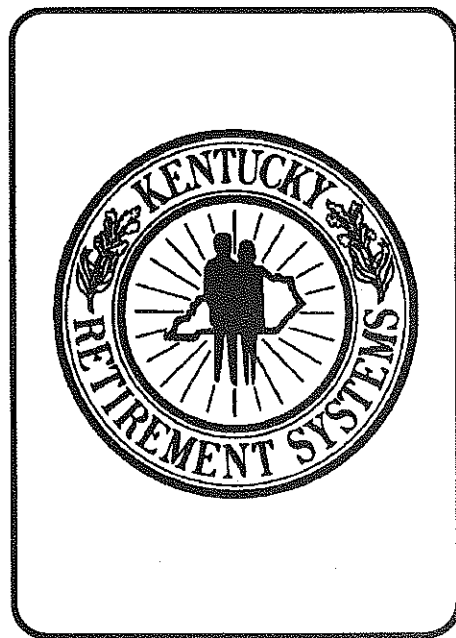


# KENTUCKY RETIREMENT SYSTEMS



## Annual Report June 30, 1994

Kentucky Employees Retirement System  
County Employees Retirement System  
State Police Retirement System

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KENTUCKY RETIREMENT SYSTEMS  
Perimeter Park West  
1260 Louisville Road  
Frankfort, Kentucky 40601



Kentucky Employees Retirement System  
County Employees Retirement System  
State Police Retirement System

Pamala S. Johnson  
General Manager  
Phone 502-564-4646  
FAX# 502-564-5656

MEMORANDUM

TO: Members of the Board of Trustees  
John D. Robey, Chairman  
Frank W. Burke, Vice Chairman  
J. Patrick Abell  
E. B. "Gene" Drake  
Gordon C. Duke  
John E. King  
Cattie Lou Miller  
Gordon L. Mullis, Jr.  
Walter J. Pagan

FROM: Pamala S. Johnson, General Manager

DATE: November 17, 1994

SUBJECT: Annual Report for Fiscal Year Ending June 30, 1994

As directed by KRS 61.645, I present the Annual Report for the fiscal year ended June 30, 1994. The four sections of the report provide financial information, actuarial information, investment information and other statistical information. Appropriate certifications from an independent accounting firm and an independent actuarial firm are included.

Copies of this report will be made available to Retirement System members by sending copies to each participating employer in the Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement System. Copies will also be distributed to legislative personnel, state libraries and other interested parties.

Pamala S. Johnson  
General Manager

# INTRODUCTION

by  
Pamala S. Johnson, General Manager

Members of the Retirement Systems,

This report represents a full and complete disclosure of the financial and actuarial status of the Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement Systems.

## CONTENTS

The pages that follow this introduction provide an introduction to the Board, management and organization of the retirement systems.

The **Financial Section** is an exact copy of the audit report prepared by Eskew & Gresham, PSC. This report is included in accordance with Kentucky Revised Statute 61.645(12).

The **Actuarial Section** consists of copies of the actuarial report compiled by the firm of William M. Mercer, Inc., containing the information necessary to determine the adequacy of funding and the systems' liabilities is included in the same format as presented to the Board. Only detailed statistical tables were omitted for space reasons.

The **Investment Section** provides information on the retirement systems' investments. Included are portfolio summaries for the retirement systems and the Insurance Fund. Also shown are comparisons of portfolio growth and income growth, giving a historical perspective.

The **Statistical Section** provides statistical information on membership, types of payments selected, retirement payments, key financial and actuarial data, source and use of funds and administrative expenses during the 1993-94 fiscal year, as well as historical data in some cases.

## INVESTMENTS

The rate of return for the total fund based on market value was 1.05% for the fiscal year. The rate of return includes appreciation of assets as well as interest and dividend income received throughout the year. This figure should not be confused with the indicated yield based on market value of 4.37% shown in the portfolio summary for all systems combined in the Investment Section of this report. Indicated yield projects the yield of the portfolio forward into the future. It only includes interest and dividends that are projected to be received from securities owned as of June 30, 1994. The indicated yield is calculated based on interest income projected to be received from fixed income investments during the next year and dividends projected to be received from dividend-paying stocks during the next year.

## LEGISLATIVE CHANGES

The General Assembly passed several provisions affecting the Board of Trustees and the administration of the funds:

- ◆ Effective June 30, 1995, elected members of the Board will be limited to three consecutive four-year terms.
- ◆ Board members were placed under the provisions of the executive branch ethics laws. This provision was included in the legislative package proposed by the Board of Trustees.
- ◆ The Board will share the cost of an actuary to be hired by the Legislative Research Commission, whose job will be to review the assumptions and recommendations of the Board's actuary.
- ◆ The Board's contracts will be subject to the state procurement code.

The General Assembly enacted a 1% raise to retirees in 1994 and 1995. No funding for the 1% to retirees of KERS or SPRS was provided in the legislation. The 1% raise was in addition to a 1.11% raise under the provisions of KRS 61.691(1). The General Assembly also removed the provision in KRS 61.691(1) effective June 30, 1996, and any future increase in retirees' checks will require action by the General Assembly.

## SUIT FILED OVER CONTRIBUTION RATE

On April 27, 1993, the Board of Trustees filed suit in Franklin Circuit Court seeking to resolve the conflict between the employer contribution rates determined by the Board under KRS 61.565 and the employer rates set out in the Biennial Budget. The rates affect the Kentucky Employees Retirement System and the State Police Retirement System. The suit asked that the section of the budget setting the contribution rate be declared unconstitutional.

In May 1994, the Franklin Circuit Court issued a ruling which declared the provisions in the budget unconstitutional and upheld the Board's authority to determine the employer contribution rate. That ruling has been appealed to the Kentucky Supreme Court.

Local government employers continue to pay the rates determined by the Board under KRS 61.565.



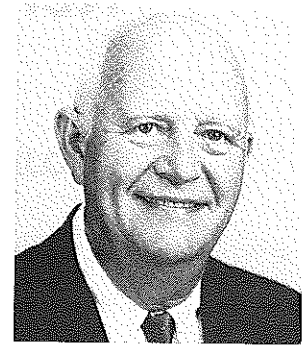
# BOARD OF TRUSTEES



**J. Patrick Abell**  
Frankfort  
Appointed by Governor  
Term Expires March 31, 1996



**Frank W. Burke**  
Louisville  
Elected by CERS Members  
Term Expires March 31, 1997  
Retired CERS



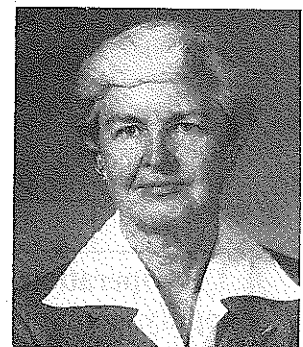
**E. B. "Gene" Drake**  
Frankfort  
Elected by KERS Members  
Term Expires March 31, 1998  
Retired KERS



**Gordon C. Duke**  
Frankfort  
Appointed by Governor  
Term Expires March 31, 1995



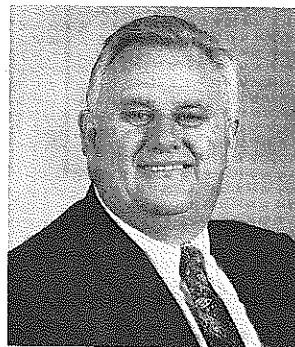
**John E. King**  
Lexington  
Elected by CERS Members  
Term Expires March 31, 1997  
Inactive CERS



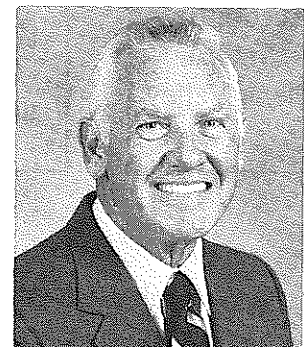
**Cattie Lou Miller**  
Frankfort  
Elected by KERS Members  
Term Expires March 31, 1998  
Retired KERS



**Gordon L. Mullis, Jr.**  
Lexington  
ExOfficio

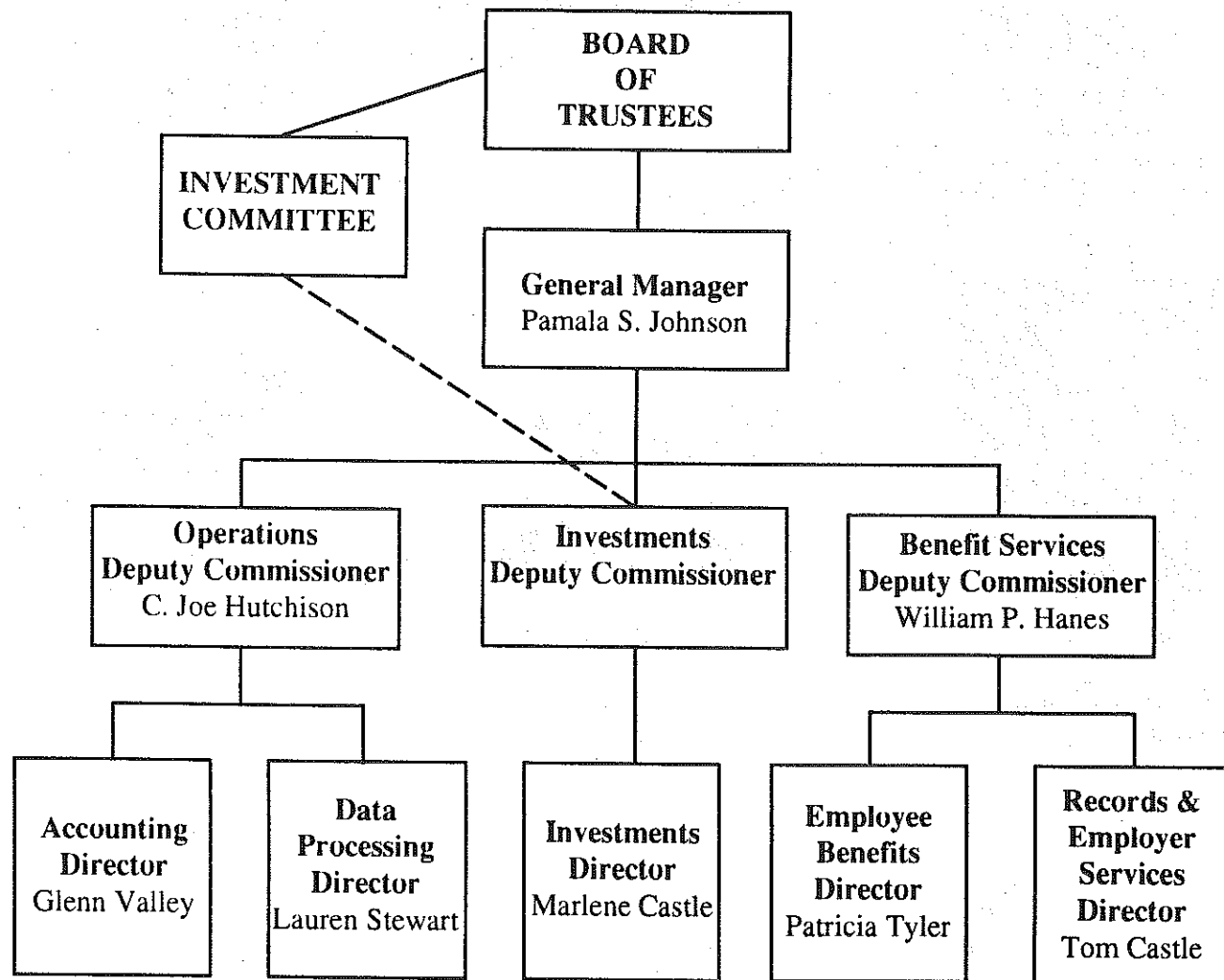


**Walter J. Pagan**  
Crestview Hills  
Appointed by Governor  
Term Expires March 31, 1996



**John D. Robey**  
Chairman  
Lawrenceburg  
Elected by SPRS Members  
Term Expires March 31, 1995  
Retired SPRS

# Kentucky Retirement Systems Organizational Chart



# CONTRACTUAL ARRANGEMENTS

## ACTUARIAL SERVICES:

William M. Mercer, Inc.  
1500 Meidinger Tower  
Louisville, KY 40202

## ASSET MANAGEMENT:

William M. Mercer Asset Planning, Inc.  
10 South Wacker Drive  
Chicago, IL 60606

## AUDITING SERVICES:

Eskew & Gresham  
2500 Meidinger Tower  
Louisville, KY 40202

## CUSTODIAN OF SECURITIES:

Farmers Bank & Capital Trust  
Farmers Bank Plaza  
Frankfort, KY 40601

## LEGAL SERVICES:

Johnson & Judy, Stoll, Keenon & Park  
326 West Main Street  
Frankfort, KY 40601

## INVESTMENT COUNSELORS:

Heitman Advisory Corporation  
Suite 3600  
180 North LaSalle Street  
Chicago, IL 60601

Investment Counselors of Maryland  
803 Cathedral Street  
Baltimore, MD 21201

Investment Advisers, Inc.  
3700 First Bank Place  
Minneapolis, MN 55440

Lincoln Capital Management Company  
Suite 2100  
200 South Wacker Drive  
Chicago, IL 60606

National Asset Management Corp.  
101 South Fifth Street  
Louisville, KY 40202

The Yarmouth Group, Inc.  
Swiss Bank Tower  
10 East 50th Street  
New York, NY 10022

TCW Realty Advisors  
Suite 1800  
865 South Figueroa  
Los Angeles, CA 90017

Weaver C. Barksdale & Associates, Inc.  
Suite 550  
30 Burton Hills Boulevard  
Nashville, TN 37215



# **Financial Section**

## FINANCIAL SECTION INTRODUCTION

The Retirement Systems assets are held in trust for the purpose of providing retirement benefits many years in the future. Since these benefits are guaranteed by Kentucky law to each eligible participant, it is the responsibility of the Board of Trustees to see that the systems are soundly funded and that all investments, receipts, payments and expenses are fully accounted for.

The combined assets of the Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement System totalled over \$4.4 billion (book value) as of June 30, 1994, an increase of 7.2% over the previous fiscal year.

To assure that proper accounting methods are being used, the Board generally contracts with a private accounting firm to perform an independent audit of the assets and liabilities of the three systems. The audit for the fiscal year ended June 30, 1994, was performed by the firm of Eskew & Gresham, PSC.

In addition to the annual audit, other procedures are employed to insure the safety of the systems' assets. Each year a surprise audit is conducted by the internal auditor of the securities' custodian. Adequate bonding arrangements are in force for those individuals who have access to securities, and the General Manager is under a special fidelity bond. A plan is in place and tested regularly to ensure that the systems assets are protected and programs can be continued in the event of natural disasters.

An exact copy of the audit opinion of Eskew & Gresham follows along with copies of the audited financial statements and accompanying notes. The financial statements were completed in accordance with the requirements set forth in the National Council on Government Accounting, Statement 1, as adopted in Statement 1 of the Governmental Accounting Standards Board. This statement requires that financial statements be presented on an accrual basis and stipulates that certain disclosures be included in the notes to financial statements.

INDEPENDENT AUDITORS' REPORT

Board of Trustees  
Kentucky Retirement Systems  
Frankfort, Kentucky

We have audited the accompanying financial statements of the Kentucky Employees Retirement System, County Employees Retirement System, State Police Retirement System and Kentucky Retirement Systems Insurance Fund as of June 30, 1994 and 1993 and for the years then ended. These financial statements are the responsibility of the Systems' management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and 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, such financial statements present fairly, in all material respects, the financial position of the Kentucky Employees Retirement System, County Employees Retirement System, State Police Retirement System and Kentucky Retirement Systems Insurance Fund as of June 30, 1994 and 1993, and the results of the Systems' operations for the years then ended in conformity with generally accepted accounting principles.

September 9, 1994

*Eskew & Gresham, PSC.*

**KENTUCKY EMPLOYEES RETIREMENT SYSTEM**



KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
BALANCE SHEETS

	June 30	
	1994	1993
<b>ASSETS</b>		
Investments (Note 6):		
Bonds (market value - 1994, \$578,217,589; 1993, \$536,264,439)	\$ 589,792,168	\$ 506,231,887
Common stocks (market value - 1994, \$1,503,175,560; 1993, \$1,509,456,521)	1,163,394,229	1,104,232,473
First mortgage real estate loans (market value - 1994, \$155,509,486; 1993, \$106,491,975)	155,915,344	99,129,842
Real estate investment trusts (market value - 1994, \$168,298,589; 1993, \$175,655,686)	186,032,359	186,942,014
Securities purchased under agreements to resell (market value approximates cost)	<u>266,423,173</u>	<u>338,083,780</u>
Total investments	\$2,361,557,273	\$2,234,619,996
Cash on deposit with State Treasurer	66	485,188
Members and employers' contributions receivable	8,411,138	8,287,077
Unfunded employers contribution receivable (Note 2)	22,988,438	11,250,802
Accrued investment income	<u>15,035,477</u>	<u>14,942,580</u>
<b>TOTAL ASSETS</b>	<b>\$2,407,992,392</b>	<b>\$2,269,585,643</b>
<b>LIABILITIES</b>		
Members' refunds, insurance fund transfers and accrued expenses payable	\$ 7,475,550	\$ 6,961,835
Unfunded insurance fund transfer payable (Note 2)	6,988,230	2,439,733
Unfunded deferred employer contribution (Note 2)	<u>16,000,208</u>	<u>8,811,069</u>
<b>TOTAL LIABILITIES</b>	<b>\$ 30,463,988</b>	<b>\$ 18,212,637</b>
<b>NET ASSETS AVAILABLE FOR BENEFITS (Members'   Contribution Account - 1994, \$556,888,548;   1993, \$508,625,824; and Retirement   Allowance Account - 1994, \$1,820,639,856;   1993, \$1,742,747,182)</b>	<b>\$2,377,528,404</b>	<b>\$2,251,373,006</b>
<b>FUND BALANCE:</b>		
Actuarial present value of projected benefits payable to current retirees and beneficiaries	\$1,100,882,062	\$1,005,136,959
Actuarial present value of projected benefits payable to terminated vested participants	38,995,536	27,045,952
Actuarial present value of credited projected benefits for active members:		
Members contributions	530,060,261	485,652,787
Employers financed portion	<u>1,013,289,059</u>	<u>967,784,849</u>
Total actuarial present value of credited projected benefits	\$2,683,226,918	\$2,485,620,547
Unfunded actuarial present value of credited projected benefits	<u>(305,698,514)</u>	<u>(234,247,541)</u>
<b>TOTAL FUND BALANCE</b>	<b>\$2,377,528,404</b>	<b>\$2,251,373,006</b>

See notes to financial statements.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN  
 MEMBERS' CONTRIBUTION ACCOUNT

	Year Ended June 30	
	1994	1993
<b>REVENUES:</b>		
Members' contributions	\$ 61,372,065	\$ 59,611,966
Interest credited to members' balances transferred from Retirement Allowance Account	<u>19,215,468</u>	<u>17,412,052</u>
Total revenues	\$ 80,587,533	\$ 77,024,018
<b>EXPENSES:</b>		
Refunds to former members	\$ 7,902,704	\$ 6,749,192
Retired members' balances transferred to Retirement Allowance Account	<u>24,422,105</u>	<u>23,822,093</u>
Total expenses	\$ 32,324,809	\$ 30,571,285
<b>EXCESS OF REVENUES OVER EXPENSES</b>	<b>\$ 48,262,724</b>	<b>\$ 46,452,733</b>
<b>MEMBERS' CONTRIBUTION ACCOUNT:</b>		
BEGINNING OF YEAR	<u>508,625,824</u>	<u>462,173,091</u>
END OF YEAR	\$556,888,548	\$508,625,824

See notes to financial statements.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN  
RETIREMENT ALLOWANCE ACCOUNT

	Year Ended June 30	
	1994	1993
<b>REVENUES:</b>		
Employers' contributions	\$ 91,537,113	\$ 90,568,496
Investment income	101,235,035	105,909,575
Net realized gain on disposals of investments	45,267,251	81,207,989
Retired members' balances transferred from Members' Contribution Account	<u>24,422,105</u>	<u>23,822,093</u>
Total revenues	\$ 262,461,504	\$ 301,508,153
<b>EXPENSES:</b>		
Retirement benefits to members	\$ 129,799,939	\$ 119,619,683
Contributions transferred to the Kentucky Retirement Systems Insurance Fund	31,452,892	22,370,387
Interest credited to members' balances transferred to Members' Contribution Account	19,215,468	17,412,052
Administrative expenses	2,076,306	2,205,305
Investment expenses	<u>2,024,225</u>	<u>1,827,144</u>
Total expenses	\$ 184,568,830	\$ 163,434,571
<b>EXCESS OF REVENUES OVER EXPENSES</b>	<b>\$ 77,892,674</b>	<b>\$ 138,073,582</b>
<b>RETIREMENT ALLOWANCE ACCOUNT:</b>		
BEGINNING OF YEAR	<u>1,742,747,182</u>	<u>1,604,673,600</u>
END OF YEAR	\$1,820,639,856	\$1,742,747,182

See notes to financial statements.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of Kentucky Employees Retirement System (the System) are prepared on the accrual basis, and conform to generally accepted governmental accounting and financial reporting principles in all material respects.

B. Component Unit - The System is a component unit of the Commonwealth of Kentucky. As such, the Commonwealth of Kentucky is the primary government in whose financial reporting entity the System is included.

The System was created by the Kentucky General Assembly pursuant to the provisions of KRS 61.515. The System's administrative budget and employer contribution rates are subject to approval by the Kentucky General Assembly. Employee contribution rates are set by statute and may be changed only by the Kentucky General Assembly.

C. Investments - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discounts and premiums are amortized using the straight-line method from the date of acquisition to the stated or expected maturity date. Common stocks, securities purchased under agreement to resell and investments in real estate trusts are carried at cost.

Realized gains or losses on investments are recorded for the difference between the proceeds from sale or maturity and the average cost of investments sold or redeemed. Realized gains or losses are also recorded for exchanges of investments, based upon the difference at the time of the exchange between the carrying value and the market value of the investment exchanged.

D. Expense Allocation - The System, the County Employees Retirement System, and the State Police Retirement System are collectively administered by the Kentucky Retirement Systems. Administrative and investment expenses of the Kentucky Retirement Systems are allocated in proportion to the number of active members participating in each plan and the carrying value of plan investments, respectively.

NOTE 2 - DESCRIPTION OF THE PLAN

The System is a defined benefit plan which covers substantially all regular full-time employees of any state department, board or agency directed by Executive Order to participate in the System. The Plan provides for retirement, disability and death benefits. The number of participating state employers was 350 at June 30, 1994.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

For the years ended June 30, 1994 and 1993, participating members contributed 5% of creditable compensation to the System. Members occupying hazardous positions, as defined by statute, contributed at the rate of 7% of creditable compensation. Employer contribution rates are intended to fund the System's normal cost on a current basis plus an amount equal to the amortization of unfunded past service costs over thirty years, using the level percentage of payroll method. Participating employers contributed 7.65% of members' non-hazardous compensation and 15.05% of members' hazardous compensation for 1994 and 1993.

The actuarial recommended rate for 1994 and 1993 was 8.66% of members' non-hazardous compensation for both years and 17.86% and 17.55%, respectively, of members' hazardous compensation. These rates have not been approved by the Kentucky General Assembly. The System has filed suit against the State to require that the full funding be made. The System has recorded the difference in contribution rates as a receivable and an offsetting deferral. The insurance fund transfer payable represents the portion of the unpaid balance which is attributable to the insurance fund.

Vesting in a retirement benefit begins immediately upon entry into the System. The participant has a fully vested interest after the completion of sixty months of service, twelve of which are current service. At a minimum, terminated employees are refunded their contributions with credited interest at 3% compounded annually through June 30, 1980, 6% thereafter through June 30, 1986 and 4% thereafter.

At June 30, membership in the System consisted of:

	1994	1993
Retirees and beneficiaries currently receiving benefits and terminated members entitled to benefits but not yet receiving them:		
Non-hazardous positions	31,170	30,134
Hazardous positions	<u>730</u>	<u>621</u>
Total	31,900	30,755
Current members:		
Vested:		
Non-hazardous positions	31,020	29,534
Hazardous positions	1,989	1,804
Nonvested:		
Non-hazardous positions	14,761	16,138
Hazardous positions	<u>1,252</u>	<u>1,453</u>
Total	80,922	79,684

Further information regarding the plan agreement, vesting and benefit provisions is contained in the pamphlet Summary Plan Description. Copies of this pamphlet are available from the office of the Kentucky Retirement Systems.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 3 - FUNDING STATUS AND PROGRESS

Generally accepted governmental accounting and financial reporting principles requires that the financial statements disclose the "pension benefit obligation" determined using the projected unit credit actuarial method. Such obligation is titled "total actuarial present value of credited projected benefits" shown on the balance sheet. State statutes require the use of the entry age normal actuarial cost method to determine the pension benefit obligation. Using this method, the pension benefit obligation at June 30, 1994 and 1993 was \$2,912,050,275 and \$2,703,771,076, respectively. The System has adopted a five year moving average of market value to book value in determining the actuarial net assets available for benefits. Using this method, the net assets available for benefits at June 30, 1994 and 1993 was \$2,729,048,987 and \$2,585,209,537, respectively. The resulting unfunded pension benefit obligation was \$183,001,288 and \$118,561,539 at June 30, 1994 and 1993, respectively.

The pension benefit obligation is a standardized measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of member service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems (PERS). The measure is independent of the actuarial funding method used to determine contributions to the System (see Note 4).

The pension benefit obligation for 1994 and 1993 was determined by the System's consulting actuary, William M. Mercer, Inc., as part of an actuarial valuation as of June 30, 1994 and 1993, respectively. The significant actuarial assumptions underlying the actuarial computations using the projected unit credit actuarial method and the entry age normal actuarial cost method are the same and are as follows:

Assumed rate of return on investments	- 8% per annum
Mortality basis	- 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employees
Employee turnover	- Graduated select and ultimate rates based on 1989 experience study
Retirement age	- Based upon experience, with 20% weight (50% weight for hazardous duty employees), at age 55-64, to the earliest age at which an employee could retire with 100% of the accrued benefits
Salary increases	- 6 1/2% per annum

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 4 - CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The System's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial cost method. The System also uses the level percentage of payroll method to amortize the unfunded actuarial accrued liability.

Actuarially determined contribution requirements for the years ended June 30, 1994 and 1993 were determined as part of an actuarial valuation as of June 30, 1993 and 1992, respectively, and were as follows:

	1994	1993
Employer	\$ 99,018,779	\$ 98,567,107
Member	<u>55,582,027</u>	<u>54,192,873</u>
Total	\$154,600,806	\$152,759,980

Such contributions were to consist of:

Normal cost	\$106,483,874	\$103,862,726
Amortization of the unfunded actuarial accrued liability	6,759,902	8,652,449
Administrative expenses	4,172,497	4,095,124
Group hospital and medical insurance premiums	<u>37,184,533</u>	<u>36,149,681</u>
Total	\$154,600,806	\$152,759,980

Contributions received consisted of:

Employer (7.65% of the covered payroll for non-hazardous positions and 15.05% for hazardous positions for 1994 and 1993)	\$ 91,537,113	\$ 90,568,496
Member (5% of the covered payroll for non-hazardous positions and 7% for hazardous positions for 1994 and 1993)	<u>61,372,065</u>	<u>59,611,966</u>
Total	\$152,909,178	\$150,180,462

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION

Ten year historical trend information designed to provide information about the System's progress in accumulating sufficient assets to pay benefits when due is presented below.

Fiscal Year	(1) Net Assets Available For Benefits	(2) Pension Benefit Obligation	(3) Percentage Funded (1)/(2)	(4)	(5) Annual Covered Payroll	Unfunded Pension Benefit Obligation of Covered Payroll
				Unfunded (Funds in Excess of) Pension Benefit Obligation (2) - (1)		
1985	\$ 934,480,773	\$ 982,009,399	95.2%	\$ 47,528,626	\$ 676,557,336	7.0%
1986	1,079,353,421	1,110,593,823	97.2%	31,240,402	713,878,356	4.4%
1987	1,264,000,419	1,238,746,096	102.0%	(25,254,323)	757,822,116	N/A
1988	1,426,056,402	1,400,013,802	101.9%	(26,042,600)	803,594,136	N/A
1989	1,588,609,098	1,566,923,178	101.4%	(21,685,920)	822,362,508	N/A
1990	1,799,321,738	1,869,383,399	96.3%	70,061,661	869,109,220	8.1%
1991	1,913,214,931	2,125,370,347	90.0%	212,155,416	982,646,400	21.6%
1992	2,066,846,691	2,317,254,064	89.2%	250,407,373	1,065,985,572	23.5%
1993	2,251,373,006	2,485,620,547	90.6%	234,247,541	1,094,395,992	21.4%
1994	2,377,528,404	2,683,226,918	88.6%	305,698,514	1,115,206,380	27.4%

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the PERS. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the PERS.



KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION (CONTINUED)

Ten year historical trend information relating to revenues and expenses by source and type, respectively, is presented below:

Revenues By Source

Fiscal Year	Members Contributions	Employers Contributions	Investment Income	Net Realized Gain on Disposals of Investments	Total
1985	\$27,760,271	\$49,189,066	\$ 78,509,704	\$12,959,165	\$168,418,206
1986	29,228,638	52,686,054	84,346,598	32,275,130	198,536,420
1987	40,563,400	56,679,470	97,094,173	58,938,113	253,275,156
1988	43,065,763	60,507,339	89,409,521	47,362,518	240,345,141
1989	43,642,903	78,673,797	120,760,531	20,922,372	263,999,603
1990	45,270,305	68,593,246	126,895,778	82,681,267	323,440,596
1991	52,845,103	77,269,700	107,923,634	6,521,702	244,560,139
1992	58,523,130	87,261,933	106,061,993	44,136,334	295,983,390
1993	59,611,966	90,568,496	105,909,575	81,207,989	337,298,026
1994	61,372,065	91,537,113	101,235,035	45,267,251	299,411,464

Expenses By Type

Fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Investment Expenses	Contributions Transferred to Insurance Fund	Total
1985	\$39,225,080	\$ 722,085	\$5,171,940	\$ 249,975	\$ 3,122,176	\$ 48,491,256
1986	43,962,495	838,804	5,105,361	279,607	3,477,505	53,663,772
1987	52,414,394	1,235,905	5,061,156	272,111	9,644,592	68,628,158
1988	60,060,355	1,122,416	5,860,974	334,270	10,911,143	78,289,158
1989	80,377,963	1,345,174	7,145,907	315,939	12,261,924	101,446,907
1990	90,420,645	1,459,398	5,896,851	440,142	14,510,920	112,727,956
1991	100,824,770	2,091,405	6,438,085	1,351,304	19,961,382	130,666,946
1992	110,034,282	2,130,915	6,451,752	1,733,629	22,001,052	142,351,630
1993	119,619,683	2,205,305	6,749,192	1,827,144	22,370,387	152,771,711
1994	129,799,939	2,076,306	7,902,704	2,024,225	31,452,892	173,256,066

NOTE 6 - INVESTMENTS

The Board of Trustees of the System shall give priority to the investment of funds in obligations considered to improve the industrial development and enhance the economic welfare of the Commonwealth. Appointed investment managers use the following guidelines and restrictions in the selection of securities and timing of transactions as long as the security is not a prohibited investment under Kentucky Revised Statutes:

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 6 - INVESTMENTS (CONTINUED)

Equity Investments - Investments may be made in common stocks, securities convertible into common stock and in preferred stocks of publicly traded corporations.

Fixed Income Investments - Publicly traded bonds are to be selected and managed to assure an appropriate balance in quality and maturities consistent with current market and economic conditions. Investments may be made in any debt instrument issued by the U. S. Government or an agency of the U. S. Government.

Mortgages - Investments may be made in real estate mortgages on a direct issue basis or in the form of mortgage pool instruments guaranteed by an agency of the U. S. Government or by the Commonwealth of Kentucky.

Equity Real Estate - Investments may be made for the purpose of creating a diversified portfolio of income-producing properties with moderate to low levels of risk.

Guaranteed Insurance Contracts - Investments may be made in guaranteed contracts issued by legal reserve life insurance companies authorized to conduct business in the Commonwealth of Kentucky and such other states as may be required.

Mutual Fund Investments - Investments may be made in mutual funds which hold common stocks or fixed income securities.

Cash Equivalent Securities - The following short-term investment vehicles, excluding commercial paper which requires specific purchase approval by the Investment Committee of the Kentucky Retirement Systems, are considered acceptable:

- Securities Purchased Under Agreements to Resell - Repurchase agreements which are collateralized by U. S. Government issues.
- U. S. Government Issues - All obligations of the U. S. Government and its agencies.
- Certificate of Deposit - Investments may be made in only the 25 largest money center banks in the United States (in terms of total assets) or in banks domiciled in the Commonwealth of Kentucky and having capital and unrestricted surplus of at least \$100 million.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 6 - INVESTMENTS (CONTINUED)

The System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1994. Category 1 includes investments that are either insured or registered or for which the investments are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments that are held by the broker's or dealer's trust department or agent in the System's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the broker or dealer, or by its trust department or agent but not in the System's name.

	June 30, 1994				
	Category 1	Category 2	Category 3	Carrying Amount	Market Value
United States Government bonds	\$ -0-	\$ 391,496,934	\$ -0-	\$ 391,496,934	\$ 380,343,839
Corporate bonds	13,539,738	184,755,496	-0-	198,295,234	197,873,750
Common stocks	-0-	1,163,394,229	-0-	1,163,394,229	1,503,175,560
First mortgage real estate loans	1,864,200	-0-	154,051,144	155,915,344	155,509,486
Securities purchased under agreements to resell	-0-	266,423,173	-0-	266,423,173	266,423,173
	<u>\$15,403,938</u>	<u>\$2,006,069,832</u>	<u>\$ 154,051,144</u>	<u>\$2,175,524,914</u>	<u>\$2,503,325,808</u>
Real estate investment trusts				<u>186,032,359</u>	<u>168,298,589</u>
Total investments				<u>\$2,361,557,273</u>	<u>\$2,671,624,397</u>

Investments at June 30, 1994, included approximately \$187 million of securities loaned under various collateralized lending programs.

NOTE 7 - INCOME TAX STATUS

The Internal Revenue Service has ruled that the Plan qualifies under Section 401(a) of the Internal Revenue Code and is, therefore, not subject to tax under present income tax law.

NOTE 8 - TRANSFERS TO INSURANCE FUND

By action of the 1978 General Assembly, the Kentucky Retirement Systems Insurance Fund (the "Insurance Fund") was established to provide a group hospital and medical insurance plan for recipients of a retirement allowance from the System. The Insurance Fund is funded by the transfer of a portion of employer contributions to the System. The percentage of creditable compensation transferred to the Insurance Fund by the System was 2.76% and 1.77% for non-hazardous and 6.22% and 6.17% for hazardous positions for 1994 and 1993, respectively.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 9 - RISKS OF LOSS

The System is exposed to various risks of loss related to torts; thefts of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Under the provisions of the Kentucky Revised Statutes, the Kentucky Board of Claims is vested with full power and authority to investigate, hear proof, and to compensate persons for damages sustained to either person or property as a result of negligence of the agency or any of its employees. Awards are limited to \$100,000 for a single claim and \$250,000 in aggregate per occurrence. Awards and a pro rata share of the operating cost of the Board of Claims are paid from the fund of the agency having a claim or claims before the Board.

Claims made against the Board of Trustees of Kentucky Retirement Systems or any of its staff as a result of actual or alleged breach of fiduciary duty are insured with a commercial insurance policy. Coverage provided is limited to \$5,000,000 with a deductible amount of \$25,000. Defense costs incurred in defending such claims will be paid by the insurance company. However, the total defense cost and claims paid shall not exceed the total aggregate coverage of the policy.

Claims for job-related illnesses or injuries to employees are insured by the State's self-insured workers' compensation program. Payments approved by the program are not subject to maximum limitations. A claimant may receive reimbursement of all medical expenses related to the illness or injury and up to sixty-six and two-thirds percent (66 2/3%) of wages for temporary disability. Each agency pays premiums based on three years' claims experience and number of covered employees. Claims experience is weighted seventy percent (70%) and number of employees is weighted thirty percent (30%). Expectations of current and future obligations are also factored into the premium calculation.

Only claims pertaining to workers' compensation have been filed during the past three fiscal years. There were no claims which were appealed to the Kentucky Workers' Compensation Board which were settled during the year with a liability accruing to the System.

NOTE 10 - CONTINGENCIES

In the normal course of business, the System is involved in various litigation concerning the right of participants or their beneficiaries to receive benefits. The System does not anticipate any material losses as a result of the contingent liabilities.

**COUNTY EMPLOYEES RETIREMENT SYSTEM**

COUNTY EMPLOYEES RETIREMENT SYSTEM  
BALANCE SHEETS

	June 30 1994	1993
<b>ASSETS</b>		
Investments (Note 6):		
Bonds (market value - 1994, \$244,115,540; 1993, \$210,778,483)	\$ 248,393,172	\$ 197,789,566
Common stocks (market value - 1994, \$1,399,795,168; 1993, \$1,381,283,052)	1,161,720,926	1,078,979,202
First mortgage real estate loans (market value - 1994, \$78,892,876; 1993, \$49,652,622)	77,862,310	44,669,475
Real estate investment trusts (market value - 1994, \$121,097,124; 1993, \$124,860,523)	131,719,120	132,466,863
Securities purchased under agreements to resell (market value approximates cost)	<u>249,239,198</u>	<u>249,778,605</u>
Total investments	\$1,868,934,726	\$1,703,683,711
Cash on deposit with State Treasurer	-0-	767,226
Members and employers' contributions receivable	18,164,897	16,674,122
Past service credit contribution receivable	36,952,496	39,140,937
Accrued investment income	<u>7,843,912</u>	<u>7,652,636</u>
<b>TOTAL ASSETS</b>	<b>\$1,931,896,031</b>	<b>\$1,767,918,632</b>
<b>LIABILITIES</b>		
Members' refunds, insurance fund transfers and accrued expenses payable	<u>\$ 4,934,353</u>	<u>\$ 4,472,166</u>
<b>NET ASSETS AVAILABLE FOR BENEFITS (Members' Contribution Account - 1994, \$440,261,655; 1993, \$395,243,936; and Retirement Allowance Account - 1994, \$1,486,700,023; 1993, \$1,368,202,530)</b>		
	<b>\$1,926,961,678</b>	<b>\$1,763,446,466</b>
<b>FUND BALANCE:</b>		
Actuarial present value of projected benefits payable to current retirees and beneficiaries	\$ 766,780,012	\$ 656,629,739
Actuarial present value of projected benefits payable to terminated vested participants	32,873,917	18,581,543
Actuarial present value of credited projected benefits for active members:		
Members contributions	426,309,395	383,617,159
Employers financed portion	<u>903,852,738</u>	<u>843,278,358</u>
Total actuarial present value of credited projected benefits	\$2,129,816,062	\$1,902,106,799
Unfunded actuarial present value of credited projected benefits	<u>(202,854,384)</u>	<u>(138,660,333)</u>
<b>TOTAL FUND BALANCE</b>	<b>\$1,926,961,678</b>	<b>\$1,763,446,466</b>

See notes to financial statements.

