Net OPEB Obligation for the Medical Insurance Fund for Fiscal Year Ending June 30, 2008				
(a) Employer Annual Required Contribution	\$ 395,282,164			
(b) Interest on Net OPEB Obligation	0			
(c) Adjustment to Annual Required Contribution	0			
(d) Annual OPEB Cost: (a) + (b) - (c)	395,282,164			
(e) Employer contributions for Fiscal Year 2008	160,866,209			
(f) Increase in Net OPEB Obligation: (d) - (e)	234,415,955			
(g) Net OPEB Obligation at beginning of Fiscal Year	0			
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	\$ 234,415,955			



#### **Trend Information for the Medical Insurance Fund**

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2008	\$ 395 282 164	40.7%	\$234 415 955

## Annual OPEB Cost and Net OPEB Obligation for the Life Insurance Fund for Fiscal year Ending June 30, 2008

(a) Employer Annual Required Contribution	\$ 1,914,199
(b) Interest on Net OPEB Obligation	0
(c) Adjustment to Annual Required Contribution	0
(d) Annual OPEB Cost: (a) + (b) - (c)	1,914,199
(e) Employer contributions for Fiscal Year 2008	5,411,249
(f) Increase in Net OPEB Obligation: (d) - (e)	(3,497,050)
(g) Net OPEB Obligation at beginning of Fiscal Year	0
(h) Net OPEB Obligation at end of Fiscal Year: (f) + (g)	\$ (3,497,050)

#### **Trend Information for the Life Insurance Fund**

Fiscal Year Ending	Annual OPEB Cost (AOC)	Percentage of AOC Contributed	Net OPEB Obligation (NOO)
6/30/2008	\$1,914,199	282.7%	(\$3,497,050)



<u>SCHED</u> Benefits of Pre-Fun		1
(1,00		
, ,	Not Pre-Funding Discount Rate 4.50%	Pre-Funding Discount Rate 7.50%
PAYROLL	\$ 3,190,332	\$ 3,190,332
ACTUARIAL ACCRUED LIABILITY		
Present value of prospective benefits payable in respect of:		
<ul> <li>(a) Present active members:</li> <li>(b) Present retired members and covered spouses:</li> <li>(c) Total actuarial accrued liability</li> </ul>	3,350,166 $$	\$ 1,765,322 2,202,885 3,968,207
PRESENT ASSETS FOR VALUATION PURPOSES	185,883	185,883
UNFUNDED ACTUARIAL ACCRUED LIABILITY	\$ 6,248,639	3,782,324
CONTRIBUTIONS FOR FISCAL YEAR ENDING JUNE 30, 2011	:	
Normal Accrued Liability Total	7.60 % 	3.57 % - 6.13 9.70 %
Member State (ARC) Total	0.75 % 13.84 14.59 %	0.75 % 8.95 9.70 %

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

#### For the Year Ending

RECEIPTS FOR THE YEAR Contributions	<u>June 30, 2008</u>	June 30
Members Statutory	© 04 10° 000	\$ 22,39
Payment by Retired Members	\$ 24,125,800	30,7
, ,	31,277,030	
Total Members	55,402,830	53,09
State Statutory Contributions	23,929,322	22,2
State Special	0	5,96
General Fund Surplus (6/2006)	0	12,00
Allotment from Pension Fund	125,000,000	73,0
Total Employer	148,929,322	113,23
Grand Total	204,332,152	166,33
Recovery Income	25,322	9
Medicare D Receipts	11,911,565	10,3
Net Investment Income	8,128,179	6,7
TOTAL	224,397,218	183,39
Disbursements for the Year		
Refunds to Members	10,015	
Medical Insurance Expense	179,276,215	174,2
TOTAL	179,286,230	174,23
Excess of Receipts over Disbursements	45,110,988	9,13
Reconciliation of Asset Balances		
Asset Balance as of the Beginning of the Year	140,772,235	131,6
Excess of Receipts over Disbursements	45,110,988	9,1
Asset Balance as of the End of the Year	\$185,883,223	\$ 140,7



## Schedule B LIFE INSURANCE FUND\* Summary of Receipts & Disbursements (Market Value)

#### For the Year Ending

RECEIPTS FOR THE YEAR	June 30, 2008	June 30, 2007
Contributions		
Members	\$ 0	\$ 0
Employers	5,411,249	5,022,137
Total	5,411,249	5,022,137
Net Investment Income	6,321,491	3,067,738
TOTAL	11,732,740	8,089,875
DISBURSEMENTS FOR THE YEAR		
Benefits Payments	4,003,000	4,245,000
Refunds to Members	0	0
Medical Insurance Payments	0	0
Miscellaneous, including expenses	0	0
TOTAL	4,003,000	4,245,000
EXCESS OF RECEIPTS OVER DISBURSEMENTS	7,729,740	3,844,875
RECONCILIATION OF ASSET BALANCES		
Asset Balance as of the Beginning of the Year	69,928,463	67,581,237
Excess of Receipts over Disbursements	7,729,740	3,844,875
Asset Balance as of End of the Year	\$77,658,203	\$71,426,112
Adjusted since previous valuation		

