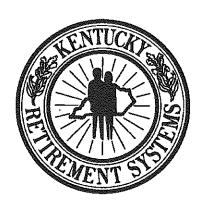
Kentucky Retirement Systems



Annual Report June 30, 1992

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

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H O W TOWN

KENTUCKY RETIREMENT SYSTEMS Perimeter Park West 1260 Louisville Road

Frankfort, Kentucky 40601



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

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

MEMORANDUM

TO:

Members of the Board of Trustees

John D. Robey, Chairman

Frank W. Burke, Vice Chairman

Lowell W. Clark

E. B. "Gene" Drake

Gordon C. Duke

John E. King

Cattie Lou Miller

Frank X. Quickert, Jr.

James R. Ramsey

FROM:

Pamala S. Johnson, General Manager

DATE:

March 9, 1993

SUBJECT:

Annual Report for Fiscal Year Ending June 30, 1992

As directed by KRS 61.645, I present the Annual Report for the fiscal year ended June 30, 1992. 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 the firm of Deloitte & Touche. 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 1991-92 fiscal year, as well as historical data in some cases.

INVESTMENTS

The rate of return for the total fund based on market value was 11.7% 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 4.48% 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, 1992. 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.

LEGISLATION

The 1992 General Assembly passed the following bills affecting the members of the retirement systems.

Senate Bill 114 contained the proposals of the Board of Trustees. The significant provisions were a provision to allow purchase of service credit for out-of-state public service, expansion of the 80-hour participation provision to all non-certified school board employees, and a provision to allow members to convert eligible service to hazardous duty benefit coverage in 12-month increments.

House Bill 65 deleted the ex officio position of the state local government finance officer on the Board of Trustees and replaced it with a governor-appointed trustee who must be familiar with the impact of pensions on local governments.

House Bill 295 added language to the statutes governing the state medical insurance to exempt CERS retirees from the pre-existing illness exclusion upon retirement so long as the retiree selects one of the state's self-funded plans and participated in an employer sponsored group medical insurance plan prior to retirement. The Department of Personnel's subsequent interpretation of this provision, expanding it to include the member's spouse and dependents, will provide a significant benefit to many retiring CERS members.

SERVICES

Demand for services continued to grow during the year, as illustrated by the following statistics.

During the 1991-92 fiscal year, benefits counselors saw 5,200 visitors and responded to 120,000 telephone calls. Counselors prepared 27,000 benefit and service purchase estimates.

Field representatives gave 12 preretirement conferences attended by 1,900 members and visited 196 agencies.

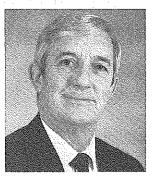
Records staff filed more than one-quarter of a million documents and added more than 15,000 new member files to the growing records keeping operation.

Meanwhile the accounting staff processed more than 7,900 refunds during the year. In addition, accountants posted 3,600 service purchases or repayments of refunds.

In spite of the growing demands on the staff, Kentucky Retirement Systems is committed to providing all members with the services and programs they rely on.



Frank W. Burke
Louisville
Elected by CERS Members
Term Expires March 31, 1993
Retired CERS



Lowell W. Clark
Frankfort
Ex Officio
Commissioner of
State Department of Personnel



E. B. "Gene" Drake
Frankfort
Elected by KERS Members
Term Expires March 31, 1994
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, 1993
Inactive CERS



Cattie Lou Miller
Frankfort
Elected by KERS Members
Term Expires March 31, 1994
Retired KERS



Frank X. Quickert, Jr.
Louisville
Appointed by Governor
Term Expires March 31, 1996

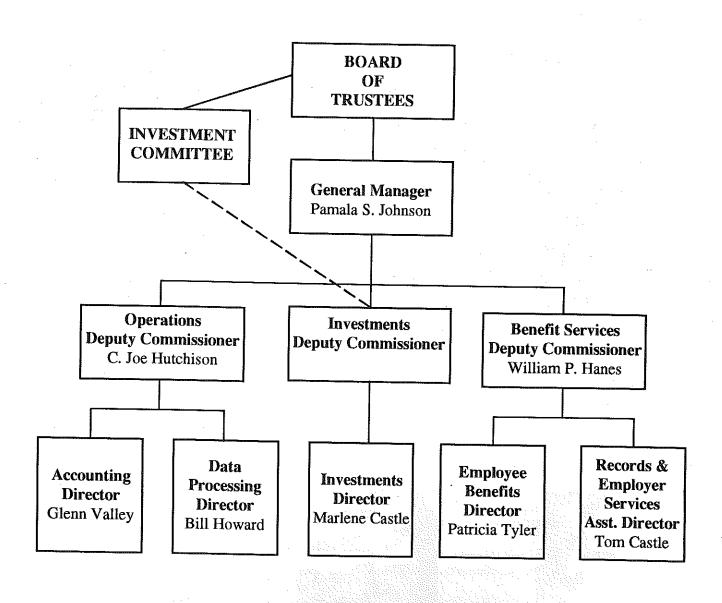


James R. Ramsey
Bowling Green
Appointed by Governor
Term Expires March 31, 1996



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:

Deloitte & Touche Suite 2100 220 West Main Street 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 \$3.8 billion (book value) as of June 30, 1992, an increase of 8.6% over the previous fiscal year.

To assure that proper accounting methods are being used, the Board 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, 1992, was performed by the firm of Deloitte & Touche.

In addition to the annual audit by a certified public accounting firm, 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 Deloitte & Touche follows along with copies of their 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.

Deloitte & Touche

Suite 2100 220 W. Main Street Louisville, Kentucky 40202-5313 Telephone: (502) 562-2000 Facsimile: (502) 562-2073

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, 1992 and 1991 and for the years then ended, listed in the foregoing index. 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. 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, 1992 and 1991, and the results of the Systems' operations for the years then ended in conformity with generally accepted accounting principles.

September 18, 1992

BALANCE SHEETS JUNE 30, 1992 AND 1991

	<u>1992</u>	<u>1991</u>
ASSETS:		
Investments:		
Bonds (market value - 1992, \$472,182,379; 1991, \$485,058,000)	\$ 444,636,623	\$ 468,577,127
Common stocks (market value - 1992, \$1,273,639,099; 1991, \$1,130,891,000)	977,607,838	916,912,932
First mortgage real estate loans (market value - 1992, \$168,658,326; 1991, \$14,487,000)	154,675,954	15,821,387
Real estate investment trusts (market value - 1992, \$146,209,826; 1991, \$124,122,000)	145,429,680	116,347,129
Securities purchased under agreements to resell (market value approximates cost)	328,178,366	375,614,417
Total investments	2,050,528,461	1,893,272,992
Cash on deposit with State Treasurer	280,720	440,592
Members and employers contributions	7,732,057	11,865,481
receivable Accrued investment income	13,814,817	12,237,397
TOTAL	2,072,356,055	1,917,816,462
- TOTAL	• • •	
LIABILITIES: Members refunds, insurance fund transfers and investment expenses payable	5,509,364	4,601,531
NET ASSETS AVAILABLE FOR BENEFITS (Members' Contribution Account - 1992, \$462,173,091; 1991, \$406,549,680 and Retirement Allowance Account - 1992, \$1,604,673,600; 1991, \$1,506,665,251)	<u>\$2,066,846,691</u>	\$1,913,214,931
FUND BALANCE: Actuarial present value of projected benefits payable to current retirees and beneficiaries	\$ 921,745,202	\$ 886,727,902
Actuarial present value of projected benefits payable to terminated vested participants Actuarial present value of credited projected	23,794,757	21,673,167
benefits for active members: Members contributions Employers financed portion	442,303,920 929,410,185	388,216,559 828,752,719
Total actuarial present value of credited projected benefits	2,317,254,064	2,125,370,347
Unfunded actuarial present value of credited projected benefits	(250,407,373)	(212,155,416)
TOTAL FUND BALANCE	\$2,066,846,691	\$1,913,214,931

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN MEMBERS' CONTRIBUTION ACCOUNT
YEARS ENDED JUNE 30, 1992 AND 1991

	1992	<u>1991</u>
REVENUES: Members contributions	4 50 502 120	4 50 045 -00
Interest credited to members' balances transferred from Retirement Allowance	\$ 58,523,130	\$ 52,845,103
Account	15,669,861	13,721,080
Total revenues	74,192,991	66,566,183
EXPENSES:	• •	
Refunds to former members Retired members' balances transferred	6,451,752	6,438,085
to Retirement Allowance Account	12,117,828	15,316,539
Total expenses	18,569,580	21,754,624
EXCESS OF REVENUES OVER EXPENSES	55,623,411	44,811,559
MEMBERS' CONTRIBUTION ACCOUNT:		٠,
BEGINNING OF YEAR	406,549,680	361,738,121
END OF YEAR	\$462,173,091	\$406,549,680

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN RETIREMENT ALLOWANCE ACCOUNT YEARS ENDED JUNE 30, 1992 AND 1991

	<u>1992</u>	<u>1991</u>
REVENUES:		
Employers contributions	\$ 87,261,933	\$ 77,269,700
Investment income	106,061,993	107,923,634
Net realized gain on disposals		1
of investments	44,136,334	6,521,702
Retired members' balances		
transferred from Members'		
Contribution Account	12,117,828	<u>15,316,539</u>
Total revenues	249,578,088	207,031,575
EXPENSES:		
Retirement benefits for members	110,034,282	100,824,770
Contributions transferred to the		
Kentucky Retirement Systems		
Insurance Fund	22,001,052	19,961,382
Interest credited to members'		
balances transferred to Members'		
Contribution Account	15,669,861	13,721,080
Administrative expenses	2,130,915	2,091,405
Investment expenses	1,733,629	1,351,304
		•
Total expenses	151,569,739	137,949,941
EXCESS OF REVENUES OVER EXPENSES	98,008,349	69,081,634
RETIREMENT ALLOWANCE ACCOUNT:	·	
BEGINNING OF YEAR	1,506,665,251	1,437,583,617
END OF YEAR	\$1,604,673,600	\$1,506,665,251

NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1992 AND 1991

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

- a. <u>Basis of Presentation</u> 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. <u>Component Unit</u> 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. <u>Investments</u> - 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.

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 286 at June 30, 1992.

For the years ended June 30, 1992 and 1991, participating members contributed 5% of creditable compensation to the System. Members occupying hazardous positions, as defined by statute, contribute 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% and 7.45% of members' non-hazardous compensation for 1992 and 1991, respectively, and 15.05% of members' hazardous compensation for 1992 and 1991.

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:

	<u>1992</u>	<u>1991</u>
Retirees and beneficiaries currently receiving benefits and terminated members entitled to benefits but not yet receiving them:		•••
Non-hazardous positions	29,319	25,258
Hazardous positions	478	267
Total	29,797	25,525
Current members:		
Vested:	e e	
Non-hazardous positions	29,053	27,742
Hazardous positions	1,693	1,568
Nonvested:		• •
Non-hazardous positions	16,310	17,049
Hazardous positions	1,539	1,604
Total	78,392	73,488

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

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, 1992 and 1991 was \$2,525,190,930 and \$2,288,611,147, respectively. The resulting unfunded pension benefit obligation was \$458,344,239 and \$375,396,216 at June 30, 1992 and 1991, 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 1992 and 1991 was determined by the System's consulting actuary, William M. Mercer, Inc., as part of an actuarial valuation as of June 30, 1992 and 1991, 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.

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, 1992 and 1991 were determined as part of an actuarial valuation as of June 30, 1991 and 1990, respectively, and were as follows:

	1992	1991
Employer Member	\$ 90,635,039 <u>49,979,279</u>	\$ 68,423,239 43,533,350
TOTAL	\$140,614,318	<u>\$111,956,589</u>
Such contributions were to consist of:		
No.	•	
	1992	<u> </u>
Normal cost	\$ 95,882,596	A 00 00
Amortization of the unfunded	7 33,002,536	\$ 80,104,418
actuarial accrued liability Administrative expenses	18,683,469	12,475,110
Group hospital and medical	3,699,510	3,420,912
insurance premiums		·
•	22,348,743	<u> 15,956,149</u>
TOTAL	\$140,614,318	\$111 DEC EDD
6 -1-13-13	1010/011/010	<u>\$111,956,589</u>
Contributions received consisted of:	•	•
A STATE OF THE STA		
	<u> 1992</u>	<u> 1991</u>
Employer (7.65% and 7.45% of the	ž _e	
covered payroll for non-hazardous		
positions for 1992 and 1991.		
respectively, and 15.05% for hazardous positions for		,
1992 and 1991)		
Member (5% of the covered	\$ 87,261,933	\$ 77,269,700
payroll for non-hazardous		
positions and 7% for		
hazardous positions for		4
1992 and 1991)	58,523,130	52,845,103
TOTAL		
	<u>\$145,785,063</u>	<u>\$130,114,803</u>
·		

5. NINE YEAR HISTORICAL TREND INFORMATION

Nine 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.

				(4)			(6)
				Unfunded (Funds			Unfunded Pension
	(1)	(2)	(3)	in Excess of)		(5)	Benefit Obligation
	Net Assets	Pension	Percentage	Pension Benefit		Annual	as a Percentage
Fiscal	Available	Benefit	Funded	Obligation		Covered	of Covered Payroll
<u>Year</u>	For Benefits	<u>Obligation</u>	(1) / (2)	(2) - (1)		Payroll	(4) / (5)
1984	\$ 814,553,823	\$ 900,125,692	90.5%	\$ 85,571,869	\$	627,726,168	13.6%
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

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.

Nine year historical information relating to revenue and expenses by source and type, respectively, is presented below:

Revenues by Source

	Kevenues by Source				
Fiscal Year	Members Contributions	Employers Contributions	Investment Income	Net Realized Gain on Disposals of <u>Investments</u>	Total
1984	\$26,075,180	\$46,925,821	\$ 68,498,499	\$ 5,812,966	\$147,312,466
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
1 99 0	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

fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Investment Expenses	Contributions Transferred to <u>Insurance Fund</u>	Total
1984	\$ 35,467,174	\$ 623,177	\$4,686,153	\$ 197,994	\$ 1,880,023	\$ 42,854,521
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

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:

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

<u>Fixed Income Investments</u> - 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.

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

<u>Cash Equivalent Securities</u> - 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:

- <u>Securities Purchased Under Agreements to Resell</u> Repurchase agreements which are collateralized by U.S. Government issues.
- <u>U.S. Government Issues</u> All obligations of the U.S. Government and its agencies.
- Certificates 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 System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1992. 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, 1992					
		Category				
	1	2	3	<u>Carrying Amount</u>	Market Value	
United States Government						
bonds		\$ 246,502,809	•	\$ 246,502,809	\$ 260,829,560	
Corporate bonds	\$41,520,162	156,613,652		198,133,814	211,352,819	
Common stocks		977,607,838		977,607,838	1,273,639,099	
First mortgage real						
estate loans			\$154,675,954	154,675,954	168,658,326	
Real estate investment		•				
trusts			145,429,680	145,429,680	146,209,826	
Securities purchased.	e .					
agreements to resell		328,178,366		<u>328,178,366</u>	328,178,366	
Total investments	\$41,520,162	\$1,708,902,665	\$ 300,105,634	\$2,050,528,461	\$2,388,867,996	

Investments at June 30, 1992, included approximately \$145 million of securities loaned under various collateralized lending programs.

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.

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 1.77% for non-hazardous and 6.17% for hazardous positions for 1992 and 1991.

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.

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BALANCE SHEETS JUNE 30, 1992 AND 1991

	1992	<u>1991</u>
ASSETS:		
Investments:		
Bonds (market value - 1992, \$245,387,937; 1991, \$279,548,000)	\$ 27 0 552 047	£ 370 444 404
Common stocks (market value - 1992, \$1,084,233,384; 1991, \$876,403,000)		\$ 270,111,181
First mortgage real estate loans (market	888,063,859	747,111,835
value - 1992, \$94,152,353; 1991, \$9,289,000) Real estate investment trusts (market	85,557,087	10,124,614
value - 1992, \$102,950,473; 1991, \$79,710,000) Securities purchased under agreements to	102,848,045	75,313,134
resell (market value approximates cost)	177,668,471	223,993,377
Total investments	1,484,690,429	1,326,654,141
Cash on deposit with State Treasurer	270,317	/00 9/7
Members and employers contributions	210,311	499,863
receivable Past service credit contribution	13,309,201	12,463,161
receivable	52,112,858	52,577,347
Accrued investment income	8,044,440	7,482,817
TOTAL	1,558,427,245	1,399,677,329
LIABILITIES:		
Members refunds, insurance fund transfers		
and investment expenses payable	3,535,705	3,450,324
NET ASSETS AVAILABLE FOR PLAN BENEFITS (Members' Contribution Account - 1992, \$339,656,749; 1991, \$289,073,219 and Retirement Allowance Account - 1992, \$1,215,234,791;		
1991, \$1,107,153,786)	\$1,554,891,540	\$1,396,227,005
FUND BALANCE:		
Actuarial present value of projected benefits		
payable to current retirees and beneficiaries	\$ 583,019,143	\$ 533,730,563
Actuarial present value of projected benefits payable to terminated vested participants	.=	
Actuarial present value of credited projected	17,518,133	15,183,655
benefits for active members:		
Members contributions	329,026,662	279,301,024
Employers financed portion	767,081,345	680,565,641
Total actuantal passant value of		
Total actuarial present value of credited projected benefits	1,696,645,283	1,508,780,883
Unfunded actuarial present value		
of credited projected benefits	(141,753,743)	(112,553,878)
TOTAL FUND BALANCE	\$1,554,891,540	\$1,396,227,005

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN MEMBERS' CONTRIBUTION ACCOUNT
YEARS ENDED JUNE 30, 1992 AND 1991

,	<u>1992</u>	<u>1991</u>
REVENUES:		
Members contributions Interest credited to members' balances	\$ 58,815,250	\$ 50,027,929
transferred from Retirement Allowance Account	10,965,062	9,356,568
Total revenues	69,780,312	59,384,497
EXPENSES:		
Refunds to former members Retired members' balances transferred	5,829,864	5,404,817
to Retirement Allowance Account	13,366,918	19,189,213
Total expenses	19,196,782	24,594,030
EXCESS OF REVENUES OVER EXPENSES	50,583,530	34,790,467
MEMBERS' CONTRIBUTION ACCOUNT:		
BEGINNING OF YEAR	289,073,219	254,282,752
END OF YEAR	<u>\$339,656,749</u>	\$289,073,219

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN RETIREMENT ALLOWANCE ACCOUNT YEARS ENDED JUNE 30, 1992 AND 1991

	<u>19</u>	92	;	1991
REVENUES:				0.00
Employers contributions	\$ 89,	149,505	\$ 7	7,403,269
Investment income	73,	386,287		5,889,593
Net realized gain on disposals	•	•		
of investments	30,	365,722	:	L,292,434
Retired members' balances				, ,
transferred from Members'				
Contribution Account	13,	366,918	19	7,189,213
				1-37/223
Total revenues	206,	268, 4 32	173	3,774,509

EXPENSES:		-		
Retirement benefits for members	64.	992,604	53	3,341,986
Contributions transferred to the	·	•		, , - 0 0
Kentucky Retirement Systems	•			
Insurance Fund	18.	391,009	16	,562,994
Interest credited to members'				,, = 0 = , > > 1
balances transferred to Members'		•		
Contribution Account	10.9	965,062		,356,568
Administrative expenses		458,990	and the second second	.,585,753
Investment expenses		379,762		.,556,937
				., <u>.,.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>
Total expenses	98.	187,427	92	,404,238
<u>-</u>		201121	02	1304,236
EXCESS OF REVENUES OVER EXPENSES	108	081,005	01	,370,271
	200,	001,005	21	,370,271
RETIREMENT ALLOWANCE ACCOUNT:		-		
BEGINNING OF YEAR	1,107.	153 786	1 075	702 515
·	<u> </u>	100	1,015	<u>,783,515</u>
END OF YEAR	\$1,215,	724 701	מי ז מי	152 506
	~+12-01	- 3 - 1 / 3 L	31,10/	<u>,153,786</u>

NOTES TO FINANCIAL STATEMENTS YEARS ENDED JUNE 30, 1992 AND 1991

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

- a. <u>Basis of Presentation</u> 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. <u>Component Unit</u> 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 the Kentucky General Assembly.

c. <u>Investments</u> - 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.

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, 1992, the number of participating local government employers was:

Boards of Education	175
County agencies	210
City agencies	146
Libraries	. 74
Other	<u>304</u>
	•
Total	<u>909</u>

For the years ended June 30, 1992 and 1991, participating members contributed 5% of creditable compensation to the System. Members occupying hazardous positions, as defined by statute, contribute 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 7.95% and 16.10%, respectively, of members' non-hazardous and hazardous compensation for the year ended June 30, 1992, and 7.68% and 15.43%, respectively, for the year ended June 30, 1991.

