

KENTUCKY RETIREMENT SYSTEMS

**ANNUAL REPORT
FISCAL YEAR ENDING
JUNE 30, 1988**

**KENTUCKY EMPLOYEES RETIREMENT SYSTEM
COUNTY EMPLOYEES RETIREMENT SYSTEM
STATE POLICE RETIREMENT SYSTEM**

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KENTUCKY RETIREMENT SYSTEMS
151 Elkhorn Court
Frankfort, Kentucky 40601



Kentucky Employes Retirement System
County Employes Retirement System
State Police Retirement System

Bobby J. McKee
General Manager
Phone 502-564-4646

MEMORANDUM

TO: Members of the Board of Trustees
John D. Robey, Chairman
Iris R. Barrett, Vice Chairman
Frank W. Burke
William H. Cull
Thomas C. Greenwell
John E. King
Timothy S. Mauntel
Cattie Lou Miller
James R. Ramsey

FROM: Bobby J. McKee, General Manager

DATE: November 17, 1988

SUBJECT: **Annual Report for Fiscal Year Ending June 30, 1988**

As directed by KRS 61.645, I am pleased to present the Annual Report for the fiscal year ended June 30, 1988. 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 Employes Retirement System, County Employes Retirement System and State Police Retirement System. Copies will also be distributed to legislative personnel, state libraries and other interested parties.

Bobby J. McKee
General Manager

MESSAGE FROM THE GENERAL MANAGER

Members of the Retirement Systems,

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

CONTENTS

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

The second section is an exact copy of the audit report prepared by the firm of Eskew & Gresham. This report is included in accordance with Kentucky Revised Statute 61.645(12). The annual audit of the systems by an independent auditing firm assures that the systems remain in compliance with generally accepted accounting procedures.

The third section consists of copies of the significant pages of the actuarial report compiled by the firm of William M. Mercer-Meidinger-Hansen, Inc. For reasons of space and cost, detailed statistical information contained in the report are not included. However, the information necessary to determine the adequacy of funding and the systems' liabilities is included in the same format as presented to the Board.

The fourth section provides you with information on the retirement systems investments. Included are portfolio summaries for the three retirement systems and the Insurance Fund. Also shown are comparisons of portfolio growth and income growth, giving a historical perspective.

The last section provides statistical information on membership, types of payments selected, retirement payments by county and information on retirements during the 1987-88 fiscal year. The following statistical tables present a summary of the actuarial and financial sections. These tables provide a snapshot of the systems and can give you an understanding of the systems' funding without having to examine the entire audit and actuarial reports. The final table shows administrative expenses.

LEGISLATION

The 1988 General Assembly passed several pieces of legislation which brought about major changes in benefits.

For local governments participating in the County Employes Retirement System, increases were made in the benefit factors for both general employees and those in

hazardous positions, such as police and firefighters. General employees retiring on or after August 1, 1988, have benefits calculated at the rate of 2% of final average salary for each year of service credit. This increase exceeded the Board's original proposal of 1.90%. Those employees in hazardous positions who retire on or after August 1, 1988, have benefits calculated at the rate of 2.5% of final average salary for each year of service.

State employees retirement benefits were also increased for those retiring August 1 or after. The factor for determining benefits for general employees was increased to 1.91% of final average salary for each year of service. The factor for state employees in hazardous positions was increased to 2.49% of final average salary for each year of service. State police officers had their factor increased to 2.41% of final average salary for each year of service and were given service credit upon retirement for each full month of accumulated sick leave.

The disability definition for general employees of both state and county governments was changed. Employees who become disabled August 1, 1988 or after will have their disability judged on their capacity to continue in their position at the time of the disability. One of the Board's proposals, this new definition of disability is more in line with the one used by the Social Security Administration.

For all active employees of the three systems, the law was changed to permit service purchases and repayments of refunds through a payroll-deducted installment plan. The Board intended this plan to help employees improve their retirement benefits who might not be able to afford the cost as a single payment.

The General Assembly enacted legislation giving retirees a 4.5% increase on both August 1, 1988 and July 1, 1989. The same legislation provides a formula for giving raises during each year of future bienniums based on the rate margin for the Kentucky Employes Retirement System. This legislation makes raises automatic for each two year period if the system has sufficient funds and removes the giving of raises from the legislative process. This proposal was made by the Board to enact into law the Board's policy for recommending raises.

A law was passed this session mandating participation in the County Employes Retirement System for police and fire departments in 2nd through 5th class cities. Participation was required as of August 1, 1988. Because city governments are bearing the cost of this participation, there should be no serious effects on the system. The retirement office, however, will feel the effects because of the large influx of new members needing services. Next year's annual report will certainly reflect this growth in the county system.

In an attempt to reduce the state's payroll, the legislature passed a retirement incentive program for state employees and state police officers. The Early Retirement Window, as it is known, provided an increase in benefits to eligible employees who retired between August 1 and November 1, 1988. As of this date, over 1,800 employees

had taken advantage of the 10% increase in service credit, paid for by the agency, provided under the incentive program. This means 27% of those eligible took advantage of the incentive, resulting in a 4% decrease in the number of state employees and a 9% decrease in the number of uniformed state police officers. For the state retirement system, these new retirees make up a 12% increase in the number of recipients and a 28% increase in recipients in the State Police Retirement System.

This period of hard financial times for the state resulted in a budget bill which provided for lowered employer contributions to the state employees and state police retirement systems over the next two fiscal years. Total employer contributions to be received from the state were reduced by \$1.8 million in fiscal year 1988-89 and by \$1.5 million in 1989-90.

INVESTMENTS

The fiscal year ending June 30 included "Black Monday," October 19, 1987 when the the stock market fell 508.32 points in a single day. In spite of that crash, the Kentucky Retirement Systems stock portfolio showed a gain June 30, 1988, of \$186.5 million.

The rate of return for the total portfolio was 1.07%, a positive return in a year that saw a stock market crash and an extremely volatile bond market. Total assets increased 14% over fiscal year 86-87.

The Index Equity Fund, managed by myself and the Investment Staff, had a rate of return of -6.0%. Our goal with this fund is to outperform the Standard & Poor 500 Index. This we did. The S&P 500 showed a rate of return of -7.0% for the period. Our rate of return compares even better with the Dow Jones Average of -8.40% for the year ending June 30.

The retirement systems bond portfolio also outperformed the goal index. The Shearson-Lehman Bond Index showed a rate of return of 7.47% for the fiscal year. The retirement systems bond portfolio had a rate of return of 8.30%.

Overall, the retirement systems investments performed well during a rather difficult year for finances.



OPERATIONS

The retirement office saw more than 4,600 visitors over the fiscal year and answered calls from nearly 122,200 members. The staff made more than 24,300 calculations at the request of our members. Nearly 1,900 members purchased service credit. The most common service purchases were military service and repayment of refunds.

Our retired benefits section processed 2,751 new retirements over the year. There were also 1,005 deaths processed during the period. A staff of 6 people managed these transactions as well as tens of thousands of changes to accounts for tax withholding, insurance, addresses and bank accounts while managing the monthly payroll for retirees and beneficiaries of \$7.4 million.

Field staff visited 213 agencies, giving 262 presentations on the retirement systems. Those presentations included the Preretirement Conferences, which provide members with information about planning for retirement from the financial standpoint as well as planning in terms of Social Security, insurance, taxes and the legal aspects of estate planning. In addition, our five-member field staff provided technical assistance to 34 new agencies, including the cities of Glasgow, Henderson and Madisonville and 7 community action agencies, which elected participation in the County Employees Retirement System adding 1,257 new members.

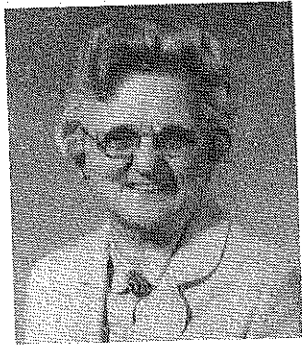
These services, and the behind-the-scenes services of accounting, investment management and data processing, were performed by the 63 staff members of the retirement systems.

In closing, I would like to thank the Board of Trustees and the staff of the retirement systems. The actions and policies of the Board have resulted in strong and secure investments in spite of a difficult year for investments. The staff has provided the level and quality of service demanded by the Board and deserved by the membership.

A handwritten signature in cursive script that reads "Bobby J. McKee".

Bobby J. McKee
General Manager

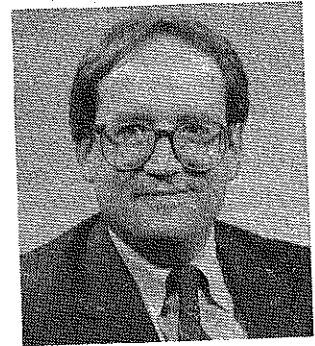
BOARD OF TRUSTEES



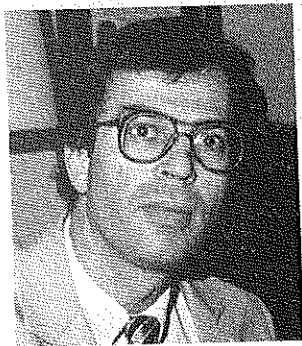
Iris R. Barrett
Frankfort
Elected by KERS Members
Term Expires 3/31/90



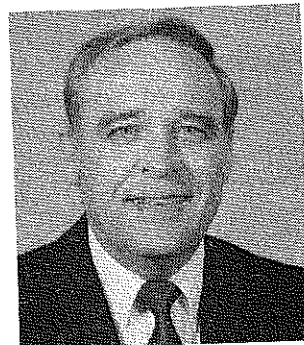
Frank W. Burke
Louisville
Elected by CERS Members
Term Expires 3/31/89



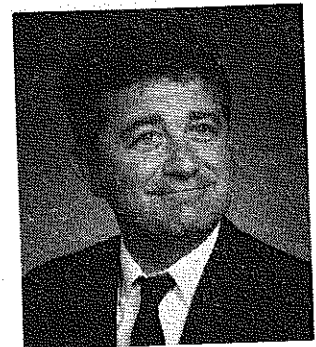
William H. Cull
Frankfort
Appointed by Governor
Term Expires 3/31/92



Thomas C. Greenwell
Frankfort
Ex Officio
Commissioner of State
Department of Personnel



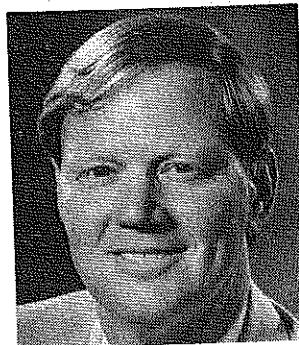
John E. King
Lexington
Elected by CERS Members
Term Expires 3/31/89



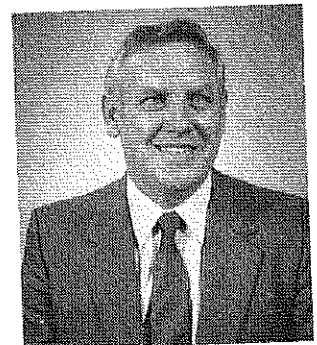
Timothy S. Mauntel
Edgewood
Appointed by Governor
Term Expired 3/31/91



Cattie Lou Miller
Frankfort
Elected by KERS Members
Term Expires 3/31/90

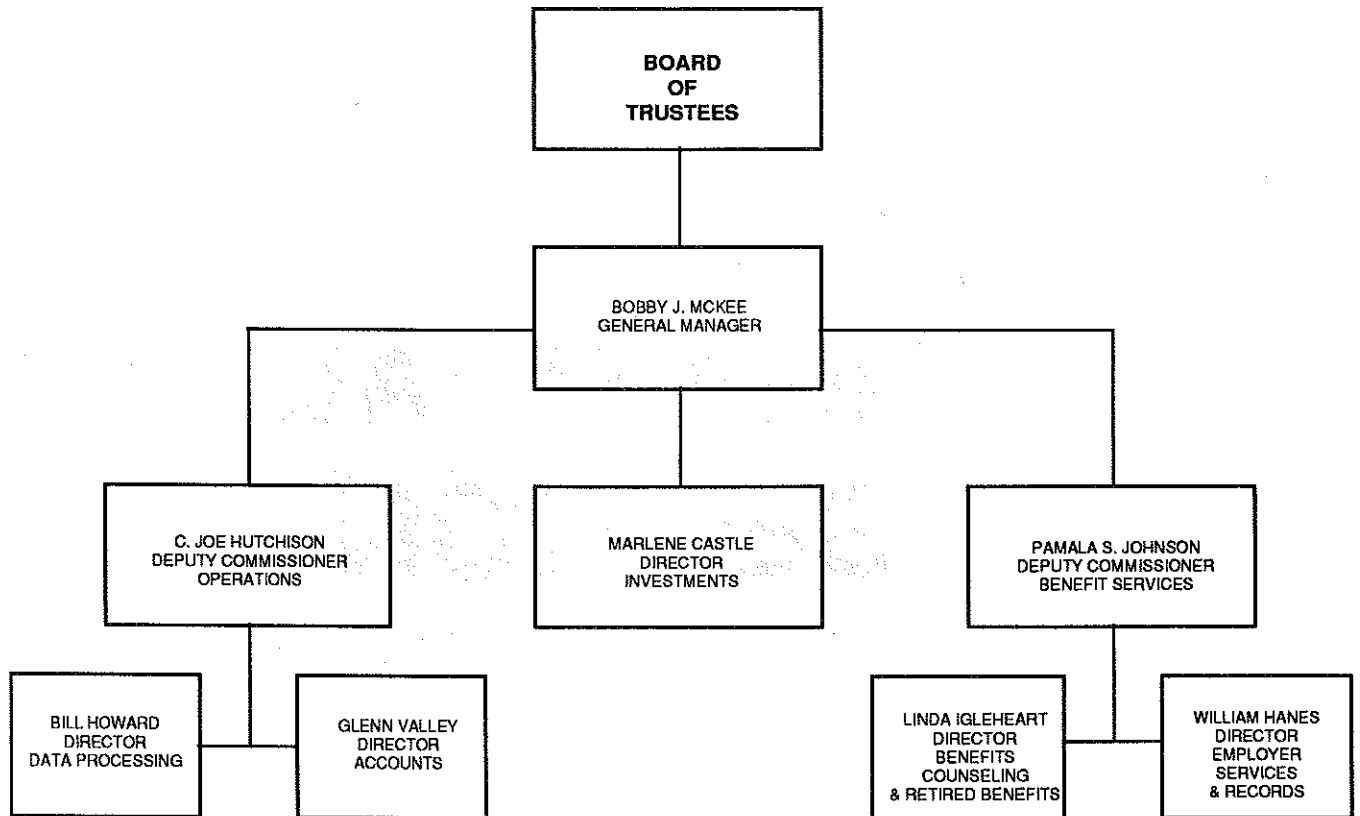


James R. Ramsey
Frankfort
Appointed by Governor
Term Expires 3/31/92



John D. Robey
Chairman
 Elizabethtown
Elected by SPRS Members
Term Expires 3/31/91

KENTUCKY RETIREMENT SYSTEMS ORGANIZATIONAL CHART



CONTRACTUAL ARRANGEMENTS

ACTUARIAL SERVICES:

William M. Mercer-Meidinger-Hansen
2600 Meidinger Tower
Louisville, KY 40202

CUSTODIAN OF SECURITIES:

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

LEGAL SERVICES:

Johnson & Judy, Stoll Kennon & Park
236 West Main Street
Frankfort, KY 40601

AUDITING SERVICES:

Eskew & Gresham, P.S.C.
2500 Meidinger Tower
Louisville, KY 40202

ASSET MANAGEMENT

CONSULTANT:

William M. Mercer-Meidinger-Hansen
2600 Meidinger Tower
Louisville, KY 40202

INVESTMENT COUNSELORS:

Capital Supervisors
20 North Clark Street
Suite 700
Chicago, IL 60602

Heitman Advisory Corp.
1800 North LaSalle Street
Suite 3600
Chicago, IL 60601

Munder Capital Management
260 East Brown Street
Suite 100
Birmingham, MI 48011

FINANCIAL SECTION

REVENUES: Employer Contributions Investment Income Investment Gain Balances Transferred	
<hr/>	
TOTAL REVENUES	
	EXPENSES: Retirement Benefits Insurance Payments Interest Credited on Accounts Administrative Expense Investment Expenses
	<hr/>
	TOTAL EXPENSES

INTRODUCTION TO FINANCIAL SECTION

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 following information shows that the systems have excellent financial strength. The combined assets of the Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement System totalled over \$2.4 billion as of June 30, 1988, an increase of 14% 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, 1988, was performed by the firm of Eskew & Gresham, PSC.

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.

There were no party-in-interest transactions, no loans or leases in default and no "reportable" transactions during the fiscal year.

An exact copy of the "audit opinion" of Eskew & Gresham 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.



Eskew & Gresham

Board of Trustees
Kentucky Retirement Systems
Frankfort, Kentucky

We have examined the balance sheets of the Kentucky Employes Retirement System, County Employes Retirement System, State Police Retirement System and Kentucky Retirement Systems Insurance Fund as of June 30, 1988 and 1987, and the related statements of revenues, expenses and changes in members' contribution account and retirement allowance account and changes in financial position of the Kentucky Employes Retirement System, County Employes Retirement System and the State Police Retirement System and the statements of revenues, expenses and changes in fund balance and changes in financial position of the Kentucky Retirement Systems Insurance Fund for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of the Kentucky Employes Retirement System, County Employes Retirement System, State Police Retirement System and Kentucky Retirement Systems Insurance Fund at June 30, 1988 and 1987, and the results of their operations, the changes in members' contribution account and retirement allowance account of the Kentucky Employes Retirement System, County Employes Retirement System and State Police Retirement System, the changes in fund balance of the Kentucky Retirement Systems Insurance Fund and the changes in their financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

September 13, 1988

Eskew & Gresham, PSC

STATE OF KENTUCKY
OFFICE OF THE COMPTROLLER
OF PUBLIC ACCOUNTS

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

KENTUCKY EMPLOYES RETIREMENT SYSTEM
BALANCE SHEETS
JUNE 30, 1988 AND 1987

	1988	1987
ASSETS		
Investments (Note 7):		
United States Government securities	\$ 250,924,536	\$ 197,372,125
Government National Mortgage Association and similar securities	237,019,246	240,313,124
Corporate bonds and notes	160,418,145	145,458,294
Convertible bonds	806,467	
Common stocks	460,439,413	505,580,243
First mortgage real estate loans	3,767,788	4,495,227
Real estate investment trust	46,725,226	43,097,735
Securities purchased under agreement to resell	248,328,843	103,843,862
	<u>\$1,408,429,664</u>	<u>\$1,240,160,610</u>
Cash on deposit with State Treasurer	25,734	29,483
Member and employer contributions receivable	5,698,475	6,365,619
Accrued investment income	14,165,999	19,543,666
Other assets	15,297	12,533
	<u>\$1,428,335,169</u>	<u>\$1,266,111,911</u>
 LIABILITIES AND FUND BALANCE		
Member refunds, insurance fund transfers and investment expenses payable	\$ 2,278,767	\$ 2,111,492
Fund balance:		
Members' Contribution Account	\$ 309,182,683	\$ 270,332,009
Retirement Allowance Account	1,116,873,719	993,668,410
	<u>\$1,426,056,402</u>	<u>\$1,264,000,419</u>
	\$1,428,335,169	\$1,266,111,911

See notes to financial statements.

KENTUCKY EMPLOYES RETIREMENT SYSTEM
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES
 IN MEMBERS' CONTRIBUTION ACCOUNT
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Revenues:		
Member contributions	\$ 43,065,763	\$ 40,563,400
Interest credited to members' balances transferred from Retirement Allowance Account	<u>10,349,211</u>	<u>8,957,819</u>
Total revenues	\$ 53,414,974	\$ 49,521,219
Expenses:		
Refunds to former members	\$ 5,860,974	\$ 5,061,156
Retired members' balances transferred to Retirement Allowance Account	<u>8,703,326</u>	<u>15,834,912</u>
Total expenses	\$ 14,564,300	\$ 20,896,068
Excess of revenues over expenses	\$ 38,850,674	\$ 28,625,151
Members' Contribution Account at beginning of year	<u>270,332,009</u>	<u>241,706,858</u>
Members' Contribution Account at end of year	\$309,182,683	\$270,332,009

See notes to financial statements.

KENTUCKY EMPLOYES RETIREMENT SYSTEM
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES
 IN RETIREMENT ALLOWANCE ACCOUNT
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Revenues:		
Employer contributions	\$ 60,507,339	\$ 56,679,470
Investment income	89,409,521	97,094,173
Net realized gain on disposal of investments	47,362,518	58,938,113
Retirement members' balances transferred from Members' Contribution Account	<u>8,703,326</u>	<u>15,834,912</u>
Total revenues	\$ 205,982,704	\$228,546,668
Expenses:		
Retirement benefits for members	\$ 60,060,355	\$ 52,414,394
Contributions transferred to the Kentucky Retirement Systems Insurance Fund	10,911,143	9,644,592
Interest credited to members' balances transferred to Members' Contribution Account	10,349,211	8,957,819
Administrative expenses	1,122,416	1,235,905
Investment expenses	<u>334,270</u>	<u>272,111</u>
Total expenses	\$ 82,777,395	\$ 72,524,821
Excess of revenues over expenses	\$ 123,205,309	\$156,021,847
Retirement Allowance Account at beginning of year	<u>993,668,410</u>	<u>837,646,563</u>
Retirement Allowance Account at end of year	\$1,116,873,719	\$993,668,410

See notes to financial statements.

KENTUCKY EMPLOYES RETIREMENT SYSTEM
 STATEMENTS OF CHANGES IN FINANCIAL POSITION
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Source of funds:		
Excess of revenues over expenses	\$162,055,983	\$184,646,998
Deduct amortization of investment discount and premium, net, not providing funds	<u>2,896,637</u>	<u>2,744,947</u>
Funds provided from operations	\$159,159,346	\$181,902,051
Proceeds from sale, maturity or exchange of investments, less net gain of \$47,362,518 in 1988 and \$58,938,113 in 1987, included above	569,312,303	387,547,241
Decrease in accrued investment income	5,377,667	
Decrease in member and employer contributions receivable	667,144	
Decrease in prepaid retirement benefits		4,352,509
Decrease in other assets		18,799
Increase in member refunds, insurance fund transfers and investment expenses payable	<u>167,275</u>	<u>1,077,542</u>
Total funds provided	\$734,683,735	\$574,898,142
Application of funds:		
Investments purchased or exchanged	\$734,684,720	\$566,245,933
Increase in member and employer contributions receivable		2,539,959
Increase in accrued investment income		6,098,887
Increase in other assets	<u>2,764</u>	<u> </u>
Total funds applied	\$734,687,484	\$574,884,779
Increase (decrease) in cash	\$ (3,749)	\$ 13,363
Cash on deposit with State Treasurer at beginning of year	<u>29,483</u>	<u>16,120</u>
Cash on deposit with State Treasurer at end of year	\$ 25,734	\$ 29,483

See notes to financial statements.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of Kentucky Employes Retirement System (the System) are prepared on the accrual basis, and generally conform to the provisions of the National Council on Governmental Accounting's Statement 1.

B. Investment Securities - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discount and premium are amortized using the straight-line method from the date of acquisition to stated or expected maturity. Common stocks, securities purchased under agreement to resell and investment in real estate investment trust are carried at cost.

Net realized gain or loss on investments represents 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.

C. Members' Contribution and Retirement Allowance Accounts - These accounts are funded by contributions and investment income. The Members' Contribution Account represents the accumulation of active members' contributions plus interest credited to members' accounts. The Retirement Allowance Account is comprised of retired members' contribution balances including interest credited thereon and accumulated employer contributions plus cumulative excess of revenues over expenses less interest credited to members' contribution accounts.

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

NOTE 2 - DESCRIPTION OF THE PLAN

The Kentucky Employes Retirement 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 270 at June 30, 1988.

For the years ended June 30, 1988 and 1987, participating employees 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 one percent (1%) of unfunded past service costs per annum plus interest at the actuarial assumed rate. Such contribution rates are determined by the Board of Trustees of Kentucky Retirement Systems each biennium. Participating employers contributed 7.45% and 14%, respectively, of members' non-hazardous and hazardous compensation for both years.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

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, 1981, 6% thereafter through June 30, 1986 and 4% thereafter.

At June 30, membership in the System consisted of:

	1988	1987
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them:		
Non-hazardous positions	23,068	23,617
Hazardous positions	142	107
Total	23,210	23,724
Current employees:		
Vested:		
Non-hazardous positions	27,190	27,342
Hazardous positions	258	155
Nonvested:		
Non-hazardous positions	16,080	15,361
Hazardous positions	305	413
Total	43,833	43,271

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

NOTE 3 - ACCUMULATED BENEFITS

Accumulated plan benefits are those future periodic payments, including lump-sum distributions, that are attributable under the Plan's provisions to services rendered by the employees to the valuation date. Accumulated plan benefits include benefits expected to be paid to (a) retired or terminated employees or their beneficiaries, (b) beneficiaries of employees who are deceased, and (c) present employees or their beneficiaries. Benefits under the Plan are based on employees' average compensation during their five highest paid years. Accumulated plan benefits for active employees are based on their compensation as of the valuation date. Benefits payable under all circumstances - retirement, death, and termination of employment - are included to the extent they are deemed attributable to employee service rendered to the valuation date.