#### Schedule 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, 2008

**Discount Rate:** 4.5% per annum, compounded annually for medical plans

7.5% per annum, compounded annually for life insurance plans



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

<u>Fiscal Year</u>	Trend	
2009	11.0 %	
2010	10.0	
2011	9.0	
2012	8.0	
2013	7.0	
2014	6.0	
2015 &	5.0	
beyond		
,		

**Age Related Morbidity:** Per capita costs are adjusted to reflect expected medical cost changes related to age. The increase to the net incurred claims was assumed to be:

<u>ParticipantAge</u>	Annual Increase
65-69	3.2 %
70-74	2.4
75-79	1.8
80-84	1.3
85 & over	0.0

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

				Post-6	<u>5</u>
				Hired 6/30/02 a	nd earlier
Years of Service	<u>Pre-65</u>	Hired 7/1/02 and later	Years of Service	Age 65 on 12/31/04 and earlier	Age 65 on 1/1/05 and later
5-9.99	25%	10%	5-9.99	70%	25%
10-14.99	50%	25%	10-14.99	80%	50%
15-19.99	75%	45%	15-19.99	90%	75%
20-24.99	98%	65%	20-24.99	98%	98%
25-25.99	98%	90%	25-25.99	98%	98%
26-26.99	98%	95%	26-26.99	98%	98%
27 or more	98%	98%	27 or more	98%	98%



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

			WIT	HDRAWA	<b>AL</b>	RETIREMENT	
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%			1	
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	1	
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					100.0	100.0

<sup>\*</sup> Plus 5% before age 55 and 15% after age 55 in year when first eligible for unreduced retirement with 27 years of service.

		!	WITI	HDRAW	<b>AL</b>	RETIREMEN	NT
AGE	DEATH	DISABILITY	0 - 4	5 - 9	10+	Before 27 Years of Service	After 27 Years 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	Ì	
40	0.044	0.22	8.50	2.50	1.50	1	
45	0.055	0.38	7.00	2.50	1.50	ļ	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					100.0	100.0

<sup>\*</sup> Plus 5% before age 55 and 20% 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 R	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 accumulated postretirement benefit obligation (APBO) 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 4.50% for the Medical Insurance Fund and 7.50% for the Life Insurance Fund.

**Spouse Coverage:** 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 Post-65 retirees, the average costs shown are normalized to age 65 and then age adjusted in calculating liabilities.

	Average Monthly KTRS Full Costs & Contributions					
Years of Service	Pre-65Full Cost and Contributions	Post-65 Full Costs	Post-65 Full Contributions			
CY 2004	\$376	\$274	\$274			
CY 2005	\$410	\$288	\$288			
CY 2006	\$476	\$304	\$304			
CY 2007	\$458	\$283	\$283			
CY 2008	\$484	\$278	\$278			
CY 2009	\$545	\$301*	\$285			

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



#### Summary of Main Plan Provisions as Interpreted for Valuation Purposes

**RETIREE MEDICAL ELIGIBILITY:** 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. Disabled employees, who are totally and permanently incapable of being employed as a teacher and under age 60, but after completing 5 years of service, 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 Contribution Provided to Post-65 Retirees						
Years of Service	Hired Before 07/01/2002 (Age 65 by 1/1/05)	Hired Before 07/01/2002 (Age 65 after 1/1/05)	Hired After 07/01/2002			
27 or more	100 %	100%	100%			
26 - 26.99	100	100	95			
25 - 25.99	100	100	90			
20 - 24.99	100	100	65			
15 - 19.99	90	75	45			
10 - 14.99	80	50	25			
5 - 9.99	70	25	10			

Effective 1/1/2009, contributions towards pre-65 retirees and spouses healthcare are based upon the Commonwealth Capital Choice Plan which has a total rate of \$545.08 per month for Single Coverage. An additional \$21.00 per month contribution is required for smokers.

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.