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:

	1992	<u>1991</u>
Retirees and beneficiaries currently receiving benefits and terminated members entitled to benefits but not yet receiving them:		·
Non-hazardous positions	25,193	21,447
Hazardous positions	1,387	1,172
Total	26,580	22,619
Current members:		
Vested:		
Non-hazardous positions Hazardous positions	28,794	26,824
Nonvested:	3,185	3,039
Non-hazardous positions	26,742	25,126
Hazardous positions	1,863	1,728
m-4-3		
Total	<u>87,164</u>	<u>79,336</u>

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

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, 1992 and 1991 was \$1,861,978,403 and \$1,654,338,706, respectively. The resulting unfunded pension benefit obligation was \$307,086,863 and \$258,111,701 at June 30, 1992 and 1991, 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 1992 and 1991 was determined by the System's consulting actuary, William M. Mercer, Inc., as part of an actuarial valuation as of June 30, 1992 and 1991, 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 - 8% per annum on investments 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

Salary increases

- 6 1/2% per annum.

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.

benefits

Actuarially determined contribution requirements for the years ended June 30, 1992 and 1991 were determined as part of an actuarial valuation as of June 30, 1991 and 1990, respectively, and were as follows:

	1992	1991
Employer Member	\$ 90,489,975 <u>46,261,760</u>	\$ 74,746,877 41,252,919
Total	<u>\$136,751,735</u>	\$115,999,796

Such contributions were to consist of:

	1992	1991
Normal cost Amortization of the unfunded	\$100,327,871	\$ 88,860,981
actuarial accrued liability	12,846,219	7,901,773
Administrative expenses Group hospital and medical	4,375,852	4,013,570
insurance premiums	19,201,793	15,223,472
TOTAL	\$136,751,735	<u>\$115,999,796</u>
Contributions received consisted of:		
	1992	. 1991
Employer (7.95% and 7.68% of the covered payroll for non-hazardous positions and 16.10% and 15.43% for hazardous positions for 1992 and 1991,		
respectively) Member (5% of the covered payroll for non-hazardous positions and 7% for hazardous positions for	\$ 89,149,505	\$ 77,403,269
1992 and 1991)	58,815,250	50,027,929
TOTAL	\$147,964,755	\$127,431,198

5. NINE YEAR HISTORICAL TREND INFORMATION

Nine 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 <u>Year</u>	(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	(6) Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4) / (5)
1984	\$ 406,187,431	\$ 374,960,289	108.3%	\$ (31,227,142)	\$403,461,792	N/A
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

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.

Nine year historical information relating to revenue and expenses by source and type, respectively, is presented below:

Revenues by Source

		Aevendes by Source						
	.•			Net Realized Gain on				
Fiscal	Members	Employers	Investment	Disposals of	:			
<u>Year</u>	Contributions	Contributions	Income	<u>Investments</u>	Total			
1984	\$16,040,197	\$ 25,280,243	\$35,305,604	\$ 4,127,955	\$ 80,753,999			
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			

Expenses by Type						
Fiscal <u>Year</u>	Benefit Payments	Administrative Expenses	Refunds	Investment <u>Expenses</u>	Contributions Transferred to Insurance Fund	Total
1984	\$13,066,260	\$ 561,747	\$3,331,153	\$ 96,104	\$ 667,073	\$17,722,337
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

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:

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.

<u>Guaranteed Insurance Contracts</u> - 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.

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

<u>Cash Equivalent Securities</u> - 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:

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- <u>U.S. Government Issues</u> All obligations of the U.S. Government and its agencies.
- Certificates of Deposit Investments may be made in only the 25 largest money center banks in the U. S. (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 System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1992. 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, 1992				
		Category			
	1	2	3	Carrying Amount	_Market Value
United States Government bonds		\$ 133,316,287		\$ 133,316,287	\$ 141,907,146
Corporate bonds	\$20,520,162			97,236,680	103,480,791
Common stocks	020,520,102	888,063,859	•	888,063,859	1,084,233,384
First mortgage real estate loans			\$ 85,557,087	85,557,087	94,152,353
Real estate investment trust	ř		102,848,045	102,848,045	102,950,473
Securities purchased under agreements to			•		
resell		177,668,471		177,668,471	177,668,471
Total investments	\$20,520,162	\$1,275,765,135	\$188,405,132	\$1,484,690,429	<u>\$1,704,392,618</u>

Investments at June 30, 1992, included approximately \$103 million of securities loaned under various collateralized lending programs.

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.

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 1.38% for non-hazardous and 5.11% for hazardous positions for 1992 and 1991.

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.

STATE POLICE RETIREMENT SYSTEM

STATE POLICE RETIREMENT SYSTEM

BALANCE SHEETS JUNE 30, 1992 AND 1991

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	. <u>1992</u>	1991
ASSETS:		— —
Investments:		
Bonds (market value - 1992, \$38,795,384; 1991, \$41,990,000)	. .	
Common stocks (market value - 1992	\$ 36,511,413	\$ 40,680,524
\$98,968,464; 1991, \$87,684,000) First mortgage real estate loans (market	74,161,412	69,609,114
Value - 1992, \$13,804,911; 1991, \$1,008,000) Real estate investment trusts (market value - 1902)	12,716,048	1,100,250
Securities purchased under agreements	11,292,130	9,286,348
to resell (market value approximates cost)	23,167,928	28,729,839
Total investments	157,848,931	149,406,075
Cash on deposit with State Treasurer	1/ //0	
Members and employers contributions	14,649	9,500
receivable	422,526	809.993
Accrued investment income	1,133,895	1,028,122
TOTAL	159,420,001	151,253,690
LIABILITIES:		
Members refunds, insurance fund transfers		
and investment expenses payable	442,111	435,616
NET ASSETS AVAILABLE FOR BENEFITS (Members' Contribution Account - 1992, \$26,762,547; 1991, \$23,937,209 and Retirement Allowance Account - 1992, \$132,215,343; 1991, \$126,880,865)	\$150 077 POA	
	<u>\$158,977,890</u>	<u>\$150,818,074</u>
FUND BALANCE:		
Actuarial present value of projected benefits payable to current retirees and beneficiaries		
Actuarial present value of projected benefits	\$ 84,885,964	\$ 82,243,354
payable to terminated vested participants	178,802	259,371
Actuarial present value of credited projected benefits for active members:		
Members contribution		_
Employers financed portion	26,620,629 <u>63,684,801</u>	23,773,620 56,744,572
Total actuarial present value of		
credited projected benefits	175,370,196	163,020,917
Unfunded actuarial present value		
of credited projected benefits	(16,392,306)	(12,202,843)
TOTAL FUND BALANCE	\$150 A77 GAN	0450 040 000
	\$158,977,890	<u>\$150,818,074</u>

STATE POLICY RETIREMENT SYSTEM

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN MEMBERS' CONTRIBUTION ACCOUNT
YEARS ENDED JUNE 30, 1992 AND 1991

	1992	<u>1991</u>
REVENUES: Members contributions Interest credited to members' balances	\$ 2,529,860	\$ 2,347,772
transferred from Retirement Allowance Account	933,729	835,335
Total revenues	3,463,589	3,183,107
EXPENSES: Refunds to former members Retired members' balances transferred to Retirement Allowance Account	35,421 602,830	4 2,561 898,4 58
Total expenses	638,251	941,019
EXCESS OF REVENUES OVER EXPENSES	2,825,338	2,242,088
MEMBERS' CONTRIBUTION ACCOUNT: BEGINNING OF YEAR	23,937,209	21,695,121
END OF YEAR	\$26,762,547	\$23,937,209

STATE POLICE RETIREMENT SYSTEM

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN RETIREMENT ALLOWANCE ACCOUNT YEARS ENDED JUNE 30, 1992 AND 1991

	1992	<u>1991</u>
REVENUES:		
Employers contributions	\$ 6,193,359	\$ 6,038,636
Investment income	8,430,390	
Net realized gain on disposals		
of investments	3,603,549	568,316
Retired members' balances		
transferred from Members'		•
Contribution Account	602,830	898,458
Total revenues	18,830,128	16,314,709
EXPENSES:		
Retirement benefits for members	9,372,766	8,959,087
Contributions transferred to the		
Kentucky Retirement Systems		
Insurance Fund	2,999,385	2,789,669
Interest credited to members'	•	
balances transferred to Members'	,	
Contribution Account	933,729	835,335
Administrative expenses	56,665	150,807
Investment expenses	133,105	29,376
Total expenses	13,495,650	12,764,274
EXCESS OF REVENUES OVER EXPENSES	5,334,478	3,550,435
RETIREMENT ALLOWANCE ACCOUNT:		
BEGINNING OF YEAR	126,880,865	123,330,430
END OF YEAR	\$132,215,343	<u>\$126,880,865</u>

STATE POLICE RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS YEARS ENDED JUNE 30, 1992 AND 1991

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

- a. <u>Basis of Presentation</u> 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. <u>Component Unit</u> 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. <u>Investments</u> - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discount 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.

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 contribute 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, 1992 and 1991, the employer contributed 19.57% and 20.31% of members' compensation, respectively.

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:

	<u>1992</u>	<u>1991</u>
Retirees and beneficiaries currently receiving benefits and terminated members entitled to		
benefits but not yet receiving them	552	491
Current members:		
Vested	788	764
Nonvested	<u>175</u>	
Total	1,515	1,482

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

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, 1992 and 1991 was \$182,996,056 and \$170,009,955, respectively. The resulting unfunded pension benefit obligation was \$24,018,166 and \$19,191,881 at June 30, 1992 and 1991, 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 1992 and 1991 was determined by the System's consulting actuary, William M. Mercer, Inc., as part of an actuarial valuation as of June 30, 1992 and 1991, 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 completion of twenty years of service, all others

will retire at age 55

Salary increases

- 6 1/2% per annum.

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, 1992 and 1991 were determined as part of an actuarial valuation as of June 30, 1991 and 1990, respectively, and were as follows:

·	1992	1991
Employer	\$6,394,110	\$5.083.382
Member	2,049,298	1,817,979
Total	\$8,443,408	\$6,901,361
Such contributions were to consist of:		
	1992	1991
Normal cost Amortization of the unfunded	\$4,484,455	\$3,934,362
actuarial accrued liability	934,625	437,418
Administrative expenses	73,338	67,518
Group hospital and medical insurance premiums	2 050 000	2 462 263
insurance premiums	2,950,990	2,462,063
Total	\$8,443,408	\$6,901,361
Contributions received consisted of:		
	1992	1991
Employer (19.57% and 20.31% of the covered payroll for 1992 and 1991,		•
respectively)	\$6,193,359	\$6,038,636
Member (7% of the covered payroll		
for 1992 and 1991)	2,529,860	2,347,772
Total	<u>\$8,723,219</u>	\$8,386,408

5. NINE YEAR HISTORICAL TREND INFORMATION

Nine 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.

Nine year historical information relating to revenue and expenses by source and type, respectively, 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	(6) Unfunded Pension Benefit Obligation as a Percentage of Covered Payroll (4) / (5)
1984	\$ 74,980,517	\$ 86,051,927	87.1%	\$11,071,410	\$23,718,048	46.7%
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

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.

Nine year historical information relating to revenue and expenses by source and type, respectively, is presented below:

Revenues	L	•	
KEVETHIES	nv	NOUTER	

Fiscal <u>Year</u>	Members <u>Contributions</u>	Employers Contributions	Investment Income	Net Realized Gain on Disposals of Investments	Total
1984	\$1,695,919	\$4,446,090	\$ 6,260,996	\$ 91,813	\$12,494,818
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, 7 57,158

Expenses	bγ	Type
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Fiscal Year	Benefit Payments	AdministrativeExpenses	Refunds	Investment <u>Expenses</u>	Contributions Transferred to Insurance Fund	Total
1984	\$2,890,091	\$ 11,969	\$127,414	\$ 18,773	\$ 223,140	\$ 3,271,387
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

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:

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

<u>Fixed Income Investments</u> - 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.

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

<u>Guaranteed Insurance Contracts</u> - 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.

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

<u>Cash Equivalent Securities</u> - 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 United States Government issues.
- <u>U.S. Government Issues</u> All obligations of the U.S. Government and its agencies.
- Certificates 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 System's investments are categorized below to give an indication of the level of risk assumed by the System at June 30, 1992. 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.

		Category			
	1	2	3	Carrying Amount	<u>Market Value</u>
United States Government					
bonds		\$ 20,490,054		\$ 20,490,054	\$ 21,709,184
Corporate bonds	\$3,403,292	, 12,618,067		16,021,359	17,086,200
Common stocks		74,161,412		74,161,412	98,968,464
First mortgage real estate loans			\$12,716,048	12,716,048	13 90/ 044
Real estate investment			\$12,710,040	12,710,048	13,804,911
trusts			11,292,130	11,292,130	11,352,792
Securities purchased under		. •			
agreements to resell		23,167,928		23,167,928	<u>23,167,928</u>
Total investments	\$3,403,292	<u>\$130,437,461</u>	\$24,008,178	<u>\$157,848,931</u>	\$186,089,749

Investments at June 30, 1992, included approximately 10 million of securities loaned under various collateralized lending programs.

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.

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 9.48% for 1992 and 1991.

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.

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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.

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BALANCE SHEETS JUNE 30, 1992 AND 1991

	•	
	<u>1992</u>	<u>1991</u>
ASSETS:		
Investments:		
Bonds (market value - 1992,		•
\$59,582,981; 1991, \$56,312,000) Common stock (market value -	\$ 55,394,464	\$ 55,446,662
1992, \$42,789,682; 1991, \$24,148,000) Securities purchased under agreements to resell (market value	36,956,041	21,212,453
approximates cost)	33,216,835	15,993,967
Total investments	125,567,340	92,653,082
Employers contributions receivable	3,782,080	3,520,641
Accrued investment income	1,290,429	1,231,448
Other assets	500,000	500,000
TOTAL	131,139,849	97,905,171
LIABILITY:		
Payable to Kentucky Retirement Systems	366	3,547
NET ASSETS AVAILABLE FOR BENEFITS	\$ 131,139,483	<u>\$ 97,901,624</u>
FUND BALANCE:	•	
Actuarial present value of projected		
medical benefits payable to current		
retirees and beneficiaries	\$ 383,359,369	\$ 305,874,386
Actuarial present value of project		
medical benefits payable to active members	1,748,657,417	1,395,975,721
active members	1,170,007,417	
Total actuarial present value of projected		
medical benefits	2,132,016,786	1,701,850,107
Unfunded actuarial present value of		
credited projected medical benefits	(2,000,877,303)	(1,603,948,483)
TOTAL FUND BALANCE	\$ 131,139,483	<u>\$ 97,901,624</u>

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCE
YEARS ENDED JUNE 30, 1992 AND 1991

ALLOCATED TO KENTUCKY EMPLOYEES RETIREMENT SYSTEM	<u>1992</u>	<u>1991</u>
REVENUES: Employers contributions transferred from	•	
Kentucky Employees Retirement System Investment income Net realized gain on disposal of investments	\$22,001,052 4,504,334 86,728	2,841,795
Total revenues	26,592,114	
EXPENSES - Insurance premium payments	10,675,823	
EXCESS OF REVENUES OVER EXPENSES	15,916,291	
FUND BALANCE: BEGINNING OF YEAR		
END OF YEAR	46,549,336	32,722,932
	<u>\$62,465,627</u>	<u>\$46,549,336</u>
ALLOCATED TO COUNTY EMPLOYEES RETIREMENT SYSTEM		
REVENUES: Employers contributions transferred from County Employees Retirement System Investment income Net realized gain on disposal of investments	\$18,391,009 4,246,588 68,026	\$16,562,994 2,574,432 47,623
Total revenues	22,705,623	
EXPENSES - Insurance premium payments	8,170,467	
EXCESS OF REVENUES OVER EXPENSES	14,535,156	12,989,808
FUND BALANCE: BEGINNING OF YEAR	42,420,744	29,430,936
END OF YEAR	\$56,955,900	\$42,420,744
ALLOCATED TO STATE POLICE RETIREMENT SYSTEM REVENUES:		
Employers contributions transferred from State Police Retirement System Investment income Net realized gain on disposal of investments	\$ 2,999,385 890,481 17,461	\$ 2,789,669 571,315 12,195
Total revenues	3,907,327	3,373,179
XPENSES - Insurance premium payments	1,120,915	958, 152
XCESS OF REVENUES OVER EXPENSES		2,415,027
UND BALANCE: BEGINNING OF YEAR	8,931,544	6,516,517
END OF YEAR	\$11,717,956	\$ 8,931,544
See notes to financial statements.		

NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1992 AND 1991

1. SIGNIFICANT ACCOUNTING POLICY

- a. <u>Basis of Presentation</u> 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. <u>Component Unit</u> The Fund is a component unit of the Commonwealth of Kentucky. As such, the Commonwealth of Kentucky is the primary government in whose financial 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. <u>Investments</u> - Investments in bonds are stated at amortized cost. Discounts and premiums are amortized using the straight-line method from date of acquisition to the stated or expected maturity date. Common stock 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.

2. DESCRIPTION OF THE FUND

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 \$7,137,000 and \$6,376,000 for the Kentucky Employees Retirement System, \$5,362,000 and \$4,459,000 for the County Employees Retirement System, and \$55,000 and \$64,000 for the State Police Retirement System in 1992 and 1991, 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 24,678 retirees as of June 30, 1992. 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 15 - 19 10 - 14 4 - 9	100% 75% 50%	0% 25% 50%
Less than 4	25% 0%	75% 100%

The medical insurance contribution rate is being increased each year by a percentage which will result in reaching the entry age normal funding rate within a 20 year period measured from 1987.

The percentages of employer contributions to the Systems which are in turn transferred to the Fund was determined through an actuarial valuation performed at June 30, 1991 and 1990, respectively, as follows:

· · · · · · · · · · · · · · · · · · ·		1992	<u> 1991</u>
Non-Hazardous			•
Kentucky Employees Retirement System County Employees Retirement System	•	1.77%	
Hazardous			•
Kentucky Employees Retirement System County Employees Retirement System State Police Retirement System		6.17% 5.11% 9.48%	5.11%
The required and actual contributions to were as follows:	the Fund from the	the Syste	ems
	1992	199	<u>91</u>
Required Contributions			
Kentucky Employees Retirement System County Employees Retirement System State Police Retirement System	\$22,348,743 19,201,793 2,950,990		56,149 23,472 52,063
Total	<u>\$44,501,526</u>	\$33,64	
Actual Contributions		•	·
Kentucky Employees Retirement System County Employees Retirement System State Police Retirement System	\$22,001,052 18,391,009 2,999,385	\$19,96 16,56 	2,994
Total	<u>\$43,391,446</u>	\$39,31	4,045

3. 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, 1992 and 1991, 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 medical benefits

Health Cost Inflation

- 10% per annum

4. 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:

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

<u>Fixed Income Investments</u> - 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.

<u>Guaranteed Insurance Contracts</u> - 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.

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

<u>Cash Equivalent Securities</u> - 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:

- <u>Securities Purchased Under Agreements to Resell</u> Repurchase agreements which are collateralized by U.S. Government issues.
- <u>U.S. Government Issues</u> All obligations of the U.S. Government and its agencies.
- Certificates 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 System at June 30, 1992. Category 1 includes investments that are either insured or registered or for which the investments are held by the Kentucky Retirement Systems or its agent in the System's name. Category 2 includes uninsured and unregistered investments for which the collateralized investments are held by the broker's or dealer's trust department or agent in System's name.

	Categ	ory		
	1	2	Carrying Amount	Market Value
United States Government				
bonds		\$ 35,307,747	\$ 35,307,747	\$ 38,510,548
Government National		, ,	,	,-,-,-,-
Mortgage Association				
and similar bonds		5,521,432	5,521,432	5,755,293
Corporate bonds	\$2,722,633	11,842,652	14,565,285	15,317,140
Common stocks		36,956,041	36,956,041	42,789,682
Securities purchased under				, , -
agreement to resell		33,216,835	33,216,835	33,216,835
Total investments	\$2,722,633	\$122,884,707	\$ 125,567,340	\$135,589,498

Investments at June 30, 1992, included approximately \$5 million of securities loaned under various collateralized lending programs.

Deloitte & Touche

Suite 2100 220 W. Main Street Louisville, Kentucky 40202-5313 Telephone: (502) 562-2000 Facsimile: (502) 562-2073

INDEPENDENT AUDITORS' REPORT

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 System Insurance Fund (the "Kentucky Retirement Systems") as of and for the year ended June 30, 1992, and have issued our report thereon dated September 18, 1992.