COUNTY EMPLOYEES RETIREMENT SYSTEM  
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN  
 MEMBERS' CONTRIBUTION ACCOUNT

	Year Ended June 30	
	1994	1993
<b>REVENUES:</b>		
Members' contributions	\$ 65,388,134	\$ 67,301,254
Interest credited to members' balances transferred from Retirement Allowance Account	<u>14,707,259</u>	<u>12,867,112</u>
Total revenues	\$ 80,095,393	\$ 80,168,366
<b>EXPENSES:</b>		
Refunds to former members	\$ 8,169,994	\$ 5,373,355
Retired members' balances transferred to Retirement Allowance Account	<u>26,907,680</u>	<u>19,207,824</u>
Total expenses	\$ 35,077,674	\$ 24,581,179
<b>EXCESS OF REVENUES OVER EXPENSES</b>	<b>\$ 45,017,719</b>	<b>\$ 55,587,187</b>
<b>MEMBERS' CONTRIBUTION ACCOUNT:</b>		
BEGINNING OF YEAR	<u>395,243,936</u>	<u>339,656,749</u>
END OF YEAR	\$440,261,655	\$395,243,936

See notes to financial statements.

COUNTY EMPLOYEES RETIREMENT SYSTEM  
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN  
RETIREMENT ALLOWANCE ACCOUNT

	Year Ended June 30	
	1994	1993
<b>REVENUES:</b>		
Employers' contributions	\$ 114,159,833	\$ 115,230,643
Investment income	72,862,036	73,074,069
Net realized gain on disposals of investments	39,218,929	57,648,299
Retired members' balances transferred from Members' Contribution Account	<u>26,907,680</u>	<u>19,207,824</u>
Total revenues	\$ 253,148,478	\$ 265,160,835
<b>EXPENSES:</b>		
Retirement benefits for members	\$ 82,690,680	\$ 72,607,003
Contributions transferred to the Kentucky Retirement Systems Insurance Fund	32,729,460	22,545,855
Interest credited to members' balances transferred to Members' Contribution Account	14,707,259	12,867,112
Administrative expenses	2,782,212	2,678,882
Investment expenses	<u>1,741,374</u>	<u>1,494,244</u>
Total expenses	\$ 134,650,985	\$ 112,193,096
<b>EXCESS OF REVENUES OVER EXPENSES</b>	<b>\$ 118,497,493</b>	<b>\$ 152,967,739</b>
<b>RETIREMENT ALLOWANCE ACCOUNT:</b>		
BEGINNING OF YEAR	<u>1,368,202,530</u>	<u>1,215,234,791</u>
END OF YEAR	\$1,486,700,023	\$1,368,202,530

See notes to financial statements.



COUNTY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of County Employees Retirement System (the System) are prepared on the accrual basis, and conform to generally accepted governmental accounting and financial reporting principles in all material respects.

B. Component Unit - The System is a component unit of the Commonwealth of Kentucky. As such, the Commonwealth of Kentucky is the primary government in whose financial reporting entity the System is included.

The System was created by the Kentucky General Assembly pursuant to the provisions of KRS 78.520. The System's administrative budget and employer contribution rates are subject to approval by the Kentucky General Assembly. Employee contribution rates are set by statute and may be changed only by the Kentucky General Assembly.

C. Investments - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discounts and premiums are amortized using the straight-line method from the date of acquisition to the stated or expected maturity date. Common stocks, securities purchased under agreement to resell and investments in real estate trusts are carried at cost.

Realized gains or losses on investments are recorded for the difference between the proceeds from sale or maturity and the average cost of investments sold or redeemed. Realized gains or losses are also recorded for exchanges of investments, based upon the difference at the time of the exchange between the carrying value and the market value of the investment exchanged.

D. Expense Allocation - The System, the Kentucky Employees Retirement System, and the State Police Retirement System are collectively administered by the Kentucky Retirement Systems. Administrative and investment expenses of the Kentucky Retirement Systems are allocated in proportion to the number of active members participating in each plan and the carrying value of plan investments, respectively.

NOTE 2 - DESCRIPTION OF THE PLAN

The System is a defined benefit plan which covers substantially all regular full-time employees of each county and school board, and any additional eligible local agencies electing to participate in the System. The Plan provides for retirement, disability and death benefits. At June 30, 1994, the number of participating local government employers was:

Board of Education	174
County agencies	227
County attorneys	72
City agencies	162
Libraries	75
Other	<u>258</u>
Total	968

COUNTY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

For the years ended June 30, 1994 and 1993, participating members contributed 5% of creditable compensation to the System. Members occupying hazardous positions, as defined by statute, contributed at the rate of 7% of creditable compensation. Employer contribution rates are intended to fund the System's normal cost on a current basis plus an amount equal to the amortization of unfunded past service costs over thirty years, using the level percentage of payroll method. Participating employers contributed 8.82% and 18.49% of members' non-hazardous compensation and hazardous compensation for the year ended June 30, 1994, and 8.82% and 18.47%, respectively, for the year ended June 30, 1993.

Vesting in a retirement benefit begins immediately upon entry into the System. The participant has a fully vested interest after the completion of sixty months of service, twelve of which are current service. At a minimum, terminated employees are refunded their contributions with credited interest at 3% compounded annually through June 30, 1980, 6% thereafter through June 30, 1986 and 4% thereafter.

Participating local government employees are permitted to purchase credits for member services rendered from the date of full-time employment to the participation election date of the employer. Receivables for past service credits are amortized in amounts sufficient to fund the related cost plus interest thereon over a period not to exceed thirty years.

At June 30, membership in the System consisted of:

	1994	1993
Retirees and beneficiaries currently receiving benefits and terminated members entitled to benefits but not yet receiving them:		
Non-hazardous positions	28,710	26,890
Hazardous positions	<u>1,875</u>	<u>1,584</u>
Total	30,585	28,474
Current members:		
Vested:		
Non-hazardous positions	33,155	30,895
Hazardous positions	3,736	3,541
Nonvested:		
Non-hazardous positions	29,505	27,540
Hazardous positions	<u>1,928</u>	<u>2,054</u>
Total	98,909	92,504

Further information regarding the plan agreement, vesting and benefit provisions is contained in the pamphlet Summary Plan Description. Copies of this pamphlet are available from the office of the Kentucky Retirement Systems.

COUNTY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 3 - FUNDING STATUS AND PROGRESS

Generally accepted governmental accounting and financial reporting principles requires that the financial statements disclose the "pension benefit obligation" determined using the projected unit credit actuarial method. Such obligation is titled "total actuarial present value of credited projected benefits" shown on the balance sheet. State statutes require the use of the entry age normal actuarial cost method to determine the pension benefit obligation. Using this method, the pension benefit obligation at June 30, 1994 and 1993 was \$2,330,344,241 and \$2,079,930,047, respectively. The System has adopted a five year moving average of market value to book value in determining the actuarial net assets available for benefits. Using this method, the net assets available for benefits at June 30, 1994 and 1993 was \$2,173,354,772 and \$1,985,680,709, respectively. The resulting unfunded pension benefit obligation was \$156,989,469 and \$94,249,338 at June 30, 1994 and 1993, respectively.

The pension benefit obligation is a standardized measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of member service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems (PERS). The measure is independent of the actuarial funding method used to determine contributions to the System (see Note 4).

The pension benefit obligation for 1994 and 1993 was determined by the System's consulting actuary, William M. Mercer, Inc., as part of an actuarial valuation as of June 30, 1994 and 1993, respectively. The significant actuarial assumptions underlying the actuarial computations using the projected unit credit actuarial method and the entry age normal actuarial cost method are the same and are as follows:

Assumed rate of return on investments	- 8% per annum
Mortality basis	- 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employees
Employee turnover	- Graduated select and ultimate rates based on 1989 experience study
Retirement age	- Based upon experience, with 20% weight (50% weight for hazardous duty employees), at age 55-64, to the earliest age at which an employee could retire with 100% of the accrued benefits
Salary increases	- 6 1/2% per annum

COUNTY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 4 - CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The System's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate sufficient assets to pay benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age normal actuarial cost method. The System also uses the level percentage of payroll method to amortize the unfunded actuarial accrued liability.

Actuarially determined contribution requirements for the years ended June 30, 1994 and 1993 were determined as part of an actuarial valuation as of June 30, 1993 and 1992, respectively, and were as follows:

	1994	1993
Employer	\$108,357,009	\$101,233,849
Member	<u>56,051,670</u>	<u>51,834,467</u>
Total	<u>\$164,408,679</u>	<u>\$153,068,316</u>

Such contributions were to consist of:

Normal cost	\$122,144,951	\$112,453,932
Amortization of the unfunded actuarial accrued liability	5,259,804	6,464,013
Administrative expenses	5,475,794	5,128,212
Group hospital and medical insurance premiums	<u>31,528,130</u>	<u>29,022,159</u>
Total	<u>\$164,408,679</u>	<u>\$153,068,316</u>

Contributions received consisted of:

Employer (8.82% of the covered payroll for non-hazardous positions and 18.49% and 18.47% for hazardous positions for 1994 and 1993, respectively)	\$114,159,833	\$115,230,643
Member (5% of the covered payroll for non-hazardous positions and 7% for hazardous positions)	<u>65,388,134</u>	<u>67,301,254</u>
Total	<u>\$179,547,967</u>	<u>\$182,531,897</u>

COUNTY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION

Ten year historical trend information designed to provide information about the System's progress in accumulating sufficient assets to pay benefits when due is presented below.

Fiscal Year	(1) Net Assets Available For Benefits	(2) Pension Benefit Obligation	(3) Percentage Funded (1)/(2)	(4) Unfunded (Funds in Excess of) Pension Benefit Obligation (2) - (1)		(5) Annual Covered Payroll	Unfunded Pension Benefit Obligation of Covered Payroll
1985	\$ 478,043,221	\$ 413,059,045	115.7%	\$ (64,984,176)	\$ 433,135,800	N/A	
1986	603,815,800	479,360,458	126.0%	(124,455,342)	484,796,988	N/A	
1987	727,730,727	607,890,713	119.7%	(119,840,014)	544,184,376	N/A	
1988	839,578,896	742,334,380	113.1%	(97,244,516)	615,028,632	N/A	
1989	1,078,052,635	1,008,842,489	106.9%	(69,210,146)	728,176,932	N/A	
1990	1,270,066,267	1,299,219,862	97.8%	29,153,595	790,407,492	3.7%	
1991	1,396,227,005	1,508,780,883	92.5%	112,553,878	887,033,040	12.7%	
1992	1,554,891,540	1,696,645,283	91.6%	141,753,743	994,447,776	14.3%	
1993	1,763,446,466	1,902,106,799	92.7%	138,660,333	1,074,056,004	12.9%	
1994	1,926,961,678	2,129,816,062	90.5%	202,854,384	1,156,134,504	17.5%	

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the PERS. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the PERS.

COUNTY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION (CONTINUED)

Ten year historical trend information relating to revenues and expenses by source and type, respectively, is presented below:

Revenues By Source

Fiscal Year	Members Contributions	Employers Contributions	Investment Income	Net Realized Gain on Disposals of Investments	Total
1985	\$17,487,421	\$ 27,131,182	\$40,147,552	\$ 7,576,022	\$ 92,342,177
1986	28,187,039	61,400,912	44,216,104	16,705,975	150,510,030
1987	28,071,411	42,060,265	54,428,479	28,353,575	152,913,730
1988	30,401,026	44,811,097	52,252,320	23,584,203	151,048,646
1989	63,609,817	140,659,744	76,400,250	6,466,883	287,136,694
1990	41,650,282	80,658,140	86,852,951	45,450,457	254,611,830
1991	50,027,929	77,403,269	75,889,593	1,292,434	204,613,225
1992	58,815,250	89,149,505	73,386,287	30,365,722	251,716,764
1993	67,301,254	115,230,643	73,074,069	57,648,299	313,254,265
1994	65,388,134	114,159,833	72,862,036	39,218,929	291,628,932

Expenses By Type

Fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Investment Expenses	Contributions Transferred to Insurance Fund	Total
1985	\$14,843,697	\$ 650,173	\$3,570,707	\$ 124,145	\$ 1,297,665	\$ 20,486,387
1986	17,329,099	750,409	4,974,503	141,858	1,541,564	24,737,433
1987	18,065,794	1,116,914	4,382,655	148,337	5,285,103	28,998,803
1988	26,982,299	1,135,267	4,451,755	189,618	6,441,538	39,200,477
1989	31,719,667	1,420,006	5,208,722	183,132	10,131,427	48,662,954
1990	41,158,196	1,551,164	6,346,247	488,486	13,054,106	62,598,199
1991	53,341,986	1,585,753	5,404,817	1,556,937	16,562,994	78,452,487
1992	64,992,604	2,458,990	5,829,864	1,379,762	18,391,009	93,052,229
1993	72,607,003	2,678,882	5,373,355	1,494,244	22,545,855	104,699,339
1994	82,690,680	2,782,212	8,169,994	1,741,374	32,729,460	128,113,720

NOTE 6 - INVESTMENTS

The Board of Trustees of the System shall give priority to the investment of funds in obligations considered to improve the industrial development and enhance the economic welfare of the Commonwealth. Appointed investment managers use the following guidelines and restrictions in the selection of securities and timing of transactions as long as the security is not a prohibited investment under Kentucky Revised Statutes:

COUNTY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION (CONTINUED)

Ten year historical trend information relating to revenues and expenses by source and type, respectively, is presented below:

Revenues By Source

Fiscal Year	Members Contributions	Employers Contributions	Investment Income	Net Realized Gain on Disposals of Investments	Total
1985	\$17,487,421	\$ 27,131,182	\$40,147,552	\$ 7,576,022	\$ 92,342,177
1986	28,187,039	61,400,912	44,216,104	16,705,975	150,510,030
1987	28,071,411	42,060,265	54,428,479	28,353,575	152,913,730
1988	30,401,026	44,811,097	52,252,320	23,584,203	151,048,646
1989	63,609,817	140,659,744	76,400,250	6,466,883	287,136,694
1990	41,650,282	80,658,140	86,852,951	45,450,457	254,611,830
1991	50,027,929	77,403,269	75,889,593	1,292,434	204,613,225
1992	58,815,250	89,149,505	73,386,287	30,365,722	251,716,764
1993	67,301,254	115,230,643	73,074,069	57,648,299	313,254,265
1994	65,388,134	114,159,833	72,862,036	39,218,929	291,628,932

Expenses By Type

Fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Investment Expenses	Contributions Transferred to Insurance Fund	Total
1985	\$14,843,697	\$ 650,173	\$3,570,707	\$ 124,145	\$ 1,297,665	\$ 20,486,387
1986	17,329,099	750,409	4,974,503	141,858	1,541,564	24,737,433
1987	18,065,794	1,116,914	4,382,655	148,337	5,285,103	28,998,803
1988	26,982,299	1,135,267	4,451,755	189,618	6,441,538	39,200,477
1989	31,719,667	1,420,006	5,208,722	183,132	10,131,427	48,662,954
1990	41,158,196	1,551,164	6,346,247	488,486	13,054,106	62,598,199
1991	53,341,986	1,585,753	5,404,817	1,556,937	16,562,994	78,452,487
1992	64,992,604	2,458,990	5,829,864	1,379,762	18,391,009	93,052,229
1993	72,607,003	2,678,882	5,373,355	1,494,244	22,545,855	104,699,339
1994	82,690,680	2,782,212	8,169,994	1,741,374	32,729,460	128,113,720

NOTE 6 - INVESTMENTS

The Board of Trustees of the System shall give priority to the investment of funds in obligations considered to improve the industrial development and enhance the economic welfare of the Commonwealth. Appointed investment managers use the following guidelines and restrictions in the selection of securities and timing of transactions as long as the security is not a prohibited investment under Kentucky Revised Statutes:

COUNTY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 6 - INVESTMENTS (CONTINUED)

**Equity Investments** - Investments may be made in common stocks, securities convertible into common stock and in preferred stocks of publicly traded corporations.

**Fixed Income Investments** - Publicly traded bonds are to be selected and managed to assure an appropriate balance in quality and maturities consistent with current market and economic conditions. Investments may be made in any debt instrument issued by the U. S. Government or an agency of the U. S. Government.

**Mortgages** - Investments may be made in real estate mortgages on a direct issue basis or in the form of mortgage pool instruments guaranteed by an agency of the U. S. Government or by the Commonwealth of Kentucky.

**Equity Real Estate** - Investments may be made for the purpose of creating a diversified portfolio of income-producing properties with moderate to low levels of risk.

**Guaranteed Insurance Contracts** - Investments may be made in guaranteed contracts issued by legal reserve life insurance companies authorized to conduct business in the Commonwealth of Kentucky and such other states as may be required.

**Mutual Fund Investments** - Investments may be made in mutual funds which hold common stocks or fixed income securities.

**Cash Equivalent Securities** - The following short-term investment vehicles, excluding commercial paper which requires specific purchase approval by the Investment Committee of the Kentucky Retirement Systems, are considered acceptable:

- **Securities Purchased Under Agreements to Resell** - Repurchase agreements which are collateralized by U. S. Government issues.
- **U. S. Government Issues** - All obligations of the U. S. Government and its agencies.
- **Certificate of Deposit** - Investments may be made in only the 25 largest money center banks in the United States (in terms of total assets) or in banks domiciled in the Commonwealth of Kentucky and having capital and unrestricted surplus of at least \$100 million.



COUNTY EMPLOYEES RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 6 - INVESTMENTS (CONTINUED)

The System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1994. Category 1 includes investments that are either insured or registered or for which the investments are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments that are held by the broker's or dealer's trust department or agent in the System's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the broker or dealer, or by its trust department or agent but not in the System's name.

	June 30, 1994				
	Category 1	Category 2	Category 3	Carrying Amount	Market Value
United States Government					
bonds	\$ -0-	\$ 166,410,735	\$ -0-	\$ 166,410,735	\$ 162,177,311
Corporate bonds	5,160,024	76,842,413	-0-	81,982,437	81,938,229
Common stocks	-0-	1,161,720,926	-0-	1,161,720,926	1,399,795,168
First mortgage real estate loans	1,491,373	-0-	76,370,937	77,862,310	78,892,876
Securities purchased under agreements to resell	-0-	249,239,198	-0-	249,239,198	249,239,198
	<u>\$6,631,397</u>	<u>\$1,654,213,272</u>	<u>\$ 76,370,937</u>	<u>\$1,737,215,606</u>	<u>\$1,972,042,782</u>
Real estate investment trusts				<u>131,719,120</u>	<u>121,097,124</u>
Total investments				<u>\$1,868,934,726</u>	<u>\$2,093,139,906</u>

Investments at June 30, 1994, included approximately \$82 million of securities loaned under various collateralized lending programs.

NOTE 7 - INCOME TAX STATUS

The Internal Revenue Service has ruled that the Plan qualifies under Section 401(a) of the Internal Revenue Code and is, therefore, not subject to tax under present income tax law.

NOTE 8 - TRANSFERS TO INSURANCE FUND

By action of the 1978 General Assembly, the Kentucky Retirement Systems Insurance Fund (the "Insurance Fund") was established to provide a group hospital and medical insurance plan for recipients of a retirement allowance from the System. The Insurance Fund is funded by the transfer of a portion of employer contributions to the System. The percentage of creditable compensation transferred to the Insurance Fund by the System was 2.36% and 1.58% for non-hazardous and 6.33% and 5.67% for hazardous positions for 1994 and 1993, respectively.

COUNTY EMPLOYEES RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 9 - RISKS OF LOSS

The System is exposed to various risks of loss related to torts; thefts of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Under the provisions of the Kentucky Revised Statutes, the Kentucky Board of Claims is vested with full power and authority to investigate, hear proof, and to compensate persons for damages sustained to either person or property as a result of negligence of the agency or any of its employees. Awards are limited to \$100,000 for a single claim and \$250,000 in aggregate per occurrence. Awards and a pro rata share of the operating cost of the Board of Claims are paid from the fund of the agency having a claim or claims before the Board.

Claims made against the Board of Trustees of Kentucky Retirement Systems or any of its staff as a result of actual or alleged breach of fiduciary duty are insured with a commercial insurance policy. Coverage provided is limited to \$5,000,000 with a deductible amount of \$25,000. Defense costs incurred in defending such claims will be paid by the insurance company. However, the total defense cost and claims paid shall not exceed the total aggregate coverage of the policy.

Claims for job-related illnesses or injuries to employees are insured by the State's self-insured workers' compensation program. Payments approved by the program are not subject to maximum limitations. A claimant may receive reimbursement of all medical expenses related to the illness or injury and up to sixty-six and two-thirds percent (66 2/3%) of wages for temporary disability. Each agency pays premiums based on three years' claims experience and number of covered employees. Claims experience is weighted seventy percent (70%) and number of employees is weighted thirty percent (30%). Expectations of current and future obligations are also factored into the premium calculation.

Only claims pertaining to workers' compensation have been filed during the past three fiscal years. There were no claims which were appealed to the Kentucky Workers' Compensation Board which were settled during the year with a liability accruing to the System.

NOTE 10 - CONTINGENCIES

In the normal course of business, the System is involved in various litigation concerning the right of participants or their beneficiaries to receive benefits. The System does not anticipate any material losses as a result of the contingent liabilities.

**STATE POLICE RETIREMENT SYSTEM**

STATE POLICE RETIREMENT SYSTEM  
BALANCE SHEETS

	June 30	
	1994	1993
<b>ASSETS</b>		
Investments (Note 6):		
Bonds (market value - 1994, \$42,022,974; 1993, \$41,404,270)	\$ 42,769,452	\$ 39,053,657
Common stocks (market value - 1994, \$114,013,602; 1993, \$114,451,778)	86,194,588	81,564,830
First mortgage real estate loans (market value - 1994, \$11,751,553; 1993, \$8,461,883)	11,862,114	7,974,238
Real estate investment trusts (market value - 1994, \$13,002,469; 1993, \$13,680,760)	14,494,096	14,588,801
Securities purchased under agreements to resell (market value approximates cost)	<u>17,373,732</u>	<u>24,754,449</u>
Total investments	\$172,693,982	\$167,935,975
Cash on deposit with State Treasurer	-0-	29,744
Members and employers' contributions receivable	447,842	374,702
Unfunded employers contribution receivable (Note 2)	1,405,400	699,576
Accrued investment income	<u>1,130,538</u>	<u>1,148,995</u>
<b>TOTAL ASSETS</b>	<b>\$175,677,762</b>	<b>\$170,188,992</b>
<b>LIABILITIES</b>		
Members' refunds, insurance fund transfers and accrued expenses payable	\$ 517,424	\$ 418,857
Unfunded insurance fund transfer payable (Note 2)	642,009	184,917
Unfunded deferred employer contribution (Note 2)	<u>763,390</u>	<u>514,659</u>
<b>TOTAL LIABILITIES</b>	<b>\$ 1,922,823</b>	<b>\$ 1,118,433</b>
<b>NET ASSETS AVAILABLE FOR BENEFITS (Members' Contribution Account - 1994, \$28,192,098; 1993, \$27,264,582; and Retirement Allowance Account - 1994, \$145,562,841; 1993, \$141,805,977)</b>	<b>\$173,754,939</b>	<b>\$169,070,559</b>
<b>FUND BALANCE:</b>		
Actuarial present value of projected benefits payable to current retirees and beneficiaries	\$109,464,440	\$ 95,523,070
Actuarial present value of projected benefits payable to terminated vested participants	307,636	278,263
Actuarial present value of credited projected benefits for active members:		
Members contributions	28,070,689	27,096,473
Employers financed portion	<u>61,286,397</u>	<u>61,327,543</u>
Total actuarial present value of credited projected benefits	\$199,129,162	\$184,225,349
Unfunded actuarial present value of credited projected benefits	<u>(25,374,223)</u>	<u>(15,154,790)</u>
<b>TOTAL FUND BALANCE</b>	<b>\$173,754,939</b>	<b>\$169,070,559</b>

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM  
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN  
 MEMBERS' CONTRIBUTION ACCOUNT

	Year Ended June 30	
	1994	1993
<b>REVENUES:</b>		
Members' contributions	\$ 2,574,862	\$ 2,545,875
Interest credited to members' balances transferred from Retirement Allowance Account	<u>993,974</u>	<u>959,242</u>
Total revenues	\$ 3,568,836	\$ 3,505,117
<b>EXPENSES:</b>		
Refunds to former members	\$ 44,452	\$ 39,772
Retired members' balances transferred to Retirement Allowance Account	<u>2,596,868</u>	<u>2,963,310</u>
Total expenses	\$ 2,641,320	\$ 3,003,082
<b>EXCESS OF REVENUES OVER EXPENSES</b>	<b>\$ 927,516</b>	<b>\$ 502,035</b>
<b>MEMBERS' CONTRIBUTION ACCOUNT:</b>		
BEGINNING OF YEAR	<u>27,264,582</u>	<u>26,762,547</u>
END OF YEAR	\$28,192,098	\$27,264,582

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM  
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN  
RETIREMENT ALLOWANCE ACCOUNT

	Year Ended June 30	
	1994	1993
<b>REVENUES:</b>		
Employers' contributions	\$ 6,081,367	\$ 6,113,532
Investment income	7,664,863	8,239,832
Net realized gain on disposals of investments	3,506,024	6,569,702
Retired members' balances transferred from Members' Contribution Account	<u>2,596,868</u>	<u>2,963,310</u>
Total revenues	\$ 19,849,122	\$ 23,886,376
<b>EXPENSES:</b>		
Retirement benefits for members	\$ 11,146,563	\$ 10,220,001
Contributions transferred to the Kentucky Retirement Systems Insurance Fund	3,767,140	2,921,685
Interest credited to members' balances transferred to Members' Contribution Account	993,974	959,242
Administrative expenses	32,579	55,702
Investment expenses	<u>152,002</u>	<u>139,112</u>
Total expenses	\$ 16,092,258	\$ 14,295,742
<b>EXCESS OF REVENUES OVER EXPENSES</b>	<b>\$ 3,756,864</b>	<b>\$ 9,590,634</b>
<b>RETIREMENT ALLOWANCE ACCOUNT:</b>		
BEGINNING OF YEAR	<u>141,805,977</u>	<u>132,215,343</u>
END OF YEAR	\$145,562,841	\$141,805,977

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of State Police Retirement System (the System) are prepared on the accrual basis, and conform to generally accepted governmental accounting and financial reporting principles in all material respects.

B. Component Unit - The System is a component unit of the Commonwealth of Kentucky. As such, the Commonwealth of Kentucky is the primary government in whose financial reporting entity the System is included.

The System was created by the Kentucky General Assembly pursuant to the provisions of KRS 16.510. The System's administrative budget and employer contribution rates are subject to approval by the Kentucky General Assembly. Employee contribution rates are set by statute and may be changed only by the Kentucky General Assembly.

C. Investments - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discounts and premiums are amortized using the straight-line method from the date of acquisition to the stated or expected maturity date. Common stocks, securities purchased under agreement to resell and investments in real estate trusts are carried at cost.

Realized gains or losses on investments are recorded for the difference between the proceeds from sale or maturity and the average cost of investments sold or redeemed. Realized gains or losses are also recorded for exchanges of investments, based upon the difference at the time of the exchange between the carrying value and the market value of the investment exchanged.

D. Expense Allocation - The System, the Kentucky Employees Retirement System, and the County Employees Retirement System are collectively administered by the Kentucky Retirement Systems. Administrative and investment expenses of the Kentucky Retirement Systems are allocated in proportion to the number of active members participating in each plan and the carrying value of plan investments, respectively.

NOTE 2 - DESCRIPTION OF THE PLAN

The System is a defined benefit plan which covers substantially all regular full-time employees of the Kentucky State Police. The Plan provides for retirement, disability and death benefits.

Participating members contributed 7% of creditable compensation to the System. Employer contribution rates are intended to fund the System's normal cost on a current basis plus an amount equal to the amortization of unfunded past service costs over thirty years, using the level percentage of payroll method. For the years ended June 30, 1994 and 1993, the employer contributed 19.57% of members' compensation.

STATE POLICE RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

The actuarial recommended rate for 1994 was 21.84% of members' compensation. This rate has not been approved by the Kentucky General Assembly. The System has filed suit against the State to require that the full funding be made. The System has recorded the difference in contribution rates as a receivable and offsetting deferral. The insurance fund transfer payable represents the portion of the unpaid balance which is attributable to the insurance fund.

Vesting in a retirement benefit begins immediately upon entry into the System. The participant has a fully vested interest after the completion of sixty months of service, twelve of which are current service. At a minimum, terminated employees are refunded their contributions with credited interest at 3% compounded annually through June 30, 1980, and 6% thereafter through June 30, 1986 and 4% thereafter.

At June 30, membership in the System consisted of:

	1994	1993
Retirees and beneficiaries currently receiving benefits and terminated members entitled to benefits but not yet receiving them	678	612
Current members:		
Vested	771	740
Nonvested	196	217
Total	1,645	1,569

Further information regarding the plan agreement, vesting and benefit provisions is contained in the pamphlet Summary Plan Description. Copies of this pamphlet are available from the office of the Kentucky Retirement Systems.

NOTE 3 - FUNDING STATUS AND PROGRESS

Generally accepted governmental accounting and financial reporting principles requires that the financial statements disclose the "pension benefit obligation" determined using the projected unit credit actuarial method. Such obligation is titled "total actuarial present value of credited projected benefits" shown on the balance sheet. State statutes require the use of the entry age normal actuarial cost method to determine the pension benefit obligation. Using this method, the pension benefit obligation at June 30, 1994 and 1993 was \$206,763,310 and \$191,653,594, respectively. The System has adopted a five year moving average of market value to book value in determining the actuarial net assets available for benefits. Using this method, the net assets available for benefits at June 30, 1994 and 1993 was \$205,320,509 and \$200,320,968. The resulting unfunded pension benefit obligation was \$1,442,801 at June 30, 1994. At June 30, 1993, the pension benefit obligation was fully funded.



STATE POLICE RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 3 - FUNDING STATUS AND PROGRESS (CONTINUED)

The pension benefit obligation is a standardized measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of member service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems (PERS). The measure is independent of the actuarial funding method used to determine contributions to the System (see Note 4).

The pension benefit obligation for 1994 and 1993 was determined by the System's consulting actuary, William M. Mercer, Inc., as part of an actuarial valuation as of June 30, 1994 and 1993, respectively. The significant actuarial assumptions underlying the actuarial computations using the projected unit credit actuarial method and the entry age normal actuarial cost method are the same and are as follows:

Assumed rate of return on investments	- 8% per annum
Mortality basis	- 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year
Employee turnover	- Graduated select and ultimate rates based on 1989 experience study
Retirement age	- Assume 50% will retire upon comple- tion of twenty years of service, all others will retire at age 55
Salary increases	- 6 1/2% per annum

NOTE 4 - CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE

The System's funding policy provides for periodic employer contribu-  
tions at actuarially determined rates that, expressed as percentages of annual  
covered payroll, are sufficient to accumulate sufficient assets to pay benefits  
when due. Level percentage of payroll employer contribution rates are determined  
using the entry age normal actuarial cost method. The System also uses the level  
percentage of payroll method to amortize the unfunded actuarial accrued  
liability.

STATE POLICE RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 4 - CONTRIBUTIONS REQUIRED AND CONTRIBUTIONS MADE (CONTINUED)

Actuarially determined contribution requirements for the years ended June 30, 1994 and 1993 were determined as part of an actuarial valuation as of June 30, 1993 and 1992, respectively, and were as follows:

	1994	1993
Employer	\$6,562,065	\$6,831,809
Member	<u>2,137,595</u>	<u>2,182,610</u>
Total	\$8,699,660	\$9,014,419

Such contributions were to consist of:

Normal cost	\$4,686,978	\$4,764,148
Amortization of the unfunded actuarial accrued liability	(392,064)	(247,887)
Administrative expenses	77,809	83,764
Group hospital and medical insurance premiums	<u>4,326,937</u>	<u>4,414,394</u>
Total	\$8,699,660	\$9,014,419

Contributions received consisted of:

Employer (19.57% of the covered payroll for 1994 and 1993)	\$6,081,367	\$6,113,532
Member (7% of the covered payroll for 1994 and 1993)	<u>2,574,862</u>	<u>2,545,875</u>
Total	\$8,656,229	\$8,659,407

STATE POLICE RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION

Ten year historical trend information designed to provide information about the System's progress in accumulating sufficient assets to pay benefits when due is presented below.

Fiscal Year	(1) Net Assets Available For Benefits	(2) Pension Benefit Obligation	(3) Percentage Funded (1)/(2)	(4) Unfunded (Funds in Excess of) Pension Benefit Obligation (2) - (1)		(5) Annual Covered Payroll	Unfunded Pension Benefit Obligation of Covered Payroll
1985	\$ 85,016,242	\$ 94,143,453	90.3%	\$ 9,127,211	\$23,383,018	39.0%	
1986	96,667,699	100,048,563	96.6%	3,380,864	24,524,652	13.8%	
1987	110,194,604	106,252,354	103.7%	(3,942,250)	23,859,024	N/A	
1988	120,998,549	115,615,315	104.7%	(5,383,234)	24,014,472	N/A	
1989	131,350,553	130,093,821	101.0%	(1,256,732)	24,282,216	N/A	
1990	145,025,551	147,758,437	98.2%	2,732,886	25,971,132	10.5%	
1991	150,818,074	163,020,917	92.5%	12,202,843	29,275,692	41.7%	
1992	158,977,890	175,370,196	90.7%	16,392,306	31,285,572	52.4%	
1993	169,070,559	184,225,349	91.8%	15,154,790	30,600,684	49.5%	
1994	173,754,939	199,129,162	87.3%	25,374,223	30,950,088	82.0%	

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the System is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the PERS. Trends in unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the PERS.

STATE POLICE RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 5 - TEN YEAR HISTORICAL TREND INFORMATION (CONTINUED)

Ten year historical trend information relating to revenues and expenses by source and type, respectively, is presented below:

Revenues By Source

Fiscal Year	Members Contributions	Employers Contributions	Investment Income	Net Realized Gain on Disposals of Investments	Total
1985	\$ 1,861,882	\$ 4,483,240	\$ 6,993,220	\$ 652,568	\$ 13,990,910
1986	1,944,859	4,380,911	7,453,314	2,698,426	16,477,510
1987	1,944,780	4,481,033	8,763,083	5,188,413	20,377,309
1988	2,158,349	4,575,097	7,520,682	4,165,099	18,419,227
1989	1,994,453	6,596,928	10,164,070	1,550,779	20,306,230
1990	2,040,017	4,655,297	10,411,631	7,498,946	24,605,891
1991	2,347,772	6,038,636	8,809,299	568,316	17,764,023
1992	2,529,860	6,193,359	8,430,390	3,603,549	20,757,158
1993	2,545,875	6,113,532	8,239,832	6,569,702	23,468,941
1994	2,574,862	6,081,367	7,664,863	3,506,024	19,827,116

Expenses By Type

Fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Investment Expenses	Contributions Transferred to Insurance Fund	Total
1985	\$ 3,496,109	\$ 14,363	\$ 180,746	\$ 23,880	\$ 240,087	\$ 3,955,185
1986	4,356,837	17,560	73,447	25,716	352,493	4,826,053
1987	5,107,017	23,379	127,181	23,752	1,569,076	6,850,405
1988	5,693,316	23,810	108,814	28,363	1,760,979	7,615,282
1989	7,742,826	28,418	42,926	26,929	2,113,127	9,954,226
1990	8,504,914	30,397	69,128	23,148	2,303,306	10,930,893
1991	8,959,087	150,807	42,561	29,376	2,789,669	11,971,500
1992	9,372,766	56,665	35,421	133,105	2,999,385	12,597,342
1993	10,220,001	55,702	39,772	139,112	2,921,685	13,376,272
1994	11,146,563	32,579	44,452	152,002	3,767,140	15,142,736

NOTE 6 - INVESTMENTS

The Board of Trustees of the System shall give priority to the investment of funds in obligations considered to improve the industrial development and enhance the economic welfare of the Commonwealth. Appointed investment managers use the following guidelines and restrictions in the selection of securities and timing of transactions as long as the security is not a prohibited investment under Kentucky Revised Statutes:

STATE POLICE RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 6 - INVESTMENTS (CONTINUED)

Equity Investments - Investments may be made in common stocks, securities convertible into common stock and in preferred stocks of publicly traded corporations.

Fixed Income Investments - Publicly traded bonds are to be selected and managed to assure an appropriate balance in quality and maturities consistent with current market and economic conditions. Investments may be made in any debt instrument issued by the U. S. Government or an agency of the U. S. Government.

Mortgages - Investments may be made in real estate mortgages on a direct issue basis or in the form of mortgage pool instruments guaranteed by an agency of the U. S. Government or by the Commonwealth of Kentucky.

Equity Real Estate - Investments may be made for the purpose of creating a diversified portfolio of income-producing properties with moderate to low levels of risk.

Guaranteed Insurance Contracts - Investments may be made in guaranteed contracts issued by legal reserve life insurance companies authorized to conduct business in the Commonwealth of Kentucky and such other states as may be required.

Mutual Fund Investments - Investments may be made in mutual funds which hold common stocks or fixed income securities.