#### 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, 2008

**Completed Years of Service** 

Completed Years of Service									
Attatined 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	2,733 40,156,278 14,693								2,733 40,156,278 14,693
25 to 29 Total Pay Avg. Pay	7,737 226,985,257 29,338	1,244 55,162,946 44,343							8,981 282,148,203 31,416
30 to 34 Total Pay Avg. Pay	3,824 109,014,464 28,508	4,651 215,186,990 46,267	716 38,055,186 53,150						9,191 362,256,640 39,414
35 to 39 Total Pay Avg. Pay	3,127 82,804,226 26,480	2,701 126,588,449 46,867	3,741 206,390,005 55,170	696 41,204,804 59,202					10,265 456,987,484 44,519
40 to 44 Total Pay Avg. Pay	3,884 76,518,540 19,701	1,592 76,734,470 48,200	1,836 101,966,614 55,537	2,585 155,651,263 60,213	626 38,970,337 62,253				10,523 449,841,224 42,748
45 to 49 Total Pay Avg. Pay	1,942 48,048,107 24,742	1,311 64,439,406 49,153	1,290 72,824,251 56,453	1,398 85,020,118 60,816	2,226 140,513,875 63,124	583 38,127,851 65,399			8,750 448,973,608 51,311
50 to 54 Total Pay Avg. Pay	1,808 37,799,289 20,907	1,107 55,399,696 50,045	1,179 67,881,950 57,576	1,318 80,824,830 61,324	1,388 90,155,860 64,954	1,643 109,389,413 66,579	639 43,184,738 67,582		9,082 484,635,776 53,362
55 to 59 Total Pay Avg. Pay	2,991 52,396,113 17,518	775 40,966,577 52,860	918 53,795,878 58,601	1,086 68,408,653 62,991	1,107 72,964,249 65,912	762 53,284,559 69,927	826 62,979,695 76,247	124 10,384,836 83,749	8,589 415,180,560 48,339
60 to 64 Total Pay Avg. Pay	2,539 37,225,994 14,662	380 20,763,246 54,640	368 23,223,662 63,108	459 29,893,634 65,128	505 34,749,706 68,811	278 20,422,141 73,461	129 10,455,098 81,047	133 11,722,331 88,138	4,791 188,455,812 39,335
65 & over Total Pay Avg. Pay	2,022 19,805,734 9,795	102 5,623,767 55,135	86 5,460,182 63,490	97 6,432,333 66,313	126 8,488,526 67,369	67 4,896,583 73,083	54 4,198,098 77,743	80 6,791,435 84,893	2,634 61,696,658 23,423
Total Total Pay Avg. Pay	32,607 730,754,002 22,411	13,863 660,865,547 47,671	10,133 569,597,728 56,212	7,639 467,435,635 61,191	5,978 385,842,553 64,544	3,333 226,120,547 67,843	1,649 120,817,629 73,267	337 28,898,602 85,753	75,539 3,190,332,243 42,234

Retirees	Receiving	Health	<b>Benefits</b>	as of June	e <b>30, 2008</b>

	Under 65	Over 65	Total
Number	15,525	17,066	32,591
Average Age	59.4	75.1	67.6



# STATISTICAL SECTION

for Fiscal Year ending June 30, 2008

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 Trendspage 117
These schedules contain trend information to help the reader understand how KTRS's
financial performance & well-being have changed over time.
Demographic & Economic Informationpage 119
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 Informationpage 127
These schedules contain benefits, service, and employer contribution data to help the
reader understand how KTRS's financial report relates to KTRS's services and activities.

#### **Defined Benefit Plan**

Past Ten Fiscal Years

#### **Additions by Source**

YEAR	Employer Contributions	Member Contributions	Net Investment Income	Total Additions to Plan Net Assets
2008	\$ 466,247,782	\$ 291,423,948	\$ (909,083,525)	\$ (151,411,795)
2007	434,890,469	269,687,864	2,063,878,767	2,768,457,100
2006	410,920,969	258,464,856	717,308,002	1,386,693,827
2005	388,346,438	247,024,518	946,070,556	1,581,441,512
2004	382,280,099	238,922,086	1,158,182,688	1,779,384,873
2003	341,132,900	233,429,797	538,552,074	1,113,114,771
2002	303,521,106	224,361,453	(520,214,494)	7,668,065
2001	280,108,701	208,702,802	(104,903,741)	383,907,762
2000	311,286,811	203,149,281	454,251,324	968,687,416
1999	288,543,990	194.747.429	1,274,764,370	1.758.055.789

#### **Deductions by Type**

(Including Benefits by Type)

YEAR	Service Retirants	Disability Retirants	Survivors	Life Insurance*	TOTAL Benefits	Refunds	Administrativo Expense	Total Deductions to Plan Net Assets
2008 3	\$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
2000	568,538,294	29,148,420	9,322,582	2,350,600	609,359,896	11,304,485	4,859,623	625,524,004
1999	509,787,784	26,464,287	8,718,626	2,329,800	547,300,497	9,083,461	4,522,908	560,906,866

<sup>\*</sup> Life Insurance Plan valued separately-- see page 119.

#### **Changes in Net Assets**

YEAR	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
2008	\$ (151,411,795)	\$1,194,486,120	\$ (1,345,897,915)
2007	2,768,457,100	1,124,713,552	1,643,743,548
2006	1,386,693,827	1,055,280,362	331,413,465
2005	1,581,441,512	981,000,153	600,441,359
2004	1,779,384,873	902,336,116	877,048,757
2003	1,113,114,771	833,404,261	279,710,510
2002	7,668,065	755,269,821	(747,601,756)
2001	383,907,762	690,611,022	(306,703,260)
2000	968,687,416	625,524,004	343,163,412
1999	1,758,055,789	560,906,866	1,197,148,923