We conducted our audit in accordance with generally accepted auditing standards and <u>Government Auditing Standards</u>, 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, 1992, 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 of 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 control 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 18, 1992

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Deloitte & Touche

Suite 2100 220 W. Main Street Louisville, Kentucky 40202-5313 Telephone: (502) 562-2000 Facsimile: (502) 562-2073

INDEPENDENT AUDITORS' REPORT

Board of Trustees Kentucky Retirement Systems Frankfort, Kentucky

We have audited the financial statements of the Kentucky Employees System, the County Employees Retirement System, the State Police Retirement System and the Kentucky Retirement System Insurance Fund (the "Kentucky Retirement Systems"), as of June 30, 1992 and for the year then ended, and have issued our report thereon dated September 18, 1992.

We conducted our audit in accordance with generally accepted auditing standards and <u>Government Auditing Standard</u>, 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, regulations, contracts, and grants. 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 18, 1992

Deloitte Touche Tohmatsu International

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, 1992 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.



March 1, 1993

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

Members of the Board:

The thirty-sixth annual actuarial valuation of the Kentucky Employees Retirement System, the thirty-third annual actuarial valuation of the County Employees Retirement System, and the thirty-fourth 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, 1992.

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 <u>*-/1</u>

stephen A. Gagel, F.S.A

Principal

/cgw

THIRTY-SIXTH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1992

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

FRANKFORT, KENTUCKY

SECTION I

INTRODUCTION

The results of the thirty-sixth 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, 1992.

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-44. 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. Additionally in this valuation, an acceleration of the scheduled increases in the medical insurance contribution rate has been recommended where possible. This acceleration in these rates has been 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.

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.
- 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

	Book Value *	Market Value *	Ratio
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%
June 30, 1989	1,562,628,227	1,762,451,856	112.78766%
Average Ratio	=		113.82313%
Valuation Assets (Average Ratio x	= Current Book Value)		2,293,534,024

Hazardous

	Book Value *	Market Value *	<u>Ratio</u>
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%
June 30, 1989	25,980,871	27,999,924	107.77131%
Average Ratio	=		117.55077%
Valuation Assets : (Average Ratio x (: Current Book Value)		60,948,297

* 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>	Retirement Rate
55-57	.03
58-59	.04
60-61	.05
62	.25
63-64	.10
65	.50
66-67	.20
68	.25
69	.40
70 & Ov	er 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.

<u>Hazardous</u>: 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:

	7/1/92	Rate In	<u>icrease</u>
Plan Type	<u>Rate</u>	Date	<u>Rate</u>
Single	\$150.00*	11/1/92	\$168 91*
Family		11/1/92	354.69*
Parent Plus	223.78*	11/1/92	251.97*
Medicare	68.60*		75.46**
High Option	104.20*	1/1/93	114.62**

- *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:

	Active M	ortality	Disabled 1	Mortality
<u>Aqe</u>	Males	<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>Aqe</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:

Years of Service	Select Termination
	25.08.
1	25.0%
2	8.0%
3	5.0%
4	4.0%
5	3.5%

(4) Compensation Progression:

		Compensation at Normal
	Rate of	Retirement as Percentage
<u>Aqe</u>	<u> Annual Increase</u>	Of Current Annual Compensation
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 1992 ACTUARIAL VALUATION

Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the Kentucky Employees Retirement System as of June 30, 1992. 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, 1992.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1992 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 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, 1992

ACTUARIAL ASSETS

Fund Assets at Actuarial Value (Plus Refunds and
Expenses Payable)*

Actuarial Present Value of Future Member Contributions
For Normal Costs

\$2,359,991,685

682,119,077

Total <u>\$ 762,714,027</u>

Total Actuarial Assets

\$3,804,824,789

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits

Inactive Members:

Retired Members and Beneficiaries \$ 921,745,202

Vested Retirement 17,727,092

Vested Membership 6,067,665

For Unfunded Actuarial Accrued Liability _____170,708,609

Total - Inactive \$ 945,539,959

Active Members:

Retirement Benefits \$2,388,662,653
Disability Benefits 136,193,465
Withdrawal Benefits (Vested and

Refund of Contributions) 183,604,289 Survivor Benefits 145,315,059

Total - Active \$2,853,775,466

Refunds and Expenses Payable \$ 5,509,364

Total Actuarial Liabilities \$3,804,824,789

ACCRUED BENEFIT LIABILITY **

Vested Benefits \$1,489,101,827 Non-Vested Benefits \$87,235,545

* The approximate market value of assets as of June 30, 1992 is \$2,453,157,603 (2,385,564,675 for Non-Hazardous and \$67,592,928 for Hazardous).

The actuarial value of assets as of June 30, 1992 is \$2,354,482,321. The Members' Contribution Account as of June 30, 1992 is \$462,173,091.

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

TABLE II KENTUCKY EMPLOYEES RETIREMENT SYSTEM DETERMINATION OF CONTRIBUTION RATE-JUNE 30, 1992

UNFUNDED ACTUARIAL ACCRUED LIABILITY			PERCENT*
Total Actuarial Accrued Liability	Ś	2,525,190,930	236,89%
Assets at Actuarial Value		2,354,482,321	220.87%
Unfunded Actuarial Accrued Liability	\$		16.02%
Contribution - Payment on Unfunded			
Actuarial Accrued Liability	\$	8,652,449	.81%
NORMAL COST			
Retirement Benefits	\$	83,363,223	7.82%
Disability Benefits		5,778,400	.54%
Withdrawal Benefits (Vested and	,	0,,,0,100	,540
Refund of Contributions)		9,526,207	.89%
Survivor Benefits		5,194,896	.49%
Total Normal Cost	\$	103,862,726	9.74%
Less: Employee Contributions	_	54,192,873	5.08%
Normal Cost - State	\$	49,669,853	4.66%
TOTAL ANNUAL EMPLOYER COST			
Non-Hazardous Duty Cost			
Normal Cost	\$	43,141,272	4.32%**
Payment on Unfunded Actuarial	·	,,	
Accrued Liability		8,340,743	84%**
Administrative Expenses		3,825,218	.38%**
Group Hospital and Medical		-,,	.500
Insurance Premiums		31,141,447	3.12%**
Total Annual Cost	\$	86,448,680	8.66%**
Hazardous Duty Cost			•
Normal Cost	_		
Payment on Unfunded Actuarial	\$	6,528,581	9.62****
Accrued Liability		<u>-</u>	
Accided Liability Administrative Expenses		311,706	.468***
Group Hospital and Medical		269,906	.408***
Insurance Premiums			
Total Annual Cost	· 	5,008,234	<u>7.38%</u> ***
TOTAL MINUAL COST	\$	12,118,427	17.86%***

^{*}Based on estimated annual salaries of \$1,065,985,572.

^{**}Based on estimated annual salaries of \$998,123,316 for Non-Hazardous Position Employees.

^{***}Based on estimated annual salaries of \$67,862,256 for Hazardous Position Employees.

TABLE III KENTUCKY EMPLOYEES RETIREMENT SYSTEM CLASSIFICATION OF ACTUARIAL LIABILITIES AND COSTS-JUNE 30, 1992

	Non-Hazardous Position Employees	Hazardous Position _Employees	Total
ACTUARIAL ACCRUED LIABILITY	<u> Danip 20 y CCB</u>	_Dinproyees	
Active Members	•		
Retirement Benefits	\$1,330,176,968	\$41,846,373	\$1,372,023,341
Disability Benefits	64,258,291	1,073,877	65,332,168
Withdrawal Benefits (Vested	,,	_,,	
and Refund of Contributions)	59,775,724	482,428	60,258,152
Survivor Benefits	80,620,748	1,416,562	82,037,310
Actuarial Accrued Liability -			
Actives	\$1,534,831,731	\$44,819,240	\$1,579,650,971
Inactive Members			
Retired Members and			
Beneficiaries	\$ 899,759,303	\$21,985,899	\$ 921,745,202
Vested Retirement	17,563,056	164,036	17,727,092
Vested Membership	5,948,381	119,284	6,067,665
	···-		
Actuarial Accrued Liability -			
Inactives	\$ 923,270,740	\$22,269,219	\$ 945,539,959
•			
Total Actuarial Accrued Liability	\$2,458,102,471	\$67,088,459	\$2,525,190,930
UNFUNDED ACTUARIAL ACCRUED LIABILI	<u>TY</u>		
Total Actuarial Accrued Liability	\$2,458,102,471	\$67,088,459	\$2,525,190,930
Less Actuarial Value of Assets	2,293,534,024	60,948,297	2,354,482,321
•	4		
Unfunded Actuarial Accrued			
Liability		a **	•
Portion Amortized from 1990	\$ 146,839,634	\$ 5,706,953	\$ 152,546,587
 Portion Amortized from 1991 	0	0	0
 Portion Amortized from 1992 	17,728,813	433,209	18,162,022
• Total	164,568,447	6,140,162	170,708,609
NORMAL COST			
Retirement Benefits	\$ 73,481,287		\$ 83,363,223
Disability Benefits	5,431,364	347,036	5,778,400
Withdrawal Benefits (Vested and		,	
Refund of Contributions)	9,212,614	313,593	9,526,207
Survivor Benefits	4,703,221	<u>491,675</u>	<u>5,194,896</u>
Makal Wassal Card	.		
Total Normal Cost		\$11,034,240	\$ 103,862,726
Less Employee Contributions	49,687,214		54,192,873
Total Normal Cost - State	\$ 43,141,272	\$ 6,528,581	\$ 49,669,853
ACCRUTED DENIERTH LIBERT TOTAL			
ACCRUED BENEFIT LIABILITY*			
Vested Benefits	\$1,444,969,479		\$1,489,101,827
Non-Vested Benefits	69,775,534	17,460,011	87,235,545

^{*}Present value of accrued benefit deferred to normal retirement date.

TABLE IV

KENTUCKY EMPLOYEES RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992 INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS	No.	n-Hazardous Position Employees	Hazardous Position Employees		Total
Active Members		:			
Retirement Benefits	\$	501,243,654	\$13,829,644	\$	515,073,298
Disability Benefits		13,162,333	519,671		13,682,004
Withdrawal Benefits (Vested					4
and Refund of Contributions)		64,051,619	1,174,603		65,226,222
Survivor Benefits	_	0	0	_	. 0
Total Active Members	\$	578,457,606	\$15,523,918	\$	593,981,524
Inactive Members					
Retired Members and					
Beneficiaries	\$	899,759,303	\$21,985,899	\$	921,745,202
Vested Retirement		17,563,056	164,036		17,727,092
Vested Membership		5,948,381	119,284		6,067,665
Total-Inactive Members	\$	923,270,740	\$22,269,219	\$	945,539,959
Total Actuarial Present Value of Vested Accumulated Benefits ACTUARIAL PRESENT VALUE OF NON-VESTED ACCUMULATED BENEFITS	\$1	.,501,728,346	\$37,793,137	\$1	.,539,521,483
Active Members				٠	
Retirement Benefits	\$	83,459,831	\$ 8,471,828	Ś	91,931,659
Disability Benefits	т	36,327,129	1,155,115		37,482,244
Withdrawal Benefits (Vested			2,233,443		,,
and Refund of Contributions)		1,390,544	204,333		1,594,877
Survivor Benefits		40,665,692	1,709,028		42,374,720
				,	
Total - Active Members	\$	161,843,196	\$11,540,304	\$	173,383,500
Inactive Members	\$		\$ 0	\$	0
Total Actuarial Present Value of					
Non-Vested Accumulated Benefits	\$	161,843,196	\$11,540,304	\$	173,383,500
NOTE: All calculations in this Ta	ble	IV have been	n developed a	s s	pecified

under FASB Statement No. 35.

TABLE V KENTUCKY EMPLOYEES RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992 INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

	Non-Hazardous Position Employees	Hazardous Position Employees	Total
A. NUMBER OF MEMBERS			
Inactive Members			
Retired Members and		220	16,700
Beneficiaries	16,480	220	2,076
Vested Retirements	2,052	24	
Vested Membership	10,787	234	11,021
Total Inactive Members	29,319	478	29,797
Active Members			
Vested Members	29,053	1,693	30,746
Nonvested Members	16,310	<u>1,539</u>	<u>17,849</u>
Total Active Members	45,363	3,232	48,595
Total Members	74,682	3,710	78,392
B. UNFUNDED PENSION BENEFIT OBLIGATION Pension Benefit Obligation Retirees and Beneficiaries	ATION		
Currently Receiving Benefits and Terminated Members Not Yet Receiving Benefits Current Members Accumulated Employee	\$ 923,270,740	\$22,269,219	\$ 945,539,959
Contributions and Credited Interest	427,799,916	14,504,004	442,303,920
Employer Financed - Vested	869,185,326	23,512,972	892,698,298
Employer Financed - Nonvested	32,488,313	4,223,574	36,711,887
Total Pension Benefit Obligation	2,252,744,295	64,509,769	2,317,254,064
Net Assets at Actuarial Value	\$2,385,564,675	\$60,948,297	\$2,446,512,972
<u>Unfunded Pension Benefit</u> <u>Obligation</u>	(132,820,380)	3,561,472	(129,258,908)

- NOTE: (1) Pension Benefit Obligation based on Projected Unit Credit Actuarial Cost Method.
 - (2) Net assets at book value as of June 30, 1992 of \$2,066,846,691 (\$2,014,998,203 for Non-Hazardous and \$51,848,488 for Hazardous).

TABLE VI

KENTUCKY EMPLOYEES RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992

INFORMATION REQUIRED UNDER GASB STATEMENT NO. 12

			Non-Hazardou Position Employees	Position	s Total
A. NUMBER OF MEMBERS			Emproyees	Employees	- IOLAI
Inactive Members					
Contracts in Force - Retire	es and	l Depe	endents		
	100%	_	812	36	848
	75%	Paid	629	13	642
_	50%	Paid	224	8	232
	25%	Paid	164	14	178
-	0%	Paid	674	0	674
(2) Family; Pre-Medicare -	100%	Paid	2	29	31
· -	75%	Paid	0	23	23
	50%	Paid	133	4	137
-		Paid	285	. 3	288
-	0%	Paid	16	0	16
(3) Parent Plus;	٠				
Pre-Medicare -	100%	Paid	0	2	2
<u>-</u>	75%	Paid	0	3	3
-		Paid	13	0	13
-		Paid	9	2	11
-	0%	Paid	28	0	28
. -	100%		46	0	46
-	75%		256	3	259
-		Paid	444	5	449
•		Paid	438	1	439
-	. 0%	Paid	651	0	651
(5) Medicare High Option -	100%		3,581	. 80	3,661
•		Paid	1,440	9	1,449
· -		Paid	1,320	1	1,321
		Paid	743	4	747
•	. 0%	Paid	1,423	0	1,423
Vested Retirements			2,052	24	2,076
Vested Membership			10,787	234	11,021
Active Members			45,363	3,232	48,595
B. UNFUNDED MEDICAL BENEFIT Medical Benefit Obligation	OBLIC	OITAE	<u>7</u>		
Retirees and Beneficiaries		\$	195,495,000	\$10,645,727\$	206,140,727
Active Members			747,581,826		
Total Medical Benefit Oblig	ation		943,076,826	58,626,869 1	,001,703,695
Net Assets at Actuarial Valu			53,045,314		
Unfunded Medical Benefit Obl	<u>igati</u>	on	890,031,512	49,206,557	939,238,069

NOTE: Medical Benefit Obligation based on Entry Age Normal 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 \$2,288,611,147 on June 30, 1991 to \$2,525,190,930 on June 30, 1992. The Unfunded Actuarial Accrued Liability has decreased from \$375,396,216 to \$170,708,609. Total actuarial value of assets as of June 30, 1992 was equal to \$2,354,482,321.

The Unfunded Actuarial Accrued Liability decreased from 38.20% to 16.02% as a percentage of annual payroll and decreased from 16.4% to 6.8% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1992.

The change in contribution rate between the 1991 and 1992 valuations is a function of actual plan experience, a change in the actuarial asset valuation method, a revision in the medical premium funding policy, and benefit improvements 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:

	Non-Hazardous	Hazardous
	Position Employees	Position Employees
June 30, 1991 Contribution Rate	8.66%	17.55%
Investment Return	0.02%	0.06%
Salary Increases	0.17%	0.05%
Decrements Experience*	(0.01%)	0.13%
Change in Group Hospital and Medical Premium Rate - Expected per prior valuation		
funding policy - Additional per revision of	0.24%	0.64%
funding policy in this valuation	0.91%	
Change in Administrative Expense Rate		0.01%
Change in Asset Valuation Method	(1.42%)	(0.68%)
Benefit Improvements (Raise to		
Retirees)	0.09%	0.10%
June 30, 1992 Contribution Rate	8.66%	17.86%

^{*}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 5.54%. An additional 3.12% is required to fund medical insurance for retirees, bringing the total required contribution to 8.66%. This equals the current 8.66% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1993 should remain at the current 8.66% level, 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 10.48%. An additional 7.38% is required to fund medical insurance for retirees, bringing the total required contribution to 17.86%. This exceeds the current 17.55% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1993 should be increased from the current 17.55% level to 17.86%, 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, 1993 valuation.

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

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

	Total	Unfunded			
July 1	Actuarial	Actuarial		Actuarial	Increase
of Year	Accrued	Accrued	Percent	Value	in
Shown	<u>Liability</u>	<u>Liability</u>	<u>Unfunded</u>	Of Assets	Assets
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

^{*}Includes capitalized appreciation of investments.

^{**}Change in asset valuation method beginning in this valuation from book value to a five year average of market to book values.

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:

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

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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.

THIRTY-THIRD ANNUAL ACTUARIAL VALUATION

JUNE 30, 1992

COUNTY EMPLOYEES RETIREMENT SYSTEM FRANKFORT, KENTUCKY

SECTION I

INTRODUCTION

The results of the thirty-third 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, 1992.

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-44. 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, and annual interest at the assumed rate on the Unfunded Actuarial Accrued Liability. 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. Additionally in this valuation, an acceleration of the scheduled increases in the medical insurance contribution rate has been recommended where possible. This acceleration in these rates has been 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.

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.
- 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:

- 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

:	Book Value *	Market Value *	Ratio
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%
June 30, 1989	819,025,309	946,572,568	115.57305%
Average Ratio	=		113.06082%
Valuation Assets (Average Ratio x	= Current Book Value)		1,349,505,389

<u>Hazardous</u>

	Book Value *	Market Value *	<u>Ratio</u>
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%
June 30, 1989	259,027,326	231,783,066	89.48209%
Average Ratio	=		106.71280%
Valuation Assets (Average Ratio x	= Current Book Value)		385,533,519

* 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 <u>Non-Hazardous</u>:

<u>Aqe</u>	Retirement Rate
	•
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 O	ver 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.

<u>Hazardous</u>: 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:

	7/1/92	Rate Increase		
Plan Type	<u>Rate</u>	<u>Date</u>	<u>Rate</u>	
Single	\$150.00*		\$168.91*	
Family	315.00*	11/1/92	354.69*	
Parent Plus	223.78*	11/1/92	251.97*	
Medicare	68.60*	1/1/93	75.46**	
High Option	104.20*	1/1/93	114.62**	

^{*}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:

	Active Mortality		Disabled Mortality		
<u>Aqe</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:

Age <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:

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

(4) Compensation Progression:

	Compensation at Normal
of 🤏 💮	Retirement as Percentage
ncrease Of	f Current Annual Compensation
0%	1,241.6%
0%	906.2%
0%	482.8%
0% , .	257.2%
0%	187.7%
0%	137.0%
	OL .

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

SECTION III

COUNTY EMPLOYEES RETIREMENT SYSTEM

RESULTS OF THE 1992 ACTUARIAL VALUATION

Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the County Employees Retirement System as of June 30, 1992. 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, 1992.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1992 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 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, 1992

ACTUARIAL ASSETS

Fund Assets at Actuarial Value (Plus Refunds and Expenses Payable) * \$1,738,574,613 Actuarial Present Value of Future Member Contributions 636,875,022 Actuarial Present Value of Future Employer Contributions For Normal Costs \$ 706,349,370 For Unfunded Actuarial Accrued Liability ____126,939,495 Total 833,288,865 Total Actuarial Assets \$3,208,738,500 ACTUARIAL LIABILITIES Actuarial Present Value of Future Benefits Inactive Members: Retired Members and Beneficiaries \$ 583,019,143 Vested Retirement 12,053,224 Vested Membership 5,464,909 Total - Inactive \$ 600,537,276 Active Members: Retirement Benefits \$2,209,969,718 Disability Benefits 117,566,868

Retirement Benefits \$2,209,969,718
Disability Benefits 117,566,868
Withdrawal Benefits (Vested and Refund of Contributions) 157,955,215
Survivor Benefits 119,173,718

Total - Active \$2,604,665,519

Refunds and Expenses Payable \$3,535,705

Total Actuarial Liabilities \$3,208,738,500

ACCRUED BENEFIT LIABILITY **

 Vested Benefits
 \$1,062,621,802

 Non-Vested Benefits
 \$ 113,673,014

- * The approximate market value of assets as of June 30, 1992 is \$1,815,525,486 (\$1,390,358,216 for Non-Hazardous and \$425,167,270 for Hazardous).