The System's consulting actuary, William M. Mercer-Meidinger-Hansen, Inc., estimates the actuarial present value of accumulated plan benefits, which is the amount that results from applying actuarial assumptions to adjust the accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (taking into account mortality) between the valuation date and the expected date of payment.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 3 - ACCUMULATED BENEFITS (CONTINUED)

Accumulated plan benefit information follows:

	1988	June 30 1987
Vested benefits:		
Participants currently receiving payments	\$526,710,966	\$473,863,105
Other participants	<u>365,424,372</u>	<u>319,395,435</u>
	\$892,135,338	\$793,258,540
Non-vested benefits	<u>95,619,370</u>	<u>83,427,449</u>
Total accumulated plan benefits	\$987,754,708	\$876,685,989

The more significant assumptions underlying the actuarial computations, including those which enter only into the determination of funding levels (cost method, turnover, retirement age, and salary increase), are as follows:

Actuarial cost method	-	Entry age normal cost method
Assumed rate of return on investments	-	8% per annum
Mortality basis	-	1971 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 1985 experience study
Retirement age	-	Based upon experience, with 20% weight, at age 55-64, to the earliest age at which an employee could retire with 100% of the accrued benefits
Salary increase	-	7 1/2% per annum

NOTE 4 - FUNDING STATUS AND PROGRESS

The amount shown below as "pension benefit obligation" is a standardized disclosure 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 employee 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.

The pension benefit obligation for 1988 and 1987 was determined as part of an actuarial valuation at June 30, 1988 and 1987, respectively. The significant actuarial assumptions are the same as those used for the accumulated plan benefits computations for those years.

KENTUCKY EMPLOYEES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 4 - FUNDING STATUS AND PROGRESS (CONTINUED)

The funds in excess of pension benefit obligation were \$26,042,600 and \$25,254,323 at June 30, 1988 and 1987, respectively.

	1988	1987
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$ 526,710,966	\$ 473,863,105
Current members -		
Accumulated employee contributions and credited interest	292,377,177	258,408,667
Employer-financed vested	556,968,752	487,032,819
Employer-financed nonvested	<u>23,956,907</u>	<u>19,441,505</u>
Total pension benefit obligation	\$1,400,013,802	\$1,238,746,096
Net assets available for benefits, at cost	<u>1,426,056,402</u>	<u>1,264,000,419</u>
Funds in excess of pension benefit obligation	\$ 26,042,600	\$ 25,254,323

NOTE 5 - 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 actuarial funding method. The System also uses the level percentage of payroll method to amortize the unfunded liability.

Actuarially determined contribution requirements of \$84,013,089 (\$46,059,104 employer and \$37,953,985 employee) for the years ended June 30, 1988 and \$82,894,422 (\$47,145,959 employer and \$35,748,463 employee) for the year ended June 30, 1987 were determined through an actuarial valuation performed at June 30, 1987 and 1986, respectively. These contributions were to consist of: (a) \$61,677,949 for 1988 and \$57,972,889 for 1987 normal cost; (b) \$10,823,346 for 1988 and \$14,997,172 for 1987 amortization of the unfunded actuarial accrued liability; (c) \$1,239,606 for 1988 and \$820,005 for 1987 administrative expenses; and (d) \$10,272,188 for 1988 and \$9,104,356 for 1987 group hospital and medical insurance premiums. For 1988, contributions received totaled \$103,573,102 of which the employer portion was \$60,507,339 (7.45% of the covered payroll for non-hazardous positions and 14% for hazardous positions) and the employee portion was \$43,065,763 (5% of the covered payroll for non-hazardous positions and 7% for hazardous positions). For 1987 contributions received totaled \$97,242,870 of which the employer portion was \$56,679,470 (7.45% of the covered payroll for non-hazardous positions and 14% for hazardous positions) and employee portion was \$40,563,400 (5% of the covered payroll for non-hazardous positions and 7% for hazardous positions).

KENTUCKY EMPLOYES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 6 - FIVE-YEAR HISTORICAL TREND INFORMATION

Five-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.

Analysis of Funding Progress

Fiscal Year	(1)	(2)	(3)	(4)	(5)	(6)
	Net Assets Available For Benefits	Pension Benefit Obligation	Percentage Funded (1) - (2)	Unfunded (Funds in Excess of) Pension Benefit Obligation (2) - (1)	Annual Covered Payroll	Unfunded Pension Benefit Obligation as a Percentage of Covered 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

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded (funds in excess of) 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.

Revenues by Source

Fiscal Year	Employee Contributions	Employer Contributions	Investment Income	Other Income	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

Expenses by Type

Fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Other Expenses	Contributions Transferred to Insurance Fund	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

KENTUCKY EMPLOYEES RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987
(CONTINUED)

NOTE 7 - 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 State Statutes:

Equity Investments - Investments may be made in common stock, securities convertible into common stock and in preferred stock 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 U.S. Government issued debt instrument or issue by an agency of the U.S. Government with an initial maturity of over one year and which are guaranteed by 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 do business in the Commonwealth of Kentucky and such other states as may be required.

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

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

- ° Repurchase Agreements -- Repurchase Agreements which are collateralized by United States Government issues.
- ° U.S. Government Issues -- 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.

KENTUCKY EMPLOYES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 7 - INVESTMENTS (CONTINUED)

The System's investments are categorized below to give an indication of level of risk assumed by the entity at June 30, 1988. Category 1 includes investments that are insured or registered or for which the collateralized securities are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments for which the collateralized securities are held by the broker's or dealer's trust department or agent in the System's name.

	June 30, 1988		Carrying Amount	Market Value	June 30, 1987 Market Value
	Category				
	1	2			
United States Government securities	\$ 9,924,636	\$ 240,999,900	\$ 250,924,536	\$ 251,109,000	\$ 202,953,000
Government National Mortgage Association and similar securities	40,572,972	196,446,274	237,019,246	236,923,000	245,032,000
Corporate bonds and notes	25,295,874	135,122,271	160,418,145	160,298,000	147,906,000
Common stocks		460,439,413	460,439,413	582,256,000	744,366,000
Securities purchased under agreement to resell		248,328,843	248,328,843	248,329,000	103,844,000
	<u>\$75,793,482</u>	<u>\$1,281,336,701</u>	<u>\$1,357,130,183</u>	<u>\$1,478,915,000</u>	<u>\$1,444,101,000</u>
Convertible bonds			806,467	768,000	
First mortgage real estate loans			3,767,788	3,463,000	4,578,000
Real estate investment trust			<u>46,725,226</u>	<u>53,403,000</u>	<u>48,033,000</u>
Total Investments			\$1,408,429,664	\$1,536,549,000	\$1,496,712,000

Investments at June 30, 1988, include securities loaned under various lending programs.

NOTE 8 - INCOME TAX STATUS

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

NOTE 9 - TRANSFERS TO INSURANCE FUND

By action of the 1978 General Assembly, the Kentucky Retirement Systems Insurance Fund was established to provide a group hospital and medical insurance plan for recipients of a retirement allowance from the Kentucky Employees Retirement System. The Insurance Fund is funded by the transfer of a portion of employer contributions to the retirement system. The percentage of creditable compensation transferred to the Insurance Fund by the Kentucky Employees Retirement System was 1.31% and 1.23% for non-hazardous and 4.94% and 4.90% for hazardous positions for the years ended June 30, 1988 and 1987, respectively.

COUNTY EMPLOYEES RETIREMENT SYSTEM

COUNTY EMPLOYEES RETIREMENT SYSTEM
BALANCE SHEETS
JUNE 30, 1988 AND 1987

	1988	1987
ASSETS		
Investments (Note 7):		
United States Government securities	\$149,035,426	\$113,173,524
Government National Mortgage Association and similar securities	134,456,325	137,351,159
Corporate bonds and notes	80,911,738	73,818,716
Convertible bonds	390,635	
Common stocks	267,495,791	285,101,128
First mortgage real estate loans	423,056	485,338
Real estate investment trust	29,159,364	26,190,728
Securities purchased under agreement to resell	<u>154,182,364</u>	<u>61,418,061</u>
	<u>\$816,054,699</u>	<u>\$697,538,654</u>
Cash on deposit with State Treasurer	26,198	26,634
Member and employer contributions receivable	5,231,347	7,931,544
Past service credit contribution receivable	11,479,820	12,517,790
Accrued investment income	7,972,174	10,730,103
Other assets	<u>15,609</u>	<u>6,167</u>
	<u>\$840,779,847</u>	<u>\$728,750,892</u>
 LIABILITIES AND FUND BALANCE		
Member refunds, insurance fund transfers and investment expenses payable	\$ 1,200,951	\$ 1,020,165
 Fund balance:		
Members' Contribution Account	\$177,526,061	\$153,378,173
Retirement Allowance Account	<u>662,052,835</u>	<u>574,352,554</u>
	<u>\$839,578,896</u>	<u>\$727,730,727</u>
	\$840,779,847	\$728,750,892

See notes to financial statements.

COUNTY EMPLOYEES RETIREMENT SYSTEM
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES
 IN MEMBERS' CONTRIBUTION ACCOUNT
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Revenues:		
Member contributions	\$ 30,401,026	\$ 28,071,411
Interest credited to members' balances transferred from Retirement Allowance Account	<u>5,807,768</u>	<u>4,932,209</u>
Total revenues	\$ 36,208,794	\$ 33,003,620
Expenses:		
Refunds to former members	\$ 4,451,755	\$ 4,382,655
Retired members' balances transferred to Retirement Allowance Account	<u>7,609,151</u>	<u>8,736,441</u>
Total expenses	\$ 12,060,906	\$ 13,119,096
Excess of revenues over expenses	\$ 24,147,888	\$ 19,884,524
Members' Contribution Account at beginning of year	<u>153,378,173</u>	<u>133,493,649</u>
Members' Contribution Account at end of year	\$177,526,061	\$153,378,173

See notes to financial statements.

COUNTY EMPLOYES RETIREMENT SYSTEM
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES
 IN RETIREMENT ALLOWANCE ACCOUNT
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Revenues:		
Employer contributions	\$ 44,811,097	\$ 42,060,265
Investment income	52,252,320	54,428,479
Net realized gain on disposal of investments	23,584,203	28,353,575
Retirement members' balances transferred from Members' Contribution Account	<u>7,609,151</u>	<u>8,736,441</u>
Total revenues	\$128,256,771	\$133,578,760
Expenses:		
Retirement benefits for members	\$ 26,982,299	\$ 18,065,794
Contributions transferred to the Kentucky Retirement Systems Insurance Fund	6,441,538	5,285,103
Interest credited to members' balances transferred to Members' Contribution Account	5,807,768	4,932,209
Administrative expenses	1,135,267	1,116,914
Investment expenses	<u>189,618</u>	<u>148,337</u>
Total expenses	\$ 40,556,490	\$ 29,548,357
Excess of revenues over expenses	\$ 87,700,281	\$104,030,403
Retirement Allowance Account at beginning of year	<u>574,352,554</u>	<u>470,322,151</u>
Retirement Allowance Account at end of year	\$662,052,835	\$574,352,554

See notes to financial statements.

COUNTY EMPLOYEES RETIREMENT SYSTEM
STATEMENTS OF CHANGES IN FINANCIAL POSITION
FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Source of funds:		
Excess of revenues over expenses	\$111,848,169	\$123,914,927
Deduct amortization of investment discount and premium, net, not providing funds	<u>1,922,105</u>	<u>1,365,355</u>
Funds provided from operations	\$109,926,064	\$122,549,572
Proceeds from sale, maturity or exchange of investments, less net gain of \$23,584,203 in 1988 and \$28,353,575 in 1987, included above	\$323,185,898	\$193,554,306
Decrease in accrued investment income	2,757,929	
Decrease in member and employer contributions receivable	2,700,197	8,086,648
Decrease in past service credit contribution receivable	1,037,970	23,097,140
Decrease in prepaid retirement benefits		1,534,528
Decrease in other assets		9,250
Increase in member refunds, insurance fund transfers and investment expenses payable	<u>180,786</u>	<u>213,671</u>
Total funds provided	\$439,788,844	\$349,045,115
Application of funds:		
Investments purchased or exchanged	\$439,779,838	\$345,287,994
Increase in accrued investment income		3,745,057
Increase in other assets	<u>9,442</u>	<u></u>
Total funds applied	\$439,789,280	\$349,033,051
Increase (decrease) in cash	\$ (436)	\$ 12,064
Cash on deposit with State Treasurer at beginning of year	<u>26,634</u>	<u>14,570</u>
Cash on deposit with State Treasurer at end of year	\$ 26,198	\$ 26,634

See notes to financial statements.

COUNTY EMPLOYES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of County Employees Retirement System (the System) are prepared on the accrual basis, and generally conform to the provisions of the National Council on Governmental Accounting's Statement 1.

B. Investment Securities - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discount and premium are amortized using the straight-line method from the date of acquisition to stated or expected maturity. Common stocks, securities purchased under agreement to resell and investment in real estate investment trust are carried at cost.

Net realized gain or loss on investments represents 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.

C. Members' Contribution and Retirement Allowance Accounts - These accounts are funded by contributions and investment income. The Members' Contribution Account represents the accumulation of active members' contributions plus interest credited to members' accounts. The Retirement Allowance Account is comprised of retired members' contribution balances including interest credited thereon and accumulated employer contributions plus cumulative excess of revenues over expenses less interest credited to members' contribution accounts.

Employees are permitted to purchase credits for member service from the date of plan adoption to the participation 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.

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

NOTE 2 - DESCRIPTION OF THE PLAN

The County Employees Retirement System is a defined benefit plan which covers substantially all regular full-time employees of each county and school board, and any additional local agencies electing to participate in the System. The Plan provides for retirement, disability and death benefits. At June 30, 1988, the number of participating local government employers was:

Boards of Education	178
County agencies	134
City agencies	96
Libraries	60
Other	141
Total	<u>609</u>

COUNTY EMPLOYEES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

For the years ended June 30, 1988 and 1987, participating employees contributed 4.25% 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 one percent (1%) of unfunded past service costs per annum plus interest at the actuarial assumed rate. Such contribution rates are determined by the Board of Trustees of Kentucky Retirement Systems each biennium. Participating employers contributed 5.75% and 14%, respectively, of members' non-hazardous and hazardous compensation for both years.

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, 1981, 6% thereafter through June 30, 1986 and 4% thereafter.

At June 30, membership in the System consisted of:

	1988	1987
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them:		
Non-hazardous positions	18,395	18,097
Hazardous positions	336	251
Total	18,731	18,348
Current employees:		
Vested:		
Non-hazardous positions	23,133	21,941
Hazardous positions	1,087	1,037
Nonvested:		
Non-hazardous positions	21,468	20,035
Hazardous positions	641	412
Total	46,329	43,425

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

COUNTY EMPLOYEES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 3 - ACCUMULATED BENEFITS

Accumulated plan benefits are those future periodic payments, including lump-sum distributions, that are attributable under the Plan's provisions to services rendered by the employees to the valuation date. Accumulated plan benefits include benefits expected to be paid to (a) retired or terminated employees or their beneficiaries, (b) beneficiaries of employees who are deceased, and (c) present employees or their beneficiaries. Benefits under the Plan are based on employees' average compensation during their five highest paid years. Accumulated plan benefits for active employees are based on their compensation as of the valuation date. Benefits payable under all circumstances - retirement, death, and termination of employment - are included to the extent they are deemed attributable to employee service rendered to the valuation date.

The System's consulting actuary, William M. Mercer-Meidinger-Hansen, Inc., estimates the actuarial present value of accumulated plan benefits, which is the amount that results from applying actuarial assumptions to adjust the accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (taking into account mortality) between the valuation date and the expected date of payment.

Accumulated plan benefit information follows:

	June 30	
	1988	1987
Vested benefits:		
Participants currently receiving payments	\$228,199,648	\$196,265,177
Other participants	<u>213,842,721</u>	<u>172,125,807</u>
	\$442,042,369	\$368,390,984
Non-vested benefits	<u>71,962,347</u>	<u>55,026,575</u>
Total accumulated plan benefits	\$514,004,716	\$423,417,559

The more significant assumptions underlying the actuarial computations, including those which enter only into the determination of funding levels (cost method, turnover, retirement age, and salary increase), are as follows:

- | | |
|---------------------------------------|--|
| Actuarial cost method | - Entry age normal cost method |
| Assumed rate of return on investments | - 8% per annum |
| Mortality basis | - 1971 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employees |

COUNTY EMPLOYES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 3 - ACCUMULATED BENEFITS (CONTINUED)

Employee turnover	- Graduated select and ultimate rates based on 1985 experience study
Retirement age	- Based upon experience, with 20% weight, at age 55-64, to the earliest age at which an employee could retire with 100% of the accrued benefits
Salary increase	- 7 1/2% per annum

NOTE 4 - FUNDING STATUS AND PROGRESS

The amount shown below as "pension benefit obligation" is a standardized disclosure 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 employee 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.

The pension benefit obligation for 1988 and 1987 was determined as part of an actuarial valuation at June 30, 1988 and 1987, respectively. The significant actuarial assumptions are the same as those used for the accumulated plan benefits computations for those years.

The funds in excess of pension benefit obligation were \$97,244,516 and \$119,840,014 at June 30, 1988 and 1987, respectively.

	1988	1987
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$228,199,648	\$196,265,177
Current members -		
Accumulated employee contributions and credited interest	169,444,862	146,071,392
Employer-financed vested	317,872,395	245,610,552
Employer-financed nonvested	<u>26,817,475</u>	<u>19,943,592</u>
Total pension benefit obligation	\$742,334,380	\$607,890,713
Net assets available for benefits, at cost	<u>839,578,896</u>	<u>727,730,727</u>
Funds in excess of pension benefit obligation	\$ 97,244,516	\$119,840,014

COUNTY EMPLOYES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 5 - 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 actuarial funding method. The System also uses the level percentage of payroll method to amortize the unfunded liability.

Actuarially determined contribution requirements of \$51,179,829 (\$27,262,741 employer and \$23,917,088 employee) for the years ended June 30, 1988 and \$49,574,018 (\$28,307,909 employer and \$21,266,109 employee) for the year ended June 30, 1987 were determined through an actuarial valuation performed at June 30, 1987 and 1986, respectively. These contributions were to consist of: (a) \$48,479,006 for 1988 and \$43,909,820 for 1987 normal cost; (b) \$(4,435,915) for 1988 and \$ -0- for 1987 amortization of the unfunded actuarial accrued liability; (c) \$1,120,413 for 1988 and \$741,158 for 1987 administrative expenses; and (d) \$6,016,325 for 1988 and \$4,923,040 for 1987 group hospital and medical insurance premiums. For 1988, contributions received totaled \$75,212,123 of which the employer portion was \$44,811,097 (5.75% of the covered payroll for non-hazardous positions and 14% for hazardous positions) and the employee portion was \$30,401,026 (4.25% of the covered payroll for non-hazardous positions and 7% for hazardous positions). For 1987 contributions received totaled \$70,131,676 of which the employer portion was \$42,060,265 (5.75% of the covered payroll for non-hazardous positions and 14.0% for hazardous positions) and the employee portion was \$28,071,411 (4.25% of the covered payroll for non-hazardous positions and 7% for hazardous positions).

NOTE 6 - FIVE-YEAR HISTORICAL TREND INFORMATION

Five-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.

Analysis of Funding Progress

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	\$406,187,431	\$374,960,289				
1985	478,043,221	413,059,045	108.3%	\$ (31,227,142)	\$403,461,792	N/A
1986	603,815,800	479,360,458	115.7	(64,984,176)	433,135,800	N/A
1987	727,730,727	607,890,713	126.0	(124,455,342)	484,796,988	N/A
1988	839,578,896	742,334,380	119.7	(119,840,014)	544,184,376	N/A
			113.1	(97,244,516)	615,028,632	N/A

COUNTY EMPLOYEES RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 6 - FIVE-YEAR HISTORICAL TREND INFORMATION (CONTINUED)

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded (funds in excess of) 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.

Fiscal Year	Revenues by Source				Total
	Employee Contributions	Employer Contributions	Investment Income	Other Income	
1984	\$16,040,197	\$25,580,243	\$35,005,604	\$ 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

Fiscal Year	Expenses by Type					Total
	Benefit Payments	Administrative Expenses	Refunds	Other Expenses	Contributions Transferred to Insurance Fund	
1984	\$13,066,260	\$ 561,747	\$3,331,153	\$ 96,104	\$ 667,073	\$17,722,337
1985	14,843,697	650,073	3,570,707	124,145	1,297,765	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

NOTE 7 - 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 State Statutes:

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

COUNTY EMPLOYEES RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987
(CONTINUED)

NOTE 7 - INVESTMENTS (CONTINUED)

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 U.S. Government issued debt instrument or issue by an agency of the U.S. Government with an initial maturity of over one year and which are guaranteed by 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 do business in the Commonwealth of Kentucky and such other states as may be required.

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

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

COUNTY EMPLOYEES RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987
(CONTINUED)

NOTE 7 - INVESTMENTS (CONTINUED)

The System's investments are categorized below to give an indication of level of risk assumed by the entity at June 30, 1988. Category 1 includes investments that are insured or registered or for which the collateralized securities are held by the System or its agent in the System's name. Category 2 includes uninsured and unregistered investments for which the collateralized securities are held by the broker's or dealer's trust department or agent in the System's name.

	June 30, 1988		Carrying Amount	Market Value	June 30, 1987 Market Value
	Category				
	1	2			
United States Government securities	\$ 3,928,058	\$145,107,368	\$149,035,426	\$148,156,000	\$116,144,000
Government National Mortgage Association and similar securities	28,506,771	105,949,554	134,456,325	135,162,000	141,000,000
Corporate bonds and notes	10,150,014	70,761,724	80,911,738	80,599,000	74,903,000
Common stocks		267,495,791	267,495,791	321,568,000	402,573,000
Securities purchased under agreement to resell		154,182,364	154,182,364	154,182,000	61,418,000
	<u>\$42,584,843</u>	<u>\$743,496,801</u>	<u>\$786,081,644</u>	<u>\$839,667,000</u>	<u>\$796,038,000</u>
Convertible bonds			390,635	372,000	
First mortgage real estate loans			423,056	393,000	498,000
Real estate investment trust			<u>29,159,364</u>	<u>33,077,000</u>	<u>29,066,000</u>
Total Investments			\$816,054,699	\$873,509,000	\$825,602,000

Investments at June 30, 1988, include securities loaned under various lending programs.

NOTE 8 - INCOME TAX STATUS

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

NOTE 9 - TRANSFERS TO INSURANCE FUND

By action of the 1978 General Assembly, the Kentucky Retirement Systems Insurance Fund was established to provide a group hospital and medical insurance plan for recipients of a retirement allowance from the County Employees Retirement System. The Insurance Fund is funded by the transfer of a portion of employer contributions to the retirement system. The percentage of creditable compensation transferred to the Insurance Fund by the County Employees Retirement System was .95% and .92% for non-hazardous and 3.31% and 2.36% for hazardous positions for the years ended June 30, 1988 and 1987, respectively.