Cash Equivalent Securities - The following short-term investment vehicles, excluding commercial paper which requires specific purchase approval by the Investment Committee of the Kentucky Retirement Systems, are considered acceptable:

- Securities Purchased Under Agreements to Resell - Repurchase agreements which are collateralized by U. S. Government issues.
- U. S. Government Issues - All obligations of the U. S. Government and its agencies.
- Certificate of Deposit - Investments may be made in only the 25 largest money center banks in the United States (in terms of total assets) or in banks domiciled in the Commonwealth of Kentucky and having capital and unrestricted surplus of at least \$100 million.

STATE POLICE RETIREMENT SYSTEM  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 6 - INVESTMENTS (CONTINUED)

The System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1994. Category 1 includes investments that are either insured or registered or for which the investments are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments that are held by the broker's or dealer's trust department or agent in the System's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the broker or dealer, or by its trust department or agent but not in the System's name.

	June 30, 1994			Carrying Amount	Market Value
	Category 1	Category 2	Category 3		
United States Government bonds	\$ -0-	\$ 28,103,206	\$ -0-	\$ 28,103,206	\$ 27,397,946
Corporate bonds	885,428	13,780,818	-0-	14,666,246	14,625,028
Common stocks	-0-	86,194,588	-0-	86,194,588	114,013,602
First mortgage real estate loans	33,894	-0-	11,828,220	11,862,114	11,751,553
Securities purchased under agreements to resell	-0-	17,373,732	-0-	17,373,732	17,373,732
	<u>\$919,322</u>	<u>\$145,452,344</u>	<u>\$11,828,220</u>	<u>\$158,199,886</u>	<u>\$185,161,861</u>
Real estate investment trusts				14,494,096	13,002,469
Total investments				<u>\$172,693,982</u>	<u>\$198,164,330</u>

Investments at June 30, 1994, included approximately \$14 million of securities loaned under various collateralized lending programs.

NOTE 7 - INCOME TAX STATUS

The Internal Revenue Service has ruled that the Plan qualifies under Section 401(a) of the Internal Revenue Code and is, therefore, not subject to tax under present income tax law.

NOTE 8 - TRANSFERS TO INSURANCE FUND

By action of the 1978 General Assembly, the Kentucky Retirement Systems Insurance Fund (the "Insurance Fund") was established to provide a group hospital and medical insurance plan for recipients of a retirement allowance from the System. The Insurance Fund is funded by the transfer of a portion of employer contributions to the System. The percentage of creditable compensation transferred to the Insurance Fund by the System was 12.64% and 9.48% for 1994 and 1993, respectively.

STATE POLICE RETIREMENT SYSTEM  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 9 - RISKS OF LOSS

The System is exposed to various risks of loss related to torts; thefts of; damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Under the provisions of the Kentucky Revised Statutes, the Kentucky Board of Claims is vested with full power and authority to investigate, hear proof, and to compensate persons for damages sustained to either person or property as a result of negligence of the agency or any of its employees. Awards are limited to \$100,000 for a single claim and \$250,000 in aggregate per occurrence. Awards and a pro rata share of the operating cost of the Board of Claims are paid from the fund of the agency having a claim or claims before the Board.

Claims made against the Board of Trustees of Kentucky Retirement Systems or any of its staff as a result of actual or alleged breach of fiduciary duty are insured with a commercial insurance policy. Coverage provided is limited to \$5,000,000 with a deductible amount of \$25,000. Defense costs incurred in defending such claims will be paid by the insurance company. However, the total defense cost and claims paid shall not exceed the total aggregate coverage of the policy.

Claims for job-related illnesses or injuries to employees are insured by the State's self-insured workers' compensation program. Payments approved by the program are not subject to maximum limitations. A claimant may receive reimbursement of all medical expenses related to the illness or injury and up to sixty-six and two-thirds percent (66 2/3%) of wages for temporary disability. Each agency pays premiums based on three years' claims experience and number of covered employees. Claims experience is weighted seventy percent (70%) and number of employees is weighted thirty percent (30%). Expectations of current and future obligations are also factored into the premium calculation.

Only claims pertaining to workers' compensation have been filed during the past three fiscal years. There were no claims which were appealed to the Kentucky Workers' Compensation Board which were settled during the year with a liability accruing to the System.

NOTE 10 - CONTINGENCIES

In the normal course of business, the System is involved in various litigation concerning the right of participants or their beneficiaries to receive benefits. The System does not anticipate any material losses as a result of the contingent liabilities.

**KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND**



KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
BALANCE SHEETS

	June 30	
	1994	1993
<b>ASSETS</b>		
Investments (Note 4):		
Bonds (market value - 1994, \$114,282,407; 1993, \$95,230,328)	\$ 118,800,895	\$ 89,674,706
Common stocks (market value - 1994, \$57,061,535; 1993, \$53,996,484)	48,033,546	43,626,860
First mortgage real estate loans (market value - 1994, \$2,897,800; 1993, \$4,811,394)	2,822,401	4,562,012
Securities purchased under agreements to resell (market value approximates cost)	<u>37,412,897</u>	<u>21,042,665</u>
Total investments	\$ 207,069,739	\$ 158,906,243
Employers' contributions receivable	6,388,401	4,231,032
Unfunded transfer receivable from Kentucky Employees and State Police Retirement Systems	7,630,239	2,624,650
Accrued investment income	2,749,045	2,631,177
Other assets	<u>-0-</u>	<u>500,000</u>
<b>TOTAL ASSETS</b>	<b>\$ 223,837,424</b>	<b>\$ 168,893,102</b>
<b>LIABILITIES</b>		
Payable to Kentucky Retirement Systems	\$ 198,085	\$ 55,525
Unfunded deferred transfer from Kentucky Employees and State Police Retirement Systems	<u>7,630,239</u>	<u>2,624,650</u>
<b>TOTAL LIABILITIES</b>	<b>\$ 7,828,324</b>	<b>\$ 2,680,175</b>
<b>NET ASSETS AVAILABLE FOR BENEFITS</b>	<b>\$ 216,009,100</b>	<b>\$ 166,212,927</b>
<b>FUND BALANCE:</b>		
Actuarial present value of projected benefits payable to current retirees and beneficiaries	\$ 683,334,172	\$ 534,671,942
Actuarial present value of projected benefits payable to terminated vested participants	<u>2,422,610,445</u>	<u>1,982,737,482</u>
Total actuarial present value of credited projected medical benefits	\$3,105,944,617	\$2,517,409,424
Unfunded actuarial present value of credited projected medical benefits	<u>(2,889,935,517)</u>	<u>(2,351,196,497)</u>
<b>TOTAL FUND BALANCE</b>	<b>\$ 216,009,100</b>	<b>\$ 166,212,927</b>

See notes to financial statements.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE

Year Ended June 30  
1994                      1993

ALLOCATED TO KENTUCKY EMPLOYEES RETIREMENT SYSTEM

REVENUES:

Employers contributions transferred from Kentucky Employees Retirement System	\$31,452,892	\$22,370,387
Investment income	4,359,910	3,923,709
Net realized gain on disposal of investments	<u>601,512</u>	<u>1,643,967</u>
Total revenues	\$36,414,314	\$27,938,063

EXPENSES:

Insurance premium payments	\$14,971,055	\$12,703,906
Investment expenses	<u>33,300</u>	<u>26,208</u>
Total expenses	\$15,004,355	\$12,730,114

EXCESS OF REVENUES OVER EXPENSES                      \$21,409,959                      \$15,207,949

FUND BALANCE:

BEGINNING OF YEAR	<u>77,673,576</u>	<u>62,465,627</u>
END OF YEAR	\$99,083,535	\$77,673,576

ALLOCATED TO COUNTY EMPLOYEES RETIREMENT SYSTEM

REVENUES:

Employers contributions transferred from County Employees Retirement System	\$32,729,460	\$22,545,855
Investment income	4,585,994	3,356,906
Net realized gain on disposal of investments	<u>651,612</u>	<u>1,372,459</u>
Total revenues	\$37,967,066	\$27,275,220

EXPENSES:

Insurance premium payments	\$12,673,448	\$ 9,952,879
Investment expenses	<u>32,595</u>	<u>24,370</u>
Total expenses	\$12,706,043	\$ 9,977,249

EXCESS OF REVENUES OVER EXPENSES                      \$25,261,023                      \$17,297,971

FUND BALANCE:

BEGINNING OF YEAR	<u>74,253,871</u>	<u>56,955,900</u>
END OF YEAR	\$99,514,894	\$74,253,871

ALLOCATED TO STATE POLICE RETIREMENT SYSTEM

REVENUES:

Employers contributions transferred from State Police Retirement System	\$ 3,767,140	\$ 2,921,685
Investment income	809,338	747,520
Net realized gain on disposal of investments	<u>124,614</u>	<u>315,462</u>
Total revenues	\$ 4,701,092	\$ 3,984,667

EXPENSES:

Insurance premium payments	\$ 1,569,827	\$ 1,412,196
Investment expenses	<u>6,074</u>	<u>4,947</u>
Total expenses	\$ 1,575,901	\$ 1,417,143

EXCESS OF REVENUES OVER EXPENSES                      \$ 3,125,191                      \$ 2,567,524

FUND BALANCE:

BEGINNING OF YEAR	<u>14,285,480</u>	<u>11,717,956</u>
END OF YEAR	\$17,410,671	\$14,285,480

See notes to financial statements.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of the Kentucky Retirement Systems Insurance Fund (the Fund) are prepared on the accrual basis, and conform to generally accepted governmental accounting and financial reporting principles in all material respects.

B. Component Unit - The Fund is a component unit of the Commonwealth of Kentucky. As such, the Commonwealth of Kentucky is the primary government in whose financial reporting entity the Fund is included.

The Fund was created by the Kentucky General Assembly pursuant to the provisions of KRS 61.701. The Fund's employer contribution rates are subject to approval by the Kentucky General Assembly.

C. Investments - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discounts and premiums are amortized using the straight-line method from the date of acquisition to the stated or expected maturity date. Common stocks and securities purchased under agreement to resell are carried at cost.

Realized gains or losses on investments are recorded for the difference between the proceeds from sale or maturity and the average cost of investments sold or redeemed. Realized gains or losses are also recorded for exchanges of investments, based upon the difference at the time of the exchange between the carrying value and the market value of the investment exchanged.

NOTE 2 - DESCRIPTION OF THE PLAN

The Fund was established to provide accident and health insurance for members receiving benefits from the Kentucky Employees Retirement System, the County Employees Retirement System, and the State Police Retirement System (Systems). The Fund and members receiving benefits pay prescribed portions of the aggregate premiums paid to an insurance company for coverage. Insurance premium payments included in the accompanying financial statements represent that portion of premiums paid by the Fund. Insurance premiums withheld from benefit payments to members of the Systems approximated \$8,751,000 and \$8,062,000 for the Kentucky Employees Retirement System, \$7,209,000 and \$6,351,000 for the County Employees Retirement System, and \$55,000 and \$51,000 for the State Police Retirement System in 1994 and 1993, respectively. The Fund pays the same proportion of medical insurance premiums for the spouse or beneficiary and dependents of retired hazardous members or hazardous members killed in the line of duty. The Fund pays benefits for 30,453 retirees as of June 30, 1994.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

The allocation of the insurance premiums paid by the Fund and amounts withheld from members' benefits is based on the years of service with the Systems, as follows:

Years of Service	Percent Paid by Insurance Fund	Percent Paid by Member through Payroll Deduction
20 or more	100%	0%
15 - 19	75%	25%
10 - 14	50%	50%
4 - 9	25%	75%
Less than 4	0%	100%

In prior years, the medical insurance contribution rate was being increased annually by a percentage that would result in reaching the entry age normal funding rate within a 20 year period measured from 1987. In November 1992, the Board of Trustees elected to adopt a fixed percentage contribution rate and suspend future increases under the current medical premium funding policy until the next experience study could be performed. The next study will be completed for fiscal 1995.

The percentages of employer contributions to the Systems which are in turn transferred to the Fund were as follows:

	1994	1993
Non-Hazardous:		
Kentucky Employees Retirement System	2.76%	1.77%
County Employees Retirement System	2.36%	1.58%
Hazardous:		
Kentucky Employees Retirement System	6.22%	6.17%
County Employees Retirement System	6.33%	5.67%
State Police Retirement System	12.64%	9.48%

The required and actual contributions to the Fund from the Systems were as follows:

	1994	1993
Required contributions:		
Kentucky Employees Retirement System	\$37,184,533	\$36,149,681
County Employees Retirement System	31,528,130	29,022,159
State Police Retirement System	<u>4,326,937</u>	<u>4,414,394</u>
Total	\$73,039,600	\$69,586,234
Actual contributions:		
Kentucky Employees Retirement System	\$31,452,892	\$22,370,387
County Employees Retirement System	32,729,460	22,545,855
State Police Retirement System	<u>3,767,140</u>	<u>2,921,685</u>
Total	\$67,949,492	\$47,837,927

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

The employer contribution for Kentucky Employees Retirement System and State Police Retirement System are being funded at rates less than those determined by actuarial valuation. This has the effect of reducing the amount allocated to the Fund. The Systems have filed suit to require the full funding of the contributions. The Fund has recorded a receivable and an offsetting deferral for the unfunded amount.

NOTE 3 - FUNDING STATUS AND PROGRESS

The "medical benefit obligation" is a standardized measure of the present value of medical benefits, adjusted for the effects of health costs inflation, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the Fund's funding status on a going-concern basis. The medical benefit obligation was determined as part of an actuarial valuation performed as of June 30, 1994 and 1993, respectively. Such is titled "total actuarial present value of projected medical benefits" shown on the Balance Sheet.

The significant actuarial assumptions underlying the actuarial computations are as follows:

Actuarial cost method	- Entry age normal cost method
Assumed rate of return on investments	- 8% per annum
Mortality basis	- 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employees
Retirement age	- Based upon experience, with 20-50% weight, at age 55-64, to the earliest age at which an employee could retire with 100% of the accrued benefits.
Health cost inflation	- 10% per annum

NOTE 4 - INVESTMENTS

The Board of Trustees of the Fund shall give priority to the investment of funds in obligations considered to improve the industrial development and enhance the economic welfare of the Commonwealth. Appointed investment managers use the following guidelines and restrictions in the selection of securities and timing of transactions as long as the security is not a prohibited investment under Kentucky Revised Statutes:

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
NOTES TO FINANCIAL STATEMENTS  
YEARS ENDED JUNE 30, 1994 AND 1993  
(CONTINUED)

NOTE 4 - INVESTMENTS (CONTINUED)

Equity Investments - Investments may be made in common stocks, securities convertible into common stock and in preferred stocks of publicly traded corporations.

Fixed Income Investments - Publicly traded bonds are to be selected and managed to assure an appropriate balance in quality and maturities consistent with current market and economic conditions. Investments may be made in any debt instrument issued by the U. S. Government or an agency of the U. S. Government.

Mortgages - Investments may be made in real estate mortgages on a direct issue basis or in the form of mortgage pool instruments guaranteed by an agency of the U. S. Government or by the Commonwealth of Kentucky.

Equity Real Estate - Investments may be made for the purpose of creating a diversified portfolio of income-producing properties with moderate to low levels of risk.

Guaranteed Insurance Contracts - Investments may be made in guaranteed contracts issued by legal reserve life insurance companies authorized to conduct business in the Commonwealth of Kentucky and such other states as may be required.

Mutual Fund Investments - Investments may be made in mutual funds which hold common stocks or fixed income securities.

Cash Equivalent Securities - The following short-term investment vehicles, excluding commercial paper which requires specific purchase approval by the Investment Committee of the Kentucky Retirement Systems, are considered acceptable:

- Securities Purchased Under Agreements to Resell - Repurchase agreements which are collateralized by U. S. Government issues.
- U. S. Government Issues - All obligations of the U. S. Government and its agencies.
- Certificate of Deposit - Investments may be made in only the 25 largest money center banks in the United States (in terms of total assets) or in banks domiciled in the Commonwealth of Kentucky and having capital and unrestricted surplus of at least \$100 million.

The Fund's investments are categorized below to give an indication of the level of risk assumed by the Fund at June 30, 1994. Category 1 includes investments that are either insured or registered or for which the investments are held by the Fund or its agent in the Fund's name. Category 2 includes uninsured and unregistered investments that are held by the broker's or dealer's trust department or agent in the Fund's name. Category 3 includes uninsured and unregistered investments for which the securities are held by the broker or dealer, or by its trust department or agent but not in the Fund's name.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND  
 NOTES TO FINANCIAL STATEMENTS  
 YEARS ENDED JUNE 30, 1994 AND 1993  
 (CONTINUED)

NOTE 4 - INVESTMENTS (CONTINUED)

	June 30, 1994				
	Category 1	Category 2	Category 3	Carrying Amount	Market Value
United States Government bonds	\$ -0-	\$ 88,093,928	\$ -0-	\$ 88,093,928	\$ 84,881,917
Corporate bonds	-0-	30,706,967	-0-	30,706,967	29,400,490
Common stocks	-0-	48,033,546	-0-	48,033,546	57,061,535
First mortgage real estate loans	-0-	-0-	2,822,401	2,822,401	2,897,800
Securities purchased under agreements to resell	-0-	<u>17,412,897</u>	-0-	<u>17,412,897</u>	<u>17,412,897</u>
Total investments	<u>\$ -0-</u>	<u>\$204,247,338</u>	<u>\$2,822,401</u>	<u>\$207,069,739</u>	<u>\$211,654,639</u>

Investments at June 30, 1994, included approximately \$36 million of securities loaned under various collateralized lending programs.

NOTE 5 - CONTINGENCIES

In the normal course of business, the Fund is involved in various litigation concerning the right of participants or their beneficiaries to receive benefits. The Fund does not anticipate any material losses as a result of the contingent liabilities.



INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL STRUCTURE  
RELATED MATTERS NOTED IN A FINANCIAL STATEMENT AUDIT  
CONDUCTED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

Board of Trustees  
Kentucky Retirement Systems  
Frankfort, Kentucky

We have audited the financial statements of the Kentucky Employees Retirement System, the County Employees Retirement System, the State Police Retirement System and the Kentucky Retirement Systems Insurance Fund (the "Kentucky Retirement Systems") as of and for the year ended June 30, 1994, and have issued our report thereon dated September 9, 1994.

We conducted our audit in accordance with generally accepted auditing standards and Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements.

In planning and performing our audit of the financial statements of the Kentucky Retirement Systems for the year ended June 30, 1994, we considered its internal control structure in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on the internal control structure.

The management of the Kentucky Retirement Systems is responsible for establishing and maintaining an internal control structure. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal control structure policies and procedures. The objectives of an internal control structure are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of financial statements in accordance with generally accepted accounting principles. Because of inherent limitations in any internal control structure, errors or irregularities may nevertheless occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design and operation of policies and procedures may deteriorate.



For the purpose of this report, we have classified the significant internal control structure policies and procedures in the following categories:

- Contributions and other revenues
- Retirement benefits and other expenses
- Investments
- Member demographics

For all of the internal control structure categories listed above, we obtained an understanding of the design of relevant policies and procedures and whether they have been placed in operation, and we assessed control risk.

Our consideration of the internal control structure would not necessarily disclose all matters in the internal control structure that might be material weaknesses under standards established by the American Institute of Certified Public Accountants. A material weakness is a reportable condition in which the design or operation of one or more of the specific internal controls structure elements does not reduce to a relatively low level the risk that errors or irregularities in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in normal course of performing their assigned functions. We noted no matters involving the internal control structure and its operation that we consider to be material weaknesses as defined above.

This report is intended for the information of the Board of Trustees, management and the Commonwealth of Kentucky Auditor of Public Accounts. This restriction is not intended to limit the distribution of this report, which is a matter of public record.

September 9, 1994

*Eschew & Gresham, PSC.*

The logo for Eskew & Gresham, featuring the company name in a stylized, serif font with a horizontal line underneath.

INDEPENDENT AUDITORS' REPORT ON COMPLIANCE WITH LAWS AND REGULATIONS  
BASED ON AN AUDIT OF THE FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE  
WITH GOVERNMENT AUDITING STANDARDS

Board of Trustees  
Kentucky Retirement Systems  
Frankfort, Kentucky

We have audited the financial statements of the Kentucky Employees Retirement System, the County Employees Retirement System, the State Police Retirement System and the Kentucky Retirement Systems Insurance Fund (the "Kentucky Retirement Systems") as of June 30, 1994 and for the year then ended, and have issued our report thereon dated September 9, 1994.

We conducted our audit in accordance with generally accepted auditing standards and Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

Compliance with laws, regulations, contracts, and grants applicable to the Kentucky Retirement Systems is the responsibility of the Kentucky Retirement Systems' management. As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we performed tests of the Kentucky Retirement Systems' compliance with certain provisions of laws and regulations. However, our objective was not to provide an opinion on overall compliance with such provisions.

The results of our tests indicate that, with respect to the items tested, the Kentucky Retirement Systems complied, in all material respects, with the provisions referred to in the preceding paragraph. With respect to items not tested, nothing came to our attention that caused us to believe that the Kentucky Retirement Systems had not complied, in all material respects, with those provisions.

This report is intended for the information of the Board of Trustees, management and the Commonwealth of Kentucky Auditor of Public Accounts. This restriction is not intended to limit the distribution of this report, which is a matter of public record.

September 9, 1994

*Eskew & Gresham, PSC.*





# **Actuarial Section**

## ACTUARIAL SECTION INTRODUCTION

An actuarial valuation is a mathematical means of determining liabilities (the cost of benefits guaranteed each member) and the adequacy of the assets and income of the systems. It is a way of looking into the future, based on past experience, to determine if the contributions being paid by the employee and employer, combined with projected investment income, are sufficient to pay the benefits guaranteed to retirees and current members.

Because pension plans, such as those administered by Kentucky Retirement Systems, must necessarily be oriented toward long-range goals, rather than short term receipts and expenses, the actuarial valuation provides the information that the Board of Trustees needs to make sound judgements on investment decisions. The Board must consider not only the systems' ability to pay current retirees' benefits, but also to pay benefits for all future retirees.

The Board's actuarial consultant, the firm of William M. Mercer, Inc., has performed the actuarial valuations which follow. The following pages represent a copy of the June 30, 1994 valuation, less statistical data too lengthy to include in this report. William M. Mercer, Inc., also conducted the five-year experience study upon which current actuarial assumptions are based. The actuarial assumptions used in these valuations were adopted by the Board of Trustees in December of 1989.

The benefits of the systems are funded in accordance with KRS 61.565 which requires that normal costs be funded as a percentage of payroll and that unfunded liabilities be amortized over a 30-year period. The medical insurance benefits are funded in accordance with KRS 61.702.

November 3, 1994

Board of Trustees  
Kentucky Retirement Systems  
Perimeter Park West  
1260 Louisville Road  
Frankfort, Kentucky 40601

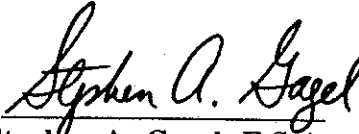
**Members of the Board:**

The thirty-eighth annual actuarial valuation of the Kentucky Employees Retirement System, the thirty-fifth annual actuarial valuation of the County Employees Retirement System, and the thirty-sixth annual actuarial valuation of the State Police Retirement System have been completed and the reports prepared. The valuations were made on the basis of data provided by the Retirement System as of June 30, 1994.

On the basis of the assumptions as stated in each report and the data furnished us by the Administration of the Retirement Systems, it is certified that the valuations have been made by the use of generally accepted actuarial principles and that, if the recommendations of the reports are followed, adequate provision will be made for the funding of future benefits.

The three Retirement Systems are actuarially sound. Adequate provision is being made for the funding of the Actuarial Accrued Liabilities of the Kentucky Employees Retirement System, the County Employees Retirement System, and the State Police Retirement System as required by the Kentucky Revised Statutes, as appropriate funding rates have been established by the Board for this purpose.

Respectfully Submitted,  
WILLIAM M. MERCER, INCORPORATED

By   
Stephen A. Gagel, F.S.A.  
Principal

/cga

1500 Meidinger Tower  
Louisville KY 40202

502 561 4500

A Marsh & McLennan Company

THIRTY-EIGHTH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1994

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

FRANKFORT, KENTUCKY

## SECTION I

### INTRODUCTION

The results of the thirty-eighth annual actuarial valuation of the Kentucky Employees Retirement System are presented in this report. The actuarial valuation was made on the basis of the data provided by the System as of June 30, 1994.

The purpose of the actuarial valuation is to determine the actuarial condition of the Retirement System and the rate of employer contributions for the ensuing fiscal year required to support the System.

The plan provisions utilized in this valuation are described in the Summary of Principal Plan Provisions beginning on page K-45. The basis of funding, as defined in KRS 61.565, provides that the actuarial valuation method is uniform for all benefits provided by the System. The Entry Age Normal Actuarial cost method has been used for all benefits as explained on page K-2. KRS 61.565 provides that each employer participating in the System shall contribute an amount equal to the Normal Cost contribution rate, and an amount sufficient to amortize the Unfunded Actuarial Accrued Liability over 30 years using the level-percentage-of-payroll method. This is the standard used herein to determine whether the funding of the System is adequate.

The actuarial valuation results are based upon the employee census and asset data supplied by the office of the System, and upon the actuarial assumptions as stated on page K-5.



## SECTION II

### ACTUARIAL CONSIDERATIONS

#### Description of Actuarial Methods

The actuarial valuation is the means by which the contingent liabilities and contribution rates of a retirement system are evaluated and determined. It provides a guide to the System to the financing required during years of active service to accumulate the funds needed to provide member's benefits. It also makes it possible to estimate beforehand the cost of proposed changes in the System so that action can be taken in the light of the cost consequences.

The methods of valuation are prescribed by KRS 61.565. The Entry Age Normal Actuarial cost method was used to determine costs of all benefits with the exception of the retiree medical insurance benefit. Under this method the employer's contribution to the retirement system consists of Normal Cost, a payment to fund the Unfunded Actuarial Accrued Liability, medical insurance, and administrative expenses. The Normal Cost represents the contribution (as a level percent of payroll) that completely funds benefits at retirement if made from a person's entry into employment until his retirement. The Actuarial Accrued Liability represents the sum of money and investments that would be held in the fund if the retirement system had been in effect since the date each member was first employed.

The medical insurance contribution rate was originally determined in the 1987 valuation as the level percent of payroll necessary to fund projected medical insurance premiums over the next sixteen years (taking into account the level of reserves in the Insurance Fund). Beginning in 1988, this rate was increased each year by a percentage amount needed to reach the Entry Age Normal funding rate within a 20 year period measured from 1987. This was continued through the 1992 valuation. In the 1992 valuation, an acceleration of the scheduled increases in the medical insurance contribution rate was recommended where possible. This acceleration in these rates was coupled with a deferral of future increases until the time of the next experience study, unless there is a deterioration in the funded position of the medical premium benefit in which case the rate levels will be reviewed to redetermine an appropriate current funding level, or unless recommended contributions are not made in the prior year, in which case the shortfall shall be spread over future years through an increase in the contribution rate.

The amount of the administrative expense was based on the budgeted amount for the twelve months following the date of the valuation, as allocated between Hazardous position and Non-Hazardous position employees.

#### Actuarial Assumptions

Since the actuarial valuation involves estimates of benefits payable in the future, it is necessary that assumptions be made as to the interest earnings, rates of mortality, withdrawal, retirement, and disability, and the rate at which salaries will increase. In addition, an assumption must be made relative to increases in medical insurance premium rates in order to value the liability for the medical insurance benefit.

It is desirable that the actuarial assumptions be reviewed periodically to see whether past experience and probable future experience justifies the continued use of these actuarial assumptions. Such a study was performed subsequent to the 1989 actuarial valuation and new actuarial assumptions were adopted by the Board for use in the subsequent actuarial valuations, until such time as another experience study is performed. This valuation reflects assumptions based on the 1989 experience study. Actuarial assumptions used for hazardous position employees are similar to actuarial assumptions adopted for the State Police Retirement System (with the exception of the rate of retirement, as indicated on page K-5). The actuarial assumptions as used in this valuation are described beginning on page K-5.

#### Actuarial Value of Assets

The actuarial value of assets is determined in the following manner for the Retirement Fund:

1. Determine the ratio of the market value of Retirement Fund assets to book value as of the current valuation date and the four preceding valuation dates (but not using any valuation dates prior to June 30, 1989). All asset values include accrued investment income and member and employer contribution receivables, and exclude member refunds and investment expenses payable.
2. Determine the average ratio of market to book value as of these valuation dates.
3. Apply this average ratio to the book value (as adjusted for accrued investment income and member and employer contribution receivables, and member refunds and investment expenses payable) as of the current valuation date to derive valuation assets.

For the Insurance Fund, the actuarial value of assets is determined to be the book value of the assets in that fund as of the valuation date adjusted for any receivables and/or payables.

The different asset valuation methods for the Retirement Fund and the Insurance Fund are a result the following:

1. There is separate book and market value information for the Insurance Fund under all systems dating only from July, 1992. So it is not possible to presently use the same averaging method for the Insurance Fund as used for the Retirement Fund.
2. The magnitude of assets to liabilities for the Insurance Fund is such that the method of valuing assets will only negligibly affect current valuation results. Also, given the current method for transitioning into higher medical premium contribution rates over future years, the asset valuation method used for the Insurance Fund is not as critical as the asset valuation method used for the Retirement Fund.

The derivation of valuation assets for the Retirement Fund as of the current valuation date is as follows:

Non-Hazardous

	<u>Book Value *</u>	<u>Market Value *</u>	<u>Ratio</u>
June 30, 1994	2,299,325,031	2,586,932,571	112.50835%
June 30, 1993	2,185,895,811	2,591,588,544	118.55956%
June 30, 1992	2,014,998,203	2,385,564,675	118.39041%
June 30, 1991	1,872,900,026	2,127,403,199	113.58872%
June 30, 1990	1,768,724,348	1,954,895,264	110.52572%
... Average Ratio =			114.71455%
... Valuation Assets =			2,637,660,362
(Average Ratio x Current Book Value)			

Hazardous

	<u>Book Value *</u>	<u>Market Value *</u>	<u>Ratio</u>
June 30, 1994	78,203,372	84,691,892	108.29698%
June 30, 1993	65,477,196	74,363,956	113.57230%
June 30, 1992	51,848,488	67,592,928	130.36625%
June 30, 1991	40,314,905	48,337,561	119.89997%
June 30, 1990	30,597,390	34,319,733	112.16556%
... Average Ratio =			116.86021%
... Valuation Assets =			91,388,625
(Average Ratio x Current Book Value)			

\* Reflects accrued investment income and member and employer contribution receivables, and member refunds and investment expenses payable; represents Retirement Fund assets exclusive of amounts in the Insurance Fund

Except for Table VI, the actuarial value of assets excludes any amounts in the Insurance Fund. Table VI uses only assets in the Insurance Fund, excluding all other amounts.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

A. STATEMENT OF ACTUARIAL ASSUMPTIONS

- (1) Mortality:
- (a) Active & retired lives - 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employees.
  - (b) Disabled lives - Social Security Administration Disability Mortality Rates - Actuarial Study No. 75 (current rates used by PBGC for disabled lives receiving Social Security).
- (2) Disablement - Graduated rates based on 1989 experience study.
- (3) Termination of employment - Graduated select (non-hazardous only) and ultimate rates based on 1989 experience study.
- (4) Retirement - Non-Hazardous:

<u>Age</u>	<u>Retirement Rate</u>
55-57	.03
58-59	.04
60-61	.05
62	.25
63-64	.10
65	.50
66-67	.20
68	.25
69	.40
70 & Over	1.00

At age 55-64 in lieu of the age related rate, 20% are assumed to retire as soon as eligible for unreduced benefits.

Hazardous: Assumed that 50% will retire as soon as eligible for unreduced benefits and balance will continue to age 60.

- (5) Marital status
  - (a) Percentage married - 100%.
  - (b) Age difference - Males are assumed to be 3 years older than their spouses.
- (6) Dependent children - For hazardous position employees under duty related death benefits, it is assumed that the employee is survived by 2 dependent children, each age 6.
- (7) Investment return - 8.00% per year, net of investment related expenses, compounded annually.
- (8) Compensation progression - 6.50% per year, compounded annually.
- (9) Retiree Medical Insurance - It was assumed that future retirees would select medical coverage in the same proportion that current retirees have selected coverage. Monthly premium rates were assumed to be as follows:

<u>Plan Type</u>	<u>7/1/94</u>	<u>Rate Increase</u>	
	<u>Rate</u>	<u>Date</u>	<u>Rate</u>
Single	\$158.78*	1/1/95	\$174.66**
Family	338.98*	1/1/95	372.88**
Parent Plus	239.54*	1/1/95	263.49**
Medicare	78.00*	1/1/95	85.80**
High Option	132.05*	1/1/95	145.26**

\*Actual rates  
 \*\*Assumed rates

In determining the medical premium funding rate in 1987, medical premiums were assumed to increase at an annual rate of 12%. In determining the target Entry Age Funding rate in valuations subsequent to 1987, it was assumed that medical premiums would grow at an annual rate of 10%. The assumed rate of growth in number of retirees receiving medical insurance was based on assumed retirement and mortality patterns used throughout the valuation.

Reserves in the Insurance Fund were used to offset the liability for premiums.

(10) Missing data

- For those active members with incomplete data, the following assumptions were made:

- . If reported salary was zero or blank, then monthly salary was assumed to be \$700
- . If reported age was blank, then assume current age equal to age 18 plus years of service reported

(11) Members with Multiple Service Records

- For active members with service in more than one system, the liability has been valued as follows:

- . Service under all systems is aggregated for purposes of determining benefit eligibility.
- . Future service is projected only under the system in which the member is currently active.
- . The actual benefit under each system is determined based only on service (past and projected future service, if applicable) under that system.
- . The liability is determined under each system based on the actuarial assumptions used for the system in which the member is currently active. This liability is then included in the valuation of the system in which the service has been earned (or is projected to be earned).

For inactive members with service in more than one system, the benefit attributable to the service under each system is determined, and the liability for that benefit is then included in the valuation of the system in which the service was earned.

B. SAMPLE RATES FOR NON-HAZARDOUS POSITION EMPLOYEES\*

(1) Annual Rates of Mortality:

<u>Age</u>	<u>Active Mortality</u>		<u>Disabled Mortality</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
25	0.05%	0.03%	4.83%	2.63%
30	0.06%	0.03%	3.62%	2.37%
40	0.12%	0.07%	2.82%	2.09%
50	0.40%	0.16%	3.83%	2.57%
55	0.61%	0.25%	4.82%	2.95%
60	0.92%	0.42%	6.03%	3.31%

(2) Annual Rates of Decrement:

<u>Age</u>	<u>Disablement</u>	<u>Ultimate Termination</u>
25	0.02%	3.00%
30	0.03%	3.00%
40	0.07%	2.50%
50	0.28%	2.00%
55	0.53%	1.50%
60	0.93%	0.25%

(3) Select Rates of Termination:

<u>Years of Service</u>	<u>Select Termination</u>
1	25.0%
2	8.0%
3	5.0%
4	4.0%
5	3.5%

(4) Compensation Progression:

<u>Age</u>	<u>Rate of Annual Increase</u>	<u>Compensation at Normal Retirement as Percentage Of Current Annual Compensation</u>
25	6.50%	1,241.6%
30	6.50%	906.2%
40	6.50%	482.8%
50	6.50%	257.2%
55	6.50%	187.7%
60	6.50%	137.0%

\*Sample rates for hazardous position employees are included in the State Police Retirement System valuation.

### SECTION III

#### KENTUCKY EMPLOYEES RETIREMENT SYSTEM

#### RESULTS OF THE 1994 ACTUARIAL VALUATION

##### Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the Kentucky Employees Retirement System as of June 30, 1994. The "actuarial balance sheet" of the retirement system displays the fundamental relationship between actual assets, future contributions, and future benefits. The asset side of the balance sheet is comprised of actual fund assets plus the actuarial present value of future contributions on behalf of current members. The actuarial present values of all projected benefit payments to present active and inactive members make up the balance sheet liabilities.

##### Determination of Contribution Rate

The rate of contribution by the State required to provide 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, the employer share of the Normal Cost, medical insurance and the expenses of administration, is shown in Table II. The required contribution is expressed both in dollars and as a percentage of the estimated annual State payroll as of June 30, 1994.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1994 are described on page K-2. These costs are classified by type of benefit. The Normal Cost contribution rate of the State is determined by reducing the total Normal Cost by the expected employee contributions. A breakdown of actuarial liabilities and costs between Hazardous and Non-Hazardous position employees appears in Table III.

##### Accountant's Information

Table IV contains a calculation of the accumulated value of plan benefits as specified under FASB Statement No. 35. Under this calculation, the present value of future benefits payable and attributable to the employee's present accrued benefit is computed. The probabilities of termination, disability, mortality and retirement are the same for this calculation as those used in the regular valuation calculations. However, future increases in earnings and additional benefit accruals are not projected beyond the current valuation date.

Table V contains information needed to comply under GASB Statement No. 5. These calculations reflect the present value of benefits attributable to current years of service, but based on projected salary levels at the time a member's final benefits are determined.

Table VI contains information needed to comply under GASB Statement No. 12. These calculations reflect the liabilities for the medical premium benefit provided under the system.



TABLE I  
KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
ACTUARIAL BALANCE SHEET - JUNE 30, 1994

Fund Assets at Actuarial Value (Plus Refunds and Expenses Payable) *	\$2,736,524,538
Actuarial Present Value of Future Member Contributions	700,471,714
Actuarial Present Value of Future Employer Contributions	
For Normal Costs	\$606,790,465
For Unfunded Actuarial Accrued Liability	183,001,288
Total	\$789,791,753
Total Actuarial Assets	\$4,226,788,005

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits		
Inactive Members:		
Retired Members and Beneficiaries	\$1,100,882,062	
Vested Retirement	21,912,784	
Vested Membership	8,148,853	
Post Retirement Death Benefit	8,933,899	
Total - Inactive	\$1,139,877,598	
Active Members:		
Retirement Benefits	\$2,584,731,148	
Disability Benefits	145,967,421	
Withdrawal Benefits (Vested and Refund of Contributions)	193,166,620	
Survivor Benefits	155,569,667	
Total - Active	\$3,079,434,856	
Refunds and Expenses Payable		\$7,475,551
Total Actuarial Liabilities		\$4,226,788,005

ACCRUED BENEFIT LIABILITY \*\*

Vested Benefits	\$1,758,322,564
Non-Vested Benefits	\$101,196,072

* Values as of June 30, 1994			
Market value of assets:	Non-Hazardous	\$2,586,932,571	
	Hazardous	\$84,691,892	
	Total	\$2,671,624,463	
Actuarial value of assets:		\$2,729,048,987	
Member's Contribution Account:		\$556,888,548	

\*\* Present value of accrued benefit deferred to normal retirement date.