#### **Medical Insurance Plan**

Past Ten Fiscal Years

#### **Additions by Source**

YEAR	Employer Contributions	Member Contributions	Recovery Income	Net Investment Income	Total Additions to Plan Net Assets
2008	\$ 148,929,322	\$ 55,402,830	\$ 11,936,887	\$ 8,128,179	\$ 224,397,218
2007	113,233,784	53,099,678	10,337,338	6,722,080	183,392,880
2006	89,319,498	51,697,167	6,117,979	6,804,286	153,938,930
2005	79,022,562	51,576,031		6,507,537	137,106,130
2004	53,346,747	53,903,551		7,127,109	114,377,407
2003	77,235,407	50,718,084		7,391,671	135,345,162
2002	95,261,407	46,184,010		6,142,817	147,588,234
2001	92,429,167	40,017,682		5,286,426	137,733,275
2000	48,946,646	36,392,846		3,710,881	89,050,373
1999	46,168,014	34,579,816		2,306,711	83,054,541

#### **Deductions by Type**

(Including Benefits by Type)

Insurance Benefit Expense				Total Deductions		
YEAR	Under Age 65	Age 65 & Over	Third Party Service Fee	Total Insurance Benefits Expense	Refunds	to Plan Net Assets
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		104,978,915	6,066	104,984,981
2001	46,544,264	38,389,936	3,221,712	88,155,912	5,155	88,161,067
2000	38,553,599	38,786,138	3,023,755	80,363,492	2,246	80,365,738
1999	34,389,038	33,236,136	2,728,897	70,354,071	3,145	70,357,216

#### **Changes in Net Assets**

YEAR	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
2008	\$ 224.397.218	\$ 179.286.229	\$ 45,110,989
2007	183.392.880	174.234.931	9.157.949
2006	153,938,930	169,635,539	(15,696,609)
2005	137,106,130	146,429,401	(9,323,271)
2004	114,377,407	123,279,818	(8,902,411)
2003	135,345,162	115,853,895	19,491,267
2002	147,588,234	104,984,981	42,603,253
2001	137,733,275	88,161,067	49,572,208
2000	89,050,373	80,365,738	8,684,635
1999	83,054,541	70,357,216	12,697,325

#### Life Insurance Plan

Past Two Fiscal Years

YEAR	Employer	Net	Total Additions
	Contributions	Investment Income	to Plan Net Assets
2008	\$ 5,411,249	\$ 6,321,491	\$ 11,732,740
2007	5.022,137	(3,413,537)	1,608,600

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

#### **Changes in Net Assets**

YEAR	Life Insurance	Total Deductions to Plan Net Assets	Total Additions to Plan Net Assets	Total Deductions to Plan Net Assets	Changes in Plan Net Assets
2008	\$ 4,003,000	\$ 4,003,000	\$ 11,732,740	\$ 4,003,000	\$ 7,729,740
2007	4,245,000	4,245,000	1,608,600	4,245,000	(2,636,400)

## Distribution of Active Contributing Members as of June 30, 2008

$\mathbf{p}_{\mathbf{v}}$	A cco
ВV	Age

#### By Service

Age	Male	Female	Years of Service	Male	Female
20-24	944	3,135	Less than 1	5,784	15,30
25-29	2,740	7,992	1-4	4,472	13,972
30-34	2,449	7,095	5-9	3,035	9,721
35-39	2,381	7,805	10-14	2,177	6,446
40-44	2,083	6,768	15-19	1,517	4,708
45-49	1,954	6,520	20-24	1,101	3,610
50-54	2,162	6,689	25-29	565	1,839
55-59	2,120	5,773	30-34	281	792
60-64	1,352	2,968	35 or more	89	129
65-69	557	1,144	TOTAL	19,021	56,518
Over 70	279	629			
TOTAL	19,021	56,518			

#### **Principal Participating Employers**

**Current Year and Nine Years Ago** 

		2008		1999			
	Covered Employees	Rank	Percentage of Total System	Covered Employees	Rank	Percentage of Total System	
Jefferson County Schools	9,950	1	12.96%	6,849	1	12.85%	
Fayette County Public Schools	4,102	2	5.34	2,793	2	5.24	
Boone County Schools	1,671	3	2.18	888	5	1.67	
Hardin County Schools	1,359	4	1.77	1,008	3	1.89	
Kenton County Schools	1,308	5	1.70	783	9	1.47	
Bullitt County Schools	1,230	6	1.60	709	12	1.33	
Warren County Schools	1,186	7	1.54	755	10	1.42	
Oldham County Schools	1,167	8	1.52	602	15	1.13	
Daviess County Schools	1,156	9	1.51	738	11	1.38	
Madison County Schools	1,136	10	1.48	637	14	1.19	
All Other *	52,512		68.40%	37,553		70.44%	
Total (211 Employers)	76,777		100.00%	53,315		100.00%	