STATE POLICE RETIREMENT SYSTEM

STATE POLICE RETIREMENT SYSTEM
BALANCE SHEETS
JUNE 30, 1988 AND 1987

	1988	1987
ASSETS		
Investments (Note 7):		
United States Government securities	\$ 24,044,787	\$ 18,229,329
Government National Mortgage Association and similar securities	19,664,733	20,322,898
Corporate bonds and notes	13,537,814	12,364,168
Convertible bonds	63,004	
Common stocks	39,711,320	45,238,558
First mortgage real estate loans	223,874	266,737
Real estate investment trust	3,816,568	3,567,229
Securities purchased under agreement to resell	18,563,363	8,188,344
	<u>\$119,625,463</u>	<u>\$108,177,263</u>
Cash on deposit with State Treasurer	524	567
Member and employer contributions receivable	349,711	446,617
Accrued investment income	1,192,775	1,731,353
Other assets	312	1,194
	<u>\$121,168,785</u>	<u>\$110,356,994</u>
 LIABILITIES AND FUND BALANCE		
Member refunds, insurance fund transfers and investment expenses payable	\$ 170,236	\$ 162,390
Fund balance:		
Members' Contribution Account	\$ 21,394,367	\$ 19,060,890
Retirement Allowance Account	99,604,182	91,133,714
	<u>\$120,998,549</u>	<u>\$110,194,604</u>
	\$121,168,785	\$110,356,994

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES
 IN MEMBERS' CONTRIBUTION ACCOUNT
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Revenues:		
Member contributions	\$ 2,158,349	\$ 1,944,780
Interest credited to members' balances transferred from Retirement Allowance Account	<u>742,461</u>	<u>664,388</u>
Total revenues	\$ 2,900,810	\$ 2,609,168
Expenses:		
Refunds to former members	\$ 108,814	\$ 127,181
Retired members' balances transferred to Retirement Allowance Account	<u>458,519</u>	<u>1,408,679</u>
Total expenses	\$ 567,333	\$ 1,535,860
Excess of revenues over expenses	\$ 2,333,477	\$ 1,073,308
Members' Contribution Account at beginning of year	<u>19,060,890</u>	<u>17,987,582</u>
Members' Contribution Account at end of year	\$21,394,367	\$19,060,890

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM
 STATEMENTS OF REVENUES, EXPENSES AND CHANGES
 IN RETIREMENT ALLOWANCE ACCOUNT
 FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Revenues:		
Employer contributions	\$ 4,575,097	\$ 4,481,033
Investment income	7,520,682	8,763,083
Net realized gain on disposal of investments	4,165,099	5,188,413
Retirement members' balances transferred from Members' Contribution Account	<u>458,519</u>	<u>1,408,679</u>
Total revenues	\$16,719,397	\$19,841,208
Expenses:		
Retirement benefits for members	\$ 5,693,316	\$ 5,107,017
Contributions transferred to the Kentucky Retirement Systems Insurance Fund	1,760,979	1,569,076
Interest credited to members' balances transferred to Members' Contribution Account	742,461	664,387
Administrative expenses	23,810	23,379
Investment expenses	<u>28,363</u>	<u>23,752</u>
Total expenses	\$ 8,248,929	\$ 7,387,611
Excess of revenues over expenses	\$ 8,470,468	\$12,453,597
Retirement Allowance Account at beginning of year	<u>91,133,714</u>	<u>78,680,117</u>
Retirement Allowance Account at end of year	\$99,604,182	\$91,133,714

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM
STATEMENTS OF CHANGES IN FINANCIAL POSITION
FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Source of funds:		
Excess of revenues over expenses	\$10,803,945	\$13,526,905
Deduct amortization of investment discount and premium, net, not providing funds	<u>242,056</u>	<u>510,695</u>
Funds provided from operations	\$10,561,889	\$13,016,210
Proceeds from sale, maturity or exchange of investments, less net gain of \$4,165,099 in 1988 and \$5,188,413 in 1987, included above	49,858,352	35,865,408
Decrease in accrued investment income	538,578	
Decrease in member and employer contribution receivable	96,906	
Decrease in prepaid retirement benefits		419,005
Decrease in other assets	882	1,790
Increase in member refunds, insurance fund transfers and investment expenses payable	<u>7,846</u>	<u>115,869</u>
Total funds provided	\$61,064,453	\$49,418,282
Application of funds:		
Investments purchased or exchanged	\$61,064,496	\$48,695,414
Increase in member and employer contributions receivable		184,942
Increase in accrued investment income		<u>537,669</u>
Total funds applied	\$61,064,496	\$49,418,025
Increase (decrease) in cash	\$ (43)	\$ 257
Cash on deposit with State Treasurer at beginning of year	<u>567</u>	<u>310</u>
Cash on deposit with State Treasurer at end of year	\$ 524	\$ 567

See notes to financial statements.

STATE POLICE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of Presentation - The financial statements of State Police Retirement System (the System) are prepared on the accrual basis, and generally conform to the provisions of the National Council on Governmental Accounting's Statement 1.

B. Investment Securities - Investments in bonds and first mortgage real estate loans are stated at amortized cost. Discount and premium are amortized using the straight-line method from the date of acquisition to stated or expected maturity. Common stocks, securities purchased under agreement to resell and investment in real estate investment trust are carried at cost.

Net realized gain or loss on investments represents 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.

C. Members' Contribution and Retirement Allowance Accounts - These accounts are funded by contributions and investment income. The Members' Contribution Account represents the accumulation of active members' contributions plus interest credited to members' accounts. The Retirement Allowance Account is comprised of retired members' contribution balances including interest credited thereon and accumulated employer contributions plus cumulative excess of revenues over expenses less interest credited to members' contribution accounts.

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

NOTE 2 - DESCRIPTION OF THE PLAN

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

Participating employees generally contribute 7% of creditable compensation to the System. Employer contribution rates are intended to fund the System's normal cost on a current basis and one percent (1%) of unfunded past service costs per annum plus interest at the actuarial assumed rate. Such contribution rates are determined by the Board of Trustees of Kentucky Retirement Systems each biennium. For the years ended June 30, 1988 and 1987, the employer contributed 18.25% of members' compensation.

STATE POLICE RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 2 - DESCRIPTION OF THE PLAN (CONTINUED)

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, 1981, 6% thereafter through June 30, 1986 and 4% thereafter.

At June 30, membership in the System consisted of:

	1988	1987
Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	406	374
Current employees:		
Vested	764	728
Nonvested	155	242
Total	919	970

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

NOTE 3 - ACCUMULATED BENEFITS

Accumulated plan benefits are those future periodic payments, including lump-sum distributions, that are attributable under the Plan's provisions to services rendered by the employees to the valuation date. Accumulated plan benefits include benefits expected to be paid to (a) retired or terminated employees or their beneficiaries, (b) beneficiaries of employees who are deceased, and (c) present employees or their beneficiaries. Benefits under the Plan are based on employees' average compensation during their five highest paid years. Accumulated plan benefits for active employees are based on their compensation as of the valuation date. Benefits payable under all circumstances - retirement, death, and termination of employment - are included to the extent they are deemed attributable to employee service rendered to the valuation date.

The System's consulting actuary, William M. Mercer-Meidinger-Hansen, Inc., estimates the actuarial present value of accumulated plan benefits, which is the amount that results from applying actuarial assumptions to adjust the accumulated plan benefits to reflect the time value of money (through discounts for interest) and the probability of payment (taking into account mortality) between the valuation date and the expected date of payment.

STATE POLICE RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 3 - ACCUMULATED BENEFITS (CONTINUED)

Accumulated plan benefit information follows:

	June 30	
	1988	1987
Vested benefits:		
Participants currently receiving payments	\$53,333,416	\$49,264,732
Other participants	<u>24,700,389</u>	<u>22,796,070</u>
Non-vested benefits	<u>\$78,033,805</u>	<u>\$72,060,802</u>
	<u>11,605,546</u>	<u>7,946,908</u>
Total accumulated plan benefits	\$89,639,351	\$80,007,710

The more significant assumptions underlying the actuarial computations, including those which enter only into the determination of funding levels (cost method, turnover, retirement age, and salary increase), are as follows:

Actuarial cost method	- Entry age normal cost method
Assumed rate of return on investments	- 8% per annum
Mortality basis	- 1971 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year
Employee turnover	- Graduated rates based on 1985 experience study
Retirement age	- 40% will retire as soon as eligible for unreduced benefits and balance will continue to age 55
Salary increase	- 7 1/2% per annum

NOTE 4 - FUNDING STATUS AND PROGRESS

The amount shown below as "pension benefit obligation" is a standardized disclosure 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 employee 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.

The pension benefit obligation for 1988 and 1987 was determined as part of an actuarial valuation at June 30, 1987 and 1986, respectively. The significant actuarial assumptions are the same as those used for the accumulated plan benefits computations for those years.

STATE POLICE RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 4 - FUNDING STATUS AND PROGRESS (CONTINUED)

The funds in excess of pension benefit obligation were \$5,383,234 and \$3,942,250 at June 30, 1988 and 1987, respectively.

	1988	1987
Pension benefit obligation:		
Retirees and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	\$ 53,333,416	\$ 49,264,732
Current members:		
Accumulated employee contributions and credited interest	20,051,509	18,729,668
Employer-financed vested	41,558,492	37,359,876
Employer-financed nonvested	<u>671,898</u>	<u>898,078</u>
Total pension benefit obligation	\$115,615,315	\$106,252,354
Net assets available for benefits, at cost	<u>120,998,549</u>	<u>110,194,604</u>
Funds in excess of pension benefit obligation	\$ 5,383,234	\$ 3,942,250

NOTE 5 - 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 actuarial funding method. The System also uses the level percentage of payroll method to amortize the unfunded liability.

Actuarially determined contribution requirements of \$5,483,603 (\$3,816,995 employer and \$1,666,608 employee) for the year ended June 30, 1988 and \$6,131,991 (\$4,423,781 employer and \$1,708,210 employee) for the year ended June 30, 1987 were determined through an actuarial valuation performed at June 30, 1987 and 1986, respectively. These contributions were to consist of: (a) \$3,663,561 for 1988 and \$3,752,251 for 1987 normal cost; (b) \$121,265 for 1988 and \$800,303 for 1987 amortization of the unfunded actuarial accrued liability; (c) \$23,839 for 1988 and \$15,768 for 1987 administrative expenses; and (d) \$1,674,938 for 1988 and \$1,563,669 for 1987 group hospital and medical insurance premiums. For 1988, contributions received totaled \$6,733,446 of which the employer portion was \$4,575,097 (18.25% of the covered payroll) and the employee portion was \$2,158,349 (7% of the covered payroll). For 1987, contributions received totaled \$6,425,813 of which the employer portion was \$4,481,033 (18.25% of the covered payroll) and employee portion was \$1,944,780 (7% of the covered payroll).

STATE POLICE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987
(CONTINUED)

NOTE 6 - FIVE-YEAR HISTORICAL TREND INFORMATION

Five-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.

Analysis of Funding Progress

Fiscal Year	(1)	(2)	(3)	(4)	(5)	(6)
	Net Assets Available For Benefits	Pension Benefit Obligation	Percentage Funded (1) - (2)	Unfunded (Funds in Excess of) Pension Benefit Obligation (2) - (1)	Annual Covered Payroll	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

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded (funds in excess of) 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.

Revenues by Source

Fiscal Year	Employee Contributions	Employer Contributions	Investment Income	Other Income	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

Expenses by Type

Fiscal Year	Benefit Payments	Administrative Expenses	Refunds	Other Expenses	Contributions Transferred to Insurance Fund	Total
1984	\$2,890,091	\$11,969	\$117,414	\$18,773	\$ 233,140	\$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

STATE POLICE RETIREMENT SYSTEM
NOTES TO FINANCIAL STATEMENTS
YEARS ENDED JUNE 30, 1988 AND 1987
(CONTINUED)

NOTE 7 - INVESTMENTS

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- U.S. Government Issues -- All obligations of the U.S. Government and its agencies.
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STATE POLICE RETIREMENT SYSTEM
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 7 - INVESTMENTS (CONTINUED)

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	June 30, 1988			June 30, 1987	
	Category		Carrying Amount	Market Value	Market Value
	1	2			
United States Government securities	\$ 839,521	\$ 23,205,266	\$ 24,044,787	\$ 24,253,000	\$18,604,000
Government National Mortgage Association and similar securities	2,679,617	16,985,116	19,664,733	19,470,000	20,645,000
Corporate bonds and notes	2,031,191	11,506,623	13,537,814	13,512,000	12,612,000
Common stocks		39,711,320	39,711,320	50,325,000	66,101,000
Securities purchased under agreement to resell		18,563,363	18,563,363	18,563,000	8,188,000
	<u>\$5,550,329</u>	<u>\$109,971,688</u>	<u>\$115,522,017</u>	<u>\$126,123,000</u>	<u>\$126,150,000</u>
Convertible bonds			63,004	60,000	
First mortgage real estate loans			223,874	208,000	271,000
Real estate investment trust			<u>3,816,568</u>	<u>4,380,000</u>	<u>3,981,000</u>
Total Investments			\$119,625,463	\$130,771,000	\$130,402,000

Investments at June 30, 1988, include securities loaned under various lending programs.

NOTE 8 - INCOME TAX STATUS

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

NOTE 9 - TRANSFERS TO INSURANCE FUND

By action of the 1978 General Assembly, the Kentucky Retirement Systems Insurance Fund was established to provide a group hospital and medical insurance plan for recipients of a retirement allowance from the State Police Retirement System. The Insurance Fund is funded by the transfer of a portion of employer contributions to the retirement system. The percentage of creditable compensation transferred to the Insurance Fund by the State Police Retirement System was 7.02% for the year ended June 30, 1988 and 6.38% for the year ended June 30, 1987.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND
BALANCE SHEETS
JUNE 30, 1988 AND 1987

	1988	1987
ASSETS		
Investments (Note 2):		
United States Government securities	\$17,074,057	\$ 7,960,313
Government National Mortgage Association and similar securities	4,252,828	4,595,394
Corporate bonds and notes	4,467,990	
Securities purchased under agreement to resell	<u>2,030,330</u>	<u>4,818,733</u>
	\$27,825,205	\$17,374,440
Employer contributions receivable	1,679,136	1,433,167
Accrued investment income	<u>512,242</u>	<u>65,020</u>
	\$30,016,583	\$18,872,627
 LIABILITIES AND FUND BALANCE		
Payable to Kentucky Retirement Systems	\$ 448	\$ 2,017,256
Fund Balance allocated to:		
Kentucky Employes Retirement System	16,253,545	9,258,575
County Employes Retirement System	10,908,769	6,167,952
State Police Retirement System	<u>2,853,821</u>	<u>1,428,844</u>
	\$30,016,135	\$16,855,371
	\$30,016,583	\$18,872,627

See notes to financial statements.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND
STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN FUND BALANCE
FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
ALLOCATED TO KENTUCKY EMPLOYES RETIREMENT SYSTEM		
Revenues:		
Employer contributions transferred from Kentucky Employes Retirement System	\$10,911,143	\$9,644,592
Investment income	<u>1,062,671</u>	<u>243,893</u>
Total revenues	\$11,973,814	\$9,888,485
Expenses:		
Insurance premium payments	4,784,076	3,942,161
Loss on disposal of investments	<u>194,768</u>	<u>3,942,161</u>
	\$ 4,978,844	\$3,942,161
Excess of revenues over expenses	\$ 6,994,970	\$5,946,324
Fund balance at beginning of year	<u>9,258,575</u>	<u>3,312,251</u>
Fund balance at end of year	\$16,253,545	\$9,258,575
ALLOCATED TO COUNTY EMPLOYES RETIREMENT SYSTEM		
Revenues:		
Employer contributions transferred from County Employes Retirement System	\$ 6,441,538	\$5,285,103
Investment income	<u>707,488</u>	<u>184,632</u>
Total revenues	\$ 7,149,026	\$5,469,735
Expenses:		
Insurance premium payments	2,304,319	1,784,366
Loss on disposal of investments	<u>103,890</u>	<u>1,784,366</u>
	\$ 2,408,209	\$1,784,366
Excess of revenues over expenses	\$ 4,740,817	\$3,685,369
Fund balance at beginning of year	<u>6,167,952</u>	<u>2,482,583</u>
Fund balance at end of year	\$10,908,769	\$6,167,952
ALLOCATED TO STATE POLICE RETIREMENT SYSTEMS		
Revenues:		
Employer contributions transferred from State Police Retirement System	\$ 1,760,979	\$1,569,076
Investment income	<u>173,397</u>	<u>31,826</u>
Total revenues	\$ 1,934,376	\$1,600,902
Expenses:		
Insurance premium payments	494,625	396,627
Loss on disposal of investments	<u>14,774</u>	<u>396,627</u>
	\$ 509,399	\$ 396,627
Excess of revenues over expenses	\$ 1,424,977	\$1,204,275
Fund balance at beginning of year	<u>1,428,844</u>	<u>224,569</u>
Fund balance at end of year	\$ 2,853,821	\$1,428,844

See notes to financial statements.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND
STATEMENTS OF CHANGES IN FINANCIAL POSITION
FOR THE YEARS ENDED JUNE 30, 1988 AND 1987

	1988	1987
Source of funds:		
Excess of revenues over expenses	\$13,160,764	\$10,835,968
Deduct amortization of investment discount and premium, net, not providing funds	<u>51,768</u>	<u> </u>
Funds provided from operations	\$13,108,996	\$10,835,968
Proceeds from sale, maturity or exchange of investments, plus net loss of \$313,432 in 1988 and \$ -0- in 1987 included above	10,584,375	71,844
Decrease in other assets		451,123
Increase in payable to Kentucky Retirement Systems		<u>2,017,256</u>
Total funds provided	\$23,693,371	\$13,376,191
Application of funds:		
Investments purchased or exchanged	20,983,372	12,348,772
Increase in employer contributions receivable	245,969	962,482
Increase in accrued investment income	447,222	65,020
Decrease in payable to Kentucky Retirement Systems	<u>2,016,808</u>	<u> </u>
Total funds applied	\$23,693,371	\$13,376,274
Increase (decrease) in cash	\$ -0-	\$ (83)
Cash on deposit with State Treasurer at beginning of year	<u>-0-</u>	<u>83</u>
Cash on deposit with State Treasurer at end of year	\$ -0-	\$ -0-

See notes to financial statements.

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987

NOTE 1 - SIGNIFICANT ACCOUNTING POLICY AND DESCRIPTION OF PLAN

The financial statements of the Fund are prepared on the accrual basis.

The Fund was established in 1978 to provide accident and health insurance for members receiving benefits from the Kentucky Employes Retirement System, County Employes Retirement System, and 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 \$4,157,000 and \$1,868,000 for the Kentucky Employes Retirement System, \$2,427,000 and \$1,070,000 for the County Employes Retirement System, and \$6,000 and \$3,000 for the State Police Retirement System in 1988 and 1987, respectively. Effective August 1, 1982, the Retirement System began paying the same proportion of medical insurance premiums for the spouse or beneficiary and dependents of retired hazardous members or hazardous employees killed in the line of duty. 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:

<u>Years of Service</u>	<u>Percent Paid by Insurance Fund</u>	<u>Percent Paid by Member through Payroll Deduction</u>
20	100%	0%
15	75%	25%
10	50%	50%
4	25%	75%
Less than 4	0%	100%

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

	June 30	
	1988	1987
<u>Non-Hazardous</u>		
Kentucky Employes Retirement System	1.31%	1.23%
County Employes Retirement System	.95%	.92%
<u>Hazardous</u>		
Kentucky Employes Retirement System	4.94%	4.90%
County Employes Retirement System	3.31%	2.36%
State Police Retirement System	7.02%	6.38%

KENTUCKY RETIREMENT SYSTEMS INSURANCE FUND
 NOTES TO FINANCIAL STATEMENTS
 YEARS ENDED JUNE 30, 1988 AND 1987
 (CONTINUED)

NOTE 2 - INVESTMENTS

The Fund has uninsured and unregistered investments for which the securities are held by the broker's or dealer's trust department or agent in Kentucky Retirement System's name. The approximate market value of investments follows:

	June 30	
	1988	1987
United States Government securities	\$17,083,000	\$ 7,548,000
Government National Mortgage Association and similar securities	3,817,000	4,190,000
Corporate bonds and notes	4,394,000	
Securities purchased under agreement to resell	2,030,000	4,819,000
	<u>\$27,324,000</u>	<u>\$16,557,000</u>

ACTUARIAL SECTION

UNFUNDED ACCRUED LIABILITIES
NORMAL COST ACCRUED BENEFIT LIABILITY
EMPLOYER CONTRIBUTION RATE
ACTUARIAL ASSETS
VESTED ACCRUED BENEFIT LIABILITY
NON-VESTED BENEFITS

INTRODUCTION TO ACTUARIAL SECTION

An actuarial valuation is a mathematical means of determining liabilities (the cost of benefits guaranteed each member) and the adequateness 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 guarantee those benefits to those who are currently members and those who will become 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 investments and benefit improvements. Their decisions can affect the systems' ability to provide not only continuing payments to those currently drawing benefits, but also to provide the necessary assets to guarantee benefit payments to future generations.

The Board's actuarial consultant, the firm of William M. Mercer-Meidinger-Hansen, Inc., has performed the actuarial valuations for four fiscal years. The firm also conducted the five-year experience study that was used to provide the current actuarial assumptions. Those assumptions were adopted by the Board in May of 1986. The actuarial assumptions are necessary to project the liabilities of the systems.

The following reports, duplicated from the originals, indicate that every dollar of future liabilities is backed by \$.95 in assets. The remaining unfunded liabilities are being funded annually in accordance with the statutory requirement of 1% of the outstanding principal and payment of all accrued interest. This statutory requirement assures that the systems will remain sound.

WILLIAM M.
MERCER MEIDINGER HANSEN
INCORPORATED

November 7, 1988

PERSONAL AND CONFIDENTIAL

Board of Trustees
Kentucky Retirement Systems
151 Elkhorn Court
Frankfort, Kentucky 40601

Members of the Board:

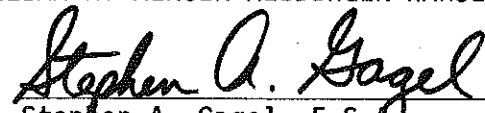
The thirty-second annual actuarial valuation of the Kentucky Employees Retirement System, the twenty-ninth annual actuarial valuation of the County Employees Retirement System, and the thirtieth annual actuarial valuation of the State Police Retirement System have been completed and the reports prepared. The valuations were made on the basis of data provided by the Retirement System as of June 30, 1988.

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. The Actuarial Accrued Liabilities of the Kentucky Employees Retirement System, the County Employees Retirement System, and the State Police Retirement System are being funded as required by the Kentucky Revised Status.

Respectfully Submitted,
WILLIAM M. MERCER MEIDINGER HANSEN, INC.

By


Stephen A. Gagel, F.S.A.
Actuary

/s

THIRTY-SECOND ANNUAL ACTUARIAL VALUATION

JUNE 30, 1988

KENTUCKY EMPLOYES RETIREMENT SYSTEM

FRANKFORT, KENTUCKY

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

A. STATEMENT OF ACTUARIAL ASSUMPTIONS

(1) Mortality:

- (a) Active & retired lives - 1971 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 1985 experience study.

(3) Termination of employment

- Graduated select (non-hazardous only) and ultimate rates based on 1985 experience study.

(4) Retirement

- Non-Hazardous:

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

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

Hazardous: Assumed that 40% 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 employe 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 - 7.50% per year, compounded annually.
- (9) Retiree Medical Insurance - It was assumed that future retirees would select medical coverage in the same proportion that current retirees have selected coverage. Monthly premium rates were assumed to be as follows:

Plan Type	7/1/88 Rate	Rate Increase	
		Date	Rate
Single	\$ 79.71*	11/1/88	\$ 89.07**
Family	190.81*	11/1/88	213.77**
Medicare	41.40*	1/1/89	41.40**
High Option	63.75*	1/1/89	63.75**

*Actual rates
 **Assumed rates

It was assumed that medical premiums would grow at an annual rate of 12%. The assumed rate of growth in number of retirees receiving medical insurance was assumed to be consistent with average growth patterns over recent years.

Reserves in the Insurance Fund were used to offset the liability for premiums over the sixteen year projection period.

(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 \$556
 - . If reported age was blank, then assume current age equal to age 18 plus years of service reported

B. SAMPLE RATES FOR NON-HAZARDOUS POSITION EMPLOYEES*

(1) Annual Rates of Mortality:

<u>Age</u>	<u>Active Mortality</u>		<u>Disabled Mortality</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
25	0.06%	0.03%	4.83%	2.63%
30	0.08	0.05	3.62	2.37
40	0.16	0.09	2.82	2.09
50	0.53	0.22	3.83	2.57
55	0.85	0.33	4.82	2.95
60	1.31	0.55	6.03	3.31

(2) Annual Rates of Decrement:

<u>Age</u>	<u>Disablement</u>	<u>Ultimate Termination</u>
25	0.02%	4.50%
30	0.03	4.50
40	0.07	3.75
50	0.28	3.00
55	0.53	2.25
60	0.93	0.38

(3) Select Rates of Termination:

<u>Years of Service</u>	<u>Select Termination</u>
1	25.0%
2	8.0
3	6.0
4	5.0
5	5.0

(4) Compensation Progression:

<u>Age</u>	<u>Rate of Annual Increase</u>	<u>Compensation at Normal Retirement as Percentage Of Current Annual Compensation</u>
25	7.50%	1,804.4%
30	7.50	1,256.9
40	7.50	609.8
50	7.50	295.9
55	7.50	206.1
60	7.50	143.6

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

SECTION III

KENTUCKY EMPLOYES RETIREMENT SYSTEM

RESULTS OF THE 1988 ACTUARIAL VALUATION

Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the Kentucky Employes Retirement System as of June 30, 1988. 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 9% of the Unfunded Actuarial Accrued Liability, 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, 1988.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1988 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 employe contributions. A breakdown of costs between Hazardous and Non-Hazardous position employes 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 employe'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 I
 KENTUCKY EMPLOYES RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET-JUNE 30, 1988

ACTUARIAL ASSETS

Fund Assets at Book Value*		\$1,428,335,169
Actuarial Present Value of Future Member Contributions		507,209,121
Actuarial Present Value of Future Employer Contributions		
For Normal Costs	\$ 324,122,141	
For Unfunded Actuarial Accrued Liability	<u>135,687,336</u>	
Total		<u>\$ 459,809,477</u>
Total Actuarial Assets		\$2,395,353,767

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits		
Inactive Members:		
Retired Members and Beneficiaries	\$ 501,720,563	
Vested Retirement	21,445,169	
Vested Membership	<u>3,545,234</u>	
Total - Inactive		\$ 526,710,966
Active Members:		
Retirement Benefits	\$1,467,817,580	
Disability Benefits	93,269,121	
Withdrawal Benefits (Vested and Refund of Contributions)	177,009,053	
Survivor Benefits	<u>128,268,280</u>	
Total - Active		\$1,866,364,034
Refunds and Expenses Payable		<u>\$ 2,278,767</u>
Total Actuarial Liabilities		\$2,395,353,767

ACCRUED BENEFIT LIABILITY **

Vested Benefits	\$ 869,730,639
Non-Vested Benefits	\$ 45,245,640

- * The approximate market value of assets as of June 30, 1988 is \$1,536,560,647. The actuarial value of assets as of June 30, 1988 is \$1,426,056,402 (book value of assets less refunds and expenses payable). The Members' Contribution Account as of June 30, 1988 is \$309,182,683.
- ** Present value of accrued benefit deferred to normal retirement date.