 The actuarial value of assets as of June 30, 1992 is \$1,735,038,908.
 - The Members' Contribution Account as of June 30, 1992 is \$339,656,749.
- ** Present value of accrued benefit deferred to normal retirement date.

TABLE II COUNTY EMPLOYEES RETIREMENT SYSTEM DETERMINATION OF CONTRIBUTION RATE-JUNE 30, 1992

•		and the second s
UNFUNDED ACTUARIAL ACCRUED LIABILITY	,	PERCENT*
Total Actuarial Accrued Liability	\$1,861,978,403	187.24%
Assets at Actuarial Value	1,735,038,908	174.47%
Unfunded Actuarial Accrued Liability	\$ 126,939,495	
•		
Contribution - Payment on Unfunded		× .
Actuarial Accrued Liability	\$ 6,464,013	.65%
NORMAL COST		
NORMAL COST		
Retirement Benefits	\$ 92,206,945	9.27%
Disability Benefits	5,785,137	.58%
Withdrawal Benefits (Vested and		•
Refund of Contributions)	9,187,948	.92%
Survivor Benefits	5,273,902	.53%
Total Normal Cost	\$ 112,453,932	11.30%
Less: Employee Contributions	51,834,467	5.21%
- *	•	
Normal Cost - State	\$ 60,619,465	6.09%
TOTAL ANNUAL EMPLOYER COST		
Non-Hazardous Duty Cost		
		T CD% ++
Normal Cost	\$ 48,631,98	7 5.69% **
Payment on Unfunded Actuarial	2 074 511	5 .22% **
Accrued Liability	1,874,51	
Administrative Expenses	4,700,08	5 .JJ6 "^
Group Hospital and Medical		5 <u>2.36%</u> **
Insurance Premiums	20,167,82	
Total Annual Cost	\$ 75,374,41	3 8.025
Hazardous Duty Cost	·	
Normal Cost	\$ 11,987,47	8 8.57%***
Payment on Unfunded Actuarial		
Accrued Liability	4,589,49	
Administrative Expenses	428,12	6 .31%***
Group Hospital and Medical		
Insurance Premiums	8,854,33	
Total Annual Cost	\$ 25,859,43	6 18.49%***

^{*}Based on estimated annual salaries of \$994,447,776.

^{**}Based on estimated annual salaries of \$854,568,876 for Non-Hazardous Position Employees.

^{***}Based on estimated annual salaries of \$139,878,900 for Hazardous Position Employees.

TABLE III

COUNTY EMPLOYEES RETIREMENT SYSTEM

CLASSIFICATION OF ACTUARIAL LIABILITIES AND COSTS-JUNE 30, 1992

	No	on-Hazardous	Hazardous	
		Position	Position	
ACTUARIAL ACCRUED LIABILITY	-	Employees	Employees	Total
Active Members				
Retirement Benefits		042 024 040		
Disability Benefits	\$	843,234,940		\$1,119,993,599
Withdrawal Benefits (Vested		43,179,781	3,315,792	46,495,573
and Refund of Contributions)		37 07 000		
Survivor Benefits		37,071,909	2,907,146	, ,
	-	49,293,255	<u>5,679,645</u>	54,972,900
Actuarial Accrued Liability -				
Actives	\$	972,779,885	****	
	۶.	3/4,//3,885	\$288,661,242	\$1,261,441,127
Inactive Members			•	
Retired Members and		•		:
Beneficiaries	\$	397,344,627		. A. 503 050
Vested Retirement	•	10,885,296	\$185,674,516	• • • • •
Vested Membership		5,307,074	1,167,928	· ·
• • • • • • • • • • • • • • • • • • •		3,307,074	157,835	5,464,909
Actuarial Accrued Liability -				
Inactives	\$	413,536,997	\$187,000,279	. ¢ . COO. E3# . o#c
	4	,050,00,	9187,000,279	\$ 600,537,276
Total Actuarial Accrued Liability	\$1	.386.316.882	\$475 661 521	\$1,861,978,403
•	,	,,,	4175,001,521	91,001,378,403
UNFUNDED ACTUARIAL ACCRUED LIABIL	ITY			
Total Actuarial Accrued Liability		,386,316,882	\$475 661 521	\$1,861,978,403
Less Actuarial Value of Assets		349,505,389	385 533 519	1,735,038,908
•				1,735,038,908
Unfunded Actuarial Accrued				•
Liability		•	٠	
 Portion Amortized from 1990 	\$	36,811,493	\$ 90,128,002	\$ 126,939,495
 Portion Amortized from 1991 		0	0	•
 Portion Amortized from 1992 	_	. 0	0	0
• Total		36,811,493	90,128,002	126,939,495
		, ,	20,002	120, 333, 433
NORMAL COST		9		
Retirement Benefits	\$	73,263,298	\$ 18,943,647	\$ 92,206,945
Disability Benefits		5,414,120	371,017	5,785,137
Withdrawal Benefits (Vested and				3,703,137
Refund of Contributions)		7,875,531	1,312,417	9,187,948
Survivor Benefits		4,524,943	748,959	5,273,902
				3,213,302
Total Normal Cost	\$	91,077,892	\$ 21,376,040	\$ 112,453,932
Less Employee Contributions		42,445,905	9,388,562	51,834,467
Total Normal Cost - State	\$	48,631,987	\$ 11,987,478	\$ 60,619,465
		•		4 00,019,465
ACCRUED BENEFIT LIABILITY*				
Vested Benefits	\$	754,119,930	\$308,501,872	\$1,062,621,802
Non-Vested Benefits		55,960,005	77,713,009	133,673,014
		• •	.,,	200,070,014

^{*}Present value of accrued benefit deferred to normal retirement date.

TABLE IV

COUNTY EMPLOYEES RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992 INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

,	Non-Hazardous Position	Hazardous Position		
	Employees	<u>Employees</u>	Total	
ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS				
Active Members				
Retirement Benefits	\$319,509,454	\$112,433,196		
Disability Benefits	8,354,786	1,355,232	9,710,018	
Withdrawal Benefits (Vested		•		
and Refund of Contributions)	38,786,783	7,326,550	46,113,333	
Survivor Benefits	0	0	0	
Total Active Members	\$366,651,023	\$121,114,978	\$ 487,766,001	
Inactive Members				
Retired Members and				
Beneficiaries	\$397,344,627			
Vested Retirement	10,885,296	1,167,928	12,053,224	
Vested Membership	<u>5,307,074</u>	<u>157,835</u>	5,464,909	
Total-Inactive Members	\$413,536,997	\$187,000,279	\$ 600,537,276	
Total Actuarial Present Value of	•	•		
Vested Accumulated Benefits	\$780,188,020	\$308,115,257	\$1,088,303,277	
·				
ACTUARIAL PRESENT VALUE OF				
NON-VESTED ACCUMULATED BENEFITS				
Active Members				
Retirement Benefits	\$ 47,199,294	\$ 45,182,287	\$ 92,381,581	
Disability Benefits	28,614,566	1,813,409	30,427,975	
Withdrawal Benefits (Vested				
and Refund of Contributions)	4,667,280	(98,099)		
Survivor Benefits	23,625,087	5,305,039	<u>28,930,126</u>	
Total - Active Members	\$104,106,227	\$ 52,202,636	\$ 156,308,863	,
Inactive Members	\$ 0	\$ 0	\$ 0)
Total Actuarial Present Value of Non-Vested Accumulated Benefits	\$104,106,227	\$ 52,202,636	\$ 156,308,863	}
NOTE: All calculations in this To under FASB Statement No. 35		en developed a	s specified	

TABLE V

COUNTY EMPLOYEES RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992 INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

	Non-Hazardous Position Employees	Hazardous Position Employees	Total
A. NUMBER OF MEMBERS			
Inactive Members			
Retired Members and			
Beneficiaries	12,048	1,167	13,215
Vested Retirements	1,725	57	1,782
Vested Membership	11,420	163	11,583
Total Inactive Members	25,193	1,387	26,580
Active Members			
Vested Members	28,794	3,185	31,979
Nonvested Members	26,742	1,863	28,605
Total Active Members	55,536	5,048	60,584
Total Members	80,729	6,435	87,164
B. UNFUNDED PENSION BENEFIT OBLIC	GATION		**************************************
<u>Pension Benefit Obligation</u> Retirees and Beneficiaries Currently Receiving		-	
Benefits and Terminated Members Not Yet Receiving Benefits Current Members Accumulated Employee Contributions and	\$413,536,997	\$187,000,279	\$ 600,537,276
Credited Interest	255,730,176	73,296,486	329,026,662
Employer Financed - Vested	529,595,117	180,040,399	709,635,516
Employer Financed - Nonvested	46,795,087	10,650,742	57,445,829
Total Pension Benefit Obligation	1,245,657,377	450,987,906	1,696,645,283
Net Assets at Actuarial Value	\$1,349,505,389	<u>\$385,533,519</u>	<u>\$1,735,038,908</u>
Unfunded Pension Benefit Obligation	(103,848,012)	65,454,387	(38,393,625)

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

(2) Net assets at book value as of June 30, 1992 of \$1,554,891,540 (\$1,193,610,120 for Non-Hazardous and \$361,281,420 for Hazardous).

TABLE VI

COUNTY EMPLOYEES RETIREMENT SYSTEM

ACCOUNTANT'S INFORMATION - JUNE 30, 1992

INFORMATION REQUIRED UNDER GASB STATEMENT NO. 12

			Non-Hazardo Position		
•			Employee	s Employe	es <u>Total</u>
A. NUMBER OF MEMBERS					
					,
<u> Inactive Members</u>					
Contracts in Force - Retires		_			
(1) Single; Pre-Medicare -	100%		370	157	527
-		Paid	346	53	399
-		Paid	264	11	275
-		Paid	258	4.	262
-	0%	Paid	378	1	379
(2) Family; Pre-Medicare -	100%	Paid	2	233	235
	75%	Paid	1	423	424
•	50%	Paid	56	24	80
· · · · · · · · · · · · · · · · · · ·	25%	Paid	281	· 5	286
-	08	Paid	13	0	13
•					•
(3) Parent Plus;				•	
Pre-Medicare -	100%	Paid	0 -	12	12
	75%	Paid	. 0	16	16
-	50%	Paid	10	3	13
-	25₺	Paid	4	2	. 6
-	0%	Paid	24	0	24
(4) Medicare Regular -	100%	Paid	27	2	29
•	75%	Paid	170	3	173
•	50%	Paid	436	2	438
-	25%	Paid	576	1	577
-	0%	Paid	344	1	345
(5) Medicare High Option -	100%	Paid	1,253	113	1,366
		Paid		23	789
· •	_	Paid		18	1,087
· -		Paid		4	801
-		Paid		, 1	704
walled markers and	•			57	1,782
Vested Retirements			1,725		•
Vested Membership			11,420	163	11,565
Active Members			55,536	5,048	60,584
B. UNFUNDED MEDICAL BENEFIT	OBLI	GATIO	<u>N</u>		
Medical Benefit Obligation				\$*	
Retirees and Beneficiaries				\$ 50,488,496	
Active Members		_		245,580,731	
Total Medical Benefit Oblig	ation		745,836,230	296,069,227	1,041,905,457
Net Assets at Actuarial Valu Unfunded Medical Benefit Obl			•	\$ 19,715,821 276,353,406	\$ 56,955,901 984,949,556

NOTE: Medical Benefit Obligation based on Entry Age Normal 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 \$1,654,338,706 on June 30, 1991 to \$1,861,978,403 on June 30, 1992. The Unfunded Actuarial Accrued Liability decreased from \$258,111,701 to \$126,939,495. Total actuarial value of assets as of June 30, 1992 was equal to \$1,735,038,908.

The Unfunded Actuarial Accrued Liability decreased from 29.10% to 12.77% as a percentage of annual payroll and from 15.6% to 6.8% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1992.

The change in contribution rate between the 1991 and 1992 valuations is a function of actual plan experience, a change in the actuarial asset valuation method, and a revision in the medical premium funding policy. 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:

	Non-Hazardous	Hazardous <u>Position Employees</u>
June 30, 1991 Contribution Rate	8.82%	18.47%
Investment Return	0.05%	0.13%
Salary Increases	0.05%	0.10%
Decrements Experience*	0.03%	(0.01%)
Change in Group Hospital and Medical Premium Rate		
- Expected per prior valuation funding policy	0.24%	0.66%
 Additional per revision of funding policy in this valuation 	0.54%	••
Change in Administrative Expense Rate	0.02%	0.02%
Change in Asset Valuation Method	(0.93%)	(0.88%)
Benefit Improvements		
June 30, 1992 Contribution Rate	8.82%	18.49%

^{*}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 6.46%. An additional 2.36% is required to fund medical insurance for retirees, bringing the total required contribution to 8.82%. This equals the current 8.82% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1993 should remain at the current 8.82% level, 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 12.16%. An additional 6.33% is required to fund medical insurance for retirees, bringing the total required contribution to 18.49%. This exceeds the current 18.47% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1993 be increased from the current 18.47% level to 18.49%, 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, 1993 valuation.

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

COUNTY EMPLOYEES RETIREMENT SYSTEM

	Total	Unfunded			
July 1	Actuarial	Actuarial		Actuarial	Increase
of Year	Accrued	Accrued	Percent	Value	in
Shown	Liability	<u>Liability</u>	<u>Unfunded</u>	Of Assets	<u>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

^{*}Includes capitalized appreciation of investments.

^{**}Change in asset valuation method beginning in this valuation from book value to a five year average of market to book values.

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.

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

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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.

<u>Plan Year</u>

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.

<u>Service</u>

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.

<u>Disability Benefits</u>

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.

THIRTY-FOURTH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1992

STATE POLICE RETIREMENT SYSTEM

FRANKFORT, KENTUCKY

SECTION I

INTRODUCTION

The results of the thirty-fourth 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, 1992.

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-32. 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. Additionally in this valuation, an acceleration of the scheduled increases in the medical insurance contribution rate has been recommended where possible. This acceleration in these rates has been 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.

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:

- 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:

	Book Value *	Market Value *	<u>Ratio</u>
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 =			118.12398%
Valuation Assets = (Average Ratio x C	 Urrent Book Value)		187,791,011

* 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:

	7/1/92	Rate Increase		
Plan Type	Rate	_Date_	<u>Rate</u>	
Single	\$150.00*	11/1/92	\$168.91*	
Family	315.00*	11/1/92	354.69*	
Parent Plus	223.78*	11/1/92	251.97*	
Medicare	68.60*	1/1/93	75.46**	
High Option	104.20*	1/1/93	114.62**	

*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.

- 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

(10) Missing data

- (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:

	Active M	ortality*	Disabled N	fortality
<u>Aqe</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>Aqe</u>	Disablement	<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:

	Rate of	Compensation at Normal Retirement as Percentage
<u>Age</u>	Annual Increase	Of Current Annual Compensation
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 1992 ACTUARIAL VALUATION

Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the State Police Retirement System as of June 30, 1992. 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.

<u>Determination of Contribution Rate</u>

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, 1992.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1992 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, 1992

ACTUARIAL ASSETS

Fund Assets at Actuarial Value (Plus Refunds and Expenses Payable)*	and	\$	188,233,122
Actuarial Present Value of Future Member Conti	ributions		20,431,562
Actuarial Present Value of Future Employer Cor For Normal Costs For Unfunded Actuarial Accrued Liability Total	tributions \$24,191,038 (4,794,955)	\$	19,396,083
Total Actuarial Assets		\$	228,060,767
			*,
ACTUARIAL LIABILITIES			*
	*		•
Actuarial Present Value of Future Benefits Inactive Members:			
Retired Members and Beneficiaries	\$ 84,885,964		-
Vested Retirement	128,990		
Vested Membership	49,812		•
Total - Inactive		\$	85,064,766
Active Members:			
Retirement Benefits	\$132,724,185		÷
Disability Benefits	1,921,024		
Withdrawal Benefits (Vested and			
Refund of Contributions)	3,920,206		
Survivor Benefits	3,988,475		
Total - Active		\$	142,553,890
Refunds and Expenses Payable and Payables			
to other Systems		<u>\$</u>	442,111
Total Actuarial Liabilities		\$	228,060,767
ACCRUED BENEFIT LIABILITY **	•		
Vested Benefits	•	\$	127,485,415
Non-Vested Benefits	4	\$	26,889,712
		-	- • • ·

^{*} The approximate market value of assets as of June 30, 1992 is \$198,369,414.

The actuarial value of assets as of June 30, 1992 is \$187,791,011.

The Members' Contribution Account as of June 30, 1992 is \$26,762,547.

Present value of accrued benefit deferred to normal retirement date.

TABLE II STATE POLICE RETIREMENT SYSTEM DETERMINATION OF CONTRIBUTION RATE-JUNE 30, 1992

ACTUARIAL ACCRUED LIABILITY		PERCENT*
Active Members		
Retirement Benefits	\$ 93,979,799	300.39%
Disability Benefits	1,152,090	3.68%
Withdrawal Benefits (Vested		
and Refund of Contributions)	548,145	1.75%
Survivor Benefits	2,251,256	7.20%
Actuarial Accrued Liability -		
Active	\$ 97,931,290	313.02%
		-
Inactive Members	A 04 00E 064	271.33%
Retired Members and Beneficiaries	\$ 84,885,964	.41%
Vested Retirement	128,990	
Vested Membership	49,812	.16%
Actuarial Accrued Liability -	•	
Inactives	\$ 85,064,766	271.90%
Inactives	\$ 65,004,700	2,1.500
Total Actuarial Accrued Liability	182,996,056	584.92%
TOTAL MODELLE TOTAL TOTA		
UNFUNDED ACTUARIAL ACCRUED LIABILITY	•	
Total Actuarial Accrued Liability	\$182,996,056	584.92%
Assets at Actuarial Value	<u> 187,791,011</u>	600.25%
•		
Unfunded Actuarial Accrued Liability		
 Portion Amortized from 1990 	\$ 1,672,588	\$ 5.35%
 Portion Amortized from 1991 	0	.00%
 Portion Amortized from 1992 	(6,467,543)	(20.68%)
• Total	(4,794,955)	(15.33%)
Contribution - Payment on Unfunded	* (0.45 0.05)	/ 70%)
Actuarial Accrued Liability	\$ (247,887)	(.79%)
mamaz doda		
NORMAL COST		
Retirement Benefits	\$ 4,121,426	13.17%
Disability Benefits	83,412	.27%
Withdrawal Benefits (Vested and	,	
Refund of Contributions)	369,938	1.18%
Survivor Benefits	189,372	.61%
Total Normal Cost	\$ 4,764,148	15.23%
Less: Employee Contributions	2,182,610	6.98%
ress: rubtokee contituutions	2,182,010	
Normal Cost - State Police	\$ 2,581,538	8.25%
MOTINGT COSE - Scare LOTICE	+ 2,302,330	-,,

TOTAL ANNUAL EMPLOYER COST - STATE POLICE

Normal Cost	\$ 2,581,538	8.25%
Payment of Unfunded Actuarial	, ,	
Accrued Liability	(247,887)	(.79%)
Administrative Expenses	83,764	.27%
Group Hospital and Medical	• •	
Insurance Premiums	4,414,394	14.11%
Total Annual Cost	\$ 6,831,809	21.84%

^{*}Based on estimated annual salaries of \$31,285,572.