#### KTRS Schedule of Participating Employers

#### **School Districts: County Schools**

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

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

1.	Anchorage	15.	Covington	29.	Hazard	43.	Pineville
2.	Ashland	16.	Danville	30.	Jackson	44.	Providence
3.	Augusta	17.	Dawson Springs	31.	Jenkins	45.	Raceland
4.	Barbourville	18.	Dayton	32.	Ludlow	46.	Russell
5.	Bardstown	19.	East Bernstadt	33.	Mayfield	47.	Russellville
6.	Beechwood	20.	Elizabethtown	34.	Middlesboro	48.	Science Hill
7.	Bellevue	21.	Eminence	35.	Monticello	49.	Silver Grove
8.	Berea	22.	Erlanger-Elsmere	36.	Murray	50.	Somerset
9.	Bowling Green	23.	Fairview	37.	Newport	51.	Southgate
10.	Burgin	24.	Fort Thomas	38.	Owensboro	52.	Walton-Verona
11.	Campbellsville	25.	Frankfort	39.	Paducah	53.	West Point
12.	Caverna	26.	Fulton	40.	Paintsville	54.	Williamsburg
13.	Cloverport	27.	Glasgow	41.	Paris	55.	Williamstown
14.	Corbin	28.	Harlan	42.	Pikeville		

## **Universities & Community/ Technical Colleges**

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

## **State of Kentucky/ Other Organizations**

#### **State of Kentucky**

- 1. Education and Humanities Cabinet
- 2. Legislative Research Commission
- 3. Workforce Investment Cabinet
- 4. Cabinet for Families and Children
- 5. Finance and Administration Cabinet

#### **Other Organizations**

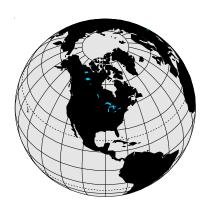
- 1. Education Professional Standards Board
- 2. Kentucky Education Association President
- 3. Kentucky Academic Association
- 4. Kentucky Educational Development Cooperative
- 5. Kentucky High School Athletic Association
- 6. Kentucky School Boards Association
- 7. Kentucky Valley Educational Cooperative
- 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

- 104 Alabama
  - 1 Alaska
- 67 Arizona
- 22 Arkansas
- 101 California
- 45 Colorado
- 13 Connecticut
- 6 Delaware
- 3 District of Columbia
- 858 Florida
- 206 Georgia
  - 7 Hawaii
  - 4 Idaho
  - 72 Illinois
- 505 Indiana
- 13 Iowa
- 31 Kansas
- 26 Louisiana
- 8 Maine
- 24 Maryland
- 15 Massachusetts
- 34 Michigan
- 19 Minnesota
- 61 Mississippi
- 59 Missouri
- 7 Montana
- 4 Nebraska
- 16 Nevada

- 1 New Hampshire
- 9 New Jersey
- 12 New Mexico
- 37 New York
- 203 North Carolina
  - 4 North Dakota
- 472 Ohio
- 20 Oklahoma
- 23 Oregon
- 31 Pennsylvania
- Rhode Island
- 134 South Carolina
  - 8 South Dakota
- 668 Tennessee
- 154 Texas
- 11 Utah
- 2 Vermont
- 117 Virginia
- 29 Washington
- 70 West Virginia
- 21 Wisconsin
- 3 Wyoming

## Distribution of Retirement Payments Worldwide

As of June 30, 2008



#### **Additional Distribution Outside USA**

MILITARY APO

1 AUSTRALIA 1 PHILIPPINES 4 CANADA 1 SWITZERLAND

### Distribution of Retirement Payments Statewide

as of June 30, 2008

County Name	Total Payments	Number of Recipients		
Adair	\$ 4,523,498	172		
Allen	4,128,862	145		
Anderson	4,867,161	174		
Ballard	2,899,535	98		
Barren	10,158,867	354		
Bath	3,150,267	126		
Bell	9,424,463	353		
Boone	20,214,905	663		
Bourbon	4,497,147	167		
Boyd	13,963,057	474		
Boyle	10,186,494	349		
Bracken	2,058,617	76		
Breathitt	5,679,721	231		
Breckinridge	4,614,083	152		
Bullitt	10,977,251	342		
Butler	2,056,213	75		
Caldwell	4,372,148	154		
Calloway	16,527,818	576		
Campbell	16,728,050	554		
Carlisle	1,172,244	45		
Carroll	1,955,303	75		
Carter	8,441,895	310		
Casey	3,813,815	154		
Christian	13,046,889	445		
Clark	8,359,379	301		
Clay	6,657,223	250		
Clinton	3,068,304	113		
Crittenden	1,607,324	63		
Cumberland	2,102,657	75		
Daviess	25,374,926	884		
Edmonson	2,156,885	79		
Elliott	1,410,596	60		
Estill	3,348,036	121		
Fayette	67,805,911	2,371		
		149		
Fleming	3,959,488	535		
Floyd	13,858,260			
Franklin	19,258,143	815		
Fulton	1,826,253	67		
Gallatin	495,056	18		
Garrard	4,055,603	136		
Grant	4,010,376	133		
Graves	9,640,363	333		
Grayson	6,589,493	237		
Green	2,984,235	105		
Greenup	9,518,703	334		