TABLE II

KENTUCKY EMPLOYEES RETIREMENT SYSTEM

DETERMINATION OF CONTRIBUTION RATE-JUNE 30, 1988

<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>		<u>PERCENT*</u>
Total Actuarial Accrued Liability	\$1,561,743,738	194.34%
Assets at Actuarial Value	<u>1,426,056,402</u>	<u>177.46%</u>
Unfunded Actuarial Accrued Liability	\$ 135,687,336	16.88%
Contribution - 9% of Unfunded Actuarial Accrued Liability	\$ 12,211,861	1.52%
 <u>NORMAL COST</u>		
Retirement Benefits	\$ 49,763,581	6.19%
Disability Benefits	3,971,434	0.49%
Withdrawal Benefits (Vested and Refund of Contributions)	9,353,810	1.16%
Survivor Benefits	<u>4,499,603</u>	<u>0.56%</u>
Total Normal Cost	\$ 67,588,428	8.40%
Less: Employee Contributions	<u>40,204,493</u>	<u>5.00%</u>
Normal Cost - State	\$ 27,383,935	3.40%
 <u>TOTAL ANNUAL EMPLOYER COST</u>		
<u>Non-Hazardous Duty Cost</u>		
Normal Cost	\$ 26,381,649	3.33%**
9% of Unfunded Actuarial Accrued Liability	12,397,616	1.56%**
Administrative Expenses	1,440,223	0.18%**
Group Hospital and Medical Insurance Premiums	<u>11,413,167</u>	<u>1.44%**</u>
Total Annual Cost	\$ 51,632,655	6.51%**
 <u>Hazardous Duty Cost</u>		
Normal Cost	\$ 1,002,286	9.10%***
9% of Unfunded Actuarial Accrued Liability	(185,755)	(1.69%)***
Administrative Expenses	19,313	0.18%***
Group Hospital and Medical Insurance Premiums	<u>584,795</u>	<u>5.31%***</u>
Total Annual Cost	\$ 1,420,639	12.90%***

*Based on estimated annual salaries of \$803,594,136.

**Based on estimated annual salaries of \$792,581,052 for Non-Hazardous Position Employees.

***Based on estimated annual salaries of \$11,013,084 for Hazardous Position Employees.

TABLE III

KENTUCKY EMPLOYES RETIREMENT SYSTEM

CLASSIFICATION OF ACTUARIAL LIABILITIES AND COSTS—JUNE 30, 1988

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>	<u>Total</u>
<u>ACTUARIAL ACCRUED LIABILITY</u>			
<u>Active Members</u>			
Retirement Benefits	\$ 848,231,604	\$11,639,778	\$ 859,871,382
Disability Benefits	43,614,366	909,047	44,523,413
Withdrawal Benefits (Vested and Refund of Contributions)	56,736,358	24,672	56,761,030
Survivor Benefits	<u>73,178,453</u>	<u>698,494</u>	<u>73,876,947</u>
Actuarial Accrued Liability - Actives	\$1,021,760,781	\$13,271,991	\$1,035,032,772
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$ 494,608,774	\$ 7,111,789	\$ 501,720,563
Vested Retirement	21,198,552	246,617	21,445,169
Vested Membership	<u>3,510,097</u>	<u>35,137</u>	<u>3,545,234</u>
Actuarial Accrued Liability - Inactives	\$ 519,317,423	\$ 7,393,543	\$ 526,710,966
Total Actuarial Accrued Liability	\$1,541,078,204	\$20,665,534	\$1,561,743,738
<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>			
Total Actuarial Accrued Liability	\$1,541,078,204	\$20,665,534	\$1,561,743,738
Less Actuarial Value of Assets	<u>1,403,326,915</u>	<u>22,729,487</u>	<u>1,426,056,402</u>
Unfunded Actuarial Accrued Liability	\$ 137,751,289	\$(2,063,953)	\$ 135,687,336
<u>NORMAL COST</u>			
Retirement Benefits	\$ 48,347,421	\$ 1,416,160	\$ 49,763,581
Disability Benefits	3,828,296	143,138	3,971,434
Withdrawal Benefits (Vested and Refund of Contributions)	9,286,489	67,321	9,353,810
Survivor Benefits	<u>4,384,016</u>	<u>115,587</u>	<u>4,499,603</u>
Total Normal Cost	\$ 65,846,222	\$ 1,742,206	\$ 67,588,428
Less Employee Contributions	<u>39,464,573</u>	<u>739,920</u>	<u>40,204,493</u>
Total Normal Cost - State	\$ 26,381,649	\$ 1,002,286	\$ 27,383,935
<u>ACCRUED BENEFIT LIABILITY*</u>			
Vested Benefits	\$ 856,257,682	\$13,472,957	\$ 869,730,639
Non-Vested Benefits	38,420,464	6,825,176	45,245,640

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

TABLE IV
KENTUCKY EMPLOYES RETIREMENT SYSTEM
ACCOUNTANT'S INFORMATION - JUNE 30, 1988
INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>	<u>Total</u>
<u>ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS</u>			
<u>Active Members</u>			
Retirement Benefits	\$299,375,479	\$ 3,650,908	\$303,026,387
Disability Benefits	8,131,451	342,505	8,473,956
Withdrawal Benefits (Vested and Refund of Contributions)	53,608,733	315,296	53,924,029
Survivor Benefits	<u>0</u>	<u>0</u>	<u>0</u>
Total Active Members	\$361,115,663	\$ 4,308,709	\$365,424,372
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$494,608,774	\$ 7,111,789	\$501,720,563
Vested Retirement	21,198,552	246,617	21,445,169
Vested Membership	<u>3,510,097</u>	<u>35,137</u>	<u>3,545,234</u>
Total-Inactive Members	\$519,317,423	\$ 7,393,543	\$526,710,966
Total Actuarial Present Value of Vested Accumulated Benefits	\$880,433,086	\$11,702,252	\$892,135,338
<u>ACTUARIAL PRESENT VALUE OF NON-VESTED ACCUMULATED BENEFITS</u>			
<u>Active Members</u>			
Retirement Benefits	\$ 33,323,708	\$ 1,606,011	\$ 34,929,719
Disability Benefits	22,909,023	529,603	23,438,626
Withdrawal Benefits (Vested and Refund of Contributions)	3,713,992	67,281	3,781,273
Survivor Benefits	<u>32,934,219</u>	<u>535,533</u>	<u>33,469,752</u>
Total - Active Members	\$ 92,880,942	\$ 2,738,428	\$ 95,619,370
<u>Inactive Members</u>	\$ 0	\$ 0	\$ 0
Total Actuarial Present Value of Non-Vested Accumulated Benefits	\$ 92,880,942	\$ 2,738,428	\$ 95,619,370

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

TABLE V
 KENTUCKY EMPLOYES RETIREMENT SYSTEM
ACCOUNTANT'S INFORMATION - JUNE 30, 1988
INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>	<u>Total</u>
A. NUMBER OF MEMBERS			
<u>Inactive Members</u>			
Retired Members and Beneficiaries	14,151	86	14,237
Vested Retirements	1,738	15	1,753
Vested Membership	<u>7,179</u>	<u>41</u>	<u>7,220</u>
Total Inactive Members	23,068	142	23,210
<u>Active Members</u>			
Vested Members	27,190	258	27,448
Nonvested Members	<u>16,080</u>	<u>305</u>	<u>16,385</u>
Total Active Members	<u>43,270</u>	<u>563</u>	<u>43,833</u>
<u>Total Members</u>	66,338	705	67,043
B. UNFUNDED PENSION BENEFIT OBLIGATION			
<u>Pension Benefit Obligation</u>			
Retirees and Beneficiaries Currently Receiving Benefits and Terminated Members Not Yet Receiving Benefits	\$ 519,317,423	\$ 7,393,543	\$ 526,710,966
Current Members Accumulated Employee Contributions and Credited Interest	286,458,869	5,918,308	292,377,177
Employer Financed - Vested	551,432,862	5,535,890	556,968,752
Employer Financed - Nonvested	<u>22,785,520</u>	<u>1,171,387</u>	<u>23,956,907</u>
Total Pension Benefit Obligation	1,379,994,674	20,019,128	1,400,013,802
<u>Net Assets at Cost Value</u>	<u>\$1,403,326,915</u>	<u>\$22,729,487</u>	<u>\$1,426,056,402</u>
<u>Unfunded Pension Benefit Obligation</u>	(23,332,241)	(2,710,359)	(26,042,600)

SECTION IV

COMMENTS AND CERTIFICATION

Comments

The total Actuarial Accrued Liability has increased from \$1,384,259,808 on June 30, 1987 to \$1,561,743,738 on June 30, 1988. The Unfunded Actuarial Accrued Liability has increased from \$120,259,389 to \$135,687,336. Total actuarial value of assets as of June 30, 1988 was equal to \$1,426,056,402.

The Unfunded Actuarial Accrued Liability increased from 15.87% to 16.89% as a percentage of annual payroll and remained at 8.7% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1988.

The change in contribution rate between the 1987 and 1988 valuations is a function of actual plan experience as well as increases in benefits this year. A formal gain and loss analysis would identify the portion of the contribution rate change attributable to each element of plan experience and benefit change. However, undertaking such an analysis would be extremely time consuming and expensive. In lieu of the formal analysis, we have estimated the impact of the various components of gain and loss based on changes in statistical averages of each group. The following table shows the results of this computation:

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>
June 30, 1987 Contribution Rate	5.99%	12.21%
Increase Expected Due to Benefit Improvements		
. Increase in Factor	0.61%	0.90%
. Retiree COLA in 1988 and 1989	0.44%	0.51%
. Change in Disability Definition	0.15%	-
Expected Change in Unfunded Actuarial Accrued Liability Payment Due to Increasing Covered Payroll	(0.10%)	0.10%
Investment Return	(0.40%)	(0.44%)
Salary Increases	(0.03%)	(0.04%)
Decrements Experience*	(0.31%)	(0.74%)
Change in Group Hospital and Medical Premium Rate	0.13%	0.37%
Change in Administrative Expense Rate	0.03%	0.03%

June 30, 1988 Contribution Rate

6.51%

12.90%

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

The annual State contribution rate required to provide the Normal Cost, 9% of the Unfunded Actuarial Accrued Liability and pay administrative expenses for Non-Hazardous position employees was determined at 5.07%. An additional 1.44% is required to fund medical insurance for retirees, bringing the total required contribution to 6.51%. This is within the 7.45% budget. During the next year, the amount contributed by the State will be reduced by a total of \$1,800,000 split between the KERS Non-Hazardous, KERS Hazardous and State Police systems. This results in an expected decrease of 0.22% of payroll in the overall contribution to the KERS Non-Hazardous system for the coming year, making the net contribution 7.23%. In our opinion, the continuation of the 7.45% contribution rate (as adjusted for the budgeted reduction this year) is justified, and we so recommend.

The annual State contribution rate required to provide the Normal Cost, 9% of the Unfunded Actuarial Accrued Liability, and pay administrative expenses for Hazardous position employees was determined at 7.59%. An additional 5.31% is required to fund medical insurance for retirees, bringing the total required contribution to 12.90%. This is within the 14.00% budget. As noted above, there is a budgeted reduction in State funding this year. This is estimated to reduce the overall contribution to the KERS Hazardous system for the coming year by 0.34%, making the net contribution 13.66%. In our opinion, the continuation of the 14.00% contribution rate (as adjusted for the budgeted reduction this year) is justified, 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, 1989 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 EMPLOYES RETIREMENT SYSTEM

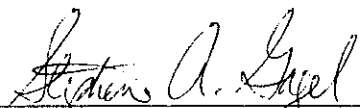
July 1 of Year Shown	Total Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Percent Unfunded	Actuarial Value Of Assets	Increase in Assets
1956	\$ 16,200,000	\$ 16,200,000	100.0%	\$ 0	\$ 0
1961	49,201,024	31,670,465	64.4%	17,530,559	4,479,508
1966	127,889,238	72,137,125	56.4%	55,752,113	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

*Includes capitalized appreciation of investments.

Certification

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

Certified by:


Stephen A. Gagel, F.S.A.

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

November 2, 1988
Date

TWENTY-NINTH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1988

COUNTY EMPLOYEES RETIREMENT SYSTEM

FRANKFORT, KENTUCKY

COUNTY EMPLOYES RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

A. STATEMENT OF ACTUARIAL ASSUMPTIONS

(1) Mortality:

- (a) Active & retired lives - 1971 Group Annuity Mortality Table, plus a pre-retirement duty death rate of .0005 per year for hazardous duty employes.
- (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 1985 experience study.

(3) Termination of employment

- Graduated select (non-hazardous only) and ultimate rates based on 1985 experience study.

(4) Retirement

- Non-Hazardous:

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

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

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

- (5) Marital status
 - (a) Percentage married - 100%.
 - (b) Age difference - Males are assumed to be 3 years older than their spouses.
- (6) Dependent children - For hazardous position employees under duty related death benefits, it is assumed that the employee is survived by 2 dependent children each age 6.
- (7) Investment return - 8.00% per year, net of investment related expenses, compounded annually.
- (8) Compensation progression - 7.50% per year, compounded annually.
- (9) Retiree Medical Insurance - It was assumed that future retirees would select medical coverage in the same proportion that current retirees have selected coverage. Monthly premium rates were assumed to be as follows:

Plan Type	7/1/88	Rate Increase	
	Rate	Date	Rate
Single	\$ 79.71*	11/1/88	\$ 89.07**
Family	190.81*	11/1/88	213.77**
Medicare	41.40*	1/1/89	41.40**
High Option	63.75*	1/1/89	63.75**

*Actual rates
 **Assumed rates

It was assumed that medical premiums would grow at an annual rate of 12%. The assumed rate of growth in number of retirees receiving medical insurance was assumed to be consistent with average growth patterns over recent years.

Reserves in the Insurance Fund were used to offset the liability for premiums over the sixteen year projection period.

(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 \$556
- . If reported age was blank, then assume current age equal to age 18 plus years of service reported

B. SAMPLE RATES FOR NON-HAZARDOUS POSITION EMPLOYEES*

(1) Annual Rates of Mortality:

Age	Active Mortality		Disabled Mortality	
	Males	Females	Males	Females
25	0.06%	0.03%	4.83%	2.63%
30	0.08	0.05	3.62	2.37
40	0.16	0.09	2.82	2.09
50	0.53	0.22	3.83	2.57
55	0.85	0.33	4.82	2.95
60	1.31	0.55	6.03	3.31

(2) Annual Rates of Decrement:

Age	Disablement	Ultimate Termination
25	0.02%	4.50%
30	0.03	4.50
40	0.07	3.75
50	0.28	4.00
55	0.53	2.25
60	0.93	0.38

(3) Select Rates of Termination:

Years of Service	Select Termination
1	25.0%
2	8.0
3	6.0
4	5.0
5	5.0

(4) Compensation Progression:

<u>Age</u>	<u>Rate of Annual Increase</u>	<u>Compensation at Normal Retirement as Percentage Of Current Annual Compensation</u>
25	7.50%	1,804.4%
30	7.50	1,256.9
40	7.50	609.8
50	7.50	295.9
55	7.50	206.1
60	7.50	143.6

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

SECTION III

COUNTY EMPLOYES RETIREMENT SYSTEM

RESULTS OF THE 1988 ACTUARIAL VALUATION

Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the County Employees Retirement System as of June 30, 1988. 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 9% of the Unfunded Actuarial Accrued Liability, 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, 1988.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1988 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 I

COUNTY EMPLOYEES RETIREMENT SYSTEM

ACTUARIAL BALANCE SHEET-JUNE 30, 1988

ACTUARIAL ASSETS

Fund Assets at Book Value*		\$ 840,779,847
Actuarial Present Value of Future Member Contributions		329,974,875
Actuarial Present Value of Future Employer Contributions		
For Normal Costs	\$ 364,130,588	
For Unfunded Actuarial Accrued Liability	<u>(10,232,573)</u>	
Total		\$ <u>353,898,015</u>
Total Actuarial Assets		\$1,524,652,737

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits		
Inactive Members:		
Retired Members and Beneficiaries	\$ 215,916,701	
Vested Retirement	8,467,972	
Vested Membership	<u>3,814,975</u>	
Total - Inactive		\$ 228,199,648
Active Members:		
Retirement Benefits	\$1,033,944,002	
Disability Benefits	66,641,100	
Withdrawal Benefits (Vested and Refund of Contributions)	113,079,114	
Survivor Benefits	<u>81,587,922</u>	
Total - Active		\$1,295,252,138
Refunds and Expenses Payable		\$ <u>1,200,951</u>
Total Actuarial Liabilities		\$1,524,652,737

ACCRUED BENEFIT LIABILITY **

Vested Benefits	\$ 437,132,875
Non-Vested Benefits	\$ 55,495,627

* The approximate market value of assets as of June 30, 1988 is \$873,517,749.
The actuarial value of assets as of June 30, 1988 is \$837,578,896 (book value of assets less refunds and expenses payable).
The Members' Contribution Account as of June 30, 1988 is \$177,526,061

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

TABLE II
 COUNTY EMPLOYES RETIREMENT SYSTEM
DETERMINATION OF CONTRIBUTION RATE-JUNE 30, 1988

<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>		<u>PERCENT*</u>
Total Actuarial Accrued Liability	\$ 829,346,323	134.85%
Assets at Actuarial Value	<u>839,578,896</u>	<u>136.51%</u>
Unfunded Actuarial Accrued Liability	\$ (10,232,573)	(1.66%)
 Contribution - 9% of Unfunded Actuarial Accrued Liability	 \$ (920,931)	 (0.15%)
 <u>NORMAL COST</u>		
Retirement Benefits	\$ 45,167,678	7.34%
Disability Benefits	3,368,115	0.55%
Withdrawal Benefits (Vested and Refund of Contributions)	6,613,655	1.08%
Survivor Benefits	<u>3,700,817</u>	<u>0.60%</u>
Total Normal Cost	\$ 58,850,265	9.57%
Less: Employee Contributions	<u>27,059,590</u>	<u>4.40%</u>
 Normal Cost - State	 \$ 31,790,675	 5.17%
 <u>TOTAL ANNUAL EMPLOYER COST</u>		
<u>Non-Hazardous Duty Cost</u>		
Normal Cost	\$ 27,719,924	4.85%**
9% of Unfunded Actuarial Accrued Liability	322,363	0.06%**
Administrative Expenses	1,304,403	0.23%**
Group Hospital and Medical Insurance Premiums	<u>6,120,986</u>	<u>1.07%**</u>
Total Annual Cost	\$ 35,467,676	6.21%**
 <u>Hazardous Duty Cost</u>		
Normal Cost	\$ 4,070,751	9.47%***
9% of Unfunded Actuarial Accrued Liability	(1,243,294)	(2.89%)***
Administrative Expenses	246,354	0.57%***
Group Hospital and Medical Insurance Premiums	<u>1,809,198</u>	<u>4.21%***</u>
Total Annual Cost	\$ 4,883,009	11.36%***

*Based on estimated annual salaries of \$615,028,632.
 **Based on estimated annual salaries of \$572,054,808 for Non-Hazardous
 Position Employees.
 ***Based on estimated annual salaries of \$42,973,824 for Hazardous Position
 Employees.

TABLE III

COUNTY EMPLOYEES RETIREMENT SYSTEM

CLASSIFICATION OF ACTUARIAL LIABILITIES AND COSTS—JUNE 30, 1988

	<u>Non-Hazardous Position Employes</u>	<u>Hazardous Position Employes</u>	<u>Total</u>
<u>ACTUARIAL ACCRUED LIABILITY</u>			
<u>Active Members</u>			
Retirement Benefits	\$419,285,886	\$ 90,718,014	\$ 510,003,900
Disability Benefits	23,184,963	2,880,859	26,065,822
Withdrawal Benefits (Vested and Refund of Contributions)	27,163,762	790,853	27,954,615
Survivor Benefits	<u>34,658,763</u>	<u>2,463,575</u>	<u>37,122,338</u>
Actuarial Accrued Liability - Actives	\$504,293,374	\$ 96,853,301	\$ 601,146,675
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$182,115,433	\$ 33,801,268	\$ 215,916,701
Vested Retirement	7,385,867	1,082,105	8,467,972
Vested Membership	<u>3,801,183</u>	<u>13,792</u>	<u>3,814,975</u>
Actuarial Accrued Liability - Inactives	\$193,302,483	\$ 34,897,165	\$ 228,199,648
Total Actuarial Accrued Liability	\$697,595,857	\$131,750,466	\$ 829,346,323
<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>			
Total Actuarial Accrued Liability	\$697,595,857	\$131,750,466	\$ 829,346,323
Less Actuarial Value of Assets	<u>694,014,046</u>	<u>145,564,850</u>	<u>839,578,896</u>
Unfunded Actuarial Accrued Liability	\$ 3,581,811	\$(13,814,384)	\$ (10,232,573)
<u>NORMAL COST</u>			
Retirement Benefits	\$ 39,184,879	\$ 5,982,799	\$ 45,167,678
Disability Benefits	3,070,781	297,334	3,368,115
Withdrawal Benefits (Vested and Refund of Contributions)	6,208,352	405,303	6,613,655
Survivor Benefits	<u>3,423,033</u>	<u>277,784</u>	<u>3,700,817</u>
Total Normal Cost	\$ 51,887,045	\$ 6,963,220	\$ 58,850,265
Less Employee Contributions	<u>24,167,121</u>	<u>2,892,469</u>	<u>27,059,590</u>
Total Normal Cost - State	\$ 27,719,924	\$ 4,070,751	\$ 31,790,675
<u>ACCRUED BENEFIT LIABILITY*</u>			
Vested Benefits	\$364,438,475	\$ 72,694,400	\$ 437,132,875
Non-Vested Benefits	28,630,404	26,865,223	55,495,627

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

TABLE IV
 COUNTY EMPLOYES RETIREMENT SYSTEM
ACCOUNTANT'S INFORMATION - JUNE 30, 1988
INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>	<u>Total</u>
<u>ACTUARIAL PRESENT VALUE OF VESTED ACCUMULATED BENEFITS</u>			
<u>Active Members</u>			
Retirement Benefits	\$146,731,660	\$33,812,962	\$180,544,622
Disability Benefits	4,070,551	1,152,250	5,222,801
Withdrawal Benefits (Vested and Refund of Contributions)	25,588,447	2,486,851	28,075,298
Survivor Benefits	<u>0</u>	<u>0</u>	<u>0</u>
Total Active Members	\$176,390,658	\$37,452,063	\$213,842,721
<u>Inactive Members</u>			
Retired Members and Beneficiaries	\$182,115,433	\$33,801,268	\$215,916,701
Vested Retirement	7,385,867	1,082,105	8,467,972
Vested Membership	<u>3,801,183</u>	<u>13,792</u>	<u>3,814,975</u>
Total-Inactive Members	\$193,302,483	\$34,897,165	\$228,199,648
Total Actuarial Present Value of Vested Accumulated Benefits	\$369,693,141	\$72,349,228	\$442,042,369
<u>ACTUARIAL PRESENT VALUE OF NON-VESTED ACCUMULATED BENEFITS</u>			
<u>Active Members</u>			
Retirement Benefits	\$ 19,188,423	\$15,801,893	\$ 34,990,316
Disability Benefits	14,399,219	1,426,015	15,825,234
Withdrawal Benefits (Vested and Refund of Contributions)	4,564,595	(134,672)	4,429,923
Survivor Benefits	<u>14,736,527</u>	<u>1,980,347</u>	<u>16,716,874</u>
Total - Active Members	\$ 52,888,764	\$19,073,583	\$ 71,962,347
<u>Inactive Members</u>	\$ 0	\$ 0	\$ 0
Total Actuarial Present Value of Non-Vested Accumulated Benefits	\$ 52,888,764	\$19,073,583	\$ 71,962,347

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

TABLE V
 COUNTY EMPLOYES RETIREMENT SYSTEM
ACCOUNTANT'S INFORMATION - JUNE 30, 1988
INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

	<u>Non-Hazardous Position Employes</u>	<u>Hazardous Position Employes</u>	<u>Total</u>
A. NUMBER OF MEMBERS			
<u>Inactive Members</u>			
Retired Members and Beneficiaries	8,699	275	8,974
Vested Retirements	1,124	29	1,153
Vested Membership	<u>8,572</u>	<u>32</u>	<u>8,604</u>
Total Inactive Members	18,395	336	18,731
<u>Active Members</u>			
Vested Members	23,133	1,087	24,220
Nonvested Members	<u>21,468</u>	<u>641</u>	<u>22,109</u>
Total Active Members	<u>44,601</u>	<u>1,728</u>	<u>46,329</u>
<u>Total Members</u>	62,996	2,064	65,060
B. UNFUNDED PENSION BENEFIT OBLIGATION			
<u>Pension Benefit Obligation</u>			
Retirees and Beneficiaries Currently Receiving Benefits and Terminated Members Not Yet Receiving Benefits	\$ 193,302,483	\$ 34,897,165	\$ 228,199,648
<u>Current Members</u>			
Accumulated Employee Contributions and Credited Interest	143,821,806	25,623,056	169,444,862
Employer Financed - Vested	255,044,467	62,827,928	317,872,395
Employer Financed - Nonvested	<u>23,950,184</u>	<u>2,867,291</u>	<u>26,817,475</u>
Total Pension Benefit Obligation	616,118,940	126,215,440	742,334,380
<u>Net Assets at Cost Value</u>	\$ 694,014,046	\$ 145,564,850	\$ 839,578,896
<u>Unfunded Pension Benefit Obligation</u>	(77,895,106)	(19,349,410)	(97,244,516)

SECTION IV

COMMENTS AND CERTIFICATION

Comments

The total Actuarial Accrued Liability has increased from \$678,442,760 on June 30, 1987 to \$829,346,323 on June 30, 1988. The Unfunded Actuarial Accrued Liability remains \$0. Total actuarial value of assets as of June 30, 1988 was equal to \$839,578,896.