TABLE III

STATE POLICE RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992 INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS

Active Members		
Retirement Benefits		\$ 38,841,131
Disability Benefits		540,881
Withdrawal Benefits (Vested	•	•
and Refund of Contributions)		2,384,647
Survivor Benefits		0
	·	
Total Active Members		\$ 41,766,659
Inactive Members		
Retired Members and		. 1. 11. 11.
Beneficiaries		\$ 84,885,964
Vested Retirement		128,990
Vested Membership		49,812
Total-Inactive Members		\$ 85,064,766
Total Actuarial Present Value of		
Vested Accumulated Benefits		\$126,831,425
ACTUARIAL PRESENT VALUE OF		
NON-VESTED ACCUMULATED BENEFITS		•
Active Members	•	
Retirement Benefits		\$ 14,958,901
Disability Benefits		468,346
Withdrawal Benefits (Vested		
and Refund of Contributions)	•	(253,337)
Survivor Benefits		1,923,384
Total - Active Members		\$ 17,097,294
Inactive Members		\$ 0
Total Actuarial Present Value of		
Non-Vested Accumulated Benefits		\$ 17,097,294
NOTE. All calculations in this Table	a III have been developed	as specified

TABLE IV

STATE POLICE RETIREMENT SYSTEM ACCOUNTANT'S INFORMATION - JUNE 30, 1992 INFORMATION REQUIRED UNDER GASE STATEMENT NO. 5

A. NUMBER OF MEMBERS

Inactive Members	
Retired Members and	
Beneficiaries	450
Vested Retirements	15
Vested Membership	87
Total Inactive Members	552
Active Members	
Vested Members	788
Nonvested Members	<u> 175</u>
Total Active Members	<u>963</u>
Matal Manhaus	
Total Members	1,515
B. UNFUNDED PENSION BENEFIT OBLIGATION	4
D. GATONDED TENDION BENEFIT OBLIGATION	
Pension Benefit Obligation	-
Retirees and Beneficiaries	5
Currently Receiving	*
Benefits and Terminated	
Members Not Yet	•
Receiving Benefits	\$ 85,064,766
Current members	
Accumulated Employee	
Contributions and	
Credited Interest	26,620,629
Employer Financed -	
Vested	62,829,297
Employer Financed -	
Nonvested	<u>855,504</u>
Total Pension Benefit	
Obligation	175 270 106
ODII GALLON	175,370,196
Net Assets at Actuarial Value	<u>\$187,791,011</u>
	<u> </u>
Unfunded Pension Benefit	
Obligation	(12,420,815)
	,,,

- NOTE: (1) Pension Benefit Obligation based on Projected Unit Credit Actuarial Cost Method
 - (2) Net assets at book value as of June 30, 1992 of \$158,977,890.

TABLE V

STATE POLICE RETIREMENT SYSTEM

ACCOUNTANT'S INFORMATION - JUNE 30, 1992

INFORMATION REQUIRED UNDER GASB STATEMENT NO. 12

A. NUMBER OF MEMBERS

<u>Inactive Members</u> Contracts in Force - Reti:	rees and	l Denendent	g.
(1) Single; Pre-Medicare			67
(1) Single, Fie-Medicale	- 75%		29
		Paid	3
•	- 25%		1
			0
	- 0%	Paid	U
(2) Family; Pre-Medicare			129
	- · 75%		98
	- 50%		. 2
•		Paid	` 0
4	- 0%	Paid	0
(3) Parent +	- 100%	Paid	3
	- 75%	Paid	2
•	- 50%	Paid	. 0
	- 25%	Paid	0.
	- 0%	Paid	0
(4) Medicare Regular	- 100%	Paid	0
· · ·	- 75%	Paid	0
	- 50%	Paid	. 1
		Paid	0
		Paid	0
(5) Medicare High Option	- 100%	Paid	99.
(3) 110010010 111511 0P01011		Paid	3
, ,		Paid	3
		Paid	1
	- 256		0
	016	raiu	. •
Vested Retirements			15
Vested Membership			87
Active Members			963
n internition Mentini Deliet	TT ODIT	CATTON	
B. UNFUNDED MEDICAL BENEF Medical Benefit Obligation		<u> </u>	•
Retirees and Beneficiarie	-		\$ 23,896,410
	a		
Active Members	64,511,224		
Total Medical Benefit Obl	.ıgatıon	-	88,407,634
Net Assets at Actuarial Va			\$ 11,717,956
<u>Unfunded Medical Benefit C</u>	76,689,678		

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 \$170,009,955 on June 30, 1991 to \$182,996,056 on June 30, 1992. The Unfunded Actuarial Accrued Liability has decreased from \$19,191,881 to \$0. Total actuarial value of assets as of June 30, 1992 was equal to \$187,791,011.

The Unfunded Actuarial Accrued Liability decreased from 65.56% to 0.00% as a percentage of annual payroll and decreased 11.3% to 0.0% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1992.

The change in contribution rate between the 1991 and 1992 valuations is a function of actual plan experience, a change in the actuarial asset valuation method, a revision in the medical premium funding policy, and benefit improvements 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, 1991 Contribution Rate	21.84%
Investment Return	0.09%
Salary Increases	0.39%
Other Decrements*	(0.14%)
Change in Group Hospital and Medical Premium Rate	٠.
- Expected per prior valuation funding policy	0.68%
 Additional per revision of funding policy in this valuation 	3.35%
Change in Administrative Expense Rate	0.02%
Change in Asset Valuation Method	(4.69%)
Benefit Improvements (Raise to Retirees)	0.30%
June 30, 1992 Contribution Rate	21.84%

*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 7.73%. An additional 14.11% is required to fund medical insurance for retirees, bringing the total required contribution to 21.84%. This equals the current 21.84% budgeted contribution rate. Therefore, it is our opinion that the contribution rate beginning July 1, 1993 should remain at the current 21.84% level, 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, 1993 valuation.

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

STATE POLICE RETIREMENT SYSTEM

July 1	Total Actuarial	Unfunded Actuarial		Actuarial	Increase
of Year	Accrued	Accrued	Percent	Value	in
Shown	Liability	<u>Liability</u>	<u>Unfunded</u>	Of Assets	Assets
		·	•		
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	14.48	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

^{*}Includes capitalized appreciation of investments.

^{**}Change in asset valuation method beginning in this valuation from book value to a five year average of market to book values.

rtification

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

Certified by:

Stephen A. Gagel, F.S.A.

lliam M. Mercer, Incorporated 00 Meidinger Tower uisville Galleria uisville, Kentucky 40202 02) 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:

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:

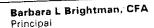
Long-Term: The total assets of the sytems should achieve a return measured over two market cycles (estimated to be six to ten years) which exceeds the rate of inflation for the period, as measured by the National Consumer Price Index, by at least 4%.

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 19, 1992

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

Members of the Board:

As of the end of June 30, 1992 fiscal year, the new investment management structure of Kentucky Retirement Systems completed its second full year of experience. Total assets of the combined Systems, including the Insurance Fund, increased during the course of the past year, from \$3.5 billion to \$3.8 billion at book value. The Systems enjoyed strong, double digit investment returns, which more than offset benefit payments.

The stock and bond markets both enjoyed above-average returns during the fiscal year, despite a generally weak economy, and persistent recession. The broadly-based advance in the stock market, which included a recovery by small capitalization stocks, provided an opportunity for active managers to produce returns in excess of the market averages. The S&P 500 returned 13.3%, while the median manager in the Mercer Equity Universe produced 14.2%. Due to both economic and political uncertainty, volatility in the stock market remained high.

The weak economic conditions, coupled with repeated cuts in the discount rate by the Federal Reserve Board, triggered a material decline in interest rates. This was the second year in a row in which bonds outperformed stocks. The Lehman Brothers Aggregate Bond Index, a broad-based fixed income market index, gained 14.1%, including both income and the capital appreciation which occurred as interest rates declined. The yield curve steepened materially during the year, and as of June 30, 1992, the spread between one-year bonds and 30-year bonds reached an all-time high of 375 basis points. As in the equity market, fixed income managers benefitted from an opportunistic environment. The median of the Mercer Fixed Income Universe returned 14.3%.

In this environment, the Retirement Systems' assets earned a rate of return of 11.9%, while the Insurance Fund earned 15.7%. The difference in returns primarily reflected the higher fixed income exposure in the Insurance Fund, and its lack of investment in real estate. Real estate, as an asset class, has suffered negative returns due to a number of reasons, including significant over-building during the decade of the 1980's, the attendant pressure on rent rates in Office buildings, the sale of distressed properties by the Resolution Trust Company, and the retreat of both foreign (primarily Japanese) buyers and domestic pension funds.

10 South Wacker Drive Chicago IL 60606 7485 November 19, 1992 Board of Trustees Kentucky Retirement Systems Page 2

The Retirement Systems' asset allocation and manager structures remained as they were reconfigured as of April, 1990. However, two new managers have been selected to replace the existing manager for the bond index and short/intermediate fixed income funds. These new firms commenced management on July 1, 1992. As of fiscal year end, the actual allocation of the assets is consistent with the targets, which are set forth as follows:

	Target Asset Allocation	Allocation at Market <u>Value</u>	Allocation at Book <u>Value</u>
Equities	55.0%	57.4%	52.5%
Fixed Income	25.0%	24.1%	26.2%
Real Estate	10.0%	6.1%	7.0%
Cash Equivalents	10.0%	12.4%	14.3%

During the year, a new (and separate) Policy Statement was adopted by the Board for the Insurance Fund, and its return was measured separately from the Retirement Systems' assets. As of June 30, 1992, the allocation of the Insurance Fund assets, in comparison to targets, is as follows:

	Target Asset Allocation	Allocation at Market <u>Value</u>	Allocation at Book <u>Value</u>
Equities	27.5%	31.6%	29.4%
Fixed Income	62.5%	43.9%	44.1%
Cash Equivalents	10.0%	24.5%	26.5%

William M. Mercer Asset Planning, Inc.

November 19, 1992 Board of Trustees Kentucky Retirement Systems Page 3

Mercer monitors the overall programs' progress toward their goals each calendar quarter basis, 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 very pleased to report that during the past fiscal year, as well as the two-year period since the reconfigured programs' inception, the performance has been satisfactory. Although a replacement of one fixed income manager was necessitated due to administrative considerations, we recommend no further changes at the current time. We are confident that the program will meet the Retirement Systems' and Insurance Fund's goals over the long term.

Respectfully submitted,

Barbara Brightmany

Barbara L. Brightman, C.F.A.

Principal

BLB:yb

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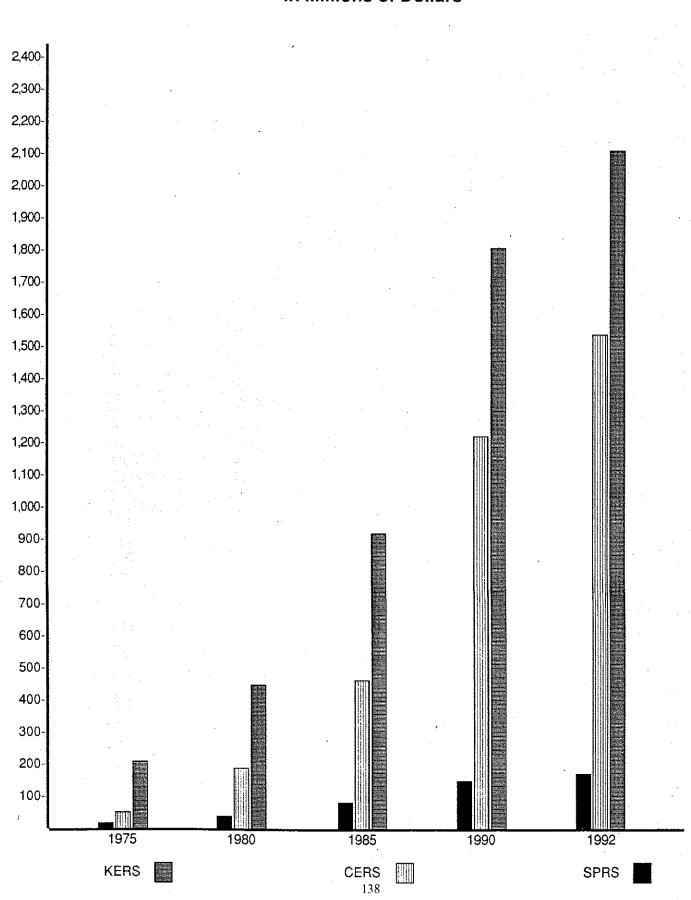
PORTFOLIO INCOME GROWTH (Interest and Dividends) 6/30/75 through 6/30/92 In Millions of Dollars



PORTFOLIO GROWTH (At Book Value) 6/30/75 through 6/30/92 In Millions of Dollars

<u>Da</u> Big

> Oa W To Ea



KENTUCKY RETIREMENT SYSTEMS REAL ESTATE INVESTMENTS

FULLY-OWNED PROPERTIES:

panville 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 First Bank Place West, 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 Valley Bank Building, 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

Oak view Mall, Omaha, NE

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

Other Heitman Investments:

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

921 Ardmore Ave., Itasca, IL Sammamish Highland Center, Seattle, WA Inglewood Plaza, Seattle, WA Merritt, Howard County, MD 7465 Candelwood Road, Howard County, MD 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

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TCW Realty Advisors

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 NONHAZARDOUS STATE EMPLOYEES (KERS)

FIXED	INCOME

DESCRIPTION	•	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value % of Par Value		\$199,230,416.85 21%	\$254,158,494.20 27%	\$166,211,885.94 17%	\$327,531,464.17 35%	\$947,132,261.16 100%
Book Value % of Book Value		\$201,096,883.80 21%	\$260,007,635.72 28%	\$155,379,589.49 16%	\$327,531,464.17 35%	\$944,015,573.18 100%
Market Value % of Market Value	e	\$214,439,151.88 . 22%	\$275,654,460.17 28 %	\$169,305,949.46 17%	\$327,531,464.17 33%	\$986,931,025.68 100%
Potential Gain or Los	SS	\$ 13,342,268.08	. \$ 15,646,824.45	\$ 13,926,359.97	\$ 0.00	\$ 42,915,452.50
Indicated Annual Inc	ome	\$ 18,216,978.84	\$ 22,394,170.74	\$ 13,047,582.25	\$ 12,673,539.24	\$ 66,332,271.07
Current Yield Bor	ok Value	9.06	8.61	8.40	3.87	7.03
Ma	rket Value	8.50	8.12	7.71	3.87	6.72
Yield to Maturity	Market Value	6.93	6.16	7.70	3.87	5.80
Average Coupon		9.14	8.81	7.85	3.87	7.00
Average Maturity (Y	ears)	10.75	9.05	20.23	.08	8.27
			REAL ESTATE			:
,						
	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	ON COST	RRENT YIELD ON MARKET
	\$142,049,507.31	\$142,818,273.88	\$768,766.57	\$8,995,265.55	6.33	6.30
			COMMON STOC	K		•
NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CU ON COST	RRENT YIELD ON MARKET
30,536,077	\$963,568,425.00	\$1,255,815,323.88	\$292,246,898.88	\$35,316,834.03	3.67	2.81
			TOTAL PORTFO	10		
			TOTAL PURIFU	LIU	·	
					INDICATED I	NDICATED YIELD
TYPE	BOOK V	ALUE PCT.	MARKET VALUE	PCT.		BOOK ON MARKET
Corporatos	\$ 201,096,8	83.80 10%	\$ 214,439,151.88	9% \$	18,216,978.84	9.06 8.50
Corporates Governments	\$ 260,007,6		\$ 275,654,460.17			8.61 8.12
Mortgages	\$ 155,379,5		\$ 169,305,949.46		13,047,582.25	8.40 7.71
Short Term	\$ 327,531,4		\$ 327,531,464.17		12,673,539.24	3.87 3.87
Real Estate	\$ 142,049,5		\$ 142,818,273.88	6% \$	8,995,265.55	6.33 6.30
Common Stock	\$ 963,568,4		\$1,255,815,323.88		35,316,834.03	3.67 2.81
Total Portfolio	\$2,049,633,5	505.49 100%	\$2,385,564,623.44	100% \$	110,644,370.65	5.40 4.64

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 HAZARDOUS STATE EMPLOYEES (KERS-H)

FIXED INCOME

DESCRIPTION		CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value % of Par Value		\$3,962,195.33 16%	\$3,666,459.70 15%	\$2,416,018.58 10%	\$14,645,534.54 59%	\$24,690,208.15 100%
Book Value % of Book Value		\$3,992,722.62 16%	\$3,733,847.40 15%	\$2,292,812.39 9%	\$14,645,534.54 60%	\$24,664,916.95 100%
Market Value % of Market Valu	Je	\$4,238,135.46 17%	\$3,974,656.09 16%	\$2,467,004.58 '9%	\$14,645,534.54 58%	\$25,325,330.67 100%
Potential Gain or Lo	SS	\$ 245,412.84	\$ 240,808.69	\$ 174,192.19	\$ 0.00	\$ 660,413.72
indicated Annual Inc	come	\$ 355,746.61	\$ 322,860.84	\$ 192,535.00	\$ 571,593.68	\$ 1,442,736.13
Current Yield Bo	ok Value	8.91	8.65	8.40	3.90	5.85
Market Value		8.39	8.12	7.80	3.90	5.70
Yield to Maturity Market Value		6.86	6.53	7.74	3.90	5.14
Average Coupon		8.98	8.81	7.97	3.90	5.84
Average Maturity (Y	ears)	8.87	10.57	21.36	.08	5.13
			REAL ESTATE			
	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRE ON COST	ENT YIELD ON MARKET
	\$3,380,173.45	\$3,391,552.48	\$11,379.03	\$228,886.34	6.77	6.75
-			COMMON STOCK			
NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURRE ON COST	ENT YIELD ON MARKET
9 65,103	\$32,506,970.38	\$38,876,044.54	\$6,369,074.16	\$1,106,442.69	3.40	2.85
						•

TOTAL PORTFOLIO

~~-					INDICATED	INDICAT	ED YIELD
TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INCOME	ON BOOK	ON MARKET
Corporates	\$ 3,992,722.62	7%	\$ 4,238,135.46	6%	\$ 355,746,61	8.91	8.39
Governments	\$ 3,733,847.40	6%	\$ 3,974,656.09	6%	\$ 322,860,84	8.65	8.12
Mortgages	\$ 2,292,812.39	4%	\$ 2,467,004.58	4%	\$ 192,535,00	8.40	7.80
Short Term	\$14,645,534.54	24%	\$14,645,534,54	22%	\$ 571,593,68	3.90	3.90
Real Estate	\$ 3,380,173.45	6%	\$ 3,391,552.48	5%	\$ 228,886,34	6.77	6.75
Common Stock	\$32,506,970.38	53%	\$38,876,044.54	57%	\$1,106,442.69	3.40	2.85
Total Portfolio	\$60,552,060.78	100%	\$67,592,927.69	100%	\$2,778,065.16	4,59	4.11

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 **NONHAZARDOUS COUNTY EMPLOYEES (CERS)**

_	VEN			~	^			-
m	XED	- 17	ч			n	п	_

DESCRIPTION		CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value % of Par Value		\$81,138,638.36 20%	\$116,077,223.04 28%	\$76,315,774.47 18%	\$142,511,487.42 34%	\$416,043,123.29 100%
Book Value % of Book Value		\$81,575,856.25 20 %	\$118,232,252.88 29%	\$71,045,179.97 17%	\$142,511,487.42 34%	\$413,364,776.52 100%
Market Value % of Market Valu	e	\$86,871,610.07 20%	\$126,355,132.37 29%	\$78,255,903.22 18%	\$142,511,487.42 33%	\$433,994,133.07 100%
Potential Gain or Los	SS	\$ 5,295,753.82	\$ 8,122,879.49	\$ 7,210,723.24	\$ 0.00	\$ 20,629,356.55
Indicated Annual Inc	come	\$ 7,319,365.27	\$ 10,316,523.99	\$ 6,135,420.17	\$ 5,536,462.24	\$ 29,307,771.67
Current Yield Bo	ok Value	8.97	8.73	8.64	3.88	7.09
Ma	rket Value	8.43	8.16	7.84	3.88	6.75
Yield to Maturity	Market Value	6.81	6.26	7.77	3.88	5.83
Average Coupon		9.02	8.89	8.04	3.88	7.04
Average Maturity (Y	'ears)	8.51	9.23	20.87		8.09
			REAL ESTATE	•		
	BOOK VALUE/		POTENTIAL	INDICATED	CUR	RENT YIELD
	COST	MARKET VALUE	GAIN OR LOSS	INCOME	ON COST	ON MARKET
	\$80,837,137.08	\$80,937,605.10	\$100,468.02	\$5,192,145.27	6.42	6.41
			COMMON STOC	K	·	
NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	ON COST	RRENT YIELD ON MARKET
21,016,263	\$702,255,603.83	\$857,319,725.51	\$155,064,121.68	\$24,273,855.26	3.46	2.83
			TOTAL PORTFOL	_IO		
TYPE	BOOK V	ALUE PCT.	MARKET VALUE	PCT.		NDICATED YIELD BOOK ON MARKET
Corporates	\$ 81,575,8 \$ 118,232,2		\$ 86,871,610.07 \$ 126,355,132.37	6% 9%	\$ 7,319,365.27 \$10,316,523.99	8.97 8.43 8.73 8.16