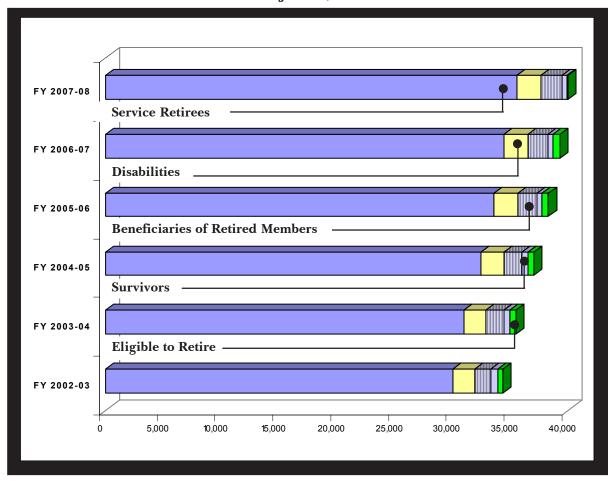
## Distribution of Retirement Payments Statewide as of June 30, 2008 continued . . .

County Name	Total Payments	Number of Recipients
Hancock	1,817,797	63
Hardin	20,081,443	681
Harlan	10,469,020	387
Harrison	5,004,875	179
Hart	4,012,080	136
Henderson	9,698,621	349
Henry	4,134,673	153
Hickman	899,572	32
Hopkins	11,632,791	405
Jackson	2,935,745	119
Jefferson	184,703,096	5,583
Jessamine	7,273,252	269
Johnson	8,167,331	294
Kenton	20,485,021	706
Knott	5,677,068	225
Knox	6,116,583	230
Larue	4,046,218	131
Laurel	13,156,635	501
Lawrence	3,427,241	131
Lee	1,555,749	68
Leslie	3,512,660	135
Letcher	8,390,066	311
Lewis	4,600,401	161
Lincoln	7,001,818	251
Livingston	2,043,820	82
Logan	6,124,544	234
Lyon	2,332,269	86
Madison	33,459,596	1,096
Magoffin	3,778,419	147
Marion	3,891,041	148
Marshall	8,992,446	299
Martin	3,276,375	122
Mason	4,535,760	159
McCracken	17,466,990	607
McCreary	4,928,962	186
McLean	2,467,285	89
Meade	4,454,374	135
Menifee	1,261,283	55
Mercer	5,615,219	220
Metcalfe	2,881,780	100
Monroe	4,089,613	153
Montgomery	6,700,216	238
Morgan	4,353,077	159
Muhlenberg	7,442,505	261
Nelson	9,046,295	307
	•	

## Distribution of Retirement Payments Statewide as of June 30, 2008 continued . . .

County Name	Total Payments	Number o Recipients	
Nicholas	1,607,139	57	
Ohio	4,940,139	189	
Oldham	11,420,538	364	
Owen	2,021,054	79	
Owsley	2,948,632	106	
Pendleton	3,353,679	113	
Perry	9,482,880	341	
Pike	20,683,132	756	
Powell	2,635,768	93	
Pulaski	15,840,248	592	
Robertson	570,016	23	
Rockcastle	4,336,728	166	
Rowan	12,116,302	443	
Russell	5,223,120	189	
Scott	8,915,797	302	
Shelby	10,675,125	351	
Simpson	3,819,936	139	
Spencer	3,237,579	99	
Taylor	6,833,902	249	
Todd	2,218,608	85	
Trigg	4,087,137	152	
Trimble	1,445,277	45	
Union	2,816,038	108	
Warren	38,689,628	1,371	
Washington	2,806,918	107	
Wayne	5,701,180	207	
Webster	3,185,461	119	
Whitley	14,042,511	531	
Wolfe	2,875,413	108	
Woodford	6,583,962	238	
Total in Kentucky	\$ 1,080,600,989	37,548	

## Growth in Annuitants as of June 30, 2008



Fiscal Year	Service Retirees	Disabilities	Beneficiaries of Retired Members	Survivors	Eligible to Retire
FY 2002-03	30,064	1,859	1,416	570	502
FY 2003-04	31,003	1,934	1,505	536	518
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
	l	1			1

## Schedule of Annuitants by Type of Benefit as of June 30, 2008

Type	of Retirement*

Amount of Monthly	Number of		_,	P		
Benefit (\$)	Annuitants	1	2	3	4	5
1 - 500	3032	2115	18	423	205	271
501 - 1,000	2678	2003	213	3	459	0
1,001 - 1,500	3667	2753	332	0	582	0
1,501 - 2,000	4472	3655	450	2	365	0
2,001 - 2,500	7230	6277	634	17	302	0
2,501 - 3,000	8087	7572	300	15	200	0
3,001 - 3,500	4984	4751	132	3	98	0
3,501 - 4,000	2890	2775	54	2	59	0
4,001 - 4,500	1611	1563	16	2	30	0
4,501 - 5,000	912	889	4	1	18	0
5,001 & OVER	1213	1197	2	0	14	0
Total	40,776	35,550	2,155	468	2,332	271