The Unfunded Actuarial Accrued Liability remained 0.00% as a percentage of annual payroll and 0.0% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1988.

The change in contribution rate between the 1987 and 1988 valuations is a function of actual plan experience as well as increases in benefits this year. A formal gain and loss analysis would identify the portion of the contribution rate change attributable to each element of plan experience and benefit change. However, undertaking such an analysis would be extremely time consuming and expensive. In lieu of the formal analysis, we have estimated the impact of the various components of gain and loss based on changes in statistical averages of each group. The following table shows the results of this computation:

	<u>Non-Hazardous Position Employees</u>	<u>Hazardous Position Employees</u>
June 30, 1987 Contribution Rate	4.59%	10.96%
Increase Expected Due to Benefit Improvements		
. Increase in Factor	1.23%	0.59%
. Retiree COLA in 1988 and 1989	0.25%	0.34%
. Change in Disability Definition	0.11%	-
Expected Change in Unfunded Actuarial Accrued Liability Payment Due to Increasing Covered Payroll	0.05%	0.13%
Investment Return	(0.23%)	(0.66%)
Salary Increases	(0.06%)	(0.17%)
Decrements Experience*	0.10%	(0.77%)
Change in Group Hospital and Medical Premium Rate	0.12%	0.90%

Change in Administrative Expense Rate	0.05%	0.04%
June 30, 1988 Contribution Rate	6.21%	11.36%

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

The annual contribution rate required by the participating Agencies to provide the Normal Cost, 9% of the Unfunded Actuarial Accrued Liability and pay administrative expenses for Non-Hazardous position employees is 5.14%. An additional 1.07% is required to fund medical insurance for retirees, bringing the total required contribution to 6.21%. This is within the 6.35% budget. In our opinion, the continuation of the 6.35% contribution rate is justified, and we so recommend.

The annual contribution rate required by the participating Agencies to provide the Normal Cost, 9% of the Unfunded Actuarial Accrued Liability, and pay administrative expenses for Hazardous position employees is 7.15%. An additional 4.21% is required to fund medical insurance for retirees, bringing the total required contribution to 11.36%. This is within the 14.00% budget. In our opinion, the continuation of the 14.00% contribution rate is justified, 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, 1989 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 EMPLOYES RETIREMENT SYSTEM

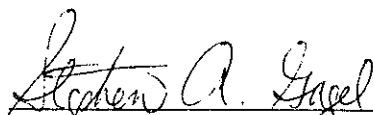
<u>July 1 of Year Shown</u>	<u>Total Actuarial Accrued Liability</u>	<u>Unfunded Actuarial Accrued Liability</u>	<u>Percent Unfunded</u>	<u>Actuarial Value Of Assets</u>	<u>Increase in Assets</u>
1960	\$ 5,602,131	\$ 4,737,680	84.6%	\$ 864,451	\$ 864,451
1965	12,510,487	6,897,273	55.1%	5,613,214	1,255,742
1971	40,305,948	16,885,927	41.9%	23,420,022*	4,850,170*
1975	85,322,085	24,467,454	28.7%	60,854,631*	11,704,780
1976	128,824,236	50,089,614	38.9%	78,734,622*	17,879,991
1977	152,900,347	52,474,756	34.3%	100,425,591*	21,690,969
1978	175,194,867	50,394,913	28.8%	124,799,954*	24,374,363
1979	213,834,377	60,742,472	28.4%	153,091,905*	28,291,951
1980	266,018,621	75,787,680	28.5%	190,230,941*	37,139,036
1981	260,872,162	27,101,917	10.4%	233,770,245	43,539,304
1982	306,087,531	20,552,642	6.7%	285,534,889	51,764,644
1983	340,705,763	0	0.0%	343,155,769	57,620,880
1984	421,336,269	15,148,838	3.6%	406,187,431	63,031,662
1985	463,618,532	0	0.0%	478,043,221	71,855,790
1986	535,948,094	0	0.0%	603,815,800	125,772,579
1987	678,442,760	0	0.0%	727,730,727	123,914,927
1988	829,346,323	0	0.0%	839,578,896	111,848,169

*Includes capitalized appreciation of investments.

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-Meidinger-Hansen, Inc.
 1500 Meidinger Tower
 Louisville Galleria
 Louisville, Kentucky 40202
 (502) 561-4500

November 2, 1988
 Date

THIRTIETH ANNUAL ACTUARIAL VALUATION

JUNE 30, 1988

STATE POLICE RETIREMENT SYSTEM

FRANKFORT, KENTUCKY

STATE POLICE RETIREMENT SYSTEM

ACTUARIAL ASSUMPTIONS

A. STATEMENT OF ACTUARIAL ASSUMPTIONS

(1) Mortality:

(a) Active & retired lives - 1971 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 1985 experience study.

(3) Termination of employment - Graduated rates based on 1985 experience study.

(4) Retirement - 40% 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 employe 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

- 7.50% per year, compounded annually.

(9) Retiree Medical Insurance

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

Plan Type	7/1/88 Rate	Rate Increase	
		Date	Rate
Single	\$ 79.71*	11/1/88	\$ 89.07**
Family	190.81*	11/1/88	213.77**
Medicare	41.40*	1/1/89	41.40**
High Option	63.75*	1/1/89	63.75**

*Actual rates
 **Assumed rates

It was assumed that medical premiums would grow at an annual rate of 12%. The assumed rate of growth in number of retirees receiving medical insurance was assumed to be consistent with average growth patterns over recent years.

Reserves in the Insurance Fund were used to offset the liability for premiums over the four year projection period.

(10) Missing data

- For those active members with incomplete data, the following assumptions were made:
 - . If reported salary was zero or blank, then monthly salary was assumed to be \$1,274
 - . If reported age was blank, then assume current age equal to age 18 plus years of service reported

B. SAMPLE RATES

(1) Annual Rates of Mortality:

<u>Age</u>	<u>Active Mortality*</u>		<u>Disabled Mortality</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
25	0.06%	0.03%	4.83%	2.63%
30	0.08	0.05	3.62	2.37
40	0.16	0.09	2.82	2.09
50	0.53	0.22	3.83	2.57
55	0.85	0.33	4.82	2.95
60	1.31	0.55	6.03	3.31

*Plus 0.05% duty death rate prior to retirement.

(2) Annual Rates of Decrement:

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

(3) Compensation Progression:

<u>Age</u>	<u>Rate of Annual Increase</u>	<u>Compensation at Normal Retirement as Percentage Of Current Annual Compensation</u>
25	7.50%	875.5%
30	7.50	609.8
40	7.50	295.9
50	7.50	143.6

SECTION III

STATE POLICE RETIREMENT SYSTEM

RESULTS OF THE 1988 ACTUARIAL VALUATION

Actuarial Balance Sheet

Table I, which follows, is the actuarial balance sheet of the State Police Retirement System as of June 30, 1988. 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 9% of the Unfunded Actuarial Accrued Liability, 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, 1988.

The actuarial methods applied to determine the Normal Cost for the year commencing July 1, 1988 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 employe 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 employe'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 I
 STATE POLICE RETIREMENT SYSTEM
ACTUARIAL BALANCE SHEET-JUNE 30, 1988

ACTUARIAL ASSETS

Fund Assets at Book Value*		\$ 121,168,785
Actuarial Present Value of Future Member Contributions		17,750,070
Actuarial Present Value of Future Employer Contributions		
For Normal Costs	\$21,725,874	
For Unfunded Actuarial Accrued Liability	<u>(870,182)</u>	
Total		\$ 20,855,692
Total Actuarial Assets		\$ 159,774,547

ACTUARIAL LIABILITIES

Actuarial Present Value of Future Benefits		
Inactive Members:		
Retired Members and Beneficiaries	\$ 50,255,333	
Vested Retirement	2,989,337	
Vested Membership	<u>88,746</u>	
Total - Inactive		\$ 53,333,416
Active Members:		
Retirement Benefits	\$ 95,305,652	
Disability Benefits	3,920,172	
Withdrawal Benefits (Vested and Refund of Contributions)	3,153,131	
Survivor Benefits	<u>3,891,940</u>	
Total - Active		\$ 106,270,895
Refunds and Expenses Payable and Payables to other Systems		\$ 170,236
Total Actuarial Liabilities		\$ 159,774,547

ACCRUED BENEFIT LIABILITY **

Vested Benefits		\$ 78,599,520
Non-Vested Benefits		\$ 20,238,833

* The approximate market value of assets as of June 30, 1988 is \$130,772,220.
 The actuarial value of assets as of June 30, 1988 is \$120,998,549 (book value of assets less refunds and expenses payable).
 The Members' Contribution Account as of June 30, 1988 is \$21,394,367

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

TABLE II

STATE POLICE RETIREMENT SYSTEM

DETERMINATION OF CONTRIBUTION RATE-JUNE 30, 1988

<u>ACTUARIAL ACCRUED LIABILITY</u>		<u>PERCENT*</u>
<u>Active Members</u>		
Retirement Benefits	\$ 62,130,762	258.72%
Disability Benefits	2,211,511	9.21%
Withdrawal Benefits (Vested and Refund of Contributions)	379,082	1.58%
Survivor Benefits	<u>2,073,596</u>	<u>8.63%</u>
Actuarial Accrued Liability - Active	\$ 66,794,951	278.14%
<u>Inactive Members</u>		
Retired Members and Beneficiaries	\$ 50,255,333	209.27%
Vested Retirement	2,989,337	12.45%
Vested Membership	<u>88,746</u>	<u>0.37%</u>
Actuarial Accrued Liability - Inactives	\$ 53,333,416	222.09%
Total Actuarial Accrued Liability	120,128,367	500.23%
<u>UNFUNDED ACTUARIAL ACCRUED LIABILITY</u>		
Total Actuarial Accrued Liability	\$120,128,367	500.23%
Assets at Actuarial Value	<u>120,998,549</u>	<u>503.86%</u>
Unfunded Actuarial Accrued Liability	\$ (870,182)	(3.63%)
Contribution - 9% of Unfunded Actuarial Accrued Liability	\$ (78,315)	(0.33%)
<u>NORMAL COST</u>		
Retirement Benefits	\$ 3,115,239	12.97%
Disability Benefits	163,759	0.68%
Withdrawal Benefits (Vested and Refund of Contributions)	268,672	1.12%
Survivor Benefits	<u>175,303</u>	<u>0.73%</u>
Total Normal Cost	\$ 3,722,973	15.50%
Less: Employee Contributions	<u>1,673,052</u>	<u>6.97%</u>
Normal Cost - State Police	\$ 2,049,921	8.53%

TOTAL ANNUAL EMPLOYER COST - STATE POLICE

Normal Cost	\$ 2,049,921	8.54%
9% of Unfunded Actuarial Accrued Liability	(78,315)	(0.33%)
Administrative Expenses	30,407	0.13%
Group Hospital and Medical Insurance Premiums	<u>1,998,004</u>	<u>8.32%</u>
Total Annual Cost	\$ 4,000,017	16.66%

*Based on estimated annual salaries of \$24,014,472.

TABLE III

STATE POLICE RETIREMENT SYSTEM

ACCOUNTANT'S INFORMATION - JUNE 30, 1988

INFORMATION REQUIRED UNDER FASB STATEMENT NO. 35

ACTUARIAL PRESENT VALUE OF
 VESTED ACCUMULATED BENEFITS

Active Members

Retirement Benefits	\$22,097,160
Disability Benefits	868,522
Withdrawal Benefits (Vested and Refund of Contributions)	1,734,707
Survivor Benefits	<u>0</u>

Total Active Members \$24,700,389

Inactive Members

Retired Members and Beneficiaries	\$50,255,333
Vested Retirement	2,989,337
Vested Membership	<u>88,746</u>

Total-Inactive Members \$53,333,416

Total Actuarial Present Value of
 Vested Accumulated Benefits \$78,033,805

ACTUARIAL PRESENT VALUE OF
 NON-VESTED ACCUMULATED BENEFITS

Active Members

Retirement Benefits	\$ 9,278,064
Disability Benefits	920,828
Withdrawal Benefits (Vested and Refund of Contributions)	(119,421)
Survivor Benefits	<u>1,526,075</u>

Total - Active Members \$11,605,546

Inactive Members

\$ 0

Total Actuarial Present Value of
 Non-Vested Accumulated Benefits \$11,605,546

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

TABLE IV

STATE POLICE RETIREMENT SYSTEM

ACCOUNTANT'S INFORMATION - JUNE 30, 1988

INFORMATION REQUIRED UNDER GASB STATEMENT NO. 5

A. NUMBER OF MEMBERS

Inactive Members

Retired Members and Beneficiaries	303
Vested Retirements	41
Vested Membership	<u>62</u>
Total Inactive Members	406

Active Members

Vested Members	764
Nonvested Members	<u>155</u>
Total Active Members	<u>919</u>

Total Members 1,325

B. UNFUNDED PENSION BENEFIT OBLIGATION

Pension Benefit Obligation

Retirees and Beneficiaries Currently Receiving Benefits and Terminated Members Not Yet Receiving Benefits	\$ 53,333,416
Current members Accumulated Employee Contributions and Credited Interest	20,051,509
Employer Financed - Vested	41,558,492
Employer Financed - Nonvested	<u>671,898</u>

Total Pension Benefit Obligation 115,615,315

Net Assets at Cost Value \$120,998,549

Unfunded Pension Benefit Obligation (5,383,234)

SECTION IV

COMMENTS AND CERTIFICATION

Comments

The total Actuarial Accrued Liability increased from \$111,541,989 on June 30, 1987 to \$120,128,367 on June 30, 1988. The Unfunded Actuarial Accrued Liability has decreased from \$1,347,385 to \$0. Total actuarial value of assets as of June 30, 1988 was equal to \$120,998,549.

The Unfunded Actuarial Accrued Liability decreased from 5.65% to 0.0% as a percentage of annual payroll and decreased from 1.2% to 0.0% as a percentage of the Actuarial Accrued Liability in the year ended June 30, 1988.

The change in contribution rate between the 1987 and 1988 valuations is a function of actual plan experience as well as increases in benefits this year. 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, 1987 Contribution Rate	16.00%
Increase Expected Due to Benefit Improvements	
. Increase in Factor	0.16%
. Retiree COLA in 1988 and 1989	1.42%
Expected Change in Unfunded Actuarial Accrued Liability Payment Due to Increasing Covered Payroll	(0.04%)
Investment Return	(1.03%)
Salary Increases	(0.20%)
Other Decrements*	(0.98%)
Change in Group Hospital and Medical Premium Rate	1.30%
Change in Administrative Expense Rate	0.03%
June 30, 1988 Contribution Rate	16.66%

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

The annual State contribution rate required to provide the Normal Cost, 9% of the Unfunded Actuarial Accrued Liability and pay administrative expenses is 8.34%. An additional 8.32% is required to fund medical insurance for retirees, bringing the total required contribution to 16.66%. This requirement is within the 18.25% budget. During the next year, the amount contributed by the State will be reduced by a total of \$1,800,000 split between the KERS Non-Hazardous, KERS Hazardous and the State Police systems. This results in an expected decrease of 0.24% of payroll in the overall contribution to the State Police system for the coming year, making the net contribution 18.01%. In our opinion, the continuation of the 18.25% contribution rate (as adjusted for the budgeted reduction this year) is justified, 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, 1989 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

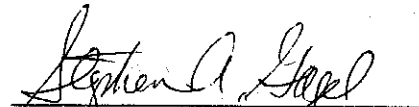
July 1 of Year Shown	Total Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Percent Unfunded	Actuarial Value Of Assets	Increase in Assets
1958	\$ 1,450,000	\$ 1,450,000	100.0%	\$ 0	\$ 0
1963	4,553,258	2,008,476	44.1%	2,544,782	619,167
1968	9,079,139	3,288,103	36.2%	5,791,036	789,709
1971	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	14.4%	85,016,242	10,035,725
1986	105,559,951	8,892,252	8.4%	96,667,699	11,651,457
1987	111,541,989	1,347,385	1.2%	110,194,604	13,526,905
1988	120,128,367	0	0.0%	120,998,549	10,803,945

*Includes capitalized appreciation of investments.

Certification

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

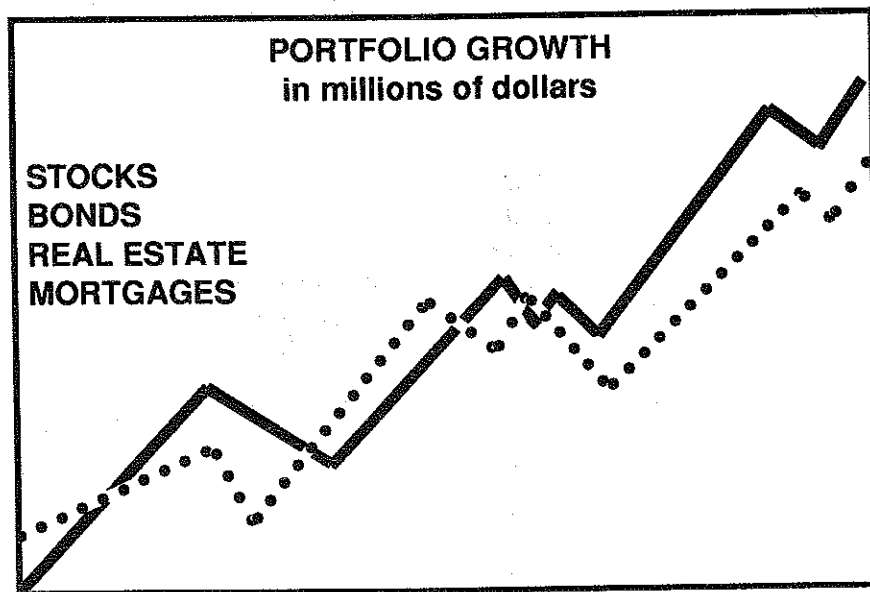
Certified by:


Stephen A. Gagel, P.S.A.

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

November 2, 1988
Date

INVESTMENT SECTION



INTRODUCTION TO INVESTMENT SECTION

The Kentucky Retirement Systems—Kentucky Employees Retirement System, County Employees Retirement System and State Police Retirement System—were created to provide present and future retirement benefits for the members. 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 always seeking means of enhancing revenues and protecting against losses in any particular investment area.

The Board continues to invest in such a way that benefits can be paid from the income of those investments and not from contributions or by liquidating the assets themselves. This ensures that the unfunded liabilities will continue to decrease over time and adequate monies should be available for improving benefits without substantial increases in the contribution rates of its members and participating employers.

To accomplish this goal, the Board contracts for the services of professional and experienced investment advisors. Following this introduction are the statements of performance from these advisors.

In addition to these contracted advisors, the Investment Staff of the Retirement Systems, 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. With the October market crash, that index had a rate of return of -7.0% for the period ending June 30. Under the management of the General Manager and the Investment Staff, the Index Equity Fund had a rate of return of -6.0% for the year—beating the goal by a full percentage point.



August 3, 1988

Board of Trustees
Kentucky Employees Ret. Systems
151 Elkhorn Court
Frankfort, KY 40601

Dear Board Members:


In last year's annual letter we indicated that recent very positive net returns were not sustainable and some difficult years lay ahead. However, we didn't see it happening so soon. Fiscal 1988 was one of those years with basically flat results, +0.5%. This isn't surprising when recognizing that the Dow Jones declined almost 300 points from June 30, 1987 to June 30, 1988. In the same time frame, long interest rates rose 70 basis points limiting average fixed income portfolios total return to 7%, all from income minus small principal losses.

During the fiscal year we were a net seller of almost \$170 million in common stocks, taking over \$46 million in capital gains in the process. On the fixed income side we purchased approximately \$150 million in new issues to yield 9.20% to maturity with AA+ quality.

The bond swapping program resulted in the exchange of about \$110 million with an average gain of 11 basis points in annual income. In every bond swap including two direct reversals with substantial gains, we matched or improved quality. In all instances, we increased yield to maturity. Therefore, this program continues to be a positive factor on net return.

By shifting the mix of bonds, stocks, and buying reserves we have lowered the beta or volatility of the portfolio. We can't guarantee one year results but the high quality of the portfolio and relatively low risk components should produce very satisfactorily long term returns as it has over the last nine years.

Respectfully submitted,



Lee Thurow



Theodore R. Tonneman

LT/TRT:cmn

MUNDER CAPITAL MANAGEMENT, INC.

August 2, 1988

Board of Trustees
Kentucky Retirement Systems
Perimeter Park West
151 Elkhorn Court
Frankfort, KY 40601

Dear Trustees:

The fiscal year ended June 30, 1988 marked another year of steady returns in the fixed income markets and a substantial improvement over the modest returns of last year. The Kentucky Retirement Systems' bond portfolio appreciated by 8.34%, which compares favorably to the 7.47% return of the Shearson Lehman Government/Corporate Bond Index. In absolute terms, the market value of the portfolio increased by more than \$37 million from \$353,783,321 to \$390,785,872 as of June 30, 1988.

Severe tightening by the Federal Reserve during the first quarter of the fiscal year ultimately led to the stock market crash of October 19th. The deflationary effects of the crash, in turn, led to a major rally in the U.S. Treasury market. This rally saw interest rates, as measured by the bellwether 30 year U.S. Treasury bond, decline from a peak of 10.40% on the morning of October 19th (Black Monday) to 8.25% by mid-February. At year end, the 30 year U.S. Treasury yield was 8.85%.

During the year, we continuously adjusted the portfolio's characteristics to take advantage of market opportunities. The most significant of these adjustments was increasing the portfolio's exposure to discount mortgage-backed bonds. As market volatility has continued to subside, the yield spreads of this sector have narrowed significantly.

As the new fiscal year unfolds, we believe that the principal risks to the bond market continue to be associated with the drought and the possibility of growing wage inflation normally associated with an economy approaching full capacity. Offsetting these risks we note improving confidence in the dollar, and a continuing high level of international co-operation and dialogue. On balance we believe the outlook justifies a posture of cautious optimism.

Sincerely,

MUNDER CAPITAL MANAGEMENT, INC.



Lee Munder, C.F.A.
President

LM:dac

260 EAST BROWN STREET - SUITE 100 - P.O. BOX 3082 - BIRMINGHAM, MICHIGAN 48012-3082 - (313) 647-9200

Heitman Financial

Norman Perlmutter
Chairman of the Board

August 15, 1988

Board of Trustees
Kentucky Retirement Systems
151 Elkhorn Court
Frankfort, Kentucky 40601

Dear Trustees:

It is a pleasure to summarize the investment in real estate by the Kentucky Retirement Systems through Heitman Advisory Corporation.

During the past year, the Kentucky Retirement Systems Real Estate Separate Account completed the purchase of the Big Sandy Village Shopping Center in Pikeville with a cash investment of \$1,224,000. This purchase along with the previous investment in Danville Manor Shopping Center increased the equity values to \$6,758,000. In addition, a commitment was issued to acquire 50% of the Towne Center, Elizabethtown which is adjacent to the Towne Mall Shopping Center, in which the Systems have an interest through their investment in Heitman Real Estate Fund I. The overall return on the Separate Account in 1987 was 23.37%.

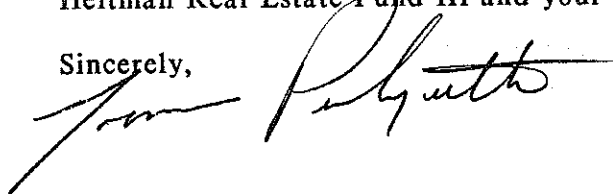
Heitman Real Estate Fund I, in which the Systems have a remaining investment of \$39,232,000, had an overall yield in 1987 of 12.57%. Fully funded, the portfolio contains three shopping centers, three office buildings, two industrial parks and one primarily retail mixed-use facility.

In 1988 Heitman Real Estate Fund II completed its acquisition phase. The Systems have invested \$20,500,000 in Fund II which had an overall yield in 1987 of 12.47%. The portfolio includes five shopping centers, five office buildings, four industrial parks and one predominately retail mixed-use facility.