TABLE II  
 KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 DETERMINATION OF CONTRIBUTION RATE - JUNE 30, 1994

<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>		<u>PERCENT *</u>
Total Actuarial Accrued Liability	\$2,912,050,275	261.12%
Assets at Actuarial Value	2,729,048,987	244.71%
Unfunded Actuarial Accrued Liability	\$183,001,288	16.41%
Contribution - Payment on Unfunded Actuarial Accrued Liability	\$10,129,368	0.91%
 <u>NORMAL COST</u>		
Retirement Benefits	\$86,721,529	7.78%
Disability Benefits	6,052,888	0.54%
Withdrawal Benefits (Vested and Refund of Contributions)	10,152,754	0.91%
Survivor Benefits	5,377,137	0.48%
Total Normal Cost	\$108,304,308	9.71%
Less: Employee Contributions	56,628,377	5.08%
Normal Cost - State	\$51,675,931	4.63%
 <u>TOTAL ANNUAL EMPLOYER COST</u>		
<u>Non-Hazardous Duty Cost</u>		
Normal Cost	\$45,164,523	4.32% **
Payment on Unfunded Actuarial Accrued Liability	9,561,236	0.91% **
Administrative Expense	3,823,985	0.37% **
Group Hospital and Medical Insurance Premiums	32,944,236	3.15% **
Total Annual Cost	\$91,493,980	8.75% **
 <u>Hazardous Duty Cost</u>		
Normal Cost	\$6,511,408	9.39% ***
Payment on Unfunded Actuarial Accrued Liability	568,132	0.82% ***
Administrative Expense	266,790	0.38% ***
Group Hospital and Medical Insurance Premiums	5,174,079	7.46% ***
Total Annual Cost	\$12,520,409	18.05% ***
 * Based on estimated annual salaries of \$1,115,206,380		
** Based on estimated annual salaries of \$1,045,848,756 for Non-Hazardous Position Employees		
*** Based on estimated annual salaries of \$69,357,624 for Hazardous Position Employees		

NOTE: Determination of contribution rates in this table reflects benefits in effect on the valuation date prior to determination of any increase in retirement allowances as determined under KRS 61.691(1).

TABLE III  
 KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 CLASSIFICATION OF ACTUARIAL LIABILITIES AND COSTS - JUNE 30, 1994

<u>ACTUARIAL ACCRUED LIABILITY</u>	Non-Hazardous Position Employees	Hazardous Position Employees	Total
<u>Active Members</u>			
Retirement Benefits	\$1,479,951,099	\$63,393,699	\$1,543,344,798
Disability Benefits	71,325,749	1,620,438	72,946,187
Withdrawal Benefits (Vested and Refund of Contributions)	63,930,238	561,770	64,492,008
Survivor Benefits	89,270,315	2,119,369	91,389,684
Actuarial Accrued Liability - Actives	\$1,704,477,401	\$67,695,276	\$1,772,172,677
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$1,067,497,752	\$33,384,310	\$1,100,882,062
Vested Retirement	21,429,182	483,602	21,912,784
Vested Membership	7,868,006	280,847	8,148,853
Post Retirement Death Benefit	8,273,284	660,615	8,933,899
Actuarial Accrued Liability - Inactives	\$1,105,068,224	\$34,809,374	\$1,139,877,598
Total Actuarial Accrued Liability	\$2,809,545,625	\$102,504,650	\$2,912,050,275
<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>			
Total Actuarial Accrued Liability	\$2,809,545,625	\$102,504,650	\$2,912,050,275
Less Actuarial Value of Assets	2,637,660,362	91,388,625	2,729,048,987
<u>Unfunded Actuarial Accrued Liability</u>			
. Portion Amortized from 1990	\$283,806,623	(\$405,774)	\$283,400,849
. Portion Amortized from 1991	112,064,161	9,203,398	121,267,559
. Portion Amortized from 1992	(224,000,029)	(2,343,183)	(226,343,212)
. Portion Amortized from 1993	(59,504,544)	1,925,116	(57,579,428)
. Portion Amortized from 1994	59,519,052	2,736,468	62,255,520
. Total	\$171,885,263	\$11,116,025	\$183,001,288
<u>NORMAL COST</u>			
Retirement Benefits	\$76,847,821	\$9,873,708	\$86,721,529
Disability Benefits	5,701,314	351,574	6,052,888
Withdrawal Benefits (Vested and Refund of Contributions)	9,806,509	346,245	10,152,754
Survivor Benefits	4,865,546	511,591	5,377,137
Total Normal Cost	\$97,221,190	\$11,083,118	\$108,304,308
Less Employee Contributions	52,056,667	4,571,710	56,628,377
Total Normal Cost - State	\$45,164,523	\$6,511,408	\$51,675,931
<u>ACCRUED BENEFIT LIABILITY *</u>			
Vested Benefits	\$1,688,131,027	\$70,191,537	\$1,758,322,564
Non-Vested Benefits	74,119,874	27,076,198	101,196,072

\* Present value of accrued benefits deferred to normal retirement date.

TABLE IV  
 KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
 INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

	Non-Hazardous Position Employees	Hazardous Position Employees	Total
<b><u>ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS</u></b>			
<b><u>Active Members</u></b>			
Retirement Benefits	\$563,940,739	\$22,732,407	\$586,673,146
Disability Benefits	15,061,903	817,249	15,879,152
Withdrawal Benefits (Vested & Refund of Contributions)	71,428,656	1,644,951	73,073,607
Survivor Benefits	0	0	0
<b>Total - Active Members</b>	<b>\$650,431,298</b>	<b>\$25,194,607</b>	<b>\$675,625,905</b>
<b><u>Inactive Members</u></b>			
Retired Members and Beneficiaries	\$1,067,497,752	\$33,384,310	\$1,100,882,062
Vested Retirement	21,429,182	483,602	21,912,784
Vested Membership	7,868,006	280,847	8,148,853
Post Retirement Death Benefit	8,273,284	660,615	8,933,899
<b>Total - Inactive Members</b>	<b>\$1,105,068,224</b>	<b>\$34,809,374</b>	<b>\$1,139,877,598</b>
<b>Total Actuarial Present Value of Vested Accumulated Benefits</b>	<b>\$1,755,499,522</b>	<b>\$60,003,981</b>	<b>\$1,815,503,503</b>
<b><u>ACTUARIAL PRESENT VALUE OF NON-VESTED ACCUMULATED BENEFITS</u></b>			
<b><u>Active Members</u></b>			
Retirement Benefits	\$95,392,419	\$10,353,373	\$105,745,792
Disability Benefits	39,716,009	1,298,934	41,014,943
Withdrawal Benefits (Vested & Refund of Contributions)	790,061	227,490	1,017,551
Survivor Benefits	45,845,749	2,208,471	48,054,220
<b>Total Active Members</b>	<b>\$181,744,238</b>	<b>\$14,088,268</b>	<b>\$195,832,506</b>
<b>Inactive Members</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Actuarial Present Value of Non-Vested Accumulated Benefits</b>	<b>\$181,744,238</b>	<b>\$14,088,268</b>	<b>\$195,832,506</b>

NOTE: All calculations in this Table IV have been developed as specified under FAS Statement No. 35.

TABLE V  
 KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
 INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

NUMBER OF MEMBERS	Non-Hazardous Position Employees	Hazardous Position Employees	Total
<u>Inactive Members</u>			
Retired Members and Beneficiaries	17,707	334	18,041
Vested Retirements	2,414	45	2,459
Vested Membership	11,049	351	11,400
<b>Total Inactive Members</b>	<b>31,170</b>	<b>730</b>	<b>31,900</b>
<u>Active Members</u>			
Vested Members	31,020	1,989	33,009
Nonvested Members	14,761	1,252	16,013
<b>Total Active Members</b>	<b>45,781</b>	<b>3,241</b>	<b>49,022</b>
<b>Total Members</b>	<b>76,951</b>	<b>3,971</b>	<b>80,922</b>
<u>UNFUNDED PENSION BENEFIT OBLIGATION</u>			
<u>Pension Benefit Obligation</u>			
Retirees and Beneficiaries			
Currently Receiving			
Benefits and Terminated Members Not			
Members Not Yet			
Receiving Benefits	\$1,105,068,224	\$34,809,374	\$1,139,877,598
Current Members			
Accumulated Employee			
Contributions and			
Credited Interest	506,574,683	23,485,578	530,060,261
Employer Financed -			
Vested	944,552,709	35,137,401	979,690,110
Employer Financed -			
Nonvested	28,809,028	4,789,921	33,598,949
<b>Total Pension Benefit Obligation</b>	<b>\$2,585,004,644</b>	<b>\$98,222,274</b>	<b>\$2,683,226,918</b>
<u>Net Assets at Actuarial Value</u>	<u>\$2,637,660,362</u>	<u>\$91,388,625</u>	<u>\$2,729,048,987</u>
<u>Unfunded Pension Benefit Obligation</u>	<u>(\$52,655,718)</u>	<u>\$6,833,649</u>	<u>(\$45,822,069)</u>

NOTE: (1) Pension Benefit Obligation based on Projected Unit Credit Actuarial Cost Method.

(2) Assets at book value on June 30, 1994:	Non-Hazardous	\$2,299,325,031
	Hazardous	\$78,203,372
	<b>Total</b>	<b>\$2,377,528,403</b>

TABLE VI  
 KENTUCKY EMPLOYEES RETIREMENT SYSTEM  
 ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
 INFORMATION REQUIRED UNDER GASB STATEMENT NO. 12

NUMBER OF MEMBERS		Non-Hazardous Position Employees	Hazardous Position Employees	Total
<u>Inactive Members</u>				
Contracts in Force - Retirees and Dependents				
(1) Single;	- 100% Paid	1,630	62	1,692
Pre-Medicare	- 75% Paid	244	9	253
	- 50% Paid	190	14	204
	- 25% Paid	83	9	92
	- 0% Paid	642	1	643
(2) Family;	- 100% Paid	399	76	475
Pre-Medicare	- 75% Paid	33	1	34
	- 50% Paid	26	4	30
	- 25% Paid	15	5	20
	- 0% Paid	12	0	12
(3) Parent +;	- 100% Paid	20	9	29
Pre-Medicare	- 75% Paid	3	2	5
	- 50% Paid	0	5	5
	- 25% Paid	3	1	4
	- 0% Paid	35	0	35
(4) Medicare Regular	- 100% Paid	29	0	29
	- 75% Paid	267	2	269
	- 50% Paid	402	9	411
	- 25% Paid	411	4	415
	- 0% Paid	638	0	638
(5) Medicare High Option	- 100% Paid	4,181	105	4,286
	- 75% Paid	1,505	19	1,524
	- 50% Paid	1,339	14	1,353
	- 25% Paid	714	8	722
	- 0% Paid	1,570	0	1,570
Vested Retirements		2,414	45	2,459
Vested Membership		11,049	351	11,400
<u>Active Members</u>		45,781	3,241	49,022
<u>UNFUNDED MEDICAL BENEFIT OBLIGATION</u>				
<u>Medical Benefit Obligation</u>				
Retirees, Beneficiaries and				
	Vested Terminated Members	\$341,368,231	\$20,629,737	\$361,997,968
	Active Members	999,655,833	82,958,877	1,082,614,710
	Total Medical Benefit Obligation	\$1,341,024,064	\$103,588,614	\$1,444,612,678
	Net Assets at Actuarial Value *	\$80,315,367	\$18,768,166	\$99,083,533
	<u>Unfunded Medical Benefit Obligation</u>	\$1,260,708,697	\$84,820,448	\$1,345,529,145

NOTE: Medical Benefit Obligation based on Entry Age Normal Actuarial Cost Method

\* Actuarial value equal to book value for purposes of the Insurance Fund.

SECTION IV  
COMMENTS AND CERTIFICATION

Comments

The total Actuarial Accrued Liability has increased from \$2,703,771,076 on June 30, 1993 to \$2,912,050,275 on June 30, 1994. The Unfunded Actuarial Accrued Liability has increased from \$118,561,539 to \$183,001,288. Total actuarial value of assets as of June 30, 1994 was equal to \$2,729,048,987.

The Unfunded Actuarial Accrued Liability increased from 10.84% to 16.41% as a percentage of annual payroll and increased from 4.4% to 6.3% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1994.

The change in contribution rate between the 1993 and 1994 valuations is a function of actual plan experience since the last valuation. A formal gain and loss analysis would identify the portion of the contribution rate change attributable to each element of plan experience and benefit change. However, undertaking such an analysis would be extremely time consuming and expensive. In lieu of the formal analysis, we have estimated the impact of the various components of gain and loss based on changes in statistical averages of each group. The following table shows the results of this computation:

	<u>Non-Hazardous</u> <u>Position Employees</u>	<u>Hazardous</u> <u>Position Employees</u>
June 30, 1993 Contribution Rate		
- Prior to KRS 61.691(1) COLA	8.46%	17.92%
- KRS 61.591(1) COLA Amount	0.10%	0.05%
- 1993 Valuation Recommendation	8.56%	17.97%
Change due to State Contribution Shortfall		
- Retirement Related Benefits	0.03%	0.09%
- Medical Premium Benefits	0.02%	0.05%
Change in Unfunded Actuarial Accrued Liability Payment Percentage Due to Covered Payroll Experience	0.02%	0.03%
Investment Return	0.19%	(0.01%)
Salary Increases	(0.18%)	(0.12%)
Decrements Experience*	0.03%	0.02%
Change in Group Hospital and Medical Premium Rate (other than due to State Contribution Shortfall)	0.00%	0.00%
Change in Administrative Expense Rate	(0.01%)	(0.02%)
Additional COLA above KRS 61.691(1) Amount	0.09%	0.04%
June 30, 1994 Contribution Rate	8.75%	18.05%

\*Includes mortality, disability, termination of employment and retirement experience.

The annual State contribution rate required to provide the Normal Cost, 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, and pay administrative expenses for Non-Hazardous position employees was determined at 5.60%. An additional 3.15% is required to fund medical insurance for retirees, bringing the required contribution up to 8.75%. This exceeds the current 8.56% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1995 should be increased from the current 8.56% level to 8.75%, and we so recommend.

The annual State contribution rate required to provide the Normal Cost, 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, and pay administrative expenses for Hazardous position employees was determined at 10.59%. An additional 7.46% is required to fund medical insurance for retirees, bringing the required contribution up to 18.05%. This exceeds the current 17.97% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1995 should be increased from the current 17.97% level to 18.05%, and we so recommend.

The recommended contribution rates are based on current statutory benefits. The budgeted contribution rates will again be reviewed in the June 30, 1995 valuation.



The following table shows the total Actuarial Accrued Liability, the Unfunded Actuarial Accrued Liability, percent unfunded and the growth of the invested assets relative to retirement related benefits at selected intervals since the inception of the System.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM - RETIREMENT RELATED BENEFITS

<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets</u>	<u>Increase in Assets</u>
1956	\$ 16,200,000	\$ 16,200,000	100.0%	\$ 0	\$ 0
1961	49,201,024	31,670,465	64.4%	17,530,559	4,479,508
1966	127,889,238	72,137,125	56.4%	55,752,113	9,085,814
1971	185,075,453	59,614,477	32.2%	125,460,976*	18,353,116
1975	296,343,758	77,434,549	26.1%	218,909,209*	26,529,526
1976	387,214,910	130,838,120	33.8%	256,376,790*	37,467,581
1977	446,255,236	149,511,331	33.5%	296,743,905*	40,367,115
1978	507,324,915	168,497,917	33.2%	338,826,998*	42,083,093
1979	592,095,113	202,676,662	34.2%	389,418,451*	50,591,453
1980	710,126,703	249,770,835	35.2%	460,355,868*	70,937,417
1981	692,160,395	164,735,129	23.8%	527,425,266	67,069,398
1982	810,250,589	195,803,691	24.2%	614,446,898	87,021,632
1983	862,291,959	152,196,081	17.7%	710,095,878	95,648,980
1984	1,016,088,830	201,535,007	19.8%	814,553,823	104,457,945
1985	1,104,429,988	169,949,215	15.4%	934,480,773	119,926,950
1986	1,245,083,143	166,635,243	13.4%	1,079,353,421	144,872,648
1987	1,384,259,808	120,259,389	8.7%	1,264,000,419	184,646,998
1988	1,561,743,738	135,687,336	8.7%	1,426,056,402	162,055,983
1989	1,734,607,903	145,998,805	8.4%	1,588,609,098	162,552,696
1990	2,055,489,412	256,167,674	12.5%	1,799,321,738	210,712,640
1991	2,288,611,147	375,396,216	16.4%	1,913,214,931	113,893,193
1992**	2,525,190,930	170,708,609	6.8%	2,354,482,321	441,267,390
1993	2,703,771,076	118,561,539	4.4%	2,585,209,537	230,727,216
1994	2,912,050,275	183,001,288	6.3%	2,729,048,987	143,839,450

\*Includes capitalized appreciation of investments.

\*\*Change in asset valuation method effective in this valuation from book value to a five year average of market to book values.

The following table shows the total Actuarial Accrued Liability, the Unfunded Actuarial Accrued Liability, percent unfunded and the growth of the invested assets relative to medical premium benefits since 1990.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM - MEDICAL PREMIUM BENEFITS

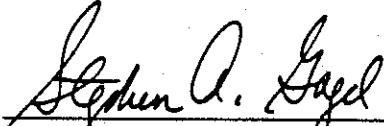
<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets*</u>	<u>Increase In Assets</u>
1990	719,493,806	686,770,874	95.5%	32,722,932	N/A
1991	804,674,050	758,124,715	94.2%	46,549,335	13,826,403
1992	1,001,703,695	939,238,069	93.8%	62,465,626	15,916,291
1993	1,177,861,283	1,100,187,708	93.4%	77,673,575	15,207,949
1994	1,444,612,678	1,345,529,145	93.1%	99,083,533	21,409,958

\*Book value

Certification

On the basis of the actuarial assumptions given and the data furnished by the General Manager of the Kentucky Employees Retirement System, it is certified that the actuarial valuation has been made by the use of accepted actuarial principles and that adequate provision is being made for the funding of future benefits.

Certified by:

  
 Stephen A. Gagel, F.S.A.

November 3, 1994  
 Date

William M. Mercer, Incorporated  
 1500 Meidinger Tower  
 Louisville Galleria  
 Louisville, Kentucky 40202  
 (502) 561-4500

## SECTION VI

### SUMMARY OF PRINCIPAL PLAN PROVISIONS

#### Effective Date

The state of Kentucky established the Kentucky Employees Retirement System in July, 1956. The plan benefits have been improved several times, most recently as of August 1, 1990.

#### Plan Year

A plan year is a twelve month period beginning on July 1.

#### Final Compensation

Final compensation is the average salary during the five highest paid fiscal years. If the months of service credit during the highest five year period is less than forty-eight, one or more additional fiscal years shall be used.

#### Service

Service means the sum of prior service and current service as defined below:

- (a) Prior service is credited for regular full-time employment of at least 100 hours of work per month with a participating agency before July 1, 1956. In some instances prior service credit is granted for time spent in the military.
- (b) Current service is obtained for regular full-time employment which averages at least 100 hours of work per month with participating agencies after July 1, 1956. Current service credit may be granted for military service and educational leaves if special criteria are met.
- (c) Service is increased by unused sick leave, up to a maximum of six months, for purposes of computing eligibility and the amount of benefits.

#### Eligibility

Any state department, board, or agency shall participate in the System when directed to do so by the Executive Order of the Governor. Membership in the system consists of:

- (a) all persons who become employees of a department after such department first participates,
- (b) all persons who are employees on the date a department first participates and who elect within thirty days to become members and make contributions,

- (c) all persons who are employees of any credit union whose membership is limited to state government employees,
- (d) all persons who were professional staff employees of the Council on Public Higher Education or the Higher Education Assistance Authority and were making contributions to the system on the effective date of their respective Executive Order and filed a written election to continue in the System,
- (e) all persons who were professional staff employees of the Kentucky Authority for Educational Television on or after July 1, 1974,
- (f) members of the General Assembly and Constitutional officers of the General Assembly serving during the January, 1960 session or thereafter, and
- (g) officers and employees of the General Assembly and their assistants if employed by the General Assembly during the January, 1960 session and thereafter, but only after serving during six sessions of the General Assembly.

#### Normal Retirement Date

A member may elect to retire upon: (1) attaining age 65 for non-hazardous positions, or attaining age 55 for hazardous positions, and (2) having contributed to the System. Upon completion of 27 years of service credit, 15 of which are current service for non-hazardous positions, or completion of 20 years of service credit for hazardous positions, a member may elect to retire with an unreduced benefit.

#### Early Retirement Date

A member may elect to retire before the normal retirement date at any time after: (1) for non-hazardous positions, attainment of age 55 and completion of 60 months of service credit at least 12 of which are current, or at any age after 25 years of service, or (2) for hazardous positions, attainment of age 50 and completion of 15 years of service credit.

#### Normal Retirement Benefits

For non-hazardous positions, upon attainment of age 65 and completion of 48 months of service, of which 12 months are current service, a monthly benefit equal to 1.97% of the member's final compensation multiplied by his service will be payable. For hazardous positions, a monthly benefit equal to 2.49% of the member's final compensation multiplied by his service will be payable upon attainment of age 55 and completion of 60 months of service of which 12 months are current service. A member, with less than 48 months for non-hazardous positions or 60 months for hazardous positions, who retires on or after the normal retirement date is entitled to a retirement allowance which pays the actuarial equivalent of twice the member's accumulated contributions for life.

### Early Retirement Benefits

A member who elects early retirement is entitled to a monthly benefit reduced for each month by which the early retirement date precedes the first date on which the member would qualify for an unreduced benefit. If a non-hazardous position employee has 27 or more years of service credit, 15 of which are current, or a hazardous position employee has 20 or more years of service credit, an unreduced benefit is payable.

### Minimum Benefit

The normal retirement benefit for members with 10 or more years of service, at least one of which is current service, shall not be less than \$512 per year.

### Disability Benefits

A member with 60 months of service, 12 of which must be current service, is entitled to a retirement allowance computed in the same manner as the normal retirement benefit with service and final compensation determined as of the disability date. Service credit shall be added on to total service for the period from the last day of paid employment to the 65th birthday (55th for members in a hazardous position) up to a maximum of service credited to the last day of paid employment. Except for members with 25 or more (20 or more for hazardous) years of service on the last day of paid employment, the maximum combined service credit (total service and added service) shall not exceed 25 years (20 years for hazardous members). For non-hazardous position employees with 25 or more years of service credit, additional years of service credit will be added up to a maximum combined limit of 30, or actual service if greater. For hazardous position employees with 20 or more years of service credit, actual service will be used.

A member in a hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of his final monthly rate of pay for each dependent child. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay. A partial disability benefit may be payable to hazardous employees if the disability is not total and permanent. The disability will be reduced to a rate determined by the Board.

### Death Benefits

If a member dies prior to retirement, but after 60 months of service, 12 of which are current and who is a contributing member, or after 12 years of service, one of which is current and who is not a contributing member, or after 48 months service if the member is age 65 or over, a benefit will be payable to the beneficiary based on the member's age, years of service and final compensation at the date of death. The benefit will be equal to the amount payable had the employee retired and elected a joint and 100% survivorship payment form.

If a member in a hazardous position dies in the line of duty and has a spouse as beneficiary, a \$5,000 lump sum payment will be made and a benefit of 25% of the member's final monthly rate of pay will be payable until death or remarriage. If the member in a hazardous position dies in the line of duty and has a dependent as beneficiary, a lump sum payment of \$10,000 will be made. Monthly payments shall be made for each dependent child equal to 10% of the member's final monthly rate of pay, but not greater than 40% of the member's final monthly rate of pay. The beneficiary of a hazardous duty member with 5 or more years of service, one of which is current, may elect a death benefit computed in the same manner as a non-hazardous employee using 2.49% rather than 1.97%.

Upon the death of a retired member, who had a minimum of 48 months of service credit, a death benefit of \$2,500 is payable.

#### Optional Forms of Payment

Joint and survivor annuities which provide a reduced benefit for the life of the member, with the benefit at the same or at a further reduced rate continuing after the member's death until the death of the designated beneficiary may be elected by the member prior to retirement. Other optional forms include a life annuity with 10, 15 or 20 years of payments guaranteed and a Social Security adjustment with or without survivor rights.

#### Contributions

Members contribute 5% of gross compensation (7% for hazardous positions). On each June 30, interest is credited at the rate to be determined by the Board on the accumulated contributions the member had in his account on the previous June 30. Upon termination a member may withdraw the contributions with interest, but will be entitled to no benefit payments.

#### Medical Insurance

Recipients of a retirement benefit may elect to participate in a voluntary hospital/medical group insurance plan for themselves as well as any beneficiaries or dependents. The cost of participation for any beneficiaries or dependents is borne by the retiree (except that dependents of hazardous position employees and legislators will have the same percentage paid by the system as the member). The retirement system will pay a portion of the cost of participation for the retiree based on years of service credit as follows:

Less than 4 years	0%
4 - 9 years	25%
10 - 14 years	50%
15 - 19 years	75%
20 or more years	100%

If a hazardous member is disabled in the line of duty, the retirement system will pay 100% of the cost of the member, spouse and eligible dependents. If a hazardous member is killed in the line of duty, the retirement system will pay 100% of the cost of the beneficiary and eligible dependents as long as they remain eligible for a monthly benefit payment.

#### Increase in Retirement Allowances

The board shall increase retirement allowances each year of the biennium by fifty percent (50%) of the rate margin for the nonhazardous members of the Kentucky Employees Retirement System as determined by the board's actuary in the annual actuarial valuation prior to the biennium with a maximum increase of five percent (5%) per year, as averaged over a five (5) year period. The first period for averaging shall be from July 1, 1986, to August 1, 1990. Each year thereafter, the next year shall be added and the first year shall be dropped from the five (5) year averaging period.

THIRTY-FIFTH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1994

COUNTY EMPLOYEES RETIREMENT SYSTEM

FRANKFORT, KENTUCKY



SECTION I

INTRODUCTION

The results of the thirty-fifth annual actuarial valuation of the County Employees Retirement System are presented in this report. The actuarial valuation was made on the basis of the data provided by the System as of June 30, 1994.

The purpose of the actuarial valuation is to determine the actuarial condition of the Retirement System and the rate of employer contribution for the ensuing fiscal year as required to support the System.

The plan provisions utilized in this valuation are described in the Summary of Principal Plan Provisions beginning on page C-45. The basis of funding is defined in KRS 61.565 and provides that the actuarial valuation method would be uniform for all benefits provided by the System. The Entry Age Normal Actuarial cost method has been used for all benefits. KRS 61.565 provides that each employer participating in the System shall contribute an amount equal to the Normal Cost contribution rate, and an amount sufficient to amortize the Unfunded Actuarial Accrued Liability over 30 years using the level-percentage-of-payroll method. This is the standard used herein to determine whether the funding of the System is adequate.

The actuarial valuation results are based upon the employee census and asset data supplied by the office of the System, and upon the actuarial assumptions as stated on page C-5.

## SECTION II

### ACTUARIAL CONSIDERATIONS

#### Description of Actuarial Methods

The actuarial valuation is the means by which the contingent liabilities and contribution rates of a retirement system are evaluated and determined. It provides a guide to the System to the financing required during years of active service to accumulate the funds needed to provide members' benefits. It also makes it possible to estimate beforehand the cost of proposed changes in the System so that action can be taken in the light of the cost consequences.

The methods of valuation are prescribed by KRS 61.565. The Entry Age Normal Actuarial cost method was used to determine costs of all benefits with the exception of the retiree medical insurance benefit. Under this method the employer's contribution to the retirement system consists of Normal Cost, a payment to fund the Unfunded Actuarial Accrued Liability, medical insurance, and administrative expenses. The Normal Cost represents the contribution (as a level percent of payroll) that completely funds benefits at retirement if made from a person's entry into employment until his retirement. The Actuarial Accrued Liability represents the sum of money and investments that would be held in the fund if the retirement system had been in effect since the date each member was first employed.

The medical insurance contribution rate was originally determined in the 1987 valuation as the level percent of payroll necessary to fund projected medical insurance premiums over the next sixteen years (taking into account the level of reserves in the Insurance Fund). Beginning in 1988, this rate was increased each year by a percentage amount needed to reach the Entry Age Normal funding rate within a 20 year period measured from 1987. This was continued through the 1992 valuation. In the 1992 valuation, an acceleration of the scheduled increases in the medical insurance contribution rate was recommended where possible. This acceleration in these rates was coupled with a deferral of future increases until the time of the next experience study, unless there is a deterioration in the funded position of the medical premium benefit in which case the rate levels will be reviewed to redetermine an appropriate current funding level, or unless recommended contributions are not made in the prior year, in which case the shortfall shall be spread over future years through an increase in the contribution rate.

The amount of the administrative expense was based on the budgeted amount for the twelve months following the date of the valuation as allocated between Hazardous position and Non-Hazardous position employees.

#### Actuarial Assumptions

Since the actuarial valuation involves estimates of benefits payable in the future, it is necessary that assumptions be made as to the interest earnings, rates of mortality, withdrawal, retirement, and disability, and the rate at which salaries will increase. In addition, an assumption must be made relative to increases in medical insurance premium rates in order to value the liability for the medical insurance benefit.

It is desirable that the actuarial assumptions be reviewed periodically to see whether past experience and probable future experience justifies the continued use of these actuarial assumptions. Such a study was performed subsequent to the 1989 actuarial valuation and new actuarial assumptions were adopted by the Board for use in the subsequent actuarial valuations, until such time as another experience study is performed. This valuation reflects assumptions based on the 1989 experience study. Actuarial assumptions used for hazardous position employees are similar to actuarial assumptions adopted for the State Police Retirement System. The actuarial assumptions as used in this valuation are described beginning on page C-5.

#### Actuarial Value of Assets

The actuarial value of assets is determined in the following manner for the Retirement Fund:

1. Determine the ratio of the market value of Retirement Fund assets to book value as of the current valuation date and the four preceding valuation dates (but not using any valuation dates prior to June 30, 1989). All asset values include accrued investment income and member and employer contribution receivables, and exclude member refunds and investment expenses payable.
2. Determine the average ratio of market to book value as of these valuation dates.
3. Apply this average ratio to the book value (as adjusted for accrued investment income and member and employer contribution receivables, and member refunds and investment expenses payable) as of the current valuation date to derive valuation assets.

For the Insurance Fund, the actuarial value of assets is determined to be the book value of the assets in that fund as of the valuation date adjusted for any receivables and/or payables.

The different asset valuation methods for the Retirement Fund and the Insurance Fund are a result the following:

1. There is separate book and market value information for the Insurance Fund under all systems dating only from July, 1992. So it is not possible to presently use the same averaging method for the Insurance Fund as used for the Retirement Fund.
2. The magnitude of assets to liabilities for the Insurance Fund is such that the method of valuing assets will only negligibly affect current valuation results. Also, given the current method for transitioning into higher medical premium contribution rates over future years, the asset valuation method used for the Insurance Fund is not as critical as the asset valuation method used for the Retirement Fund.

The derivation of valuation assets for the Retirement Fund as of the current valuation date is as follows:

Non-Hazardous

	<u>Book Value *</u>	<u>Market Value *</u>	<u>Ratio</u>
June 30, 1994	1,489,589,016	1,648,810,946	110.68898%
June 30, 1993	1,361,119,578	1,590,519,119	116.85374%
June 30, 1992	1,193,610,120	1,390,358,216	116.48345%
June 30, 1991	1,066,228,951	1,192,427,101	111.83593%
June 30, 1990	966,348,089	1,047,046,500	108.35086%
... Average Ratio =			112.84259%
... Valuation Assets =			1,680,890,826
(Average Ratio x Current Book Value)			

Hazardous

	<u>Book Value *</u>	<u>Market Value *</u>	<u>Ratio</u>
June 30, 1994	437,372,661	481,281,456	110.03922%
June 30, 1993	402,326,890	464,975,104	115.57147%
June 30, 1992	361,281,420	425,167,270	117.68313%
June 30, 1991	329,998,054	371,042,415	112.43776%
June 30, 1990	303,718,178	325,732,332	107.24822%
... Average Ratio =			112.59596%
... Valuation Assets =			492,463,946
(Average Ratio x Current Book Value)			

\* Reflects accrued investment income and member and employer contribution receivables, and member refunds and investment expenses payable; represents Retirement Fund assets exclusive of amounts in the Insurance Fund

Except for Table VI, the actuarial value of assets excludes any amounts in the Insurance Fund. Table VI uses only assets in the Insurance Fund, excluding all other amounts.

COUNTY EMPLOYEES RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

A. STATEMENT OF ACTUARIAL ASSUMPTIONS

- (1) Mortality:
- (a) Active & retired lives - 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employees.
  - (b) Disabled lives - Social Security Administration Disability Mortality Rates - Actuarial Study No. 75 (current rates used by PBGC for disabled lives receiving Social Security).
- (2) Disablement - Graduated rates based on 1989 experience study.
- (3) Termination of employment - Graduated select (non-hazardous only) and ultimate rates based on 1989 experience study.
- (4) Retirement - Non-Hazardous:

<u>Age</u>	<u>Retirement Rate</u>
55-57	.03
58-59	.04
60-61	.05
62	.25
63-64	.10
65	.50
66-67	.20
68	.25
69	.40
70 and Over	1.00

At age 55-64 in lieu of the age related rate, 20% are assumed to retire as soon as eligible for unreduced benefits.

Hazardous: Assumed that 50% will retire as soon as eligible for unreduced benefits and balance will continue to age 55.

- (5) Marital status
- (a) Percentage married - 100%.
  - (b) Age difference - Males are assumed to be 3 years older than their spouses.
- (6) Dependent children - For hazardous position employees under duty related death benefits, it is assumed that the employee is survived by 2 dependent children each age 6.
- (7) Investment return - 8.00% per year, net of investment related expenses, compounded annually.
- (8) Compensation progression - 6.50% per year, compounded annually.
- (9) Retiree Medical Insurance - It was assumed that future retirees would select medical coverage in the same proportion that current retirees have selected coverage. Monthly premium rates were assumed to be as follows:

Plan Type	7/1/94	Rate Increase	
	Rate	Date	Rate
Single	\$158.78*	1/1/95	\$174.66**
Family	338.98*	1/1/95	372.88**
Parent Plus	239.54*	1/1/95	263.49**
Medicare	78.00*	1/1/95	85.80**
High Option	132.05*	1/1/95	145.26**

\*Actual rates

\*\*Assumed rates

In determining the medical premium funding rate in 1987, medical premiums were assumed to increase at an annual rate of 12%. In determining the target Entry Age Funding rate in valuations subsequent to 1987, it was assumed that medical premiums would grow at an annual rate of 10%. The assumed rate of growth in number of retirees receiving medical insurance was based on assumed retirement and mortality patterns used throughout the valuation.

Reserves in the Insurance Fund were used to offset the liability for premiums.

(10) Missing data

- For those active members with incomplete data, the following assumptions were made:
  - . If reported salary was zero or blank, then monthly salary was assumed to be \$700
  - . If reported age was blank, then assume current age equal to age 18 plus years of service reported

(11) Members with Multiple Service Records

- For active members with service in more than one system, the liability has been valued as follows:
  - . Service under all systems is aggregated for purposes of determining benefit eligibility.
  - . Future service is projected only under the system in which the member is currently active.
  - . The actual benefit under each system is determined based only on service (past and projected future service, if applicable) under that system.
  - . The liability is determined under each system based on the actuarial assumptions used for the system in which the member is currently active. This liability is then included in the valuation of the system in which the service has been earned (or is projected to be earned).

For inactive members with service in more than one system, the benefit attributable to the service under each system is determined, and the liability for that benefit is then included in the valuation of the system in which the service was earned.

B. SAMPLE RATES FOR NON-HAZARDOUS POSITION EMPLOYEES\*

(1) Annual Rates of Mortality:

<u>Age</u>	<u>Active Mortality</u>		<u>Disabled Mortality</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
25	0.05%	0.03%	4.83%	2.63%
30	0.06%	0.03%	3.62%	2.37%
40	0.12%	0.07%	2.82%	2.09%
50	0.40%	0.16%	3.83%	2.57%
55	0.61%	0.25%	4.82%	2.95%
60	0.92%	0.42%	6.03%	3.31%

(2) Annual Rates of Decrement:

<u>Age</u>	<u>Disablement</u>	<u>Ultimate Termination</u>
25	0.02%	3.00%
30	0.03%	3.00%
40	0.07%	2.50%
50	0.28%	2.00%
55	0.53%	1.50%
60	0.93%	0.25%

(3) Select Rates of Termination:

<u>Years of Service</u>	<u>Select Termination</u>
1	25.0%
2	8.0%
3	5.0%
4	4.0%
5	3.5%

(4) Compensation Progression:

<u>Age</u>	<u>Rate of Annual Increase</u>	<u>Compensation at Normal Retirement as Percentage Of Current Annual Compensation</u>
25	6.50%	1,241.6%
30	6.50%	906.2%
40	6.50%	482.8%
50	6.50%	257.2%
55	6.50%	187.7%
60	6.50%	137.0%

\*Sample rates for hazardous position employees are included in the State Police Retirement System valuation.



### SECTION III

#### COUNTY EMPLOYEES RETIREMENT SYSTEM

#### RESULTS OF THE 1994 ACTUARIAL VALUATION

##### Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the County Employees Retirement System as of June 30, 1994. The "actuarial balance sheet" of the retirement system displays the fundamental relationship between actual assets, future contributions, and future benefits. The asset side of the balance sheet is comprised of actual fund assets plus the actuarial present value of future contributions on behalf of current members. The actuarial present values of all projected benefit payments to present active and inactive members make up the balance sheet liabilities.

##### Determination of Contribution Rate

The rate of contribution by the participating Agencies required to provide 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, the employer share of the annual Normal Cost, medical insurance and the administrative costs of the System is shown in Table II. The required contribution is expressed both in dollars and as a percentage of the estimated payroll of the participating Agencies as of June 30, 1994.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1994 are described on page C-2. These costs are classified by type of benefit. The Normal Cost contribution rate of the participating Agencies is determined by reducing the total Normal Cost by the expected employee contributions. A breakdown of actuarial liabilities and costs between Hazardous and Non-Hazardous position employees appears in Table III.