126,355,132.37

\$ 142,511,487.42

\$ 857,319,725.51

\$1,372,251,463.68

78,255,903.21

80,937,605.10

9%

6%

10%

6%

63%

100%

118,232,252.88

71,045,179.97

80,837,137.08

\$ 142,411,487.42

\$ 702,255,603.83

\$1,196,457,517.43

Governments

Mortgages

Short Term

Real Estate

Common Stock

Total Portfolio

10%

6%

12%

7%

58%

100%

7.84

3.88

6.41

2.83

4.28

8.64

3.88

6.42

3.46

4.91

\$10,316,523.99

\$ 6,135,420.17

\$ 5,536,462.24

\$ 5,192,145.27

\$24,273,855.26

\$58,773,772.20

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 HAZARDOUS COUNTY EMPLOYEES (CERS-H)

FIXED INCOME

		•				
DESCRIPTION		CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value % of Par Value		\$21,717,109.91 18%	\$29,500,449.86 24%	\$17,660,477.13 15%	\$51,077,074.64 43%	\$119,955,111.54 100%
Book Value % of Book Value		\$21,904,655.39 18%	\$30,009,370.41 25%	\$16,661,941.42 14%	\$51,077,074.64 43 %	\$119,653,041.86 100%
Market Value % of Market Valu	9	\$23,164,632.49 19%	\$31,816,098.10 25%	\$18,141,311.02 15%	\$51,077,074.64 41%	\$124,199,116.25 100%
Potential Gain or Los	SS	\$ 1,259,977.10 ·	\$ 1,806,727.69	\$ 1,479,369,60	\$ 0.00	\$ 4,546,074.39
Indicated Annual Inc	ome	\$ 1,940,383.42	\$ 2,529,237.61	\$ 1,427,768.56	\$ 1,991,248.31	\$ 7,888,637.90
Current Yield Boo	ok Value	8.86	8.43	8.57	3.90	6.59
Ma	rket Value	8.38	7.95	7.87	3.90	6.35
Yield to Maturity	Market Value	6.81	6.15	7.73	3.90	5.54
Average Coupon		8.93	8.57	8.08	3.90	6.58
Average Maturity (Y	ears)	8.37	9.21	21.04	.08	6.91
			REAL ESTATE		•	
	B001/1141115/		DOTENTIAL	INDICATED	CUB	RENT YIELD
	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	ON COST	ON MARKET
	\$22,010,908.40	\$22,012,868.25	\$1,959.85	\$1,400,724.17	6.36	6.36
	•		COMMON STOC	K	·	
NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CUR ON COST	RENT YIELD ON MARKET
6,189,250	\$201,162,844.53	\$244,949,179.37	\$43,786,334.84	\$6,987,890.97	3.47	2.85
			TOTAL PORTFOL	10		
			TOTAL TOTAL		•	
					*****	IDICATED YIELD
TYPE	BOOK V	ALUE PCT.	MARKET VALUE	PCT.		BOOK ON MARKET
Corporates	\$ 21,904,6		\$ 23,164,632.49		,. , - ,	8.86 8.38
Governments	\$ 30,009,3		\$ 31,816,098.10		-11	8.43 7.95 8.57 7.87
Mortgages	\$ 16,661,9		\$ 18,141,311.02		,	8.57 7.87 3.90 3.90
Short Term	\$ 51,077,0		\$ 51,077,074.64		6 1,991,248.31 6 1,400,724.17	3.90 3.90 6.36 6.36
Real Estate	\$ 22,010,9 \$201,162,8		\$ 22,012,868.25 \$244,949,179.37		, ,	3.47 2.85
Common Stock	\$201,162,8	44.00 08% ·	φε 44 ,545,1/5.3/	U£./0	, 4,00,100,01	

\$391,161,163.87

Total Portfolio

\$342,826,794.79

\$16,277,253.04

4.75

4.16

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 **STATE POLICE (SPRS)**

FIXED INCOME

DESCRIPTION		CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value % of Par Value		\$17,266,281.71 21%	\$23,211,968.20 29%	\$13,986,062.50 17%	\$26,466,039.23 33%	\$80,930,351.64 100%
Book Value % of Book Value		\$17,387,020.10 22%	\$23,633,790.72 29%	\$13,094,215.04 16%	\$26,466,039.23 33%	\$80,581,065.09 100%
Market Value % of Market Value		\$18,523,420.15 22%	\$25,156,092.19 30%	\$14,200,715.01 17%	\$26,466,039.23 31%	\$84,346,266.58 100%
Potential Gain or Loss	3	\$ 1,136,400.05	\$ 1,522,301.47	\$ 1,106,499.97	\$ 0.00	\$ 3,765,266.58
Indicated Annual Inco	me	\$ 1,566,833.07	\$ 2,050,836.46	\$ 1,074,879.98	\$ 1,035,441.86	\$ 5,727,991.37
Current Yield Bool	k Value	9.01	8.68	8.21	3.91	7.11
Mari	ket Value	8.46	8.15	7.57	3.91	6.79
Yield to Maturity N	Market Value	7.02	6.18	7.60 ⁻	3.91	5.86
Average Coupon		9.07	8.84	7.69	3.91	7.08
Average Maturity (Ye	ars)	9.83	8.89	19.47	.08	8.04
			REAL ESTATE	: .		
	BOOK VALUE/		POTENTIAL	INDICATED	CURF	RENT YIELD
	COST	MARKET VALUE	GAIN OR LOSS	INCOME	ON COST	ON MARKET
	\$11,292,130.25	\$11,352,791.78	\$60,661.53	\$707,669.13	6.27	6.23
	:		COMMON STOC	K		· ·
NO OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CURI ON COST	RENT YIELD ON MARKET
2,527,829	\$77,295,305.82	\$102,670,356.06	\$25,375,050.24	\$2,882,741.03	3.73	2.81
			TOTAL PORTFOL	_10		
					INDICATED IN	DICATED YIELD
TYPE	BOOK V	ALUE PCT.	MARKET VALUE	PCT.	INCOME ON B	OOK ON MARKET
Corporates	\$ 17,387,0	20.10 10%	\$ 18,523,420.15	9%	4.10001000	9.01 8.46
Governments	\$ 23,633,7		\$ 25,156,092.19	13%	T-1/	3.68 8.15
Mortgages	\$ 13,094,2		\$ 14,200,715.01	7%	T ','' ,	3.21 7.57
Short Term	\$ 26,466,0	39.23 16%	\$ 26,466,039.23	13%	1 1 · · · ·	3.91
Real Estate	\$ 11,292,1	30.25 7%	\$ 11,352,791.78	6%	A	6.23
	A 77 00F 9	OF 00 450/	£102 £70 25£ 0£	5 2 9/ ₄	\$2,882,741,03	3.73 2.81

\$102,670,356.06

\$198,369,414.42

52%

100%

\$2,882,741.03

\$9,318,401.53

2.81

4.70

3.73

5.51

Common Stock

Total Portfolio

\$ 77,295,305.82

\$169,168,501.16

45%

100%

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 INSURANCE FUND

				•			-	
DESCRIPTION		CORF	PORATES	GOVERNMENTS	MORTGAGES	SHORT TE		TOTAL
DECOMM NOW					\$5,555,875.40	\$33,216,834	66 \$89	,072,710.06
Par Value		\$14,5	00,000,000	\$35,800,000.00	\$3,333,075.45 6 %	3	8%	100%
% of Par Value			16%	40%	0 70			
	•			*** *** ***	\$5,521,532.34	\$33,216,834	66 \$88	,611,300.02
Book Value		\$14,5	565,286.22	\$35,307, 74 6.80 40 %	6%	3	8%	100%
% of Book Value			16%	4076	*			
	•			\$38,510,547.52	\$5,755,292.84	\$33,216,834	1.66 \$92	2,799,815.02
Market Value		\$15,	317,140.00	41%	6%	3	16%	100%
% of Market Value			17%	4170			_	
			TE4 OFD 70	\$ 3,202,800.72	\$ 233,860.50	\$).00 \$ ·	4,188,515.00
Potential Gain or Loss		\$	751,853.78	\$ 3,202,000.72	¥ ==-,-			* * * = 500 50
			070 405 00	\$ 2,978,437.50	\$ 483,186.93	\$ 1,281,88	3.09 \$	6,015,632.52
Indicated Annual Incor	ne .	\$ 1,	272,125.00	\$ 2,970,407.00	,			6.79
`			8.73	8.44	8.75		3.86	6.79
Current Yield Book	: Value		0.73	9. 41				6.48
			8.31	7.73	8.40		3.86	0,40
Mark	et Value		0.31	,		•		5.72
			7.23	6.43	8.34		3,86	J.12
Yield to Maturity N	larket Value		7.20					6.75
			8.77	8.32	8.70		3.86	0.75
Average Coupon			0.77					5.18
			6.32	6.99	21.08		.08	5.10
Average Maturity (Ye	ars)		0.02					-
				COMMON STOCK				
					INDICATED		CURRENT	YIELD
	BOOK VALUE/			POTENTIAL	INCOME	ON C	COST	ON MARKET
NO. OF SHARES	COST	MAR	KET VALUE	GAIN OR LOSS	HACOME			
NO. OF GRANES					\$1,295,095.94		3.50	3.03
1,000,060	\$36,956,040.50	\$4	2,789,682.18	\$5,833,641.68	\$1,250,050.04			
1,000,000	4							
			-	TOTAL PORTFOL	ın	• .		
				TOTAL PURIFUL				
						INDICATED	INDICA	TED YIELD
			•			INCOME	ON BOOK	ON MARKET
	BOOK V	ALUE	PCT.	MARKET VALUE	PCT.	INCOME	O(1 DOOK	
TYPE	, DOOK V					\$1,272,125.00	8.73	8.31
	\$ 14,565,2	86.22	12%	\$ 15,317,140.00	11%	\$2,978,437.50	8.44	7.73
Corporates	\$ 35,307,7	46.80	28%	\$ 38,510,547.52	28%	\$ 483,186.93	8.75	8.40
Governments	\$ 5,521,4	132.34	4%	\$ 5,755,292.84	. 4%	\$1,281,883.09	3.86	3.86
Mortgages	\$ 33,216,6	334.66	26%	\$ 33,216,834.66	24%	\$1,295,095.94	3.50	3,03
Short Term	\$ 36,956,		30%	\$ 42,789,682.18	33%	. φ (,290,000.04		
Common Stock	\$ 00,000,	•		-	4000/	\$7,310,728.46	5.82	5,39
T-t-! Dortfolic	\$125,567,	340.52	100%	\$135,589,497.20	100%	φ1,010,120.40		
Total Portfolio	# (majage)							

KENTUCKY RETIREMENT SYSTEMS PORTFOLIO SUMMARY: JUNE 30, 1992 ALL SYSTEMS COMBINED

FIXED	۱	N	С	0	M	ΙE
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DESCRIPTION		CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value % of Par Value		\$323,314,642.16 20%	\$426,614,595.00 27%	\$276,590,218.62 17%	\$562,231,600.00 36%	\$1,588,751,055.78 100%
Book Value % of Book Value		\$325,957,138.16 20%	\$435,616,897.13 27%	\$258,473,738.31 17%	\$562,231,600.00 36%	\$1,582,279,373.60 100%
Market Value % of Market Valu	e	\$347,236,950.05 21%	\$562,956,438.92 28%	\$282,370,883.28 17%	\$562,231,600.00 34 %	\$1,654,795,872.25 100%
Potential Gain or Los	ss	\$-21,279,811.89	\$ 27,339,541.79	\$ 23,897,144.97	\$ 0.00	\$ 72,516,498.65
Indicated Annual Inc	ome	\$ 29,399,307.21	\$ 37,613,629.64	\$ 21,878,185.96	\$ 21,808,285.33	\$ 110,699,408.14
Current Yield Bo		9.02	8.63	8.46	3.88	7.00
	rket Value	8.47	8,12	7.75	3.88	6.69
Yield to Maturity	Market Value	6.90	6.19	7.72	3.88	5.78
Average Coupon		9.09	8.82	7.91	3.88	6.97
Average Maturity (Y	(ears)	9.95	9.11	20.43	.08	8.06
propago maiani, (,		REAL ESTATE		•	
:	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CUF ON COST	RENT YIELD ON MARKET
	\$259,569,856.49	\$260,513,091.49	\$943,235.00	\$16,524,690.46	6.37	6.34
	•		COMMON STOC	K		
NO. OF SHARES	BOOK VALUE/ COST	MARKET VALUE	POTENTIAL GAIN OR LOSS	INDICATED INCOME	CUF ON COST	RRENT YIELD ON MARKET
61,234,522	\$1,976,789,149.56	\$2,499,630,629.36	\$522,841,479.80	\$70,567,763.98	3.57	2.82

TOTAL PORTFOLIO

					INDICATED	INDICAT	ED YIELD
TYPE	BOOK VALUE	PCT.	MARKET VALUE	PCT.	INCOME	ON BOOK	ON MARKET
Corporates Governments Mortgages Short Term Real Estate Common Stock	\$ 325,957,138.16 \$ 435,616,897.13 \$ 258,473,738.31 \$ 562,231,600.00 \$ 259,569,856.49 \$1,976,789,149.56	9% 11% 7% 15% 7% 51%	\$ 347,236,950.05 \$ 462,956,438.92 \$ 282,370,883.28 \$ 562,231,600.00 \$ 260,513,091.49 \$2,499,630,629.36	8% 10% 6% 13% 6% 57%	\$ 29,399,307.21 \$ 37,613,629.64 \$ 21,878,185.96 \$ 21,808,285.33 \$ 16,524,690.46 \$ 70,567,763.98	9.02 8.63 8.46 3.88 6.37 3.57	8.47 8.12 7.75 3.88 6.34 2.82
Total Portfolio	\$3,818,638,379.65	100%	\$4,414 : 19,593.10	100%	\$197,791,862.58	5.18	4.48

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, 1992, 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.

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. More than 8,000 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 distortion of the "average" benefit.

Following are some statistics on those members who retired in fiscal year 1991-92. The averages are based on those members retiring during the fiscal year--KERS: 761, CERS: 1,267 and SPRS: 16--but does not include members who took a lump sum payment or members who died.

SYSTEM	AVERAGE FINAL COMP.	AVERAGE MO. BENEFIT	SERVICE	RANGES	s/% OF RE	TIREES
			Under 20	20-25	25-30	30+
KERS	\$23,384	\$ 691.94	64%	16%	14%	6%
CERS	\$17,085	\$ 561.84	70%	17%	9%	4%
SPRS	\$34,139	\$1,356.66	25%	69%	0%	6%

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

111	NDER	SERVI	CE RANG	ES IN YE	ARS/PER	CENTAGE	OF RETI	REES	
, Oi	2	2-5	6-10	11-15	16-20	21-25	26-30	31-35	35+
KERS	1%	3%	20%	22%	17%	14%	10%	9%	4%
CERS	2%	5%	29%	25%	14%	12%	7%	4%	2%
SPRS	1%	2%	3%	4%	7%	28%	36%	17%	2%

Table 5 presents a county-by-county summary of total retirement payments over the fiscal year. As indicated by bold type, the retired payroll exceeded \$1 million in 37 counties. This gives an indication of the importance of retirees' income to their communities and shows that a majority of retirees remain in Kentucky.

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.

	ACTIVE	INACTIVE	RETIRED	TOTAL
KERS	45,498	11,075	16,420	72,993
KERS-HAZARDOUS	3,222	340	225	3,787
CERS	55,880	12,920	12,006	80,806
CERS-HAZARDOUS	5,111	318	1,109	6,538
SPRS	948	136	408	1,492
TOTAL	110,659	24,789	30,168	165,616

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.

AVERAGE MONTHLY BENEFIT IN DOLLARS PER YEARS OF SERVICE ANALYSIS OF MONTHLY RETIREMENT BENEFITS **AS OF JUNE 30, 1992** TABLE 1