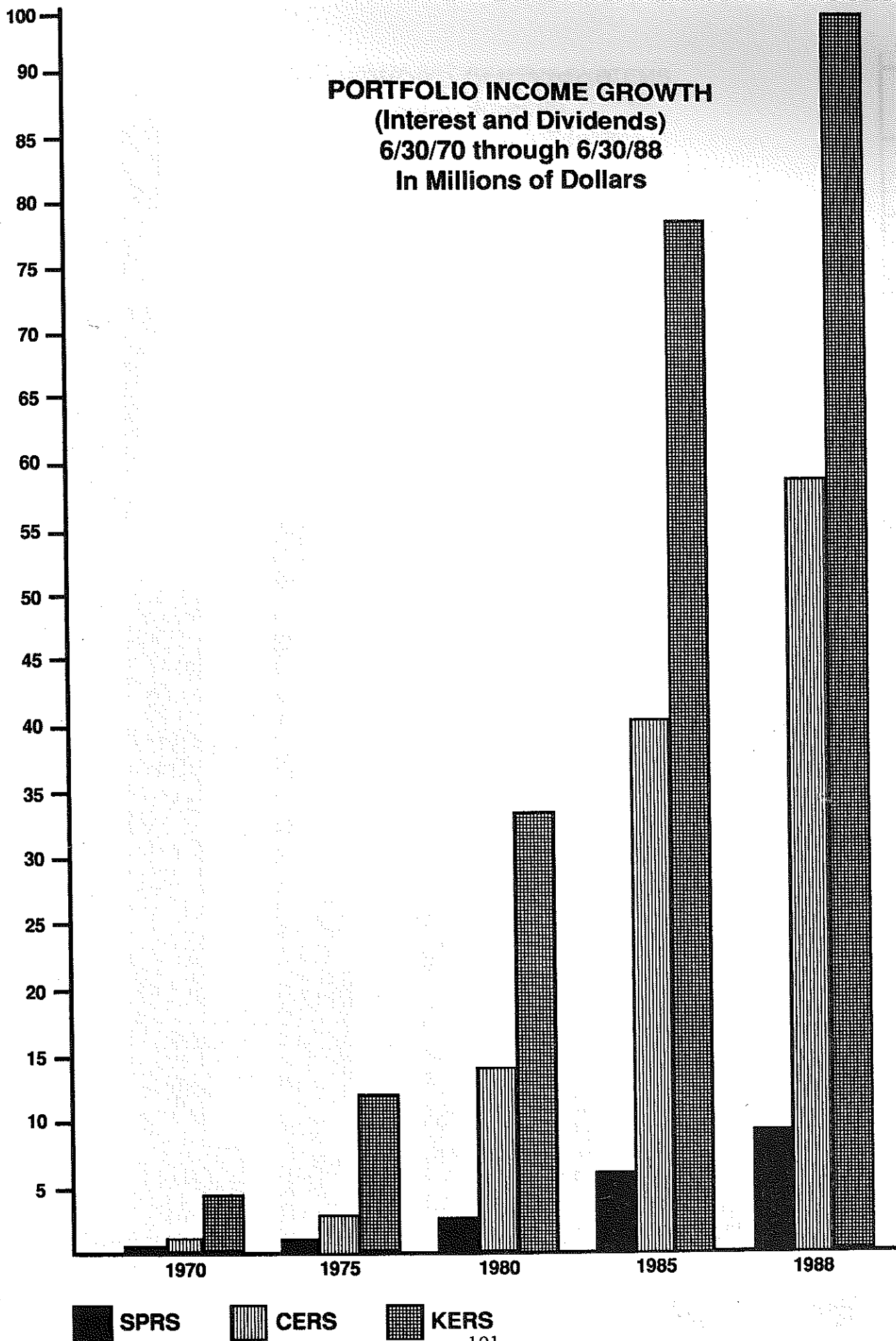
The Kentucky Retirement Systems have funded \$10,871,500 of their \$12,000,000 commitment in Heitman Real Estate Fund III. In its initial acquisition phase, the Fund has acquired or committed to acquire four shopping centers, five office buildings and three industrial investments. In the portfolio are the 442,000 square foot Towne Square Mall and 210,000 square foot Towne Square North shopping centers located in Owensboro, Kentucky. By the end of 1988, Fund III will be fully committed.

We will continue to work to realize growth in your real estate portfolio and to pursue high grade real estate investments in shopping centers, industrial parks and office buildings for the Kentucky Retirement Systems through your investment in Heitman Real Estate Fund III and your separate account.

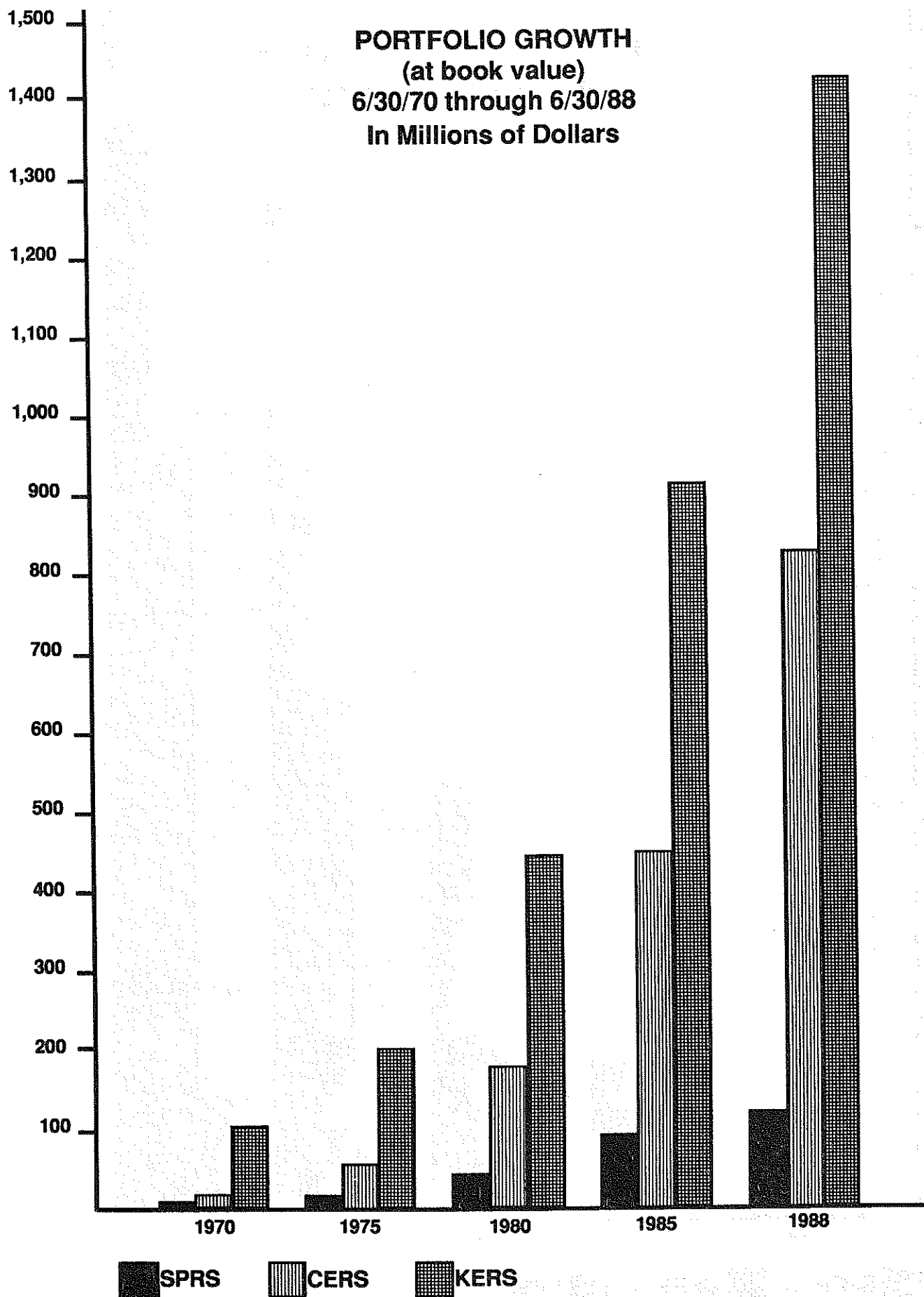
Sincerely,



PORTFOLIO INCOME GROWTH
(Interest and Dividends)
6/30/70 through 6/30/88
In Millions of Dollars



PORTFOLIO GROWTH
(at book value)
6/30/70 through 6/30/88
In Millions of Dollars



**KENTUCKY RETIREMENT SYSTEMS
PORTFOLIO SUMMARY: 6/30/88
STATE EMPLOYEES (KERS)**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$163,771,018.00	\$336,859,324.58	\$260,223,425.50	\$249,430,394.24	\$1,010,284,162.32
% of Total Par Value	16%	33%	26%	25%	100%
Book Value	\$163,583,597.98	\$260,168,577.63	\$243,126,946.52	\$249,430,394.24	\$ 916,309,516.37
% of Total Book Value	18%	28%	27%	27%	100%
Market Value	\$163,384,181.45	\$260,356,669.03	\$242,485,638.38	\$249,430,394.24	\$ 915,656,883.10
% of Total Market Value	18%	28%	26%	28%	100%
Potential Gain (Or Loss)	\$ -199,416.53	\$ 188,091.40	\$ -641,308.14	.00	\$ -652,633.35
Indicated Annual Income	\$ 16,086,686.12	\$ 23,551,475.98	\$ 22,446,612.27	\$ 18,765,479.98	\$ 80,850,254.35
Current Yield — Book Value	9.83	9.05	9.23	7.52	8.82
— Market Value	9.85	9.05	9.26	7.52	8.83
Yield to Maturity — Mkt Value	9.69	8.69	9.35	7.52	8.73
Average Coupon	9.82	6.99	8.63	7.52	8.00
Average Maturity (Years)	15.12	10.37	21.09	.10	11.37

REAL ESTATE

BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$ 46,725,225.71	\$ 53,402,710.35	\$ 6,677,484.64	\$ 3,923,911.76	8.40	7.35

COMMON STOCK

NO. OF SHARES	BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED DIVIDEND INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
14,431,832	\$460,451,437.18	\$582,267,863.48	\$121,816,426.30	\$ 17,524,557.28	3.81	3.01

TOTAL PORTFOLIO

TYPE	BOOK VALUE	PCTAGE OF PORTFOLIO	MARKET VALUE	PCTAGE OF PORTFOLIO	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 163,583,597.98	11%	\$ 163,384,181.45	11%	\$ 16,086,686.12	9.83	9.85
Governments	\$ 260,168,577.63	18%	\$ 260,356,669.03	17%	\$ 23,551,475.98	9.05	9.05
Mortgages	\$ 243,126,946.52	17%	\$ 242,485,638.38	16%	\$ 22,446,612.27	9.23	9.26
Short Term	\$ 249,430,394.24	18%	\$ 249,430,394.24	16%	\$ 18,765,479.98	7.52	7.52
Real Estate	\$ 46,725,225.71	3%	\$ 53,402,710.35	3%	\$ 3,923,911.76	8.40	7.35
Common Stock	\$ 460,451,437.18	33%	\$ 582,267,863.48	37%	\$ 17,524,557.28	3.81	3.01
Total Portfolio	\$1,423,486,179.26	100%	\$1,551,327,456.93	100%	\$102,298,723.39	7.19	6.59

**KENTUCKY RETIREMENT SYSTEMS
PORTFOLIO SUMMARY: 6/30/88
COUNTY EMPLOYEES (CERS)**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$ 83,042,895.01	\$ 188,921,035.01	\$ 146,054,489.82	\$ 154,897,644.85	\$ 572,916,064.69
% of Total Par Value	15%	33%	25%	27%	100%
Book Value	\$ 82,897,661.19	\$ 155,240,441.66	\$ 136,495,456.35	\$ 154,897,644.85	\$ 529,531,204.05
% of Total Book Value	16%	29%	26%	29%	100%
Market Value	\$ 82,540,606.94	\$ 154,355,263.46	\$ 137,005,424.70	\$ 154,897,644.85	\$ 528,798,939.95
% of Total Market Value	16%	29%	26%	29%	100%
Potential Gain (Or Loss)	\$ -357,054.25	\$ -885,178.20	\$ 509,968.35	.00	\$ -732,264.10
Indicated Annual Income	\$ 8,123,184.04	\$ 13,913,691.16	\$ 12,793,549.04	\$ 11,652,523.76	\$ 46,482,948.00
Current Yield — Book Value	9.80	8.96	9.37	7.52	8.78
— Market Value	9.84	9.01	9.34	7.52	8.79
Yield to Maturity — Mkt Value	9.68	8.63	9.37	7.52	8.67
Average Coupon	9.78	7.36	8.76	7.52	8.11
Average Maturity (Years)	14.92	9.67	21.81	.10	10.94

REAL ESTATE

BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$ 29,159,363.62	\$ 33,077,404.93	\$ 3,918,041.31	\$ 2,440,188.68	8.37	7.38

COMMON STOCK

NO. OF SHARES	BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED DIVIDEND INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
8,082,988	\$ 267,504,231.29	\$ 321,576,388.70	\$ 54,072,157.41	\$ 9,575,892.29	3.58	2.98

TOTAL PORTFOLIO

TYPE	BOOK VALUE	PCTAGE OF PORTFOLIO	MARKET VALUE	PCTAGE OF PORTFOLIO	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 82,897,661.19	10%	\$ 82,540,606.94	9%	\$ 8,123,184.04	9.80	9.84
Governments	\$ 155,240,441.66	19%	\$ 154,355,263.46	17%	\$ 13,913,691.16	8.96	9.01
Mortgages	\$ 136,495,456.35	17%	\$ 137,005,424.70	16%	\$ 12,793,549.04	9.37	9.34
Short Term	\$ 154,897,644.85	19%	\$ 154,897,644.85	18%	\$ 11,652,523.76	7.52	7.52
Real Estate	\$ 29,159,363.62	4%	\$ 33,077,404.93	4%	\$ 2,440,188.68	8.37	7.38
Common Stock	\$ 267,504,231.29	31%	\$ 321,576,388.70	36%	\$ 9,575,892.29	3.58	2.98
Total Portfolio	\$ 826,194,758.96	100%	\$ 883,452,733.58	100%	\$ 58,499,028.97	7.08	6.62

**KENTUCKY RETIREMENT SYSTEMS
PORTFOLIO SUMMARY: 6/30/88
STATE POLICE (SPRS)**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$ 14,093,651.20	\$ 31,971,602.91	\$ 21,550,905.85	\$ 18,776,860.91	\$ 86,393,020.87
% of Total Par Value	16%	37%	25%	22%	100%
Book Value	\$ 14,114,536.55	\$ 25,669,785.69	\$ 20,186,304.52	\$ 18,776,860.91	\$ 78,747,487.67
% of Total Book Value	18%	32%	26%	24%	100%
Market Value	\$ 14,077,550.83	\$ 25,888,771.69	\$ 19,944,720.77	\$ 18,776,860.91	\$ 78,687,904.20
% of Total Market Value	18%	33%	25%	24%	100%
Potential Gain (Or Loss)	\$ -36,985.72	\$ 218,986.00	\$ -241,583.75	.00	\$ -59,583.47
Indicated Annual Income	\$ 1,376,301.42	\$ 2,341,051.88	\$ 1,834,163.15	\$ 1,414,764.21	\$ 6,966,280.66
Current Yield — Book Value	9.75	9.12	9.09	7.53	8.85
— Market Value	9.78	9.04	9.20	7.53	8.85
Yield to Maturity — Mkt Value	9.64	8.60	9.33	7.53	8.72
Average Coupon	9.77	7.32	8.51	7.53	8.06
Average Maturity (Years)	14.06	8.81	20.84	.10	10.78

REAL ESTATE

BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$ 3,816,567.96	\$ 4,379,562.12	\$ 562,994.16	\$ 320,309.29	8.39	7.31

COMMON STOCK

NO. OF SHARES	BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED DIVIDEND INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
1,278,723	\$ 39,712,282.90	\$ 50,326,405.50	\$ 10,614,122.60	\$ 1,518,808.45	3.82	3.02

TOTAL PORTFOLIO

TYPE	PCTAGE OF BOOK VALUE PORTFOLIO		PCTAGE OF MARKET VALUE PORTFOLIO		INDICATED INCOME	INDICATED YIELD	
	BOOK VALUE	PORTFOLIO	MARKET VALUE	PORTFOLIO		ON BOOK	ON MARKET
Corporates	\$ 14,114,536.55	12%	\$ 14,077,550.83	11%	\$ 1,376,301.42	9.75	9.78
Governments	\$ 25,669,785.69	21%	\$ 25,888,771.69	19%	\$ 2,341,051.88	9.12	9.04
Mortgages	\$ 20,186,304.52	17%	\$ 19,944,720.77	15%	\$ 1,834,163.15	9.09	9.20
Short Term	\$ 18,776,860.91	15%	\$ 18,776,860.91	14%	\$ 1,414,764.21	7.53	7.53
Real Estate	\$ 3,816,567.90	3%	\$ 4,379,562.12	3%	\$ 320,309.29	8.39	7.31
Common Stock	\$ 39,712,282.90	32%	\$ 50,326,405.50	38%	\$ 1,518,808.45	3.82	3.02
Total Portfolio	\$ 122,276,338.53	100%	\$ 133,393,871.82	100%	\$ 8,805,398.40	7.20	6.60

**KENTUCKY RETIREMENT SYSTEMS
PORTFOLIO SUMMARY: 6/30/88
INSURANCE FUND PORTFOLIO**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$4,500,000.00	\$17,765,000.00	\$4,235,477.45	\$2,030,330.10	\$28,530,807.55
% of Total Par Value	16%	62%	15%	7%	100%
Book Value	\$4,467,989.30	\$17,074,057.96	\$4,252,828.08	\$2,030,330.10	\$27,825,205.44
% of Total Book Value	16%	62%	15%	7%	100%
Market Value	\$4,393,570.00	\$17,082,681.55	\$3,816,923.98	\$2,030,330.10	\$27,323,505.63
% of Total Market Value	16%	63%	14%	7%	100%
Potential Gain (Or Loss)	\$ -74,419.30	\$ 8,623.59	\$ -435,904.10	.00	\$ -501,699.81
Indicated Annual Income	\$ 376,250.00	\$ 1,383,743.76	\$ 357,015.58	\$ 162,629.44	\$ 2,279,638.78
Current Yield — Book Value	8.42	8.10	8.39	8.01	8.19
— Market Value	8.56	8.10	9.35	8.01	8.34
Yield to Maturity — Mkt Value	8.91	8.57	9.56	8.01	8.73
Average Coupon	8.36	7.79	8.43	8.01	7.99
Average Maturity (Years)	4.94	6.59	21.86	.08	8.13

TOTAL PORTFOLIO

TYPE	BOOK VALUE	PCTAGE OF PORTFOLIO	MARKET VALUE	PCTAGE OF PORTFOLIO	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 4,467,989.30	16%	\$ 4,393,570.00	16%	\$ 376,250.00	8.42	8.56
Governments	\$17,074,057.96	62%	\$17,082,681.55	63%	\$1,383,743.76	8.10	8.10
Mortgages	\$ 4,252,828.08	15%	\$ 3,816,923.98	14%	\$ 357,015.58	8.39	9.35
Short Term	\$ 2,030,330.10	7%	\$ 2,030,330.10	7%	\$ 162,629.44	8.01	8.01
Total Portfolio	\$27,825,805.44	100%	\$27,323,505.63	100%	\$2,279,638.78	8.19	8.34

**KENTUCKY RETIREMENT SYSTEMS
PORTFOLIO SUMMARY: 6/30/88
ALL SYSTEMS COMBINED**

DESCRIPTION	CORPORATES	GOVERNMENTS	MORTGAGES	SHORT TERM	TOTAL
Par Value	\$260,907,564.21	\$557,751,962.50	\$427,828,821.17	\$423,104,900.00	\$1,669,593,247.88
% of Total Par Value	16%	33%	26%	25%	100%
Book Value	\$260,595,795.72	\$441,078,804.98	\$399,808,707.39	\$423,104,900.00	\$1,524,588,208.09
% of Total Book Value	17%	29%	26%	28%	100%
Market Value	\$260,002,339.22	\$440,600,704.18	\$399,435,783.85	\$423,104,900.00	\$1,523,143,727.25
% of Total Market Value	17%	29%	26%	28%	100%
Potential Gain (Or Loss)	\$ -593,456.50	\$ -478,100.80	\$ -372,923.54	.00	\$ -1,444,480.84
Indicated Annual Income	\$ 25,586,171.58	\$ 39,806,219.02	\$ 37,074,324.46	\$ 31,832,767.95	\$ 134,299,483.01
Current Yield — Book Value	9.82	9.02	9.27	7.52	8.81
— Market Value	9.84	9.03	9.28	7.52	8.82
Yield to Maturity — Mkt Value	9.69	8.66	9.35	7.52	8.71
Average Coupon	9.81	7.14	8.67	7.52	8.04
Average Maturity (Years)	15.00	10.04	21.32	.10	11.19

REAL ESTATE

BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
\$ 79,701,157.29	\$ 90,859,677.40	\$11,158,520.11	\$ 6,684,409.73	8.39	7.36

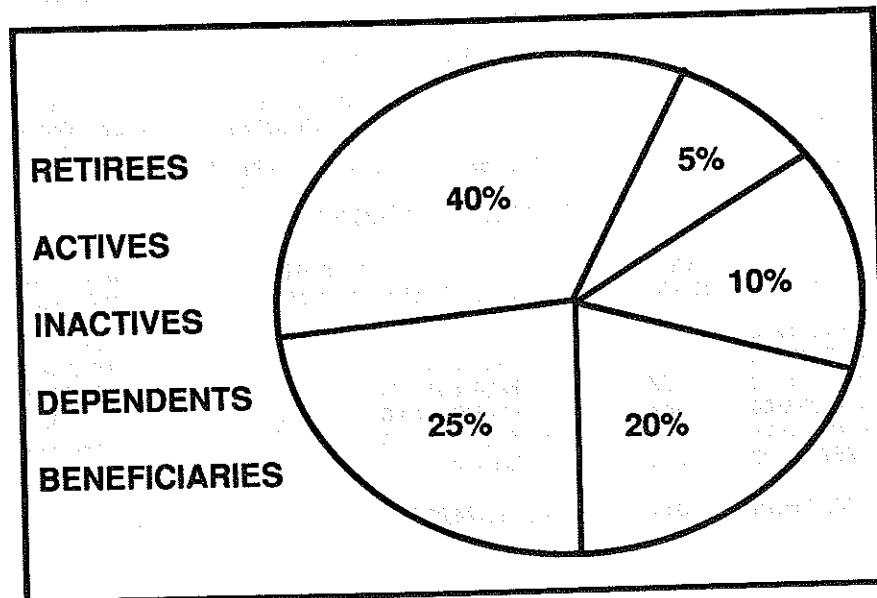
COMMON STOCK

NO. OF SHARES	BOOK VALUE/COST	MARKET VALUE	POTENTIAL GAIN (OR LOSS)	INDICATED DIVIDEND INCOME	CURRENT YIELD ON COST	CURRENT YIELD ON MARKET
23,793,543	\$767,667,951.37	\$954,170,657.68	\$186,502,706.31	\$ 28,619,258.02	3.73	3.00

TOTAL PORTFOLIO

TYPE	BOOK VALUE	PCTAGE OF PORTFOLIO	MARKET VALUE	PCTAGE OF PORTFOLIO	INDICATED INCOME	INDICATED YIELD ON BOOK	INDICATED YIELD ON MARKET
Corporates	\$ 260,595,795.72	11%	\$ 260,002,339.22	10%	\$ 25,586,171.58	9.82	9.84
Governments	\$ 441,078,804.98	19%	\$ 440,600,704.18	17%	\$ 39,806,219.02	9.02	9.03
Mortgages	\$ 399,808,707.39	17%	\$ 399,435,783.85	16%	\$ 37,074,324.46	9.27	9.28
Short Term	\$ 423,104,900.00	18%	\$ 423,104,900.00	16%	\$ 31,832,767.95	7.52	7.52
Real Estate	\$ 79,701,157.29	3%	\$ 90,859,677.40	4%	\$ 6,684,409.73	8.39	7.36
Common Stock	\$ 767,667,951.37	32%	\$ 954,170,657.68	37%	\$ 28,619,258.02	3.73	3.00
Total Portfolio	\$2,371,957,316.75	100%	\$2,568,174,062.33	100%	\$169,603,150.76	7.15	6.60

STATISTICAL SECTION



INTRODUCTION TO STATISTICAL SECTION

This section presents statistical information in the form of charts and tables to provide the reader with further data about the Retirement Systems. Some of this information is in the form of charts that graphically illustrate the trends in membership and portfolio growth. All information is presented as of June 30, 1988, though some of the information is inclusive of all activity since the inception of the systems.

RETIREMENT PAYMENTS

The first table shows average monthly benefits being paid based on years of service credit. The next three tables show the benefit payments for each section by the payment option selected by the member or surviving beneficiary. Because of legislation passed in 1974, those members who have accounts in the Kentucky Employes Retirement System, County Employes Retirement System, State Police Retirement System, Legislators Retirement Plan or Kentucky Teachers' Retirement System may have their accounts combined for determining eligibility for benefits and the salary to be used to determine those benefits. However, each system pays a separate benefit based on the service in that system.

For this reason, any particular system may pay only a small amount of the member's total benefit. While these small payments are important to the retiree, they do tend to distort the statistics contained in the tables.

In addition, the monthly benefits shown include all living retirees or beneficiaries who were drawing a payment from the systems. In fact, more than 10,000 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.

The following table shows a comparison by system of the number of retirees and their years of service at the time of retirement.