##### Accountant's Information

Table IV contains a calculation of the accumulated value of plan benefits as specified under FASB Statement No. 35. Under this calculation, the present value of future benefits payable and attributable to the employee's present accrued benefit is computed. The probabilities of termination, disability, mortality and retirement are the same for this calculation as those used in the regular valuation calculations. However, future increases in earnings and additional benefit accruals are not projected beyond the current valuation date.

Table V contains information needed to comply under GASB Statement No. 5. These calculations reflect the present value of benefits attributable to current years of service, but based on projected salary levels at the time a member's final benefits are determined.

Table VI contains information needed to comply under GASB Statement No. 12. These calculations reflect the liabilities for the medical premium benefit provided under the system.

TABLE I  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
ACTUARIAL BALANCE SHEET - JUNE 30, 1994

Fund Assets at Actuarial Value (Plus Refunds and Expenses Payable) *		\$2,178,289,125
Actuarial Present Value of Future Member Contributions		736,194,923
Actuarial Present Value of Future Employer Contributions		
For Normal Costs	\$819,321,498	
For Unfunded Actuarial Accrued Liability	156,989,469	
Total		\$976,310,967
Total Actuarial Assets		\$3,890,795,015

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits		
Inactive Members:		
Retired Members and Beneficiaries	\$766,780,012	
Vested Retirement	11,746,931	
Vested Membership	8,129,820	
Post Retirement Death Benefit	12,997,166	
Total - Inactive		\$799,653,929
Active Members:		
Retirement Benefits	\$2,622,186,386	
Disability Benefits	139,046,621	
Withdrawal Benefits (Vested and Refund of Contributions)	184,209,299	
Survivor Benefits	140,764,427	
Total - Active		\$3,086,206,733
Refunds and Expenses Payable		4,934,353
Total Actuarial Liabilities		\$3,890,795,015

ACCRUED BENEFIT LIABILITY \*\*

Vested Benefits		\$1,365,838,992
Non-Vested Benefits		\$162,254,086

* Values as of June 30, 1994		
Market value of assets:	Non-Hazardous	\$1,648,810,946
	Hazardous	\$481,281,456
	Total	\$2,130,092,402
Actuarial value of assets:		\$2,173,354,772
Member's Contribution Account:		\$440,261,655

\*\* Present value of accrued benefit deferred to normal retirement date.

TABLE II  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
DETERMINATION OF CONTRIBUTION RATE - JUNE 30, 1994

<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>		<u>PERCENT *</u>	
Total Actuarial Accrued Liability	\$2,330,344,241	201.56%	
Assets at Actuarial Value	2,173,354,772	187.98%	
Unfunded Actuarial Accrued Liability	\$156,989,469	13.58%	
Contribution - Payment on Unfunded Actuarial Accrued Liability	\$8,487,434	0.73%	
<u>NORMAL COST</u>			
Retirement Benefits	\$107,368,477	9.29%	
Disability Benefits	6,740,765	0.58%	
Withdrawal Benefits (Vested and Refund of Contributions)	10,769,591	0.93%	
Survivor Benefits	6,085,369	0.53%	
Total Normal Cost	\$130,964,202	11.33%	
Less: Employee Contributions	60,322,358	5.22%	
Normal Cost - State	\$70,641,844	6.11%	
<u>TOTAL ANNUAL EMPLOYER COST</u>			
<u>Non-Hazardous Duty Cost</u>			
Normal Cost	\$56,343,438	5.68%	**
Payment on Unfunded Actuarial Accrued Liability	3,717,426	0.37%	**
Administrative Expense	5,236,983	0.53%	**
Group Hospital and Medical Insurance Premiums	23,401,374	2.36%	**
Total Annual Cost	\$88,699,221	8.94%	**
<u>Hazardous Duty Cost</u>			
Normal Cost	\$14,298,406	8.69%	***
Payment on Unfunded Actuarial Accrued Liability	4,770,008	2.90%	***
Administrative Expense	474,293	0.29%	***
Group Hospital and Medical Insurance Premiums	10,416,068	6.33%	***
Total Annual Cost	\$29,958,775	18.21%	***

\* Based on estimated annual salaries of \$1,156,134,504

\*\* Based on estimated annual salaries of \$991,583,664  
for Non-Hazardous Position Employees

\*\*\* Based on estimated annual salaries of \$164,550,840  
for Hazardous Position Employees

NOTE: Determination of contribution rates in this table reflects benefits in effect on the valuation date prior to determination of any increase in retirement allowances as determined under KRS 61.691(1).

TABLE III  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
CLASSIFICATION OF ACTUARIAL LIABILITIES AND COSTS - JUNE 30, 1994

<u>ACTUARIAL ACCRUED LIABILITY</u>	Non-Hazardous Position Employees	Hazardous Position Employees	Total
<u>Active Members</u>			
Retirement Benefits	\$1,040,738,068	\$318,552,493	\$1,359,290,561
Disability Benefits	52,903,739	3,961,221	56,864,960
Withdrawal Benefits (Vested and Refund of Contributions)	44,131,645	3,117,403	47,249,048
Survivor Benefits	60,574,995	6,710,748	67,285,743
Actuarial Accrued Liability - Actives	\$1,198,348,447	\$332,341,865	\$1,530,690,312
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$520,112,349	\$246,667,663	\$766,780,012
Vested Retirement	10,588,173	1,158,758	11,746,931
Vested Membership	7,867,531	262,289	8,129,820
Post Retirement Death Benefit	12,017,323	979,843	12,997,166
Actuarial Accrued Liability - Inactives	\$550,585,376	\$249,068,553	\$799,653,929
Total Actuarial Accrued Liability	\$1,748,933,823	\$581,410,418	\$2,330,344,241
<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>			
Total Actuarial Accrued Liability	\$1,748,933,823	\$581,410,418	\$2,330,344,241
Less Actuarial Value of Assets	1,680,890,826	492,463,946	2,173,354,772
<u>Unfunded Actuarial Accrued Liability</u>			
. Portion Amortized from 1990	\$103,630,730	\$75,876,245	\$179,506,975
. Portion Amortized from 1991	66,435,930	32,351,638	98,787,568
. Portion Amortized from 1992	(131,914,324)	(13,644,959)	(145,559,283)
. Portion Amortized from 1993	(29,135,534)	(7,491,029)	(36,626,563)
. Portion Amortized from 1994	59,026,195	1,854,577	60,880,772
. Total	\$68,042,997	\$88,946,472	\$156,989,469
<u>NORMAL COST</u>			
Retirement Benefits	\$84,864,951	\$22,503,526	\$107,368,477
Disability Benefits	6,293,384	447,381	6,740,765
Withdrawal Benefits (Vested and Refund of Contributions)	9,230,842	1,538,749	10,769,591
Survivor Benefits	5,196,209	889,160	6,085,369
Total Normal Cost	\$105,585,386	\$25,378,816	\$130,964,202
Less Employee Contributions	49,241,948	11,080,410	60,322,358
Total Normal Cost - Agencies	\$56,343,438	\$14,298,406	\$70,641,844
<u>ACCRUED BENEFIT LIABILITY *</u>			
Vested Benefits	\$972,624,855	\$393,214,137	\$1,365,838,992
Non-Vested Benefits	66,948,909	95,305,177	162,254,086

\* Present value of accrued benefits deferred to normal retirement date.

TABLE IV  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

	Non-Hazardous Position Employees	Hazardous Position Employees	Total
<u>ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS</u>			
<u>Active Members</u>			
Retirement Benefits	\$399,138,533	\$133,837,112	\$532,975,645
Disability Benefits	10,387,286	1,607,417	11,994,703
Withdrawal Benefits (Vested & Refund of Contributions)	47,590,958	8,260,666	55,851,624
Survivor Benefits	0	0	0
<b>Total - Active Members</b>	<b>\$457,116,777</b>	<b>\$143,705,195</b>	<b>\$600,821,972</b>
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$520,112,349	\$246,667,663	\$766,780,012
Vested Retirement	10,588,173	1,158,758	11,746,931
Vested Membership	7,867,531	262,289	8,129,820
Post Retirement Death Benefit	12,017,323	979,843	12,997,166
<b>Total - Inactive Members</b>	<b>\$550,585,376</b>	<b>\$249,068,553</b>	<b>\$799,653,929</b>
<b>Total Actuarial Present Value of Vested Accumulated Benefits</b>	<b>\$1,007,702,153</b>	<b>\$392,773,748</b>	<b>\$1,400,475,901</b>
<u>ACTUARIAL PRESENT VALUE OF NON-VESTED ACCUMULATED BENEFITS</u>			
<u>Active Members</u>			
Retirement Benefits	\$57,614,288	\$43,557,286	\$101,171,574
Disability Benefits	34,514,191	2,234,769	36,748,960
Withdrawal Benefits (Vested & Refund of Contributions)	5,010,692	79,229	5,089,921
Survivor Benefits	29,427,212	6,403,921	35,831,133
<b>Total Active Members</b>	<b>\$126,566,383</b>	<b>\$52,275,205</b>	<b>\$178,841,588</b>
<u>Inactive Members</u>	\$0	\$0	\$0
<b>Total Actuarial Present Value of Non-Vested Accumulated Benefits</b>	<b>\$126,566,383</b>	<b>\$52,275,205</b>	<b>\$178,841,588</b>

NOTE: All calculations in this Table IV have been developed as specified under FAS Statement No. 35.

TABLE V  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

<u>NUMBER OF MEMBERS</u>	Non-Hazardous Position Employees	Hazardous Position Employees	Total
<u>Inactive Members</u>			
Retired Members and Beneficiaries	13,778	1,550	15,328
Vested Retirements	1,669	73	1,742
Vested Membership	13,263	252	13,515
 Total Inactive Members	 28,710	 1,875	 30,585
<u>Active Members</u>			
Vested Members	33,155	3,736	36,891
Nonvested Members	29,505	1,928	31,433
 Total Active Members	 62,660	 5,664	 68,324
 Total Members	 91,370	 7,539	 98,909
<u>UNFUNDED PENSION BENEFIT OBLIGATION</u>			
<u>Pension Benefit Obligation</u>			
Retirees and Beneficiaries Currently Receiving Benefits and Terminated Me Members Not Yet Receiving Benefits	\$550,585,376	\$249,068,553	\$799,653,929
Current Members Accumulated Employee Contributions and Credited Interest	335,778,399	90,530,996	426,309,395
Employer Financed - Vested	641,447,195	201,604,221	843,051,416
Employer Financed - Nonvested	49,626,750	11,174,572	60,801,322
 Total Pension Benefit Obligation	 \$1,577,437,720	 \$552,378,342	 \$2,129,816,062
 <u>Net Assets at Actuarial Value</u>	 \$1,680,890,826	 \$492,463,946	 \$2,173,354,772
 <u>Unfunded Pension Benefit Obligation</u>	 (\$103,453,106)	 \$59,914,396	 (\$43,538,710)

NOTE: (1) Pension Benefit Obligation based on Projected Unit Credit Actuarial Cost Method.

(2) Assets at book value on June 30, 1994:	Non-Hazardous	\$1,489,589,016
	Hazardous	\$437,372,661
	Total	\$1,926,961,677

TABLE VI  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
INFORMATION REQUIRED UNDER GASB STATEMENT NO. 12

NUMBER OF MEMBERS	Non-Hazardous Position Employees	Hazardous Position Employees	Total	
<u>Inactive Members</u>				
Contracts in Force - Retirees and Dependents				
(1) Single;	- 100% Paid	805	272	1,077
Pre-Medicare	- 75% Paid	295	26	321
	- 50% Paid	292	14	306
	- 25% Paid	144	7	151
	- 0% Paid	409	1	410
(2) Family;	- 100% Paid	264	830	1,094
Pre-Medicare	- 75% Paid	49	11	60
	- 50% Paid	56	7	63
	- 25% Paid	30	3	33
	- 0% Paid	10	0	10
(3) Parent +;	- 100% Paid	11	51	62
Pre-Medicare	- 75% Paid	4	2	6
	- 50% Paid	6	4	10
	- 25% Paid	5	0	5
	- 0% Paid	42	0	42
(4) Medicare Regular	- 100% Paid	19	1	20
	- 75% Paid	176	6	182
	- 50% Paid	448	4	452
	- 25% Paid	565	2	567
	- 0% Paid	379	0	379
(5) Medicare High Option	- 100% Paid	1,592	172	1,764
	- 75% Paid	909	33	942
	- 50% Paid	1,288	22	1,310
	- 25% Paid	828	7	835
	- 0% Paid	856	2	858
Vested Retirements		1,669	73	1,742
Vested Membership		13,263	252	13,515
<u>Active Members</u>		62,660	5,664	68,324
<u>UNFUNDED MEDICAL BENEFIT OBLIGATION</u>				
<u>Medical Benefit Obligation</u>				
Retirees, Beneficiaries and Vested Terminated Members		\$192,317,399	\$92,175,823	\$284,493,222
Active Members		952,543,204	314,102,374	1,266,645,578
Total Medical Benefit Obligation		\$1,144,860,603	\$406,278,197	\$1,551,138,800
<u>Net Assets at Actuarial Value *</u>		\$65,174,505	\$34,340,390	\$99,514,895
<u>Unfunded Medical Benefit Obligation</u>		\$1,079,686,098	\$371,937,807	\$1,451,623,905

NOTE: Medical Benefit Obligation based on Entry Age Normal Actuarial Cost Method

\* Actuarial value equal to book value for purposes of the Insurance Fund.

SECTION VII  
COMMENTS AND CERTIFICATION

Comments

The total Actuarial Accrued Liability has increased from \$2,079,930,047 on June 30, 1993 to \$2,330,344,241 on June 30, 1994. The Unfunded Actuarial Accrued Liability increased from \$94,249,338 to \$156,989,469. Total actuarial value of assets as of June 30, 1994 was equal to \$2,173,354,772.

The Unfunded Actuarial Accrued Liability increased from 8.77% to 13.58% as a percentage of annual payroll and from 4.5% to 6.7% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1994.

The change in contribution rate between the 1993 and 1994 valuations is a function of actual plan experience since the last valuation. A formal gain and loss analysis would identify the portion of the contribution rate change attributable to each element of plan experience and benefit change. However, undertaking such an analysis would be extremely time consuming and expensive. In lieu of the formal analysis, we have estimated the impact of the various components of gain and loss based on changes in statistical averages of each group. The following table shows the results of this computation:

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>
June 30, 1993 Contribution Rate		
- Prior to KRS 61.691 (1) COLA	8.72%	18.17%
- KRS 61.691(1) COLA Amount	<u>0.05%</u>	<u>0.15%</u>
- 1993 Valuation Result	8.77%	18.32%
- Adjustment to 1993 Valuation Result due to additional COLA above above KRS 61.691(1) amount	<u>0.05%</u>	<u>0.14%</u>
- Budget Rate Beginning July 1, 1994	8.82%	18.46%
 Change in Unfunded Actuarial Accrued Liability payment Percentage Due to Covered Payroll Experience	 0.00%	 (0.02%)
Investment Return	0.18%	(0.35%)
Salary Increases	(0.04%)	0.05%
Decrements Experience*	(0.01%)	0.09%
Change in Group Hospital and Medical Premium Rate	0.00%	0.00%
Change in Administrative Expense Rate	(0.01%)	(0.02%)
June 30, 1994 Contribution Rate	8.94%	18.21%

\*Includes mortality, disability, termination of employment and retirement experience.



The annual contribution rate required by the participating Agencies to provide the Normal Cost, 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, and pay administrative expenses for Non-Hazardous position employees is 6.58%. An additional 2.36% is required to fund medical insurance for retirees, bringing the required contribution up to 8.94%. This exceeds the current 8.82% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1995 should be increased from the current 8.82% level to 8.94%, and we so recommend.

The annual contribution rate required by the participating Agencies to provide the Normal Cost, 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, and pay administrative expenses for Hazardous position employees is 11.88%. An additional 6.33% is required to fund medical insurance for retirees, bringing the required contribution up to 18.21%. This is less than the current 18.46% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1995 be decreased from the current 18.46% level to 18.21%, and we so recommend.

The recommended contribution rates are based on current statutory benefits. The budgeted contribution rates will again be reviewed in the June 30, 1995 valuation.

The following table shows the total Actuarial Accrued Liability, the Unfunded Actuarial Accrued Liability, percent unfunded and the growth of the invested assets relative to retirement related benefits at selected intervals since the inception of the System.

COUNTY EMPLOYEES RETIREMENT SYSTEM - RETIREMENT RELATED BENEFITS

<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets</u>	<u>Increase in Assets</u>
1960	\$ 5,602,131	\$ 4,737,680	84.6%	\$ 864,451	\$ 864,451
1965	12,510,487	6,897,273	55.1%	5,613,214	1,255,742
1971	40,305,948	16,885,927	41.9%	23,420,022*	4,850,170
1975	85,322,085	24,467,454	28.7%	60,854,631*	11,704,780
1976	128,824,236	50,089,614	38.9%	78,734,622*	17,879,991
1977	152,900,347	52,474,756	34.3%	100,425,591*	21,690,969
1978	175,194,867	50,394,913	28.8%	124,799,954*	24,374,363
1979	213,834,377	60,742,472	28.4%	153,091,905*	28,291,951
1980	266,018,621	75,787,680	28.5%	190,230,941*	37,139,036
1981	260,872,162	27,101,917	10.4%	233,770,245	43,539,304
1982	306,087,531	20,552,642	6.7%	285,534,889	51,764,644
1983	340,705,763	0	0.0%	343,155,769	57,620,880
1984	421,336,269	15,148,838	3.6%	406,187,431	63,031,662
1985	463,618,532	0	0.0%	478,043,221	71,855,790
1986	535,948,094	0	0.0%	603,815,800	125,772,579
1987	678,442,760	0	0.0%	727,730,727	123,914,927
1988	829,346,323	0	0.0%	839,578,635	111,848,169
1989	1,113,868,548	35,815,913	3.2%	1,078,052,635	238,473,739
1990	1,432,323,666	162,257,399	11.3%	1,270,066,267	192,013,632
1991	1,654,338,706	258,111,701	15.6%	1,396,227,005	126,160,738
1992**	1,861,978,403	126,939,495	6.8%	1,735,038,908	338,811,903
1993	2,079,930,047	94,249,338	4.5%	1,985,680,709	250,641,801
1994	2,330,344,241	156,989,469	6.7%	2,173,354,772	187,674,063

\*Includes capitalized appreciation of investments.

\*\*Change in asset valuation method effective in this valuation from book value to a five year average of market to book values.

The following table shows the total Actuarial Accrued Liability, the Unfunded Actuarial Accrued Liability, percent unfunded and the growth of the invested assets relative to medical premium benefits since 1990.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM - MEDICAL PREMIUM BENEFITS

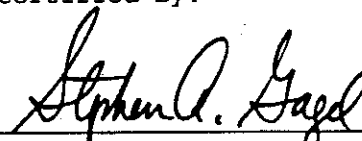
<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets*</u>	<u>Increase In Assets</u>
1990	700,151,838	670,720,901	95.8%	29,430,937	N/A
1991	823,012,809	780,592,065	94.8%	42,420,744	12,989,807
1992	1,041,905,457	984,949,556	94.5%	56,955,901	14,535,157
1993	1,244,258,042	1,170,004,170	94.0%	74,253,872	17,297,971
1994	1,551,138,800	1,451,623,905	93.6%	99,514,895	25,261,023

\*Book value

Certification

On the basis of the actuarial assumptions given and the data furnished by the General Manager of the County Employees Retirement System, it is certified that the actuarial valuation has been made by the use of accepted actuarial principles and that adequate provision is being made for the funding of future benefits.

Certified by:



Stephen A. Gagel, F.S.A.

November 3, 1994

Date

William M. Mercer, Incorporated  
1500 Meidinger Tower  
Louisville Galleria  
Louisville, Kentucky 40202  
(502) 561-4500

## SECTION VI

### SUMMARY OF PRINCIPAL PLAN PROVISIONS

#### Effective Date

The state of Kentucky established the County Employees Retirement System in July, 1958. The plan benefits have been improved several times, most recently as of August 1, 1990.

#### Plan Year

A plan year is a twelve month period beginning on July 1.

#### Final Compensation

Final compensation is the average salary during the five highest paid fiscal years. If the months of service credit during the highest five year period is less than forty-eight, one or more additional fiscal years shall be used.

#### Service

Service means the sum of prior service and current service as defined below:

- (a) Prior service is credited for regular full-time employment of at least 100 hours of work per month with a participating agency before July 1, 1958. In some instances prior service credit is granted for time spent in the military.
- (b) Current service is obtained for regular full-time employment which averages at least 100 hours of work per month with participating agencies after July 1, 1958. Current service credit may be granted for military service and educational leaves if special criteria are met.
- (c) Employers may elect to purchase up to 6 months additional service credit based on an employee's unused sick leave.

#### Eligibility

Any county or political subdivision or instrumentality, including school boards or urban county government may participate in the System upon approval by the Board. Membership in the system consists of:

- (a) all persons who become employees of a county after such county first participates,
- (b) all persons who are employees on the date a county first participates and who elect within thirty days to become members and make contributions.

Membership does not include employees of a county who are members of some other state, county, or local retirement system, supported in whole or in part by public funds.

#### Normal Retirement Date

A member may elect to retire upon: (1) attaining age 65 for non-hazardous positions, or attaining age 55 for hazardous positions, and (2) having contributed to the System. Upon completion of 27 years of service credit, 15 of which are current service for non-hazardous positions, or completion of 20 years of service credit for hazardous positions, a member may elect to retire with an unreduced benefit.

#### Early Retirement Date

A member may elect to retire before the normal retirement date at any time after: (1) for non-hazardous positions, attainment of age 55 and completion of 60 months of service credit at least 12 of which are current, or at any age after 25 years of service, or (2) for hazardous positions, attainment of age 50 and completion of 15 years of service credit.

#### Normal Retirement Benefits

For non-hazardous positions, upon attainment of age 65 and completion of 48 months of service, of which 12 months are current service, a monthly benefit equal to 2.20% of the member's final compensation multiplied by his service will be payable. For hazardous positions, a monthly benefit equal to 2.50% of the member's final compensation multiplied by his service will be payable upon attainment of age 55 and completion of 60 months of service of which 12 months are current service. A member, with less than 48 months for non-hazardous positions or 60 months for hazardous positions, who retires on or after the normal retirement date is entitled to a retirement allowance which pays the actuarial equivalent of twice the member's accumulated contributions for life.

#### Early Retirement Benefits

A member who elects early retirement is entitled to a monthly benefit reduced for each month by which the early retirement date precedes the first date on which the member would qualify for an unreduced benefit. If a non-hazardous position employee has 27 or more years of service credit, 15 of which are current, or a hazardous position employee has 20 or more years of service credit, an unreduced benefit is payable.

### Disability Benefits

A member with 60 months of service, 12 of which must be current service, is entitled to a retirement allowance computed in the same manner as the normal retirement benefit with service and final compensation determined as of the disability date. Service credit shall be added on to total service for the period from the last day of paid employment to the 65th birthday (55th for members in a hazardous position) up to a maximum of service credited to the last day of paid employment. Except for members with 25 or more (20 or more for hazardous) years of service on the last day of paid employment, the maximum combined service credit (total service and added service) shall not exceed 25 years (20 years for hazardous members). For non-hazardous position employees with 25 or more years of service, additional years of service credit will be added up to maximum combined limit of 30, or actual service if greater. For hazardous position employees with 20 or more years of service credit, actual service will be used.

A member in a hazardous position who is disabled in the line of duty is entitled to a retirement benefit of not less than 25% of the member's final monthly rate of pay plus 10% of his final monthly rate of pay for each dependent child. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay. A partial disability benefit may be payable to hazardous employees if the disability is not total and permanent. The disability will be reduced to a rate determined by the Board.

### Death Benefits

If a member dies prior to retirement, but after 60 months of service, 12 of which are current and who is a contributing member, or after 12 years of service, one of which is current and who is not a contributing member, or after 48 months service if the member is age 65 or over, a benefit will be payable to the beneficiary based on the member's age, years of service and final compensation at the date of death. The benefit will be equal to the amount payable had the employee retired and elected a joint and 100% survivorship payment form.

If a member in a hazardous position dies in the line of duty and has a spouse as beneficiary, a \$5,000 lump sum payment will be made and a benefit of 25% of the member's final monthly rate of pay will be payable until death or remarriage. If the member in a hazardous position dies in the line of duty and has a dependent as beneficiary, a lump sum payment of \$10,000 will be made. Monthly payments shall be made for each dependent child equal to 10% of the member's final monthly rate of pay, but not greater than 40% of the member's final monthly rate of pay. The beneficiary of a hazardous duty member with 5 or more years of service, one of which is current, may elect a death benefit computed in the same manner as a non-hazardous employee using 2.50% rather than 2.20%.

Upon the death of a retired member, who had a minimum of 48 months of service credit, a death benefit of \$2,500 is payable.

### Optional Forms of Payment

Joint and survivor annuities which provide a reduced benefit for the life of the member, with the benefit at the same or at a further reduced rate continuing after the member's death until the death of the designated beneficiary may be elected by the member prior to retirement. Other optional forms include a life annuity with 10, 15 or 20 years of payments guaranteed and a Social Security adjustment with or without survivor rights.

### Contributions

Members contribute 5% of gross compensation (7% for hazardous positions). On each June 30, interest is credited at the rate to be determined by the Board on the accumulated contributions the member had in his account on the previous June 30. Upon termination a member may withdraw the contributions with interest, but will be entitled to no benefit payments.

### Medical Insurance

Recipients of a retirement benefit may elect to participate in a voluntary hospital/medical group insurance plan for themselves as well as any beneficiaries or dependents. The cost of participation for any beneficiaries or dependents is borne by the retiree (except that dependents of hazardous position employees and legislators will have the same percentage paid by the system as the member). The retirement system will pay a portion of the cost of participation for the retiree based on years of service credit as follows:

Less than 4 years	0%
4 - 9 years	25%
10 - 14 years	50%
15 - 19 years	75%
20 or more years	100%

If a hazardous member is disabled in the line of duty, the retirement system will pay 100% of the cost of the member, spouse and eligible dependents. If a hazardous member is killed in the line of duty, the retirement system will pay 100% of the cost of the beneficiary and eligible dependents as long as they remain eligible for a monthly benefit payment.

### Increase in Retirement Allowances

The board shall increase retirement allowances each year of the biennium by fifty percent (50%) of the rate margin for the nonhazardous members of the Kentucky Employees Retirement System as determined by the board's actuary in the annual actuarial valuation prior to the biennium with a maximum increase of five percent (5%) per year, as averaged over a five (5) year period. The first period for averaging shall be from July 1, 1986, to August 1, 1990. Each year thereafter, the next year shall be added and the first year shall be dropped from the five (5) year averaging period.

THIRTY-SIXTH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1994

STATE POLICE RETIREMENT SYSTEM

FRANKFORT, KENTUCKY



## SECTION I

### INTRODUCTION

The results of the thirty-sixth annual actuarial valuation of the State Police Retirement System are presented in this report. The actuarial valuation was made on the basis of the data provided by the System as of June 30, 1994.

The purpose of the actuarial valuation is to determine the actuarial condition of the Retirement System and the rate of employer contribution for the ensuing fiscal year as required to support the System.

The plan provisions utilized in this valuation are described in the Summary of Principal Plan Provisions beginning on page S-33. The basis of funding is defined in KRS 61.565 and provides that the actuarial valuation method would be uniform for all benefits provided by the System. The Entry Age Normal Actuarial cost method has been used for all benefits. KRS 61.565 provides that each employer participating in the System shall contribute an amount equal to the Normal Cost contribution rate, and an amount sufficient to amortize the Unfunded Actuarial Accrued Liability over 30 years using the level-percentage-of-payroll method. This is the standard used herein to determine whether the funding of the System is adequate.

The actuarial valuation results are based upon the employee census and asset data supplied by the office of the System, and upon the actuarial assumptions as stated on page S-5.

## SECTION II

### ACTUARIAL CONSIDERATIONS

#### Description of Actuarial Methods

The actuarial valuation is the means by which the contingent liabilities and contribution rates of a retirement system are evaluated and determined. It provides a guide to the System as to the financing required during years of active service to accumulate the funds needed to provide members' benefits. It also makes it possible to estimate beforehand the cost of proposed changes in the System so that action can be taken in the light of the cost consequences.

The methods of valuation are prescribed by KRS 61.565. The Entry Age Normal Actuarial cost method was used to determine costs of all benefits with the exception of the retiree medical insurance benefit. Under this method the employer's contribution to the retirement system consists of Normal Cost, a payment to fund the Unfunded Actuarial Accrued Liability, medical insurance, and administrative expenses. The Normal Cost represents the contribution (as a level percent of payroll) that completely funds benefits at retirement if made from a person's entry into employment until his retirement. The Actuarial Accrued Liability represents the sum of money and investments that would be held in the fund if the retirement system had been in effect since the date each member was first employed.

The medical insurance contribution rate was originally determined in the 1987 valuation as the level percent of payroll necessary to fund projected medical insurance premiums over the next sixteen years (taking into account the level of reserves in the Insurance Fund). Beginning in 1988, this rate is being increased each year by a percentage amount needed to reach the Entry Age Normal funding rate within a 20 year period measured from 1987. This was continued through the 1992 valuation. In the 1992 valuation, an acceleration of the scheduled increases in the medical insurance contribution rate was recommended where possible. This acceleration in these rates was coupled with a deferral of future increases until the time of the next experience study, unless there is a deterioration in the funded position of the medical premium benefit in which case the rate levels will be reviewed to redetermine an appropriate current funding level, or unless recommended contributions are not made in the prior year, in which case the shortfall shall be spread over future years through an increase in the contribution rate.

The amount of the administrative expense was based on the budgeted amount for the twelve months following the date of the valuation.

#### Actuarial Assumptions

Since the actuarial valuation involves estimates of benefits payable in the future, it is necessary that assumptions be made as to the interest earnings, rates of mortality, withdrawal, retirement, and disability, and the rate at which salaries will increase. In addition, an assumption must be made relative to increases in medical insurance premium rates in order to value the liability for the medical insurance benefit.

It is desirable that the actuarial assumptions be reviewed periodically to see whether past experience and probable future experience justifies the continued use of these actuarial assumptions. Such a study was performed subsequent to the 1989 actuarial valuation and new actuarial assumptions were adopted by the Board for use in the subsequent actuarial valuations, until such time as another experience study is performed. This valuation reflects assumptions based on the 1989 experience study.

#### Actuarial Value of Assets

The actuarial value of assets is determined in the following manner for the Retirement Fund:

1. Determine the ratio of the market value of Retirement Fund assets to book value as of the current valuation date and the four preceding valuation dates (but not using any valuation dates prior to June 30, 1989). All asset values include accrued investment income and member and employer contribution receivables, and exclude member refunds and investment expenses payable.
2. Determine the average ratio of market to book value as of these valuation dates.
3. Apply this average ratio to the book value (as adjusted for accrued investment income and member and employer contribution receivables, and member refunds and investment expenses payable) as of the current valuation date to derive valuation assets.

For the Insurance Fund, the actuarial value of assets is determined to be the book value of the assets in that fund as of the valuation date adjusted for any receivables and/or payables.

The different asset valuation methods for the Retirement Fund and the Insurance Fund are a result the following:

1. There is separate book and market value information for the Insurance Fund under all systems dating only from July, 1992. So it is not possible to presently use the same averaging method for the Insurance Fund as used for the Retirement Fund.
2. The magnitude of assets to liabilities for the Insurance Fund is such that the method of valuing assets will only negligibly affect current valuation results. Also, given the current method for transitioning into higher medical premium contribution rates over future years, the asset valuation method used for the Insurance Fund is not as critical as the asset valuation method used for the Retirement Fund.

The derivation of valuation assets for the Retirement Fund as of the current valuation date is as follows:

	<u>Book Value *</u>	<u>Market Value *</u>	<u>Ratio</u>
June 30, 1994	173,754,936	198,164,329	114.04217%
June 30, 1993	169,070,558	202,753,319	119.92231%
June 30, 1992	158,977,890	198,369,414	124.77799%
June 30, 1991	150,818,074	178,297,082	118.21997%
June 30, 1990	145,025,551	165,133,597	113.86517%
June 30, 1989	131,350,553	151,884,326	115.63280%
... Average Ratio =			118.16672%
... Valuation Assets =			205,320,509
(Average Ratio x Current Book Value)			

\* Reflects accrued investment income and member and employer contribution receivables, and member refunds and investment expenses payable; represents Retirement Fund assets exclusive of amounts in the Insurance Fund

Except for Table V, the actuarial value of assets excludes any amounts in the Insurance Fund. Table V uses only assets in the Insurance Fund, excluding all other amounts.

STATE POLICE RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

A. STATEMENT OF ACTUARIAL ASSUMPTIONS

(1) Mortality:

- (a) Active & retired lives - 1983 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year.
- (b) Disabled lives - Social Security Administration Disability Mortality Rates - Actuarial Study No. 75 (current rates used by PBGC for disabled lives receiving Social Security).

- (2) Disablement - Graduated rates based on 1989 experience study.

- (3) Termination of employment - Graduated rates based on 1989 experience study.

- (4) Retirement - 50% will retire as soon as eligible for unreduced benefits and balance will continue to age 55.

(5) Marital status

- (a) Percentage married - 100%.

- (b) Age difference - Males are assumed to be 3 years older than their spouses.

- (6) Dependent children - For duty related death benefits, it is assumed that the employee is survived by 2 dependent children, each age 6.

- (7) Investment return - 8.00% per year, net of investment related expenses, compounded annually.

- (8) Compensation progression - 6.50% per year, compounded annually.

(9) Retiree Medical Insurance

- It was assumed that future retirees would select medical coverage in the same proportion that current retirees have selected coverage. Monthly premium rates were assumed to be as follows:

<u>Plan Type</u>	<u>7/1/94</u>	<u>Rate Increase</u>	
	<u>Rate</u>	<u>Date</u>	<u>Rate</u>
Single	\$158.78*	1/1/95	\$174.66**
Family	338.98*	1/1/95	372.88**
Parent Plus	239.54*	1/1/95	263.49**
Medicare	78.00*	1/1/95	85.80**
High Option	132.05*	1/1/95	145.26**

\*Actual rates

\*\*Assumed rates

In determining the medical premium funding rate in 1987, medical premiums were assumed to increase at an annual rate of 12%. In determining the target Entry Age Funding rate in valuations subsequent to 1987, it was assumed that medical premiums would grow at an annual rate of 10%. The assumed rate of growth in number of retirees receiving medical insurance was based on assumed retirement and mortality patterns used throughout the valuation.

Reserves in the Insurance Fund were used to offset the liability for premiums.

(10) Missing data

- For those active members with incomplete data, the following assumptions were made:

. If reported salary was zero or blank, then monthly salary was assumed to be \$1,713

. If reported age was blank, then assume current age equal to age 18 plus years of service reported

(11) Members with Multiple  
Service Records

- For active members with service in more than one system, the liability has been valued as follows:

- . Service under all systems is aggregated for purposes of determining benefit eligibility.
- . Future service is projected only under the system in which the member is currently active.
- . The actual benefit under each system is determined based only on service (past and projected future service, if applicable) under that system.
- . The liability is determined under each system based on the actuarial assumptions used for the system in which the member is currently active. This liability is then included in the valuation of the system in which the service has been earned (or is projected to be earned).

For inactive members with service in more than one system, the benefit attributable to the service under each system is determined, and the liability for that benefit is then included in the valuation of the system in which the service was earned.

B. SAMPLE RATES

(1) Annual Rates of Mortality:

<u>Age</u>	<u>Active Mortality*</u>		<u>Disabled Mortality</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
25	0.05%	0.03%	4.83%	2.63%
30	0.06%	0.03%	3.62%	2.37%
40	0.12%	0.07%	2.82%	2.09%
50	0.40%	0.16%	3.83%	2.57%
55	0.61%	0.25%	4.82%	2.95%
60	0.92%	0.42%	6.03%	3.31%

\*Plus 0.05% duty death rate prior to retirement.

(2) Annual Rates of Decrement:

<u>Age</u>	<u>Disablement</u>	<u>Ultimate Termination</u>
25	0.03%	3.04%
30	0.03%	3.38%
40	0.09%	1.50%
50	0.35%	0.00%
55	0.66%	0.00%
60	1.16%	0.00%

(3) Compensation Progression:

<u>Age</u>	<u>Rate of Annual Increase</u>	<u>Compensation at Normal Retirement as Percentage Of Current Annual Compensation</u>
25	6.50%	661.4%
30	6.50%	482.8%
40	6.50%	257.2%
50	6.50%	137.0%



### SECTION III

#### STATE POLICE RETIREMENT SYSTEM

#### RESULTS OF THE 1994 ACTUARIAL VALUATION

##### Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the State Police Retirement System as of June 30, 1994. The "actuarial balance sheet" of the retirement system displays the fundamental relationship between actual assets, future contributions, and future benefits. The asset side of the balance sheet is comprised of actual fund assets plus the actuarial present value of future contributions on behalf of current members. The actuarial present values of all projected benefit payments to present active and inactive members make up the balance sheet liabilities.

##### Determination of Contribution Rate

The rate of contribution by the State required to provide 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, the employer share of the Normal Cost, medical insurance and the administrative costs of the System is shown in Table II. The required contribution is expressed both in dollars and as a percentage of the estimated annual covered payroll as of June 30, 1994.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1994 are described on page S-2. These costs are classified by type of benefit. The Normal Cost contribution rate of the State is determined by reducing the total Normal Cost by the expected employee contributions.

##### Accountant's Information

Table III contains a calculation of the accumulated value of plan benefits as specified under FASB Statement No. 35. Under this calculation, the present value of future benefits payable and attributable to the employee's present accrued benefit is computed. The probabilities of termination, disability, mortality and retirement are the same for this calculation as those used in the regular valuation calculations. However, future increases in earnings and additional benefit accruals are not projected beyond the current valuation date.

Table IV contains information needed to comply under GASB Statement No. 5. These calculations reflect the present value of benefits attributable to current years of service, but based on projected salary levels at the time a member's final benefits are determined.

Table V contains information needed to comply under GASB Statement No. 12. These calculations reflect the liabilities for the medical premium benefit provided under the system.