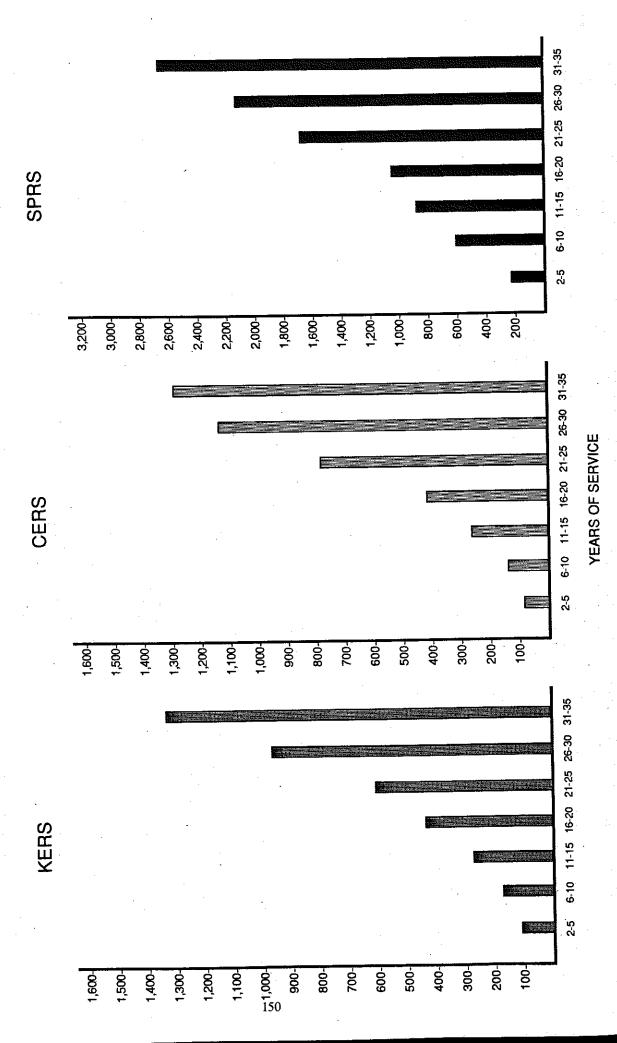


TABLE 2 KENTUCKY EMPLOYEES RETIREMENT SYSTEM RETIREMENT BENEFITS BY PLAN FOR THE PERIOD ENDING JUNE 30, 1992

	NUMBER			MONTHLY BENEFIT	<u>rs</u>
	OF CASES	TOTAL	AVERAGE	LOW	HIGH
NORMAL					
Rasic Communication (Communication Communication Communica	2,213	\$ 939,560.05	\$ 424.56	\$ 1.96	\$4,197.74
ife10 Years Certain (Member) ife10 Years Certain (Beneficiary)	6 32	261,090.50	413.11	1.42	3,131.96
n Years Cenain (Beneficiary)	49	20,890.95	426.34	31.26	2,154.50
ijfe-15 Years Certain (Member)	1 67	1,419,44 42,548.94	1,419.44	1,419.44	1,419.44
le15 Years Certain (Beneficiary)	10	4,211.55	635.05 421.15	39.35 8 0.13	3,523.94 1,097.22
Survivorship 100% (Member)	604	240,974.90	398.96	2.68	3,830,22
Survivorship 100% (Beneficiary)	439	127,071.96	289.45	2.37	2,261.87
Pop-Up Pop-Up (Basic)	124 4	·84,894.71	684.63	6.28	4,271.65
Survivorship 66 2/3% (Member)	184	8,232.93 11 8, 817.26	2,058.23 645.74	B86.70	4,061.93
Survivorship 66 2/3% (Beneficiary)	52	14,300.22	275.00	8.31 26.83	3,031.84 997.58
Survivorship 50% (Member)	347	215,928.72	622.27	3.24	4,120.35
Survivorship 50% (Beneficiary)	195	58 ,060.27	297.74	26.56	954.52
Social Security BasicUnder 62 Social Security SurvivorshipUnder 62	4	6,027.94	1,506.98	568.15	2,605.87
Social Security Survivorship-Over 62	2 5	2,389.01 6,554.76	1,194.50	1,175.09	1,213,92
TOTALS AND AVERAGES	4,932	\$2,152,974.11	1,310.95 \$ 436.53	989.39 \$ 1.42	2,031.18
ARLY	.,	401100101.4111	Ψ 430.33	φ 1,42	\$4,271.65
Basic	3,541	\$1,737,929.24	\$ 490.80	\$.76	\$3,836.03
Ife-10 Years Certain (Member)	1,232	551,760.46	447.85	1.68	3,053.66
ife10 Years Certain (Beneticiary) 0 Years Certain (Member)	51 ·4	21,037.14	412.49	42.29	2,147,42
lfe15 Years Certain (Member)	169	6,202.65 9 8,434.02	1,550.66	201.03	2,163.40
ife15 Years Certain (Beneficiary)	15	8,790.94	582.44 586.06	10.83 101.24	2,589.25 2,419.15
Ite-20 Years Certain (Member)	86	56,331.95	655.02	10.06	2,841.89
ite20 Years Certain (Beneficiary)	3	3,078.80	1,026.26	257.01	1,940.63
urvivorship 100% (Member) urvivorship 100% (Beneficiary)	1,133	551,499,61	486.76	2.65	3,635.7B
op-Up	354 366	113,073,64	319.41	16.67	3,188.24
op-Up (Basic)	15	312,029.97 19,893.89	842.54 1,326.25	1.45 37.99	3,479.71
urvivorship 66 2/3% (Member)	385	394,337.89	1,024.25	11.19	3,902.90 3,496.79
urvivorship 66 2/3% (Beneficiary)	70	29,097.50	415.67	46.35	1,530.27
Survivorship 50% (Member)	582	488,876.97	839.99	8.09	4,124.94
urvivorship 50% (Beneficiary) ocial Security BasicUnder 62	170	48,311.40	284.18	6.35	1,156.47
ocial Security SurvivorshipUnder 62	569 349	627,255.93	1,102.38	5.15	4,058.60
ocial Security SurvivorshipOver 62	263	515,623,34 202,130.42	1,477.43 768.55	15.83 17.00	3,966,16
TOTALS AND AVERAGES	9,357	\$5,785,695.76	\$ 618.32	\$76.	3,179.72 \$ 4,124.94
ISABILITY				• • • • • • • • • • • • • • • • • • • •	₩ 1,1 E 1.0 T
asic	445	\$ 223,282.94	\$ 501.75	\$ 23.38·	\$2,243.44
ife10 Years Certain (Member) ife10 Years Certain (Beneficiary)	201	98,980,34	492.43	3.64	1,704.10
0 Years Certain (Beneticiary)	66 2	38,683.04 1,050.90	586.10	33.55	2,074.43
fe15 Years Certain (Member)	37	21,448.69	525.45 579.69	238.06 184.20	812.84 1,538.01
fe15 Years Certain (Beneficiary)	22	12,979.47	589.97	187.25	1,239.90
fe20 Years Certain (Member)	34	18,128.13	533,1B	195.28	914.51
ife20 Years Certain (Beneficiary)	16	11,856.05	741.00	164.64	1,231.41
urvivorship 100% (Member) urvivorship 100% (Beneficiary)	186 288	71,608.29	384.99	6.14	2,671.16
op-Up	70	104,182.80 37,041.27	361.74 529.16	38.46	1,658.46
urvivorship 66 2/3% (Member)	33	18,420.11	558.18	4.19 146.51	1,644.44 1,568.32
urvivorship 66 2/3% (Beneficiary)	38	11,097.03	292.02	4.84	893.95
urvivorship 50% (Member)	92	47,984.57	521.57	109.60	1,705.89
urvivorship 50% (Beneficiary) ocial Security BasicUnder 62	75	16,610,31	221.47	1.72	719.42
ocial Security SurvivorshipUnder 62	20 9	17,750.47	887.52	182.09	1,717.12
ocial Security SurvivorshipOver 62	9	7,002.36 4,167.14	778.04 - 463.01	29.07 80.37	1,739.18
TOTALS AND AVERAGES	1,643	\$ 762,273.91	\$ 463,95	\$ 1.72	1,097.49 \$2,671.16
EATH BEFORE RETIREMENT			,,		4-101 1110
fe Annuity	461	\$ 197,939.09	\$ 429.36	\$ 2.10	\$2,942.10
amp Sum Years Certain	1 74	371,55	371.55	371.55	371.55
Years Certain	74 156	48,600.89 89,341.82	656.76 572.70	31.08	3,578.76
ocial Security BasicUnder 62	1	89,341.82 305.17	572.70 305.17	62.85 305.17	2,767.60 305.17
ocial Security BasicUnder 60	20	9,411.34	470.56	59.32	1,418.67
TOTALS AND AVERAGES	713	\$ 345,969.86	\$ 485.23	\$ 2.10	\$3,578.76
YSTEM TOTALS AND AVERAGES	16,645	\$9,046,913.64	\$ 543.52	\$.76	\$4,271.65
		•			, .,

Not included in totals are payments to 3 dependent children of disabled or deceased hazardous members.

TABLE 3 COUNTY EMPLOYEES RETIREMENT SYSTEM RETIREMENT BENEFITS BY PLAN FOR THE PERIOD ENDING JUNE 30, 1992

	NUMBER			MONTHLY BENEFIT	rs
	OF CASES	TOTAL	AVERAGE	LÓW	HIGH
NORMAL					
Basic Life10 Years Certain (Member)	2,038	\$ 540,926.00	\$ 265.42	\$.39	\$ 3,846.75
Life-10 Years Certain (Beneficiary)	711 53	183,357.18 11,671.43	257.88 220.21	12.32	3,384.11
10 Years Certain (Member)	18	40,216.65	2,234.25	28.13 20.60	886.38 3,484.51
10 Years Certain (Beneficiary)	2	3,652.24	1,826.12	1,369.68	2,282.36
Life15 Years Certain (Member)	64	17,267.19	269.79	29.41	1,235.36
Life15 Years Certain (Beneticiary) Life20 Years Certain (Member)	13 2	4,125.27	317.32	61.07	1,169.22
Survivorship 100% (Member)	601	3,916.83	1,958.41	1,791.43	2,125.40
Survivorship 100% (Beneticiary)	265	160,151.92 57,079.70	266.47 215.39	4,79 19,80	. 2,418.80 1,563.57
Pop-Up	15B	72,393.53	458.18	14.20	3,369.31
Pop-Up (Basic)	2	1,280.95	640.47	571. 9 7	708.98
Survivorship 66 2/3% (Member) Survivorship 66 2/3% (Beneficiary)	141	94,849.48	672.69	31.02	4,068.12
Survivorship 50% (Member)	35 213	11,663.51	333.24	46.0B	1,247.78
Survivorship 50% (Beneficiary)	91	128,623.61 20,978.57	603.86 230.53	33.89 45.28	3,935.06
Social Security BasicUnder 62	4	8,341.89	2,085.47	1,705.98	1,476.43 2,705.68
Social Security SurvivorshipUnder 62	15	27,917.14	1,861.14	792.82	3,041.32
Social Security SurvivorshipOver 62	21	21,465.6 5	1,022.17	617.04	2,290.88
TOTALS AND AVERAGES EARLY	4,447	\$1,409,878.74	\$ 317.04	\$.39	\$4,068.12
Basic	2,753	# BOD 007 OC	Ø 000 40		.
Life10 Years Certain (Member)	1,071	\$ 890,307.96 310,155,58	\$ 323,40 289,59	\$ 2.56 3.81	\$3,437.64
Life10 Years Certain (Beneficiary)	51	12,788.78	247.75	4.55	2,541.97 1,087.58
10 Years Certain (Member)	21	54,269.93	2,584.28	1,487.11	4,920.99
10 Years Certain (Beneficiary)	1	597.21	597.21	597.21	597.21
Life15 Years Certain (Member)	200	8 8,829.05	444.14	24.65	3,143.70
Life15 Years Certain (Beneticiary) Life20 Years Certain (Member)	12 101	3,235,62	269.63	52.81	1,461.96
Life20 Years Certain (Beneficiary)	3	67,619.44 4,008.37	669.49 1,336.12	29.64 45.32	2,818.39
Survivorship 100% (Member)	812	296,610.72	365.28	8.99	2,681.23 3,314,43
Survivorship 100% (Beneficiary)	189	50,423.35	266.79	6.73	1,613.52
Pop-Up	505	424,888.39	841.36	13.92	5,309.82
Pop-Up (Basic) Survivorship 66 2/3% (Member)	12	12,512.54	1,042.71	96.16	2,075.90
Survivorship 66 2/3% (Beneficiary)	215 22	173,695.11	807.88	42.56	3,136,23
Survivorship 50% (Member)	363	5,421.41 261,536.78	246.42 720.48	60.87 23.65	831.96 3,444.50
Survivorship 50% (Beneficiary)	59	15,597.43	264.36	29.72	1,319.49
Social Security Basic Under 62	191	176,368.59	923.39	2.57	2,633.09
Social Security SurvivorshipUnder 62	278	385,811.15	1,387.80	22.63	2,931.39
Social Security SurvivorshipOver 62 TOTALS AND AVERAGES	68 6,927	32,431.18	476,92	5.33	3,031.37
DISABILITY	0,521	\$3,267,108.59	\$ 471.65	\$ 2,56	\$5,309.82
Basic	381	\$ 165,852.48	\$ 435.30	\$ 5.06	\$2,121.46
Life10 Years Certain (Member)	168	68,738.92	409.16	23.78	1,289.33
Life10 Years Certain (Beneficiary)	48	16,977.99	353.70	. 68.74	981.64
10 Years Certain (Member) 10 Years Certain (Beneficiary)	3	4,824.16	1,608.05	1,175.10	1,856.43
Life15 Years Certain (Member)	1 37	925.35 19,260.60	925,35	925.35	925.35
Life15 Years Certain (Beneficiary)	22	7,771,46	520.55 353.24	59.44 52.08	1,250.33 795.08
Life20 Years Certain (Member)	28	13,835.25	494.11	4.27	1,540.91
Life20 Years Certain (Beneficiary)	20	9,013.01	450.65	32,43	1,359.88
Survivorship 100% (Member)	156	66,780.05	428.07	27.86	1,339.20
Survivorship 100% (Beneficiary) Pop-Up	142 68	42,930.88	302.33	50.14	1,227.33
Pop-Up (Basic)	1	34,776.63 465,63	511.42 465.63	57.62 465.63	1,610.99
Survivorship 66 2/3% (Member)	27	14,776.88	547.29	40.77	465.63 1,443.92
Survivorship 66 2/3% (Beneficiary)	14	3,421.59	244.39	58.61	830.99
Survivorship 50% (Member)	70	34,670.42	459.29	5.78	1,505.04
Survivorship 50% (Beneficiary) Social Security BasicUnder 62	32 45	5,832.21	182.25	56.34	416.57
Social Security BusicOrder 62 Social Security SurvivorshipUnder 62	16 14	12,752.45 13,541.50	797.02 967.25	123.72	1,710.52
Social Security SurvivorshipOver 62	1	458.55	458.55	136.07 458.55	2,380,19 458.55
TOTALS AND AVERAGES	1,249	\$ 537,606.01	\$ 430.43	\$ 4.27	\$2,380.19
DEATH BEFORE RETIREMENT			÷		+ = 000,10
Life Annuity	247	\$ 71,575.57	\$ 289.78	\$ 20.83	\$2,276.08
5 Years Certain 10 Years Certain	92	47,694.23	518.41	67.67	2,748.56
Social Security BasicUnder 60	145 B	45,988.11 5,716.22	317.15 714.52	2. 9 4 40.41	2,705.48
TOTALS AND AVERAGES	492	\$ 170,974.13	\$ 347.51	\$ 2.94	1,490.45 \$2,748.56
SYSTEM TOTALS AND AVERAGES	13,115	\$5,385,567.47	\$410.64	\$.39	\$5,309.82
· - · - ·	· · , · · -		4 . I WIW T	. + 100	40,005.02

Not included in totals are payments to 62 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, 1992

## AVERAGE LOW		NUMBER			MONTHLY BENEFI	Te
SPANUL		OF CASES	TOTAL	AVEDAGE		
14.837.28 3.18.68 10.867 3.28 3.18.68 10.867 3.28 3.18.68 3.2	NORMAL		TOTAL	AVERAGE	LOW	HIGH
		9	\$ 11.844.66	\$1 316 07	\$ 106.67	6 0 700 64
System Certain (Member)			•	• • •	•	. \$2,722.91
				•		4,207.76
Syrviorship 100% (Beneficiary)	le-20 Years Certain (Member)		•	•	i e e e e e e e e e e e e e e e e e e e	4,504.47
Survivorship 100% (Beneficiary) 5	survivorship 100% (Member)			•		2,795.52
Survivorship 66 2/3% (Member) 9	survivorship 100% (Beneficiary)					3,053.99
Survivorship 50% (Member) 13	survivorship 66 2/3% (Member)					2,424.95
Survivorship 50% (Beneficiary) 3 2.094.24 698.08 547.18 557.25 525.25	survivorship 50% (Member)		•		,	2,919.03
Social Security Survivorship-Under 62 7 19,668.69 2,808.81 587.25 4				•		2,691.93
Social Security Survivorship—Over 62 12 18,317.76 22,981 587,25 42,000 1						838.52
TOTALS AND AVERAGES 92 \$100,198.02 \$1,741.28 \$106.67 \$4 \$24,741.28 \$106.67 \$4 \$24,741.28 \$106.67 \$4 \$24,741.28 \$106.67 \$4 \$24,741.28 \$26,038,43 \$302.03 \$30,		•				4,211.24
### FARLY ### Sasic						2,679.01
Basic		92	\$150,198.02	\$1,741.28	\$ 106.67	\$4,504.47
Basic	FARLY			,		
Diff- 10 Varis Certain (Member) 12 27,397.71 2,283.14 1,659.30 3 3 1,059.30		17	\$ 24 CE2 22	#0.00m :-		
10 Years Certain (Member)					•	\$3,145.32
19 Years Certain (Beneficiary)		1	·		•	3,392.82
			•			3,497.19
Lie15 Years Certain (Beneficiary) 1				•	• •	3,921.54
Total Continue					1,361.95	3,577.83
Survivorship 100% (Member) 33 62,716.52 1,900.50 272.31 3 50,716.52 1,900.50 272.31 3 50,716.52 1,900.50 272.31 3 50,716.52 1,900.50 272.31 3 50,716.52 1,900.50 272.31 3 50,714.33 2,011.34 2,011.34 2,0	Maria (1) -			2,184.20	2,184.20	2,184.20
Survivorship 100% (Beneficiary)				1,667.25	736.07	2,397.22
Pop-Up 23 34,521.61 1,500.93 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 2,011.33 3,011.34 2			•	1,900.50	272.31	3,992.22
Pop-Up (Basic) 2 6,210.77 3,105.38 2,205.23 4				2,011.33	2,011.33	2,011.33
Survivorship 66 2/3% (Member) 12 24,714,23 2,059,51 1,181.16 3. Survivorship 50% (Member) 13 976,26 976,2			34,521.61	1,500.93	53.74	2,680.32
12			6,210.77	3,105.38	2,205.23	4,005.54
Survivorship 50% (Member)			24,714.23	2,059.51	1,181.16	3,255.80
21 33,920.05 1,615.24 133.98 3,50cial Security BasicUnder 62 17 35,196.84 2,070.40 358.13 2,50cial Security SurvivorshipUnder 62 108 228,226.06 2,113.20 199.72 3,50cial Security SurvivorshipOver 62 4 5,013.77 1,253.44 493.44 1,70TALS AND AVERAGES 275 \$553,883.39 \$2,014.12 \$18.27 \$3,005.005.005.005.005.005.005.005.005.005			976.26	976.26	976.26	976.26
17 35,196.84 2,070.40 358.13 2,055			33,920.05	1,615.24	133.38	3,106.45
108 228,226.06 2,113.20 199.72 3,50cial Security SurvivorshipOver 62 4 5,013.77 1,253.44 493.44 1,150cial Security SurvivorshipOver 62 4 5,013.77 1,253.44 493.44 1,150cial Security SurvivorshipOver 62 5,013.77 1,253.44 493.44 1,150cial Security SurvivorshipOver 62 7 \$6,028.85 \$661.26 \$309.21 \$1,286.99 1,288.99 1,			35,196.84	2,070.40	358.13	2,977.09
Social Security Survivorship-Over 62 4 5,013.77 1,253.44 493.44 1,		108	228,226.06	2,113.20		3,939.99
Stable S			5,013.77			1,955.52
Sasic 7	TOTALS AND AVERAGES	275	\$553,883.39			\$3,992.22
1	DISABILITY					
1	Basic	7	\$ 6.028.85	\$ 861.26	© 200.24	E4 404 40
O Years Certain (Member) 2 2,918.07 1,459.03 1,313.02 1, 1,115 1,125 1,250					· ·	\$1,494.18 1,288.00
1	0 Years Certain (Member)		· · · · · · · · · · · · · · · · · · ·	•	•	1,288.99
1,950.34 1,950.34 1,950.34 1,950.34 1,950.34 1,950.34 1,950.34 1,950.34 1,950.34 1,950.91 1,342.71 2,950.91 1,357.09 772.22 2,950.91 1,357.09 772.22 2,950.91 1,357.09 772.22 2,950.91 1,357.09 772.22 2,950.91 1,357.09 1,357.09 772.22 2,950.91 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,357.09 1,257.09 1,357.09 1,257.09 1,357.09 1,257.09 1,357.09 1,257.09			•	· ·		1,605.05
Survivorship 100% (Member) 8 10,856.79 1,357.09 772.22 2, Survivorship 100% (Beneficiary) 2 2,374.85 1,187.42 848.09 1, Survivorship 50% (Member) 1 1,617.51 1,617.51 1,617.51 1,617.51 1,617.51 1,617.51 1,017.51			- ·	•	•	1,363.34
Survivorship 100% (Beneficiary) 2 2,374.85 1,187.42 848.09 1, Survivorship 50% (Member) 1 1,617.51 1			•		•	2,659.11
1			•	·		2,350.01
1 2,055.13 2,055	Survivorship 50% (Member)					1,526.76
TOTALS AND AVERAGES 25 \$ 32,405.35 \$1,296.21 \$ 309.21 \$2, FATH BEFORE RETIREMENT Ife Annuity 14 \$ 14,629.11 \$1,044.94 \$ 244.60 \$2, 10 Years Certain 2 4,846.80 2,423.40 937.03 3, TOTALS AND AVERAGES 16 \$ 19,475.91 \$1,217.24 \$ 166.78 \$3,	ocial Security SurvivorshipUnder 62				·	1,617.51
DEATH BEFORE RETIREMENT Ife Annuity 14 \$ 14,629.11 \$1,044.94 \$ 244.60 \$2,000.00 0 Years Certain 2 4,846.80 2,423.40 937.03 3,000.00 TOTALS AND AVERAGES 16 \$ 19,475.91 \$1,217.24 \$ 166.78 \$3,000.00	TOTALS AND AVERAGES		•		•	2,055.13 \$ 2,659.11
Ife Annuity 14 \$ 14,629.11 \$1,044.94 \$ 244.60 \$2,000 0 Years Certain 2 4,846.80 2,423.40 937.03 3; TOTALS AND AVERAGES 16 \$ 19,475.91 \$1,217.24 \$ 166.78 \$3;	EATH BEFORE RETIREMENT		•	* · / ————	7 000.21	4 2,000.11
0 Years Certain 2 4,846.80 2,423.40 937.03 3, TOTALS AND AVERAGES 16 \$19,475.91 \$1,217.24 \$ 166.78 \$3,		4.4	ft 44 000 44	A 3 - 44 - 5	_	
TOTALS AND AVERAGES 16 \$ 19,475.91 \$1,217.24 \$ 166.78 \$3;						\$2,195.56
SYSTEM TOTAL O AND AVEDAGED	TOTALS AND AVERAGES		· ·	_ '		3,909.77
TISTEM TOTALS AND AVERAGES 408 \$765,962.67 \$1,877,36 \$ 18.27 \$4.5				\$1,217.24	\$ 166.78	\$3,909.77
	PISIEM TOTALS AND AVERAGES	408	\$765,962.67	\$1,877.36	\$ 18.27	\$4,504.47

Not included in totals are payments to 10 dependent children of disabled or deceased members.