	SERVICE RANGES IN YEARS/NO. OF RETIREES								
	UNDER 2	2-5	6-10	11-15	16-20	21-25	26-30	31-35	35+
KERS	142	482	3276	3303	2349	1821	1192	1063	588
CERS	152	569	3223	2055	1217	744	382	267	201
SPRS	11	4	10	12	19	58	119	66	4

From this it is clear that most members of KERS and CERS retire with less than 20 years service credit. In fact, overall only 18% of CERS retirees and 32% of KERS retirees have had more than 20 years at the time of retirement. The first chart following this introduction shows average monthly benefit payments for these same service ranges. The statistics for those retiring during fiscal year 1987-88 are as follows:

SYSTEM	AVE. FINAL COMP.	AVE. MO. BENE.	% RETIRING WITH YRS. SVC.			
			Under 20	20-25	25-30	30+
KERS	\$19,245	\$ 533.03	64%	19%	8%	9%
CERS	\$13,593	\$ 315.38	79%	13%	4%	4%
SPRS	\$34,356	\$1,759.21	27%	27%	19%	27%

Table 5 presents a county-by-county summary of total retirement payments over the fiscal year. This table gives an indication of the importance of retirees' income to their communities and shows that the majority of our retired members continue to live within the state.

MEMBERSHIP

Table 6 provides a picture of the growth in membership of the three systems. This table clearly shows the continuing growth of the County Employees Retirement System, which has now passed KERS in the numbers of both active and inactive members. Following are the membership totals as of June 30, 1988:

	ACTIVE	INACTIVE	RETIRED
KERS	44,331	8,905	13,896
CERS	47,195	9,869	8,341
SPRS	956	84	306

FINANCIAL AND ACTUARIAL STATISTICS

Tables 7 through 9 provide a compilation of important information about each system drawn from the financial and actuarial reports. These tables provide a summary of the systems assets and liabilities and show the adequacies of the current contribution rates in funding benefits at current levels.

SOURCE AND USE OF FUNDS

Table 10 provides a breakdown of each dollar, its source and where it goes, since the inception of the Retirement Systems.

ADMINISTRATIVE EXPENSE

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

TABLE 1
ANALYSIS OF
MONTHLY RETIREMENT BENEFITS
as of June 30, 1988
AVERAGE MONTHLY BENEFIT IN DOLLARS PER YEARS OF SERVICE

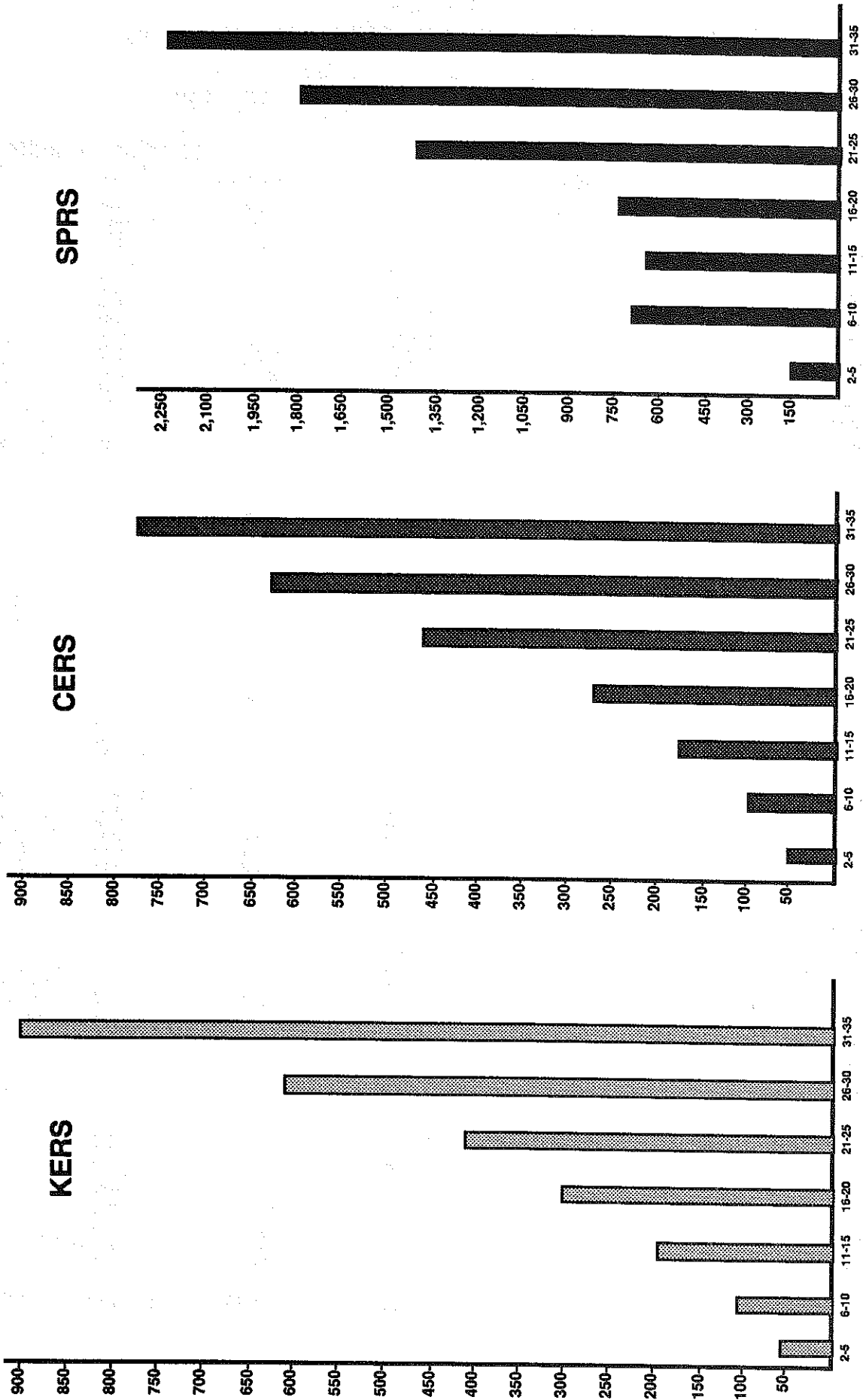


TABLE 2
KENTUCKY EMPLOYEES RETIREMENT SYSTEM
RETIREMENT BENEFITS BY PLAN
FOR THE PERIOD ENDING JUNE 30, 1988

	Number Of Cases	Total	Average	Monthly Benefits	
				Low	High
NORMAL					
Basic	2,286	\$ 662,477.59	\$ 289.79	\$ 1.09	\$2,358.88
Straight Life Annuity	4	655.51	163.87	96.91	326.29
Life - 10 Years Certain (Member)	633	184,481.33	291.43	3.21	2,626.34
Life - 10 Years Certain (Beneficiary)	75	19,179.86	255.73	3.56	896.17
10 Years Certain (Member)	5	6,971.65	1,394.33	1,160.41	1,875.11
10 Years Certain (Beneficiary)	3	2,255.11	751.70	83.82	1,155.79
Life - 15 Years Certain (Member)	36	16,743.61	465.10	33.00	1,528.56
Life - 15 Years Certain (Beneficiary)	5	2,042.86	408.57	270.20	500.59
Survivorship 100% (Member)	655	172,923.33	264.00	1.66	1,999.96
Survivorship 100% (Beneficiary)	374	68,248.58	182.48	15.68	1,183.03
Pop-Up Option	27	9,232.80	341.95	84.34	1,006.76
Survivorship 66 2/3% (Member)	172	76,246.98	443.29	5.68	2,285.84
Survivorship 66 2/3% (Beneficiary)	28	5,714.93	204.10	39.13	612.16
Survivorship 50% (Member)	362	166,851.44	460.91	2.72	2,103.52
Survivorship 50% (Beneficiary)	159	33,268.54	209.23	18.02	706.84
Soc. Sec. - Survivorship (Under 62)	1	1,369.28	1,369.28	1,369.28	1,369.28
Soc. Sec. - Survivorship (Over 62)	1	938.05	938.05	938.05	938.05
TOTALS AND AVERAGES	4,826	\$1,429,601.45	\$ 296.22	\$ 1.09	\$2,626.34
EARLY					
Basic	2,967	\$ 930,761.49	\$ 313.70	\$ 1.88	\$3,216.75
Life - 10 Years Certain (Member)	1,045	320,332.20	306.53	4.30	2,454.76
Life - 10 Years Certain (Beneficiary)	64	18,455.37	288.36	35.46	1,484.31
10 Years Certain (Member)	2	3,242.65	1,621.32	1,428.51	1,814.14
Life - 15 Years Certain (Member)	86	35,757.00	415.77	31.00	2,028.60
Life - 15 Years Certain (Beneficiary)	6	1,370.34	228.39	84.90	776.73
Life - 20 Years Certain (Member)	37	14,634.43	395.52	16.48	2,195.73
Survivorship 100% (Member)	1,061	310,414.41	292.56	2.23	2,593.16
Survivorship 100% (Beneficiary)	270	61,875.07	229.16	16.92	2,673.54
Pop-Up Option	104	63,503.93	610.61	1.22	2,477.08
Survivorship 66 2/3% (Member)	293	190,432.38	649.93	9.39	2,753.99
Survivorship 66 2/3% (Beneficiary)	42	10,709.80	254.99	9.10	913.32
Survivorship 50% (Member)	491	267,471.36	544.74	10.65	3,074.27
Survivorship 50% (Beneficiary)	129	24,086.57	186.71	18.61	868.54
Soc. Sec. - Basic (Under 62)	118	124,982.24	1,059.17	9.59	3,130.06
Soc. Sec. - Basic (Over 62)	176	109,615.69	622.81	4.33	2,764.84
Soc. Sec. - Survivorship (Under 62)	174	191,668.89	1,101.54	25.84	2,398.13
Soc. Sec. - Survivorship (Over 62)	130	60,741.49	467.24	11.80	1,478.69
Soc. Sec. - Basic (Over 65)	1	157.83	157.83	157.83	157.83
TOTALS AND AVERAGES	7,196	\$2,740,213.14	\$ 380.79	\$ 1.22	\$3,216.75
DISABILITY					
Basic	357	\$ 119,749.98	\$ 335.43	\$ 14.15	\$1,881.25
Life - 10 Years Certain (Member)	170	62,825.26	310.73	10.02	1,021.68
Life - 10 Years Certain (Beneficiary)	90	33,002.27	366.69	28.14	1,223.63
10 Years Certain (Beneficiary)	1	199.63	199.63	199.63	199.63
Life - 15 Years Certain (Member)	23	10,422.88	453.16	157.02	982.07
Life - 15 Years Certain (Beneficiary)	8	4,958.77	619.84	258.82	1,039.74
Life - 20 Years Certain (Member)	9	3,887.81	431.97	198.19	765.61
Life - 20 Years Certain (Beneficiary)	6	3,665.47	610.91	237.02	1,032.61
Survivorship 100% (Member)	199	55,022.86	276.49	5.16	2,239.93
Survivorship 100% (Beneficiary)	251	63,274.43	252.08	48.35	1,035.08
Pop-Up Option	16	8,636.94	539.80	27.53	1,378.97
Survivorship 66 2/3% (Member)	37	15,352.17	414.92	36.73	1,315.13
Survivorship 66 2/3% (Beneficiary)	28	5,740.35	205.01	4.06	715.71
Survivorship 50% (Member)	87	30,653.12	352.33	2.88	1,254.51
Survivorship 50% (Beneficiary)	63	10,065.38	159.76	36.25	580.38
Soc. Sec. - Basic (Under 62)	3	2,585.74	861.91	779.02	953.24
Soc. Sec. - Basic (Over 62)	7	2,835.79	405.11	72.55	867.82
Soc. Sec. - Survivorship (Under 62)	5	4,111.12	822.22	429.24	1,543.27
Soc. Sec. - Survivorship (Over 62)	4	1,309.25	327.31	264.57	386.68
TOTALS AND AVERAGES	1,364	\$ 428,299.22	\$ 314.00	\$ 2.88	\$2,239.93
DEATH BEFORE RETIREMENT					
Basic	1	\$ 303.04	\$ 303.04	\$ 303.04	\$ 303.04
Lump Sum	1	311.57	311.57	311.57	311.57
5 Years Certain	83	45,683.54	550.40	48.29	2,174.24
10 Years Certain	248	93,494.26	376.99	20.18	2,160.08
Survivorship 100%	420	134,926.35	321.50	1.76	2,445.80
Survivorship 50%	1	198.24	198.24	198.24	198.24
Soc. Sec. - Basic (Under 62)	5	2,594.81	518.96	87.66	1,189.65
Soc. Sec. - Basic (Over 62)	4	2,096.56	524.14	158.65	751.02
Soc. Sec. - Survivorship (Under 60)	5	2,580.37	516.07	49.26	993.89
Soc. Sec. - Survivorship (Over 60)	10	2,071.71	207.17	24.56	695.61
Dependent Child	1	92.16	92.16	92.16	92.16
TOTALS AND AVERAGES	779	\$ 284,352.61	\$ 365.02	\$ 1.76	\$2,445.80
SYSTEM TOTALS AND AVERAGES	14,165	\$4,882,466.42	\$ 344.68	\$ 1.09	\$3,216.75

TABLE 3
COUNTY EMPLOYEES RETIREMENT SYSTEM
RETIREMENT BENEFITS BY PLAN
FOR THE PERIOD ENDING JUNE 30, 1987

	Number Of Cases	Total	Monthly Benefits		
			Average	Low	High
NORMAL					
Basic	1,629	\$ 291,886.48	\$ 179.18	\$.27	\$3,225.73
Life - 10 Years Certain (Member)	562	98,018.72	174.41	3.63	2,837.78
Life - 10 Years Certain (Beneficiary)	61	10,818.20	177.34	24.16	1,020.52
10 Years Certain (Member)	11	16,813.01	1,528.45	724.07	2,636.15
10 Years Certain (Beneficiary)	3	3,730.42	1,243.47	1,148.73	1,325.43
Life - 15 Years Certain (Member)	36	7,553.16	209.81	24.66	980.46
Life - 15 Years Certain (Beneficiary)	2	766.90	383.45	92.63	674.27
Life - 20 Years Certain (Member)	1	1,782.29	1,782.29	1,782.29	1,782.29
Survivorship 100% (Member)	560	97,130.85	173.44	4.01	2,028.32
Survivorship 100% (Beneficiary)	206	30,448.20	147.80	13.97	1,311.15
Pop-Up Option	33	10,742.70	325.53	11.90	1,337.67
Survivorship 66 2/3% (Member)	91	31,078.40	341.52	30.19	1,792.89
Survivorship 66 2/3% (Beneficiary)	18	4,246.52	235.91	25.54	645.90
Survivorship 50% (Member)	165	50,690.87	307.21	2.63	1,912.77
Survivorship 50% (Beneficiary)	75	11,526.64	153.68	1.47	683.90
Soc. Sec. - Survivorship (Under 62)	5	7,388.88	1,477.77	1,169.66	1,766.24
Soc. Sec. - Survivorship (Over 62)	11	8,270.24	751.84	496.69	1,367.27
TOTALS AND AVERAGES	3,469	\$ 682,892.49	\$ 196.85	\$.27	\$3,225.73
EARLY					
Basic	1,828	\$ 364,146.64	\$ 199.20	\$ 2.14	\$2,613.08
Life - 10 Years Certain (Member)	755	135,589.54	179.58	3.20	2,131.60
Life - 10 Years Certain (Beneficiary)	54	10,423.26	193.02	36.66	775.50
10 Years Certain (Member)	6	12,691.91	2,115.31	960.75	4,811.10
10 Years Certain (Beneficiary)	1	500.79	500.79	500.79	500.79
Life - 15 Years Certain (Member)	79	18,688.43	236.56	26.19	1,104.90
Life - 15 Years Certain (Beneficiary)	4	1,746.63	436.65	119.20	1,225.94
Life - 20 Years Certain (Member)	35	9,751.21	278.60	23.62	1,551.59
Survivorship 100% (Member)	639	117,237.23	183.46	5.01	1,587.29
Survivorship 100% (Beneficiary)	131	26,522.40	202.46	5.64	1,325.57
Pop-Up Option	41	29,524.98	383.44	22.76	1,902.51
Survivorship 66 2/3% (Member)	131	60,817.81	464.25	16.85	1,823.00
Survivorship 66 2/3% (Beneficiary)	12	2,157.95	179.82	28.15	648.27
Survivorship 50% (Member)	224	98,810.45	441.11	7.45	2,321.18
Survivorship 50% (Beneficiary)	35	6,517.57	186.21	3.08	553.05
Soc. Sec. - Basic (Under 62)	37	32,368.83	874.83	9.39	2,129.91
Soc. Sec. - Basic (Over 62)	42	17,694.74	421.30	6.09	2,238.59
Soc. Sec. - Survivorship (Under 62)	101	108,819.53	1,077.42	18.99	2,341.90
Soc. Sec. - Survivorship (Over 62)	30	8,905.26	296.84	15.32	1,382.88
TOTALS AND AVERAGES	4,221	\$1,062,915.20	\$ 251.81	\$ 2.14	\$4,811.10
DISABILITY					
Basic	230	\$ 65,456.07	\$ 284.59	\$ 4.24	\$1,778.98
Life - 10 Years Certain (Member)	102	25,134.14	246.41	4.49	806.59
Life - 10 Years Certain (Beneficiary)	61	15,130.51	248.04	5.26	806.80
10 Years Certain (Member)	1	1,270.67	1,270.67	1,270.67	1,270.67
10 Years Certain (Beneficiary)	1	422.52	422.52	422.52	422.52
Life - 15 Years Certain (Member)	16	4,603.74	287.73	63.57	572.15
Life - 15 Years Certain (Beneficiary)	5	1,516.06	303.21	56.90	665.10
Life - 20 Years Certain (Member)	10	1,516.71	151.67	27.19	216.91
Life - 20 Years Certain (Beneficiary)	5	2,431.97	486.39	154.84	1,140.34
Survivorship 100% (Member)	111	28,239.31	254.40	20.72	886.39
Survivorship 100% (Beneficiary)	104	19,776.92	190.16	24.96	631.97
Pop-Up Option	13	3,924.50	301.88	56.99	1,258.44
Survivorship 66 2/3% (Member)	15	3,815.94	254.39	4.42	662.86
Survivorship 66 2/3% (Beneficiary)	8	1,056.51	132.06	49.15	304.36
Survivorship 50% (Member)	43	12,761.49	296.77	65.43	1,011.00
Survivorship 50% (Beneficiary)	23	2,998.56	130.37	34.26	326.42
Soc. Sec. - Basic (Under 62)	1	549.67	549.67	549.67	549.67
Soc. Sec. - Survivorship (Under 62)	2	1,049.18	524.59	243.18	806.00
Dependent Child	2	1,057.95	528.97	431.10	626.85
TOTALS AND AVERAGES	753	\$ 192,712.42	\$ 255.92	\$ 4.24	\$1,778.98
DEATH BEFORE RETIREMENT					
5 Years Certain	89	\$ 19,944.74	\$ 224.09	\$ 2.46	\$1,102.22
10 Years Certain	196	43,569.76	222.29	2.46	1,559.41
Survivorship 100%	194	33,734.99	173.89	7.88	1,020.01
Soc. Sec. - Basic (Under 62)	3	3,141.85	1,047.28	655.44	1,249.84
Soc. Sec. - Basic (Over 62)	3	295.46	98.48	10.99	228.84
Soc. Sec. - Survivorship (Over 60)	1	207.18	207.18	207.18	207.18
Dependent Child	2	307.16	153.58	150.97	156.19
TOTALS AND AVERAGES	488	\$ 92,956.44	\$ 201.20	\$ 2.46	\$1,559.41
SYSTEM TOTALS AND AVERAGES	8,931	\$2,039,721.25	\$ 228.38	\$.27	\$4,811.10

TABLE 4
STATE POLICE RETIREMENT SYSTEM
BENEFITS BY PLAN
FOR THE PERIOD ENDING JUNE 30, 1988

	Number Of Cases	Total	Monthly Benefits		
			Average	Low	High
NORMAL					
Basic	10	\$ 9,352.37	\$ 935.23	\$ 57.40	\$2,260.43
Life - 10 Years Certain (Member)	8	14,328.96	1,791.12	913.62	3,528.46
Life - 10 Years Certain (Beneficiary)	1	517.74	517.74	517.74	517.74
10 Years Certain (Member)	21	47,658.63	2,269.45	186.07	3,777.27
10 Years Certain (Beneficiary)	3	7,618.48	2,538.82	1,641.04	3,161.97
Life - 20 Years Certain (Member)	1	2,119.73	2,119.73	2,119.73	2,119.73
Survivorship 100% (Member)	20	27,502.20	1,375.11	127.58	2,560.96
Survivorship 100% (Beneficiary)	3	3,118.35	1,039.45	523.49	2,033.47
Survivorship 66 2/3% (Member)	8	14,280.66	1,785.08	1,000.63	2,447.78
Survivorship 50% (Member)	14	20,090.29	1,435.02	823.27	2,257.35
Survivorship 50% (Beneficiary)	2	1,104.77	552.38	424.51	680.26
Soc. Sec. - Survivorship (Under 62)	13	28,892.20	2,222.47	492.44	3,531.38
Soc. Sec. - Survivorship (Over 62)	5	5,642.11	1,128.42	860.34	1,263.46
TOTALS AND AVERAGES	109	\$182,224.49	\$1,671.78	\$ 57.40	\$3,777.27
EARLY					
Basic	5	\$ 8,722.01	\$1,744.40	\$1,421.70	\$2,124.54
Life - 10 Years Certain (Member)	9	16,444.00	1,827.11	1,391.43	2,203.02
Life - 10 Years Certain (Beneficiary)	1	1,695.01	1,695.01	1,695.01	1,695.01
10 Years Certain (Member)	19	49,192.61	2,589.08	1,534.25	3,374.07
Life - 15 Years Certain (Member)	2	2,973.66	1,486.83	1,142.08	1,831.58
Life - 20 Years Certain (Member)	3	4,380.22	1,460.07	617.23	2,010.22
Survivorship 100% (Member)	23	32,795.58	1,425.89	228.34	2,645.23
Survivorship 100% (Beneficiary)	1	1,659.16	1,659.16	1,659.16	1,659.16
Pop-Up Option	3	3,898.72	1,299.57	1,081.00	1,689.13
Survivorship 66 2/3% (Member)	10	15,678.86	1,567.11	1,227.97	1,952.46
Survivorship 50% (Member)	13	21,160.92	1,627.76	1,235.06	2,604.95
Soc. Sec. - Basic (Under 62)	9	17,328.11	1,925.34	576.82	2,496.47
Soc. Sec. - Survivorship (Under 62)	44	77,300.43	1,756.82	392.25	3,303.92
TOTALS AND AVERAGES	142	\$253,229.29	\$1,783.30	\$ 228.34	\$3,374.07
DISABILITY					
Basic	3	\$ 2,739.70	\$ 913.23	\$ 689.56	\$1,207.18
Life - 10 Years Certain (Member)	1	1,080.89	1,080.89	1,080.89	1,080.89
10 Years Certain (Member)	4	6,464.33	1,616.08	1,033.51	2,606.10
Life - 15 Years Certain (Member)	1	1,143.24	1,143.24	1,143.24	1,143.24
Life - 20 Years Certain (Member)	2	3,271.92	1,635.96	1,042.10	2,229.82
Survivorship 100% (Member)	7	8,350.75	1,192.96	647.56	1,970.62
Survivorship 100% (Beneficiary)	1	674.55	674.55	674.55	674.55
Survivorship 50% (Member)	1	1,356.39	1,356.39	1,356.39	1,356.39
Soc. Sec. - Survivorship (Under 62)	1	1,723.35	1,723.35	1,723.35	1,723.35
Dependent Child	2	434.38	217.19	188.32	246.06
TOTALS AND AVERAGES	23	\$ 24,278.26	\$1,156.10	\$ 188.32	\$2,606.10
DEATH BEFORE RETIREMENT					
10 Years Certain	3	\$ 5,241.74	\$1,747.24	\$ 720.89	\$3,278.58
Survivorship 100%	9	7,764.25	862.69	468.17	1,579.73
Dependent Child	3	1,191.48	397.16	135.74	851.53
TOTALS AND AVERAGES	15	\$ 14,197.47	\$ 946.49	\$ 135.74	\$3,278.58
DEFERRED	1	\$ 930.27	\$ 930.27	\$ 930.27	\$ 930.27
SYSTEM TOTALS AND AVERAGES	290	\$477,821.02	\$1,647.65	\$ 57.40	\$3,777.27