TABLE I  
STATE POLICE RETIREMENT SYSTEM  
ACTUARIAL BALANCE SHEET - JUNE 30, 1994

Fund Assets at Actuarial Value (Plus Refunds and Expenses Payable) *	\$205,837,934
Actuarial Present Value of Future Member Contributions	20,502,978
Actuarial Present Value of Future Employer Contributions	
For Normal Costs	\$24,271,786
For Unfunded Actuarial Accrued Liability	1,442,801
Total	\$25,714,587
Total Actuarial Assets	\$252,055,499

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits		
Inactive Members:		
Retired Members and Beneficiaries	\$109,464,440	
Vested Retirement	75,537	
Vested Membership	68,258	
Post Retirement Death Benefit	163,841	
Total - Inactive		\$109,772,076
Active Members:		
Retirement Benefits	\$131,910,512	
Disability Benefits	1,951,282	
Withdrawal Benefits (Vested and Refund of Contributions)	3,839,899	
Survivor Benefits	4,064,305	
Total - Active		\$141,765,998
Refunds and Expenses Payable		\$517,425
Total Actuarial Liabilities		\$252,055,499

ACCRUED BENEFIT LIABILITY \*\*

Vested Benefits	\$153,633,781
Non-Vested Benefits	\$28,349,752

* Values as of June 30, 1994		
Market value of assets:	Non-Hazardous	\$2,586,932,571
	Hazardous	\$84,691,892
	Total	\$2,671,624,463
Actuarial value of assets:		\$0
Member's Contribution Account:		\$556,888,548

\*\* Present value of accrued benefit deferred to normal retirement date.

TABLE II  
STATE POLICE RETIREMENT SYSTEM  
DETERMINATION OF CONTRIBUTION RATE - JUNE 30, 1994

<u>ACTUARIAL ACCRUED LIABILITY</u>	PERCENT *-
<u>Active Members</u>	
Retirement Benefits	\$93,119,712      300.87%
Disability Benefits	1,163,272      3.76%
Withdrawal Benefits (Vested and Refund of Contributions)	417,436      1.35%
Survivor Benefits	2,290,814      7.40%
Actuarial Accrued Liability - Actives	\$96,991,234      313.38%
<u>Inactive Members</u>	
Retired Members and Beneficiaries	\$109,464,440      353.68%
Vested Retirement	75,537      0.24%
Vested Membership	68,258      0.22%
Post Retirement Death Benefit	163,841      0.53%
Actuarial Accrued Liability - Inactives	\$109,772,076      354.67%
Total Actuarial Accrued Liability	\$206,763,310      668.05%
<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>	
Total Actuarial Accrued Liability	\$206,763,310      668.05%
Less Actuarial Value of Assets	205,320,509      663.39%
Unfunded Actuarial Accrued Liability	
. Portion Amortized from 1990	\$9,936,955      32.11%
. Portion Amortized from 1991	10,768,088      34.79%
. Portion Amortized from 1992	(25,834,366)      -83.47%
. Portion Amortized from 1993	(3,808,011)      -12.30%
. Portion Amortized from 1994	10,380,135      33.54%
. Total	\$1,442,801      4.66%
Contribution - Payment on Unfunded Actuarial Accrued Liability	\$93,823      0.30%
<u>NORMAL COST</u>	
Retirement Benefits	\$4,076,399      13.17%
Disability Benefits	84,759      0.27%
Withdrawal Benefits (Vested and Refund of Contributions)	371,452      1.20%
Survivor Benefits	191,524      0.62%
Total Normal Cost	\$4,724,134      15.26%
Less Employee Contributions	2,162,031      6.99%
Total Normal Cost - State Police	\$2,562,103      8.27%

TOTAL ANNUAL EMPLOYER COST - STATE POLICE

Normal Cost	\$2,562,103	8.28%
Payment on Unfunded Actuarial		
Accrued Liability	93,823	0.30%
Administrative Expenses	79,049	0.26%
Group Hospital and Medical		
Insurance Premiums	4,398,008	14.21%
Total Annual Cost	<u>\$7,132,983</u>	<u>23.05%</u>

\* Based on estimated annual salaries of \$30,950,088

NOTE: Determination of contribution rates in this table reflects benefits in effect on the valuation date prior to determination of any increase in retirement allowances as determined under KRS 61.691(1).

TABLE III  
 STATE POLICE RETIREMENT SYSTEM  
 ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

ACTUARIAL PRESENT VALUE OF  
 VESTED ACCUMULATED BENEFITS

Active Members

Retirement Benefits	\$40,480,187
Disability Benefits	549,198
Withdrawal Benefits (Vested & Refund of Contributions)	2,199,386
Survivor Benefits	0
 Total - Active Members	 \$43,228,771

Inactive Members

Retired Members and Beneficiaries	\$109,464,440
Vested Retirement	75,537
Vested Membership	68,258
Post Retirement Death Benefit	163,841
 Total - Inactive Members	 \$109,772,076
 Total Actuarial Present Value of Vested Accumulated Benefits	 \$153,000,847

ACTUARIAL PRESENT VALUE OF  
 NON-VESTED ACCUMULATED BENEFITS

Active Members

Retirement Benefits	\$12,465,082
Disability Benefits	488,235
Withdrawal Benefits (Vested & Refund of Contributions)	(178,648)
Survivor Benefits	2,007,890
 Total Active Members	 \$14,782,559

Inactive Members

	\$0
 Total Actuarial Present Value of Non-Vested Accumulated Benefits	 \$14,782,559

NOTE: All calculations in this Table IV have been developed as specified under FAS Statement No. 35.

TABLE IV  
STATE POLICE RETIREMENT SYSTEM  
ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

NUMBER OF MEMBERS

Inactive Members

Retired Members and Beneficiaries	559
Vested Retirements	11
Vested Membership	108
<hr/>	
Total Inactive Members	678

Active Members

Vested Members	771
Nonvested Members	196
<hr/>	

Total Active Members	<hr/> 967
----------------------	-----------

<u>Total Members</u>	1,645
----------------------	-------

UNFUNDED PENSION BENEFIT OBLIGATION

Pension Benefit Obligation

Retirees and Beneficiaries	
Currently Receiving	
Benefits and Terminated Members Not	
Members Not Yet	
Receiving Benefits	\$109,772,076
Current Members	
Accumulated Employee	
Contributions and	
Credited Interest	28,070,689
Employer Financed -	
Vested	60,420,329
Employer Financed -	
Nonvested	<hr/> 866,068

Total Pension Benefit Obligation	\$199,129,162
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<u>Net Assets at Actuarial Value</u>	<hr/> \$205,320,509
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<u>Unfunded Pension Benefit</u> <u>Obligation</u>	(\$6,191,347)
--	---------------

NOTE: (1) Pension Benefit Obligation based on Projected Unit Credit Actuarial Cost Method.

(2) Assets at book value on June 30, 1994: \$173,754,936

TABLE V  
STATE POLICE RETIREMENT SYSTEM  
ACCOUNTANT'S INFORMATION - JUNE 30, 1994  
INFORMATION REQUIRED UNDER GASB STATEMENT NO. 12

NUMBER OF MEMBERS

Inactive Members

Contracts in Force - Retirees and Dependents

(1) Single;	- 100% Paid	106
Pre-Medicare	- 75% Paid	3
	- 50% Paid	1
	- 25% Paid	0
	- 0% Paid	0
(2) Family;	- 100% Paid	250
Pre-Medicare	- 75% Paid	3
	- 50% Paid	1
	- 25% Paid	1
	- 0% Paid	0
(3) Parent +;	- 100% Paid	21
Pre-Medicare	- 75% Paid	0
	- 50% Paid	0
	- 25% Paid	0
	- 0% Paid	0
(4) Medicare Regular	- 100% Paid	0
	- 75% Paid	0
	- 50% Paid	2
	- 25% Paid	0
	- 0% Paid	0
(5) Medicare High	- 100% Paid	136
Option	- 75% Paid	4
	- 50% Paid	2
	- 25% Paid	1
	- 0% Paid	1
Vested Retirements		11
Vested Membership		108

Active Members

967

UNFUNDED MEDICAL BENEFIT OBLIGATION

Medical Benefit Obligation

Retirees, Beneficiaries and Vested Terminated Members	\$36,842,982
Active Members	73,350,157
Total Medical Benefit Obligation	\$110,193,139
<u>Net Assets at Actuarial Value *</u>	<u>\$17,410,672</u>
<u>Unfunded Medical Benefit Obligation</u>	<u>\$92,782,467</u>

NOTE: Medical Benefit Obligation based on Entry Age Normal Actuarial Cost Method

\* Actuarial value equal to book value for purposes of the Insurance Fund.

SECTION IV  
COMMENTS AND CERTIFICATION

Comments

The total Actuarial Accrued Liability increased from \$191,653,594 on June 30, 1993 to \$206,763,310 on June 30, 1994. The Unfunded Actuarial Accrued Liability increased from \$0 to \$1,442,801. Total actuarial value of assets as of June 30, 1994 was equal to \$205,320,509.

The Unfunded Actuarial Accrued Liability increased from 0.00% to 4.66% as a percentage of annual payroll and increased from 0.0% to 0.7% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1994.

The change in contribution rate between the 1993 and 1994 valuations is a function of actual plan experience since the last valuation. A formal gain and loss analysis would identify the portion of the contribution rate change attributable to each element of plan experience and benefit change. However, undertaking such an analysis would be extremely time consuming and expensive. In lieu of the formal analysis, we have estimated the impact of the various components of gain and loss based on changes in statistical averages of each group. The following table shows the results of this computation:

June 30, 1993 Contribution Rate	
- Prior to KRS 61.691(1) COLA	21.44%
- KRS 61.691(1) COLA	0.34%
- 1993 Valuation Recommendation	21.78%
Change due to State Contribution Shortfall	
- Retirement Related Benefits	0.12%
- Medical Premium Benefits	0.07%
Change in Unfunded Actuarial Accrued Liability Payment Percentage Due to Covered Payroll Experience	(0.05%)
Investment Return	0.64%
Salary Increases	(0.32%)
Other Decrements*	0.48%
Change in Group Hospital and Medical Premium Rate (other than due to State Contribution Shortfall)	0.00%
Change in Administrative Expense Rate	0.01%
Additional COLA above KRS 61.691(1) amount	0.32%
June 30, 1994 Contribution Rate	23.05%

\*Includes mortality, disability, termination of employment and retirement experience.



The annual State contribution rate required to provide the Normal Cost, 30 year amortization of the Unfunded Actuarial Accrued Liability under the level-percentage-of-payroll method, and pay administrative expenses is 8.84%. An additional 14.21% is required to fund medical insurance for retirees, bringing the required contribution up to 23.05%. This exceeds the current 21.78% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1995 should be increased from the current 21.78% level to 23.05%, and we so recommend.

The recommended contribution rates are based on current statutory benefits. The budgeted contribution rates will again be reviewed in the June 30, 1995 valuation.

The following table shows the total Actuarial Accrued Liability, the Unfunded Actuarial Accrued Liability, percent unfunded and the growth of the invested assets relative to retirement related benefits at selected intervals since the inception of the System.

STATE POLICE RETIREMENT SYSTEM - RETIREMENT RELATED BENEFITS

<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets</u>	<u>Increase in Assets</u>
1958	\$ 1,450,000	\$ 1,450,000	100.0%	\$ 0	\$ 0
1963	4,553,258	2,008,476	44.1%	2,544,782	619,167
1968	9,079,139	3,288,103	36.2%	5,791,036	789,709
1971	11,828,727	2,441,888	20.6%	9,386,839*	1,339,726
1974	17,737,434	3,179,448	17.9%	14,557,986*	1,935,105
1975	23,182,081	6,169,445	26.6%	17,012,636*	2,454,650
1976	28,693,129	8,231,367	28.7%	20,461,762*	3,449,126
1977	34,561,413	10,436,161	30.2%	24,125,252*	3,663,490
1978	49,950,102	21,440,957	42.9%	28,509,145*	4,383,893
1979	55,391,206	21,487,985	38.8%	33,903,221*	5,394,076
1980	67,580,562	26,663,397	39.5%	40,917,165*	7,013,944
1981	71,526,728	23,296,425	32.6%	48,230,303	7,313,138
1982	78,713,172	21,383,042	27.2%	57,330,130	9,099,827
1983	81,944,546	16,187,460	19.8%	65,757,086	8,426,956
1984	91,180,668	16,200,151	17.8%	74,980,517	9,223,431
1985	99,269,825	14,253,583	14.4%	85,016,242	10,035,725
1986	105,559,951	8,892,252	8.4%	96,667,699	11,651,457
1987	111,541,989	1,347,385	1.2%	110,194,604	13,526,905
1988	120,128,367	0	0.0%	120,998,549	10,803,945
1989	134,550,773	3,200,220	2.4%	131,350,553	10,352,004
1990	154,007,622	8,982,071	5.8%	145,025,551	13,674,998
1991	170,009,955	19,191,881	11.3%	150,818,074	5,792,523
1992**	182,996,056	0	0.0%	187,791,011	36,972,937
1993	191,653,594	0	0.0%	200,320,968	12,529,957
1994	206,763,310	1,442,801	0.7%	205,320,509	4,999,541

\*Includes capitalized appreciation of investments.

\*\*Change in asset valuation method effective in this valuation from book value to a five year average of market to book values.

The following table shows the total Actuarial Accrued Liability, the Unfunded Actuarial Accrued Liability, percent unfunded and the growth of the invested assets relative to medical premium benefits since 1990.

STATE POLICE RETIREMENT SYSTEM - MEDICAL PREMIUM BENEFITS

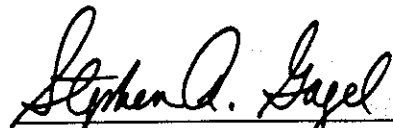
<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets*</u>	<u>Increase In Assets</u>
1990	64,784,801	58,268,284	89.9%	6,516,517	N/A
1991	74,163,248	65,231,704	88.0%	8,931,544	2,415,027
1992	88,407,634	76,689,678	86.7%	11,717,956	2,786,412
1993	95,290,099	81,004,620	85.0%	14,285,479	2,567,523
1994	110,193,139	92,782,467	84.2%	17,410,672	3,125,193

\*Book value

Certification

On the basis of the actuarial assumptions given and the data furnished by the General Manager of the State Police Retirement System, it is certified that the actuarial valuation has been made by the use of accepted actuarial principles and that adequate provision is being made for the funding of future benefits.

Certified by:



Stephen A. Gagel, F.S.A.



Date

William M. Mercer, Incorporated  
1500 Meidinger Tower  
Louisville Galleria  
Louisville, Kentucky 40202  
(502) 561-4500

## SECTION VI

### SUMMARY OF PRINCIPAL PLAN PROVISIONS

#### Effective Date

The state of Kentucky established the State Police Retirement System in July, 1958. The plan benefits have been improved several times, most recently as of August 1, 1991.

#### Plan Year

A plan year is a twelve month period beginning on July 1.

#### Final Compensation

Final compensation is the average salary during the five highest paid fiscal years. If the months of service credit during the highest five year period is less than forty-eight, one or more additional fiscal years shall be used.

#### Service

Service means the sum of prior service and current service as defined below:

- (a) Prior service is credited for regular full-time employment of at least 100 hours of work per month with a participating agency before July 1, 1958. In some instances prior service credit is granted for time spent in the military.
- (b) Current service is obtained for regular full-time employment which averages at least 100 hours of work per month with participating agencies after July 1, 1958. Current service credit may be granted for military service and educational leaves if special criteria are met.
- (c) Service is increased by unused sick leave, up to a maximum of six months, for purposes of computing eligibility and the amount of benefits.

#### Eligibility

The Bureau of State Police shall participate in the System. Membership in the system consists of:

- (a) all regular full-time officers of the Kentucky State Police who are entitled to exercise the powers of police officers,
- (b) no person who is age 31 or over shall be eligible to become an employee of the Kentucky State Police.

### Normal Retirement Date

A member may elect to retire upon attaining age 55 and having contributed to the System. Upon completion of 20 years of service credit, 15 of which are current service, a member may declare the normal retirement date to be some date prior to age 55.

### Early Retirement Date

A member may elect to retire before the normal retirement date at any time after attainment of age 50 and completion of 15 years of service credit.

### Normal Retirement Benefits

A monthly benefit equal to 2.50% of the member's final compensation multiplied by his service will be payable upon attainment of age 55 and completion of 60 months of service of which 12 months are current service. A member who retires on or after the normal retirement date with less than 60 months of service is entitled to a retirement allowance which pays the actuarial equivalent of twice the member's accumulated contributions for life.

### Early Retirement Benefits

A member who elects early retirement is entitled to a monthly benefit reduced for each month by which the early retirement date precedes the first date on which the member would qualify for an unreduced benefit. If a member has 20 or more years of service credit (15 of which are current), an unreduced benefit is payable.

### Disability Benefits

A member with 60 months of service, 12 of which must be current service, is entitled to a retirement allowance computed in the same manner as the normal retirement benefit with service and final compensation determined as of the disability date. Service credit shall be added on to total service for the period from the last day of paid employment to the 55th birthday up to a maximum of service credited to the last day of paid employment. Except for members with 20 or more years of service on the last day of paid employment, the maximum combined service credit (total service and added service) shall not exceed 20 years. For members with 20 or more years of service credit, actual service will be used. The retirement benefit shall not be less than 25% of the member's final monthly rate of pay for those disabled in the line of duty. Ten percent of final monthly rate of pay for each dependent child is also payable if disability occurs in line of duty. The maximum dependent child's benefit is 40% of the member's final monthly rate of pay. A partial disability benefit may be payable if the disability is not total and permanent. The disability will be reduced to a rate determined by the Board.

### Death Benefits

If a member dies prior to retirement, but after 60 months of service, 12 of which are current and who is a contributing member, or after 12 years of service, one of which is current and who is not a contributing member, a benefit will be payable to the beneficiary based on the member's age, years of service and final compensation at the date of death. The benefit will be equal to the amount payable had the employee retired and elected a joint and 100% survivorship payment form.

If a member dies in the line of duty and has a spouse as beneficiary, a \$5,000 lump sum payment will be made and a benefit of 25% of the member's final monthly rate of pay will be payable until death or remarriage. If the member dies in the line of duty and has a dependent as beneficiary, a lump sum payment of \$10,000 will be made. Monthly payments shall be made for each dependent child equal to 10% of the member's final monthly rate of pay, but not greater than 40% of the member's final monthly rate of pay. The beneficiary of a member with 5 or more years of service, one of which is current, may elect a death benefit computed in the same manner as a non-hazardous employee under KERS and CERS, using 2.50% rather than the non-hazardous benefit rate.

Upon the death of a retired member, who had a minimum of 48 months of service credit, a death benefit of \$2,500 is payable.

### Optional Forms of Payment

Joint and survivor annuities which provide a reduced benefit for the life of the member, with the benefit at the same or at a further reduced rate continuing after the member's death until the death of the designated beneficiary may be elected by the member prior to retirement. Other optional forms include an annuity with 10, 15 or 20 years of payments guaranteed and a Social Security adjustment with or without survivor rights.

### Contributions

Members contribute 7% of gross compensation until age 55. On each June 30, interest is credited at the rate to be determined by the Board on the accumulated contributions the member had in his account on the previous June 30. Upon termination a member may withdraw the contributions with interest, but will be entitled to no benefit payments.

### Medical Insurance

Recipients of a retirement benefit may elect to participate in a voluntary hospital/medical group insurance plan for themselves as well as any beneficiaries or dependents. The retirement system will pay a portion of the cost of participation for the retiree and dependents based on years of service credit as follows:

Less than 4 years	0%
4 - 9 years	25%
10 - 14 years	50%
15 - 19 years	75%
20 or more years	100%

If a member is disabled in the line of duty, the retirement system will pay 100% of the cost of the member, spouse and eligible dependents. If a member is killed in the line of duty, the retirement system will pay 100% of the cost of the beneficiary and eligible dependents as long as they remain eligible for a monthly benefit payment.

#### Increase in Retirement Allowances

The board shall increase retirement allowances each year of the biennium by fifty percent (50%) of the rate margin for the nonhazardous members of the Kentucky Employees Retirement System as determined by the board's actuary in the annual actuarial valuation prior to the biennium with a maximum increase of five percent (5%) per year, as averaged over a five (5) year period. The first period for averaging shall be from July 1, 1986, to August 1, 1990. Each year thereafter, the next year shall be added and the first year shall be dropped from the five (5) year averaging period.



# **Investment Section**



## INVESTMENT SECTION INTRODUCTION

The Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement System were created to provide retirement benefits to employees of both state and local government agencies in Kentucky. Charged with the responsibility of investing the assets to attain this goal, the members of the Board of Trustees follow a policy of preserving capital, while seeking means of enhancing revenues and protecting against losses in any particular investment area.

The Board invests the assets of the systems with the goal of paying benefits from investment income and decreasing unfunded liabilities. The Board recognizes its fiduciary duty not only to invest the funds in formal compliance with the Prudent Man Rule, but also to manage the funds in continued recognition of the basic long term nature of the systems. In order to maintain quality while maximizing the long range return, the Board diversifies the investment of the assets among classes of securities. The Board has set these objectives:

**Long-Term:** The total assets of the systems should achieve a return measured over two market cycles (estimated to be six to ten years) which exceeds the rate of inflation for the period, as measured by the National Consumer Price Index, by at least 4%.

**Short-Term:** The returns of the particular asset classes of the managed funds of the systems, measured on a year-to-year basis, should exceed the returns achieved by comparable unmanaged market indices.

In accomplishing these goals, the Board contracts for the services of professional and experienced advisors. The Board also contracts with the firm of William M. Mercer Asset Planning, Inc. to provide services in the allocation of assets, selection of investment managers, and the review of performance of the managers.

In addition to these contracted advisors, the Investment Division manages an Index Equity Fund of selected common stocks. The aim of this fund is to perform as well as or better than the Standard & Poor 500 Stock Index.

Because the hazardous and nonhazardous groups within the systems have specific financial needs, the investment information is presented for each group separately.

November 17, 1994

Board of Trustees  
Kentucky Retirement Systems  
1260 Louisville Road  
Perimeter Park West  
Frankfort, KY 40601

**Members of the Board:**

As of June 30, 1994, Kentucky Retirement Systems completed its fourth full fiscal year of experience under the current investment structure. The value of the total assets of the combined Retirement Systems, excluding the Insurance Fund, increased from \$4.1 billion to \$4.4 billion at book value. The market value of the Retirement Systems' assets was nearly \$5.0 billion at the end of the fiscal year. The Insurance Fund's assets grew from \$158.9 million to \$207.1 million at book value, and had a market value of \$211.7 million.

In contrast to the past few years, the stock and bond markets both experienced lackluster returns during the fiscal year. While the economy generally displayed slow, but steady growth, rising interest rates dampened investors' enthusiasm for stocks. Throughout the year, the stock market was generally regarded as overvalued in comparison to almost any historical measure. While experience in actively managed strategies varied widely, generally value-oriented stocks outperformed their growth-oriented counterparts, and small capitalization strategies outperformed large capitalization approaches. Although the S&P 500 returned 1.4% during the fiscal year, the median manager in the Mercer Equity Universe achieved a return of 2.7%.

Re-kindled inflationary fears, coupled with an unusually large increase in reported GNP growth during the fourth quarter of 1993, triggered a rise in interest rates across the entire yield curve. The rise in interest rates persisted throughout the first two quarters of 1994. In contrast to the above-average experience of the past several years, the broad-based Lehman Brothers Aggregate Bond Index returned -1.3% during the fiscal year. Capital depreciation from rising interest rates more than offset investment income. Like equity managers, active fixed income managers fared somewhat better than the market indices, reflected in the Mercer Fixed Income Universe median of -0.1%.

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Chicago IL 60606 7485

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A Marsh & McLennan Company

In this difficult environment, the Retirement Systems' assets earned a rate of return of 1.0% and the Insurance Fund returned 0.0%. The primary contributors to the difference in returns were the higher fixed income exposure in the Insurance Fund as well as a lack of investment in real estate. After several years of sub-par returns, real estate rebounded during the fiscal year. The Retirement Systems' real estate portfolio returned 5.6% and was the best performing asset class or strategy in the portfolio during the fiscal year.

The Retirement Systems' manager structures remained similar to the reconfigured structure established in April 1990. However, the asset allocation target comparison was changed from book value to market value. As of the end of the fiscal year, asset allocation was near its targets, the largest variance being a 6% overexposure to equities. This variance will be reduced by directing new contributions to other asset classes over time. On June 30, 1994, the allocation of the assets was as follows:

	<u>Target Asset Allocation</u>	<u>Allocation at Market Value</u>	<u>Allocation at Book Value</u>
Equities	55.0%	60.8%	54.8%
Fixed Income	25.0%	22.4%	25.6%
Real Estate	10.0%	6.1%	7.5%
Cash Equivalents	10.0%	10.7%	12.1%

The asset allocation target for the Insurance Fund was also changed from book value to market value during the fiscal year. As of fiscal year end, the allocation of the assets was as follows:

	<u>Target Asset Allocation</u>	<u>Allocation at Market Value</u>	<u>Allocation at Book Value</u>
Equities	27.5%	27.0%	23.2%
Fixed Income	62.5%	55.3%	58.7%
Cash Equivalents	10.0%	17.7%	18.1%

Letter to the Board of Trustees  
November 17, 1994  
Page 3

William M. Mercer Asset Planning, Inc. monitors the overall programs' progress toward their goals during each calendar quarter and evaluates the performance of each manager on at least a quarterly basis. A formal report is presented to the Board each April.

We are pleased to report that despite the difficult market environment which existed during the past fiscal year, we view the performance of the Retirement Systems and the Insurance Fund as satisfactory. Moreover, during the longer four-year period since the programs were restructured, the Retirement Systems' performance has exceeded all benchmarks. Performance of the Insurance Fund since its inception in April of 1987 has been in line with its benchmark.

Mercer has raised concerns about one manager in the structure, and is currently performing due diligence on that firm. A recommendation to keep or replace the manager will be made to the Trustees. Notwithstanding this issue, we recommend no changes to either the targets or the structure at the current time. We remain confident that the program will meet the Retirement Systems' and Insurance Fund's goals over the long term.

Respectfully submitted,

**WILLIAM M. MERCER ASSET PLANNING, INC.**



Barbara L. Brightman, CFA  
Principal

BLB/sb

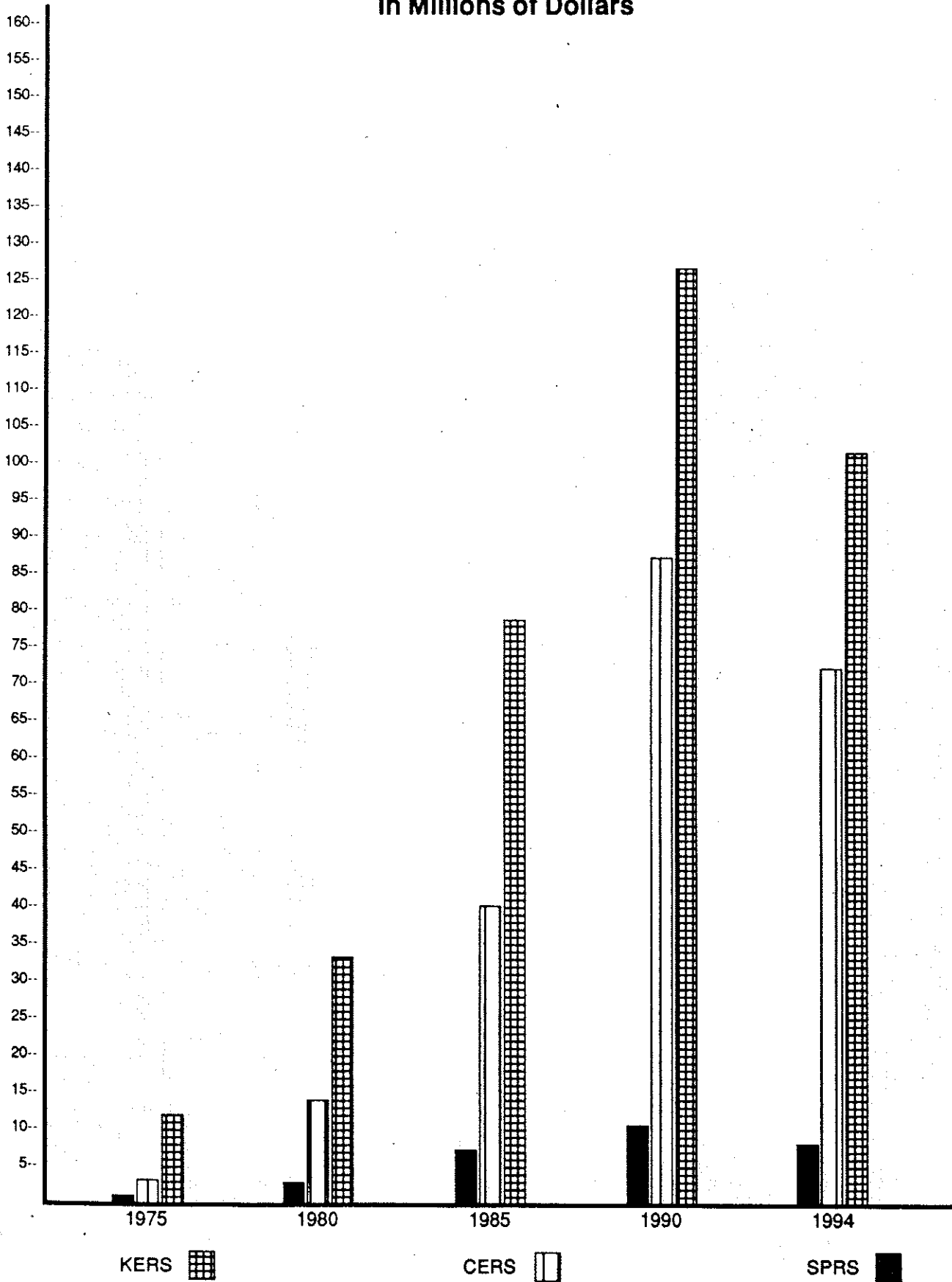
## KENTUCKY RETIREMENT SYSTEMS

### PERFORMANCE BY CLASS 1990 THROUGH 1994

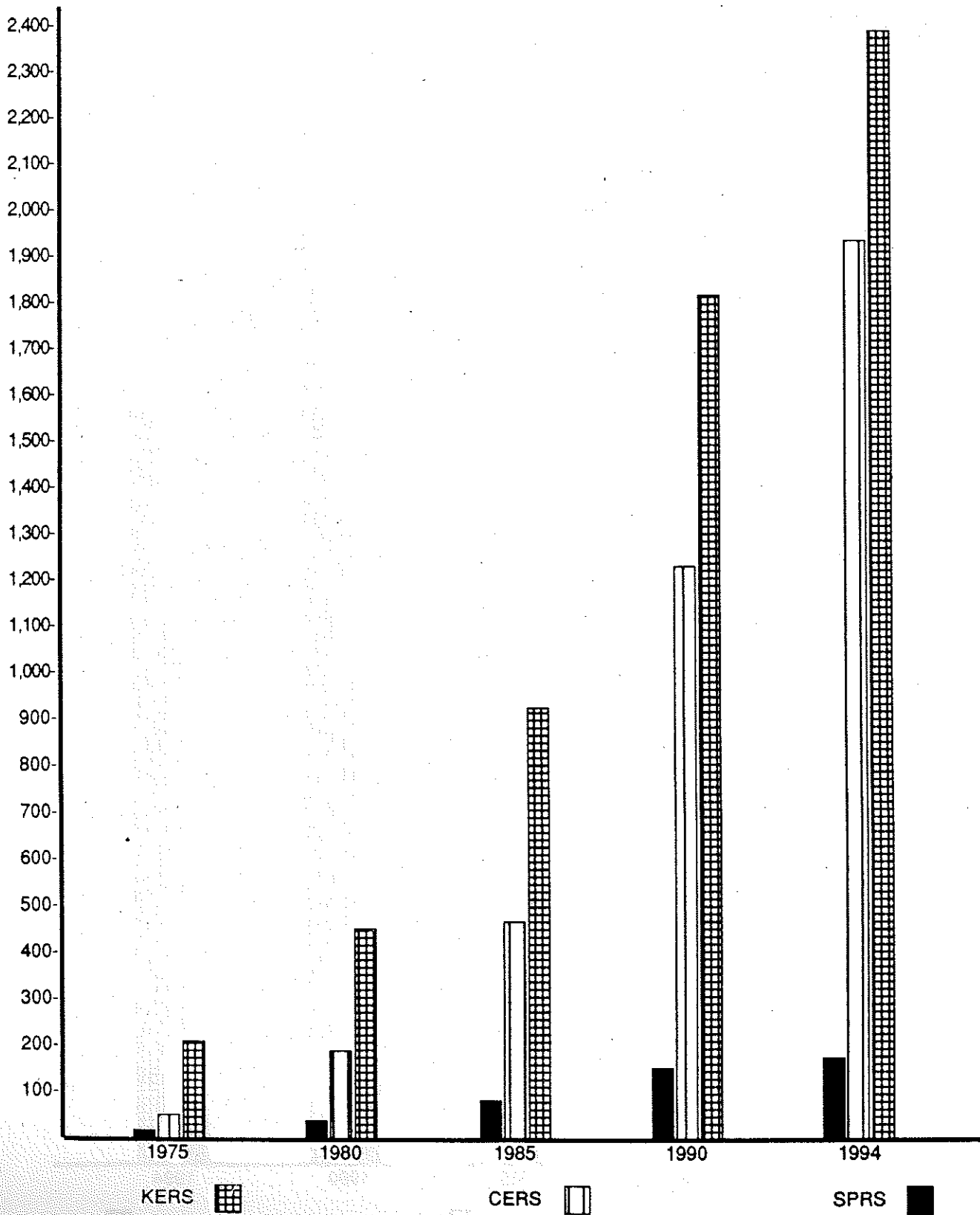
The following chart shows performance by class for the past five fiscal years.