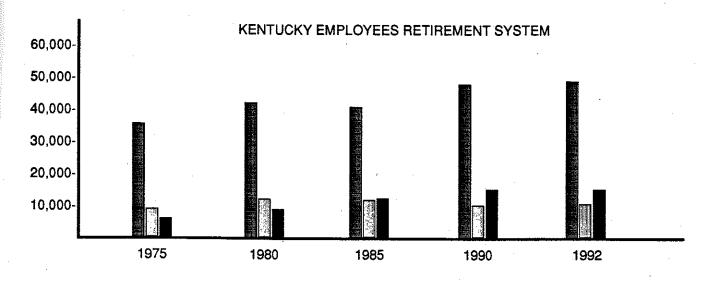
TABLE 5 RETIREMENT PAYMENTS BY COUNTY

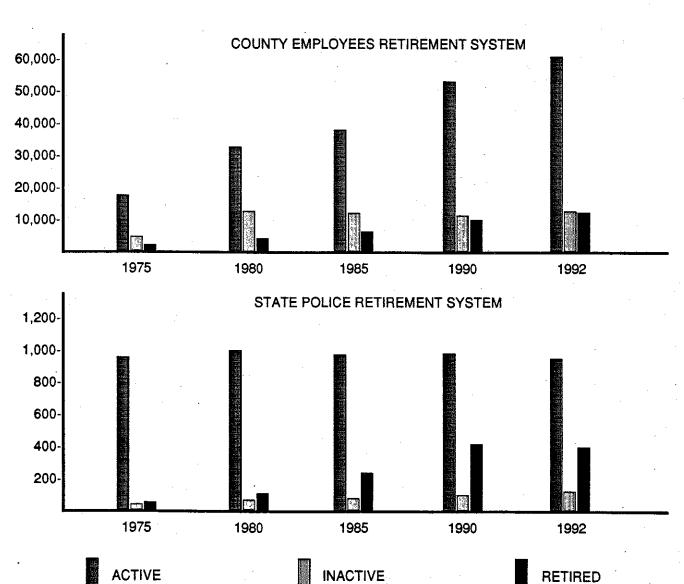
Adair	\$ 731,977	Grant	\$ 1,170,854	Mason	\$ 527,435
Allen	\$ 435,472	Graves	\$ 1,479,311	Meade	\$ 448,547
Anderson	\$ 2,420,812	Grayson	\$ 737,053	Menifee	\$ 173,425
Ballard	\$ 398,294	Green	\$ 385,131	Mercer	\$ 1,440,327
Barren	\$ 1,593,587	Greenup	\$ 558,902	Metcalfe	\$ 480,190
Bath	\$ 613,712	Hancock	\$ 200,632	Monroe	\$ 272,213
Bell	\$ 827,214	Hardin	\$ 2,588,804	Montgomery	\$ 717,417
Boone	\$ 1,362,920	Harlan	\$ 933,601	Morgan	\$ 502,887
Bourbon	\$ 939,738	Harrison	\$ 555,381	Muhlenberg	\$ 745,293
Boyd	\$ 1,829,849	Hart	\$ 499,666	Nelson	\$ 1,111,544
Boyle	\$ 2,096,780	Henderson	\$ 1,807,918	Nicholas	\$ 265,758
Bracken	\$ 158,938	Henry	\$ 1,112,473	Ohio	\$ 621,653
Breathitt	\$ 567,606	Hickman	\$ 227,106	Oidham	\$ 2,179,664
Breckinridge	\$ 403,492	Hopkins	\$ 2,389,213	Owen	\$ 1,284,638
Bullitt	\$ 1,606,578	Jackson	\$ 320,497	Owsley	\$ 226,047
Butler	\$ 386,433	Jefferson	\$34,265,891	Pendleton	\$ 460,130
Caldwell	\$ 770,870	Jessamine	\$ 746,869	Perry	\$ 783,171
Calloway	\$ 1,925,960	Johnson	\$ 785,830	Pike	\$ 1,366,308
Campbell	\$ 1,942,831	Kenton	\$ 3,145,744	Powell	\$ 310,702
Carlisle	\$ 233,284	Knott	\$ 479,202	Pulaski	\$ 2,772,822
Carroll	\$ 468,051	Knox	\$ 530,927	Robertson	\$ 82,220
Carter	\$ 832,272	Larue	\$ 683,798	Rockcastle	\$ 531,345
Casey	\$ 425,289	Laurel	\$ 1,642,686	Rowan	\$ 1,337,445
Christian Christian	\$ 3,156,173	Lawrence	\$ 387,440	Russell	\$ 598,254
Clark	\$ 730,858	Lee	\$ 368,727	Scott	\$ 1,486,046
Clay	\$ 804,434	Leslie	\$ 288,335	Shelby	\$ 3,040,748
Clinton	\$ 202,348	Letcher	\$ 466,637	Simpson	\$ 398,127
Crittenden	\$ 263,390	Lewis	\$ 307,564	Spencer	\$ 514,731
Cumberland		Lincoln	\$ 700,512	Taylor	\$ 555,849
Daviess	\$ 3,779,555	Livingston	\$ 476,765	Todd	\$ 626,119
Edmonson	\$ 168,099	Logan	\$ 859,967	Trigg	\$ 816,654
Elliott	\$ 144,288	Lyon	\$ 597,258	Trimble	\$ 452,825
Estill	\$ 509,414	McCracken	· · · · · · · · · · · · · · · · · · ·	Union	\$ 649,406
Fayette	\$ 8,595,259	McCreary	\$ 418,955	Warren	\$ 4,591,414
Fleming	\$ 604,009	McLean	\$ 346,864	Washington	\$ 436,844
Floyd	\$ 1,027,987	Madison	\$ 2,187,875	Wayne	\$ 596,378
Franklin	\$22,852,746	Magoffin	\$ 315,034	Webster	\$ 444,768
Fulton	\$ 347,701	Marion	\$ 667,205	Whitley	\$ 1,324,573
Gallatin	\$ 165,454	Marshall	\$ 1,387,291	Wolfe	\$ 375,772
	\$ 534,097	Martin	\$ 231,395	Woodford	\$ 1,345,518
Garrard	φ 554,037	IVIGAL CH I	* == .;===		

PAYMENTS TO RETIREES LIVING IN OTHER STATES \$7,909,001

TOTAL PAYMENTS FOR FISCAL YEAR ENDING JUNE 30, 1992 \$182,470,483

TABLE 6 **MEMBERSHIP GROWTH** 6/30/75 through 6/30/92





RETIRED

KENTUCKY EMPLOYEES RETIREMENT SYSTEM FINANCIAL AND ACTUARIAL STATISTICS TABLE 7

	88/05/9		6/30/86		06/02/9	6/30/91	26/30/95
FINANCIAL STATISTICS	¢1 428 335 169		\$1,593,913,511	₩	\$1,803,051,503	\$1,917,816,462	(BK)\$2,072,356,055
Total Assets	420,550,100			€	126,895,778	\$ 107,923,634	\$ 106,061,993
investment income	•			- 4			\$ 110,034,282
Total Retirement Payments	\$ 60,060,355	٠	\$ 7,145,907	÷ • • • • • • • • • • • • • • • • • • •		\$ 6,438,085	
lotal neturo rayments	· · · · · · · · · · · · · · · · · · ·						
ACTUARIAL STATISTICS:							\$2,354,482,321
Total Assets at Actuarial Value	000		£1 734 E07 003	6 7	\$2 055 489 412	\$2.288,611,147	\$2,525,190,930
Total Accrued Liability	\$1,361,743,730		000,100,100,100 4 A E 000 90E	•	256 167 674	\$ 375,396,216	\$ 170,708,609
Unfunded Past Service Liability	\$ 135,687,336				12.5%		6.8%
Percent Unfunded			0.470		#1 208 362 909	\$1 447 994 399	\$1,576,337,372
Vested Accrued Benefit Liability	\$ 914,976,279 \$ 803,594,136		\$ 1,074,346,600 \$ 822,362,508	9 69	\$ 869,109,220	\$ 982,646,400	\$1,065,985,572
Contribution for Unfunded Past Service Liability			\$ 13,139,894	 	12,475,110	\$ 18,683,469	\$ 8,652,449
ACTUARIAL COST-NONHAZARDOUS:		. '	,		3	/acc 0	%CE 6
Nemal	8.33%		8.35%		9.14%	9.36.70	0.05%
Notice of the second	1.56%		1.63%		1.46%	1.99%	
Pasi service	18%		19%		%6E'.	*38%	.38%
Admini utve	201.		1 59%		1.77%	1.97%	3.12%
Hospital/Medical Insurance	44 519/		11 76%		12.76%	13.66%	13.66%
TOTAL COST	% IC:11						
CONTRIBUTION RATES-NONHAZARDOUS:	ARDOUS: 5.00%		2,00%		2.00%	2.00%	2.00%
Wember	7.00.0		**7 45%	-	7.45%	7.65%	8.66%
Employer TOTAL RATES	12.45%		12.45%		12.45%	12.65%	13.66%
ACTUARIAL COSI "HAZARIXUUS"	18 10%		16.38%	-	15.85%	16.77%	16.62%
Normal	1 60%		.52%		14%	.65%	46%
Past Service	18%		%20		*.35%	%6E´•	.40%
Administrative	. D A		5 74%		6.17%	6.74%	7.38%
Hospital/Medical Insurance TOTAL COST	19.90%	· i	21.67%		22.23%	24.55%	24.86%
CONTRIBUTION RATES-HAZARDOUS:			Î		, COO	7,00%	7 00%
Member	7.00%	,	, 00%		15.05%	15.05%	****17.55%
TOTAL RATES	21.00%		21.00%		22.05%	22.05%	0/00:43

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*The rate shown reflects the percentage for budgeted expenses and investment fees as required by legislation enacted by the 1990 General Assembly. Prior years do not include investment fees. **Budgetary reduction in the amount contributed by State Government resulted in a decrease of .24% in actual contributions received.

***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.

COUNTY EMPLOYEES RETIREMENT SYSTEM FINANCIAL AND ACTUARIAL STATISTICS

6/30/92 (BK)\$1,558,427,245 \$ 73,386,287 \$ 64,992,604 \$ 5,829,864	\$1,735,038,908 \$1,861,978,403 \$ 126,939,495 6.8% \$1,196,294,816 \$ 994,447,776		5.00% 8.82% 13.82%	15.57% 3.28% • 31% 6.33% 25.49%	7.00% 18.47% 25.47%
6/30/91 \$1,396,277,329 \$75,889,593 \$53,341,986 \$5,404,817	\$1,654,338,706 \$ 258,111,701 15.6% \$1,067,833,003 \$ 887,033,040 \$ 12,846,219	10.68% 1.03% 1.53% 1.58%	5.00% 7.95% 12.95%	15.57% 3.94% • 29% 5.67% 25.47%	7.00% 16.10% 23.10%
6/30/90 \$1,274,063,862 \$ 86,852,951 \$ 41,158,196 \$ 6,346,247	\$1,432,323,666 \$ 162,257,399 11.3% \$ 907,488,244 \$ 790,407,492	10.60% .68% *.54% 1.38%	5.00% ••7.68% 12.68%	15.50% 2.89% *.29% 5.11% 23.79%	7.00% **15.43% 22.43%
6/30/89 \$1,085,904,834 \$76,400,250 \$31,719,667 \$5,208,722	\$1,113,868,548 \$ 35,815,913 3.2% \$ 728,176,932 \$ 686,528,758 \$ 3,223,433		4.25% 6.35% 10.60%	16.34% 5.34% 06% 4.65% 26.39%	7.00% 14.00% 21.00%
6/30/88 \$840,779,847 \$ 52,252,320 \$ 26,982,299 \$ 4,451,755	\$829,346,323 -0- 0% \$492,628,502 \$615,028,632	JS: 9.10% .06% .23% 1.07% 8.84%	RDOUS: 4.25% 5.75% 10.00%	16.47% -2.89% .57% 4.21% 17.36%	US: 7.00% 14.00% 21.00%
FINANCIAL STATISTICS: Total Assets Investment income Total Retirement Payments Total Refund Payments	ACTUARIAL STATISTICS: Total Assets at Actuarial Value Total Accrued Liability Unfunded Past Service Liability Percent Unfunded Vested Accrued Benefit Liability Estmated Annual Salaries Contribution for Unfunded Past Service Liability	ACTUARIAL COST-NONHAZARDOUS: Normal Past Service Administrative Hospital/Medical Insurance TOTAL COST	CONTRIBUTION RATES-NONHAZARDOUS: Member Employer TOTAL RATES	ACTUARIAL COST-HAZARDOUS: Normal Past Service Administrative Hospital/Medical Insurance TOTAL COST	CONTRIBUTION RATES-HAZARDOUS: Member Employer TOTAL RATES

^{*}The rate shown reflects the percentage for budgeted expenses and investment fees as required by legislation enacted by the 1990 General Assembly. Prior years do not include investment fees. **Employer rate shown became effective 8/1/90 to reflect legislative changes and new actuarial assumptions.

FINANCIAL AND ACTUARIAL STATISTICS STATE POLICE RETIREMENT SYSTEM TABLE 9

FINANCIAL STATISTICS: 6/30/88 Total Assets \$121,168,785	6/30/89	6/30/90 \$145,313,311	6/30/91 \$151,253,690 \$ 0,00,000	6/30/92 (BK)\$159,420,001 \$ 8 420,390
\$ 7,520,682 \$ 5,693,316	\$ 10,164,070 \$ 7,742.826	\$ 10,411,631 \$ 8,504,914	\$ 8,959,087 \$ 8,959,087	\$ 9,372,766
\$ 108,814	\$ 42,926	\$ 69,128	\$ 42,561	\$ 35,421
				\$187,791,011
\$120 128.367	\$134,550,773	\$154,007,622	\$170,009,955	\$182,996,056
	\$ 3,200,220	\$ 8,982,071	\$ 19,191,881	o \$
Operant Introduct	2.4%	5.8%	11.3%	%00 [.] 0
Vertex Accordance Bandit Liability \$ 98 838 353	\$111,757,322	\$130,035,708	\$142,286,585	\$154,375,127
	\$ 24,282,216	\$ 25,971,132	\$ 29,275,692	\$ 31,285,572
			000 700	•
, ¢	\$ 288,020	\$ 437,41B	934,923	9
		•	٠.	
15.54%	15.59%	15.15%	15.32%	15.25%
.33%	1.19%	1.68%	3.19%	%6.Z-
13%	13%	*.26%	.25%	*.27%
8 32%	8.92%	9.48%	10.00%	14.11%
23.66%	25.83%	26.57%	28.84%	28.84%
7,00%	7.00%	2,00%	7.00%	7.00%
18.25%	18.25%	**20.31%	19.57%	****21.84%
25.25%	**25.25%	27.31%	26.57%	28.84%

*The rate shown reflects the percentage for budgeted expenses and investment fees as required by legislation enacted by the 1990 General Assembly. Prior years do not include investment fees. **Budgetary reduction in the amount contributed by State Government resulted in a decrease of .24% in actual contributions received.

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

BY SYSTEM SINCE INCEPTION THROUGH JUNE 30, 1992 STATEMENT OF SOURCE AND USE OF FUNDS KENTUCKY RETIREMENT SYSTEMS

	BREAKD	BREAKDOWN PER DOLLAR	DOLLAR					TOTAL AMOUNTS		
KERS	CERS	SPRS		KERS-H CERS-H		KERS	CERS	SPRS	KERS-H	CERS-H
					SOURCE OF FUNDS					
\$.24	\$.26	\$.19	\$.30	\$.23	Member Contributions	\$ 726,449,772	\$ 417,122,288	\$ 44,922,687	\$21,487,858	\$105,223,969
.28	.32	.27	.34	1 4.	Employer Contributions	869,952,540	518,072,414	64,683,655	24,283,677	192,856,889
88	.32	54.	.28	.26	Investment Income	1,184,907,186	518,106,613	104,067,562	20,034,219	121,448,440
	8	8.	00.	8	Special Appropriation	1,864,578	187,809	506,100	30,318	39,453
8.	10.	8.	8 .	:O3	Alternate & Term. Participation	230,360	9,532,627		3,741	13,240,116
Q 159	60.	=	90.	70.	Other Receipts	308,283,201	140,135,757	25,737,949	5,813,965	31,765,157
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	TOTAL SOURCES	\$3,091,687,637	\$1,603,157,508	\$239,917,953	\$71,653,778	\$464,574,024
					USE OF FUNDS					
\$.65	\$.74	\$.66	\$.72	\$.78	Invested Assets	\$2,014,729,413	\$1,193,380,078	\$158,963,240	\$51,836,610	\$361,241,147
.26	.17	.28	.17	91.	Retirement Payments	804,135,258	272,331,192	66,841,667	12,713,778	75,440,503
.04	.04	<u>1</u>	.03	.02	Refunds	110,008,285	59,821,389	2,415,438	2,683,791	10,231,215
7 0.	.04	30.	.05	.03	Interest to Members	138,525,818	61,542,746	10,552,062	3,568,824	14,672,293
9.	5	90.	.01	10.	Administration of Prof. Services	23,924,541	16,043,489	1,101,085	696,821	2,968,928
8.	0.	8.	.02	00.	Other Disbursements	364,322	38,614	44,461	153,954	19,938
\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	TOTAL USES	\$3,091,687,637	\$1,603,157,508	\$239,917,953	\$71,653,778	\$464,574,024
					KERS-H≔ Hazardous CERS-H= Hazardous					

TABLE 11 KENTUCKY RETIREMENT SYSTEMS ADMINISTRATIVE EXPENSE BY FISCAL YEAR

	1987-88	1988-89	1989-90	1990-91	1991-92
PERSONNEL COSTS: Salaries & Fringe Benefits	\$1,525,200.00	\$1,737,917.88	\$1,936,370.13	\$2,425,450.41	\$2,857,136.01
CONTRACTUAL SERVICES:				•	
Auditor	\$ 18,000.00	19,850.00	20,750.00	\$ 22,400.00	\$ 22,145.00
Actuary	00'0	00:00	51,733.00	48,500.00	47,767.00
Janitorial Services	00'0	6,745.00	00:0	0.00	00.0
Legal Services	33,663.10	44,612.46	45,165.21	96,829.28	92,729.83
Medical	42,997.62	47,903.13	52,618.48	60,526.13	62,728.97
Investment Consultant				*26,527.26	*55,000.00
Security Custody & Banking Services				*146,672.59	*162,215.87
Investment Advisors				*2,763,875.98	*3,252,869,65
Miscellaneous	455.07	1,170.00	750.00	541.66	00.0
TOTAL	\$1,620,315.79	\$1,858,198.47	\$2,107,386.82	\$5,591,323.31	\$6,552,592.33
OPERATING EXPENSES:			•		•
Postage & Freight	\$ 174,262.18	\$ 228,492.66	\$ 281,264.93	\$ 214,728.45	\$ 320,829.38
Utilities	22,718.39	18,883.87	25,853.22	28,846.58	29,683.56
Telephone	33,238.28	50,861.96	32,581.04	27,226.63	38,743.05
Travel	28,982.99	28,331.08	26,514.89	41,914.97	32,723,24
Printing & Duplicating	58,481.56	57,675.17	73,939.58	56,962.67	47,113.25
Maintenance-Equipment	27,592.71	37,145.04	33,649.58	29,321.58	64,253.76
Maintenance-Bldg. & Grnds.	1,060.98	875.81	795.81	1,771.40	1,063.32
Laundry	519.59	672.02	319.04	337.94	584.62
Assessed Car Rental	6,142.87	7,056.87	5,108.84	4,448.92	4,457.04
Supplies-Office	12,739.98	24,925.69	28,268.47	23,831.52	29,097.93
Supplies-Data Processing	24,604.81	26,713.99	36,161.14	27,787.80	38,806.81
Supplies-Janitorial	47.40	00.0	00:0	00:0	00'0
Rental-Building	101,138.68	99,729.05	166,000.00	179,725.00	193,550.04
Rental-Data Processing	2,087.43	6,389.33	68:660'9	3,639.48	10,506.13
Rental-Office Equipment	11,666.45	17,129.34	16,341.37	18,154.29	14,974.68
Insurance	5,255.54	97,101.20	12,709.00	56,826.00	56,011.00
Bonds	1,776.25	1,776.25	2,704.97	1,776.25	1,776.25
Dues & Subscriptions	4,475.64	3,018.13	3,450.97	4,703.03	4,105.02
Employee Training Expense	4,411.26	6,300.98	7,761.72	8,828.15	11,673.27
Miscellaneous	5,997.08	8, 197.35	5,605.89	6,963.95	3,506.56
Photo Supplies (Micrographics)	3,041.28	1,574.74	8,934.72	20,106.38	13,484.24
Furniture Office Equipment	5, 196.58	8,038.86	9,720.71	6,660.14	2,968.75
Lease Purchase Office Equipment	41,590.74	39,342.66	9,264.18	155,294.88	77,294.88
Conference Expenses	2,195.00	3,270.00	3,479.58	4,919.50	3,620.50
TOTAL	\$ 579,223.67	\$ 773,502.05	\$ 796,529.54	\$ 924,775.51	٠.
Capital Outlay	\$ 46,451.76	\$ 96,104.15	\$ 97,893.18	\$ 216,250.02	\$ 24,646.00
TOTAL ADMINISTRATIVE EXPENSE	32,245,991.22	\$2,727,804.67	\$3,001,809.54	\$6,732,348.84	\$7,578,065.61

*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.

		DISTRIBUTION OF COST BY SYSTEM	T BY SYSTEM		
Kentucky Employees Retirement System	\$1,100,535.70	\$1,309,346.24	\$1,380,832.39	\$3,393,103.82	\$3,760,236.16
County Employees Retirement System	1,122,995.61	1,391,180.38	1,593,960.86	**3,170,936.30	**3,621,557.56
State Police Retirement System	22,459.91	27,278.05	27,016.29	168,308.72	196,271.90
	\$2,245,991.22	\$2,727,804.67	\$3,001,809.54	\$6,732,348.84	\$7,578,065.61
and the high and any interesting investment fees is a rester than 50%. Inclusion of investment the NEDS and interesting in the standard and inclusions of administration of ad	of reliant investment face is	proper than 50% Industrial	weetment food changed the diet	ribution KEDS confolio is large	or and this has higher food