TABLE 5 RETIREMENT PAYMENTS BY COUNTY

Adair	\$ 332,236	Grant	\$ 565,431	Mason	\$ 333,630
Allen	\$ 239,797	Graves	\$ 845,940	Meade	\$ 297,310
Anderson	\$ 1,096,847	Grayson	\$ 356,973	Menifee	\$ 121,297
Ballard	\$ 209,545	Green	\$ 194,775	Mercer	\$ 814,287
Barren	\$ 778,879	Greenup	\$ 271,073	Metcalfe	\$ 309,430
Bath	\$ 285,963	Hancock	\$ 134,326	Monroe	\$ 112,867
Bell	\$ 351,967	Hardin	\$ 924,390	Montgomery	\$ 336,119
Boone	\$ 459,046	Harlan	\$ 422,365	Morgan	\$ 271,008
Bourbon	\$ 554,042	Harrison	\$ 422,904	Muhlenberg	\$ 404,960
Boyd	\$ 766,833	Hart	\$ 289,270	Nelson	\$ 635,560
Boyle	\$ 1,098,922	Henderson	\$ 896,632	Nicholas	\$ 147,181
Bracken	\$ 108,412	Henry	\$ 717,344	Ohio	\$ 362,256
Breathitt	\$ 250,284	Hickman	\$ 129,069	Oldham	\$ 982,121
Breckinridge	\$ 213,304	Hopkins	\$ 1,086,981	Owen	\$ 645,112
Bullitt	\$ 504,643	Jackson	\$ 170,378	Owsley	\$ 162,634
Butler	\$ 226,929	Jefferson	\$ 15,222,485	Pendleton	\$ 225,145
Caldwell	\$ 507,714	Jessamine	\$ 319,464	Perry	\$ 361,678
Calloway	\$ 1,046,917	Johnson	\$ 378,275	Pike	\$ 803,806
Campbell	\$ 934,112	Kenton	\$ 1,239,779	Powell	\$ 135,725
Carlisle	\$ 99,975	Knott	\$ 231,568	Pulaski	\$ 1,313,390
Carroll	\$ 278,552	Knox	\$ 418,716	Robertson	\$ 92,023
Carter	\$ 296,690	Larue	\$ 323,913	Rockcastle	\$ 299,572
Casey	\$ 227,909	Laurel	\$ 936,999	Rowan	\$ 819,453
Christian	\$ 1,821,855	Lawrence	\$ 205,968	Russell	\$ 350,625
Clark	\$ 392,438	Lee	\$ 161,726	Scott	\$ 700,069
Clay	\$ 299,770	Leslie	\$ 149,658	Shelby	\$ 1,241,279
Clinton	\$ 125,184	Letcher	\$ 265,684	Simpson	\$ 255,764
Crittenden	\$ 172,393	Lewis	\$ 128,185	Spencer	\$ 217,078
Cumberland	\$ 140,982	Lincoln	\$ 403,839	Taylor	\$ 274,930
Daviess	\$ 1,432,418	Livingston	\$ 282,087	Todd	\$ 331,956
Edmonson	\$ 82,249	Logan	\$ 515,348	Trigg	\$ 412,823
Elliott	\$ 90,676	Lyon	\$ 370,296	Trimble	\$ 255,745
Estill	\$ 276,143	McCracken	\$ 1,597,208	Union	\$ 360,627
Fayette	\$ 4,703,419	McCreary	\$ 171,239	Warren	\$ 1,899,954
Fleming	\$ 437,761	McLean	\$ 236,284	Washington	\$ 249,324
Floyd	\$ 516,750	Madison	\$ 939,124	Wayne	\$ 298,547
Franklin	\$ 11,506,518	Magoffin	\$ 163,048	Webster	\$ 225,843
Fulton	\$ 208,789	Marion	\$ 319,894	Whitley	\$ 540,130
Gallatin	\$ 92,742	Marshall	\$ 646,085	Wolfe	\$ 167,340
Garrard	\$ 314,126	Martin	\$ 100,467	Woodford	\$ 807,162

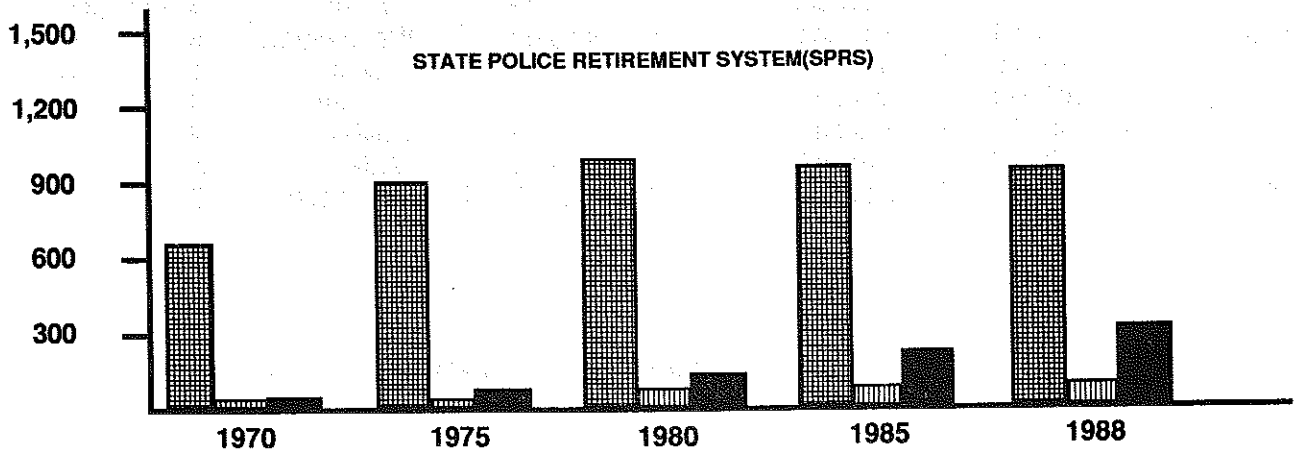
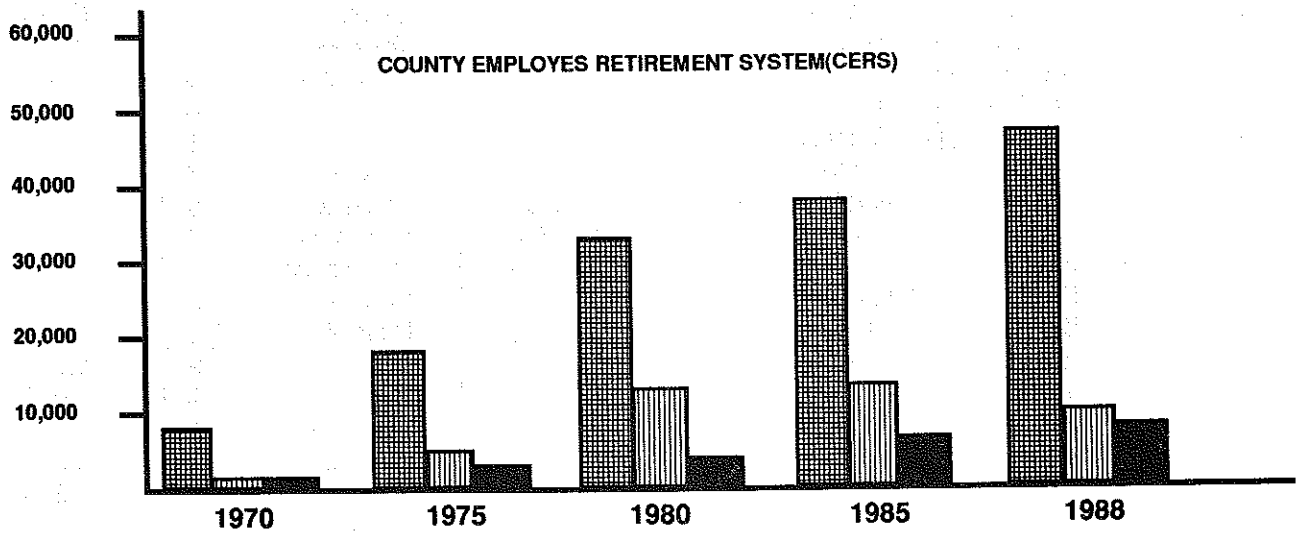
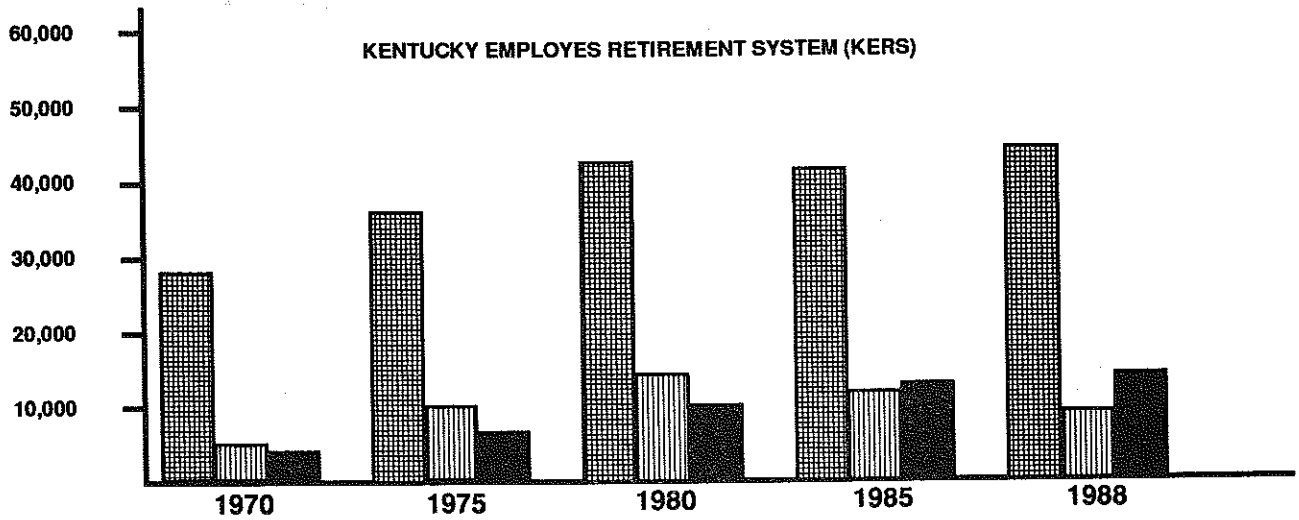
PAYMENTS TO RETIREES LIVING IN OTHER STATES

\$3,585,886

TOTAL PAYMENTS FOR FISCAL YEAR ENDING JUNE 30, 1988

\$88,800,104

TABLE 6
MEMBERSHIP GROWTH
6/30/70 through 6/30/88



ACTIVE
 INACTIVE
 RETIRED

TABLE 7

KENTUCKY EMPLOYEES RETIREMENT SYSTEM
FINANCIAL AND ACTUARIAL STATISTICS

	6/30/84	6/30/85	6/30/86	6/30/87	6/30/88
FINANCIAL STATISTICS					
Total Assets	\$ 815,654,049	\$ 935,445,553	\$ 1,080,387,371	\$ 1,266,111,911	\$ 1,428,335,169
Investment Income	\$ 68,498,499	\$ 78,509,704	\$ 84,346,598	\$ 97,094,173	\$ 89,409,521
Total Retirement Payments	\$ 35,467,174	\$ 39,225,080	\$ 43,962,495	\$ 52,414,394	\$ 60,060,355
Total Refund Payments	\$ 4,686,153	\$ 5,171,940	\$ 5,105,361	\$ 5,061,156	\$ 5,860,974
Indicated Current Yield:					
Fixed Income	11.03	10.29	9.53	9.36	8.82
Common Stocks	5.33	5.43	4.63	3.58	3.81
ACTUARIAL STATISTICS:					
Total Accrued Liability	\$ 1,016,088,830	\$ 1,104,429,988	\$ 1,245,083,143	\$ 1,384,259,808	\$ 1,561,743,738
Unfunded Past Service Liability	\$ 201,535,007	\$ 169,949,215	\$ 166,635,243	\$ 120,259,389	\$ 135,687,336
Percent Unfunded	19.8%	15.4%	13.4%	8.7%	8.7%
Vested Accrued Benefit Liability	\$ 618,806,590	\$ 639,003,667	\$ 719,695,970	\$ 812,932,915	\$ 914,976,279
Estimated Annual Salaries	\$ 627,726,168	\$ 676,557,336	\$ 713,878,356	\$ 757,822,116	\$ 803,594,136
Contribution for Unfunded Past Service Liability	\$ 17,130,476	\$ 14,445,683	\$ 14,997,172	\$ 10,823,346	\$ 12,211,861
ACTUARIAL COST-NONHAZARDOUS:					
Normal	3.36%	3.35%	3.04%	3.05%	3.33%
Past Service	2.75%	2.15%	2.13%	1.47%	1.56%
Administrative	.12%	.12%	.12%	.16%	.18%
Hospital/Medical Insurance	.48%	.48%	1.23%	1.31%	1.44%
Employee Contributions	4.00%	4.00%	4.00%	5.00%	5.00%
TOTAL COST	10.69%	10.10%	10.52%	10.99%	11.51%
CONTRIBUTION RATES-NONHAZARDOUS:					
Member	4.00%	4.00%	4.00%	5.00%	5.00%
Employer	7.25%	7.25%	7.25%	7.45%	7.45%
TOTAL RATES	11.25%	11.25%	11.25%	12.45%	12.45%
RATE MARGIN:	.56%	1.15%	.73%	1.46%	.94%
ACTUARIAL COST-HAZARDOUS:					
Normal	8.40%	9.66%	9.73%	8.68%	8.62%
Past Service	4.00%	1.29%	.88%	.00%	-1.50%
Administrative	.22%	.12%	.13%	.10%	.15%
Hospital/Medical Insurance	.78%	1.04%	1.09%	4.90%	4.94%
Employee Contributions	7.00%	7.00%	7.00%	7.00%	7.00%
TOTAL COST	20.40%	19.11%	18.83%	20.68%	19.21%
CONTRIBUTION RATES-HAZARDOUS:					
Member	7.00%	7.00%	7.00%	7.00%	7.00%
Employer	18.25%	18.25%	17.00%	14.00%	14.00%
TOTAL RATES	25.25%	25.25%	24.00%	21.00%	21.00%
RATE MARGIN:	4.85%	6.14%	5.17%	.32%	1.79%

TABLE 8

COUNTY EMPLOYEES RETIREMENT SYSTEM
FINANCIAL AND ACTUARIAL STATISTICS

	6/30/84	6/30/85	6/30/86	6/30/87	6/30/88
FINANCIAL STATISTICS:					
Total Assets	\$406,673,277	\$478,581,183	\$604,622,294	\$728,750,892	\$840,779,847
Investment Income	\$ 35,005,604	\$ 40,147,552	\$ 44,216,104	\$ 54,428,479	\$ 52,252,320
Total Retirement Payments	\$ 13,066,260	\$ 14,843,697	\$ 17,329,099	\$ 18,065,794	\$ 26,982,299
Total Refund Payments	\$ 3,331,153	\$ 3,570,707	\$ 4,974,503	\$ 4,382,655	\$ 4,451,755
Indicated Current Yield:					
Fixed Income	11.37	10.49	9.65	9.32	8.78
Common Stocks	5.23	5.32	4.43	3.34	3.58
ACTUARIAL STATISTICS:					
Total Accrued Liability	\$421,336,269	\$463,618,532	\$535,948,094	\$678,442,760	\$829,346,323
Unfunded Past Service Liability	\$ 15,148,838	-0-	-0-	-0-	-0-
Percent Unfunded	3.6%	0%	0%	0%	0%
Vested Accrued Benefit Liability	\$257,218,014	\$283,267,091	\$335,463,875	\$412,426,510	\$492,628,502
Estimated Annual Salaries	\$403,461,792	\$433,135,800	\$484,796,988	\$544,184,376	\$615,028,632
Contribution for Unfunded Past Service Liability	\$ 1,287,651	-0-	-0-	-0-	-0-
ACTUARIAL COST-NONHAZARDOUS:					
Normal	3.80%	3.75%	4.23%	4.20%	4.85%
Past Service	.30%	.00%	.00%	.74%	.06%
Administrative	.15%	.15%	.15%	.18%	.23%
Hospital/Medical Insurance	.29%	.31%	.92%	.95%	1.07%
Employee Contributions	4.00%	4.00%	4.00%	4.25%	4.25%
TOTAL COST	8.54%	8.21%	9.30%	8.84%	10.46%
CONTRIBUTION RATES-NONHAZARDOUS:					
Member	4.00%	4.00%	4.00%	4.25%	4.25%
Employer	6.25%	6.25%	5.25%	5.75%	5.75%
TOTAL RATES	10.25%	10.25%	9.25%	10.00%	10.00%
RATE MARGIN:					
Normal	1.71%	2.04%	-.05%	1.16%	* -.46%
ACTUARIAL COST-HAZARDOUS:					
Normal	9.46%	9.65%	11.15%	8.92%	9.47%
Past Service	.93%	.00%	.00%	-1.80%	-2.89%
Administrative	.47%	.41%	.24%	.53%	.57%
Hospital/Medical Insurance	.91%	.99%	2.36%	3.31%	4.21%
Employee Contributions	7.00%	7.00%	7.00%	7.00%	7.00%
TOTAL COST	18.77%	18.05%	20.75%	17.96%	17.36%
CONTRIBUTION RATES-HAZARDOUS:					
Member	7.00%	7.00%	7.00%	7.00%	7.00%
Employer	14.00%	14.00%	14.00%	14.00%	14.00%
TOTAL RATES	21.00%	21.00%	21.00%	21.00%	21.00%
RATE MARGIN:					
Normal	2.23%	2.95%	.25%	3.04%	3.64%

*NONHAZARDOUS EMPLOYER CONTRIBUTION RATE INCREASED 8/1/88 TO 6.35% TO FUND BENEFIT INCREASES.

TABLE 9
STATE POLICE RETIREMENT SYSTEM
FINANCIAL AND ACTUARIAL STATISTICS

	6/30/84	6/30/85	6/30/86	6/30/87	6/30/88
FINANCIAL STATISTICS:					
Total Assets	\$75,033,643	\$85,447,410	\$96,714,220	\$110,356,994	\$121,168,785
Investment Income	\$ 6,260,996	\$ 6,993,220	\$ 7,453,314	\$ 8,763,083	\$ 7,520,682
Total Retired Payments	\$ 2,890,091	\$ 3,496,109	\$ 4,356,937	\$ 5,107,017	\$ 5,693,316
Total Refund Payments	\$ 117,414	\$ 180,746	\$ 73,447	\$ 127,181	\$ 108,814
Indicated Current Yield:					
Fixed Income	11.00	10.11	9.45	9.31	8.85
Common Stocks	4.96	5.25	4.51	3.56	3.82
ACTUARIAL STATISTICS:					
Total Accrued Liability	\$91,180,668	\$99,269,825	\$105,569,951	\$111,541,989	\$120,128,367
Unfunded Past Service Liability	\$16,200,151	\$14,253,583	\$ 8,892,252	\$ 1,347,385	-0-
Percent Unfunded	17.8%	14.4%	8.4%	1.2%	0%
Vested Accrued Benefit Liability	\$67,913,641	\$76,632,066	\$ 84,495,868	\$ 91,564,168	\$ 98,838,353
Estimated Annual Salaries Contribution for Unfunded Past Service Liability	\$ 1,377,013	\$ 1,211,555	\$ 800,303	\$ 121,265	-0-
ACTUARIAL COST:					
Normal	9.42%	9.72%	8.33%	8.37%	8.54%
Past Service	5.81%	5.18%	3.26%	5.1%	-33%
Administrative	.06%	.07%	.06%	.10%	.13%
Hospital/Medical Insurance	.99%	1.41%	6.38%	7.02%	8.32%
Employee Contributions	7.00%	7.00%	7.00%	7.00%	7.00%
TOTAL COST:	23.28%	23.38%	25.03%	23.00%	23.66%
CONTRIBUTION RATES:					
Member	7.00%	7.00%	7.00%	7.00%	7.00%
Employer	18.50%	18.50%	17.50%	18.25%	18.25%
TOTAL RATES	25.50%	25.50%	24.50%	25.25%	25.25%
RATE MARGIN:	2.22%	2.12%	-53%	2.25%	1.59%

TABLE 10
KENTUCKY RETIREMENT SYSTEMS
STATEMENT OF SOURCE AND USE OF FUNDS
BY SYSTEM SINCE INCEPTION THROUGH JUNE 30, 1988

SOURCE OF FUNDS	BREAKDOWN PER DOLLAR		KERS	TOTAL AMOUNTS	SPRS
	KERS	SPRS			
Member Contributions	\$.24	\$.25	\$ 495,257,038	\$ 272,972,973	\$ 32,796,593
Employer Contributions	.32	.35	651,524,355	381,607,686	51,405,861
Investment Income	.36	.32	739,040,050	352,592,797	65,761,177
Special Appropriation	.00	.00	1,894,897	227,263	506,100
Alternate & Term. Participation	.00	.01	233,811	5,637,370	-0-
Other Receipts	.08	.07	164,145,442	81,447,682	13,313,385
TOTAL SOURCES	\$1.00	\$1.00	\$2,052,095,593	\$1,094,485,771	\$163,783,116
USE OF FUNDS					
Invested Assets	\$.70	\$.77	\$1,424,417,783	\$ 838,543,237	\$120,833,181
Retirement Payments	.21	.14	435,221,888	156,451,132	32,262,235
Refunds	.04	.04	86,759,480	47,262,954	2,225,403
Interest to Members	.04	.04	89,695,491	40,945,034	7,338,069
Administration of Prof. Services	.01	.01	13,553,828	8,204,211	609,234
Other Disbursements	.00	.00	2,447,123	3,079,203	514,994
TOTAL USES	\$1.00	\$1.00	\$1,819,745,962	\$1,094,485,771	\$163,783,116

TABLE 11
KENTUCKY RETIREMENT SYSTEMS
ADMINISTRATIVE EXPENSE
BY FISCAL YEAR

	1983-84	1984-85	1985-86	1986-87	1987-88
PERSONNEL COSTS:					
Salaries & Fringe Benefits	\$ 724,949.55	\$ 839,267.19	\$ 1,010,272.87	\$ 1,310,165.87	\$ 1,525,200.00
CONTRACTUAL SERVICES:					
Auditor	15,300.00	14,800.00	20,193.00	16,600.00	18,000.00
Actuary	25,350.00	22,000.00	42,028.33	25,000.00	0.00
Janitorial Services	3,976.94	3,293.88	3,508.94	11,021.00	0.00
Legal Services	.00	6,900.20	11,799.63	18,486.23	33,663.10
Medical	15,509.58	20,532.65	21,377.37	34,485.87	42,997.62
Miscellaneous	574.85	5,466.36	2,043.63	4,482.89	455.07
TOTAL	\$ 785,660.92	\$ 912,260.28	\$ 1,111,223.77	\$ 1,420,241.86	\$ 1,620,315.79
OPERATING EXPENSES:					
Postage & Freight	\$ 114,265.23	\$ 111,980.93	\$ 136,194.68	\$ 196,610.61	\$ 174,262.18
Utilities	10,973.40	10,735.85	11,484.54	24,729.70	22,718.39
Telephone	22,056.25	26,120.83	25,813.26	21,930.59	33,238.28
Travel	4,892.23	8,517.41	9,457.76	25,866.52	28,982.99
Printing & Duplicating	35,811.48	50,105.61	47,547.03	47,640.86	58,481.56
Maintenance-Equipment	16,838.06	26,202.58	30,721.20	45,604.13	27,592.71
Maintenance-Bldg. & Grnds.	5,738.60	1,032.15	3,360.63	2,192.06	1,060.98
Laundry	688.84	411.38	506.02	536.72	519.59
Assessed Car Rental	2,230.47	1,887.86	2,244.08	2,459.61	6,142.87
Supplies-Office	8,213.67	10,879.36	15,574.84	18,231.94	12,739.98
Supplies-Data Processing	12,817.56	19,265.09	14,889.23	31,370.53	24,604.81
Supplies-Janitorial	91.94	27.26	27.26	63.70	47.40
Rental-Building	26,650.00	26,650.00	26,650.00	164,247.96	101,138.68
Rental-Data Processing	57,000.00	45,692.54	23,836.40	.00	2,087.43
Rental-Office Equipment	24,591.84	24,101.20	11,584.89	11,929.50	11,666.45
Insurance	2,327.00	3,004.00	2,906.90	4,347.29	5,255.54
Bonds	1,776.25	1,776.25	677.01	1,776.25	1,776.25
Dues & Subscriptions	2,290.60	3,245.24	3,196.68	7,874.64	4,475.64
Employee Training Expense	1,964.05	1,501.40	1,694.80	2,549.70	4,411.26
Miscellaneous	16.07	2,525.99	707.44	2,234.49	5,997.08
Photo Supplies (Micrographics)	17.50	.00	.00	36,929.60	3,041.28
Furniture Office Equipment	2,425.14	2,749.82	2,672.17	11,633.02	5,196.58
Lease Purchase Office Equipment	14,093.52	28,263.00	43,649.80	39,394.56	41,590.74
Conference Expenses	520.00	675.00	1,189.00	550.00	2,195.00
TOTAL	\$ 368,289.70	\$ 407,350.75	\$ 416,585.62	\$ 700,703.98	\$ 579,223.67
Capital Outlay	\$ 42,943.46	\$ 56,962.68	\$ 49,122.50	\$ 262,912.00	\$ 46,451.76
TOTAL ADMINISTRATIVE EXPENSE	\$ 1,196,894.08	\$ 1,376,573.71	\$ 1,576,931.89	\$ 2,383,857.84	\$ 2,245,991.22
DISTRIBUTION OF COST BY SYSTEM					
Kentucky Employees Retirement Syst.	\$ 623,177.92	\$ 757,115.54	\$ 804,235.26	\$ 1,168,090.34	\$ 1,100,535.70
County Employees Retirement Syst.	561,747.22	605,682.43	756,927.31	1,191,928.92	1,122,995.61
State Police Retirement Syst.	11,968.94	13,765.74	15,769.32	23,838.58	22,459.91
TOTAL	\$ 1,196,894.08	\$ 1,376,573.71	\$ 1,576,931.89	\$ 2,383,857.84	\$ 2,245,991.22