#### \*Type of Retirement

- 1-Normal Retirement for Age & Service
- 2-Disability Retirement
- 3-Survivor Payment Active Member
- 4-Beneficiary Payment Retired Member
- 5-Disabled Adult Child

mount of Monthly		Option Selected*						
Benefit (\$)	1	2	3	4	5	6	7	None
1 - 500	1,449	354	241	65	9	365	116	433
501 - 1,000	1,390	332	216	144	11	293	217	75
1,001 - 1,500	1,940	445	346	178	14	353	286	105
1,501 - 2,000	2,392	509	386	169	5	534	340	137
2,001 - 2,500	3,353	698	588	250	11	1,254	764	312
2,501 - 3,000	4,190	839	619	243	7	1,200	872	117
3,001 - 3,500	2,587	542	434	163	8	687	522	41
3,501 - 4,000	1,431	296	267	111	6	413	356	10
4,001 - 4,500	809	176	154	74	10	211	172	5
4,501 - 5,000	445	86	114	47	4	110	104	2
5,001 & OVER	602	108	139	80	11	116	156	1
Total	20,588	4,385	3,504	1,524	96	5,536	3,905	1,238

#### \*Option selected:

- 1 Straight-life annuity with refundable balance
- 2 Period certain benefit and life thereafter
- ${\it 3}$   ${\it Joint-survivor\ annuity}$
- 4 Joint-survivor annuity, one-half benefit to beneficiary
- 5 Other payment special option
- 6 Joint-survivor annuity with "pop-up" option
- 7 Joint-survivor annuity, one-half benefit to beneficiary with "pop-up" option

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

Retirement Effective Dates	00-4.99	05-9.99	10-14.99	15-19.99	20-24.99	25-29.99	30>=	TOTAL
07/01/1998 TO 06/30/1999 Average monthly benefit Average final average salary Number of retired members	\$117 \$2,995 31	\$420 \$3,042 71	\$735 \$2,953 80	\$1,075 \$3,087 81	\$1,723 \$3,630 115	\$2,303 \$3,805 1133	\$2,907 \$4,248 497	2,008
07/01/1999 TO 06/30/2000 Average monthly benefit Average final average salary Number of retired members	\$195 \$3,764 54	\$444 \$3,183 82	\$840 \$3,198 74	\$1,232 \$3,390 82	\$1,721 \$3,573 95	\$2,414 \$3,958 1180	\$3,052 \$4,461 473	2,040
07/01/2000 TO 06/30/2001 Average monthly benefit Average final average salary Number of retired members	\$145 \$3,695 48	\$402 \$2,842 73	\$881 \$3,444 86	\$1,283 \$3,550 85	\$1,779 \$3,807 143	\$2,472 \$4,024 1008	\$3,246 \$4,707 486	1,929
07/01/2001 TO 06/30/2002 Average monthly benefit Average final average salary Number of retired members	\$204 \$4,143 65	\$408 \$2,950 128	\$790 \$3,312 82	\$1,296 \$3,613 116	\$1,898 \$3,920 107	\$2,552 \$4,115 1019	\$3,407 \$4,884 574	2,091
07/01/2002 TO 06/30/2003 Average monthly benefit Average final average salary Number of retired members	\$205 \$4,301 58	\$480 \$3,380 83	\$940 \$3,714 98	\$1,344 \$3,798 103	\$1,940 \$4,078 155	\$2,715 \$4,378 837	\$3,592 \$5,121 508	1,842
07/01/2003 TO 06/30/2004 Average monthly benefit Average final average salary Number of retired members	\$220 \$5,243 43	\$474 \$3,357 84	\$839 \$3,349 98	\$1,444 \$3,936 96	\$1,978 \$4,182 145	\$2,758 \$4,425 818	\$3,486 \$5,062 405	1,689
07/01/2004 TO 06/30/2005 Average monthly benefit Average final average salary Number of retired members	\$187 \$4,353 55	\$528 \$3,511 98	\$906 \$3,647 107	\$1,488 \$4,055 106	\$2,037 \$4,317 145	\$2,892 \$4,602 811	\$3,860 \$5,275 875	2,197
07/01/2005 TO 06/30/2006 Average monthly benefit Average final average salary Number of retired members	\$202 \$4,106 44	\$473 \$3,253 105	\$1,019 \$4,052 106	\$1,493 \$4,117 132	\$2,136 \$4,537 193	\$2,998 \$4,721 689	\$4,063 \$5,490 604	1,873
07/01/2006 TO 06/30/2007 Average monthly benefit Average final average salary Number of retired members	\$178 \$4,102 48	\$514 \$3,346 113	\$930 \$3,590 90	\$1,559 \$4,228 109	\$2,276 \$4,612 169	\$3,140 \$4,970 534	\$4,263 \$5,758 514	1,577
07/01/2007 TO 06/30/2008 Average monthly benefit Average final average salary Number of retired members	\$199 \$3,816 50	\$524 \$3,066 130	\$1,117 \$4,215 112	\$1,658 \$4,412 150	\$2,436 \$4,983 217	\$3,279 \$5,067 557	\$4,319 \$5,786 615	1,831