<u>YEAR</u>	<u>STOCKS</u>	<u>BONDS</u>	<u>REAL ESTATE</u>	<u>SHORT TERM</u>	<u>TOTAL PORTFOLIO</u>
1990	17.117%	7.813%	8.053%	9.560%	11.658%
1991	6.451%	11.237%	1.480%	7.813%	8.264%
1992	13.705%	13.982%	-2.592%	5.119%	11.668%
1993	16.028%	12.060%	-1.757%	3.484%	12.252%
1994	.831%	-.846%	5.581%	3.767%	1.051%

**PORTFOLIO INCOME GROWTH**  
**(Interest and Dividends)**  
**6/30/75 through 6/30/94**  
**In Millions of Dollars**



**PORTFOLIO GROWTH  
(At Book Value)  
6/30/75 through 6/30/94  
In Millions of Dollars**



# KENTUCKY RETIREMENT SYSTEMS REAL ESTATE INVESTMENTS

## FULLY-OWNED PROPERTIES:

*Danville Manor, Danville, KY*  
*Big Sandy Village, Pikeville, KY*

*Perimeter Park West, Building A, Frankfort, KY*  
*Racquet Club Apartments, Lexington, KY*

## PROPERTIES PARTICIPATED IN:

### Heitman Fund I:

OCP Industrial Properties, Orlando, FL  
Oakwood Mall, Enid, OK  
Water Tower Place, Chicago, IL  
*Towne Mall, Elizabethtown, KY*  
East Ohio Building, Cleveland, OH

One Financial Plaza, Minneapolis, MN  
Tri-County Corporate Center, Cincinnati, OH  
Villa Marina Center, Marina Del Rey, CA  
6400 Shafer Court, Rosemont, IL

### Heitman Fund II:

ARA Tower, Philadelphia, PA  
Rutherford B. Hayes Building, Crystal City, VA  
McKinley Mall, Hamburg, NY  
Capitol Bank of Commerce, Sacramento, CA  
East Towne Mall, Knoxville, TN  
Lloyd Center Mall, Portland, OR  
Blue Ash Business Properties, Blue Ash, OH  
Congressional Place, Long Beach, CA

MN-TX Business Center, Eden Prairie, MN  
St. Louis Centre, St. Louis, MO  
MIL-HREF Properties, Milwaukee, WI  
Bank of America Plaza, Reno, NV  
Old Capitol Center, Iowa City, IO  
Midway Mall, Sherman, TX  
I-5/Jamboree Business Center, Tustin, CA

### Heitman Fund III:

Chester A. Arthur Building, Washington, DC  
MIW Properties, MN, MI, IL, IN, WI  
Minneapolis Centre, Minneapolis, MN  
Griffin Towers, Santa Ana, CA  
Southern Louisiana Industrial Properties, Baton Rouge/  
New Orleans, LA  
Madison Heights Business Park, Madison Heights/  
Troy/Novi, MI

*Towne Square North/Towne Square Mall/  
University Mall/ Owensboro, KY/  
Carbondale, IL*  
One Corporate Plaza, Blue Ash, OH  
1818 Market Street, Philadelphia, PA  
Columbia Mall, Bloomsburg, PA  
Honey Creek Square, Terre Haute, IN  
Eastwood Mall, Niles, OH

### Heitman Fund V:

Doral Pointe Apartments, Miami, FL  
Sarasota Square Mall, Sarasota, FL

Oak View Mall, Omaha, NE  
Coronada Center, Albuquerque, NM

### Other Heitman Investments:

Genessee Valley Center, Flint, MI  
California Land Venture (Residential Land  
Development—Various California Counties)  
Westside Pavilion, Los Angeles, CA  
Sarasota Square Mall, Sarasota, FL

One O'Hare Center, Rosemont, IL  
*Corporate Plaza, Louisville, KY*  
Ontario Place, Chicago, IL  
University Square Mall, Tampa, FL

### The Yarmouth Group, Inc.

Willowbrook Mall, Houston, TX

Scottsdale Fashion Square, Scottsdale, AZ

### TCW Realty Advisors

921 Ardmore Ave., Itasca, IL  
Sammamish Highland Center, Seattle, WA  
Inglewood Plaza, Seattle, WA  
Merritt, Howard County, MD  
7465 Candelwood Road, Howard County, MD  
Hammond Ferry Road, Baltimore, MD  
O'Donnell Business Park, Kent, WA  
San Fernando (retail), San Fernando, CA  
West Oaks Mall, Houston, TX  
Holmdel Town Center, Holmdel, NJ

Coral Plaza, Brentwood, CA  
Pine Lake Village Center, Seattle, WA  
6940 San Tomas, Howard County, MD  
Cutter Mill Road, Great Neck, NY  
8155 Stayton Drive, Jessup, MD  
Imperial Center East-JV, Brea, CA  
Loehmann's Plaza-Lakegrove, Lakegrove, NY  
Portola Plaza, Mission Viejo, CA  
Trabuco Hills Plaza, Mission Viejo, CA



**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
NONHAZARDOUS STATE EMPLOYEES (KERS)**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$189,996,211.41	\$368,272,168.07	\$155,855,010.98	\$251,205,060.85	\$965,328,451.31
% of Par Value	20%	38%	16%	26%	100%
Book Value	\$194,617,349.91	\$385,089,504.13	\$153,173,489.90	\$251,205,060.85	\$984,085,404.79
% of Book Value	20%	39%	15%	26%	100%
Market Value	\$194,215,750.04	\$374,163,688.70	\$152,805,978.90	\$251,205,060.85	\$972,390,478.49
% of Market Value	20%	38%	16%	26%	100%
Potential Gain or Loss:	\$ -401,599.87	\$ -10,925,815.43	\$ -367,511.00	\$ 0.00	\$ -11,694,926.30
Indicated Annual Income	\$ 14,409,118.55	\$ 26,984,933.90	\$ 11,373,715.98	\$ 11,480,071.28	\$ 64,247,839.71
Current Yield -- Book Value	7.40	7.01	7.43	4.57	6.53
-- Market Value	7.42	7.21	7.44	4.57	6.61
Yield to Maturity -- Market Value	7.05	6.69	7.43	4.57	6.33
Average Coupon	7.58	7.33	7.30	4.57	6.66
Average Maturity (Years)	7.19	9.47	18.38	.08	8.02

**REAL ESTATE**

BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$181,733,732.94	\$164,156,848.74	\$-17,576,884.20	\$11,731,718.71	6.46	7.15

**COMMON STOCK**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
37,833,025	\$1,118,159,236.61	\$1,450,385,178.35	\$332,225,941.74	\$43,062,445.66	3.85	2.97

**TOTAL PORTFOLIO**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 194,617,349.91	9%	\$ 194,215,750.04	8%	\$ 14,409,118.55	7.40	7.42
Governments	\$ 385,089,504.13	17%	\$ 374,163,688.70	14%	\$ 26,984,933.90	7.01	7.21
Mortgages	\$ 153,173,489.90	7%	\$ 152,805,978.90	6%	\$ 11,373,715.98	7.43	7.44
Short Term	\$ 251,205,060.85	11%	\$ 251,205,060.85	10%	\$ 11,480,071.28	4.57	4.57
Real Estate	\$ 181,733,732.94	8%	\$ 164,156,848.74	6%	\$ 11,731,718.71	6.46	7.15
Common Stock	\$1,118,159,236.61	48%	\$1,450,385,178.35	56%	\$ 43,062,445.66	3.85	2.97
Total Portfolio	\$2,283,978,374.34	100%	\$2,586,932,505.58	100%	\$119,042,004.08	5.21	4.60

**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
HAZARDOUS STATE EMPLOYEES (KERS-H)**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$3,600,419.40	\$6,051,266.83	\$2,759,768.40	\$15,218,111.75	\$27,629,566.38
% of Par Value	13%	22%	10%	55%	100%
Book Value	\$3,677,884.85	\$6,407,429.48	\$2,744,009.62	\$15,218,111.75	\$28,047,435.70
% of Book Value	13%	23%	10%	54%	100%
Market Value	\$3,657,999.88	\$6,180,150.65	\$2,703,507.43	\$15,218,111.75	\$27,759,769.71
% of Market Value	13%	22%	10%	55%	100%
Potential Gain or Loss	\$ -19,884.97	\$ -227,278.83	\$ -40,502.19	\$ 0.00	\$ -287,665.99
Indicated Annual Income	\$ 265,233.65	\$ 446,521.76	\$ 203,610.38	\$ 695,467.72	\$ 1,610,833.51
Current Yield -- Book Value	7.21	6.97	7.42	4.57	5.74
-- Market Value	7.25	7.23	7.53	4.57	5.80
Yield to Maturity -- Market Value	7.00	6.75	7.50	4.57	5.66
Average Coupon	7.37	7.38	7.38	4.57	5.83
Average Maturity (Years)	5.88	9.76	19.10	.08	4.86

**REAL ESTATE**

BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$4,298,626.31	\$4,141,739.91	\$-156,886.40	\$291,989.62	6.79	7.05

**COMMON STOCK**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
1,431,949	\$45,234,992.26	\$52,790,382.09	\$7,555,389.83	\$1,548,617.93	3.42	2.93

**TOTAL PORTFOLIO**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	INDICATED YIELD	
						ON BOOK	ON MARKET
Corporates	\$ 3,677,884.85	5%	\$ 3,657,999.88	4%	\$ 265,233.65	7.21	7.25
Governments	\$ 6,407,429.48	8%	\$ 6,180,150.65	7%	\$ 446,521.76	6.97	7.23
Mortgages	\$ 2,744,009.62	4%	\$ 2,703,507.43	3%	\$ 203,610.38	7.42	7.53
Short Term	\$15,218,111.75	20%	\$15,218,111.75	18%	\$ 695,467.72	4.57	4.57
Real Estate	\$ 4,298,626.31	6%	\$ 4,141,739.91	5%	\$ 291,989.62	6.79	7.05
Common Stock	\$45,234,992.26	57%	\$52,790,382.09	63%	\$1,548,617.93	3.42	2.93
Total Portfolio	\$77,581,054.27	100%	\$84,691,891.71	100%	\$3,451,441.06	4.45	4.08

**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
NONHAZARDOUS COUNTY EMPLOYEES (CERS)**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$62,230,441.89	\$125,268,000.20	\$63,490,577.36	\$193,754,900.18	\$444,743,919.63
% of Par Value	14%	28%	14%	44%	100%
Book Value	\$63,707,988.79	\$130,050,177.26	\$60,969,452.71	\$193,754,900.18	\$448,482,518.94
% of Book Value	14%	29%	14%	43%	100%
Market Value	\$63,764,644.75	\$126,845,412.39	\$61,954,417.47	\$193,754,900.18	\$446,319,374.79
% of Market Value	14%	28%	14%	44%	100%
Potential Gain or Loss	\$ 56,655.96	\$ -3,204,764.87	\$ 984,964.76	\$ 0.00	\$ -2,163,144.15
Indicated Annual Income	\$ 4,807,377.09	\$ 9,209,257.64	\$ 4,640,200.56	\$ 8,854,598.94	\$ 27,511,434.23
Current Yield -- Book Value	7.55	7.08	7.61	4.57	6.13
-- Market Value	7.54	7.26	7.49	4.57	6.16
Yield to Maturity -- Market Value	7.05	6.62	7.46	4.57	5.91
Average Coupon	7.73	7.35	7.31	4.57	6.19
Average Maturity (Years)	6.69	8.87	19.54	.08	6.26

**REAL ESTATE**

BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$103,145,054.32	\$94,217,470.66	\$-8,927,583.66	\$6,734,351.76	6.53	7.15

**COMMON STOCK**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
29,175,588	\$911,632,477.18	\$1,098,957,209.12	\$187,324,731.94	\$32,256,824.84	3.54	2.94

**TOTAL PORTFOLIO**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 63,707,988.79	4%	\$ 63,764,644.75	4%	\$ 4,807,377.09	7.55	7.54
Governments	\$ 130,050,177.26	9%	\$ 126,845,412.39	8%	\$ 9,209,257.64	7.08	7.26
Mortgages	\$ 60,969,452.71	4%	\$ 61,954,417.47	4%	\$ 4,640,200.56	7.61	7.49
Short Term	\$ 193,754,900.18	13%	\$ 193,754,900.18	12%	\$ 8,854,598.94	4.57	4.57
Real Estate	\$ 103,145,054.32	7%	\$ 94,217,470.66	6%	\$ 6,734,351.76	6.53	7.15
Common Stock	\$ 911,632,477.18	63%	\$1,098,957,209.12	66%	\$32,256,824.84	3.54	2.94
Total Portfolio	\$1,463,260,050.44	100%	\$1,639,494,054.57	100%	\$66,502,610.83	4.54	4.06

**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
HAZARDOUS COUNTY EMPLOYEES (CERS-H)**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$17,873,206.74	\$34,953,006.20	\$17,364,859.48	\$55,484,298.07	\$125,675,370.49
% of Par Value	14%	28%	14%	44%	100%
Book Value	\$18,274,448.33	\$36,360,557.09	\$16,893,824.43	\$55,484,298.07	\$127,013,127.92
% of Book Value	14%	29%	13%	44%	100%
Market Value	\$18,173,583.83	\$35,331,899.00	\$16,938,458.74	\$55,484,298.07	\$125,928,239.64
% of Market Value	14%	28%	14%	44%	100%
Potential Gain or Loss	\$ -100,864.50	\$-1,028,658.09	\$ 44,634.31	\$ 0.00	\$-1,084,888.28
Indicated Annual Income	\$ 1,334,424.68	\$ 2,572,704.65	\$ 1,275,891.29	\$ 2,535,632.42	\$ 7,718,653.04
Current Yield -- Book Value	7.30	7.08	7.55	4.57	6.08
-- Market Value	7.34	7.28	7.53	4.57	6.13
Yield to Maturity -- Market Value	6.93	6.75	7.45	4.57	5.91
Average Coupon	7.47	7.36	7.35	4.57	6.14
Average Maturity (Years)	6.40	9.87	19.45	.08	6.38

**REAL ESTATE**

BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$28,574,065.77	\$26,879,652.98	\$-1,694,412.79	\$1,837,529.88	6.43	6.84

**COMMON STOCK**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
8,060,680	\$250,088,449.20	\$300,837,959.32	\$50,749,510.12	\$9,255,618.91	3.70	3.08

**TOTAL PORTFOLIO**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 18,274,448.33	5%	\$ 18,173,583.83	4%	\$ 1,334,424.68	7.30	7.34
Governments	\$ 36,360,557.09	9%	\$ 35,331,899.00	8%	\$ 2,572,704.65	7.08	7.28
Mortgages	\$ 16,893,824.43	4%	\$ 16,938,458.74	4%	\$ 1,275,891.29	7.55	7.53
Short Term	\$ 55,484,298.07	14%	\$ 55,484,298.07	12%	\$ 2,535,632.42	4.57	4.57
Real Estate	\$ 28,574,065.77	7%	\$ 26,879,652.98	6%	\$ 1,837,529.88	6.43	6.84
Common Stock	\$250,088,449.20	61%	\$300,837,959.32	66%	\$ 9,255,618.91	3.70	3.08
Total Portfolio	\$405,675,642.89	100%	\$453,645,851.94	100%	\$18,811,801.83	4.64	4.15

**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
STATE POLICE (SPRS)**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$14,340,532.87	\$26,979,403.70	\$11,987,189.48	\$17,373,731.68	\$70,680,857.73
% of Par Value	20%	38%	17%	25%	100%
Book Value	\$14,666,246.01	\$28,103,206.43	\$11,862,208.10	\$17,373,731.68	\$72,005,392.22
% of Book Value	20%	40%	16%	24%	100%
Market Value	\$14,625,028.27	\$27,397,946.21	\$11,751,552.52	\$17,373,731.68	\$71,148,258.68
% of Market Value	21%	39%	16%	24%	100%
Potential Gain or Loss	\$ -41,217.74	\$ -705,260.22	\$ -110,655.58	\$ 0.00	\$ -857,133.54
Indicated Annual Income	\$ 1,090,191.60	\$ 2,005,806.46	\$ 868,454.30	\$ 793,979.53	\$ 4,758,431.89
Current Yield -- Book Value	7.43	7.14	7.32	4.57	6.61
-- Market Value	7.45	7.32	7.39	4.57	6.69
Yield to Maturity -- Market Value	7.00	6.69	7.41	4.57	6.36
Average Coupon	7.60	7.43	7.24	4.57	6.73
Average Maturity (Years)	6.48	9.84	18.05	.08	8.15

**REAL ESTATE**

BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$14,494,095.99	\$13,002,468.85	\$-1,491,627.14	\$927,800.85	6.40	7.14

**COMMON STOCK**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
2,988,158	\$86,194,587.80	\$114,013,635.53	\$27,819,047.73	\$3,369,774.28	3.91	2.96

**TOTAL PORTFOLIO**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 14,666,246.01	8%	\$ 14,625,028.27	7%	\$1,090,191.60	7.43	7.45
Governments	\$ 28,103,206.43	16%	\$ 27,397,946.21	14%	\$2,005,806.46	7.14	7.32
Mortgages	\$ 11,862,208.10	7%	\$ 11,751,552.52	6%	\$ 868,454.30	7.32	7.39
Short Term	\$ 17,373,731.68	10%	\$ 17,373,731.68	9%	\$ 793,979.53	4.57	4.57
Real Estate	\$ 14,494,095.99	8%	\$ 13,002,468.85	7%	\$ 927,800.85	6.40	7.14
Common Stock	\$ 86,194,587.80	51%	\$114,013,635.53	57%	\$3,369,774.28	3.91	2.96
Total Portfolio	\$172,694,076.01	100%	\$198,164,363.06	100%	\$9,056,007.02	5.24	4.57

**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
INSURANCE FUND  
ALL SYSTEMS COMBINED**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$28,742,660.00	\$80,536,667.45	\$2,838,052.30	\$37,412,897.47	\$149,530,277.22
% of Par Value	19%	54%	2%	25%	100%
Book Value	\$30,706,966.67	\$88,093,928.03	\$2,822,400.91	\$37,412,897.47	\$159,036,193.08
% of Book Value	19%	55%	2%	24%	100%
Market Value	\$29,400,489.54	\$84,881,917.83	\$2,897,800.46	\$37,412,897.47	\$154,593,105.30
% of Market Value	19%	55%	2%	24%	100%
Potential Gain or Loss	\$-1,306,477.13	\$-3,212,010.20	\$ 75,399.55	\$ 0.00	\$ -4,443,087.78
Indicated Annual Income	\$ 2,440,087.41	\$ 6,226,704.32	\$ 246,018.99	\$ 1,709,769.41	\$ 10,622,580.13
Current Yield -- Book Value	7.95	7.07	8.72	4.57	6.68
-- Market Value	8.30	7.34	8.49	4.57	6.87
Yield to Maturity -- Market Value	7.59	6.78	8.46	4.57	6.42
Average Coupon	8.49	7.73	8.67	4.57	7.10
Average Maturity (Years)	12.60	10.74	19.86	.08	8.60

**COMMON STOCK**

**CURRENT YIELD**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	ON COST	ON MARKET
1,523,057	\$48,033,545.55	\$57,061,534.67	\$9,027,989.12	\$1,900,396.80	3.96	3.33

**TOTAL PORTFOLIO**

**INDICATED YIELD**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	ON BOOK	ON MARKET
Corporates	\$ 30,706,966.67	15%	\$ 29,400,489.54	14%	\$ 2,440,087.41	7.95	8.30
Governments	\$ 88,093,928.03	43%	\$ 84,881,917.83	40%	\$ 6,226,704.32	7.07	7.34
Mortgages	\$ 2,822,400.91	1%	\$ 2,897,800.46	1%	\$ 246,018.99	8.72	8.49
Short Term	\$ 37,412,897.47	18%	\$ 37,412,897.47	18%	\$ 1,709,769.41	4.57	4.57
Common Stock	\$ 48,033,545.55	23%	\$ 57,061,534.67	27%	\$ 1,900,396.80	3.96	3.33
Total Portfolio	\$207,069,738.63	100%	\$211,654,639.97	100%	\$12,522,976.93	6.05	5.92

**KENTUCKY RETIREMENT SYSTEMS  
PORTFOLIO SUMMARY: JUNE 30, 1994  
ALL SYSTEMS COMBINED**

**FIXED INCOME**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$288,040,812.31	\$561,523,845.00	\$251,457,405.70	\$533,036,102.53	\$1,634,058,165.54
% of Par Value	18%	34%	15%	33%	100%
Book Value	\$294,943,917.89	\$586,010,874.39	\$245,642,984.76	\$533,036,102.53	\$1,659,633,879.57
% of Book Value	18%	35%	15%	32%	100%
Market Value	\$294,437,006.77	\$569,919,096.95	\$246,153,915.06	\$533,036,102.53	\$1,643,546,121.31
% of Market Value	18%	35%	15%	32%	100%
Potential Gain or Loss	\$ -506,911.12	\$ -16,091,777.44	\$ 510,930.30	\$ 0.00	\$ -16,087,758.26
Indicated Annual Income	\$ 21,906,345.57	\$ 41,219,224.41	\$ 18,361,872.51	\$ 24,359,749.89	\$ 105,847,192.38
Current Yield -- Book Value	7.43	7.03	7.48	4.57	6.38
-- Market Value	7.44	7.23	7.46	4.57	6.44
Yield to Maturity -- Market Value	7.04	6.68	7.44	4.57	6.17
Average Coupon	7.61	7.34	7.30	4.57	6.48
Average Maturity (Years)	6.98	9.38	18.74	.08	7.37

**REAL ESTATE**

BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$332,245,575.33	\$302,398,181.14	\$-29,847,394.19	\$21,523,390.82	6.48	7.12

**COMMON STOCK**

NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
79,489,400	\$2,411,309,743.05	\$3,016,984,364.41	\$605,674,621.36	\$89,493,281.62	3.71	2.97

**TOTAL PORTFOLIO**

TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INDICATED INCOME	INDICATED YIELD	
						ON BOOK	ON MARKET
Corporates	\$ 294,943,917.89	7%	\$ 294,437,006.77	6%	\$ 21,906,345.57	7.43	7.44
Governments	\$ 586,010,874.39	13%	\$ 569,919,096.95	11%	\$ 41,219,224.41	7.03	7.23
Mortgages	\$ 245,642,984.76	6%	\$ 246,153,915.06	5%	\$ 18,361,872.51	7.48	7.46
Short Term	\$ 533,036,102.53	12%	\$ 533,036,102.53	11%	\$ 24,359,749.89	4.57	4.57
Real Estate	\$ 332,245,575.33	8%	\$ 302,398,181.14	6%	\$ 21,523,390.82	6.48	7.12
Common Stock	\$2,411,309,743.05	54%	\$3,016,984,364.41	61%	\$ 89,493,281.62	3.71	2.97
Total Portfolio	\$4,403,189,197.95	100%	\$4,962,928,666.86	100%	\$216,863,864.82	4.93	4.37



# **Statistical Section**



# STATISTICAL SECTION INTRODUCTION

This section presents statistical information about the retirement systems. Some of this information is in the form of graphs which illustrate trends in membership and benefits. Information is presented as of June 30, 1994, though some of the information is inclusive of all activity since the inception of the systems.

## RETIREMENT PAYMENTS

Table 1 shows average monthly benefits being paid based on years of service credit. Tables 2, 3 and 4 show the benefits paid by each system under the options selected by the members or beneficiaries. These tables do not include dependent children, reemployed members or members whose payments ceased during the year due the option selected or death.

Members who have accounts in the Kentucky Employees Retirement System, County Employees Retirement System, State Police Retirement System, Kentucky Teachers' Retirement System or Legislators Retirement Plan may have their accounts combined at the time of retirement to determine eligibility for benefits and the salary to be used in calculating those benefits. Each system then pays a benefit based on actual service in the system. For this reason, a member may benefit from even a small amount of service in one of these systems. However, these small payments from a particular system, while part of the member's larger total benefit, tend to distort the statistics presented here.

In addition, the monthly benefits shown include all living retirees or beneficiaries who were drawing a payment from the systems during the year. Nearly 15,000 recipients are over age 70, and there are hundreds of accounts on which benefits have been paid for more than 20 years. Since benefit factors and salaries were lower years ago, these also contribute to a lower "average" benefit.

Following are some statistics on those members who retired in fiscal year 1993-94. The averages are based on those members retiring during the fiscal year--KERS: 1,339, CERS: 1,837 and SPRS: 54--but does not include members who took a lump sum payment or members who died.

SYSTEM	AVERAGE FINAL COMP.	AVERAGE MO. BENEFIT	SERVICE RANGES/% OF RETIREES			
			Under 20	20-25	25-30	30+
KERS	\$26,510	\$ 857.77	51%	19%	20%	10%
CERS	\$20,843	\$ 688.28	63%	21%	11%	5%
SPRS	\$41,655	\$1,993.84	24%	31%	28%	17%

The following table provides a comparison of retirees in the three systems based on years of service at the time of retirement. Table 1 indicates the average monthly benefits for these same service ranges.

	<b>SERVICE RANGES IN YEARS/PERCENTAGE OF RETIREES</b>								
	<b>UNDER 2</b>	<b>2-5</b>	<b>6-10</b>	<b>11-15</b>	<b>16-20</b>	<b>21-25</b>	<b>26-30</b>	<b>31-35</b>	<b>35+</b>
KERS	2%	3%	18%	20%	17%	15%	12%	9%	4%
CERS	2%	5%	27%	25%	15%	13%	7%	4%	2%
SPRS	1%	2%	3%	3%	8%	31%	35%	16%	1%

Table 5 presents a county-by-county summary of total retirement payments over the fiscal year. The retired payroll exceeded \$1 million in 43 counties last year and nearly \$220 million to the state of Kentucky. This gives an indication of the importance of retirees' income to their communities and shows that a majority of retirees remain in Kentucky.

#### **DISABILITY RETIREMENTS**

During the fiscal year 1993-94, there were 607 applications for disability retirement, an increase of 20% over the previous fiscal year. Of those, 449 or 74% were approved for disability retirement. The figures in Tables 2, 3 and 4, show that 3,520 or 11% of the current 33,660 recipients are drawing a disability benefit. Disability recipients are subject to an annual medical and financial review.

#### **MEMBERSHIP**

Table 6 provides a picture of the membership of the three systems and the change over time. The County Employees Retirement System continues to grow. Following are the membership totals for the systems, showing the numbers of members in hazardous positions. These figures include all member and beneficiary accounts at June 30, 1994, and will exceed the number of members and beneficiaries indicated in Tables 2, 3 and 4, because retired member accounts whose payments have ceased are included (such as retired reemployed members, discontinued disability retirees, hazardous members whose 10 Year Certain payments have ceased or members deceased since January 1).

	<b>ACTIVE</b>	<b>INACTIVE</b>	<b>RETIRED</b>	<b>TOTAL</b>
KERS	45,581	11,449	17,630	74,660
KERS-HAZARDOUS	3,229	500	345	4,074
CERS	62,433	14,436	13,719	90,588
CERS-HAZARDOUS	5,661	386	1,465	7,512
SPRS	952	132	500	1,584
<b>TOTAL</b>	<b>117,856</b>	<b>26,903</b>	<b>33,659</b>	<b>178,418</b>

## **FINANCIAL AND ACTUARIAL STATISTICS**

Tables 7, 8 and 9 provide a compilation of important information about each system drawn from the Auditor's and Actuary's reports. These tables provide a summary of assets and liabilities and show the determination of the current employer contribution rates. Five years of historical data is given .

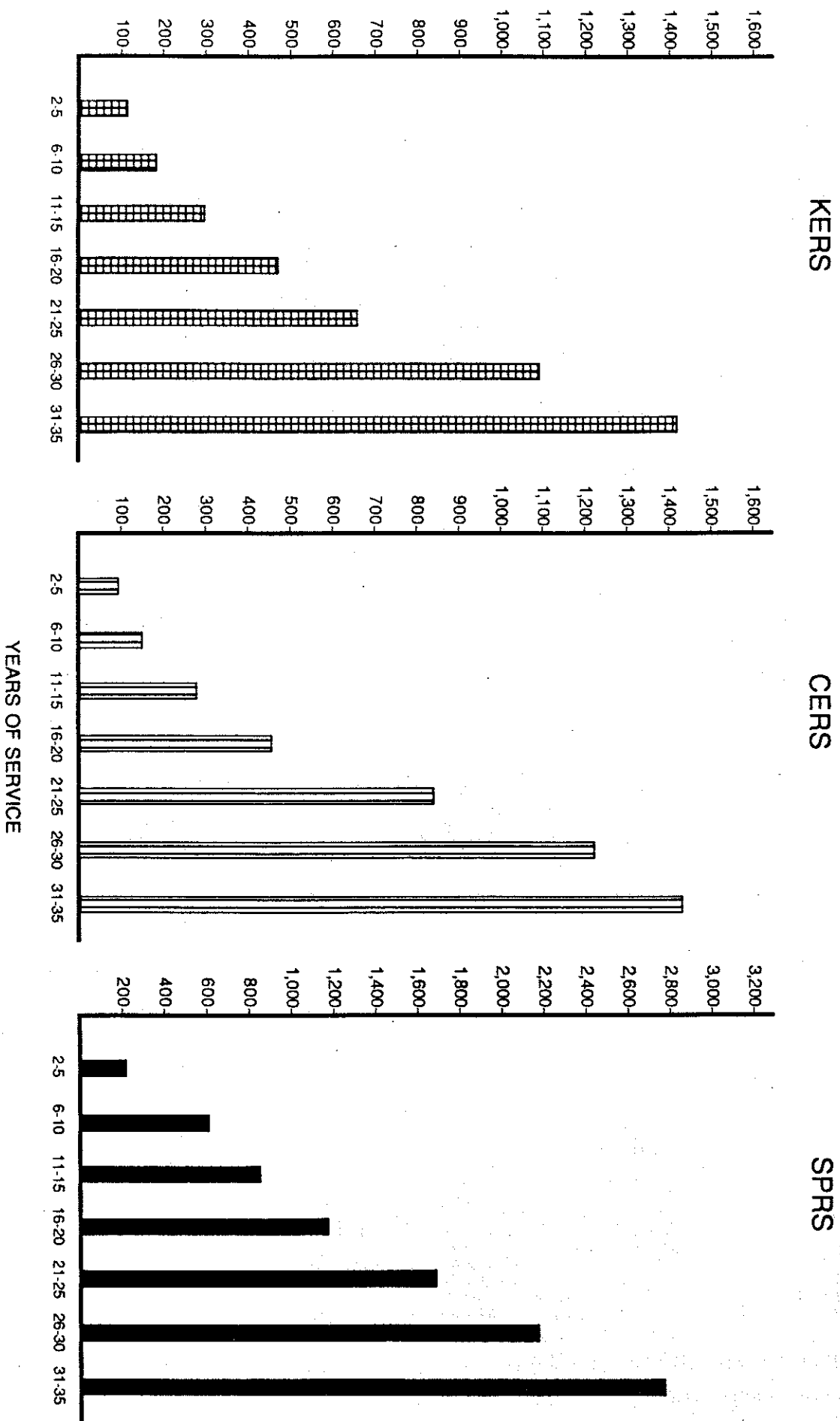
## **SOURCE AND USE OF FUNDS**

Table 10 provides a breakdown of each dollar, its source and where it is spent, since the inception of the retirement systems.

## **ADMINISTRATIVE EXPENSE**

Table 11 provides a five-year history of administrative expenses.

**TABLE 1**  
**ANALYSIS OF MONTHLY RETIREMENT BENEFITS**  
**AS OF JUNE 30, 1994**  
**AVERAGE MONTHLY BENEFIT IN DOLLARS PER YEARS OF SERVICE**



**TABLE 2**  
**KENTUCKY EMPLOYEES RETIREMENT SYSTEM**  
**RETIREMENT BENEFITS BY PLAN**  
**FOR THE PERIOD ENDING JUNE 30, 1994**

	NUMBER OF CASES	TOTAL	AVERAGE	MONTHLY BENEFITS	
				LOW	HIGH
<b>NORMAL</b>					
Basic	2,191	\$1,021,504.26	\$ 466.22	\$ 2.02	\$4,341.44
Life--10 Years Certain (Member)	630	286,937.07	455.45	1.46	3,230.37
Life--10 Years Certain (Beneficiary)	32	17,943.66	560.73	41.57	2,222.21
10 Years Certain (Member)	1	169.81	169.81	169.81	169.81
Life--15 Years Certain (Member)	76	51,865.63	682.44	40.59	3,634.67
Life--15 Years Certain (Beneficiary)	15	6,768.56	451.23	82.65	1,131.69
Survivorship 100% (Member)	586	271,105.45	462.63	2.77	3,950.58
Survivorship 100% (Beneficiary)	454	141,102.81	310.79	2.44	2,816.68
Pop-Up	180.	123,781.10	687.67	6.47	4,405.88
Pop-Up (Basic)	9	12,063.34	1,340.37	220.33	4,189.57
Survivorship 66 2/3% (Member)	190	129,778.68	683.04	8.56	3,150.82
Survivorship 66 2/3% (Beneficiary)	66	22,374.43	339.00	27.67	1,114.36
Survivorship 50% (Member)	353	244,652.05	693.06	3.34	4,259.94
Survivorship 50% (Beneficiary)	204	63,647.75	311.99	27.40	984.52
Social Security Basic--Under 62	5	7,145.06	1,429.01	617.03	1,901.58
Social Security Survivorship--Under 62	9	13,009.16	1,445.46	809.95	2,525.11
Social Security Survivorship--Over 62	5	6,760.72	1,352.14	1,020.47	2,095.00
TOTALS AND AVERAGES	5,006	\$2,420,609.54	\$ 483.54	\$ 1.46	\$4,405.88
<b>EARLY</b>					
Basic	3,763	\$2,037,630.49	\$ 541.49	\$ .79	\$3,956.57
Life--10 Years Certain (Member)	1,311	658,971.61	502.64	1.61	3,221.50
Life--10 Years Certain (Beneficiary)	52	23,870.03	459.03	43.62	2,271.58
10 Years Certain (Member)	3	6,190.22	2,063.40	1,757.07	2,231.38
Life--15 Years Certain (Member)	206	135,031.70	655.49	.52	2,670.61
Life--15 Years Certain (Beneficiary)	25	13,463.96	538.55	98.92	2,495.16
Life--20 Years Certain (Member)	120	86,498.56	720.82	10.37	2,931.19
Life--20 Years Certain (Beneficiary)	6	5,859.25	976.54	137.75	2,001.61
Survivorship 100% (Member)	1,170	661,372.22	565.27	2.74	5,180.71
Survivorship 100% (Beneficiary)	404	139,658.31	345.68	17.20	3,288.42
Pop-Up	534	470,343.64	880.79	1.49	3,589.06
Pop-Up (Basic)	26	28,541.58	1,097.75	39.18	4,025.54
Survivorship 66 2/3% (Member)	415	454,975.50	1,096.32	11.54	3,709.82
Survivorship 66 2/3% (Beneficiary)	82	38,149.87	465.24	47.80	1,578.36
Survivorship 50% (Member)	622	565,954.44	909.89	8.34	4,254.56
Survivorship 50% (Beneficiary)	190	57,990.32	305.21	6.54	1,502.31
Social Security Basic--Under 62	687	793,558.82	1,155.10	5.31	3,877.77
Social Security Survivorship--Under 62	431	665,852.95	1,544.90	3.87	4,036.02
Social Security Survivorship--Over 62	335	275,941.28	823.70	3.16	3,279.64
TOTALS AND AVERAGES	10,382	\$7,119,854.75	\$ 685.78	\$ .52	\$5,180.71
<b>DISABILITY</b>					
Basic	510	\$ 278,563.94	\$ 546.20	\$ 4.29	\$2,313.93
Life--10 Years Certain (Member)	221	119,632.59	541.32	3.76	1,856.18
Life--10 Years Certain (Beneficiary)	63	39,789.52	631.57	34.61	2,139.61
10 Years Certain (Member)	1	575.76	575.76	575.76	575.76
10 Years Certain (Beneficiary)	1	838.38	838.38	838.38	838.38
Life--15 Years Certain (Member)	46	28,070.41	610.22	106.18	1,619.02
Life--15 Years Certain (Beneficiary)	32	19,307.39	603.35	193.13	1,278.86
Life--20 Years Certain (Member)	54	30,000.52	555.56	2.70	1,409.31
Life--20 Years Certain (Beneficiary)	24	18,025.27	751.05	169.81	1,270.10
Survivorship 100% (Member)	195	88,775.61	455.25	42.40	2,755.10
Survivorship 100% (Beneficiary)	306	114,548.68	374.34	6.33	1,710.57
Pop-Up	107	61,339.11	573.26	4.32	1,700.31
Pop-Up (Basic)	1	873.34	873.34	873.34	873.34
Survivorship 66 2/3% (Member)	39	25,394.08	651.13	151.12	1,748.98
Survivorship 66 2/3% (Beneficiary)	41	12,884.89	314.26	4.99	1,078.41
Survivorship 50% (Member)	101	57,437.57	568.68	100.26	3,210.71
Survivorship 50% (Beneficiary)	80	18,441.99	230.52	1.78	742.03
Social Security Basic--Under 62	28	29,658.28	1,059.22	251.48	1,837.27
Social Security Survivorship--Under 62	21	18,488.08	880.38	29.98	1,793.83
Social Security Survivorship--Over 62	10	4,460.55	446.05	82.89	1,131.97
TOTALS AND AVERAGES	1,881	\$ 967,105.96	\$ 514.14	\$ 1.78	\$3,210.71
<b>DEATH BEFORE RETIREMENT</b>					
Life Annuity	498	\$ 236,383.75	\$ 474.66	\$ 2.34	\$3,034.55
In Line of Duty Spousal Benefit	1	383.23	383.23	383.23	383.23
5 Years Certain	62	46,460.62	749.36	110.27	3,691.22
10 Years Certain	125	86,849.83	694.79	69.71	2,854.57
Social Security Basic--Under 62	1	314.76	314.76	314.76	314.76
Social Security Basic--Under 60	19	6,946.66	365.61	16.96	1,008.09
TOTALS AND AVERAGES	706	\$ 377,338.85	\$ 534.47	\$ 2.34	\$3,691.22
<b>SYSTEM TOTALS AND AVERAGES</b>	<b>17,975</b>	<b>\$10,884,909.10</b>	<b>\$605.55</b>	<b>\$ 5.2</b>	<b>\$5,180.71</b>

Not included in totals are payments to 5 dependent children of disabled or deceased hazardous duty members.

**TABLE 3  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
RETIREMENT BENEFITS BY PLAN  
FOR THE PERIOD ENDING JUNE 30, 1994**

NORMAL	NUMBER OF CASES	TOTAL	AVERAGE	MONTHLY BENEFITS	
				LOW	HIGH
Basic	2,179	\$ 632,860.01	\$ 290.43	\$ .40	\$4,859.69
Life--10 Years Certain (Member)	747	217,983.48	291.81	12.58	3,455.51
Life--10 Years Certain (Beneficiary)	59	16,863.93	285.82	14.81	905.08
10 Years Certain (Member)	21	43,497.94	2,071.33	21.03	4,371.32
10 Years Certain (Beneficiary)	2	5,817.60	2,908.80	2,330.52	3,487.08
Life--15 Years Certain (Member)	85	25,708.56	302.45	30.03	1,261.43
Life--15 Years Certain (Beneficiary)	16	4,566.94	285.43	62.36	1,193.89
Life--20 Years Certain (Member)	2	3,999.48	1,999.74	1,829.23	2,170.25
Survivorship 100% (Member)	589	176,808.80	300.18	4.89	2,685.96
Survivorship 100% (Beneficiary)	288	65,350.47	226.91	20.22	2,469.84
Pop-Up	231	124,277.17	537.99	1.95	3,440.40
Pop-Up (Basic)	7	2,551.81	364.54	37.56	723.94
Survivorship 66 2/3% (Member)	160	117,883.90	736.77	31.67	4,153.96
Survivorship 66 2/3% (Beneficiary)	41	10,719.09	261.44	24.51	1,274.11
Survivorship 50% (Member)	240	157,656.46	656.90	34.61	4,018.09
Survivorship 50% (Beneficiary)	99	22,509.48	227.36	36.21	1,507.58
Social Security Basic--Under 62	5	9,255.54	1,851.10	1,063.89	2,762.77
Social Security Survivorship--Under 62	18	32,113.42	1,784.07	114.99	2,678.93
Social Security Survivorship--Over 62	27	30,164.53	1,117.20	418.10	2,822.93
<b>TOTALS AND AVERAGES</b>	<b>4,816</b>	<b>\$1,700,588.61</b>	<b>\$ 353.11</b>	<b>\$ .40</b>	<b>\$4,859.69</b>
<b>EARLY</b>					
Basic	3,123	\$1,128,830.02	\$ 361.45	\$ 2.61	\$4,232.66
Life--10 Years Certain (Member)	1,221	400,670.49	328.14	2.49	2,995.60
Life--10 Years Certain (Beneficiary)	50	11,711.05	234.22	4.65	1,110.53
10 Years Certain (Member)	25	64,446.45	2,577.85	1,324.30	5,024.82
10 Years Certain (Beneficiary)	1	609.81	609.81	609.81	609.81
Life--15 Years Certain (Member)	256	125,126.96	488.77	25.17	3,210.03
Life--15 Years Certain (Beneficiary)	19	7,293.15	383.85	53.92	1,492.81
Life--20 Years Certain (Member)	152	113,005.76	743.45	30.27	3,533.77
Life--20 Years Certain (Beneficiary)	4	4,360.09	1,090.02	46.28	2,737.80
Survivorship 100% (Member)	925	405,163.32	438.01	2.16	3,982.32
Survivorship 100% (Beneficiary)	208	60,509.62	290.91	6.87	1,647.57
Pop-Up	725	630,980.58	870.31	4.39	5,421.86
Pop-Up (Basic)	31	31,476.45	1,015.36	76.18	2,119.70
Survivorship 66 2/3% (Member)	260	234,793.94	903.05	43.46	3,202.40
Survivorship 66 2/3% (Beneficiary)	27	7,646.68	283.21	62.15	849.51
Survivorship 50% (Member)	436	362,949.17	832.45	24.15	3,517.18
Survivorship 50% (Beneficiary)	74	19,468.03	263.08	30.35	1,347.33
Social Security Basic--Under 62	243	226,179.07	930.77	.28	2,688.65
Social Security Survivorship--Under 62	354	517,389.32	1,461.55	45.37	3,089.86
Social Security Survivorship--Over 62	97	51,383.18	529.72	.20	3,095.33
<b>TOTALS AND AVERAGES</b>	<b>8,231</b>	<b>\$4,403,993.14</b>	<b>\$ 535.04</b>	<b>\$ .20</b>	<b>\$5,421.86</b>
<b>DISABILITY</b>					
Basic	493	\$ 235,460.96	\$ 477.60	\$ 5.17	\$2,166.22
Life--10 Years Certain (Member)	199	90,882.13	456.69	21.32	1,843.87
Life--10 Years Certain (Beneficiary)	57	22,340.13	391.93	70.19	1,245.77
10 Years Certain (Member)	5	7,896.21	1,579.24	925.44	2,044.83
Life--15 Years Certain (Member)	49	29,014.38	592.13	60.69	1,596.19
Life--15 Years Certain (Beneficiary)	29	12,305.81	424.33	53.18	1,094.18
Life--20 Years Certain (Member)	62	37,093.98	596.29	4.36	1,779.99
Life--20 Years Certain (Beneficiary)	22	9,724.18	442.00	33.11	1,388.57
Survivorship 100% (Member)	187	91,488.70	489.24	28.45	1,502.56
Survivorship 100% (Beneficiary)	164	55,559.27	338.77	51.20	1,253.23
Pop-Up	125	70,282.64	562.26	58.84	1,770.21
Pop-Up (Basic)	1	475.45	475.45	475.45	475.45
Survivorship 66 2/3% (Member)	33	20,982.49	635.83	41.63	1,474.39
Survivorship 66 2/3% (Beneficiary)	18	5,006.87	278.15	59.85	848.52
Survivorship 50% (Member)	89	50,612.77	568.68	5.90	2,077.88
Survivorship 50% (Beneficiary)	36	6,858.32	190.50	57.15	425.36
Social Security Basic--Under 62	21	14,761.87	702.94	126.33	1,746.61
Social Security Survivorship--Under 62	17	19,258.14	1,132.83	138.94	2,445.59
Social Security Survivorship--Over 62	2	637.69	318.84	169.46	468.23
<b>TOTALS AND AVERAGES</b>	<b>1,609</b>	<b>\$ 780,641.99</b>	<b>485.17</b>	<b>4.36</b>	<b>2,445.59</b>
<b>DEATH BEFORE RETIREMENT</b>					
Life Annuity	288	\$ 93,601.94	\$ 325.00	\$ 21.27	\$2,324.11
In Line of Duty Spousal Benefit	1	696.65	696.65	696.65	696.65
5 Years Certain	101	57,765.84	571.93	25.33	4,176.17
10 Years Certain	130	51,682.15	397.55	13.91	2,762.57
Social Security Basic--Under 60	8	4,456.95	557.11	41.26	1,521.90
<b>TOTALS AND AVERAGES</b>	<b>528</b>	<b>\$ 208,203.53</b>	<b>\$ 394.32</b>	<b>\$ 13.91</b>	<b>\$4,176.17</b>
<b>SYSTEM TOTALS AND AVERAGES</b>	<b>15,184</b>	<b>\$7,093,427.27</b>	<b>\$467.16</b>	<b>\$ .20</b>	<b>\$5,421.86</b>

Not included in totals are payments to 85 dependent children of disabled or deceased hazardous duty members.

**TABLE 4**  
**STATE POLICE RETIREMENT SYSTEM**  
**RETIREMENT BENEFITS BY PLAN**  
**FOR THE PERIOD ENDING JUNE 30, 1994**

	NUMBER OF CASES	TOTAL	AVERAGE	MONTHLY BENEFITS	
				LOW	HIGH
<b>NORMAL</b>					
Basic	8	\$ 9,408.39	\$1,176.04	\$ 110.03	\$2,528.26
Life--10 Years Certain (Member)	8	15,888.86	1,986.10	585.33	4,339.98
10 Years Certain (Member)	1	343.09	343.09	343.09	343.09
Life--20 Years Certain (Member)	2	5,490.61	2,745.30	2,607.25	2,883.36
Survivorship 100% (Member)	22	39,101.39	1,777.33	133.06	3,866.78
Survivorship 100% (Beneficiary)	7	8,606.44	1,229.49	534.35	2,501.15
Pop-Up Option	1	3,213.87	3,213.87	3,213.87	3,213.87
Survivorship 66 2/3% (Member)	9	19,254.55	2,139.39	1,264.55	3,010.75
Survivorship 50% (Member)	12	23,291.02	1,940.91	1,012.63	3,612.07
Survivorship 50% (Beneficiary)	5	4,091.67	818.33	564.38	1,071.72
Social Security Survivorship--Under 62	1	3,523.51	3,523.51	3,523.51	3,523.51
Social Security Survivorship--Over 62	18	30,987.14	1,721.50	158.69	3,307.30
<b>TOTALS AND AVERAGES</b>	<b>94</b>	<b>\$163,200.54</b>	<b>\$1,736.17</b>	<b>\$ 110.03</b>	<b>\$4,339.98</b>
<b>EARLY</b>					
Basic	25	\$ 51,011.39	\$2,040.45	\$ 156.39	\$3,730.26
Life--10 Years Certain (Member)	11	25,520.79	2,320.07	1,711.44	3,499.44
10 Years Certain (Member)	10	26,894.84	2,689.48	18.84	3,592.25
Life--15 Years Certain (Member)	3	6,413.17	2,137.72	1,318.16	3,690.26
Life--20 Years Certain (Member)	9	15,088.62	1,676.51	397.37	2,472.54
Survivorship 100% (Member)	46	86,153.05	1,872.89	201.08	4,117.66
Survivorship 100% (Beneficiary)	1	2,074.52	2,074.52	2,074.52	2,074.52
Pop-Up	49	86,923.88	1,773.95	55.43	3,424.72
Pop-Up (Basic)	3	9,640.65	3,213.55	2,274.52	4,131.42
Survivorship 66 2/3% (Member)	18	37,165.81	2,064.76	1,218.27	3,358.11
Survivorship 66 2/3% (Beneficiary)	1	1,006.93	1,006.93	1,006.93	1,006.93
Survivorship 50% (Member)	25	45,897.53	1,835.90	137.57	4,859.35
Social Security Basic--Under 62	23	48,823.83	2,122.77	369.39	3,070.64
Social Security Survivorship--Under 62	124	264,877.27	2,136.10	206.00	4,063.79
Social Security Survivorship--Over 62	10	15,496.26	1,549.62	296.72	3,808.68
<b>TOTALS AND AVERAGES</b>	<b>358</b>	<b>\$722,988.54</b>	<b>\$2,019.52</b>	<b>\$ 18.84</b>	<b>\$4,859.35</b>
<b>DISABILITY</b>					
Basic	10	\$ 9,670.89	\$ 967.08	\$ 318.92	\$1,541.13
Life--10 Years Certain (Member)	1	1,329.50	1,329.50	1,329.50	1,329.50
10 Years Certain (Member)	2	3,009.76	1,504.88	1,354.28	1,655.48
Life--15 Years Certain (Member)	1	1,406.18	1,406.18	1,406.18	1,406.18
Life--20 Years Certain (Member)	2	4,024.43	2,012.21	1,281.76	2,742.67
Survivorship 100% (Member)	10	12,936.71	1,293.67	586.86	2,423.86
Survivorship 100% (Beneficiary)	2	2,449.48	1,224.74	874.74	1,574.74
Survivorship 50% (Member)	1	1,668.35	1,668.35	1,668.35	1,668.35
Social Security Survivorship--Under 62	1	2,119.71	2,119.71	2,119.71	2,119.71
<b>TOTALS AND AVERAGES</b>	<b>30</b>	<b>\$ 38,615.01</b>	<b>\$1,287.16</b>	<b>\$ 318.92</b>	<b>\$2,742.67</b>
<b>DEATH BEFORE RETIREMENT</b>					
Life Annuity	16	\$ 16,083.64	\$1,005.22	\$ 84.73	\$2,264.56
10 Years Certain	2	4,999.10	2,499.55	966.47	4,032.63
<b>TOTALS AND AVERAGES</b>	<b>18</b>	<b>\$ 21,082.74</b>	<b>\$1,171.26</b>	<b>\$ 84.73</b>	<b>\$4,032.63</b>
<b>SYSTEM TOTALS AND AVERAGES</b>	<b>500</b>	<b>\$945,886.83</b>	<b>\$1,891.77</b>	<b>\$18.84</b>	<b>\$4,859.35</b>

Not included in totals are payments to 12 dependent children of disabled or deceased members.

**TABLE 5  
RETIREMENT PAYMENTS BY COUNTY**

<b>Adair</b>	<b>\$ 862,380</b>	<b>Grant</b>	<b>\$ 1,409,302</b>	<b>Mason</b>	<b>\$ 671,081</b>
Allen	\$ 538,695	Graves	\$ 1,712,595	Meade	\$ 580,699
Anderson	\$ 3,060,072	Grayson	\$ 952,075	Menifee	\$ 272,683
Ballard	\$ 461,204	Green	\$ 459,812	Mercer	\$ 1,813,147
<b>Barren</b>	<b>\$ 1,996,737</b>	<b>Greenup</b>	<b>\$ 672,288</b>	<b>Metcalfe</b>	<b>\$ 576,279</b>
Bath	\$ 774,316	Hancock	\$ 278,315	Monroe	\$ 346,173
Bell	\$ 1,071,179	Hardin	\$ 3,163,142	Montgomery	\$ 857,328
Boone	\$ 1,653,625	Harlan	\$ 1,187,938	Morgan	\$ 679,520
<b>Bourbon</b>	<b>\$ 1,176,578</b>	<b>Harrison</b>	<b>\$ 724,419</b>	<b>Muhlenberg</b>	<b>\$ 869,114</b>
Boyd	\$ 2,417,738	Hart	\$ 655,691	Nelson	\$ 1,286,567
Boyle	\$ 2,574,900	Henderson	\$ 2,353,056	Nicholas	\$ 281,995
Bracken	\$ 255,767	Henry	\$ 1,236,879	Ohio	\$ 717,529
<b>Breathitt</b>	<b>\$ 728,199</b>	<b>Hickman</b>	<b>\$ 231,009</b>	<b>Oldham</b>	<b>\$ 2,565,730</b>
Breckinridge	\$ 532,310	Hopkins	\$ 2,694,445	Owen	\$ 1,614,427
Bullitt	\$ 2,051,442	Jackson	\$ 297,657	Owsley	\$ 284,101
Butler	\$ 468,921	Jefferson	\$ 41,883,437	Pendleton	\$ 625,458
<b>Caldwell</b>	<b>\$ 953,366</b>	<b>Jessamine</b>	<b>\$ 1,131,749</b>	<b>Perry</b>	<b>\$ 836,069</b>
Calloway	\$ 2,340,216	Johnson	\$ 985,579	Pike	\$ 1,867,305
Campbell	\$ 2,243,943	Kenton	\$ 4,363,151	Powell	\$ 380,910
Carlisle	\$ 373,393	Knott	\$ 715,076	Pulaski	\$ 3,656,987
<b>Carroll</b>	<b>\$ 652,831</b>	<b>Knox</b>	<b>\$ 728,828</b>	<b>Robertson</b>	<b>\$ 115,897</b>
Carter	\$ 917,333	Larue	\$ 852,142	Rockcastle	\$ 629,214
Casey	\$ 546,857	Laurel	\$ 1,926,288	Rowan	\$ 1,590,076
Christian	\$ 4,120,596	Lawrence	\$ 497,733	Russell	\$ 708,722
<b>Clark</b>	<b>\$ 919,593</b>	<b>Lee</b>	<b>\$ 473,826</b>	<b>Scott</b>	<b>\$ 1,770,033</b>
Clay	\$ 1,265,245	Leslie	\$ 380,734	Shelby	\$ 4,008,748
Clinton	\$ 233,596	Letcher	\$ 652,592	Simpson	\$ 495,949
Crittenden	\$ 337,509	Lewis	\$ 410,813	Spencer	\$ 671,046
<b>Cumberland</b>	<b>\$ 311,169</b>	<b>Lincoln</b>	<b>\$ 902,673</b>	<b>Taylor</b>	<b>\$ 704,247</b>
Daviess	\$ 4,953,747	Livingston	\$ 537,205	Todd	\$ 656,938
Edmonson	\$ 253,804	Logan	\$ 981,123	Trigg	\$ 1,074,157
Elliott	\$ 236,944	Lyon	\$ 779,485	Trimble	\$ 505,390
<b>Estill</b>	<b>\$ 676,623</b>	<b>McCracken</b>	<b>\$ 3,847,252</b>	<b>Union</b>	<b>\$ 711,496</b>
Fayette	\$ 11,063,512	McCreary	\$ 454,520	Warren	\$ 5,737,245
Fleming	\$ 664,007	McLean	\$ 367,503	Washington	\$ 511,025
Floyd	\$ 1,531,539	Madison	\$ 2,948,367	Wayne	\$ 769,664
<b>Franklin</b>	<b>\$ 27,983,935</b>	<b>Magoffin</b>	<b>\$ 367,152</b>	<b>Webster</b>	<b>\$ 622,490</b>
Fulton	\$ 424,828	Marion	\$ 823,321	Whitley	\$ 1,582,795
Gallatin	\$ 201,392	Marshall	\$ 1,557,761	Wolfe	\$ 464,571
Garrard	\$ 700,388	Martin	\$ 317,044	Woodford	\$ 1,788,591

**PAYMENTS TO RETIREES LIVING IN OTHER STATES**

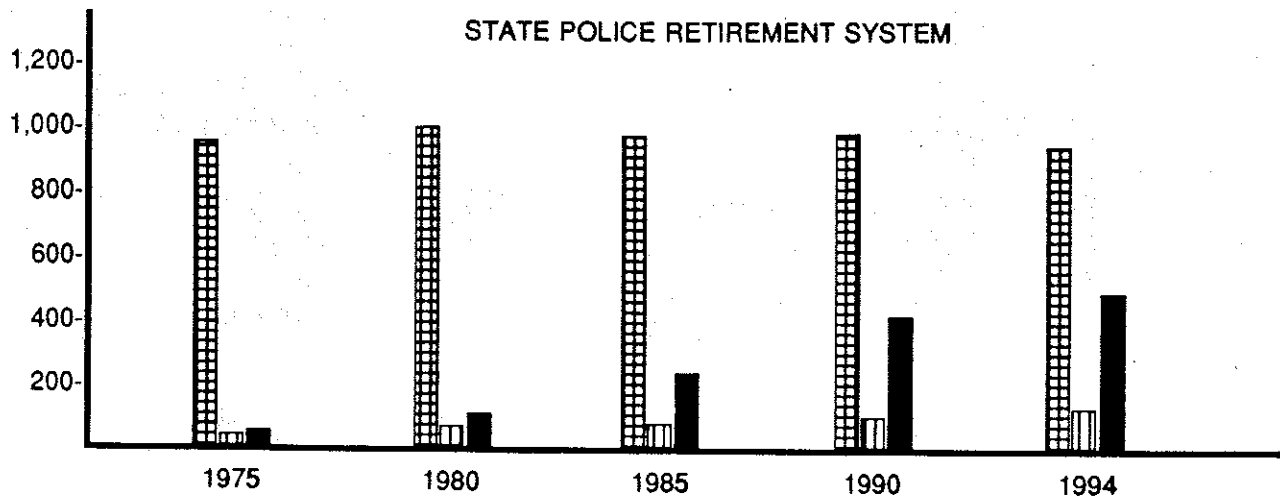
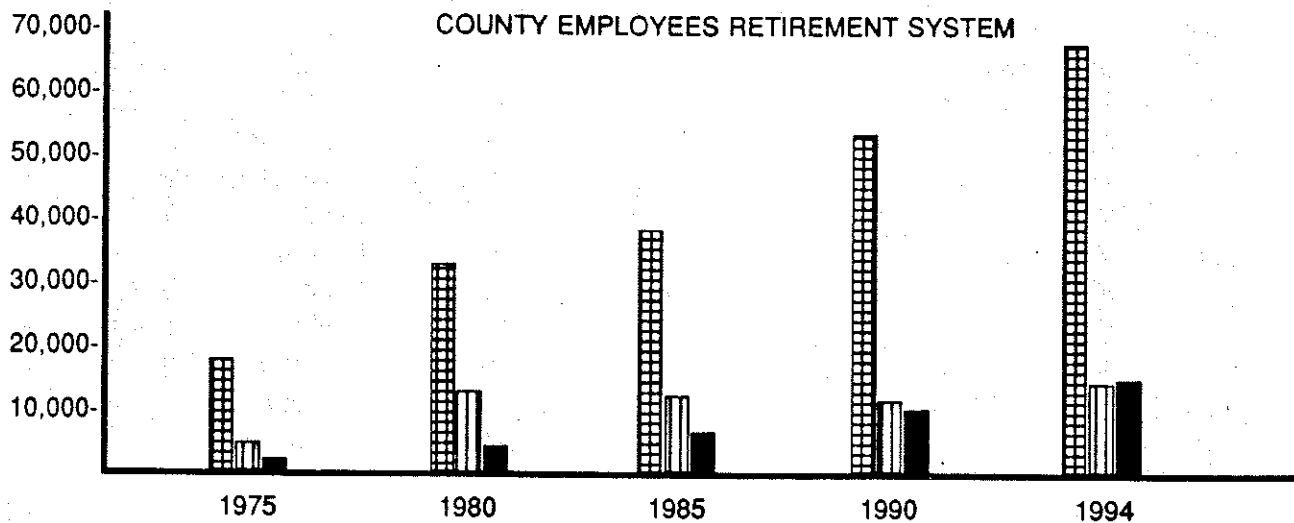
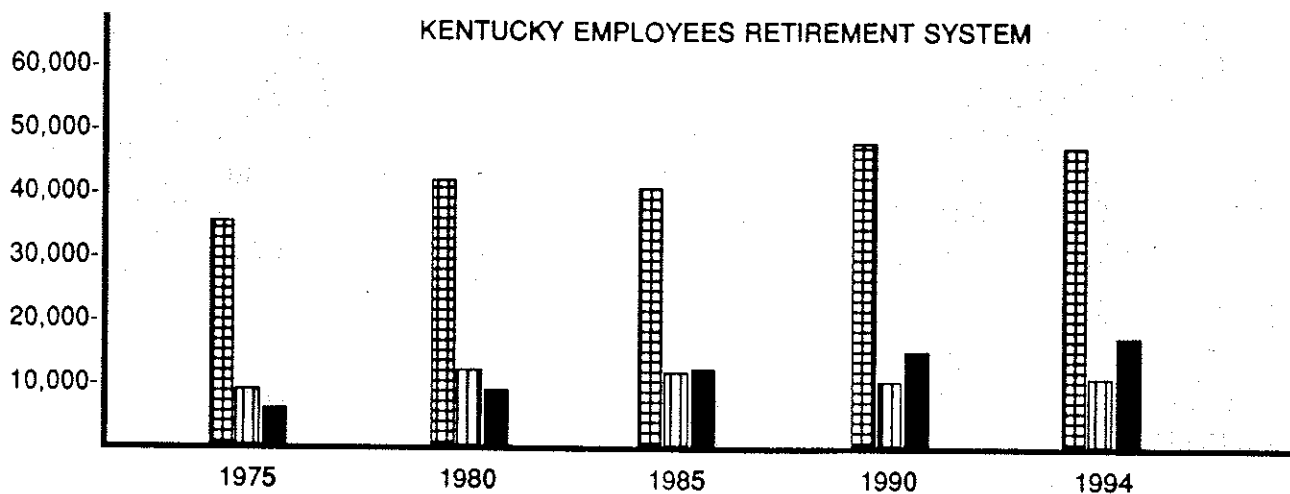
**\$9,765,708**

**TOTAL PAYMENTS FOR FISCAL YEAR ENDING JUNE 30, 1994**

**\$227,111,510**



**TABLE 6**  
**MEMBERSHIP GROWTH**  
**6/30/75 through 6/30/94**



 **ACTIVE**
 **INACTIVE**
 **RETIRED**

## TABLE 7 KENTUCKY EMPLOYEES RETIREMENT SYSTEM FINANCIAL AND ACTUARIAL STATISTICS

	6/30/90	6/30/91	6/30/92	6/30/93	6/30/94
<b>FINANCIAL STATISTICS</b>					
Total Assets	\$1,803,051,503	\$1,917,816,462	(BK)\$2,072,356,055	(BK)\$2,269,585,643	(BK)\$2,407,992,392
Investment Income	\$ 126,895,778	\$ 107,923,634	\$ 106,061,993	\$ 105,909,575	\$ 101,235,035
Total Retirement Payments	\$ 90,420,645	\$ 100,824,770	\$ 110,034,282	\$ 119,619,683	\$ 129,799,939
Total Refund Payments	\$ 5,896,851	\$ 6,438,085	\$ 6,451,752	\$ 6,749,192	\$ 7,902,704
<b>ACTUARIAL STATISTICS:</b>					
Total Assets at Actuarial Value	\$2,055,489,412	\$2,289,611,147	\$2,354,482,321	\$2,585,209,537	\$2,729,048,987
Total Accrued Liability	\$ 256,167,674	\$ 375,396,216	\$2,525,190,930	\$2,703,771,076	\$2,912,050,275
Unfunded Past Service Liability	12.5%	16.4%	6.8%	4.4%	6.3%
Percent Unfunded	\$1,298,362,909	\$1,447,994,399	\$1,576,337,372	\$1,702,993,305	\$1,859,518,636
Accrued Benefit Liability	\$ 869,109,220	\$ 982,646,400	\$1,065,985,572	\$1,094,395,992	\$1,115,206,380
Estimated Annual Salaries Contribution for Unfunded	\$ 12,475,110	\$ 18,683,469	\$ 8,652,449	\$ 6,759,902	\$ 10,129,368
Past Service Liability	\$ 719,493,806	\$ 804,674,050	\$1,001,703,695	\$1,177,861,283	\$1,444,612,678
Medical Benefit Obligation	\$ 32,722,932	\$ 46,549,335	\$ 62,465,626	\$ 77,673,575	\$ 99,083,533
Insurance Fund Assets (Book)	95.5%	94.2%	93.8%	93.4%	93.1%
Percent Unfunded	<b>ACTUARIAL COST - NONHAZARDOUS:</b>				
Normal	9.14%	9.32%	9.32%	9.43%	9.32%
Past Service	1.46%	1.99%	8.4%	6.2%	9.1%
Administrative	.39%	.39%	.38%	.38%	.37%
Hospital/Medical Insurance	1.77%	1.97%	3.12%	3.13%	3.15%
TOTAL COST	12.76%	13.66%	13.66%	13.56%	13.75%
<b>CONTRIBUTION RATES - NONHAZARDOUS:</b>					
Member	5.00%	5.00%	5.00%	5.00%	5.00%
Employer	7.45%	7.65%	**8.66%	**8.66%	8.56%
TOTAL RATES	12.45%	12.65%	13.66%	13.66%	13.56%
<b>ACTUARIAL COST - HAZARDOUS:</b>					
Normal	15.85%	16.77%	16.62%	16.56%	16.39%
Past Service	.14%	.65%	.46%	.60%	.82%
Administrative	.35%	.39%	.40%	.40%	.38%
Hospital/Medical Insurance	6.17%	6.74%	7.39%	7.41%	7.46%
TOTAL COST	22.23%	24.55%	24.97%	24.97%	25.05%
<b>CONTRIBUTION RATES - HAZARDOUS:</b>					
Member	7.00%	7.00%	7.00%	7.00%	7.00%
Employer	*15.05%	15.05%	**17.55%	**17.86%	17.97%
TOTAL RATES	22.05%	22.05%	24.55%	24.86%	24.97%

\*Employer rate shown became effective 8/1/90 to reflect legislative changes and new actuarial assumptions.  
 \*\*The contribution rate shown is the rate adopted by the Board of Trustees. The actual employer rates paid by state agencies were 7.65% for nonhazardous employees and 15.05% for hazardous employees in accordance with provisions in the state budget.

## TABLE 8 COUNTY EMPLOYEES RETIREMENT SYSTEM FINANCIAL AND ACTUARIAL STATISTICS

	6/30/90	6/30/91	6/30/92	6/30/93	6/30/94
<b>FINANCIAL STATISTICS:</b>					
Total Assets	\$ 1,274,063,862	\$ 1,396,277,329	(BK)\$1,558,427,245	(BK)\$1,767,918,632	(BK)\$1,931,896,031
Investment Income	\$ 86,852,951	\$ 75,889,593	\$ 73,386,287	\$ 73,074,069	\$ 72,862,096
Total Retirement Payments	\$ 41,158,196	\$ 53,341,986	\$ 64,992,604	\$ 72,607,003	\$ 82,690,680
Total Refund Payments	\$ 6,346,247	\$ 5,404,817	\$ 5,829,864	\$ 5,373,355	\$ 8,169,994
<b>ACTUARIAL STATISTICS:</b>					
Total Assets at Actuarial Value	\$ 1,432,323,666	\$ 1,654,338,706	\$ 1,735,038,908	\$ 1,985,680,709	\$ 2,173,354,772
Total Accrued Liability	\$ 162,257,399	\$ 258,111,701	\$ 1,861,978,403	\$ 2,079,930,047	\$ 2,330,344,241
Unfunded Past Service Liability	11.3%	15.6%	6.8%	4.5%	6.7%
Percent Unfunded	\$ 907,488,244	\$ 1,067,833,003	\$ 1,196,294,816	\$ 1,347,836,822	\$ 1,528,093,078
Estimated Annual Salaries	\$ 790,407,492	\$ 887,033,040	\$ 994,447,776	\$ 1,074,056,004	\$ 1,156,134,504
Contribution for Unfunded					
Past Service Liability	\$ 7,901,773	\$ 12,846,219	\$ 6,464,013	\$ 5,259,804	\$ 8,487,434
Medical Benefit Obligation	\$ 700,151,838	\$ 823,012,809	\$ 1,041,905,457	\$ 1,244,258,042	\$ 1,551,138,800
Insurance Fund Assets (Book)	\$ 29,430,937	\$ 42,420,744	\$ 56,955,901	\$ 74,253,872	\$ 99,514,895
Percent Unfunded	95.8%	94.8%	94.5%	94.0%	93.6%
<b>ACTUARIAL COST - NONHAZARDOUS:</b>					
Normal	10.60%	10.69%	10.69%	10.78%	10.69%
Past Service	.68%	1.03%	.22%	.09%	.37%
Administrative	.54%	.53%	.55%	.54%	.53%
Hospital/Medical Insurance	1.38%	1.58%	2.36%	2.36%	2.36%
TOTAL COST	13.20%	13.82%	13.82%	13.77%	13.94%
<b>CONTRIBUTION RATES - NONHAZARDOUS:</b>					
Member	5.00%	5.00%	5.00%	5.00%	5.00%
Employer	*7.68%	7.95%	8.82%	8.82%	8.82%
TOTAL RATES	12.68%	12.95%	13.82%	13.82%	13.82%
<b>ACTUARIAL COST - HAZARDOUS:</b>					
Normal	15.50%	15.57%	15.57%	15.82%	15.69%
Past Service	2.89%	3.94%	3.28%	2.86%	2.90%
Administrative	.29%	.29%	.31%	.31%	.29%
Hospital/Medical Insurance	5.11%	5.67%	6.33%	6.33%	6.33%
TOTAL COST	23.79%	25.47%	25.49%	25.32%	25.21%
<b>CONTRIBUTION RATES - HAZARDOUS:</b>					
Member	7.00%	7.00%	7.00%	7.00%	7.00%
Employer	*15.43%	16.10%	18.47%	18.49%	18.46%
TOTAL RATES	22.43%	23.10%	25.47%	25.49%	25.46%

\*Employer rate shown became effective 8/1/90 to reflect legislative changes and new actuarial assumptions.

## TABLE 9 STATE POLICE RETIREMENT SYSTEM FINANCIAL AND ACTUARIAL STATISTICS

	6/30/90	6/30/91	6/30/92	6/30/93	6/30/94
<b>FINANCIAL STATISTICS:</b>					
Total Assets	\$145,313,311	\$151,253,690	(BK)\$159,420,001	(BK)\$170,188,992	(BK)\$175,677,762
Investment Income	\$10,411,631	\$8,809,299	\$8,430,390	\$8,239,632	\$7,664,863
Total Retired Payments	\$8,504,914	\$8,959,087	\$9,372,766	\$10,220,001	\$11,146,563
Total Refund Payments	\$69,128	\$42,561	\$35,421	\$39,772	\$44,452
<b>ACTUARIAL STATISTICS:</b>					
Total Assets at Actuarial Value	\$154,007,622	\$170,009,955	\$187,791,011	\$200,320,968	\$205,320,509
Total Accrued Liability	\$8,982,071	\$19,191,881	\$182,996,055	\$191,653,594	\$206,763,310
Unfunded Past Service Liability	5.8%	11.3%	0.0%	0.0%	0.7%
Accrued Benefit Liability	\$130,035,708	\$142,286,585	\$154,375,127	\$165,774,200	\$181,983,533
Estimated Annual Salaries	\$25,971,132	\$29,275,692	\$31,285,572	\$30,600,684	\$30,950,088
Contribution for Unfunded Past Service Liability	\$437,418	\$934,625	\$0	\$0	\$93,823
Medical Benefit Obligation	\$64,784,801	\$74,163,248	\$88,407,634	\$95,290,099	\$110,193,139
Insurance Fund Assets (Book)	\$6,516,517	\$8,931,544	\$11,717,956	\$14,285,479	\$17,410,672
Percent Unfunded	89.9%	88.0%	86.7%	85.0%	84.2%
<b>ACTUARIAL COST:</b>					
Normal	15.15%	15.32%	15.25%	15.67%	15.28%
Past Service	1.68%	3.19%	-.79%	-1.28%	.30%
Administrative	.26%	.25%	.27%	.25%	.26%
Hospital/Medical Insurance	9.48%	10.00%	14.11%	14.14%	14.21%
TOTAL COST:	26.57%	28.84%	28.84%	28.78%	30.05%
<b>CONTRIBUTION RATES:</b>					
Member	7.00%	7.00%	7.00%	7.00%	7.00%
Employer	**20.31%	19.57%	**21.84%	**21.84%	21.78%
TOTAL RATES	27.31%	26.57%	28.84%	28.84%	28.78%

\*Employer rate shown became effective 8/1/90 to reflect legislative changes and new actuarial assumptions.  
 \*\*The contribution rate shown is the rate adopted by the Board of Trustees. The actual employer rates paid by the Kentucky State Police was 19.57% in accordance with provisions in the state budget.

TABLE 10

KENTUCKY RETIREMENT SYSTEMS  
STATEMENT OF SOURCE AND USE OF FUNDS  
BY SYSTEM SINCE INCEPTION THROUGH JUNE 30, 1994

BREAKDOWN PER DOLLAR					TOTAL AMOUNTS					
KERS	CERS	SPRS	KERS-H	CERS-H	KERS	CERS	SPRS	KERS-H	CERS-H	
\$ .24	\$ .26	\$ .19	\$ .33	\$ .23	\$ 870,763,657.04	\$ 546,174,104.35	\$ 51,996,639.79	\$ 34,785,523.35	\$ 136,435,911.34	
.27	.32	.25	.35	.40	Member Contributions	985,316,076.89	651,579,133.64	70,189,494.64	36,654,741.45	233,016,473.10
.38	.31	.43	.24	.26	Employer Contributions	1,986,993,272.44	646,283,658.83	119,972,257.15	25,092,742.16	156,321,760.48
.00	.00	.00	.00	.00	Investment Income	1,864,578.48	187,810.16	506,100.14	30,318.35	39,452.86
.00	.01	.00	.00	.03	Special Appropriation	230,960.40	10,994,176.07	0.00	3,740.98	17,756,041.25
.11	.10	.13	.08	.08	Alternate & Term. Participation	431,830,623.83	197,857,499.31	35,769,447.61	9,138,555.16	48,318,722.98
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	Other Receipts	\$3,676,998,569.08	\$2,053,078,382.36	\$278,433,939.33	\$105,705,621.45	\$591,888,362.01
TOTAL SOURCES										
USE OF FUNDS										
\$ .62	\$ .73	\$ .62	\$ .74	\$ .74	Invested Assets	\$2,299,495,690.48	\$1,489,807,766.31	\$173,758,341.12	\$ 78,215,287.85	\$437,393,514.58
.29	.19	.32	.15	.20	Retirement Payments	1,049,982,936.71	385,332,791.87	88,208,230.87	16,285,721.54	117,791,838.92
.03	.03	.01	.04	.02	Refunds	123,134,819.99	72,123,916.62	2,499,662.00	4,209,151.70	11,472,036.21
.05	.04	.04	.06	.03	Interest to Members	172,799,529.28	82,671,330.58	12,505,277.91	5,922,632.31	21,118,080.12
.01	.01	.01	.01	.01	Administration of Prof. Services	31,221,270.59	23,106,593.95	1,462,427.43	1,059,830.08	4,092,616.02
.00	.00	.00	.00	.00	Other Disbursements	364,322.03	33,983.03	0.00	2,997.97	20,276.16
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	TOTAL USES	\$3,676,998,569.08	\$2,053,078,382.36	\$278,433,939.33	\$105,705,621.45	\$591,888,362.01

KERS-H = Hazardous  
CERS-H = Hazardous

**TABLE 11  
KENTUCKY RETIREMENT SYSTEMS  
ADMINISTRATIVE EXPENSE  
BY FISCAL YEAR**

	1989-90	1990-91	1991-92	1992-93	1993-94
<b>PERSONNEL COSTS:</b>					
Salaries & Fringe Benefits	\$1,936,370.13	\$2,425,450.41	\$2,857,136.01	\$3,009,894.08	\$3,196,712.56
<b>CONTRACTUAL SERVICES:</b>					
Auditor	20,750.00	\$ 22,400.00	\$ 22,145.00	\$ 21,118.00	\$ 47,621.56
Actuary	51,733.00	48,500.00	47,767.00	42,950.00	45,795.00
Legal Services	45,165.21	96,829.28	92,729.83	76,513.67	44,728.69
Medical	52,618.48	60,526.13	62,728.97	71,733.54	84,702.10
Investment Consultant		*26,527.26	*55,000.00	*40,000.00	*56,098.00
Security Custody & Banking Services		*146,672.59	*162,215.87	*182,489.34	*273,675.36
Investment Advisors		*2,763,875.98	*3,252,869.65	*3,516,025.30	*3,675,077.50
Miscellaneous	750.00	541.66	0.00	572.00	342.00
<b>TOTAL</b>	<b>\$2,107,396.82</b>	<b>\$5,991,323.31</b>	<b>\$6,552,592.33</b>	<b>\$6,961,295.93</b>	<b>\$7,424,662.76</b>
<b>OPERATING EXPENSES:</b>					
Postage & Freight	\$ 281,264.93	\$ 214,728.45	\$ 320,829.39	\$ 284,364.41	\$ 365,484.93
Utilities	25,853.22	28,846.59	29,683.56	31,847.41	53,070.76
Telephone	32,581.04	27,226.63	38,743.05	68,108.83	50,558.15
Travel	26,514.89	41,914.97	32,723.24	34,958.23	29,370.50
Printing & Duplicating	73,939.58	56,962.67	47,113.25	97,305.83	55,133.41
Maintenance - Equipment	33,649.58	29,321.58	64,253.75	48,523.95	61,663.94
Maintenance - Bldg. & Grnds.	795.81	1,771.40	1,063.32	1,228.90	320.84
Laundry	319.04	337.94	584.62	1,696.17	2,582.59
Assessed Car Rental	5,108.84	4,448.92	4,457.04	5,105.19	3,526.72
Supplies - Data Processing	28,268.47	23,831.52	29,097.93	33,795.37	14,949.50
Supplies - Building	36,161.14	27,787.80	38,806.81	40,555.50	25,550.49
Rental - Data Processing	166,000.00	179,725.00	193,550.04	371,040.00	374,311.43
Rental - Office Equipment	6,099.89	3,639.48	10,506.13	7,055.14	8,943.97
Insurance	16,341.37	18,154.29	14,974.68	26,764.67	17,850.28
Bonds	12,709.00	56,826.00	56,011.00	49,488.10	52,044.25
Dues & Subscriptions	2,704.97	1,776.25	1,776.25	5,206.35	0.00
Employee Training Expense	3,450.97	4,703.03	4,105.02	12,436.16	7,437.95
Miscellaneous	7,761.72	8,828.15	11,673.27	16,538.44	14,421.11
Photo Supplies (Micrographics)	5,605.89	6,963.95	3,506.56	46,298.60	8,369.07
Furniture - Office Equipment	8,934.72	20,106.38	13,464.24	5,434.59	5,300.41
Lease Purchase Office Equipment	9,720.71	6,660.14	2,968.75	77,294.88	714.59
Conference Expenses	9,264.18	155,294.88	77,294.88	1,415.00	83,736.12
<b>TOTAL</b>	<b>\$3,479.58</b>	<b>\$4,919.50</b>	<b>\$3,620.50</b>	<b>\$1,268,237.98</b>	<b>\$2,058.00</b>
Capital Outlay	\$ 796,529.54	\$ 924,775.51	\$1,000,827.28	\$ 95,506.14	\$1,237,399.01
<b>TOTAL ADMINISTRATIVE EXPENSE</b>	<b>\$ 97,893.18</b>	<b>\$ 216,250.02</b>	<b>\$ 24,646.00</b>	<b>\$ 95,506.14</b>	<b>\$1,931.47</b>
	<b>\$3,001,809.54</b>	<b>\$6,732,348.84</b>	<b>\$7,578,065.61</b>	<b>\$8,325,040.05</b>	<b>\$9,813,993.24</b>

\*The 1990 General Assembly added these items to the budget, payable from administrative expense, effective July 1, 1990. Prior years' expenses were considered off budget.

	1989-90	1990-91	1991-92	1992-93	1993-94
<b>DISTRIBUTION OF COST BY SYSTEM</b>					
Kentucky Employees Retirement System	\$1,380,832.39	\$3,393,103.82	\$3,780,236.16	\$3,996,019.22	\$4,124,776.92
County Employees Retirement System	1,593,960.96	**3,170,936.30	**3,621,557.56	4,135,879.90	4,498,042.18
State Police Retirement System	27,016.29	168,308.72	196,271.90	193,140.93	191,174.14
	\$3,001,809.54	\$6,732,348.84	\$7,578,065.61	\$8,325,040.05	\$8,813,993.24

\*\*CERS portion of administrative expense, excluding investment fees, is greater than 50%. Inclusion of investment fees changed the distribution. KERS portfolio is larger and, thus, has higher fees.