#### **Medical Insurance Plan**

Average Insurance Premium Supplements for the Last Eight 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 Number of retired members	\$ 107.71 42	\$ 165.08 69	\$ 201.72 96	\$ 233.51 1634	1,841		
07/01/2001 TO 06/30/2002 Average monthly supplement Number of retired members	\$ 128.78 59	\$ 167.74 62	\$ 201.48 99	\$ 252.15 1694	1,914		
07/01/2002 TO 06/30/2003 Average monthly supplement Number of retired members	\$ 106.62 34	\$ 142.57 59	\$ 212.81 91	\$ 277.64 1457	1,641		
07/01/2003 TO 06/30/2004 Average monthly supplement Number of retired members	\$ 100.50 30	\$ 148.85 59	\$ 219.41 82	\$ 289.98 1365	1,536		
07/01/2004 TO 06/30/2005 Average monthly supplement Number of retired members	\$ 138.29 36	\$ 214.32 70	\$ 305.39 93	\$ 394.92 1768	1,967		
07/01/2005 TO 06/30/2006 Average monthly supplement Number of retired members	\$ 161.03 28	\$ 241.76 49	\$ 362.31 106	\$ 487.23 1440	1,623		
07/01/2006 TO 06/30/2007 Average monthly supplement Number of retired members	\$ 146.24 29	\$ 260.95 53	\$ 363.45 80	\$ 489.73 949	1,111		
07/01/2007 TO 06/30/2008 Average monthly supplement Number of retired members	\$ 162.54 36	\$ 260.71 61	\$ 378.28 104	\$ 512.29 952	1,153		

#### Summary of Fiscal Year 2007-2008 Retiree Sick Leave Payments

#### **ACTUARIAL RATE**

2,517.56/ 12 months = \$ 209.80

Anticipated Lifetime Payout of Additional Annuity
209.80 X 144.5250 X 1,564 new factor \$47,422,583.58

#### **Funding of Additional Payments**

Member Contributions 9.855% x \$20,073,811.87 = \$1,978,274.16 State Contributions 13.105% x \$20,073,811.87 = 2,630,673.05

Total Member-State Contributions \$ 4,608,947.21

#### **DEFICIT:**

Anticipated additional payout \$ 47,422,583.58 Less total Member & State Contributions 4,608,947.21 Subtotal unfunded debt 42,813,636.37

Less current year appropriation 4,917,200.00

TOTAL DEFICIT (overpayment) \* \$ 37,896,436.37 \*

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

#### Summary of State Match and Supplemental Appropriations for Member Contributions to Teachers' Retirement System

for Fiscal Year Ended June 30, 2008

Fiscal Year	Total Member Contributions	Employer/ Federal Payments	Required State Match Contributions	11	Required Sick Leave Payments	Total State Appropria- tion	(Deficit) Surplus State Funding
1944-48	3,184,178		3,184,178			3,039,017	(145,160)
1948-52	4,951,458		4,951,458			5,090,848	(139,390)
1952-56	7,267,163		7,267,163			6,494,102	(773,062)
1956-60	14,970,961		14,970,961			14,963,272	(7,689)
1960-64	25,945,897		25,945,897			25,938,763	(7,134)
1964-68	49,957,299	2,042,014	47,915,285			45,317,694	(2,597,591)
1968-72	82,922,869	6,044,865	76,878,005			80,091,951	3,213,946
1972-76	120,349,350	8,019,216	112,330,134			111,665,685	(664,449)
1976-80	189,072,371	12,044,186	177,028,185	75,010,028		256,784,030	4,745,817
1980-84	272,744,772	16,334,937	256,409,836	109,622,111	5,197,234	378,667,011	7,437,831
1984-88	413,932,416	21,417,604	392,514,811	141,251,827	13,341,243	515,932,177	(31,175,706)
1988-92	602,399,432	119,352,211	483,347,221	133,545,987	28,978,117	634,358,200	(11,537,557)
1992-96	756,817,769	154,296,351(2)	602,521,418	213,030,177	53,308,591	854,138,311	(14,751,875)
1996-00	863,954,020	171,037,889	692,916,131	245,400,594	43,209,004(1)	990,501,344	8,975,615
2000-04	999,971,551	200,041,662	799,935,889	289,439,321		1,065,262,116	(24,113,095)
2004-05	274,249,089	63,618,098	210,630,991	79,018,035		293,364,324	3,715,298
2005-06	289,063,930	66,462,471	222,601,459	83,319,537		310,182,549	4,261,553
2006-07	301,522,044	68,333,669	233,188,375	86,819,875		321,074,432	1,066,182
2007-08	324,168,175	70,454,529	253,713,646	93,903,116		348,072,711	455,949

- (1) The state appropriations for the sick leave deficit started being amortized over 15 years in the year ended June 1999 through the year ended June 2002. Starting the fiscal year 2003 the sick leave deficits were amortized over 20 years.
- (2) Beginning with the 1988-89 fiscal year, the Department of Education and the state universities were responsible for matching their members' contributions with the state reimbursing the respective agencies in their normal budget appropriation.

